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AFATL-TR-76-23

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# A COMPILATION OF STATIC STABILITY AND FIN LOADS DATA FOR SLENDER BODY MISSILE MODELS WITH AND WITHOUT TAIL FINS AND WINGS

## VOLUME V

(APPENDIX G)
(TEST NUMBER 7, PARTS 106 THROUGH 175)

PROPULSION WIND TUNNEL FACILITY
ARNOLD ENGINEERING DEVELOPMENT CENTER
AIR FORCE SYSTEMS COMMAND
ARNOLD AF STATION, TENNESSEE 37389

March 1976

Final Report for Period March 1968 – March 1973

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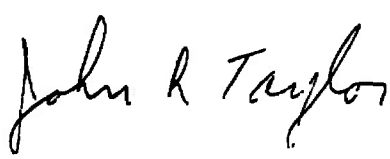

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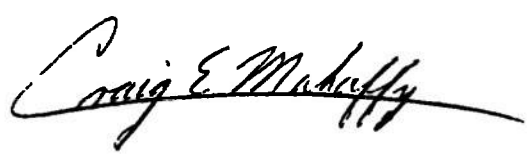

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18 SUPPLEMENTARY NOTES

Available in DDC; complete report consists of five volumes.

19 KEY WORDS (Continue on reverse side if necessary and identify by block number)

| | |
|---|---|
| Martin Generalized Research Model | slender bodies |
| tables (data) | static stability |
| guided missiles | fins |
| models | aerodynamic loading |
| wing body configurations | control surfaces (Continued) |

20 ABSTRACT (Continue on reverse side if necessary and identify by block number)

This document contains a compilation of aerodynamic data for the Martin Generalized Research Model, which is a composite of several body, wing, and tail fin configurations typical of missile applications. The model variations included five body configurations, three wing configurations at various body locations, and 15 tail fin configurations. Static stability and tail fin loads data are presented in tabulated and plotted form for a Mach number range

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4. TITLE (Continued)

NUMBER 7, PARTS 106 THROUGH 175)

19. KEY WORDS (Continued)

deflection
transonic flow
supersonic flow
wind tunnel tests

20. ABSTRACT (Continued)

from 0.20 to 4.63 over an angle-of-attack range from -6 to 60 deg and a sideslip angle range from -20 to 20 deg for the body-alone configurations, body-wing configurations, and the body-wing-tail fin configurations. In addition, the tail fin configurations were tested using the reflection plane technique, and the resulting fin loads data are presented for a Mach number range of 0.80 to 2.16 over an angle-of-attack range from 0 to 210 deg. Volume V contains the tabulated data obtained during Test Number 7, Parts 106 through 175, at the Naval Ship Research and Development Center.

AFSC
Arnold AFS Tenn

## PREFACE

The data presented herein were compiled by the Arnold Engineering Development Center (AEDC), Air Force Systems Command (AFSC), under the sponsorship of the Air Force Armament Laboratory (AFATL), Eglin Air Force Base, Florida. Seven different tests were conducted by three organizations: ARO, Inc. (a subsidiary of Sverdrup & Parcel and Associates, Inc.), contract operator of the AEDC, AFSC, Arnold Air Force Station, Tennessee; Naval Ship Research and Development Center (NSRDC), Bethesda, Maryland; and Langley Research Center (LRC), National Aeronautics and Space Administration (NASA), Langley Air Force Base, Virginia. The data were compiled under ARO Project No. P34A-37A. The author of this report was G. R. Gomillion, ARO, Inc. The manuscript (ARO Control No. ARO-PWT-TR-75-88) was submitted for publication on June 20, 1975.

This volume contains the tabulated data that were obtained during Test Number 7, Parts 106 through 175, that was conducted in the 7 x 10 Foot Transonic Wind Tunnel at NSRDC during March 1973. As an aid in the use of these data, the table which lists the part numbers for the tabulated data from Test Number 7 and the general list of nomenclature are repeated from Volume I at the end of this volume.

# APPENDIX G

# TEST 7

## (PARTS 106 THROUGH 175)

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 100 | MACH 0.80 | RNID-6 1.7 | PHI 0.0 | CONF 0100F14 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | -2.1632 | 7.4457 | 0.0368 | -0.0552 | 0.0097 | 1.2175 | 0.3646 | 0.8529 | -3.4122 |
| 2 | -5.72 | 0.02 | -2.1660 | 7.4544 | 0.0018 | -0.1108 | 0.0099 | 1.2195 | 0.3646 | 0.8549 | -3.4405 |
| 3 | -5.72 | 0.01 | -2.1631 | 7.4456 | -0.0232 | -0.0117 | 0.0096 | 1.2197 | 0.3665 | 0.8532 | -3.4124 |
| 4 | -5.72 | 0.02 | -2.1660 | 7.4545 | 0.0075 | -0.0645 | 0.0099 | 1.2194 | 0.3660 | 0.8534 | -3.4406 |
| 5 | -5.73 | 0.01 | -2.1674 | 7.4587 | 0.0215 | -0.0412 | 0.0097 | 1.2236 | 0.3656 | 0.8578 | -3.4034 |
| 6 | -5.84 | 0.00 | -2.1628 | 7.4460 | -0.0305 | -0.1212 | 0.0245 | 1.2212 | 0.3622 | 0.8590 | -3.4613 |
| 7 | -5.84 | 0.00 | -2.1666 | 7.4582 | -0.0216 | -0.0136 | 0.0176 | 1.2214 | 0.3584 | 0.8630 | -3.4317 |
| 8 | -5.61 | 0.01 | -2.1665 | 7.4566 | 0.0776 | -0.1714 | 0.0249 | 1.1725 | 0.2913 | 0.8813 | -3.5597 |
| 9 | -3.47 | 0.00 | -2.0410 | 7.7808 | 0.0237 | -0.0430 | 0.0105 | 1.0982 | 0.1928 | 0.9034 | -3.8123 |
| 10 | -1.80 | 0.00 | -1.8263 | 7.4287 | 0.0258 | -0.0094 | 0.0183 | 1.0823 | 0.1809 | 0.8815 | -4.0804 |
| 11 | -0.07 | 0.00 | -1.6065 | 7.0294 | 0.0220 | -0.0418 | 0.0283 | 1.0227 | 0.1791 | 0.8436 | -4.3919 |
| 12 | 1.64 | -0.00 | -1.3768 | 6.6511 | 0.0361 | -0.0515 | 0.0267 | 0.9782 | 0.1762 | 0.8020 | -4.7586 |
| 13 | 3.45 | -0.00 | -1.1545 | 6.2764 | 0.0511 | -0.0555 | 0.0272 | 0.9269 | 0.1819 | 0.7450 | -5.2614 |
| 14 | 5.09 | -0.00 | -0.9749 | 5.9458 | 0.0653 | -0.0558 | 0.0276 | 0.8892 | 0.1838 | 0.6807 | -6.2797 |
| 15 | 6.64 | -0.00 | -0.8018 | 5.6323 | 0.0495 | -0.0536 | 0.0207 | 0.8542 | 0.1795 | 0.6249 | -7.5306 |
| 16 | 8.34 | -0.00 | -0.6267 | 5.3050 | 0.0385 | -0.0502 | 0.0286 | 0.8161 | 0.1621 | 0.5940 | -11.3518 |
| 17 | 10.22 | -0.00 | -0.4654 | 4.9705 | 0.0408 | -0.0099 | 0.0382 | 0.6964 | 0.1879 | 0.5105 | -22.7608 |
| 18 | 11.97 | -0.01 | -0.3067 | 4.6344 | 0.0205 | -0.0805 | 0.0370 | 0.6376 | 0.1922 | 0.4454 | 44.2032 |
| 19 | 13.66 | -0.01 | -0.1622 | 4.3775 | 0.0225 | -0.0444 | 0.0304 | 0.5824 | 0.1945 | 0.3879 | 9.3246 |
| 20 | 15.42 | -0.01 | 0.0245 | 4.0591 | -0.0344 | 0.0015 | 0.0308 | 0.5274 | 0.1979 | 0.3295 | 4.7781 |
| 21 | 17.22 | -0.01 | 0.1925 | 3.7515 | -0.0471 | 0.0854 | 0.0387 | 0.4597 | 0.1975 | 0.2622 | 2.7624 |
| 22 | 18.99 | -0.02 | 0.3613 | 3.4173 | -0.1436 | 0.0193 | 0.0367 | 0.4076 | 0.2065 | 0.2011 | 1.7625 |
| 23 | 20.75 | -0.02 | 0.5231 | 3.0823 | -0.3327 | 0.8738 | 0.0456 | 0.3613 | 0.2178 | 0.1435 | 1.2557 |
| 24 | 22.50 | -0.03 | 0.7015 | 2.8365 | -0.4582 | 1.2370 | 0.0377 | 0.3241 | 0.2309 | 0.0931 | 0.9196 |
| 25 | 24.25 | -0.03 | 0.8656 | 2.5766 | -0.6516 | 2.3298 | 0.0274 | 0.3019 | 0.2484 | 0.0534 | 0.7557 |
| 26 | 26.00 | 0.01 | 0.8383 | 2.6033 | -0.6484 | -0.3345 | 0.0441 | 0.2552 | 0.2413 | 0.0119 | 0.7458 |
| 27 | 27.75 | 0.00 | 0.5365 | 1.5812 | -0.0557 | 0.2246 | 0.0371 | 0.2092 | 0.2484 | -0.0392 | 0.6822 |
| 28 | 28.16 | 0.02 | 0.5208 | 1.7747 | 0.1317 | -0.2481 | 0.0875 | 0.2050 | 0.2522 | -0.0472 | 0.6942 |
| 29 | 28.40 | 0.01 | 0.5267 | 1.8244 | 0.0808 | -0.1155 | 0.0449 | 0.1923 | 0.2521 | -0.0598 | 0.7053 |
| 30 | 28.74 | 0.02 | 0.5050 | 1.8719 | 0.0381 | -0.0324 | 0.0332 | 0.1891 | 0.2545 | -0.0654 | 0.7023 |
| 31 | 29.08 | 0.03 | 0.7415 | 1.8227 | 0.2457 | -0.2011 | 0.0538 | 0.1784 | 0.2602 | -0.0818 | 0.6641 |
| 32 | 29.38 | 0.02 | 0.6006 | 1.8116 | 0.2026 | -0.1350 | 0.0614 | 0.1744 | 0.2644 | -0.0900 | 0.6469 |
| 33 | 29.60 | 0.03 | 0.6874 | 1.8405 | 0.1484 | 0.0079 | 0.0538 | 0.1752 | 0.2688 | -0.0936 | 0.6419 |
| 34 | 29.94 | 0.03 | 0.5440 | 1.7971 | 0.1582 | 0.0521 | 0.0538 | 0.1715 | 0.2706 | -0.0992 | 0.6145 |
| 35 | 30.23 | 0.05 | 0.5263 | 1.8362 | 0.3116 | 0.1687 | 0.0534 | 0.1638 | 0.2716 | -0.1079 | 0.6145 |
| 36 | 30.50 | 0.04 | 0.6012 | 1.7995 | 0.3072 | -0.1045 | 0.0694 | 0.1589 | 0.2749 | -0.1161 | 0.5878 |
| 37 | 30.78 | 0.04 | 0.6969 | 1.7985 | 0.2734 | 0.0462 | 0.0689 | 0.1539 | 0.2771 | -0.1233 | 0.5804 |
| 38 | 31.09 | 0.04 | 0.6184 | 1.8252 | 0.4470 | 0.8596 | 0.0518 | 0.1595 | 0.2807 | -0.1473 | 0.5050 |
| 39 | 31.31 | 0.02 | 0.2385 | 1.8205 | -0.0462 | 1.3134 | 0.0211 | 0.1364 | 0.2680 | -0.1537 | 0.5005 |
| 40 | 31.58 | 0.03 | 0.2710 | 1.8054 | 0.0101 | 1.2454 | 0.0268 | 0.1331 | 0.2709 | -0.1578 | 0.5152 |
| 41 | 31.84 | 0.02 | 0.3550 | 1.8361 | -0.1488 | 1.4861 | 0.0285 | 0.1231 | 0.2984 | -0.1753 | 0.4871 |
| 42 | 32.11 | 0.03 | 0.4230 | 1.8536 | 0.0294 | 1.3450 | 0.0290 | 0.1086 | 0.2969 | -0.1903 | 0.4948 |
| 43 | 32.37 | 0.02 | 0.4824 | 1.7827 | -0.0038 | 1.2962 | 0.0295 | 0.1004 | 0.3003 | -0.1999 | 0.4890 |
| 44 | 32.62 | 0.02 | 0.5157 | 1.8036 | -0.0100 | 1.1741 | 0.0230 | 0.1039 | 0.3017 | -0.1978 | 0.5130 |
| 45 | 32.86 | 0.04 | 0.6331 | 1.8757 | 0.1535 | 1.2300 | 0.0372 | 0.0872 | 0.3050 | -0.2177 | 0.4612 |
| 46 | 33.14 | 0.04 | 0.6516 | 1.8677 | 0.0503 | 1.1937 | 0.0235 | 0.0781 | 0.2984 | -0.2222 | 0.4951 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NASA/C) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 100 | MACH 0.80 | RX10-6 1.7 | PHI 0.0 | CONF 814 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.38 | 0.03 | 3.7748 | 1.7816 | C.1685 | 1.1043 | 0.0384 | 0.0680 | 0.3059 | -0.2378 | 0.4720 |
| 48 | 33.64 | 0.03 | 3.8701 | 1.8342 | C.1464 | 1.1092 | 0.0458 | 0.0503 | 0.3074 | -0.2510 | 0.4734 |
| 49 | 33.89 | 0.03 | 3.9565 | 1.8580 | C.2091 | 1.2283 | 0.0534 | 0.0373 | 0.3121 | -0.2747 | 0.4645 |
| 50 | 34.13 | 0.04 | 4.0456 | 1.9226 | C.3449 | 1.1556 | 0.0537 | 0.0220 | 0.3146 | -0.2929 | 0.4763 |
| 51 | 34.39 | 0.05 | 4.1361 | 1.9856 | C.5057 | 1.0372 | 0.0543 | 0.0025 | 0.3145 | -0.3124 | 0.4729 |
| 52 | 34.63 | 0.05 | 4.2500 | 1.8758 | C.4556 | 1.2187 | 0.0542 | 0.0115 | 0.3229 | -0.3114 | 0.4382 |
| 53 | 34.85 | 0.06 | 4.3465 | 1.8335 | C.4583 | 1.4518 | 0.0606 | 0.0022 | 0.3281 | -0.3259 | 0.4216 |
| 54 | 35.10 | 0.05 | 4.4360 | 2.0357 | C.4856 | 1.1808 | 0.0548 | -0.0125 | 0.3330 | -0.3455 | 0.4648 |
| 55 | 35.36 | 0.06 | 4.5692 | 1.7991 | C.5436 | 1.4131 | 0.0616 | -0.0226 | 0.3377 | -0.3605 | 0.3938 |
| 56 | 35.59 | 0.07 | 4.7356 | 1.7056 | C.6486 | 1.3404 | 0.0766 | -0.0360 | 0.3471 | -0.3831 | 0.3600 |
| 57 | 35.83 | 0.06 | 4.8703 | 1.8226 | C.5731 | 1.3588 | 0.0699 | -0.0412 | 0.3486 | -0.3856 | 0.3821 |
| 58 | 36.07 | 0.06 | 4.8546 | 1.8714 | C.6661 | C.7102 | 0.0801 | -0.0576 | 0.3481 | -0.4057 | 0.3823 |
| 59 | 36.29 | 0.07 | 4.9662 | 1.8616 | C.6226 | 1.4433 | 0.0702 | -0.0522 | 0.3542 | -0.4064 | 0.3546 |
| 60 | 36.53 | 0.07 | 5.0251 | 1.7714 | C.6581 | 1.2009 | 0.0713 | -0.0601 | 0.3547 | -0.4348 | 0.3525 |
| 61 | 36.77 | 0.08 | 5.1576 | 1.5005 | C.3504 | 2.0442 | 0.0689 | -0.0804 | 0.3649 | -0.4453 | 0.2910 |
| 62 | 37.01 | 0.08 | 5.2667 | 1.4764 | C.5631 | 2.0045 | 0.0816 | -0.0975 | 0.3653 | -0.4627 | 0.2796 |
| 63 | 37.24 | 0.07 | 5.3534 | 1.2816 | C.4532 | 2.5224 | 0.0675 | -0.1128 | 0.3715 | -0.4841 | 0.2376 |
| 64 | 37.49 | 0.08 | 5.6164 | 1.0527 | C.3796 | 3.3616 | 0.0576 | -0.0999 | 0.3695 | -0.4693 | 0.1874 |
| 65 | 37.73 | 0.08 | 5.5835 | 1.2174 | C.4377 | 2.9739 | 0.0519 | -0.1273 | 0.3665 | -0.4938 | 0.2180 |
| 66 | 37.95 | 0.09 | 5.6439 | 0.7577 | C.3724 | 3.8332 | 0.0640 | -0.1330 | 0.3755 | -0.5091 | 0.1365 |
| 67 | 38.18 | 0.08 | 5.9179 | C.7778 | C.2267 | 4.0223 | 0.0638 | -0.1463 | 0.3811 | -0.5274 | 0.1314 |
| 68 | 38.40 | 0.08 | 5.9819 | 0.8552 | 0.2474 | 3.7532 | 0.0656 | -0.1548 | 0.3859 | -0.5407 | 0.1430 |
| 69 | 38.65 | 0.08 | 6.2716 | C.4581 | C.1107 | 4.9206 | 0.0617 | -0.1499 | 0.3909 | -0.5408 | 0.0730 |
| 70 | 38.87 | 0.09 | 6.4315 | C.2628 | C.215C | 5.0375 | 0.0542 | -0.1460 | 0.3952 | -0.5412 | 0.0409 |
| 71 | 39.08 | 0.07 | 6.4350 | C.4066 | 0.0682 | 4.8878 | 0.0552 | -0.1632 | 0.3957 | -0.5589 | 0.0632 |
| 72 | 39.30 | 0.08 | 6.5657 | C.2814 | 0.1812 | 4.9486 | 0.0480 | -0.1576 | 0.4007 | -0.5583 | 0.0430 |
| 73 | 39.52 | 0.09 | 6.7197 | C.2666 | C.2564 | 4.8512 | 0.0486 | -0.1813 | 0.4050 | -0.5863 | 0.0400 |
| 74 | 39.71 | 0.08 | 6.7023 | C.3460 | C.2511 | 4.5025 | 0.0502 | -0.1722 | 0.4041 | -0.5763 | 0.0507 |
| 75 | 39.92 | 0.05 | 6.8368 | C.6638 | 0.1620 | 3.9683 | 0.0571 | -0.1968 | 0.4060 | -0.6028 | 0.1000 |
| 76 | 40.13 | 0.07 | 6.8336 | C.6665 | C.2511 | 3.8847 | 0.0673 | -0.1832 | 0.4060 | -0.5892 | 0.1008 |
| 77 | 40.30 | 0.06 | 6.9803 | C.5751 | C.2579 | 3.2558 | 0.0646 | -0.1981 | 0.4031 | -0.5982 | 0.1482 |
| 78 | 40.52 | 0.07 | 6.7028 | C.9041 | C.4318 | 3.1359 | 0.0851 | -0.2139 | 0.4026 | -0.6184 | 0.1349 |
| 79 | 40.72 | 0.06 | 6.8037 | C.7512 | C.4316 | 3.1092 | 0.0928 | -0.2224 | 0.4021 | -0.6245 | 0.1163 |
| 80 | 40.92 | 0.06 | 6.8468 | 0.7746 | 0.4293 | 3.0739 | 0.0995 | -0.2103 | 0.4044 | -0.6147 | 0.1130 |
| 81 | 41.14 | 0.06 | 6.9713 | C.7705 | C.5276 | 3.1775 | 0.0857 | -0.2336 | 0.4111 | -0.6447 | 0.1105 |
| 82 | 41.33 | 0.06 | 6.9587 | 0.7965 | C.4496 | 3.1691 | 0.1010 | -0.2362 | 0.4134 | -0.6496 | 0.1141 |
| 83 | 41.53 | 0.05 | 7.1543 | C.7864 | C.3808 | 3.3488 | 0.0862 | -0.2491 | 0.4162 | -0.6653 | 0.1099 |
| 84 | 41.73 | 0.05 | 7.1976 | C.7542 | 0.3871 | 3.4745 | 0.0858 | -0.2372 | 0.4201 | -0.6573 | 0.1048 |
| 85 | 41.93 | 0.04 | 7.3625 | C.6445 | C.2840 | 3.6878 | 0.0829 | -0.2452 | 0.4277 | -0.6729 | 0.0875 |
| 86 | 42.13 | 0.05 | 7.4612 | 0.8554 | 0.2716 | 3.6735 | 0.0835 | -0.2463 | 0.4256 | -0.6719 | 0.1235 |
| 87 | 42.31 | 0.04 | 7.4658 | C.6459 | C.2560 | 3.9770 | 0.0555 | -0.2505 | 0.4258 | -0.6806 | 0.0865 |
| 88 | 42.50 | 0.05 | 7.5597 | C.5115 | C.1960 | 4.2231 | 0.0257 | -0.2544 | 0.4317 | -0.6862 | 0.0673 |
| 89 | 42.68 | 0.05 | 7.6080 | C.6540 | 0.2526 | 4.0661 | 0.0336 | -0.2521 | 0.4319 | -0.6841 | 0.0800 |
| 90 | 42.86 | 0.04 | 7.6567 | C.7462 | C.1065 | 4.1267 | 0.0194 | -0.2679 | 0.4263 | -0.6943 | 0.0977 |
| 91 | 43.03 | 0.05 | 7.7268 | C.6406 | C.2330 | 4.1403 | 0.0193 | -0.2628 | 0.4243 | -0.6870 | 0.0829 |
| 92 | 43.21 | 0.06 | 7.8042 | C.6713 | C.2422 | 4.0142 | 0.0201 | -0.2663 | 0.4244 | -0.6908 | 0.0860 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RA10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 1U6 0.60 1.7 0.0 B1BUF14 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.41 | 0.06 | 7.9434 | C.3949 | 0.2704 | 4.2702 | 0.0193 | -0.2661 | 0.4331 | -0.6993 | 0.0497 |
| 94 | 43.60 | 0.06 | 8.0465 | C.3082 | 0.2502 | 4.4722 | -0.0102 | -0.2703 | 0.4331 | -0.7035 | 0.0457 |
| 95 | 43.75 | 0.06 | 8.1736 | C.3959 | 0.3464 | 3.6596 | 0.0214 | -0.2706 | 0.4336 | -0.7103 | 0.0486 |
| 96 | 43.95 | 0.05 | 8.1371 | C.3551 | 0.1142 | 4.5253 | -0.0024 | -0.2694 | 0.4285 | -0.6944 | 0.0485 |
| 97 | 44.14 | 0.05 | 8.3655 | C.0591 | 0.2074 | 4.5415 | -0.0021 | -0.2807 | 0.4306 | -0.7116 | 0.0071 |
| 98 | 44.32 | 0.07 | 8.4932 | C.1663 | 0.3744 | 4.3010 | 0.0261 | -0.2926 | 0.4378 | -0.7334 | 0.0118 |
| 99 | 44.52 | 0.07 | 8.6636 | -0.1365 | 0.3500 | 4.4596 | 0.0132 | -0.2925 | 0.4383 | -0.7308 | -0.0158 |
| 100 | 44.70 | 0.07 | 8.8733 | -0.1355 | 0.2647 | 4.5249 | -0.0084 | -0.3030 | 0.4291 | -0.7321 | -0.0156 |
| 101 | 44.88 | 0.07 | 8.7556 | -0.2476 | 0.3135 | 4.5140 | 0.0054 | -0.2967 | 0.4324 | -0.7311 | -0.0283 |
| 102 | 45.05 | 0.07 | 8.8663 | -0.2848 | 0.3111 | 4.4646 | 0.0068 | -0.3113 | 0.4324 | -0.7437 | -0.0323 |
| 103 | 45.24 | 0.05 | 8.8504 | -0.2248 | 0.1695 | 4.7864 | -0.0300 | -0.3096 | 0.4366 | -0.7462 | -0.0253 |
| 104 | 45.42 | 0.06 | 8.9505 | -0.3372 | 0.1950 | 4.9455 | -0.0304 | -0.3134 | 0.4315 | -0.7449 | -0.0375 |
| 105 | 45.55 | 0.05 | 9.0934 | -0.3757 | 0.1645 | 4.9731 | -0.0516 | -0.3353 | 0.4256 | -0.7609 | -0.0418 |
| 106 | 45.75 | 0.04 | 9.0413 | -0.1581 | 0.0901 | 4.8500 | -0.0057 | -0.3209 | 0.4288 | -0.7553 | -0.0175 |
| 107 | 45.93 | 0.05 | 9.1765 | -0.3703 | 0.2056 | 5.0713 | -0.0517 | -0.3267 | 0.4310 | -0.7577 | -0.0403 |
| 108 | 46.11 | 0.05 | 9.2142 | -0.2764 | 0.2697 | 4.8818 | -0.0307 | -0.3411 | 0.4226 | -0.7637 | -0.0293 |
| 109 | 46.29 | 0.03 | 9.2655 | -0.0573 | 0.1339 | 4.5720 | -0.0491 | -0.3549 | 0.4213 | -0.7762 | -0.0105 |
| 110 | 46.43 | 0.04 | 9.2576 | -0.1560 | 0.0514 | 4.9471 | -0.0505 | -0.3307 | 0.4250 | -0.7557 | -0.0212 |
| 111 | 46.61 | 0.03 | 9.2469 | 0.2715 | 0.0243 | 4.8058 | -0.1073 | -0.3557 | 0.4119 | -0.7676 | 0.0294 |
| 112 | 46.79 | 0.03 | 9.3172 | -0.0476 | 0.0507 | 4.9226 | -0.0718 | -0.3581 | 0.4221 | -0.7802 | -0.0105 |
| 113 | 46.96 | 0.03 | 9.3665 | -0.0124 | 0.1033 | 5.1437 | -0.0940 | -0.3395 | 0.4193 | -0.7588 | -0.0013 |
| 114 | 47.15 | 0.03 | 9.5175 | -0.0575 | 0.0931 | 4.9404 | -0.0783 | -0.3643 | 0.4231 | -0.7874 | -0.0061 |
| 115 | 47.31 | 0.03 | 9.4975 | -0.0251 | 0.0043 | 5.0045 | -0.0926 | -0.3512 | 0.4278 | -0.7790 | -0.0041 |
| 116 | 47.49 | 0.04 | 9.5943 | -0.2017 | 0.0117 | 5.1518 | -0.0767 | -0.3697 | 0.4273 | -0.7970 | -0.0210 |
| 117 | 47.65 | 0.03 | 9.6175 | -0.0065 | -0.0284 | 4.9860 | -0.0776 | -0.3703 | 0.4273 | -0.7976 | -0.0007 |
| 118 | 47.82 | 0.03 | 9.6760 | -0.1155 | -0.0727 | 5.3098 | -0.1077 | -0.3649 | 0.4302 | -0.7951 | -0.0120 |
| 119 | 47.99 | 0.04 | 9.7056 | -0.0015 | 0.0006 | 5.2411 | -0.1074 | -0.3903 | 0.4318 | -0.8215 | -0.0002 |
| 120 | 48.17 | 0.03 | 9.8512 | -0.2445 | -0.1000 | 5.5002 | -0.1309 | -0.3844 | 0.4344 | -0.8188 | -0.0208 |
| 121 | 48.35 | 0.03 | 9.9045 | -0.1861 | -0.1208 | 5.5022 | -0.1366 | -0.3825 | 0.4405 | -0.8234 | -0.0150 |
| 122 | 48.51 | 0.03 | 9.9263 | -0.1463 | -0.2125 | 5.5445 | -0.1374 | -0.3741 | 0.4414 | -0.8155 | -0.0147 |
| 123 | 48.66 | 0.02 | 9.8821 | 0.2706 | -0.2572 | 5.2563 | -0.1135 | -0.3956 | 0.4407 | -0.8363 | 0.0273 |
| 124 | 48.85 | 0.03 | 10.0227 | 0.1233 | -0.1500 | 5.3025 | -0.1206 | -0.3844 | 0.4455 | -0.8299 | 0.0123 |
| 125 | 49.01 | 0.01 | 9.9563 | 0.3365 | -0.4145 | 5.2362 | -0.1126 | -0.3819 | 0.4468 | -0.8287 | 0.0338 |
| 126 | 49.19 | 0.02 | 10.0052 | 0.2057 | -0.2151 | 5.2422 | -0.1192 | -0.3844 | 0.4482 | -0.8326 | 0.0204 |
| 127 | 49.35 | 0.02 | 10.0770 | 0.2166 | -0.2154 | 5.2300 | -0.1336 | -0.3855 | 0.4542 | -0.8437 | 0.0215 |
| 128 | 49.54 | 0.02 | 10.1394 | 0.2352 | -0.2207 | 5.1408 | -0.1405 | -0.3919 | 0.4536 | -0.8455 | 0.0236 |
| 129 | 49.70 | 0.02 | 10.0855 | 0.2816 | -0.1080 | 4.9738 | -0.1164 | -0.4024 | 0.4479 | -0.8503 | 0.0259 |
| 130 | 49.85 | 0.01 | 10.1165 | 0.4665 | -0.2632 | 4.8991 | -0.1160 | -0.4163 | 0.4517 | -0.8703 | 0.0463 |
| 131 | 50.03 | 0.00 | 10.1155 | 0.5100 | -0.2643 | 4.8155 | -0.1247 | -0.4067 | 0.4530 | -0.8597 | 0.0504 |
| 132 | 50.20 | -0.01 | 10.1570 | 0.4467 | -0.3566 | 4.9102 | -0.1251 | -0.4182 | 0.4556 | -0.8741 | 0.0436 |
| 133 | 50.37 | 0.00 | 10.3146 | 0.1433 | -0.2121 | 5.0572 | -0.1478 | -0.4156 | 0.4647 | -0.8804 | 0.0139 |
| 134 | 50.53 | 0.00 | 10.3015 | 0.2615 | -0.2554 | 4.9267 | -0.1395 | -0.4202 | 0.4619 | -0.8822 | 0.0254 |
| 135 | 50.70 | -0.00 | 10.4057 | -0.0306 | -0.2993 | 5.1915 | -0.1480 | -0.4236 | 0.4631 | -0.8918 | -0.0030 |
| 136 | 50.87 | 0.01 | 10.4653 | -0.0962 | -0.1483 | 5.1109 | -0.1481 | -0.4299 | 0.4732 | -0.9032 | -0.0092 |
| 137 | 51.02 | -0.00 | 10.4054 | -0.1461 | -0.3359 | 5.4055 | -0.1634 | -0.4064 | 0.4663 | -0.8868 | -0.0141 |
| 138 | 51.20 | -0.00 | 10.6234 | -0.2697 | -0.2405 | 5.1557 | -0.1772 | -0.4256 | 0.4798 | -0.9055 | -0.0254 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 4 OF 4

MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 100 | MACH 0.800 | RX10-6 1.7 | PHI 0.0 | CONF 81A6F14 | C 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | ACP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.36 | 0.01 | 10.6850 | -0.2636 | -0.0871 | 5.1166 | -0.1771 | -0.4103 | 0.4884 | -0.8567 | -0.0247 |
| 140 | 51.59 | 0.00 | 10.7765 | -0.3463 | -0.0980 | 5.4086 | -0.1849 | -0.3969 | 0.4936 | -0.8045 | -0.0322 |
| 141 | 51.71 | 0.02 | 10.8968 | -0.3370 | -0.0734 | 5.3659 | -0.1918 | -0.3811 | 0.5050 | -0.8861 | -0.0309 |
| 142 | 51.90 | 0.04 | 11.1001 | -0.3051 | 0.0011 | 5.3619 | -0.1842 | -0.3900 | 0.5250 | -0.8710 | -0.0456 |
| 143 | 52.04 | 0.02 | 11.0255 | -0.3585 | -0.1306 | 5.4621 | -0.1921 | -0.3748 | 0.5188 | -0.8536 | -0.0414 |
| 144 | 52.24 | 0.05 | 11.2413 | -0.2231 | 0.2753 | 5.2190 | -0.1704 | -0.3396 | 0.5388 | -0.8704 | -0.0554 |
| 145 | 52.40 | 0.07 | 11.4134 | -0.7418 | 0.4337 | 5.2648 | -0.1767 | -0.3265 | 0.5458 | -0.8763 | -0.0650 |
| 146 | 52.58 | 0.05 | 11.3133 | -0.0947 | 0.2170 | 5.3102 | -0.1916 | -0.3538 | 0.5507 | -0.9043 | -0.0614 |
| 147 | 52.73 | 0.06 | 11.4353 | -0.7021 | 0.2366 | 5.4182 | -0.1924 | -0.3467 | 0.5665 | -0.9156 | -0.0614 |
| 148 | 52.92 | 0.08 | 11.7225 | -0.9817 | 0.3745 | 5.2473 | -0.1820 | -0.3599 | 0.5664 | -0.9263 | -0.0837 |
| 149 | 53.07 | 0.06 | 11.7590 | -0.9373 | 0.3581 | 5.2893 | -0.1545 | -0.3569 | 0.5656 | -0.9245 | -0.0797 |
| 150 | 53.25 | 0.08 | 11.8006 | -1.0142 | 0.5610 | 5.2561 | -0.1543 | -0.3463 | 0.5699 | -0.9152 | -0.0854 |
| 151 | 53.40 | 0.05 | 11.7883 | -0.8861 | 0.7237 | 5.0651 | -0.1541 | -0.3694 | 0.5583 | -0.9277 | -0.0752 |
| 152 | 53.59 | 0.05 | 12.0068 | -1.0185 | 0.7440 | 4.9391 | -0.1295 | -0.3650 | 0.5681 | -0.9331 | -0.0849 |
| 153 | 53.74 | 0.09 | 12.1918 | -1.1265 | 0.8035 | 4.8215 | -0.0830 | -0.3955 | 0.5422 | -0.9377 | -0.0924 |
| 154 | 53.91 | 0.10 | 12.4071 | -1.3750 | 0.9432 | 4.5102 | -0.0281 | -0.3869 | 0.5481 | -0.9370 | -0.1101 |
| 155 | 54.07 | 0.11 | 12.4635 | -1.1736 | 1.1088 | 3.3424 | -0.0499 | -0.4014 | 0.5370 | -0.9384 | -0.0942 |
| 156 | 54.23 | 0.05 | 12.6714 | -1.4566 | 0.9361 | 2.5545 | 0.0286 | -0.4043 | 0.5364 | -0.9407 | -0.1181 |
| 157 | 54.39 | 0.09 | 12.7134 | -1.3954 | 0.9475 | 2.7589 | 0.0353 | -0.3970 | 0.5816 | -0.9388 | -0.1101 |
| 158 | 54.57 | 0.10 | 12.9435 | -1.5552 | 1.1926 | 2.4866 | 0.0589 | -0.3802 | 0.6043 | -0.9645 | -0.1237 |
| 159 | 54.71 | 0.09 | 12.9534 | -1.7052 | 1.0084 | 2.7282 | 0.0508 | -0.3738 | 0.6072 | -0.9810 | -0.1312 |
| 160 | 54.87 | 0.10 | 12.9741 | -1.8126 | 1.1464 | 2.5629 | 0.0656 | -0.4023 | 0.5381 | -0.9404 | -0.1448 |
| 161 | 55.02 | 0.08 | 13.0148 | -1.8125 | 0.9441 | 3.0445 | 0.0648 | -0.3588 | 0.6153 | -0.9581 | -0.1239 |
| 162 | 55.18 | 0.08 | 13.1347 | -1.8078 | 0.9389 | 2.9315 | 0.0508 | -0.3579 | 0.6069 | -0.9648 | -0.1269 |
| 163 | 55.33 | 0.07 | 13.1561 | -1.8436 | 1.0085 | 2.7593 | 0.0737 | -0.3962 | 0.5476 | -0.9458 | -0.1245 |
| 164 | 55.48 | 0.08 | 13.1156 | -1.7000 | 1.1935 | 2.7625 | 0.0656 | -0.4026 | 0.5558 | -0.9624 | -0.1342 |
| 165 | 55.65 | 0.09 | 13.2472 | -1.8707 | 1.2634 | 2.5792 | 0.0519 | -0.4256 | 0.5427 | -0.9681 | -0.1188 |
| 166 | 55.83 | 0.07 | 13.2955 | -1.7311 | 1.0801 | 2.7650 | 0.0515 | -0.4038 | 0.5594 | -0.9652 | -0.1302 |
| 167 | 56.00 | 0.08 | 13.3613 | -1.8748 | 1.1562 | 2.8132 | 0.0663 | -0.4126 | 0.5571 | -0.9697 | -0.1253 |
| 168 | 56.14 | 0.09 | 13.4389 | -1.7159 | 1.3136 | 2.6825 | 0.0521 | -0.4027 | 0.5693 | -0.9726 | -0.1277 |
| 169 | 56.31 | 0.07 | 13.3366 | -1.7038 | 1.0353 | 2.7591 | 0.0593 | -0.4127 | 0.5721 | -0.9848 | -0.1277 |
| 170 | 56.49 | 0.08 | 13.5614 | -1.8449 | 1.1105 | 2.8867 | 0.0536 | -0.3888 | 0.6002 | -0.9890 | -0.1213 |
| 171 | 56.63 | 0.06 | 13.4150 | -1.4219 | 0.9595 | 2.8229 | 0.0525 | -0.3640 | 0.6212 | -0.9852 | -0.1060 |
| 172 | 56.79 | 0.05 | 13.4061 | -1.5871 | 0.7665 | 3.0021 | 0.0507 | -0.3591 | 0.6241 | -0.9832 | -0.1184 |
| 173 | 56.95 | 0.04 | 13.4375 | -1.6284 | 0.8625 | 2.7597 | 0.0531 | -0.3593 | 0.6265 | -0.9858 | -0.1212 |
| 174 | 57.14 | 0.07 | 13.5467 | -1.6467 | 0.8410 | 3.2463 | 0.0661 | -0.3781 | 0.6317 | -1.0078 | -0.1215 |
| 175 | 57.29 | 0.07 | 13.3933 | -1.5513 | 0.9383 | 2.6791 | 0.0455 | -0.3982 | 0.6102 | -1.0084 | -0.1186 |
| 176 | 57.45 | 0.07 | 13.4917 | -1.4397 | 0.8467 | 2.6451 | 0.0610 | -0.3837 | 0.6355 | -0.9992 | -0.1070 |
| 177 | 57.61 | 0.06 | 13.5308 | -1.6048 | 0.7058 | 2.7460 | 0.0463 | -0.3716 | 0.6316 | -1.0032 | -0.1188 |
| 178 | 57.75 | 0.03 | 13.5364 | -1.6366 | 0.8703 | 2.4233 | 0.0556 | -0.3466 | 0.6525 | -1.0011 | -0.1211 |
| 179 | 57.88 | 0.02 | 13.5073 | -1.7364 | 0.2888 | 2.1526 | 0.0492 | -0.3466 | 0.6517 | -1.0003 | -0.1286 |
| 180 | 58.05 | 0.06 | 13.5073 | -1.4382 | 0.8536 | 2.5344 | 0.0546 | -0.3394 | 0.6510 | -0.9904 | -0.1065 |
| 181 | 58.19 | 0.04 | 13.4237 | -1.3855 | 0.4238 | 2.4226 | 0.0553 | -0.3397 | 0.6572 | -1.0169 | -0.1032 |
| 182 | 58.29 | 0.03 | 13.4043 | -1.6163 | 0.3576 | 2.2105 | 0.0633 | -0.3504 | 0.6478 | -0.9980 | -0.1206 |
| 183 | 58.30 | 0.05 | 13.6145 | -1.7670 | 0.5957 | 2.4357 | 0.0627 | -0.3554 | 0.6717 | -1.0271 | -0.1298 |
| 184 | 58.36 | 0.01 | 13.5648 | -1.6536 | 0.1232 | 2.0699 | 0.0556 | -0.3396 | 0.6640 | -1.0038 | -0.1219 |

## MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 10a 0.60 1.7 0.0 BLOCK 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | -0.0275 | 0.0002 | 0.0091 | -0.0072 | -0.3202 | -1.0870 | -0.0406 | -0.3475 | 0.0373 | 0.3157 |
| 2 | -5.72 | 0.02 | -0.0275 | -0.0002 | 0.0091 | -0.0072 | -0.3477 | -1.0957 | -0.0402 | -0.3496 | 0.0367 | 0.3151 |
| 3 | -5.72 | 0.01 | -0.0280 | 0.0002 | 0.0096 | -0.0071 | -0.3500 | -1.0973 | -0.0406 | -0.3511 | 0.0370 | 0.3200 |
| 4 | -5.72 | 0.02 | -0.0254 | 0.00 | 0.0096 | 0.00 | -0.3501 | -1.1009 | -0.0396 | -0.3514 | 0.0361 | 0.3192 |
| 5 | -5.73 | 0.01 | -0.0310 | -0.0002 | 0.0086 | 0.0065 | -0.2839 | -1.0956 | -0.0405 | -0.3503 | 0.0370 | 0.3197 |
| 6 | -5.69 | 0.00 | -0.0325 | -0.0001 | 0.0086 | 0.0091 | -0.2846 | -1.1030 | -0.0381 | -0.3535 | 0.0345 | 0.3205 |
| 7 | -5.69 | 0.00 | -0.0256 | -0.0003 | 0.0085 | 0.0102 | -0.3027 | -1.1015 | -0.0367 | -0.3535 | 0.0333 | 0.3213 |
| 8 | -5.21 | 0.01 | -0.0255 | -0.0006 | 0.0102 | 0.0203 | -0.3458 | -1.1456 | -0.0227 | -0.3674 | 0.0198 | 0.3207 |
| 9 | -3.47 | 0.00 | -0.0305 | -0.0005 | 0.0087 | 0.0162 | -0.2816 | -1.1087 | -0.0078 | -0.3656 | 0.0070 | 0.3255 |
| 10 | -1.68 | 0.00 | -0.0278 | -0.0003 | 0.0084 | 0.0158 | -0.3022 | -1.0994 | 0.0011 | -0.3515 | -0.0010 | 0.3287 |
| 11 | -0.07 | 0.01 | -0.0244 | -0.0005 | 0.0074 | 0.0205 | -0.3033 | -1.0070 | 0.0070 | -0.3250 | -0.0070 | 0.3267 |
| 12 | 1.64 | -0.00 | -0.0228 | -0.0005 | 0.0065 | 0.0219 | -0.3026 | -0.9323 | 0.0109 | -0.3000 | -0.0117 | 0.3004 |
| 13 | 3.45 | -0.00 | -0.0157 | -0.0003 | 0.0072 | 0.0152 | -0.3655 | -0.8523 | 0.0130 | -0.2807 | -0.0153 | 0.3293 |
| 14 | 5.09 | -0.00 | -0.0256 | -0.0004 | 0.0072 | 0.0154 | -0.2780 | -0.7475 | 0.0132 | -0.2606 | -0.0177 | 0.3488 |
| 15 | 6.84 | -0.00 | -0.0234 | -0.0002 | 0.0096 | 0.0055 | -0.2647 | -0.6636 | 0.0181 | -0.2472 | -0.0243 | 0.3724 |
| 16 | 8.54 | -0.00 | -0.0316 | -0.0006 | 0.0106 | 0.0194 | -0.3419 | -0.5720 | 0.0157 | -0.2354 | -0.0344 | 0.4115 |
| 17 | 10.22 | -0.00 | -0.0224 | -0.0022 | 0.0151 | 0.0962 | -0.8527 | -0.4666 | 0.0201 | -0.2172 | -0.0411 | 0.4644 |
| 18 | 11.97 | -0.01 | -0.0252 | -0.0011 | 0.0157 | 0.0456 | -0.6230 | -0.4102 | 0.0186 | -0.1910 | -0.0453 | 0.4656 |
| 19 | 13.66 | -0.01 | -0.0254 | -0.0022 | 0.0182 | 0.0668 | -0.7165 | -0.3195 | 0.0177 | -0.1679 | -0.0556 | 0.5255 |
| 20 | 15.42 | -0.01 | -0.0326 | -0.0034 | 0.0176 | 0.1169 | -0.5183 | -0.2550 | 0.0163 | -0.1347 | -0.0639 | 0.5282 |
| 21 | 17.22 | -0.01 | -0.0372 | -0.0055 | 0.0188 | 0.1478 | -0.4516 | -0.1882 | 0.0138 | -0.1014 | -0.0733 | 0.5388 |
| 22 | 18.99 | -0.02 | -0.0453 | -0.0053 | 0.0238 | 0.2053 | -0.5254 | -0.1233 | 0.0119 | -0.0764 | -0.0965 | 0.6196 |
| 23 | 20.75 | -0.02 | -0.0752 | -0.0178 | 0.0235 | 0.2367 | -0.3125 | -0.0791 | 0.0127 | -0.0637 | -0.1605 | 0.8053 |
| 24 | 22.50 | -0.03 | -0.1019 | -0.0211 | 0.0160 | 0.2670 | -0.1570 | -0.0508 | 0.0150 | -0.0568 | -0.2678 | 0.9071 |
| 25 | 24.25 | -0.03 | -0.1622 | -0.0253 | -0.0102 | 0.1388 | 0.0582 | -0.0501 | 0.0194 | -0.0493 | -0.3872 | 0.9840 |
| 26 | 26.00 | 0.01 | 0.0151 | -0.0026 | 0.0326 | -0.1854 | 2.1722 | 0.0429 | 0.0196 | -0.0130 | 0.4568 | -0.3036 |
| 27 | 27.75 | 0.00 | -0.0188 | -0.0015 | 0.0158 | 0.0798 | -0.8298 | 0.0624 | 0.0242 | -0.0090 | 0.3878 | -0.1442 |
| 28 | 28.18 | 0.02 | 0.0362 | -0.0014 | 0.0521 | -0.1249 | 0.9270 | 0.0760 | 0.0242 | -0.0038 | 0.3184 | -0.0500 |
| 29 | 28.40 | 0.01 | 0.0105 | -0.0020 | 0.0275 | -0.1835 | 2.5596 | 0.0724 | 0.0250 | -0.0054 | 0.3453 | -0.0746 |
| 30 | 28.74 | 0.02 | 0.0060 | -0.0015 | 0.0476 | -0.0317 | 0.7833 | 0.0675 | 0.0257 | 0.0013 | 0.2537 | 0.0149 |
| 31 | 29.08 | 0.03 | 0.0505 | -0.0005 | 0.0477 | -0.0178 | 0.9446 | 0.0926 | 0.0268 | 0.0016 | 0.2894 | 0.0194 |
| 32 | 29.38 | 0.02 | 0.0456 | -0.0013 | 0.0481 | -0.0205 | 0.9816 | 0.0924 | 0.0275 | 0.0019 | 0.2976 | 0.0206 |
| 33 | 29.80 | 0.03 | 0.0415 | 0.0006 | 0.0405 | -0.0143 | 0.9666 | 0.0907 | 0.0285 | 0.0011 | 0.3142 | 0.0121 |
| 34 | 29.94 | 0.03 | 0.0492 | -0.0007 | 0.0465 | -0.0142 | 0.9411 | 0.0957 | 0.0291 | 0.0029 | 0.3040 | 0.0303 |
| 35 | 30.23 | 0.05 | 0.0178 | 0.0002 | 0.0335 | 0.0112 | 1.9045 | 0.0922 | 0.0295 | 0.0013 | 0.3199 | 0.0141 |
| 36 | 30.50 | 0.04 | 0.0415 | 0.0004 | 0.0415 | 0.0578 | 1.0000 | 0.1023 | 0.0305 | 0.0043 | 0.2581 | 0.0420 |
| 37 | 30.78 | 0.04 | 0.0382 | 0.0018 | 0.0457 | 0.0275 | 0.7852 | 0.1019 | 0.0307 | 0.0036 | 0.3012 | 0.0350 |
| 38 | 31.04 | 0.04 | -0.0521 | 0.0037 | -0.0098 | -0.0397 | 0.1053 | 0.0901 | 0.0322 | -0.0013 | 0.3573 | -0.0144 |
| 39 | 31.31 | 0.02 | -0.1205 | 0.0038 | -0.0240 | -0.0314 | 0.1965 | 0.0949 | 0.0328 | -0.0019 | 0.3456 | -0.0158 |
| 40 | 31.58 | 0.03 | -0.1330 | 0.0047 | -0.0277 | -0.0353 | 0.2063 | 0.0982 | 0.0334 | 0.0001 | 0.3401 | 0.0010 |
| 41 | 31.84 | 0.02 | -0.1435 | 0.0056 | -0.0326 | -0.0390 | 0.2272 | 0.0964 | 0.0338 | -0.0007 | 0.3506 | -0.0073 |
| 42 | 32.11 | 0.03 | -0.1463 | 0.0070 | -0.0346 | -0.0499 | 0.2466 | 0.1065 | 0.0340 | 0.0029 | 0.3192 | 0.0272 |
| 43 | 32.37 | 0.02 | -0.1268 | 0.0059 | -0.0286 | -0.0465 | 0.2271 | 0.1251 | 0.0343 | 0.0106 | 0.2741 | 0.0847 |
| 44 | 32.62 | 0.02 | -0.1312 | 0.0062 | -0.0318 | -0.0472 | 0.2424 | 0.1235 | 0.0343 | 0.0084 | 0.2777 | 0.0680 |
| 45 | 32.88 | 0.04 | -0.1053 | 0.0054 | -0.0229 | -0.0860 | 0.2095 | 0.1368 | 0.0356 | 0.0137 | 0.2602 | 0.1001 |
| 46 | 33.14 | 0.02 | -0.1145 | 0.0063 | -0.0261 | -0.0550 | 0.2454 | 0.1454 | 0.0346 | 0.0177 | 0.2379 | 0.1217 |

MARTIA MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNIC=6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 106 | 0.80 | 1.7 | 0.0 | BIBOF14 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.38 | 0.03 | -0.1060 | 0.0075 | -0.0223 | -0.0707 | 0.2104 | 0.1470 | 0.0352 | 0.0186 | 0.2394 | 0.1265 |
| 48 | 33.64 | 0.03 | -0.1211 | 0.0082 | -0.0277 | -0.0678 | 0.2089 | 0.1520 | 0.0361 | 0.0177 | 0.2375 | 0.1164 |
| 49 | 33.89 | 0.03 | -0.1001 | 0.0096 | -0.0218 | -0.0979 | 0.2178 | 0.1655 | 0.0361 | 0.0250 | 0.2181 | 0.1511 |
| 50 | 34.13 | 0.04 | -0.1556 | 0.0126 | -0.0405 | -0.1262 | 0.2071 | 0.1734 | 0.0366 | 0.0313 | 0.2086 | 0.1784 |
| 51 | 34.39 | 0.05 | -0.0870 | 0.0115 | -0.0182 | -0.1343 | 0.1828 | 0.1941 | 0.0366 | 0.0382 | 0.1885 | 0.1968 |
| 52 | 34.63 | 0.05 | -0.0947 | 0.0146 | -0.0197 | -0.1478 | 0.2080 | 0.1955 | 0.0374 | 0.0411 | 0.1913 | 0.2102 |
| 53 | 34.85 | 0.06 | -0.1005 | 0.0154 | -0.0214 | -0.1526 | 0.2121 | 0.2056 | 0.0376 | 0.0461 | 0.1829 | 0.2242 |
| 54 | 35.10 | 0.05 | -0.1011 | 0.0151 | -0.0205 | -0.1493 | 0.2067 | 0.2101 | 0.0377 | 0.0524 | 0.1744 | 0.2425 |
| 55 | 35.36 | 0.06 | -0.0864 | 0.0178 | -0.0101 | -0.2000 | 0.1863 | 0.2193 | 0.0385 | 0.0541 | 0.1755 | 0.2467 |
| 56 | 35.59 | 0.07 | -0.0857 | 0.0166 | -0.0156 | -0.2096 | 0.1739 | 0.2227 | 0.0392 | 0.0531 | 0.1760 | 0.2384 |
| 57 | 35.85 | 0.06 | -0.1107 | 0.0160 | -0.0226 | -0.1626 | 0.2042 | 0.2326 | 0.0390 | 0.0606 | 0.1675 | 0.2577 |
| 58 | 36.07 | 0.06 | -0.0978 | 0.0205 | -0.0141 | -0.1908 | 0.2001 | 0.2334 | 0.0382 | 0.0665 | 0.1507 | 0.2624 |
| 59 | 36.25 | 0.07 | -0.0587 | 0.0156 | -0.0157 | -0.1938 | 0.1996 | 0.2378 | 0.0393 | 0.0618 | 0.1652 | 0.2595 |
| 60 | 36.53 | 0.07 | -0.1065 | 0.0151 | -0.0196 | -0.1856 | 0.1859 | 0.2633 | 0.0391 | 0.0721 | 0.1485 | 0.2738 |
| 61 | 36.77 | 0.08 | -0.1503 | 0.0163 | -0.0348 | -0.1264 | 0.2302 | 0.2502 | 0.0394 | 0.0664 | 0.1575 | 0.2654 |
| 62 | 37.01 | 0.08 | -0.1882 | 0.0218 | -0.0435 | -0.1238 | 0.2380 | 0.2530 | 0.0396 | 0.0660 | 0.1561 | 0.2603 |
| 63 | 37.24 | 0.07 | -0.2026 | 0.0132 | -0.0487 | -0.0851 | 0.2404 | 0.2656 | 0.0389 | 0.0724 | 0.1464 | 0.2726 |
| 64 | 37.49 | 0.08 | -0.2497 | 0.0095 | -0.0646 | -0.0387 | 0.2605 | 0.2367 | 0.0401 | 0.0551 | 0.1694 | 0.2328 |
| 65 | 37.70 | 0.08 | -0.2456 | 0.0057 | -0.0592 | -0.0388 | 0.2394 | 0.2576 | 0.0394 | 0.0657 | 0.1529 | 0.2550 |
| 66 | 37.95 | 0.09 | -0.2611 | 0.0003 | -0.0596 | -0.0011 | 0.2263 | 0.2542 | 0.0394 | 0.0654 | 0.1550 | 0.2573 |
| 67 | 38.18 | 0.08 | -0.2727 | -0.0061 | -0.0608 | 0.0224 | 0.2230 | 0.2663 | 0.0386 | 0.0684 | 0.1445 | 0.2565 |
| 68 | 38.40 | 0.08 | -0.2884 | -0.0054 | -0.0582 | 0.0201 | 0.2106 | 0.2764 | 0.0382 | 0.0728 | 0.1372 | 0.2615 |
| 69 | 38.65 | 0.08 | -0.2844 | -0.0161 | -0.0593 | 0.0836 | 0.2385 | 0.2759 | 0.0378 | 0.0704 | 0.1360 | 0.2576 |
| 70 | 38.87 | 0.09 | -0.2903 | -0.0214 | -0.0585 | 0.0750 | 0.2015 | 0.2757 | 0.0378 | 0.0699 | 0.1371 | 0.2535 |
| 71 | 39.08 | 0.07 | -0.2781 | -0.0153 | -0.0575 | 0.0694 | 0.2066 | 0.2962 | 0.0371 | 0.0797 | 0.1252 | 0.2691 |
| 72 | 39.30 | 0.08 | -0.2743 | -0.0226 | -0.0537 | 0.0641 | 0.1972 | 0.3038 | 0.0366 | 0.0818 | 0.1205 | 0.2693 |
| 73 | 39.52 | 0.09 | -0.2742 | -0.0187 | -0.0583 | 0.0662 | 0.2053 | 0.3089 | 0.0367 | 0.0836 | 0.1188 | 0.2706 |
| 74 | 39.71 | 0.08 | -0.2535 | -0.0138 | -0.0505 | 0.0544 | 0.1992 | 0.3175 | 0.0365 | 0.0864 | 0.1145 | 0.2721 |
| 75 | 39.92 | 0.08 | -0.2316 | -0.0032 | -0.0480 | 0.0158 | 0.2073 | 0.3348 | 0.0354 | 0.0939 | 0.1057 | 0.2805 |
| 76 | 40.13 | 0.07 | -0.2315 | -0.0067 | -0.0447 | 0.0269 | 0.1931 | 0.3313 | 0.0358 | 0.0936 | 0.1080 | 0.2825 |
| 77 | 40.30 | 0.08 | -0.2072 | 0.0058 | -0.0415 | -0.0280 | 0.2005 | 0.3366 | 0.0361 | 0.0937 | 0.1065 | 0.2766 |
| 78 | 40.52 | 0.07 | -0.1930 | 0.0015 | -0.0338 | -0.0078 | 0.1736 | 0.3524 | 0.0352 | 0.0957 | 0.0990 | 0.2805 |
| 79 | 40.72 | 0.06 | -0.1764 | 0.0034 | -0.0261 | -0.0219 | 0.1683 | 0.3590 | 0.0345 | 0.1020 | 0.0961 | 0.2841 |
| 80 | 40.92 | 0.06 | -0.1672 | 0.0029 | -0.0306 | -0.0155 | 0.1635 | 0.3640 | 0.0347 | 0.1036 | 0.0953 | 0.2852 |
| 81 | 41.14 | 0.06 | -0.1542 | 0.0077 | -0.0228 | -0.0495 | 0.1479 | 0.3729 | 0.0334 | 0.1072 | 0.0858 | 0.2875 |
| 82 | 41.33 | 0.06 | -0.1617 | 0.0036 | -0.0238 | -0.0223 | 0.1472 | 0.3788 | 0.0329 | 0.1096 | 0.0868 | 0.2899 |
| 83 | 41.53 | 0.05 | -0.1692 | 0.0036 | -0.0206 | -0.0213 | 0.1572 | 0.3768 | 0.0335 | 0.1085 | 0.0864 | 0.2864 |
| 84 | 41.73 | 0.05 | -0.1677 | 0.0030 | -0.0259 | -0.0179 | 0.1544 | 0.3873 | 0.0328 | 0.1112 | 0.0846 | 0.2870 |
| 85 | 41.93 | 0.04 | -0.1668 | -0.0007 | -0.0334 | 0.0037 | 0.1786 | 0.3996 | 0.0318 | 0.1176 | 0.0796 | 0.2963 |
| 86 | 42.13 | 0.05 | -0.2164 | 0.0007 | -0.0435 | -0.0032 | 0.2010 | 0.3963 | 0.0325 | 0.1137 | 0.0815 | 0.2869 |
| 87 | 42.31 | 0.04 | -0.2224 | -0.0015 | -0.0433 | 0.0085 | 0.1947 | 0.4102 | 0.0310 | 0.1204 | 0.0756 | 0.2930 |
| 88 | 42.50 | 0.05 | -0.2297 | -0.0016 | -0.0481 | 0.0070 | 0.2094 | 0.4169 | 0.0306 | 0.1225 | 0.0730 | 0.2934 |
| 89 | 42.68 | 0.05 | -0.2358 | -0.0013 | -0.0517 | 0.0054 | 0.2156 | 0.4161 | 0.0305 | 0.1227 | 0.0729 | 0.2939 |
| 90 | 42.86 | 0.04 | -0.2369 | 0.0031 | -0.0485 | -0.0121 | 0.2089 | 0.4207 | 0.0303 | 0.1227 | 0.0720 | 0.2917 |
| 91 | 43.03 | 0.05 | -0.2498 | -0.0015 | -0.0575 | 0.0051 | 0.2349 | 0.4327 | 0.0298 | 0.1271 | 0.0689 | 0.2937 |
| 92 | 43.21 | 0.06 | -0.2567 | -0.0043 | -0.0606 | 0.0167 | 0.2337 | 0.4448 | 0.0292 | 0.1314 | 0.0656 | 0.2954 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 [illegible] 1.7 0.0 [illegible] 0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.41 | 0.06 | -0.2500 | -0.0041 | -0.0571 | 0.0160 | 0.2230 | 0.4413 | 0.0293 | 0.1294 | 0.0666 | 0.2932 |
| 94 | 43.60 | 0.06 | -0.2140 | -0.0058 | -0.0780 | 0.0185 | 0.2490 | 0.4601 | 0.0284 | 0.1377 | 0.0617 | 0.2953 |
| 95 | 43.75 | 0.06 | -0.2323 | -0.0035 | -0.0473 | 0.0168 | 0.2036 | 0.4481 | 0.0290 | 0.1336 | 0.0647 | 0.2977 |
| 96 | 43.95 | 0.05 | -0.2513 | -0.0041 | -0.0704 | 0.0156 | 0.2365 | 0.4608 | 0.0288 | 0.1356 | 0.0625 | 0.2943 |
| 97 | 44.14 | 0.05 | -0.2916 | -0.0062 | -0.0853 | 0.0213 | 0.2235 | 0.4711 | 0.0282 | 0.1351 | 0.0595 | 0.2953 |
| 98 | 44.32 | 0.07 | -0.2114 | -0.0078 | -0.0815 | 0.0359 | 0.1509 | 0.4744 | 0.0290 | 0.1381 | 0.0611 | 0.2911 |
| 99 | 44.52 | 0.07 | -0.2281 | -0.0106 | -0.0960 | 0.0442 | 0.1619 | 0.4795 | 0.0288 | 0.1405 | 0.0601 | 0.2930 |
| 100 | 44.70 | 0.07 | -0.2435 | -0.0101 | -0.0898 | 0.0414 | 0.1632 | 0.4803 | 0.0289 | 0.1424 | 0.0602 | 0.2965 |
| 101 | 44.86 | 0.07 | -0.2535 | -0.0106 | -0.0923 | 0.0417 | 0.1666 | 0.4929 | 0.0287 | 0.1446 | 0.0582 | 0.2934 |
| 102 | 45.05 | 0.07 | -0.2664 | -0.0097 | -0.0857 | 0.0432 | 0.1931 | 0.4802 | 0.0290 | 0.1407 | 0.0596 | 0.2894 |
| 103 | 45.24 | 0.05 | -0.3297 | -0.0060 | -0.0737 | 0.0162 | 0.2235 | 0.4962 | 0.0289 | 0.1476 | 0.0582 | 0.2975 |
| 104 | 45.42 | 0.06 | -0.3463 | -0.0041 | -0.0760 | 0.0118 | 0.2182 | 0.4962 | 0.0293 | 0.1449 | 0.0590 | 0.2920 |
| 105 | 45.59 | 0.05 | -0.3671 | -0.0028 | -0.0682 | 0.0071 | 0.2403 | 0.5065 | 0.0284 | 0.1484 | 0.0561 | 0.2930 |
| 106 | 45.73 | 0.04 | -0.3813 | -0.0026 | -0.0525 | 0.0000 | 0.2436 | 0.5054 | 0.0286 | 0.1475 | 0.0566 | 0.2918 |
| 107 | 45.93 | 0.05 | -0.3811 | -0.0042 | -0.0793 | 0.0116 | 0.2196 | 0.5105 | 0.0282 | 0.1499 | 0.0552 | 0.2938 |
| 108 | 46.11 | 0.05 | -0.4187 | 0.0002 | -0.1062 | -0.0005 | 0.2536 | 0.5169 | 0.0282 | 0.1533 | 0.0543 | 0.2954 |
| 109 | 46.29 | 0.03 | -0.3564 | 0.0020 | -0.1008 | -0.0050 | 0.2543 | 0.5225 | 0.0274 | 0.1535 | 0.0524 | 0.2938 |
| 110 | 46.43 | 0.04 | -0.3786 | -0.0033 | -0.0946 | 0.0000 | 0.2250 | 0.5224 | 0.0279 | 0.1535 | 0.0534 | 0.2938 |
| 111 | 46.61 | 0.03 | -0.4372 | 0.0014 | -0.1210 | -0.0032 | 0.2768 | 0.5293 | 0.0275 | 0.1541 | 0.0519 | 0.2911 |
| 112 | 46.79 | 0.03 | -0.4155 | 0.0021 | -0.1112 | -0.0050 | 0.2648 | 0.5293 | 0.0271 | 0.1554 | 0.0512 | 0.2936 |
| 113 | 46.96 | 0.03 | -0.4535 | 0.0011 | -0.1225 | -0.0024 | 0.2708 | 0.5359 | 0.0275 | 0.1587 | 0.0513 | 0.2961 |
| 114 | 47.13 | 0.03 | -0.4304 | 0.0037 | -0.1172 | -0.0065 | 0.2686 | 0.5377 | 0.0274 | 0.1561 | 0.0510 | 0.2946 |
| 115 | 47.31 | 0.03 | -0.4565 | 0.0003 | -0.1233 | -0.0007 | 0.2699 | 0.5428 | 0.0271 | 0.1605 | 0.0495 | 0.2957 |
| 116 | 47.49 | 0.04 | -0.4621 | 0.00 | -0.1225 | 0.0 | 0.2549 | 0.5409 | 0.0276 | 0.1611 | 0.0510 | 0.2978 |
| 117 | 47.65 | 0.03 | -0.4337 | 0.0023 | -0.1126 | -0.0053 | 0.2596 | 0.5461 | 0.0275 | 0.1615 | 0.0504 | 0.2957 |
| 118 | 47.82 | 0.03 | -0.4465 | 0.0036 | -0.1235 | -0.0007 | 0.2766 | 0.5528 | 0.0276 | 0.1634 | 0.0499 | 0.2956 |
| 119 | 47.99 | 0.04 | -0.4571 | 0.0032 | -0.1258 | -0.0070 | 0.2736 | 0.5545 | 0.0275 | 0.1649 | 0.0496 | 0.2976 |
| 120 | 48.17 | 0.03 | -0.4526 | 0.0016 | -0.1165 | -0.0022 | 0.2659 | 0.5561 | 0.0280 | 0.1651 | 0.0503 | 0.2965 |
| 121 | 48.35 | 0.03 | -0.4802 | -0.0005 | -0.1335 | 0.0010 | 0.2786 | 0.5629 | 0.0275 | 0.1683 | 0.0488 | 0.2990 |
| 122 | 48.51 | 0.03 | -0.4721 | -0.0002 | -0.1173 | 0.0005 | 0.2653 | 0.5610 | 0.0282 | 0.1682 | 0.0503 | 0.2998 |
| 123 | 48.66 | 0.02 | -0.4885 | -0.0021 | -0.1256 | 0.0045 | 0.2680 | 0.5774 | 0.0272 | 0.1756 | 0.0471 | 0.3045 |
| 124 | 48.85 | 0.03 | -0.4854 | -0.0031 | -0.1295 | 0.0006 | 0.2674 | 0.5757 | 0.0274 | 0.1750 | 0.0476 | 0.3040 |
| 125 | 49.01 | 0.01 | -0.4958 | -0.0025 | -0.1104 | 0.0068 | 0.2594 | 0.5819 | 0.0269 | 0.1777 | 0.0462 | 0.3054 |
| 126 | 49.17 | 0.02 | -0.4919 | -0.0053 | -0.1216 | 0.0117 | 0.2691 | 0.5920 | 0.0265 | 0.1839 | 0.0448 | 0.3106 |
| 127 | 49.35 | 0.02 | -0.4861 | -0.0057 | -0.1260 | 0.0211 | 0.2739 | 0.6158 | 0.0252 | 0.1946 | 0.0405 | 0.3160 |
| 128 | 49.54 | 0.02 | -0.4840 | -0.0065 | -0.1266 | 0.0205 | 0.2728 | 0.6170 | 0.0251 | 0.1956 | 0.0407 | 0.3170 |
| 129 | 49.70 | 0.02 | -0.4983 | -0.0081 | -0.1204 | 0.0181 | 0.2698 | 0.6169 | 0.0261 | 0.1923 | 0.0423 | 0.3117 |
| 130 | 49.85 | 0.01 | -0.4927 | -0.0056 | -0.1216 | 0.0126 | 0.2747 | 0.6182 | 0.0256 | 0.1906 | 0.0414 | 0.3083 |
| 131 | 50.03 | 0.00 | -0.4820 | -0.0056 | -0.1198 | 0.0125 | 0.2773 | 0.6284 | 0.0254 | 0.1959 | 0.0404 | 0.3111 |
| 132 | 50.20 | -0.01 | -0.4144 | -0.0083 | -0.1140 | 0.0200 | 0.2751 | 0.6004 | 0.0241 | 0.2092 | 0.0365 | 0.3166 |
| 133 | 50.37 | 0.00 | -0.4541 | -0.0132 | -0.1241 | 0.0291 | 0.2733 | 0.6718 | 0.0247 | 0.2132 | 0.0368 | 0.3174 |
| 134 | 50.53 | 0.00 | -0.4295 | -0.0126 | -0.1174 | 0.0298 | 0.2731 | 0.6702 | 0.0245 | 0.2110 | 0.0366 | 0.3148 |
| 135 | 50.70 | -0.00 | -0.4599 | -0.0157 | -0.1292 | 0.0341 | 0.2722 | 0.7045 | 0.0239 | 0.2206 | 0.0339 | 0.3131 |
| 136 | 50.87 | 0.01 | -0.4070 | -0.0133 | -0.1262 | 0.0285 | 0.2745 | 0.6990 | 0.0250 | 0.2124 | 0.0358 | 0.3039 |
| 137 | 51.02 | -0.00 | -0.4655 | -0.0218 | -0.1243 | 0.0464 | 0.2647 | 0.7127 | 0.0241 | 0.2216 | 0.0338 | 0.3109 |
| 138 | 51.20 | -0.00 | -0.4671 | -0.0214 | -0.1260 | 0.0456 | 0.2697 | 0.7122 | 0.0262 | 0.2139 | 0.0368 | 0.3003 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 100 PACH 0.80 MACH 1.7 RAIG-6 PHI 0.0 CONF BIRDF14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.36 | 0.01 | -0.4826 | -0.0204 | -0.1266 | 0.6423 | 0.2669 | 0.7016 | 0.0279 | 0.2097 | 0.6398 | 0.2989 |
| 140 | 51.54 | 0.00 | -0.4946 | -0.0243 | -0.1256 | 0.6491 | 0.2620 | 0.6793 | 0.0263 | 0.1964 | 0.6431 | 0.2921 |
| 141 | 51.71 | 0.02 | -0.4972 | -0.0315 | -0.1260 | 0.6633 | 0.2534 | 0.6737 | 0.0315 | 0.1961 | 0.6468 | 0.2911 |
| 142 | 51.90 | 0.04 | -0.4914 | -0.0360 | -0.1268 | 0.6661 | 0.2426 | 0.6871 | 0.0313 | 0.1955 | 0.6455 | 0.2904 |
| 143 | 52.04 | 0.02 | -0.5157 | -0.0343 | -0.1340 | 0.6805 | 0.2598 | 0.6854 | 0.0313 | 0.1960 | 0.6457 | 0.2889 |
| 144 | 52.24 | 0.05 | -0.4255 | -0.0403 | -0.1023 | 0.6540 | 0.2432 | 0.6601 | 0.0330 | 0.1929 | 0.6485 | 0.2836 |
| 145 | 52.40 | 0.07 | -0.4224 | -0.0355 | -0.0993 | 0.6544 | 0.2351 | 0.6827 | 0.0345 | 0.1942 | 0.6511 | 0.2845 |
| 146 | 52.58 | 0.05 | -0.4261 | -0.0302 | -0.1183 | 0.6662 | 0.2594 | 0.6804 | 0.0338 | 0.1938 | 0.6492 | 0.2823 |
| 147 | 52.73 | 0.06 | -0.4270 | -0.0351 | -0.1077 | 0.6622 | 0.2522 | 0.6891 | 0.0339 | 0.1952 | 0.6492 | 0.2833 |
| 148 | 52.92 | 0.08 | -0.3945 | -0.0373 | -0.0866 | 0.6363 | 0.2340 | 0.6990 | 0.0366 | 0.1956 | 0.6526 | 0.2798 |
| 149 | 53.07 | 0.06 | -0.3911 | -0.0375 | -0.0944 | 0.6559 | 0.2414 | 0.6901 | 0.0366 | 0.1917 | 0.6530 | 0.2778 |
| 150 | 53.25 | 0.08 | -0.3838 | -0.0378 | -0.0841 | 0.6634 | 0.2312 | 0.7074 | 0.0364 | 0.1972 | 0.6514 | 0.2788 |
| 151 | 53.40 | 0.09 | -0.3855 | -0.0422 | -0.0856 | 0.6543 | 0.2318 | 0.6899 | 0.0379 | 0.1904 | 0.6549 | 0.2780 |
| 152 | 53.59 | 0.09 | -0.3728 | -0.0404 | -0.0716 | 0.6254 | 0.2216 | 0.6892 | 0.0359 | 0.1866 | 0.6572 | 0.2737 |
| 153 | 53.74 | 0.09 | -0.3941 | -0.0337 | -0.0350 | 0.6736 | 0.2039 | 0.6700 | 0.0412 | 0.1785 | 0.6615 | 0.2670 |
| 154 | 53.91 | 0.10 | -0.3919 | -0.0311 | -0.0201 | 0.6199 | 0.1921 | 0.6575 | 0.0408 | 0.1760 | 0.6620 | 0.2677 |
| 155 | 54.07 | 0.11 | -0.3852 | -0.0265 | -0.0044 | 0.6144 | 0.0875 | 0.6399 | 0.0431 | 0.1650 | 0.6673 | 0.2575 |
| 156 | 54.23 | 0.09 | -0.3819 | -0.0236 | -0.0061 | 0.6001 | 0.0745 | 0.6453 | 0.0430 | 0.1694 | 0.6666 | 0.2625 |
| 157 | 54.39 | 0.09 | -0.3752 | -0.0126 | 0.0081 | 0.7694 | -0.5329 | 0.6096 | 0.0431 | 0.1556 | 0.6707 | 0.2556 |
| 158 | 54.57 | 0.10 | 0.0225 | -0.0264 | 0.1208 | -0.3955 | 0.9244 | 0.6185 | 0.0426 | 0.1591 | 0.6691 | 0.2581 |
| 159 | 54.71 | 0.09 | -0.0008 | -0.0285 | 0.0184 | 10.6236 | -20.5000 | 0.6166 | 0.0425 | 0.1584 | 0.6689 | 0.2565 |
| 160 | 54.87 | 0.10 | 0.0173 | -0.0264 | 0.0207 | -0.3659 | 1.1905 | 0.6096 | 0.0445 | 0.1565 | 0.6736 | 0.2567 |
| 161 | 55.02 | 0.08 | -0.0103 | -0.0266 | 0.0137 | 0.6407 | -1.3301 | 0.6048 | 0.0437 | 0.1532 | 0.6722 | 0.2533 |
| 162 | 55.18 | 0.08 | 0.0052 | -0.0272 | 0.0172 | -1.3844 | 3.3077 | 0.6049 | 0.0428 | 0.1552 | 0.6707 | 0.2566 |
| 163 | 55.33 | 0.07 | 0.0014 | -0.0235 | 0.0183 | -2.4597 | 13.0714 | 0.5906 | 0.0457 | 0.1481 | 0.6774 | 0.2508 |
| 164 | 55.48 | 0.08 | -0.0138 | -0.0270 | 0.0173 | 0.5072 | -1.2536 | 0.6115 | 0.0446 | 0.1557 | 0.6729 | 0.2545 |
| 165 | 55.65 | 0.09 | -0.0242 | -0.0277 | 0.0128 | 0.3181 | -0.5207 | 0.6083 | 0.0454 | 0.1541 | 0.6746 | 0.2533 |
| 166 | 55.83 | 0.07 | -0.0316 | -0.0284 | 0.0111 | 0.2515 | -0.3491 | 0.6047 | 0.0424 | 0.1636 | 0.6668 | 0.2578 |
| 167 | 56.00 | 0.06 | -0.0245 | -0.0275 | 0.0153 | 0.3224 | -0.6245 | 0.6033 | 0.0454 | 0.1503 | 0.6752 | 0.2491 |
| 168 | 56.19 | 0.09 | -0.0163 | -0.0263 | 0.0194 | 0.5626 | -1.0601 | 0.6280 | 0.0440 | 0.1582 | 0.6701 | 0.2516 |
| 169 | 56.31 | 0.07 | -0.0184 | -0.0265 | 0.0181 | 0.3532 | -0.6750 | 0.6053 | 0.0458 | 0.1516 | 0.6757 | 0.2505 |
| 170 | 56.49 | 0.06 | -0.0263 | -0.0256 | 0.0164 | 0.2479 | -0.2805 | 0.6192 | 0.0446 | 0.1575 | 0.6720 | 0.2544 |
| 171 | 56.63 | 0.06 | -0.0244 | -0.0267 | 0.0141 | 0.2746 | -0.3779 | 0.6200 | 0.0431 | 0.1572 | 0.6695 | 0.2535 |
| 172 | 56.79 | 0.05 | -0.0333 | -0.0260 | 0.0166 | 0.1802 | -0.2583 | 0.6146 | 0.0442 | 0.1546 | 0.6719 | 0.2519 |
| 173 | 56.95 | 0.04 | -0.0167 | -0.0268 | 0.0133 | 0.2874 | -0.7964 | 0.6258 | 0.0435 | 0.1592 | 0.6654 | 0.2546 |
| 174 | 57.14 | 0.07 | -0.0244 | -0.0259 | 0.0125 | 0.2418 | -0.5207 | 0.6200 | 0.0442 | 0.1592 | 0.6705 | 0.2541 |
| 175 | 57.29 | 0.07 | -0.0330 | -0.0254 | 0.0100 | 0.2848 | -0.3330 | 0.6399 | 0.0434 | 0.1653 | 0.6678 | 0.2583 |
| 176 | 57.45 | 0.07 | -0.0173 | -0.0256 | 0.0134 | 0.0347 | -0.7746 | 0.6074 | 0.0456 | 0.1550 | 0.6751 | 0.2515 |
| 177 | 57.61 | 0.06 | -0.0235 | -0.0261 | 0.0112 | 0.3389 | -0.4666 | 0.6317 | 0.0439 | 0.1617 | 0.6695 | 0.2560 |
| 178 | 57.75 | 0.03 | 0.0010 | 0.0015 | 0.0156 | 1.8997 | 15.9000 | 0.6142 | 0.0455 | 0.1562 | 0.6741 | 0.2543 |
| 179 | 57.86 | 0.02 | -0.0110 | 0.0003 | 0.0125 | -0.0273 | -1.1727 | 0.6195 | 0.0447 | 0.1587 | 0.6721 | 0.2562 |
| 180 | 58.05 | 0.00 | -0.0291 | -0.0004 | 0.0082 | 0.0157 | -0.2818 | 0.6100 | 0.0456 | 0.1541 | 0.6747 | 0.2526 |
| 181 | 58.19 | 0.04 | -0.0056 | 0.0 | 0.0143 | 0.0 | -1.4895 | 0.6118 | 0.0452 | 0.1543 | 0.6739 | 0.2572 |
| 182 | 58.29 | 0.03 | -0.0083 | 0.0016 | 0.0161 | -0.1265 | -1.9277 | 0.6315 | 0.0460 | 0.1587 | 0.6765 | 0.2585 |
| 183 | 58.38 | 0.05 | -0.0158 | 0.0014 | 0.0126 | -0.0886 | -0.7975 | 0.6198 | 0.0455 | 0.1565 | 0.6734 | 0.2525 |
| 184 | 58.50 | 0.01 | -0.0175 | 0.0017 | 0.0125 | -0.0571 | -0.7143 | 0.6210 | 0.0452 | 0.1575 | 0.6728 | 0.2536 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 100 | MACH 0.60 | RX10-6 4.7 | PHI 0.0 | CONF BLANK14 | L 6.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | 0.0462 | 9.9999 | -0.0050 | 9.9999 | -0.1073 | -1.2142 | -0.0425 | -0.2957 | 0.0350 | 0.2435 |
| 2 | -5.72 | 0.02 | 0.0456 | 9.9999 | -0.0051 | 9.9999 | -0.1133 | -1.2162 | -0.0423 | -0.2951 | 0.0348 | 0.2426 |
| 3 | -5.72 | 0.01 | 0.0465 | 9.9999 | -0.0052 | 9.9999 | -0.1068 | -1.2143 | -0.0425 | -0.2963 | 0.0350 | 0.2440 |
| 4 | -5.72 | 0.02 | 0.0461 | 9.9999 | -0.0036 | 9.9999 | -0.0748 | -1.2031 | -0.0432 | -0.2911 | 0.0359 | 0.2420 |
| 5 | -5.73 | 0.01 | 0.0416 | 9.9999 | -0.0054 | 9.9999 | -0.1292 | -1.2215 | -0.0423 | -0.2968 | 0.0346 | 0.2430 |
| 6 | -5.84 | 0.00 | 0.0439 | 9.9999 | -0.0059 | 9.9999 | -0.1339 | -1.2013 | -0.0407 | -0.2884 | 0.0339 | 0.2401 |
| 7 | -5.84 | 0.00 | 0.0416 | 9.9999 | -0.0054 | 9.9999 | -0.1292 | -1.2089 | -0.0431 | -0.2914 | 0.0332 | 0.2410 |
| 8 | -5.21 | 0.01 | 0.0462 | 9.9999 | -0.0045 | 9.9999 | -0.1219 | -1.2399 | -0.0271 | -0.2965 | 0.0219 | 0.2407 |
| 9 | -3.47 | 0.00 | 0.0354 | 9.9999 | -0.0059 | 9.9999 | -0.1667 | -1.2718 | -0.0085 | -0.3109 | 0.0065 | 0.2445 |
| 10 | -1.80 | 0.00 | 0.0338 | 9.9999 | -0.0060 | 9.9999 | -0.1775 | -1.2077 | -0.0018 | -0.3001 | 0.0015 | 0.2485 |
| 11 | -0.07 | 0.00 | 0.0322 | 9.9999 | -0.0055 | 9.9999 | -0.1706 | -1.1307 | 0.0047 | -0.2840 | -0.0042 | 0.2512 |
| 12 | 1.64 | -0.00 | 0.0353 | 9.9999 | -0.0053 | 9.9999 | -0.1501 | -1.0439 | 0.0069 | -0.2627 | -0.0066 | 0.2517 |
| 13 | 3.45 | -0.00 | 0.0383 | 9.9999 | -0.0053 | 9.9999 | -0.1501 | -0.9529 | 0.0083 | -0.2393 | -0.0087 | 0.2511 |
| 14 | 5.09 | -0.00 | 0.0368 | 9.9999 | -0.0035 | 9.9999 | -0.1060 | -0.8617 | 0.0092 | -0.2137 | -0.0107 | 0.2480 |
| 15 | 6.84 | -0.00 | 0.0365 | 9.9999 | -0.0051 | 9.9999 | -0.1362 | -0.7825 | 0.0117 | -0.2021 | -0.0150 | 0.2583 |
| 16 | 8.54 | -0.01 | 0.0326 | 9.9999 | -0.0055 | 9.9999 | -0.1719 | -0.6836 | 0.0158 | -0.1936 | -0.0231 | 0.2831 |
| 17 | 10.24 | -0.00 | 0.0321 | 9.9999 | -0.0068 | 9.9999 | -0.2079 | -0.6233 | 0.0156 | -0.1737 | -0.0268 | 0.2781 |
| 18 | 11.97 | -0.01 | 0.0364 | 9.9999 | -0.0074 | 9.9999 | -0.1927 | -0.5349 | 0.0182 | -0.1484 | -0.0303 | 0.2737 |
| 19 | 13.66 | -0.01 | 0.0400 | 9.9999 | -0.0079 | 9.9999 | -0.1975 | -0.4547 | 0.0191 | -0.1153 | -0.0332 | 0.2536 |
| 20 | 15.42 | -0.01 | 0.0354 | 9.9999 | -0.0101 | 9.9999 | -0.2853 | -0.3703 | 0.0131 | -0.0867 | -0.0354 | 0.2341 |
| 21 | 17.22 | -0.01 | 0.0447 | 9.9999 | -0.0082 | 9.9999 | -0.1834 | -0.2764 | 0.0197 | -0.0568 | -0.0387 | 0.2055 |
| 22 | 18.99 | -0.02 | 0.0322 | 9.9999 | -0.0122 | 9.9999 | -0.3789 | -0.1933 | 0.0080 | -0.0253 | -0.0414 | 0.1805 |
| 23 | 20.75 | -0.02 | 0.0282 | 9.9999 | -0.0154 | 9.9999 | -0.7405 | -0.1256 | 0.0072 | -0.0016 | -0.0573 | 0.0127 |
| 24 | 22.50 | -0.03 | 0.0260 | 9.9999 | -0.0224 | 9.9999 | -1.1200 | -0.0777 | 0.0089 | 0.0167 | -0.1145 | -0.2149 |
| 25 | 24.25 | -0.03 | 0.0231 | 9.9999 | -0.0311 | 9.9999 | -10.0323 | -0.0204 | 0.0098 | 0.0360 | -0.4803 | -1.7647 |
| 26 | 26.00 | 0.01 | 0.0267 | 9.9999 | -0.0118 | 9.9999 | -0.4239 | -0.0603 | 0.0172 | 0.0207 | -0.2594 | -0.3122 |
| 27 | 27.75 | 0.00 | 0.0434 | 9.9999 | -0.0168 | 9.9999 | -0.3671 | -0.0206 | 0.0194 | 0.0376 | -0.5416 | -1.8252 |
| 28 | 29.10 | 0.02 | 0.0481 | 9.9999 | -0.0134 | 9.9999 | -0.2792 | -0.0299 | 0.0200 | 0.0306 | -0.6688 | -1.0234 |
| 29 | 28.48 | 0.01 | 0.0434 | 9.9999 | -0.0156 | 9.9999 | -0.3594 | -0.0191 | 0.0198 | 0.0378 | -1.0365 | -1.9791 |
| 30 | 28.74 | 0.02 | 0.0481 | 9.9999 | -0.0146 | 9.9999 | -0.3035 | -0.0215 | 0.0206 | 0.0354 | -0.9580 | -1.6658 |
| 31 | 29.08 | 0.03 | 0.0485 | 9.9999 | -0.0123 | 9.9999 | -0.2645 | -0.0080 | 0.0214 | 0.0424 | -2.6746 | -5.3006 |
| 32 | 29.38 | 0.02 | 0.0512 | 9.9999 | -0.0122 | 9.9999 | -0.2481 | -0.0043 | 0.0212 | 0.0428 | -4.9256 | -9.9076 |
| 33 | 29.66 | 0.03 | 0.0462 | 9.9999 | -0.0121 | 9.9999 | -0.2656 | 0.0042 | 0.0217 | 0.0467 | 5.1660 | 11.1191 |
| 34 | 29.94 | 0.03 | 0.0481 | 9.9999 | -0.0116 | 9.9999 | -0.2267 | 0.0063 | 0.0232 | 0.0473 | 2.7948 | 5.6588 |
| 35 | 30.23 | 0.05 | 0.0419 | 9.9999 | -0.0133 | 9.9999 | -0.3179 | 0.0161 | 0.0222 | 0.0509 | 1.3787 | 3.1615 |
| 36 | 30.50 | 0.04 | 0.0457 | 9.9999 | -0.0121 | 9.9999 | -0.2435 | 0.0312 | 0.0232 | 0.0555 | 0.7435 | 1.7788 |
| 37 | 30.78 | 0.04 | 0.0419 | 9.9999 | -0.0158 | 9.9999 | -0.3771 | 0.0256 | 0.0235 | 0.0531 | 0.5178 | 2.0742 |
| 38 | 31.04 | 0.04 | 0.0357 | 9.9999 | -0.0175 | 9.9999 | -0.4902 | 0.0600 | 0.0216 | 0.0744 | 0.2706 | 0.9306 |
| 39 | 31.31 | 0.02 | 0.0231 | 9.9999 | -0.0205 | 9.9999 | -0.9048 | 0.0924 | 0.0213 | 0.0777 | 0.2305 | 0.8409 |
| 40 | 31.58 | 0.03 | 0.0260 | 9.9999 | -0.0216 | 9.9999 | -1.0900 | 0.0971 | 0.0220 | 0.0769 | 0.2265 | 0.8126 |
| 41 | 31.84 | 0.02 | 0.0329 | 9.9999 | -0.0165 | 9.9999 | -0.5093 | 0.1167 | 0.0214 | 0.0875 | 0.1803 | 0.7372 |
| 42 | 32.11 | 0.03 | 0.0264 | 9.9999 | -0.0186 | 9.9999 | -0.6327 | 0.1106 | 0.0216 | 0.0882 | 0.1821 | 0.7437 |
| 43 | 32.37 | 0.02 | 0.0326 | 9.9999 | -0.0155 | 9.9999 | -0.4907 | 0.1323 | 0.0220 | 0.0919 | 0.1663 | 0.6946 |
| 44 | 32.62 | 0.02 | 0.0326 | 9.9999 | -0.0165 | 9.9999 | -0.4747 | 0.1318 | 0.0227 | 0.0920 | 0.1722 | 0.6980 |
| 45 | 32.88 | 0.04 | 0.0372 | 9.9999 | -0.0161 | 9.9999 | -0.4326 | 0.1614 | 0.0208 | 0.1049 | 0.1289 | 0.6499 |
| 46 | 33.14 | 0.02 | 0.0371 | 9.9999 | -0.0155 | 9.9999 | -0.4178 | 0.1491 | 0.0231 | 0.0980 | 0.1549 | 0.6573 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 100 | MACH 0.80 | RX10-6 1.7 | PHI 0.0 | CONF 81B0F14 | C 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.38 | 0.03 | 0.0325 | 9.9999 | -0.0183 | 9.9999 | -0.5631 | 0.1569 | 0.0221 | 0.1022 | 0.1408 | 0.6514 |
| 48 | 33.64 | 0.03 | 0.0485 | 9.9999 | -0.0182 | 9.9999 | -0.3764 | 0.1656 | 0.0214 | 0.1126 | 0.1153 | 0.6067 |
| 49 | 33.83 | 0.03 | 0.0388 | 9.9999 | -0.0180 | 9.9999 | -0.4278 | 0.1985 | 0.0207 | 0.1193 | 0.1043 | 0.6010 |
| 50 | 34.13 | 0.04 | 0.0383 | 9.9999 | -0.0186 | 9.9999 | -0.4987 | 0.2230 | 0.0186 | 0.1310 | 0.0834 | 0.5874 |
| 51 | 34.39 | 0.05 | 0.0465 | 9.9999 | -0.0135 | 9.9999 | -0.2903 | 0.2407 | 0.0184 | 0.1369 | 0.0764 | 0.5688 |
| 52 | 34.63 | 0.05 | 0.0356 | 9.9999 | -0.0175 | 9.9999 | -0.4916 | 0.2465 | 0.0175 | 0.1405 | 0.0704 | 0.5654 |
| 53 | 34.85 | 0.06 | 0.0415 | 9.9999 | -0.0156 | 9.9999 | -0.3771 | 0.2782 | 0.0155 | 0.1546 | 0.0557 | 0.5557 |
| 54 | 35.10 | 0.05 | 0.0314 | 9.9999 | -0.0138 | 9.9999 | -0.2065 | 0.2868 | 0.0162 | 0.1577 | 0.0561 | 0.5461 |
| 55 | 35.36 | 0.06 | 0.0545 | 9.9999 | -0.0117 | 9.9999 | -0.2147 | 0.3097 | 0.0143 | 0.1686 | 0.0462 | 0.5444 |
| 56 | 35.59 | 0.07 | 0.0544 | 9.9999 | -0.0105 | 9.9999 | -0.1930 | 0.3437 | 0.0136 | 0.1814 | 0.0396 | 0.5278 |
| 57 | 35.83 | 0.06 | 0.0465 | 9.9999 | -0.0117 | 9.9999 | -0.2516 | 0.3437 | 0.0136 | 0.1821 | 0.0396 | 0.5298 |
| 58 | 36.07 | 0.06 | 0.0480 | 9.9999 | -0.0077 | 9.9999 | -0.1305 | 0.3221 | 0.0166 | 0.1733 | 0.0515 | 0.5380 |
| 59 | 36.29 | 0.07 | 0.0513 | 9.9999 | -0.0113 | 9.9999 | -0.2203 | 0.3583 | 0.0130 | 0.1889 | 0.0363 | 0.5272 |
| 60 | 36.53 | 0.07 | 0.0461 | 9.9999 | -0.0104 | 9.9999 | -0.2162 | 0.3906 | 0.0123 | 0.2022 | 0.0315 | 0.5177 |
| 61 | 36.77 | 0.06 | 0.0418 | 9.9999 | -0.0105 | 9.9999 | -0.2068 | 0.4120 | 0.0107 | 0.2109 | 0.0260 | 0.5115 |
| 62 | 37.01 | 0.06 | 0.0415 | 9.9999 | -0.0121 | 9.9999 | -0.2588 | 0.4247 | 0.0104 | 0.2163 | 0.0245 | 0.5093 |
| 63 | 37.24 | 0.07 | 0.0481 | 9.9999 | -0.0104 | 9.9999 | -0.2162 | 0.4797 | 0.0078 | 0.2387 | 0.0163 | 0.4976 |
| 64 | 37.49 | 0.06 | 0.0504 | 9.9999 | -0.0101 | 9.9999 | -0.5210 | 0.4757 | 0.0084 | 0.2360 | 0.0177 | 0.4961 |
| 65 | 37.70 | 0.06 | 0.0420 | 9.9999 | -0.0121 | 9.9999 | -0.2681 | 0.5014 | 0.0084 | 0.2461 | 0.0168 | 0.4908 |
| 66 | 37.95 | 0.05 | 0.0358 | 9.9999 | -0.0133 | 9.9999 | -0.3736 | 0.5241 | 0.0064 | 0.2552 | 0.0122 | 0.4865 |
| 67 | 38.18 | 0.06 | 0.0215 | 9.9999 | -0.0175 | 9.9999 | -0.8140 | 0.5398 | 0.0067 | 0.2583 | 0.0124 | 0.4785 |
| 68 | 38.40 | 0.06 | 0.0363 | 9.9999 | -0.0141 | 9.9999 | -0.4336 | 0.5453 | 0.0064 | 0.2607 | 0.0117 | 0.4781 |
| 69 | 38.65 | 0.06 | 0.0283 | 9.9999 | -0.0171 | 9.9999 | -0.6502 | 0.5536 | 0.0085 | 0.2608 | 0.0154 | 0.4711 |
| 70 | 38.87 | 0.05 | 0.0245 | 9.9999 | -0.0175 | 9.9999 | -0.5936 | 0.5401 | 0.0112 | 0.2544 | 0.0205 | 0.4658 |
| 71 | 39.08 | 0.07 | 0.0155 | 9.9999 | -0.0248 | 9.9999 | -1.0300 | 0.5426 | 0.0112 | 0.2541 | 0.0206 | 0.4683 |
| 72 | 39.30 | 0.08 | 0.0265 | 9.9999 | -0.0203 | 9.9999 | -0.7006 | 0.5397 | 0.0140 | 0.2490 | 0.0259 | 0.4614 |
| 73 | 39.52 | 0.09 | 0.0265 | 9.9999 | -0.0156 | 9.9999 | -0.7396 | 0.5513 | 0.0128 | 0.2549 | 0.0232 | 0.4624 |
| 74 | 39.71 | 0.08 | 0.0378 | 9.9999 | -0.0186 | 9.9999 | -0.5006 | 0.5517 | 0.0123 | 0.2548 | 0.0223 | 0.4618 |
| 75 | 39.92 | 0.06 | 0.0360 | 9.9999 | -0.0183 | 9.9999 | -0.5083 | 0.5631 | 0.0114 | 0.2613 | 0.0202 | 0.4640 |
| 76 | 40.13 | 0.07 | 0.0217 | 9.9999 | -0.0206 | 9.9999 | -0.9493 | 0.5653 | 0.0109 | 0.2640 | 0.0193 | 0.4670 |
| 77 | 40.30 | 0.08 | 0.0325 | 9.9999 | -0.0175 | 9.9999 | -0.5441 | 0.5586 | 0.0115 | 0.2621 | 0.0206 | 0.4690 |
| 78 | 40.52 | 0.07 | 0.0256 | 9.9999 | -0.0182 | 9.9999 | -0.6149 | 0.5701 | 0.0114 | 0.2664 | 0.0200 | 0.4673 |
| 79 | 40.72 | 0.06 | 0.0454 | 9.9999 | -0.0144 | 9.9999 | -0.3172 | 0.5905 | 0.0102 | 0.2742 | 0.0173 | 0.4643 |
| 80 | 40.92 | 0.06 | 0.0264 | 9.9999 | -0.0184 | 9.9999 | -0.6970 | 0.5867 | 0.0106 | 0.2707 | 0.0181 | 0.4614 |
| 81 | 41.14 | 0.08 | 0.0327 | 9.9999 | -0.0186 | 9.9999 | -0.4893 | 0.5790 | 0.0114 | 0.2704 | 0.0197 | 0.4670 |
| 82 | 41.33 | 0.08 | 0.0327 | 9.9999 | -0.0155 | 9.9999 | -0.4740 | 0.5865 | 0.0120 | 0.2716 | 0.0204 | 0.4615 |
| 83 | 41.53 | 0.05 | 0.0391 | 9.9999 | -0.0143 | 9.9999 | -0.3857 | 0.5890 | 0.0136 | 0.2687 | 0.0231 | 0.4582 |
| 84 | 41.73 | 0.05 | 0.0327 | 9.9999 | -0.0155 | 9.9999 | -0.4740 | 0.5911 | 0.0132 | 0.2688 | 0.0223 | 0.4547 |
| 85 | 41.93 | 0.06 | 0.0295 | 9.9999 | -0.0151 | 9.9999 | -0.5119 | 0.5839 | 0.0155 | 0.2589 | 0.0269 | 0.4434 |
| 86 | 42.13 | 0.05 | 0.0294 | 9.9999 | -0.0150 | 9.9999 | -0.5102 | 0.5756 | 0.0163 | 0.2550 | 0.0283 | 0.4430 |
| 87 | 42.31 | 0.04 | 0.0278 | 9.9999 | -0.0145 | 9.9999 | -0.5216 | 0.5711 | 0.0174 | 0.2510 | 0.0305 | 0.4399 |
| 88 | 42.50 | 0.05 | 0.0278 | 9.9999 | -0.0139 | 9.9999 | -0.5000 | 0.5671 | 0.0180 | 0.2462 | 0.0317 | 0.4377 |
| 89 | 42.68 | 0.05 | 0.0253 | 9.9999 | -0.0144 | 9.9999 | -0.4915 | 0.5710 | 0.0183 | 0.2456 | 0.0320 | 0.4361 |
| 90 | 42.86 | 0.04 | 0.0253 | 9.9999 | -0.0144 | 9.9999 | -0.4915 | 0.5674 | 0.0185 | 0.2430 | 0.0326 | 0.4279 |
| 91 | 43.03 | 0.05 | 0.0253 | 9.9999 | -0.0144 | 9.9999 | -0.4915 | 0.5706 | 0.0195 | 0.2415 | 0.0342 | 0.4232 |
| 92 | 43.21 | 0.06 | 0.0323 | 9.9999 | -0.0116 | 9.9999 | -0.3591 | 0.5642 | 0.0204 | 0.2361 | 0.0370 | 0.4185 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 100 MACH 0.80 RNIC-6 1.7 PHI 0.0 CONF 614OF14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| FLINT | ALPHA | BETA | CNF3 | Cn3 | Co3 | XCPF3 | YCPF3 | CNF4 | Cn4 | Co4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.41 | 0.06 | 0.0376 | 9.9999 | -0.0131 | 9.9999 | -0.3541 | 0.5673 | 0.0238 | 0.2362 | 0.0367 | 0.4164 |
| 94 | 43.60 | 0.06 | 0.0131 | 9.9999 | -0.0165 | 9.9999 | -1.2252 | 0.5390 | 0.0232 | 0.2249 | 0.0430 | 0.4173 |
| 95 | 43.75 | 0.06 | 0.0418 | 9.9999 | -0.0108 | 9.9999 | -0.2596 | 0.5712 | 0.0224 | 0.2349 | 0.0392 | 0.4112 |
| 96 | 43.95 | 0.05 | 0.0157 | 9.9999 | -0.0166 | 9.9999 | -0.8528 | 0.5536 | 0.0232 | 0.2282 | 0.0419 | 0.4086 |
| 97 | 44.14 | 0.05 | 0.0235 | 9.9999 | -0.0127 | 9.9999 | -0.4903 | 0.5506 | 0.0247 | 0.2255 | 0.0444 | 0.4056 |
| 98 | 44.32 | 0.07 | 0.0158 | 9.9999 | -0.0167 | 9.9999 | -0.9999 | 0.5770 | 0.0224 | 0.2343 | 0.0388 | 0.4061 |
| 99 | 44.52 | 0.07 | 0.0322 | 9.9999 | -0.0128 | 9.9999 | -0.3975 | 0.5759 | 0.0236 | 0.2313 | 0.0413 | 0.4016 |
| 100 | 44.70 | 0.07 | 0.0321 | 9.9999 | -0.0142 | 9.9999 | -0.8001 | 0.5702 | 0.0232 | 0.2256 | 0.0442 | 0.3957 |
| 101 | 44.88 | 0.07 | 0.0250 | 9.9999 | -0.0142 | 9.9999 | -0.4897 | 0.5668 | 0.0256 | 0.2239 | 0.0455 | 0.3950 |
| 102 | 45.05 | 0.07 | 0.0214 | 9.9999 | -0.0168 | 9.9999 | -0.2605 | 0.5703 | 0.0244 | 0.2283 | 0.0422 | 0.3948 |
| 103 | 45.24 | 0.05 | 0.0227 | 9.9999 | -0.0147 | 9.9999 | -0.6476 | 0.5725 | 0.0248 | 0.2240 | 0.0425 | 0.3910 |
| 104 | 45.42 | 0.06 | 0.0360 | 9.9999 | -0.0127 | 9.9999 | -0.3909 | 0.5672 | 0.0241 | 0.2268 | 0.0410 | 0.3896 |
| 105 | 45.59 | 0.05 | 0.0265 | 9.9999 | -0.0118 | 9.9999 | -0.4363 | 0.5761 | 0.0246 | 0.2257 | 0.0425 | 0.3904 |
| 106 | 45.75 | 0.04 | 0.0340 | 9.9999 | -0.0121 | 9.9999 | -0.3701 | 0.5685 | 0.0264 | 0.2206 | 0.0464 | 0.3886 |
| 107 | 45.93 | 0.05 | 0.0242 | 9.9999 | -0.0135 | 9.9999 | -0.5744 | 0.5621 | 0.0245 | 0.2243 | 0.0421 | 0.3853 |
| 108 | 46.11 | 0.05 | 0.0169 | 9.9999 | -0.0152 | 9.9999 | -0.9268 | 0.5650 | 0.0257 | 0.2202 | 0.0454 | 0.3893 |
| 109 | 46.29 | 0.03 | 0.0272 | 9.9999 | -0.0115 | 9.9999 | -0.4375 | 0.5628 | 0.0270 | 0.2183 | 0.0480 | 0.3875 |
| 110 | 46.43 | 0.04 | 0.0165 | 9.9999 | -0.0164 | 9.9999 | -0.9939 | 0.5725 | 0.0257 | 0.2200 | 0.0449 | 0.3843 |
| 111 | 46.61 | 0.03 | 0.0225 | 9.9999 | -0.0144 | 9.9999 | -0.5561 | 0.5545 | 0.0266 | 0.2136 | 0.0519 | 0.3852 |
| 112 | 46.79 | 0.03 | 0.0195 | 9.9999 | -0.0137 | 9.9999 | -0.7026 | 0.5625 | 0.0273 | 0.2145 | 0.0485 | 0.3813 |
| 113 | 46.96 | 0.03 | 0.0195 | 9.9999 | -0.0137 | 9.9999 | -0.7026 | 0.5651 | 0.0266 | 0.2163 | 0.0500 | 0.3828 |
| 114 | 47.13 | 0.03 | 0.0229 | 9.9999 | -0.0136 | 9.9999 | -0.6498 | 0.5650 | 0.0267 | 0.2156 | 0.0508 | 0.3816 |
| 115 | 47.31 | 0.03 | 0.0176 | 9.9999 | -0.0144 | 9.9999 | -0.8045 | 0.5613 | 0.0269 | 0.2128 | 0.0515 | 0.3791 |
| 116 | 47.49 | 0.04 | 0.0196 | 9.9999 | -0.0153 | 9.9999 | -1.0336 | 0.5726 | 0.0277 | 0.2153 | 0.0484 | 0.3760 |
| 117 | 47.65 | 0.03 | 0.0169 | 9.9999 | -0.0152 | 9.9999 | -0.9268 | 0.5760 | 0.0275 | 0.2169 | 0.0484 | 0.3788 |
| 118 | 47.82 | 0.03 | 0.0132 | 9.9999 | -0.0142 | 9.9999 | -1.0758 | 0.5705 | 0.0300 | 0.2144 | 0.0525 | 0.3755 |
| 119 | 47.99 | 0.04 | 0.0100 | 9.9999 | -0.0132 | 9.9999 | -1.3200 | 0.5695 | 0.0296 | 0.2142 | 0.0520 | 0.3761 |
| 120 | 48.17 | 0.03 | 0.0132 | 9.9999 | -0.0132 | 9.9999 | -1.3200 | 0.5616 | 0.0296 | 0.2164 | 0.0505 | 0.3721 |
| 121 | 48.35 | 0.03 | 0.0163 | 9.9999 | -0.0133 | 9.9999 | -0.8160 | 0.5595 | 0.0334 | 0.2073 | 0.0557 | 0.3765 |
| 122 | 48.51 | 0.03 | 0.0100 | 9.9999 | -0.0132 | 9.9999 | -1.3200 | 0.5778 | 0.0304 | 0.2144 | 0.0526 | 0.3712 |
| 123 | 48.68 | 0.02 | -0.0076 | 9.9999 | -0.0183 | 9.9999 | 2.8145 | 0.5519 | 0.0335 | 0.2051 | 0.0607 | 0.3716 |
| 124 | 48.85 | 0.03 | 0.0161 | 9.9999 | -0.0133 | 9.9999 | -1.3108 | 0.5655 | 0.0335 | 0.2101 | 0.0559 | 0.3715 |
| 125 | 49.01 | 0.01 | 0.0100 | 9.9999 | -0.0121 | 9.9999 | -1.2100 | 0.5742 | 0.0331 | 0.2121 | 0.0576 | 0.3694 |
| 126 | 49.19 | 0.02 | 0.0163 | 9.9999 | -0.0116 | 9.9999 | -0.8748 | 0.5676 | 0.0346 | 0.2068 | 0.0605 | 0.3677 |
| 127 | 49.35 | 0.02 | -0.0008 | 9.9999 | -0.0168 | 9.9999 | 20.7500 | 0.5425 | 0.0390 | 0.2006 | 0.0700 | 0.3658 |
| 128 | 49.54 | 0.02 | 0.0022 | 9.9999 | -0.0133 | 9.9999 | -0.0454 | 0.5466 | 0.0360 | 0.2020 | 0.0692 | 0.3681 |
| 129 | 49.70 | 0.02 | 0.0054 | 9.9999 | -0.0137 | 9.9999 | -2.5370 | 0.5575 | 0.0374 | 0.2025 | 0.0670 | 0.3630 |
| 130 | 49.85 | 0.01 | 0.0065 | 9.9999 | -0.0116 | 9.9999 | -1.3047 | 0.5627 | 0.0373 | 0.2064 | 0.0663 | 0.3668 |
| 131 | 50.03 | 0.00 | 0.0023 | 9.9999 | -0.0158 | 9.9999 | -6.8696 | 0.5492 | 0.0385 | 0.2019 | 0.0708 | 0.3676 |
| 132 | 50.20 | -0.01 | 0.0029 | 9.9999 | -0.0171 | 9.9999 | -7.1250 | 0.5474 | 0.0404 | 0.1991 | 0.0738 | 0.3637 |
| 133 | 50.37 | 0.00 | 0.0023 | 9.9999 | -0.0146 | 9.9999 | -0.3478 | 0.5491 | 0.0415 | 0.1961 | 0.0763 | 0.3664 |
| 134 | 50.53 | 0.00 | 0.0023 | 9.9999 | -0.0146 | 9.9999 | -0.3478 | 0.5459 | 0.0415 | 0.1956 | 0.0760 | 0.3583 |
| 135 | 50.70 | -0.00 | -0.0024 | 9.9999 | -0.0158 | 9.9999 | 6.5000 | 0.5453 | 0.0423 | 0.1951 | 0.0776 | 0.3578 |
| 136 | 50.87 | 0.01 | 0.0026 | 9.9999 | -0.0136 | 9.9999 | -22.6007 | 0.5508 | 0.0411 | 0.1962 | 0.0746 | 0.3562 |
| 137 | 51.02 | -0.00 | 0.0022 | 9.9999 | -0.0128 | 9.9999 | -5.8182 | 0.5363 | 0.0439 | 0.1905 | 0.0818 | 0.3552 |
| 138 | 51.20 | -0.00 | 0.0007 | 9.9999 | -0.0142 | 9.9999 | -20.2857 | 0.5297 | 0.0447 | 0.1872 | 0.0844 | 0.3534 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART PACK RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 1u6 0.6u 1.7 0.0 B1BOF14 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.36 | 0.01 | 0.0057 | 9.9999 | -0.0102 | 9.9999 | -2.7568 | 0.5331 | 0.0449 | 0.1895 | 0.0842 | 0.3555 |
| 140 | 51.54 | 0.00 | 0.0115 | 9.9999 | -0.0078 | 9.9999 | -0.6703 | 0.5126 | 0.0402 | 0.1817 | 0.0901 | 0.3545 |
| 141 | 51.71 | 0.02 | 0.0115 | 9.9999 | -0.0065 | 9.9999 | -0.5652 | 0.4831 | 0.0502 | 0.1719 | 0.1039 | 0.3558 |
| 142 | 51.90 | 0.04 | 0.0155 | 9.9999 | -0.0078 | 9.9999 | -0.4000 | 0.4567 | 0.0512 | 0.1646 | 0.1121 | 0.3604 |
| 143 | 52.04 | 0.02 | 0.0147 | 9.9999 | -0.0081 | 9.9999 | -0.3510 | 0.4932 | 0.0456 | 0.1761 | 0.1010 | 0.3571 |
| 144 | 52.24 | 0.03 | 0.0258 | 9.9999 | -0.0146 | 9.9999 | -0.1800 | 0.4508 | 0.0520 | 0.1637 | 0.1153 | 0.3631 |
| 145 | 52.40 | 0.07 | 0.0251 | 9.9999 | -0.0054 | 9.9999 | -0.2093 | 0.4508 | 0.0510 | 0.1643 | 0.1131 | 0.3645 |
| 146 | 52.58 | 0.05 | 0.0182 | 9.9999 | -0.0045 | 9.9999 | -0.3025 | 0.4808 | 0.0489 | 0.1733 | 0.1017 | 0.3604 |
| 147 | 52.73 | 0.06 | 0.0355 | 9.9999 | -0.0034 | 9.9999 | -0.0958 | 0.4659 | 0.0501 | 0.1690 | 0.1075 | 0.3627 |
| 148 | 52.92 | 0.08 | 0.0256 | 9.9999 | -0.0014 | 9.9999 | -0.0483 | 0.4699 | 0.0496 | 0.1731 | 0.1055 | 0.3684 |
| 149 | 53.07 | 0.06 | 0.0291 | 9.9999 | -0.0021 | 9.9999 | -0.0722 | 0.4664 | 0.0507 | 0.1707 | 0.1087 | 0.3660 |
| 150 | 53.25 | 0.06 | 0.0243 | 9.9999 | -0.0031 | 9.9999 | -0.1276 | 0.4730 | 0.0500 | 0.1755 | 0.1062 | 0.3729 |
| 151 | 53.40 | 0.09 | 0.0354 | 9.9999 | -0.0006 | 9.9999 | -0.0254 | 0.4556 | 0.0533 | 0.1686 | 0.1170 | 0.3701 |
| 152 | 53.59 | 0.09 | 0.0355 | 9.9999 | -0.0006 | 9.9999 | -0.0254 | 0.4617 | 0.0536 | 0.1720 | 0.1161 | 0.3725 |
| 153 | 53.74 | 0.09 | 0.0322 | 9.9999 | 0.0 | 9.9999 | 0.0 | 0.4632 | 0.0514 | 0.1830 | 0.1064 | 0.3787 |
| 154 | 53.91 | 0.10 | 0.0242 | 9.9999 | -0.0006 | 9.9999 | -0.0248 | 0.4739 | 0.0531 | 0.1763 | 0.1120 | 0.3762 |
| 155 | 54.07 | 0.11 | 0.0307 | 9.9999 | 0.0005 | 9.9999 | 0.0163 | 0.4965 | 0.0513 | 0.1857 | 0.1029 | 0.3725 |
| 156 | 54.23 | 0.05 | 0.0324 | 9.9999 | -0.0031 | 9.9999 | -0.0957 | 0.5241 | 0.0491 | 0.1941 | 0.0937 | 0.3703 |
| 157 | 54.39 | 0.09 | 0.0324 | 9.9999 | -0.0043 | 9.9999 | -0.1327 | 0.5318 | 0.0496 | 0.1978 | 0.0925 | 0.3719 |
| 158 | 54.57 | 0.10 | 0.0323 | 9.9999 | -0.0037 | 9.9999 | -0.1140 | 0.5396 | 0.0485 | 0.2008 | 0.0899 | 0.3721 |
| 159 | 54.71 | 0.09 | 0.0323 | 9.9999 | -0.0024 | 9.9999 | -0.0743 | 0.5336 | 0.0493 | 0.1965 | 0.0974 | 0.3683 |
| 160 | 54.87 | 0.16 | 0.0258 | 9.9999 | -0.0025 | 9.9999 | -0.1124 | 0.5457 | 0.0483 | 0.2008 | 0.0885 | 0.3680 |
| 161 | 55.02 | 0.08 | 0.0273 | 9.9999 | -0.0010 | 9.9999 | -0.0366 | 0.5309 | 0.0485 | 0.1966 | 0.0921 | 0.3703 |
| 162 | 55.18 | 0.08 | 0.0360 | 9.9999 | -0.0016 | 9.9999 | -0.0492 | 0.5358 | 0.0495 | 0.1984 | 0.0924 | 0.3703 |
| 163 | 55.33 | 0.07 | 0.0368 | 9.9999 | -0.0013 | 9.9999 | -0.0337 | 0.5457 | 0.0491 | 0.1991 | 0.0898 | 0.3642 |
| 164 | 55.48 | 0.06 | 0.0257 | 9.9999 | -0.0017 | 9.9999 | -0.0661 | 0.5367 | 0.0490 | 0.1981 | 0.0913 | 0.3654 |
| 165 | 55.65 | 0.09 | 0.0353 | 9.9999 | -0.0022 | 9.9999 | -0.0623 | 0.5318 | 0.0509 | 0.1948 | 0.0957 | 0.3663 |
| 166 | 55.83 | 0.07 | 0.0354 | 9.9999 | -0.0034 | 9.9999 | -0.0900 | 0.5318 | 0.0508 | 0.1946 | 0.0955 | 0.3663 |
| 167 | 56.00 | 0.08 | 0.0353 | 9.9999 | -0.0022 | 9.9999 | -0.0623 | 0.5433 | 0.0498 | 0.1987 | 0.0916 | 0.3657 |
| 168 | 56.14 | 0.05 | 0.0353 | 9.9999 | -0.0022 | 9.9999 | -0.0623 | 0.5437 | 0.0500 | 0.1985 | 0.0920 | 0.3651 |
| 169 | 56.31 | 0.07 | 0.0353 | 9.9999 | -0.0022 | 9.9999 | -0.0623 | 0.5476 | 0.0496 | 0.2000 | 0.0906 | 0.3652 |
| 170 | 56.49 | 0.08 | 0.0366 | 9.9999 | -0.0014 | 9.9999 | -0.0380 | 0.5301 | 0.0504 | 0.1975 | 0.0937 | 0.3670 |
| 171 | 56.63 | 0.06 | 0.0268 | 9.9999 | -0.0014 | 9.9999 | -0.0486 | 0.5326 | 0.0517 | 0.1945 | 0.0971 | 0.3653 |
| 172 | 56.79 | 0.05 | 0.0240 | 9.9999 | -0.0018 | 9.9999 | -0.0750 | 0.5308 | 0.0513 | 0.1930 | 0.0966 | 0.3636 |
| 173 | 56.95 | 0.04 | 0.0321 | 9.9999 | -0.0037 | 9.9999 | -0.1153 | 0.5300 | 0.0524 | 0.1938 | 0.0985 | 0.3657 |
| 174 | 57.14 | 0.07 | 0.0161 | 9.9999 | -0.0037 | 9.9999 | -0.2296 | 0.5446 | 0.0519 | 0.1987 | 0.0953 | 0.3648 |
| 175 | 57.29 | 0.07 | 0.0285 | 9.9999 | -0.0021 | 9.9999 | -0.0727 | 0.5454 | 0.0523 | 0.1991 | 0.0959 | 0.3651 |
| 176 | 57.45 | 0.07 | 0.0257 | 9.9999 | -0.0035 | 9.9999 | -0.1362 | 0.5426 | 0.0520 | 0.1959 | 0.0958 | 0.3610 |
| 177 | 57.61 | 0.06 | 0.0192 | 9.9999 | -0.0010 | 9.9999 | -0.0521 | 0.5296 | 0.0532 | 0.1926 | 0.1009 | 0.3638 |
| 178 | 57.75 | 0.03 | 0.0161 | 9.9999 | -0.0031 | 9.9999 | -0.1925 | 0.5357 | 0.0518 | 0.1921 | 0.0967 | 0.3586 |
| 179 | 57.88 | 0.02 | 0.0061 | 9.9999 | -0.0025 | 9.9999 | -0.3086 | 0.5284 | 0.0520 | 0.1903 | 0.0984 | 0.3601 |
| 180 | 58.05 | 0.06 | 0.0057 | 9.9999 | -0.0025 | 9.9999 | -0.2990 | 0.5294 | 0.0518 | 0.1898 | 0.0978 | 0.3582 |
| 181 | 58.19 | 0.04 | 0.0208 | 9.9999 | -0.0021 | 9.9999 | -0.1298 | 0.5206 | 0.0524 | 0.1860 | 0.1006 | 0.3573 |
| 182 | 58.49 | 0.02 | 0.0056 | 9.9999 | -0.0017 | 9.9999 | -0.1771 | 0.5333 | 0.0518 | 0.1881 | 0.0971 | 0.3527 |
| 183 | 58.30 | 0.05 | 0.0057 | 9.9999 | -0.0036 | 9.9999 | -0.3711 | 0.5361 | 0.0522 | 0.1898 | 0.0977 | 0.3554 |
| 184 | 58.30 | 0.01 | 0.0126 | 9.9999 | -0.0015 | 9.9999 | -0.1176 | 0.5447 | 0.0513 | 0.1933 | 0.0942 | 0.3549 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 1OF 6.5C 1.7 MACH NO=6 PHI 0.0 CONF 1 BINOP14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | LN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | -0.00 | -2.1742 | 7.5125 | -0.1074 | -0.0608 | 0.0152 | 1.2833 | 0.3943 | 0.8890 | -3.4553 |
| 2 | -5.69 | 0.01 | -2.1752 | 7.5445 | 0.0842 | -0.0393 | 0.0088 | 1.2965 | 0.3967 | 0.8958 | -3.4059 |
| 3 | -5.67 | 0.01 | -2.1265 | 7.4854 | 0.0652 | 0.0771 | 0.0024 | 1.2862 | 0.3655 | 0.9027 | -3.5201 |
| 4 | -3.70 | 0.01 | -2.0811 | 7.7031 | 0.1056 | -0.5398 | 0.0546 | 1.2000 | 0.2615 | 0.9245 | -3.7349 |
| 5 | -2.07 | 0.01 | -1.9320 | 7.7015 | 0.0285 | -0.0652 | 0.0102 | 1.1232 | 0.1892 | 0.9340 | -4.0173 |
| 6 | -0.31 | 0.02 | -1.7064 | 7.3675 | 0.1444 | -0.1741 | 0.0109 | 1.0832 | 0.1773 | 0.9059 | -4.3176 |
| 7 | 1.42 | 0.00 | -1.4859 | 6.9326 | 0.0532 | -0.0599 | 0.0112 | 1.0408 | 0.1752 | 0.8656 | -4.6657 |
| 8 | 3.20 | 0.01 | -1.2326 | 6.5406 | 0.1107 | -0.1710 | 0.0180 | 0.9746 | 0.1700 | 0.8046 | -5.1441 |
| 9 | 4.93 | 0.00 | -0.9913 | 5.8456 | 0.0362 | -0.1195 | 0.0183 | 0.9244 | 0.1717 | 0.7527 | -5.8962 |
| 10 | 6.70 | 0.00 | -0.7393 | 5.2259 | 0.0737 | -0.1980 | 0.0189 | 0.8000 | 0.1696 | 0.6905 | -7.2042 |
| 11 | 8.45 | -0.01 | -0.4710 | 4.8726 | -0.0071 | 0.0112 | 0.0192 | 0.8361 | 0.1725 | 0.6276 | -10.3443 |
| 12 | 10.17 | -0.01 | -0.2169 | 4.4067 | 0.0158 | -0.0013 | 0.0201 | 0.7447 | 0.1776 | 0.5671 | -20.3248 |
| 13 | 11.97 | -0.00 | 0.0323 | 3.9254 | 0.0307 | -0.0301 | 0.0207 | 0.6865 | 0.1834 | 0.5051 | 121.4670 |
| 14 | 13.71 | -0.00 | 0.3520 | 3.4644 | 0.0555 | 0.0043 | 0.0273 | 0.6342 | 0.1871 | 0.4471 | 9.8425 |
| 15 | 15.54 | -0.01 | 0.6506 | 2.9446 | -0.0435 | 0.0769 | 0.0278 | 0.5821 | 0.1903 | 0.3718 | 4.5257 |
| 16 | 17.30 | -0.00 | 0.9560 | 2.5259 | 0.0023 | 0.1442 | 0.0344 | 0.5329 | 0.1957 | 0.3072 | 2.6405 |
| 17 | 19.16 | -0.01 | 1.2625 | 2.1366 | -0.1494 | 0.5222 | 0.0342 | 0.4953 | 0.2051 | 0.2402 | 1.6536 |
| 18 | 20.97 | -0.05 | 1.5533 | 1.9333 | -0.5013 | 1.4462 | 0.0389 | 0.4834 | 0.2175 | 0.1859 | 1.2446 |
| 19 | 22.81 | -0.04 | 1.8566 | 1.7866 | -0.5355 | 1.4757 | 0.0271 | 0.3596 | 0.2297 | 0.1299 | 0.9516 |
| 20 | 24.61 | -0.05 | 2.1466 | 1.6961 | -0.7445 | 2.4673 | 0.0356 | 0.3264 | 0.2436 | 0.0845 | 0.7898 |
| 21 | 26.42 | -0.01 | 2.3854 | 2.0656 | -0.0435 | 0.0678 | 0.0471 | 0.2817 | 0.2376 | 0.0441 | 0.8646 |
| 22 | 28.21 | 0.02 | 2.6525 | 2.3310 | 0.2750 | -0.4313 | 0.0359 | 0.2390 | 0.2436 | -0.0046 | 0.8657 |
| 23 | 28.24 | 0.0 | 2.6734 | 2.2866 | -0.0263 | 0.1545 | 0.0354 | 0.2405 | 0.2426 | -0.0021 | 0.8551 |
| 24 | 28.24 | 0.00 | 2.6631 | 2.3234 | -0.0004 | 0.2958 | 0.0346 | 0.2404 | 0.2442 | -0.0038 | 0.8726 |
| 25 | 28.48 | 0.02 | 2.7473 | 2.3630 | 0.1531 | -0.2276 | 0.0495 | 0.2365 | 0.2459 | -0.0094 | 0.8674 |
| 26 | 28.76 | 0.03 | 2.8324 | 2.3051 | 0.3358 | -0.5442 | 0.0652 | 0.2377 | 0.2466 | -0.0089 | 0.8421 |
| 27 | 29.13 | 0.05 | 2.9694 | 2.4025 | 0.5249 | -0.7774 | 0.0705 | 0.2184 | 0.2491 | -0.0307 | 0.8051 |
| 28 | 29.42 | 0.03 | 2.9585 | 2.5004 | 0.2837 | -0.3260 | 0.0573 | 0.2225 | 0.2528 | -0.0303 | 0.8358 |
| 29 | 29.71 | 0.06 | 3.1814 | 2.5152 | 0.6005 | -1.2586 | 0.1042 | 0.2233 | 0.2574 | -0.0341 | 0.7906 |
| 30 | 30.00 | 0.07 | 3.2856 | 2.4662 | 0.7984 | -1.1685 | 0.1044 | 0.2020 | 0.2622 | -0.0602 | 0.7506 |
| 31 | 30.29 | 0.07 | 3.3055 | 2.4573 | 0.7932 | -1.6847 | 0.0786 | 0.1943 | 0.2668 | -0.0725 | 0.7545 |
| 32 | 30.53 | 0.05 | 3.4440 | 2.4548 | 0.4654 | -0.8809 | 0.0698 | 0.1950 | 0.2716 | -0.0810 | 0.7128 |
| 33 | 30.81 | 0.07 | 3.4283 | 2.4643 | 0.6651 | -0.9760 | 0.0909 | 0.2040 | 0.2697 | -0.0657 | 0.7246 |
| 34 | 31.10 | 0.05 | 3.5560 | 2.4153 | 0.4441 | 0.1401 | 0.0640 | 0.1891 | 0.2754 | -0.1064 | 0.7345 |
| 35 | 31.37 | 0.05 | 3.6746 | 2.3525 | 0.3958 | 0.2595 | 0.0704 | 0.1891 | 0.2771 | -0.0880 | 0.6874 |
| 36 | 31.65 | 0.06 | 3.7772 | 2.3470 | 0.4882 | 0.1951 | 0.0774 | 0.1767 | 0.2771 | -0.1005 | 0.7007 |
| 37 | 31.91 | 0.04 | 3.8058 | 2.3566 | 0.3374 | 0.4164 | 0.0773 | 0.1779 | 0.2826 | -0.1050 | 0.6837 |
| 38 | 32.19 | 0.04 | 4.0259 | 2.3163 | 0.3087 | 0.5347 | 0.0840 | 0.1590 | 0.2810 | -0.1227 | 0.6996 |
| 39 | 32.45 | 0.02 | 4.0615 | 2.2652 | 0.2556 | 0.4120 | 0.0712 | 0.1696 | 0.2803 | -0.1158 | 0.6869 |
| 40 | 32.71 | 0.02 | 4.0651 | 2.2005 | 0.1516 | 0.4551 | 0.0760 | 0.1691 | 0.2845 | -0.1155 | 0.6864 |
| 41 | 32.98 | 0.04 | 4.2265 | 2.1456 | 0.5307 | -0.2543 | 0.0942 | 0.1637 | 0.2754 | -0.1118 | 0.7382 |
| 42 | 33.24 | 0.03 | 4.3526 | 2.0751 | 0.5780 | -0.3097 | 0.1014 | 0.1908 | 0.2786 | -0.1279 | 0.7098 |
| 43 | 33.49 | 0.05 | 4.4283 | 2.4755 | 0.7576 | -1.4693 | 0.1102 | 0.1353 | 0.2717 | -0.1365 | 0.7848 |
| 44 | 33.75 | 0.03 | 4.4957 | 2.5763 | 0.5869 | -1.2911 | 0.0911 | 0.1369 | 0.2709 | -0.1341 | 0.7948 |
| 45 | 33.99 | 0.04 | 4.6279 | 2.4454 | 0.6391 | -1.4248 | 0.1171 | 0.1219 | 0.2750 | -0.1532 | 0.7445 |
| 46 | 34.26 | 0.02 | 4.6763 | 2.6255 | 0.5999 | -1.1655 | 0.0915 | 0.1203 | 0.2716 | -0.1514 | 0.7753 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(RSDCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1of 1 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 81a6F1a DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | LA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.53 | 0.03 | 4.8054 | 3.8479 | 0.4675 | -0.9633 | 0.0795 | 0.1024 | 0.2708 | -0.1685 | 0.8001 |
| 48 | 34.77 | 0.02 | 4.8782 | 3.9031 | 0.3303 | -0.8142 | 0.0795 | 0.0994 | 0.2709 | -0.1716 | 0.8000 |
| 49 | 35.00 | 0.03 | 4.9511 | 4.1273 | 0.4732 | -0.7015 | 0.0736 | 0.0930 | 0.2683 | -0.1753 | 0.8336 |
| 50 | 35.29 | 0.00 | 5.0815 | 4.0562 | 0.1398 | -0.4211 | 0.0608 | 0.0750 | 0.2679 | -0.1929 | 0.8049 |
| 51 | 35.54 | -0.01 | 5.1705 | 4.2858 | -0.0533 | 0.1392 | 0.0287 | 0.0645 | 0.2646 | -0.2001 | 0.8289 |
| 52 | 35.76 | -0.00 | 5.2218 | 4.4062 | -0.1784 | 0.4227 | 0.0260 | 0.0793 | 0.2618 | -0.1825 | 0.8541 |
| 53 | 36.01 | -0.01 | 5.2956 | 4.3731 | -0.1917 | 0.5853 | 0.0404 | 0.0549 | 0.2610 | -0.2081 | 0.8258 |
| 54 | 36.24 | -0.01 | 5.3627 | 4.3711 | -0.2696 | 0.6471 | 0.0276 | 0.0535 | 0.2609 | -0.2074 | 0.8306 |
| 55 | 36.47 | -0.01 | 5.4051 | 4.4756 | -0.1855 | 0.7049 | 0.0152 | 0.0393 | 0.2610 | -0.2217 | 0.8280 |
| 56 | 36.72 | 0.01 | 5.4924 | 4.5007 | -0.0745 | 0.7697 | 0.0151 | 0.0356 | 0.2578 | -0.2222 | 0.8195 |
| 57 | 36.96 | 0.00 | 5.5650 | 4.4321 | -0.0768 | 0.7040 | -0.0034 | 0.0273 | 0.2598 | -0.2325 | 0.7964 |
| 58 | 37.19 | -0.00 | 5.6085 | 4.5062 | -0.2168 | 0.7277 | 0.0288 | 0.0291 | 0.2569 | -0.2316 | 0.8035 |
| 59 | 37.44 | -0.01 | 5.7123 | 4.5756 | -0.3502 | 0.8718 | 0.0098 | 0.0124 | 0.2548 | -0.2424 | 0.8016 |
| 60 | 37.67 | -0.01 | 5.7515 | 4.5763 | -0.2585 | 0.8290 | 0.0290 | 0.0158 | 0.2565 | -0.2407 | 0.7962 |
| 61 | 37.89 | -0.01 | 5.8031 | 4.5988 | -0.2124 | 0.9674 | 0.0352 | -0.0062 | 0.2532 | -0.2596 | 0.7791 |
| 62 | 38.14 | -0.01 | 6.0382 | 4.6016 | -0.2330 | 1.0883 | 0.0416 | -0.0159 | 0.2540 | -0.2699 | 0.7621 |
| 63 | 38.37 | 0.00 | 6.0172 | 4.5915 | -0.1407 | 0.7876 | 0.0172 | -0.0239 | 0.2584 | -0.2823 | 0.7631 |
| 64 | 38.60 | 0.01 | 6.2183 | 4.5097 | -0.0406 | 1.0016 | 0.0292 | -0.0414 | 0.2589 | -0.3004 | 0.7252 |
| 65 | 38.82 | -0.02 | 6.2180 | 4.6067 | -0.3421 | 1.0445 | 0.0238 | -0.0305 | 0.2605 | -0.2911 | 0.7609 |
| 66 | 39.05 | 0.00 | 6.3029 | 4.5974 | -0.0557 | 1.0226 | 0.0536 | -0.0344 | 0.2654 | -0.2995 | 0.7294 |
| 67 | 39.28 | -0.00 | 6.4081 | 4.6110 | -0.1566 | 1.0667 | 0.0289 | -0.0544 | 0.2581 | -0.3126 | 0.7196 |
| 68 | 39.50 | -0.02 | 6.4302 | 4.6250 | -0.3716 | 1.2533 | 0.0301 | -0.0597 | 0.2544 | -0.3142 | 0.7199 |
| 69 | 39.72 | -0.02 | 6.5305 | 4.7152 | -0.4169 | 1.6482 | 0.0226 | -0.0591 | 0.2617 | -0.3209 | 0.7226 |
| 70 | 39.92 | -0.02 | 6.6463 | 4.5572 | -0.3375 | 1.5443 | 0.0281 | -0.0682 | 0.2642 | -0.3365 | 0.6917 |
| 71 | 40.15 | -0.02 | 6.7412 | 4.6654 | -0.2212 | 1.3156 | 0.0302 | -0.0631 | 0.2589 | -0.3391 | 0.6921 |
| 72 | 40.34 | -0.00 | 6.8305 | 4.6326 | -0.0908 | 1.7167 | 0.0299 | -0.0571 | 0.2580 | -0.3172 | 0.6966 |
| 73 | 40.54 | -0.02 | 6.8141 | 4.7238 | -0.2278 | 1.4555 | 0.0312 | -0.0867 | 0.2573 | -0.3441 | 0.6932 |
| 74 | 40.75 | -0.00 | 6.9031 | 4.5515 | -0.0331 | 1.5985 | 0.0242 | -0.0950 | 0.2597 | -0.3528 | 0.6651 |
| 75 | 40.97 | -0.02 | 6.9828 | 4.6082 | -0.2794 | 1.7503 | 0.0370 | -0.0932 | 0.2560 | -0.3493 | 0.6599 |
| 76 | 41.18 | 0.02 | 7.0453 | 4.5114 | 0.0713 | 1.8157 | 0.0428 | -0.0826 | 0.2694 | -0.3251 | 0.6403 |
| 77 | 41.39 | -0.02 | 7.0968 | 4.6465 | -0.1917 | 1.6527 | 0.0336 | -0.1105 | 0.2532 | -0.3637 | 0.6546 |
| 78 | 41.58 | -0.03 | 7.1804 | 4.7050 | -0.3741 | 1.1856 | 0.0214 | -0.1327 | 0.2499 | -0.3626 | 0.6558 |
| 79 | 41.78 | -0.02 | 7.1521 | 4.5450 | -0.2731 | 1.0681 | 0.0214 | -0.1226 | 0.2463 | -0.3689 | 0.6360 |
| 80 | 41.97 | -0.01 | 7.2029 | 4.7685 | -0.0061 | 0.9311 | 0.0346 | -0.1216 | 0.2486 | -0.3704 | 0.6621 |
| 81 | 42.19 | 0.00 | 7.3260 | 4.5646 | -0.0158 | 1.4038 | 0.0265 | -0.1469 | 0.2527 | -0.4016 | 0.6231 |
| 82 | 42.37 | -0.04 | 7.3052 | 4.6075 | -0.3549 | 0.8417 | 0.0113 | -0.1283 | 0.2576 | -0.3859 | 0.6309 |
| 83 | 42.55 | -0.02 | 7.4172 | 4.4227 | -0.2606 | 1.3395 | 0.0212 | -0.1361 | 0.2601 | -0.3942 | 0.5963 |
| 84 | 42.74 | -0.03 | 7.5221 | 4.5174 | -0.3244 | 0.8597 | -0.0142 | -0.1371 | 0.2564 | -0.3955 | 0.6005 |
| 85 | 42.93 | -0.01 | 7.5771 | 4.7335 | -0.0602 | 0.3654 | 0.0443 | -0.1557 | 0.2555 | -0.4112 | 0.6248 |
| 86 | 43.11 | -0.01 | 7.6157 | 4.5522 | -0.0645 | 0.8387 | 0.0111 | -0.1430 | 0.2563 | -0.3993 | 0.5977 |
| 87 | 43.27 | -0.02 | 7.6927 | 4.5551 | -0.1451 | 0.1301 | -0.0143 | -0.1419 | 0.2589 | -0.4008 | 0.5927 |
| 88 | 43.46 | -0.00 | 7.6020 | 4.4153 | -0.0445 | 1.1509 | -0.0391 | -0.1580 | 0.2678 | -0.4258 | 0.5659 |
| 89 | 43.66 | -0.01 | 7.8726 | 4.4771 | -0.2137 | 0.9376 | 0.0056 | -0.1657 | 0.2648 | -0.4283 | 0.5684 |
| 90 | 43.84 | -0.03 | 7.8085 | 4.4576 | -0.3116 | 0.5875 | 0.0006 | -0.1650 | 0.2665 | -0.4255 | 0.5665 |
| 91 | 43.95 | -0.03 | 7.9218 | 4.4570 | -0.5733 | 2.0693 | -0.0108 | -0.1551 | 0.2671 | -0.4222 | 0.5584 |
| 92 | 44.16 | -0.01 | 8.0886 | 4.5325 | -0.2363 | 0.9851 | -0.0129 | -0.1769 | 0.2630 | -0.4369 | 0.5356 |

PANTIR MISSILE TAILS EFFECTS DATA

TEST 7 PART 107 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 6 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.37 | -0.04 | 8.3601 | 4.5364 | -0.5700 | 1.8865 | -0.0331 | -0.1717 | 0.2621 | -0.4338 | 0.5631 |
| 94 | 44.58 | -0.02 | 8.2146 | 4.4216 | -0.3746 | 1.4677 | -0.0146 | -0.1672 | 0.2667 | -0.4339 | 0.5382 |
| 95 | 44.77 | -0.01 | 8.3217 | 4.4644 | -0.0750 | 0.4688 | 0.0025 | -0.1948 | 0.2621 | -0.4569 | 0.5365 |
| 96 | 44.95 | -0.01 | 8.3332 | 4.4553 | -0.1233 | 0.8055 | 0.0011 | -0.1963 | 0.2600 | -0.4563 | 0.5346 |
| 97 | 45.12 | -0.02 | 8.3508 | 4.3506 | -0.2646 | 1.2598 | -0.0124 | -0.1887 | 0.2625 | -0.4512 | 0.5210 |
| 98 | 45.29 | -0.01 | 8.4143 | 4.3187 | -0.0025 | 0.3600 | 0.0352 | -0.1915 | 0.2588 | -0.4503 | 0.5370 |
| 99 | 45.46 | -0.02 | 8.5555 | 4.4217 | -0.1715 | -0.3605 | 0.0495 | -0.2010 | 0.2691 | -0.4701 | 0.5166 |
| 100 | 45.67 | -0.02 | 8.5662 | 4.5066 | 0.0295 | 0.4253 | 0.0417 | -0.1900 | 0.2600 | -0.4500 | 0.5249 |
| 101 | 45.85 | -0.06 | 8.7190 | 4.5157 | -0.4135 | 0.8643 | 0.0166 | -0.2130 | 0.2725 | -0.4854 | 0.5184 |
| 102 | 46.02 | -0.05 | 8.8152 | 4.3786 | -0.5556 | 1.6596 | -0.0121 | -0.1762 | 0.2670 | -0.4402 | 0.4965 |
| 103 | 46.17 | -0.01 | 8.7753 | 4.3640 | 0.2336 | -0.0837 | 0.0439 | -0.2069 | 0.2670 | -0.4759 | 0.4556 |
| 104 | 46.35 | -0.03 | 8.6056 | 4.4335 | -0.1484 | 1.3032 | 0.0159 | -0.2105 | 0.2723 | -0.4829 | 0.5038 |
| 105 | 46.54 | -0.00 | 8.5525 | 4.4641 | 0.3540 | -0.3556 | 0.0455 | -0.2135 | 0.2736 | -0.4872 | 0.4986 |
| 106 | 46.69 | -0.04 | 8.4501 | 4.4356 | -0.2795 | 1.5141 | -0.0115 | -0.1946 | 0.2602 | -0.4750 | 0.4956 |
| 107 | 46.88 | -0.02 | 8.4004 | 4.2573 | -0.0316 | 1.3735 | 0.0078 | -0.2137 | 0.2822 | -0.4960 | 0.4695 |
| 108 | 47.06 | -0.06 | 8.1456 | 4.2723 | -0.3611 | 1.8802 | -0.0091 | -0.2397 | 0.2639 | -0.5237 | 0.4669 |
| 109 | 47.23 | -0.02 | 8.2306 | 4.1718 | -0.1177 | 2.0584 | -0.0132 | -0.2134 | 0.2980 | -0.5114 | 0.4520 |
| 110 | 47.39 | -0.02 | 8.2050 | 4.3215 | -0.1005 | 1.3372 | -0.0230 | -0.1901 | 0.2981 | -0.4942 | 0.4695 |
| 111 | 47.57 | 0.01 | 8.2832 | 4.3506 | 0.2652 | 1.3574 | -0.0044 | -0.1934 | 0.3029 | -0.4933 | 0.4697 |
| 112 | 47.76 | -0.07 | 8.4603 | 3.8541 | -0.0031 | 2.0346 | -0.0316 | -0.2020 | 0.3164 | -0.5184 | 0.4116 |
| 113 | 47.93 | -0.05 | 8.5097 | 4.2753 | -0.3710 | 1.5083 | -0.0286 | -0.2205 | 0.3083 | -0.5288 | 0.4496 |
| 114 | 48.09 | -0.03 | 8.4991 | 4.1605 | -0.2234 | 1.5552 | -0.0353 | -0.1933 | 0.3063 | -0.4996 | 0.4360 |
| 115 | 48.27 | -0.03 | 8.6265 | 3.9977 | -0.0051 | 2.4239 | -0.0361 | -0.2094 | 0.3351 | -0.5445 | 0.4153 |
| 116 | 48.45 | -0.02 | 8.7252 | 3.8714 | -0.2812 | 2.5395 | -0.0310 | -0.1803 | 0.3427 | -0.5230 | 0.3981 |
| 117 | 48.63 | -0.02 | 8.8384 | 3.8203 | -0.2028 | 2.9236 | -0.0655 | -0.1479 | 0.3628 | -0.5307 | 0.3772 |
| 118 | 48.80 | -0.02 | 8.9110 | 3.8383 | -0.2207 | 2.9599 | -0.0506 | -0.1879 | 0.3684 | -0.5563 | 0.3673 |
| 119 | 48.96 | -0.00 | 10.0246 | 3.5136 | -0.0752 | 2.8037 | -0.0579 | -0.1831 | 0.3748 | -0.5579 | 0.3505 |
| 120 | 49.15 | -0.04 | 10.0151 | 3.5366 | -0.5167 | 2.5415 | -0.0641 | -0.1855 | 0.3698 | -0.5553 | 0.3332 |
| 121 | 49.32 | -0.01 | 10.0855 | 3.5005 | -0.1454 | 2.8316 | -0.0513 | -0.1877 | 0.3838 | -0.5515 | 0.3471 |
| 122 | 49.50 | 0.04 | 10.3478 | 2.7226 | 0.4152 | 2.4093 | -0.0364 | -0.2173 | 0.4000 | -0.6173 | 0.2691 |
| 123 | 49.69 | 0.05 | 10.6556 | 2.8174 | 0.5555 | 2.3552 | -0.0244 | -0.1950 | 0.4157 | -0.6107 | 0.1853 |
| 124 | 49.90 | 0.05 | 11.0297 | 1.1677 | 0.4151 | 3.5455 | -0.0340 | -0.2354 | 0.4306 | -0.6660 | 0.1059 |
| 125 | 50.10 | 0.06 | 11.2755 | 0.9588 | 0.3640 | 4.3804 | -0.0309 | -0.1811 | 0.4569 | -0.6380 | 0.0830 |
| 126 | 50.23 | 0.03 | 11.1505 | 1.4071 | 0.2627 | 2.1317 | -0.0216 | -0.2092 | 0.4156 | -0.6248 | 0.1262 |
| 127 | 50.42 | 0.05 | 11.2922 | 1.2331 | 0.5372 | 2.2401 | -0.0223 | -0.2102 | 0.4010 | -0.6112 | 0.1052 |
| 128 | 50.60 | 0.01 | 11.1456 | 1.5048 | 0.3238 | 1.7378 | -0.0201 | -0.2039 | 0.4086 | -0.6119 | 0.1350 |
| 129 | 50.76 | 0.08 | 11.3980 | 0.9050 | 0.2987 | 1.9751 | -0.0217 | -0.1536 | 0.4197 | -0.6135 | 0.0794 |
| 130 | 50.93 | 0.04 | 11.4495 | 0.9634 | 0.5704 | 1.5057 | 0.0 | -0.1900 | 0.4147 | -0.6113 | 0.0841 |
| 131 | 51.12 | 0.01 | 11.6620 | 0.7525 | 0.2771 | 1.6413 | 0.0007 | -0.2082 | 0.4269 | -0.6351 | 0.0645 |
| 132 | 51.30 | 0.03 | 11.6618 | 0.4572 | 0.5583 | 1.8575 | -0.0066 | -0.2058 | 0.4366 | -0.6364 | 0.0387 |
| 133 | 51.46 | 0.03 | 11.6428 | 0.1622 | 0.5516 | 1.5162 | -0.0176 | -0.1805 | 0.4384 | -0.6185 | 0.0153 |
| 134 | 51.64 | 0.09 | 12.0134 | -0.2695 | 1.1646 | 1.9801 | -0.0326 | -0.1921 | 0.4621 | -0.6542 | -0.0221 |
| 135 | 51.83 | 0.06 | 12.4857 | -0.7503 | 0.5356 | 2.2724 | -0.0381 | -0.1964 | 0.4691 | -0.6655 | -0.0601 |
| 136 | 52.00 | 0.05 | 12.6760 | -1.0523 | 0.8659 | 2.0557 | -0.0383 | -0.1952 | 0.4705 | -0.6657 | -0.0830 |
| 137 | 52.15 | 0.06 | 12.5354 | -0.8375 | 0.6241 | 2.1513 | -0.0065 | -0.1510 | 0.4776 | -0.6286 | -0.0668 |
| 138 | 52.35 | 0.05 | 12.6152 | -0.9419 | 0.7479 | 1.9631 | -0.0173 | -0.1709 | 0.4873 | -0.6581 | -0.0735 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK0C) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 107 MACH 0.90 RX10=6 1.7 PHI 0.0 CONF 614CF14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.91 | 0.05 | 12.8561 | -0.8825 | 0.7273 | 1.8235 | 0.0150 | -0.1713 | 0.4857 | -0.6569 | -0.0686 |
| 140 | 52.88 | 0.07 | 12.7865 | -0.8845 | 0.9532 | 1.8226 | -0.0045 | -0.1456 | 0.4884 | -0.6337 | -0.0693 |
| 141 | 52.82 | 0.07 | 12.7578 | -0.7750 | 0.9506 | 1.7490 | 0.0085 | -0.1190 | 0.4956 | -0.6139 | -0.0607 |
| 142 | 53.02 | 0.05 | 13.1543 | -0.9856 | 0.8655 | 2.0217 | 0.0153 | -0.1914 | 0.4974 | -0.6886 | -0.0753 |
| 143 | 53.18 | 0.05 | 12.8984 | -0.8946 | 0.7682 | 1.8998 | 0.0224 | -0.1492 | 0.4970 | -0.6481 | -0.0654 |
| 144 | 53.30 | 0.08 | 13.0193 | -0.9256 | 0.9564 | 1.8218 | 0.0350 | -0.1491 | 0.5015 | -0.6265 | -0.0714 |
| 145 | 53.52 | 0.03 | 13.1688 | -1.1151 | 0.4933 | 1.7196 | 0.0107 | -0.1914 | 0.4913 | -0.6827 | -0.0847 |
| 146 | 53.69 | 0.08 | 13.0551 | -0.9164 | 0.8690 | 1.8006 | 0.0350 | -0.1440 | 0.4950 | -0.6309 | -0.0657 |
| 147 | 53.83 | 0.05 | 12.8833 | -0.7724 | 1.0585 | 1.8030 | 0.0358 | -0.1358 | 0.5010 | -0.6347 | -0.0600 |
| 148 | 54.01 | 0.11 | 13.0279 | -0.8737 | 1.2516 | 1.9161 | 0.0543 | -0.1007 | 0.5095 | -0.6701 | -0.0517 |
| 149 | 54.17 | 0.07 | 13.1966 | -1.0552 | 0.7550 | 1.8598 | 0.0434 | -0.1345 | 0.5111 | -0.6455 | -0.0803 |
| 150 | 54.31 | 0.11 | 13.0350 | -0.9338 | 1.2512 | 1.8896 | 0.0468 | -0.1400 | 0.5160 | -0.6615 | -0.0716 |
| 151 | 54.48 | 0.07 | 13.1570 | -1.1167 | 0.8292 | 1.8445 | 0.0434 | -0.1715 | 0.4992 | -0.6706 | -0.0849 |
| 152 | 54.64 | 0.08 | 13.2770 | -1.1332 | 0.7015 | 1.8500 | 0.0495 | -0.1591 | 0.5278 | -0.6669 | -0.0854 |
| 153 | 54.78 | 0.06 | 13.1315 | -0.8805 | 0.7780 | 1.8115 | 0.0501 | -0.1369 | 0.5257 | -0.6625 | -0.0671 |
| 154 | 54.94 | 0.08 | 13.2664 | -1.0437 | 1.0740 | 1.8923 | 0.0504 | -0.1421 | 0.5234 | -0.6552 | -0.0787 |
| 155 | 55.08 | 0.04 | 13.1722 | -0.9088 | 0.7066 | 0.9514 | 0.0578 | -0.1249 | 0.5296 | -0.6546 | -0.0690 |
| 156 | 55.24 | 0.08 | 13.2022 | -0.8907 | 0.8500 | 1.0265 | 0.0574 | -0.1225 | 0.5350 | -0.6574 | -0.0637 |
| 157 | 55.39 | 0.06 | 13.1409 | -0.7171 | 0.5727 | 0.9477 | 0.0624 | -0.1460 | 0.5396 | -0.6658 | -0.0546 |
| 158 | 55.54 | 0.05 | 13.2330 | -0.8045 | 1.0193 | 1.0532 | 0.0697 | -0.1517 | 0.5467 | -0.6564 | -0.0608 |
| 159 | 55.69 | 0.04 | 13.2566 | -0.7725 | 0.7740 | 0.9483 | 0.0708 | -0.1289 | 0.5492 | -0.6781 | -0.0583 |
| 160 | 55.84 | 0.06 | 13.1671 | -0.9031 | 1.0441 | 1.0164 | 0.0624 | -0.1207 | 0.5492 | -0.6698 | -0.0442 |
| 161 | 56.00 | 0.08 | 13.3343 | -0.8816 | 1.2132 | 0.8960 | 0.0828 | -0.1783 | 0.5304 | -0.7067 | -0.0661 |
| 162 | 56.16 | 0.05 | 13.2157 | -0.5867 | 0.6911 | 0.8919 | 0.0834 | -0.1231 | 0.5515 | -0.6746 | -0.0444 |
| 163 | 56.31 | 0.01 | 13.1604 | -0.5054 | 0.5040 | 1.1429 | 0.0830 | -0.1163 | 0.5744 | -0.6907 | -0.0367 |
| 164 | 56.44 | 0.02 | 13.1563 | -0.4405 | 0.6748 | 1.0540 | 0.0955 | -0.1139 | 0.5784 | -0.6923 | -0.0335 |
| 165 | 56.62 | 0.04 | 13.3674 | -0.6402 | 0.8258 | 1.1781 | 0.0829 | -0.1325 | 0.5891 | -0.7216 | -0.0475 |
| 166 | 56.78 | 0.01 | 13.3541 | -0.5500 | 0.5427 | 1.2469 | 0.0896 | -0.1115 | 0.5931 | -0.7046 | -0.0412 |
| 167 | 56.92 | -0.01 | 13.3475 | -0.5422 | 0.4257 | 1.1624 | 0.0838 | -0.1230 | 0.5988 | -0.7218 | -0.0407 |
| 168 | 57.07 | -0.02 | 13.3619 | -0.5618 | 0.1536 | 1.0257 | 0.0900 | -0.1439 | 0.6090 | -0.7529 | -0.0435 |
| 169 | 57.23 | -0.00 | 13.3643 | -0.6136 | 0.4139 | 1.1560 | 0.0839 | -0.1129 | 0.6013 | -0.7142 | -0.0458 |
| 170 | 57.36 | -0.00 | 13.3506 | -0.4471 | 0.4356 | 1.0569 | 0.0779 | -0.1259 | 0.6013 | -0.7272 | -0.0335 |
| 171 | 57.52 | -0.01 | 13.3445 | -0.4718 | 0.2957 | 1.2283 | 0.0840 | -0.1309 | 0.6119 | -0.7428 | -0.0354 |
| 172 | 57.67 | -0.00 | 13.3164 | -0.3201 | 0.4129 | 1.1831 | 0.0837 | -0.1411 | 0.6057 | -0.7468 | -0.0395 |
| 173 | 57.83 | -0.03 | 13.4118 | -0.1552 | 0.1175 | 0.6546 | 0.0735 | -0.1678 | 0.5821 | -0.7459 | 0.0149 |
| 174 | 57.96 | -0.05 | 13.3819 | 0.7193 | -0.4463 | -0.1594 | 0.0852 | -0.2305 | 0.5586 | -0.7085 | 0.0538 |
| 175 | 58.11 | -0.08 | 13.3548 | 0.3414 | -0.2257 | -1.1282 | 0.0594 | -0.1916 | 0.5777 | -0.7693 | 0.0256 |
| 176 | 58.26 | -0.06 | 13.3656 | 0.2252 | -0.1813 | -1.0006 | 0.0594 | -0.1778 | 0.5966 | -0.7746 | 0.0168 |
| 177 | 58.40 | -0.07 | 13.3453 | -0.2311 | -0.1486 | -1.1165 | 0.0591 | -0.1583 | 0.6138 | -0.7771 | -0.0173 |
| 178 | 58.54 | -0.06 | 13.4586 | -0.3915 | -0.0290 | -1.3276 | 0.0472 | -0.1377 | 0.6310 | -0.7667 | -0.0291 |
| 179 | 58.56 | -0.05 | 13.4659 | -0.5343 | -0.5425 | -1.1760 | 0.0463 | -0.1456 | 0.6355 | -0.7811 | -0.0351 |
| 180 | 58.11 | -0.01 | 13.2089 | -0.2491 | 0.1507 | 1.2634 | 0.0714 | -0.1369 | 0.6060 | -0.7369 | -0.0225 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1W7 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 81WCF14 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CL1 | ACPF1 | YCPF1 | CNF2 | CM2 | CL2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | -0.00 | -0.0274 | C.0008 | 0.0116 | -0.0292 | -0.4307 | -1.0405 | -0.0335 | -0.3520 | 0.0322 | 0.3383 |
| 2 | -5.69 | 0.01 | -0.0327 | C.0006 | 0.0116 | -0.0293 | -0.3242 | -1.0415 | -0.0336 | -0.3527 | 0.0324 | 0.3385 |
| 3 | -5.67 | 0.01 | -0.0183 | C.0005 | 0.0151 | -0.0492 | -0.8251 | -1.0084 | -0.0314 | -0.3437 | 0.0311 | 0.3408 |
| 4 | -3.78 | 0.01 | -0.0141 | -0.0005 | 0.0163 | 0.0030 | -1.1500 | -1.1144 | 0.0014 | -0.3866 | -0.0013 | 0.3464 |
| 5 | -2.87 | 0.01 | -0.0244 | C.0007 | 0.0052 | -0.0287 | -0.3770 | -1.0346 | 0.0053 | -0.3636 | -0.0051 | 0.3508 |
| 6 | -0.31 | 0.02 | -0.0164 | C.0004 | 0.0106 | -0.0427 | -0.8983 | -0.9741 | 0.0140 | -0.3445 | -0.0144 | 0.3540 |
| 7 | 1.42 | 0.00 | -0.0201 | C.0006 | 0.0075 | -0.0256 | -0.3532 | -0.9157 | 0.0183 | -0.3217 | -0.0200 | 0.3513 |
| 8 | 3.20 | 0.01 | -0.0160 | C.0006 | 0.0077 | -0.0375 | -0.4812 | -0.8198 | 0.0214 | -0.2947 | -0.0261 | 0.3595 |
| 9 | 4.93 | 0.00 | -0.0214 | C.0003 | 0.0077 | -0.0140 | -0.3598 | -0.7369 | 0.0236 | -0.2728 | -0.0320 | 0.3702 |
| 10 | 6.70 | 0.00 | -0.0359 | C.0001 | 0.0106 | -0.0026 | -0.3051 | -0.6552 | 0.0256 | -0.2569 | -0.0391 | 0.3921 |
| 11 | 8.45 | -0.01 | -0.0344 | -0.0006 | 0.0146 | 0.0233 | -0.4302 | -0.5572 | 0.0282 | -0.2375 | -0.0506 | 0.4270 |
| 12 | 10.17 | -0.01 | -0.0306 | -0.0027 | 0.0155 | 0.0662 | -0.6503 | -0.4655 | 0.0271 | -0.2129 | -0.0582 | 0.4574 |
| 13 | 11.97 | -0.00 | -0.0316 | -0.0018 | 0.0201 | 0.0519 | -0.6526 | -0.3938 | 0.0246 | -0.1911 | -0.0625 | 0.4853 |
| 14 | 13.71 | -0.00 | -0.0375 | -0.0029 | 0.0199 | 0.0646 | -0.5307 | -0.3029 | 0.0230 | -0.1659 | -0.0755 | 0.5477 |
| 15 | 15.54 | -0.01 | -0.0428 | -0.0055 | 0.0154 | 0.1354 | -0.3793 | -0.2364 | 0.0210 | -0.1280 | -0.0888 | 0.5415 |
| 16 | 17.36 | -0.00 | -0.0341 | -0.0048 | 0.0178 | 0.1405 | -0.3142 | -0.1709 | 0.0170 | -0.0927 | -0.0995 | 0.5424 |
| 17 | 19.18 | -0.01 | -0.0749 | -0.0124 | 0.0146 | 0.1855 | -0.1925 | -0.1008 | 0.0153 | -0.0722 | -0.1518 | 0.7183 |
| 18 | 20.99 | -0.05 | -0.0843 | -0.0174 | 0.0074 | 0.2064 | -0.0854 | -0.0534 | 0.0151 | -0.0596 | -0.2827 | 1.0225 |
| 19 | 22.81 | -0.04 | -0.1209 | -0.0163 | -0.0058 | 0.1348 | 0.0480 | -0.0289 | 0.0175 | -0.0412 | -0.6055 | 1.4258 |
| 20 | 24.61 | -0.05 | -0.2019 | -0.0200 | -0.0516 | 0.0709 | 0.1970 | -0.0300 | 0.0225 | -0.0420 | -0.7459 | 1.4666 |
| 21 | 26.42 | -0.01 | -0.0058 | -0.0006 | 0.0255 | 0.1034 | -0.4655 | 0.0597 | 0.0250 | -0.0071 | 0.4187 | -0.1185 |
| 22 | 26.21 | 0.02 | 0.0478 | 0.0067 | 0.0428 | 0.0146 | 0.0954 | 0.0917 | 0.0276 | 0.0052 | 0.3005 | 0.0567 |
| 23 | 26.24 | 0.0 | -0.0155 | 0.0008 | 0.0147 | -0.0516 | -0.9484 | 0.0768 | 0.0284 | -0.0007 | 0.3657 | -0.0091 |
| 24 | 26.24 | 0.00 | 0.1109 | 0.0013 | 0.0211 | 0.1152 | 1.5356 | 0.0628 | 0.0282 | 0.0010 | 0.3405 | 0.0121 |
| 25 | 26.48 | 0.02 | 0.0256 | 0.0008 | 0.0256 | 0.0207 | 1.0276 | 0.0944 | 0.0290 | 0.0056 | 0.3072 | 0.0593 |
| 26 | 28.78 | 0.03 | 0.0888 | 0.0001 | 0.0541 | 0.0011 | 0.6092 | 0.1065 | 0.0285 | 0.0107 | 0.2676 | 0.1005 |
| 27 | 29.13 | 0.05 | 0.0885 | 0.0011 | 0.0568 | 0.0124 | 0.6328 | 0.1093 | 0.0294 | 0.0104 | 0.2689 | 0.0952 |
| 28 | 29.42 | 0.03 | 0.0514 | 0.0013 | 0.0337 | 0.0417 | 1.0001 | 0.1122 | 0.0301 | 0.0101 | 0.2682 | 0.0900 |
| 29 | 29.71 | 0.06 | 0.2098 | 0.0078 | 0.0946 | 0.0372 | 0.4513 | 0.1391 | 0.0290 | 0.0200 | 0.2685 | 0.1438 |
| 30 | 30.00 | 0.07 | 0.1751 | 0.0067 | 0.0664 | 0.0363 | 0.5049 | 0.1372 | 0.0307 | 0.0205 | 0.2237 | 0.1454 |
| 31 | 30.29 | 0.07 | 0.1108 | 0.0058 | 0.0598 | 0.0508 | 0.5407 | 0.1371 | 0.0314 | 0.0194 | 0.2250 | 0.1415 |
| 32 | 30.55 | 0.05 | 0.0847 | 0.0025 | 0.0369 | 0.0713 | 0.6397 | 0.1222 | 0.0325 | 0.0143 | 0.2655 | 0.1067 |
| 33 | 30.81 | 0.07 | 0.1025 | 0.0035 | 0.0810 | 0.0360 | 0.5951 | 0.1266 | 0.0323 | 0.0156 | 0.2551 | 0.1232 |
| 34 | 31.10 | 0.05 | 0.0260 | 0.0052 | 0.0470 | 0.1923 | 1.0015 | 0.1323 | 0.0335 | 0.0162 | 0.2532 | 0.1224 |
| 35 | 31.37 | 0.05 | 0.0388 | 0.0046 | 0.0340 | 0.1185 | 0.8918 | 0.1144 | 0.0340 | 0.0160 | 0.2972 | 0.0874 |
| 36 | 31.65 | 0.06 | 0.0403 | 0.0073 | 0.0394 | 0.1570 | 0.7613 | 0.1144 | 0.0342 | 0.0085 | 0.2989 | 0.0776 |
| 37 | 31.91 | 0.04 | 0.0405 | 0.0065 | 0.0355 | 0.1484 | 0.7720 | 0.1263 | 0.0345 | 0.0111 | 0.2731 | 0.0875 |
| 38 | 32.19 | 0.04 | 0.0210 | 0.0052 | 0.0250 | 0.2470 | 1.0952 | 0.1444 | 0.0350 | 0.0121 | 0.2813 | 0.0973 |
| 39 | 32.45 | 0.02 | 0.0313 | 0.0031 | 0.0294 | 0.0990 | 0.9393 | 0.1257 | 0.0352 | 0.0122 | 0.2800 | 0.0971 |
| 40 | 32.71 | 0.02 | 0.0174 | 0.0043 | 0.0218 | 0.2500 | 1.2074 | 0.1317 | 0.0350 | 0.0134 | 0.2657 | 0.1055 |
| 41 | 32.98 | 0.04 | 0.0764 | 0.0045 | 0.0426 | 0.0574 | 0.5459 | 0.1420 | 0.0348 | 0.0177 | 0.2456 | 0.1246 |
| 42 | 33.24 | 0.03 | 0.1327 | 0.0063 | 0.0621 | 0.0475 | 0.4880 | 0.1668 | 0.0349 | 0.0266 | 0.2092 | 0.1715 |
| 43 | 33.49 | 0.05 | 0.1765 | 0.0077 | 0.0791 | 0.0436 | 0.4482 | 0.1819 | 0.0332 | 0.0345 | 0.1823 | 0.1897 |
| 44 | 33.75 | 0.03 | 0.1716 | 0.0061 | 0.0766 | 0.0355 | 0.4464 | 0.1908 | 0.0336 | 0.0376 | 0.1763 | 0.1973 |
| 45 | 33.99 | 0.04 | 0.2013 | 0.0057 | 0.0851 | 0.0482 | 0.4228 | 0.1905 | 0.0345 | 0.0371 | 0.1811 | 0.1948 |
| 46 | 34.26 | 0.02 | 0.1407 | 0.0050 | 0.0644 | 0.0355 | 0.4577 | 0.1964 | 0.0358 | 0.0422 | 0.1721 | 0.2145 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RNIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 1W7 0.95 1.7 0.C BINOFIN 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.53 | 0.03 | 0.1434 | 0.0057 | 0.0637 | 0.0397 | 0.4442 | 0.1994 | 0.0340 | 0.0419 | 0.1705 | 0.2101 |
| 48 | 34.77 | 0.02 | 0.1436 | 0.0058 | 0.0516 | 0.0336 | 0.4439 | 0.1993 | 0.0344 | 0.0417 | 0.1752 | 0.2124 |
| 49 | 35.00 | 0.03 | 0.1435 | 0.0035 | 0.0413 | 0.0446 | 0.5261 | 0.1960 | 0.0345 | 0.0410 | 0.1760 | 0.2092 |
| 50 | 35.24 | 0.00 | 0.1436 | 0.0033 | 0.0325 | 0.0544 | 0.5363 | 0.1958 | 0.0348 | 0.0428 | 0.1777 | 0.2188 |
| 51 | 35.54 | -0.01 | -0.0413 | 0.0028 | -0.0096 | -0.0678 | 0.2179 | 0.1884 | 0.0355 | 0.0375 | 0.1884 | 0.1996 |
| 52 | 35.76 | -0.00 | -0.0536 | 0.0024 | -0.0126 | -0.0453 | 0.2377 | 0.1810 | 0.0358 | 0.0346 | 0.1978 | 0.1912 |
| 53 | 36.01 | -0.01 | -0.0505 | 0.0025 | -0.0111 | -0.0574 | 0.2196 | 0.1835 | 0.0360 | 0.0366 | 0.1957 | 0.1990 |
| 54 | 36.24 | -0.01 | -0.0516 | 0.0026 | -0.0136 | -0.0504 | 0.2219 | 0.1808 | 0.0369 | 0.0341 | 0.2041 | 0.1866 |
| 55 | 36.47 | -0.01 | -0.1031 | 0.0031 | -0.0356 | -0.0301 | 0.3453 | 0.1867 | 0.0363 | 0.0386 | 0.1944 | 0.2067 |
| 56 | 36.72 | 0.01 | -0.0595 | 0.0031 | -0.0342 | -0.0346 | 0.3021 | 0.1953 | 0.0361 | 0.0416 | 0.1848 | 0.2130 |
| 57 | 36.95 | 0.00 | -0.1066 | 0.0028 | -0.0383 | -0.0263 | 0.3593 | 0.1937 | 0.0365 | 0.0409 | 0.1884 | 0.2112 |
| 58 | 37.19 | -0.00 | -0.0647 | 0.0026 | -0.0297 | -0.0331 | 0.3506 | 0.1980 | 0.0371 | 0.0419 | 0.1873 | 0.2114 |
| 59 | 37.44 | -0.01 | -0.1001 | 0.0028 | -0.0377 | -0.0280 | 0.3770 | 0.2102 | 0.0367 | 0.0465 | 0.1748 | 0.2212 |
| 60 | 37.67 | -0.01 | -0.0695 | 0.0025 | -0.0336 | -0.0309 | 0.3671 | 0.2011 | 0.0380 | 0.0435 | 0.1889 | 0.2163 |
| 61 | 37.89 | -0.01 | -0.0642 | 0.0024 | -0.0282 | -0.0283 | 0.3443 | 0.2219 | 0.0366 | 0.0522 | 0.1645 | 0.2352 |
| 62 | 38.14 | -0.01 | -0.0635 | 0.0041 | -0.0136 | -0.0590 | 0.2984 | 0.2054 | 0.0369 | 0.0433 | 0.1864 | 0.2108 |
| 63 | 38.37 | 0.00 | -0.1026 | 0.0028 | -0.0402 | -0.0273 | 0.3926 | 0.2358 | 0.0365 | 0.0543 | 0.1561 | 0.2322 |
| 64 | 38.60 | 0.01 | -0.0697 | 0.0026 | -0.0337 | -0.0290 | 0.3757 | 0.2276 | 0.0380 | 0.0528 | 0.1669 | 0.2326 |
| 65 | 38.82 | -0.02 | -0.1079 | 0.0016 | -0.0367 | -0.0167 | 0.3557 | 0.2217 | 0.0379 | 0.0499 | 0.1709 | 0.2251 |
| 66 | 39.05 | 0.00 | -0.0592 | 0.0015 | -0.0326 | -0.0192 | 0.3246 | 0.2116 | 0.0391 | 0.0450 | 0.1851 | 0.2131 |
| 67 | 39.28 | -0.00 | -0.1060 | 0.0001 | -0.0362 | -0.0009 | 0.3352 | 0.2246 | 0.0386 | 0.0502 | 0.1718 | 0.2235 |
| 68 | 39.53 | -0.02 | -0.1077 | -0.0004 | -0.0380 | 0.0037 | 0.3320 | 0.2335 | 0.0385 | 0.0527 | 0.1645 | 0.2257 |
| 69 | 39.72 | -0.02 | -0.1528 | -0.0017 | -0.0551 | 0.0111 | 0.3006 | 0.2261 | 0.0388 | 0.0492 | 0.1716 | 0.2176 |
| 70 | 39.92 | -0.02 | -0.1316 | -0.0002 | -0.0473 | 0.0015 | 0.3011 | 0.2333 | 0.0390 | 0.0527 | 0.1671 | 0.2259 |
| 71 | 40.15 | -0.02 | -0.1456 | 0.0003 | -0.0341 | -0.0028 | 0.3229 | 0.2378 | 0.0392 | 0.0531 | 0.1648 | 0.2233 |
| 72 | 40.39 | -0.00 | -0.1519 | 0.0007 | -0.0340 | -0.0046 | 0.3255 | 0.2333 | 0.0394 | 0.0516 | 0.1689 | 0.2212 |
| 73 | 40.64 | -0.02 | -0.1263 | 0.0003 | -0.0415 | -0.0024 | 0.3266 | 0.2481 | 0.0390 | 0.0563 | 0.1572 | 0.2265 |
| 74 | 40.75 | -0.00 | -0.1482 | -0.0010 | -0.0454 | 0.0078 | 0.3041 | 0.2537 | 0.0385 | 0.0585 | 0.1517 | 0.2306 |
| 75 | 40.97 | -0.02 | -0.1491 | 0.0006 | -0.0325 | -0.0043 | 0.3521 | 0.2477 | 0.0391 | 0.0562 | 0.1578 | 0.2269 |
| 76 | 41.16 | 0.02 | -0.1223 | 0.0034 | -0.0427 | -0.0276 | 0.3491 | 0.2460 | 0.0396 | 0.0573 | 0.1618 | 0.2329 |
| 77 | 41.39 | -0.02 | -0.1266 | 0.0017 | -0.0424 | -0.0141 | 0.3510 | 0.2596 | 0.0383 | 0.0625 | 0.1475 | 0.2406 |
| 78 | 41.56 | -0.03 | -0.1367 | -0.0007 | -0.0473 | 0.0054 | 0.3619 | 0.2789 | 0.0372 | 0.0693 | 0.1334 | 0.2485 |
| 79 | 41.76 | -0.02 | -0.1055 | -0.0003 | -0.0416 | 0.0027 | 0.3731 | 0.2834 | 0.0368 | 0.0702 | 0.1298 | 0.2477 |
| 80 | 41.97 | -0.01 | -0.0997 | -0.0003 | -0.0361 | 0.0031 | 0.3772 | 0.2926 | 0.0358 | 0.0757 | 0.1223 | 0.2585 |
| 81 | 42.19 | 0.00 | -0.1494 | 0.0001 | -0.0521 | -0.0007 | 0.3487 | 0.2837 | 0.0371 | 0.0727 | 0.1308 | 0.2563 |
| 82 | 42.37 | -0.04 | -0.1311 | -0.0008 | -0.0383 | 0.0019 | 0.2921 | 0.3348 | 0.0321 | 0.0947 | 0.0959 | 0.2630 |
| 83 | 42.55 | -0.02 | -0.0737 | -0.0006 | -0.0281 | 0.0031 | 0.3313 | 0.3270 | 0.0341 | 0.0890 | 0.1043 | 0.2722 |
| 84 | 42.74 | -0.03 | -0.1001 | -0.0004 | -0.0370 | 0.0077 | 0.3105 | 0.3412 | 0.0321 | 0.0948 | 0.0941 | 0.2778 |
| 85 | 42.93 | -0.01 | 0.0036 | 0.0007 | 0.0134 | 0.1544 | 0.9444 | 0.3294 | 0.0343 | 0.0906 | 0.1041 | 0.2756 |
| 86 | 43.11 | -0.01 | -0.0057 | -0.0002 | -0.0036 | 0.0791 | 0.3592 | 0.3504 | 0.0325 | 0.0942 | 0.0927 | 0.2831 |
| 87 | 43.27 | -0.02 | -0.0228 | -0.0051 | -0.0081 | 0.2257 | 0.3553 | 0.3655 | 0.0312 | 0.1028 | 0.0854 | 0.2813 |
| 88 | 43.46 | -0.03 | -0.1757 | -0.0121 | -0.0606 | 0.0073 | 0.3303 | 0.3611 | 0.0310 | 0.1024 | 0.0856 | 0.2836 |
| 89 | 43.66 | -0.01 | -0.0556 | -0.0033 | -0.0193 | 0.0593 | 0.3471 | 0.3413 | 0.0344 | 0.0927 | 0.1008 | 0.2716 |
| 90 | 43.84 | -0.03 | -0.1362 | -0.0075 | -0.0348 | 0.0580 | 0.3216 | 0.3564 | 0.0327 | 0.0986 | 0.0917 | 0.2787 |
| 91 | 43.99 | -0.03 | -0.2165 | -0.0083 | -0.0745 | 0.0290 | 0.3435 | 0.3080 | 0.0362 | 0.0814 | 0.1240 | 0.2643 |
| 92 | 44.18 | -0.01 | -0.1164 | -0.0067 | -0.0421 | 0.0576 | 0.3617 | 0.3598 | 0.0335 | 0.1008 | 0.0931 | 0.2805 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 107 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF Baseline L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.37 | -0.04 | -0.1162 | -0.0032 | -0.0471 | 0.0275 | 0.4053 | 0.3431 | 0.0350 | 0.0942 | 0.1020 | 0.2746 |
| 94 | 44.56 | -0.02 | -0.1351 | -0.0056 | -0.0532 | 0.0424 | 0.3825 | 0.3596 | 0.0342 | 0.0965 | 0.0951 | 0.2739 |
| 95 | 44.77 | -0.01 | -0.0719 | -0.0038 | -0.0305 | 0.0501 | 0.4298 | 0.3716 | 0.0330 | 0.1047 | 0.0888 | 0.2818 |
| 96 | 44.95 | -0.01 | -0.1015 | -0.0050 | -0.0436 | 0.0493 | 0.4236 | 0.3714 | 0.0340 | 0.1038 | 0.0915 | 0.2789 |
| 97 | 45.12 | -0.02 | -0.0721 | -0.0016 | -0.0317 | 0.0222 | 0.4397 | 0.3683 | 0.0351 | 0.1016 | 0.0953 | 0.2755 |
| 98 | 45.29 | -0.01 | -0.0295 | 0.0042 | -0.0156 | -0.1424 | 0.6441 | 0.3882 | 0.0335 | 0.1011 | 0.0909 | 0.2746 |
| 99 | 45.49 | -0.02 | 0.0195 | 0.0061 | 0.0075 | 0.0051 | 0.3744 | 0.3803 | 0.0341 | 0.1067 | 0.0897 | 0.2806 |
| 100 | 45.67 | -0.02 | -0.0065 | 0.0031 | -0.0107 | -0.3034 | 1.2442 | 0.3801 | 0.0350 | 0.1073 | 0.0906 | 0.2779 |
| 101 | 45.85 | -0.06 | -0.1003 | 0.0013 | -0.0388 | -0.0130 | 0.3066 | 0.3667 | 0.0356 | 0.1024 | 0.0971 | 0.2777 |
| 102 | 46.02 | -0.00 | -0.2543 | -0.0008 | -0.0641 | 0.0274 | 0.3360 | 0.3506 | 0.0377 | 0.0944 | 0.1075 | 0.2681 |
| 103 | 46.17 | -0.01 | -0.0244 | 0.0015 | -0.0135 | -0.0015 | 0.5097 | 0.3896 | 0.0352 | 0.1086 | 0.0903 | 0.2793 |
| 104 | 46.35 | -0.03 | -0.1142 | 0.0034 | -0.0542 | -0.0290 | 0.4396 | 0.3824 | 0.0378 | 0.0976 | 0.1034 | 0.2671 |
| 105 | 46.54 | -0.00 | 0.0031 | 0.0032 | -0.0065 | 1.0321 | -2.0966 | 0.4016 | 0.0350 | 0.1092 | 0.0871 | 0.2715 |
| 106 | 46.69 | -0.04 | -0.1057 | -0.0026 | -0.0318 | 0.0140 | 0.3806 | 0.3685 | 0.0378 | 0.0978 | 0.1020 | 0.2654 |
| 107 | 46.83 | -0.02 | -0.1037 | -0.0028 | -0.0367 | 0.0152 | 0.3680 | 0.3749 | 0.0376 | 0.1008 | 0.1008 | 0.2685 |
| 108 | 47.00 | -0.00 | -0.1521 | -0.0034 | -0.0574 | 0.0224 | 0.3774 | 0.3800 | 0.0363 | 0.1048 | 0.0934 | 0.2697 |
| 109 | 47.23 | -0.02 | -0.2155 | -0.0040 | -0.0827 | 0.0162 | 0.3761 | 0.3719 | 0.0382 | 0.0977 | 0.1027 | 0.2627 |
| 110 | 47.39 | -0.02 | -0.1623 | -0.0062 | -0.0612 | 0.0362 | 0.3704 | 0.3976 | 0.0361 | 0.1056 | 0.0908 | 0.2656 |
| 111 | 47.57 | 0.01 | -0.2021 | -0.0050 | -0.0752 | 0.0443 | 0.3407 | 0.3900 | 0.0367 | 0.1038 | 0.0941 | 0.2662 |
| 112 | 47.76 | -0.07 | -0.2929 | -0.0078 | -0.0956 | 0.0601 | 0.3264 | 0.4052 | 0.0391 | 0.1103 | 0.0866 | 0.2722 |
| 113 | 47.93 | -0.05 | -0.2076 | -0.0149 | -0.0765 | 0.0716 | 0.3386 | 0.4141 | 0.0349 | 0.1128 | 0.0843 | 0.2724 |
| 114 | 48.09 | -0.03 | -0.1915 | -0.0152 | -0.0681 | 0.0794 | 0.3556 | 0.4200 | 0.0354 | 0.1139 | 0.0843 | 0.2712 |
| 115 | 48.27 | -0.03 | -0.1802 | -0.0122 | -0.0646 | 0.0646 | 0.3443 | 0.4140 | 0.0361 | 0.1105 | 0.0872 | 0.2669 |
| 116 | 48.49 | -0.02 | -0.2068 | -0.0217 | -0.0833 | 0.0807 | 0.3099 | 0.4270 | 0.0340 | 0.1160 | 0.0796 | 0.2717 |
| 117 | 48.63 | -0.02 | -0.2715 | -0.0308 | -0.0769 | 0.1134 | 0.2832 | 0.4972 | 0.0288 | 0.1445 | 0.0539 | 0.2958 |
| 118 | 48.80 | -0.02 | -0.2512 | -0.0171 | -0.0794 | 0.0801 | 0.3161 | 0.4321 | 0.0343 | 0.1166 | 0.0794 | 0.2698 |
| 119 | 48.98 | -0.00 | -0.2480 | -0.0205 | -0.0757 | 0.0827 | 0.3052 | 0.4765 | 0.0301 | 0.1346 | 0.0632 | 0.2825 |
| 120 | 49.15 | -0.04 | -0.2766 | -0.0227 | -0.0847 | 0.0988 | 0.4030 | 0.0312 | 0.1294 | 0.0674 | 0.2795 |
| 121 | 49.32 | -0.01 | -0.2323 | -0.0173 | -0.0745 | 0.0745 | 0.3207 | 0.5036 | 0.0284 | 0.1426 | 0.0564 | 0.2832 |
| 122 | 49.50 | 0.04 | -0.1828 | -0.0068 | -0.0647 | 0.0572 | 0.3539 | 0.5431 | 0.0262 | 0.1562 | 0.0482 | 0.2876 |
| 123 | 49.69 | 0.05 | -0.2178 | -0.0012 | -0.0816 | 0.0855 | 0.3747 | 0.5225 | 0.0300 | 0.1434 | 0.0574 | 0.2744 |
| 124 | 49.90 | 0.09 | -0.3039 | -0.0061 | -0.1073 | 0.0603 | 0.3535 | 0.4749 | 0.0359 | 0.1236 | 0.0756 | 0.2663 |
| 125 | 50.10 | 0.08 | -0.2747 | -0.0054 | -0.0926 | 0.0197 | 0.3371 | 0.4881 | 0.0355 | 0.1323 | 0.0727 | 0.2711 |
| 126 | 50.23 | 0.03 | -0.1682 | -0.0026 | -0.0605 | 0.0477 | 0.2034 | 0.5133 | 0.0314 | 0.1581 | 0.0612 | 0.2696 |
| 127 | 50.42 | 0.05 | -0.0606 | -0.0058 | -0.0231 | 0.3201 | 0.2866 | 0.5378 | 0.0311 | 0.1467 | 0.0578 | 0.2728 |
| 128 | 50.60 | 0.01 | -0.0633 | -0.0032 | -0.0236 | 0.3005 | 0.3728 | 0.5348 | 0.0319 | 0.1424 | 0.0596 | 0.2663 |
| 129 | 50.76 | 0.06 | -0.0250 | -0.0026 | -0.0207 | 0.4207 | 0.3135 | 0.5760 | 0.0278 | 0.1577 | 0.0483 | 0.2738 |
| 130 | 50.93 | 0.04 | -0.0155 | -0.0021 | -0.0160 | 1.5704 | 0.5405 | 0.6027 | 0.0274 | 0.1670 | 0.0455 | 0.2771 |
| 131 | 51.12 | 0.01 | -0.0321 | -0.0019 | 0.0047 | -0.6697 | 0.1464 | 0.5873 | 0.0299 | 0.1612 | 0.0509 | 0.2743 |
| 132 | 51.30 | 0.03 | -0.0156 | -0.0011 | -0.0146 | 1.4553 | 0.2949 | 0.6200 | 0.0256 | 0.1735 | 0.0408 | 0.2766 |
| 133 | 51.46 | 0.03 | -0.0460 | -0.0013 | -0.0161 | 0.6716 | 0.3433 | 0.6368 | 0.0261 | 0.1750 | 0.0409 | 0.2740 |
| 134 | 51.64 | 0.05 | -0.0569 | -0.0026 | -0.0225 | 0.5201 | 0.3454 | 0.6563 | 0.0250 | 0.1783 | 0.0380 | 0.2708 |
| 135 | 51.83 | 0.04 | -0.0560 | -0.0031 | -0.0263 | 0.3734 | 0.3263 | 0.6556 | 0.0260 | 0.1773 | 0.0397 | 0.2704 |
| 136 | 52.00 | 0.05 | -0.0447 | -0.0025 | -0.0218 | 0.4588 | 0.4042 | 0.6126 | 0.0331 | 0.1563 | 0.0540 | 0.2551 |
| 137 | 52.15 | 0.06 | -0.0255 | -0.0023 | -0.0112 | 0.7556 | 0.3797 | 0.6217 | 0.0314 | 0.1622 | 0.0505 | 0.2605 |
| 138 | 52.35 | 0.05 | -0.0576 | -0.0027 | -0.0226 | 0.3260 | 0.3965 | 0.6111 | 0.0322 | 0.1567 | 0.0527 | 0.2564 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 167 | MACH 0.90 | RATIO-E 1.7 | PHI 0.0 | CONF 814 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.51 | 0.05 | -0.0302 | -0.0173 | -0.0106 | 0.5728 | 0.3576 | 0.5841 | 0.0351 | 0.1484 | 0.0601 | 0.2508 |
| 140 | 52.66 | 0.07 | -0.0369 | -0.0193 | -0.0106 | 0.5278 | 0.2710 | 0.6115 | 0.0330 | 0.1560 | 0.0540 | 0.2551 |
| 141 | 52.82 | 0.07 | -0.0360 | -0.0174 | -0.0094 | 0.4853 | 0.2056 | 0.6124 | 0.0326 | 0.1562 | 0.0532 | 0.2551 |
| 142 | 53.02 | 0.05 | -0.0271 | -0.0144 | -0.0056 | 0.5313 | 0.2177 | 0.5900 | 0.0344 | 0.1492 | 0.0583 | 0.2529 |
| 143 | 53.18 | 0.05 | -0.0117 | -0.0148 | -0.0015 | 1.2477 | -0.1282 | 0.5815 | 0.0354 | 0.1449 | 0.0609 | 0.2492 |
| 144 | 53.36 | 0.06 | -0.0069 | -0.0146 | -0.0026 | 1.6720 | -0.4158 | 0.5832 | 0.0335 | 0.1464 | 0.0574 | 0.2495 |
| 145 | 53.52 | 0.03 | -0.0081 | -0.0145 | -0.0047 | 1.6622 | -0.5875 | 0.5955 | 0.0334 | 0.1510 | 0.0561 | 0.2536 |
| 146 | 53.69 | 0.06 | -0.0161 | -0.0149 | -0.0025 | 0.8011 | -0.1553 | 0.5830 | 0.0343 | 0.1477 | 0.0588 | 0.2531 |
| 147 | 53.83 | 0.05 | -0.0321 | -0.0134 | -0.0102 | 0.3801 | -0.8571 | 0.5821 | 0.0340 | 0.1476 | 0.0584 | 0.2525 |
| 148 | 54.01 | 0.11 | -0.0135 | -0.0088 | -0.0174 | -0.6330 | 1.2516 | 0.5865 | 0.0327 | 0.1419 | 0.0628 | 0.2496 |
| 149 | 54.17 | 0.07 | -0.0179 | -0.0095 | -0.0165 | -0.5307 | 1.0225 | 0.5805 | 0.0344 | 0.1469 | 0.0593 | 0.2531 |
| 150 | 54.31 | 0.11 | -0.0112 | -0.0147 | -2.5970 | 5.6084 | 0.5853 | 0.0340 | 0.1469 | 0.0594 | 0.2544 | |
| 151 | 54.48 | 0.07 | -0.0123 | -0.0088 | -0.0171 | -0.5305 | 1.3902 | 0.5741 | 0.0304 | 0.1435 | 0.0634 | 0.2500 |
| 152 | 54.64 | 0.08 | -0.0048 | -0.0085 | -0.0154 | -1.0478 | 3.4565 | 0.5803 | 0.0345 | 0.1474 | 0.0594 | 0.2540 |
| 153 | 54.78 | 0.08 | -0.0263 | -0.0084 | -0.0215 | -0.2415 | 0.8113 | 0.5793 | 0.0346 | 0.1472 | 0.0601 | 0.2541 |
| 154 | 54.94 | 0.08 | -0.0238 | -0.0087 | -0.0239 | -0.2835 | 0.5958 | 0.5788 | 0.0349 | 0.1444 | 0.0640 | 0.2503 |
| 155 | 55.08 | 0.04 | -0.0378 | -0.0081 | -0.0251 | -0.1546 | 0.7734 | 0.5659 | 0.0355 | 0.1414 | 0.0627 | 0.2495 |
| 156 | 55.24 | 0.08 | -0.0158 | -0.0048 | -0.0208 | -0.1371 | 0.7657 | 0.5760 | 0.0362 | 0.1458 | 0.0628 | 0.2531 |
| 157 | 55.39 | 0.08 | -0.0461 | -0.0018 | -0.0320 | -0.0347 | 0.6941 | 0.5700 | 0.0365 | 0.1442 | 0.0640 | 0.2530 |
| 158 | 55.54 | 0.05 | -0.0165 | -0.0066 | -0.0233 | -0.4023 | 1.3767 | 0.5901 | 0.0354 | 0.1512 | 0.0600 | 0.2562 |
| 159 | 55.69 | 0.04 | -0.0366 | -0.0045 | -0.0312 | -0.1205 | 0.8083 | 0.5865 | 0.0362 | 0.1505 | 0.0615 | 0.2557 |
| 160 | 55.84 | 0.08 | -0.0305 | -0.0020 | -0.0260 | -0.0856 | 0.9180 | 0.5877 | 0.0378 | 0.1519 | 0.0666 | 0.2506 |
| 161 | 56.00 | 0.08 | -0.0240 | -0.0012 | -0.0258 | -0.0503 | 1.0750 | 0.5773 | 0.0377 | 0.1464 | 0.0653 | 0.2536 |
| 162 | 56.16 | 0.05 | -0.0263 | -0.0006 | -0.0270 | -0.0226 | 1.0200 | 0.5584 | 0.0374 | 0.1395 | 0.0705 | 0.2498 |
| 163 | 56.31 | 0.01 | -0.0168 | -0.0015 | -0.0223 | -0.0806 | 1.1969 | 0.5555 | 0.0390 | 0.1404 | 0.0702 | 0.2527 |
| 164 | 56.44 | 0.02 | -0.0265 | -0.0015 | -0.0265 | -0.0519 | 0.9308 | 0.5629 | 0.0387 | 0.1421 | 0.0687 | 0.2524 |
| 165 | 56.62 | 0.04 | -0.0187 | -0.0007 | -0.0227 | -0.0374 | 1.2139 | 0.5717 | 0.0387 | 0.1446 | 0.0677 | 0.2529 |
| 166 | 56.78 | 0.01 | -0.0167 | -0.0023 | -0.0200 | 0.2149 | 1.8092 | 0.5643 | 0.0393 | 0.1417 | 0.0696 | 0.2511 |
| 167 | 56.92 | -0.01 | 0.0069 | -0.0027 | -0.0175 | 0.5913 | 2.5942 | 0.5591 | 0.0395 | 0.1403 | 0.0714 | 0.2505 |
| 168 | 57.07 | -0.02 | 0.0100 | -0.0031 | -0.0201 | 0.2524 | 1.8962 | 0.5487 | 0.0407 | 0.1366 | 0.0742 | 0.2490 |
| 169 | 57.23 | -0.00 | 0.0148 | -0.0011 | -0.0230 | 0.0753 | 1.5753 | 0.5724 | 0.0396 | 0.1455 | 0.0692 | 0.2542 |
| 170 | 57.38 | -0.00 | -0.0115 | -0.0015 | -0.0157 | -0.1304 | -1.3652 | 0.5695 | 0.0398 | 0.1429 | 0.0695 | 0.2505 |
| 171 | 57.52 | -0.01 | -0.0033 | -0.0047 | -0.0165 | -0.8867 | -3.1132 | 0.5663 | 0.0410 | 0.1416 | 0.0724 | 0.2500 |
| 172 | 57.67 | -0.00 | -0.0119 | -0.0055 | -0.0142 | -0.4621 | -1.1933 | 0.5564 | 0.0414 | 0.1383 | 0.0744 | 0.2486 |
| 173 | 57.83 | -0.03 | -0.0157 | -0.0037 | -0.0140 | -0.2356 | -0.9299 | 0.5845 | 0.0403 | 0.1470 | 0.0689 | 0.2515 |
| 174 | 57.96 | -0.05 | -0.0168 | -0.0017 | -0.0140 | -0.1012 | -0.8690 | 0.5986 | 0.0401 | 0.1524 | 0.0670 | 0.2546 |
| 175 | 58.11 | -0.06 | -0.0153 | -0.0006 | -0.0155 | -0.0392 | -1.0131 | 0.6243 | 0.0385 | 0.1615 | 0.0585 | 0.2593 |
| 176 | 58.26 | -0.08 | -0.0100 | -0.0001 | -0.0156 | -0.0100 | -1.3600 | 0.6272 | 0.0387 | 0.1621 | 0.0585 | 0.2584 |
| 177 | 58.40 | -0.07 | -0.0045 | -0.0016 | -0.0164 | 0.3555 | -3.6444 | 0.6257 | 0.0388 | 0.1614 | 0.0588 | 0.2580 |
| 178 | 58.52 | -0.06 | -0.0047 | -0.0024 | -0.0165 | 1.4116 | -9.7059 | 0.6288 | 0.0386 | 0.1611 | 0.0582 | 0.2562 |
| 179 | 58.56 | -0.05 | 0.0060 | -0.0012 | -0.0187 | -0.2000 | 3.1167 | 0.6377 | 0.0381 | 0.1647 | 0.0566 | 0.2583 |
| 180 | 58.11 | -0.01 | -0.0154 | 0.0038 | -0.0116 | -0.2407 | -0.7662 | 0.5863 | 0.0407 | 0.1404 | 0.0719 | 0.2475 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RN/D-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 167 0.90 1.7 0.0 81DOF14 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | -0.00 | 0.0015? | 9.9999 | 0.0152 | 9.9999 | 0.9560 | -1.1327 | -0.0342 | -0.3227 | 0.0302 | 0.2849 |
| 2 | -5.09 | 0.01 | 0.0116? | 9.9999 | 0.0166 | 9.9999 | 0.8002 | -1.1413 | -0.0356 | -0.3252 | 0.0307 | 0.2849 |
| 3 | -5.67 | 0.01 | 0.0136 | 9.9999 | 0.0172 | 9.9999 | 1.3231 | -1.1419 | -0.0327 | -0.3257 | 0.0286 | 0.2852 |
| 4 | -3.78 | 0.01 | 0.0266 | 9.9999 | 0.0394 | 9.9999 | 1.3615 | -1.0744 | -0.0324 | -0.2935 | 0.0366 | 0.2758 |
| 5 | -2.07 | 0.01 | 0.0006 | 9.9999 | 0.0157 | 9.9999 | 20.1007 | -1.1769 | 0.0056 | -0.3415 | -0.0048 | 0.2902 |
| 6 | -0.31 | 0.02 | 0.0061 | 9.9999 | 0.0162 | 9.9999 | 27.9836 | -1.1019 | 0.0119 | -0.3277 | -0.0108 | 0.2974 |
| 7 | 1.42 | 0.00 | 0.0026 | 9.9999 | 0.0173 | 9.9999 | 28.8333 | -1.1214 | 0.0172 | -0.3075 | -0.0168 | 0.3011 |
| 8 | 3.20 | 0.01 | 0.0006 | 9.9999 | 0.0167 | 9.9999 | 27.8333 | -0.9431 | 0.0108 | -0.2835 | -0.0182 | 0.3071 |
| 9 | 4.93 | 0.00 | 0.0028 | 9.9999 | 0.0174 | 9.9999 | 1.9773 | -0.8387 | 0.0188 | -0.2615 | -0.0224 | 0.3118 |
| 10 | 6.70 | 0.00 | 0.0149 | 9.9999 | 0.0167 | 9.9999 | 1.1397 | -0.7545 | 0.0210 | -0.2440 | -0.0278 | 0.3234 |
| 11 | 8.45 | -0.01 | 0.0131 | 9.9999 | 0.0181 | 9.9999 | 1.2290 | -0.6530 | 0.0242 | -0.2341 | -0.0371 | 0.3585 |
| 12 | 10.17 | -0.01 | 0.0078 | 9.9999 | 0.0146 | 9.9999 | 1.9210 | -0.5666 | 0.0230 | -0.2074 | -0.0406 | 0.3659 |
| 13 | 11.97 | -0.00 | 0.0103 | 9.9999 | 0.0146 | 9.9999 | 1.4369 | -0.5024 | 0.0212 | -0.1740 | -0.0422 | 0.3463 |
| 14 | 13.71 | -0.00 | 0.0078 | 9.9999 | 0.0126 | 9.9999 | 1.3096 | -0.4217 | 0.0200 | -0.1491 | -0.0474 | 0.3536 |
| 15 | 15.54 | -0.01 | 0.0134 | 9.9999 | 0.0091 | 9.9999 | 0.6791 | -0.3241 | 0.0187 | -0.1126 | -0.0515 | 0.3456 |
| 16 | 17.38 | -0.00 | 0.0241 | 9.9999 | 0.0116 | 9.9999 | 0.5871 | -0.2200 | 0.0136 | -0.0762 | -0.0591 | 0.3464 |
| 17 | 19.18 | -0.01 | 0.0139 | 9.9999 | 0.0075 | 9.9999 | 0.5597 | -0.1312 | 0.0092 | -0.0450 | -0.0701 | 0.3436 |
| 18 | 20.99 | -0.05 | -0.0066 | 9.9999 | -0.0021 | 9.9999 | 0.3000 | -0.0703 | 0.0004 | -0.0220 | -0.1073 | 0.2810 |
| 19 | 22.81 | -0.04 | 0.0190 | 9.9999 | 0.0058 | 9.9999 | 0.3053 | -0.0291 | 0.0103 | -0.0025 | -0.3539 | 0.0855 |
| 20 | 24.61 | -0.05 | -0.0261 | 9.9999 | -0.0123 | 9.9999 | 0.0119 | 0.0340 | 0.0102 | 0.0214 | 0.3006 | 0.6294 |
| 21 | 26.42 | -0.01 | 0.0301 | 9.9999 | 0.0045 | 9.9999 | 0.1495 | -0.0067 | 0.0200 | 0.0041 | -2.2985 | -0.4713 |
| 22 | 28.21 | 0.06 | 0.0466 | 9.9999 | 0.0006 | 9.9999 | 0.1481 | 0.0004 | 0.0224 | 0.0097 | 3.4995 | 1.5156 |
| 23 | 28.24 | 0.0 | 0.0384 | 9.9999 | 0.0052 | 9.9999 | 0.1354 | 0.0210 | 0.0213 | 0.0145 | 1.0141 | 0.6505 |
| 24 | 28.24 | 0.00 | 0.0356 | 9.9999 | 0.0028 | 9.9999 | 0.0782 | 0.0144 | 0.0220 | 0.0142 | 1.5276 | 0.9861 |
| 25 | 28.48 | 0.02 | 0.0435 | 9.9999 | 0.0056 | 9.9999 | 0.1276 | 0.0150 | 0.0232 | 0.0140 | 1.5465 | 0.9333 |
| 26 | 28.78 | 0.03 | 0.0494 | 9.9999 | 0.0071 | 9.9999 | 0.1437 | 0.0081 | 0.0243 | 0.0126 | 2.9996 | 1.5556 |
| 27 | 29.13 | 0.05 | 0.0562 | 9.9999 | 0.0104 | 9.9999 | 0.1851 | 0.0203 | 0.0244 | 0.0169 | 1.2018 | 0.8325 |
| 28 | 29.42 | 0.03 | 0.0454 | 9.9999 | 0.0071 | 9.9999 | 0.1437 | 0.0343 | 0.0242 | 0.0213 | 0.7054 | 0.6210 |
| 29 | 29.71 | 0.06 | 0.0629 | 9.9999 | 0.0136 | 9.9999 | 0.2102 | 0.0183 | 0.0251 | 0.0158 | 1.3714 | 0.8634 |
| 30 | 30.00 | 0.07 | 0.0665 | 9.9999 | 0.0172 | 9.9999 | 0.2516 | 0.0360 | 0.0255 | 0.0236 | 0.6710 | 0.6211 |
| 31 | 30.29 | 0.07 | 0.0630 | 9.9999 | 0.0131 | 9.9999 | 0.2079 | 0.0490 | 0.0251 | 0.0277 | 0.5122 | 0.5653 |
| 32 | 30.55 | 0.05 | 0.0506 | 9.9999 | 0.0105 | 9.9999 | 0.2075 | 0.0820 | 0.0242 | 0.0396 | 0.2951 | 0.4825 |
| 33 | 30.81 | 0.07 | 0.0521 | 9.9999 | 0.0075 | 9.9999 | 0.1516 | 0.0667 | 0.0261 | 0.0336 | 0.3913 | 0.5067 |
| 34 | 31.10 | 0.05 | 0.0507 | 9.9999 | 0.0085 | 9.9999 | 0.1755 | 0.1062 | 0.0241 | 0.0484 | 0.2227 | 0.4473 |
| 35 | 31.37 | 0.05 | 0.0426 | 9.9999 | 0.0061 | 9.9999 | 0.1432 | 0.0972 | 0.0264 | 0.0430 | 0.2716 | 0.4424 |
| 36 | 31.65 | 0.06 | 0.0463 | 9.9999 | 0.0053 | 9.9999 | 0.1666 | 0.1099 | 0.0256 | 0.0472 | 0.2347 | 0.4295 |
| 37 | 31.91 | 0.04 | 0.0357 | 9.9999 | 0.0050 | 9.9999 | 0.1401 | 0.1111 | 0.0262 | 0.0468 | 0.2358 | 0.4212 |
| 38 | 32.19 | 0.04 | 0.0336 | 9.9999 | 0.0028 | 9.9999 | 0.0766 | 0.1121 | 0.0287 | 0.0463 | 0.2560 | 0.4130 |
| 39 | 32.45 | 0.02 | 0.0465 | 9.9999 | 0.0065 | 9.9999 | 0.1484 | 0.1084 | 0.0292 | 0.0438 | 0.2693 | 0.4061 |
| 40 | 32.71 | 0.02 | 0.0220 | 9.9999 | 0.0017 | 9.9999 | 0.0773 | 0.1128 | 0.0296 | 0.0448 | 0.2624 | 0.3972 |
| 41 | 32.98 | 0.04 | 0.0356 | 9.9999 | 0.0035 | 9.9999 | 0.1096 | 0.1057 | 0.0307 | 0.0405 | 0.2904 | 0.3832 |
| 42 | 33.24 | 0.03 | 0.0450 | 9.9999 | 0.0078 | 9.9999 | 0.1753 | 0.0987 | 0.0317 | 0.0385 | 0.3211 | 0.3901 |
| 43 | 33.49 | 0.05 | 0.0531 | 9.9999 | 0.0122 | 9.9999 | 0.2298 | 0.0838 | 0.0337 | 0.0317 | 0.3315 | 0.3923 |
| 44 | 33.75 | 0.03 | 0.0516 | 9.9999 | 0.0102 | 9.9999 | 0.2558 | 0.0722 | 0.0343 | 0.0247 | 0.4756 | 0.3421 |
| 45 | 33.99 | 0.04 | 0.0465 | 9.9999 | 0.0135 | 9.9999 | 0.2761 | 0.0834 | 0.0336 | 0.0288 | 0.4028 | 0.3453 |
| 46 | 34.26 | 0.02 | 0.0353 | 9.9999 | 0.0103 | 9.9999 | 0.2918 | 0.0813 | 0.0347 | 0.0266 | 0.4283 | 0.3284 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 107 PACK 0.50 RATIO-B 1.7 PHI 0.0 CONF B1&2UF14 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.53 | 0.03 | 0.0467 | 9.9999 | 0.0125 | 9.9999 | 0.3170 | 0.0886 | 0.0348 | 0.0300 | 0.3927 | 0.3386 |
| 48 | 34.77 | 0.04 | 0.0562 | 9.9999 | 0.0116 | 9.9999 | 0.2895 | 0.0961 | 0.0349 | 0.0323 | 0.3831 | 0.3361 |
| 49 | 35.00 | 0.03 | 0.0360 | 9.9999 | 0.0105 | 9.9999 | 0.2763 | 0.1020 | 0.0350 | 0.0344 | 0.3631 | 0.3373 |
| 50 | 35.25 | 0.00 | 0.0360 | 9.9999 | 0.0105 | 9.9999 | 0.2763 | 0.1169 | 0.0348 | 0.0401 | 0.2926 | 0.3373 |
| 51 | 35.54 | -0.01 | 0.0255 | 9.9999 | 0.0088 | 9.9999 | 0.2207 | 0.1420 | 0.0346 | 0.0491 | 0.2436 | 0.3458 |
| 52 | 35.78 | -0.00 | 0.0272 | 9.9999 | 0.0068 | 9.9999 | 0.1765 | 0.1451 | 0.0345 | 0.0504 | 0.2377 | 0.3473 |
| 53 | 36.01 | -0.01 | 0.0272 | 9.9999 | 0.0056 | 9.9999 | 0.1965 | 0.1498 | 0.0343 | 0.0513 | 0.2285 | 0.3425 |
| 54 | 36.24 | -0.01 | 0.0215 | 9.9999 | 0.0042 | 9.9999 | 0.0348 | 0.1644 | 0.0333 | 0.0572 | 0.2025 | 0.3479 |
| 55 | 36.47 | -0.01 | 0.0247 | 9.9999 | 0.0014 | 9.9999 | 0.0587 | 0.1665 | 0.0345 | 0.0565 | 0.2072 | 0.3393 |
| 56 | 36.72 | 0.01 | 0.0219 | 9.9999 | 0.0017 | 9.9999 | 0.0776 | 0.1694 | 0.0342 | 0.0572 | 0.2019 | 0.3377 |
| 57 | 36.96 | 0.00 | 0.0215 | 9.9999 | 0.0007 | 9.9999 | 0.0320 | 0.1785 | 0.0342 | 0.0607 | 0.1916 | 0.3401 |
| 58 | 37.19 | 0.00 | 0.0192 | 9.9999 | -0.0006 | 9.9999 | -0.0315 | 0.1861 | 0.0337 | 0.0635 | 0.1791 | 0.3376 |
| 59 | 37.44 | -0.01 | 0.0188 | 9.9999 | -0.0030 | 9.9999 | -0.1807 | 0.1908 | 0.0347 | 0.0646 | 0.1820 | 0.3358 |
| 60 | 37.67 | -0.01 | 0.0223 | 9.9999 | 0.0002 | 9.9999 | 0.0086 | 0.2117 | 0.0331 | 0.0703 | 0.1563 | 0.3321 |
| 61 | 37.89 | -0.01 | 0.0214 | 9.9999 | -0.0036 | 9.9999 | -0.4266 | 0.1997 | 0.0349 | 0.0656 | 0.1747 | 0.3295 |
| 62 | 38.14 | -0.01 | 0.0188 | 9.9999 | -0.0024 | 9.9999 | -0.1446 | 0.2344 | 0.0313 | 0.0794 | 0.1335 | 0.3387 |
| 63 | 38.37 | 0.00 | 0.0302 | 9.9999 | 0.0006 | 9.9999 | 0.0265 | 0.2196 | 0.0347 | 0.0707 | 0.1580 | 0.3215 |
| 64 | 38.60 | 0.01 | 0.0221 | 9.9999 | -0.0031 | 9.9999 | -0.1403 | 0.2408 | 0.0332 | 0.0786 | 0.1380 | 0.3267 |
| 65 | 38.82 | -0.02 | 0.0194 | 9.9999 | -0.0027 | 9.9999 | -0.1392 | 0.2377 | 0.0330 | 0.0778 | 0.1388 | 0.3273 |
| 66 | 39.05 | 0.00 | 0.0214 | 9.9999 | -0.0050 | 9.9999 | -0.4404 | 0.2739 | 0.0296 | 0.0915 | 0.1081 | 0.3341 |
| 67 | 39.28 | -0.00 | 0.0071 | 9.9999 | -0.0035 | 9.9999 | -0.0169 | 0.2666 | 0.0311 | 0.0880 | 0.1166 | 0.3301 |
| 68 | 39.50 | -0.02 | 0.0192 | 9.9999 | -0.0026 | 9.9999 | -0.1316 | 0.2650 | 0.0309 | 0.0915 | 0.1084 | 0.3211 |
| 69 | 39.72 | -0.02 | 0.0135 | 9.9999 | -0.0032 | 9.9999 | -0.2302 | 0.2853 | 0.0305 | 0.0926 | 0.1065 | 0.3248 |
| 70 | 39.96 | -0.02 | 0.0183 | 9.9999 | -0.0052 | 9.9999 | -0.0118 | 0.2903 | 0.0300 | 0.0945 | 0.1033 | 0.3255 |
| 71 | 40.15 | -0.02 | 0.0122 | 9.9999 | -0.0030 | 9.9999 | -0.1307 | 0.3081 | 0.0285 | 0.0995 | 0.0925 | 0.3225 |
| 72 | 40.34 | -0.00 | 0.0207 | 9.9999 | -0.0021 | 9.9999 | -0.1014 | 0.3176 | 0.0281 | 0.1023 | 0.0885 | 0.3221 |
| 73 | 40.54 | -0.02 | 0.0188 | 9.9999 | -0.0024 | 9.9999 | -0.1446 | 0.3074 | 0.0295 | 0.0974 | 0.0960 | 0.3185 |
| 74 | 40.75 | -0.00 | 0.0085 | 9.9999 | -0.0006 | 9.9999 | -0.8300 | 0.3035 | 0.0300 | 0.0959 | 0.0988 | 0.3160 |
| 75 | 40.97 | -0.02 | 0.0112 | 9.9999 | -0.0044 | 9.9999 | -0.3929 | 0.3244 | 0.0284 | 0.1028 | 0.0875 | 0.3165 |
| 76 | 41.18 | 0.02 | 0.0071 | 9.9999 | -0.0058 | 9.9999 | -0.8169 | 0.3315 | 0.0271 | 0.1056 | 0.0817 | 0.3192 |
| 77 | 41.39 | -0.02 | 0.0125 | 9.9999 | -0.0038 | 9.9999 | -0.3040 | 0.3145 | 0.0295 | 0.0995 | 0.0938 | 0.3164 |
| 78 | 41.58 | -0.03 | 0.0168 | 9.9999 | -0.0014 | 9.9999 | -0.0846 | 0.3083 | 0.0316 | 0.0967 | 0.1025 | 0.3137 |
| 79 | 41.78 | -0.02 | 0.0083 | 9.9999 | -0.0020 | 9.9999 | -0.2410 | 0.3115 | 0.0313 | 0.0968 | 0.1005 | 0.3108 |
| 80 | 41.97 | -0.01 | 0.0175 | 9.9999 | -0.0012 | 9.9999 | -0.0670 | 0.3022 | 0.0322 | 0.0936 | 0.1065 | 0.3057 |
| 81 | 42.19 | 0.00 | 0.0030 | 9.9999 | -0.0058 | 9.9999 | -1.8667 | 0.3217 | 0.0306 | 0.1004 | 0.0951 | 0.3121 |
| 82 | 42.37 | -0.04 | -0.0011 | 9.9999 | -0.0065 | 9.9999 | 9.9999 | 0.2748 | 0.0360 | 0.0818 | 0.1310 | 0.2977 |
| 83 | 42.55 | -0.02 | 0.0110 | 9.9999 | -0.0007 | 9.9999 | -0.0636 | 0.3039 | 0.0335 | 0.0925 | 0.1115 | 0.3044 |
| 84 | 42.74 | -0.03 | 0.0028 | 9.9999 | -0.0014 | 9.9999 | -0.5000 | 0.2868 | 0.0371 | 0.0847 | 0.1453 | 0.2953 |
| 85 | 42.93 | -0.01 | 0.0233 | 9.9999 | 0.0024 | 9.9999 | 0.1030 | 0.2979 | 0.0351 | 0.0891 | 0.1178 | 0.2991 |
| 86 | 43.11 | -0.01 | 0.0137 | 9.9999 | 0.0011 | 9.9999 | 0.0803 | 0.2874 | 0.0368 | 0.0853 | 0.1280 | 0.2968 |
| 87 | 43.27 | -0.02 | 0.0175 | 9.9999 | 0.0005 | 9.9999 | 0.0503 | 0.2801 | 0.0383 | 0.0823 | 0.1367 | 0.2938 |
| 88 | 43.46 | -0.00 | 0.0042 | 9.9999 | -0.0018 | 9.9999 | -0.4266 | 0.2941 | 0.0380 | 0.0867 | 0.1292 | 0.2948 |
| 89 | 43.66 | -0.01 | 0.0153 | 9.9999 | 0.0005 | 9.9999 | 0.0299 | 0.3062 | 0.0363 | 0.0917 | 0.1185 | 0.2993 |
| 90 | 43.84 | -0.03 | 0.0036 | 9.9999 | -0.0017 | 9.9999 | -0.3036 | 0.3023 | 0.0373 | 0.0895 | 0.1234 | 0.2974 |
| 91 | 43.99 | -0.03 | -0.0038 | 9.9999 | -0.0007 | 9.9999 | 1.7832 | 0.3401 | 0.0339 | 0.1032 | 0.0997 | 0.3034 |
| 92 | 44.16 | -0.01 | 0.0111 | 9.9999 | -0.0002 | 9.9999 | -0.0631 | 0.3055 | 0.0378 | 0.0915 | 0.1237 | 0.2995 |

TEST 7 PART 1of1 MACH 0.90 RX10-6 1.81 PHI 0.0 CONF B1B0F14 L C.C DELT 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| FCINT | ALPHA | dETA | CAF3 | CH3 | Cm3 | XCPF3 | YCPF3 | CAF4 | CH4 | Cm4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.37 | -0.04 | 0.0113 | 9.9999 | -0.0002 | 9.9999 | -0.0182 | 0.3178 | 0.0358 | 0.0959 | 0.1126 | 0.3018 |
| 94 | 44.30 | -0.02 | 0.0152 | 9.9999 | 0.0015 | 9.9999 | 0.0781 | 0.3174 | 0.0382 | 0.0936 | 0.1203 | 0.2945 |
| 95 | 44.77 | -0.01 | 0.0153 | 9.9999 | 0.0010 | 9.9999 | 0.0518 | 0.3000 | 0.0390 | 0.0891 | 0.1300 | 0.2970 |
| 96 | 44.93 | -0.01 | 0.0220 | 9.9999 | 0.0017 | 9.9999 | 0.0775 | 0.3204 | 0.0384 | 0.0950 | 0.1158 | 0.2965 |
| 97 | 45.12 | -0.02 | 0.0062 | 9.9999 | 0.0012 | 9.9999 | 0.1403 | 0.3207 | 0.0380 | 0.0961 | 0.1185 | 0.2997 |
| 98 | 45.29 | -0.01 | 0.0129 | 9.9999 | 0.0004 | 9.9999 | 0.0325 | 0.3212 | 0.0373 | 0.0954 | 0.1161 | 0.2976 |
| 99 | 45.49 | -0.02 | 0.0300 | 9.9999 | 0.0001 | 9.9999 | 0.2033 | 0.3157 | 0.0391 | 0.0935 | 0.1246 | 0.2981 |
| 100 | 45.67 | -0.02 | 0.0142 | 9.9999 | 0.0015 | 9.9999 | 0.0781 | 0.3194 | 0.0390 | 0.0957 | 0.1219 | 0.2992 |
| 101 | 45.85 | -0.02 | 0.0151 | 9.9999 | 0.0007 | 9.9999 | 0.2461 | 0.3299 | 0.0385 | 0.0970 | 0.1167 | 0.2940 |
| 102 | 46.02 | -0.02 | 0.0138 | 9.9999 | 0.0011 | 9.9999 | 0.0797 | 0.3045 | 0.0374 | 0.1083 | 0.1026 | 0.2971 |
| 103 | 46.17 | -0.01 | 0.0179 | 9.9999 | 0.0005 | 9.9999 | 0.0503 | 0.3180 | 0.0402 | 0.0948 | 0.1264 | 0.2981 |
| 104 | 46.33 | -0.03 | 0.0151 | 9.9999 | 0.0014 | 9.9999 | 0.0795 | 0.3462 | 0.0374 | 0.1047 | 0.1080 | 0.3024 |
| 105 | 46.54 | -0.00 | 0.0301 | 9.9999 | 0.0008 | 9.9999 | 0.1360 | 0.3251 | 0.0409 | 0.0966 | 0.1258 | 0.2971 |
| 106 | 46.69 | -0.04 | 0.0165 | 9.9999 | 0.0013 | 9.9999 | 0.0788 | 0.3544 | 0.0389 | 0.1062 | 0.1098 | 0.2998 |
| 107 | 46.86 | -0.02 | 0.0165 | 9.9999 | 0.0024 | 9.9999 | 0.1455 | 0.3563 | 0.0390 | 0.1062 | 0.1094 | 0.3037 |
| 108 | 47.06 | -0.00 | 0.0233 | 9.9999 | 0.0005 | 9.9999 | 0.1302 | 0.3443 | 0.0406 | 0.1043 | 0.1179 | 0.3029 |
| 109 | 47.23 | -0.02 | 0.0083 | 9.9999 | -0.0010 | 9.9999 | -0.1205 | 0.3708 | 0.0381 | 0.1136 | 0.1027 | 0.3064 |
| 110 | 47.39 | -0.02 | 0.0175 | 9.9999 | 0.0025 | 9.9999 | 0.1397 | 0.3401 | 0.0422 | 0.1021 | 0.1241 | 0.3002 |
| 111 | 47.57 | 0.01 | 0.0165 | 9.9999 | 0.0013 | 9.9999 | 0.0788 | 0.3544 | 0.0415 | 0.1070 | 0.1171 | 0.3015 |
| 112 | 47.76 | -0.01 | -0.0054 | 9.9999 | -0.0051 | 9.9999 | 0.2426 | 0.3000 | 0.0414 | 0.1074 | 0.1148 | 0.2978 |
| 113 | 47.93 | -0.05 | 0.0153 | 9.9999 | 0.0021 | 9.9999 | 0.1388 | 0.3447 | 0.0441 | 0.1017 | 0.1279 | 0.2950 |
| 114 | 48.09 | -0.03 | 0.0123 | 9.9999 | 0.0021 | 9.9999 | 0.1707 | 0.3385 | 0.0448 | 0.0996 | 0.1331 | 0.2960 |
| 115 | 48.27 | -0.03 | 0.0110 | 9.9999 | 0.0019 | 9.9999 | 0.1727 | 0.3485 | 0.0433 | 0.1047 | 0.1242 | 0.3004 |
| 116 | 48.45 | -0.02 | 0.0143 | 9.9999 | 0.0026 | 9.9999 | 0.2114 | 0.3762 | 0.0423 | 0.1126 | 0.1124 | 0.2993 |
| 117 | 48.63 | -0.02 | 0.0015 | 9.9999 | -0.0020 | 9.9999 | -1.3333 | 0.3960 | 0.0412 | 0.1185 | 0.1040 | 0.2952 |
| 118 | 48.80 | -0.02 | 0.0151 | 9.9999 | 0.0026 | 9.9999 | 0.1654 | 0.3784 | 0.0427 | 0.1122 | 0.1134 | 0.2981 |
| 119 | 48.98 | -0.00 | 0.0154 | 9.9999 | -0.0002 | 9.9999 | -0.0305 | 0.4067 | 0.0403 | 0.1240 | 0.0991 | 0.3045 |
| 120 | 49.15 | -0.04 | 0.0070 | 9.9999 | -0.0016 | 9.9999 | -0.2286 | 0.3986 | 0.0439 | 0.1201 | 0.1026 | 0.3013 |
| 121 | 49.32 | -0.01 | 0.0083 | 9.9999 | -0.0016 | 9.9999 | -0.1205 | 0.4119 | 0.0395 | 0.1259 | 0.0996 | 0.3057 |
| 122 | 49.50 | 0.04 | 0.0215 | 9.9999 | 0.0023 | 9.9999 | 0.1056 | 0.4592 | 0.0367 | 0.1442 | 0.0799 | 0.3057 |
| 123 | 49.69 | 0.05 | 0.0302 | 9.9999 | 0.0024 | 9.9999 | 0.0795 | 0.4942 | 0.0340 | 0.1547 | 0.0688 | 0.3130 |
| 124 | 49.90 | 0.05 | 0.0356 | 9.9999 | 0.0035 | 9.9999 | 0.1096 | 0.5304 | 0.0315 | 0.1644 | 0.0594 | 0.3100 |
| 125 | 50.10 | 0.06 | 0.0364 | 9.9999 | 0.0041 | 9.9999 | 0.1388 | 0.5411 | 0.0316 | 0.1691 | 0.0584 | 0.3125 |
| 126 | 50.23 | 0.03 | 0.0503 | 9.9999 | 0.0115 | 9.9999 | 0.2266 | 0.5512 | 0.0445 | 0.1162 | 0.1157 | 0.2970 |
| 127 | 50.42 | 0.05 | 0.0363 | 9.9999 | 0.0057 | 9.9999 | 0.1466 | 0.5696 | 0.0455 | 0.1164 | 0.1168 | 0.2988 |
| 128 | 50.60 | 0.01 | 0.0491 | 9.9999 | 0.0103 | 9.9999 | 0.2096 | 0.5963 | 0.0449 | 0.1202 | 0.1133 | 0.3033 |
| 129 | 50.76 | 0.06 | 0.0354 | 9.9999 | 0.0082 | 9.9999 | 0.2316 | 0.5999 | 0.0451 | 0.1215 | 0.1128 | 0.3038 |
| 130 | 50.93 | 0.04 | 0.0472 | 9.9999 | 0.0094 | 9.9999 | 0.1965 | 0.5903 | 0.0456 | 0.1193 | 0.1173 | 0.3057 |
| 131 | 51.12 | 0.01 | 0.0354 | 9.9999 | 0.0070 | 9.9999 | 0.2147 | 0.5864 | 0.0468 | 0.1158 | 0.1211 | 0.3100 |
| 132 | 51.30 | 0.03 | 0.0361 | 9.9999 | 0.0073 | 9.9999 | 0.1916 | 0.5867 | 0.0479 | 0.1219 | 0.1232 | 0.3136 |
| 133 | 51.46 | 0.03 | 0.0394 | 9.9999 | 0.0079 | 9.9999 | 0.2005 | 0.5905 | 0.0486 | 0.1215 | 0.1244 | 0.3111 |
| 134 | 51.64 | 0.05 | 0.0313 | 9.9999 | 0.0062 | 9.9999 | 0.1661 | 0.5806 | 0.0496 | 0.1199 | 0.1303 | 0.3150 |
| 135 | 51.83 | 0.04 | 0.0407 | 9.9999 | 0.0096 | 9.9999 | 0.2359 | 0.5919 | 0.0479 | 0.1258 | 0.1222 | 0.3210 |
| 136 | 52.00 | 0.05 | 0.0395 | 9.9999 | 0.0058 | 9.9999 | 0.1466 | 0.6046 | 0.0459 | 0.1332 | 0.1134 | 0.3291 |
| 137 | 52.15 | 0.06 | 0.0354 | 9.9999 | 0.0060 | 9.9999 | 0.1595 | 0.5994 | 0.0469 | 0.1314 | 0.1174 | 0.3290 |
| 138 | 52.35 | 0.05 | 0.0428 | 9.9999 | 0.0067 | 9.9999 | 0.1537 | 0.6053 | 0.0472 | 0.1358 | 0.1164 | 0.3351 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 6

MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART PACF RXIO-E PHI CONF L DELI DELZ DEL3 DEL4 TRANSITION
107 0.9v 1.7 v.0 BINDF14 C.C 0 -30 0 -30 UNKNOWN

| PLIAT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.51 | 0.05 | 0.0516 | 5.9999 | 0.0105 | 5.9999 | 0.2035 | 0.4088 | 0.0467 | 0.1399 | 0.1142 | 0.3422 |
| 140 | 52.88 | 0.07 | 0.0465 | 5.9999 | 0.0087 | 5.9999 | 0.1779 | 0.4049 | 0.0466 | 0.1384 | 0.1158 | 0.3418 |
| 141 | 52.82 | 0.07 | 0.0489 | 5.9999 | 0.0097 | 5.9999 | 0.1984 | 0.3978 | 0.0471 | 0.1380 | 0.1184 | 0.3465 |
| 142 | 53.02 | 0.05 | 0.0437 | 5.9999 | 0.0085 | 5.9999 | 0.1836 | 0.4042 | 0.0467 | 0.1429 | 0.1155 | 0.3535 |
| 143 | 53.18 | 0.05 | 0.0488 | 5.9999 | 0.0103 | 5.9999 | 0.2111 | 0.4140 | 0.0450 | 0.1482 | 0.1087 | 0.3586 |
| 144 | 53.30 | 0.08 | 0.0496 | 5.9999 | 0.0071 | 5.9999 | 0.1449 | 0.4136 | 0.0455 | 0.1471 | 0.1100 | 0.3557 |
| 145 | 53.52 | 0.03 | 0.0515 | 5.9999 | 0.0085 | 5.9999 | 0.1728 | 0.4127 | 0.0457 | 0.1481 | 0.1107 | 0.3585 |
| 146 | 53.69 | 0.06 | 0.0475 | 5.9999 | 0.0084 | 5.9999 | 0.1747 | 0.4136 | 0.0459 | 0.1483 | 0.1104 | 0.3568 |
| 147 | 53.83 | 0.05 | 0.0515 | 5.9999 | 0.0094 | 5.9999 | 0.1925 | 0.4168 | 0.0455 | 0.1516 | 0.1086 | 0.3625 |
| 148 | 54.01 | 0.11 | 0.0366 | 5.9999 | 0.0096 | 5.9999 | 0.1930 | 0.4192 | 0.0450 | 0.1512 | 0.1073 | 0.3607 |
| 149 | 54.17 | 0.07 | 0.0478 | 5.9999 | 0.0096 | 5.9999 | 0.1908 | 0.4218 | 0.0457 | 0.1532 | 0.1083 | 0.3632 |
| 150 | 54.31 | 0.11 | 0.0434 | 5.9999 | 0.0096 | 5.9999 | 0.1952 | 0.4146 | 0.0459 | 0.1520 | 0.1106 | 0.3664 |
| 151 | 54.48 | 0.07 | 0.0352 | 5.9999 | 0.0085 | 5.9999 | 0.1947 | 0.4238 | 0.0449 | 0.1531 | 0.1059 | 0.3613 |
| 152 | 54.64 | 0.06 | 0.0474 | 5.9999 | 0.0091 | 5.9999 | 0.1920 | 0.4230 | 0.0460 | 0.1533 | 0.1087 | 0.3624 |
| 153 | 54.78 | 0.06 | 0.0435 | 5.9999 | 0.0084 | 5.9999 | 0.1862 | 0.4244 | 0.0451 | 0.1553 | 0.1063 | 0.3655 |
| 154 | 54.94 | 0.06 | 0.0496 | 5.9999 | 0.0094 | 5.9999 | 0.1996 | 0.4308 | 0.0455 | 0.1572 | 0.1056 | 0.3646 |
| 155 | 55.08 | 0.04 | 0.0485 | 5.9999 | 0.0095 | 5.9999 | 0.1982 | 0.4241 | 0.0453 | 0.1542 | 0.1068 | 0.3638 |
| 156 | 55.24 | 0.06 | 0.0448 | 5.9999 | 0.0091 | 5.9999 | 0.1915 | 0.4302 | 0.0454 | 0.1560 | 0.1055 | 0.3673 |
| 157 | 55.39 | 0.08 | 0.0352 | 5.9999 | 0.0094 | 5.9999 | 0.1934 | 0.4336 | 0.0449 | 0.1581 | 0.1035 | 0.3648 |
| 158 | 55.54 | 0.05 | 0.0355 | 5.9999 | 0.0082 | 5.9999 | 0.1858 | 0.4335 | 0.0459 | 0.1591 | 0.1055 | 0.3676 |
| 159 | 55.69 | 0.04 | 0.0408 | 5.9999 | 0.0075 | 5.9999 | 0.1847 | 0.4315 | 0.0444 | 0.1547 | 0.1029 | 0.3585 |
| 160 | 55.84 | 0.06 | 0.0463 | 5.9999 | 0.0087 | 5.9999 | 0.1799 | 0.4371 | 0.0439 | 0.1596 | 0.0982 | 0.3576 |
| 161 | 56.00 | 0.08 | 0.0436 | 5.9999 | 0.0095 | 5.9999 | 0.1803 | 0.4511 | 0.0435 | 0.1600 | 0.0964 | 0.3547 |
| 162 | 56.16 | 0.05 | 0.0467 | 5.9999 | 0.0094 | 5.9999 | 0.1827 | 0.4449 | 0.0445 | 0.1562 | 0.1000 | 0.3511 |
| 163 | 56.31 | 0.01 | 0.0380 | 5.9999 | 0.0091 | 5.9999 | 0.1879 | 0.4525 | 0.0446 | 0.1584 | 0.0981 | 0.3501 |
| 164 | 56.44 | 0.02 | 0.0312 | 5.9999 | 0.0091 | 5.9999 | 0.1814 | 0.4477 | 0.0448 | 0.1559 | 0.1001 | 0.3482 |
| 165 | 56.62 | 0.04 | 0.0352 | 5.9999 | 0.0086 | 5.9999 | 0.1785 | 0.4571 | 0.0443 | 0.1587 | 0.0969 | 0.3472 |
| 166 | 56.78 | 0.01 | 0.0300 | 5.9999 | 0.0083 | 5.9999 | 0.1800 | 0.4507 | 0.0448 | 0.1578 | 0.0994 | 0.3501 |
| 167 | 56.92 | -0.01 | 0.0408 | 5.9999 | 0.0093 | 5.9999 | 0.1954 | 0.4633 | 0.0452 | 0.1624 | 0.0975 | 0.3505 |
| 168 | 57.07 | -0.02 | 0.0353 | 5.9999 | 0.0095 | 5.9999 | 0.1956 | 0.4585 | 0.0456 | 0.1599 | 0.0994 | 0.3487 |
| 169 | 57.23 | -0.00 | 0.0271 | 5.9999 | 0.0093 | 5.9999 | 0.1956 | 0.4526 | 0.0452 | 0.1577 | 0.0999 | 0.3484 |
| 170 | 57.38 | -0.00 | 0.0360 | 5.9999 | 0.0091 | 5.9999 | 0.1942 | 0.4661 | 0.0455 | 0.1615 | 0.0976 | 0.3465 |
| 171 | 57.52 | -0.01 | 0.0272 | 5.9999 | 0.0092 | 5.9999 | 0.1976 | 0.4747 | 0.0460 | 0.1629 | 0.0927 | 0.3432 |
| 172 | 57.67 | -0.00 | 0.0271 | 5.9999 | 0.0093 | 5.9999 | 0.1987 | 0.4652 | 0.0452 | 0.1684 | 0.0890 | 0.3471 |
| 173 | 57.83 | -0.02 | 0.0272 | 5.9999 | 0.0092 | 5.9999 | 0.0809 | 0.4752 | 0.0453 | 0.1640 | 0.0932 | 0.3451 |
| 174 | 57.98 | -0.03 | 0.0353 | 5.9999 | 0.0096 | 5.9999 | 0.1988 | 0.4923 | 0.0427 | 0.1684 | 0.0867 | 0.3421 |
| 175 | 58.11 | -0.02 | 0.0295 | 5.9999 | 0.0094 | 5.9999 | 0.1937 | 0.4992 | 0.0444 | 0.1688 | 0.0987 | 0.3415 |
| 176 | 58.26 | -0.04 | 0.0254 | 5.9999 | 0.0094 | 5.9999 | 0.1817 | 0.4888 | 0.0437 | 0.1613 | 0.0932 | 0.3441 |
| 177 | 58.40 | -0.07 | 0.0150 | 5.9999 | 0.0028 | 5.9999 | 0.1368 | 0.4397 | 0.0460 | 0.1512 | 0.1046 | 0.3435 |
| 178 | 58.52 | -0.06 | 0.0271 | 5.9999 | 0.0093 | 5.9999 | 0.1956 | 0.4337 | 0.0459 | 0.1497 | 0.1058 | 0.3452 |
| 179 | 58.56 | -0.05 | 0.0150 | 5.9999 | 0.0017 | 5.9999 | 0.1133 | 0.4273 | 0.0464 | 0.1465 | 0.1086 | 0.3428 |
| 180 | 58.11 | -0.01 | 0.0255 | 5.9999 | 0.0021 | 5.9999 | 0.0811 | 0.4099 | 0.0443 | 0.1621 | 0.0943 | 0.3450 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 108 PACK 1.00 RADIUS 1.7 PHI 0.0 CONF BINOF14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.98 | 0.01 | -2.3066 | 8.0347 | 0.1642 | -0.5076 | 0.0330 | 1.3799 | 0.4089 | 0.9730 | -3.4803 |
| 2 | -5.98 | 0.01 | -2.3071 | 8.0621 | 0.2269 | -0.4925 | 0.0330 | 1.3725 | 0.3982 | 0.9743 | -3.4545 |
| 3 | -5.98 | 0.01 | -2.3102 | 8.0221 | 0.1757 | -0.3602 | 0.0328 | 1.3710 | 0.4019 | 0.9691 | -3.4725 |
| 4 | -5.98 | 0.00 | -2.3263 | 8.0585 | 0.1311 | -0.3652 | 0.0327 | 1.3786 | 0.4061 | 0.9785 | -3.4730 |
| 5 | -4.41 | 0.00 | -2.2200 | 8.2324 | 0.1543 | -0.3674 | 0.0452 | 1.3067 | 0.3140 | 0.9927 | -3.7419 |
| 6 | -2.66 | 0.0 | -1.9975 | 7.9538 | 0.0755 | -0.0858 | 0.0156 | 1.2595 | 0.2366 | 1.0031 | -3.9817 |
| 7 | -0.91 | -0.01 | -1.7946 | 7.5085 | -0.0004 | -0.0806 | 0.0101 | 1.1970 | 0.2285 | 0.9685 | -4.1841 |
| 8 | 0.86 | 0.0 | -1.5467 | 7.0012 | 0.0753 | -0.0861 | 0.0166 | 1.1508 | 0.2316 | 0.9192 | -4.5265 |
| 9 | 2.66 | -0.00 | -1.2782 | 6.4554 | 0.0382 | -0.0721 | 0.0170 | 1.0921 | 0.2269 | 0.8651 | -5.0349 |
| 10 | 4.40 | -0.00 | -1.0313 | 5.9243 | 0.0241 | -0.0659 | 0.0175 | 1.0490 | 0.2249 | 0.8195 | -5.7443 |
| 11 | 6.18 | 0.00 | -0.7873 | 5.4222 | 0.0298 | -0.0131 | 0.0178 | 0.9891 | 0.2275 | 0.7526 | -6.8870 |
| 12 | 7.99 | 0.00 | -0.5047 | 4.8475 | 0.0531 | -0.0435 | 0.0128 | 0.9062 | 0.2237 | 0.6845 | -9.8044 |
| 13 | 9.76 | -0.00 | -0.2258 | 4.3224 | -0.0155 | -0.0080 | 0.0108 | 0.8408 | 0.2169 | 0.6279 | -16.7522 |
| 14 | 11.56 | -0.00 | 0.0712 | 4.0014 | -0.0186 | 0.0419 | 0.0253 | 0.7713 | 0.2155 | 0.5558 | 56.1702 |
| 15 | 13.33 | 0.00 | 0.3401 | 3.5688 | -0.0035 | 0.0591 | 0.0259 | 0.7177 | 0.2176 | 0.4999 | 10.4917 |
| 16 | 15.15 | 0.00 | 0.6035 | 3.1230 | -0.0405 | 0.1342 | 0.0140 | 0.6555 | 0.2120 | 0.4435 | 4.6458 |
| 17 | 17.03 | -0.00 | 0.9046 | 2.7504 | -0.1103 | 0.2398 | 0.0153 | 0.5928 | 0.2136 | 0.3792 | 2.8513 |
| 18 | 18.90 | -0.00 | 1.2011 | 2.4406 | -0.1811 | 0.4969 | 0.0155 | 0.5364 | 0.2157 | 0.3207 | 1.8806 |
| 19 | 20.75 | -0.00 | 1.4964 | 2.3058 | -0.1558 | 0.7017 | 0.0101 | 0.4905 | 0.2257 | 0.2607 | 1.4013 |
| 20 | 22.62 | -0.00 | 1.8022 | 2.4965 | -0.2046 | 0.7413 | 0.0 | 0.4446 | 0.2249 | 0.2197 | 1.2096 |
| 21 | 24.55 | 0.00 | 2.1521 | 2.8059 | -0.0807 | 0.3909 | 0.0156 | 0.3958 | 0.2140 | 0.1796 | 1.0823 |
| 22 | 26.49 | 0.00 | 3.1135 | 3.1997 | 0.3524 | -0.7414 | 0.0558 | 0.3407 | 0.2147 | 0.1260 | 1.0277 |
| 23 | 28.34 | 0.00 | 3.5434 | 3.5767 | 0.7445 | -1.0142 | 0.1119 | 0.3061 | 0.2269 | 0.0851 | 1.0077 |
| 24 | 28.38 | 0.00 | 3.5975 | 3.6856 | 0.8261 | -1.1550 | 0.1300 | 0.3090 | 0.2213 | 0.0876 | 1.0168 |
| 25 | 28.74 | 0.00 | 3.6600 | 3.7306 | 0.8242 | -1.1608 | 0.1116 | 0.3147 | 0.2214 | 0.0932 | 1.0193 |
| 26 | 29.01 | 0.01 | 3.7000 | 3.9167 | 0.7758 | -1.5093 | 0.1131 | 0.2944 | 0.2221 | 0.0722 | 1.0348 |
| 27 | 29.31 | 0.00 | 3.8394 | 3.9123 | 0.6326 | -1.2206 | 0.1011 | 0.2912 | 0.2234 | 0.0677 | 1.0190 |
| 28 | 29.65 | 0.00 | 3.9554 | 3.9491 | 0.6651 | -1.4761 | 0.1194 | 0.2903 | 0.2227 | 0.0675 | 0.5984 |
| 29 | 29.93 | 0.00 | 3.9952 | 4.0478 | 0.6535 | -1.2605 | 0.1136 | 0.2818 | 0.2242 | 0.0576 | 1.0132 |
| 30 | 30.21 | 0.00 | 4.1196 | 4.2391 | 0.6656 | -1.7596 | 0.1324 | 0.2788 | 0.2262 | 0.0526 | 1.0292 |
| 31 | 30.48 | 0.00 | 4.1171 | 4.3305 | 0.6416 | -1.9220 | 0.1022 | 0.2770 | 0.2217 | 0.0553 | 1.0518 |
| 32 | 30.77 | 0.00 | 4.3029 | 4.4578 | 0.6716 | -1.5456 | 0.1390 | 0.2770 | 0.2232 | 0.0538 | 1.0313 |
| 33 | 31.03 | 0.00 | 4.3452 | 4.4947 | 0.7520 | -1.4426 | 0.1273 | 0.2688 | 0.2218 | 0.0470 | 1.0335 |
| 34 | 31.31 | 0.00 | 4.4040 | 4.6251 | 0.6763 | -1.4685 | 0.1513 | 0.2694 | 0.2218 | 0.0476 | 1.0324 |
| 35 | 31.59 | 0.00 | 4.5316 | 4.6512 | 0.7550 | -1.2423 | 0.1395 | 0.2672 | 0.2211 | 0.0461 | 1.0264 |
| 36 | 31.88 | 0.00 | 4.6077 | 4.7116 | 0.6531 | -1.7645 | 0.1702 | 0.2674 | 0.2230 | 0.0444 | 1.0051 |
| 37 | 32.13 | 0.00 | 4.7056 | 4.7150 | 0.6404 | -1.7596 | 0.1583 | 0.2650 | 0.2231 | 0.0419 | 1.0028 |
| 38 | 32.41 | 0.00 | 4.8311 | 4.8582 | 0.7576 | -1.6311 | 0.1913 | 0.2614 | 0.2195 | 0.0359 | 1.0042 |
| 39 | 32.67 | 0.00 | 4.8850 | 4.9401 | 0.4740 | -0.9445 | 0.0939 | 0.2414 | 0.2140 | 0.0274 | 1.0113 |
| 40 | 32.92 | 0.00 | 5.0006 | 4.9319 | 0.4504 | -0.8285 | 0.0826 | 0.2323 | 0.2126 | 0.0197 | 0.9850 |
| 41 | 33.19 | 0.00 | 5.0950 | 4.9025 | 0.4277 | -0.7390 | 0.0945 | 0.2242 | 0.2129 | 0.0113 | 0.9741 |
| 42 | 33.45 | 0.00 | 5.2275 | 4.8736 | 0.5036 | -1.0746 | 0.1071 | 0.2295 | 0.2152 | 0.0143 | 0.9323 |
| 43 | 33.70 | 0.00 | 5.2954 | 5.0362 | 0.3352 | -0.4215 | 0.0832 | 0.2166 | 0.2133 | 0.0033 | 0.9511 |
| 44 | 33.95 | 0.00 | 5.3426 | 4.9504 | 0.3158 | -0.3508 | 0.0603 | 0.2144 | 0.2119 | 0.0025 | 0.9266 |
| 45 | 34.21 | 0.00 | 5.3276 | 4.8748 | 0.3247 | -0.6014 | 0.1076 | 0.2164 | 0.2119 | 0.0065 | 0.8819 |
| 46 | 34.45 | 0.00 | 5.3653 | 4.9475 | 0.3695 | -0.4744 | 0.0784 | 0.2082 | 0.2085 | -0.0003 | 0.8890 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSEAC)  7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 10d 1.00 1.7 | MACH 0.6 | RX10-6 8.160F14 | PHI 0.0 | CONF | L 0.0 | DELT 0 | DELZ -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLN | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.72 | 0.05 | 5.7058 | 4.9634 | 0.4527 | -0.5693 | 0.1199 | 0.2015 | 0.2032 | -0.0067 | 0.8699 |
| 48 | 34.96 | 0.06 | 5.7153 | 4.8113 | 0.6371 | -1.1068 | 0.1439 | 0.2063 | 0.2116 | -0.0053 | 0.8412 |
| 49 | 35.20 | 0.04 | 5.9153 | 4.8565 | 0.3223 | -0.3044 | 0.1144 | 0.1883 | 0.2048 | -0.0165 | 0.8205 |
| 50 | 35.45 | 0.04 | 6.0383 | 4.8711 | 0.3445 | -0.3378 | 0.1097 | 0.1742 | 0.2015 | -0.0273 | 0.8070 |
| 51 | 35.69 | 0.04 | 6.0706 | 4.8156 | 0.4012 | -0.5843 | 0.1450 | 0.1722 | 0.2052 | -0.0330 | 0.7936 |
| 52 | 35.93 | 0.03 | 6.1033 | 4.8059 | 0.4304 | -0.5058 | 0.1102 | 0.1562 | 0.2033 | -0.0471 | 0.7902 |
| 53 | 36.18 | 0.03 | 6.3238 | 4.8488 | 0.2265 | -0.0286 | 0.0865 | 0.1361 | 0.1964 | -0.0603 | 0.7668 |
| 54 | 36.41 | 0.05 | 6.2959 | 4.8068 | 0.4177 | -0.3836 | 0.1226 | 0.1367 | 0.1979 | -0.0552 | 0.7515 |
| 55 | 36.64 | 0.05 | 6.4758 | 4.7172 | 0.4808 | -0.5465 | 0.1233 | 0.1279 | 0.1972 | -0.0673 | 0.7284 |
| 56 | 36.88 | 0.04 | 6.6456 | 4.6221 | 0.5501 | -0.4495 | 0.1302 | 0.1051 | 0.1896 | -0.0845 | 0.6981 |
| 57 | 37.12 | 0.03 | 6.7144 | 4.6265 | 0.3722 | -0.4843 | 0.1007 | 0.0875 | 0.1856 | -0.0983 | 0.6882 |
| 58 | 37.36 | 0.04 | 6.7966 | 4.5564 | 0.4568 | -0.6094 | 0.1128 | 0.0866 | 0.1927 | -0.1041 | 0.6765 |
| 59 | 37.60 | 0.05 | 6.9356 | 4.4865 | 0.5714 | -0.6560 | 0.1371 | 0.0841 | 0.1922 | -0.1081 | 0.6466 |
| 60 | 37.83 | 0.04 | 6.9966 | 4.4552 | 0.4801 | -0.7291 | 0.1295 | 0.0766 | 0.1892 | -0.1106 | 0.6373 |
| 61 | 38.07 | 0.05 | 7.1670 | 4.3886 | 0.6171 | -0.9195 | 0.1438 | 0.0666 | 0.1916 | -0.1252 | 0.6095 |
| 62 | 38.26 | 0.03 | 7.1626 | 4.3565 | 0.3654 | -0.5803 | 0.1141 | 0.0662 | 0.1911 | -0.1249 | 0.6131 |
| 63 | 38.53 | 0.04 | 7.2357 | 4.3755 | 0.5155 | -0.6002 | 0.1378 | 0.0584 | 0.1869 | -0.1285 | 0.6048 |
| 64 | 38.76 | 0.03 | 7.3279 | 4.3467 | 0.4586 | -0.8351 | 0.1208 | 0.0367 | 0.1822 | -0.1455 | 0.5934 |
| 65 | 38.98 | 0.01 | 7.3658 | 4.4364 | 0.2365 | -0.4586 | 0.0914 | 0.0336 | 0.1838 | -0.1502 | 0.6023 |
| 66 | 39.19 | 0.03 | 7.4966 | 4.2756 | 0.4365 | -0.6489 | 0.1505 | 0.0409 | 0.1943 | -0.1534 | 0.5703 |
| 67 | 39.43 | 0.03 | 7.5668 | 4.2475 | 0.5306 | -0.7474 | 0.1627 | 0.0394 | 0.1917 | -0.1523 | 0.5613 |
| 68 | 39.63 | 0.02 | 7.6367 | 4.3469 | 0.3178 | -0.5552 | 0.0964 | 0.0150 | 0.1781 | -0.1651 | 0.5697 |
| 69 | 39.84 | 0.04 | 7.7104 | 4.2257 | 0.6134 | -0.8356 | 0.1518 | 0.0215 | 0.1904 | -0.1685 | 0.5481 |
| 70 | 40.05 | 0.01 | 7.8081 | 4.3243 | 0.3206 | -0.7010 | 0.0818 | 0.0150 | 0.1834 | -0.1704 | 0.5540 |
| 71 | 40.26 | 0.03 | 7.8609 | 4.2567 | 0.4574 | -0.7260 | 0.0998 | -0.0103 | 0.1782 | -0.1885 | 0.5380 |
| 72 | 40.47 | 0.02 | 7.9436 | 4.3018 | 0.3626 | -0.8961 | 0.0826 | -0.0062 | 0.1797 | -0.1859 | 0.5451 |
| 73 | 40.66 | 0.03 | 8.0322 | 4.3765 | 0.4736 | -0.8459 | 0.1162 | -0.0083 | 0.1818 | -0.1899 | 0.5449 |
| 74 | 40.86 | 0.02 | 8.1081 | 4.2751 | 0.3596 | -0.6715 | 0.0852 | -0.0140 | 0.1796 | -0.1944 | 0.5278 |
| 75 | 41.09 | 0.02 | 8.1283 | 4.2354 | 0.3865 | -0.8462 | 0.1067 | -0.0174 | 0.1811 | -0.1985 | 0.5211 |
| 76 | 41.28 | 0.04 | 8.2465 | 4.2095 | 0.4594 | -0.8813 | 0.1308 | -0.0164 | 0.1809 | -0.1973 | 0.5104 |
| 77 | 41.50 | 0.03 | 8.3363 | 4.2584 | 0.4628 | -1.0203 | 0.0961 | -0.0303 | 0.1771 | -0.2074 | 0.5108 |
| 78 | 41.70 | 0.04 | 8.3869 | 4.2816 | 0.4492 | -0.8544 | 0.1135 | -0.0370 | 0.1775 | -0.2145 | 0.5152 |
| 79 | 41.90 | 0.04 | 8.3943 | 4.3726 | 0.5218 | -1.0967 | 0.0731 | -0.0612 | 0.1726 | -0.2336 | 0.5209 |
| 80 | 42.09 | 0.04 | 8.4068 | 4.3583 | 0.4561 | -0.8879 | 0.0911 | -0.0556 | 0.1782 | -0.2338 | 0.5183 |
| 81 | 42.28 | 0.04 | 8.4748 | 4.3367 | 0.4373 | -1.0818 | 0.0817 | -0.0546 | 0.1799 | -0.2345 | 0.5117 |
| 82 | 42.48 | 0.03 | 8.5965 | 4.3671 | 0.3879 | -0.7183 | 0.1152 | -0.0505 | 0.1854 | -0.2419 | 0.5078 |
| 83 | 42.66 | 0.03 | 8.6473 | 4.3601 | 0.4411 | -0.8955 | 0.1095 | -0.0522 | 0.1842 | -0.2364 | 0.5042 |
| 84 | 42.84 | 0.03 | 8.6582 | 4.4030 | 0.4578 | -1.0030 | 0.0740 | -0.0566 | 0.1844 | -0.2410 | 0.5133 |
| 85 | 43.02 | 0.02 | 8.7181 | 4.4221 | 0.3857 | -0.3778 | 0.0978 | -0.0597 | 0.1851 | -0.2448 | 0.5072 |
| 86 | 43.21 | 0.02 | 8.8260 | 4.3956 | 0.5004 | -0.8031 | 0.0748 | -0.0794 | 0.1868 | -0.2602 | 0.4980 |
| 87 | 43.37 | 0.02 | 8.8615 | 4.3982 | 0.3165 | -0.4952 | 0.0863 | -0.0775 | 0.1785 | -0.2560 | 0.4963 |
| 88 | 43.56 | 0.02 | 8.9350 | 4.3561 | 0.2377 | -0.3500 | 0.0749 | -0.0758 | 0.1851 | -0.2605 | 0.5091 |
| 89 | 43.74 | 0.02 | 9.0068 | 4.4484 | 0.2571 | -0.6047 | 0.1155 | -0.0644 | 0.1948 | -0.2592 | 0.4942 |
| 90 | 43.93 | 0.01 | 9.0426 | 4.3866 | 0.2888 | -0.3800 | 0.0931 | -0.0749 | 0.1851 | -0.2600 | 0.4862 |
| 91 | 44.09 | 0.02 | 9.1480 | 4.4052 | 0.3437 | -0.3343 | 0.0934 | -0.0791 | 0.1891 | -0.2682 | 0.4887 |
| 92 | 44.28 | 0.00 | 9.3189 | 4.3945 | 0.2845 | -0.4773 | 0.0566 | -0.0775 | 0.1795 | -0.2570 | 0.4716 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 108 MACH 1.00 REYNO=6 1.7 PHI 0.0 CONF BIWOF14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.46 | 0.01 | 9.3658 | 4.4282 | 0.3141 | -0.5450 | 0.0767 | -0.0924 | 0.1815 | -0.2739 | 0.4726 |
| 94 | 44.64 | 0.01 | 9.3669 | 4.3964 | 0.2926 | -0.4630 | 0.0765 | -0.0780 | 0.1889 | -0.2677 | 0.4626 |
| 95 | 44.83 | 0.01 | 9.4886 | 4.5228 | 0.3562 | -0.6458 | 0.0714 | -0.0792 | 0.1886 | -0.2658 | 0.4557 |
| 96 | 45.02 | 0.01 | 9.5482 | 4.5164 | 0.3415 | -0.5520 | 0.1006 | -0.0850 | 0.1837 | -0.2687 | 0.4521 |
| 97 | 45.20 | 0.01 | 9.6201 | 4.2913 | 0.2714 | -0.2449 | 0.0869 | -0.0726 | 0.1871 | -0.2597 | 0.4461 |
| 98 | 45.38 | -0.01 | 9.7316 | 4.0436 | 0.2624 | -0.9806 | 0.0780 | -0.0618 | 0.1857 | -0.2675 | 0.4155 |
| 99 | 45.56 | -0.01 | 9.8001 | 4.1756 | 0.1715 | 0.0070 | 0.0826 | -0.0796 | 0.1873 | -0.2665 | 0.4265 |
| 100 | 45.75 | -0.00 | 9.8954 | 4.1316 | 0.3567 | -1.0849 | 0.0726 | -0.0726 | 0.1946 | -0.2672 | 0.4191 |
| 101 | 45.92 | 0.00 | 9.9789 | 4.2563 | 0.2846 | -0.2361 | 0.0841 | -0.0806 | 0.1935 | -0.2741 | 0.4265 |
| 102 | 46.09 | -0.01 | 10.0671 | 4.1878 | 0.2892 | -0.5647 | 0.0790 | -0.0757 | 0.1947 | -0.2764 | 0.4152 |
| 103 | 46.26 | -0.00 | 9.9873 | 4.1766 | 0.1901 | 0.0052 | 0.0891 | -0.0802 | 0.1956 | -0.2708 | 0.4152 |
| 104 | 46.44 | -0.01 | 10.1054 | 4.1883 | 0.2824 | -0.3041 | 0.0846 | -0.0857 | 0.1947 | -0.2804 | 0.4145 |
| 105 | 46.62 | 0.01 | 10.1371 | 4.3261 | 0.2553 | 0.0572 | 0.0836 | -0.0799 | 0.1935 | -0.2734 | 0.4262 |
| 106 | 46.78 | 0.00 | 10.1834 | 4.2562 | 0.2691 | 0.2082 | 0.0830 | -0.0762 | 0.2036 | -0.2661 | 0.4219 |
| 107 | 46.96 | 0.02 | 10.1653 | 4.7103 | 0.3174 | -0.1661 | 0.0966 | 0.0221 | 0.2585 | -0.2364 | 0.4632 |
| 108 | 47.15 | 0.01 | 10.2201 | 4.5672 | 0.2462 | 0.2745 | 0.0894 | 0.0279 | 0.3170 | -0.2890 | 0.4469 |
| 109 | 47.31 | 0.02 | 10.1816 | 4.4378 | 0.3760 | 0.1311 | 0.0854 | 0.0202 | 0.3311 | -0.3109 | 0.4359 |
| 110 | 47.46 | 0.04 | 10.4275 | 3.3606 | 0.5705 | 0.0327 | 0.0775 | -0.0052 | 0.3513 | -0.3565 | 0.3223 |
| 111 | 47.67 | 0.03 | 10.6356 | 3.0686 | 0.3635 | 0.5549 | 0.0704 | -0.0200 | 0.3340 | -0.3540 | 0.2685 |
| 112 | 47.85 | 0.03 | 10.5599 | 3.1026 | 0.3466 | 0.5581 | 0.0645 | -0.0049 | 0.3493 | -0.3542 | 0.2929 |
| 113 | 48.03 | 0.03 | 10.6374 | 2.5664 | 0.3845 | 0.5286 | 0.0575 | -0.0053 | 0.3587 | -0.3640 | 0.2376 |
| 114 | 48.19 | 0.04 | 10.6444 | 2.2854 | 0.3594 | 1.4260 | 0.0524 | 0.0336 | 0.3653 | -0.3497 | 0.2088 |
| 115 | 48.39 | 0.05 | 11.1333 | 1.9506 | 0.4142 | 1.4391 | 0.0268 | 0.0542 | 0.3783 | -0.3241 | 0.1752 |
| 116 | 48.57 | 0.04 | 11.0537 | 1.2007 | 0.3142 | 1.4316 | 0.0315 | 0.0747 | 0.3949 | -0.3252 | 0.1048 |
| 117 | 48.71 | 0.04 | 11.1523 | 1.9556 | 0.2504 | 1.4564 | 0.0330 | 0.0732 | 0.3910 | -0.3178 | 0.1769 |
| 118 | 48.93 | 0.05 | 11.0023 | 1.0117 | 0.3421 | 1.4566 | 0.0316 | 0.0706 | 0.4035 | -0.3329 | 0.0868 |
| 119 | 49.08 | 0.05 | 11.0235 | 1.0381 | 0.3545 | 2.0593 | 0.0316 | 0.0695 | 0.4030 | -0.3335 | 0.0889 |
| 120 | 49.26 | 0.06 | 11.7756 | 0.9752 | 0.4535 | 1.9553 | 0.0457 | 0.0578 | 0.4042 | -0.3404 | 0.0828 |
| 121 | 49.46 | 0.06 | 11.7764 | 1.0062 | 0.4134 | 2.1801 | 0.0431 | 0.0651 | 0.4027 | -0.3376 | 0.0854 |
| 122 | 49.64 | 0.06 | 11.8275 | 1.0836 | 0.4366 | 2.1550 | 0.0376 | 0.0610 | 0.3926 | -0.3316 | 0.0916 |
| 123 | 49.81 | 0.06 | 11.9460 | 1.0563 | 0.4481 | 2.0937 | 0.0362 | 0.0513 | 0.3904 | -0.3391 | 0.0918 |
| 124 | 50.01 | 0.06 | 12.1365 | 0.9744 | 0.4541 | 1.7598 | 0.0457 | 0.0307 | 0.3835 | -0.3548 | 0.0803 |
| 125 | 50.19 | 0.06 | 12.1216 | 1.1091 | 0.4560 | 1.8756 | 0.0396 | 0.0297 | 0.3862 | -0.3565 | 0.0915 |
| 126 | 50.35 | 0.04 | 12.2945 | 0.7721 | 0.4614 | 1.6796 | 0.0469 | 0.0006 | 0.3821 | -0.3755 | 0.0628 |
| 127 | 50.53 | 0.05 | 12.3251 | 0.8058 | 0.4508 | 1.6744 | 0.0469 | 0.0173 | 0.3908 | -0.3735 | 0.0657 |
| 128 | 50.72 | 0.04 | 12.5517 | 0.4457 | 0.4647 | 1.0986 | 0.0496 | 0.0178 | 0.3969 | -0.3791 | 0.0358 |
| 129 | 50.87 | 0.04 | 12.4923 | 0.5537 | 0.4527 | 1.2594 | 0.0459 | 0.0273 | 0.3943 | -0.3670 | 0.0443 |
| 130 | 51.04 | 0.01 | 12.4656 | 0.3751 | 0.2971 | 0.6335 | 0.0507 | 0.0088 | 0.3869 | -0.3801 | 0.0301 |
| 131 | 51.20 | 0.03 | 12.4732 | 0.4724 | 0.4743 | 0.6458 | 0.0571 | 0.0091 | 0.3957 | -0.3866 | 0.0379 |
| 132 | 51.36 | 0.01 | 12.5062 | 0.2546 | 0.2906 | 0.5704 | 0.0637 | 0.0011 | 0.3919 | -0.3908 | 0.0202 |
| 133 | 51.52 | 0.02 | 12.2276 | 1.0864 | 0.3591 | 0.8314 | 0.0865 | 0.0287 | 0.4001 | -0.3714 | 0.0884 |
| 134 | 51.71 | 0.03 | 12.5156 | 0.5475 | 0.4482 | 0.8090 | 0.0804 | 0.0322 | 0.4036 | -0.3714 | 0.0757 |
| 135 | 51.85 | 0.02 | 12.3206 | 1.2751 | 0.3328 | 0.7896 | 0.0864 | 0.0273 | 0.4131 | -0.3858 | 0.1035 |
| 136 | 52.02 | 0.01 | 12.3562 | 1.2751 | 0.3104 | 0.8492 | 0.0805 | 0.0339 | 0.4220 | -0.3881 | 0.1032 |
| 137 | 52.19 | 0.01 | 12.3648 | 1.2712 | 0.3015 | 0.9152 | 0.0686 | 0.0404 | 0.4323 | -0.3919 | 0.1028 |
| 138 | 52.38 | 0.01 | 12.4134 | 1.0965 | 0.3496 | 1.1220 | 0.0736 | 0.0252 | 0.4322 | -0.4070 | 0.0882 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7' BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART lwb MACH 1.00 RX10-6 1.7 PHI 0.0 CONF 8 INDEX 14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.56 | 0.00 | 12.5073 | 0.3434 | 0.2217 | 1.5579 | 0.0004 | 0.0227 | 0.4435 | -0.4208 | 0.0674 |
| 140 | 52.71 | 0.00 | 12.4567 | 0.3518 | 0.2065 | 1.5505 | 0.0011 | 0.0202 | 0.4405 | -0.4227 | 0.0681 |
| 141 | 52.87 | -0.01 | 12.5269 | 0.3723 | 0.2256 | 0.9617 | 0.0031 | 0.0190 | 0.4327 | -0.4137 | 0.0936 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART Wb MACH 1.60 1.7 RX1C-6 PHI C.C CONF BIWDF14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.58 | 0.01 | -0.0295 | 0.0008 | 0.0244 | -0.0271 | -0.8271 | -1.1358 | -0.0010 | -0.3869 | 0.0009 | 0.3406 |
| 2 | -5.58 | 0.01 | -0.0344 | 0.0011 | 0.0224 | -0.0320 | -0.8057 | -1.1285 | -0.0035 | -0.3821 | 0.0031 | 0.3386 |
| 3 | -5.58 | 0.01 | -0.0356 | 0.0010 | 0.0222 | -0.0281 | -0.8436 | -1.1213 | -0.0055 | -0.3784 | 0.0049 | 0.3375 |
| 4 | -5.58 | 0.00 | -0.0332 | 0.0004 | 0.0235 | -0.0271 | -0.7078 | -1.1270 | -0.0006 | -0.3845 | 0.0005 | 0.3410 |
| 5 | -4.41 | 0.00 | -0.0368 | 0.0010 | 0.0221 | -0.0272 | -0.8005 | -1.1243 | 0.0184 | -0.3926 | -0.0164 | 0.3487 |
| 6 | -2.00 | 0.0 | -0.0316 | 0.0013 | 0.0221 | -0.0309 | -0.6954 | -1.0573 | 0.0274 | -0.3804 | -0.0259 | 0.3598 |
| 7 | -0.91 | -0.01 | -0.0346 | 0.0006 | 0.0156 | -0.0235 | -0.5765 | -0.9865 | 0.0310 | -0.3621 | -0.0314 | 0.3671 |
| 8 | 0.86 | 0.0 | -0.0313 | 0.0006 | 0.0186 | -0.0192 | -0.6006 | -0.9018 | 0.0326 | -0.3358 | -0.0364 | 0.3724 |
| 9 | 2.66 | -0.00 | -0.0263 | 0.0007 | 0.0182 | -0.0266 | -0.7148 | -0.8143 | 0.0351 | -0.3124 | -0.0431 | 0.3836 |
| 10 | 4.40 | -0.00 | -0.0236 | 0.0005 | 0.0185 | -0.0167 | -0.6100 | -0.7285 | 0.0369 | -0.2928 | -0.0506 | 0.4019 |
| 11 | 6.18 | 0.00 | -0.0213 | 0.0014 | 0.0198 | -0.0273 | -0.5275 | -0.6375 | 0.0356 | -0.2716 | -0.0561 | 0.4260 |
| 12 | 7.99 | 0.00 | -0.0211 | -0.0003 | 0.0179 | 0.0059 | -0.3965 | -0.5494 | 0.0349 | -0.2484 | -0.0635 | 0.4521 |
| 13 | 9.76 | -0.00 | -0.0206 | -0.0021 | 0.0263 | 0.0415 | -0.5196 | -0.4606 | 0.0335 | -0.2273 | -0.0727 | 0.4935 |
| 14 | 11.56 | -0.00 | -0.0206 | -0.0021 | 0.0273 | 0.0413 | -0.5374 | -0.3696 | 0.0296 | -0.1981 | -0.0806 | 0.5360 |
| 15 | 13.33 | 0.00 | -0.0592 | -0.0015 | 0.0238 | 0.0321 | -0.4020 | -0.2869 | 0.0278 | -0.1755 | -0.0965 | 0.6117 |
| 16 | 15.15 | 0.00 | -0.0740 | -0.0007 | 0.0269 | 0.0695 | -0.4024 | -0.2017 | 0.0257 | -0.1462 | -0.1274 | 0.7248 |
| 17 | 17.03 | -0.00 | -0.0816 | -0.0017 | 0.0236 | 0.0206 | -0.2885 | -0.1413 | 0.0227 | -0.1168 | -0.1606 | 0.8266 |
| 18 | 18.90 | -0.00 | -0.1006 | -0.0024 | 0.0195 | 0.0276 | -0.1941 | -0.0794 | 0.0196 | -0.0873 | -0.2468 | 1.0995 |
| 19 | 20.75 | -0.00 | -0.1057 | -0.0025 | 0.0171 | 0.0226 | -0.0647 | -0.0177 | 0.0165 | -0.0642 | -1.0338 | 3.6271 |
| 20 | 22.62 | -0.00 | -0.1390 | 0.0013 | -0.0125 | -0.0094 | 0.0885 | 0.0106 | 0.0192 | -0.0503 | 1.8111 | -4.7453 |
| 21 | 24.55 | 0.00 | -0.1042 | 0.0023 | -0.0016 | -0.0317 | 0.0173 | 0.0430 | 0.0196 | -0.0334 | 0.4604 | -0.7767 |
| 22 | 26.45 | 0.04 | 0.0378 | 0.0014 | 0.0567 | 0.0376 | 1.5529 | 0.0667 | 0.0232 | -0.0179 | 0.2615 | -0.2018 |
| 23 | 28.34 | 0.06 | 0.1538 | -0.0015 | 0.1172 | -0.0077 | 0.6047 | 0.1262 | 0.0256 | -0.0052 | 0.2028 | -0.0412 |
| 24 | 28.38 | 0.06 | 0.1388 | -0.0001 | 0.0944 | -0.0007 | 0.6816 | 0.1192 | 0.0271 | -0.0064 | 0.2273 | -0.0705 |
| 25 | 28.74 | 0.05 | 0.1769 | -0.0012 | 0.1100 | -0.0068 | 0.6218 | 0.1218 | 0.0266 | -0.0071 | 0.2200 | -0.0583 |
| 26 | 29.01 | 0.07 | 0.1486 | -0.0001 | 0.1152 | -0.0005 | 0.5801 | 0.1371 | 0.0253 | -0.0027 | 0.1845 | -0.0197 |
| 27 | 29.31 | 0.08 | 0.1821 | -0.0004 | 0.1058 | -0.0022 | 0.5810 | 0.1343 | 0.0252 | -0.0040 | 0.1876 | -0.0298 |
| 28 | 29.65 | 0.08 | 0.2443 | -0.0007 | 0.1488 | -0.0029 | 0.5272 | 0.1479 | 0.0251 | -0.0014 | 0.1697 | 0.0095 |
| 29 | 29.93 | 0.05 | 0.2087 | -0.0006 | 0.1134 | -0.0025 | 0.5434 | 0.1421 | 0.0270 | -0.0016 | 0.1900 | -0.0113 |
| 30 | 30.21 | 0.06 | 0.2376 | 0.0006 | 0.1446 | 0.0025 | 0.5232 | 0.1369 | 0.0291 | -0.0055 | 0.2095 | -0.0396 |
| 31 | 30.48 | 0.06 | 0.1031 | 0.0008 | 0.0753 | 0.0078 | 0.7304 | 0.1138 | 0.0317 | -0.0117 | 0.2785 | -0.1028 |
| 32 | 30.77 | 0.06 | 0.2341 | 0.0014 | 0.1415 | 0.0060 | 0.5235 | 0.1243 | 0.0335 | -0.0074 | 0.2695 | -0.0595 |
| 33 | 31.03 | 0.05 | 0.1982 | 0.0004 | 0.1089 | 0.0020 | 0.5550 | 0.1183 | 0.0351 | -0.0063 | 0.2967 | -0.0702 |
| 34 | 31.31 | 0.07 | 0.2045 | -0.0001 | 0.1125 | -0.0005 | 0.5521 | 0.0969 | 0.0369 | -0.0130 | 0.3731 | -0.1314 |
| 35 | 31.59 | 0.06 | 0.1990 | -0.0010 | 0.1078 | -0.0050 | 0.5417 | 0.0968 | 0.0376 | -0.0135 | 0.3805 | -0.1366 |
| 36 | 31.88 | 0.07 | 0.2025 | -0.0010 | 0.1075 | -0.0039 | 0.5022 | 0.1016 | 0.0370 | -0.0123 | 0.3641 | -0.1211 |
| 37 | 32.13 | 0.06 | 0.2899 | -0.0011 | 0.1364 | -0.0038 | 0.4705 | 0.1110 | 0.0365 | -0.0082 | 0.3288 | -0.0735 |
| 38 | 32.41 | 0.05 | 0.2948 | -0.0006 | 0.1371 | -0.0020 | 0.4051 | 0.1235 | 0.0353 | -0.0046 | 0.2658 | -0.0372 |
| 39 | 32.67 | 0.03 | 0.1566 | -0.0001 | 0.0844 | 0.0006 | 0.5390 | 0.1096 | 0.0368 | -0.0094 | 0.3397 | -0.0858 |
| 40 | 32.92 | 0.03 | 0.0619 | 0.0015 | 0.0525 | 0.0307 | 0.8481 | 0.1069 | 0.0371 | -0.0118 | 0.3470 | -0.1104 |
| 41 | 33.19 | 0.03 | 0.0645 | 0.0015 | 0.0582 | 0.0293 | 0.9025 | 0.1096 | 0.0372 | -0.0094 | 0.3394 | -0.0858 |
| 42 | 33.45 | 0.03 | 0.1438 | 0.0007 | 0.0864 | 0.0049 | 0.6008 | 0.1123 | 0.0368 | -0.0066 | 0.3276 | -0.0768 |
| 43 | 33.70 | 0.02 | 0.0521 | 0.0022 | 0.0522 | 0.0414 | 0.9831 | 0.1028 | 0.0363 | -0.0131 | 0.3732 | -0.1277 |
| 44 | 33.95 | 0.03 | 0.0391 | 0.0045 | 0.0412 | 0.1253 | 1.0257 | 0.1204 | 0.0362 | -0.0053 | 0.3006 | -0.0440 |
| 45 | 34.21 | 0.03 | 0.0804 | 0.0022 | 0.0630 | 0.0274 | 0.7836 | 0.1094 | 0.0369 | -0.0072 | 0.3372 | -0.0658 |
| 46 | 34.45 | 0.03 | 0.0771 | 0.0016 | 0.0603 | 0.0130 | 0.7821 | 0.1094 | 0.0367 | -0.0073 | 0.3354 | -0.0667 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART WADE RATIO=6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 WB A.OOO 1.7 0.0 BINOFIN 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.72 | 0.05 | 0.1450 | -0.0013 | 0.0855 | -0.0087 | 0.5765 | 0.0970 | 0.0380 | -0.0120 | 0.3917 | -0.1237 |
| 48 | 34.90 | 0.06 | 0.1426 | -0.0031 | 0.1137 | -0.0191 | 0.5156 | 0.1094 | 0.0374 | -0.0066 | 0.3476 | -0.0604 |
| 49 | 35.20 | 0.04 | 0.1768 | -0.0011 | 0.0851 | -0.0143 | 0.8477 | 0.1064 | 0.0377 | -0.0053 | 0.3543 | -0.0498 |
| 50 | 35.45 | 0.04 | 0.0865 | -0.0021 | 0.0854 | -0.0314 | 0.9851 | 0.1077 | 0.0376 | -0.0041 | 0.3451 | -0.0381 |
| 51 | 35.69 | 0.04 | 0.1756 | -0.0022 | 0.1011 | -0.0122 | 0.5029 | 0.1172 | 0.0375 | -0.0022 | 0.3233 | -0.0168 |
| 52 | 35.93 | 0.05 | 0.0852 | -0.0007 | 0.0547 | -0.0132 | 1.0282 | 0.1227 | 0.0371 | 0.0015 | 0.3023 | 0.0122 |
| 53 | 36.18 | 0.03 | 0.0983 | -0.0026 | 0.0526 | -0.0561 | 1.1361 | 0.1357 | 0.0368 | 0.0072 | 0.2752 | 0.0535 |
| 54 | 36.41 | 0.05 | 0.1334 | -0.0026 | 0.0641 | -0.0195 | 0.6304 | 0.1304 | 0.0372 | 0.0069 | 0.2727 | 0.0506 |
| 55 | 36.64 | 0.05 | 0.0548 | -0.0012 | 0.0723 | -0.0127 | 0.7627 | 0.1501 | 0.0363 | 0.0123 | 0.2418 | 0.0815 |
| 56 | 36.88 | 0.04 | 0.1038 | -0.0010 | 0.0712 | -0.0097 | 0.6873 | 0.1031 | 0.0336 | 0.0208 | 0.1835 | 0.1404 |
| 57 | 37.12 | 0.03 | 0.1056 | -0.0006 | 0.0724 | -0.0055 | 0.6006 | 0.1941 | 0.0331 | 0.0258 | 0.1705 | 0.1535 |
| 58 | 37.36 | 0.04 | 0.1156 | -0.0013 | 0.0735 | -0.0112 | 0.6347 | 0.1955 | 0.0328 | 0.0304 | 0.1678 | 0.1555 |
| 59 | 37.60 | 0.05 | 0.1442 | -0.0015 | 0.0882 | -0.0104 | 0.6116 | 0.2109 | 0.0318 | 0.0360 | 0.1506 | 0.1707 |
| 60 | 37.83 | 0.04 | 0.1064 | -0.0026 | 0.0936 | -0.0156 | 0.5596 | 0.2136 | 0.0326 | 0.0344 | 0.1556 | 0.1632 |
| 61 | 38.07 | 0.05 | 0.1495 | -0.0012 | 0.1016 | -0.0060 | 0.5063 | 0.2158 | 0.0331 | 0.0373 | 0.1513 | 0.1705 |
| 62 | 38.28 | 0.03 | 0.1410 | -0.0015 | 0.0827 | -0.0104 | 0.5665 | 0.2263 | 0.0325 | 0.0390 | 0.1475 | 0.1770 |
| 63 | 38.53 | 0.04 | 0.1265 | -0.0005 | 0.0965 | -0.0048 | 0.5236 | 0.2215 | 0.0335 | 0.0365 | 0.1512 | 0.1648 |
| 64 | 38.76 | 0.03 | 0.0761 | 0.0010 | 0.0815 | 0.0132 | 0.8145 | 0.2484 | 0.0345 | 0.0487 | 0.1187 | 0.1961 |
| 65 | 38.98 | 0.01 | 0.1257 | 0.0 | 0.0736 | 0.0 | 0.5690 | 0.2397 | 0.0320 | 0.0455 | 0.1335 | 0.1858 |
| 66 | 39.19 | 0.03 | 0.1578 | -0.0016 | 0.0895 | -0.0038 | 0.5097 | 0.2312 | 0.0337 | 0.0428 | 0.1457 | 0.1851 |
| 67 | 39.43 | 0.03 | 0.1461 | -0.0004 | 0.0930 | -0.0024 | 0.5599 | 0.2360 | 0.0337 | 0.0444 | 0.1416 | 0.1856 |
| 68 | 39.65 | 0.02 | 0.0989 | 0.0038 | 0.0837 | 0.0300 | 0.8441 | 0.2604 | 0.0305 | 0.0525 | 0.1171 | 0.2016 |
| 69 | 39.84 | 0.04 | 0.1216 | 0.0035 | 0.0742 | 0.0452 | 0.8102 | 0.2563 | 0.0323 | 0.0518 | 0.1260 | 0.2021 |
| 70 | 40.05 | 0.01 | 0.1018 | 0.0026 | 0.0817 | 0.0340 | 0.6061 | 0.2622 | 0.0317 | 0.0534 | 0.1209 | 0.2056 |
| 71 | 40.26 | 0.03 | 0.1260 | 0.0026 | 0.0735 | 0.0405 | 0.5773 | 0.2593 | 0.0323 | 0.0521 | 0.1245 | 0.2005 |
| 72 | 40.47 | 0.02 | 0.0894 | 0.0056 | 0.0536 | 0.1131 | 0.8313 | 0.2915 | 0.0286 | 0.0665 | 0.0982 | 0.2283 |
| 73 | 40.66 | 0.03 | 0.1401 | 0.0021 | 0.0751 | 0.0278 | 0.5360 | 0.2551 | 0.0331 | 0.0502 | 0.1297 | 0.1968 |
| 74 | 40.86 | 0.04 | 0.0821 | 0.0056 | 0.0455 | 0.1340 | 0.7391 | 0.2972 | 0.0288 | 0.0670 | 0.0969 | 0.2254 |
| 75 | 41.05 | 0.02 | 0.1042 | 0.0022 | 0.0601 | 0.0579 | 0.5768 | 0.2846 | 0.0304 | 0.0617 | 0.1088 | 0.2168 |
| 76 | 41.26 | 0.04 | 0.1065 | 0.0027 | 0.0636 | 0.0457 | 0.5132 | 0.2908 | 0.0337 | 0.0471 | 0.1354 | 0.1893 |
| 77 | 41.50 | 0.03 | 0.1403 | 0.0026 | 0.0732 | 0.0770 | 0.5217 | 0.2573 | 0.0327 | 0.0493 | 0.1271 | 0.1916 |
| 78 | 41.70 | 0.04 | 0.1353 | 0.0111 | 0.0727 | 0.0820 | 0.5373 | 0.2007 | 0.0330 | 0.0534 | 0.1237 | 0.2002 |
| 79 | 41.90 | 0.04 | 0.0926 | 0.0106 | 0.0548 | 0.1145 | 0.5916 | 0.3121 | 0.0284 | 0.0706 | 0.0910 | 0.2262 |
| 80 | 42.09 | 0.04 | 0.1082 | 0.0117 | 0.0655 | 0.1051 | 0.5859 | 0.2824 | 0.0322 | 0.0576 | 0.1140 | 0.2040 |
| 81 | 42.28 | 0.04 | 0.0941 | 0.0132 | 0.0536 | 0.1403 | 0.5890 | 0.2966 | 0.0311 | 0.0636 | 0.1048 | 0.2144 |
| 82 | 42.48 | 0.03 | 0.1176 | 0.0122 | 0.0672 | 0.1043 | 0.5744 | 0.2931 | 0.0321 | 0.0613 | 0.1095 | 0.2091 |
| 83 | 42.66 | 0.03 | 0.1149 | 0.0122 | 0.0622 | 0.1163 | 0.5929 | 0.2936 | 0.0305 | 0.0603 | 0.1439 | 0.1826 |
| 84 | 42.84 | 0.03 | 0.0813 | 0.0059 | 0.0512 | 0.1210 | 0.8296 | 0.3202 | 0.0290 | 0.0722 | 0.0906 | 0.2255 |
| 85 | 43.02 | 0.02 | 0.0885 | 0.0116 | 0.0506 | 0.1606 | 0.7387 | 0.2896 | 0.0337 | 0.0600 | 0.1166 | 0.2076 |
| 86 | 43.21 | 0.02 | 0.0810 | 0.0121 | 0.0510 | 0.1494 | 0.6370 | 0.3119 | 0.0310 | 0.0695 | 0.0994 | 0.2228 |
| 87 | 43.37 | 0.02 | 0.0785 | 0.0115 | 0.0515 | 0.1516 | 0.6611 | 0.2977 | 0.0333 | 0.0624 | 0.1118 | 0.2096 |
| 88 | 43.56 | 0.02 | 0.0940 | 0.0107 | 0.0605 | 0.1399 | 0.9081 | 0.2842 | 0.0348 | 0.0588 | 0.1224 | 0.2069 |
| 89 | 43.74 | 0.02 | 0.0566 | 0.0142 | 0.0437 | 0.2588 | 0.7748 | 0.2445 | 0.0300 | 0.0420 | 0.1636 | 0.1718 |
| 90 | 43.93 | 0.01 | 0.0650 | 0.0104 | 0.0465 | 0.1585 | 0.7088 | 0.2990 | 0.0333 | 0.0638 | 0.1111 | 0.2128 |
| 91 | 44.09 | 0.02 | 0.0553 | 0.0116 | 0.0445 | 0.1956 | 0.7504 | 0.2987 | 0.0333 | 0.0643 | 0.1115 | 0.2153 |
| 92 | 44.28 | 0.00 | 0.0525 | 0.0088 | 0.0378 | 0.1663 | 0.7146 | 0.3513 | 0.0300 | 0.0762 | 0.0905 | 0.2300 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH AXIS-E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 108 1.60 1.7 0.0 BIBOFIN 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.46 | 0.01 | 0.0376 | C.0161 | C.0355 | C.2885 | 0.9548 | 0.3044 | 0.0329 | 0.0648 | 0.1081 | 0.2129 |
| 94 | 44.64 | 0.01 | C.0277 | C.0051 | C.0341 | C.3285 | 1.2310 | 0.2729 | 0.0307 | 0.0502 | 0.1345 | 0.1835 |
| 95 | 44.83 | 0.01 | 0.0525 | C.0077 | C.0361 | C.1455 | 0.7202 | 0.3196 | 0.0313 | 0.0686 | 0.0979 | 0.2146 |
| 96 | 45.02 | 0.01 | 0.0456 | C.0057 | C.0419 | C.1655 | 0.8448 | 0.2809 | 0.0352 | 0.0563 | 0.1253 | C.2004 |
| 97 | 45.20 | 0.01 | 0.0328 | C.0085 | 0.0340 | C.2713 | 1.0366 | 0.2725 | 0.0366 | 0.0501 | 0.1343 | C.1839 |
| 98 | 45.38 | -0.01 | 0.0066 | C.0057 | C.0479 | C.1117 | 0.5518 | 0.3286 | 0.0361 | 0.0725 | 0.0916 | 0.2206 |
| 99 | 45.56 | -0.01 | 0.0147 | C.0077 | 0.0275 | C.5237 | 1.8707 | 0.2664 | 0.0376 | 0.0475 | 0.1411 | 0.1783 |
| 100 | 45.75 | -0.00 | 0.0773 | C.0088 | C.0429 | C.1138 | 0.5550 | 0.3169 | 0.0311 | 0.0671 | 0.0981 | 0.2117 |
| 101 | 45.92 | 0.00 | C.0612 | C.0087 | C.0401 | C.1421 | 0.6552 | 0.2901 | 0.0348 | 0.0552 | 0.1199 | 0.1903 |
| 102 | 46.09 | -0.01 | 0.0556 | C.0054 | C.0386 | C.1705 | 0.6909 | 0.2971 | 0.0336 | 0.0596 | 0.1131 | 0.2006 |
| 103 | 46.26 | -0.00 | 0.0162 | C.0087 | C.0285 | C.4780 | 1.5659 | 0.2614 | 0.0384 | 0.0443 | 0.1469 | C.1695 |
| 104 | 46.44 | -0.01 | 0.0616 | C.0055 | C.0392 | 0.1623 | 0.6426 | 0.2923 | 0.0351 | 0.0565 | 0.1201 | C.1533 |
| 105 | 46.62 | 0.01 | 0.0112 | C.0088 | C.0235 | C.7678 | 2.0982 | 0.2644 | 0.0385 | 0.0457 | 0.1456 | 0.1728 |
| 106 | 46.78 | 0.00 | C.0056 | C.0077 | C.0458 | C.7020 | 2.6320 | 0.2542 | 0.0357 | 0.0411 | 0.1562 | 0.1617 |
| 107 | 46.96 | 0.02 | 0.0755 | C.0087 | C.0455 | C.1152 | 0.6079 | 0.2956 | 0.0382 | 0.0603 | 0.1292 | 0.2041 |
| 108 | 47.15 | 0.01 | 0.0333 | C.0040 | 0.0334 | C.1201 | 1.0030 | 0.2647 | 0.0349 | 0.0463 | C.1507 | 0.1749 |
| 109 | 47.31 | 0.02 | 0.0257 | C.0104 | C.0375 | C.1742 | 0.6281 | 0.3364 | 0.0360 | 0.0750 | 0.1070 | 0.2225 |
| 110 | 47.48 | 0.04 | 0.0451 | C.0140 | C.0292 | C.3104 | 0.6474 | 0.3833 | 0.0356 | 0.0682 | 0.0929 | 0.2301 |
| 111 | 47.67 | 0.03 | -0.0025 | 0.0141 | C.0265 | -0.8614 | -2.9310 | 0.3813 | 0.0363 | 0.0858 | C.0952 | 0.2250 |
| 112 | 47.85 | 0.03 | -0.0426 | C.0160 | -0.0038 | -C.3809 | 0.0905 | 0.3743 | 0.0377 | 0.0816 | 0.1007 | C.2164 |
| 113 | 48.03 | 0.03 | -0.0253 | 0.0138 | -0.0015 | -C.4709 | 0.0648 | 0.3791 | 0.0381 | 0.0815 | C.1005 | 0.2160 |
| 114 | 48.19 | 0.04 | -0.0526 | C.0108 | -0.0247 | -C.1104 | 0.2006 | 0.3292 | 0.0424 | 0.0579 | 0.1288 | 0.1759 |
| 115 | 48.35 | 0.05 | -0.0675 | 0.0035 | -0.0150 | -0.0574 | 0.2205 | 0.3464 | 0.0419 | 0.0632 | 0.1262 | C.1814 |
| 116 | 48.57 | 0.04 | -0.0797 | -C.0034 | -C.0134 | C.0427 | 0.1001 | 0.3383 | 0.0415 | 0.0567 | 0.1234 | 0.1686 |
| 117 | 48.71 | 0.04 | -0.0756 | -0.0023 | -0.0142 | 0.0289 | 0.1784 | 0.3342 | 0.0429 | 0.0545 | 0.1283 | 0.1631 |
| 118 | 48.93 | 0.05 | -0.0628 | -C.0041 | -C.0165 | 0.0751 | 0.1036 | 0.3426 | 0.0411 | 0.0580 | 0.1189 | 0.1678 |
| 119 | 49.08 | 0.05 | -0.0585 | -0.0021 | -0.0138 | C.1036 | 0.0845 | 0.3449 | 0.0419 | 0.0569 | 0.1215 | 0.1656 |
| 120 | 49.26 | 0.06 | -0.0516 | -0.0008 | C.0007 | C.1705 | -0.0136 | 0.3453 | 0.0410 | 0.0575 | 0.1210 | 0.1665 |
| 121 | 49.46 | 0.06 | -0.0451 | -C.0075 | -0.0032 | C.1213 | 0.0492 | 0.3508 | 0.0420 | 0.0579 | 0.1157 | C.1651 |
| 122 | 49.64 | 0.06 | -0.0666 | -C.0162 | -0.0024 | C.1467 | 0.0350 | 0.3531 | 0.0414 | 0.0547 | 0.1172 | 0.1651 |
| 123 | 49.81 | 0.06 | -0.0520 | -C.0104 | 0.0057 | C.2000 | -0.1096 | 0.3559 | 0.0414 | 0.0599 | 0.1163 | 0.1683 |
| 124 | 50.01 | 0.06 | -0.0365 | -C.0114 | 0.0130 | 0.3123 | -0.3364 | 0.3704 | 0.0385 | 0.0655 | 0.1050 | 0.1775 |
| 125 | 50.19 | 0.06 | -0.0534 | -0.0145 | C.0116 | C.2715 | -0.2172 | 0.3647 | 0.0397 | 0.0643 | 0.1088 | 0.1763 |
| 126 | 50.35 | 0.04 | -C.0356 | -0.0148 | C.0163 | C.3794 | -0.4179 | 0.3928 | 0.0377 | 0.0753 | C.0960 | 0.1917 |
| 127 | 50.53 | 0.05 | -C.0265 | -C.0132 | 0.0156 | C.5327 | -0.8062 | 0.3871 | 0.0387 | 0.0727 | 0.1000 | 0.1878 |
| 128 | 50.72 | 0.04 | C.0164 | -0.0123 | C.0317 | -1.1825 | 3.0461 | 0.4011 | 0.0396 | 0.0773 | 0.0587 | 0.1527 |
| 129 | 50.87 | 0.04 | C.0024 | -C.0136 | C.0266 | -1.6188 | 3.4048 | 0.3997 | 0.0397 | 0.0796 | 0.0953 | 0.1891 |
| 130 | 51.09 | 0.01 | -0.0356 | -0.0113 | C.0372 | -C.2039 | 0.9347 | 0.4259 | C.0381 | 0.0858 | 0.0854 | 0.2015 |
| 131 | 51.20 | 0.03 | 0.0412 | -0.0122 | 0.0366 | -C.2981 | 0.8883 | 0.4627 | 0.0381 | 0.0938 | 0.0815 | C.2114 |
| 132 | 51.36 | 0.01 | 0.0363 | -C.0046 | 0.0367 | -C.0217 | 0.6074 | 0.4146 | 0.0399 | 0.0817 | 0.0562 | 0.1971 |
| 133 | 51.52 | 0.02 | 0.0413 | C.0025 | 0.0300 | 0.0605 | 0.7264 | 0.3726 | 0.0440 | 0.0676 | 0.1161 | 0.1814 |
| 134 | 51.71 | 0.03 | 0.0194 | C.0063 | 0.0194 | 0.3247 | 1.0000 | 0.3868 | 0.0453 | 0.0672 | 0.1235 | 0.1832 |
| 135 | 51.85 | 0.02 | 0.0342 | C.0052 | C.0240 | C.1920 | 0.7018 | 0.3871 | 0.0435 | 0.0684 | 0.1239 | 0.1863 |
| 136 | 52.02 | 0.01 | 0.0148 | C.0055 | 0.0188 | 0.4041 | 1.2077 | 0.3819 | 0.0463 | 0.0670 | 0.1279 | 0.1851 |
| 137 | 52.19 | 0.01 | -0.0055 | C.0058 | C.0058 | -C.6104 | -1.0316 | 0.3819 | 0.0462 | 0.0670 | 0.1276 | 0.1851 |
| 138 | 52.38 | 0.01 | -0.0256 | C.0063 | 0.0044 | -C.3242 | -0.1719 | 0.3809 | 0.0461 | 0.0745 | 0.1210 | 0.1956 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 1oB MACH 1.00 RXIC=E 1.7 PHI 0.0 CONF B1B0F14 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.56 | 0.00 | -0.0456 | 0.0078 | -0.0064 | -0.1710 | 0.1404 | 0.3838 | 0.0462 | 0.0746 | 0.1224 | 0.1459 |
| 140 | 52.71 | 0.00 | -0.0444 | 0.0074 | -0.0068 | -0.1666 | 0.1361 | 0.3816 | 0.0471 | 0.0741 | 0.1234 | 0.1442 |
| 141 | 52.87 | -0.01 | -0.0214 | 0.0056 | -0.0037 | -0.2616 | -0.1729 | 0.3760 | 0.0464 | 0.0743 | 0.1227 | 0.1566 |

MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 108 | MACH 1.60 | REYNO 1.7 | PHI 0.0 | CONF 81 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.98 | 0.01 | 0.1144 | 9.9999 | 0.0140 | 9.9999 | 0.1224 | -1.2071 | -0.0183 | -0.3011 | 0.0152 | 0.2494 |
| 2 | -5.98 | 0.01 | 0.1076 | 9.9999 | 0.0085 | 9.9999 | 0.0794 | -1.2226 | -0.0166 | -0.3056 | 0.0136 | 0.2495 |
| 3 | -5.98 | 0.01 | 0.1056 | 9.9999 | 0.0095 | 9.9999 | 0.0938 | -1.2087 | -0.0181 | -0.3001 | 0.0150 | 0.2483 |
| 4 | -5.98 | 0.00 | 0.1065 | 9.9999 | 0.0095 | 9.9999 | 0.0869 | -1.2226 | -0.0162 | -0.3016 | 0.0132 | 0.2468 |
| 5 | -4.41 | 0.00 | 0.0776 | 9.9999 | -0.0058 | 9.9999 | -0.0753 | -1.2871 | 0.0104 | -0.3345 | -0.0081 | 0.2555 |
| 6 | -2.88 | 0.00 | 0.0744 | 9.9999 | -0.0076 | 9.9999 | -0.0741 | -1.2629 | 0.0250 | -0.3351 | -0.0200 | 0.2675 |
| 7 | -0.91 | -0.01 | 0.0743 | 9.9999 | -0.0066 | 9.9999 | -0.0808 | -1.1753 | 0.0265 | -0.3162 | -0.0245 | 0.2681 |
| 8 | 0.88 | 0.00 | 0.0736 | 9.9999 | -0.0056 | 9.9999 | -0.0767 | -1.0928 | 0.0325 | -0.2959 | -0.0257 | 0.2708 |
| 9 | 2.88 | -0.00 | 0.0788 | 9.9999 | -0.0056 | 9.9999 | -0.0695 | -1.0034 | 0.0323 | -0.2731 | -0.0322 | 0.2722 |
| 10 | 4.40 | -0.00 | 0.0743 | 9.9999 | -0.0060 | 9.9999 | -0.0808 | -0.9127 | 0.0335 | -0.2528 | -0.0367 | 0.2770 |
| 11 | 6.18 | 0.00 | 0.0719 | 9.9999 | -0.0052 | 9.9999 | -0.1280 | -0.8152 | 0.0336 | -0.2299 | -0.0412 | 0.2826 |
| 12 | 7.65 | 0.00 | 0.0765 | 9.9999 | -0.0088 | 9.9999 | -0.1144 | -0.7300 | 0.0331 | -0.2107 | -0.0453 | 0.2886 |
| 13 | 9.70 | -0.00 | 0.0833 | 9.9999 | -0.0057 | 9.9999 | -0.1164 | -0.6450 | 0.0320 | -0.1886 | -0.0496 | 0.2927 |
| 14 | 11.56 | -0.00 | 0.0866 | 9.9999 | -0.0105 | 9.9999 | -0.1349 | -0.5562 | 0.0288 | -0.1573 | -0.0518 | 0.2828 |
| 15 | 13.53 | 0.00 | 0.0770 | 9.9999 | -0.0117 | 9.9999 | -0.1519 | -0.4651 | 0.0262 | -0.1313 | -0.0563 | 0.2823 |
| 16 | 15.15 | 0.00 | 0.0868 | 9.9999 | -0.0115 | 9.9999 | -0.1473 | -0.3866 | 0.0236 | -0.0999 | -0.0610 | 0.2584 |
| 17 | 17.03 | -0.00 | 0.0859 | 9.9999 | -0.0111 | 9.9999 | -0.1281 | -0.2842 | 0.0192 | -0.0656 | -0.0675 | 0.2308 |
| 18 | 18.90 | -0.00 | 0.0757 | 9.9999 | -0.0104 | 9.9999 | -0.2056 | -0.2100 | 0.0156 | -0.0373 | -0.0722 | 0.1727 |
| 19 | 20.75 | -0.00 | 0.0822 | 9.9999 | -0.0158 | 9.9999 | -0.1922 | -0.1589 | 0.0149 | -0.0165 | -0.0938 | 0.1038 |
| 20 | 22.62 | -0.00 | 0.0805 | 9.9999 | -0.0163 | 9.9999 | -0.2015 | -0.1299 | 0.0162 | -0.0020 | -0.1247 | 0.0154 |
| 21 | 24.55 | 0.00 | 0.0721 | 9.9999 | -0.0160 | 9.9999 | -0.2500 | -0.1161 | 0.0188 | 0.0054 | -0.1602 | -0.0465 |
| 22 | 26.49 | 0.00 | 0.0982 | 9.9999 | -0.0066 | 9.9999 | -0.0872 | -0.0935 | 0.0224 | 0.0121 | -0.2395 | -0.1294 |
| 23 | 28.34 | 0.00 | 0.1093 | 9.9999 | -0.0022 | 9.9999 | -0.0201 | -0.0923 | 0.0246 | 0.0101 | -0.2665 | -0.1094 |
| 24 | 28.38 | 0.00 | 0.0932 | 9.9999 | -0.0095 | 9.9999 | -0.1062 | -0.0026 | 0.0248 | 0.0135 | -0.3002 | -0.1634 |
| 25 | 28.74 | 0.00 | 0.1018 | 9.9999 | -0.0087 | 9.9999 | -0.0858 | -0.0822 | 0.0243 | 0.0139 | -0.2956 | -0.1691 |
| 26 | 29.01 | 0.00 | 0.1005 | 9.9999 | -0.0058 | 9.9999 | -0.0877 | -0.0822 | 0.0244 | 0.0139 | -0.2968 | -0.1691 |
| 27 | 29.31 | 0.00 | 0.1042 | 9.9999 | -0.0055 | 9.9999 | -0.0528 | -0.0731 | 0.0254 | 0.0169 | -0.3474 | -0.2312 |
| 28 | 29.65 | 0.00 | 0.1051 | 9.9999 | -0.0024 | 9.9999 | -0.0202 | -0.0723 | 0.0262 | 0.0156 | -0.3623 | -0.2158 |
| 29 | 29.93 | 0.00 | 0.0991 | 9.9999 | -0.0056 | 9.9999 | -0.0505 | -0.0624 | 0.0262 | 0.0178 | -0.4198 | -0.2853 |
| 30 | 30.21 | 0.00 | 0.1164 | 9.9999 | 0.0015 | 9.9999 | 0.0077 | -0.0624 | 0.0263 | 0.0169 | -0.4214 | -0.3029 |
| 31 | 30.48 | 0.00 | 0.1040 | 9.9999 | -0.0046 | 9.9999 | -0.0442 | -0.0396 | 0.0257 | 0.0246 | -0.6489 | -0.6212 |
| 32 | 30.77 | 0.00 | 0.1090 | 9.9999 | -0.0037 | 9.9999 | -0.0389 | -0.0614 | 0.0268 | 0.0186 | -0.4364 | -0.3029 |
| 33 | 31.03 | 0.00 | 0.1102 | 9.9999 | -0.0038 | 9.9999 | -0.0327 | -0.0525 | 0.0280 | 0.0195 | -0.5333 | -0.3714 |
| 34 | 31.31 | 0.00 | 0.1085 | 9.9999 | -0.0041 | 9.9999 | -0.0376 | -0.0456 | 0.0284 | 0.0232 | -0.6200 | -0.5065 |
| 35 | 31.59 | 0.00 | 0.1085 | 9.9999 | -0.0053 | 9.9999 | -0.0498 | -0.0486 | 0.0322 | 0.0208 | -0.6625 | -0.4280 |
| 36 | 31.86 | 0.00 | 0.1085 | 9.9999 | -0.0041 | 9.9999 | -0.0376 | -0.0563 | 0.0331 | 0.0178 | -0.5878 | -0.3162 |
| 37 | 32.13 | 0.00 | 0.1162 | 9.9999 | -0.0001 | 9.9999 | -0.0009 | -0.0598 | 0.0339 | 0.0162 | -0.5668 | -0.2709 |
| 38 | 32.41 | 0.00 | 0.1174 | 9.9999 | 0.0016 | 9.9999 | 0.0085 | -0.0655 | 0.0341 | 0.0142 | -0.5205 | -0.2168 |
| 39 | 32.67 | 0.00 | 0.1075 | 9.9999 | -0.0038 | 9.9999 | -0.0353 | -0.0430 | 0.0340 | 0.0221 | -0.7906 | -0.5140 |
| 40 | 32.92 | 0.00 | 0.1113 | 9.9999 | -0.0030 | 9.9999 | -0.0270 | -0.0327 | 0.0334 | 0.0269 | -1.0213 | -0.8226 |
| 41 | 33.19 | 0.00 | 0.1001 | 9.9999 | -0.0068 | 9.9999 | -0.0679 | -0.0337 | 0.0345 | 0.0268 | -1.1236 | -0.8730 |
| 42 | 33.45 | 0.00 | 0.1038 | 9.9999 | -0.0050 | 9.9999 | -0.0482 | -0.0364 | 0.0346 | 0.0232 | -0.9504 | -0.6374 |
| 43 | 33.70 | 0.00 | 0.0988 | 9.9999 | -0.0069 | 9.9999 | -0.0698 | -0.0193 | 0.0342 | 0.0296 | -1.7718 | -1.5337 |
| 44 | 33.95 | 0.00 | 0.0960 | 9.9999 | -0.0100 | 9.9999 | -0.1111 | -0.0313 | 0.0353 | 0.0248 | -1.1276 | -0.7923 |
| 45 | 34.21 | 0.00 | 0.0830 | 9.9999 | -0.0105 | 9.9999 | -0.1262 | -0.0340 | 0.0351 | 0.0235 | -1.0322 | -0.6912 |
| 46 | 34.45 | 0.00 | 0.0888 | 9.9999 | -0.0101 | 9.9999 | -0.1137 | -0.0256 | 0.0356 | 0.0252 | -1.3748 | -0.9844 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 10a 1.0c 1.7 | MACH 8.10=6 | PHI 0.0 | CONF 81 OF 14 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.72 | 0.05 | 0.0912 | 0.9999 | -0.0075 | 0.9999 | -0.3822 | -0.0231 | 0.0356 | 0.0265 | -1.5409 | -1.1472 |
| 48 | 34.90 | 0.00 | 0.0936 | 0.9999 | -0.0083 | 0.9999 | -0.3988 | -0.0261 | 0.0355 | 0.0258 | -1.3753 | -0.9885 |
| 49 | 35.20 | 0.04 | 0.0887 | 0.9999 | -0.0082 | 0.9999 | -0.3924 | -0.0036 | 0.0357 | 0.0326 | -9.9153 | -9.0555 |
| 50 | 35.43 | 0.04 | 0.0912 | 0.9999 | -0.0075 | 0.9999 | -0.3822 | 0.0003 | 0.0346 | 0.0375 | 4.1922 | 4.5181 |
| 51 | 35.65 | 0.04 | 0.0837 | 0.9999 | -0.0091 | 0.9999 | -0.1367 | 0.0309 | 0.0353 | 0.0360 | 39.2170 | 40.0000 |
| 52 | 35.93 | 0.05 | 0.0814 | 0.9999 | -0.0088 | 0.9999 | -0.1364 | 0.0113 | 0.0349 | 0.0387 | 3.0527 | 3.4248 |
| 53 | 36.18 | 0.03 | 0.0788 | 0.9999 | -0.0090 | 0.9999 | -0.1142 | 0.0352 | 0.0329 | 0.0505 | 0.9345 | 1.4348 |
| 54 | 36.41 | 0.05 | 0.0937 | 0.9999 | -0.0094 | 0.9999 | -0.0970 | 0.0405 | 0.0332 | 0.0504 | 0.8196 | 1.2444 |
| 55 | 36.64 | 0.05 | 0.0837 | 0.9999 | -0.0088 | 0.9999 | -0.0789 | 0.0432 | 0.0333 | 0.0512 | 0.7707 | 1.1852 |
| 56 | 36.88 | 0.04 | 0.0782 | 0.9999 | -0.0077 | 0.9999 | -0.1010 | 0.0459 | 0.0335 | 0.0519 | 0.7297 | 1.1307 |
| 57 | 37.12 | 0.03 | 0.0849 | 0.9999 | -0.0096 | 0.9999 | -0.0860 | 0.0617 | 0.0330 | 0.0587 | 0.5348 | 0.9514 |
| 58 | 37.36 | 0.04 | 0.0836 | 0.9999 | -0.0087 | 0.9999 | -0.0862 | 0.0648 | 0.0327 | 0.0594 | 0.5046 | 0.9167 |
| 59 | 37.60 | 0.05 | 0.0837 | 0.9999 | -0.0082 | 0.9999 | -0.0502 | 0.0726 | 0.0318 | 0.0608 | 0.4380 | 0.8375 |
| 60 | 37.83 | 0.04 | 0.0837 | 0.9999 | -0.0082 | 0.9999 | -0.0502 | 0.0829 | 0.0317 | 0.0642 | 0.3778 | 0.7652 |
| 61 | 38.07 | 0.05 | 0.0824 | 0.9999 | -0.0086 | 0.9999 | -0.0461 | 0.0929 | 0.0310 | 0.0684 | 0.3336 | 0.7363 |
| 62 | 38.28 | 0.03 | 0.0814 | 0.9999 | -0.0084 | 0.9999 | -0.0665 | 0.0963 | 0.0313 | 0.0699 | 0.3184 | 0.7111 |
| 63 | 38.53 | 0.04 | 0.0745 | 0.9999 | -0.0084 | 0.9999 | -0.0854 | 0.1019 | 0.0303 | 0.0720 | 0.2973 | 0.7066 |
| 64 | 38.76 | 0.03 | 0.0783 | 0.9999 | -0.0088 | 0.9999 | -0.0891 | 0.1096 | 0.0314 | 0.0703 | 0.2865 | 0.6414 |
| 65 | 38.98 | 0.01 | 0.0713 | 0.9999 | -0.0081 | 0.9999 | -0.1136 | 0.1114 | 0.0309 | 0.0734 | 0.2773 | 0.6589 |
| 66 | 39.19 | 0.03 | 0.0782 | 0.9999 | -0.0096 | 0.9999 | -0.0711 | 0.1293 | 0.0292 | 0.0777 | 0.2330 | 0.6201 |
| 67 | 39.43 | 0.03 | 0.0725 | 0.9999 | -0.0088 | 0.9999 | -0.0910 | 0.1262 | 0.0299 | 0.0774 | 0.2365 | 0.6133 |
| 68 | 39.63 | 0.02 | 0.0762 | 0.9999 | -0.0093 | 0.9999 | -0.0904 | 0.1208 | 0.0314 | 0.0748 | 0.2599 | 0.6192 |
| 69 | 39.84 | 0.04 | 0.0751 | 0.9999 | -0.0095 | 0.9999 | -0.0786 | 0.1331 | 0.0303 | 0.0786 | 0.2276 | 0.5905 |
| 70 | 40.05 | 0.01 | 0.0702 | 0.9999 | -0.0086 | 0.9999 | -0.0969 | 0.1295 | 0.0315 | 0.0786 | 0.2432 | 0.5915 |
| 71 | 40.26 | 0.03 | 0.0677 | 0.9999 | -0.0080 | 0.9999 | -0.1162 | 0.1322 | 0.0318 | 0.0779 | 0.2405 | 0.5853 |
| 72 | 40.47 | 0.02 | 0.0635 | 0.9999 | -0.0088 | 0.9999 | -0.1377 | 0.1386 | 0.0349 | 0.0680 | 0.3213 | 0.6262 |
| 73 | 40.66 | 0.03 | 0.0752 | 0.9999 | -0.0094 | 0.9999 | -0.0718 | 0.1409 | 0.0314 | 0.0790 | 0.2228 | 0.5607 |
| 74 | 40.88 | 0.02 | 0.0727 | 0.9999 | -0.0086 | 0.9999 | -0.0833 | 0.1244 | 0.0348 | 0.0719 | 0.2797 | 0.5780 |
| 75 | 41.09 | 0.02 | 0.0677 | 0.9999 | -0.0080 | 0.9999 | -0.0886 | 0.1268 | 0.0334 | 0.0733 | 0.2634 | 0.5781 |
| 76 | 41.28 | 0.04 | 0.0677 | 0.9999 | -0.0090 | 0.9999 | -0.0739 | 0.1429 | 0.0295 | 0.0850 | 0.1815 | 0.5231 |
| 77 | 41.50 | 0.03 | 0.0735 | 0.9999 | -0.0021 | 0.9999 | -0.0284 | 0.1534 | 0.0311 | 0.0830 | 0.1963 | 0.5246 |
| 78 | 41.70 | 0.04 | 0.0727 | 0.9999 | -0.0031 | 0.9999 | -0.0426 | 0.1693 | 0.0300 | 0.0882 | 0.1772 | 0.5216 |
| 79 | 41.90 | 0.04 | 0.0653 | 0.9999 | -0.0043 | 0.9999 | -0.0656 | 0.1426 | 0.0339 | 0.0774 | 0.2377 | 0.5428 |
| 80 | 42.09 | 0.04 | 0.0718 | 0.9999 | -0.0018 | 0.9999 | -0.0451 | 0.1615 | 0.0323 | 0.0839 | 0.2000 | 0.5155 |
| 81 | 42.28 | 0.04 | 0.0757 | 0.9999 | -0.0005 | 0.9999 | -0.0366 | 0.1693 | 0.0321 | 0.0860 | 0.1899 | 0.5089 |
| 82 | 42.48 | 0.03 | 0.0656 | 0.9999 | -0.0044 | 0.9999 | -0.0729 | 0.1682 | 0.0319 | 0.0866 | 0.1856 | 0.5149 |
| 83 | 42.66 | 0.03 | 0.0654 | 0.9999 | -0.0035 | 0.9999 | -0.0503 | 0.1965 | 0.0292 | 0.0937 | 0.1501 | 0.4817 |
| 84 | 42.84 | 0.03 | 0.0644 | 0.9999 | -0.0045 | 0.9999 | -0.0759 | 0.1518 | 0.0349 | 0.0777 | 0.2299 | 0.5115 |
| 85 | 43.02 | 0.02 | 0.0671 | 0.9999 | -0.0032 | 0.9999 | -0.0677 | 0.1906 | 0.0308 | 0.0918 | 0.1616 | 0.4816 |
| 86 | 43.21 | 0.02 | 0.0620 | 0.9999 | -0.0041 | 0.9999 | -0.0001 | 0.1708 | 0.0324 | 0.0865 | 0.1832 | 0.4893 |
| 87 | 43.37 | 0.02 | 0.0584 | 0.9999 | -0.0084 | 0.9999 | -0.1438 | 0.1674 | 0.0316 | 0.0897 | 0.1686 | 0.4787 |
| 88 | 43.56 | 0.02 | 0.0645 | 0.9999 | -0.0065 | 0.9999 | -0.1063 | 0.1919 | 0.0320 | 0.0908 | 0.1667 | 0.4732 |
| 89 | 43.74 | 0.02 | 0.0558 | 0.9999 | -0.0078 | 0.9999 | -0.1304 | 0.2204 | 0.0289 | 0.0996 | 0.1293 | 0.4514 |
| 90 | 43.93 | 0.01 | 0.0629 | 0.9999 | -0.0061 | 0.9999 | -0.1296 | 0.1862 | 0.0332 | 0.0893 | 0.1764 | 0.4745 |
| 91 | 44.09 | 0.02 | 0.0637 | 0.9999 | -0.0065 | 0.9999 | -0.1320 | 0.1852 | 0.0337 | 0.0867 | 0.1819 | 0.4785 |
| 92 | 44.28 | 0.00 | 0.0585 | 0.9999 | -0.0074 | 0.9999 | -0.1265 | 0.1971 | 0.0384 | 0.0755 | 0.2444 | 0.4806 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | PACH | RXIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | two | 1.00 | 1.7 | 0.C | 61NUF14 | 0.C | 0 | -30 | 0 | -30 | UNKNOWN |

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.46 | 0.01 | 0.0685C | 5.9999 | -0.0074 | 5.9999 | -0.1138 | 0.1309 | 0.0355 | 0.0845 | 0.1962 | 0.4671 |
| 94 | 44.64 | 0.01 | 0.0575 | 5.9999 | -0.0095 | 5.9999 | -0.1058 | 0.2024 | 0.0332 | 0.0924 | 0.1640 | 0.4585 |
| 95 | 44.83 | 0.01 | 0.0627 | 5.9999 | -0.0056 | 5.9999 | -0.0815 | 0.1630 | 0.0357 | 0.0745 | 0.2435 | 0.4571 |
| 96 | 45.02 | 0.01 | 0.0565 | 5.9999 | -0.0106 | 5.9999 | -0.1093 | 0.1967 | 0.0346 | 0.0890 | 0.1759 | 0.4525 |
| 97 | 45.20 | 0.01 | 0.0616 | 5.9999 | -0.0077 | 5.9999 | -0.1262 | 0.1958 | 0.0356 | 0.0871 | 0.1828 | 0.4448 |
| 98 | 45.38 | -0.01 | 0.0571 | 5.9999 | -0.0085 | 5.9999 | -0.1089 | 0.1928 | 0.0411 | 0.0708 | 0.2685 | 0.4634 |
| 99 | 45.56 | -0.01 | 0.0595 | 5.9999 | -0.0116 | 5.9999 | -0.2075 | 0.1998 | 0.0357 | 0.0867 | 0.1767 | 0.4335 |
| 100 | 45.75 | -0.00 | 0.0647 | 5.9999 | -0.0075 | 5.9999 | -0.1221 | 0.1584 | 0.0406 | 0.0716 | 0.2575 | 0.4520 |
| 101 | 45.92 | 0.00 | 0.0595 | 5.9999 | -0.0083 | 5.9999 | -0.1395 | 0.1782 | 0.0392 | 0.0774 | 0.2155 | 0.4343 |
| 102 | 46.09 | -0.01 | 0.0606 | 5.9999 | -0.0107 | 5.9999 | -0.1451 | 0.1814 | 0.0386 | 0.0766 | 0.2135 | 0.4333 |
| 103 | 46.26 | -0.00 | 0.0544 | 5.9999 | -0.0097 | 5.9999 | -0.1783 | 0.2089 | 0.0359 | 0.0884 | 0.1718 | 0.4232 |
| 104 | 46.44 | -0.01 | 0.0615 | 5.9999 | -0.0101 | 5.9999 | -0.0965 | 0.1915 | 0.0382 | 0.0823 | 0.1995 | 0.4298 |
| 105 | 46.62 | 0.01 | 0.0595 | 5.9999 | -0.0083 | 5.9999 | -0.1395 | 0.2099 | 0.0369 | 0.0882 | 0.1758 | 0.4262 |
| 106 | 46.78 | 0.00 | 0.0594 | 5.9999 | -0.0073 | 5.9999 | -0.1229 | 0.2093 | 0.0371 | 0.0860 | 0.1772 | 0.4109 |
| 107 | 46.96 | 0.02 | 0.0581 | 5.9999 | -0.0075 | 5.9999 | -0.1360 | 0.1980 | 0.0407 | 0.0802 | 0.2055 | 0.4050 |
| 108 | 47.15 | 0.01 | 0.0585 | 5.9999 | -0.0104 | 5.9999 | -0.1648 | 0.2010 | 0.0402 | 0.0828 | 0.2000 | 0.4115 |
| 109 | 47.31 | 0.02 | 0.0542 | 5.9999 | -0.0086 | 5.9999 | -0.1587 | 0.2491 | 0.0363 | 0.1001 | 0.1457 | 0.4018 |
| 110 | 47.48 | 0.04 | 0.0542 | 5.9999 | -0.0091 | 5.9999 | -0.1679 | 0.2648 | 0.0343 | 0.1178 | 0.1163 | 0.3996 |
| 111 | 47.67 | 0.03 | 0.0541 | 5.9999 | -0.0056 | 5.9999 | -0.1774 | 0.3216 | 0.0340 | 0.1264 | 0.1057 | 0.3930 |
| 112 | 47.85 | 0.03 | 0.0616 | 5.9999 | -0.0060 | 5.9999 | -0.0974 | 0.3425 | 0.0345 | 0.1317 | 0.1007 | 0.3845 |
| 113 | 48.03 | 0.03 | 0.0616 | 5.9999 | -0.0060 | 5.9999 | -0.0974 | 0.3330 | 0.0369 | 0.1267 | 0.1168 | 0.3805 |
| 114 | 48.19 | 0.04 | 0.0641 | 5.9999 | -0.0068 | 5.9999 | -0.1061 | 0.3120 | 0.0412 | 0.1157 | 0.1318 | 0.3761 |
| 115 | 48.39 | 0.05 | 0.0577 | 5.9999 | -0.0068 | 5.9999 | -0.1175 | 0.2659 | 0.0447 | 0.0978 | 0.1681 | 0.3678 |
| 116 | 48.57 | 0.04 | 0.0641 | 5.9999 | -0.0058 | 5.9999 | -0.0905 | 0.2518 | 0.0445 | 0.0899 | 0.1767 | 0.3570 |
| 117 | 48.71 | 0.04 | 0.0614 | 5.9999 | -0.0050 | 5.9999 | -0.0814 | 0.2343 | 0.0465 | 0.0848 | 0.1984 | 0.3619 |
| 118 | 48.93 | 0.05 | 0.0665 | 5.9999 | -0.0041 | 5.9999 | -0.0617 | 0.2524 | 0.0450 | 0.0800 | 0.1763 | 0.3566 |
| 119 | 49.08 | 0.05 | 0.0728 | 5.9999 | -0.0027 | 5.9999 | -0.0372 | 0.2513 | 0.0460 | 0.0890 | 0.1830 | 0.3542 |
| 120 | 49.26 | 0.06 | 0.0727 | 5.9999 | -0.0017 | 5.9999 | -0.0234 | 0.2457 | 0.0463 | 0.0872 | 0.1884 | 0.3549 |
| 121 | 49.46 | 0.06 | 0.0650 | 5.9999 | -0.0018 | 5.9999 | -0.0277 | 0.2545 | 0.0457 | 0.0862 | 0.1795 | 0.3466 |
| 122 | 49.64 | 0.06 | 0.0666 | 5.9999 | -0.0017 | 5.9999 | -0.0257 | 0.2533 | 0.0465 | 0.0883 | 0.1851 | 0.3486 |
| 123 | 49.81 | 0.06 | 0.0567 | 5.9999 | -0.0038 | 5.9999 | -0.0647 | 0.2491 | 0.0475 | 0.0833 | 0.1978 | 0.3469 |
| 124 | 50.01 | 0.06 | 0.0636 | 5.9999 | -0.0038 | 5.9999 | -0.0610 | 0.2416 | 0.0475 | 0.0835 | 0.1964 | 0.3453 |
| 125 | 50.19 | 0.06 | 0.0563 | 5.9999 | -0.0064 | 5.9999 | -0.1137 | 0.2325 | 0.0484 | 0.0796 | 0.2081 | 0.3432 |
| 126 | 50.35 | 0.04 | 0.0565 | 5.9999 | -0.0050 | 5.9999 | -0.0868 | 0.2467 | 0.0480 | 0.0847 | 0.1930 | 0.3466 |
| 127 | 50.53 | 0.05 | 0.0665 | 5.9999 | -0.0015 | 5.9999 | -0.0216 | 0.2438 | 0.0489 | 0.0829 | 0.2005 | 0.3466 |
| 128 | 50.72 | 0.04 | 0.0565 | 5.9999 | -0.0053 | 5.9999 | -0.0900 | 0.2380 | 0.0494 | 0.0806 | 0.2075 | 0.3387 |
| 129 | 50.87 | 0.04 | 0.0664 | 5.9999 | -0.0017 | 5.9999 | -0.0256 | 0.2436 | 0.0495 | 0.0803 | 0.2055 | 0.3385 |
| 130 | 51.04 | 0.01 | 0.0578 | 5.9999 | -0.0045 | 5.9999 | -0.0851 | 0.2389 | 0.0506 | 0.0796 | 0.2144 | 0.3366 |
| 131 | 51.20 | 0.03 | 0.0735 | 5.9999 | 0.0015 | 5.9999 | 0.0257 | 0.2530 | 0.0502 | 0.0866 | 0.1984 | 0.3423 |
| 132 | 51.36 | 0.01 | 0.0560 | 5.9999 | -0.0104 | 5.9999 | -0.1280 | 0.2570 | 0.0504 | 0.0875 | 0.1961 | 0.3405 |
| 133 | 51.52 | 0.02 | 0.0576 | 5.9999 | -0.0045 | 5.9999 | -0.0851 | 0.2690 | 0.0496 | 0.0823 | 0.1844 | 0.3431 |
| 134 | 51.71 | 0.03 | 0.0586 | 5.9999 | -0.0083 | 5.9999 | -0.2150 | 0.2700 | 0.0488 | 0.0843 | 0.1764 | 0.3409 |
| 135 | 51.85 | 0.02 | 0.0587 | 5.9999 | -0.0084 | 5.9999 | -0.2171 | 0.2827 | 0.0487 | 0.0969 | 0.1722 | 0.3428 |
| 136 | 52.02 | 0.01 | 0.0565 | 5.9999 | -0.0093 | 5.9999 | -0.0560 | 0.2958 | 0.0487 | 0.0995 | 0.1646 | 0.3364 |
| 137 | 52.19 | 0.01 | 0.0564 | 5.9999 | -0.0025 | 5.9999 | -0.0453 | 0.3038 | 0.0475 | 0.1024 | 0.1563 | 0.3371 |
| 138 | 52.36 | 0.01 | 0.0561 | 5.9999 | -0.0065 | 5.9999 | -0.1297 | 0.3351 | 0.0455 | 0.1132 | 0.1358 | 0.3378 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 100 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF 61HGF14 L 0.0 DELT 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.54 | 0.00 | 0.0488 | 9.9999 | -0.0001 | 9.9999 | -0.1250 | 0.3383 | 0.0450 | 0.1128 | 0.1330 | 0.3334 |
| 140 | 52.71 | 0.00 | 0.0564 | 9.9999 | -0.0095 | 9.9999 | -0.0975 | 0.3406 | 0.0450 | 0.1133 | 0.1321 | 0.3326 |
| 141 | 52.87 | -0.01 | 0.0526 | 9.9999 | -0.0046 | 9.9999 | -0.0913 | 0.3201 | 0.0463 | 0.1070 | 0.1446 | 0.3343 |

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MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 10= 1.10 1.1 | MACH 0.6 | REYNO-E 8 DIGIT14 | PHI C.C | CONF | L C.C | DELT 0 | DELZ -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.76 | 0.01 | -2.4372 | 8.4946 | C.C26C | C.0015 | 0.0029 | 1.4224 | 0.3172 | 1.1053 | -3.4855 |
| 2 | -5.77 | 0.01 | -2.4455 | 8.5446 | 0.0045 | 0.0014 | 0.0028 | 1.4351 | 0.3197 | 1.1155 | -3.4920 |
| 3 | -5.76 | 0.01 | -2.3656 | 8.4965 | -C.0492 | 0.1012 | 0.0028 | 1.4268 | 0.3197 | 1.1072 | -3.5557 |
| 4 | -5.80 | 0.01 | -2.3662 | 8.4983 | 0.0587 | -0.0292 | 0.0032 | 1.4316 | 0.3176 | 1.1141 | -3.5625 |
| 5 | -3.95 | 0.02 | -2.1529 | 8.1332 | 0.1236 | -0.1097 | 0.0093 | 1.3825 | 0.3004 | 1.0822 | -3.7778 |
| 6 | -2.43 | 0.01 | -1.9261 | 7.7845 | 0.0102 | -0.0599 | 0.0043 | 1.3402 | 0.2689 | 1.0513 | -4.0416 |
| 7 | -0.46 | 0.01 | -1.7376 | 7.3945 | 0.0017 | -0.0142 | 0.0046 | 1.3010 | 0.2939 | 1.0071 | -4.2573 |
| 8 | 1.31 | 0.01 | -1.5426 | 6.8454 | 0.0153 | 0.0205 | 0.0105 | 1.2656 | 0.3093 | 0.9563 | -4.7478 |
| 9 | 3.17 | 0.01 | -1.2037 | 6.3632 | 0.0375 | 0.0185 | 0.0055 | 1.2307 | 0.3288 | 0.9020 | -5.2775 |
| 10 | 4.88 | 0.02 | -0.9454 | 5.8228 | 0.1145 | -0.0248 | 0.0060 | 1.1881 | 0.3397 | 0.8484 | -6.1332 |
| 11 | 6.71 | 0.02 | -0.6724 | 5.2675 | 0.1142 | -0.0632 | 0.0060 | 1.1159 | 0.3450 | 0.7709 | -7.8333 |
| 12 | 8.50 | 0.01 | -0.3733 | 4.7084 | 0.0166 | 0.0762 | 0.0069 | 1.0527 | 0.3523 | 0.7005 | -12.6131 |
| 13 | 10.29 | 0.01 | -0.0647 | 4.1845 | -0.0354 | 0.0766 | 0.0130 | 1.0011 | 0.3625 | 0.6386 | -49.3776 |
| 14 | 12.14 | 0.01 | 0.2476 | 3.6126 | 0.0217 | 0.1482 | 0.0187 | 0.9465 | 0.3670 | 0.5795 | 14.5687 |
| 15 | 13.97 | 0.01 | 0.5358 | 3.1406 | 0.0736 | 0.0416 | 0.0085 | 0.8863 | 0.3695 | 0.5188 | 5.6618 |
| 16 | 15.89 | -0.00 | 0.8280 | 2.6161 | -0.0614 | 0.3223 | 0.0145 | 0.8156 | 0.3719 | 0.4437 | 2.7605 |
| 17 | 17.81 | -0.02 | 1.2323 | 2.2663 | -0.2331 | 0.5417 | 0.0146 | 0.7696 | 0.3786 | 0.3912 | 1.8390 |
| 18 | 19.88 | -0.02 | 1.6073 | 2.0565 | -0.2163 | 0.7719 | 0.0090 | 0.7307 | 0.3804 | 0.3503 | 1.2797 |
| 19 | 21.81 | -0.02 | 1.9555 | 2.1296 | -0.1466 | 0.4423 | 0.0127 | 0.6788 | 0.3756 | 0.3032 | 1.0649 |
| 20 | 23.61 | -0.01 | 2.5751 | 2.3666 | -0.1211 | 0.4672 | 0.0043 | 0.6360 | 0.3668 | 0.2712 | 0.9177 |
| 21 | 25.56 | -0.01 | 3.1123 | 2.6133 | 0.0286 | -0.1710 | 0.0466 | 0.6100 | 0.3658 | 0.2442 | 0.8357 |
| 22 | 27.37 | 0.04 | 3.6531 | 2.9834 | 0.5055 | -0.9423 | 0.0830 | 0.5804 | 0.3693 | 0.2111 | 0.8167 |
| 23 | 28.44 | 0.03 | 3.9045 | 2.9020 | 0.3685 | -0.9754 | 0.0947 | 0.5766 | 0.3722 | 0.2064 | 0.7432 |
| 24 | 28.45 | 0.01 | 3.9956 | 2.8565 | 0.2756 | -0.7456 | 0.0838 | 0.5775 | 0.3715 | 0.2060 | 0.7154 |
| 25 | 28.72 | 0.04 | 4.0322 | 2.9368 | 0.2968 | -0.5945 | 0.0840 | 0.5807 | 0.3716 | 0.2089 | 0.7283 |
| 26 | 29.01 | 0.02 | 4.1543 | 2.8035 | 0.3056 | -0.4301 | 0.0879 | 0.5816 | 0.3697 | 0.1919 | 0.6541 |
| 27 | 29.36 | 0.01 | 4.2450 | 2.9457 | 0.1287 | -0.2264 | 0.0881 | 0.5677 | 0.3729 | 0.1948 | 0.6539 |
| 28 | 29.88 | 0.02 | 4.4251 | 2.8804 | 0.3528 | -0.0478 | 0.0858 | 0.5726 | 0.3722 | 0.2004 | 0.6503 |
| 29 | 29.95 | 0.03 | 4.5750 | 2.7938 | 0.4251 | -0.7291 | 0.0918 | 0.5520 | 0.3726 | 0.1794 | 0.6106 |
| 30 | 30.24 | 0.05 | 4.6310 | 2.7466 | 0.6451 | -1.2309 | 0.1454 | 0.5457 | 0.3747 | 0.1710 | 0.5935 |
| 31 | 30.53 | 0.05 | 4.6952 | 2.6728 | 0.6582 | -1.4298 | 0.1313 | 0.5554 | 0.3765 | 0.1789 | 0.5653 |
| 32 | 30.80 | 0.06 | 4.9020 | 2.6441 | 0.6907 | -1.2665 | 0.1319 | 0.5354 | 0.3775 | 0.1579 | 0.5393 |
| 33 | 31.08 | 0.05 | 5.0255 | 2.6038 | 0.5554 | -0.8611 | 0.1155 | 0.5502 | 0.3887 | 0.1615 | 0.5181 |
| 34 | 31.36 | 0.04 | 5.1013 | 2.5461 | 0.4611 | -0.6068 | 0.1210 | 0.5354 | 0.3912 | 0.1442 | 0.4951 |
| 35 | 31.64 | 0.05 | 5.2619 | 2.5144 | 0.4455 | -0.6067 | 0.1213 | 0.5306 | 0.3874 | 0.1432 | 0.4779 |
| 36 | 31.92 | 0.04 | 5.3005 | 2.4336 | 0.3777 | -0.6245 | 0.1269 | 0.5405 | 0.3965 | 0.1440 | 0.4591 |
| 37 | 32.19 | 0.06 | 5.4789 | 2.4827 | 0.4167 | -0.4323 | 0.1001 | 0.5016 | 0.3927 | 0.1089 | 0.4533 |
| 38 | 32.47 | 0.02 | 5.5560 | 2.3523 | 0.1496 | -0.1342 | 0.0889 | 0.5146 | 0.3926 | 0.1220 | 0.4306 |
| 39 | 32.74 | 0.04 | 5.6490 | 2.2685 | 0.2828 | -0.3345 | 0.0896 | 0.4867 | 0.3933 | 0.0953 | 0.3981 |
| 40 | 33.00 | 0.05 | 5.7689 | 2.1965 | 0.4236 | -0.6388 | 0.1265 | 0.5001 | 0.3993 | 0.1008 | 0.3795 |
| 41 | 33.27 | 0.02 | 5.9415 | 2.2755 | 0.0090 | 0.3563 | 0.0815 | 0.4666 | 0.3965 | 0.0858 | 0.3837 |
| 42 | 33.53 | 0.03 | 5.9060 | 2.0271 | 0.1757 | 0.1000 | 0.0785 | 0.4505 | 0.3992 | 0.0912 | 0.3386 |
| 43 | 33.78 | 0.03 | 6.1215 | 2.1454 | 0.1078 | 0.4578 | 0.0958 | 0.4837 | 0.4027 | 0.0809 | 0.3505 |
| 44 | 34.04 | 0.01 | 6.1725 | 2.0076 | -0.6226 | 0.4061 | 0.0891 | 0.4763 | 0.4034 | 0.0729 | 0.3350 |
| 45 | 34.26 | 0.05 | 6.3658 | 1.7965 | -0.0082 | 0.7026 | 0.0775 | 0.4694 | 0.4083 | 0.0611 | 0.2825 |
| 46 | 34.53 | 0.01 | 6.4536 | 1.8187 | 0.0265 | 0.4760 | 0.0897 | 0.4689 | 0.4117 | 0.0572 | 0.2801 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REIG-6 PHI CONF L DELI DELZ DEL3 DEL4 TRANSITION
7 4u9 1.1u 1.7 0.C 0 1e0F14 C.C 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 36.80 | 0.01 | 6.5283 | 1.7962 | -0.0452 | 0.3500 | 0.0955 | 0.4569 | 0.4109 | 0.0540 | 0.2754 |
| 48 | 35.05 | 0.01 | 6.6617 | 1.7353 | -0.0005 | 0.7897 | 0.0784 | 0.4032 | 0.4183 | 0.0449 | 0.2603 |
| 49 | 35.25 | 0.01 | 6.8910 | 1.5364 | -0.1115 | 0.8653 | 0.1044 | 0.4551 | 0.4253 | 0.0358 | 0.2230 |
| 50 | 35.54 | 0.02 | 6.8362 | 1.6001 | 0.0655 | 0.8508 | 0.0900 | 0.4045 | 0.4235 | 0.0350 | 0.2428 |
| 51 | 35.79 | 0.01 | 7.0248 | 1.4253 | -0.0534 | 0.7121 | 0.1129 | 0.4742 | 0.4280 | 0.0462 | 0.2029 |
| 52 | 36.02 | 0.02 | 7.1206 | 1.3376 | 0.1157 | 0.6217 | 0.1076 | 0.4593 | 0.4296 | 0.0297 | 0.1875 |
| 53 | 36.26 | 0.01 | 7.1885 | 1.3383 | -0.0446 | 0.6538 | 0.1297 | 0.4651 | 0.4227 | 0.0424 | 0.1862 |
| 54 | 36.50 | 0.03 | 7.2036 | 1.2825 | 0.1520 | 0.4888 | 0.1032 | 0.4580 | 0.4220 | 0.0360 | 0.1766 |
| 55 | 36.72 | 0.02 | 7.4145 | 1.0566 | 0.1736 | 0.4687 | 0.1307 | 0.4416 | 0.4307 | 0.0109 | 0.1482 |
| 56 | 36.97 | 0.00 | 7.5621 | 1.0506 | -0.0094 | 0.6421 | 0.1032 | 0.4367 | 0.4220 | 0.0147 | 0.1443 |
| 57 | 37.22 | 0.02 | 7.5854 | 1.1355 | 0.1781 | 0.4561 | 0.0988 | 0.4321 | 0.4206 | 0.0115 | 0.1503 |
| 58 | 37.49 | 0.00 | 7.6171 | 0.9474 | -0.0452 | 0.6357 | 0.1150 | 0.4178 | 0.4262 | -0.0044 | 0.1212 |
| 59 | 37.68 | 0.01 | 7.6187 | 0.8426 | 0.0102 | 0.6025 | 0.1155 | 0.4083 | 0.4192 | -0.0112 | 0.1078 |
| 60 | 37.93 | 0.02 | 7.9343 | 0.8727 | 0.1154 | 0.4178 | 0.1056 | 0.4007 | 0.4210 | -0.0143 | 0.1100 |
| 61 | 38.15 | -0.02 | 8.0532 | 0.7687 | -0.1635 | 0.7660 | 0.0996 | 0.4164 | 0.4223 | -0.0119 | 0.0955 |
| 62 | 38.38 | 0.02 | 8.1541 | 0.9321 | 0.1871 | 0.4851 | 0.1167 | 0.4142 | 0.4228 | -0.0144 | 0.0653 |
| 63 | 38.63 | -0.00 | 8.2458 | 0.8170 | -0.0165 | 0.7445 | 0.1057 | 0.4006 | 0.4136 | -0.0130 | 0.0748 |
| 64 | 38.88 | 0.01 | 8.4184 | 0.8067 | 0.1365 | 0.4913 | 0.0859 | 0.3913 | 0.4213 | -0.0300 | 0.0673 |
| 65 | 39.09 | -0.01 | 8.3928 | 0.5817 | -0.0873 | 0.4733 | 0.0911 | 0.3868 | 0.4180 | -0.0292 | 0.0653 |
| 66 | 39.32 | 0.01 | 8.4748 | 0.6093 | 0.1513 | 0.4521 | 0.0803 | 0.3808 | 0.4167 | -0.0307 | 0.0719 |
| 67 | 39.53 | 0.01 | 8.5005 | 0.5122 | 0.1615 | 0.3657 | 0.0860 | 0.3844 | 0.4057 | -0.0453 | 0.0603 |
| 68 | 39.77 | -0.04 | 8.7072 | 0.5355 | -0.2594 | 0.4422 | 0.0872 | 0.3834 | 0.4066 | -0.0482 | 0.0408 |
| 69 | 40.03 | -0.01 | 8.8371 | 0.2146 | -0.0304 | 0.4661 | 0.0870 | 0.3836 | 0.4142 | -0.0504 | 0.0243 |
| 70 | 40.23 | 0.01 | 8.8805 | 0.2224 | 0.2195 | 0.1913 | 0.0864 | 0.3438 | 0.4093 | -0.0655 | 0.0250 |
| 71 | 40.45 | -0.01 | 8.9340 | 0.1956 | -0.0703 | 0.3516 | 0.0825 | 0.3661 | 0.4086 | -0.0625 | 0.0219 |
| 72 | 40.66 | -0.02 | 9.0273 | 0.0449 | -0.0617 | 0.5268 | 0.0767 | 0.3650 | 0.4093 | -0.0463 | 0.0050 |
| 73 | 40.86 | -0.00 | 9.1840 | -0.0370 | -0.0175 | 0.4857 | 0.0772 | 0.3215 | 0.3964 | -0.0749 | -0.0040 |
| 74 | 41.06 | 0.01 | 9.3050 | -0.1311 | 0.1681 | 0.4527 | 0.0773 | 0.3141 | 0.3936 | -0.0815 | -0.0141 |
| 75 | 41.25 | -0.03 | 9.3348 | -0.1100 | -0.1364 | 0.3951 | 0.0621 | 0.3069 | 0.3972 | -0.0963 | -0.0118 |
| 76 | 41.49 | -0.01 | 9.4270 | -0.3066 | -0.0247 | 0.5792 | 0.0868 | 0.3107 | 0.3884 | -0.0697 | -0.0319 |
| 77 | 41.72 | -0.02 | 9.5458 | -0.2485 | -0.1893 | 0.5361 | 0.0661 | 0.2953 | 0.3889 | -0.0955 | -0.0260 |
| 78 | 41.91 | -0.03 | 9.5457 | -0.3041 | -0.2761 | 1.0273 | 0.0605 | 0.2967 | 0.3870 | -0.0911 | -0.0381 |
| 79 | 42.12 | -0.01 | 9.6437 | -0.6514 | -0.1558 | 1.3863 | 0.0590 | 0.3268 | 0.3935 | -0.0866 | -0.0675 |
| 80 | 42.31 | -0.04 | 9.7463 | -0.4716 | -0.3153 | 1.0777 | 0.0556 | 0.2891 | 0.3868 | -0.0977 | -0.0485 |
| 81 | 42.53 | -0.01 | 9.7575 | -0.5035 | -0.1157 | 0.8095 | 0.0565 | 0.2754 | 0.3794 | -0.1050 | -0.0514 |
| 82 | 42.73 | -0.01 | 9.9456 | -0.7242 | -0.2150 | 1.3366 | 0.0442 | 0.2700 | 0.3805 | -0.1039 | -0.0728 |
| 83 | 42.90 | -0.01 | 9.9681 | -0.7565 | -0.2411 | 1.5158 | 0.0383 | 0.2711 | 0.3913 | -0.1202 | -0.0757 |
| 84 | 43.09 | -0.01 | 10.0867 | -1.0388 | -0.1923 | 0.8724 | 0.0411 | 0.2509 | 0.3798 | -0.1289 | -0.0835 |
| 85 | 43.28 | -0.00 | 10.1002 | -0.7455 | -0.1677 | 1.3695 | 0.0391 | 0.2830 | 0.3736 | -0.1056 | -0.0742 |
| 86 | 43.46 | -0.01 | 10.2165 | -1.0261 | -0.1572 | 1.0023 | 0.0410 | 0.2457 | 0.3655 | -0.1218 | -0.0808 |
| 87 | 43.63 | -0.01 | 10.2242 | -0.6681 | -0.0651 | 0.1302 | 0.0498 | 0.2329 | 0.3592 | -0.1272 | -0.0653 |
| 88 | 43.82 | 0.00 | 10.3072 | -0.8210 | -0.0803 | 0.7078 | 0.0462 | 0.2299 | 0.3735 | -0.1436 | -0.0792 |
| 89 | 44.00 | -0.01 | 10.3242 | -0.8567 | -0.2228 | 0.5396 | 0.0418 | 0.2093 | 0.3585 | -0.1470 | -0.0827 |
| 90 | 44.19 | -0.02 | 10.4765 | -1.0244 | -0.2374 | 0.8762 | 0.0424 | 0.2094 | 0.3576 | -0.1484 | -0.0883 |
| 91 | 44.35 | -0.03 | 10.5155 | -0.8417 | -0.3146 | 0.6981 | 0.0435 | 0.2035 | 0.3485 | -0.1450 | -0.0800 |
| 92 | 44.55 | -0.01 | 10.6456 | -1.0166 | -0.2786 | 1.4355 | 0.0193 | 0.2012 | 0.3505 | -0.1493 | -0.0948 |

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MANTIA MISSILE TAILS EFFECTS DATA

| | TEST | PART | MACH | RNID-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 109 | 1.10 | 1.7 | 0.0 | 81=0F14 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.73 | -0.02 | 10.7054 | -0.8924 | -0.1555 | 0.9156 | 0.0430 | 0.1672 | 0.3491 | -0.1595 | -0.0833 |
| 94 | 44.91 | -0.02 | 10.7144 | -0.8911 | -0.0733 | 0.2694 | 0.0509 | 0.1696 | 0.3408 | -0.1512 | -0.0775 |
| 95 | 45.10 | -0.01 | 10.8070 | -0.8978 | 0.0646 | -0.2277 | 0.0576 | 0.1692 | 0.3373 | -0.1481 | -0.0831 |
| 96 | 45.30 | -0.02 | 10.8742 | -0.9346 | -0.0619 | 0.5002 | 0.0397 | 0.1691 | 0.3390 | -0.1499 | -0.0860 |
| 97 | 45.47 | -0.02 | 10.9232 | -0.9467 | -0.1016 | 0.3631 | 0.0457 | 0.1728 | 0.3384 | -0.1641 | -0.0914 |
| 98 | 45.64 | -0.01 | 10.9652 | -0.9742 | 0.0019 | 0.4015 | 0.0457 | 0.1703 | 0.3334 | -0.1631 | -0.0797 |
| 99 | 45.84 | -0.04 | 11.1115 | -1.0777 | -0.3317 | 0.8115 | 0.0343 | 0.1543 | 0.3359 | -0.1616 | -0.0970 |
| 100 | 46.03 | -0.03 | 11.2520 | -1.0004 | -0.1960 | 0.7011 | 0.0239 | 0.1419 | 0.3246 | -0.1677 | -0.0691 |
| 101 | 46.19 | -0.04 | 11.2287 | -1.1823 | -0.3473 | 1.4257 | 0.0107 | 0.1612 | 0.3365 | -0.1753 | -0.1035 |
| 102 | 46.36 | -0.03 | 11.3067 | -1.1434 | -0.1321 | 0.6963 | 0.0297 | 0.1491 | 0.3319 | -0.1828 | -0.1011 |
| 103 | 46.54 | -0.05 | 11.3665 | -1.0837 | -0.2563 | 0.8367 | 0.0351 | 0.1388 | 0.3330 | -0.1942 | -0.0953 |
| 104 | 46.72 | -0.04 | 11.4709 | -1.0972 | -0.1005 | 0.8722 | 0.0184 | 0.1560 | 0.3400 | -0.1820 | -0.0957 |
| 105 | 46.89 | -0.05 | 11.4836 | -0.9940 | -0.3036 | 0.9215 | 0.0245 | 0.1518 | 0.3384 | -0.1866 | -0.0666 |
| 106 | 47.04 | -0.04 | 11.5215 | -1.1014 | -0.1457 | 0.6475 | 0.0361 | 0.1354 | 0.3396 | -0.2044 | -0.0956 |
| 107 | 47.23 | -0.03 | 11.5916 | -1.0775 | -0.1015 | 1.2526 | 0.0017 | 0.1504 | 0.3426 | -0.1922 | -0.0930 |
| 108 | 47.41 | -0.04 | 11.6075 | -1.0506 | -0.4495 | 1.5201 | -0.0090 | 0.1728 | 0.3515 | -0.1785 | -0.0824 |
| 109 | 47.58 | -0.05 | 11.7450 | -1.1325 | -0.3282 | 1.3527 | -0.0141 | 0.1514 | 0.3519 | -0.2005 | -0.0964 |
| 110 | 47.74 | -0.05 | 11.7386 | -1.0958 | -0.3816 | 1.2692 | -0.0188 | 0.1653 | 0.3561 | -0.1928 | -0.0814 |
| 111 | 47.92 | -0.04 | 11.7571 | -1.0251 | -0.2041 | 1.0820 | -0.0183 | 0.1674 | 0.3558 | -0.1884 | -0.0702 |
| 112 | 48.11 | -0.04 | 11.8541 | -1.0064 | -0.2595 | 0.8519 | -0.0062 | 0.1664 | 0.3603 | -0.1939 | -0.0848 |
| 113 | 48.28 | -0.02 | 12.0055 | -1.2062 | -0.0290 | 0.6942 | 0.0105 | 0.1495 | 0.3683 | -0.2188 | -0.1055 |
| 114 | 48.44 | -0.03 | 11.9344 | -1.0049 | -0.0937 | 0.7755 | -0.0080 | 0.1670 | 0.3729 | -0.2059 | -0.0842 |
| 115 | 48.62 | -0.03 | 12.0952 | -1.3043 | -0.0062 | 0.4104 | 0.0120 | 0.1712 | 0.3823 | -0.2111 | -0.1128 |
| 116 | 48.80 | -0.01 | 12.0967 | -1.8366 | 0.1641 | -0.0807 | 0.0502 | 0.1612 | 0.3956 | -0.2386 | -0.1481 |
| 117 | 48.98 | -0.02 | 12.0161 | -1.5553 | 0.0068 | -0.1113 | 0.0414 | 0.1643 | 0.4148 | -0.2365 | -0.1573 |
| 118 | 49.15 | -0.02 | 12.0086 | -1.0552 | 0.0253 | -0.1702 | 0.0524 | 0.1640 | 0.4176 | -0.2336 | -0.1495 |
| 119 | 49.30 | -0.00 | 12.0517 | -1.4756 | 0.1789 | -0.1791 | 0.0634 | 0.1998 | 0.4138 | -0.2140 | -0.1195 |
| 120 | 49.49 | 0.01 | 12.0521 | -1.0497 | 0.2414 | 0.1485 | 0.0754 | 0.2374 | 0.4096 | -0.1722 | -0.0847 |
| 121 | 49.64 | 0.01 | 12.2872 | -0.8527 | 0.1584 | 0.3540 | 0.0725 | 0.2548 | 0.4184 | -0.1636 | -0.0531 |
| 122 | 49.82 | 0.01 | 12.3055 | -0.8565 | 0.1565 | 0.4031 | 0.0726 | 0.2410 | 0.4204 | -0.1794 | -0.0725 |
| 123 | 50.00 | -0.00 | 12.3566 | -0.8562 | 0.1146 | 0.5671 | 0.0665 | 0.2418 | 0.4201 | -0.1783 | -0.0531 |
| 124 | 50.20 | 0.01 | 12.5205 | -0.9098 | 0.1715 | 0.5816 | 0.0725 | 0.2443 | 0.4278 | -0.1835 | -0.0727 |
| 125 | 49.89 | 0.00 | 12.4342 | -1.6325 | 0.1501 | -0.1893 | 0.0528 | 0.1708 | 0.4163 | -0.2455 | -0.1313 |
| 126 | 48.49 | -0.03 | 11.8275 | -1.1705 | -0.3603 | 1.2503 | -0.0190 | 0.1547 | 0.3774 | -0.2227 | -0.0950 |

TEST 8 PART 109 MACH 1.10 1.7 RXIC-6 PHI C.C CONF 14 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.76 | 0.01 | -0.0212 | 0.0016 | 0.0211 | -0.0472 | -0.9953 | -1.1848 | 0.0272 | -0.4147 | -0.0230 | 0.3500 |
| 2 | -5.77 | 0.01 | -0.0266 | 0.0011 | 0.0191 | -0.0410 | -0.7127 | -1.1865 | 0.0269 | -0.4156 | -0.0226 | 0.3497 |
| 3 | -5.76 | 0.01 | -0.0234 | 0.0011 | 0.0195 | -0.0476 | -0.8504 | -1.1925 | 0.0276 | -0.4163 | -0.0231 | 0.3491 |
| 4 | -5.80 | 0.01 | -0.0235 | 0.0012 | 0.0204 | -0.0511 | -0.8081 | -1.1906 | 0.0291 | -0.4086 | -0.0252 | 0.3535 |
| 5 | -3.95 | 0.02 | -0.0244 | 0.0012 | 0.0175 | -0.0492 | -0.7336 | -1.1097 | 0.0372 | -0.3965 | -0.0335 | 0.3577 |
| 6 | -2.23 | 0.01 | -0.0224 | 0.0016 | 0.0161 | -0.0304 | -0.6227 | -1.0382 | 0.0421 | -0.3835 | -0.0405 | 0.3713 |
| 7 | -0.46 | 0.01 | -0.0155 | 0.0012 | 0.0172 | -0.0103 | -0.8821 | -0.9467 | 0.0405 | -0.3573 | -0.0427 | 0.3766 |
| 8 | 1.31 | 0.01 | -0.0215 | 0.0006 | 0.0141 | -0.0372 | -0.6558 | -0.8626 | 0.0388 | -0.3286 | -0.0456 | 0.3809 |
| 9 | 3.17 | 0.01 | -0.0153 | 0.0008 | 0.0145 | -0.0414 | -0.7720 | -0.7829 | 0.0382 | -0.3048 | -0.0488 | 0.3893 |
| 10 | 4.88 | 0.02 | -0.0285 | 0.0011 | 0.0144 | -0.0300 | -0.5053 | -0.6852 | 0.0364 | -0.2787 | -0.0531 | 0.4067 |
| 11 | 6.71 | 0.02 | -0.0455 | 0.0011 | 0.0205 | -0.0242 | -0.4505 | -0.5871 | 0.0332 | -0.2526 | -0.0565 | 0.4302 |
| 12 | 8.50 | 0.01 | -0.0518 | -0.0001 | 0.0175 | 0.0212 | -0.3456 | -0.4917 | 0.0304 | -0.2273 | -0.0618 | 0.4623 |
| 13 | 10.29 | 0.00 | -0.0429 | -0.0024 | 0.0225 | 0.0559 | -0.5245 | -0.4096 | 0.0297 | -0.1988 | -0.0725 | 0.4654 |
| 14 | 12.14 | 0.01 | -0.0570 | -0.0026 | 0.0246 | 0.0436 | -0.4211 | -0.3170 | 0.0272 | -0.1691 | -0.0858 | 0.5334 |
| 15 | 13.97 | 0.01 | -0.0753 | -0.0020 | 0.0222 | 0.0268 | -0.2946 | -0.2168 | 0.0240 | -0.1420 | -0.1057 | 0.6490 |
| 16 | 15.89 | -0.00 | -0.0911 | -0.0035 | 0.0202 | 0.0364 | -0.2217 | -0.1347 | 0.0180 | -0.1162 | -0.1361 | 0.8181 |
| 17 | 17.81 | -0.02 | -0.1025 | -0.0025 | 0.0155 | 0.0241 | -0.1377 | -0.0661 | 0.0149 | -0.0807 | -0.2254 | 1.2205 |
| 18 | 19.88 | -0.02 | -0.1362 | -0.0052 | 0.0121 | 0.0362 | -0.0888 | -0.0285 | 0.0144 | -0.0610 | -0.5052 | 2.1403 |
| 19 | 21.81 | -0.02 | -0.1047 | 0.0029 | 0.0097 | -0.0277 | -0.0926 | 0.0147 | 0.0164 | -0.0351 | 1.1155 | -2.3877 |
| 20 | 23.61 | -0.01 | -0.1156 | 0.0047 | 0.0020 | -0.0407 | -0.0173 | 0.0379 | 0.0230 | -0.0264 | 0.5276 | -0.6966 |
| 21 | 25.56 | -0.01 | -0.0214 | 0.0008 | 0.0354 | -0.0375 | -1.8673 | 0.0662 | 0.0234 | -0.0152 | 0.3534 | -0.2296 |
| 22 | 27.57 | 0.04 | 0.1473 | 0.0008 | 0.0932 | 0.0034 | 0.6527 | 0.0866 | 0.0274 | -0.0051 | 0.3164 | -0.0585 |
| 23 | 28.44 | 0.03 | 0.0522 | 0.0025 | 0.0785 | 0.0314 | 0.8514 | 0.0838 | 0.0290 | -0.0042 | 0.3460 | -0.0501 |
| 24 | 28.45 | 0.01 | 0.1371 | 0.0025 | 0.0910 | 0.0162 | 0.6657 | 0.0877 | 0.0265 | -0.0019 | 0.3226 | -0.0217 |
| 25 | 26.72 | 0.01 | 0.0243 | 0.0008 | 0.0787 | 0.0095 | 0.9336 | 0.0683 | 0.0305 | -0.0079 | 0.4465 | -0.1157 |
| 26 | 29.01 | 0.02 | 0.0145 | 0.0026 | 0.0495 | 0.1793 | 3.4138 | 0.0616 | 0.0321 | -0.0093 | 0.5210 | -0.1910 |
| 27 | 29.36 | 0.01 | 0.0333 | 0.0024 | 0.0564 | 0.0721 | 1.7537 | 0.0604 | 0.0323 | -0.0075 | 0.5347 | -0.1368 |
| 28 | 29.60 | 0.02 | 0.0928 | 0.0007 | 0.0772 | 0.0075 | 0.8319 | 0.0706 | 0.0319 | -0.0046 | 0.4518 | -0.0652 |
| 29 | 29.95 | 0.03 | 0.1170 | -0.0003 | 0.0695 | -0.0026 | 0.7650 | 0.0873 | 0.0305 | 0.0022 | 0.3470 | -0.0252 |
| 30 | 30.24 | 0.03 | 0.2191 | -0.0021 | 0.1222 | -0.0096 | 0.5577 | 0.1107 | 0.0273 | 0.0100 | 0.2466 | 0.0563 |
| 31 | 30.53 | 0.05 | 0.2909 | -0.0028 | 0.1435 | -0.0089 | 0.4933 | 0.1267 | 0.0260 | 0.0170 | 0.2020 | 0.1321 |
| 32 | 30.80 | 0.06 | 0.2879 | -0.0022 | 0.1165 | -0.0106 | 0.5700 | 0.1259 | 0.0277 | 0.0136 | 0.2200 | 0.1098 |
| 33 | 31.08 | 0.05 | 0.1710 | -0.0021 | 0.1067 | -0.0123 | 0.6240 | 0.1205 | 0.0290 | 0.0125 | 0.2406 | 0.1037 |
| 34 | 31.38 | 0.04 | 0.1707 | -0.0015 | 0.1078 | -0.0076 | 0.6315 | 0.1294 | 0.0284 | 0.0107 | 0.2194 | 0.1291 |
| 35 | 31.64 | 0.05 | 0.1260 | -0.0035 | 0.0962 | -0.0278 | 0.7635 | 0.1246 | 0.0267 | 0.0143 | 0.2307 | 0.1156 |
| 36 | 31.92 | 0.04 | 0.1963 | -0.0026 | 0.1053 | -0.0132 | 0.5508 | 0.1438 | 0.0266 | 0.0203 | 0.1850 | 0.1412 |
| 37 | 32.19 | 0.06 | 0.0470 | -0.0045 | 0.0875 | -0.0057 | 1.4697 | 0.1293 | 0.0294 | 0.0158 | 0.2273 | 0.1222 |
| 38 | 32.47 | 0.06 | 0.0806 | -0.0047 | 0.0793 | -0.0545 | 0.9200 | 0.1433 | 0.0262 | 0.0214 | 0.1968 | 0.1493 |
| 39 | 32.74 | 0.04 | 0.0659 | -0.0027 | 0.0726 | -0.0410 | 1.1017 | 0.1612 | 0.0267 | 0.0293 | 0.1656 | 0.1818 |
| 40 | 33.00 | 0.05 | 0.1469 | -0.0045 | 0.0775 | -0.0348 | 0.6948 | 0.1586 | 0.0271 | 0.0276 | 0.1708 | 0.1740 |
| 41 | 33.27 | 0.02 | -0.0422 | -0.0018 | 0.0342 | 0.0426 | -0.8104 | 0.1443 | 0.0291 | 0.0231 | 0.2016 | 0.1601 |
| 42 | 33.53 | 0.03 | -0.0090 | -0.0014 | 0.0471 | 0.1555 | -0.2333 | 0.1620 | 0.0280 | 0.0305 | 0.1728 | 0.1883 |
| 43 | 33.78 | 0.03 | -0.0466 | -0.0005 | 0.0337 | 0.0123 | -0.8425 | 0.1492 | 0.0300 | 0.0227 | 0.2066 | 0.1563 |
| 44 | 34.04 | 0.01 | 0.0363 | -0.0024 | 0.0674 | -0.0601 | 1.6457 | 0.1503 | 0.0298 | 0.0261 | 0.1982 | 0.1737 |
| 45 | 34.26 | 0.05 | 0.0088 | -0.0008 | 0.0526 | -0.0909 | 5.9773 | 0.1680 | 0.0293 | 0.0326 | 0.1744 | 0.1566 |
| 46 | 34.53 | 0.01 | 0.0242 | -0.0016 | 0.0601 | -0.0413 | 2.4035 | 0.1654 | 0.0305 | 0.0294 | 0.1832 | 0.1776 |

TEST 7 PART 100 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF 0.0 L 0 CEL1 -30 CEL2 0 CEL3 -30 CEL4 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.69 | 0.01 | 0.0072 | -0.0003 | 0.0555 | -0.0417 | 7.7639 | 0.1677 | 0.0331 | 0.0316 | 0.1795 | 0.1884 |
| 48 | 35.05 | 0.01 | -0.0145 | 0.0005 | 0.0425 | -0.0345 | -2.9580 | 0.1751 | 0.0334 | 0.0333 | 0.1736 | 0.1902 |
| 49 | 35.29 | 0.01 | 0.0125 | -0.0002 | 0.0561 | -0.0155 | 4.3411 | 0.1671 | 0.0326 | 0.0292 | 0.1951 | 0.1747 |
| 50 | 35.54 | 0.02 | -0.0012 | -0.0006 | 0.0485 | 0.0995 | -40.4167 | 0.1801 | 0.0336 | 0.0347 | 0.1710 | 0.1927 |
| 51 | 35.79 | 0.01 | 0.0257 | 0.0005 | 0.0606 | 0.0305 | 2.0202 | 0.1652 | 0.0302 | 0.0351 | 0.1652 | 0.1895 |
| 52 | 36.02 | 0.02 | 0.0146 | 0.0006 | 0.0526 | 0.0067 | 4.3033 | 0.1772 | 0.0312 | 0.0315 | 0.1760 | 0.1778 |
| 53 | 36.26 | 0.01 | 0.0573 | 0.0015 | 0.0688 | 0.0202 | 1.2007 | 0.1671 | 0.0305 | 0.0301 | 0.1649 | 0.1801 |
| 54 | 36.50 | 0.03 | 0.0360 | 0.0011 | 0.0592 | 0.0301 | 1.0175 | 0.1722 | 0.0306 | 0.0310 | 0.1777 | 0.1800 |
| 55 | 36.72 | 0.02 | 0.0518 | 0.0012 | 0.0667 | 0.0232 | 1.2876 | 0.1625 | 0.0293 | 0.0348 | 0.1605 | 0.1907 |
| 56 | 36.97 | 0.02 | 0.0697 | 0.0017 | 0.0515 | 0.1752 | 5.3099 | 0.2043 | 0.0271 | 0.0434 | 0.1326 | 0.2124 |
| 57 | 37.22 | 0.02 | -0.0081 | 0.0012 | 0.0451 | -0.1500 | -5.0375 | 0.2019 | 0.0266 | 0.0432 | 0.1327 | 0.2140 |
| 58 | 37.45 | 0.00 | 0.0163 | 0.0020 | 0.0543 | 0.1427 | 3.3313 | 0.2030 | 0.0269 | 0.0465 | 0.1279 | 0.2262 |
| 59 | 37.68 | 0.01 | 0.0336 | 0.0031 | 0.0602 | 0.0917 | 1.7983 | 0.2081 | 0.0286 | 0.0462 | 0.1288 | 0.2220 |
| 60 | 37.93 | 0.02 | 0.0283 | 0.0025 | 0.0591 | 0.0603 | 2.0003 | 0.2146 | 0.0281 | 0.0472 | 0.1216 | 0.2195 |
| 61 | 38.15 | -0.02 | -0.0174 | 0.0043 | 0.0433 | -0.2471 | -2.4665 | 0.2119 | 0.0267 | 0.0470 | 0.1260 | 0.2218 |
| 62 | 38.38 | 0.02 | 0.0248 | 0.0032 | 0.0569 | 0.2696 | 2.2702 | 0.2093 | 0.0276 | 0.0444 | 0.1318 | 0.2121 |
| 63 | 38.63 | -0.00 | -0.0019 | 0.0042 | 0.0465 | -2.4207 | -25.7366 | 0.2259 | 0.0263 | 0.0492 | 0.1164 | 0.2178 |
| 64 | 38.86 | 0.01 | -0.0102 | 0.0018 | 0.0440 | -0.1704 | -4.3137 | 0.2470 | 0.0240 | 0.0574 | 0.0993 | 0.2318 |
| 65 | 39.09 | -0.01 | -0.0104 | 0.0021 | 0.0455 | -0.1923 | -4.3750 | 0.2459 | 0.0254 | 0.0566 | 0.1033 | 0.2310 |
| 66 | 39.32 | 0.01 | -0.0295 | 0.0017 | 0.0374 | -0.3667 | -1.4067 | 0.2548 | 0.0247 | 0.0610 | 0.0969 | 0.2394 |
| 67 | 39.53 | 0.01 | -0.0136 | 0.0036 | 0.0435 | -0.4367 | -3.3601 | 0.2496 | 0.0260 | 0.0566 | 0.1042 | 0.2268 |
| 68 | 39.77 | -0.04 | -0.0057 | 0.0027 | 0.0441 | -0.4736 | -7.7566 | 0.2703 | 0.0242 | 0.0567 | 0.0876 | 0.2414 |
| 69 | 40.03 | -0.01 | -0.0115 | 0.0023 | 0.0444 | -0.2000 | -3.8609 | 0.2658 | 0.0260 | 0.0618 | 0.0964 | 0.2291 |
| 70 | 40.23 | 0.01 | -0.0210 | 0.0024 | 0.0303 | -0.3667 | -1.8238 | 0.2884 | 0.0241 | 0.0703 | 0.0834 | 0.2433 |
| 71 | 40.45 | -0.01 | -0.0165 | 0.0031 | 0.0411 | -0.1834 | -2.4319 | 0.2514 | 0.0243 | 0.0705 | 0.0834 | 0.2415 |
| 72 | 40.66 | -0.02 | -0.0347 | 0.0032 | 0.0359 | -0.6922 | -1.0173 | 0.2526 | 0.0240 | 0.0702 | 0.0847 | 0.2395 |
| 73 | 40.88 | -0.00 | -0.0358 | 0.0036 | 0.0346 | -0.1005 | -0.9721 | 0.3003 | 0.0241 | 0.0723 | 0.0802 | 0.2408 |
| 74 | 41.08 | 0.01 | -0.0534 | 0.0038 | 0.0271 | -0.0712 | -0.5075 | 0.2969 | 0.0234 | 0.0702 | 0.0650 | 0.2349 |
| 75 | 41.29 | -0.03 | -0.0361 | 0.0024 | 0.0361 | -0.0757 | -1.1993 | 0.3270 | 0.0226 | 0.0824 | 0.0657 | 0.2520 |
| 76 | 41.49 | -0.01 | -0.0356 | 0.0045 | 0.0250 | -0.0809 | -0.4496 | 0.3179 | 0.0244 | 0.0773 | 0.0767 | 0.2432 |
| 77 | 41.72 | -0.02 | -0.0804 | 0.0055 | 0.0167 | -0.0734 | -0.2326 | 0.3026 | 0.0261 | 0.0701 | 0.0862 | 0.2317 |
| 78 | 41.91 | -0.03 | -0.0878 | 0.0071 | 0.0125 | -0.0609 | -0.1401 | 0.3150 | 0.0260 | 0.0750 | 0.0828 | 0.2350 |
| 79 | 42.12 | -0.01 | -0.1454 | 0.0148 | -0.0118 | -0.0590 | 0.0790 | 0.3076 | 0.0277 | 0.0666 | 0.0901 | 0.2232 |
| 80 | 42.31 | -0.04 | -0.0959 | 0.0079 | 0.0058 | -0.0791 | -0.0501 | 0.3252 | 0.0260 | 0.0770 | 0.0799 | 0.2368 |
| 81 | 42.53 | -0.01 | -0.1033 | 0.0085 | 0.0051 | -0.0823 | -0.0494 | 0.3316 | 0.0255 | 0.0790 | 0.0769 | 0.2362 |
| 82 | 42.73 | -0.01 | -0.1258 | 0.0095 | -0.0104 | -0.0755 | 0.0027 | 0.3416 | 0.0238 | 0.0819 | 0.0755 | 0.2398 |
| 83 | 42.90 | -0.01 | -0.1506 | 0.0092 | -0.0145 | -0.0611 | 0.0963 | 0.3313 | 0.0272 | 0.0781 | 0.0821 | 0.2357 |
| 84 | 43.09 | -0.01 | -0.0776 | 0.0052 | 0.0111 | -0.0675 | -0.1442 | 0.3608 | 0.0247 | 0.0864 | 0.0684 | 0.2395 |
| 85 | 43.28 | -0.00 | -0.1523 | 0.0108 | -0.0213 | -0.0709 | 0.1399 | 0.3466 | 0.0270 | 0.0799 | 0.0779 | 0.2305 |
| 86 | 43.46 | -0.01 | -0.1418 | 0.0084 | -0.0065 | -0.0529 | 0.0702 | 0.3669 | 0.0260 | 0.0865 | 0.0709 | 0.2356 |
| 87 | 43.63 | -0.01 | -0.0321 | 0.0027 | 0.0242 | -0.0841 | -0.7539 | 0.4002 | 0.0228 | 0.0960 | 0.0570 | 0.2449 |
| 88 | 43.82 | 0.00 | -0.0552 | 0.0032 | 0.0140 | -0.0580 | -0.2530 | 0.3699 | 0.0240 | 0.0923 | 0.0631 | 0.2367 |
| 89 | 44.00 | -0.01 | -0.1205 | 0.0056 | -0.0116 | -0.0465 | 0.0963 | 0.3784 | 0.0260 | 0.0865 | 0.0687 | 0.2288 |
| 90 | 44.19 | -0.02 | -0.1270 | 0.0050 | -0.0145 | -0.0394 | 0.1173 | 0.3795 | 0.0263 | 0.0871 | 0.0693 | 0.2295 |
| 91 | 44.35 | -0.03 | -0.1803 | 0.0073 | -0.0343 | -0.0405 | 0.1902 | 0.3752 | 0.0273 | 0.0826 | 0.0731 | 0.2213 |
| 92 | 44.55 | -0.01 | -0.1454 | 0.0058 | -0.0411 | -0.0297 | 0.2103 | 0.3818 | 0.0281 | 0.0864 | 0.0736 | 0.2263 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 3

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 109 | MACH 1.10 | RNIG-E 1.7 | PHI 0.0 | CONF 61 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.73 | -0.02 | -0.0937 | 0.0028 | -0.0020 | -0.0277 | 0.3213 | 0.4038 | 0.0262 | 0.0537 | 0.0649 | 0.2320 |
| 94 | 44.91 | -0.02 | -0.0923 | 0.0015 | 0.0135 | -0.0333 | 0.3191 | 0.4034 | 0.0251 | 0.0576 | 0.0604 | 0.2356 |
| 95 | 45.10 | -0.01 | -0.0222 | 0.0011 | 0.0200 | -0.0495 | -0.9009 | 0.4319 | 0.0247 | 0.1014 | 0.0572 | 0.2348 |
| 96 | 45.30 | -0.02 | -0.0946 | 0.0017 | 0.0064 | -0.0310 | -0.0438 | 0.4178 | 0.0261 | 0.0953 | 0.0625 | 0.2281 |
| 97 | 45.47 | -0.02 | -0.1120 | 0.0020 | -0.0115 | -0.0179 | 0.1002 | 0.4126 | 0.0265 | 0.0545 | 0.0652 | 0.2296 |
| 98 | 45.64 | -0.01 | -0.0951 | 0.0006 | -0.0074 | -0.0064 | 0.0778 | 0.4151 | 0.0271 | 0.0547 | 0.0653 | 0.2281 |
| 99 | 45.84 | -0.04 | -0.0938 | 0.0020 | 0.0166 | -0.0457 | -0.1507 | 0.4302 | 0.0268 | 0.0954 | 0.0623 | 0.2311 |
| 100 | 46.03 | -0.03 | -0.1233 | -0.0007 | -0.0206 | 0.0057 | 0.1671 | 0.4175 | 0.0280 | 0.0540 | 0.0671 | 0.2251 |
| 101 | 46.19 | -0.04 | -0.1621 | -0.0028 | -0.0330 | 0.0173 | 0.2036 | 0.4202 | 0.0284 | 0.0558 | 0.0676 | 0.2280 |
| 102 | 46.36 | -0.03 | -0.0965 | -0.0001 | -0.0147 | 0.0010 | 0.1523 | 0.4329 | 0.0282 | 0.0953 | 0.0651 | 0.2294 |
| 103 | 46.54 | -0.05 | -0.1268 | -0.0018 | -0.0157 | 0.0142 | 0.1556 | 0.4304 | 0.0281 | 0.0576 | 0.0653 | 0.2268 |
| 104 | 46.72 | -0.04 | -0.1166 | -0.0038 | -0.0134 | 0.0327 | 0.1218 | 0.4278 | 0.0288 | 0.0564 | 0.0673 | 0.2253 |
| 105 | 46.89 | -0.05 | -0.1450 | -0.0047 | -0.0251 | 0.0315 | 0.1685 | 0.4192 | 0.0273 | 0.0533 | 0.0655 | 0.2226 |
| 106 | 47.04 | -0.04 | -0.1234 | -0.0034 | -0.0187 | 0.0275 | 0.1515 | 0.4356 | 0.0293 | 0.0582 | 0.0673 | 0.2254 |
| 107 | 47.23 | -0.03 | -0.1735 | -0.0147 | -0.0283 | 0.0845 | 0.1627 | 0.4409 | 0.0275 | 0.1020 | 0.0624 | 0.2313 |
| 108 | 47.41 | -0.04 | -0.1757 | -0.0134 | -0.0243 | 0.0773 | 0.1630 | 0.4331 | 0.0291 | 0.0570 | 0.0672 | 0.2240 |
| 109 | 47.58 | -0.05 | -0.1727 | -0.0204 | -0.0230 | 0.1161 | 0.1332 | 0.4438 | 0.0275 | 0.1008 | 0.0625 | 0.2271 |
| 110 | 47.74 | -0.05 | -0.1342 | -0.0265 | -0.0254 | 0.1974 | 0.0730 | 0.4057 | 0.0254 | 0.1106 | 0.0545 | 0.2362 |
| 111 | 47.92 | -0.04 | -0.1175 | -0.0233 | -0.0174 | 0.1583 | 0.0630 | 0.4578 | 0.0275 | 0.1045 | 0.0601 | 0.2283 |
| 112 | 48.11 | -0.04 | -0.0953 | -0.0232 | -0.0061 | 0.2434 | 0.0010 | 0.4692 | 0.0269 | 0.1069 | 0.0573 | 0.2321 |
| 113 | 48.28 | -0.02 | -0.0354 | -0.0246 | 0.0175 | 0.8192 | -0.4543 | 0.5127 | 0.0231 | 0.1273 | 0.0450 | 0.2483 |
| 114 | 48.49 | -0.03 | -0.0958 | -0.0241 | 0.0088 | 0.4318 | -0.1577 | 0.4900 | 0.0261 | 0.1152 | 0.0533 | 0.2351 |
| 115 | 48.62 | -0.03 | -0.0023 | -0.0248 | 0.0277 | 10.7212 | -12.0435 | 0.5232 | 0.0242 | 0.1263 | 0.0462 | 0.2414 |
| 116 | 48.80 | -0.01 | 0.0001 | -0.0251 | 0.0480 | -0.4170 | 0.7967 | 0.5729 | 0.0217 | 0.1434 | 0.0379 | 0.2503 |
| 117 | 48.98 | -0.02 | 0.1035 | -0.0229 | 0.0604 | -0.2212 | 0.5836 | 0.5933 | 0.0238 | 0.1495 | 0.0351 | 0.2520 |
| 118 | 49.15 | -0.02 | 0.1152 | -0.0156 | 0.0612 | -0.1554 | 0.5313 | 0.5695 | 0.0269 | 0.1380 | 0.0472 | 0.2423 |
| 119 | 49.30 | -0.00 | 0.1073 | -0.0041 | 0.0345 | -0.0362 | 0.5116 | 0.5058 | 0.0352 | 0.1106 | 0.0656 | 0.2187 |
| 120 | 49.49 | 0.01 | 0.0505 | 0.0060 | 0.0320 | 0.1564 | 0.6455 | 0.4144 | 0.0366 | 0.0781 | 0.0936 | 0.1885 |
| 121 | 49.66 | 0.01 | 0.0284 | 0.0055 | 0.0227 | 0.3345 | 0.7993 | 0.3970 | 0.0378 | 0.0711 | 0.0952 | 0.1751 |
| 122 | 49.82 | 0.01 | 0.0370 | 0.0057 | 0.0276 | 0.2021 | 0.7459 | 0.4019 | 0.0385 | 0.0730 | 0.0958 | 0.1816 |
| 123 | 50.00 | -0.00 | -0.0008 | 0.0050 | 0.0181 | -11.2485 | -20.1250 | 0.3819 | 0.0370 | 0.0652 | 0.0969 | 0.1812 |
| 124 | 50.20 | 0.01 | 0.0102 | 0.0106 | 0.0185 | 1.0391 | 1.8137 | 0.3881 | 0.0377 | 0.0693 | 0.0971 | 0.1786 |
| 125 | 49.29 | 0.00 | 0.1129 | -0.0121 | 0.0607 | -0.1078 | 0.5400 | 0.5655 | 0.0280 | 0.1372 | 0.0455 | 0.2426 |
| 126 | 48.49 | -0.03 | -0.1268 | -0.0273 | -0.0651 | 0.2206 | 0.0422 | 0.4878 | 0.0242 | 0.1153 | 0.0496 | 0.2364 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 109 PATCH 1.10 1.7 MXIC-E PHI 0.0 CONF 81A0F14 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.76 | 0.01 | 0.0545 | 0.9999 | 0.0002 | 0.9999 | 0.0111 | -1.3408 | 0.0239 | -0.3721 | -0.0178 | 0.2775 |
| 2 | -5.77 | 0.01 | 0.0540 | 0.9999 | -0.0007 | 0.9999 | -0.0130 | -1.3391 | 0.0230 | -0.3726 | -0.0187 | 0.2775 |
| 3 | -5.76 | 0.01 | 0.0543 | 0.9999 | 0.0008 | 0.9999 | 0.0142 | -1.3467 | 0.0247 | -0.3733 | -0.0183 | 0.2772 |
| 4 | -5.80 | 0.01 | 0.0540 | 0.9999 | -0.0003 | 0.9999 | -0.0056 | -1.3475 | 0.0265 | -0.3695 | -0.0203 | 0.2783 |
| 5 | -3.95 | 0.02 | 0.0445 | 0.9999 | -0.0047 | 0.9999 | -0.1047 | -1.2741 | 0.0335 | -0.3615 | -0.0263 | 0.2837 |
| 6 | -2.23 | 0.01 | 0.0454 | 0.9999 | -0.0016 | 0.9999 | -0.0324 | -1.2096 | 0.0378 | -0.3480 | -0.0312 | 0.2877 |
| 7 | -0.46 | 0.01 | 0.0506 | 0.9999 | -0.0024 | 0.9999 | -0.0474 | -1.1286 | 0.0389 | -0.3251 | -0.0345 | 0.2881 |
| 8 | 1.31 | 0.01 | 0.0484 | 0.9999 | -0.0048 | 0.9999 | -0.0992 | -1.0333 | 0.0367 | -0.2998 | -0.0374 | 0.2901 |
| 9 | 3.17 | 0.01 | 0.0554 | 0.9999 | -0.0043 | 0.9999 | -0.0776 | -0.9551 | 0.0371 | -0.2761 | -0.0388 | 0.2851 |
| 10 | 4.88 | 0.02 | 0.0591 | 0.9999 | -0.0072 | 0.9999 | -0.1218 | -0.8484 | 0.0355 | -0.2508 | -0.0418 | 0.2956 |
| 11 | 6.71 | 0.02 | 0.0638 | 0.9999 | -0.0077 | 0.9999 | -0.1207 | -0.7469 | 0.0322 | -0.2262 | -0.0431 | 0.3025 |
| 12 | 8.50 | 0.01 | 0.0618 | 0.9999 | -0.0106 | 0.9999 | -0.1721 | -0.6605 | 0.0299 | -0.2030 | -0.0453 | 0.3073 |
| 13 | 10.29 | 0.00 | 0.0663 | 0.9999 | -0.0112 | 0.9999 | -0.1689 | -0.5720 | 0.0286 | -0.1746 | -0.0500 | 0.3052 |
| 14 | 12.14 | 0.01 | 0.0617 | 0.9999 | -0.0134 | 0.9999 | -0.2172 | -0.4595 | 0.0264 | -0.1446 | -0.0574 | 0.3147 |
| 15 | 13.97 | 0.01 | 0.0715 | 0.9999 | -0.0106 | 0.9999 | -0.1523 | -0.3674 | 0.0224 | -0.1062 | -0.0610 | 0.2945 |
| 16 | 15.89 | -0.00 | 0.0640 | 0.9999 | -0.0141 | 0.9999 | -0.2203 | -0.2735 | 0.0173 | -0.0735 | -0.0632 | 0.2687 |
| 17 | 17.81 | -0.02 | 0.0668 | 0.9999 | -0.0146 | 0.9999 | -0.2122 | -0.1958 | 0.0131 | -0.0412 | -0.0665 | 0.2104 |
| 18 | 19.68 | -0.02 | 0.0656 | 0.9999 | -0.0160 | 0.9999 | -0.3121 | -0.1451 | 0.0118 | -0.0165 | -0.0813 | 0.1137 |
| 19 | 21.61 | -0.02 | 0.0654 | 0.9999 | -0.0167 | 0.9999 | -0.2554 | -0.1401 | 0.0156 | -0.0075 | -0.1113 | 0.0535 |
| 20 | 23.61 | -0.01 | 0.0597 | 0.9999 | -0.0155 | 0.9999 | -0.3200 | -0.1097 | 0.0203 | 0.0007 | -0.1850 | -0.0064 |
| 21 | 25.56 | -0.01 | 0.0595 | 0.9999 | -0.0154 | 0.9999 | -0.2568 | -0.0939 | 0.0236 | 0.0065 | -0.2513 | -0.0692 |
| 22 | 27.57 | 0.04 | 0.0762 | 0.9999 | -0.0061 | 0.9999 | -0.1055 | -0.1055 | 0.0267 | 0.0030 | -0.2720 | -0.0284 |
| 23 | 28.44 | 0.03 | 0.0711 | 0.9999 | -0.0055 | 0.9999 | -0.1392 | -0.0968 | 0.0286 | 0.0061 | -0.2981 | -0.0631 |
| 24 | 28.45 | 0.01 | 0.0711 | 0.9999 | -0.0055 | 0.9999 | -0.1392 | -0.1032 | 0.0285 | 0.0032 | -0.2800 | -0.0310 |
| 25 | 28.72 | 0.01 | 0.0683 | 0.9999 | -0.0065 | 0.9999 | -0.1342 | -0.0978 | 0.0304 | 0.0054 | -0.3108 | -0.0552 |
| 26 | 29.01 | 0.02 | 0.0656 | 0.9999 | -0.0066 | 0.9999 | -0.1432 | -0.0836 | 0.0307 | 0.0109 | -0.3672 | -0.1304 |
| 27 | 29.36 | 0.01 | 0.0565 | 0.9999 | -0.0113 | 0.9999 | -0.1895 | -0.0828 | 0.0294 | 0.0106 | -0.3556 | -0.1280 |
| 28 | 29.66 | 0.02 | 0.0595 | 0.9999 | -0.0118 | 0.9999 | -0.1963 | -0.0835 | 0.0304 | 0.0108 | -0.3640 | -0.1293 |
| 29 | 29.95 | 0.03 | 0.0710 | 0.9999 | -0.0067 | 0.9999 | -0.0944 | -0.0648 | 0.0299 | 0.0169 | -0.4614 | -0.2608 |
| 30 | 30.24 | 0.03 | 0.0746 | 0.9999 | -0.0074 | 0.9999 | -0.0992 | -0.0733 | 0.0307 | 0.0146 | -0.4188 | -0.1992 |
| 31 | 30.53 | 0.05 | 0.0770 | 0.9999 | -0.0072 | 0.9999 | -0.0935 | -0.0670 | 0.0310 | 0.0166 | -0.4626 | -0.2478 |
| 32 | 30.80 | 0.06 | 0.0781 | 0.9999 | -0.0057 | 0.9999 | -0.0740 | -0.0422 | 0.0313 | 0.0252 | -0.7416 | -0.5972 |
| 33 | 31.06 | 0.05 | 0.0615 | 0.9999 | -0.0036 | 0.9999 | -0.0442 | -0.0273 | 0.0306 | 0.0315 | -1.1207 | -1.1538 |
| 34 | 31.36 | 0.04 | 0.0734 | 0.9999 | -0.0076 | 0.9999 | -0.0954 | -0.0191 | 0.0302 | 0.0340 | -1.5805 | -1.7801 |
| 35 | 31.64 | 0.05 | 0.0659 | 0.9999 | -0.0078 | 0.9999 | -0.1116 | 0.0075 | 0.0279 | 0.0436 | 3.7195 | 5.8133 |
| 36 | 31.92 | 0.04 | 0.0688 | 0.9999 | -0.0092 | 0.9999 | -0.1337 | 0.0118 | 0.0274 | 0.0463 | 2.3217 | 3.9237 |
| 37 | 32.19 | 0.06 | 0.0711 | 0.9999 | -0.0077 | 0.9999 | -0.1083 | 0.0367 | 0.0256 | 0.0545 | 0.6575 | 1.4850 |
| 38 | 32.47 | 0.02 | 0.0653 | 0.9999 | -0.0055 | 0.9999 | -0.1516 | 0.0431 | 0.0259 | 0.0569 | 0.6008 | 1.3202 |
| 39 | 32.74 | 0.04 | 0.0757 | 0.9999 | -0.0068 | 0.9999 | -0.0898 | 0.0511 | 0.0257 | 0.0599 | 0.5029 | 1.1722 |
| 40 | 33.00 | 0.05 | 0.0710 | 0.9999 | -0.0077 | 0.9999 | -0.1065 | 0.0625 | 0.0240 | 0.0657 | 0.3815 | 1.0445 |
| 41 | 33.27 | 0.02 | 0.0665 | 0.9999 | -0.0106 | 0.9999 | -0.1624 | 0.0661 | 0.0249 | 0.0666 | 0.3767 | 1.0076 |
| 42 | 33.53 | 0.03 | 0.0664 | 0.9999 | -0.0103 | 0.9999 | -0.1551 | 0.0796 | 0.0242 | 0.0768 | 0.3040 | 0.8894 |
| 43 | 33.78 | 0.03 | 0.0655 | 0.9999 | -0.0100 | 0.9999 | -0.1431 | 0.0829 | 0.0233 | 0.0727 | 0.2810 | 0.8770 |
| 44 | 34.04 | 0.01 | 0.0595 | 0.9999 | -0.0140 | 0.9999 | -0.2353 | 0.0916 | 0.0222 | 0.0775 | 0.2423 | 0.8461 |
| 45 | 34.26 | 0.05 | 0.0595 | 0.9999 | -0.0145 | 0.9999 | -0.2437 | 0.1040 | 0.0214 | 0.0811 | 0.2057 | 0.7798 |
| 46 | 34.53 | 0.01 | 0.0666 | 0.9999 | -0.0110 | 0.9999 | -0.1599 | 0.1169 | 0.0199 | 0.0870 | 0.1702 | 0.7442 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSEAC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 105 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF 814UF14 E 0.6 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.80 | 0.01 | 0.0651 | 0.9999 | -0.0106 | 0.9999 | -0.1659 | 0.1196 | 0.0196 | 0.0876 | 0.1639 | 0.7324 |
| 48 | 35.05 | 0.01 | 0.0656 | 0.9999 | -0.0136 | 0.9999 | -0.2473 | 0.1302 | 0.0192 | 0.0911 | 0.1474 | 0.6997 |
| 49 | 35.29 | 0.01 | 0.0651 | 0.9999 | -0.0113 | 0.9999 | -0.1736 | 0.1555 | 0.0189 | 0.1016 | 0.1087 | 0.6536 |
| 50 | 35.54 | 0.02 | 0.0647 | 0.9999 | -0.0104 | 0.9999 | -0.2633 | 0.1356 | 0.0187 | 0.0928 | 0.1377 | 0.6834 |
| 51 | 35.79 | 0.01 | 0.0466 | 0.9999 | -0.0173 | 0.9999 | -0.3712 | 0.1413 | 0.0184 | 0.0956 | 0.1302 | 0.6766 |
| 52 | 36.02 | 0.02 | 0.0624 | 0.9999 | -0.0110 | 0.9999 | -0.1757 | 0.1549 | 0.0182 | 0.1005 | 0.1110 | 0.6488 |
| 53 | 36.26 | 0.01 | 0.0580 | 0.9999 | -0.0123 | 0.9999 | -0.2121 | 0.1665 | 0.0179 | 0.1041 | 0.0941 | 0.6163 |
| 54 | 36.50 | 0.03 | 0.0706 | 0.9999 | -0.0072 | 0.9999 | -0.1020 | 0.1797 | 0.0176 | 0.1077 | 0.0857 | 0.5993 |
| 55 | 36.72 | 0.02 | 0.0591 | 0.9999 | -0.0108 | 0.9999 | -0.1827 | 0.1907 | 0.0145 | 0.1112 | 0.0780 | 0.5831 |
| 56 | 36.97 | 0.00 | 0.0458 | 0.9999 | -0.0134 | 0.9999 | -0.2691 | 0.1801 | 0.0164 | 0.1055 | 0.0910 | 0.5858 |
| 57 | 37.22 | 0.02 | 0.0591 | 0.9999 | -0.0113 | 0.9999 | -0.1912 | 0.1787 | 0.0166 | 0.1050 | 0.0929 | 0.5876 |
| 58 | 37.45 | 0.00 | 0.0625 | 0.9999 | -0.0087 | 0.9999 | -0.1392 | 0.1665 | 0.0166 | 0.1055 | 0.0890 | 0.5657 |
| 59 | 37.68 | 0.01 | 0.0544 | 0.9999 | -0.0112 | 0.9999 | -0.2059 | 0.2031 | 0.0154 | 0.1118 | 0.0758 | 0.5505 |
| 60 | 37.93 | 0.02 | 0.0537 | 0.9999 | -0.0095 | 0.9999 | -0.1491 | 0.1985 | 0.0163 | 0.1097 | 0.0821 | 0.5526 |
| 61 | 38.15 | -0.02 | 0.0590 | 0.9999 | -0.0090 | 0.9999 | -0.1525 | 0.2081 | 0.0156 | 0.1127 | 0.0750 | 0.5418 |
| 62 | 38.38 | 0.02 | 0.0660 | 0.9999 | -0.0084 | 0.9999 | -0.1275 | 0.2249 | 0.0139 | 0.1179 | 0.0618 | 0.5242 |
| 63 | 38.63 | -0.00 | 0.0545 | 0.9999 | -0.0121 | 0.9999 | -0.2220 | 0.2118 | 0.0157 | 0.1120 | 0.0741 | 0.5288 |
| 64 | 38.88 | 0.01 | 0.0551 | 0.9999 | -0.0106 | 0.9999 | -0.1827 | 0.1872 | 0.0190 | 0.1018 | 0.1015 | 0.5438 |
| 65 | 39.09 | -0.01 | 0.0613 | 0.9999 | -0.0093 | 0.9999 | -0.1517 | 0.1952 | 0.0184 | 0.1036 | 0.0962 | 0.5307 |
| 66 | 39.32 | 0.01 | 0.0521 | 0.9999 | -0.0127 | 0.9999 | -0.2458 | 0.1880 | 0.0193 | 0.1009 | 0.1026 | 0.5367 |
| 67 | 39.53 | 0.01 | 0.0467 | 0.9999 | -0.0143 | 0.9999 | -0.2936 | 0.2205 | 0.0159 | 0.1135 | 0.0721 | 0.5147 |
| 68 | 39.77 | -0.04 | 0.0532 | 0.9999 | -0.0117 | 0.9999 | -0.2199 | 0.1959 | 0.0209 | 0.1018 | 0.1067 | 0.5197 |
| 69 | 40.03 | -0.01 | 0.0567 | 0.9999 | -0.0101 | 0.9999 | -0.1761 | 0.2161 | 0.0190 | 0.1093 | 0.0871 | 0.5011 |
| 70 | 40.25 | 0.01 | 0.0556 | 0.9999 | -0.0129 | 0.9999 | -0.2430 | 0.2034 | 0.0212 | 0.1029 | 0.1042 | 0.5059 |
| 71 | 40.45 | -0.01 | 0.0505 | 0.9999 | -0.0123 | 0.9999 | -0.2416 | 0.2166 | 0.0201 | 0.1069 | 0.0937 | 0.4981 |
| 72 | 40.66 | -0.02 | 0.0467 | 0.9999 | -0.0143 | 0.9999 | -0.2936 | 0.2284 | 0.0191 | 0.1120 | 0.0836 | 0.4904 |
| 73 | 40.86 | -0.00 | 0.0467 | 0.9999 | -0.0143 | 0.9999 | -0.2936 | 0.2359 | 0.0195 | 0.1126 | 0.0827 | 0.4773 |
| 74 | 41.06 | 0.01 | 0.0505 | 0.9999 | -0.0123 | 0.9999 | -0.2416 | 0.2523 | 0.0184 | 0.1184 | 0.0729 | 0.4693 |
| 75 | 41.29 | -0.02 | 0.0544 | 0.9999 | -0.0125 | 0.9999 | -0.2296 | 0.2329 | 0.0217 | 0.1095 | 0.0932 | 0.4702 |
| 76 | 41.49 | -0.01 | 0.0462 | 0.9999 | -0.0147 | 0.9999 | -0.2749 | 0.2579 | 0.0196 | 0.1186 | 0.0780 | 0.4595 |
| 77 | 41.72 | -0.02 | 0.0578 | 0.9999 | -0.0086 | 0.9999 | -0.1468 | 0.2802 | 0.0176 | 0.1255 | 0.0628 | 0.4475 |
| 78 | 41.91 | -0.03 | 0.0448 | 0.9999 | -0.0144 | 0.9999 | -0.3364 | 0.2670 | 0.0172 | 0.1279 | 0.0599 | 0.4456 |
| 79 | 42.12 | -0.01 | 0.0467 | 0.9999 | -0.0125 | 0.9999 | -0.2572 | 0.3377 | 0.0121 | 0.1463 | 0.0358 | 0.4332 |
| 80 | 42.31 | -0.04 | 0.0526 | 0.9999 | -0.0114 | 0.9999 | -0.2192 | 0.2971 | 0.0175 | 0.1297 | 0.0585 | 0.4366 |
| 81 | 42.53 | -0.01 | 0.0418 | 0.9999 | -0.0140 | 0.9999 | -0.3365 | 0.3059 | 0.0163 | 0.1334 | 0.0533 | 0.4361 |
| 82 | 42.73 | -0.01 | 0.0428 | 0.9999 | -0.0134 | 0.9999 | -0.3131 | 0.3160 | 0.0167 | 0.1352 | 0.0528 | 0.4278 |
| 83 | 42.90 | -0.01 | 0.0440 | 0.9999 | -0.0138 | 0.9999 | -0.3138 | 0.3281 | 0.0162 | 0.1393 | 0.0494 | 0.4248 |
| 84 | 43.09 | -0.01 | 0.0549 | 0.9999 | -0.0112 | 0.9999 | -0.2059 | 0.2986 | 0.0207 | 0.1271 | 0.0693 | 0.4257 |
| 85 | 43.28 | -0.00 | 0.0465 | 0.9999 | -0.0130 | 0.9999 | -0.3704 | 0.3376 | 0.0156 | 0.1432 | 0.0462 | 0.4242 |
| 86 | 43.48 | -0.01 | 0.0464 | 0.9999 | -0.0136 | 0.9999 | -0.3366 | 0.3300 | 0.0187 | 0.1371 | 0.0567 | 0.4155 |
| 87 | 43.63 | -0.01 | 0.0474 | 0.9999 | -0.0131 | 0.9999 | -0.2764 | 0.2387 | 0.0235 | 0.1227 | 0.0814 | 0.4250 |
| 88 | 43.82 | 0.00 | 0.0520 | 0.9999 | -0.0105 | 0.9999 | -0.2096 | 0.2981 | 0.0230 | 0.1247 | 0.0771 | 0.4183 |
| 89 | 44.00 | -0.01 | 0.0427 | 0.9999 | -0.0116 | 0.9999 | -0.2717 | 0.3311 | 0.0208 | 0.1362 | 0.0622 | 0.4116 |
| 90 | 44.19 | -0.02 | 0.0393 | 0.9999 | -0.0133 | 0.9999 | -0.3364 | 0.3337 | 0.0206 | 0.1374 | 0.0617 | 0.4117 |
| 91 | 44.35 | -0.03 | 0.0451 | 0.9999 | -0.0133 | 0.9999 | -0.2949 | 0.3573 | 0.0187 | 0.1459 | 0.0523 | 0.4083 |
| 92 | 44.55 | -0.01 | 0.0359 | 0.9999 | -0.0163 | 0.9999 | -0.4540 | 0.3601 | 0.0202 | 0.1440 | 0.0561 | 0.3999 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 109 MACH 1.10 RXIG-6 1.7 PHI 0.0 CONF BIMOFIN 0.0 L DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.73 | -0.02 | 0.0428 | 0.9999 | -0.0126 | 0.9999 | -0.2944 | 0.3229 | 0.0249 | 0.1295 | 0.0771 | 0.4011 |
| 94 | 44.91 | -0.02 | 0.0404 | 0.9999 | -0.0127 | 0.9999 | -0.3144 | 0.3046 | 0.0268 | 0.1228 | 0.0880 | 0.4032 |
| 95 | 45.10 | -0.01 | 0.0474 | 0.9999 | -0.0113 | 0.9999 | -0.2384 | 0.3134 | 0.0272 | 0.1259 | 0.0868 | 0.4017 |
| 96 | 45.30 | -0.02 | 0.0426 | 0.9999 | -0.0158 | 0.9999 | -0.2300 | 0.3193 | 0.0262 | 0.1276 | 0.0820 | 0.3996 |
| 97 | 45.47 | -0.02 | 0.0436 | 0.9999 | -0.0126 | 0.9999 | -0.2420 | 0.3426 | 0.0247 | 0.1352 | 0.0721 | 0.3946 |
| 98 | 45.64 | -0.01 | 0.0357 | 0.9999 | -0.0122 | 0.9999 | -0.3417 | 0.3266 | 0.0268 | 0.1286 | 0.0820 | 0.3944 |
| 99 | 45.84 | -0.04 | 0.0426 | 0.9999 | -0.0085 | 0.9999 | -0.2089 | 0.3258 | 0.0279 | 0.1285 | 0.0856 | 0.3883 |
| 100 | 46.03 | -0.03 | 0.0450 | 0.9999 | -0.0116 | 0.9999 | -0.2444 | 0.3428 | 0.0278 | 0.1316 | 0.0811 | 0.3835 |
| 101 | 46.19 | -0.04 | 0.0358 | 0.9999 | -0.0131 | 0.9999 | -0.3655 | 0.3449 | 0.0287 | 0.1316 | 0.0832 | 0.3818 |
| 102 | 46.36 | -0.03 | 0.0415 | 0.9999 | -0.0104 | 0.9999 | -0.2506 | 0.3431 | 0.0294 | 0.1297 | 0.0857 | 0.3780 |
| 103 | 46.54 | -0.05 | 0.0357 | 0.9999 | -0.0122 | 0.9999 | -0.3417 | 0.3458 | 0.0293 | 0.1303 | 0.0847 | 0.3768 |
| 104 | 46.72 | -0.04 | 0.0439 | 0.9999 | -0.0107 | 0.9999 | -0.2437 | 0.3332 | 0.0321 | 0.1233 | 0.0963 | 0.3700 |
| 105 | 46.89 | -0.05 | 0.0520 | 0.9999 | -0.0087 | 0.9999 | -0.1673 | 0.3451 | 0.0314 | 0.1278 | 0.0915 | 0.3725 |
| 106 | 47.04 | -0.04 | 0.0415 | 0.9999 | -0.0095 | 0.9999 | -0.2289 | 0.3412 | 0.0323 | 0.1264 | 0.0947 | 0.3705 |
| 107 | 47.23 | -0.03 | 0.0427 | 0.9999 | -0.0098 | 0.9999 | -0.2295 | 0.3255 | 0.0357 | 0.1193 | 0.1057 | 0.3665 |
| 108 | 47.41 | -0.04 | 0.0474 | 0.9999 | -0.0095 | 0.9999 | -0.2004 | 0.3104 | 0.0373 | 0.1147 | 0.1179 | 0.3625 |
| 109 | 47.58 | -0.05 | 0.0428 | 0.9999 | -0.0103 | 0.9999 | -0.2407 | 0.2954 | 0.0396 | 0.1055 | 0.1340 | 0.3571 |
| 110 | 47.74 | -0.05 | 0.0427 | 0.9999 | -0.0094 | 0.9999 | -0.2201 | 0.2870 | 0.0409 | 0.0965 | 0.1532 | 0.3539 |
| 111 | 47.92 | -0.04 | 0.0462 | 0.9999 | -0.0078 | 0.9999 | -0.1686 | 0.2864 | 0.0418 | 0.0902 | 0.1617 | 0.3491 |
| 112 | 48.11 | -0.04 | 0.0415 | 0.9999 | -0.0081 | 0.9999 | -0.1952 | 0.2874 | 0.0414 | 0.0901 | 0.1608 | 0.3500 |
| 113 | 48.28 | -0.02 | 0.0358 | 0.9999 | -0.0113 | 0.9999 | -0.3156 | 0.2706 | 0.0396 | 0.0959 | 0.1463 | 0.3544 |
| 114 | 48.44 | -0.03 | 0.0391 | 0.9999 | -0.0070 | 0.9999 | -0.1790 | 0.2643 | 0.0412 | 0.0920 | 0.1559 | 0.3481 |
| 115 | 48.62 | -0.03 | 0.0360 | 0.9999 | -0.0085 | 0.9999 | -0.2342 | 0.2699 | 0.0407 | 0.0933 | 0.1508 | 0.3457 |
| 116 | 48.80 | -0.01 | 0.0452 | 0.9999 | -0.0106 | 0.9999 | -0.2345 | 0.2814 | 0.0416 | 0.0976 | 0.1457 | 0.3468 |
| 117 | 48.98 | -0.02 | 0.0352 | 0.9999 | -0.0088 | 0.9999 | -0.2245 | 0.2859 | 0.0403 | 0.0952 | 0.1405 | 0.3470 |
| 118 | 49.15 | -0.02 | 0.0451 | 0.9999 | -0.0092 | 0.9999 | -0.2040 | 0.2911 | 0.0403 | 0.1001 | 0.1364 | 0.3435 |
| 119 | 49.30 | -0.00 | 0.0391 | 0.9999 | -0.0085 | 0.9999 | -0.1662 | 0.2862 | 0.0395 | 0.0985 | 0.1380 | 0.3442 |
| 120 | 49.49 | 0.01 | 0.0438 | 0.9999 | -0.0104 | 0.9999 | -0.1918 | 0.2933 | 0.0387 | 0.1008 | 0.1319 | 0.3437 |
| 121 | 49.64 | 0.01 | 0.0351 | 0.9999 | -0.0085 | 0.9999 | -0.1092 | 0.3005 | 0.0379 | 0.1025 | 0.1261 | 0.3411 |
| 122 | 49.82 | 0.01 | 0.0379 | 0.9999 | -0.0070 | 0.9999 | -0.1847 | 0.2987 | 0.0385 | 0.1021 | 0.1285 | 0.3418 |
| 123 | 50.00 | -0.00 | 0.0427 | 0.9999 | -0.0085 | 0.9999 | -0.2084 | 0.3011 | 0.0388 | 0.1018 | 0.1288 | 0.3381 |
| 124 | 50.20 | 0.01 | 0.0484 | 0.9999 | -0.0082 | 0.9999 | -0.1781 | 0.3047 | 0.0391 | 0.1032 | 0.1283 | 0.3387 |
| 125 | 49.85 | 0.00 | 0.0360 | 0.9999 | -0.0084 | 0.9999 | -0.2211 | 0.2884 | 0.0404 | 0.0979 | 0.1401 | 0.3395 |
| 126 | 48.49 | -0.03 | 0.0428 | 0.9999 | -0.0070 | 0.9999 | -0.1598 | 0.2826 | 0.0412 | 0.0982 | 0.1456 | 0.3475 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 RACE 6.66 RX10-6 1.7 PHI 0.0 CONF DINOF15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.05 | 0.00 | -1.4281 | 0.5056 | 0.0351 | -0.0778 | 0.0043 | 0.9812 | 0.2445 | 0.7367 | -4.5613 |
| 2 | -0.06 | -0.01 | -1.4067 | 0.4910 | -0.0195 | 0.0240 | 0.0042 | 0.9928 | 0.2445 | 0.7483 | -4.5348 |
| 3 | -0.05 | -0.02 | -1.4415 | 0.5023 | 0.0495 | -0.0665 | 0.0043 | 0.9885 | 0.2455 | 0.7426 | -4.5523 |
| 4 | -0.19 | -0.02 | -1.4045 | 0.4967 | 0.0343 | -0.0844 | 0.0049 | 1.0105 | 0.2427 | 0.7758 | -4.6055 |
| 5 | 0.30 | -0.01 | -1.5735 | 0.3541 | 0.0216 | -0.0520 | -0.0023 | 1.0430 | 0.2367 | 0.8113 | -4.6737 |
| 6 | 1.98 | -0.01 | -1.5230 | 0.5779 | 0.0287 | -0.1498 | 0.0055 | 1.0335 | 0.2152 | 0.8183 | -4.5753 |
| 7 | 3.70 | -0.01 | -1.3252 | 0.2721 | 0.0123 | -0.1032 | 0.0059 | 0.9634 | 0.2061 | 0.7773 | -5.4711 |
| 8 | 5.50 | -0.01 | -1.0634 | 0.0880 | 0.0031 | -0.0968 | 0.0063 | 0.9164 | 0.2005 | 0.7159 | -6.2890 |
| 9 | 7.28 | -0.01 | -0.8033 | 0.0855 | 0.0165 | -0.0974 | 0.0067 | 0.8925 | 0.2032 | 0.6891 | -7.5759 |
| 10 | 9.17 | -0.01 | -0.5248 | 0.0103 | 0.0040 | -0.0800 | 0.0072 | 0.7657 | 0.1995 | 0.5662 | -10.5003 |
| 11 | 10.89 | -0.02 | -0.2170 | 0.0535 | -0.0525 | -0.0328 | 0.0076 | 0.6985 | 0.1987 | 0.4998 | -22.5555 |
| 12 | 12.74 | -0.01 | 0.0008 | 0.0206 | -0.0206 | -0.0049 | 0.0080 | 0.6230 | 0.1977 | 0.4259 | 49.6334 |
| 13 | 14.51 | -0.02 | 0.4165 | 0.0785 | -0.0512 | 0.0896 | 0.0156 | 0.5480 | 0.1977 | 0.3503 | 8.7810 |
| 14 | 16.33 | -0.01 | 0.7459 | 0.0636 | -0.0313 | 0.0713 | 0.0023 | 0.4711 | 0.1982 | 0.2729 | 4.1121 |
| 15 | 18.00 | -0.02 | 1.0601 | 0.5764 | -0.1753 | 0.4255 | 0.0161 | 0.4073 | 0.2022 | 0.2051 | 2.4321 |
| 16 | 19.79 | -0.03 | 1.4065 | 0.0836 | -0.2577 | 0.0057 | 0.0303 | 0.3360 | 0.2078 | 0.1282 | 1.4221 |
| 17 | 21.69 | -0.03 | 1.7373 | 1.6332 | -0.5092 | 1.3571 | 0.0290 | 0.2845 | 0.2225 | 0.0620 | 0.5401 |
| 18 | 23.58 | -0.04 | 2.0637 | 1.2561 | -0.7092 | 2.1796 | 0.0343 | 0.2516 | 0.2395 | 0.0121 | 0.5961 |
| 19 | 25.41 | -0.04 | 2.3824 | 1.0645 | -0.6553 | 1.7750 | 0.0086 | 0.1998 | 0.2468 | -0.0470 | 0.4468 |
| 20 | 27.20 | -0.04 | 2.7156 | 1.0314 | -0.1742 | 0.5357 | 0.0204 | 0.1370 | 0.2400 | -0.1031 | 0.3798 |
| 21 | 29.18 | 0.01 | 3.0816 | 1.0454 | 0.1740 | -0.0211 | 0.0740 | 0.0682 | 0.2488 | -0.1606 | 0.3406 |
| 22 | 31.04 | 0.03 | 3.4285 | 0.8558 | 0.3499 | 0.2557 | 0.0813 | 0.0230 | 0.2538 | -0.2358 | 0.2550 |
| 23 | 32.95 | 0.04 | 4.0436 | 0.6265 | 0.3255 | 1.1864 | 0.0561 | -0.0422 | 0.2786 | -0.3209 | 0.1555 |
| 24 | 33.90 | 0.02 | 4.2165 | 0.0365 | 0.3813 | 1.1095 | 0.0591 | -0.0723 | 0.2809 | -0.3533 | 0.1558 |
| 25 | 34.06 | 0.05 | 4.3268 | 0.7283 | 0.5134 | 0.7311 | 0.0608 | -0.0921 | 0.2777 | -0.3699 | 0.1683 |
| 26 | 34.32 | 0.06 | 4.4763 | 0.6760 | 0.5552 | 0.9264 | 0.0676 | -0.0951 | 0.2848 | -0.3800 | 0.1514 |
| 27 | 34.59 | 0.06 | 4.5222 | 0.7159 | 0.5383 | 0.8516 | 0.0611 | -0.1015 | 0.2848 | -0.3863 | 0.1583 |
| 28 | 34.82 | 0.06 | 4.6025 | 0.4234 | 0.5053 | 1.4236 | 0.0738 | -0.1168 | 0.2966 | -0.4133 | 0.0904 |
| 29 | 35.06 | 0.06 | 4.7559 | 0.3014 | 0.5102 | 1.5214 | 0.0737 | -0.1245 | 0.2986 | -0.4228 | 0.0628 |
| 30 | 35.30 | 0.06 | 4.8956 | 0.0850 | 0.5036 | 0.0501 | 0.0918 | -0.1423 | 0.3021 | -0.4443 | 0.0999 |
| 31 | 35.54 | 0.06 | 4.9025 | 0.0021 | 0.5732 | 0.0564 | 0.0705 | -0.1476 | 0.2989 | -0.4464 | 0.1023 |
| 32 | 35.78 | 0.06 | 4.9377 | 0.0035 | 0.7445 | -0.1705 | 0.0860 | -0.1564 | 0.2947 | -0.4530 | 0.1222 |
| 33 | 36.01 | 0.06 | 4.9879 | 0.7603 | 0.7773 | -0.9261 | 0.0837 | -0.1613 | 0.2906 | -0.4518 | 0.1524 |
| 34 | 36.23 | 0.05 | 5.0336 | 0.0244 | 0.7222 | -0.8372 | 0.0909 | -0.1739 | 0.2942 | -0.4680 | 0.1236 |
| 35 | 36.48 | 0.06 | 5.2676 | 0.3852 | 0.7956 | -0.6665 | 0.0839 | -0.1961 | 0.3028 | -0.4987 | 0.0739 |
| 36 | 36.73 | 0.05 | 5.3797 | 0.3133 | 0.5756 | 0.0893 | 0.0815 | -0.1960 | 0.3080 | -0.5040 | 0.0583 |
| 37 | 36.95 | 0.07 | 5.5235 | 0.2328 | 0.7969 | -0.0290 | 0.0820 | -0.2250 | 0.3132 | -0.5382 | 0.0421 |
| 38 | 37.19 | 0.06 | 5.5948 | 0.1665 | 0.5044 | 0.5904 | 0.0729 | -0.2248 | 0.3176 | -0.5424 | 0.0180 |
| 39 | 37.43 | 0.08 | 5.8109 | -0.1756 | 0.5535 | 1.6790 | 0.0548 | -0.2402 | 0.3297 | -0.5699 | -0.0302 |
| 40 | 37.65 | 0.06 | 5.8002 | -0.0757 | 0.5119 | 1.8842 | 0.0402 | -0.2542 | 0.3329 | -0.5721 | -0.0126 |
| 41 | 37.90 | 0.06 | 6.0669 | -0.3504 | 0.4026 | 2.7005 | 0.0307 | -0.2506 | 0.3417 | -0.5923 | -0.0641 |
| 42 | 38.14 | 0.06 | 6.1619 | -0.3786 | 0.2974 | 3.0037 | 0.0300 | -0.2505 | 0.3472 | -0.5977 | -0.0614 |
| 43 | 38.36 | 0.06 | 6.3188 | -0.3712 | 0.1684 | 3.2494 | 0.0206 | -0.2593 | 0.3535 | -0.6128 | -0.0904 |
| 44 | 38.60 | 0.05 | 6.4852 | -0.0824 | 0.1453 | 3.5120 | 0.0134 | -0.2663 | 0.3605 | -0.6268 | -0.1058 |
| 45 | 38.82 | 0.06 | 6.5777 | -0.2670 | 0.0675 | 4.4693 | 0.0117 | -0.2659 | 0.3696 | -0.6353 | -0.1227 |
| 46 | 39.04 | 0.04 | 6.7548 | -0.2428 | 0.0447 | 4.3127 | 0.0058 | -0.2943 | 0.3693 | -0.6635 | -0.1292 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11C MACH 0.80 RXIC=6 4.7 PHI 0.0 CONF 6 DIMGF15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 39.26 | 0.05 | 6.8506 | -0.3616 | 0.0246 | 4.5163 | -0.0017 | -0.2936 | 0.3089 | -0.6624 | -0.1261 |
| 48 | 39.47 | 0.04 | 6.8473 | -0.7743 | -0.0057 | 4.2054 | -0.0072 | -0.2937 | 0.3004 | -0.6606 | -0.1131 |
| 49 | 39.66 | 0.04 | 6.8355 | -0.5535 | -0.0019 | 3.9541 | 0.0009 | -0.3049 | 0.3008 | -0.6716 | -0.0868 |
| 50 | 39.89 | 0.04 | 6.8651 | -0.5443 | 0.0712 | 3.8313 | 0.0092 | -0.3279 | 0.3041 | -0.6920 | -0.0792 |
| 51 | 40.05 | 0.03 | 6.8681 | -0.2237 | 0.0716 | 3.8198 | 0.0191 | -0.3278 | 0.3572 | -0.6850 | -0.0332 |
| 52 | 40.20 | 0.05 | 7.0118 | -0.4466 | 0.2663 | 3.8381 | 0.0108 | -0.3313 | 0.3818 | -0.6931 | -0.0637 |
| 53 | 40.48 | 0.05 | 6.9476 | -0.1062 | 0.2522 | 2.7373 | 0.0273 | -0.3407 | 0.3581 | -0.6968 | -0.0242 |
| 54 | 40.70 | 0.06 | 7.1471 | -0.4361 | 0.3335 | 3.1734 | 0.0260 | -0.3255 | 0.3643 | -0.6898 | -0.0614 |
| 55 | 40.90 | 0.06 | 7.2515 | -0.4503 | 0.3545 | 3.1526 | 0.0262 | -0.3406 | 0.3702 | -0.7108 | -0.0621 |
| 56 | 41.15 | 0.06 | 7.4126 | -0.5073 | 0.3835 | 3.4084 | 0.0186 | -0.3410 | 0.3737 | -0.7147 | -0.0765 |
| 57 | 41.32 | 0.07 | 7.4056 | -0.5462 | 0.4050 | 3.4764 | 0.0114 | -0.3052 | 0.3687 | -0.7339 | -0.0737 |
| 58 | 41.53 | 0.07 | 7.5706 | -0.6372 | 0.4346 | 3.6667 | 0.0112 | -0.3000 | 0.3774 | -0.7380 | -0.0842 |
| 59 | 41.73 | 0.07 | 7.7173 | -0.9217 | 0.2582 | 4.2381 | -0.0258 | -0.3473 | 0.3778 | -0.7251 | -0.1154 |
| 60 | 41.92 | 0.06 | 7.7136 | -0.8576 | 0.2686 | 4.0456 | -0.0459 | -0.3510 | 0.3893 | -0.7403 | -0.0852 |
| 61 | 42.13 | 0.07 | 7.5115 | -0.9082 | 0.3876 | 4.2051 | -0.0390 | -0.3479 | 0.3885 | -0.7364 | -0.1148 |
| 62 | 42.29 | 0.05 | 7.6173 | -0.8247 | 0.3961 | 3.9214 | -0.0456 | -0.3467 | 0.3812 | -0.7499 | -0.0759 |
| 63 | 42.48 | 0.06 | 7.9918 | -0.8657 | 0.3820 | 4.3031 | -0.0601 | -0.3589 | 0.3950 | -0.7539 | -0.1208 |
| 64 | 42.68 | 0.05 | 8.1170 | -0.8582 | 0.4066 | 4.1950 | -0.0582 | -0.3733 | 0.3908 | -0.7641 | -0.1055 |
| 65 | 42.85 | 0.05 | 8.1705 | -0.9406 | 0.3167 | 4.2541 | -0.0733 | -0.3704 | 0.3870 | -0.7634 | -0.1151 |
| 66 | 43.01 | 0.04 | 8.1958 | -0.7048 | 0.2680 | 3.9652 | -0.0650 | -0.3953 | 0.3811 | -0.7764 | -0.0866 |
| 67 | 43.19 | 0.05 | 8.2744 | -0.8583 | 0.3626 | 4.1059 | -0.0653 | -0.4013 | 0.3842 | -0.7855 | -0.1066 |
| 68 | 43.40 | 0.04 | 8.3754 | -1.0576 | 0.2542 | 4.4680 | -0.0673 | -0.4182 | 0.3824 | -0.8006 | -0.1310 |
| 69 | 43.58 | 0.05 | 8.4446 | -1.2146 | 0.2527 | 4.6934 | -0.1015 | -0.4203 | 0.3815 | -0.8018 | -0.1436 |
| 70 | 43.72 | 0.05 | 8.3957 | -1.0622 | 0.3614 | 4.2584 | -0.0804 | -0.4122 | 0.3847 | -0.7969 | -0.1194 |
| 71 | 43.93 | 0.05 | 8.6276 | -1.0343 | 0.3157 | 4.5345 | -0.1082 | -0.4186 | 0.3907 | -0.8093 | -0.1570 |
| 72 | 44.10 | 0.05 | 8.5464 | -1.0843 | 0.3125 | 4.1586 | -0.0999 | -0.4270 | 0.3843 | -0.8113 | -0.1268 |
| 73 | 44.28 | 0.03 | 8.5387 | -1.0412 | 0.1541 | 4.2845 | -0.1211 | -0.4393 | 0.3802 | -0.8195 | -0.1337 |
| 74 | 44.47 | 0.05 | 8.7420 | -1.0237 | 0.3099 | 4.4115 | -0.1145 | -0.4501 | 0.3865 | -0.8366 | -0.1514 |
| 75 | 44.64 | 0.03 | 8.5578 | -1.0052 | 0.2348 | 4.1182 | -0.0995 | -0.4531 | 0.3830 | -0.8331 | -0.1179 |
| 76 | 44.82 | 0.04 | 8.7364 | -1.0406 | 0.3384 | 4.3446 | -0.1073 | -0.4474 | 0.3876 | -0.8350 | -0.1526 |
| 77 | 44.96 | 0.03 | 8.7536 | -1.0836 | 0.2833 | 4.2014 | -0.0997 | -0.4528 | 0.3893 | -0.8421 | -0.1241 |
| 78 | 45.18 | 0.04 | 8.9154 | -1.0282 | 0.4065 | 4.2629 | -0.0996 | -0.4590 | 0.3911 | -0.8501 | -0.1490 |
| 79 | 45.36 | 0.04 | 8.9457 | -1.0487 | 0.3565 | 4.3532 | -0.0881 | -0.4518 | 0.3945 | -0.8463 | -0.1505 |
| 80 | 45.56 | 0.05 | 9.0131 | -1.0776 | 0.2473 | 4.3378 | -0.0786 | -0.4629 | 0.3986 | -0.8615 | -0.1875 |
| 81 | 45.66 | 0.04 | 8.9709 | -1.2514 | 0.3609 | 4.2351 | -0.1139 | -0.4673 | 0.3958 | -0.8631 | -0.1440 |
| 82 | 45.86 | 0.05 | 9.1515 | -1.0256 | 0.5462 | 4.2022 | -0.0854 | -0.4541 | 0.4072 | -0.8613 | -0.1781 |
| 83 | 46.06 | 0.06 | 9.3787 | -1.0768 | 0.6374 | 4.3233 | -0.0712 | -0.4476 | 0.4099 | -0.8577 | -0.1878 |
| 84 | 46.24 | 0.07 | 9.4626 | -1.0862 | 0.7520 | 4.3834 | -0.0480 | -0.4586 | 0.4139 | -0.8726 | -0.1911 |
| 85 | 46.36 | 0.06 | 9.4237 | -1.0770 | 0.6618 | 3.8753 | -0.0551 | -0.4549 | 0.4120 | -0.8670 | -0.1780 |
| 86 | 46.57 | 0.07 | 9.6354 | -1.0562 | 0.6645 | 3.8648 | -0.0256 | -0.4594 | 0.4202 | -0.8797 | -0.2029 |
| 87 | 46.75 | 0.07 | 9.5753 | -1.0545 | 0.7866 | 3.8216 | -0.0399 | -0.4677 | 0.4234 | -0.8912 | -0.1978 |
| 88 | 46.92 | 0.07 | 9.6556 | -1.0172 | 0.8155 | 3.8811 | -0.0393 | -0.4654 | 0.4299 | -0.8954 | -0.1977 |
| 89 | 47.08 | 0.07 | 9.7743 | -1.0216 | 0.8747 | 3.9366 | -0.0390 | -0.4559 | 0.4345 | -0.8905 | -0.1966 |
| 90 | 47.23 | 0.07 | 9.8487 | -1.0261 | 0.8246 | 3.7001 | -0.0536 | -0.4610 | 0.4373 | -0.8984 | -0.1956 |
| 91 | 47.45 | 0.05 | 9.9575 | -1.0073 | 1.0586 | 3.9845 | -0.0387 | -0.4487 | 0.4498 | -0.8986 | -0.2008 |
| 92 | 47.62 | 0.05 | 10.1016 | -1.0146 | 1.1180 | 3.9395 | -0.0913 | -0.4170 | 0.4702 | -0.8873 | -0.1994 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 6

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 MACH 0.80 RX10-6 1.7 PHI 0.0 CONF plus15 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.78 | 0.09 | 10.1853 | -1.8556 | 1.0798 | 3.5430 | -0.3513 | -0.4134 | 0.4740 | -0.8875 | -0.1861 |
| 94 | 47.96 | 0.09 | 10.1762 | -1.8785 | 1.0896 | 3.4562 | -0.3662 | -0.4259 | 0.4713 | -0.9013 | -0.1847 |
| 95 | 48.13 | 0.08 | 10.2810 | -1.8783 | 1.0815 | 3.6094 | -0.3582 | -0.4109 | 0.4795 | -0.8906 | -0.1831 |
| 96 | 48.30 | 0.08 | 10.2914 | -1.8258 | 0.9484 | 3.7501 | -0.3845 | -0.4306 | 0.4787 | -0.9094 | -0.1778 |
| 97 | 48.47 | 0.08 | 10.3056 | -1.7379 | 0.8224 | 3.8368 | -0.3810 | -0.4136 | 0.4830 | -0.8937 | -0.1686 |
| 98 | 48.62 | 0.07 | 10.2967 | -1.8028 | 0.7955 | 4.0705 | -0.4091 | -0.4120 | 0.4839 | -0.8959 | -0.1616 |
| 99 | 48.81 | 0.07 | 10.4385 | -1.7756 | 0.9410 | 3.9285 | -0.3950 | -0.4156 | 0.4877 | -0.9033 | -0.1761 |
| 100 | 48.98 | 0.07 | 10.4819 | -1.7356 | 0.8906 | 3.9573 | -0.3946 | -0.4150 | 0.4850 | -0.9040 | -0.1659 |
| 101 | 49.15 | 0.08 | 10.5496 | -1.8425 | 0.9356 | 4.1136 | -0.4098 | -0.4369 | 0.4904 | -0.9273 | -0.1747 |
| 102 | 49.32 | 0.06 | 10.4923 | -1.8722 | 0.8737 | 4.3479 | -0.4316 | -0.4341 | 0.4941 | -0.9282 | -0.1594 |
| 103 | 49.51 | 0.07 | 10.6668 | -1.7866 | 0.8566 | 4.3508 | -0.4172 | -0.4444 | 0.4904 | -0.9348 | -0.1675 |
| 104 | 49.69 | 0.07 | 10.7037 | -1.8245 | 0.8581 | 4.4268 | -0.4156 | -0.4399 | 0.4905 | -0.9304 | -0.1614 |
| 105 | 49.84 | 0.07 | 10.7251 | -1.8565 | 0.7934 | 4.3282 | -0.4238 | -0.4446 | 0.4909 | -0.9355 | -0.1544 |
| 106 | 50.01 | 0.06 | 10.6848 | -1.8832 | 0.8852 | 4.4874 | -0.4386 | -0.4660 | 0.4830 | -0.9709 | -0.1503 |
| 107 | 50.19 | 0.06 | 10.6805 | -1.8427 | 0.8664 | 4.2550 | -0.4431 | -0.4738 | 0.4765 | -0.9504 | -0.1457 |
| 108 | 50.34 | 0.04 | 10.5883 | -1.8356 | 0.8452 | 4.0831 | -0.4391 | -0.4994 | 0.4538 | -0.9532 | -0.1003 |
| 109 | 50.51 | 0.04 | 10.5265 | -0.8864 | 0.5081 | 3.5122 | -0.1167 | -0.5166 | 0.4533 | -0.9699 | -0.0825 |
| 110 | 50.67 | 0.04 | 10.5079 | -0.8413 | 0.4346 | 3.5508 | -0.1259 | -0.5084 | 0.4200 | -0.9284 | -0.0810 |
| 111 | 50.85 | 0.04 | 10.5883 | -0.7163 | 0.5209 | 3.1993 | -0.1026 | -0.5212 | 0.4548 | -0.9760 | -0.0678 |
| 112 | 51.01 | 0.03 | 10.6832 | -0.8757 | 0.4258 | 3.4041 | -0.1173 | -0.5306 | 0.4345 | -0.9731 | -0.0639 |
| 113 | 51.19 | 0.04 | 10.7913 | -0.8371 | 0.4765 | 3.5087 | -0.1172 | -0.5054 | 0.4646 | -0.9893 | -0.0776 |
| 114 | 51.36 | 0.05 | 10.6521 | -1.1854 | 0.5220 | 3.8230 | -0.1110 | -0.4803 | 0.4951 | -0.9803 | -0.1086 |
| 115 | 51.54 | 0.05 | 10.5503 | -1.0437 | 0.4725 | 4.0488 | -0.1186 | -0.4774 | 0.5016 | -0.9796 | -0.0950 |
| 116 | 51.71 | 0.06 | 11.3697 | -1.4993 | 0.4364 | 4.0228 | -0.1204 | -0.4588 | 0.5247 | -0.9835 | -0.1316 |
| 117 | 51.89 | 0.03 | 11.3517 | -1.5288 | 0.2215 | 5.0403 | -0.1421 | -0.4973 | 0.4933 | -0.9905 | -0.1347 |
| 118 | 52.05 | 0.05 | 11.5137 | -1.6375 | 0.4153 | 4.9656 | -0.1348 | -0.4713 | 0.5192 | -0.9905 | -0.1423 |
| 119 | 52.23 | 0.05 | 11.5160 | -1.5335 | 0.4051 | 4.7913 | -0.1194 | -0.4577 | 0.5302 | -0.9879 | -0.1332 |
| 120 | 52.40 | 0.07 | 11.7614 | -1.6154 | 0.6575 | 5.2932 | -0.1496 | -0.4599 | 0.5335 | -0.9938 | -0.1542 |
| 121 | 52.57 | 0.08 | 11.6721 | -1.5677 | 0.6282 | 5.3075 | -0.1350 | -0.4609 | 0.5446 | -1.0055 | -0.1657 |
| 122 | 52.73 | 0.07 | 11.6620 | -1.5067 | 0.4882 | 5.5146 | -0.1501 | -0.4609 | 0.5386 | -0.9995 | -0.1609 |
| 123 | 52.91 | 0.07 | 12.0020 | -2.0857 | 0.5715 | 5.3722 | -0.1422 | -0.4803 | 0.5419 | -1.0022 | -0.1738 |
| 124 | 53.07 | 0.10 | 12.1184 | -2.1762 | 0.8751 | 5.0671 | -0.1342 | -0.4690 | 0.5498 | -1.0188 | -0.1796 |
| 125 | 53.24 | 0.08 | 12.2118 | -2.3140 | 0.7534 | 4.8785 | -0.1180 | -0.4825 | 0.5386 | -1.0210 | -0.1895 |
| 126 | 53.41 | 0.09 | 12.3469 | -2.4848 | 0.9242 | 4.8713 | -0.0877 | -0.4706 | 0.5456 | -1.0222 | -0.1853 |
| 127 | 53.58 | 0.08 | 12.3211 | -2.2545 | 0.8236 | 4.8657 | -0.0950 | -0.4722 | 0.5424 | -1.0146 | -0.1863 |
| 128 | 53.75 | 0.10 | 12.7646 | -2.7015 | 1.1444 | 3.7508 | -0.0422 | -0.4903 | 0.5330 | -1.0252 | -0.2116 |
| 129 | 53.89 | 0.09 | 12.8434 | -2.8527 | 1.0414 | 3.8751 | -0.0428 | -0.5037 | 0.5341 | -1.0377 | -0.2098 |
| 130 | 54.06 | 0.10 | 12.7261 | -2.7907 | 1.1734 | 3.1001 | 0.0031 | -0.4826 | 0.5269 | -1.0094 | -0.2153 |
| 131 | 54.22 | 0.09 | 12.7617 | -2.8316 | 1.0565 | 3.2228 | 0.0030 | -0.4888 | 0.5359 | -1.0286 | -0.2219 |
| 132 | 54.37 | 0.07 | 12.8683 | -2.7595 | 0.9553 | 2.8009 | 0.0345 | -0.4767 | 0.5372 | -1.0139 | -0.2144 |
| 133 | 54.56 | 0.09 | 13.0527 | -3.0261 | 1.1451 | 2.8850 | 0.0266 | -0.4935 | 0.5410 | -1.0344 | -0.2318 |
| 134 | 54.73 | 0.06 | 13.0215 | -2.8822 | 1.0751 | 2.8565 | 0.0556 | -0.4730 | 0.5476 | -1.0206 | -0.2213 |
| 135 | 54.88 | 0.08 | 13.0584 | -2.8930 | 1.0599 | 2.8807 | 0.0414 | -0.4801 | 0.5492 | -1.0293 | -0.2219 |
| 136 | 55.06 | 0.06 | 13.0470 | -3.0009 | 1.1231 | 2.8585 | 0.0492 | -0.4868 | 0.5496 | -1.0363 | -0.2302 |
| 137 | 55.19 | 0.07 | 13.0525 | -2.8255 | 0.9081 | 2.8540 | 0.0345 | -0.4908 | 0.5356 | -1.0299 | -0.2180 |
| 138 | 55.35 | 0.07 | 13.1603 | -2.8565 | 0.9109 | 2.9245 | 0.0349 | -0.4644 | 0.5521 | -1.0165 | -0.2198 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 110 | PACH 0.80 | MXIC=6 1.7 | PHI 0.0 | CONF B1=0F15 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 55.50 | 0.06 | 13.2220 | -3.0056 | 0.7823 | 2.8118 | 0.0356 | -0.4738 | 0.5531 | -1.0269 | -0.2269 |
| 140 | 55.66 | 0.07 | 13.2451 | -3.0734 | 1.0571 | 2.7423 | 0.0354 | -0.4659 | 0.5485 | -1.0343 | -0.2320 |
| 141 | 55.83 | 0.07 | 13.3425 | -3.0356 | 0.9630 | 3.0125 | 0.0350 | -0.4716 | 0.5547 | -1.0263 | -0.2278 |
| 142 | 55.99 | 0.06 | 13.4155 | -3.0061 | 0.8603 | 2.8231 | 0.0307 | -0.4830 | 0.5612 | -1.0441 | -0.2242 |
| 143 | 56.14 | 0.07 | 13.4976 | -2.9861 | 1.1136 | 2.8373 | 0.0341 | -0.4746 | 0.5659 | -1.0405 | -0.2208 |
| 144 | 56.29 | 0.07 | 13.4774 | -2.9798 | 1.1012 | 2.7144 | 0.0365 | -0.4790 | 0.5674 | -1.0469 | -0.2211 |
| 145 | 56.46 | 0.05 | 13.7360 | -3.1361 | 1.3107 | 2.8535 | 0.0334 | -0.4698 | 0.5720 | -1.0617 | -0.2279 |
| 146 | 56.62 | 0.06 | 13.7138 | -3.1259 | 1.1365 | 2.7849 | 0.0369 | -0.4935 | 0.5786 | -1.0721 | -0.2279 |
| 147 | 56.79 | 0.07 | 13.8418 | -3.1518 | 1.2292 | 2.8328 | 0.0342 | -0.4859 | 0.5757 | -1.0615 | -0.2277 |
| 148 | 56.95 | 0.06 | 13.9634 | -3.2045 | 1.1496 | 2.7249 | 0.0300 | -0.5017 | 0.5770 | -1.0787 | -0.2295 |
| 149 | 57.10 | 0.05 | 13.8452 | -3.2322 | 0.9505 | 2.7129 | 0.0379 | -0.4657 | 0.5845 | -1.0702 | -0.2335 |
| 150 | 57.26 | 0.06 | 13.9185 | -3.1814 | 1.3421 | 2.7247 | 0.0348 | -0.4658 | 0.5900 | -1.0558 | -0.2286 |
| 151 | 57.40 | 0.06 | 13.9164 | -3.1405 | 1.1655 | 2.6112 | 0.0326 | -0.4793 | 0.5939 | -1.0733 | -0.2257 |
| 152 | 57.54 | 0.06 | 13.9565 | -3.0642 | 0.9212 | 2.2507 | 0.0403 | -0.4725 | 0.5977 | -1.0703 | -0.2209 |
| 153 | 57.71 | 0.05 | 14.0222 | -3.0805 | 0.9585 | 2.6271 | 0.0364 | -0.4631 | 0.6084 | -1.0716 | -0.2183 |
| 154 | 57.85 | 0.04 | 13.9531 | -2.8561 | 0.5165 | 2.0347 | 0.0372 | -0.4530 | 0.6100 | -1.0630 | -0.2075 |
| 155 | 58.00 | 0.04 | 13.9756 | -2.8739 | 0.8876 | 2.6476 | 0.0365 | -0.4571 | 0.6155 | -1.0727 | -0.2056 |
| 156 | 58.14 | 0.04 | 13.8066 | -2.8625 | 0.9521 | 2.5010 | 0.0341 | -0.4498 | 0.6142 | -1.0640 | -0.2146 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSAUCT 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 6

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 MACH 0.80 AXIS-6 ALT 0.0 CONF 6 BLOWER 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CAF1 | CH1 | CA1 | XCPF1 | YCPF1 | CAF2 | CH2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.05 | 0.00 | -0.0011 | 0.0012 | 0.0078 | -1.0913 | -7.0909 | -0.9510 | -0.0260 | -0.4033 | 0.6295 | 0.4241 |
| 2 | -0.00 | -0.01 | -0.0009 | 0.0011 | 0.0100 | -1.0073 | -7.3333 | -0.9044 | -0.0284 | -0.4057 | 0.6295 | 0.4248 |
| 3 | -0.05 | -0.02 | -0.0010 | 0.0012 | 0.0072 | -1.2005 | -7.2000 | -0.9611 | -0.0284 | -0.4081 | 0.6296 | 0.4246 |
| 4 | -0.19 | -0.04 | -0.0016 | 0.0015 | 0.0072 | -1.0000 | -7.2000 | -1.0002 | -0.0314 | -0.4287 | 0.6313 | 0.4286 |
| 5 | 0.00 | -0.01 | -0.0011 | 0.0012 | 0.0078 | -1.0913 | -7.0909 | -1.0396 | -0.0372 | -0.4408 | 0.6358 | 0.4361 |
| 6 | 1.98 | -0.01 | 0.0004 | 0.0006 | 0.0080 | 0.9030 | 1.7917 | -1.0089 | -0.0392 | -0.4553 | 0.0546 | 0.4570 |
| 7 | 3.70 | -0.01 | 0.0032 | 0.0023 | 0.0091 | 0.7190 | 2.0438 | -1.0298 | -0.0585 | -0.4743 | 0.0566 | 0.4667 |
| 8 | 5.50 | -0.01 | -0.0001 | 0.0019 | 0.0125 | -1.9000-125.0000 | | -0.9171 | -0.0503 | -0.4931 | 0.0636 | 0.4723 |
| 9 | 7.28 | -0.01 | -0.0047 | 0.0013 | 0.0126 | -0.2767 | -2.6000 | -0.8138 | -0.0573 | -0.3795 | 0.0704 | 0.4683 |
| 10 | 9.17 | -0.01 | -0.0030 | 0.0020 | 0.0161 | -0.9558 | -0.4722 | -0.7165 | -0.0493 | -0.3548 | 0.0652 | 0.4656 |
| 11 | 10.89 | -0.02 | -0.0055 | 0.0021 | 0.0165 | -0.3820 | -3.3030 | -0.6033 | -0.0413 | -0.2852 | 0.0684 | 0.4793 |
| 12 | 12.74 | -0.01 | -0.0068 | 0.0008 | 0.1111 | -0.9265 | -0.5071 | -0.5342 | -0.0342 | -0.2437 | 0.0674 | 0.4660 |
| 13 | 14.51 | -0.02 | -0.0117 | 0.0010 | 0.0102 | 0.1300 | -0.8718 | -0.3543 | -0.0276 | -0.1543 | 0.0701 | 0.4529 |
| 14 | 16.33 | -0.01 | -0.0135 | 0.0043 | 0.0143 | -0.1284 | -0.2704 | -0.0405 | -0.1458 | 0.0743 | 0.5273 |
| 15 | 18.00 | -0.02 | -0.0257 | 0.0050 | 0.0104 | 0.1000 | -0.3502 | -0.2020 | -0.0147 | -0.1063 | 0.0729 | 0.5362 |
| 16 | 19.79 | -0.03 | -0.0252 | 0.0053 | 0.0253 | 0.3295 | -1.0040 | -0.1471 | -0.0076 | -0.0769 | 0.0518 | 0.5228 |
| 17 | 21.69 | -0.03 | -0.0226 | 0.0154 | 0.0196 | 0.2489 | -0.3199 | -0.0853 | 0.0039 | -0.0541 | -0.0106 | 0.6338 |
| 18 | 23.38 | -0.04 | -0.1264 | 0.0246 | 0.0490 | 0.1930 | -0.0365 | -0.0706 | 0.0094 | -0.0485 | -0.1229 | 0.6375 |
| 19 | 25.41 | -0.04 | -0.0973 | -0.0122 | -0.0055 | 0.1256 | 0.0566 | -0.0026 | 0.0242 | -0.0167 | -0.3114 | 0.4231 |
| 20 | 27.20 | -0.02 | -0.0057 | 0.0021 | 0.0269 | -0.3080 | -0.2789 | 0.0609 | 0.0377 | 0.0063 | 0.5031 | 0.1243 |
| 21 | 29.18 | 0.01 | 0.1340 | 0.0188 | 0.0255 | 0.1900 | 0.6082 | 0.1245 | 0.0516 | 0.0265 | 0.4132 | 0.2285 |
| 22 | 31.04 | 0.03 | 0.0979 | 0.0220 | 0.0716 | 0.2640 | 0.7311 | 0.1549 | 0.0617 | 0.0420 | 0.3859 | 0.2624 |
| 23 | 32.95 | 0.04 | -0.0461 | 0.0154 | 0.0256 | -0.3892 | -0.1247 | 0.1988 | 0.0706 | 0.0557 | 0.3545 | 0.2802 |
| 24 | 33.90 | 0.02 | -0.0265 | 0.0160 | 0.0074 | -0.0009 | -0.2596 | 0.2182 | 0.0728 | 0.0647 | 0.3338 | 0.2585 |
| 25 | 34.06 | 0.05 | 0.0138 | 0.0157 | 0.0224 | 1.4201 | 1.6232 | 0.2396 | 0.0745 | 0.0745 | 0.3113 | 0.3112 |
| 26 | 34.32 | 0.06 | -0.0141 | 0.0213 | 0.0125 | -1.5116 | -0.0005 | 0.2337 | 0.0748 | 0.0716 | 0.3062 | 0.3063 |
| 27 | 34.59 | 0.06 | -0.0255 | 0.0215 | 0.0201 | -0.8459 | -0.3127 | 0.2352 | 0.0757 | 0.0731 | 0.3226 | 0.3108 |
| 28 | 34.82 | 0.06 | -0.0420 | 0.0221 | 0.0160 | -0.5277 | -0.0143 | 0.2435 | 0.0772 | 0.0761 | 0.3146 | 0.3106 |
| 29 | 35.06 | 0.06 | -0.0405 | 0.0204 | 0.0224 | -0.5035 | -0.0593 | 0.2553 | 0.0780 | 0.0810 | 0.3056 | 0.3173 |
| 30 | 35.30 | 0.06 | 0.0227 | 0.0242 | 0.0302 | 1.0525 | 1.5507 | 0.2767 | 0.0796 | 0.0915 | 0.2885 | 0.3367 |
| 31 | 35.54 | 0.06 | 0.0268 | 0.0278 | 0.0243 | 1.0303 | 0.9067 | 0.3064 | 0.0813 | 0.1067 | 0.2855 | 0.3484 |
| 32 | 35.78 | 0.06 | 0.0097 | 0.0366 | 0.0496 | 0.4000 | 0.0570 | 0.3113 | 0.0815 | 0.1098 | 0.2819 | 0.3528 |
| 33 | 36.01 | 0.06 | 0.1358 | 0.0333 | 0.0712 | 0.2445 | 0.5243 | 0.3446 | 0.0818 | 0.1274 | 0.2378 | 0.3658 |
| 34 | 36.23 | 0.05 | 0.1501 | 0.0361 | 0.0777 | 0.2403 | 0.5177 | 0.3610 | 0.0824 | 0.1348 | 0.2283 | 0.3733 |
| 35 | 36.46 | 0.06 | 0.1203 | 0.0351 | 0.0678 | 0.3246 | 0.5632 | 0.3757 | 0.0842 | 0.1428 | 0.2242 | 0.3801 |
| 36 | 36.73 | 0.05 | 0.0534 | 0.0352 | 0.0598 | 0.6208 | 0.7407 | 0.3699 | 0.0841 | 0.1331 | 0.2404 | 0.3803 |
| 37 | 36.95 | 0.07 | 0.0327 | 0.0325 | 0.0319 | 1.0552 | 0.9755 | 0.3631 | 0.0850 | 0.1385 | 0.2342 | 0.3824 |
| 38 | 37.19 | 0.06 | -0.0261 | 0.0306 | 0.0496 | -1.1499 | -0.1933 | 0.3564 | 0.0859 | 0.1377 | 0.2394 | 0.3835 |
| 39 | 37.43 | 0.08 | -0.1331 | 0.0135 | -0.0356 | -0.1045 | 0.2679 | 0.3406 | 0.0862 | 0.1316 | 0.2532 | 0.3862 |
| 40 | 37.65 | 0.06 | -0.1766 | 0.0094 | -0.0566 | -0.0555 | 0.3275 | 0.3372 | 0.0867 | 0.1300 | 0.2572 | 0.3854 |
| 41 | 37.90 | 0.06 | -0.2234 | -0.0038 | -0.0752 | 0.0027 | 0.3366 | 0.3387 | 0.0872 | 0.1328 | 0.2576 | 0.3920 |
| 42 | 38.14 | 0.06 | -0.2504 | -0.0096 | -0.0851 | 0.0308 | 0.3399 | 0.3355 | 0.0888 | 0.1312 | 0.2588 | 0.3905 |
| 43 | 38.38 | 0.06 | -0.3134 | -0.0312 | -0.1051 | 0.0994 | 0.3355 | 0.3239 | 0.0865 | 0.1262 | 0.2672 | 0.3895 |
| 44 | 38.60 | 0.05 | -0.3234 | -0.0305 | -0.1061 | 0.1081 | 0.3341 | 0.3305 | 0.0867 | 0.1294 | 0.2624 | 0.3914 |
| 45 | 38.82 | 0.06 | -0.3381 | -0.0409 | -0.1121 | 0.1216 | 0.3336 | 0.3420 | 0.0870 | 0.1351 | 0.2545 | 0.3945 |
| 46 | 39.04 | 0.04 | -0.3445 | -0.0411 | -0.1177 | 0.1209 | 0.3418 | 0.3652 | 0.0872 | 0.1450 | 0.2585 | 0.3965 |

TEST 7 PART 110 MACH 0.80 REIG-6 1.7 PHI 0.0 CONF 15 L 0.0 DELT 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 39.20 | 0.05 | -0.3872 | -0.0508 | -0.1262 | 0.1383 | 0.3447 | 0.3818 | 0.0671 | 0.1530 | 0.2283 | 0.4007 |
| 48 | 39.47 | 0.04 | -0.3838 | -0.0498 | -0.1286 | 0.1299 | 0.3519 | 0.3876 | 0.0679 | 0.1572 | 0.2254 | 0.4056 |
| 49 | 39.66 | 0.04 | -0.3881 | -0.0304 | -0.1232 | 0.0901 | 0.3642 | 0.3957 | 0.0677 | 0.1639 | 0.2217 | 0.4142 |
| 50 | 39.89 | 0.04 | -0.3923 | -0.0264 | -0.1176 | 0.0860 | 0.3650 | 0.4089 | 0.0680 | 0.1697 | 0.2153 | 0.4156 |
| 51 | 40.09 | 0.03 | -0.2133 | -0.0005 | -0.0752 | 0.0023 | 0.3714 | 0.4204 | 0.0685 | 0.1759 | 0.2106 | 0.4184 |
| 52 | 40.28 | 0.05 | -0.2025 | -0.0140 | -0.0566 | 0.0402 | 0.3737 | 0.4252 | 0.0685 | 0.1796 | 0.2082 | 0.4229 |
| 53 | 40.43 | 0.05 | -0.1971 | -0.0056 | -0.0715 | -0.0295 | 0.3847 | 0.4203 | 0.0686 | 0.1761 | 0.2109 | 0.4156 |
| 54 | 40.70 | 0.06 | -0.2037 | -0.0075 | -0.0826 | 0.0321 | 0.3855 | 0.4245 | 0.0686 | 0.1781 | 0.2088 | 0.4196 |
| 55 | 40.90 | 0.06 | -0.2554 | -0.0057 | -0.0904 | 0.0380 | 0.3540 | 0.4356 | 0.0691 | 0.1851 | 0.2045 | 0.4248 |
| 56 | 41.13 | 0.06 | -0.2469 | -0.0103 | -0.0697 | 0.0414 | 0.3604 | 0.4356 | 0.0689 | 0.1847 | 0.2045 | 0.4246 |
| 57 | 41.32 | 0.07 | -0.2015 | -0.0101 | -0.0574 | 0.0387 | 0.3725 | 0.4495 | 0.0689 | 0.1915 | 0.1977 | 0.4267 |
| 58 | 41.53 | 0.07 | -0.2055 | -0.0117 | -0.1060 | 0.0604 | 0.3785 | 0.4530 | 0.0694 | 0.1946 | 0.1975 | 0.4301 |
| 59 | 41.73 | 0.07 | -0.3093 | -0.0326 | -0.1120 | 0.1053 | 0.3623 | 0.4759 | 0.0691 | 0.2073 | 0.1873 | 0.4359 |
| 60 | 41.92 | 0.06 | -0.3038 | -0.0218 | -0.1176 | 0.0713 | 0.3675 | 0.4727 | 0.0692 | 0.2044 | 0.1888 | 0.4323 |
| 61 | 42.13 | 0.07 | -0.3005 | -0.0283 | -0.1084 | 0.0943 | 0.3605 | 0.4913 | 0.0696 | 0.2145 | 0.1825 | 0.4373 |
| 62 | 42.29 | 0.05 | -0.3041 | -0.0247 | -0.1153 | 0.0800 | 0.3752 | 0.4881 | 0.0699 | 0.2113 | 0.1843 | 0.4328 |
| 63 | 42.48 | 0.06 | -0.3286 | -0.0328 | -0.1230 | 0.0997 | 0.3742 | 0.5110 | 0.0898 | 0.2224 | 0.1756 | 0.4351 |
| 64 | 42.68 | 0.05 | -0.3165 | -0.0268 | -0.1236 | 0.0847 | 0.3899 | 0.5143 | 0.0904 | 0.2214 | 0.1759 | 0.4304 |
| 65 | 42.85 | 0.05 | -0.3331 | -0.0335 | -0.1292 | 0.1004 | 0.3877 | 0.5331 | 0.0899 | 0.2299 | 0.1687 | 0.4313 |
| 66 | 43.01 | 0.04 | -0.3217 | -0.0222 | -0.1325 | 0.0691 | 0.4111 | 0.5232 | 0.0896 | 0.2251 | 0.1717 | 0.4302 |
| 67 | 43.19 | 0.05 | -0.3077 | -0.0285 | -0.1188 | 0.0941 | 0.3883 | 0.5398 | 0.0895 | 0.2304 | 0.1666 | 0.4268 |
| 68 | 43.40 | 0.04 | -0.3564 | -0.0364 | -0.1416 | 0.1070 | 0.3950 | 0.5666 | 0.0894 | 0.2418 | 0.1580 | 0.4272 |
| 69 | 43.58 | 0.05 | -0.3510 | -0.0364 | -0.1412 | 0.1036 | 0.4022 | 0.5693 | 0.0894 | 0.2427 | 0.1571 | 0.4263 |
| 70 | 43.72 | 0.05 | -0.3455 | -0.0285 | -0.1426 | 0.0836 | 0.4132 | 0.5677 | 0.0899 | 0.2393 | 0.1584 | 0.4215 |
| 71 | 43.93 | 0.05 | -0.3576 | -0.0423 | -0.1446 | 0.1182 | 0.4043 | 0.6087 | 0.0896 | 0.2571 | 0.1465 | 0.4224 |
| 72 | 44.10 | 0.05 | -0.3746 | -0.0364 | -0.1576 | 0.0970 | 0.4211 | 0.5891 | 0.0894 | 0.2476 | 0.1518 | 0.4203 |
| 73 | 44.26 | 0.03 | -0.3884 | -0.0350 | -0.1557 | 0.1058 | 0.4308 | 0.6138 | 0.0891 | 0.2589 | 0.1452 | 0.4188 |
| 74 | 44.47 | 0.05 | -0.3812 | -0.0462 | -0.1475 | 0.1112 | 0.4063 | 0.6200 | 0.0894 | 0.2585 | 0.1443 | 0.4170 |
| 75 | 44.64 | 0.03 | -0.3554 | -0.0354 | -0.1494 | 0.0995 | 0.4205 | 0.6100 | 0.0894 | 0.2550 | 0.1466 | 0.4180 |
| 76 | 44.82 | 0.04 | -0.3731 | -0.0387 | -0.1571 | 0.1036 | 0.4211 | 0.6211 | 0.0894 | 0.2583 | 0.1440 | 0.4156 |
| 77 | 44.98 | 0.03 | -0.3284 | -0.0262 | -0.1385 | 0.0860 | 0.4229 | 0.6125 | 0.0901 | 0.2527 | 0.1472 | 0.4126 |
| 78 | 45.16 | 0.04 | -0.3147 | -0.0343 | -0.1427 | 0.1084 | 0.3898 | 0.6191 | 0.0899 | 0.2565 | 0.1453 | 0.4144 |
| 79 | 45.36 | 0.04 | -0.3461 | -0.0350 | -0.1385 | 0.1010 | 0.3954 | 0.6281 | 0.0902 | 0.2594 | 0.1437 | 0.4130 |
| 80 | 45.54 | 0.05 | -0.2269 | -0.0361 | -0.1404 | 0.1338 | 0.3601 | 0.6463 | 0.0898 | 0.2665 | 0.1390 | 0.4130 |
| 81 | 45.68 | 0.04 | -0.3265 | -0.0381 | -0.1311 | 0.1103 | 0.4009 | 0.6414 | 0.0900 | 0.2638 | 0.1404 | 0.4113 |
| 82 | 45.88 | 0.05 | -0.2732 | -0.0355 | -0.1614 | 0.1298 | 0.3712 | 0.6494 | 0.0901 | 0.2662 | 0.1388 | 0.4100 |
| 83 | 46.06 | 0.05 | -0.2588 | -0.0387 | -0.1655 | 0.1495 | 0.3308 | 0.6573 | 0.0898 | 0.2688 | 0.1367 | 0.4087 |
| 84 | 46.24 | 0.07 | -0.1956 | -0.0316 | -0.0967 | 0.1009 | 0.3030 | 0.6640 | 0.0896 | 0.2711 | 0.1350 | 0.4083 |
| 85 | 46.38 | 0.06 | -0.2261 | -0.0312 | -0.0726 | 0.1378 | 0.3211 | 0.6585 | 0.0904 | 0.2698 | 0.1374 | 0.4098 |
| 86 | 46.57 | 0.07 | -0.1255 | -0.0197 | -0.0296 | 0.1575 | 0.2316 | 0.6867 | 0.0892 | 0.2796 | 0.1300 | 0.4075 |
| 87 | 46.75 | 0.07 | -0.1664 | -0.0251 | -0.0526 | 0.1493 | 0.3133 | 0.6933 | 0.0886 | 0.2801 | 0.1282 | 0.4041 |
| 88 | 46.92 | 0.07 | -0.1250 | -0.0162 | -0.0356 | 0.1313 | 0.2885 | 0.6932 | 0.0894 | 0.2815 | 0.1290 | 0.4062 |
| 89 | 47.08 | 0.07 | -0.1442 | -0.0225 | -0.0367 | 0.1591 | 0.2687 | 0.6948 | 0.0898 | 0.2823 | 0.1290 | 0.4064 |
| 90 | 47.25 | 0.07 | -0.1454 | -0.0230 | -0.0405 | 0.1585 | 0.2810 | 0.6995 | 0.0892 | 0.2834 | 0.1275 | 0.4050 |
| 91 | 47.45 | 0.05 | -0.1355 | -0.0234 | -0.0350 | 0.1676 | 0.2505 | 0.7051 | 0.0886 | 0.2836 | 0.1257 | 0.4028 |
| 92 | 47.62 | 0.05 | -0.1160 | -0.0167 | -0.0335 | 0.1441 | 0.2690 | 0.7066 | 0.0874 | 0.2854 | 0.1234 | 0.4027 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 110 | MACH 0.80 | REYNO-6 1.7 | PHI 0.0 | CONF 61 OF 15 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| FLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.78 | 0.09 | -0.1360 | -0.0233 | -0.0386 | 0.1700 | 0.2782 | 0.7079 | 0.0813 | 0.2774 | 0.1145 | 0.3915 |
| 94 | 47.96 | 0.05 | -0.1341 | -0.0267 | -0.0447 | 0.1776 | 0.2950 | 0.7140 | 0.0847 | 0.2821 | 0.1187 | 0.3952 |
| 95 | 48.13 | 0.02 | -0.1330 | -0.0325 | -0.0514 | 0.1797 | 0.2833 | 0.7171 | 0.0855 | 0.2815 | 0.1210 | 0.3982 |
| 96 | 48.30 | 0.00 | -0.1342 | -0.0291 | -0.0471 | 0.1577 | 0.3068 | 0.7152 | 0.0874 | 0.2824 | 0.1223 | 0.4004 |
| 97 | 48.47 | 0.00 | -0.1336 | -0.0317 | -0.0575 | 0.1749 | 0.3102 | 0.7166 | 0.0826 | 0.2874 | 0.1206 | 0.3995 |
| 98 | 48.62 | 0.07 | -0.1361 | -0.0400 | -0.0621 | 0.1620 | 0.3328 | 0.7161 | 0.0841 | 0.2790 | 0.1192 | 0.3952 |
| 99 | 48.81 | 0.07 | -0.1238 | -0.0381 | -0.0650 | 0.1701 | 0.3110 | 0.7218 | 0.0891 | 0.2907 | 0.1235 | 0.4027 |
| 100 | 48.98 | 0.07 | -0.1370 | -0.0346 | -0.0581 | 0.1740 | 0.2949 | 0.7176 | 0.0845 | 0.2846 | 0.1178 | 0.3967 |
| 101 | 49.15 | 0.08 | -0.1227 | -0.0388 | -0.0706 | 0.1710 | 0.3114 | 0.7291 | 0.0864 | 0.2896 | 0.1186 | 0.3974 |
| 102 | 49.32 | 0.06 | -0.1269 | -0.0383 | -0.0631 | 0.1615 | 0.3451 | 0.7191 | 0.0864 | 0.2849 | 0.1202 | 0.3963 |
| 103 | 49.51 | 0.07 | -0.1225 | -0.0456 | -0.0518 | 0.1611 | 0.3245 | 0.7267 | 0.0812 | 0.2830 | 0.1115 | 0.3884 |
| 104 | 49.69 | 0.07 | -0.1253 | -0.0421 | -0.0665 | 0.1607 | 0.3206 | 0.7306 | 0.0824 | 0.2914 | 0.1114 | 0.3937 |
| 105 | 49.84 | 0.07 | -0.1152 | -0.0454 | -0.1073 | 0.1547 | 0.3363 | 0.7368 | 0.0832 | 0.2879 | 0.1086 | 0.3856 |
| 106 | 50.01 | 0.06 | -0.1264 | -0.0515 | -0.1211 | 0.1496 | 0.3494 | 0.7450 | 0.0793 | 0.2891 | 0.1064 | 0.3877 |
| 107 | 50.19 | 0.06 | -0.1265 | -0.0507 | -0.1241 | 0.1467 | 0.3639 | 0.7495 | 0.0780 | 0.2885 | 0.1041 | 0.3827 |
| 108 | 50.34 | 0.04 | -0.1270 | -0.0455 | -0.1153 | 0.1525 | 0.3466 | 0.7510 | 0.0789 | 0.2897 | 0.1051 | 0.3857 |
| 109 | 50.51 | 0.04 | -0.1259 | -0.0417 | -0.1165 | 0.1541 | 0.3689 | 0.7650 | 0.0754 | 0.2894 | 0.0986 | 0.3782 |
| 110 | 50.67 | 0.04 | -0.1279 | -0.0478 | -0.1259 | 0.1375 | 0.3890 | 0.7705 | 0.0749 | 0.2958 | 0.0962 | 0.3799 |
| 111 | 50.85 | 0.04 | -0.1228 | -0.0446 | -0.0946 | 0.1741 | 0.3722 | 0.7734 | 0.0780 | 0.2957 | 0.0983 | 0.3823 |
| 112 | 51.01 | 0.03 | -0.1201 | -0.0415 | -0.0965 | 0.1810 | 0.3711 | 0.7598 | 0.0781 | 0.2907 | 0.1026 | 0.3825 |
| 113 | 51.19 | 0.04 | -0.1257 | -0.0433 | -0.0995 | 0.1628 | 0.3760 | 0.7596 | 0.0792 | 0.2907 | 0.1043 | 0.3826 |
| 114 | 51.36 | 0.05 | -0.1243 | -0.0428 | -0.0857 | 0.1752 | 0.3527 | 0.7525 | 0.0818 | 0.2856 | 0.1087 | 0.3848 |
| 115 | 51.54 | 0.05 | -0.1236 | -0.0377 | -0.0884 | 0.1576 | 0.3705 | 0.7614 | 0.0766 | 0.2902 | 0.1033 | 0.3811 |
| 116 | 51.71 | 0.06 | -0.1224 | -0.0393 | -0.0938 | 0.1403 | 0.3995 | 0.7716 | 0.0701 | 0.2916 | 0.0986 | 0.3777 |
| 117 | 51.89 | 0.03 | -0.1226 | -0.0455 | -0.1195 | 0.1391 | 0.3856 | 0.7571 | 0.0766 | 0.2852 | 0.1012 | 0.3768 |
| 118 | 52.05 | 0.05 | -0.1283 | -0.0403 | -0.0972 | 0.1450 | 0.3516 | 0.7619 | 0.0776 | 0.2865 | 0.1015 | 0.3760 |
| 119 | 52.23 | 0.05 | -0.1282 | -0.0374 | -0.0921 | 0.1393 | 0.3434 | 0.7740 | 0.0755 | 0.2900 | 0.0976 | 0.3748 |
| 120 | 52.40 | 0.07 | -0.1311 | -0.0405 | -0.1146 | 0.1314 | 0.3666 | 0.7842 | 0.0741 | 0.2948 | 0.0945 | 0.3733 |
| 121 | 52.57 | 0.08 | -0.1294 | -0.0407 | -0.1056 | 0.1377 | 0.3585 | 0.7927 | 0.0726 | 0.2954 | 0.0916 | 0.3726 |
| 122 | 52.73 | 0.07 | -0.1315 | -0.0433 | -0.1158 | 0.1385 | 0.3655 | 0.7940 | 0.0732 | 0.2973 | 0.0922 | 0.3744 |
| 123 | 52.91 | 0.07 | -0.1302 | -0.0414 | -0.1078 | 0.1378 | 0.3592 | 0.8008 | 0.0722 | 0.2958 | 0.0902 | 0.3743 |
| 124 | 53.07 | 0.10 | -0.1292 | -0.0388 | -0.0996 | 0.1440 | 0.3700 | 0.7948 | 0.0687 | 0.2931 | 0.0865 | 0.3687 |
| 125 | 53.24 | 0.08 | -0.1234 | -0.0420 | -0.0886 | 0.1656 | 0.3497 | 0.7947 | 0.0673 | 0.2931 | 0.0721 | 0.3688 |
| 126 | 53.41 | 0.05 | -0.1226 | -0.0383 | -0.0942 | 0.1738 | 0.3544 | 0.8007 | 0.0696 | 0.2943 | 0.0819 | 0.3675 |
| 127 | 53.58 | 0.08 | -0.1306 | -0.0347 | -0.0933 | 0.2311 | 0.3551 | 0.7824 | 0.0690 | 0.2867 | 0.0826 | 0.3664 |
| 128 | 53.75 | 0.10 | -0.1226 | -0.0317 | -0.0805 | 0.2810 | 0.3644 | 0.7714 | 0.0428 | 0.2811 | 0.0552 | 0.3644 |
| 129 | 53.89 | 0.09 | -0.1061 | -0.0257 | -0.0371 | 0.2751 | 0.3435 | 0.7505 | 0.0393 | 0.2759 | 0.0518 | 0.3638 |
| 130 | 54.06 | 0.10 | -0.0441 | -0.0218 | -0.0149 | 0.4557 | 0.3386 | 0.7448 | 0.0394 | 0.2665 | 0.0529 | 0.3611 |
| 131 | 54.22 | 0.09 | -0.0443 | -0.0152 | -0.0135 | 0.4326 | 0.3131 | 0.7412 | 0.0407 | 0.2700 | 0.0549 | 0.3643 |
| 132 | 54.37 | 0.07 | 0.0175 | -0.0042 | 0.0118 | -0.2401 | 0.6743 | 0.7122 | 0.0420 | 0.2553 | 0.0585 | 0.3641 |
| 133 | 54.56 | 0.09 | 0.0140 | -0.0063 | 0.0112 | -0.4317 | 0.7671 | 0.7308 | 0.0418 | 0.2635 | 0.0572 | 0.3606 |
| 134 | 54.73 | 0.08 | 0.0056 | -0.0085 | 0.0170 | -0.3890 | 1.9999 | 0.7187 | 0.0420 | 0.2588 | 0.0584 | 0.3601 |
| 135 | 54.88 | 0.08 | 0.0040 | -0.0011 | 0.0142 | -0.2392 | 3.0870 | 0.7117 | 0.0422 | 0.2573 | 0.0593 | 0.3618 |
| 136 | 55.06 | 0.08 | 0.0047 | 0.0010 | 0.0187 | 1.4291 | 20.7143 | 0.6875 | 0.0431 | 0.2467 | 0.0626 | 0.3619 |
| 137 | 55.19 | 0.07 | -0.0260 | -0.0021 | 0.0071 | 0.2894 | -0.2556 | 0.7185 | 0.0415 | 0.2595 | 0.0583 | 0.3618 |
| 138 | 55.35 | 0.07 | -0.0022 | -0.0019 | 0.0193 | 0.8040 | -0.7727 | 0.7161 | 0.0443 | 0.2589 | 0.0618 | 0.3616 |

MANTA MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 MACH 0.80 RX1C-6 4.7 PHI 0.0 CONF 81N0F15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 55.50 | 0.06 | -0.0058 | -0.0018 | 0.0175 | 0.1837 | -1.8265 | 0.7249 | 0.0424 | 0.2615 | 0.0584 | 0.3608 |
| 140 | 55.66 | 0.07 | -0.0236 | -0.0066 | 0.0145 | 0.2271 | -0.6346 | 0.7201 | 0.0414 | 0.2621 | 0.0568 | 0.3600 |
| 141 | 55.83 | 0.07 | -0.0252 | -0.0052 | 0.0134 | 0.1702 | -0.4589 | 0.7248 | 0.0414 | 0.2598 | 0.0571 | 0.3585 |
| 142 | 55.99 | 0.06 | -0.0169 | -0.0011 | 0.0265 | 0.1010 | -2.4342 | 0.7214 | 0.0412 | 0.2595 | 0.0571 | 0.3597 |
| 143 | 56.14 | 0.07 | -0.0155 | 0.0 | 0.0246 | 0.0 | -1.6000 | 0.7095 | 0.0417 | 0.2538 | 0.0587 | 0.3577 |
| 144 | 56.29 | 0.07 | -0.0266 | -0.0035 | 0.0223 | 0.1246 | -0.7743 | 0.7434 | 0.0409 | 0.2674 | 0.0550 | 0.3597 |
| 145 | 56.48 | 0.05 | -0.0291 | -0.0013 | 0.0232 | 0.0447 | -0.7973 | 0.7263 | 0.0403 | 0.2614 | 0.0553 | 0.3584 |
| 146 | 56.62 | 0.06 | -0.0233 | -0.0023 | 0.0276 | 0.0508 | -1.1566 | 0.7494 | 0.0404 | 0.2671 | 0.0623 | 0.3588 |
| 147 | 56.79 | 0.07 | -0.0235 | -0.0016 | 0.0284 | 0.0681 | -1.2065 | 0.7403 | 0.0413 | 0.2648 | 0.0557 | 0.3577 |
| 148 | 56.95 | 0.06 | -0.0254 | -0.0026 | 0.0297 | 0.2042 | -1.0104 | 0.7655 | 0.0446 | 0.2721 | 0.0582 | 0.3555 |
| 149 | 57.10 | 0.05 | -0.0356 | -0.0041 | 0.0286 | 0.1152 | -0.7865 | 0.7490 | 0.0412 | 0.2678 | 0.0550 | 0.3576 |
| 150 | 57.26 | 0.08 | -0.0268 | -0.0023 | 0.0246 | 0.0434 | -0.4826 | 0.7442 | 0.0415 | 0.2670 | 0.0557 | 0.3588 |
| 151 | 57.46 | 0.06 | -0.0335 | 0.0015 | 0.0335 | -0.0466 | -1.0000 | 0.7323 | 0.0435 | 0.2624 | 0.0554 | 0.3584 |
| 152 | 57.54 | 0.06 | -0.0455 | 0.0027 | 0.0284 | -0.0595 | -0.6256 | 0.7255 | 0.0409 | 0.2610 | 0.0563 | 0.3596 |
| 153 | 57.71 | 0.05 | -0.0488 | 0.0026 | 0.0318 | -0.0164 | -0.6530 | 0.7259 | 0.0414 | 0.2590 | 0.0570 | 0.3568 |
| 154 | 57.85 | 0.04 | -0.0315 | 0.0052 | 0.0400 | -0.1651 | -1.2696 | 0.7277 | 0.0427 | 0.2662 | 0.0586 | 0.3576 |
| 155 | 58.00 | 0.04 | -0.0612 | 0.0043 | 0.0327 | -0.0704 | -0.5352 | 0.7019 | 0.0398 | 0.2498 | 0.0567 | 0.3556 |
| 156 | 58.14 | 0.02 | -0.0458 | 0.0035 | 0.0306 | -0.0596 | -0.4702 | 0.7247 | 0.0434 | 0.2593 | 0.0598 | 0.3578 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASNOCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 4

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 0.8C 1.7 REXI=6 PHI 0.0 CONF 61BOR15 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CAF3 | CM3 | CN3 | XCPF3 | YCPF3 | CAF4 | CM4 | CN4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.05 | 0.00 | -0.0203 | 0.0000 | 0.0140 | 0.9999 | -0.5224 | -1.0185 | -0.0276 | -0.3783 | 0.0271 | 0.3714 |
| 2 | -0.00 | -0.01 | -0.0226 | 0.0000 | 0.0129 | 0.0000 | -0.4813 | -1.0308 | -0.0280 | -0.3849 | 0.0272 | 0.3734 |
| 3 | -0.05 | -0.02 | -0.0255 | 0.0000 | 0.0132 | 0.0000 | -0.4615 | -1.0257 | -0.0280 | -0.3827 | 0.0273 | 0.3731 |
| 4 | -0.19 | -0.02 | -0.0208 | 0.0000 | 0.0152 | 0.0000 | -0.7308 | -1.0421 | -0.0267 | -0.3911 | 0.0265 | 0.3753 |
| 5 | 0.30 | -0.01 | -0.0284 | 0.0000 | 0.0128 | 0.0000 | -0.4537 | -1.0275 | -0.0417 | -0.4361 | 0.0370 | 0.3868 |
| 6 | 1.98 | -0.01 | -0.0116 | 0.0000 | 0.0178 | 0.0000 | -1.5172 | -1.1237 | -0.0546 | -0.4559 | 0.0530 | 0.4057 |
| 7 | 3.70 | -0.01 | -0.0177 | 0.0000 | 0.0160 | 0.0000 | -0.9040 | -1.0524 | -0.0615 | -0.4389 | 0.0588 | 0.4171 |
| 8 | 5.50 | -0.01 | -0.0178 | 0.0000 | 0.0178 | 0.0000 | -1.0000 | -0.9615 | -0.0616 | -0.3586 | 0.0041 | 0.4146 |
| 9 | 7.28 | -0.01 | -0.0205 | 0.0000 | 0.0181 | 0.0000 | -0.8860 | -0.8516 | -0.0614 | -0.3465 | 0.0721 | 0.4065 |
| 10 | 9.17 | -0.01 | -0.0178 | 0.0000 | 0.0184 | 0.0000 | -1.0337 | -0.7409 | -0.0524 | -0.3033 | 0.0707 | 0.4093 |
| 11 | 10.89 | -0.02 | -0.0131 | 0.0000 | 0.0163 | 0.0000 | -1.2443 | -0.8162 | -0.0423 | -0.2654 | 0.0686 | 0.4308 |
| 12 | 12.74 | -0.01 | -0.0040 | 0.0000 | 0.0165 | 0.0000 | -4.7250 | -0.5262 | -0.0353 | -0.2140 | 0.0667 | 0.4050 |
| 13 | 14.51 | -0.02 | -0.0040 | 0.0000 | 0.0200 | 0.0000 | -5.0000 | -0.4178 | -0.0292 | -0.1515 | 0.0700 | 0.3627 |
| 14 | 16.33 | -0.01 | -0.0054 | 0.0000 | 0.0160 | 0.0000 | -3.1240 | -0.3178 | -0.0227 | -0.1094 | 0.0715 | 0.3444 |
| 15 | 18.00 | -0.02 | -0.0083 | 0.0000 | 0.0131 | 0.0000 | -1.5783 | -0.2125 | -0.0146 | -0.0685 | 0.0688 | 0.3148 |
| 16 | 19.79 | -0.03 | -0.0052 | 0.0000 | 0.0110 | 0.0000 | -2.1154 | -0.1966 | -0.0094 | -0.0264 | 0.0559 | 0.2730 |
| 17 | 21.65 | -0.03 | -0.0172 | 0.0000 | 0.0052 | 0.0000 | -0.3023 | -0.0205 | 0.0071 | 0.0041 | -0.3465 | -0.2000 |
| 18 | 23.58 | -0.04 | -0.0252 | 0.0000 | -0.0017 | 0.0000 | 0.0582 | 0.0001 | 0.0214 | 0.0364 | 0.3568 | 0.6067 |
| 19 | 25.41 | -0.04 | -0.0260 | 0.0000 | 0.0001 | 0.0000 | -0.7500 | 0.0656 | 0.0311 | 0.0396 | 0.4735 | 0.6046 |
| 20 | 27.26 | -0.02 | 0.0103 | 0.0000 | 0.0116 | 0.0000 | 1.1262 | 0.0406 | 0.0430 | 0.0525 | 0.4809 | 0.5790 |
| 21 | 29.18 | 0.01 | 0.0154 | 0.0000 | 0.0154 | 0.0000 | 0.7438 | 0.1156 | 0.0522 | 0.0639 | 0.4513 | 0.5524 |
| 22 | 31.04 | 0.03 | 0.0116 | 0.0000 | 0.0130 | 0.0000 | 1.1017 | 0.1956 | 0.0606 | 0.0598 | 0.3105 | 0.5057 |
| 23 | 32.95 | 0.04 | 0.0058 | 0.0000 | 0.0083 | 0.0000 | 1.4310 | 0.3229 | 0.0689 | 0.1577 | 0.2134 | 0.4884 |
| 24 | 33.90 | 0.02 | 0.0104 | 0.0000 | 0.0092 | 0.0000 | 0.8846 | 0.3306 | 0.0703 | 0.1646 | 0.2093 | 0.4895 |
| 25 | 34.06 | 0.05 | 0.0180 | 0.0000 | 0.0117 | 0.0000 | 0.6500 | 0.3216 | 0.0717 | 0.1600 | 0.2230 | 0.4575 |
| 26 | 34.32 | 0.06 | 0.0226 | 0.0000 | 0.0145 | 0.0000 | 0.6416 | 0.3604 | 0.0715 | 0.1816 | 0.1952 | 0.4956 |
| 27 | 34.55 | 0.06 | 0.0302 | 0.0000 | 0.0169 | 0.0000 | 0.5596 | 0.3502 | 0.0724 | 0.1931 | 0.1856 | 0.4950 |
| 28 | 34.62 | 0.06 | 0.0166 | 0.0000 | 0.0110 | 0.0000 | 0.0027 | 0.4119 | 0.0723 | 0.2033 | 0.1756 | 0.4937 |
| 29 | 35.06 | 0.06 | 0.0211 | 0.0000 | 0.0150 | 0.0000 | 0.7109 | 0.4323 | 0.0731 | 0.2134 | 0.1691 | 0.4935 |
| 30 | 35.30 | 0.06 | 0.0332 | 0.0000 | 0.0214 | 0.0000 | 0.6446 | 0.4302 | 0.0739 | 0.2120 | 0.1718 | 0.4927 |
| 31 | 35.54 | 0.06 | 0.0333 | 0.0000 | 0.0202 | 0.0000 | 0.6066 | 0.4064 | 0.0758 | 0.2030 | 0.1857 | 0.4972 |
| 32 | 35.78 | 0.06 | 0.0332 | 0.0000 | 0.0219 | 0.0000 | 0.6446 | 0.3947 | 0.0755 | 0.1981 | 0.1913 | 0.5020 |
| 33 | 36.01 | 0.06 | 0.0377 | 0.0000 | 0.0242 | 0.0000 | 0.6619 | 0.3809 | 0.0771 | 0.1817 | 0.2137 | 0.5035 |
| 34 | 36.23 | 0.05 | 0.0352 | 0.0000 | 0.0241 | 0.0000 | 0.6658 | 0.3796 | 0.0775 | 0.1902 | 0.2041 | 0.5009 |
| 35 | 36.48 | 0.06 | 0.0423 | 0.0000 | 0.0281 | 0.0000 | 0.6659 | 0.4371 | 0.0773 | 0.2150 | 0.1765 | 0.4918 |
| 36 | 36.73 | 0.05 | 0.0300 | 0.0000 | 0.0225 | 0.0000 | 0.7053 | 0.4593 | 0.0784 | 0.2258 | 0.1664 | 0.4916 |
| 37 | 36.95 | 0.07 | 0.0314 | 0.0000 | 0.0296 | 0.0000 | 0.7898 | 0.4888 | 0.0783 | 0.2401 | 0.1561 | 0.4912 |
| 38 | 37.19 | 0.06 | 0.0268 | 0.0000 | 0.0222 | 0.0000 | 0.8433 | 0.5273 | 0.0788 | 0.2599 | 0.1457 | 0.4925 |
| 39 | 37.43 | 0.08 | 0.0314 | 0.0000 | 0.0248 | 0.0000 | 0.7898 | 0.5936 | 0.0756 | 0.2909 | 0.1277 | 0.4906 |
| 40 | 37.65 | 0.06 | 0.0142 | 0.0000 | 0.0156 | 0.0000 | 1.0540 | 0.6059 | 0.0753 | 0.2581 | 0.1243 | 0.4919 |
| 41 | 37.90 | 0.06 | 0.0314 | 0.0000 | 0.0238 | 0.0000 | 0.7516 | 0.6456 | 0.0756 | 0.3144 | 0.1171 | 0.4876 |
| 42 | 38.14 | 0.06 | 0.0252 | 0.0000 | 0.0156 | 0.0000 | 1.0208 | 0.6473 | 0.0757 | 0.3178 | 0.1170 | 0.4916 |
| 43 | 38.36 | 0.06 | 0.0088 | 0.0000 | 0.0149 | 0.0000 | 1.8860 | 0.6740 | 0.0742 | 0.3297 | 0.1101 | 0.4892 |
| 44 | 38.60 | 0.05 | 0.0193 | 0.0000 | 0.0184 | 0.0000 | 0.9534 | 0.6908 | 0.0749 | 0.3343 | 0.1084 | 0.4835 |
| 45 | 38.82 | 0.06 | 0.0101 | 0.0000 | 0.0155 | 0.0000 | 1.5743 | 0.6942 | 0.0753 | 0.3358 | 0.1085 | 0.4838 |
| 46 | 39.04 | 0.04 | 0.0025 | 0.0000 | 0.0123 | 0.0000 | 4.9200 | 0.6991 | 0.0758 | 0.3369 | 0.1085 | 0.4820 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 PACK 0.80 RX10-6 1.7 PHI 0.0 CONF 81 L 15 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CO3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 39.26 | 0.05 | -0.0021 | 0.9999 | 0.0113 | 0.9999 | -5.3809 | 0.7004 | 0.0765 | 0.3385 | 0.1093 | 0.4805 |
| 48 | 39.47 | 0.04 | 0.0026 | 0.9999 | 0.0135 | 0.9999 | 1.6163 | 0.7023 | 0.0769 | 0.3375 | 0.1095 | 0.4806 |
| 49 | 39.66 | 0.04 | -0.0035 | 0.9999 | 0.0093 | 0.9999 | -2.6571 | 0.6936 | 0.0770 | 0.3336 | 0.1111 | 0.4816 |
| 50 | 39.89 | 0.04 | -0.0050 | 0.9999 | 0.0086 | 0.9999 | -1.7200 | 0.6985 | 0.0777 | 0.3347 | 0.1113 | 0.4792 |
| 51 | 40.09 | 0.03 | 0.0026 | 0.9999 | 0.0151 | 0.9999 | 1.7556 | 0.6732 | 0.0757 | 0.3224 | 0.1184 | 0.4789 |
| 52 | 40.28 | 0.03 | 0.0152 | 0.9999 | 0.0177 | 0.9999 | 0.9219 | 0.7006 | 0.0761 | 0.3359 | 0.1117 | 0.4741 |
| 53 | 40.48 | 0.05 | 0.0237 | 0.9999 | 0.0155 | 0.9999 | 0.8597 | 0.6998 | 0.0793 | 0.3318 | 0.1142 | 0.4776 |
| 54 | 40.70 | 0.06 | 0.0236 | 0.9999 | 0.0210 | 0.9999 | 0.8898 | 0.7129 | 0.0780 | 0.3375 | 0.1095 | 0.4735 |
| 55 | 40.90 | 0.06 | 0.0238 | 0.9999 | 0.0222 | 0.9999 | 0.9407 | 0.7296 | 0.0783 | 0.3438 | 0.1073 | 0.4711 |
| 56 | 41.13 | 0.06 | 0.0235 | 0.9999 | 0.0226 | 0.9999 | 0.9702 | 0.7303 | 0.0780 | 0.3440 | 0.1068 | 0.4711 |
| 57 | 41.32 | 0.07 | 0.0174 | 0.9999 | 0.0205 | 0.9999 | 1.1762 | 0.7297 | 0.0791 | 0.3409 | 0.1084 | 0.4672 |
| 58 | 41.55 | 0.07 | 0.0156 | 0.9999 | 0.0200 | 0.9999 | 1.0526 | 0.7302 | 0.0791 | 0.3453 | 0.1072 | 0.4678 |
| 59 | 41.73 | 0.07 | 0.0064 | 0.9999 | 0.0162 | 0.9999 | 1.9266 | 0.6952 | 0.0757 | 0.3125 | 0.1089 | 0.4695 |
| 60 | 41.94 | 0.06 | 0.0205 | 0.9999 | 0.0207 | 0.9999 | 1.0096 | 0.6912 | 0.0730 | 0.3074 | 0.1056 | 0.4647 |
| 61 | 42.13 | 0.07 | 0.0205 | 0.9999 | 0.0207 | 0.9999 | 1.0096 | 0.6808 | 0.0705 | 0.2988 | 0.1038 | 0.4388 |
| 62 | 42.29 | 0.05 | 0.0204 | 0.9999 | 0.0215 | 0.9999 | 1.0735 | 0.6826 | 0.0705 | 0.3002 | 0.1033 | 0.4367 |
| 63 | 42.48 | 0.06 | 0.0204 | 0.9999 | 0.0215 | 0.9999 | 1.0735 | 0.6776 | 0.0700 | 0.2966 | 0.1033 | 0.4378 |
| 64 | 42.68 | 0.05 | 0.0204 | 0.9999 | 0.0215 | 0.9999 | 1.0735 | 0.6845 | 0.0700 | 0.3005 | 0.1023 | 0.4395 |
| 65 | 42.85 | 0.05 | 0.0204 | 0.9999 | 0.0207 | 0.9999 | 1.0147 | 0.6830 | 0.0704 | 0.3011 | 0.1031 | 0.4408 |
| 66 | 43.01 | 0.04 | 0.0235 | 0.9999 | 0.0205 | 0.9999 | 0.8894 | 0.6931 | 0.0709 | 0.3063 | 0.1023 | 0.4419 |
| 67 | 43.19 | 0.05 | 0.0245 | 0.9999 | 0.0222 | 0.9999 | 0.9157 | 0.6845 | 0.0701 | 0.3018 | 0.1024 | 0.4406 |
| 68 | 43.40 | 0.04 | 0.0054 | 0.9999 | 0.0155 | 0.9999 | 2.9444 | 0.6823 | 0.0716 | 0.3006 | 0.1053 | 0.4405 |
| 69 | 43.58 | 0.05 | 0.0204 | 0.9999 | 0.0207 | 0.9999 | 1.0147 | 0.6796 | 0.0704 | 0.2995 | 0.1036 | 0.4408 |
| 70 | 43.72 | 0.05 | 0.0204 | 0.9999 | 0.0207 | 0.9999 | 1.0147 | 0.6816 | 0.0697 | 0.2983 | 0.1023 | 0.4376 |
| 71 | 43.93 | 0.05 | 0.0115 | 0.9999 | 0.0164 | 0.9999 | 1.4261 | 0.6744 | 0.0740 | 0.2978 | 0.1098 | 0.4415 |
| 72 | 44.10 | 0.05 | 0.0165 | 0.9999 | 0.0155 | 0.9999 | 1.0529 | 0.6856 | 0.0717 | 0.3021 | 0.1046 | 0.4404 |
| 73 | 44.26 | 0.05 | 0.0205 | 0.9999 | 0.0201 | 0.9999 | 0.9805 | 0.6816 | 0.0729 | 0.2995 | 0.1065 | 0.4392 |
| 74 | 44.47 | 0.05 | 0.0055 | 0.9999 | 0.0161 | 0.9999 | 1.8263 | 0.6799 | 0.0725 | 0.2985 | 0.1067 | 0.4390 |
| 75 | 44.64 | 0.03 | 0.0144 | 0.9999 | 0.0202 | 0.9999 | 1.4028 | 0.6872 | 0.0716 | 0.3020 | 0.1042 | 0.4356 |
| 76 | 44.82 | 0.04 | 0.0144 | 0.9999 | 0.0151 | 0.9999 | 1.3264 | 0.6881 | 0.0725 | 0.3027 | 0.1054 | 0.4398 |
| 77 | 44.98 | 0.03 | 0.0144 | 0.9999 | 0.0203 | 0.9999 | 1.4097 | 0.7004 | 0.0716 | 0.3071 | 0.1023 | 0.4385 |
| 78 | 45.18 | 0.04 | 0.0305 | 0.9999 | 0.0208 | 0.9999 | 0.9520 | 0.7040 | 0.0711 | 0.3060 | 0.1010 | 0.4346 |
| 79 | 45.36 | 0.04 | 0.0160 | 0.9999 | 0.0217 | 0.9999 | 1.3562 | 0.7032 | 0.0716 | 0.3076 | 0.1018 | 0.4374 |
| 80 | 45.54 | 0.03 | 0.0156 | 0.9999 | 0.0225 | 0.9999 | 1.1842 | 0.7117 | 0.0795 | 0.3247 | 0.1115 | 0.4562 |
| 81 | 45.68 | 0.04 | 0.0174 | 0.9999 | 0.0230 | 0.9999 | 1.3218 | 0.6956 | 0.0725 | 0.3027 | 0.1042 | 0.4356 |
| 82 | 45.86 | 0.03 | 0.0236 | 0.9999 | 0.0253 | 0.9999 | 1.0720 | 0.6901 | 0.0727 | 0.2990 | 0.1054 | 0.4332 |
| 83 | 46.06 | 0.06 | 0.0266 | 0.9999 | 0.0280 | 0.9999 | 1.0526 | 0.6871 | 0.0744 | 0.2969 | 0.1083 | 0.4320 |
| 84 | 46.24 | 0.07 | 0.0266 | 0.9999 | 0.0274 | 0.9999 | 1.0301 | 0.6840 | 0.0777 | 0.3043 | 0.1136 | 0.4448 |
| 85 | 46.38 | 0.06 | 0.0266 | 0.9999 | 0.0281 | 0.9999 | 1.0564 | 0.6954 | 0.0787 | 0.3070 | 0.1132 | 0.4415 |
| 86 | 46.57 | 0.07 | 0.0266 | 0.9999 | 0.0267 | 0.9999 | 1.0769 | 0.6854 | 0.0775 | 0.3162 | 0.1131 | 0.4613 |
| 87 | 46.75 | 0.07 | 0.0221 | 0.9999 | 0.0266 | 0.9999 | 1.2036 | 0.6958 | 0.0761 | 0.3207 | 0.1088 | 0.4583 |
| 88 | 46.92 | 0.07 | 0.0344 | 0.9999 | 0.0318 | 0.9999 | 0.9244 | 0.6829 | 0.0785 | 0.3154 | 0.1150 | 0.4618 |
| 89 | 47.08 | 0.07 | 0.0251 | 0.9999 | 0.0287 | 0.9999 | 1.1434 | 0.6907 | 0.0766 | 0.3163 | 0.1105 | 0.4579 |
| 90 | 47.25 | 0.07 | 0.0267 | 0.9999 | 0.0288 | 0.9999 | 1.0780 | 0.6761 | 0.0780 | 0.3097 | 0.1154 | 0.4580 |
| 91 | 47.45 | 0.06 | 0.0238 | 0.9999 | 0.0286 | 0.9999 | 1.1804 | 0.6860 | 0.0776 | 0.3089 | 0.1166 | 0.4638 |
| 92 | 47.62 | 0.05 | 0.0374 | 0.9999 | 0.0335 | 0.9999 | 0.9064 | 0.6444 | 0.0792 | 0.3030 | 0.1230 | 0.4702 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 PACF 0.80 RAIG-6 1.7 PHI 0.0 CONF 15 I 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.78 | 0.09 | 0.0329 | 9.9999 | 0.0318 | 9.9999 | 0.9666 | 0.6373 | 0.0788 | 0.2978 | 0.1237 | 0.4672 |
| 94 | 47.96 | 0.09 | 0.0355 | 9.9999 | 0.0326 | 9.9999 | 0.9415 | 0.6355 | 0.0788 | 0.2957 | 0.1240 | 0.4653 |
| 95 | 48.13 | 0.08 | 0.0344 | 9.9999 | 0.0331 | 9.9999 | 0.9622 | 0.6357 | 0.0785 | 0.2963 | 0.1235 | 0.4661 |
| 96 | 48.30 | 0.08 | 0.0325 | 9.9999 | 0.0318 | 9.9999 | 0.9808 | 0.6374 | 0.0785 | 0.2978 | 0.1232 | 0.4672 |
| 97 | 48.47 | 0.08 | 0.0252 | 9.9999 | 0.0287 | 9.9999 | 1.0389 | 0.6179 | 0.0763 | 0.2900 | 0.1284 | 0.4693 |
| 98 | 48.64 | 0.07 | 0.0267 | 9.9999 | 0.0282 | 9.9999 | 1.0362 | 0.6203 | 0.0789 | 0.2890 | 0.1272 | 0.4656 |
| 99 | 48.81 | 0.07 | 0.0252 | 9.9999 | 0.0281 | 9.9999 | 1.0151 | 0.6291 | 0.0785 | 0.2916 | 0.1248 | 0.4635 |
| 100 | 48.98 | 0.07 | 0.0262 | 9.9999 | 0.0285 | 9.9999 | 1.0061 | 0.6236 | 0.0769 | 0.2893 | 0.1265 | 0.4637 |
| 101 | 49.15 | 0.08 | 0.0252 | 9.9999 | 0.0269 | 9.9999 | 1.0075 | 0.6394 | 0.0788 | 0.2943 | 0.1233 | 0.4602 |
| 102 | 49.32 | 0.06 | 0.0237 | 9.9999 | 0.0261 | 9.9999 | 1.1013 | 0.6535 | 0.0783 | 0.2967 | 0.1195 | 0.4586 |
| 103 | 49.51 | 0.07 | 0.0266 | 9.9999 | 0.0256 | 9.9999 | 1.2524 | 0.6588 | 0.0756 | 0.2986 | 0.1145 | 0.4532 |
| 104 | 49.69 | 0.07 | 0.0257 | 9.9999 | 0.0261 | 9.9999 | 1.1013 | 0.6574 | 0.0783 | 0.3009 | 0.1191 | 0.4577 |
| 105 | 49.86 | 0.07 | 0.0252 | 9.9999 | 0.0268 | 9.9999 | 1.0635 | 0.6716 | 0.0775 | 0.3037 | 0.1154 | 0.4521 |
| 106 | 50.01 | 0.06 | 0.0238 | 9.9999 | 0.0273 | 9.9999 | 1.1588 | 0.6881 | 0.0796 | 0.3064 | 0.1161 | 0.4465 |
| 107 | 50.19 | 0.06 | 0.0236 | 9.9999 | 0.0261 | 9.9999 | 1.1017 | 0.6837 | 0.0784 | 0.3107 | 0.1147 | 0.4564 |
| 108 | 50.34 | 0.04 | 0.0175 | 9.9999 | 0.0231 | 9.9999 | 1.3200 | 0.6822 | 0.0846 | 0.3032 | 0.1241 | 0.4444 |
| 109 | 50.51 | 0.04 | 0.0206 | 9.9999 | 0.0246 | 9.9999 | 1.1942 | 0.7032 | 0.0811 | 0.3177 | 0.1156 | 0.4518 |
| 110 | 50.67 | 0.04 | 0.0180 | 9.9999 | 0.0204 | 9.9999 | 1.5692 | 0.7257 | 0.0808 | 0.3212 | 0.1114 | 0.4426 |
| 111 | 50.85 | 0.04 | 0.0175 | 9.9999 | 0.0231 | 9.9999 | 1.3200 | 0.6833 | 0.0835 | 0.3123 | 0.1222 | 0.4570 |
| 112 | 51.01 | 0.03 | 0.0145 | 9.9999 | 0.0217 | 9.9999 | 1.4965 | 0.6735 | 0.0823 | 0.3082 | 0.1222 | 0.4576 |
| 113 | 51.19 | 0.04 | 0.0115 | 9.9999 | 0.0196 | 9.9999 | 1.6522 | 0.6671 | 0.0812 | 0.3031 | 0.1218 | 0.4543 |
| 114 | 51.36 | 0.05 | 0.0252 | 9.9999 | 0.0255 | 9.9999 | 1.0119 | 0.6849 | 0.0769 | 0.3025 | 0.1187 | 0.4549 |
| 115 | 51.54 | 0.05 | 0.0252 | 9.9999 | 0.0255 | 9.9999 | 1.0119 | 0.6490 | 0.0797 | 0.2983 | 0.1225 | 0.4598 |
| 116 | 51.71 | 0.06 | 0.0178 | 9.9999 | 0.0207 | 9.9999 | 1.1701 | 0.6591 | 0.0765 | 0.2979 | 0.1161 | 0.4515 |
| 117 | 51.89 | 0.03 | 0.0181 | 9.9999 | 0.0205 | 9.9999 | 1.2733 | 0.6743 | 0.0744 | 0.3014 | 0.1104 | 0.4469 |
| 118 | 52.05 | 0.05 | 0.0178 | 9.9999 | 0.0243 | 9.9999 | 1.2102 | 0.6849 | 0.0753 | 0.2938 | 0.1150 | 0.4486 |
| 119 | 52.23 | 0.05 | 0.0206 | 9.9999 | 0.0227 | 9.9999 | 1.1019 | 0.6518 | 0.0747 | 0.2922 | 0.1146 | 0.4482 |
| 120 | 52.40 | 0.07 | 0.0178 | 9.9999 | 0.0201 | 9.9999 | 1.1420 | 0.6736 | 0.0759 | 0.3029 | 0.1127 | 0.4498 |
| 121 | 52.57 | 0.08 | 0.0146 | 9.9999 | 0.0180 | 9.9999 | 1.2329 | 0.6615 | 0.0762 | 0.3008 | 0.1152 | 0.4547 |
| 122 | 52.73 | 0.07 | 0.0147 | 9.9999 | 0.0181 | 9.9999 | 1.2313 | 0.6508 | 0.0776 | 0.2960 | 0.1182 | 0.4506 |
| 123 | 52.91 | 0.07 | 0.0206 | 9.9999 | 0.0197 | 9.9999 | 0.9471 | 0.6556 | 0.0767 | 0.2977 | 0.1170 | 0.4546 |
| 124 | 53.07 | 0.10 | 0.0115 | 9.9999 | 0.0184 | 9.9999 | 1.6000 | 0.6404 | 0.0760 | 0.2920 | 0.1187 | 0.4556 |
| 125 | 53.24 | 0.08 | 0.0207 | 9.9999 | 0.0215 | 9.9999 | 1.0386 | 0.6440 | 0.0758 | 0.2928 | 0.1177 | 0.4546 |
| 126 | 53.41 | 0.05 | 0.0206 | 9.9999 | 0.0235 | 9.9999 | 0.8918 | 0.6252 | 0.0778 | 0.2877 | 0.1245 | 0.4601 |
| 127 | 53.58 | 0.08 | 0.0147 | 9.9999 | 0.0181 | 9.9999 | 1.2313 | 0.6194 | 0.0756 | 0.2837 | 0.1221 | 0.4581 |
| 128 | 53.75 | 0.10 | 0.0253 | 9.9999 | 0.0238 | 9.9999 | 0.9407 | 0.6505 | 0.0783 | 0.2984 | 0.1204 | 0.4587 |
| 129 | 53.89 | 0.09 | 0.0228 | 9.9999 | 0.0237 | 9.9999 | 0.9998 | 0.6628 | 0.0778 | 0.3023 | 0.1174 | 0.4563 |
| 130 | 54.06 | 0.10 | 0.0254 | 9.9999 | 0.0245 | 9.9999 | 0.9646 | 0.6777 | 0.0780 | 0.3090 | 0.1151 | 0.4559 |
| 131 | 54.22 | 0.09 | 0.0224 | 9.9999 | 0.0218 | 9.9999 | 0.9732 | 0.6780 | 0.0772 | 0.3051 | 0.1139 | 0.4499 |
| 132 | 54.37 | 0.07 | 0.0240 | 9.9999 | 0.0226 | 9.9999 | 0.9417 | 0.6734 | 0.0752 | 0.3049 | 0.1117 | 0.4527 |
| 133 | 54.56 | 0.09 | 0.0205 | 9.9999 | 0.0224 | 9.9999 | 1.0718 | 0.6754 | 0.0747 | 0.3069 | 0.1108 | 0.4543 |
| 134 | 54.73 | 0.08 | 0.0254 | 9.9999 | 0.0256 | 9.9999 | 1.0157 | 0.6765 | 0.0748 | 0.3082 | 0.1103 | 0.4542 |
| 135 | 54.88 | 0.08 | 0.0240 | 9.9999 | 0.0235 | 9.9999 | 0.9998 | 0.6730 | 0.0712 | 0.3049 | 0.1098 | 0.4524 |
| 136 | 55.06 | 0.08 | 0.0271 | 9.9999 | 0.0254 | 9.9999 | 0.9573 | 0.6810 | 0.0738 | 0.3134 | 0.1068 | 0.4535 |
| 137 | 55.19 | 0.07 | 0.0205 | 9.9999 | 0.0243 | 9.9999 | 1.1627 | 0.6695 | 0.0738 | 0.3041 | 0.1102 | 0.4535 |
| 138 | 55.35 | 0.07 | 0.0178 | 9.9999 | 0.0216 | 9.9999 | 1.2067 | 0.6728 | 0.0708 | 0.3062 | 0.1052 | 0.4551 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 MACH 0.80 REX10-6 1.7 PHI 0.0 CONF BLENDED15 L 0.0 DELT 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 55.50 | 0.06 | 0.0241 | 9.9999 | 0.0246 | 9.9999 | 0.9999 | 0.6600 | 0.0663 | 0.3016 | 0.1035 | 0.4569 |
| 140 | 55.66 | 0.07 | 0.0271 | 9.9999 | 0.0267 | 9.9999 | 0.9852 | 0.6872 | 0.0727 | 0.3119 | 0.1058 | 0.4538 |
| 141 | 55.83 | 0.07 | 0.0256 | 9.9999 | 0.0260 | 9.9999 | 1.0156 | 0.6719 | 0.0682 | 0.3043 | 0.1015 | 0.4528 |
| 142 | 55.99 | 0.06 | 0.0273 | 9.9999 | 0.0243 | 9.9999 | 0.8901 | 0.6870 | 0.0733 | 0.3127 | 0.1067 | 0.4551 |
| 143 | 56.14 | 0.07 | 0.0257 | 9.9999 | 0.0247 | 9.9999 | 0.9611 | 0.6816 | 0.0735 | 0.3136 | 0.1079 | 0.4600 |
| 144 | 56.29 | 0.07 | 0.0242 | 9.9999 | 0.0228 | 9.9999 | 0.9421 | 0.6928 | 0.0725 | 0.3175 | 0.1047 | 0.4583 |
| 145 | 56.48 | 0.05 | 0.0271 | 9.9999 | 0.0267 | 9.9999 | 0.9852 | 0.6867 | 0.0736 | 0.3140 | 0.1075 | 0.4572 |
| 146 | 56.64 | 0.06 | 0.0314 | 9.9999 | 0.0285 | 9.9999 | 0.8307 | 0.6838 | 0.0727 | 0.3163 | 0.1063 | 0.4625 |
| 147 | 56.79 | 0.07 | 0.0256 | 9.9999 | 0.0253 | 9.9999 | 0.9883 | 0.6807 | 0.0693 | 0.3150 | 0.1018 | 0.4627 |
| 148 | 56.95 | 0.06 | 0.0303 | 9.9999 | 0.0256 | 9.9999 | 0.8251 | 0.6841 | 0.0738 | 0.3174 | 0.1079 | 0.4639 |
| 149 | 57.10 | 0.05 | 0.0271 | 9.9999 | 0.0242 | 9.9999 | 0.8930 | 0.6988 | 0.0725 | 0.3228 | 0.1038 | 0.4620 |
| 150 | 57.26 | 0.08 | 0.0210 | 9.9999 | 0.0214 | 9.9999 | 1.0095 | 0.6859 | 0.0715 | 0.3172 | 0.1046 | 0.4638 |
| 151 | 57.40 | 0.06 | 0.0239 | 9.9999 | 0.0238 | 9.9999 | 0.9958 | 0.6946 | 0.0717 | 0.3220 | 0.1033 | 0.4636 |
| 152 | 57.54 | 0.06 | 0.0142 | 9.9999 | 0.0182 | 9.9999 | 1.2297 | 0.6733 | 0.0686 | 0.3103 | 0.1019 | 0.4668 |
| 153 | 57.71 | 0.05 | 0.0205 | 9.9999 | 0.0224 | 9.9999 | 1.0718 | 0.6841 | 0.0680 | 0.3155 | 0.0994 | 0.4611 |
| 154 | 57.85 | 0.04 | 0.0265 | 9.9999 | 0.0264 | 9.9999 | 0.9614 | 0.6859 | 0.0651 | 0.3134 | 0.0949 | 0.4565 |
| 155 | 58.00 | 0.04 | 0.0208 | 9.9999 | 0.0246 | 9.9999 | 1.1942 | 0.6906 | 0.0636 | 0.3164 | 0.0921 | 0.4580 |
| 156 | 58.14 | 0.02 | 0.0055 | 9.9999 | 0.0164 | 9.9999 | 2.9494 | 0.6823 | 0.0633 | 0.3138 | 0.0928 | 0.4599 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART III MACH 0.90 RNIC-6 1.7 PHI 0.0 CONF 0 ALPHF 15 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | -0.00 | -1.6039 | 5.5475 | 0.0348 | 0.0046 | -0.0039 | 1.1557 | 0.4224 | 0.7333 | -3.4587 |
| 2 | -5.75 | -0.01 | -1.6146 | 5.5854 | 0.0175 | -0.0564 | 0.0025 | 1.1570 | 0.4224 | 0.7352 | -3.4565 |
| 3 | -5.75 | -0.01 | -1.6364 | 5.6345 | 0.0765 | -0.1863 | 0.0027 | 1.1655 | 0.4244 | 0.7411 | -3.4389 |
| 4 | -5.76 | -0.02 | -1.6367 | 5.6343 | 0.0175 | -0.0564 | 0.0027 | 1.1724 | 0.4268 | 0.7516 | -3.5257 |
| 5 | -3.84 | -0.02 | -1.5825 | 6.1402 | -0.0252 | 0.0430 | -0.0031 | 1.1399 | 0.3638 | 0.7761 | -3.8804 |
| 6 | -2.10 | -0.01 | -1.5296 | 6.4551 | 0.1126 | -0.0335 | -0.0024 | 1.1035 | 0.2941 | 0.8094 | -4.2227 |
| 7 | -0.31 | -0.02 | -1.4218 | 6.4153 | -0.0222 | -0.0506 | 0.0043 | 1.0740 | 0.2679 | 0.8060 | -4.5148 |
| 8 | 1.46 | -0.00 | -1.4456 | 6.8018 | 0.1431 | -0.1726 | -0.0016 | 1.0733 | 0.2535 | 0.8197 | -4.8252 |
| 9 | 3.33 | -0.01 | -1.4121 | 7.4177 | 0.0741 | -0.1547 | 0.0060 | 1.0645 | 0.2103 | 0.8542 | -5.2528 |
| 10 | 5.01 | -0.01 | -1.4225 | 7.7210 | 0.0741 | -0.1948 | 0.0127 | 1.0043 | 0.1883 | 0.8160 | -5.8902 |
| 11 | 6.82 | -0.01 | -1.3263 | 8.5148 | 0.1207 | -0.2533 | 0.0196 | 0.9468 | 0.1794 | 0.7674 | -6.7243 |
| 12 | 8.57 | -0.01 | -1.3526 | 8.2850 | 0.0883 | -0.2041 | 0.0135 | 0.8671 | 0.1741 | 0.6930 | -8.3424 |
| 13 | 10.35 | -0.01 | -1.4515 | 5.6102 | 0.0253 | -0.1331 | 0.0202 | 0.7869 | 0.1717 | 0.6152 | -12.4248 |
| 14 | 12.17 | -0.02 | -0.0626 | 4.0142 | 0.0272 | -0.1085 | 0.0206 | 0.7048 | 0.1702 | 0.5346 | -51.5626 |
| 15 | 13.96 | -0.02 | 0.2558 | 4.1103 | -0.0822 | 0.0376 | 0.0147 | 0.6281 | 0.1763 | 0.4516 | 16.0662 |
| 16 | 15.85 | -0.02 | 0.8146 | 3.3833 | -0.0652 | 0.1696 | 0.0214 | 0.5461 | 0.1831 | 0.3650 | 5.5048 |
| 17 | 17.74 | -0.02 | 0.9700 | 2.8257 | -0.0479 | 0.1930 | 0.0157 | 0.4748 | 0.1876 | 0.2872 | 2.9130 |
| 18 | 19.58 | -0.03 | 1.0511 | 2.1907 | -0.0657 | 0.2535 | 0.0330 | 0.4008 | 0.1972 | 0.2114 | 1.6214 |
| 19 | 21.45 | -0.03 | 1.0752 | 1.8255 | -0.2805 | 0.8124 | 0.0217 | 0.3418 | 0.2052 | 0.1366 | 1.0900 |
| 20 | 23.33 | -0.03 | 1.0850 | 1.0364 | -0.3727 | 1.3559 | 0.0084 | 0.2991 | 0.2193 | 0.0797 | 0.8244 |
| 21 | 25.17 | -0.03 | 2.3054 | 1.0537 | -0.2766 | 0.8583 | 0.0177 | 0.2600 | 0.2254 | 0.0346 | 0.7173 |
| 22 | 27.10 | -0.01 | 2.7279 | 1.0114 | -0.0288 | 0.3098 | 0.0277 | 0.2009 | 0.2184 | -0.0175 | 0.5780 |
| 23 | 28.20 | -0.02 | 2.9565 | 1.5148 | -0.1213 | 0.5756 | 0.0150 | 0.1717 | 0.2221 | -0.0504 | 0.5120 |
| 24 | 28.28 | 0.01 | 2.9734 | 1.5011 | 0.3176 | -0.5578 | 0.0004 | 0.1657 | 0.2201 | -0.0544 | 0.5048 |
| 25 | 28.66 | 0.03 | 3.0526 | 1.6050 | 0.5257 | -0.8628 | 0.0090 | 0.1604 | 0.2220 | -0.0616 | 0.5258 |
| 26 | 28.98 | 0.03 | 3.1405 | 1.5055 | 0.5496 | -1.0938 | 0.1010 | 0.1519 | 0.2249 | -0.0730 | 0.4794 |
| 27 | 29.27 | 0.04 | 3.3173 | 1.5154 | 0.6616 | -1.2106 | 0.1207 | 0.1297 | 0.2261 | -0.0965 | 0.4560 |
| 28 | 29.58 | 0.02 | 3.3131 | 1.5737 | 0.3993 | -0.5096 | 0.0841 | 0.1299 | 0.2273 | -0.0975 | 0.4756 |
| 29 | 29.87 | 0.05 | 3.3944 | 1.5882 | 0.7356 | -0.9112 | 0.0956 | 0.1245 | 0.2285 | -0.1041 | 0.4672 |
| 30 | 30.15 | 0.05 | 3.5144 | 1.5061 | 0.7395 | -0.9337 | 0.1088 | 0.1105 | 0.2325 | -0.1221 | 0.4269 |
| 31 | 30.40 | 0.05 | 3.5752 | 1.5882 | 0.7403 | -0.9239 | 0.1216 | 0.1066 | 0.2370 | -0.1305 | 0.4137 |
| 32 | 30.70 | 0.05 | 3.7602 | 1.5834 | 0.6524 | -0.8196 | 0.1086 | 0.0880 | 0.2362 | -0.1482 | 0.4212 |
| 33 | 30.96 | 0.05 | 3.8456 | 1.5150 | 0.7775 | -0.9717 | 0.1280 | 0.0879 | 0.2435 | -0.1556 | 0.3936 |
| 34 | 31.24 | 0.06 | 3.8782 | 1.5855 | 0.7058 | -0.9144 | 0.1215 | 0.0750 | 0.2451 | -0.1701 | 0.4088 |
| 35 | 31.52 | 0.05 | 4.0050 | 1.5455 | 0.8155 | -0.0709 | 0.1082 | 0.0670 | 0.2451 | -0.1781 | 0.3855 |
| 36 | 31.79 | 0.04 | 4.1114 | 1.4578 | 0.4508 | 0.0911 | 0.1082 | 0.0614 | 0.2475 | -0.1861 | 0.3643 |
| 37 | 32.07 | 0.06 | 4.2270 | 1.8212 | 0.7736 | -0.9588 | 0.1290 | 0.0555 | 0.2475 | -0.1920 | 0.3835 |
| 38 | 32.34 | 0.06 | 4.3071 | 1.8926 | 0.7334 | -0.9524 | 0.1294 | 0.0449 | 0.2483 | -0.1984 | 0.3835 |
| 39 | 32.59 | 0.06 | 4.3329 | 1.8927 | 0.7783 | -0.9602 | 0.1241 | 0.0387 | 0.2431 | -0.2044 | 0.4368 |
| 40 | 32.87 | 0.05 | 4.5456 | 1.8834 | 0.6636 | -0.8611 | 0.1107 | 0.0189 | 0.2487 | -0.2298 | 0.4037 |
| 41 | 33.13 | 0.05 | 4.5006 | 1.9312 | 0.5825 | -0.0398 | 0.0915 | 0.0055 | 0.2418 | -0.2363 | 0.4235 |
| 42 | 33.38 | 0.05 | 4.6410 | 2.1916 | 0.8854 | -0.9355 | 0.1014 | -0.0054 | 0.2357 | -0.2411 | 0.4722 |
| 43 | 33.61 | 0.05 | 4.6699 | 2.0644 | 0.7356 | -0.8164 | 0.1013 | -0.0107 | 0.2410 | -0.2517 | 0.4421 |
| 44 | 33.87 | 0.06 | 4.8160 | 2.3537 | 0.8208 | -1.4441 | 0.0841 | -0.0219 | 0.2385 | -0.2584 | 0.4887 |
| 45 | 34.13 | 0.04 | 4.8263 | 2.3920 | 0.8526 | -1.3517 | 0.0777 | -0.0269 | 0.2396 | -0.2663 | 0.4956 |
| 46 | 34.39 | 0.04 | 5.0362 | 2.5645 | 0.5945 | -1.2210 | 0.0410 | -0.0378 | 0.2398 | -0.2776 | 0.5138 |

MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART III MACH 0.90 RX10=E 1.7 PHI 0.0 CONF 81 L 6.6 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.62 | 0.05 | 5.1035 | 2.5300 | 0.6187 | -1.0787 | 0.0785 | -0.0553 | 0.2418 | -0.2972 | 0.4957 |
| 48 | 34.69 | 0.03 | 5.2456 | 2.7904 | 0.3705 | -0.6778 | 0.0767 | -0.0644 | 0.2382 | -0.3027 | 0.5325 |
| 49 | 35.12 | 0.03 | 5.2020 | 2.6957 | 0.4440 | -0.8553 | 0.0785 | -0.0569 | 0.2402 | -0.2972 | 0.5189 |
| 50 | 35.36 | 0.02 | 5.3331 | 2.7512 | 0.2588 | -0.6083 | 0.0727 | -0.0619 | 0.2361 | -0.3181 | 0.5139 |
| 51 | 35.59 | 0.01 | 5.4261 | 2.9104 | 0.2403 | -0.3607 | 0.0477 | -0.0922 | 0.2313 | -0.3236 | 0.5364 |
| 52 | 35.69 | -0.01 | 5.3062 | 2.9209 | 0.0240 | -0.1792 | 0.0227 | -0.0969 | 0.2313 | -0.3282 | 0.5422 |
| 53 | 36.08 | -0.01 | 5.5963 | 2.9754 | -0.0467 | 0.1759 | 0.0034 | -0.1111 | 0.2309 | -0.3420 | 0.5322 |
| 54 | 36.31 | -0.01 | 5.7662 | 2.9542 | -0.1403 | 0.0696 | -0.0103 | -0.1300 | 0.2309 | -0.3609 | 0.5106 |
| 55 | 36.55 | -0.03 | 5.7768 | 3.1018 | -0.2512 | 0.5651 | -0.0094 | -0.1327 | 0.2296 | -0.3623 | 0.5369 |
| 56 | 36.79 | -0.01 | 5.8545 | 3.0355 | -0.1696 | 0.7346 | 0.0025 | -0.1492 | 0.2284 | -0.3706 | 0.5219 |
| 57 | 37.02 | -0.02 | 5.9702 | 3.2104 | -0.2805 | 0.7591 | -0.0032 | -0.1529 | 0.2264 | -0.3793 | 0.5377 |
| 58 | 37.29 | -0.00 | 6.0482 | 3.1754 | -0.0977 | 1.0062 | -0.0104 | -0.1542 | 0.2273 | -0.3815 | 0.5257 |
| 59 | 37.52 | -0.01 | 6.1354 | 3.1135 | -0.2138 | 1.0723 | -0.0039 | -0.1761 | 0.2272 | -0.4033 | 0.5075 |
| 60 | 37.74 | -0.03 | 6.1645 | 3.1243 | -0.3135 | 0.9512 | -0.0154 | -0.1721 | 0.2248 | -0.3969 | 0.5052 |
| 61 | 38.01 | -0.00 | 6.3415 | 3.2267 | -0.1562 | 0.7786 | 0.0166 | -0.1868 | 0.2244 | -0.4112 | 0.5091 |
| 62 | 38.24 | 0.00 | 6.3649 | 3.1044 | 0.0128 | 0.6366 | 0.0226 | -0.1867 | 0.2272 | -0.4139 | 0.4862 |
| 63 | 38.47 | -0.00 | 6.5149 | 3.0336 | -0.0685 | 0.7948 | 0.0609 | -0.2008 | 0.2317 | -0.4405 | 0.4657 |
| 64 | 38.72 | -0.00 | 6.6067 | 3.1565 | -0.1693 | 1.1204 | 0.0350 | -0.2134 | 0.2260 | -0.4402 | 0.4773 |
| 65 | 38.93 | -0.00 | 6.5660 | 3.0135 | -0.0802 | 0.9745 | 0.0229 | -0.2258 | 0.2236 | -0.4494 | 0.4578 |
| 66 | 39.14 | -0.01 | 6.7771 | 3.0473 | -0.2446 | 1.3555 | 0.0097 | -0.2466 | 0.2256 | -0.4742 | 0.4497 |
| 67 | 39.40 | -0.01 | 6.8048 | 3.0863 | -0.2743 | 1.7222 | 0.0212 | -0.2313 | 0.2309 | -0.4622 | 0.4535 |
| 68 | 39.61 | -0.03 | 6.8542 | 3.1136 | -0.4771 | 1.6336 | -0.0028 | -0.2429 | 0.2280 | -0.4709 | 0.4543 |
| 69 | 39.81 | -0.00 | 6.9403 | 2.9301 | -0.2042 | 1.8012 | 0.0399 | -0.2580 | 0.2374 | -0.4754 | 0.4231 |
| 70 | 40.05 | -0.04 | 7.0783 | 3.0774 | -0.3524 | 1.9642 | -0.0035 | -0.2605 | 0.2345 | -0.4951 | 0.4348 |
| 71 | 40.26 | -0.01 | 7.1736 | 3.0773 | -0.3127 | 2.0277 | 0.0090 | -0.2569 | 0.2390 | -0.4960 | 0.4250 |
| 72 | 40.46 | -0.05 | 7.2551 | 3.1377 | -0.4709 | 2.2643 | -0.0093 | -0.2670 | 0.2337 | -0.5014 | 0.4334 |
| 73 | 40.65 | -0.03 | 7.2571 | 3.1364 | -0.4685 | 2.0852 | -0.0094 | -0.2613 | 0.2313 | -0.4926 | 0.4338 |
| 74 | 40.85 | -0.05 | 7.3468 | 3.0367 | -0.4128 | 2.0572 | -0.0008 | -0.2739 | 0.2325 | -0.5065 | 0.4136 |
| 75 | 41.08 | -0.04 | 7.3951 | 3.2048 | -0.5466 | 1.8337 | -0.0263 | -0.2796 | 0.2317 | -0.5114 | 0.4333 |
| 76 | 41.27 | -0.05 | 7.4545 | 3.0805 | -0.5080 | 2.2006 | -0.0025 | -0.2675 | 0.2378 | -0.5054 | 0.4132 |
| 77 | 41.50 | -0.02 | 7.5637 | 3.0648 | -0.3746 | 1.8615 | -0.0256 | -0.3012 | 0.2325 | -0.5337 | 0.4052 |
| 78 | 41.72 | -0.04 | 7.5631 | 3.0879 | -0.3516 | 0.9502 | -0.0345 | -0.3078 | 0.2249 | -0.5327 | 0.4071 |
| 79 | 41.91 | -0.03 | 7.6611 | 2.9527 | -0.3655 | 1.6602 | 0.0005 | -0.3088 | 0.2415 | -0.5501 | 0.3905 |
| 80 | 42.12 | -0.05 | 7.7362 | 3.0282 | -0.5166 | 1.5718 | -0.0360 | -0.3057 | 0.2325 | -0.5382 | 0.3913 |
| 81 | 42.31 | -0.04 | 7.7635 | 3.0556 | -0.2760 | 0.8844 | -0.0023 | -0.3202 | 0.2261 | -0.5463 | 0.3936 |
| 82 | 42.50 | -0.02 | 7.6634 | 2.9740 | -0.1412 | 1.4626 | 0.0380 | -0.3341 | 0.2313 | -0.5654 | 0.3773 |
| 83 | 42.68 | 0.00 | 7.5257 | 3.1231 | 0.0585 | 0.9580 | -0.0027 | -0.3199 | 0.2297 | -0.5496 | 0.3938 |
| 84 | 42.87 | -0.01 | 7.5646 | 3.1147 | 0.0666 | 0.4390 | 0.0248 | -0.3211 | 0.2261 | -0.5472 | 0.3911 |
| 85 | 43.05 | -0.05 | 8.1116 | 3.1073 | -0.3650 | 1.3564 | -0.0026 | -0.3396 | 0.2361 | -0.5757 | 0.3831 |
| 86 | 43.23 | -0.03 | 8.1655 | 2.9871 | -0.0541 | 0.8016 | 0.0174 | -0.3556 | 0.2269 | -0.5825 | 0.3656 |
| 87 | 43.40 | -0.04 | 8.1683 | 3.0207 | -0.2812 | 1.0336 | 0.0112 | -0.3408 | 0.2310 | -0.5718 | 0.3658 |
| 88 | 43.61 | -0.03 | 8.3305 | 2.9966 | -0.2476 | 1.4375 | 0.0226 | -0.3447 | 0.2342 | -0.5789 | 0.3600 |
| 89 | 43.78 | -0.03 | 8.3283 | 2.9584 | -0.2325 | 1.7364 | 0.0214 | -0.3416 | 0.2410 | -0.5826 | 0.3584 |
| 90 | 43.94 | -0.03 | 8.4035 | 2.8442 | -0.0885 | 0.3724 | 0.0079 | -0.3664 | 0.2322 | -0.5986 | 0.3385 |
| 91 | 44.13 | -0.03 | 8.4662 | 2.7953 | -0.2442 | 1.2347 | -0.0324 | -0.3564 | 0.2398 | -0.5962 | 0.3302 |
| 92 | 44.30 | -0.02 | 8.5954 | 2.9362 | 0.1691 | 0.2360 | 0.0339 | -0.3575 | 0.2354 | -0.5905 | 0.3416 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART III MACH 0.90 RX10-6 1.7 PHI 0.0 CONF B1B0P15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CA | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.49 | -0.05 | 8.5961 | 2.3883 | -0.2814 | 0.3339 | -0.0097 | -0.3745 | 0.2390 | -0.6135 | 0.3334 |
| 94 | 44.70 | -0.04 | 8.7017 | 2.4068 | -0.1900 | 1.0055 | -0.0057 | -0.3757 | 0.2438 | -0.6195 | 0.3069 |
| 95 | 44.87 | -0.01 | 8.7706 | 2.8503 | 0.3870 | -0.7706 | 0.0431 | -0.3936 | 0.2402 | -0.6338 | 0.3250 |
| 96 | 45.08 | -0.07 | 8.8961 | 2.8143 | -0.5210 | 1.0194 | -0.0438 | -0.3961 | 0.2471 | -0.6432 | 0.2911 |
| 97 | 45.24 | -0.07 | 8.9162 | 2.7100 | -0.5406 | 1.0822 | -0.0320 | -0.3977 | 0.2572 | -0.6549 | 0.3039 |
| 98 | 45.43 | -0.05 | 9.0253 | 2.7475 | -0.2502 | 1.0802 | -0.0309 | -0.3819 | 0.2443 | -0.6262 | 0.3044 |
| 99 | 45.60 | -0.05 | 8.9726 | 2.8850 | -0.1388 | 0.1287 | 0.0112 | -0.3657 | 0.2366 | -0.6255 | 0.3182 |
| 100 | 45.80 | -0.05 | 9.0456 | 2.8782 | -0.3716 | 2.1365 | -0.0329 | -0.3836 | 0.2515 | -0.6351 | 0.2895 |
| 101 | 45.97 | -0.05 | 9.1573 | 2.8314 | -0.1651 | 1.4624 | -0.0495 | -0.3991 | 0.2443 | -0.6434 | 0.2881 |
| 102 | 46.14 | -0.03 | 9.2625 | 2.7826 | 0.0142 | 0.7530 | -0.0278 | -0.3981 | 0.2467 | -0.6448 | 0.2887 |
| 103 | 46.32 | -0.06 | 9.3236 | 2.7535 | -0.3288 | 1.3827 | -0.0296 | -0.3982 | 0.2456 | -0.6440 | 0.2997 |
| 104 | 46.50 | -0.04 | 9.4410 | 2.7852 | -0.1243 | 0.9784 | -0.0280 | -0.4172 | 0.2430 | -0.6602 | 0.2929 |
| 105 | 46.65 | -0.03 | 9.4243 | 2.7838 | 0.1225 | 0.3538 | 0.0115 | -0.4090 | 0.2470 | -0.6560 | 0.2932 |
| 106 | 46.84 | -0.05 | 9.4967 | 2.7994 | 0.0506 | -0.1381 | 0.0260 | -0.4102 | 0.2483 | -0.6585 | 0.2957 |
| 107 | 47.02 | -0.02 | 9.5830 | 2.7926 | 0.2546 | 0.3523 | 0.0057 | -0.4208 | 0.2487 | -0.6695 | 0.2914 |
| 108 | 47.19 | -0.04 | 9.6335 | 2.7843 | -0.0025 | 1.0300 | -0.0151 | -0.4316 | 0.2503 | -0.6820 | 0.2890 |
| 109 | 47.36 | -0.03 | 9.6969 | 2.8263 | 0.1159 | 0.7520 | 0.0046 | -0.4268 | 0.2490 | -0.6779 | 0.2924 |
| 110 | 47.55 | -0.04 | 9.7777 | 2.8251 | 0.1004 | 0.1734 | 0.0137 | -0.4140 | 0.2464 | -0.6745 | 0.2893 |
| 111 | 47.72 | -0.04 | 9.8379 | 2.7822 | -0.0156 | 1.3011 | -0.0154 | -0.4157 | 0.2559 | -0.6757 | 0.2748 |
| 112 | 47.89 | -0.06 | 9.8704 | 2.8014 | -0.1556 | 1.3284 | -0.0152 | -0.4459 | 0.2584 | -0.7084 | 0.2686 |
| 113 | 48.07 | -0.04 | 9.9627 | 2.8458 | -0.0201 | 1.4707 | -0.0156 | -0.4337 | 0.2735 | -0.7043 | 0.2550 |
| 114 | 48.24 | -0.05 | 10.0660 | 2.8736 | -0.1417 | 1.1615 | -0.0136 | -0.4299 | 0.2741 | -0.7041 | 0.2551 |
| 115 | 48.42 | -0.03 | 10.2146 | 2.1615 | -0.1113 | 2.8122 | -0.0764 | -0.4239 | 0.3017 | -0.7256 | 0.2136 |
| 116 | 48.60 | -0.04 | 10.2572 | 2.5019 | -0.1744 | 2.0662 | -0.0418 | -0.4429 | 0.2798 | -0.7228 | 0.2439 |
| 117 | 48.75 | -0.00 | 10.3058 | 2.2287 | 0.1563 | 2.6083 | -0.0693 | -0.3986 | 0.2906 | -0.6896 | 0.2220 |
| 118 | 48.94 | -0.02 | 10.4815 | 2.0965 | -0.0114 | 2.4237 | -0.0677 | -0.4106 | 0.3114 | -0.7220 | 0.2002 |
| 119 | 49.13 | -0.00 | 10.7232 | 1.3175 | 0.2025 | 2.4631 | -0.0679 | -0.4239 | 0.3509 | -0.7743 | 0.1225 |
| 120 | 49.29 | -0.04 | 10.7446 | 1.5161 | -0.1020 | 2.4366 | -0.0752 | -0.4426 | 0.3363 | -0.7791 | 0.1413 |
| 121 | 49.47 | 0.01 | 10.8552 | 1.0462 | 0.5280 | 1.8749 | -0.0606 | -0.4227 | 0.3466 | -0.7693 | 0.0960 |
| 122 | 49.64 | 0.01 | 11.0167 | 0.4275 | 0.4747 | 2.1136 | -0.0541 | -0.4074 | 0.3632 | -0.7706 | 0.0388 |
| 123 | 49.84 | 0.00 | 11.2224 | 0.0324 | 0.8433 | 2.0500 | -0.0572 | -0.3536 | 0.3909 | -0.7445 | 0.0029 |
| 124 | 50.02 | 0.03 | 11.3255 | 0.0715 | 0.7045 | 2.0094 | -0.0270 | -0.3866 | 0.4115 | -0.7573 | 0.0063 |
| 125 | 50.19 | 0.05 | 11.5031 | -0.0393 | 0.6701 | 1.8744 | -0.0151 | -0.3990 | 0.3627 | -0.7617 | -0.0078 |
| 126 | 50.38 | 0.02 | 11.5932 | -0.0041 | 0.8478 | 1.8256 | 0.0135 | -0.4177 | 0.3634 | -0.7811 | -0.0004 |
| 127 | 50.54 | 0.05 | 11.8526 | -0.0275 | 0.9428 | 1.8274 | -0.0124 | -0.3945 | 0.3666 | -0.7611 | 0.0024 |
| 128 | 50.73 | 0.07 | 11.8656 | -0.0287 | 1.1275 | 1.5160 | -0.0006 | -0.4072 | 0.3816 | -0.7888 | -0.0530 |
| 129 | 50.89 | 0.04 | 11.7715 | -0.3852 | 0.7663 | 1.4006 | 0.0002 | -0.4085 | 0.3816 | -0.7901 | -0.0311 |
| 130 | 51.06 | 0.04 | 11.9354 | -0.0760 | 0.8287 | 1.5565 | -0.0127 | -0.4005 | 0.3846 | -0.7845 | -0.0566 |
| 131 | 51.26 | 0.04 | 12.0282 | -1.4655 | 0.8566 | 2.3753 | -0.0270 | -0.3647 | 0.4077 | -0.7724 | -0.1189 |
| 132 | 51.40 | 0.06 | 12.0213 | -1.1471 | 0.9466 | 1.4058 | -0.0134 | -0.3870 | 0.4069 | -0.7759 | -0.0939 |
| 133 | 51.59 | 0.01 | 12.0813 | -1.8559 | 0.4206 | 2.3789 | -0.0382 | -0.3644 | 0.4124 | -0.7768 | -0.1672 |
| 134 | 51.79 | 0.04 | 13.0258 | -2.3108 | 0.6108 | 2.3723 | -0.0372 | -0.3391 | 0.4365 | -0.7756 | -0.1773 |
| 135 | 51.97 | 0.04 | 13.1042 | -2.3677 | 0.6171 | 1.9173 | -0.0108 | -0.3354 | 0.4530 | -0.7884 | -0.1807 |
| 136 | 52.15 | 0.07 | 13.1066 | -2.2791 | 0.5985 | 2.0839 | -0.0117 | -0.3089 | 0.4609 | -0.7698 | -0.1740 |
| 137 | 52.30 | 0.06 | 13.0583 | -2.3326 | 1.0184 | 1.9509 | 0.0011 | -0.3127 | 0.4541 | -0.7668 | -0.1766 |
| 138 | 52.47 | 0.07 | 13.2631 | -2.4606 | 1.0815 | 1.6678 | 0.0151 | -0.3508 | 0.4670 | -0.7978 | -0.1855 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART III MACH 0.90 RAIG-8 1.7 PHI 0.0 CONF BIMOF15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.65 | 0.06 | 13.2451 | -2.3015 | 0.5654 | 1.9579 | 0.0205 | -0.3006 | 0.4733 | -0.7739 | -0.1737 |
| 140 | 52.80 | 0.06 | 13.3164 | -2.3314 | 1.1325 | 1.9079 | -0.0043 | -0.2996 | 0.4966 | -0.7983 | -0.1901 |
| 141 | 52.97 | 0.06 | 13.3843 | -2.3605 | 1.7016 | 1.8643 | 0.0324 | -0.3274 | 0.4953 | -0.8226 | -0.1920 |
| 142 | 53.14 | 0.10 | 13.3411 | -2.3049 | 1.2376 | 1.8802 | 0.0142 | -0.2976 | 0.4844 | -0.7820 | -0.1925 |
| 143 | 53.29 | 0.05 | 13.2765 | -2.4105 | 1.1625 | 1.7061 | 0.0150 | -0.2822 | 0.4800 | -0.7623 | -0.1815 |
| 144 | 53.46 | 0.08 | 13.4466 | -2.4791 | 1.0816 | 1.6765 | 0.0220 | -0.3176 | 0.4865 | -0.8040 | -0.1844 |
| 145 | 53.62 | 0.06 | 13.3570 | -2.3367 | 1.1351 | 1.6691 | 0.0228 | -0.2930 | 0.4865 | -0.7764 | -0.1745 |
| 146 | 53.79 | 0.07 | 13.2133 | -2.3976 | 1.0375 | 1.5904 | 0.0221 | -0.2995 | 0.4902 | -0.7900 | -0.1802 |
| 147 | 53.95 | 0.06 | 13.4256 | -2.5472 | 1.0041 | 1.4451 | 0.0168 | -0.3068 | 0.4941 | -0.8028 | -0.1897 |
| 148 | 54.10 | 0.07 | 13.4131 | -2.5646 | 1.0026 | 1.4296 | 0.0230 | -0.3201 | 0.4885 | -0.8085 | -0.1912 |
| 149 | 54.27 | 0.07 | 13.5722 | -2.5002 | 1.0645 | 1.3488 | 0.0258 | -0.3286 | 0.4933 | -0.8216 | -0.1891 |
| 150 | 54.43 | 0.06 | 13.5667 | -2.6353 | 0.9746 | 1.1454 | 0.0186 | -0.3258 | 0.5035 | -0.8262 | -0.1939 |
| 151 | 54.58 | 0.04 | 13.4736 | -2.4236 | 0.7220 | 1.3467 | 0.0366 | -0.3151 | 0.5031 | -0.8151 | -0.1843 |
| 152 | 54.73 | 0.07 | 13.4200 | -2.4073 | 1.0341 | 1.0522 | 0.0371 | -0.3237 | 0.5025 | -0.8261 | -0.1836 |
| 153 | 54.89 | 0.05 | 13.6070 | -2.5672 | 0.7557 | 1.3305 | 0.0432 | -0.3117 | 0.5041 | -0.8157 | -0.1901 |
| 154 | 55.03 | 0.06 | 13.5466 | -2.6266 | 0.9638 | 1.0575 | 0.0437 | -0.3159 | 0.5031 | -0.8159 | -0.1941 |
| 155 | 55.18 | 0.02 | 13.4675 | -2.4335 | 0.5473 | 1.2019 | 0.0366 | -0.2834 | 0.4997 | -0.7831 | -0.1803 |
| 156 | 55.35 | 0.07 | 13.6431 | -2.5040 | 1.0958 | 0.9602 | 0.0506 | -0.3306 | 0.5033 | -0.8238 | -0.1747 |
| 157 | 55.50 | 0.03 | 13.6408 | -2.5123 | 0.7766 | 0.8835 | 0.0453 | -0.3068 | 0.5105 | -0.8172 | -0.1842 |
| 158 | 55.65 | 0.05 | 13.5561 | -2.4226 | 1.0326 | 0.9596 | 0.0747 | -0.3388 | 0.5073 | -0.8460 | -0.1642 |
| 159 | 55.79 | 0.06 | 13.5617 | -2.1971 | 1.0243 | 0.8492 | 0.0697 | -0.3129 | 0.5065 | -0.8193 | -0.1620 |
| 160 | 55.97 | 0.03 | 13.6674 | -2.1565 | 0.8016 | 1.0869 | 0.0781 | -0.2874 | 0.5141 | -0.7975 | -0.1578 |
| 161 | 56.13 | 0.08 | 13.5601 | -2.1336 | 1.1456 | 0.9123 | 0.0754 | -0.3160 | 0.5109 | -0.8288 | -0.1574 |
| 162 | 56.28 | 0.05 | 13.6591 | -2.0913 | 0.8944 | 1.1760 | 0.0755 | -0.3101 | 0.5189 | -0.8289 | -0.1531 |
| 163 | 56.43 | 0.04 | 13.7225 | -2.2726 | 0.7695 | 1.1176 | 0.0573 | -0.3042 | 0.5245 | -0.8286 | -0.1656 |
| 164 | 56.59 | -0.01 | 13.6756 | -2.0251 | 0.4992 | 1.0036 | 0.0507 | -0.3006 | 0.5265 | -0.8210 | -0.1480 |
| 165 | 56.75 | 0.01 | 13.7747 | -2.1225 | 0.5471 | 1.2556 | 0.0699 | -0.3169 | 0.5285 | -0.8473 | -0.1589 |
| 166 | 56.88 | 0.02 | 13.6935 | -2.1226 | 0.5996 | 1.2735 | 0.0570 | -0.3102 | 0.5267 | -0.8398 | -0.1555 |
| 167 | 57.05 | -0.01 | 13.8153 | -2.1428 | 0.4043 | 1.2819 | 0.0517 | -0.3135 | 0.5345 | -0.8479 | -0.1551 |
| 168 | 57.19 | 0.02 | 13.7213 | -2.1564 | 0.5032 | 1.1999 | 0.0514 | -0.2793 | 0.5376 | -0.8169 | -0.1573 |
| 169 | 57.35 | -0.00 | 13.7991 | -2.1247 | 0.3936 | 1.0662 | 0.0526 | -0.3058 | 0.5340 | -0.8397 | -0.1540 |
| 170 | 57.50 | 0.01 | 13.7849 | -1.7355 | 0.4911 | 1.1670 | 0.0524 | -0.3186 | 0.5401 | -0.8586 | -0.1259 |
| 171 | 57.64 | -0.00 | 13.8145 | -1.6954 | 0.4347 | 1.1293 | 0.0463 | -0.2924 | 0.5466 | -0.8391 | -0.1447 |
| 172 | 57.80 | -0.01 | 13.8008 | -1.2497 | 0.3486 | 0.9503 | 0.0540 | -0.3541 | 0.5349 | -0.8690 | -0.0902 |
| 173 | 57.95 | -0.07 | 13.8164 | -1.1451 | 0.0287 | -0.1795 | 0.0524 | -0.3731 | 0.5145 | -0.8876 | -0.0829 |
| 174 | 58.06 | -0.07 | 13.8227 | -1.0504 | -0.0105 | -0.5246 | 0.0590 | -0.3415 | 0.5047 | -0.8462 | -0.0760 |
| 175 | 58.21 | -0.11 | 13.8702 | -1.6852 | -0.3676 | -1.1010 | 0.0402 | -0.3622 | 0.5393 | -0.9015 | -0.1215 |
| 176 | 58.37 | -0.10 | 13.9344 | -1.9916 | -0.2143 | -1.1804 | 0.0551 | -0.3191 | 0.5598 | -0.8789 | -0.1427 |
| 177 | 58.50 | -0.13 | 13.9409 | -1.9947 | -0.5714 | -1.1709 | 0.0527 | -0.2998 | 0.5932 | -0.8930 | -0.1431 |
| 178 | 58.21 | -0.12 | 13.9256 | -1.9662 | -0.3522 | -1.0673 | 0.0403 | -0.3056 | 0.5609 | -0.8705 | -0.1412 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 111 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 81 DEL1 0.0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | -0.00 | -0.0165 | 0.0021 | 0.0114 | -0.1112 | -0.6332 | -0.7919 | -0.0177 | -0.3512 | 0.0224 | 0.4435 |
| 2 | -5.75 | -0.01 | -0.0161 | 0.0058 | 0.0140 | -0.3704 | -1.4053 | -0.7891 | -0.0171 | -0.3497 | 0.0217 | 0.4432 |
| 3 | -5.75 | -0.01 | -0.0158 | 0.0027 | 0.0125 | -0.1557 | -0.9058 | -0.7993 | -0.0168 | -0.3546 | 0.0211 | 0.4437 |
| 4 | -5.76 | -0.02 | -0.0167 | 0.0032 | 0.0135 | -0.2521 | -1.0945 | -0.7949 | -0.0168 | -0.3525 | 0.0212 | 0.4435 |
| 5 | -5.64 | -0.02 | -0.0165 | 0.0036 | 0.0122 | -0.2881 | -0.9760 | -0.8430 | -0.0164 | -0.3748 | 0.0195 | 0.4445 |
| 6 | -2.10 | -0.01 | -0.0040 | 0.0046 | 0.0126 | -1.0004 | -2.7391 | -0.8954 | -0.0156 | -0.3953 | 0.0175 | 0.4419 |
| 7 | -0.31 | -0.02 | -0.0054 | 0.0036 | 0.0068 | -0.3631 | -0.9149 | -0.8744 | -0.0196 | -0.3891 | 0.0225 | 0.4450 |
| 8 | 1.46 | -0.00 | 0.0066 | 0.0051 | 0.0116 | 0.3775 | 14.5000 | -0.8964 | -0.0279 | -0.4001 | 0.0312 | 0.4463 |
| 9 | 3.33 | -0.01 | 0.0023 | 0.0046 | 0.0105 | 2.0008 | 4.5652 | -0.9002 | -0.0364 | -0.4532 | 0.0387 | 0.4578 |
| 10 | 5.01 | -0.01 | -0.0041 | 0.0042 | 0.0102 | -0.6832 | -2.4878 | -0.9492 | -0.0406 | -0.4412 | 0.0427 | 0.4645 |
| 11 | 6.82 | -0.01 | -0.0111 | 0.0021 | 0.0127 | -0.1893 | -1.1441 | -0.8871 | -0.0363 | -0.4224 | 0.0409 | 0.4762 |
| 12 | 6.57 | -0.01 | -0.0065 | 0.0028 | 0.0105 | -0.3147 | -1.6539 | -0.7570 | -0.0319 | -0.3743 | 0.0421 | 0.4944 |
| 13 | 10.35 | -0.01 | -0.0023 | 0.0035 | 0.0101 | -1.5223 | -7.0300 | -0.8312 | -0.0289 | -0.3264 | 0.0459 | 0.5171 |
| 14 | 12.17 | -0.02 | -0.0056 | 0.0031 | 0.0105 | -0.6202 | -3.3800 | -0.5283 | -0.0245 | -0.2760 | 0.0464 | 0.5225 |
| 15 | 13.98 | -0.02 | -0.0210 | -0.0005 | 0.0085 | 0.0238 | -0.4048 | -0.3988 | -0.0210 | -0.2176 | 0.0527 | 0.5456 |
| 16 | 15.85 | -0.02 | -0.0230 | -0.0006 | 0.0145 | 0.0261 | -0.6304 | -0.2968 | -0.0177 | -0.1694 | 0.0597 | 0.5708 |
| 17 | 17.74 | -0.02 | -0.0156 | -0.0022 | 0.0104 | 0.0615 | -0.0112 | -0.1919 | -0.0130 | -0.1198 | 0.0678 | 0.6244 |
| 18 | 19.58 | -0.03 | -0.0489 | -0.0056 | 0.0135 | 0.2009 | -0.2846 | -0.1255 | -0.0046 | -0.0879 | 0.0367 | 0.7007 |
| 19 | 21.45 | -0.03 | -0.0767 | -0.0116 | 0.0079 | 0.1672 | -0.1119 | -0.0466 | 0.0024 | -0.0585 | -0.0516 | 1.2645 |
| 20 | 23.33 | -0.03 | -0.1215 | -0.0175 | -0.0106 | 0.1477 | 0.0691 | -0.0177 | 0.0127 | -0.0409 | -0.7178 | 2.3051 |
| 21 | 25.17 | -0.03 | -0.0726 | -0.0085 | -0.0004 | 0.1173 | 0.0124 | 0.0365 | 0.0299 | -0.0196 | 0.8155 | -0.5376 |
| 22 | 27.10 | -0.01 | 0.0238 | 0.0043 | 0.0021 | 0.1807 | 1.3487 | 0.1017 | 0.0423 | 0.0062 | 0.4155 | 0.0610 |
| 23 | 28.20 | -0.02 | -0.0466 | 0.0004 | -0.0026 | -0.0066 | 0.0559 | 0.1027 | 0.0460 | 0.0065 | 0.4475 | 0.0634 |
| 24 | 28.28 | 0.01 | 0.1458 | 0.0161 | 0.0537 | 0.1142 | 0.6516 | 0.1401 | 0.0485 | 0.0225 | 0.3461 | 0.1608 |
| 25 | 26.66 | 0.03 | 0.0726 | 0.0091 | 0.0567 | 0.1256 | 0.8083 | 0.1345 | 0.0502 | 0.0210 | 0.3732 | 0.1564 |
| 26 | 28.98 | 0.03 | 0.2502 | 0.0258 | 0.1420 | 0.1033 | 0.5074 | 0.1620 | 0.0541 | 0.0403 | 0.2971 | 0.2217 |
| 27 | 29.27 | 0.04 | 0.2532 | 0.0258 | 0.1465 | 0.1019 | 0.5792 | 0.1845 | 0.0568 | 0.0425 | 0.3078 | 0.2301 |
| 28 | 29.56 | 0.02 | 0.1653 | 0.0154 | 0.0944 | 0.1176 | 0.5712 | 0.1699 | 0.0506 | 0.0365 | 0.3331 | 0.2151 |
| 29 | 29.87 | 0.05 | 0.2277 | 0.0261 | 0.1268 | 0.1236 | 0.5567 | 0.1656 | 0.0589 | 0.0433 | 0.3173 | 0.2330 |
| 30 | 30.15 | 0.05 | 0.2088 | 0.0252 | 0.1222 | 0.1209 | 0.5056 | 0.1928 | 0.0616 | 0.0470 | 0.3194 | 0.2435 |
| 31 | 30.40 | 0.05 | 0.1870 | 0.0225 | 0.1028 | 0.1349 | 0.6145 | 0.1870 | 0.0616 | 0.0436 | 0.3294 | 0.2329 |
| 32 | 30.70 | 0.05 | 0.1872 | 0.0265 | 0.1034 | 0.1418 | 0.5096 | 0.1955 | 0.0640 | 0.0456 | 0.3273 | 0.2330 |
| 33 | 30.98 | 0.05 | 0.1675 | 0.0261 | 0.1037 | 0.1557 | 0.6178 | 0.1965 | 0.0645 | 0.0456 | 0.3275 | 0.2323 |
| 34 | 31.24 | 0.06 | 0.1967 | 0.0265 | 0.1131 | 0.1456 | 0.5093 | 0.2043 | 0.0651 | 0.0481 | 0.3188 | 0.2353 |
| 35 | 31.52 | 0.05 | 0.1557 | 0.0266 | 0.0934 | 0.1711 | 0.6000 | 0.2054 | 0.0672 | 0.0489 | 0.3273 | 0.2375 |
| 36 | 31.79 | 0.04 | 0.1457 | 0.0268 | 0.0886 | 0.1845 | 0.5945 | 0.2125 | 0.0687 | 0.0519 | 0.3234 | 0.2441 |
| 37 | 32.07 | 0.06 | 0.2033 | 0.0350 | 0.1155 | 0.1719 | 0.5682 | 0.2261 | 0.0710 | 0.0604 | 0.3114 | 0.2647 |
| 38 | 32.34 | 0.06 | 0.2259 | 0.0307 | 0.1213 | 0.1361 | 0.5372 | 0.2411 | 0.0721 | 0.0656 | 0.2991 | 0.2720 |
| 39 | 32.59 | 0.06 | 0.2056 | 0.0253 | 0.1121 | 0.1428 | 0.5455 | 0.2381 | 0.0721 | 0.0654 | 0.3025 | 0.2746 |
| 40 | 32.87 | 0.05 | 0.1810 | 0.0255 | 0.0990 | 0.1581 | 0.5556 | 0.2351 | 0.0726 | 0.0651 | 0.3097 | 0.2768 |
| 41 | 33.13 | 0.05 | 0.1745 | 0.0191 | 0.0702 | 0.1540 | 0.5649 | 0.2495 | 0.0739 | 0.0722 | 0.2963 | 0.2893 |
| 42 | 33.38 | 0.05 | 0.2010 | 0.0255 | 0.1256 | 0.1177 | 0.5002 | 0.2929 | 0.0757 | 0.0929 | 0.2586 | 0.3173 |
| 43 | 33.61 | 0.05 | 0.2002 | 0.0250 | 0.1038 | 0.1250 | 0.5175 | 0.2927 | 0.0771 | 0.0935 | 0.2635 | 0.3195 |
| 44 | 33.87 | 0.06 | 0.2457 | 0.0252 | 0.1220 | 0.1190 | 0.4907 | 0.3302 | 0.0775 | 0.1059 | 0.2348 | 0.3208 |
| 45 | 34.13 | 0.04 | 0.2715 | 0.0322 | 0.1281 | 0.1184 | 0.4716 | 0.3331 | 0.0776 | 0.1073 | 0.2330 | 0.3222 |
| 46 | 34.39 | 0.04 | 0.2453 | 0.0282 | 0.1130 | 0.1252 | 0.4965 | 0.3213 | 0.0760 | 0.1034 | 0.2429 | 0.3219 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 111 0.60 1.7 0.0 BLANK15 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.62 | 0.05 | 0.1815 | 0.0223 | 0.0686 | 0.1226 | 0.4071 | 0.3314 | 0.0737 | 0.1090 | 0.2376 | 0.3290 |
| 48 | 34.85 | 0.03 | 0.1945 | 0.0244 | 0.0567 | 0.1173 | 0.5013 | 0.3385 | 0.0795 | 0.1137 | 0.2345 | 0.3366 |
| 49 | 35.12 | 0.03 | 0.2033 | 0.0248 | 0.0580 | 0.1222 | 0.4820 | 0.3412 | 0.0803 | 0.1163 | 0.2354 | 0.3410 |
| 50 | 35.36 | 0.02 | 0.1967 | 0.0153 | 0.0742 | 0.1045 | 0.5056 | 0.3528 | 0.0604 | 0.1219 | 0.2286 | 0.3456 |
| 51 | 35.59 | 0.01 | 0.0524 | 0.0065 | 0.0281 | 0.1243 | 0.5373 | 0.3528 | 0.0805 | 0.1226 | 0.2282 | 0.3473 |
| 52 | 35.84 | -0.01 | 0.0864 | 0.0061 | 0.0277 | 0.1180 | 0.4056 | 0.3469 | 0.0807 | 0.1209 | 0.2327 | 0.3486 |
| 53 | 36.08 | -0.01 | -0.0646 | -0.0025 | -0.0317 | 0.0451 | 0.4930 | 0.3525 | 0.0813 | 0.1261 | 0.2307 | 0.3578 |
| 54 | 36.31 | -0.01 | -0.1140 | -0.0056 | -0.0575 | 0.0496 | 0.5013 | 0.3579 | 0.0820 | 0.1190 | 0.2428 | 0.3523 |
| 55 | 36.55 | -0.03 | -0.1142 | -0.0083 | -0.0804 | 0.0552 | 0.5265 | 0.3437 | 0.0821 | 0.1224 | 0.2390 | 0.3562 |
| 56 | 36.79 | -0.01 | -0.0926 | -0.0037 | -0.0406 | 0.0403 | 0.5092 | 0.3422 | 0.0828 | 0.1206 | 0.2421 | 0.3525 |
| 57 | 37.02 | -0.02 | -0.0656 | -0.0032 | -0.0446 | 0.0356 | 0.4954 | 0.3362 | 0.0832 | 0.1195 | 0.2478 | 0.3556 |
| 58 | 37.29 | -0.00 | -0.1774 | -0.0115 | -0.0695 | 0.0649 | 0.5045 | 0.3492 | 0.0837 | 0.1271 | 0.2398 | 0.3638 |
| 59 | 37.52 | -0.01 | -0.1257 | -0.0066 | -0.0671 | 0.0367 | 0.5339 | 0.3491 | 0.0840 | 0.1277 | 0.2407 | 0.3656 |
| 60 | 37.74 | -0.03 | -0.1160 | -0.0055 | -0.0576 | 0.0496 | 0.5204 | 0.3637 | 0.0845 | 0.1313 | 0.2324 | 0.3609 |
| 61 | 38.01 | -0.00 | -0.0642 | -0.0016 | -0.0343 | 0.0156 | 0.5351 | 0.3636 | 0.0845 | 0.1325 | 0.2325 | 0.3643 |
| 62 | 38.24 | 0.00 | -0.0644 | 0.0001 | -0.0336 | -0.0016 | 0.5220 | 0.3635 | 0.0852 | 0.1325 | 0.2345 | 0.3644 |
| 63 | 38.47 | -0.00 | -0.0020 | 0.0041 | -0.0031 | -0.0127 | 0.3675 | 0.3737 | 0.0857 | 0.1374 | 0.2295 | 0.3676 |
| 64 | 38.72 | -0.00 | -0.0648 | -0.0017 | -0.0305 | 0.0204 | 0.4729 | 0.3620 | 0.0858 | 0.1312 | 0.2371 | 0.3623 |
| 65 | 38.93 | -0.00 | -0.0967 | -0.0051 | -0.0511 | 0.0528 | 0.5269 | 0.4014 | 0.0855 | 0.1485 | 0.2131 | 0.3695 |
| 66 | 39.14 | -0.01 | -0.1269 | -0.0051 | -0.0646 | 0.0716 | 0.4964 | 0.4012 | 0.0867 | 0.1485 | 0.2162 | 0.3701 |
| 67 | 39.40 | -0.01 | -0.1350 | -0.0103 | -0.0695 | 0.0739 | 0.5007 | 0.3925 | 0.0866 | 0.1455 | 0.2208 | 0.3707 |
| 68 | 39.61 | -0.03 | -0.1373 | -0.0090 | -0.0683 | 0.0657 | 0.4974 | 0.3852 | 0.0863 | 0.1437 | 0.2242 | 0.3730 |
| 69 | 39.81 | -0.00 | -0.0887 | -0.0028 | -0.0412 | 0.0316 | 0.4639 | 0.3895 | 0.0870 | 0.1452 | 0.2235 | 0.3728 |
| 70 | 40.05 | -0.04 | -0.1703 | -0.0127 | -0.0665 | 0.0747 | 0.4750 | 0.3922 | 0.0877 | 0.1478 | 0.2237 | 0.3768 |
| 71 | 40.26 | -0.01 | -0.1714 | -0.0125 | -0.0622 | 0.0754 | 0.4796 | 0.3981 | 0.0877 | 0.1495 | 0.2204 | 0.3755 |
| 72 | 40.48 | -0.05 | -0.2032 | -0.0154 | -0.0845 | 0.0759 | 0.4650 | 0.4009 | 0.0884 | 0.1515 | 0.2201 | 0.3775 |
| 73 | 40.65 | -0.03 | -0.1552 | -0.0164 | -0.0938 | 0.0826 | 0.4698 | 0.4069 | 0.0870 | 0.1537 | 0.2139 | 0.3777 |
| 74 | 40.85 | -0.05 | -0.2000 | -0.0181 | -0.0966 | 0.0906 | 0.4840 | 0.4266 | 0.0880 | 0.1631 | 0.2054 | 0.3805 |
| 75 | 41.08 | -0.04 | -0.2206 | -0.0206 | -0.1027 | 0.0935 | 0.4857 | 0.4135 | 0.0885 | 0.1578 | 0.2139 | 0.3812 |
| 76 | 41.27 | -0.05 | -0.1964 | -0.0174 | -0.0946 | 0.0867 | 0.4786 | 0.4212 | 0.0884 | 0.1614 | 0.2100 | 0.3832 |
| 77 | 41.50 | -0.03 | -0.1815 | -0.0155 | -0.0934 | 0.0875 | 0.5135 | 0.4548 | 0.0879 | 0.1769 | 0.1934 | 0.3890 |
| 78 | 41.72 | -0.04 | -0.1871 | -0.0152 | -0.0958 | 0.1198 | 0.5493 | 0.4884 | 0.0872 | 0.1896 | 0.1786 | 0.3883 |
| 79 | 41.91 | -0.03 | -0.1262 | -0.0132 | -0.0678 | 0.1068 | 0.5373 | 0.4869 | 0.0873 | 0.1901 | 0.1756 | 0.3905 |
| 80 | 42.14 | -0.05 | -0.1947 | -0.0186 | -0.0960 | 0.0926 | 0.4972 | 0.4589 | 0.0893 | 0.1803 | 0.1947 | 0.3936 |
| 81 | 42.31 | -0.04 | -0.0926 | -0.0094 | -0.0614 | 0.1015 | 0.6641 | 0.4985 | 0.0879 | 0.1934 | 0.1764 | 0.3880 |
| 82 | 42.50 | -0.02 | -0.1345 | -0.0082 | -0.0696 | 0.0611 | 0.5175 | 0.4500 | 0.0895 | 0.1777 | 0.1959 | 0.3898 |
| 83 | 42.68 | 0.00 | -0.1268 | -0.0088 | -0.0561 | 0.0695 | 0.5213 | 0.4647 | 0.0892 | 0.1831 | 0.1921 | 0.3941 |
| 84 | 42.87 | -0.01 | -0.0936 | -0.0038 | -0.0411 | 0.0671 | 0.7035 | 0.5067 | 0.0881 | 0.1972 | 0.1733 | 0.3877 |
| 85 | 43.05 | -0.05 | -0.1285 | -0.0102 | -0.0675 | 0.0808 | 0.5368 | 0.4690 | 0.0894 | 0.1840 | 0.1907 | 0.3924 |
| 86 | 43.23 | -0.03 | -0.0956 | -0.0034 | -0.0527 | 0.0947 | 0.9109 | 0.5134 | 0.0888 | 0.2014 | 0.1730 | 0.3924 |
| 87 | 43.40 | -0.04 | -0.1035 | -0.0108 | -0.0575 | 0.1047 | 0.5562 | 0.4989 | 0.0890 | 0.1950 | 0.1785 | 0.3909 |
| 88 | 43.61 | -0.03 | -0.0615 | -0.0023 | -0.0405 | 0.0372 | 0.6353 | 0.4829 | 0.0891 | 0.1873 | 0.1846 | 0.3879 |
| 89 | 43.76 | -0.03 | -0.0826 | -0.0061 | -0.0530 | 0.0758 | 0.6397 | 0.4858 | 0.0901 | 0.1899 | 0.1858 | 0.3911 |
| 90 | 43.94 | -0.03 | -0.0629 | -0.0026 | -0.0383 | 0.0989 | 0.9103 | 0.5484 | 0.0888 | 0.2155 | 0.1620 | 0.3926 |
| 91 | 44.13 | -0.03 | -0.1575 | -0.0226 | -0.0882 | 0.1437 | 0.5601 | 0.5571 | 0.0884 | 0.2203 | 0.1588 | 0.3954 |
| 92 | 44.30 | -0.02 | -0.1230 | -0.0143 | -0.0716 | 0.1165 | 0.5774 | 0.5604 | 0.0896 | 0.2116 | 0.1659 | 0.3915 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART III MACH 0.90 RATIO-E 1.7 PHI 0.0 CONF 61NCF15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.49 | -0.05 | 0.0033 | -0.0051 | -0.0237 | -1.5461 | -7.1818 | 0.5872 | 0.0882 | 0.2294 | 0.1503 | 0.3906 |
| 94 | 44.70 | -0.04 | -0.0735 | -0.0135 | -0.0588 | 0.1840 | 0.7997 | 0.5842 | 0.0887 | 0.2292 | 0.1515 | 0.3923 |
| 95 | 44.87 | -0.01 | 0.0540 | 0.0027 | 0.0068 | 0.0501 | 0.1224 | 0.5755 | 0.0887 | 0.2238 | 0.1542 | 0.3888 |
| 96 | 45.08 | -0.07 | -0.1577 | -0.0234 | -0.0993 | 0.1406 | 0.6298 | 0.5754 | 0.0890 | 0.2250 | 0.1548 | 0.3910 |
| 97 | 45.24 | -0.07 | -0.1550 | -0.0173 | -0.0806 | 0.1264 | 0.5972 | 0.5710 | 0.0890 | 0.2240 | 0.1555 | 0.3922 |
| 98 | 45.43 | -0.05 | -0.1267 | -0.0133 | -0.0752 | 0.1103 | 0.6559 | 0.5688 | 0.0893 | 0.2253 | 0.1593 | 0.3926 |
| 99 | 45.60 | -0.05 | -0.0715 | -0.0100 | -0.0575 | 0.1405 | 0.8362 | 0.5814 | 0.0887 | 0.2255 | 0.1526 | 0.3878 |
| 100 | 45.80 | -0.05 | -0.1752 | -0.0176 | -0.1031 | 0.0972 | 0.5000 | 0.5462 | 0.0900 | 0.2133 | 0.1645 | 0.3905 |
| 101 | 45.97 | -0.05 | -0.1310 | -0.0178 | -0.0887 | 0.1361 | 0.6774 | 0.5661 | 0.0894 | 0.2285 | 0.1526 | 0.3858 |
| 102 | 46.14 | -0.03 | -0.0191 | -0.0056 | -0.0479 | 0.2933 | 2.5026 | 0.5979 | 0.0888 | 0.2314 | 0.1486 | 0.3866 |
| 103 | 46.32 | -0.06 | -0.1268 | -0.0141 | -0.0835 | 0.1114 | 0.6619 | 0.5782 | 0.0892 | 0.2252 | 0.1543 | 0.3894 |
| 104 | 46.50 | -0.04 | -0.0523 | -0.0075 | -0.0614 | 0.1437 | 1.1743 | 0.5958 | 0.0888 | 0.2319 | 0.1491 | 0.3892 |
| 105 | 46.65 | -0.03 | -0.0750 | -0.0115 | -0.0592 | 0.1536 | 0.7691 | 0.5957 | 0.0892 | 0.2313 | 0.1498 | 0.3882 |
| 106 | 46.84 | -0.05 | 0.0260 | 0.0033 | -0.0171 | 0.1154 | -0.5479 | 0.6047 | 0.0880 | 0.2326 | 0.1456 | 0.3846 |
| 107 | 47.02 | -0.02 | -0.0455 | -0.0061 | -0.0476 | 0.1332 | 1.0437 | 0.5919 | 0.0885 | 0.2295 | 0.1456 | 0.3877 |
| 108 | 47.19 | -0.04 | -0.0758 | -0.0083 | -0.0662 | 0.1100 | 0.8755 | 0.5877 | 0.0880 | 0.2257 | 0.1498 | 0.3840 |
| 109 | 47.36 | -0.03 | -0.0403 | -0.0055 | -0.0507 | 0.1365 | 1.2556 | 0.5958 | 0.0879 | 0.2312 | 0.1476 | 0.3880 |
| 110 | 47.55 | -0.04 | -0.0809 | -0.0112 | -0.0537 | 0.1845 | 0.8816 | 0.6133 | 0.0879 | 0.2365 | 0.1434 | 0.3889 |
| 111 | 47.72 | -0.04 | -0.1075 | -0.0155 | -0.0981 | 0.1166 | 0.5852 | 0.5754 | 0.0885 | 0.2226 | 0.1539 | 0.3868 |
| 112 | 47.89 | -0.06 | -0.0947 | -0.0118 | -0.0728 | 0.1248 | 0.7005 | 0.6016 | 0.0879 | 0.2335 | 0.1462 | 0.3881 |
| 113 | 48.07 | -0.04 | -0.1357 | -0.0181 | -0.0865 | 0.1155 | 0.6036 | 0.5891 | 0.0879 | 0.2269 | 0.1493 | 0.3851 |
| 114 | 48.24 | -0.05 | -0.0653 | -0.0123 | -0.0810 | 0.1778 | 0.8501 | 0.6191 | 0.0879 | 0.2401 | 0.1421 | 0.3878 |
| 115 | 48.42 | -0.03 | -0.2100 | -0.0273 | -0.1173 | 0.1362 | 0.5589 | 0.6042 | 0.0892 | 0.2337 | 0.1477 | 0.3867 |
| 116 | 48.60 | -0.04 | -0.1836 | -0.0242 | -0.1044 | 0.1320 | 0.5687 | 0.6029 | 0.0886 | 0.2336 | 0.1470 | 0.3874 |
| 117 | 48.75 | -0.06 | -0.2035 | -0.0351 | -0.1354 | 0.1480 | 0.5129 | 0.6250 | 0.0894 | 0.2444 | 0.1431 | 0.3911 |
| 118 | 48.94 | -0.02 | -0.2147 | -0.0345 | -0.1141 | 0.1624 | 0.5317 | 0.6029 | 0.0891 | 0.2453 | 0.1325 | 0.3843 |
| 119 | 49.13 | -0.06 | -0.2116 | -0.0355 | -0.1114 | 0.1865 | 0.5267 | 0.6981 | 0.0894 | 0.2717 | 0.1281 | 0.3853 |
| 120 | 49.29 | -0.04 | -0.1915 | -0.0334 | -0.1045 | 0.1741 | 0.5457 | 0.6925 | 0.0883 | 0.2669 | 0.1276 | 0.3884 |
| 121 | 49.47 | 0.01 | -0.1641 | -0.0346 | -0.1000 | 0.0891 | 0.6395 | 0.6826 | 0.0889 | 0.2620 | 0.1303 | 0.3838 |
| 122 | 49.64 | 0.01 | -0.1660 | -0.0274 | -0.0963 | 0.1653 | 0.5802 | 0.7203 | 0.0879 | 0.2783 | 0.1211 | 0.3832 |
| 123 | 49.84 | 0.00 | -0.2264 | -0.0214 | -0.1067 | 0.0947 | 0.4835 | 0.6474 | 0.0919 | 0.2458 | 0.1420 | 0.3797 |
| 124 | 50.02 | 0.05 | -0.2002 | -0.0168 | -0.1304 | 0.0847 | 0.5010 | 0.6491 | 0.0856 | 0.2458 | 0.1381 | 0.3787 |
| 125 | 50.19 | 0.05 | -0.0643 | -0.0223 | -0.0422 | 0.3475 | 0.7401 | 0.7004 | 0.0835 | 0.2643 | 0.1211 | 0.3742 |
| 126 | 50.38 | 0.02 | 0.0143 | -0.0170 | -0.0124 | -1.3827 | -1.0081 | 0.7225 | 0.0841 | 0.2690 | 0.1165 | 0.3724 |
| 127 | 50.54 | 0.05 | -0.0376 | -0.0216 | -0.0348 | 0.5717 | 0.9206 | 0.7180 | 0.0843 | 0.2692 | 0.1175 | 0.3750 |
| 128 | 50.73 | 0.07 | 0.0393 | -0.0155 | -0.0053 | -0.3946 | -0.1349 | 0.7436 | 0.0811 | 0.2708 | 0.1091 | 0.3642 |
| 129 | 50.89 | 0.04 | 0.0051 | -0.0203 | -0.0164 | -3.5820 | -3.2157 | 0.7505 | 0.0826 | 0.2773 | 0.1101 | 0.3695 |
| 130 | 51.06 | 0.04 | -0.0006 | -0.0235 | -0.0220 | 39.1823 | 36.6007 | 0.7784 | 0.0796 | 0.2884 | 0.1023 | 0.3679 |
| 131 | 51.26 | 0.04 | -0.0446 | -0.0327 | -0.0369 | 0.7329 | 0.8180 | 0.7940 | 0.0731 | 0.2856 | 0.0921 | 0.3556 |
| 132 | 51.40 | 0.06 | -0.0171 | -0.0261 | -0.0258 | 1.5269 | 1.5068 | 0.7826 | 0.0727 | 0.2794 | 0.0929 | 0.3571 |
| 133 | 51.59 | 0.01 | -0.0476 | -0.0271 | -0.0382 | 0.5708 | 0.8042 | 0.7909 | 0.0742 | 0.2813 | 0.0938 | 0.3557 |
| 134 | 51.79 | 0.04 | -0.0051 | -0.0230 | -0.0163 | 0.3540 | 0.7723 | 0.7642 | 0.0707 | 0.2633 | 0.0925 | 0.3446 |
| 135 | 51.97 | 0.04 | -0.0341 | -0.0149 | -0.0368 | 0.4371 | 1.0792 | 0.7543 | 0.0702 | 0.2543 | 0.0931 | 0.3371 |
| 136 | 52.13 | 0.07 | -0.0520 | -0.0156 | -0.0405 | 0.3817 | 0.7803 | 0.7609 | 0.0713 | 0.2592 | 0.0937 | 0.3407 |
| 137 | 52.30 | 0.06 | -0.0348 | -0.0120 | -0.0331 | 0.3450 | 0.9511 | 0.7477 | 0.0746 | 0.2534 | 0.0958 | 0.3385 |
| 138 | 52.47 | 0.07 | -0.0138 | -0.0054 | -0.0220 | 0.6814 | 1.5942 | 0.7480 | 0.0736 | 0.2505 | 0.0986 | 0.3349 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART III MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
0.6 0.96 1.7 0.0 BLANKETS 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.65 | 0.06 | -0.0031 | -0.0058 | -0.0142 | 1.8717 | 4.5806 | 0.7399 | 0.0767 | 0.2485 | 0.1037 | 0.3359 |
| 140 | 52.80 | 0.08 | -0.0253 | -0.0164 | -0.0245 | 0.3551 | 0.8498 | 0.7532 | 0.0762 | 0.2527 | 0.1012 | 0.3355 |
| 141 | 52.97 | 0.08 | -0.0182 | -0.0081 | -0.0194 | 0.4452 | 1.0659 | 0.7490 | 0.0751 | 0.2512 | 0.1003 | 0.3354 |
| 142 | 53.14 | 0.10 | -0.0125 | -0.0073 | -0.0125 | 0.5242 | 1.0300 | 0.7532 | 0.0746 | 0.2523 | 0.0983 | 0.3350 |
| 143 | 53.29 | 0.09 | -0.0319 | -0.0055 | -0.0201 | 0.2613 | 0.5303 | 0.7619 | 0.0741 | 0.2542 | 0.0973 | 0.3336 |
| 144 | 53.46 | 0.08 | -0.0204 | -0.0051 | -0.0115 | 0.4403 | 0.5833 | 0.7573 | 0.0737 | 0.2527 | 0.1000 | 0.3337 |
| 145 | 53.62 | 0.08 | 0.0008 | -0.0055 | -0.0026 | -6.8777 | -3.0000 | 0.7631 | 0.0748 | 0.2572 | 0.0980 | 0.3371 |
| 146 | 53.79 | 0.07 | -0.0065 | -0.0069 | -0.0013 | 0.0121 | 0.1529 | 0.7521 | 0.0736 | 0.2496 | 0.0979 | 0.3319 |
| 147 | 53.95 | 0.06 | 0.0003 | -0.0041 | 0.0006 | -13.6721 | 2.0000 | 0.7604 | 0.0733 | 0.2546 | 0.0964 | 0.3348 |
| 148 | 54.10 | 0.07 | -0.0048 | -0.0066 | 0.0006 | 1.3755 | -0.1067 | 0.7709 | 0.0717 | 0.2591 | 0.0930 | 0.3361 |
| 149 | 54.27 | 0.07 | -0.0051 | -0.0053 | 0.0023 | 0.5826 | -0.2527 | 0.7707 | 0.0734 | 0.2586 | 0.0953 | 0.3368 |
| 150 | 54.43 | 0.06 | -0.0014 | -0.0066 | 0.0052 | 4.2674 | -3.7143 | 0.7709 | 0.0726 | 0.2563 | 0.0942 | 0.3325 |
| 151 | 54.58 | 0.04 | -0.0009 | -0.0025 | 0.0092 | 2.7789 | -10.2222 | 0.7622 | 0.0729 | 0.2521 | 0.0957 | 0.3307 |
| 152 | 54.73 | 0.07 | 0.0229 | -0.0016 | 0.0198 | -0.0437 | 0.8648 | 0.7515 | 0.0688 | 0.2512 | 0.0916 | 0.3344 |
| 153 | 54.89 | 0.05 | 0.0177 | -0.0001 | 0.0188 | -0.0057 | 1.0621 | 0.7640 | 0.0684 | 0.2548 | 0.0895 | 0.3335 |
| 154 | 55.03 | 0.06 | 0.0074 | -0.0036 | 0.0165 | -0.5272 | 2.5540 | 0.7715 | 0.0667 | 0.2571 | 0.0865 | 0.3332 |
| 155 | 55.18 | 0.02 | 0.0210 | 0.0 | 0.0243 | 0.0 | 1.1571 | 0.7666 | 0.0715 | 0.2525 | 0.0933 | 0.3295 |
| 156 | 55.35 | 0.07 | 0.0226 | 0.0016 | 0.0316 | 0.0376 | 1.1729 | 0.7587 | 0.0663 | 0.2522 | 0.0874 | 0.3324 |
| 157 | 55.50 | 0.03 | 0.0258 | 0.0035 | 0.0307 | 0.1471 | 1.2899 | 0.7501 | 0.0668 | 0.2475 | 0.0891 | 0.3300 |
| 158 | 55.65 | 0.05 | 0.0270 | 0.0052 | 0.0357 | 0.1947 | 1.3222 | 0.7419 | 0.0658 | 0.2438 | 0.0860 | 0.3286 |
| 159 | 55.79 | 0.06 | 0.0218 | 0.0067 | 0.0355 | 0.3103 | 1.6620 | 0.7373 | 0.0642 | 0.2428 | 0.0871 | 0.3293 |
| 160 | 55.97 | 0.05 | 0.0211 | 0.0062 | 0.0398 | 0.2940 | 1.6863 | 0.7272 | 0.0641 | 0.2391 | 0.0882 | 0.3286 |
| 161 | 56.13 | 0.08 | 0.0004 | 0.0074 | 0.0349 | 18.5074 | 87.2501 | 0.7160 | 0.0627 | 0.2323 | 0.0876 | 0.3244 |
| 162 | 56.28 | 0.05 | -0.0187 | 0.0081 | 0.0344 | -0.7014 | -3.9540 | 0.7271 | 0.0627 | 0.2379 | 0.0862 | 0.3266 |
| 163 | 56.43 | 0.04 | -0.0062 | 0.0072 | 0.0348 | -1.1617 | -5.6129 | 0.7483 | 0.0654 | 0.2458 | 0.0874 | 0.3285 |
| 164 | 56.59 | -0.01 | -0.0270 | 0.0074 | 0.0304 | -0.2742 | -1.1444 | 0.7184 | 0.0636 | 0.2322 | 0.0885 | 0.3232 |
| 165 | 56.75 | 0.01 | -0.0273 | 0.0057 | 0.0346 | -0.2089 | -1.2674 | 0.7225 | 0.0646 | 0.2345 | 0.0894 | 0.3251 |
| 166 | 56.88 | 0.02 | -0.0349 | 0.0074 | 0.0307 | -0.2121 | -0.8747 | 0.7198 | 0.0633 | 0.2329 | 0.0879 | 0.3235 |
| 167 | 57.05 | -0.01 | -0.0572 | 0.0068 | 0.0277 | -0.1191 | -0.4851 | 0.7324 | 0.0640 | 0.2365 | 0.0874 | 0.3229 |
| 168 | 57.19 | 0.02 | -0.0465 | 0.0046 | 0.0345 | -0.0991 | -0.7128 | 0.7342 | 0.0625 | 0.2342 | 0.0851 | 0.3258 |
| 169 | 57.35 | -0.00 | -0.0475 | 0.0055 | 0.0358 | -0.1235 | -0.8326 | 0.7441 | 0.0637 | 0.2436 | 0.0856 | 0.3274 |
| 170 | 57.50 | 0.01 | -0.0746 | 0.0058 | 0.0298 | -0.0779 | -0.5973 | 0.7245 | 0.0638 | 0.2337 | 0.0883 | 0.3234 |
| 171 | 57.64 | -0.00 | -0.0685 | 0.0057 | 0.0342 | -0.0834 | -0.5000 | 0.7254 | 0.0640 | 0.2345 | 0.0882 | 0.3233 |
| 172 | 57.80 | -0.01 | -0.0753 | 0.0055 | 0.0304 | -0.0732 | -0.4827 | 0.7510 | 0.0665 | 0.2445 | 0.0886 | 0.3261 |
| 173 | 57.93 | -0.01 | -0.0701 | 0.0055 | 0.0369 | -0.0843 | -0.5271 | 0.7860 | 0.0643 | 0.2581 | 0.0818 | 0.3284 |
| 174 | 58.08 | -0.01 | -0.0655 | 0.0066 | 0.0411 | -0.1040 | -0.6269 | 0.7697 | 0.0641 | 0.2529 | 0.0833 | 0.3286 |
| 175 | 58.21 | -0.11 | -0.0646 | 0.0056 | 0.0385 | -0.0093 | -0.5969 | 0.7875 | 0.0617 | 0.2583 | 0.0784 | 0.3280 |
| 176 | 58.37 | -0.10 | -0.0568 | 0.0012 | 0.0456 | -0.0203 | -0.7049 | 0.7523 | 0.0654 | 0.2440 | 0.0869 | 0.3243 |
| 177 | 58.50 | -0.13 | -0.0571 | 0.0 | 0.0427 | 0.0 | -0.7474 | 0.7519 | 0.0678 | 0.2436 | 0.0902 | 0.3240 |
| 178 | 58.51 | -0.12 | -0.0572 | 0.0018 | 0.0424 | -0.0315 | -0.7408 | 0.7711 | 0.0647 | 0.2513 | 0.0835 | 0.3259 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART PACK RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
111 6.96 1.7 0.0 BLANK 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | -0.01 | -0.0020 | 9.9999 | 0.0130 | 9.9999 | -0.5000 | -0.0385 | -0.0147 | -0.3595 | 0.0176 | 0.4288 |
| 2 | -5.75 | -0.01 | 0.0014 | 9.9999 | 0.0172 | 9.9999 | 3.7391 | -0.0400 | -0.0148 | -0.3613 | 0.0176 | 0.4302 |
| 3 | -5.75 | -0.01 | 0.0073 | 9.9999 | 0.0180 | 9.9999 | 2.4657 | -0.0414 | -0.0150 | -0.3603 | 0.0179 | 0.4282 |
| 4 | -5.76 | -0.02 | 0.0072 | 9.9999 | 0.0185 | 9.9999 | 2.5694 | -0.0342 | -0.0152 | -0.3580 | 0.0183 | 0.4302 |
| 5 | -3.64 | -0.02 | -0.0034 | 9.9999 | 0.0155 | 9.9999 | -4.5586 | -0.9253 | -0.0134 | -0.3521 | 0.0145 | 0.4237 |
| 6 | -2.10 | -0.01 | 0.0030 | 9.9999 | 0.0225 | 9.9999 | 7.0333 | -0.9542 | -0.0156 | -0.3946 | 0.0166 | 0.4135 |
| 7 | -0.31 | -0.02 | -0.0024 | 9.9999 | 0.0214 | 9.9999 | -8.9167 | -0.9306 | -0.0204 | -0.3818 | 0.0220 | 0.4102 |
| 8 | 1.46 | -0.01 | 0.0041 | 9.9999 | 0.0277 | 9.9999 | 6.7561 | -0.9828 | -0.0310 | -0.4079 | 0.0315 | 0.4150 |
| 9 | 3.33 | -0.01 | 0.0108 | 9.9999 | 0.0258 | 9.9999 | 2.7593 | -1.0377 | -0.0432 | -0.4525 | 0.0416 | 0.4360 |
| 10 | 5.01 | -0.01 | 0.0013 | 9.9999 | 0.0250 | 9.9999 | 22.7692 | -0.9779 | -0.0454 | -0.4334 | 0.0464 | 0.4432 |
| 11 | 6.82 | -0.01 | 0.0012 | 9.9999 | 0.0327 | 9.9999 | 27.2500 | -0.8972 | -0.0442 | -0.4072 | 0.0492 | 0.4535 |
| 12 | 8.57 | -0.01 | -0.0015 | 9.9999 | 0.0260 | 9.9999 | -21.3333 | -0.7959 | -0.0387 | -0.3804 | 0.0486 | 0.4535 |
| 13 | 10.35 | -0.01 | -0.0054 | 9.9999 | 0.0285 | 9.9999 | -5.2778 | -0.6769 | -0.0339 | -0.3642 | 0.0499 | 0.4480 |
| 14 | 12.17 | -0.02 | 0.0054 | 9.9999 | 0.0258 | 9.9999 | 5.3333 | -0.5679 | -0.0305 | -0.2488 | 0.0538 | 0.4381 |
| 15 | 13.96 | -0.02 | 0.0042 | 9.9999 | 0.0245 | 9.9999 | 5.8333 | -0.4509 | -0.0283 | -0.1927 | 0.0584 | 0.4275 |
| 16 | 15.65 | -0.02 | 0.0041 | 9.9999 | 0.0271 | 9.9999 | 6.6096 | -0.3496 | -0.0217 | -0.1408 | 0.0659 | 0.4271 |
| 17 | 17.74 | -0.02 | 0.0065 | 9.9999 | 0.0258 | 9.9999 | 3.7391 | -0.2251 | -0.0166 | -0.0916 | 0.0739 | 0.4076 |
| 18 | 19.58 | -0.03 | 0.0017 | 9.9999 | 0.0261 | 9.9999 | 11.8235 | -0.0635 | -0.0084 | -0.0410 | 0.1008 | 0.4904 |
| 19 | 21.45 | -0.03 | 0.0072 | 9.9999 | 0.0200 | 9.9999 | 2.7778 | -0.0203 | 0.0042 | -0.0137 | 0.2076 | 0.6749 |
| 20 | 23.33 | -0.03 | 0.0046 | 9.9999 | 0.0162 | 9.9999 | 3.5417 | 0.0305 | 0.0200 | 0.0070 | 0.2560 | 0.2295 |
| 21 | 25.17 | -0.03 | 0.0113 | 9.9999 | 0.0177 | 9.9999 | 1.5664 | 0.0531 | 0.0324 | 0.0179 | 0.2057 | 0.3377 |
| 22 | 27.10 | -0.01 | 0.0340 | 9.9999 | 0.0264 | 9.9999 | 0.7765 | 0.0706 | 0.0431 | 0.0298 | 0.2102 | 0.4227 |
| 23 | 28.20 | -0.02 | 0.0281 | 9.9999 | 0.0221 | 9.9999 | 0.8467 | 0.0967 | 0.0475 | 0.0444 | 0.4805 | 0.4493 |
| 24 | 28.68 | 0.01 | 0.0354 | 9.9999 | 0.0274 | 9.9999 | 0.6954 | 0.0700 | 0.0475 | 0.0327 | 0.6734 | 0.4678 |
| 25 | 28.68 | 0.03 | 0.0445 | 9.9999 | 0.0300 | 9.9999 | 0.6698 | 0.0833 | 0.0488 | 0.0384 | 0.5856 | 0.4615 |
| 26 | 28.98 | 0.03 | 0.0394 | 9.9999 | 0.0285 | 9.9999 | 0.7233 | 0.0855 | 0.0511 | 0.0302 | 0.7861 | 0.4618 |
| 27 | 29.27 | 0.04 | 0.0518 | 9.9999 | 0.0321 | 9.9999 | 0.6233 | 0.0869 | 0.0535 | 0.0394 | 0.6155 | 0.4535 |
| 28 | 29.58 | 0.02 | 0.0422 | 9.9999 | 0.0258 | 9.9999 | 0.7078 | 0.1062 | 0.0545 | 0.0489 | 0.5129 | 0.4596 |
| 29 | 29.87 | 0.05 | 0.0502 | 9.9999 | 0.0325 | 9.9999 | 0.6487 | 0.1158 | 0.0565 | 0.0533 | 0.4877 | 0.4598 |
| 30 | 30.15 | 0.05 | 0.0570 | 9.9999 | 0.0358 | 9.9999 | 0.6292 | 0.1362 | 0.0589 | 0.0637 | 0.4325 | 0.4676 |
| 31 | 30.40 | 0.05 | 0.0478 | 9.9999 | 0.0313 | 9.9999 | 0.6589 | 0.1421 | 0.0592 | 0.0658 | 0.4167 | 0.4630 |
| 32 | 30.70 | 0.05 | 0.0503 | 9.9999 | 0.0326 | 9.9999 | 0.6494 | 0.1741 | 0.0620 | 0.0815 | 0.3561 | 0.4681 |
| 33 | 30.98 | 0.05 | 0.0423 | 9.9999 | 0.0282 | 9.9999 | 0.6662 | 0.1743 | 0.0617 | 0.0820 | 0.3540 | 0.4704 |
| 34 | 31.24 | 0.06 | 0.0410 | 9.9999 | 0.0271 | 9.9999 | 0.6626 | 0.1830 | 0.0624 | 0.0839 | 0.3409 | 0.4584 |
| 35 | 31.52 | 0.05 | 0.0530 | 9.9999 | 0.0326 | 9.9999 | 0.6200 | 0.2154 | 0.0646 | 0.0995 | 0.3000 | 0.4621 |
| 36 | 31.79 | 0.04 | 0.0423 | 9.9999 | 0.0288 | 9.9999 | 0.6825 | 0.2181 | 0.0652 | 0.1010 | 0.2990 | 0.4633 |
| 37 | 32.07 | 0.06 | 0.0570 | 9.9999 | 0.0347 | 9.9999 | 0.6098 | 0.2413 | 0.0675 | 0.1126 | 0.2798 | 0.4868 |
| 38 | 32.34 | 0.06 | 0.0584 | 9.9999 | 0.0343 | 9.9999 | 0.5883 | 0.2170 | 0.0675 | 0.1029 | 0.3112 | 0.4744 |
| 39 | 32.59 | 0.06 | 0.0611 | 9.9999 | 0.0355 | 9.9999 | 0.5820 | 0.2200 | 0.0677 | 0.1043 | 0.3078 | 0.4743 |
| 40 | 32.87 | 0.05 | 0.0477 | 9.9999 | 0.0297 | 9.9999 | 0.6239 | 0.2435 | 0.0692 | 0.1152 | 0.2842 | 0.4733 |
| 41 | 33.13 | 0.05 | 0.0451 | 9.9999 | 0.0285 | 9.9999 | 0.5978 | 0.2395 | 0.0711 | 0.1152 | 0.2969 | 0.4812 |
| 42 | 33.36 | 0.05 | 0.0584 | 9.9999 | 0.0343 | 9.9999 | 0.5883 | 0.2042 | 0.0720 | 0.1004 | 0.3528 | 0.4919 |
| 43 | 33.61 | 0.05 | 0.0664 | 9.9999 | 0.0370 | 9.9999 | 0.5581 | 0.2251 | 0.0737 | 0.1068 | 0.3305 | 0.4879 |
| 44 | 33.87 | 0.06 | 0.0611 | 9.9999 | 0.0334 | 9.9999 | 0.5475 | 0.1981 | 0.0742 | 0.0974 | 0.3746 | 0.4917 |
| 45 | 34.13 | 0.04 | 0.0564 | 9.9999 | 0.0321 | 9.9999 | 0.5506 | 0.1935 | 0.0743 | 0.0954 | 0.3846 | 0.4930 |
| 46 | 34.39 | 0.04 | 0.0624 | 9.9999 | 0.0340 | 9.9999 | 0.5457 | 0.2143 | 0.0755 | 0.1056 | 0.3525 | 0.4930 |

TEST 7 PART 111 MACH 0.90 RATIO-E 1.7 PHI 0.0 CONF BIDUFIS L 0.C DELT 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.62 | 0.05 | 0.0564 | 5.9999 | 0.0321 | 5.9999 | 0.5506 | 0.2303 | 0.0767 | 0.1125 | 0.3332 | 0.4887 |
| 48 | 34.85 | 0.03 | 0.0478 | 5.9999 | 0.0270 | 5.9999 | 0.5060 | 0.2451 | 0.0775 | 0.1193 | 0.3163 | 0.4865 |
| 49 | 35.12 | 0.03 | 0.0518 | 5.9999 | 0.0285 | 5.9999 | 0.5590 | 0.2542 | 0.0775 | 0.1235 | 0.3050 | 0.4858 |
| 50 | 35.36 | 0.02 | 0.0451 | 5.9999 | 0.0263 | 5.9999 | 0.5044 | 0.2657 | 0.0787 | 0.1290 | 0.2963 | 0.4853 |
| 51 | 35.59 | 0.01 | 0.0424 | 5.9999 | 0.0245 | 5.9999 | 0.5792 | 0.2774 | 0.0796 | 0.1345 | 0.2870 | 0.4847 |
| 52 | 35.84 | -0.01 | 0.0404 | 5.9999 | 0.0234 | 5.9999 | 0.5702 | 0.2885 | 0.0799 | 0.1392 | 0.2831 | 0.4816 |
| 53 | 36.08 | -0.01 | 0.0423 | 5.9999 | 0.0266 | 5.9999 | 0.6303 | 0.3101 | 0.0811 | 0.1511 | 0.2616 | 0.4872 |
| 54 | 36.31 | -0.01 | 0.0343 | 5.9999 | 0.0226 | 5.9999 | 0.6047 | 0.3386 | 0.0818 | 0.1657 | 0.2417 | 0.4894 |
| 55 | 36.55 | -0.03 | 0.0343 | 5.9999 | 0.0218 | 5.9999 | 0.6356 | 0.3309 | 0.0819 | 0.1617 | 0.2476 | 0.4867 |
| 56 | 36.79 | -0.01 | 0.0356 | 5.9999 | 0.0253 | 5.9999 | 0.6389 | 0.3553 | 0.0816 | 0.1736 | 0.2303 | 0.4886 |
| 57 | 37.02 | -0.02 | 0.0355 | 5.9999 | 0.0226 | 5.9999 | 0.6664 | 0.3701 | 0.0826 | 0.1821 | 0.2233 | 0.4922 |
| 58 | 37.29 | -0.00 | 0.0235 | 5.9999 | 0.0158 | 5.9999 | 0.8426 | 0.3728 | 0.0834 | 0.1835 | 0.2238 | 0.4923 |
| 59 | 37.52 | -0.01 | 0.0275 | 5.9999 | 0.0217 | 5.9999 | 0.7891 | 0.3924 | 0.0837 | 0.1923 | 0.2134 | 0.4902 |
| 60 | 37.74 | -0.03 | 0.0315 | 5.9999 | 0.0237 | 5.9999 | 0.7524 | 0.3996 | 0.0843 | 0.1957 | 0.2111 | 0.4899 |
| 61 | 38.01 | -0.00 | 0.0345 | 5.9999 | 0.0275 | 5.9999 | 0.6962 | 0.4014 | 0.0837 | 0.1969 | 0.2086 | 0.4906 |
| 62 | 38.24 | 0.00 | 0.0366 | 5.9999 | 0.0262 | 5.9999 | 0.7120 | 0.4195 | 0.0839 | 0.2045 | 0.2001 | 0.4874 |
| 63 | 38.47 | -0.00 | 0.0235 | 5.9999 | 0.0205 | 5.9999 | 0.8394 | 0.4300 | 0.0840 | 0.2087 | 0.1954 | 0.4852 |
| 64 | 38.72 | -0.00 | 0.0364 | 5.9999 | 0.0285 | 5.9999 | 0.7233 | 0.4510 | 0.0848 | 0.2187 | 0.1881 | 0.4849 |
| 65 | 38.93 | -0.00 | 0.0314 | 5.9999 | 0.0252 | 5.9999 | 0.8025 | 0.4355 | 0.0852 | 0.2109 | 0.1957 | 0.4841 |
| 66 | 39.14 | -0.01 | 0.0261 | 5.9999 | 0.0257 | 5.9999 | 0.9060 | 0.4501 | 0.0857 | 0.2211 | 0.1872 | 0.4826 |
| 67 | 39.40 | -0.01 | 0.0260 | 5.9999 | 0.0253 | 5.9999 | 0.9731 | 0.4566 | 0.0857 | 0.2193 | 0.1878 | 0.4803 |
| 68 | 39.61 | -0.03 | 0.0221 | 5.9999 | 0.0216 | 5.9999 | 0.9864 | 0.4704 | 0.0852 | 0.2253 | 0.1812 | 0.4789 |
| 69 | 39.81 | -0.00 | 0.0234 | 5.9999 | 0.0235 | 5.9999 | 1.0043 | 0.4641 | 0.0851 | 0.2319 | 0.1759 | 0.4790 |
| 70 | 40.05 | -0.04 | 0.0207 | 5.9999 | 0.0228 | 5.9999 | 1.1014 | 0.4939 | 0.0867 | 0.2345 | 0.1756 | 0.4748 |
| 71 | 40.26 | -0.01 | 0.0180 | 5.9999 | 0.0221 | 5.9999 | 1.2278 | 0.4831 | 0.0872 | 0.2316 | 0.1806 | 0.4794 |
| 72 | 40.46 | -0.05 | 0.0207 | 5.9999 | 0.0217 | 5.9999 | 1.0483 | 0.4921 | 0.0875 | 0.2381 | 0.1768 | 0.4805 |
| 73 | 40.65 | -0.03 | 0.0220 | 5.9999 | 0.0165 | 5.9999 | 2.8167 | 0.4773 | 0.0866 | 0.2282 | 0.1815 | 0.4781 |
| 74 | 40.85 | -0.05 | 0.0173 | 5.9999 | 0.0160 | 5.9999 | 2.4057 | 0.4831 | 0.0871 | 0.2321 | 0.1804 | 0.4804 |
| 75 | 41.08 | -0.04 | 0.0193 | 5.9999 | 0.0227 | 5.9999 | 1.1762 | 0.4950 | 0.0876 | 0.2375 | 0.1771 | 0.4798 |
| 76 | 41.27 | -0.05 | 0.0233 | 5.9999 | 0.0241 | 5.9999 | 1.0343 | 0.4983 | 0.0870 | 0.2383 | 0.1747 | 0.4782 |
| 77 | 41.50 | -0.03 | 0.0113 | 5.9999 | 0.0125 | 5.9999 | 1.6726 | 0.4847 | 0.0870 | 0.2322 | 0.1796 | 0.4796 |
| 78 | 41.72 | -0.04 | 0.0327 | 5.9999 | 0.0274 | 5.9999 | 0.8379 | 0.4819 | 0.0873 | 0.2344 | 0.1891 | 0.4658 |
| 79 | 41.91 | -0.03 | 0.0180 | 5.9999 | 0.0210 | 5.9999 | 1.1667 | 0.4754 | 0.0875 | 0.2294 | 0.1842 | 0.4825 |
| 80 | 42.12 | -0.05 | 0.0140 | 5.9999 | 0.0207 | 5.9999 | 1.4786 | 0.5050 | 0.0889 | 0.2430 | 0.1761 | 0.4812 |
| 81 | 42.31 | -0.04 | 0.0233 | 5.9999 | 0.0251 | 5.9999 | 1.0772 | 0.4739 | 0.0875 | 0.2287 | 0.1847 | 0.4828 |
| 82 | 42.50 | -0.02 | 0.0287 | 5.9999 | 0.0261 | 5.9999 | 0.9094 | 0.5190 | 0.0881 | 0.2478 | 0.1698 | 0.4774 |
| 83 | 42.66 | 0.00 | 0.0255 | 5.9999 | 0.0205 | 5.9999 | 1.0386 | 0.5069 | 0.0882 | 0.2447 | 0.1741 | 0.4827 |
| 84 | 42.87 | -0.01 | 0.0233 | 5.9999 | 0.0246 | 5.9999 | 1.0356 | 0.4859 | 0.0876 | 0.2358 | 0.1808 | 0.4853 |
| 85 | 43.05 | -0.05 | 0.0232 | 5.9999 | 0.0207 | 5.9999 | 1.1509 | 0.5101 | 0.0879 | 0.2471 | 0.1724 | 0.4844 |
| 86 | 43.23 | -0.03 | 0.0232 | 5.9999 | 0.0251 | 5.9999 | 1.0819 | 0.4924 | 0.0883 | 0.2388 | 0.1794 | 0.4850 |
| 87 | 43.40 | -0.04 | 0.0232 | 5.9999 | 0.0261 | 5.9999 | 1.1250 | 0.4953 | 0.0884 | 0.2407 | 0.1786 | 0.4860 |
| 88 | 43.61 | -0.03 | 0.0195 | 5.9999 | 0.0214 | 5.9999 | 1.3252 | 0.5137 | 0.0879 | 0.2487 | 0.1712 | 0.4841 |
| 89 | 43.76 | -0.03 | 0.0253 | 5.9999 | 0.0218 | 5.9999 | 1.4248 | 0.5210 | 0.0884 | 0.2521 | 0.1697 | 0.4835 |
| 90 | 43.99 | -0.03 | 0.0272 | 5.9999 | 0.0270 | 5.9999 | 0.9926 | 0.4894 | 0.0881 | 0.2380 | 0.1801 | 0.4863 |
| 91 | 44.13 | -0.03 | 0.0255 | 5.9999 | 0.0263 | 5.9999 | 1.0154 | 0.4904 | 0.0882 | 0.2383 | 0.1820 | 0.4855 |
| 92 | 44.30 | -0.02 | 0.0215 | 5.9999 | 0.0245 | 5.9999 | 1.1187 | 0.5139 | 0.0890 | 0.2458 | 0.1733 | 0.4783 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(KSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 111 MACH 0.60 RX1C-6 1.7 PHI 0.0 CONF 15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.49 | -0.05 | 0.0352 | 0.9999 | 0.0306 | 0.9999 | 0.8750 | 0.4781 | 0.0890 | 0.2335 | 0.1870 | 0.4904 |
| 94 | 44.70 | -0.04 | 0.0246 | 0.9999 | 0.0245 | 0.9999 | 1.2007 | 0.4911 | 0.0893 | 0.2392 | 0.1815 | 0.4871 |
| 95 | 44.87 | -0.01 | 0.0352 | 0.9999 | 0.0332 | 0.9999 | 0.8469 | 0.4964 | 0.0838 | 0.2405 | 0.1757 | 0.4864 |
| 96 | 45.00 | -0.07 | 0.0152 | 0.9999 | 0.0234 | 0.9999 | 1.5395 | 0.5061 | 0.0896 | 0.2448 | 0.1771 | 0.4837 |
| 97 | 45.24 | -0.07 | 0.0066 | 0.9999 | 0.0202 | 0.9999 | 2.3486 | 0.5061 | 0.0856 | 0.2448 | 0.1771 | 0.4837 |
| 98 | 45.43 | -0.05 | 0.0153 | 0.9999 | 0.0213 | 0.9999 | 1.3922 | 0.5103 | 0.0894 | 0.2456 | 0.1726 | 0.4816 |
| 99 | 45.60 | -0.05 | 0.0165 | 0.9999 | 0.0215 | 0.9999 | 1.1944 | 0.5031 | 0.0894 | 0.2434 | 0.1778 | 0.4838 |
| 100 | 45.80 | -0.05 | 0.0146 | 0.9999 | 0.0207 | 0.9999 | 1.4786 | 0.5424 | 0.0897 | 0.2598 | 0.1655 | 0.4790 |
| 101 | 45.97 | -0.05 | 0.0215 | 0.9999 | 0.0255 | 0.9999 | 1.1644 | 0.5095 | 0.0900 | 0.2454 | 0.1767 | 0.4816 |
| 102 | 46.14 | -0.03 | 0.0339 | 0.9999 | 0.0341 | 0.9999 | 0.8079 | 0.5126 | 0.0899 | 0.2467 | 0.1755 | 0.4812 |
| 103 | 46.32 | -0.06 | 0.0233 | 0.9999 | 0.0248 | 0.9999 | 1.0558 | 0.5304 | 0.0894 | 0.2543 | 0.1687 | 0.4795 |
| 104 | 46.50 | -0.04 | 0.0312 | 0.9999 | 0.0294 | 0.9999 | 0.9423 | 0.5211 | 0.0896 | 0.2503 | 0.1720 | 0.4803 |
| 105 | 46.68 | -0.03 | 0.0313 | 0.9999 | 0.0273 | 0.9999 | 0.8722 | 0.5303 | 0.0896 | 0.2555 | 0.1691 | 0.4819 |
| 106 | 46.84 | -0.05 | 0.0335 | 0.9999 | 0.0304 | 0.9999 | 0.8909 | 0.5229 | 0.0898 | 0.2521 | 0.1703 | 0.4821 |
| 107 | 47.02 | -0.02 | 0.0295 | 0.9999 | 0.0282 | 0.9999 | 0.9431 | 0.5355 | 0.0893 | 0.2566 | 0.1665 | 0.4792 |
| 108 | 47.19 | -0.04 | 0.0206 | 0.9999 | 0.0236 | 0.9999 | 1.1553 | 0.5448 | 0.0890 | 0.2612 | 0.1635 | 0.4795 |
| 109 | 47.36 | -0.03 | 0.0255 | 0.9999 | 0.0275 | 0.9999 | 1.0772 | 0.5408 | 0.0894 | 0.2590 | 0.1654 | 0.4796 |
| 110 | 47.55 | -0.04 | 0.0352 | 0.9999 | 0.0327 | 0.9999 | 0.8342 | 0.5376 | 0.0898 | 0.2571 | 0.1671 | 0.4783 |
| 111 | 47.72 | -0.04 | 0.0175 | 0.9999 | 0.0231 | 0.9999 | 1.2905 | 0.5479 | 0.0897 | 0.2700 | 0.1580 | 0.4755 |
| 112 | 47.89 | -0.06 | 0.0205 | 0.9999 | 0.0255 | 0.9999 | 1.2034 | 0.5545 | 0.0892 | 0.2650 | 0.1610 | 0.4780 |
| 113 | 48.07 | -0.04 | 0.0256 | 0.9999 | 0.0274 | 0.9999 | 1.0620 | 0.5480 | 0.0886 | 0.2730 | 0.1534 | 0.4724 |
| 114 | 48.24 | -0.05 | 0.0300 | 0.9999 | 0.0272 | 0.9999 | 0.9067 | 0.5541 | 0.0898 | 0.2650 | 0.1622 | 0.4783 |
| 115 | 48.42 | -0.03 | 0.0095 | 0.9999 | 0.0203 | 0.9999 | 2.0505 | 0.5827 | 0.0901 | 0.2778 | 0.1547 | 0.4768 |
| 116 | 48.60 | -0.04 | 0.0205 | 0.9999 | 0.0254 | 0.9999 | 1.2390 | 0.5662 | 0.0895 | 0.2779 | 0.1524 | 0.4741 |
| 117 | 48.75 | -0.00 | 0.0128 | 0.9999 | 0.0210 | 0.9999 | 1.6667 | 0.5843 | 0.0909 | 0.2777 | 0.1556 | 0.4753 |
| 118 | 48.94 | -0.02 | 0.0165 | 0.9999 | 0.0225 | 0.9999 | 1.3879 | 0.5808 | 0.0913 | 0.2806 | 0.1505 | 0.4725 |
| 119 | 49.13 | -0.00 | 0.0165 | 0.9999 | 0.0225 | 0.9999 | 1.3879 | 0.6050 | 0.0928 | 0.2854 | 0.1533 | 0.4716 |
| 120 | 49.29 | -0.04 | 0.0112 | 0.9999 | 0.0204 | 0.9999 | 1.8214 | 0.6058 | 0.0912 | 0.2874 | 0.1506 | 0.4743 |
| 121 | 49.47 | 0.01 | 0.0324 | 0.9999 | 0.0304 | 0.9999 | 0.9383 | 0.6083 | 0.0876 | 0.3094 | 0.1311 | 0.4625 |
| 122 | 49.64 | 0.01 | 0.0258 | 0.9999 | 0.0268 | 0.9999 | 1.0388 | 0.6076 | 0.0898 | 0.3010 | 0.1387 | 0.4647 |
| 123 | 49.84 | 0.00 | 0.0350 | 0.9999 | 0.0317 | 0.9999 | 0.9057 | 0.6564 | 0.0837 | 0.2979 | 0.1276 | 0.4538 |
| 124 | 50.02 | 0.05 | 0.0443 | 0.9999 | 0.0366 | 0.9999 | 0.8261 | 0.7003 | 0.0835 | 0.3200 | 0.1193 | 0.4570 |
| 125 | 50.19 | 0.05 | 0.0257 | 0.9999 | 0.0283 | 0.9999 | 1.1012 | 0.5807 | 0.0876 | 0.2778 | 0.1513 | 0.4786 |
| 126 | 50.38 | 0.02 | 0.0310 | 0.9999 | 0.0308 | 0.9999 | 0.9935 | 0.5841 | 0.0899 | 0.2817 | 0.1540 | 0.4823 |
| 127 | 50.54 | 0.05 | 0.0576 | 0.9999 | 0.0446 | 0.9999 | 0.7766 | 0.5960 | 0.0903 | 0.2872 | 0.1516 | 0.4818 |
| 128 | 50.73 | 0.07 | 0.0362 | 0.9999 | 0.0326 | 0.9999 | 0.9061 | 0.5942 | 0.0910 | 0.2869 | 0.1542 | 0.4827 |
| 129 | 50.89 | 0.04 | 0.0335 | 0.9999 | 0.0331 | 0.9999 | 0.9881 | 0.5859 | 0.0904 | 0.2832 | 0.1544 | 0.4834 |
| 130 | 51.06 | 0.04 | 0.0335 | 0.9999 | 0.0336 | 0.9999 | 1.0030 | 0.6005 | 0.0910 | 0.2889 | 0.1516 | 0.4810 |
| 131 | 51.26 | 0.04 | 0.0336 | 0.9999 | 0.0310 | 0.9999 | 0.9226 | 0.5946 | 0.0907 | 0.2850 | 0.1526 | 0.4794 |
| 132 | 51.40 | 0.06 | 0.0310 | 0.9999 | 0.0297 | 0.9999 | 0.9561 | 0.5916 | 0.0907 | 0.2847 | 0.1534 | 0.4813 |
| 133 | 51.59 | 0.01 | 0.0349 | 0.9999 | 0.0318 | 0.9999 | 0.9054 | 0.5859 | 0.0896 | 0.2813 | 0.1530 | 0.4802 |
| 134 | 51.79 | 0.04 | 0.0376 | 0.9999 | 0.0323 | 0.9999 | 0.8590 | 0.5924 | 0.0884 | 0.2794 | 0.1493 | 0.4717 |
| 135 | 51.97 | 0.04 | 0.0385 | 0.9999 | 0.0315 | 0.9999 | 0.8201 | 0.6187 | 0.0900 | 0.2895 | 0.1456 | 0.4679 |
| 136 | 52.13 | 0.07 | 0.0363 | 0.9999 | 0.0312 | 0.9999 | 0.8595 | 0.6065 | 0.0881 | 0.2847 | 0.1448 | 0.4679 |
| 137 | 52.30 | 0.06 | 0.0465 | 0.9999 | 0.0362 | 0.9999 | 0.7735 | 0.6265 | 0.0893 | 0.2921 | 0.1426 | 0.4662 |
| 138 | 52.47 | 0.07 | 0.0443 | 0.9999 | 0.0335 | 0.9999 | 0.7870 | 0.6285 | 0.0884 | 0.2954 | 0.1407 | 0.4700 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 111 MACH 0.6C RX10-6 1.7 PHI C.C CONF 15 C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCANT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 135 | 52.65 | 0.06 | 0.0443 | 5.5555 | 0.0361 | 5.9999 | 0.8167 | 0.6268 | 0.0876 | 0.2938 | 0.1398 | 0.4687 |
| 140 | 52.66 | 0.00 | 0.0456 | 5.5555 | 0.0361 | 5.5555 | 0.7934 | 0.6237 | 0.0885 | 0.2917 | 0.1420 | 0.4677 |
| 141 | 52.97 | 0.06 | 0.0430 | 5.5555 | 0.0336 | 5.5559 | 0.7875 | 0.6215 | 0.0871 | 0.2930 | 0.1402 | 0.4714 |
| 142 | 53.14 | 0.10 | 0.0417 | 5.5555 | 0.0332 | 5.5559 | 0.7901 | 0.6200 | 0.0881 | 0.2962 | 0.1404 | 0.4716 |
| 143 | 53.29 | 0.05 | 0.0356 | 5.5555 | 0.0306 | 5.9999 | 0.8743 | 0.6155 | 0.0860 | 0.2899 | 0.1398 | 0.4716 |
| 144 | 53.46 | 0.08 | 0.0470 | 5.5555 | 0.0303 | 5.9999 | 0.7740 | 0.6315 | 0.0889 | 0.2962 | 0.1377 | 0.4690 |
| 145 | 53.62 | 0.06 | 0.0516 | 5.5555 | 0.0371 | 5.9999 | 0.7265 | 0.6295 | 0.0879 | 0.2968 | 0.1357 | 0.4714 |
| 146 | 53.79 | 0.07 | 0.0465 | 5.5555 | 0.0357 | 5.9999 | 0.7626 | 0.6230 | 0.0866 | 0.2913 | 0.1391 | 0.4675 |
| 147 | 53.95 | 0.06 | 0.0385 | 5.5555 | 0.0325 | 5.5555 | 0.8355 | 0.6358 | 0.0869 | 0.2948 | 0.1367 | 0.4636 |
| 148 | 54.10 | 0.07 | 0.0363 | 5.5555 | 0.0306 | 5.5999 | 0.8430 | 0.6268 | 0.0868 | 0.2923 | 0.1381 | 0.4648 |
| 149 | 54.27 | 0.07 | 0.0417 | 5.5555 | 0.0316 | 5.5555 | 0.7596 | 0.6378 | 0.0868 | 0.2951 | 0.1362 | 0.4626 |
| 150 | 54.43 | 0.06 | 0.0363 | 5.5555 | 0.0306 | 5.5555 | 0.7011 | 0.6370 | 0.0852 | 0.2932 | 0.1338 | 0.4602 |
| 151 | 54.58 | 0.06 | 0.0323 | 5.5555 | 0.0306 | 5.5555 | 0.8430 | 0.6382 | 0.0856 | 0.2933 | 0.1345 | 0.4595 |
| 152 | 54.73 | 0.07 | 0.0469 | 5.5555 | 0.0341 | 5.9999 | 0.7266 | 0.6358 | 0.0854 | 0.2911 | 0.1344 | 0.4578 |
| 153 | 54.89 | 0.05 | 0.0443 | 5.5555 | 0.0335 | 5.5559 | 0.7670 | 0.6377 | 0.0864 | 0.2911 | 0.1356 | 0.4564 |
| 154 | 55.03 | 0.06 | 0.0363 | 5.5555 | 0.0341 | 5.9999 | 0.8292 | 0.6443 | 0.0852 | 0.2936 | 0.1323 | 0.4556 |
| 155 | 55.18 | 0.02 | 0.0430 | 5.5555 | 0.0333 | 5.5555 | 0.7762 | 0.6491 | 0.0845 | 0.2944 | 0.1302 | 0.4535 |
| 156 | 55.35 | 0.07 | 0.0385 | 5.5555 | 0.0315 | 5.5595 | 0.8046 | 0.6493 | 0.0849 | 0.2936 | 0.1308 | 0.4521 |
| 157 | 55.50 | 0.03 | 0.0382 | 5.5555 | 0.0306 | 5.5555 | 0.8453 | 0.6532 | 0.0830 | 0.2952 | 0.1271 | 0.4515 |
| 158 | 55.65 | 0.05 | 0.0323 | 5.5555 | 0.0287 | 5.9999 | 0.8885 | 0.6461 | 0.0821 | 0.2896 | 0.1271 | 0.4482 |
| 159 | 55.79 | 0.06 | 0.0375 | 5.5555 | 0.0323 | 5.5559 | 0.8013 | 0.6706 | 0.0835 | 0.3016 | 0.1252 | 0.4497 |
| 160 | 55.97 | 0.03 | 0.0378 | 5.5555 | 0.0291 | 5.5559 | 0.7739 | 0.6683 | 0.0824 | 0.2990 | 0.1233 | 0.4473 |
| 161 | 56.13 | 0.06 | 0.0385 | 5.9999 | 0.0303 | 5.5595 | 0.7789 | 0.6697 | 0.0796 | 0.2975 | 0.1189 | 0.4442 |
| 162 | 56.28 | 0.05 | 0.0310 | 5.5555 | 0.0276 | 5.9999 | 0.8903 | 0.6752 | 0.0825 | 0.2987 | 0.1222 | 0.4423 |
| 163 | 56.43 | 0.04 | 0.0383 | 5.5555 | 0.0285 | 5.5599 | 0.7851 | 0.6695 | 0.0817 | 0.2960 | 0.1221 | 0.4421 |
| 164 | 56.59 | -0.01 | 0.0430 | 5.5555 | 0.0332 | 5.5559 | 0.7739 | 0.6564 | 0.0751 | 0.2923 | 0.1144 | 0.4452 |
| 165 | 56.75 | 0.01 | 0.0305 | 5.5555 | 0.0292 | 5.5555 | 0.9450 | 0.6651 | 0.0758 | 0.2958 | 0.1140 | 0.4447 |
| 166 | 56.88 | 0.04 | 0.0336 | 5.5555 | 0.0295 | 5.5559 | 0.8899 | 0.6663 | 0.0763 | 0.2960 | 0.1145 | 0.4442 |
| 167 | 57.05 | -0.01 | 0.0337 | 5.5555 | 0.0278 | 5.5599 | 0.8249 | 0.6567 | 0.0735 | 0.2918 | 0.1120 | 0.4443 |
| 168 | 57.19 | 0.04 | 0.0365 | 5.5555 | 0.0315 | 5.5555 | 0.8201 | 0.6533 | 0.0726 | 0.2932 | 0.1105 | 0.4487 |
| 169 | 57.35 | -0.00 | 0.0297 | 5.5555 | 0.0284 | 5.9999 | 0.8889 | 0.6634 | 0.0728 | 0.2968 | 0.1098 | 0.4473 |
| 170 | 57.50 | 0.01 | 0.0310 | 5.5555 | 0.0285 | 5.5999 | 0.8546 | 0.6491 | 0.0704 | 0.2888 | 0.1092 | 0.4445 |
| 171 | 57.64 | -0.00 | 0.0231 | 5.5555 | 0.0245 | 5.5555 | 1.0779 | 0.6564 | 0.0690 | 0.2925 | 0.1051 | 0.4462 |
| 172 | 57.80 | -0.01 | 0.0264 | 5.5555 | 0.0263 | 5.5559 | 0.9261 | 0.6669 | 0.0691 | 0.3004 | 0.1036 | 0.4504 |
| 173 | 57.93 | -0.07 | 0.0231 | 5.5555 | 0.0238 | 5.5595 | 1.0303 | 0.6739 | 0.0700 | 0.3022 | 0.1035 | 0.4484 |
| 174 | 58.08 | -0.07 | 0.0152 | 5.5555 | 0.0208 | 5.5559 | 1.3523 | 0.6797 | 0.0693 | 0.3023 | 0.1020 | 0.4447 |
| 175 | 58.21 | -0.11 | 0.0179 | 5.5555 | 0.0208 | 5.9999 | 1.1620 | 0.6245 | 0.0658 | 0.2826 | 0.1054 | 0.4526 |
| 176 | 58.37 | -0.10 | 0.0231 | 5.5555 | 0.0245 | 5.9999 | 1.0779 | 0.6391 | 0.0636 | 0.2878 | 0.0995 | 0.4503 |
| 177 | 58.50 | -0.13 | 0.0151 | 5.5555 | 0.0235 | 5.9999 | 1.2304 | 0.6360 | 0.0607 | 0.2872 | 0.0954 | 0.4515 |
| 178 | 58.51 | -0.12 | 0.0152 | 5.5555 | 0.0201 | 5.9999 | 1.3224 | 0.6198 | 0.0631 | 0.2818 | 0.1018 | 0.4548 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 112 MACH 1.00 RX10-6 1.7 PHI 0.0 CONF B1N0F15 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.50 | -0.00 | -2.1387 | 7.8726 | -0.0102 | -0.0454 | -0.0025 | 1.3481 | 0.3925 | 0.9556 | -3.6845 |
| 2 | -5.42 | -0.02 | -2.1220 | 7.8546 | -0.0323 | -0.0445 | 0.0033 | 1.3455 | 0.3912 | 0.9543 | -3.7012 |
| 3 | -5.92 | -0.01 | -2.1366 | 7.8378 | -0.0180 | -0.0229 | -0.0026 | 1.3454 | 0.3943 | 0.9511 | -3.6683 |
| 4 | -5.09 | -0.01 | -2.0116 | 7.7069 | 0.0206 | -0.0596 | -0.0020 | 1.3347 | 0.3714 | 0.9633 | -3.6666 |
| 5 | -3.24 | -0.01 | -1.8642 | 7.6158 | 0.0685 | -0.1604 | 0.0160 | 1.3068 | 0.3631 | 0.9437 | -4.0875 |
| 6 | -1.54 | -0.01 | -1.6765 | 8.2165 | 0.0335 | -0.0601 | 0.0051 | 1.3203 | 0.3260 | 0.9943 | -4.3882 |
| 7 | 0.27 | -0.01 | -1.7381 | 8.1256 | 0.0841 | -0.1150 | 0.0056 | 1.2933 | 0.3095 | 0.9838 | -4.6746 |
| 8 | 2.02 | -0.01 | -1.5847 | 7.9632 | 0.0003 | -0.0647 | 0.0002 | 1.2550 | 0.2839 | 0.9691 | -5.6250 |
| 9 | 3.80 | -0.01 | -1.3489 | 7.3955 | 0.0850 | -0.1041 | 0.0064 | 1.1941 | 0.2737 | 0.9204 | -5.4814 |
| 10 | 5.59 | -0.01 | -1.0454 | 6.6756 | 0.0356 | -0.0416 | 0.0007 | 1.0991 | 0.2567 | 0.8423 | -6.3887 |
| 11 | 7.45 | -0.01 | -0.7450 | 6.0487 | 0.0514 | -0.0529 | 0.0072 | 1.0223 | 0.2537 | 0.7686 | -8.0758 |
| 12 | 9.23 | -0.01 | -0.4319 | 5.3809 | 0.0000 | -0.0000 | 0.0134 | 0.9474 | 0.2526 | 0.6948 | -12.4579 |
| 13 | 11.08 | -0.02 | -0.1162 | 4.7243 | -0.0323 | -0.0057 | 0.0139 | 0.8717 | 0.2467 | 0.6249 | -40.6705 |
| 14 | 12.89 | -0.01 | 0.2391 | 4.1128 | -0.0048 | 0.0397 | 0.0203 | 0.7994 | 0.2422 | 0.5572 | 17.1996 |
| 15 | 14.75 | -0.01 | 0.5922 | 3.5148 | 0.0066 | 0.0185 | 0.0095 | 0.7367 | 0.2374 | 0.4992 | 5.9350 |
| 16 | 16.68 | -0.02 | 0.9167 | 3.0091 | -0.0405 | 0.1021 | 0.0213 | 0.6962 | 0.2344 | 0.4033 | 3.3437 |
| 17 | 18.60 | -0.02 | 1.3245 | 2.5802 | -0.1106 | 0.3001 | 0.0216 | 0.5528 | 0.2331 | 0.3197 | 1.5481 |
| 18 | 20.50 | -0.02 | 1.6777 | 2.2791 | -0.1206 | 0.4066 | 0.0112 | 0.4665 | 0.2329 | 0.2335 | 1.3585 |
| 19 | 22.43 | -0.03 | 2.0314 | 2.1805 | -0.2054 | 0.6522 | -0.0109 | 0.4264 | 0.2378 | 0.1886 | 1.0232 |
| 20 | 24.41 | -0.04 | 2.3567 | 2.2753 | -0.3476 | 0.9727 | -0.0206 | 0.3968 | 0.2300 | 0.1288 | 0.8286 |
| 21 | 26.38 | 0.02 | 3.3256 | 2.4445 | 0.4373 | -1.0711 | 0.0671 | 0.2844 | 0.2226 | 0.0618 | 0.7352 |
| 22 | 28.31 | 0.05 | 3.8145 | 2.0412 | 0.8004 | -1.6647 | 0.1111 | 0.2420 | 0.2262 | 0.0148 | 0.6923 |
| 23 | 28.35 | 0.03 | 3.9151 | 2.7210 | 0.5774 | -1.2021 | 0.0701 | 0.2315 | 0.2249 | 0.0066 | 0.6550 |
| 24 | 28.74 | 0.04 | 4.0468 | 2.8315 | 0.7462 | -1.7306 | 0.0943 | 0.2171 | 0.2238 | -0.0067 | 0.6503 |
| 25 | 28.99 | 0.05 | 4.1455 | 2.8053 | 0.8757 | -2.0475 | 0.1183 | 0.2264 | 0.2249 | 0.0015 | 0.6294 |
| 26 | 29.31 | 0.05 | 4.2724 | 2.7435 | 0.8857 | -2.0080 | 0.1130 | 0.2041 | 0.2266 | -0.0225 | 0.6422 |
| 27 | 29.64 | 0.04 | 4.3129 | 2.8540 | 0.8371 | -1.8785 | 0.1074 | 0.2066 | 0.2262 | -0.0196 | 0.6617 |
| 28 | 29.92 | 0.05 | 4.4537 | 2.8520 | 0.8827 | -1.8857 | 0.1081 | 0.1940 | 0.2272 | -0.0332 | 0.6404 |
| 29 | 30.21 | 0.05 | 4.5747 | 2.8765 | 0.9703 | -2.0545 | 0.1204 | 0.1953 | 0.2326 | -0.0373 | 0.6285 |
| 30 | 30.48 | 0.04 | 4.5960 | 2.8510 | 0.8504 | -1.8613 | 0.1066 | 0.1872 | 0.2252 | -0.0380 | 0.6290 |
| 31 | 30.76 | 0.06 | 4.7579 | 2.8611 | 1.0135 | -2.5020 | 0.1274 | 0.1798 | 0.2288 | -0.0490 | 0.6013 |
| 32 | 31.03 | 0.05 | 4.7950 | 3.0151 | 0.9163 | -2.0028 | 0.0982 | 0.1607 | 0.2270 | -0.0663 | 0.6283 |
| 33 | 31.30 | 0.07 | 4.9070 | 3.0352 | 1.0871 | -2.3633 | 0.1106 | 0.1621 | 0.2304 | -0.0683 | 0.6185 |
| 34 | 31.59 | 0.07 | 5.0495 | 2.9843 | 1.1425 | -2.4392 | 0.1230 | 0.1449 | 0.2301 | -0.0852 | 0.5875 |
| 35 | 31.87 | 0.07 | 5.1188 | 3.0088 | 1.0932 | -2.4811 | 0.1001 | 0.1281 | 0.2274 | -0.0994 | 0.5878 |
| 36 | 32.12 | 0.07 | 5.1655 | 2.8805 | 1.0705 | -2.4394 | 0.1001 | 0.1229 | 0.2283 | -0.1035 | 0.5583 |
| 37 | 32.41 | 0.06 | 5.3741 | 2.9081 | 1.0352 | -2.3603 | 0.0662 | 0.1006 | 0.2248 | -0.1243 | 0.5411 |
| 38 | 32.67 | 0.07 | 5.3814 | 2.9496 | 0.9538 | -1.9635 | 0.0369 | 0.0898 | 0.2221 | -0.1323 | 0.5480 |
| 39 | 32.93 | 0.04 | 5.5003 | 2.8585 | 0.8075 | -2.0010 | 0.0429 | 0.0822 | 0.2229 | -0.1407 | 0.5194 |
| 40 | 33.19 | 0.04 | 5.5697 | 2.9426 | 0.7348 | -1.6301 | 0.0197 | 0.0658 | 0.2220 | -0.1562 | 0.5283 |
| 41 | 33.44 | 0.03 | 5.6656 | 2.9259 | 0.6371 | -1.4373 | 0.0140 | 0.0510 | 0.2209 | -0.1695 | 0.5164 |
| 42 | 33.69 | 0.02 | 5.6565 | 2.9365 | 0.4576 | -0.8237 | -0.0035 | 0.0357 | 0.2198 | -0.1861 | 0.5031 |
| 43 | 33.93 | 0.04 | 5.8866 | 3.0470 | 0.7045 | -1.7140 | 0.0673 | 0.0459 | 0.2206 | -0.1747 | 0.5176 |
| 44 | 34.19 | 0.03 | 5.8643 | 3.0362 | 0.5586 | -1.1162 | 0.0319 | 0.0402 | 0.2217 | -0.1815 | 0.5155 |
| 45 | 34.43 | 0.03 | 6.0146 | 3.1177 | 0.4686 | -0.9155 | 0.0553 | 0.0258 | 0.2212 | -0.1954 | 0.5184 |
| 46 | 34.71 | 0.02 | 6.1268 | 3.1651 | 0.3805 | -0.6926 | 0.0554 | 0.0153 | 0.2190 | -0.2037 | 0.5197 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 1 | PART 112 | MACH 1.00 | RX10-6 1.7 | PHI 0.0 | CONF 616OF15 | C.G. C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.98 | 0.02 | 6.2405 | 3.1585 | 0.4342 | -0.6627 | 0.0875 | 0.0165 | 0.2179 | -0.2014 | 0.5122 |
| 48 | 35.18 | 0.04 | 6.2253 | 3.1618 | 0.4192 | -1.0005 | 0.1146 | 0.0088 | 0.2194 | -0.2106 | 0.5027 |
| 49 | 35.44 | 0.02 | 6.2761 | 3.2307 | 0.4231 | -0.7947 | 0.1030 | -0.0014 | 0.2145 | -0.2159 | 0.5065 |
| 50 | 35.69 | 0.05 | 6.2916 | 3.2549 | 0.4064 | -1.1493 | 0.1156 | -0.0093 | 0.2145 | -0.2238 | 0.5013 |
| 51 | 35.92 | 0.02 | 6.3251 | 3.3596 | 0.3485 | -0.5008 | 0.1093 | -0.0141 | 0.2085 | -0.2226 | 0.5093 |
| 52 | 36.18 | 0.04 | 6.3413 | 3.4002 | 0.3140 | -0.9230 | 0.1284 | -0.0180 | 0.2025 | -0.2235 | 0.5082 |
| 53 | 36.41 | 0.02 | 6.3352 | 3.4446 | 0.2561 | -0.3761 | 0.0932 | -0.0406 | 0.2025 | -0.2431 | 0.5036 |
| 54 | 36.64 | 0.04 | 6.3748 | 3.4756 | 0.2524 | -0.7300 | 0.1114 | -0.0412 | 0.2022 | -0.2434 | 0.4989 |
| 55 | 36.87 | 0.04 | 7.0063 | 3.2763 | 0.5316 | -1.0091 | 0.1179 | -0.0529 | 0.1990 | -0.2519 | 0.4676 |
| 56 | 37.11 | 0.02 | 7.0673 | 3.3265 | 0.5185 | -0.6839 | 0.1063 | -0.0551 | 0.2006 | -0.2559 | 0.4835 |
| 57 | 37.36 | 0.04 | 7.1555 | 3.4375 | 0.5078 | -0.8348 | 0.1166 | -0.0598 | 0.1930 | -0.2528 | 0.4775 |
| 58 | 37.59 | 0.03 | 7.2615 | 3.3073 | 0.4485 | -0.6278 | 0.1070 | -0.0676 | 0.1863 | -0.2739 | 0.4554 |
| 59 | 37.82 | 0.05 | 7.3716 | 3.4027 | 0.6216 | -0.9530 | 0.1367 | -0.0731 | 0.1915 | -0.2646 | 0.4426 |
| 60 | 38.07 | 0.03 | 7.4032 | 3.1966 | 0.3355 | -0.6235 | 0.1419 | -0.0866 | 0.1838 | -0.2724 | 0.4207 |
| 61 | 38.29 | 0.03 | 7.5359 | 3.1147 | 0.4691 | -0.6126 | 0.1367 | -0.0974 | 0.1879 | -0.2852 | 0.4133 |
| 62 | 38.54 | 0.00 | 7.6652 | 3.1341 | 0.1527 | -0.3903 | 0.0939 | -0.1055 | 0.1767 | -0.3022 | 0.4089 |
| 63 | 38.76 | 0.01 | 7.7147 | 3.1813 | 0.2475 | -0.4804 | 0.0386 | -0.1325 | 0.1741 | -0.3066 | 0.4124 |
| 64 | 38.99 | 0.03 | 7.7579 | 3.0563 | 0.4115 | -0.6231 | 0.1256 | -0.1330 | 0.1793 | -0.3123 | 0.3919 |
| 65 | 39.20 | 0.04 | 7.9785 | 3.0164 | 0.3138 | -0.5567 | 0.0975 | -0.1450 | 0.1752 | -0.3202 | 0.3780 |
| 66 | 39.44 | 0.04 | 8.0015 | 3.0615 | 0.3406 | -0.5734 | 0.0973 | -0.1460 | 0.1688 | -0.3146 | 0.3803 |
| 67 | 39.65 | 0.02 | 8.1012 | 3.0644 | 0.3558 | -0.6438 | 0.0922 | -0.1616 | 0.1666 | -0.3282 | 0.3783 |
| 68 | 39.85 | 0.03 | 8.2067 | 2.8496 | 0.4866 | -0.7995 | 0.1446 | -0.1515 | 0.1752 | -0.3265 | 0.3469 |
| 69 | 40.07 | 0.03 | 8.1575 | 2.9522 | 0.3762 | -0.5877 | 0.0577 | -0.1749 | 0.1678 | -0.3427 | 0.3601 |
| 70 | 40.26 | 0.04 | 8.2455 | 2.9440 | 0.3425 | -0.7076 | 0.0838 | -0.1642 | 0.1648 | -0.3490 | 0.3570 |
| 71 | 40.48 | 0.03 | 8.3250 | 2.9552 | 0.4415 | -0.7221 | 0.1335 | -0.1681 | 0.1709 | -0.3470 | 0.3358 |
| 72 | 40.68 | 0.02 | 8.3465 | 2.9059 | 0.3474 | -0.8235 | 0.0704 | -0.1825 | 0.1756 | -0.3581 | 0.3256 |
| 73 | 40.89 | 0.01 | 8.2075 | 2.8425 | 0.1961 | -0.6901 | 0.0419 | -0.1826 | 0.1648 | -0.3474 | 0.3310 |
| 74 | 41.11 | 0.04 | 8.2851 | 2.8116 | 0.3035 | -0.7070 | 0.0597 | -0.1854 | 0.1621 | -0.3475 | 0.3253 |
| 75 | 41.30 | 0.03 | 8.7315 | 2.8774 | 0.4057 | -0.6504 | 0.1362 | -0.1872 | 0.1640 | -0.3512 | 0.3295 |
| 76 | 41.51 | 0.02 | 8.8573 | 2.8543 | 0.3854 | -0.9189 | 0.0253 | -0.2025 | 0.1637 | -0.3662 | 0.3262 |
| 77 | 41.73 | 0.01 | 8.8585 | 2.7856 | 0.2545 | -0.7355 | 0.0660 | -0.2068 | 0.1618 | -0.3706 | 0.3146 |
| 78 | 41.94 | 0.01 | 8.9537 | 2.8107 | 0.2645 | -0.7741 | 0.0575 | -0.2118 | 0.1621 | -0.3739 | 0.3135 |
| 79 | 42.11 | 0.01 | 9.0316 | 2.8521 | 0.2454 | -0.8671 | 0.0207 | -0.2003 | 0.1643 | -0.3646 | 0.3202 |
| 80 | 42.31 | 0.02 | 9.1057 | 2.8855 | 0.3158 | -0.3745 | 0.1132 | -0.2043 | 0.1615 | -0.3658 | 0.3170 |
| 81 | 42.50 | 0.02 | 9.0677 | 2.8858 | 0.3023 | -0.2772 | 0.1130 | -0.1958 | 0.1644 | -0.3602 | 0.3175 |
| 82 | 42.69 | 0.01 | 9.2181 | 2.8285 | 0.2656 | -0.3563 | 0.0942 | -0.2119 | 0.1659 | -0.3778 | 0.3069 |
| 83 | 42.87 | 0.02 | 9.2169 | 2.9106 | 0.2411 | -0.2597 | 0.1019 | -0.2107 | 0.1639 | -0.3746 | 0.3157 |
| 84 | 43.06 | 0.02 | 9.3273 | 2.8178 | 0.1651 | -0.3079 | 0.1341 | -0.1956 | 0.1788 | -0.3726 | 0.3008 |
| 85 | 43.23 | 0.02 | 9.3456 | 2.8725 | 0.2586 | -0.6561 | 0.0448 | -0.2373 | 0.1598 | -0.3971 | 0.3074 |
| 86 | 43.41 | 0.01 | 9.4661 | 2.9353 | 0.1947 | -0.0113 | 0.1021 | -0.2240 | 0.1618 | -0.3858 | 0.3058 |
| 87 | 43.60 | -0.01 | 9.6021 | 2.8562 | 0.2162 | -0.7806 | 0.0227 | -0.2209 | 0.1652 | -0.3861 | 0.2974 |
| 88 | 43.79 | 0.01 | 9.6169 | 2.8773 | 0.2481 | -0.5256 | 0.0457 | -0.2301 | 0.1599 | -0.3900 | 0.2993 |
| 89 | 43.96 | 0.01 | 9.6265 | 2.9226 | 0.2592 | -0.1727 | 0.0742 | -0.2331 | 0.1596 | -0.3927 | 0.3035 |
| 90 | 44.12 | 0.00 | 9.7155 | 2.8162 | 0.3033 | -0.5651 | 0.0350 | -0.2376 | 0.1604 | -0.3985 | 0.2862 |
| 91 | 44.30 | -0.00 | 9.7176 | 2.8547 | 0.2458 | -0.7168 | 0.0463 | -0.2434 | 0.1601 | -0.4035 | 0.2979 |
| 92 | 44.51 | -0.00 | 9.8264 | 2.9011 | 0.1751 | -0.3367 | 0.0696 | -0.2511 | 0.1592 | -0.4103 | 0.2958 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 112 MACH 1.60 RX10-6 1.7 PHI 0.0 CCRF BIKOF15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.67 | -0.00 | 9.8910 | 2.9717 | 0.2235 | -0.6876 | 0.0354 | -0.2404 | 0.1614 | -0.4018 | 0.3004 |
| 94 | 44.87 | 0.01 | 10.0226 | 2.8715 | 0.2657 | -0.6945 | 0.0475 | -0.2436 | 0.1644 | -0.4080 | 0.2865 |
| 95 | 45.05 | -0.00 | 10.0255 | 2.8504 | 0.2465 | 0.2455 | 0.0687 | -0.2584 | 0.1644 | -0.4228 | 0.2842 |
| 96 | 45.24 | 0.00 | 10.0550 | 2.7710 | 0.1486 | 0.0470 | 0.0636 | -0.2588 | 0.1627 | -0.4215 | 0.2745 |
| 97 | 45.39 | 0.01 | 10.1016 | 2.9378 | 0.2753 | -0.4827 | 0.0477 | -0.2449 | 0.1684 | -0.4133 | 0.2908 |
| 98 | 45.56 | -0.01 | 10.2514 | 2.7526 | 0.0611 | -0.1496 | 0.0592 | -0.2535 | 0.1650 | -0.4185 | 0.2684 |
| 99 | 45.77 | 0.00 | 10.3023 | 2.7562 | 0.2108 | -0.3308 | 0.0597 | -0.2613 | 0.1676 | -0.4289 | 0.2716 |
| 100 | 45.95 | -0.01 | 10.3462 | 2.8048 | 0.2091 | -0.2283 | 0.0460 | -0.2610 | 0.1663 | -0.4273 | 0.2710 |
| 101 | 46.11 | 0.01 | 10.4607 | 2.8018 | 0.2400 | -0.2576 | 0.0661 | -0.2579 | 0.1637 | -0.4216 | 0.2678 |
| 102 | 46.29 | 0.01 | 10.5079 | 2.7865 | 0.2283 | -0.7716 | 0.0495 | -0.2431 | 0.1701 | -0.4132 | 0.2646 |
| 103 | 46.47 | 0.01 | 10.4375 | 3.2277 | 0.1426 | 0.6771 | 0.0804 | -0.2532 | 0.1690 | -0.4222 | 0.3052 |
| 104 | 46.65 | 0.01 | 10.5052 | 3.3560 | 0.2205 | 0.5008 | 0.0814 | -0.2358 | 0.1756 | -0.4094 | 0.3157 |
| 105 | 46.82 | 0.01 | 10.6429 | 2.8451 | 0.1564 | 0.2230 | 0.0709 | -0.2635 | 0.1726 | -0.4361 | 0.2673 |
| 106 | 46.97 | 0.01 | 10.5857 | 2.8182 | 0.1819 | 0.4865 | 0.0582 | -0.1949 | 0.2235 | -0.4188 | 0.2662 |
| 107 | 47.17 | 0.03 | 10.6567 | 2.8042 | 0.3567 | 0.2783 | 0.0706 | -0.1864 | 0.2956 | -0.4820 | 0.2631 |
| 108 | 47.35 | 0.01 | 10.6455 | 2.8064 | 0.2604 | 0.3384 | 0.0536 | -0.2168 | 0.2578 | -0.4746 | 0.2678 |
| 109 | 47.51 | 0.03 | 10.5890 | 1.7647 | 0.2792 | 0.7141 | 0.0577 | -0.2132 | 0.2756 | -0.4885 | 0.1624 |
| 110 | 47.68 | 0.02 | 11.1121 | 1.4235 | 0.2587 | 0.3029 | 0.0591 | -0.2263 | 0.3099 | -0.5362 | 0.1281 |
| 111 | 47.88 | 0.03 | 11.3364 | 1.0355 | 0.3111 | 1.1193 | 0.0392 | -0.1987 | 0.3185 | -0.5172 | 0.0913 |
| 112 | 48.05 | 0.04 | 11.4257 | 0.7128 | 0.3154 | 1.4088 | 0.0148 | -0.1885 | 0.3306 | -0.5031 | 0.0624 |
| 113 | 48.20 | 0.04 | 11.2079 | 0.3560 | 0.3211 | 1.0575 | 0.0446 | -0.2026 | 0.3323 | -0.5349 | 0.0253 |
| 114 | 48.40 | 0.05 | 11.5857 | 0.4061 | 0.4359 | 1.4281 | 0.0094 | -0.1131 | 0.3698 | -0.4829 | 0.0352 |
| 115 | 48.58 | 0.04 | 11.6506 | 0.3284 | 0.4673 | 1.3595 | 0.0101 | -0.1155 | 0.3671 | -0.4846 | 0.0281 |
| 116 | 48.75 | 0.06 | 11.4550 | -0.3736 | 0.4316 | 1.0548 | 0.0153 | -0.1145 | 0.3810 | -0.4955 | -0.0313 |
| 117 | 48.92 | 0.05 | 11.5586 | -0.4748 | 0.3713 | 1.9776 | 0.0081 | -0.1160 | 0.3802 | -0.4962 | -0.0397 |
| 118 | 49.10 | 0.05 | 12.1215 | -0.5467 | 0.4239 | 2.0057 | 0.0085 | -0.1123 | 0.3802 | -0.4925 | -0.0452 |
| 119 | 49.28 | 0.05 | 12.2605 | -0.2330 | 0.3750 | 1.9204 | 0.0096 | -0.1144 | 0.3791 | -0.4935 | -0.0190 |
| 120 | 49.44 | 0.07 | 12.1441 | -0.5336 | 0.5100 | 1.8053 | 0.0091 | -0.1120 | 0.3843 | -0.4963 | -0.0439 |
| 121 | 49.63 | 0.06 | 12.2751 | -0.3558 | 0.4560 | 1.8307 | 0.0098 | -0.1229 | 0.3719 | -0.4948 | -0.0250 |
| 122 | 49.81 | 0.07 | 12.4973 | -0.2900 | 0.5491 | 1.7892 | 0.0105 | -0.1400 | 0.3669 | -0.5069 | -0.0232 |
| 123 | 49.98 | 0.06 | 12.4516 | -0.3511 | 0.4724 | 1.9008 | 0.0101 | -0.1384 | 0.3704 | -0.5088 | -0.0282 |
| 124 | 50.15 | 0.06 | 12.3461 | -0.3471 | 0.4556 | 1.8694 | 0.0096 | -0.1425 | 0.3680 | -0.5105 | -0.0281 |
| 125 | 50.34 | 0.04 | 12.6839 | -0.4866 | 0.2957 | 1.8064 | 0.0232 | -0.1444 | 0.3722 | -0.5166 | -0.0385 |
| 126 | 50.50 | 0.05 | 12.6625 | -0.5535 | 0.4143 | 1.4774 | 0.0183 | -0.1556 | 0.3753 | -0.5311 | -0.0437 |
| 127 | 50.71 | 0.04 | 12.8643 | -0.9520 | 0.4086 | 1.1139 | 0.0202 | -0.1576 | 0.3726 | -0.5302 | -0.0739 |
| 128 | 50.88 | 0.03 | 12.8542 | -0.9088 | 0.4056 | 1.2033 | 0.0256 | -0.1628 | 0.3749 | -0.5377 | -0.0756 |
| 129 | 51.06 | 0.04 | 12.8815 | -0.8383 | 0.5103 | 0.6821 | 0.0450 | -0.1612 | 0.3771 | -0.5383 | -0.0669 |
| 130 | 51.23 | 0.03 | 12.8464 | -0.5062 | 0.4011 | 0.9522 | 0.0443 | -0.1546 | 0.3845 | -0.5441 | -0.0456 |
| 131 | 51.37 | 0.02 | 12.8462 | -0.8525 | 0.3178 | 0.7601 | 0.0449 | -0.1895 | 0.3828 | -0.5723 | -0.0695 |
| 132 | 51.55 | 0.03 | 12.7441 | -0.5032 | 0.3958 | 0.8026 | 0.0620 | -0.1639 | 0.3873 | -0.5512 | -0.0365 |
| 133 | 51.71 | 0.03 | 12.8880 | -0.2788 | 0.4019 | 0.7222 | 0.0586 | -0.1436 | 0.3977 | -0.5413 | -0.0218 |
| 134 | 51.87 | 0.04 | 12.8583 | -0.1952 | 0.3583 | 0.8269 | 0.0582 | -0.1550 | 0.3970 | -0.5520 | -0.0123 |
| 135 | 52.04 | 0.01 | 12.8430 | -0.1316 | 0.3225 | 0.8409 | 0.0582 | -0.1680 | 0.3930 | -0.5610 | -0.0104 |
| 136 | 52.21 | 0.01 | 12.8264 | -0.2418 | 0.3346 | 0.8405 | 0.0452 | -0.1551 | 0.4050 | -0.5581 | -0.0189 |
| 137 | 52.37 | 0.01 | 12.5873 | -0.0870 | 0.3818 | 0.8788 | 0.0502 | -0.1479 | 0.3945 | -0.5424 | -0.0059 |
| 138 | 52.57 | 0.01 | 12.8875 | -0.1369 | 0.3475 | 0.8502 | 0.0455 | -0.1442 | 0.3987 | -0.5429 | -0.0168 |

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX1C-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 11c | 1.00 | 1.7 | 0.0 | 81b0F15 | C.C | 0 | -30 | 0 | -30 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.72 | 0.01 | 12.e3ec | 0.3015 | 0.3505 | C.9087 | 0.0451 | -0.1697 | 0.3947 | -0.5644 | 0.0001 |
| 140 | 52.89 | 0.00 | 12.6662 | -0.1366 | 0.2697 | C.8575 | 0.0451 | -0.1607 | 0.3921 | -0.5528 | -0.0108 |
| 141 | 53.06 | -0.00 | 12.5756 | -0.2333 | 0.2105 | C.8227 | 0.0404 | -0.1332 | 0.3982 | -0.5284 | -0.0180 |
| 142 | 53.24 | -0.01 | 12.4938 | -0.2772 | 0.1668 | C.8047 | 0.0341 | -0.1444 | 0.3964 | -0.5428 | -0.0214 |
| 143 | 53.40 | -0.01 | 12.4753 | -0.3451 | 0.1752 | C.817C | 0.0345 | -0.1410 | 0.4061 | -0.5501 | -0.0266 |
| 144 | 53.59 | -0.02 | 13.1c99 | -0.4116 | 0.1279 | C.8497 | 0.0418 | -0.1496 | 0.4085 | -0.5481 | -0.0312 |
| 145 | 53.76 | -0.01 | 13.1c5c | -0.4514 | 0.2241 | C.8CC5 | 0.0415 | -0.1455 | 0.4130 | -0.5585 | -0.0329 |
| 146 | 53.91 | -0.01 | 13.0a29 | -0.5965 | 0.1877 | C.8c3e | 0.0413 | -0.1136 | 0.4124 | -0.5240 | -0.0305 |
| 147 | 54.10 | -0.03 | 13.1166 | -0.3657 | 0.0046 | C.8341 | 0.0420 | -0.1367 | 0.4134 | -0.5521 | -0.0297 |
| 148 | 54.29 | -0.00 | 13.1402 | -0.3937 | 0.2175 | C.8401 | 0.0400 | -0.1357 | 0.4096 | -0.5493 | -0.0300 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11C MACH 1.00 REIC=6 1.7 PRI 0.0 CONF 615 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.90 | -0.01 | -0.0162 | 0.0033 | 0.0183 | -0.2038 | -1.1296 | -1.0970 | 0.0003 | -0.5006 | -0.0003 | 0.4563 |
| 2 | -5.92 | -0.02 | -0.0174 | 0.0033 | 0.0177 | -0.1897 | -1.0172 | -1.0877 | 0.0 | -0.4956 | 0.0 | 0.4556 |
| 3 | -5.92 | -0.01 | -0.0157 | 0.0031 | 0.0163 | -0.1574 | -0.8274 | -1.0904 | 0.0003 | -0.4975 | -0.0003 | 0.4562 |
| 4 | -5.89 | -0.01 | -0.0163 | 0.0036 | 0.0184 | -0.2332 | -1.1286 | -1.0835 | -0.0006 | -0.4953 | 0.0006 | 0.4571 |
| 5 | -3.24 | -0.01 | -0.0160 | 0.0036 | 0.0162 | -0.2251 | -1.0530 | -1.0819 | -0.0008 | -0.5011 | 0.0007 | 0.4632 |
| 6 | -1.34 | -0.01 | -0.0111 | 0.0046 | 0.0166 | -0.3605 | -1.0135 | -1.0532 | -0.0003 | -0.5534 | 0.0005 | 0.4803 |
| 7 | 0.27 | -0.01 | -0.0126 | 0.0032 | 0.0142 | -0.2564 | -1.3518 | -1.1257 | -0.0152 | -0.5570 | 0.0135 | 0.4548 |
| 8 | 2.02 | -0.01 | -0.0063 | 0.0033 | 0.0144 | -0.3577 | -1.7349 | -1.1004 | -0.0073 | -0.5604 | 0.0066 | 0.5052 |
| 9 | 3.80 | -0.01 | -0.0045 | 0.0030 | 0.0140 | -0.0069 | -3.2869 | -1.0034 | -0.0059 | -0.5187 | 0.0059 | 0.5170 |
| 10 | 5.59 | -0.01 | -0.0150 | 0.0013 | 0.0160 | -0.0823 | -1.0127 | -0.8842 | -0.0193 | -0.4581 | 0.0117 | 0.5181 |
| 11 | 7.45 | -0.01 | -0.0196 | 0.0005 | 0.0187 | -0.0455 | -0.9444 | -0.7612 | -0.0122 | -0.4074 | 0.0161 | 0.5352 |
| 12 | 9.23 | -0.01 | -0.0053 | -0.0011 | 0.0255 | 0.1183 | -2.7049 | -0.6492 | -0.0118 | -0.3579 | 0.0182 | 0.5514 |
| 13 | 11.06 | -0.02 | -0.0115 | -0.0006 | 0.0236 | 0.0522 | -2.0522 | -0.5393 | -0.0102 | -0.3127 | 0.0189 | 0.5798 |
| 14 | 12.89 | -0.01 | -0.0212 | 0.0006 | 0.0206 | -0.0203 | -0.9717 | -0.4233 | -0.0077 | -0.2660 | 0.0182 | 0.6284 |
| 15 | 14.75 | -0.01 | -0.0367 | -0.0001 | 0.0182 | 0.0027 | -0.4414 | -0.3142 | -0.0049 | -0.2150 | 0.0156 | 0.6842 |
| 16 | 16.68 | -0.02 | -0.0417 | -0.0002 | 0.0162 | 0.0048 | -0.3694 | -0.2215 | -0.0038 | -0.1765 | 0.0036 | 0.7970 |
| 17 | 18.60 | -0.02 | -0.0552 | -0.0031 | 0.0175 | 0.0563 | -0.3176 | -0.1389 | 0.0045 | -0.1326 | -0.0325 | 0.9546 |
| 18 | 20.50 | -0.02 | -0.0608 | -0.0062 | 0.0142 | 0.0536 | -0.2149 | -0.0833 | 0.0114 | -0.0945 | -0.1805 | 1.4937 |
| 19 | 22.43 | -0.03 | -0.1347 | -0.0115 | -0.0242 | 0.0855 | 0.1799 | -0.0134 | 0.0202 | -0.0715 | -1.5081 | 5.3283 |
| 20 | 24.41 | -0.04 | -0.1457 | -0.0076 | -0.0481 | 0.0536 | 0.3299 | 0.0314 | 0.0252 | -0.0513 | 0.8029 | -1.6306 |
| 21 | 26.38 | 0.02 | 0.1982 | 0.0217 | 0.1229 | 0.1056 | 0.8197 | 0.1716 | 0.0325 | 0.0006 | 0.1851 | 0.0035 |
| 22 | 28.31 | 0.05 | 0.3208 | 0.0295 | 0.1884 | 0.0934 | 0.5011 | 0.2255 | 0.0395 | 0.0264 | 0.1750 | 0.1172 |
| 23 | 26.35 | 0.03 | 0.1915 | 0.0175 | 0.1200 | 0.0536 | 0.6268 | 0.1968 | 0.0425 | 0.0163 | 0.2147 | 0.0531 |
| 24 | 28.74 | 0.04 | 0.2415 | 0.0205 | 0.1506 | 0.0865 | 0.6225 | 0.2073 | 0.0433 | 0.0256 | 0.2088 | 0.1237 |
| 25 | 28.99 | 0.05 | 0.3016 | 0.0295 | 0.2071 | 0.0817 | 0.5725 | 0.2423 | 0.0423 | 0.0392 | 0.1744 | 0.1620 |
| 26 | 29.31 | 0.05 | 0.2864 | 0.0218 | 0.1578 | 0.0836 | 0.6059 | 0.2308 | 0.0466 | 0.0342 | 0.2018 | 0.1484 |
| 27 | 29.64 | 0.04 | 0.3378 | 0.0272 | 0.1877 | 0.0836 | 0.5557 | 0.2526 | 0.0430 | 0.0456 | 0.1761 | 0.1903 |
| 28 | 29.92 | 0.05 | 0.3057 | 0.0261 | 0.1787 | 0.0829 | 0.5781 | 0.2418 | 0.0456 | 0.0416 | 0.1885 | 0.1718 |
| 29 | 30.21 | 0.05 | 0.2923 | 0.0151 | 0.1734 | 0.0855 | 0.5934 | 0.2415 | 0.0458 | 0.0404 | 0.1937 | 0.1675 |
| 30 | 30.48 | 0.04 | 0.3069 | 0.0248 | 0.1802 | 0.0850 | 0.5498 | 0.2668 | 0.0465 | 0.0534 | 0.1742 | 0.2006 |
| 31 | 30.76 | 0.06 | 0.3451 | 0.0226 | 0.2005 | 0.0854 | 0.5756 | 0.2785 | 0.0489 | 0.0566 | 0.1755 | 0.2110 |
| 32 | 31.03 | 0.05 | 0.3460 | 0.0228 | 0.1807 | 0.0845 | 0.5530 | 0.2850 | 0.0507 | 0.0621 | 0.1778 | 0.2178 |
| 33 | 31.30 | 0.07 | 0.3567 | 0.0245 | 0.1944 | 0.0868 | 0.5450 | 0.2915 | 0.0505 | 0.0642 | 0.1732 | 0.2202 |
| 34 | 31.59 | 0.07 | 0.3542 | 0.0238 | 0.1955 | 0.0867 | 0.5033 | 0.2998 | 0.0511 | 0.0662 | 0.1704 | 0.2275 |
| 35 | 31.87 | 0.07 | 0.3501 | 0.0245 | 0.1919 | 0.0791 | 0.5482 | 0.3210 | 0.0532 | 0.0776 | 0.1657 | 0.2417 |
| 36 | 32.14 | 0.07 | 0.3243 | 0.0238 | 0.1811 | 0.0735 | 0.5585 | 0.3395 | 0.0549 | 0.0877 | 0.1587 | 0.2583 |
| 37 | 32.41 | 0.08 | 0.2923 | 0.0238 | 0.1638 | 0.0816 | 0.5605 | 0.3532 | 0.0546 | 0.0965 | 0.1545 | 0.2732 |
| 38 | 32.67 | 0.07 | 0.1625 | 0.0175 | 0.0954 | 0.1079 | 0.5903 | 0.3525 | 0.0542 | 0.0972 | 0.1679 | 0.2758 |
| 39 | 32.93 | 0.04 | 0.2743 | 0.0246 | 0.1478 | 0.0898 | 0.5387 | 0.3797 | 0.0565 | 0.1106 | 0.1488 | 0.2514 |
| 40 | 33.19 | 0.04 | 0.1170 | 0.0164 | 0.0653 | 0.1405 | 0.5277 | 0.3609 | 0.0599 | 0.1018 | 0.1659 | 0.2821 |
| 41 | 33.44 | 0.03 | 0.1145 | 0.0162 | 0.0650 | 0.1399 | 0.5073 | 0.3714 | 0.0616 | 0.1082 | 0.1659 | 0.2915 |
| 42 | 33.69 | 0.02 | 0.0617 | 0.0136 | 0.0336 | 0.2111 | 0.5495 | 0.3633 | 0.0615 | 0.1037 | 0.1693 | 0.2855 |
| 43 | 33.95 | 0.04 | 0.2487 | 0.0184 | 0.1428 | 0.0741 | 0.5741 | 0.3679 | 0.0586 | 0.1050 | 0.1593 | 0.2855 |
| 44 | 34.19 | 0.03 | 0.1602 | 0.0135 | 0.0758 | 0.1072 | 0.5849 | 0.3729 | 0.0607 | 0.1093 | 0.1628 | 0.2932 |
| 45 | 34.45 | 0.03 | 0.1375 | 0.0107 | 0.0628 | 0.0777 | 0.5991 | 0.3504 | 0.0612 | 0.0984 | 0.1746 | 0.2805 |
| 46 | 34.71 | 0.02 | 0.1332 | 0.0050 | 0.0850 | 0.0376 | 0.6383 | 0.3516 | 0.0624 | 0.0997 | 0.1775 | 0.2836 |

TEST 7 | PART 112 | MACH 1.60 | REX10=E 1.7 | PHI 0.0 | CCRF DEGREES | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.96 | 0.02 | 0.1635 | 0.0063 | 0.0565 | 0.0385 | 0.5913 | 0.3342 | 0.0624 | 0.0951 | 0.1867 | 0.2698 |
| 48 | 35.16 | 0.04 | 0.1675 | 0.0064 | 0.0581 | 0.0376 | 0.5971 | 0.3312 | 0.0638 | 0.0965 | 0.1926 | 0.2733 |
| 49 | 35.46 | 0.02 | 0.2425 | 0.0060 | 0.1398 | 0.0330 | 0.5754 | 0.3474 | 0.0628 | 0.0953 | 0.1808 | 0.2859 |
| 50 | 35.69 | 0.05 | 0.2685 | 0.0117 | 0.1473 | 0.0436 | 0.5677 | 0.3554 | 0.0636 | 0.1027 | 0.1789 | 0.2890 |
| 51 | 35.92 | 0.02 | 0.2062 | 0.0052 | 0.1245 | 0.0260 | 0.6235 | 0.3334 | 0.0666 | 0.0957 | 0.2004 | 0.2871 |
| 52 | 36.16 | 0.04 | 0.2730 | 0.0116 | 0.1503 | 0.0422 | 0.5703 | 0.3546 | 0.0671 | 0.1045 | 0.1851 | 0.2946 |
| 53 | 36.41 | 0.02 | 0.2211 | 0.0067 | 0.1244 | 0.0304 | 0.5625 | 0.3464 | 0.0694 | 0.1012 | 0.2004 | 0.2922 |
| 54 | 36.64 | 0.04 | 0.1720 | 0.0040 | 0.1065 | 0.0232 | 0.6200 | 0.3356 | 0.0703 | 0.0966 | 0.2095 | 0.2879 |
| 55 | 36.87 | 0.04 | 0.2703 | 0.0112 | 0.1536 | 0.0415 | 0.5661 | 0.3648 | 0.0695 | 0.1051 | 0.1905 | 0.2991 |
| 56 | 37.11 | 0.02 | 0.2360 | 0.0092 | 0.1310 | 0.0390 | 0.5469 | 0.3511 | 0.0715 | 0.1038 | 0.2037 | 0.2957 |
| 57 | 37.36 | 0.04 | 0.1785 | 0.0080 | 0.1134 | 0.0448 | 0.6340 | 0.3510 | 0.0725 | 0.1038 | 0.2066 | 0.2958 |
| 58 | 37.59 | 0.03 | 0.2567 | 0.0103 | 0.1480 | 0.0395 | 0.5720 | 0.3780 | 0.0714 | 0.1179 | 0.1889 | 0.3121 |
| 59 | 37.82 | 0.05 | 0.2713 | 0.0130 | 0.1545 | 0.0480 | 0.5694 | 0.3753 | 0.0716 | 0.1144 | 0.1914 | 0.3056 |
| 60 | 38.07 | 0.03 | 0.2342 | 0.0112 | 0.1354 | 0.0483 | 0.6003 | 0.3801 | 0.0725 | 0.1186 | 0.1908 | 0.3122 |
| 61 | 38.29 | 0.03 | 0.2652 | 0.0141 | 0.1488 | 0.0525 | 0.5490 | 0.3938 | 0.0728 | 0.1244 | 0.1863 | 0.3182 |
| 62 | 38.54 | 0.00 | 0.1647 | 0.0101 | 0.0563 | 0.0566 | 0.5564 | 0.3900 | 0.0731 | 0.1272 | 0.1834 | 0.3189 |
| 63 | 38.78 | 0.01 | 0.0971 | 0.0050 | 0.0208 | 0.0520 | 0.6237 | 0.4269 | 0.0726 | 0.1419 | 0.1701 | 0.3323 |
| 64 | 38.99 | 0.03 | 0.2421 | 0.0130 | 0.1381 | 0.0538 | 0.5703 | 0.4120 | 0.0737 | 0.1348 | 0.1769 | 0.3271 |
| 65 | 39.20 | 0.02 | 0.1585 | 0.0133 | 0.0516 | 0.0841 | 0.5793 | 0.4174 | 0.0734 | 0.1379 | 0.1759 | 0.3303 |
| 66 | 39.44 | 0.02 | 0.1513 | 0.0133 | 0.0716 | 0.1015 | 0.5454 | 0.4255 | 0.0732 | 0.1413 | 0.1721 | 0.3320 |
| 67 | 39.65 | 0.02 | 0.1810 | 0.0152 | 0.0836 | 0.0871 | 0.5706 | 0.4307 | 0.0743 | 0.1429 | 0.1725 | 0.3317 |
| 68 | 39.85 | 0.03 | 0.2715 | 0.0216 | 0.1445 | 0.0760 | 0.5336 | 0.4171 | 0.0757 | 0.1364 | 0.1815 | 0.3269 |
| 69 | 40.07 | 0.03 | 0.1985 | 0.0191 | 0.0987 | 0.1307 | 0.5431 | 0.4563 | 0.0740 | 0.1552 | 0.1622 | 0.3401 |
| 70 | 40.26 | 0.02 | 0.1661 | 0.0168 | 0.0884 | 0.1015 | 0.5322 | 0.4549 | 0.0747 | 0.1535 | 0.1643 | 0.3374 |
| 71 | 40.48 | 0.03 | 0.1666 | 0.0175 | 0.0872 | 0.1063 | 0.5172 | 0.4662 | 0.0750 | 0.1600 | 0.1602 | 0.3417 |
| 72 | 40.68 | 0.02 | 0.1467 | 0.0187 | 0.0808 | 0.1200 | 0.4492 | 0.4668 | 0.0754 | 0.1604 | 0.1616 | 0.3436 |
| 73 | 40.85 | 0.01 | 0.1277 | 0.0171 | 0.0581 | 0.1342 | 0.4549 | 0.4601 | 0.0765 | 0.1551 | 0.1663 | 0.3371 |
| 74 | 41.11 | 0.02 | 0.1631 | 0.0198 | 0.0885 | 0.1203 | 0.4833 | 0.4465 | 0.0771 | 0.1481 | 0.1727 | 0.3316 |
| 75 | 41.30 | 0.03 | 0.1640 | 0.0175 | 0.0846 | 0.1065 | 0.5159 | 0.4384 | 0.0778 | 0.1442 | 0.1775 | 0.3288 |
| 76 | 41.51 | 0.02 | 0.1458 | 0.0185 | 0.0517 | 0.1474 | 0.4108 | 0.4653 | 0.0770 | 0.1577 | 0.1655 | 0.3389 |
| 77 | 41.73 | 0.01 | 0.1650 | 0.0205 | 0.0815 | 0.1239 | 0.4846 | 0.4519 | 0.0779 | 0.1496 | 0.1725 | 0.3310 |
| 78 | 41.96 | 0.01 | 0.1401 | 0.0175 | 0.0674 | 0.1492 | 0.3942 | 0.4517 | 0.0765 | 0.1529 | 0.1739 | 0.3385 |
| 79 | 42.11 | 0.01 | 0.0542 | 0.0154 | 0.0300 | 0.1837 | 0.3186 | 0.4660 | 0.0776 | 0.1558 | 0.1670 | 0.3343 |
| 80 | 42.31 | 0.02 | 0.1525 | 0.0185 | 0.0706 | 0.1212 | 0.5023 | 0.4257 | 0.0803 | 0.1392 | 0.1887 | 0.3265 |
| 81 | 42.50 | 0.02 | 0.1902 | 0.0201 | 0.0947 | 0.1058 | 0.4979 | 0.4039 | 0.0829 | 0.1273 | 0.2053 | 0.3151 |
| 82 | 42.69 | 0.01 | 0.1764 | 0.0195 | 0.0808 | 0.1107 | 0.4921 | 0.4025 | 0.0826 | 0.1288 | 0.2058 | 0.3195 |
| 83 | 42.87 | 0.02 | 0.1262 | 0.0156 | 0.0613 | 0.1259 | 0.4935 | 0.4259 | 0.0819 | 0.1400 | 0.1924 | 0.3286 |
| 84 | 43.06 | 0.02 | 0.1424 | 0.0165 | 0.0739 | 0.1161 | 0.5190 | 0.4013 | 0.0844 | 0.1300 | 0.2104 | 0.3239 |
| 85 | 43.23 | 0.02 | 0.1113 | 0.0145 | 0.0440 | 0.1340 | 0.3948 | 0.4571 | 0.0803 | 0.1545 | 0.1758 | 0.3389 |
| 86 | 43.41 | 0.01 | 0.1240 | 0.0151 | 0.0596 | 0.1052 | 0.5530 | 0.3910 | 0.0847 | 0.1233 | 0.2167 | 0.3152 |
| 87 | 43.60 | -0.01 | 0.0944 | 0.0145 | 0.0311 | 0.1581 | 0.3298 | 0.4616 | 0.0802 | 0.1576 | 0.1738 | 0.3414 |
| 88 | 43.79 | 0.01 | 0.1005 | 0.0132 | 0.0437 | 0.1315 | 0.4343 | 0.4438 | 0.0822 | 0.1476 | 0.1853 | 0.3325 |
| 89 | 43.96 | 0.01 | 0.1028 | 0.0160 | 0.0433 | 0.1559 | 0.4206 | 0.4478 | 0.0823 | 0.1506 | 0.1838 | 0.3382 |
| 90 | 44.12 | 0.00 | 0.0895 | 0.0140 | 0.0315 | 0.1567 | 0.3523 | 0.4592 | 0.0816 | 0.1570 | 0.1782 | 0.3415 |
| 91 | 44.30 | -0.00 | 0.1065 | 0.0153 | 0.0450 | 0.1407 | 0.4127 | 0.4577 | 0.0828 | 0.1564 | 0.1810 | 0.3417 |
| 92 | 44.51 | -0.00 | 0.0982 | 0.0142 | 0.0432 | 0.1448 | 0.4393 | 0.4460 | 0.0828 | 0.1518 | 0.1857 | 0.3403 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 11c | MACH 1.00 | RNIO-6 1.7 | PHI 0.0 | CONF BIBOFIS | L 6.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | LB1 | XCPF1 | YCPF1 | CNF2 | CM2 | LB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.87 | -0.00 | 0.0545 | 0.0150 | 0.0317 | 0.1596 | 0.3356 | 0.4677 | 0.0521 | 0.1622 | 0.1756 | 0.3468 |
| 94 | 44.87 | 0.01 | 0.0547 | 0.0142 | 0.0316 | 0.1675 | 0.3004 | 0.4596 | 0.0524 | 0.1572 | 0.1754 | 0.3420 |
| 95 | 45.05 | -0.00 | 0.0734 | 0.0115 | 0.0342 | 0.1570 | 0.4000 | 0.4403 | 0.0640 | 0.1492 | 0.1922 | 0.3386 |
| 96 | 45.24 | 0.00 | 0.0745 | 0.0123 | 0.0350 | 0.1654 | 0.4704 | 0.4403 | 0.0642 | 0.1520 | 0.1887 | 0.3405 |
| 97 | 45.39 | 0.01 | 0.0822 | 0.0125 | 0.0347 | 0.1572 | 0.3983 | 0.4532 | 0.0635 | 0.1552 | 0.1843 | 0.3425 |
| 98 | 45.58 | -0.01 | 0.0821 | 0.0127 | 0.0355 | 0.1644 | 0.4034 | 0.4408 | 0.0640 | 0.1505 | 0.1906 | 0.3414 |
| 99 | 45.77 | 0.00 | 0.0821 | 0.0130 | 0.0358 | 0.1586 | 0.4122 | 0.4405 | 0.0637 | 0.1494 | 0.1899 | 0.3388 |
| 100 | 45.95 | -0.01 | 0.0822 | 0.0136 | 0.0312 | 0.1580 | 0.3624 | 0.4549 | 0.0637 | 0.1588 | 0.1841 | 0.3491 |
| 101 | 46.11 | 0.01 | 0.0735 | 0.0115 | 0.0312 | 0.1613 | 0.4228 | 0.4155 | 0.0643 | 0.1403 | 0.2030 | 0.3376 |
| 102 | 46.29 | 0.01 | 0.0823 | 0.0131 | 0.0323 | 0.1634 | 0.3529 | 0.4360 | 0.0631 | 0.1496 | 0.1907 | 0.3431 |
| 103 | 46.47 | 0.01 | 0.0564 | 0.0102 | 0.0282 | 0.1756 | 0.4494 | 0.3964 | 0.0655 | 0.1334 | 0.2158 | 0.3364 |
| 104 | 46.65 | 0.01 | 0.0546 | 0.0077 | 0.0238 | 0.1429 | 0.4416 | 0.3792 | 0.0657 | 0.1250 | 0.2261 | 0.3295 |
| 105 | 46.82 | 0.01 | 0.0637 | 0.0135 | 0.0315 | 0.1663 | 0.3766 | 0.4417 | 0.0639 | 0.1540 | 0.1900 | 0.3486 |
| 106 | 46.97 | 0.01 | 0.0666 | 0.0165 | 0.0406 | 0.1559 | 0.3777 | 0.5575 | 0.0650 | 0.2167 | 0.1436 | 0.3522 |
| 107 | 47.17 | 0.03 | 0.0654 | 0.0072 | 0.0301 | 0.1039 | 0.4343 | 0.4358 | 0.0632 | 0.1512 | 0.1910 | 0.3465 |
| 108 | 47.35 | 0.01 | 0.0542 | 0.0050 | 0.0200 | 0.1604 | 0.3845 | 0.5034 | 0.0624 | 0.1660 | 0.1837 | 0.3655 |
| 109 | 47.51 | 0.03 | 0.0256 | 0.0153 | 0.0015 | 0.5171 | 0.0507 | 0.6002 | 0.0799 | 0.2328 | 0.1332 | 0.3678 |
| 110 | 47.68 | 0.02 | 0.0468 | 0.0154 | 0.0116 | 0.4150 | 0.2548 | 0.5923 | 0.0803 | 0.2235 | 0.1356 | 0.3773 |
| 111 | 47.88 | 0.03 | -0.0559 | 0.0268 | -0.0388 | -0.1576 | 0.6918 | 0.5134 | 0.0798 | 0.1841 | 0.1555 | 0.3586 |
| 112 | 48.05 | 0.04 | -0.0358 | 0.0062 | -0.0373 | -0.1114 | 0.0097 | 0.5255 | 0.0794 | 0.1905 | 0.1511 | 0.3625 |
| 113 | 48.20 | 0.04 | -0.0214 | 0.0114 | -0.0200 | -0.3329 | 1.2430 | 0.5501 | 0.0811 | 0.2033 | 0.1475 | 0.3657 |
| 114 | 48.40 | 0.05 | -0.0504 | -0.0026 | -0.0342 | 0.0517 | 0.6799 | 0.5119 | 0.0756 | 0.1815 | 0.1477 | 0.3546 |
| 115 | 48.58 | 0.04 | -0.0351 | -0.0021 | -0.0267 | 0.0599 | 0.7607 | 0.5162 | 0.0748 | 0.1818 | 0.1449 | 0.3522 |
| 116 | 48.75 | 0.06 | -0.0066 | -0.0011 | -0.0140 | 0.1018 | 2.1471 | 0.5215 | 0.0744 | 0.1822 | 0.1427 | 0.3494 |
| 117 | 48.92 | 0.05 | -0.0092 | -0.0051 | -0.0122 | 0.5546 | 1.3261 | 0.5256 | 0.0740 | 0.1852 | 0.1408 | 0.3524 |
| 118 | 49.10 | 0.05 | -0.0281 | -0.0051 | -0.0186 | 0.3240 | 0.6906 | 0.5215 | 0.0744 | 0.1822 | 0.1427 | 0.3494 |
| 119 | 49.28 | 0.05 | -0.0060 | -0.0072 | -0.0064 | 1.2005 | 1.0667 | 0.5222 | 0.0742 | 0.1813 | 0.1421 | 0.3472 |
| 120 | 49.44 | 0.07 | -0.0115 | -0.0060 | -0.0062 | 0.6725 | 0.6891 | 0.5269 | 0.0741 | 0.1825 | 0.1407 | 0.3464 |
| 121 | 49.63 | 0.06 | -0.0001 | -0.0072 | -0.0042 | 72.0287 | 42.0000 | 0.5297 | 0.0740 | 0.1822 | 0.1398 | 0.3446 |
| 122 | 49.81 | 0.07 | 0.0007 | -0.0054 | 0.0014 | -13.4339 | 2.0000 | 0.5288 | 0.0740 | 0.1823 | 0.1411 | 0.3448 |
| 123 | 49.98 | 0.06 | 0.0016 | -0.0114 | 0.0034 | -0.3359 | 1.8869 | 0.5423 | 0.0746 | 0.1883 | 0.1380 | 0.3473 |
| 124 | 50.15 | 0.06 | -0.0099 | -0.0128 | -0.0007 | 1.2594 | 0.0707 | 0.5378 | 0.0743 | 0.1843 | 0.1382 | 0.3390 |
| 125 | 50.34 | 0.04 | 0.0225 | -0.0104 | 0.0132 | -0.4543 | 0.5764 | 0.5517 | 0.0753 | 0.1891 | 0.1365 | 0.3428 |
| 126 | 50.50 | 0.05 | 0.0311 | -0.0125 | 0.0195 | -0.4021 | 0.6270 | 0.5593 | 0.0707 | 0.1984 | 0.1372 | 0.3548 |
| 127 | 50.71 | 0.04 | 0.0762 | -0.0054 | 0.0327 | -0.0710 | 0.4297 | 0.5644 | 0.0767 | 0.2034 | 0.1313 | 0.3481 |
| 128 | 50.88 | 0.03 | 0.0752 | -0.0065 | 0.0319 | -0.0866 | 0.4248 | 0.6007 | 0.0763 | 0.2108 | 0.1271 | 0.3508 |
| 129 | 51.06 | 0.04 | 0.0527 | 0.0012 | 0.0354 | 0.0130 | 0.3823 | 0.5750 | 0.0762 | 0.1961 | 0.1326 | 0.3411 |
| 130 | 51.23 | 0.03 | 0.0681 | 0.0026 | 0.0314 | 0.0330 | 0.3506 | 0.5689 | 0.0759 | 0.1952 | 0.1335 | 0.3432 |
| 131 | 51.37 | 0.02 | 0.0600 | -0.0001 | 0.0286 | -0.0013 | 0.3575 | 0.6026 | 0.0759 | 0.2105 | 0.1260 | 0.3492 |
| 132 | 51.55 | 0.03 | 0.0704 | 0.0055 | 0.0220 | 0.0763 | 0.3129 | 0.5583 | 0.0749 | 0.1888 | 0.1342 | 0.3382 |
| 133 | 51.71 | 0.03 | 0.0538 | 0.0057 | 0.0144 | 0.1062 | 0.2682 | 0.5474 | 0.0742 | 0.1846 | 0.1356 | 0.3373 |
| 134 | 51.87 | 0.04 | 0.0468 | 0.0060 | 0.0116 | 0.1253 | 0.2336 | 0.5480 | 0.0748 | 0.1827 | 0.1365 | 0.3335 |
| 135 | 52.04 | 0.01 | 0.0451 | 0.0062 | 0.0125 | 0.1266 | 0.2833 | 0.5499 | 0.0752 | 0.1857 | 0.1368 | 0.3378 |
| 136 | 52.21 | 0.01 | 0.0278 | 0.0054 | 0.0032 | 0.1943 | 0.1151 | 0.5515 | 0.0736 | 0.1841 | 0.1339 | 0.3339 |
| 137 | 52.37 | 0.01 | 0.0260 | 0.0042 | 0.0025 | 0.1501 | 0.0893 | 0.5438 | 0.0746 | 0.1831 | 0.1372 | 0.3368 |
| 138 | 52.57 | 0.01 | 0.0252 | 0.0040 | 0.0036 | 0.1370 | 0.1233 | 0.5440 | 0.0735 | 0.1825 | 0.1352 | 0.3355 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 112 MACH 1.00 RX10-6 1.7 PHI 0.0 CONF 81NOF15 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.72 | 0.01 | 0.0256 | 0.0035 | 0.0027 | 0.1366 | 0.1055 | 0.5486 | 0.0740 | 0.1839 | 0.1349 | 0.3353 |
| 140 | 52.89 | 0.00 | 0.0221 | 0.0042 | -0.0005 | 0.1901 | -0.0136 | 0.5544 | 0.0754 | 0.1873 | 0.1360 | 0.3375 |
| 141 | 53.08 | -0.00 | 0.0127 | 0.0027 | -0.0036 | 0.2127 | -0.2835 | 0.5600 | 0.0743 | 0.1893 | 0.1327 | 0.3381 |
| 142 | 53.24 | -0.01 | 0.0015 | 0.0015 | -0.0047 | 0.2466 | -0.5449 | 0.5641 | 0.0733 | 0.1896 | 0.1300 | 0.3362 |
| 143 | 53.40 | -0.01 | 0.0030 | 0.0023 | -0.0057 | 0.7670 | -1.9000 | 0.5756 | 0.0733 | 0.1934 | 0.1276 | 0.3361 |
| 144 | 53.59 | -0.02 | 0.0157 | 0.0017 | 0.0007 | 0.0805 | 0.0355 | 0.5656 | 0.0707 | 0.1895 | 0.1250 | 0.3351 |
| 145 | 53.76 | -0.01 | 0.0288 | 0.0022 | 0.0037 | 0.0821 | 0.1381 | 0.5738 | 0.0736 | 0.1913 | 0.1231 | 0.3334 |
| 146 | 53.91 | -0.01 | 0.0354 | 0.0024 | -0.0034 | 0.5373 | -1.0000 | 0.5621 | 0.0716 | 0.1858 | 0.1278 | 0.3306 |
| 147 | 54.10 | -0.03 | 0.0313 | 0.0022 | 0.0028 | 0.0735 | 0.2173 | 0.5724 | 0.0693 | 0.1907 | 0.1211 | 0.3332 |
| 148 | 54.24 | -0.05 | 0.0230 | 0.0020 | 0.0038 | 0.0870 | 0.1652 | 0.5751 | 0.0694 | 0.1905 | 0.1207 | 0.3320 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER (NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 11C | MACH 1.60 | REX10-6 1.7 | PHI 0.0 | CONF BIRDFISH | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.90 | -0.00 | 0.0631 | 9.9999 | 0.0040 | 9.9999 | 0.0035 | -1.2299 | 0.0007 | -0.4546 | -0.0006 | 0.3694 |
| 2 | -5.92 | -0.02 | 0.0553 | 9.9999 | 0.0027 | 9.9999 | 0.0456 | -1.2314 | 0.0026 | -0.4541 | -0.0007 | 0.3687 |
| 3 | -5.92 | -0.01 | 0.0618 | 9.9999 | 0.0025 | 9.9999 | 0.0470 | -1.2259 | 0.0010 | -0.4527 | -0.0008 | 0.3692 |
| 4 | -5.09 | -0.01 | 0.0554 | 9.9999 | 0.0044 | 9.9999 | 0.0796 | -1.2196 | -0.0005 | -0.4519 | 0.0004 | 0.3769 |
| 5 | -3.24 | -0.01 | 0.0554 | 9.9999 | 0.0045 | 9.9999 | 0.0886 | -1.1716 | -0.0037 | -0.4342 | 0.0032 | 0.3768 |
| 6 | -1.54 | -0.01 | 0.0653 | 9.9999 | 0.0061 | 9.9999 | 0.1242 | -1.1796 | -0.0078 | -0.4518 | 0.0061 | 0.3844 |
| 7 | 0.27 | -0.01 | 0.0553 | 9.9999 | 0.0063 | 9.9999 | 0.1141 | -1.2589 | -0.0187 | -0.4998 | 0.0145 | 0.3970 |
| 8 | 2.02 | -0.01 | 0.0556 | 9.9999 | 0.0061 | 9.9999 | 0.1375 | -1.2437 | -0.0106 | -0.5099 | 0.0085 | 0.4100 |
| 9 | 3.80 | -0.01 | 0.0654 | 9.9999 | 0.0091 | 9.9999 | 0.1394 | -1.1425 | -0.0109 | -0.4683 | 0.0096 | 0.4095 |
| 10 | 5.59 | -0.01 | 0.0579 | 9.9999 | 0.0075 | 9.9999 | 0.1498 | -1.0155 | -0.0136 | -0.4119 | 0.0136 | 0.4056 |
| 11 | 7.45 | -0.01 | 0.0579 | 9.9999 | 0.0048 | 9.9999 | 0.0796 | -0.9032 | -0.0165 | -0.3589 | 0.0183 | 0.3974 |
| 12 | 9.23 | -0.01 | 0.0679 | 9.9999 | 0.0083 | 9.9999 | 0.1224 | -0.7824 | -0.0159 | -0.3052 | 0.0204 | 0.3901 |
| 13 | 11.08 | -0.02 | 0.0605 | 9.9999 | 0.0023 | 9.9999 | 0.0381 | -0.6726 | -0.0147 | -0.2623 | 0.0219 | 0.3906 |
| 14 | 12.89 | -0.01 | 0.0630 | 9.9999 | 0.0026 | 9.9999 | 0.0318 | -0.5669 | -0.0120 | -0.2089 | 0.0212 | 0.3884 |
| 15 | 14.75 | -0.01 | 0.0631 | 9.9999 | 0.0001 | 9.9999 | 0.0016 | -0.4528 | -0.0083 | -0.1524 | 0.0184 | 0.3368 |
| 16 | 16.66 | -0.02 | 0.0655 | 9.9999 | 0.0003 | 9.9999 | 0.0046 | -0.3454 | -0.0031 | -0.1062 | 0.0090 | 0.3075 |
| 17 | 18.60 | -0.02 | 0.0617 | 9.9999 | 0.0005 | 9.9999 | 0.0081 | -0.2281 | 0.0037 | -0.0592 | -0.0162 | 0.2594 |
| 18 | 20.50 | -0.02 | 0.0715 | 9.9999 | 0.0081 | 9.9999 | 0.1047 | -0.1505 | 0.0115 | -0.0262 | -0.0765 | 0.1743 |
| 19 | 22.43 | -0.03 | 0.0677 | 9.9999 | 0.0024 | 9.9999 | 0.0355 | -0.0901 | 0.0198 | 0.0012 | -0.2201 | -0.0133 |
| 20 | 24.41 | -0.04 | 0.0635 | 9.9999 | 0.0021 | 9.9999 | 0.0329 | -0.0506 | 0.0245 | 0.0178 | -0.4853 | -0.3525 |
| 21 | 26.38 | 0.02 | 0.0605 | 9.9999 | 0.0122 | 9.9999 | 0.1310 | -0.0625 | 0.0316 | 0.0180 | -0.5066 | -0.2894 |
| 22 | 28.31 | 0.05 | 0.0556 | 9.9999 | 0.0157 | 9.9999 | 0.2063 | -0.0459 | 0.0379 | 0.0246 | -0.8257 | -0.5415 |
| 23 | 28.35 | 0.03 | 0.0643 | 9.9999 | 0.0156 | 9.9999 | 0.2081 | -0.0121 | 0.0403 | 0.0395 | -3.3236 | -3.2645 |
| 24 | 28.74 | 0.04 | 0.0644 | 9.9999 | 0.0152 | 9.9999 | 0.2036 | -0.0221 | 0.0406 | 0.0353 | -1.8333 | -1.5573 |
| 25 | 28.99 | 0.05 | 0.0643 | 9.9999 | 0.0151 | 9.9999 | 0.2134 | -0.0429 | 0.0401 | 0.0264 | -0.9350 | -0.6168 |
| 26 | 29.31 | 0.05 | 0.0653 | 9.9999 | 0.0187 | 9.9999 | 0.2096 | -0.0150 | 0.0420 | 0.0392 | -3.2244 | -3.0154 |
| 27 | 29.64 | 0.04 | 0.0642 | 9.9999 | 0.0201 | 9.9999 | 0.2136 | -0.0249 | 0.0406 | 0.0330 | -1.6272 | -1.3253 |
| 28 | 29.92 | 0.05 | 0.1017 | 9.9999 | 0.0236 | 9.9999 | 0.2323 | -0.0007 | 0.0453 | 0.0444 | -64.5972 | -63.2857 |
| 29 | 30.21 | 0.05 | 0.0605 | 9.9999 | 0.0193 | 9.9999 | 0.2135 | -0.0023 | 0.0456 | 0.0427 | -19.7905 | -18.5217 |
| 30 | 30.48 | 0.04 | 0.0654 | 9.9999 | 0.0217 | 9.9999 | 0.2277 | -0.0069 | 0.0465 | 0.0415 | -6.7273 | -6.0006 |
| 31 | 30.76 | 0.06 | 0.1028 | 9.9999 | 0.0252 | 9.9999 | 0.2454 | 0.0031 | 0.0487 | 0.0446 | 15.6837 | 14.3568 |
| 32 | 31.03 | 0.05 | 0.1016 | 9.9999 | 0.0238 | 9.9999 | 0.2325 | 0.0118 | 0.0507 | 0.0482 | 4.2858 | 4.0763 |
| 33 | 31.30 | 0.07 | 0.0578 | 9.9999 | 0.0228 | 9.9999 | 0.2336 | 0.0060 | 0.0500 | 0.0472 | 8.2400 | 5.8875 |
| 34 | 31.59 | 0.07 | 0.1006 | 9.9999 | 0.0259 | 9.9999 | 0.2587 | 0.0220 | 0.0528 | 0.0524 | 2.3964 | 2.3773 |
| 35 | 31.87 | 0.07 | 0.1040 | 9.9999 | 0.0267 | 9.9999 | 0.2570 | 0.0249 | 0.0533 | 0.0542 | 2.1723 | 2.2082 |
| 36 | 32.12 | 0.07 | 0.0918 | 9.9999 | 0.0196 | 9.9999 | 0.2072 | 0.0263 | 0.0541 | 0.0556 | 1.9089 | 1.9611 |
| 37 | 32.41 | 0.06 | 0.1025 | 9.9999 | 0.0252 | 9.9999 | 0.2451 | 0.0416 | 0.0557 | 0.0621 | 1.3403 | 1.4940 |
| 38 | 32.67 | 0.07 | 0.0993 | 9.9999 | 0.0230 | 9.9999 | 0.2319 | 0.0372 | 0.0573 | 0.0778 | 0.7422 | 1.0078 |
| 39 | 32.93 | 0.04 | 0.0993 | 9.9999 | 0.0230 | 9.9999 | 0.2319 | 0.0571 | 0.0582 | 0.0687 | 1.0197 | 1.2039 |
| 40 | 33.19 | 0.04 | 0.0921 | 9.9999 | 0.0190 | 9.9999 | 0.2065 | 0.0910 | 0.0579 | 0.0852 | 0.6361 | 0.9362 |
| 41 | 33.44 | 0.03 | 0.0871 | 9.9999 | 0.0178 | 9.9999 | 0.2023 | 0.1124 | 0.0599 | 0.0938 | 0.5327 | 0.8344 |
| 42 | 33.69 | 0.02 | 0.0695 | 9.9999 | 0.0263 | 9.9999 | 0.2271 | 0.1417 | 0.0661 | 0.1074 | 0.4242 | 0.7583 |
| 43 | 33.95 | 0.04 | 0.0993 | 9.9999 | 0.0245 | 9.9999 | 0.2470 | 0.1291 | 0.0631 | 0.1023 | 0.4689 | 0.7929 |
| 44 | 34.19 | 0.03 | 0.0805 | 9.9999 | 0.0162 | 9.9999 | 0.2005 | 0.1493 | 0.0617 | 0.1118 | 0.4133 | 0.7492 |
| 45 | 34.43 | 0.03 | 0.0724 | 9.9999 | 0.0135 | 9.9999 | 0.1867 | 0.1730 | 0.0626 | 0.1215 | 0.3519 | 0.7031 |
| 46 | 34.71 | 0.02 | 0.0748 | 9.9999 | 0.0147 | 9.9999 | 0.1906 | 0.1919 | 0.0640 | 0.1300 | 0.3335 | 0.6771 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 112 | MACH 1.60 | RX10-6 1.7 | PHI 0.0 | CONF BIBOFIS | C.C | DELI 0 | DELZ -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.96 | 0.02 | 0.0711 | 9.9999 | 0.0130 | 9.9999 | 0.1631 | 0.1933 | 0.0636 | 0.1312 | 0.3300 | 0.6784 |
| 48 | 35.18 | 0.04 | 0.0723 | 9.9999 | 0.0145 | 9.9999 | 0.2006 | 0.2059 | 0.0645 | 0.1377 | 0.3074 | 0.6560 |
| 49 | 35.44 | 0.02 | 0.0760 | 9.9999 | 0.0163 | 9.9999 | 0.2146 | 0.2006 | 0.0660 | 0.1331 | 0.3250 | 0.6632 |
| 50 | 35.69 | 0.05 | 0.0746 | 9.9999 | 0.0147 | 9.9999 | 0.1966 | 0.1957 | 0.0674 | 0.1324 | 0.3444 | 0.6762 |
| 51 | 35.92 | 0.02 | 0.0825 | 9.9999 | 0.0095 | 9.9999 | 0.1571 | 0.2149 | 0.0685 | 0.1357 | 0.3189 | 0.6500 |
| 52 | 36.18 | 0.04 | 0.0772 | 9.9999 | 0.0144 | 9.9999 | 0.2374 | 0.2140 | 0.0703 | 0.1399 | 0.3286 | 0.6537 |
| 53 | 36.41 | 0.02 | 0.0873 | 9.9999 | 0.0151 | 9.9999 | 0.2247 | 0.2190 | 0.0715 | 0.1420 | 0.3266 | 0.6484 |
| 54 | 36.69 | 0.04 | 0.0873 | 9.9999 | 0.0141 | 9.9999 | 0.2096 | 0.2200 | 0.0721 | 0.1411 | 0.3278 | 0.6413 |
| 55 | 36.87 | 0.04 | 0.0754 | 9.9999 | 0.0225 | 9.9999 | 0.2868 | 0.2346 | 0.0733 | 0.1480 | 0.3125 | 0.6308 |
| 56 | 37.11 | 0.02 | 0.0864 | 9.9999 | 0.0162 | 9.9999 | 0.2372 | 0.2253 | 0.0752 | 0.1440 | 0.3339 | 0.6391 |
| 57 | 37.36 | 0.04 | 0.0858 | 9.9999 | 0.0116 | 9.9999 | 0.1943 | 0.2338 | 0.0746 | 0.1466 | 0.3200 | 0.6276 |
| 58 | 37.59 | 0.03 | 0.0745 | 9.9999 | 0.0186 | 9.9999 | 0.2500 | 0.2500 | 0.0760 | 0.1531 | 0.3041 | 0.6123 |
| 59 | 37.82 | 0.05 | 0.0871 | 9.9999 | 0.0161 | 9.9999 | 0.2403 | 0.2501 | 0.0756 | 0.1531 | 0.3032 | 0.6121 |
| 60 | 38.07 | 0.03 | 0.0857 | 9.9999 | 0.0125 | 9.9999 | 0.2097 | 0.2681 | 0.0755 | 0.1620 | 0.2817 | 0.6042 |
| 61 | 38.29 | 0.03 | 0.0857 | 9.9999 | 0.0116 | 9.9999 | 0.1946 | 0.2665 | 0.0759 | 0.1596 | 0.2849 | 0.5980 |
| 62 | 38.54 | 0.00 | 0.0869 | 9.9999 | 0.0125 | 9.9999 | 0.2097 | 0.2773 | 0.0766 | 0.1644 | 0.2763 | 0.5928 |
| 63 | 38.76 | 0.01 | 0.0883 | 9.9999 | 0.0166 | 9.9999 | 0.2434 | 0.2795 | 0.0778 | 0.1637 | 0.2784 | 0.5856 |
| 64 | 38.99 | 0.03 | 0.0848 | 9.9999 | 0.0102 | 9.9999 | 0.1865 | 0.2873 | 0.0782 | 0.1671 | 0.2654 | 0.5817 |
| 65 | 39.23 | 0.02 | 0.0715 | 9.9999 | 0.0263 | 9.9999 | 0.2827 | 0.3065 | 0.0770 | 0.1756 | 0.2513 | 0.5724 |
| 66 | 39.44 | 0.02 | 0.0865 | 9.9999 | 0.0150 | 9.9999 | 0.2044 | 0.3047 | 0.0778 | 0.1728 | 0.2554 | 0.5672 |
| 67 | 39.65 | 0.02 | 0.0869 | 9.9999 | 0.0150 | 9.9999 | 0.2044 | 0.3046 | 0.0781 | 0.1735 | 0.2565 | 0.5710 |
| 68 | 39.85 | 0.03 | 0.0869 | 9.9999 | 0.0150 | 9.9999 | 0.2044 | 0.3246 | 0.0771 | 0.1824 | 0.2376 | 0.5620 |
| 69 | 40.07 | 0.03 | 0.0855 | 9.9999 | 0.0164 | 9.9999 | 0.2761 | 0.3182 | 0.0786 | 0.1781 | 0.2471 | 0.5558 |
| 70 | 40.26 | 0.02 | 0.0863 | 9.9999 | 0.0145 | 9.9999 | 0.2560 | 0.3209 | 0.0789 | 0.1793 | 0.2460 | 0.5588 |
| 71 | 40.46 | 0.03 | 0.0822 | 9.9999 | 0.0124 | 9.9999 | 0.2380 | 0.3263 | 0.0791 | 0.1808 | 0.2425 | 0.5542 |
| 72 | 40.68 | 0.02 | 0.0882 | 9.9999 | 0.0166 | 9.9999 | 0.2892 | 0.3303 | 0.0811 | 0.1715 | 0.2630 | 0.5566 |
| 73 | 40.85 | 0.01 | 0.0854 | 9.9999 | 0.0135 | 9.9999 | 0.2553 | 0.3112 | 0.0814 | 0.1718 | 0.2617 | 0.5521 |
| 74 | 41.11 | 0.02 | 0.0852 | 9.9999 | 0.0136 | 9.9999 | 0.2601 | 0.3299 | 0.0802 | 0.1812 | 0.2432 | 0.5493 |
| 75 | 41.30 | 0.03 | 0.0843 | 9.9999 | 0.0207 | 9.9999 | 0.3224 | 0.3422 | 0.0809 | 0.1859 | 0.2365 | 0.5433 |
| 76 | 41.51 | 0.02 | 0.0818 | 9.9999 | 0.0205 | 9.9999 | 0.3323 | 0.3406 | 0.0813 | 0.1858 | 0.2388 | 0.5456 |
| 77 | 41.73 | 0.01 | 0.0855 | 9.9999 | 0.0158 | 9.9999 | 0.3158 | 0.3420 | 0.0813 | 0.1854 | 0.2378 | 0.5422 |
| 78 | 41.92 | 0.01 | 0.0854 | 9.9999 | 0.0184 | 9.9999 | 0.3103 | 0.3397 | 0.0826 | 0.1820 | 0.2461 | 0.5422 |
| 79 | 42.11 | 0.01 | 0.0868 | 9.9999 | 0.0225 | 9.9999 | 0.3433 | 0.3156 | 0.0846 | 0.1728 | 0.2682 | 0.5476 |
| 80 | 42.31 | 0.02 | 0.0871 | 9.9999 | 0.0172 | 9.9999 | 0.3018 | 0.3403 | 0.0817 | 0.1883 | 0.2346 | 0.5407 |
| 81 | 42.50 | 0.02 | 0.0860 | 9.9999 | 0.0125 | 9.9999 | 0.2610 | 0.3761 | 0.0796 | 0.2014 | 0.2117 | 0.5357 |
| 82 | 42.69 | 0.01 | 0.0857 | 9.9999 | 0.0147 | 9.9999 | 0.2964 | 0.3656 | 0.0838 | 0.1957 | 0.2211 | 0.5353 |
| 83 | 42.87 | 0.02 | 0.0834 | 9.9999 | 0.0170 | 9.9999 | 0.3189 | 0.3594 | 0.0827 | 0.1931 | 0.2302 | 0.5373 |
| 84 | 43.06 | 0.02 | 0.0810 | 9.9999 | 0.0125 | 9.9999 | 0.3056 | 0.3766 | 0.0805 | 0.1994 | 0.2126 | 0.5266 |
| 85 | 43.23 | 0.02 | 0.0857 | 9.9999 | 0.0167 | 9.9999 | 0.3367 | 0.3431 | 0.0844 | 0.1839 | 0.2461 | 0.5360 |
| 86 | 43.41 | 0.01 | 0.0873 | 9.9999 | 0.0145 | 9.9999 | 0.3072 | 0.3967 | 0.0820 | 0.2064 | 0.2068 | 0.5262 |
| 87 | 43.60 | -0.01 | 0.0865 | 9.9999 | 0.0223 | 9.9999 | 0.3754 | 0.3326 | 0.0866 | 0.1784 | 0.2605 | 0.5364 |
| 88 | 43.79 | 0.01 | 0.0865 | 9.9999 | 0.0187 | 9.9999 | 0.3661 | 0.3528 | 0.0854 | 0.1865 | 0.2422 | 0.5287 |
| 89 | 43.96 | 0.01 | 0.0833 | 9.9999 | 0.0204 | 9.9999 | 0.3835 | 0.3529 | 0.0853 | 0.1870 | 0.2418 | 0.5299 |
| 90 | 44.14 | 0.00 | 0.0855 | 9.9999 | 0.0206 | 9.9999 | 0.3892 | 0.3543 | 0.0861 | 0.1879 | 0.2431 | 0.5304 |
| 91 | 44.30 | -0.00 | 0.0872 | 9.9999 | 0.0184 | 9.9999 | 0.3907 | 0.3502 | 0.0858 | 0.1865 | 0.2451 | 0.5326 |
| 92 | 44.51 | -0.00 | 0.0821 | 9.9999 | 0.0208 | 9.9999 | 0.4000 | 0.3722 | 0.0851 | 0.1949 | 0.2288 | 0.5238 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10=6 PHI CONF L DEC1 DEC2 DEL3 DEL4 TRANSITION
7 112 1.00 1.7 C.C DIAGFIX C.C 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | Cm3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CE4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.87 | -C.0C | C.C484 | 5.9999 | C.C195 | 5.9999 | 0.4037 | 0.3330 | 0.0874 | 0.1784 | 0.2626 | 0.5358 |
| 94 | 44.87 | 0.01 | C.C457 | 5.9999 | 0.0196 | 5.9999 | 0.3952 | 0.3476 | 0.0862 | 0.1839 | 0.2461 | 0.5251 |
| 95 | 45.05 | -C.0C | C.C41C | 5.9999 | 0.0195 | 5.9999 | 0.3790 | 0.3823 | 0.0846 | 0.1982 | 0.2214 | 0.5186 |
| 96 | 45.24 | C.0C | 0.0397 | 5.9999 | C.C195 | 5.9999 | 0.4005 | 0.3940 | 0.0847 | 0.2045 | 0.2151 | 0.5189 |
| 97 | 45.35 | 0.01 | 0.0460 | 5.9999 | C.C175 | 5.9999 | 0.3900 | 0.3764 | 0.0881 | 0.1982 | 0.2289 | 0.5267 |
| 98 | 45.58 | -0.01 | 0.0416 | 5.9999 | 0.0165 | 5.9999 | 0.4034 | 0.3823 | 0.0856 | 0.1995 | 0.2240 | 0.5220 |
| 99 | 45.77 | C.0C | C.C46C | 5.9999 | C.C185 | 5.9999 | 0.4116 | 0.3823 | 0.0855 | 0.1974 | 0.2238 | 0.5165 |
| 100 | 45.95 | -0.01 | 0.0357 | 5.9999 | 0.0165 | 5.9999 | 0.4257 | 0.3767 | 0.0863 | 0.1963 | 0.2292 | 0.5213 |
| 101 | 46.11 | C.01 | C.0457 | 5.9999 | C.C212 | 5.9999 | 0.4274 | 0.3970 | 0.0853 | 0.2061 | 0.2150 | 0.5196 |
| 102 | 46.29 | 0.01 | 0.0486 | 5.9999 | C.C186 | 5.9999 | 0.3835 | 0.3865 | 0.0866 | 0.2017 | 0.2242 | 0.5226 |
| 103 | 46.47 | 0.01 | C.0385 | 5.9999 | C.C163 | 5.9999 | 0.4234 | 0.4043 | 0.0848 | 0.2081 | 0.2098 | 0.5148 |
| 104 | 46.65 | 0.01 | 0.0385 | 5.9999 | C.C154 | 5.9999 | 0.4000 | 0.3963 | 0.0849 | 0.2056 | 0.2143 | 0.5187 |
| 105 | 46.82 | 0.01 | C.0424 | 5.9999 | C.C171 | 5.9999 | 0.4043 | 0.4071 | 0.0858 | 0.2107 | 0.2109 | 0.5175 |
| 106 | 46.97 | 0.01 | C.C272 | 5.9999 | 0.0136 | 5.9999 | 0.4779 | 0.4634 | 0.0813 | 0.2433 | 0.1748 | 0.5228 |
| 107 | 47.17 | 0.02 | C.0367 | 5.9999 | 0.0155 | 5.9999 | 0.4005 | 0.4130 | 0.0841 | 0.2169 | 0.2037 | 0.5251 |
| 108 | 47.35 | 0.01 | 0.0256 | 5.9999 | C.C122 | 5.9999 | 0.4094 | 0.4519 | 0.0827 | 0.2347 | 0.1831 | 0.5194 |
| 109 | 47.51 | 0.03 | C.0356 | 5.9999 | 0.0164 | 5.9999 | 0.4141 | 0.5692 | 0.0779 | 0.2882 | 0.1365 | C.5062 |
| 110 | 47.68 | 0.02 | 0.0372 | 5.9999 | C.C155 | 5.9999 | 0.4140 | 0.6004 | 0.0746 | 0.3009 | 0.1243 | 0.5011 |
| 111 | 47.88 | 0.03 | C.0456 | 5.9999 | C.C196 | 5.9999 | 0.4333 | 0.5689 | 0.0766 | 0.2844 | 0.1347 | C.5000 |
| 112 | 48.05 | 0.04 | C.C455 | 5.9999 | 0.0221 | 5.9999 | 0.4474 | 0.5469 | 0.0773 | 0.2747 | C.1405 | 0.5005 |
| 113 | 48.20 | 0.04 | C.C445 | 5.9999 | 0.0202 | 5.9999 | 0.4550 | 0.5821 | 0.0768 | 0.2924 | 0.1320 | C.5022 |
| 114 | 48.40 | 0.05 | C.C457 | 5.9999 | 0.0217 | 5.9999 | 0.4759 | 0.4563 | 0.0752 | 0.2304 | 0.1645 | C.5049 |
| 115 | 48.58 | 0.04 | 0.0454 | 5.9999 | C.C23C | 5.9999 | 0.4665 | 0.4566 | 0.0745 | 0.2298 | 0.1632 | 0.5033 |
| 116 | 48.75 | 0.06 | 0.0462 | 5.9999 | C.C21C | 5.9999 | 0.4366 | 0.4519 | 0.0725 | 0.2244 | 0.1600 | 0.4966 |
| 117 | 48.92 | 0.05 | 0.0555 | 5.9999 | C.C264 | 5.9999 | 0.4765 | 0.4612 | 0.0704 | 0.2242 | 0.1527 | C.4861 |
| 118 | 49.10 | 0.05 | C.C5C6 | 5.9999 | 0.C24E | 5.9999 | 0.4871 | 0.4570 | 0.0704 | 0.2224 | 0.1541 | 0.4866 |
| 119 | 49.28 | 0.05 | C.C51E | 5.9999 | 0.0267 | 5.9999 | 0.5164 | 0.4434 | 0.0707 | 0.2147 | C.1606 | 0.4874 |
| 120 | 49.44 | 0.07 | 0.0567 | 5.9999 | C.027C | 5.9999 | 0.4770 | 0.4455 | 0.0705 | 0.2184 | 0.1583 | C.4961 |
| 121 | 49.63 | 0.06 | 0.0542 | 5.9999 | C.C26E | 5.9999 | 0.4954 | 0.4369 | 0.0707 | 0.2147 | 0.1618 | C.4913 |
| 122 | 49.81 | 0.07 | 0.0443 | 5.9999 | C.C241 | 5.9999 | 0.5452 | 0.4263 | 0.0735 | 0.2125 | 0.1724 | 0.4984 |
| 123 | 49.98 | 0.06 | 0.0443 | 5.9999 | C.C241 | 5.9999 | 0.5452 | 0.4290 | 0.0738 | 0.2163 | 0.1721 | C.5041 |
| 124 | 50.15 | C.06 | 0.0418 | 5.9999 | 0.0225 | 5.9999 | 0.5492 | 0.4202 | 0.0732 | 0.2081 | 0.1742 | 0.4951 |
| 125 | 50.34 | C.06 | 0.0353 | 5.9999 | C.C217 | 5.9999 | 0.5522 | 0.4187 | 0.0743 | 0.2069 | 0.1775 | C.4988 |
| 126 | 50.50 | 0.05 | 0.0542 | 5.9999 | 0.0276 | 5.9999 | 0.5139 | 0.4142 | 0.0751 | 0.2107 | 0.1814 | C.5C86 |
| 127 | 50.71 | 0.04 | C.0415 | 5.9999 | 0.0225 | 5.9999 | 0.5478 | 0.4129 | 0.0757 | 0.2088 | 0.1834 | 0.5056 |
| 128 | 50.88 | 0.03 | 0.0265 | 5.9999 | C.C171 | 5.9999 | 0.5797 | 0.4196 | 0.0766 | 0.2131 | 0.1826 | 0.5078 |
| 129 | 51.06 | 0.04 | C.0462 | 5.9999 | 0.0215 | 5.9999 | 0.5394 | 0.4410 | 0.0789 | 0.2232 | 0.1780 | 0.5060 |
| 130 | 51.23 | 0.03 | 0.0365 | 5.9999 | C.C206 | 5.9999 | 0.5583 | 0.4469 | 0.0782 | 0.2302 | 0.1743 | 0.5128 |
| 131 | 51.37 | 0.02 | 0.0320 | 5.9999 | 0.0182 | 5.9999 | 0.5687 | 0.4580 | 0.0794 | 0.2321 | 0.1734 | C.5068 |
| 132 | 51.55 | 0.03 | 0.0320 | 5.9999 | 0.0178 | 5.9999 | 0.5562 | 0.4936 | 0.0815 | 0.2507 | 0.1652 | C.5079 |
| 133 | 51.71 | 0.03 | 0.0354 | 5.9999 | 0.0218 | 5.9999 | 0.5533 | 0.5086 | 0.0820 | 0.2554 | 0.1613 | C.5022 |
| 134 | 51.87 | 0.02 | 0.0320 | 5.9999 | C.C173 | 9.9999 | 0.5406 | 0.5022 | 0.0815 | 0.2505 | 0.1631 | 0.4986 |
| 135 | 52.04 | 0.01 | C.0271 | 5.9999 | 0.0195 | 5.9999 | 0.5867 | 0.5026 | 0.0824 | 0.2519 | 0.1640 | 0.5012 |
| 136 | 52.21 | 0.01 | 0.0368 | 5.9999 | C.C167 | 5.9999 | 0.5422 | 0.5060 | 0.0810 | 0.2477 | 0.1601 | 0.4895 |
| 137 | 52.37 | C.01 | 0.0358 | 5.9999 | 0.C151 | 5.9999 | 0.5335 | 0.4980 | 0.0812 | 0.2427 | 0.1631 | 0.4873 |
| 138 | 52.57 | 0.01 | 0.0421 | 5.9999 | 0.0216 | 5.9999 | 0.5143 | 0.4981 | 0.0808 | 0.2490 | 0.1623 | 0.4818 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 112 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF 15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.72 | 0.01 | 0.0321 | 0.0000 | 0.0163 | 0.0000 | 0.5078 | 0.4893 | 0.0799 | 0.2348 | 0.1634 | 0.4798 |
| 140 | 52.89 | 0.00 | 0.0333 | 0.0000 | 0.0175 | 0.0000 | 0.5375 | 0.5049 | 0.0810 | 0.2410 | 0.1605 | 0.4773 |
| 141 | 53.08 | -0.00 | 0.0320 | 0.0000 | 0.0163 | 0.0000 | 0.5715 | 0.4998 | 0.0797 | 0.2336 | 0.1595 | 0.4673 |
| 142 | 53.24 | -0.01 | 0.0346 | 0.0000 | 0.0175 | 0.0000 | 0.5036 | 0.5019 | 0.0779 | 0.2319 | 0.1553 | 0.4620 |
| 143 | 53.40 | -0.01 | 0.0321 | 0.0000 | 0.0162 | 0.0000 | 0.5234 | 0.5169 | 0.0790 | 0.2403 | 0.1523 | 0.4631 |
| 144 | 53.59 | -0.02 | 0.0371 | 0.0000 | 0.0187 | 0.0000 | 0.5040 | 0.5137 | 0.0784 | 0.2351 | 0.1488 | 0.4578 |
| 145 | 53.76 | -0.01 | 0.0272 | 0.0000 | 0.0140 | 0.0000 | 0.5147 | 0.5077 | 0.0771 | 0.2316 | 0.1515 | 0.4561 |
| 146 | 53.91 | -0.01 | 0.0345 | 0.0000 | 0.0175 | 0.0000 | 0.5072 | 0.5141 | 0.0769 | 0.2365 | 0.1496 | 0.4600 |
| 147 | 54.10 | -0.03 | 0.0255 | 0.0000 | 0.0131 | 0.0000 | 0.5458 | 0.4948 | 0.0664 | 0.2321 | 0.1342 | 0.4690 |
| 148 | 54.24 | -0.00 | 0.0370 | 0.0000 | 0.0186 | 0.0000 | 0.5027 | 0.5067 | 0.0780 | 0.2368 | 0.1500 | 0.4554 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 113 | MACH 1.10 1.7 | RNIC-6 | PHI 0.0 | CONF BLNCPLS | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLP | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | -2.4259 | 8.9646 | 0.0557 | -0.0831 | -0.0016 | 1.5057 | 0.3733 | 1.1324 | -3.6955 |
| 2 | -5.75 | 0.01 | -2.4258 | 8.9563 | -0.0621 | -0.0385 | -0.0016 | 1.5107 | 0.3766 | 1.1341 | -3.7087 |
| 3 | -5.75 | 0.01 | -2.4406 | 8.9555 | 0.0543 | -0.1010 | 0.0036 | 1.5070 | 0.3740 | 1.1330 | -3.6654 |
| 4 | -5.31 | 0.01 | -2.3523 | 8.6047 | -0.0107 | -0.0204 | 0.0042 | 1.5243 | 0.3667 | 1.1576 | -3.8535 |
| 5 | -3.44 | 0.01 | -2.2343 | 5.0110 | -0.0621 | 0.0756 | -0.0010 | 1.4541 | 0.3455 | 1.1448 | -4.0327 |
| 6 | -1.73 | 0.03 | -2.0270 | 2.7150 | 0.1254 | -0.1802 | 0.0 | 1.4334 | 0.3247 | 1.1088 | -4.2954 |
| 7 | 0.08 | 0.02 | -1.8328 | 0.3955 | 0.0028 | -0.1272 | 0.0004 | 1.4168 | 0.3293 | 1.0876 | -4.5826 |
| 8 | 1.86 | 0.01 | -1.5561 | 7.7903 | 0.0023 | -0.0143 | 0.0007 | 1.3967 | 0.3398 | 1.0285 | -5.0062 |
| 9 | 3.68 | 0.01 | -1.3045 | 7.1748 | -0.0101 | -0.0122 | 0.0010 | 1.3958 | 0.3538 | 0.9520 | -5.5062 |
| 10 | 5.47 | 0.01 | -1.0318 | 6.5436 | -0.0075 | 0.0235 | 0.0013 | 1.2505 | 0.3652 | 0.8854 | -6.3417 |
| 11 | 7.34 | 0.02 | -0.7184 | 5.8853 | 0.0655 | -0.0503 | 0.0019 | 1.1683 | 0.3720 | 0.7963 | -8.1648 |
| 12 | 9.15 | 0.01 | -0.3915 | 5.1925 | -0.0067 | 0.0213 | 0.0024 | 1.1007 | 0.3831 | 0.7176 | -13.2830 |
| 13 | 11.03 | 0.00 | -0.0605 | 4.5955 | -0.1117 | 0.2165 | 0.0025 | 1.0318 | 0.3873 | 0.6445 | -75.9190 |
| 14 | 12.87 | 0.01 | 0.2640 | 3.9255 | -0.0592 | 0.2335 | 0.0029 | 0.9527 | 0.3883 | 0.5604 | 14.8671 |
| 15 | 14.76 | 0.01 | 0.5385 | 3.3221 | -0.0750 | 0.1953 | 0.0036 | 0.8772 | 0.3838 | 0.4934 | 5.1954 |
| 16 | 16.73 | 0.02 | 1.0269 | 2.7726 | -0.0620 | 0.3356 | 0.0041 | 0.7919 | 0.3796 | 0.4123 | 2.6940 |
| 17 | 18.69 | -0.01 | 1.4252 | 2.3742 | -0.2643 | 0.6108 | 0.0101 | 0.7148 | 0.3737 | 0.3411 | 1.6656 |
| 18 | 20.63 | 0.01 | 1.8456 | 2.0556 | -0.1305 | 0.6074 | -0.0050 | 0.6557 | 0.3686 | 0.2869 | 1.1136 |
| 19 | 22.61 | 0.01 | 2.4375 | 2.0545 | -0.0627 | 0.2483 | -0.0121 | 0.6066 | 0.3657 | 0.2409 | 0.8595 |
| 20 | 24.62 | 0.01 | 2.9747 | 2.1125 | -0.0777 | 0.1552 | 0.0012 | 0.5641 | 0.3696 | 0.1945 | 0.7102 |
| 21 | 26.64 | 0.03 | 3.6514 | 2.0543 | 0.2455 | -0.8155 | 0.0653 | 0.5357 | 0.3586 | 0.1771 | 0.5565 |
| 22 | 28.40 | 0.04 | 4.2535 | 1.9738 | 0.3512 | -0.0741 | 0.0674 | 0.4923 | 0.3579 | 0.1344 | 0.4640 |
| 23 | 26.43 | 0.07 | 4.3344 | 1.9285 | 0.6367 | -1.3675 | 0.1066 | 0.5056 | 0.3622 | 0.1434 | 0.4450 |
| 24 | 28.65 | 0.05 | 4.3616 | 1.9041 | 0.4625 | -1.2134 | 0.1224 | 0.5056 | 0.3608 | 0.1448 | 0.4367 |
| 25 | 29.11 | 0.03 | 4.5288 | 1.9800 | 0.1862 | -0.2163 | 0.0523 | 0.4950 | 0.3671 | 0.1279 | 0.4328 |
| 26 | 29.41 | 0.03 | 4.6310 | 1.7828 | 0.2413 | -0.4157 | 0.0791 | 0.5013 | 0.3658 | 0.1355 | 0.3866 |
| 27 | 29.76 | 0.04 | 4.7875 | 1.7702 | 0.2195 | -0.2379 | 0.0578 | 0.4674 | 0.3694 | 0.0981 | 0.3658 |
| 28 | 30.03 | 0.06 | 4.8627 | 1.7591 | 0.6012 | -1.1609 | 0.1136 | 0.4748 | 0.3741 | 0.1008 | 0.3700 |
| 29 | 30.32 | 0.07 | 4.9451 | 1.7605 | 0.6038 | -1.1462 | 0.1245 | 0.4719 | 0.3777 | 0.0942 | 0.3598 |
| 30 | 30.60 | 0.06 | 5.0594 | 1.8567 | 0.5393 | -1.0653 | 0.1138 | 0.4579 | 0.3742 | 0.0837 | 0.3557 |
| 31 | 30.86 | 0.07 | 5.1540 | 1.5874 | 0.5654 | -0.8664 | 0.1138 | 0.4447 | 0.3722 | 0.0725 | 0.3080 |
| 32 | 31.15 | 0.04 | 5.3517 | 1.4761 | 0.2684 | -0.2388 | 0.0064 | 0.4376 | 0.3735 | 0.0641 | 0.2758 |
| 33 | 31.43 | 0.04 | 5.4540 | 1.3659 | 0.3225 | -0.0284 | 0.0699 | 0.4296 | 0.3745 | 0.0551 | 0.2486 |
| 34 | 31.70 | 0.02 | 5.5553 | 1.3552 | 0.1262 | -0.0260 | 0.0012 | 0.4249 | 0.3715 | 0.0534 | 0.2440 |
| 35 | 32.00 | 0.03 | 5.6742 | 1.3304 | 0.2642 | -0.2630 | 0.1035 | 0.4113 | 0.3712 | 0.0401 | 0.2332 |
| 36 | 32.25 | 0.03 | 5.7910 | 1.2765 | 0.1438 | 0.2055 | 0.0700 | 0.4067 | 0.3778 | 0.0289 | 0.2205 |
| 37 | 32.54 | 0.02 | 5.9147 | 1.1522 | 0.0333 | 0.3291 | 0.0706 | 0.3989 | 0.3820 | 0.0169 | 0.1948 |
| 38 | 32.80 | 0.01 | 6.0642 | 1.0513 | 0.0520 | 0.1506 | 0.0903 | 0.4033 | 0.3886 | 0.0147 | 0.1701 |
| 39 | 33.07 | 0.03 | 6.2202 | 0.9485 | 0.1708 | 0.3721 | 0.0816 | 0.3847 | 0.3917 | -0.0070 | 0.1526 |
| 40 | 33.32 | 0.03 | 6.1842 | 0.9341 | 0.2471 | 0.0698 | 0.0824 | 0.3835 | 0.3916 | -0.0081 | 0.1510 |
| 41 | 33.58 | -0.00 | 6.3666 | 0.8226 | -0.1160 | 0.7464 | 0.0690 | 0.3904 | 0.3896 | 0.0008 | 0.1301 |
| 42 | 33.82 | 0.01 | 6.4758 | 0.7438 | 0.0 | 0.5701 | 0.0658 | 0.3777 | 0.3907 | -0.0130 | 0.1149 |
| 43 | 34.09 | 0.01 | 6.5528 | 0.7103 | -0.0030 | 0.7355 | 0.0654 | 0.3619 | 0.3844 | -0.0225 | 0.1084 |
| 44 | 34.35 | 0.01 | 6.7001 | 0.6876 | -0.0026 | 0.6596 | 0.0625 | 0.3620 | 0.3865 | -0.0245 | 0.1026 |
| 45 | 34.58 | 0.02 | 6.7570 | 0.4623 | 0.1425 | 0.4838 | 0.1044 | 0.3451 | 0.3932 | -0.0481 | 0.0680 |
| 46 | 34.85 | -0.01 | 6.9546 | 0.4736 | -0.1928 | 1.0401 | 0.0445 | 0.3521 | 0.3946 | -0.0625 | 0.0681 |

TEST 7 | PART 11B | MACH 1.10 | AX10=0 | 1.1 | PHI 0.0 | CONF 61W0F15 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.10 | 0.02 | 7.0844 | 0.1370 | 0.1591 | 0.3625 | 0.1184 | 0.3463 | 0.3981 | -0.0498 | 0.0193 |
| 48 | 35.33 | 0.02 | 7.1362 | 0.1534 | 0.1712 | 0.7230 | 0.1046 | 0.3429 | 0.3953 | -0.0524 | 0.0215 |
| 49 | 35.56 | 0.02 | 7.2523 | 0.1980 | 0.1952 | 0.5198 | 0.0952 | 0.3240 | 0.3908 | -0.0668 | 0.0272 |
| 50 | 35.81 | 0.01 | 7.4483 | 0.1177 | 0.0916 | 0.3779 | 0.1172 | 0.3375 | 0.3956 | -0.0581 | 0.0162 |
| 51 | 36.07 | 0.01 | 7.4320 | 0.1051 | 0.0691 | 0.6007 | 0.1062 | 0.3115 | 0.3935 | -0.0820 | 0.0141 |
| 52 | 36.31 | 0.03 | 7.5456 | -0.0115 | 0.0007 | 0.4736 | 0.0959 | 0.3235 | 0.3943 | -0.0708 | -0.0016 |
| 53 | 36.53 | 0.00 | 7.7075 | -0.2377 | 0.0245 | 0.6224 | 0.1231 | 0.3091 | 0.3926 | -0.0835 | -0.0308 |
| 54 | 36.79 | 0.01 | 7.8258 | -0.2466 | 0.1204 | 0.4936 | 0.0977 | 0.3016 | 0.3886 | -0.0872 | -0.0315 |
| 55 | 37.01 | -0.01 | 7.8837 | -0.2547 | -0.0156 | 0.6436 | 0.1029 | 0.3072 | 0.3888 | -0.0816 | -0.0374 |
| 56 | 37.24 | 0.00 | 7.9541 | -0.4066 | 0.0347 | 0.5549 | 0.1405 | 0.2900 | 0.3902 | -0.0916 | -0.0588 |
| 57 | 37.51 | -0.01 | 8.1241 | -0.4073 | 0.0013 | 0.6060 | 0.0986 | 0.2644 | 0.3831 | -0.0987 | -0.0501 |
| 58 | 37.73 | -0.00 | 8.2220 | -0.4966 | 0.0871 | 0.5054 | 0.1205 | 0.2803 | 0.3882 | -0.1079 | -0.0604 |
| 59 | 37.96 | -0.00 | 8.2165 | -0.4782 | 0.0776 | 0.5439 | 0.0990 | 0.2704 | 0.3878 | -0.1114 | -0.0582 |
| 60 | 38.21 | 0.01 | 8.4660 | -0.7375 | 0.1116 | 0.5404 | 0.1103 | 0.2613 | 0.3886 | -0.1273 | -0.0871 |
| 61 | 38.43 | 0.00 | 8.5507 | -0.8563 | 0.1360 | 0.3455 | 0.1307 | 0.2512 | 0.3761 | -0.1249 | -0.0767 |
| 62 | 38.67 | -0.02 | 8.8226 | -1.0026 | -0.0153 | 0.1862 | 0.0697 | 0.2332 | 0.3702 | -0.1436 | -0.0766 |
| 63 | 38.90 | -0.01 | 8.8077 | -0.8743 | 0.0275 | 0.2187 | 0.0749 | 0.2509 | 0.3811 | -0.1302 | -0.0783 |
| 64 | 39.13 | -0.03 | 8.7850 | -0.8855 | -0.1695 | 0.1558 | 0.0926 | 0.2394 | 0.3705 | -0.1371 | -0.1068 |
| 65 | 39.34 | -0.01 | 8.8755 | -1.0924 | 0.0647 | 0.2790 | 0.0913 | 0.2295 | 0.3751 | -0.1456 | -0.1231 |
| 66 | 39.58 | -0.02 | 8.9814 | -1.0938 | -0.0103 | 0.3492 | 0.0915 | 0.2096 | 0.3704 | -0.1608 | -0.1217 |
| 67 | 39.79 | -0.01 | 9.0773 | -1.1513 | 0.0151 | 0.0845 | 0.0859 | 0.2144 | 0.3641 | -0.1497 | -0.1268 |
| 68 | 39.99 | -0.01 | 9.1735 | -1.1656 | 0.0350 | 0.3666 | 0.0762 | 0.2019 | 0.3679 | -0.1660 | -0.1296 |
| 69 | 40.21 | -0.02 | 9.2341 | -1.2875 | -0.0300 | 0.4286 | 0.0814 | 0.1983 | 0.3686 | -0.1703 | -0.1394 |
| 70 | 40.41 | -0.04 | 9.2266 | -1.3170 | -0.1062 | 0.2679 | 0.0714 | 0.1898 | 0.3650 | -0.1792 | -0.1427 |
| 71 | 40.63 | -0.03 | 9.4133 | -1.4336 | 0.0414 | 0.0147 | 0.0458 | 0.1666 | 0.3648 | -0.1962 | -0.1523 |
| 72 | 40.81 | -0.03 | 9.4576 | -1.4631 | -0.0292 | 0.4260 | 0.0713 | 0.1694 | 0.3683 | -0.1989 | -0.1568 |
| 73 | 41.03 | -0.03 | 9.5752 | -1.7059 | 0.0552 | 0.0462 | 0.0726 | 0.1507 | 0.3637 | -0.2130 | -0.1781 |
| 74 | 41.26 | -0.02 | 9.7100 | -1.6068 | 0.0724 | 0.1503 | 0.0673 | 0.1505 | 0.3612 | -0.2047 | -0.1861 |
| 75 | 41.44 | -0.03 | 9.8836 | -1.7025 | 0.1117 | -0.4651 | 0.0365 | 0.1236 | 0.3578 | -0.2342 | -0.1841 |
| 76 | 41.66 | -0.02 | 9.8434 | -1.8230 | 0.0138 | 0.3865 | 0.0504 | 0.1190 | 0.3553 | -0.2365 | -0.1852 |
| 77 | 41.88 | -0.04 | 9.9059 | -1.8654 | -0.0858 | 0.2114 | 0.0467 | 0.0859 | 0.3489 | -0.2629 | -0.1872 |
| 78 | 42.06 | -0.03 | 10.0261 | -2.0025 | -0.1179 | 0.7122 | 0.0612 | 0.0853 | 0.3471 | -0.2617 | -0.1998 |
| 79 | 42.27 | -0.05 | 10.2309 | -2.3676 | -0.3084 | 1.2278 | 0.0655 | 0.1026 | 0.3634 | -0.2608 | -0.2314 |
| 80 | 42.48 | -0.04 | 10.2615 | -2.2706 | -0.1126 | 0.5732 | 0.0404 | 0.0558 | 0.3522 | -0.2964 | -0.2177 |
| 81 | 42.65 | -0.02 | 10.2956 | -2.3547 | -0.0055 | 0.6853 | 0.0511 | 0.0796 | 0.3520 | -0.2721 | -0.2287 |
| 82 | 42.83 | -0.04 | 10.4242 | -2.4511 | -0.1046 | 0.5087 | 0.0362 | 0.0457 | 0.3596 | -0.3139 | -0.2351 |
| 83 | 43.04 | -0.03 | 10.4816 | -2.4851 | -0.1683 | 1.0790 | 0.0504 | 0.0548 | 0.3627 | -0.3079 | -0.2371 |
| 84 | 43.22 | -0.04 | 10.5568 | -2.4787 | -0.2452 | 1.3535 | 0.0389 | 0.0503 | 0.3537 | -0.3034 | -0.2640 |
| 85 | 43.39 | -0.03 | 10.6313 | -2.6117 | -0.0737 | 0.9136 | 0.0405 | 0.0368 | 0.3369 | -0.3001 | -0.2457 |
| 86 | 43.56 | -0.03 | 10.6543 | -2.6155 | -0.0223 | 0.6541 | 0.0439 | 0.0252 | 0.3380 | -0.3128 | -0.2365 |
| 87 | 43.76 | -0.03 | 10.7320 | -2.7370 | -0.0603 | 0.4768 | 0.0371 | 0.0038 | 0.3327 | -0.3289 | -0.2550 |
| 88 | 43.95 | -0.03 | 10.8746 | -2.8753 | -0.0277 | 1.2612 | 0.0186 | 0.0257 | 0.3477 | -0.3220 | -0.2644 |
| 89 | 44.13 | -0.03 | 10.8535 | -2.8537 | -0.1147 | 0.5279 | 0.0376 | -0.0068 | 0.3337 | -0.3405 | -0.2390 |
| 90 | 44.29 | -0.02 | 10.9564 | -2.8155 | 0.1056 | -0.3611 | 0.0402 | -0.0136 | 0.3181 | -0.3317 | -0.2396 |
| 91 | 44.48 | -0.04 | 11.0204 | -2.8164 | -0.3203 | 1.4703 | 0.0323 | -0.0013 | 0.3233 | -0.3246 | -0.2556 |
| 92 | 44.66 | -0.03 | 11.0961 | -2.7360 | -0.2023 | 0.8045 | 0.0135 | -0.0372 | 0.3194 | -0.3566 | -0.2469 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART PACF AXIS-E PHA CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 113 1.10 1.7 0.0 BINOFIS 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.86 | -0.03 | 11.1856 | -2.6942 | -0.2204 | 1.1516 | 0.0038 | -0.0371 | 0.3092 | -0.3463 | -0.2409 |
| 94 | 45.04 | -0.02 | 11.3225 | -2.6927 | -0.0031 | 0.2146 | 0.0294 | -0.0670 | 0.3065 | -0.3755 | -0.2378 |
| 95 | 45.24 | -0.02 | 11.3462 | -2.8105 | 0.0624 | -0.3745 | 0.0469 | -0.0836 | 0.3059 | -0.3895 | -0.2477 |
| 96 | 45.42 | -0.03 | 11.3345 | -2.6829 | -0.1496 | 0.7598 | 0.0060 | -0.0643 | 0.2996 | -0.3639 | -0.2261 |
| 97 | 45.59 | -0.01 | 11.4648 | -2.7452 | 0.0543 | -0.1586 | 0.0473 | -0.0755 | 0.3042 | -0.3797 | -0.2390 |
| 98 | 45.76 | -0.02 | 11.4108 | -2.7252 | 0.0031 | 0.1493 | 0.0300 | -0.0727 | 0.3013 | -0.3740 | -0.2388 |
| 99 | 45.96 | -0.02 | 11.5038 | -2.5477 | -0.0696 | 0.7611 | 0.0065 | -0.0796 | 0.2940 | -0.3736 | -0.2215 |
| 100 | 46.14 | -0.02 | 11.5676 | -2.6501 | -0.0525 | 0.4065 | 0.0169 | -0.0808 | 0.2945 | -0.3803 | -0.2287 |
| 101 | 46.30 | -0.03 | 11.5592 | -2.4972 | -0.1705 | 0.8068 | 0.0015 | -0.0691 | 0.3024 | -0.3715 | -0.2154 |
| 102 | 46.48 | -0.03 | 11.6287 | -2.4884 | -0.1467 | 0.6618 | 0.0024 | -0.0674 | 0.2986 | -0.3660 | -0.2123 |
| 103 | 46.66 | -0.03 | 11.7354 | -2.6025 | -0.2423 | 0.9543 | -0.0150 | -0.0774 | 0.2977 | -0.3751 | -0.2219 |
| 104 | 46.84 | -0.03 | 11.7620 | -2.5727 | -0.2481 | 1.1070 | -0.0261 | -0.0662 | 0.3012 | -0.3674 | -0.2184 |
| 105 | 47.01 | -0.04 | 11.8474 | -2.6066 | -0.3528 | 1.0883 | -0.0148 | -0.0794 | 0.3027 | -0.3821 | -0.2202 |
| 106 | 47.20 | -0.03 | 11.9650 | -2.3321 | -0.2604 | 0.8564 | -0.0241 | -0.0593 | 0.3097 | -0.3690 | -0.1948 |
| 107 | 47.35 | -0.02 | 11.7918 | -2.0625 | -0.1515 | 1.0742 | -0.0310 | -0.0457 | 0.3036 | -0.3493 | -0.1766 |
| 108 | 47.54 | -0.02 | 11.8496 | -2.1525 | -0.0856 | 0.8640 | -0.0188 | -0.0731 | 0.3045 | -0.3776 | -0.1785 |
| 109 | 47.71 | -0.03 | 12.0888 | -2.4213 | -0.1702 | 0.8114 | -0.0239 | -0.0729 | 0.3035 | -0.3764 | -0.2006 |
| 110 | 47.89 | -0.03 | 12.2100 | -2.2241 | -0.1417 | 0.7726 | -0.0285 | -0.0581 | 0.3161 | -0.3742 | -0.1822 |
| 111 | 48.06 | -0.02 | 12.2926 | -2.2743 | -0.1013 | 0.5820 | -0.0227 | -0.0671 | 0.3154 | -0.3825 | -0.2216 |
| 112 | 48.26 | -0.01 | 12.7053 | -3.9571 | 0.0566 | 0.0693 | -0.0151 | -0.0710 | 0.3662 | -0.4312 | -0.3115 |
| 113 | 48.42 | -0.02 | 12.8278 | -3.2655 | -0.0328 | 0.0575 | -0.0201 | -0.0736 | 0.3429 | -0.4165 | -0.2602 |
| 114 | 48.58 | -0.02 | 12.5083 | -3.0866 | 0.0275 | 0.1683 | -0.0153 | -0.0637 | 0.3514 | -0.4151 | -0.2467 |
| 115 | 48.77 | -0.00 | 12.7234 | -3.2654 | 0.2727 | -0.4024 | 0.0523 | -0.0459 | 0.3613 | -0.4072 | -0.2570 |
| 116 | 48.92 | -0.01 | 12.7746 | -3.1826 | 0.1505 | -0.2675 | 0.0469 | -0.0517 | 0.3626 | -0.4137 | -0.2475 |
| 117 | 49.10 | -0.01 | 12.8767 | -2.8464 | 0.1751 | -0.0348 | 0.0572 | -0.0192 | 0.3638 | -0.3830 | -0.2089 |
| 118 | 49.27 | 0.00 | 12.8865 | -2.9125 | 0.2234 | 0.1481 | 0.0623 | 0.0107 | 0.3684 | -0.3577 | -0.1823 |
| 119 | 49.42 | -0.00 | 12.6584 | -2.7815 | 0.1628 | 0.3219 | 0.0673 | 0.0182 | 0.3779 | -0.3597 | -0.1797 |
| 120 | 49.61 | -0.01 | 12.7760 | -2.9017 | 0.0616 | 0.3297 | 0.0730 | 0.0129 | 0.3754 | -0.3625 | -0.1881 |
| 121 | 49.77 | 0.00 | 12.8832 | -1.9543 | 0.1735 | 0.5566 | 0.0610 | 0.0147 | 0.3817 | -0.3670 | -0.1575 |
| 122 | 49.95 | 0.00 | 12.8145 | -2.3466 | 0.1637 | 0.5857 | 0.0557 | 0.0217 | 0.3902 | -0.3685 | -0.1833 |
| 123 | 50.13 | 0.00 | 12.8572 | -2.2093 | 0.1578 | 0.6587 | 0.0556 | 0.0264 | 0.3952 | -0.3688 | -0.1718 |
| 124 | 50.31 | 0.00 | 12.9324 | -2.1077 | 0.1296 | 0.6140 | 0.0501 | 0.0167 | 0.4005 | -0.3816 | -0.1630 |
| 125 | 50.48 | 0.02 | 12.8711 | -2.0424 | 0.3215 | 0.7396 | 0.0446 | 0.0185 | 0.4007 | -0.3822 | -0.1587 |
| 126 | 50.64 | 0.00 | 12.9485 | -2.2000 | 0.1554 | 0.9363 | 0.0495 | 0.0220 | 0.4053 | -0.3833 | -0.1745 |
| 127 | 50.82 | 0.00 | 13.0447 | -2.2015 | 0.1367 | 0.9714 | 0.0498 | 0.0267 | 0.4095 | -0.3828 | -0.1688 |
| 128 | 50.99 | 0.01 | 13.0269 | -2.0814 | 0.1000 | 1.1091 | 0.0493 | 0.0382 | 0.4067 | -0.3685 | -0.1598 |
| 129 | 51.18 | 0.00 | 13.1823 | -2.1321 | 0.0389 | 1.1724 | 0.0442 | 0.0361 | 0.4117 | -0.3756 | -0.1620 |
| 130 | 51.35 | 0.01 | 13.2344 | -1.9095 | 0.2105 | 1.0585 | 0.0448 | 0.0257 | 0.4148 | -0.3891 | -0.1443 |
| 131 | 50.84 | 0.01 | 12.8651 | -2.0347 | 0.2580 | 0.8575 | 0.0495 | 0.0134 | 0.4048 | -0.3912 | -0.1582 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 113 | MACH 1.10 | RNIC-6 1.7 | PHI 0.0 | CONF BIWGF15 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | 0.0014 | C.CC3E | 0.0140 | 2.7154 | 10.0000 | -1.3241 | 0.0093 | -0.5961 | -0.0070 | 0.4502 |
| 2 | -5.75 | 0.01 | -0.0015 | C.CC3E | 0.0131 | -1.6955 | -6.8947 | -1.3263 | 0.0091 | -0.5982 | -0.0069 | 0.4516 |
| 3 | -5.75 | 0.01 | -0.0018 | C.0032 | 0.0126 | -1.7765 | -7.0000 | -1.3169 | 0.0090 | -0.5936 | -0.0068 | 0.4501 |
| 4 | -5.31 | 0.01 | 0.0024 | C.CC4E | 0.0147 | 1.5174 | 6.1250 | -1.3357 | 0.0046 | -0.6120 | -0.0034 | 0.4581 |
| 5 | -3.44 | 0.01 | 0.0016 | C.0041 | 0.0121 | 2.5635 | 7.5625 | -1.3101 | 0.0040 | -0.6114 | -0.0031 | 0.4666 |
| 6 | -1.73 | 0.03 | 0.0063 | C.CC37 | 0.0125 | 6.5675 | 1.9041 | -1.2491 | 0.0042 | -0.6116 | -0.0066 | 0.4896 |
| 7 | 0.00 | 0.02 | 0.0142 | C.CC37 | 0.0136 | 0.2607 | 0.9718 | -1.1724 | 0.0031 | -0.5841 | -0.0065 | 0.4582 |
| 8 | 1.00 | 0.01 | 0.0111 | C.0037 | 0.C11C | 0.3335 | 0.9916 | -1.0009 | 0.0035 | -0.5403 | -0.0033 | 0.5052 |
| 9 | 3.68 | 0.01 | 0.0068 | C.CC25 | C.CC9C | 0.4268 | 1.3235 | -0.9646 | -0.0016 | -0.4952 | 0.0019 | 0.5175 |
| 10 | 5.47 | 0.01 | -0.0035 | C.0014 | 0.0087 | -0.3430 | -2.4057 | -0.8562 | -0.0077 | -0.4416 | 0.0050 | 0.5158 |
| 11 | 7.34 | 0.02 | -0.0049 | -0.0016 | 0.0121 | 0.1703 | -1.2672 | -0.7251 | -0.0089 | -0.3865 | 0.0122 | 0.5306 |
| 12 | 9.15 | 0.01 | -0.0067 | 0.0 | 0.0171 | 0.0 | -2.5522 | -0.6200 | -0.0086 | -0.3298 | 0.0139 | 0.5320 |
| 13 | 11.03 | 0.00 | -0.0163 | C.CC15 | C.C16C | -0.0820 | -0.8743 | -0.5169 | -0.0073 | -0.2832 | 0.0141 | 0.5479 |
| 14 | 12.87 | 0.01 | -0.0311 | C.0021 | 0.0153 | -0.0676 | -0.4920 | -0.4016 | -0.0031 | -0.2331 | 0.0077 | 0.5804 |
| 15 | 14.76 | 0.01 | -0.0483 | 0.0005 | 0.0197 | -0.0104 | -0.3050 | -0.2620 | 0.0003 | -0.1865 | -0.0011 | 0.6667 |
| 16 | 16.73 | 0.02 | -0.0672 | -0.0038 | 0.0111 | 0.0507 | -0.1654 | -0.1905 | 0.0022 | -0.1440 | -0.0116 | 0.7556 |
| 17 | 18.69 | -0.01 | -0.0858 | -0.0051 | C.0155 | 0.0777 | -0.2988 | -0.0992 | 0.0074 | -0.1036 | -0.0747 | 1.0444 |
| 18 | 20.63 | 0.01 | -0.1078 | -0.0065 | -0.0057 | 0.0790 | 0.0344 | -0.0349 | 0.0147 | -0.0746 | -0.4214 | 2.0201 |
| 19 | 22.61 | 0.01 | -0.0765 | 0.0011 | -0.0102 | -0.0140 | 0.1294 | 0.0125 | 0.0252 | -0.0459 | 2.0168 | -3.6640 |
| 20 | 24.04 | 0.01 | -0.0572 | -0.0001 | 0.0028 | 0.0018 | -0.0490 | 0.0604 | 0.0364 | -0.0234 | 0.5278 | -0.3401 |
| 21 | 26.04 | 0.03 | 0.1567 | 0.0194 | 0.1255 | 0.0733 | 0.6377 | 0.1368 | 0.0404 | 0.0358 | 0.2909 | 0.0418 |
| 22 | 28.40 | 0.04 | 0.1577 | 0.0134 | 0.1033 | 0.0851 | 0.0552 | 0.1590 | 0.0472 | 0.0109 | 0.2967 | 0.1064 |
| 23 | 28.43 | 0.07 | 0.2135 | 0.0132 | 0.1362 | 0.0815 | 0.6473 | 0.1553 | 0.0462 | 0.0155 | 0.2973 | 0.0995 |
| 24 | 28.05 | 0.05 | 0.3561 | 0.0173 | 0.1536 | 0.0513 | 0.5729 | 0.1652 | 0.0446 | 0.0233 | 0.2698 | 0.1412 |
| 25 | 29.11 | 0.02 | 0.0716 | 0.0055 | 0.0725 | 0.0770 | 1.0098 | 0.1358 | 0.0483 | 0.0120 | 0.3556 | 0.0685 |
| 26 | 29.91 | 0.03 | 0.1921 | 0.0071 | 0.1256 | 0.0370 | 0.6535 | 0.1468 | 0.0490 | 0.0205 | 0.3337 | 0.1358 |
| 27 | 29.76 | 0.04 | 0.0756 | 0.0045 | 0.0681 | 0.0596 | 0.9007 | 0.1563 | 0.0536 | 0.0265 | 0.3236 | 0.1723 |
| 28 | 30.03 | 0.06 | 0.2247 | 0.0066 | 0.1417 | 0.0294 | 0.6306 | 0.1791 | 0.0490 | 0.0348 | 0.2813 | 0.2001 |
| 29 | 30.32 | 0.07 | 0.2143 | 0.0057 | 0.1425 | 0.0173 | 0.6650 | 0.1706 | 0.0496 | 0.0340 | 0.2928 | 0.2002 |
| 30 | 30.60 | 0.06 | 0.2326 | 0.0073 | 0.1462 | 0.0314 | 0.6285 | 0.1907 | 0.0501 | 0.0458 | 0.2626 | 0.2399 |
| 31 | 30.66 | 0.07 | 0.1511 | 0.0042 | 0.1361 | 0.0220 | 0.6805 | 0.1905 | 0.0458 | 0.0457 | 0.2657 | 0.2401 |
| 32 | 31.15 | 0.04 | 0.0445 | -0.0006 | 0.0581 | -0.0179 | 1.2946 | 0.1869 | 0.0542 | 0.0448 | 0.2868 | 0.2369 |
| 33 | 31.43 | 0.04 | 0.0044 | -0.0035 | 0.0422 | -0.7958 | 9.5682 | 0.1776 | 0.0552 | 0.0403 | 0.3107 | 0.2272 |
| 34 | 31.70 | 0.02 | 0.0756 | 0.0019 | 0.0767 | 0.0190 | 0.9004 | 0.2075 | 0.0544 | 0.0545 | 0.2822 | 0.2645 |
| 35 | 32.00 | 0.05 | 0.1033 | 0.0014 | 0.0553 | 0.0136 | 0.9225 | 0.2113 | 0.0543 | 0.0557 | 0.2570 | 0.2633 |
| 36 | 32.25 | 0.03 | 0.0737 | -0.0003 | 0.0756 | -0.0041 | 1.0285 | 0.2049 | 0.0549 | 0.0532 | 0.2675 | 0.2595 |
| 37 | 32.54 | 0.02 | -0.0102 | -0.0013 | 0.0373 | 0.1275 | -3.6569 | 0.2196 | 0.0562 | 0.0589 | 0.2555 | 0.2681 |
| 38 | 32.80 | 0.01 | 0.1098 | 0.0021 | 0.0676 | 0.0192 | 0.8833 | 0.2258 | 0.0547 | 0.0628 | 0.2422 | 0.2780 |
| 39 | 33.07 | 0.03 | -0.0130 | 0.0006 | 0.0462 | -0.0462 | -3.0923 | 0.2319 | 0.0559 | 0.0644 | 0.2410 | 0.2776 |
| 40 | 33.32 | 0.03 | 0.0465 | 0.0017 | 0.0665 | 0.0346 | 1.4096 | 0.2415 | 0.0557 | 0.0691 | 0.2306 | 0.2861 |
| 41 | 33.58 | -0.00 | -0.0152 | C.0018 | 0.0343 | -0.0558 | -1.7865 | 0.2498 | 0.0568 | 0.0748 | 0.2273 | 0.2994 |
| 42 | 33.82 | 0.01 | 0.1163 | 0.0065 | 0.0524 | 0.1534 | 3.2086 | 0.2512 | 0.0559 | 0.0745 | 0.2225 | 0.2981 |
| 43 | 34.09 | 0.01 | -0.0072 | 0.0018 | 0.0354 | -0.2223 | -5.4722 | 0.2634 | 0.0568 | 0.0819 | 0.2156 | 0.3105 |
| 44 | 34.35 | 0.00 | -0.0363 | C.CC14 | C.C31C | -0.0402 | -1.0429 | 0.2760 | 0.0566 | 0.0850 | 0.2050 | 0.3079 |
| 45 | 34.58 | 0.02 | 0.0373 | 0.0023 | 0.0688 | 0.0617 | 1.8418 | 0.2914 | 0.0563 | 0.0898 | 0.1932 | 0.3082 |
| 46 | 34.85 | -0.01 | -0.0153 | 0.0021 | 0.0304 | -0.1373 | -1.9069 | 0.3038 | 0.0565 | 0.0958 | 0.1860 | 0.3154 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 11B | MACH 1.80 | RX1C-6 1.7 | PHI 0.0 | CONF DIMCF15 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.10 | 0.02 | 0.0551 | 0.0044 | 0.0772 | 0.0746 | 1.3068 | 0.3062 | 0.0576 | 0.0980 | 0.1861 | 0.3201 |
| 48 | 35.33 | 0.02 | 0.0520 | 0.0024 | 0.0845 | 0.1063 | 2.0125 | 0.2900 | 0.0571 | 0.0912 | 0.1565 | 0.3146 |
| 49 | 35.59 | 0.02 | 0.0143 | 0.0025 | 0.0503 | 0.1749 | 3.5105 | 0.3173 | 0.0567 | 0.1054 | 0.1787 | 0.3323 |
| 50 | 35.81 | 0.01 | 0.0060 | 0.0036 | 0.0806 | 0.0575 | 1.1767 | 0.3137 | 0.0565 | 0.1026 | 0.1801 | 0.3272 |
| 51 | 36.07 | 0.01 | 0.0531 | 0.0045 | 0.0858 | 0.0525 | 1.3151 | 0.3175 | 0.0552 | 0.1054 | 0.1738 | 0.3321 |
| 52 | 36.31 | 0.03 | 0.0250 | 0.0039 | 0.0864 | 0.1401 | 2.2520 | 0.3136 | 0.0555 | 0.1060 | 0.1770 | 0.3381 |
| 53 | 36.53 | 0.00 | 0.0720 | 0.0071 | 0.0828 | 0.0588 | 1.1502 | 0.3286 | 0.0538 | 0.1127 | 0.1636 | 0.3425 |
| 54 | 36.79 | 0.01 | 0.0278 | 0.0054 | 0.0545 | 0.1943 | 2.1511 | 0.3300 | 0.0534 | 0.1143 | 0.1618 | 0.3465 |
| 55 | 37.01 | -0.01 | 0.0288 | 0.0055 | 0.0805 | 0.1910 | 2.1111 | 0.3422 | 0.0531 | 0.1202 | 0.1551 | 0.3514 |
| 56 | 37.24 | 0.00 | 0.0033 | 0.0065 | 0.0899 | 0.1311 | 1.0793 | 0.3326 | 0.0514 | 0.1133 | 0.1545 | 0.3468 |
| 57 | 37.51 | -0.01 | 0.0245 | 0.0082 | 0.0582 | 0.2532 | 2.3714 | 0.3565 | 0.0520 | 0.1260 | 0.1458 | 0.3533 |
| 58 | 37.73 | -0.00 | 0.0478 | 0.0060 | 0.0733 | 0.1868 | 1.5346 | 0.3543 | 0.0515 | 0.1202 | 0.1453 | 0.3494 |
| 59 | 37.96 | -0.00 | 0.0458 | 0.0052 | 0.0706 | 0.2014 | 1.5427 | 0.3517 | 0.0518 | 0.1195 | 0.1472 | 0.3495 |
| 60 | 38.21 | 0.01 | 0.0455 | 0.0054 | 0.0697 | 0.2053 | 1.5196 | 0.3726 | 0.0528 | 0.1255 | 0.1416 | 0.3464 |
| 61 | 38.43 | 0.00 | 0.0436 | 0.0075 | 0.0702 | 0.1817 | 1.6115 | 0.3791 | 0.0524 | 0.1309 | 0.1382 | 0.3452 |
| 62 | 38.67 | -0.02 | 0.0165 | 0.0066 | 0.0916 | 0.3245 | 2.7946 | 0.4043 | 0.0520 | 0.1486 | 0.1286 | 0.3675 |
| 63 | 38.90 | -0.01 | 0.0110 | 0.0061 | 0.0471 | 0.5546 | 4.2727 | 0.4068 | 0.0514 | 0.1497 | 0.1263 | 0.3680 |
| 64 | 39.13 | -0.03 | 0.0030 | 0.0051 | 0.0377 | 1.7007 | 12.5667 | 0.4343 | 0.0504 | 0.1625 | 0.1160 | 0.3751 |
| 65 | 39.34 | -0.01 | 0.0251 | 0.0071 | 0.0575 | 0.2491 | 1.9862 | 0.4203 | 0.0530 | 0.1554 | 0.1261 | 0.3697 |
| 66 | 39.56 | -0.02 | 0.0226 | 0.0083 | 0.0535 | 0.3674 | 2.3628 | 0.4266 | 0.0522 | 0.1564 | 0.1223 | 0.3713 |
| 67 | 39.79 | -0.01 | 0.0356 | 0.0056 | 0.0585 | 0.2696 | 1.6517 | 0.4454 | 0.0521 | 0.1650 | 0.1169 | 0.3704 |
| 68 | 39.99 | -0.01 | 0.0170 | 0.0072 | 0.0440 | 0.4237 | 2.5823 | 0.4640 | 0.0505 | 0.1727 | 0.1057 | 0.3722 |
| 69 | 40.21 | -0.02 | 0.0187 | 0.0083 | 0.0461 | 0.4472 | 2.7545 | 0.4475 | 0.0527 | 0.1646 | 0.1177 | 0.3673 |
| 70 | 40.41 | -0.04 | 0.0452 | 0.0057 | 0.0571 | 0.2152 | 1.6039 | 0.4577 | 0.0526 | 0.1668 | 0.1145 | 0.3645 |
| 71 | 40.63 | -0.03 | 0.0245 | 0.0077 | 0.0360 | 0.3694 | 1.8458 | 0.5018 | 0.0497 | 0.1853 | 0.0990 | 0.3693 |
| 72 | 40.81 | -0.03 | 0.0182 | 0.0066 | 0.0351 | 0.3628 | 1.9286 | 0.4940 | 0.0516 | 0.1822 | 0.1044 | 0.3689 |
| 73 | 41.03 | -0.03 | 0.0445 | 0.0082 | 0.0417 | 0.1831 | 0.9286 | 0.5332 | 0.0493 | 0.1979 | 0.0924 | 0.3713 |
| 74 | 41.26 | -0.04 | 0.0073 | 0.0077 | 0.0253 | 1.0552 | 4.0137 | 0.4914 | 0.0530 | 0.1786 | 0.1078 | 0.3635 |
| 75 | 41.44 | -0.03 | 0.0366 | 0.0057 | 0.0326 | 0.2651 | 0.8907 | 0.5395 | 0.0498 | 0.1959 | 0.0923 | 0.3632 |
| 76 | 41.66 | -0.02 | 0.0270 | 0.0060 | 0.0286 | 0.2964 | 1.0370 | 0.5302 | 0.0509 | 0.1969 | 0.0949 | 0.3673 |
| 77 | 41.88 | -0.04 | 0.0372 | 0.0068 | 0.0275 | 0.2651 | 0.7392 | 0.5638 | 0.0502 | 0.2083 | 0.0850 | 0.3694 |
| 78 | 42.06 | -0.03 | -0.0274 | 0.0045 | 0.0441 | -0.1643 | -0.1496 | 0.5196 | 0.0535 | 0.1876 | 0.1029 | 0.3611 |
| 79 | 42.27 | -0.05 | -0.0207 | 0.0035 | 0.0562 | -0.1885 | -0.2995 | 0.5382 | 0.0532 | 0.1976 | 0.0952 | 0.3686 |
| 80 | 42.48 | -0.04 | -0.0065 | 0.0025 | 0.0644 | -0.3260 | -0.4944 | 0.5535 | 0.0525 | 0.2031 | 0.0944 | 0.3668 |
| 81 | 42.65 | -0.02 | -0.0372 | -0.0002 | -0.0065 | 0.0054 | 0.1855 | 0.5547 | 0.0524 | 0.2008 | 0.0944 | 0.3621 |
| 82 | 42.85 | -0.04 | -0.0144 | 0.0021 | 0.0027 | -0.1459 | -0.1875 | 0.5861 | 0.0513 | 0.2145 | 0.0875 | 0.3659 |
| 83 | 43.04 | -0.03 | -0.0054 | -0.0019 | -0.0280 | 0.0223 | 0.3283 | 0.5971 | 0.0536 | 0.2001 | 0.0962 | 0.3593 |
| 84 | 43.24 | -0.04 | -0.1047 | -0.0045 | -0.0382 | 0.0430 | 0.3652 | 0.5995 | 0.0539 | 0.2028 | 0.0963 | 0.3626 |
| 85 | 43.39 | -0.03 | -0.1046 | -0.0035 | -0.0400 | 0.0335 | 0.3828 | 0.5709 | 0.0535 | 0.2058 | 0.0937 | 0.3604 |
| 86 | 43.56 | -0.03 | 0.0245 | 0.0064 | 0.0156 | 0.2328 | 0.5673 | 0.6269 | 0.0510 | 0.2321 | 0.0811 | 0.3690 |
| 87 | 43.76 | -0.03 | -0.0041 | -0.0012 | -0.0236 | 0.0188 | 0.3688 | 0.6073 | 0.0536 | 0.2199 | 0.0882 | 0.3626 |
| 88 | 43.95 | -0.03 | -0.0063 | -0.0005 | -0.0292 | 0.0060 | 0.4095 | 0.6287 | 0.0525 | 0.2302 | 0.0835 | 0.3661 |
| 89 | 44.13 | -0.03 | -0.0026 | 0.0013 | -0.0187 | -0.0208 | 0.2992 | 0.6239 | 0.0544 | 0.2278 | 0.0872 | 0.3653 |
| 90 | 44.29 | -0.02 | 0.0263 | 0.0044 | 0.0126 | 0.2168 | 0.5224 | 0.6022 | 0.0519 | 0.2437 | 0.0783 | 0.3680 |
| 91 | 44.48 | -0.04 | -0.1884 | -0.0057 | -0.0805 | 0.0516 | 0.4293 | 0.6028 | 0.0582 | 0.2191 | 0.0965 | 0.3634 |
| 92 | 44.68 | -0.03 | -0.0426 | 0.0012 | -0.0186 | -0.0287 | 0.4439 | 0.6483 | 0.0564 | 0.2367 | 0.0870 | 0.3651 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 113 MACH 1.10 1.7 PHI 0.0 CONF BINGFIS L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CO1 | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.86 | -0.03 | -0.1248 | -0.0043 | -0.0563 | 0.0345 | 0.4071 | 0.6255 | 0.0584 | 0.2249 | 0.0534 | 0.3595 |
| 94 | 45.09 | -0.02 | 0.0053 | 0.0041 | 0.0111 | 0.7739 | 0.2075 | 0.6570 | 0.0576 | 0.2395 | 0.0677 | 0.3645 |
| 95 | 45.24 | -0.02 | 0.0038 | 0.0075 | 0.0330 | 0.1241 | 0.5181 | 0.6932 | 0.0548 | 0.2556 | 0.0790 | 0.3688 |
| 96 | 45.42 | -0.03 | -0.0449 | 0.0012 | -0.0170 | -0.0536 | 0.7509 | 0.6549 | 0.0580 | 0.2395 | 0.0886 | 0.3657 |
| 97 | 45.59 | -0.01 | -0.0028 | 0.0043 | 0.0006 | -1.5363 | -0.2857 | 0.6778 | 0.0574 | 0.2478 | 0.0647 | 0.3656 |
| 98 | 45.78 | -0.02 | -0.0362 | -0.0033 | -0.0232 | 0.0588 | 0.4135 | 0.6613 | 0.0580 | 0.2409 | 0.0877 | 0.3643 |
| 99 | 45.96 | -0.02 | -0.0267 | 0.0025 | -0.0152 | -0.1402 | 0.6377 | 0.6524 | 0.0594 | 0.2347 | 0.0910 | 0.3597 |
| 100 | 46.14 | -0.02 | -0.0350 | -0.0055 | -0.0342 | 0.1044 | 0.3604 | 0.6536 | 0.0594 | 0.2363 | 0.0909 | 0.3615 |
| 101 | 46.30 | -0.03 | -0.0240 | -0.0030 | -0.0315 | 0.0405 | 0.4884 | 0.6550 | 0.0591 | 0.2354 | 0.0902 | 0.3594 |
| 102 | 46.48 | -0.03 | -0.0453 | -0.0040 | -0.0226 | 0.0813 | 0.4593 | 0.6587 | 0.0592 | 0.2377 | 0.0895 | 0.3608 |
| 103 | 46.66 | -0.03 | -0.1283 | -0.0147 | -0.0563 | 0.1148 | 0.4387 | 0.6574 | 0.0605 | 0.2350 | 0.0920 | 0.3574 |
| 104 | 46.84 | -0.03 | -0.1083 | -0.0185 | -0.0455 | 0.1747 | 0.4048 | 0.6630 | 0.0597 | 0.2402 | 0.0898 | 0.3612 |
| 105 | 47.01 | -0.04 | -0.1328 | -0.0163 | -0.0560 | 0.1230 | 0.4216 | 0.6510 | 0.0612 | 0.2320 | 0.0940 | 0.3564 |
| 106 | 47.20 | -0.03 | -0.0597 | -0.0171 | -0.0246 | 0.2876 | 0.4027 | 0.6907 | 0.0575 | 0.2486 | 0.0852 | 0.3662 |
| 107 | 47.35 | -0.02 | -0.0915 | -0.0166 | -0.0395 | 0.2030 | 0.4322 | 0.6843 | 0.0604 | 0.2372 | 0.0909 | 0.3576 |
| 108 | 47.54 | -0.02 | -0.0572 | -0.0155 | -0.0276 | 0.2716 | 0.4729 | 0.6725 | 0.0606 | 0.2391 | 0.0901 | 0.3555 |
| 109 | 47.71 | -0.03 | -0.0462 | -0.0178 | -0.0234 | 0.3660 | 0.4865 | 0.6993 | 0.0585 | 0.2544 | 0.0837 | 0.3638 |
| 110 | 47.89 | -0.03 | -0.0625 | -0.0159 | -0.0316 | 0.3048 | 0.5156 | 0.7162 | 0.0572 | 0.2586 | 0.0799 | 0.3611 |
| 111 | 48.06 | -0.02 | -0.0077 | -0.0242 | -0.0051 | 3.1441 | 0.0023 | 0.7521 | 0.0540 | 0.2747 | 0.0718 | 0.3653 |
| 112 | 48.26 | -0.01 | 0.1217 | -0.0278 | 0.0485 | -0.2267 | 0.4013 | 0.6795 | 0.0580 | 0.2307 | 0.0831 | 0.3755 |
| 113 | 48.42 | -0.02 | 0.0557 | -0.0255 | 0.0225 | -0.4588 | 0.4011 | 0.6214 | 0.0480 | 0.3046 | 0.0584 | 0.3768 |
| 114 | 48.58 | -0.02 | 0.0782 | -0.0254 | 0.0265 | -0.3339 | 0.3535 | 0.8242 | 0.0470 | 0.3037 | 0.0570 | 0.3684 |
| 115 | 48.77 | -0.00 | 0.1751 | -0.0106 | 0.0743 | -0.0593 | 0.4146 | 0.7970 | 0.0457 | 0.2805 | 0.0573 | 0.3520 |
| 116 | 48.92 | -0.01 | 0.1640 | -0.0028 | 0.0703 | -0.0152 | 0.4146 | 0.7784 | 0.0518 | 0.2717 | 0.0665 | 0.3491 |
| 117 | 49.10 | -0.01 | 0.1514 | 0.0076 | 0.0575 | 0.0503 | 0.3823 | 0.7127 | 0.0588 | 0.2437 | 0.0825 | 0.3415 |
| 118 | 49.27 | 0.00 | 0.0715 | 0.0059 | 0.0268 | 0.1317 | 0.2913 | 0.5960 | 0.0639 | 0.1887 | 0.1069 | 0.3156 |
| 119 | 49.42 | -0.00 | 0.0738 | 0.0054 | 0.0276 | 0.1276 | 0.2849 | 0.6120 | 0.0639 | 0.1964 | 0.1044 | 0.3210 |
| 120 | 49.61 | -0.01 | 0.1062 | 0.0112 | 0.0362 | 0.1097 | 0.3546 | 0.6447 | 0.0643 | 0.2155 | 0.0997 | 0.3342 |
| 121 | 49.77 | 0.00 | 0.0401 | 0.0075 | 0.0108 | 0.1971 | 0.2693 | 0.5898 | 0.0628 | 0.1905 | 0.1065 | 0.3231 |
| 122 | 49.95 | 0.00 | 0.0355 | 0.0064 | 0.0111 | 0.1804 | 0.3127 | 0.6194 | 0.0595 | 0.2005 | 0.0961 | 0.3238 |
| 123 | 50.13 | 0.00 | 0.0346 | 0.0059 | 0.0099 | 0.1561 | 0.2717 | 0.6193 | 0.0599 | 0.2015 | 0.0967 | 0.3255 |
| 124 | 50.31 | 0.00 | 0.0212 | 0.0040 | 0.0053 | 0.1868 | 0.2500 | 0.6155 | 0.0602 | 0.1987 | 0.0978 | 0.3225 |
| 125 | 50.48 | 0.02 | 0.0201 | 0.0045 | 0.0038 | 0.2439 | 0.1891 | 0.6094 | 0.0609 | 0.1980 | 0.0999 | 0.3250 |
| 126 | 50.64 | 0.00 | 0.0164 | 0.0044 | 0.0065 | 0.2873 | 0.0903 | 0.6111 | 0.0601 | 0.1946 | 0.0984 | 0.3185 |
| 127 | 50.82 | 0.00 | 0.0050 | 0.0024 | 0.0013 | 0.2668 | 0.1444 | 0.6124 | 0.0596 | 0.1941 | 0.0973 | 0.3170 |
| 128 | 50.99 | 0.01 | 0.0022 | 0.0024 | -0.0005 | 1.0513 | -0.4091 | 0.6048 | 0.0593 | 0.1910 | 0.0980 | 0.3158 |
| 129 | 51.18 | 0.00 | 0.0001 | 0.0022 | -0.0022 | 22.0088 | -22.0000 | 0.6043 | 0.0595 | 0.1905 | 0.0984 | 0.3150 |
| 130 | 51.35 | 0.01 | 0.0157 | 0.0016 | 0.0048 | 0.0765 | 0.3057 | 0.6024 | 0.0591 | 0.1872 | 0.0981 | 0.3108 |
| 131 | 50.84 | 0.01 | 0.0212 | 0.0040 | 0.0053 | 0.1888 | 0.2500 | 0.6123 | 0.0609 | 0.1942 | 0.0995 | 0.3173 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 113 | MACH 1.10 | REYNO-E 1.7 | PHI 0.0 | CONF BIaOF15 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | 0.0454 | 5.9999 | 0.0104 | 5.9999 | 0.2296 | -1.3903 | 0.0084 | -0.5611 | -0.0061 | 0.4038 |
| 2 | -5.75 | 0.01 | 0.0442 | 5.9999 | 0.0105 | 5.9999 | 0.2245 | -1.3805 | 0.0085 | -0.5628 | -0.0061 | 0.4052 |
| 3 | -5.75 | 0.01 | 0.0431 | 5.9999 | 0.0098 | 5.9999 | 0.2279 | -1.3836 | 0.0086 | -0.5561 | -0.0062 | 0.4015 |
| 4 | -5.31 | 0.01 | 0.0405 | 5.9999 | 0.0102 | 5.9999 | 0.3160 | -1.4049 | 0.0058 | -0.5712 | -0.0041 | 0.4066 |
| 5 | -3.44 | 0.01 | 0.0323 | 5.9999 | 0.0126 | 5.9999 | 0.3901 | -1.3793 | 0.0010 | -0.5765 | -0.0007 | 0.4183 |
| 6 | -1.73 | 0.03 | 0.0376 | 5.9999 | 0.0135 | 5.9999 | 0.4757 | -1.3126 | -0.0021 | -0.5692 | 0.0016 | 0.4336 |
| 7 | 0.08 | 0.02 | 0.0381 | 5.9999 | 0.0140 | 5.9999 | 0.3675 | -1.2538 | 0.0023 | -0.5575 | -0.0018 | 0.4446 |
| 8 | 1.80 | 0.01 | 0.0338 | 5.9999 | 0.0100 | 5.9999 | 0.2976 | -1.1477 | -0.0006 | -0.5138 | 0.0005 | 0.4477 |
| 9 | 3.68 | 0.01 | 0.0355 | 5.9999 | 0.0091 | 5.9999 | 0.2304 | -1.0465 | -0.0064 | -0.4671 | 0.0061 | 0.4483 |
| 10 | 5.47 | 0.04 | 0.0421 | 5.9999 | 0.0096 | 5.9999 | 0.1353 | -0.9309 | -0.0118 | -0.4100 | 0.0127 | 0.4404 |
| 11 | 7.34 | 0.02 | 0.0469 | 5.9999 | 0.0085 | 5.9999 | 0.1389 | -0.8209 | -0.0123 | -0.3599 | 0.0150 | 0.4385 |
| 12 | 9.15 | 0.01 | 0.0493 | 5.9999 | 0.0042 | 5.9999 | 0.0976 | -0.7031 | -0.0115 | -0.3045 | 0.0164 | 0.4331 |
| 13 | 11.03 | 0.00 | 0.0494 | 5.9999 | 0.0036 | 5.9999 | 0.0609 | -0.6049 | -0.0104 | -0.2529 | 0.0172 | 0.4181 |
| 14 | 12.87 | 0.01 | 0.0506 | 5.9999 | 0.0022 | 5.9999 | 0.0436 | -0.4880 | -0.0077 | -0.1958 | 0.0158 | 0.4013 |
| 15 | 14.76 | 0.01 | 0.0541 | 5.9999 | 0.0034 | 5.9999 | 0.0630 | -0.3573 | -0.0042 | -0.1459 | 0.0118 | 0.4082 |
| 16 | 16.73 | 0.02 | 0.0587 | 5.9999 | 0.0046 | 5.9999 | 0.0785 | -0.2457 | 0.0 | -0.0873 | 0.0 | 0.3583 |
| 17 | 18.69 | -0.01 | 0.0553 | 5.9999 | 0.0012 | 5.9999 | 0.0290 | -0.1581 | 0.0075 | -0.0507 | -0.0475 | 0.3205 |
| 18 | 20.63 | 0.01 | 0.0518 | 5.9999 | 0.0005 | 5.9999 | 0.0174 | -0.1007 | 0.0137 | -0.0197 | -0.1362 | 0.1958 |
| 19 | 22.61 | 0.01 | 0.0562 | 5.9999 | 0.0007 | 5.9999 | 0.1194 | -0.0618 | 0.0232 | -0.0086 | -0.2841 | 0.1053 |
| 20 | 24.62 | 0.01 | 0.0466 | 5.9999 | 0.0048 | 5.9999 | 0.0985 | -0.0349 | 0.0344 | 0.0096 | -0.5832 | -0.2751 |
| 21 | 26.64 | 0.03 | 0.0501 | 5.9999 | 0.0095 | 5.9999 | 0.1960 | -0.0335 | 0.0422 | 0.0129 | -1.2572 | -0.3851 |
| 22 | 28.40 | 0.04 | 0.0626 | 5.9999 | 0.0106 | 5.9999 | 0.2976 | 0.0123 | 0.0473 | 0.0340 | 3.8389 | 2.7642 |
| 23 | 26.43 | 0.07 | 0.0695 | 5.9999 | 0.0205 | 5.9999 | 0.2954 | 0.0171 | 0.0580 | 0.0373 | 2.8023 | 2.1813 |
| 24 | 26.85 | 0.05 | 0.0676 | 5.9999 | 0.0206 | 5.9999 | 0.3149 | -0.0066 | 0.0485 | 0.0303 | -7.3363 | -4.5905 |
| 25 | 29.11 | 0.03 | 0.0575 | 5.9999 | 0.0141 | 5.9999 | 0.2439 | 0.0445 | 0.0482 | 0.0520 | 1.0838 | 1.1685 |
| 26 | 29.41 | 0.03 | 0.0662 | 5.9999 | 0.0157 | 5.9999 | 0.2612 | 0.0405 | 0.0508 | 0.0516 | 1.2523 | 1.2716 |
| 27 | 29.76 | 0.04 | 0.0662 | 5.9999 | 0.0157 | 5.9999 | 0.2612 | 0.0684 | 0.0501 | 0.0660 | 0.7324 | 0.5849 |
| 28 | 30.03 | 0.06 | 0.0625 | 5.9999 | 0.0253 | 5.9999 | 0.3559 | 0.0679 | 0.0536 | 0.0670 | 0.7894 | 0.9867 |
| 29 | 30.32 | 0.07 | 0.0738 | 5.9999 | 0.0227 | 5.9999 | 0.3080 | 0.0799 | 0.0530 | 0.0736 | 0.8632 | 0.9211 |
| 30 | 30.60 | 0.06 | 0.0737 | 5.9999 | 0.0222 | 5.9999 | 0.3016 | 0.0815 | 0.0547 | 0.0772 | 0.6710 | 0.9472 |
| 31 | 30.88 | 0.07 | 0.0737 | 5.9999 | 0.0222 | 5.9999 | 0.3016 | 0.1079 | 0.0538 | 0.0881 | 0.4983 | 0.8163 |
| 32 | 31.15 | 0.04 | 0.0623 | 5.9999 | 0.0158 | 5.9999 | 0.2346 | 0.1557 | 0.0522 | 0.1116 | 0.3352 | 0.7176 |
| 33 | 31.43 | 0.04 | 0.0601 | 5.9999 | 0.0147 | 5.9999 | 0.2450 | 0.1692 | 0.0513 | 0.1192 | 0.3031 | 0.7047 |
| 34 | 31.70 | 0.02 | 0.0585 | 5.9999 | 0.0133 | 5.9999 | 0.2202 | 0.1605 | 0.0519 | 0.1167 | 0.3225 | 0.7256 |
| 35 | 32.00 | 0.03 | 0.0612 | 5.9999 | 0.0134 | 5.9999 | 0.2357 | 0.1716 | 0.0516 | 0.1228 | 0.3006 | 0.7153 |
| 36 | 32.25 | 0.03 | 0.0720 | 5.9999 | 0.0185 | 5.9999 | 0.2607 | 0.1907 | 0.0497 | 0.1345 | 0.2605 | 0.7071 |
| 37 | 32.54 | 0.02 | 0.0578 | 5.9999 | 0.0114 | 5.9999 | 0.1976 | 0.2063 | 0.0495 | 0.1422 | 0.2359 | 0.6893 |
| 38 | 32.80 | 0.01 | 0.0658 | 5.9999 | 0.0165 | 5.9999 | 0.2519 | 0.2206 | 0.0493 | 0.1503 | 0.2234 | 0.6813 |
| 39 | 33.07 | 0.03 | 0.0736 | 5.9999 | 0.0203 | 5.9999 | 0.2762 | 0.2363 | 0.0490 | 0.1567 | 0.2073 | 0.6631 |
| 40 | 33.32 | 0.03 | 0.0668 | 5.9999 | 0.0161 | 5.9999 | 0.2414 | 0.2306 | 0.0494 | 0.1548 | 0.2142 | 0.6713 |
| 41 | 33.58 | -0.00 | 0.0578 | 5.9999 | 0.0127 | 5.9999 | 0.2209 | 0.2401 | 0.0507 | 0.1599 | 0.2111 | 0.6660 |
| 42 | 33.82 | 0.01 | 0.0616 | 5.9999 | 0.0179 | 5.9999 | 0.2092 | 0.2454 | 0.0505 | 0.1626 | 0.2057 | 0.6626 |
| 43 | 34.09 | 0.01 | 0.0593 | 5.9999 | 0.0121 | 5.9999 | 0.2192 | 0.2521 | 0.0501 | 0.1659 | 0.1986 | 0.6581 |
| 44 | 34.35 | 0.00 | 0.0552 | 5.9999 | 0.0134 | 5.9999 | 0.2432 | 0.2696 | 0.0485 | 0.1751 | 0.1797 | 0.6490 |
| 45 | 34.58 | 0.02 | 0.0507 | 5.9999 | 0.0112 | 5.9999 | 0.2213 | 0.2723 | 0.0492 | 0.1756 | 0.1806 | 0.6449 |
| 46 | 34.85 | -0.01 | 0.0541 | 5.9999 | 0.0136 | 5.9999 | 0.2556 | 0.2834 | 0.0478 | 0.1813 | 0.1686 | 0.6386 |

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 113 MACH 1.60 1.70 RNIC-6 PHI 0.0 BIBOF15 C.G L DEL1 0 DEL2 -30 DEL3 0 DEL4 -90 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CAF3 | CM3 | CB3 | XCPF3 | YCPF3 | CAF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.10 | 0.02 | 0.0556 | 9.9999 | 0.0165 | 9.9999 | 0.2764 | 0.2910 | 0.0484 | 0.1640 | 0.1663 | 0.6325 |
| 48 | 35.33 | 0.02 | 0.0565 | 9.9999 | 0.0220 | 9.9999 | 0.3313 | 0.3224 | 0.0456 | 0.1483 | 0.1414 | 0.6156 |
| 49 | 35.59 | 0.02 | 0.0557 | 9.9999 | 0.0183 | 9.9999 | 0.3070 | 0.3044 | 0.0475 | 0.1601 | 0.1560 | 0.6247 |
| 50 | 35.81 | 0.01 | 0.0557 | 9.9999 | 0.0167 | 9.9999 | 0.3136 | 0.3089 | 0.0476 | 0.1613 | 0.1550 | 0.6235 |
| 51 | 36.07 | 0.01 | 0.0551 | 9.9999 | 0.0176 | 9.9999 | 0.3255 | 0.3175 | 0.0471 | 0.1949 | 0.1483 | 0.6140 |
| 52 | 36.31 | 0.02 | 0.0564 | 9.9999 | 0.0236 | 9.9999 | 0.3590 | 0.3294 | 0.0467 | 0.2000 | 0.1417 | 0.6073 |
| 53 | 36.55 | 0.00 | 0.0425 | 9.9999 | 0.0129 | 9.9999 | 0.3042 | 0.3466 | 0.0471 | 0.2066 | 0.1360 | 0.5965 |
| 54 | 36.79 | 0.01 | 0.0565 | 9.9999 | 0.0156 | 9.9999 | 0.3336 | 0.3446 | 0.0474 | 0.2061 | 0.1375 | 0.5979 |
| 55 | 37.01 | -0.01 | 0.0527 | 9.9999 | 0.0173 | 9.9999 | 0.3269 | 0.3413 | 0.0482 | 0.2045 | 0.1412 | 0.6002 |
| 56 | 37.24 | 0.00 | 0.0572 | 9.9999 | 0.0203 | 9.9999 | 0.3655 | 0.3791 | 0.0453 | 0.2216 | 0.1194 | 0.5845 |
| 57 | 37.51 | -0.01 | 0.0556 | 9.9999 | 0.0210 | 9.9999 | 0.3529 | 0.3467 | 0.0487 | 0.2065 | 0.1404 | 0.5954 |
| 58 | 37.73 | -0.00 | 0.0565 | 9.9999 | 0.0205 | 9.9999 | 0.3510 | 0.3603 | 0.0470 | 0.2165 | 0.1276 | 0.5878 |
| 59 | 37.96 | -0.00 | 0.0618 | 9.9999 | 0.0230 | 9.9999 | 0.3728 | 0.3704 | 0.0485 | 0.2199 | 0.1235 | 0.5842 |
| 60 | 38.21 | 0.01 | 0.0505 | 9.9999 | 0.0167 | 9.9999 | 0.3313 | 0.3768 | 0.0466 | 0.2196 | 0.1235 | 0.5797 |
| 61 | 38.43 | 0.00 | 0.0556 | 9.9999 | 0.0215 | 9.9999 | 0.3681 | 0.3721 | 0.0472 | 0.2173 | 0.1268 | 0.5846 |
| 62 | 38.67 | -0.02 | 0.0505 | 9.9999 | 0.0178 | 9.9999 | 0.3492 | 0.3493 | 0.0495 | 0.2080 | 0.1416 | 0.5953 |
| 63 | 38.90 | -0.01 | 0.0449 | 9.9999 | 0.0140 | 9.9999 | 0.3125 | 0.3467 | 0.0495 | 0.2059 | 0.1427 | 0.5937 |
| 64 | 39.13 | -0.03 | 0.0438 | 9.9999 | 0.0161 | 9.9999 | 0.3701 | 0.3512 | 0.0507 | 0.2064 | 0.1443 | 0.5875 |
| 65 | 39.34 | -0.01 | 0.0454 | 9.9999 | 0.0170 | 9.9999 | 0.3448 | 0.3911 | 0.0490 | 0.2244 | 0.1252 | 0.5737 |
| 66 | 39.56 | -0.02 | 0.0518 | 9.9999 | 0.0186 | 9.9999 | 0.3612 | 0.3937 | 0.0490 | 0.2246 | 0.1244 | 0.5704 |
| 67 | 39.79 | -0.01 | 0.0471 | 9.9999 | 0.0165 | 9.9999 | 0.3596 | 0.4015 | 0.0491 | 0.2250 | 0.1222 | 0.5703 |
| 68 | 39.99 | -0.01 | 0.0471 | 9.9999 | 0.0178 | 9.9999 | 0.3787 | 0.3922 | 0.0504 | 0.2247 | 0.1257 | 0.5729 |
| 69 | 40.21 | -0.02 | 0.0521 | 9.9999 | 0.0204 | 9.9999 | 0.3962 | 0.4298 | 0.0485 | 0.2396 | 0.1128 | 0.5574 |
| 70 | 40.41 | -0.04 | 0.0367 | 9.9999 | 0.0136 | 9.9999 | 0.3760 | 0.4246 | 0.0487 | 0.2382 | 0.1146 | 0.5616 |
| 71 | 40.63 | -0.03 | 0.0425 | 9.9999 | 0.0170 | 9.9999 | 0.4009 | 0.3956 | 0.0515 | 0.2246 | 0.1312 | 0.5677 |
| 72 | 40.81 | -0.03 | 0.0388 | 9.9999 | 0.0113 | 9.9999 | 0.3951 | 0.4278 | 0.0506 | 0.2387 | 0.1168 | 0.5575 |
| 73 | 41.03 | -0.03 | 0.0424 | 9.9999 | 0.0174 | 9.9999 | 0.4113 | 0.4214 | 0.0522 | 0.2342 | 0.1238 | 0.5557 |
| 74 | 41.26 | -0.02 | 0.0436 | 9.9999 | 0.0171 | 9.9999 | 0.3931 | 0.4962 | 0.0462 | 0.2659 | 0.0938 | 0.5403 |
| 75 | 41.44 | -0.03 | 0.0459 | 9.9999 | 0.0151 | 9.9999 | 0.4170 | 0.4347 | 0.0517 | 0.2409 | 0.1185 | 0.5541 |
| 76 | 41.66 | -0.02 | 0.0551 | 9.9999 | 0.0234 | 9.9999 | 0.4255 | 0.4724 | 0.0505 | 0.2557 | 0.1069 | 0.5413 |
| 77 | 41.88 | -0.04 | 0.0275 | 9.9999 | 0.0117 | 9.9999 | 0.4255 | 0.4426 | 0.0525 | 0.2405 | 0.1186 | 0.5442 |
| 78 | 42.06 | -0.03 | 0.0326 | 9.9999 | 0.0144 | 9.9999 | 0.4500 | 0.5523 | 0.0452 | 0.2819 | 0.0846 | 0.5257 |
| 79 | 42.27 | -0.05 | 0.0258 | 9.9999 | 0.0133 | 9.9999 | 0.4483 | 0.5451 | 0.0446 | 0.2866 | 0.0816 | 0.5237 |
| 80 | 42.48 | -0.04 | 0.0460 | 9.9999 | 0.0151 | 9.9999 | 0.4161 | 0.5307 | 0.0468 | 0.2789 | 0.0881 | 0.5257 |
| 81 | 42.65 | -0.02 | 0.0350 | 9.9999 | 0.0152 | 9.9999 | 0.4051 | 0.5545 | 0.0440 | 0.2907 | 0.0752 | 0.5238 |
| 82 | 42.85 | -0.04 | 0.0350 | 9.9999 | 0.0158 | 9.9999 | 0.4051 | 0.5372 | 0.0480 | 0.2813 | 0.0853 | 0.5238 |
| 83 | 43.04 | -0.03 | 0.0415 | 9.9999 | 0.0160 | 9.9999 | 0.3865 | 0.5974 | 0.0398 | 0.3081 | 0.0666 | 0.5157 |
| 84 | 43.22 | -0.04 | 0.0349 | 9.9999 | 0.0141 | 9.9999 | 0.4099 | 0.6170 | 0.0383 | 0.3161 | 0.0615 | 0.5117 |
| 85 | 43.39 | -0.03 | 0.0358 | 9.9999 | 0.0142 | 9.9999 | 0.3989 | 0.6090 | 0.0399 | 0.3124 | 0.0655 | 0.5125 |
| 86 | 43.56 | -0.03 | 0.0350 | 9.9999 | 0.0158 | 9.9999 | 0.4051 | 0.5369 | 0.0511 | 0.2793 | 0.0852 | 0.5203 |
| 87 | 43.76 | -0.03 | 0.0366 | 9.9999 | 0.0147 | 9.9999 | 0.3995 | 0.5908 | 0.0451 | 0.3032 | 0.0763 | 0.5131 |
| 88 | 43.95 | -0.03 | 0.0344 | 9.9999 | 0.0150 | 9.9999 | 0.4360 | 0.5918 | 0.0455 | 0.3028 | 0.0768 | 0.5116 |
| 89 | 44.13 | -0.03 | 0.0206 | 9.9999 | 0.0096 | 9.9999 | 0.4757 | 0.5789 | 0.0480 | 0.2965 | 0.0829 | 0.5121 |
| 90 | 44.29 | -0.02 | 0.0305 | 9.9999 | 0.0146 | 9.9999 | 0.4790 | 0.5574 | 0.0532 | 0.2868 | 0.0954 | 0.5145 |
| 91 | 44.48 | -0.04 | 0.0414 | 9.9999 | 0.0183 | 9.9999 | 0.4431 | 0.6423 | 0.0437 | 0.3236 | 0.0680 | 0.5038 |
| 92 | 44.66 | -0.03 | 0.0275 | 9.9999 | 0.0141 | 9.9999 | 0.5127 | 0.5868 | 0.0524 | 0.2977 | 0.0893 | 0.5073 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 113 MACH 1.10 RAIC-E 1.7 PHI 0.0 CONF 815 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.86 | -0.03 | 0.0275 | 5.9999 | 0.0145 | 5.9999 | 0.5273 | 0.0121 | 0.0491 | 0.3102 | 0.0802 | 0.5068 |
| 94 | 45.04 | -0.02 | 0.0356 | 5.9999 | 0.0165 | 5.9999 | 0.4635 | 0.0741 | 0.0568 | 0.2912 | 0.0585 | 0.5071 |
| 95 | 45.24 | -0.02 | 0.0264 | 5.9999 | 0.0135 | 5.9999 | 0.5114 | 0.0650 | 0.0577 | 0.2674 | 0.1021 | 0.5086 |
| 96 | 45.42 | -0.03 | 0.0356 | 5.9999 | 0.0175 | 5.9999 | 0.5028 | 0.0645 | 0.0566 | 0.2949 | 0.0972 | 0.5062 |
| 97 | 45.59 | -0.01 | 0.0278 | 5.9999 | 0.0150 | 5.9999 | 0.5435 | 0.0586 | 0.0556 | 0.3022 | 0.0929 | 0.5048 |
| 98 | 45.78 | -0.02 | 0.0345 | 5.9999 | 0.0165 | 5.9999 | 0.4899 | 0.0943 | 0.0565 | 0.2998 | 0.0951 | 0.5040 |
| 99 | 45.96 | -0.02 | 0.0334 | 5.9999 | 0.0155 | 5.9999 | 0.4760 | 0.0800 | 0.0588 | 0.2926 | 0.1014 | 0.5044 |
| 100 | 46.14 | -0.02 | 0.0403 | 5.9999 | 0.0188 | 5.9999 | 0.4865 | 0.0990 | 0.0574 | 0.3006 | 0.0958 | 0.5018 |
| 101 | 46.30 | -0.03 | 0.0345 | 5.9999 | 0.0165 | 5.9999 | 0.4899 | 0.0907 | 0.0584 | 0.2977 | 0.0989 | 0.5035 |
| 102 | 46.48 | -0.03 | 0.0345 | 5.9999 | 0.0174 | 5.9999 | 0.5043 | 0.0796 | 0.0596 | 0.2922 | 0.1028 | 0.5041 |
| 103 | 46.66 | -0.03 | 0.0242 | 5.9999 | 0.0125 | 5.9999 | 0.5331 | 0.0886 | 0.0552 | 0.2957 | 0.1005 | 0.5021 |
| 104 | 46.84 | -0.03 | 0.0253 | 5.9999 | 0.0135 | 5.9999 | 0.5494 | 0.0513 | 0.0605 | 0.2765 | 0.1097 | 0.5053 |
| 105 | 47.01 | -0.04 | 0.0241 | 5.9999 | 0.0143 | 5.9999 | 0.5934 | 0.0697 | 0.0605 | 0.2658 | 0.1062 | 0.5016 |
| 106 | 47.20 | -0.03 | 0.0334 | 5.9999 | 0.0178 | 5.9999 | 0.5329 | 0.0289 | 0.0632 | 0.2705 | 0.1195 | 0.5115 |
| 107 | 47.35 | -0.02 | 0.0287 | 5.9999 | 0.0176 | 5.9999 | 0.5523 | 0.0237 | 0.0636 | 0.2664 | 0.1218 | 0.5087 |
| 108 | 47.54 | -0.02 | 0.0253 | 5.9999 | 0.0144 | 5.9999 | 0.5092 | 0.0236 | 0.0649 | 0.2668 | 0.1239 | 0.5056 |
| 109 | 47.71 | -0.03 | 0.0242 | 5.9999 | 0.0143 | 5.9999 | 0.5509 | 0.0219 | 0.0657 | 0.2653 | 0.1259 | 0.5083 |
| 110 | 47.89 | -0.03 | 0.0265 | 5.9999 | 0.0150 | 5.9999 | 0.5000 | 0.4912 | 0.0685 | 0.2537 | 0.1395 | 0.5165 |
| 111 | 48.06 | -0.02 | 0.0277 | 5.9999 | 0.0151 | 5.9999 | 0.5451 | 0.5185 | 0.0668 | 0.2647 | 0.1288 | 0.5105 |
| 112 | 48.26 | -0.01 | 0.0346 | 5.9999 | 0.0162 | 5.9999 | 0.5000 | 0.5457 | 0.0659 | 0.2757 | 0.1197 | 0.5053 |
| 113 | 48.42 | -0.02 | 0.0265 | 5.9999 | 0.0155 | 5.9999 | 0.5845 | 0.5367 | 0.0674 | 0.2700 | 0.1256 | 0.5032 |
| 114 | 48.59 | -0.02 | 0.0276 | 5.9999 | 0.0137 | 5.9999 | 0.4928 | 0.5302 | 0.0672 | 0.2681 | 0.1268 | 0.5058 |
| 115 | 48.77 | -0.00 | 0.0347 | 5.9999 | 0.0175 | 5.9999 | 0.5043 | 0.5262 | 0.0685 | 0.2676 | 0.1257 | 0.5066 |
| 116 | 48.92 | -0.01 | 0.0277 | 5.9999 | 0.0165 | 5.9999 | 0.5957 | 0.5141 | 0.0702 | 0.2605 | 0.1366 | 0.5067 |
| 117 | 49.10 | -0.01 | 0.0265 | 5.9999 | 0.0147 | 5.9999 | 0.5086 | 0.5130 | 0.0697 | 0.2589 | 0.1359 | 0.5047 |
| 118 | 49.27 | 0.00 | 0.0275 | 5.9999 | 0.0146 | 5.9999 | 0.5063 | 0.5359 | 0.0689 | 0.2697 | 0.1286 | 0.5034 |
| 119 | 49.42 | -0.00 | 0.0277 | 5.9999 | 0.0151 | 5.9999 | 0.5451 | 0.5252 | 0.0691 | 0.2641 | 0.1316 | 0.5029 |
| 120 | 49.61 | -0.01 | 0.0300 | 5.9999 | 0.0162 | 5.9999 | 0.5400 | 0.5383 | 0.0695 | 0.2690 | 0.1291 | 0.4998 |
| 121 | 49.77 | 0.00 | 0.0301 | 5.9999 | 0.0153 | 5.9999 | 0.5083 | 0.5262 | 0.0693 | 0.2645 | 0.1312 | 0.5008 |
| 122 | 49.95 | 0.00 | 0.0323 | 5.9999 | 0.0162 | 5.9999 | 0.5035 | 0.5515 | 0.0677 | 0.2733 | 0.1228 | 0.4956 |
| 123 | 50.13 | 0.00 | 0.0313 | 5.9999 | 0.0155 | 5.9999 | 0.5080 | 0.5498 | 0.0681 | 0.2683 | 0.1239 | 0.4881 |
| 124 | 50.31 | 0.00 | 0.0371 | 5.9999 | 0.0182 | 5.9999 | 0.4906 | 0.5472 | 0.0681 | 0.2676 | 0.1245 | 0.4891 |
| 125 | 50.48 | 0.02 | 0.0322 | 5.9999 | 0.0258 | 5.9999 | 0.4552 | 0.5492 | 0.0681 | 0.2656 | 0.1240 | 0.4895 |
| 126 | 50.64 | 0.00 | 0.0243 | 5.9999 | 0.0111 | 5.9999 | 0.4566 | 0.5415 | 0.0677 | 0.2645 | 0.1250 | 0.4885 |
| 127 | 50.82 | 0.00 | 0.0301 | 5.9999 | 0.0135 | 5.9999 | 0.4618 | 0.5494 | 0.0675 | 0.2665 | 0.1229 | 0.4851 |
| 128 | 50.99 | 0.01 | 0.0301 | 5.9999 | 0.0135 | 5.9999 | 0.4618 | 0.5457 | 0.0676 | 0.2627 | 0.1228 | 0.4815 |
| 129 | 51.18 | 0.00 | 0.0301 | 5.9999 | 0.0135 | 5.9999 | 0.4618 | 0.5497 | 0.0666 | 0.2610 | 0.1212 | 0.4749 |
| 130 | 51.35 | 0.01 | 0.0278 | 5.9999 | 0.0133 | 5.9999 | 0.4764 | 0.5262 | 0.0659 | 0.2469 | 0.1252 | 0.4692 |
| 131 | 50.84 | 0.01 | 0.0324 | 5.9999 | 0.0164 | 5.9999 | 0.5062 | 0.5437 | 0.0685 | 0.2652 | 0.1260 | 0.4878 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 114 MACH 0.80 RATIO-E 1.7 PHI 0.0 CONF 81 OF 15 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.00 | -1.5224 | 5.4710 | 0.0722 | -0.2297 | 0.0103 | 1.1730 | 0.4278 | 0.7452 | -3.5937 |
| 2 | -5.69 | 0.02 | -1.5036 | 5.4925 | 0.0802 | -0.2296 | 0.0104 | 1.1782 | 0.4273 | 0.7509 | -3.6456 |
| 3 | -5.69 | 0.01 | -1.5058 | 5.4823 | 0.0223 | -0.2569 | 0.0176 | 1.1746 | 0.4269 | 0.7477 | -3.6666 |
| 4 | -5.68 | 0.01 | -1.5056 | 5.4734 | 0.0416 | -0.2004 | 0.0107 | 1.1811 | 0.4269 | 0.7542 | -3.6401 |
| 5 | -3.12 | 0.01 | -1.2733 | 5.2897 | 0.0154 | -0.1567 | 0.0111 | 1.1556 | 0.4255 | 0.7301 | -4.1544 |
| 6 | -1.58 | 0.01 | -1.1965 | 5.2297 | 0.0096 | -0.0771 | 0.0110 | 1.1442 | 0.4262 | 0.7180 | -4.5508 |
| 7 | 0.43 | 0.02 | -1.0575 | 5.3055 | 0.0596 | -0.1793 | 0.0123 | 1.0811 | 0.4297 | 0.7214 | -5.0715 |
| 8 | 2.17 | 0.01 | -1.0363 | 5.2780 | -0.0200 | -0.1005 | 0.0201 | 1.0427 | 0.2000 | 0.7541 | -5.6609 |
| 9 | 3.89 | 0.01 | -0.9671 | 5.0346 | 0.0178 | -0.0883 | 0.0206 | 1.0029 | 0.2486 | 0.7561 | -6.2398 |
| 10 | 5.64 | 0.02 | -0.7961 | 5.0148 | 0.0645 | -0.1073 | 0.0212 | 0.9690 | 0.2490 | 0.7250 | -7.3037 |
| 11 | 7.45 | 0.02 | -0.6353 | 5.6637 | 0.0480 | -0.1173 | 0.0290 | 0.9267 | 0.2379 | 0.6888 | -8.5146 |
| 12 | 9.14 | 0.02 | -0.5145 | 5.0783 | 0.0479 | -0.1170 | 0.0290 | 0.8953 | 0.2340 | 0.6606 | -11.0286 |
| 13 | 10.90 | 0.01 | -0.3627 | 5.6021 | 0.0335 | -0.1035 | 0.0376 | 0.8624 | 0.2309 | 0.6315 | -17.3618 |
| 14 | 12.63 | 0.02 | -0.1928 | 5.2776 | 0.0293 | -0.1660 | 0.0311 | 0.8096 | 0.2295 | 0.5803 | -51.3581 |
| 15 | 14.36 | 0.01 | 0.1643 | 4.7860 | 0.0030 | -0.0744 | 0.0314 | 0.7282 | 0.2220 | 0.5062 | 25.9691 |
| 16 | 16.26 | 0.01 | 0.4356 | 4.4057 | -0.0041 | 0.0260 | 0.0609 | 0.6047 | 0.2216 | 0.4431 | 10.3062 |
| 17 | 18.01 | 0.01 | 0.8226 | 3.8675 | -0.0477 | 0.0725 | 0.0759 | 0.5611 | 0.2196 | 0.3415 | 4.4588 |
| 18 | 19.79 | -0.00 | 1.2267 | 2.8859 | -0.1656 | 0.3922 | 0.1117 | 0.4496 | 0.2259 | 0.2257 | 2.2658 |
| 19 | 21.69 | -0.02 | 1.6146 | 2.0245 | -0.4220 | 0.8859 | 0.1762 | 0.3565 | 0.2277 | 0.1288 | 1.2545 |
| 20 | 23.42 | -0.02 | 1.9533 | 1.0432 | -0.4590 | 1.0252 | 0.1970 | 0.2695 | 0.2327 | 0.0368 | 0.7900 |
| 21 | 25.20 | -0.01 | 2.2752 | 1.1144 | -0.2457 | 0.6236 | 0.0771 | 0.1883 | 0.2347 | -0.0464 | 0.4898 |
| 22 | 27.04 | 0.01 | 2.7265 | 0.0135 | 0.0421 | 0.0396 | 0.0949 | 0.1153 | 0.2357 | -0.1185 | 0.2990 |
| 23 | 28.11 | 0.03 | 2.8868 | 0.0351 | 0.3672 | -0.8765 | 0.1260 | 0.0733 | 0.2341 | -0.1608 | 0.2200 |
| 24 | 28.23 | 0.01 | 2.9522 | 0.5404 | 0.1421 | -0.3497 | 0.1256 | 0.0036 | 0.2355 | -0.1719 | 0.1851 |
| 25 | 28.80 | 0.02 | 3.0355 | 0.5260 | 0.2716 | -0.4571 | 0.1406 | 0.0371 | 0.2332 | -0.1961 | 0.1739 |
| 26 | 28.92 | 0.02 | 3.0756 | 0.5455 | 0.3338 | -0.6366 | 0.1266 | 0.0305 | 0.2331 | -0.2026 | 0.1785 |
| 27 | 29.16 | 0.03 | 3.1772 | 0.4036 | 0.3475 | -0.7455 | 0.1342 | 0.0107 | 0.2355 | -0.2248 | 0.1270 |
| 28 | 29.50 | 0.03 | 3.2558 | 0.3081 | 0.2881 | -0.6908 | 0.1341 | -0.0038 | 0.2355 | -0.2363 | 0.1186 |
| 29 | 29.79 | 0.05 | 3.3434 | 0.2556 | 0.0576 | -0.2159 | 0.1576 | -0.0131 | 0.2383 | -0.2514 | 0.0894 |
| 30 | 30.07 | 0.04 | 3.4359 | 0.3213 | 0.6231 | -1.0575 | 0.1727 | -0.0293 | 0.2402 | -0.2695 | 0.0929 |
| 31 | 30.33 | 0.05 | 3.4991 | 0.1722 | 0.6371 | -1.0572 | 0.1873 | -0.0420 | 0.2393 | -0.2813 | 0.0493 |
| 32 | 30.60 | 0.04 | 3.5585 | 0.0675 | 0.6025 | -0.9366 | 0.2020 | -0.0653 | 0.2414 | -0.3066 | 0.0021 |
| 33 | 30.88 | 0.03 | 3.6223 | 0.0300 | 0.5107 | -0.6984 | 0.1873 | -0.0778 | 0.2449 | -0.3228 | 0.0081 |
| 34 | 31.14 | 0.03 | 3.7749 | -0.2192 | 0.3706 | 0.0916 | 0.1523 | -0.0902 | 0.2492 | -0.3395 | -0.0581 |
| 35 | 31.42 | 0.04 | 3.8941 | -0.3388 | 0.3865 | 0.1295 | 0.1777 | -0.1124 | 0.2515 | -0.3639 | -0.0882 |
| 36 | 31.68 | 0.03 | 3.9662 | -0.3671 | 0.3415 | 0.4319 | 0.1640 | -0.1173 | 0.2536 | -0.3711 | -0.0941 |
| 37 | 31.95 | 0.02 | 3.9454 | -0.4717 | 0.1268 | 0.7516 | 0.1396 | -0.1364 | 0.2543 | -0.3927 | -0.1154 |
| 38 | 32.22 | 0.03 | 4.0059 | -0.5256 | 0.0221 | 0.8004 | 0.1469 | -0.1546 | 0.2553 | -0.4099 | -0.1302 |
| 39 | 32.48 | 0.04 | 4.0214 | -0.6312 | 0.4203 | 0.4615 | 0.1993 | -0.1726 | 0.2572 | -0.4298 | -0.1455 |
| 40 | 32.75 | 0.04 | 4.0466 | -0.6356 | 0.4473 | 0.3848 | 0.1854 | -0.1885 | 0.2572 | -0.4457 | -0.1478 |
| 41 | 33.00 | 0.04 | 4.0725 | -0.5837 | 0.3563 | 0.2898 | 0.1789 | -0.1923 | 0.2567 | -0.4490 | -0.1335 |
| 42 | 33.26 | 0.05 | 4.0916 | -0.5051 | 0.0525 | -0.2627 | 0.2029 | -0.2062 | 0.2562 | -0.4624 | -0.1261 |
| 43 | 33.50 | 0.06 | 4.0324 | -0.0815 | 0.7269 | -0.1778 | 0.2174 | -0.2218 | 0.2599 | -0.4818 | -0.1428 |
| 44 | 33.76 | 0.07 | 4.7183 | -0.7447 | 0.8134 | -0.2982 | 0.2253 | -0.2203 | 0.2666 | -0.4936 | -0.1578 |
| 45 | 34.00 | 0.07 | 4.8528 | -0.8502 | 0.8140 | 0.0126 | 0.2317 | -0.2361 | 0.2694 | -0.5056 | -0.1752 |
| 46 | 34.26 | 0.06 | 4.9244 | -0.9466 | 0.8585 | -0.0296 | 0.2467 | -0.2462 | 0.2770 | -0.5233 | -0.1909 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

HARTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 114 | MACH 0.80 | RNIC=6 1.7 | PHI 0.0 | CONF BLNDFIN | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.08 | 5.0642 | -0.9251 | 0.8247 | 0.2110 | 0.2462 | -0.2631 | 0.2803 | -0.5435 | -0.1827 |
| 48 | 34.74 | 0.05 | 5.1023 | -1.0852 | 0.9585 | 0.1107 | 0.2064 | -0.2639 | 0.2840 | -0.5480 | -0.2111 |
| 49 | 34.98 | 0.09 | 5.2246 | -1.0872 | 0.9340 | 0.2373 | 0.2029 | -0.2624 | 0.2898 | -0.5522 | -0.2043 |
| 50 | 35.23 | 0.05 | 5.3755 | -1.1074 | 0.9944 | 0.2103 | 0.3125 | -0.2000 | 0.2978 | -0.5044 | -0.2172 |
| 51 | 35.46 | 0.09 | 5.4345 | -1.1204 | 0.9328 | 0.2131 | 0.2092 | -0.2789 | 0.2945 | -0.5734 | -0.2062 |
| 52 | 35.70 | 0.05 | 5.4726 | -1.0116 | 1.0047 | -0.8992 | 0.0522 | -0.3103 | 0.2789 | -0.5952 | -0.1848 |
| 53 | 35.93 | 0.08 | 5.4883 | -0.9855 | 1.0222 | -0.9485 | 0.2379 | -0.3198 | 0.2718 | -0.5916 | -0.1761 |
| 54 | 36.16 | 0.08 | 5.5112 | -1.1076 | 1.0015 | -1.1209 | 0.2313 | -0.3303 | 0.2798 | -0.6101 | -0.2080 |
| 55 | 36.41 | 0.08 | 5.7173 | -1.1768 | 1.0750 | -1.1073 | 0.2248 | -0.3571 | 0.2779 | -0.6350 | -0.2058 |
| 56 | 36.64 | 0.10 | 5.8345 | -1.3163 | 1.1555 | -0.9315 | 0.2241 | -0.3571 | 0.2879 | -0.6450 | -0.2260 |
| 57 | 36.86 | 0.09 | 5.8772 | -1.3176 | 1.0015 | -0.8174 | 0.2360 | -0.3619 | 0.2984 | -0.6402 | -0.2242 |
| 58 | 37.12 | 0.09 | 5.9531 | -1.4246 | 0.9625 | -0.8033 | 0.1997 | -0.3537 | 0.3045 | -0.6581 | -0.2377 |
| 59 | 37.34 | 0.09 | 6.1013 | -1.4362 | 0.8855 | 0.4605 | 0.1910 | -0.3403 | 0.3186 | -0.6588 | -0.2357 |
| 60 | 37.58 | 0.10 | 6.1881 | -1.4378 | 0.9004 | 0.5545 | 0.1328 | -0.2836 | 0.3418 | -0.6254 | -0.1999 |
| 61 | 37.82 | 0.09 | 6.2530 | -1.2628 | 0.7721 | 0.5584 | 0.1173 | -0.2743 | 0.3574 | -0.6317 | -0.2008 |
| 62 | 38.04 | 0.10 | 6.3231 | -1.2583 | 0.7919 | 1.3586 | 0.0940 | -0.2703 | 0.3711 | -0.6414 | -0.2034 |
| 63 | 38.27 | 0.09 | 6.5313 | -1.4563 | 0.6357 | 1.7509 | 0.1304 | -0.2824 | 0.3755 | -0.6579 | -0.2230 |
| 64 | 38.51 | 0.09 | 6.6778 | -1.5473 | 0.5557 | 2.2533 | 0.0046 | -0.2661 | 0.3779 | -0.6440 | -0.2377 |
| 65 | 38.74 | 0.08 | 6.7838 | -1.6165 | 0.4571 | 2.7499 | 0.0687 | -0.2656 | 0.3673 | -0.6329 | -0.2383 |
| 66 | 38.94 | 0.07 | 6.9312 | -1.6961 | 0.3552 | 2.8730 | 0.0925 | -0.2917 | 0.3650 | -0.6813 | -0.2441 |
| 67 | 39.17 | 0.07 | 6.9293 | -1.6155 | 0.3655 | 2.6334 | 0.0117 | -0.2931 | 0.3946 | -0.6879 | -0.2331 |
| 68 | 39.39 | 0.06 | 7.0413 | -1.5918 | 0.4179 | 2.5011 | 0.0051 | -0.2978 | 0.3962 | -0.6940 | -0.2150 |
| 69 | 39.58 | 0.07 | 7.0334 | -1.5574 | 0.5360 | 1.8848 | 0.0223 | -0.3108 | 0.3953 | -0.7061 | -0.1901 |
| 70 | 39.81 | 0.06 | 7.0472 | -1.5153 | 0.4226 | 2.0645 | 0.0219 | -0.3078 | 0.3935 | -0.7013 | -0.1872 |
| 71 | 40.00 | 0.06 | 7.0223 | -1.4156 | 0.6544 | 1.3536 | 0.0461 | -0.3049 | 0.3875 | -0.6924 | -0.1647 |
| 72 | 40.20 | 0.06 | 7.0362 | -1.4148 | 0.6206 | 1.4519 | 0.0313 | -0.3240 | 0.3922 | -0.7162 | -0.1611 |
| 73 | 40.39 | 0.05 | 7.1004 | -1.1201 | 0.6218 | 1.1295 | 0.0545 | -0.3211 | 0.3893 | -0.7104 | -0.1566 |
| 74 | 40.59 | 0.06 | 7.1957 | -1.0046 | 0.7912 | 1.1329 | 0.0545 | -0.3234 | 0.3950 | -0.7184 | -0.1396 |
| 75 | 40.83 | 0.10 | 7.4128 | -1.2800 | 0.8492 | 1.4473 | 0.0466 | -0.3143 | 0.4077 | -0.7220 | -0.1727 |
| 76 | 41.03 | 0.10 | 7.5037 | -1.2783 | 0.9133 | 1.4214 | 0.0369 | -0.3259 | 0.4095 | -0.7354 | -0.1704 |
| 77 | 41.23 | 0.09 | 7.5508 | -1.2245 | 0.9055 | 1.5722 | 0.0251 | -0.3265 | 0.4152 | -0.7417 | -0.1622 |
| 78 | 41.45 | 0.09 | 7.7856 | -1.2038 | 0.7755 | 2.0780 | 0.0240 | -0.3379 | 0.4247 | -0.7626 | -0.1932 |
| 79 | 41.62 | 0.09 | 7.8964 | -1.3184 | 0.7880 | 2.0361 | -0.0050 | -0.3358 | 0.4126 | -0.7484 | -0.1713 |
| 80 | 41.83 | 0.09 | 7.8228 | -1.2844 | 0.8151 | 1.9436 | -0.0043 | -0.3404 | 0.4253 | -0.7657 | -0.1858 |
| 81 | 42.03 | 0.11 | 7.9057 | -1.3513 | 0.8535 | 1.5577 | 0.0334 | -0.3426 | 0.4234 | -0.7660 | -0.1760 |
| 82 | 42.20 | 0.10 | 7.9746 | -1.2143 | 0.8041 | 1.9133 | 0.0324 | -0.3465 | 0.4252 | -0.7717 | -0.1899 |
| 83 | 42.40 | 0.09 | 8.0771 | -1.3755 | 0.8447 | 1.7836 | 0.0476 | -0.3470 | 0.4272 | -0.7742 | -0.1951 |
| 84 | 42.58 | 0.10 | 8.1265 | -1.2866 | 0.8557 | 1.8808 | 0.0483 | -0.3541 | 0.4342 | -0.7883 | -0.1792 |
| 85 | 42.76 | 0.10 | 8.3004 | -1.2962 | 0.8657 | 2.3047 | 0.0246 | -0.3401 | 0.4309 | -0.7710 | -0.2044 |
| 86 | 42.93 | 0.10 | 8.3516 | -1.2873 | 1.0292 | 1.8040 | 0.0333 | -0.3495 | 0.4332 | -0.7767 | -0.1977 |
| 87 | 43.13 | 0.11 | 8.4267 | -1.2881 | 1.0364 | 2.1450 | 0.0328 | -0.3435 | 0.4295 | -0.7730 | -0.2137 |
| 88 | 43.32 | 0.12 | 8.5265 | -1.3758 | 1.1566 | 1.7400 | 0.0635 | -0.3519 | 0.4346 | -0.7865 | -0.2084 |
| 89 | 43.49 | 0.11 | 8.5323 | -1.3657 | 1.1133 | 1.8064 | 0.0561 | -0.3499 | 0.4330 | -0.7849 | -0.2069 |
| 90 | 43.66 | 0.12 | 8.6561 | -1.4532 | 1.1582 | 1.9887 | 0.0629 | -0.3500 | 0.4303 | -0.7803 | -0.2255 |
| 91 | 43.85 | 0.12 | 8.7468 | -2.0156 | 1.1702 | 2.0241 | 0.0630 | -0.3466 | 0.4303 | -0.7789 | -0.2309 |
| 92 | 44.02 | 0.12 | 8.8184 | -2.1062 | 1.2065 | 1.7574 | 0.0654 | -0.3679 | 0.4278 | -0.7957 | -0.2382 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 114 MACH 0.60 RN10-6 4.7 PHI 0.0 CONF BINOF13 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.21 | 0.11 | 8.9514 | -2.1849 | 1.1999 | 1.5827 | 0.0784 | -0.3660 | 0.4286 | -0.7948 | -0.2441 |
| 94 | 44.40 | 0.12 | 9.0071 | -2.2555 | 1.2570 | 1.7236 | 0.1086 | -0.3703 | 0.4292 | -0.7995 | -0.2462 |
| 95 | 44.59 | 0.12 | 9.0821 | -2.1656 | 1.2202 | 1.6027 | 0.1093 | -0.3591 | 0.4320 | -0.7911 | -0.2363 |
| 96 | 44.77 | 0.11 | 9.1714 | -2.2814 | 1.2761 | 1.6011 | 0.1093 | -0.3720 | 0.4292 | -0.8012 | -0.2488 |
| 97 | 44.93 | 0.11 | 9.1738 | -2.1938 | 1.2754 | 1.7659 | 0.1093 | -0.3610 | 0.4320 | -0.8130 | -0.2391 |
| 98 | 45.13 | 0.11 | 9.2506 | -2.2036 | 1.2831 | 1.7802 | 0.1094 | -0.3739 | 0.4347 | -0.8086 | -0.2458 |
| 99 | 45.30 | 0.11 | 9.3177 | -2.2651 | 1.2062 | 2.0863 | 0.0866 | -0.3629 | 0.4383 | -0.8192 | -0.2452 |
| 100 | 45.47 | 0.12 | 9.4156 | -2.3265 | 1.2916 | 1.9546 | 0.0945 | -0.3902 | 0.4362 | -0.8264 | -0.2527 |
| 101 | 45.65 | 0.10 | 9.4813 | -2.3206 | 1.2525 | 1.7636 | 0.0955 | -0.3933 | 0.4391 | -0.8324 | -0.2447 |
| 102 | 45.82 | 0.12 | 9.6302 | -2.4374 | 1.4421 | 1.8506 | 0.0953 | -0.3876 | 0.4460 | -0.8159 | -0.2531 |
| 103 | 46.00 | 0.11 | 9.6005 | -2.3701 | 1.3665 | 1.7056 | 0.0964 | -0.3675 | 0.4554 | -0.8229 | -0.2453 |
| 104 | 46.18 | 0.11 | 9.7028 | -2.3824 | 1.3566 | 1.4504 | 0.1122 | -0.3652 | 0.4616 | -0.8268 | -0.2455 |
| 105 | 46.33 | 0.11 | 9.7555 | -2.4245 | 1.3710 | 1.6590 | 0.0322 | -0.3612 | 0.4574 | -0.8386 | -0.2485 |
| 106 | 46.52 | 0.10 | 9.7766 | -2.3727 | 1.1045 | 1.8671 | 0.0897 | -0.4038 | 0.4558 | -0.8596 | -0.2427 |
| 107 | 46.69 | 0.11 | 9.9099 | -2.4763 | 1.3022 | 1.8079 | 0.0396 | -0.4037 | 0.4576 | -0.8615 | -0.2499 |
| 108 | 46.85 | 0.11 | 9.9216 | -2.4835 | 1.4055 | 1.9048 | 0.0820 | -0.3922 | 0.4643 | -0.8565 | -0.2504 |
| 109 | 47.02 | 0.10 | 10.0355 | -2.5315 | 1.2063 | 2.3536 | 0.0446 | -0.4029 | 0.4681 | -0.8711 | -0.2529 |
| 110 | 47.20 | 0.10 | 10.0661 | -2.4838 | 1.2235 | 2.0640 | 0.0554 | -0.3968 | 0.4694 | -0.8688 | -0.2463 |
| 111 | 47.39 | 0.10 | 10.1447 | -2.5116 | 1.2591 | 2.4866 | 0.0301 | -0.3971 | 0.4757 | -0.8729 | -0.2476 |
| 112 | 47.54 | 0.10 | 10.2436 | -2.6075 | 1.1931 | 2.7044 | 0.0256 | -0.4039 | 0.4837 | -0.8876 | -0.2595 |
| 113 | 47.71 | 0.10 | 10.3026 | -2.6454 | 1.1233 | 2.8217 | 0.0223 | -0.4106 | 0.4889 | -0.8997 | -0.2572 |
| 114 | 47.85 | 0.10 | 10.4057 | -2.6917 | 1.1775 | 2.6930 | 0.0086 | -0.3940 | 0.5017 | -0.8957 | -0.2587 |
| 115 | 48.00 | 0.10 | 10.3220 | -2.4873 | 1.0950 | 3.1004 | -0.0075 | -0.4010 | 0.5050 | -0.9060 | -0.2390 |
| 116 | 48.23 | 0.09 | 10.3043 | -2.4961 | 1.0496 | 3.2037 | -0.0076 | -0.4043 | 0.5045 | -0.9088 | -0.2410 |
| 117 | 48.38 | 0.08 | 10.3204 | -2.3535 | 0.8772 | 3.1190 | -0.0143 | -0.4141 | 0.5111 | -0.9252 | -0.2281 |
| 118 | 48.57 | 0.10 | 10.2727 | -2.7342 | 1.1226 | 2.8235 | 0.0019 | -0.4100 | 0.5182 | -0.9342 | -0.2562 |
| 119 | 48.73 | 0.09 | 10.3793 | -2.2695 | 0.9571 | 3.1881 | -0.0434 | -0.4084 | 0.5191 | -0.9275 | -0.2206 |
| 120 | 48.88 | 0.08 | 10.4172 | -2.2066 | 0.9123 | 3.1855 | -0.0432 | -0.4247 | 0.5300 | -0.9547 | -0.2112 |
| 121 | 49.06 | 0.07 | 10.4403 | -2.2509 | 0.8196 | 3.1684 | -0.0429 | -0.4242 | 0.5272 | -0.9514 | -0.2156 |
| 122 | 49.25 | 0.05 | 10.3763 | -2.0922 | 0.6867 | 3.1693 | 0.0065 | -0.4315 | 0.5336 | -0.9653 | -0.2498 |
| 123 | 49.41 | 0.07 | 10.4137 | -2.0358 | 0.7873 | 3.1475 | -0.0572 | -0.4419 | 0.5282 | -0.9701 | -0.1950 |
| 124 | 49.58 | 0.07 | 10.5298 | -2.1373 | 0.8495 | 3.1547 | -0.0643 | -0.4460 | 0.5262 | -0.9902 | -0.2030 |
| 125 | 49.75 | 0.07 | 10.8132 | -2.3545 | 0.8096 | 3.3241 | -0.0423 | -0.4536 | 0.5320 | -0.9858 | -0.2215 |
| 126 | 49.93 | 0.07 | 10.7446 | -2.2263 | 0.8057 | 3.2041 | -0.0422 | -0.4727 | 0.5136 | -0.9863 | -0.2066 |
| 127 | 50.10 | 0.06 | 10.7124 | -2.0952 | 0.7511 | 3.3195 | -0.0641 | -0.4628 | 0.5330 | -0.9558 | -0.1917 |
| 128 | 50.28 | 0.07 | 10.7226 | -1.9746 | 0.8003 | 3.6055 | -0.0703 | -0.4730 | 0.5250 | -0.9580 | -0.1785 |
| 129 | 50.42 | 0.05 | 10.8753 | -1.7514 | 0.6362 | 2.8546 | -0.0692 | -0.5015 | 0.5169 | -1.0183 | -0.1640 |
| 130 | 50.59 | 0.05 | 10.7219 | -1.8626 | 0.5501 | 2.9648 | -0.0987 | -0.5194 | 0.4924 | -1.0117 | -0.1550 |
| 131 | 50.76 | 0.05 | 10.7681 | -1.7055 | 0.6046 | 2.8327 | -0.0833 | -0.5336 | 0.4990 | -1.0325 | -0.1588 |
| 132 | 50.91 | 0.05 | 10.7655 | -1.8877 | 0.5864 | 2.7981 | -0.0831 | -0.5122 | 0.5066 | -1.0187 | -0.1568 |
| 133 | 51.08 | 0.04 | 10.9652 | -1.9345 | 0.5711 | 2.8115 | -0.0833 | -0.5020 | 0.5038 | -1.0057 | -0.1764 |
| 134 | 51.27 | 0.05 | 11.1070 | -2.0301 | 0.6356 | 3.0415 | -0.0473 | -0.5059 | 0.5415 | -1.0473 | -0.1993 |
| 135 | 51.46 | 0.07 | 11.0410 | -2.5309 | 0.7480 | 3.5935 | -0.0398 | -0.5081 | 0.5566 | -1.0646 | -0.2208 |
| 136 | 51.61 | 0.06 | 11.0405 | -2.4887 | 0.6365 | 3.5167 | -0.0391 | -0.5142 | 0.5530 | -1.0641 | -0.2151 |
| 137 | 51.80 | 0.07 | 11.0622 | -2.0730 | 0.7141 | 3.8343 | -0.0253 | -0.5010 | 0.5714 | -1.0724 | -0.2291 |
| 138 | 51.96 | 0.07 | 11.1926 | -2.0877 | 0.7012 | 3.8426 | -0.0397 | -0.5171 | 0.5686 | -1.0857 | -0.2380 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 114 MACH 1.7 RNID=E PHI 0.0 CONF B1BOF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | dBETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.16 | 0.09 | 11.9506 | -2.9931 | 0.8661 | 4.4428 | -0.0854 | -0.5178 | 0.5766 | -1.0944 | -0.2496 |
| 140 | 52.31 | 0.07 | 12.0181 | -3.0047 | 0.7558 | 4.5167 | -0.0850 | -0.5136 | 0.5811 | -1.0947 | -0.2540 |
| 141 | 52.46 | 0.07 | 12.0550 | -3.0855 | 0.7263 | 4.6604 | -0.0999 | -0.5110 | 0.5915 | -1.1025 | -0.2535 |
| 142 | 52.60 | 0.05 | 12.2707 | -3.2180 | 0.5597 | 4.3896 | -0.1134 | -0.5314 | 0.5919 | -1.1233 | -0.2622 |
| 143 | 52.85 | 0.10 | 12.5455 | -3.4508 | 1.1855 | 4.1958 | -0.1049 | -0.5588 | 0.5768 | -1.1356 | -0.2745 |
| 144 | 53.00 | 0.12 | 12.5750 | -3.4381 | 1.2862 | 3.9761 | -0.1043 | -0.5580 | 0.5750 | -1.1336 | -0.2648 |
| 145 | 53.17 | 0.10 | 12.6524 | -3.5105 | 1.2778 | 3.8742 | -0.0808 | -0.5475 | 0.5321 | -1.0796 | -0.2775 |
| 146 | 53.34 | 0.11 | 12.6848 | -3.5506 | 1.3353 | 3.9046 | -0.0807 | -0.5741 | 0.5426 | -1.0967 | -0.2804 |
| 147 | 53.51 | 0.11 | 12.7619 | -3.5451 | 1.3463 | 3.7626 | -0.0884 | -0.5621 | 0.5302 | -1.0923 | -0.2778 |
| 148 | 53.66 | 0.10 | 12.8413 | -3.7944 | 1.2243 | 3.6538 | -0.0204 | -0.5516 | 0.5286 | -1.0802 | -0.2955 |
| 149 | 53.83 | 0.11 | 12.8765 | -3.8075 | 1.3379 | 3.5126 | -0.0499 | -0.5412 | 0.5381 | -1.0793 | -0.2957 |
| 150 | 53.99 | 0.12 | 13.0173 | -3.9407 | 1.3647 | 3.3768 | -0.0427 | -0.5377 | 0.5472 | -1.0845 | -0.3027 |
| 151 | 54.17 | 0.12 | 13.3034 | -4.2103 | 1.4334 | 3.0475 | 0.0107 | -0.5493 | 0.5515 | -1.1012 | -0.3151 |
| 152 | 54.34 | 0.10 | 13.4122 | -4.1073 | 1.2423 | 2.8812 | 0.0338 | -0.5563 | 0.5644 | -1.1207 | -0.3106 |
| 153 | 54.50 | 0.11 | 13.3308 | -3.9856 | 1.4045 | 2.7163 | 0.0267 | -0.5592 | 0.5545 | -1.1137 | -0.2993 |
| 154 | 54.66 | 0.10 | 13.5012 | -4.0969 | 1.2535 | 2.6119 | 0.0408 | -0.5504 | 0.5663 | -1.1167 | -0.3023 |
| 155 | 54.81 | 0.11 | 13.4628 | -4.0543 | 1.3016 | 2.8255 | 0.0415 | -0.5606 | 0.5588 | -1.1194 | -0.3011 |
| 156 | 55.01 | 0.12 | 13.5277 | -4.0972 | 1.4523 | 2.7925 | 0.0563 | -0.5408 | 0.5685 | -1.1093 | -0.2992 |
| 157 | 55.16 | 0.11 | 13.6240 | -4.1856 | 1.3255 | 2.8303 | 0.0420 | -0.5560 | 0.5670 | -1.1230 | -0.3075 |
| 158 | 55.31 | 0.11 | 13.6075 | -4.1394 | 1.3146 | 2.8441 | 0.0419 | -0.5640 | 0.5732 | -1.1372 | -0.3042 |
| 159 | 55.48 | 0.11 | 13.6542 | -4.2612 | 1.2758 | 3.0287 | 0.0424 | -0.5469 | 0.5642 | -1.1311 | -0.3067 |
| 160 | 55.64 | 0.12 | 13.6491 | -4.0821 | 1.3821 | 2.6495 | 0.0429 | -0.5451 | 0.5793 | -1.1444 | -0.2978 |
| 161 | 55.80 | 0.12 | 13.7343 | -4.1516 | 1.4722 | 2.8763 | 0.0421 | -0.5887 | 0.5774 | -1.1661 | -0.2877 |
| 162 | 55.94 | 0.09 | 13.5479 | -3.9552 | 1.2596 | 2.6482 | 0.0355 | -0.5612 | 0.5654 | -1.1406 | -0.2949 |
| 163 | 56.12 | 0.11 | 13.9535 | -4.1495 | 1.3482 | 2.8639 | 0.0431 | -0.5625 | 0.5523 | -1.1548 | -0.2974 |
| 164 | 56.29 | 0.11 | 13.9796 | -4.2520 | 1.3606 | 2.9140 | 0.0503 | -0.5533 | 0.5692 | -1.1525 | -0.3042 |
| 165 | 56.45 | 0.11 | 14.0083 | -4.2184 | 1.3371 | 2.7542 | 0.0511 | -0.5538 | 0.6006 | -1.1544 | -0.3011 |
| 166 | 56.61 | 0.12 | 14.0053 | -3.9456 | 1.2535 | 2.8520 | 0.0511 | -0.5417 | 0.6046 | -1.1463 | -0.2619 |
| 167 | 56.77 | 0.11 | 14.2383 | -4.2869 | 1.4129 | 2.7778 | 0.0734 | -0.5686 | 0.6079 | -1.1765 | -0.3011 |
| 168 | 56.91 | 0.08 | 13.9514 | -3.9323 | 1.0245 | 2.7025 | 0.0519 | -0.5792 | 0.6009 | -1.1601 | -0.2819 |
| 169 | 57.08 | 0.10 | 14.0625 | -4.1857 | 1.2732 | 2.8421 | 0.0511 | -0.5657 | 0.6164 | -1.1821 | -0.2972 |
| 170 | 57.21 | 0.09 | 13.9717 | -4.0481 | 1.1447 | 2.6851 | 0.0062 | -0.5723 | 0.6236 | -1.1959 | -0.2897 |
| 171 | 57.36 | 0.07 | 13.9123 | -3.8937 | 0.9244 | 2.5541 | 0.0815 | -0.5518 | 0.6213 | -1.1731 | -0.2799 |
| 172 | 57.51 | 0.06 | 13.9569 | -3.9543 | 0.7713 | 2.7013 | 0.0453 | -0.5647 | 0.6209 | -1.1856 | -0.2825 |
| 173 | 57.65 | 0.06 | 13.8788 | -3.8057 | 0.8544 | 2.4277 | 0.0605 | -0.5505 | 0.6302 | -1.1807 | -0.2743 |
| 174 | 57.80 | 0.07 | 14.0154 | -3.8782 | 0.9506 | 2.5238 | 0.0748 | -0.5629 | 0.6449 | -1.2078 | -0.2766 |
| 175 | 57.94 | 0.06 | 13.9164 | -3.8542 | 0.8876 | 2.2163 | 0.0540 | -0.5547 | 0.6419 | -1.1966 | -0.2798 |
| 176 | 58.11 | 0.06 | 14.1656 | -4.1288 | 1.0566 | 2.4321 | 0.0752 | -0.5576 | 0.6541 | -1.2115 | -0.2914 |
| 177 | 58.21 | 0.05 | 13.9847 | -3.9813 | 0.7675 | 2.5859 | 0.0747 | -0.5516 | 0.6535 | -1.2091 | -0.2847 |
| 178 | 58.41 | 0.07 | 13.8619 | -3.7347 | 0.5855 | 2.4165 | 0.0747 | -0.5703 | 0.6517 | -1.2220 | -0.2688 |

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 114 | MACH 0.60 | RX10-6 1.7 | PHI 0.0 | CONF 1 BODY13 | L 0.6 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.00 | -0.0031 | 0.0044 | 0.0154 | -1.4201 | -4.9513 | -0.8188 | -0.0238 | -0.3579 | 0.0291 | 0.4370 |
| 2 | -5.09 | 0.02 | 0.0018 | 0.0058 | 0.0162 | 3.2239 | 10.3077 | -0.8158 | -0.0241 | -0.3565 | 0.0296 | 0.4369 |
| 3 | -5.69 | 0.01 | 0.0070 | 0.0084 | 0.0202 | 0.9146 | 2.9806 | -0.8219 | -0.0234 | -0.3580 | 0.0285 | 0.4355 |
| 4 | -4.98 | 0.01 | 0.0046 | 0.0060 | 0.0181 | 1.3050 | 3.9256 | -0.7857 | -0.0249 | -0.3480 | 0.0317 | 0.4429 |
| 5 | -3.12 | 0.01 | 0.0034 | 0.0057 | 0.0172 | 1.6774 | 5.0455 | -0.7574 | -0.0249 | -0.3360 | 0.0329 | 0.4436 |
| 6 | -1.38 | 0.01 | 0.0046 | 0.0065 | 0.0165 | 1.3549 | 3.5112 | -0.7277 | -0.0241 | -0.3242 | 0.0332 | 0.4456 |
| 7 | 0.43 | 0.02 | 0.0035 | 0.0057 | 0.0145 | 1.4023 | 3.7041 | -0.7563 | -0.0241 | -0.3307 | 0.0319 | 0.4372 |
| 8 | 2.17 | 0.01 | 0.0105 | 0.0060 | 0.0138 | 0.9508 | 1.2509 | -0.8188 | -0.0290 | -0.3499 | 0.0355 | 0.4273 |
| 9 | 3.89 | 0.01 | 0.0121 | 0.0054 | 0.0154 | 0.4465 | 1.2685 | -0.7825 | -0.0317 | -0.3392 | 0.0406 | 0.4335 |
| 10 | 5.04 | 0.02 | 0.0166 | 0.0043 | 0.0164 | 0.4059 | 1.5427 | -0.7344 | -0.0348 | -0.3213 | 0.0473 | 0.4375 |
| 11 | 7.45 | 0.02 | 0.0075 | 0.0044 | 0.0177 | 0.5870 | 2.3542 | -0.7106 | -0.0396 | -0.3052 | 0.0557 | 0.4255 |
| 12 | 9.14 | 0.02 | 0.0135 | 0.0051 | 0.0225 | 0.3760 | 1.0646 | -0.6862 | -0.0463 | -0.2944 | 0.0674 | 0.4296 |
| 13 | 10.90 | 0.01 | 0.0210 | 0.0057 | 0.0266 | 0.2716 | 1.2659 | -0.6553 | -0.0486 | -0.2556 | 0.0741 | 0.4511 |
| 14 | 12.63 | 0.02 | 0.0197 | 0.0054 | 0.0260 | 0.2743 | 1.3444 | -0.6037 | -0.0465 | -0.2302 | 0.0776 | 0.4475 |
| 15 | 14.36 | 0.01 | 0.0073 | 0.0031 | 0.0192 | 0.4249 | 2.6246 | -0.5238 | -0.0466 | -0.2358 | 0.0889 | 0.4578 |
| 16 | 16.20 | 0.01 | 0.0114 | 0.0028 | 0.0272 | 0.2457 | 2.3848 | -0.4716 | -0.0446 | -0.2240 | 0.0949 | 0.4756 |
| 17 | 18.01 | 0.01 | 0.0561 | 0.0064 | 0.0537 | 0.1143 | 0.9534 | -0.3660 | -0.0361 | -0.1736 | 0.0985 | 0.4743 |
| 18 | 19.79 | -0.04 | 0.0765 | 0.0047 | 0.0700 | 0.0650 | 0.9656 | -0.2456 | -0.0233 | -0.1238 | 0.0950 | 0.5041 |
| 19 | 21.60 | -0.02 | 0.1021 | 0.0004 | 0.1058 | 0.0039 | 1.0366 | -0.1786 | -0.0139 | -0.0922 | 0.0780 | 0.5162 |
| 20 | 23.42 | -0.02 | 0.0877 | -0.0033 | 0.0840 | -0.0408 | 1.2421 | -0.0732 | 0.0004 | -0.0476 | -0.0055 | 0.6505 |
| 21 | 25.20 | -0.01 | 0.0257 | -0.0031 | 0.0415 | -0.1207 | 1.0278 | 0.0297 | 0.0224 | -0.0013 | 0.7546 | -0.0439 |
| 22 | 27.04 | 0.01 | 0.1237 | 0.0141 | 0.0731 | 0.1141 | 0.5909 | 0.1332 | 0.0423 | 0.0398 | 0.3172 | 0.2985 |
| 23 | 28.11 | 0.03 | 0.2057 | 0.0260 | 0.1111 | 0.1206 | 0.5399 | 0.1668 | 0.0481 | 0.0533 | 0.2883 | 0.3157 |
| 24 | 28.23 | 0.01 | 0.1813 | 0.0190 | 0.0935 | 0.1179 | 0.5819 | 0.1623 | 0.0496 | 0.0536 | 0.3053 | 0.3303 |
| 25 | 28.60 | 0.02 | 0.1657 | 0.0167 | 0.1004 | 0.1131 | 0.6062 | 0.1771 | 0.0523 | 0.0589 | 0.2952 | 0.3329 |
| 26 | 28.92 | 0.02 | 0.1802 | 0.0221 | 0.1029 | 0.1228 | 0.5713 | 0.1930 | 0.0555 | 0.0675 | 0.2875 | 0.3497 |
| 27 | 29.18 | 0.03 | 0.2136 | 0.0265 | 0.1156 | 0.1261 | 0.5383 | 0.2208 | 0.0596 | 0.0780 | 0.2699 | 0.3533 |
| 28 | 29.50 | 0.03 | 0.1961 | 0.0230 | 0.1127 | 0.1163 | 0.5088 | 0.2195 | 0.0606 | 0.0792 | 0.2769 | 0.3609 |
| 29 | 29.79 | 0.05 | 0.3032 | 0.0364 | 0.1543 | 0.1195 | 0.5091 | 0.2520 | 0.0645 | 0.0916 | 0.2559 | 0.3634 |
| 30 | 30.07 | 0.04 | 0.2845 | 0.0333 | 0.1468 | 0.1172 | 0.5203 | 0.2627 | 0.0669 | 0.0968 | 0.2546 | 0.3684 |
| 31 | 30.33 | 0.05 | 0.3051 | 0.0358 | 0.1555 | 0.1172 | 0.5098 | 0.2759 | 0.0692 | 0.1024 | 0.2509 | 0.3713 |
| 32 | 30.60 | 0.04 | 0.2947 | 0.0345 | 0.1455 | 0.1164 | 0.5232 | 0.2876 | 0.0707 | 0.1063 | 0.2459 | 0.3768 |
| 33 | 30.88 | 0.03 | 0.2850 | 0.0315 | 0.1534 | 0.1121 | 0.5384 | 0.2934 | 0.0717 | 0.1128 | 0.2444 | 0.3844 |
| 34 | 31.14 | 0.03 | 0.2878 | 0.0325 | 0.1567 | 0.1084 | 0.5292 | 0.2752 | 0.0722 | 0.1089 | 0.2623 | 0.3885 |
| 35 | 31.42 | 0.04 | 0.1735 | 0.0165 | 0.1084 | 0.1092 | 0.6259 | 0.2751 | 0.0727 | 0.1077 | 0.2642 | 0.3916 |
| 36 | 31.65 | 0.03 | 0.1867 | 0.0175 | 0.1096 | 0.1090 | 0.6264 | 0.2813 | 0.0734 | 0.1080 | 0.2610 | 0.3841 |
| 37 | 31.93 | 0.02 | 0.1101 | 0.0127 | 0.0942 | 0.1155 | 0.7652 | 0.3048 | 0.0760 | 0.1191 | 0.2494 | 0.3907 |
| 38 | 32.22 | 0.03 | 0.0960 | 0.0121 | 0.0750 | 0.1255 | 0.7766 | 0.3137 | 0.0767 | 0.1224 | 0.2445 | 0.3902 |
| 39 | 32.48 | 0.04 | 0.1721 | 0.0175 | 0.1154 | 0.1042 | 0.6706 | 0.3241 | 0.0775 | 0.1262 | 0.2392 | 0.3894 |
| 40 | 32.75 | 0.04 | 0.1654 | 0.0196 | 0.1051 | 0.1106 | 0.6354 | 0.3478 | 0.0790 | 0.1365 | 0.2272 | 0.3923 |
| 41 | 33.00 | 0.04 | 0.1643 | 0.0220 | 0.0950 | 0.1341 | 0.5780 | 0.3729 | 0.0795 | 0.1495 | 0.2132 | 0.4005 |
| 42 | 33.26 | 0.05 | 0.2360 | 0.0292 | 0.1257 | 0.1239 | 0.5367 | 0.3894 | 0.0805 | 0.1556 | 0.2068 | 0.3997 |
| 43 | 33.50 | 0.06 | 0.2433 | 0.0282 | 0.1356 | 0.1161 | 0.5736 | 0.3967 | 0.0810 | 0.1598 | 0.2042 | 0.4027 |
| 44 | 33.76 | 0.07 | 0.2847 | 0.0327 | 0.1546 | 0.1150 | 0.5432 | 0.4100 | 0.0813 | 0.1665 | 0.1983 | 0.4061 |
| 45 | 34.00 | 0.07 | 0.2550 | 0.0295 | 0.1514 | 0.1156 | 0.5846 | 0.4130 | 0.0816 | 0.1679 | 0.1976 | 0.4065 |
| 46 | 34.26 | 0.06 | 0.2525 | 0.0282 | 0.1467 | 0.1566 | 0.5699 | 0.4144 | 0.0821 | 0.1692 | 0.1982 | 0.4083 |

TEST 7 PART 114 MACH 0.80 REYNO=6 1.7 PHI 0.0 CONF 81 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.08 | 0.2552 | 0.0258 | 0.1513 | 0.1004 | 0.5929 | 0.4218 | 0.0822 | 0.1724 | 0.1545 | 0.4068 |
| 48 | 34.74 | 0.05 | 0.3006 | 0.0316 | 0.1636 | 0.1052 | 0.5535 | 0.4367 | 0.0824 | 0.1784 | 0.1883 | 0.4086 |
| 49 | 34.98 | 0.09 | 0.3011 | 0.0262 | 0.1754 | 0.0871 | 0.5760 | 0.4367 | 0.0825 | 0.1776 | 0.1890 | 0.4068 |
| 50 | 35.23 | 0.05 | 0.3265 | 0.0245 | 0.1871 | 0.0751 | 0.5726 | 0.4441 | 0.0828 | 0.1817 | 0.1865 | 0.4092 |
| 51 | 35.46 | 0.09 | 0.3009 | 0.0258 | 0.1671 | 0.0852 | 0.5555 | 0.4651 | 0.0825 | 0.1893 | 0.1774 | 0.4065 |
| 52 | 35.70 | 0.05 | 0.3465 | 0.0357 | 0.1856 | 0.1029 | 0.5066 | 0.4926 | 0.0811 | 0.2039 | 0.1646 | 0.4138 |
| 53 | 35.93 | 0.08 | 0.3173 | 0.0364 | 0.1660 | 0.1205 | 0.5041 | 0.5081 | 0.0801 | 0.2065 | 0.1577 | 0.4111 |
| 54 | 36.16 | 0.06 | 0.3212 | 0.0410 | 0.1664 | 0.1275 | 0.4993 | 0.5231 | 0.0797 | 0.2145 | 0.1524 | 0.4106 |
| 55 | 36.41 | 0.08 | 0.3280 | 0.0426 | 0.1662 | 0.1298 | 0.4883 | 0.5413 | 0.0789 | 0.2195 | 0.1458 | 0.4055 |
| 56 | 36.64 | 0.10 | 0.3020 | 0.0367 | 0.1666 | 0.1214 | 0.5324 | 0.5350 | 0.0800 | 0.2186 | 0.1496 | 0.4090 |
| 57 | 36.86 | 0.05 | 0.2722 | 0.0312 | 0.1524 | 0.1121 | 0.5468 | 0.5335 | 0.0796 | 0.2203 | 0.1492 | 0.4128 |
| 58 | 37.12 | 0.05 | 0.2660 | 0.0258 | 0.1365 | 0.1171 | 0.5917 | 0.5274 | 0.0799 | 0.2192 | 0.1515 | 0.4156 |
| 59 | 37.34 | 0.05 | 0.1607 | 0.0084 | 0.1209 | 0.0466 | 0.7325 | 0.5257 | 0.0805 | 0.2195 | 0.1532 | 0.4183 |
| 60 | 37.58 | 0.10 | 0.1658 | 0.0100 | 0.1181 | 0.0605 | 0.7133 | 0.5271 | 0.0812 | 0.2216 | 0.1541 | 0.4204 |
| 61 | 37.82 | 0.05 | 0.1332 | -0.0013 | 0.1087 | -0.0098 | 0.8183 | 0.5164 | 0.0820 | 0.2190 | 0.1588 | 0.4241 |
| 62 | 38.04 | 0.10 | 0.1556 | -0.0126 | 0.0965 | -0.1257 | 0.9931 | 0.5194 | 0.0818 | 0.2208 | 0.1575 | 0.4251 |
| 63 | 38.27 | 0.05 | 0.0497 | -0.0321 | 0.0895 | -0.0462 | 1.7985 | 0.5249 | 0.0818 | 0.2207 | 0.1560 | 0.4205 |
| 64 | 38.51 | 0.05 | 0.0488 | -0.0365 | 0.0904 | -0.7555 | 1.9735 | 0.5343 | 0.0830 | 0.2247 | 0.1539 | 0.4167 |
| 65 | 38.74 | 0.08 | 0.0338 | -0.0358 | 0.0890 | -1.1822 | 2.6453 | 0.5559 | 0.0816 | 0.2308 | 0.1468 | 0.4153 |
| 66 | 38.94 | 0.07 | -0.0166 | -0.0462 | 0.0952 | 4.5552 | -7.1708 | 0.5667 | 0.0786 | 0.2342 | 0.1391 | 0.4132 |
| 67 | 39.17 | 0.07 | -0.0374 | -0.0496 | 0.0970 | 1.1505 | -1.2553 | 0.5727 | 0.0765 | 0.2366 | 0.1371 | 0.4131 |
| 68 | 39.39 | 0.08 | -0.0566 | -0.0375 | 0.0907 | 0.8347 | -0.5247 | 0.5775 | 0.0764 | 0.2376 | 0.1323 | 0.4114 |
| 69 | 39.56 | 0.07 | -0.0405 | -0.0314 | 0.0862 | 0.7757 | -0.6942 | 0.5854 | 0.0725 | 0.2391 | 0.1238 | 0.4084 |
| 70 | 39.81 | 0.06 | 0.0035 | -0.0176 | 0.0781 | -5.0313 | 13.7295 | 0.5902 | 0.0723 | 0.2413 | 0.1225 | 0.4088 |
| 71 | 40.00 | 0.08 | 0.0440 | -0.0078 | 0.0851 | -0.1774 | 1.4774 | 0.6022 | 0.0709 | 0.2460 | 0.1177 | 0.4085 |
| 72 | 40.20 | 0.06 | 0.0653 | 0.0006 | 0.0871 | 0.0092 | 1.0278 | 0.6084 | 0.0689 | 0.2502 | 0.1133 | 0.4113 |
| 73 | 40.39 | 0.05 | 0.0870 | 0.0044 | 0.0756 | 0.0507 | 0.8893 | 0.6114 | 0.0683 | 0.2516 | 0.1117 | 0.4116 |
| 74 | 40.59 | 0.08 | 0.0973 | 0.0095 | 0.0782 | 0.0976 | 0.8040 | 0.6175 | 0.0673 | 0.2539 | 0.1090 | 0.4113 |
| 75 | 40.83 | 0.10 | 0.0785 | -0.0070 | 0.0808 | -0.0893 | 1.0301 | 0.6252 | 0.0655 | 0.2563 | 0.1048 | 0.4100 |
| 76 | 41.03 | 0.10 | 0.0715 | -0.0038 | 0.0724 | -0.0420 | 1.0130 | 0.6296 | 0.0663 | 0.2578 | 0.1053 | 0.4094 |
| 77 | 41.23 | 0.05 | 0.0342 | -0.0081 | 0.0574 | -0.1765 | 1.6779 | 0.6327 | 0.0651 | 0.2588 | 0.1025 | 0.4090 |
| 78 | 41.45 | 0.05 | 0.0787 | -0.0106 | 0.0601 | -0.1375 | 1.0185 | 0.6464 | 0.0631 | 0.2650 | 0.0976 | 0.4095 |
| 79 | 41.62 | 0.05 | 0.0447 | -0.0146 | 0.0456 | -0.9937 | 3.1120 | 0.6380 | 0.0616 | 0.2609 | 0.0965 | 0.4085 |
| 80 | 41.83 | 0.05 | 0.0037 | -0.0188 | 0.0391 | -4.5430 | 10.5472 | 0.6472 | 0.0591 | 0.2633 | 0.0913 | 0.4068 |
| 81 | 42.03 | 0.11 | 0.0755 | -0.0182 | 0.0255 | -0.2421 | 1.1406 | 0.6560 | 0.0601 | 0.2674 | 0.0916 | 0.4076 |
| 82 | 42.20 | 0.10 | 0.0256 | -0.0203 | 0.0138 | -0.1504 | 0.8777 | 0.6678 | 0.0602 | 0.2725 | 0.0901 | 0.4081 |
| 83 | 42.40 | 0.05 | 0.0148 | -0.0225 | 0.0047 | -0.1563 | 0.9122 | 0.6696 | 0.0581 | 0.2717 | 0.0867 | 0.4058 |
| 84 | 42.58 | 0.10 | 0.0148 | -0.0195 | 0.0058 | -0.1803 | 0.9352 | 0.6638 | 0.0571 | 0.2696 | 0.0860 | 0.4052 |
| 85 | 42.76 | 0.10 | 0.0457 | -0.0288 | 0.0701 | -0.6305 | 1.5322 | 0.6613 | 0.0537 | 0.2656 | 0.0812 | 0.4016 |
| 86 | 42.93 | 0.10 | 0.0770 | -0.0266 | 0.0866 | -0.3747 | 1.1426 | 0.6616 | 0.0514 | 0.2655 | 0.0773 | 0.4013 |
| 87 | 43.13 | 0.11 | 0.0922 | -0.0264 | 0.0933 | -0.2866 | 1.0119 | 0.6516 | 0.0483 | 0.2597 | 0.0741 | 0.3984 |
| 88 | 43.32 | 0.12 | 0.1415 | -0.0229 | 0.1145 | -0.1568 | 0.8094 | 0.6618 | 0.0486 | 0.2642 | 0.0734 | 0.3992 |
| 89 | 43.49 | 0.11 | 0.1085 | -0.0287 | 0.1005 | -0.2455 | 0.9267 | 0.6534 | 0.0447 | 0.2601 | 0.0684 | 0.3980 |
| 90 | 43.66 | 0.12 | 0.1436 | -0.0260 | 0.1175 | -0.1820 | 0.8214 | 0.6698 | 0.0452 | 0.2656 | 0.0674 | 0.3938 |
| 91 | 43.85 | 0.12 | 0.1433 | -0.0278 | 0.1170 | -0.1942 | 0.8161 | 0.6689 | 0.0434 | 0.2640 | 0.0650 | 0.3958 |
| 92 | 44.02 | 0.12 | 0.1416 | -0.0245 | 0.1150 | -0.1351 | 0.7433 | 0.6716 | 0.0405 | 0.2642 | 0.0602 | 0.3934 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST F | PART 114 | MACH 0.80 | MRIG-6 1.7 | PHI 0.0 | CONF 61 | DUFIG C.C | L 0 | DEL1 -30 | DEL2 0 | DEL3 -30 | DEL4 UNKNOWN | TRANSITION

| FLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.21 | 0.11 | 0.1831 | -0.0232 | 0.1336 | -0.1269 | 0.7300 | 0.6730 | 0.0406 | 0.2650 | 0.0603 | 0.3537 |
| 94 | 44.40 | 0.12 | 0.1573 | -0.0212 | 0.1383 | -0.1376 | 0.7004 | 0.6761 | 0.0350 | 0.2674 | 0.0576 | 0.3552 |
| 95 | 44.59 | 0.12 | 0.2287 | -0.0173 | 0.1537 | -0.1758 | 0.6722 | 0.6762 | 0.0386 | 0.2660 | 0.0573 | 0.3933 |
| 96 | 44.77 | 0.11 | 0.2456 | -0.0149 | 0.1578 | -0.0517 | 0.6316 | 0.6852 | 0.0382 | 0.2692 | 0.0557 | 0.3929 |
| 97 | 44.95 | 0.11 | 0.2111 | -0.0166 | 0.1445 | -0.0738 | 0.6335 | 0.6838 | 0.0378 | 0.2667 | 0.0552 | 0.3525 |
| 98 | 45.13 | 0.11 | 0.2455 | -0.0122 | 0.1470 | -0.0534 | 0.6040 | 0.6942 | 0.0378 | 0.2729 | 0.0544 | 0.3531 |
| 99 | 45.30 | 0.11 | 0.1859 | -0.0155 | 0.1368 | -0.0857 | 0.7039 | 0.6927 | 0.0370 | 0.2728 | 0.0533 | 0.3538 |
| 100 | 45.47 | 0.12 | 0.2145 | -0.0125 | 0.1427 | -0.0569 | 0.6715 | 0.6973 | 0.0363 | 0.2742 | 0.0520 | 0.3532 |
| 101 | 45.65 | 0.10 | 0.2141 | -0.0116 | 0.1405 | -0.0552 | 0.6580 | 0.7063 | 0.0363 | 0.2767 | 0.0513 | 0.3518 |
| 102 | 45.82 | 0.12 | 0.2235 | -0.0034 | 0.1394 | -0.0152 | 0.6236 | 0.7076 | 0.0363 | 0.2788 | 0.0512 | 0.3940 |
| 103 | 46.00 | 0.11 | 0.2262 | -0.0018 | 0.1405 | -0.0075 | 0.6131 | 0.7122 | 0.0361 | 0.2798 | 0.0506 | 0.3929 |
| 104 | 46.18 | 0.11 | 0.2252 | 0.0034 | 0.1383 | 0.0131 | 0.5915 | 0.7153 | 0.0357 | 0.2808 | 0.0498 | 0.3927 |
| 105 | 46.35 | 0.11 | 0.2117 | -0.0003 | 0.1274 | -0.0014 | 0.6019 | 0.7183 | 0.0353 | 0.2830 | 0.0491 | 0.3940 |
| 106 | 46.52 | 0.10 | 0.2019 | -0.0050 | 0.1321 | -0.0240 | 0.6545 | 0.7197 | 0.0354 | 0.2820 | 0.0491 | 0.3918 |
| 107 | 46.69 | 0.11 | 0.2011 | -0.0064 | 0.1377 | -0.0418 | 0.6846 | 0.7241 | 0.0356 | 0.2842 | 0.0491 | 0.3925 |
| 108 | 46.85 | 0.11 | 0.1810 | -0.0062 | 0.1216 | -0.0342 | 0.6690 | 0.7266 | 0.0352 | 0.2865 | 0.0482 | 0.3932 |
| 109 | 47.02 | 0.10 | 0.1502 | -0.0106 | 0.0968 | -0.0811 | 0.7553 | 0.7301 | 0.0348 | 0.2869 | 0.0476 | 0.3925 |
| 110 | 47.20 | 0.10 | 0.1577 | -0.0064 | 0.0972 | -0.0465 | 0.7057 | 0.7256 | 0.0349 | 0.2855 | 0.0480 | 0.3934 |
| 111 | 47.39 | 0.10 | 0.0900 | -0.0153 | 0.0818 | -0.1703 | 0.9095 | 0.7406 | 0.0350 | 0.2903 | 0.0472 | 0.3926 |
| 112 | 47.54 | 0.10 | 0.0464 | -0.0186 | 0.0635 | -0.3001 | 1.3021 | 0.7347 | 0.0350 | 0.2876 | 0.0476 | 0.3914 |
| 113 | 47.71 | 0.10 | 0.0353 | -0.0152 | 0.0565 | -0.5442 | 1.8000 | 0.7391 | 0.0346 | 0.2902 | 0.0469 | 0.3926 |
| 114 | 47.89 | 0.10 | 0.0362 | -0.0156 | 0.0542 | -0.6494 | 1.7936 | 0.7391 | 0.0345 | 0.2906 | 0.0467 | 0.3932 |
| 115 | 48.06 | 0.10 | -0.0418 | -0.0268 | 0.0270 | 0.6415 | -0.6456 | 0.7391 | 0.0351 | 0.2898 | 0.0474 | 0.3921 |
| 116 | 48.23 | 0.09 | -0.0406 | -0.0268 | 0.0290 | 0.6572 | -0.7106 | 0.7405 | 0.0352 | 0.2923 | 0.0475 | 0.3947 |
| 117 | 48.38 | 0.08 | -0.0393 | -0.0282 | 0.0281 | 0.6615 | -0.7122 | 0.7451 | 0.0354 | 0.2914 | 0.0474 | 0.3911 |
| 118 | 48.57 | 0.10 | 0.0340 | -0.0193 | 0.0435 | -0.5549 | 1.2598 | 0.7540 | 0.0354 | 0.2955 | 0.0469 | 0.3919 |
| 119 | 48.73 | 0.09 | -0.0800 | -0.0268 | 0.0007 | 0.3356 | -0.0388 | 0.7406 | 0.0356 | 0.2887 | 0.0480 | 0.3898 |
| 120 | 48.88 | 0.08 | -0.0571 | -0.0297 | -0.0116 | 0.3063 | 0.1200 | 0.7509 | 0.0350 | 0.2946 | 0.0465 | 0.3923 |
| 121 | 49.06 | 0.07 | -0.0515 | -0.0308 | -0.0117 | 0.3372 | 0.1264 | 0.7570 | 0.0353 | 0.2957 | 0.0466 | 0.3906 |
| 122 | 49.25 | 0.09 | 0.0066 | -0.0225 | 0.0209 | -0.3100 | 0.8896 | 0.7689 | 0.0354 | 0.3004 | 0.0460 | 0.3907 |
| 123 | 49.41 | 0.07 | -0.1379 | -0.0324 | -0.0380 | 0.2352 | 0.2752 | 0.7570 | 0.0349 | 0.2957 | 0.0460 | 0.3908 |
| 124 | 49.58 | 0.07 | -0.1537 | -0.0341 | -0.0416 | 0.2261 | 0.2704 | 0.7630 | 0.0344 | 0.2980 | 0.0452 | 0.3906 |
| 125 | 49.75 | 0.07 | -0.0790 | -0.0310 | -0.0042 | 0.3931 | 0.0534 | 0.7719 | 0.0341 | 0.3025 | 0.0442 | 0.3919 |
| 126 | 49.93 | 0.07 | -0.0568 | -0.0295 | -0.0065 | 0.3094 | 0.0674 | 0.7735 | 0.0343 | 0.3011 | 0.0444 | 0.3893 |
| 127 | 50.10 | 0.06 | -0.1401 | -0.0343 | -0.0415 | 0.2451 | 0.2588 | 0.7810 | 0.0340 | 0.3051 | 0.0436 | 0.3907 |
| 128 | 50.26 | 0.07 | -0.1703 | -0.0356 | -0.0593 | 0.2053 | 0.3488 | 0.7826 | 0.0331 | 0.3040 | 0.0424 | 0.3885 |
| 129 | 50.42 | 0.05 | -0.1277 | -0.0343 | -0.0414 | 0.2690 | 0.3239 | 0.7887 | 0.0329 | 0.3091 | 0.0418 | 0.3865 |
| 130 | 50.59 | 0.05 | -0.1792 | -0.0370 | -0.0625 | 0.2063 | 0.3506 | 0.7977 | 0.0328 | 0.3093 | 0.0412 | 0.3877 |
| 131 | 50.76 | 0.05 | -0.1741 | -0.0377 | -0.0602 | 0.2163 | 0.3461 | 0.8022 | 0.0324 | 0.3107 | 0.0404 | 0.3873 |
| 132 | 50.91 | 0.05 | -0.1512 | -0.0345 | -0.0572 | 0.2284 | 0.3704 | 0.8037 | 0.0327 | 0.3106 | 0.0407 | 0.3867 |
| 133 | 51.08 | 0.04 | -0.1035 | -0.0305 | -0.0283 | 0.2540 | 0.2725 | 0.7962 | 0.0342 | 0.3068 | 0.0430 | 0.3853 |
| 134 | 51.27 | 0.05 | -0.0852 | -0.0275 | -0.0176 | 0.3280 | 0.2087 | 0.8021 | 0.0346 | 0.3096 | 0.0432 | 0.3859 |
| 135 | 51.46 | 0.07 | -0.0982 | -0.0279 | -0.0211 | 0.2837 | 0.2141 | 0.8134 | 0.0336 | 0.3139 | 0.0434 | 0.3865 |
| 136 | 51.61 | 0.06 | -0.0911 | -0.0282 | -0.0195 | 0.3101 | 0.1742 | 0.8214 | 0.0336 | 0.3167 | 0.0433 | 0.3855 |
| 137 | 51.80 | 0.07 | -0.0853 | -0.0312 | -0.0092 | 0.3500 | 0.1035 | 0.8335 | 0.0350 | 0.3217 | 0.0419 | 0.3860 |
| 138 | 51.96 | 0.07 | -0.1011 | -0.0326 | -0.0126 | 0.3229 | 0.1242 | 0.8365 | 0.0350 | 0.3231 | 0.0418 | 0.3863 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 4

MARTIN PASSABLE TAILS EFFECTS DATA

TEST 7 PART 114 HALF 0.80 RXIC-6 4.7 PHI 0.0 CONF B1B0F13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.16 | 0.05 | -0.1619 | -0.0376 | -0.0507 | 0.2319 | 0.3131 | 0.8548 | 0.0329 | 0.3289 | 0.0385 | 0.3848 |
| 140 | 52.31 | 0.07 | -0.1572 | -0.0361 | -0.0447 | 0.2295 | 0.2942 | 0.8560 | 0.0331 | 0.3284 | 0.0367 | 0.3837 |
| 141 | 52.48 | 0.07 | -0.1745 | -0.0368 | -0.0531 | 0.2205 | 0.3038 | 0.8606 | 0.0325 | 0.3299 | 0.0378 | 0.3833 |
| 142 | 52.66 | 0.05 | -0.2112 | -0.0382 | -0.0624 | 0.1797 | 0.3903 | 0.8711 | 0.0314 | 0.3349 | 0.0361 | 0.3844 |
| 143 | 52.85 | 0.10 | -0.2172 | -0.0381 | -0.0657 | 0.1660 | 0.4406 | 0.8608 | 0.0310 | 0.3282 | 0.0361 | 0.3813 |
| 144 | 53.00 | 0.14 | -0.1965 | -0.0348 | -0.0605 | 0.1742 | 0.4354 | 0.8474 | 0.0307 | 0.3230 | 0.0363 | 0.3812 |
| 145 | 53.17 | 0.10 | -0.1949 | -0.0320 | -0.0507 | 0.1644 | 0.4053 | 0.8311 | 0.0314 | 0.3142 | 0.0378 | 0.3781 |
| 146 | 53.34 | 0.11 | -0.1947 | -0.0315 | -0.0747 | 0.1488 | 0.5162 | 0.8326 | 0.0309 | 0.3167 | 0.0372 | 0.3804 |
| 147 | 53.51 | 0.11 | -0.2204 | -0.0328 | -0.1045 | 0.1401 | 0.4781 | 0.8282 | 0.0315 | 0.3129 | 0.0381 | 0.3778 |
| 148 | 53.66 | 0.10 | -0.1157 | -0.0145 | -0.0595 | 0.1490 | 0.5146 | 0.7859 | 0.0333 | 0.2968 | 0.0424 | 0.3777 |
| 149 | 53.83 | 0.11 | -0.1456 | -0.0262 | -0.0782 | 0.1379 | 0.5227 | 0.8024 | 0.0329 | 0.3030 | 0.0411 | 0.3777 |
| 150 | 53.99 | 0.12 | -0.1607 | -0.0234 | -0.0785 | 0.1458 | 0.4910 | 0.7903 | 0.0336 | 0.2996 | 0.0426 | 0.3791 |
| 151 | 54.17 | 0.12 | -0.0956 | -0.0051 | -0.0453 | 0.1006 | 0.5443 | 0.7859 | 0.0344 | 0.2963 | 0.0437 | 0.3756 |
| 152 | 54.34 | 0.10 | -0.0813 | -0.0017 | -0.0305 | 0.0278 | 0.4983 | 0.7767 | 0.0350 | 0.2933 | 0.0450 | 0.3778 |
| 153 | 54.50 | 0.11 | -0.0647 | -0.0047 | -0.0337 | 0.0728 | 0.5216 | 0.7948 | 0.0340 | 0.3007 | 0.0428 | 0.3784 |
| 154 | 54.66 | 0.10 | -0.0385 | 0.0035 | -0.0150 | -0.1064 | 0.4095 | 0.7868 | 0.0345 | 0.2972 | 0.0438 | 0.3768 |
| 155 | 54.81 | 0.11 | -0.0560 | -0.0007 | -0.0255 | 0.0121 | 0.4470 | 0.7976 | 0.0335 | 0.3017 | 0.0420 | 0.3781 |
| 156 | 55.01 | 0.12 | -0.0376 | 0.0038 | -0.0053 | -0.1543 | 0.2401 | 0.7782 | 0.0352 | 0.2913 | 0.0452 | 0.3743 |
| 157 | 55.18 | 0.11 | -0.0505 | 0.0014 | -0.0170 | -0.0247 | 0.2985 | 0.7932 | 0.0348 | 0.2977 | 0.0438 | 0.3753 |
| 158 | 55.31 | 0.11 | -0.0422 | 0.0017 | -0.0132 | -0.0463 | 0.3114 | 0.7993 | 0.0340 | 0.3005 | 0.0426 | 0.3760 |
| 159 | 55.48 | 0.11 | -0.0500 | 0.0023 | -0.0137 | -0.0455 | 0.2696 | 0.7947 | 0.0344 | 0.2991 | 0.0433 | 0.3764 |
| 160 | 55.64 | 0.12 | -0.0450 | 0.0020 | -0.0133 | -0.0445 | 0.2943 | 0.8036 | 0.0336 | 0.3034 | 0.0419 | 0.3776 |
| 161 | 55.80 | 0.12 | -0.0390 | 0.0033 | -0.0084 | -0.0847 | 0.2161 | 0.8111 | 0.0333 | 0.3072 | 0.0411 | 0.3787 |
| 162 | 55.94 | 0.09 | -0.0531 | 0.0003 | -0.0136 | -0.0057 | 0.2551 | 0.8185 | 0.0334 | 0.3100 | 0.0409 | 0.3787 |
| 163 | 56.12 | 0.11 | -0.0607 | 0.0005 | -0.0176 | -0.0149 | 0.2697 | 0.8064 | 0.0339 | 0.3035 | 0.0421 | 0.3769 |
| 164 | 56.29 | 0.11 | -0.0562 | 0.0005 | -0.0125 | -0.0150 | 0.2670 | 0.8093 | 0.0341 | 0.3052 | 0.0422 | 0.3772 |
| 165 | 56.45 | 0.11 | -0.0500 | 0.0023 | -0.0077 | -0.0460 | 0.1545 | 0.8123 | 0.0345 | 0.3062 | 0.0425 | 0.3765 |
| 166 | 56.61 | 0.12 | -0.0360 | 0.0057 | -0.0023 | -0.1477 | 0.0598 | 0.8137 | 0.0341 | 0.3062 | 0.0420 | 0.3762 |
| 167 | 56.77 | 0.11 | -0.0518 | 0.0051 | 0.0016 | -0.0585 | -0.0349 | 0.8032 | 0.0344 | 0.3023 | 0.0429 | 0.3764 |
| 168 | 56.91 | 0.08 | -0.0277 | 0.0065 | 0.0055 | -0.2348 | -0.1992 | 0.8182 | 0.0328 | 0.3088 | 0.0401 | 0.3773 |
| 169 | 57.08 | 0.10 | -0.0450 | 0.0064 | 0.0021 | -0.1367 | -0.0430 | 0.7970 | 0.0344 | 0.3010 | 0.0432 | 0.3777 |
| 170 | 57.21 | 0.05 | -0.0387 | 0.0076 | 0.0052 | -0.1965 | -0.1346 | 0.8075 | 0.0340 | 0.3044 | 0.0422 | 0.3770 |
| 171 | 57.36 | 0.07 | -0.0288E | 0.0096 | 0.0171 | -0.3358 | -0.5963 | 0.8050 | 0.0341 | 0.3030 | 0.0425 | 0.3774 |
| 172 | 57.51 | 0.06 | -0.0572 | 0.0049 | 0.0014 | -0.0769 | -0.0246 | 0.8119 | 0.0337 | 0.3063 | 0.0416 | 0.3797 |
| 173 | 57.65 | 0.06 | -0.0245 | 0.0056 | 0.0177 | -0.3920 | -0.7207 | 0.8104 | 0.0341 | 0.3063 | 0.0421 | 0.3775 |
| 174 | 57.80 | 0.07 | -0.0165 | 0.0116 | 0.0258 | -0.7034 | -1.5526 | 0.7909 | 0.0345 | 0.2994 | 0.0437 | 0.3786 |
| 175 | 57.94 | 0.06 | -0.0246 | 0.0101 | 0.0185 | -0.4108 | -0.7504 | 0.8102 | 0.0333 | 0.3072 | 0.0412 | 0.3791 |
| 176 | 58.11 | 0.08 | -0.0375 | 0.0101 | 0.0160 | -0.2000 | -0.4209 | 0.8042 | 0.0336 | 0.3065 | 0.0418 | 0.3811 |
| 177 | 58.21 | 0.05 | -0.0431 | 0.0075 | 0.0151 | -0.1834 | -0.3491 | 0.7984 | 0.0335 | 0.3017 | 0.0420 | 0.3779 |
| 178 | 58.21 | 0.07 | -0.0417 | 0.0090 | 0.0145 | -0.2159 | -0.3404 | 0.8013 | 0.0335 | 0.3038 | 0.0419 | 0.3792 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 114 MACH 0.60 RX10=6 1.7 PHI 0.0 CONF 6 1BOF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF2 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.00 | 0.0020 | 9.9999 | 0.0062 | 9.9999 | 0.7775 | -0.6265 | -0.0243 | -0.3362 | 0.0294 | 0.4092 |
| 2 | -5.69 | 0.02 | 0.0063 | 9.9999 | 0.0078 | 9.9999 | 0.7551 | -0.6312 | -0.0243 | -0.3399 | 0.0293 | 0.4086 |
| 3 | -5.69 | 0.01 | 0.0121 | 9.9999 | 0.0075 | 9.9999 | 0.7550 | -0.6311 | -0.0245 | -0.3399 | 0.0295 | 0.4090 |
| 4 | -4.98 | 0.01 | 0.0010 | 9.9999 | 0.0062 | 9.9999 | 0.2190 | -0.7996 | -0.0246 | -0.3268 | 0.0308 | 0.4087 |
| 5 | -3.12 | 0.01 | -0.0016 | 9.9999 | 0.0050 | 9.9999 | -2.7867 | -0.7775 | -0.0250 | -0.3173 | 0.0322 | 0.4081 |
| 6 | -1.38 | 0.01 | -0.0007 | 9.9999 | 0.0015 | 9.9999 | -0.2040 | -0.7079 | -0.0254 | -0.3130 | 0.0331 | 0.4076 |
| 7 | 0.43 | 0.02 | 0.0011 | 9.9999 | 0.0044 | 9.9999 | 4.0120 | -0.7575 | -0.0268 | -0.3065 | 0.0354 | 0.4044 |
| 8 | 2.17 | 0.01 | -0.0020 | 9.9999 | 0.0048 | 9.9999 | -0.8026 | -0.8191 | -0.0307 | -0.3306 | 0.0375 | 0.4035 |
| 9 | 3.89 | 0.01 | -0.0155 | 9.9999 | 0.0003 | 9.9999 | -0.0194 | -0.8325 | -0.0330 | -0.3349 | 0.0397 | 0.4023 |
| 10 | 5.64 | 0.02 | -0.0156 | 9.9999 | 0.0017 | 9.9999 | -0.1093 | -0.7728 | -0.0372 | -0.3126 | 0.0481 | 0.4045 |
| 11 | 7.45 | 0.02 | -0.0235 | 9.9999 | 0.0005 | 9.9999 | -0.0378 | -0.7442 | -0.0423 | -0.2964 | 0.0568 | 0.3983 |
| 12 | 9.14 | 0.02 | -0.0234 | 9.9999 | 0.0023 | 9.9999 | -0.0908 | -0.7251 | -0.0467 | -0.2824 | 0.0644 | 0.3894 |
| 13 | 10.90 | 0.01 | -0.0267 | 9.9999 | 0.0011 | 9.9999 | -0.0413 | -0.6994 | -0.0532 | -0.2606 | 0.0760 | 0.4015 |
| 14 | 12.65 | 0.02 | -0.0261 | 9.9999 | 0.0018 | 9.9999 | -0.0643 | -0.6812 | -0.0526 | -0.2684 | 0.0810 | 0.4122 |
| 15 | 14.36 | 0.01 | -0.0351 | 9.9999 | -0.0003 | 9.9999 | 0.0377 | -0.5618 | -0.0496 | -0.2251 | 0.0882 | 0.4075 |
| 16 | 16.20 | 0.01 | -0.0351 | 9.9999 | -0.0016 | 9.9999 | 0.0257 | -0.5006 | -0.0463 | -0.2054 | 0.0924 | 0.4104 |
| 17 | 16.01 | 0.01 | -0.0254 | 9.9999 | 0.0008 | 9.9999 | -0.0205 | -0.3604 | -0.0365 | -0.1544 | 0.1011 | 0.4285 |
| 18 | 19.79 | -0.00 | -0.0321 | 9.9999 | -0.0024 | 9.9999 | 0.0752 | -0.1976 | -0.0204 | -0.0910 | 0.1034 | 0.4604 |
| 19 | 21.80 | 0.02 | -0.0428 | 9.9999 | -0.0101 | 9.9999 | 0.2165 | -0.0675 | -0.0043 | -0.0355 | 0.0638 | 0.5265 |
| 20 | 23.42 | -0.02 | -0.0438 | 9.9999 | -0.0181 | 9.9999 | 0.3681 | 0.0067 | 0.0099 | 0.0 | 1.1385 | 0.0 |
| 21 | 25.20 | -0.01 | -0.0245 | 9.9999 | -0.0056 | 9.9999 | 0.3931 | 0.0783 | 0.0286 | 0.0299 | 0.3659 | 0.3823 |
| 22 | 27.04 | 0.01 | -0.0145 | 9.9999 | -0.0106 | 9.9999 | 0.4646 | 0.1056 | 0.0397 | 0.0448 | 0.3756 | 0.4241 |
| 23 | 28.11 | 0.03 | 0.0015 | 9.9999 | -0.0017 | 9.9999 | -1.1370 | 0.1205 | 0.0460 | 0.0537 | 0.3814 | 0.4458 |
| 24 | 28.23 | 0.01 | 0.0016 | 9.9999 | -0.0022 | 9.9999 | -1.7356 | 0.1402 | 0.0496 | 0.0658 | 0.3362 | 0.4498 |
| 25 | 28.60 | 0.02 | -0.0051 | 9.9999 | -0.0104 | 9.9999 | 1.2589 | 0.1622 | 0.0527 | 0.0730 | 0.3247 | 0.4495 |
| 26 | 28.92 | 0.02 | 0.0065 | 9.9999 | 0.0011 | 9.9999 | 0.1599 | 0.1577 | 0.0523 | 0.0716 | 0.3314 | 0.4535 |
| 27 | 29.16 | 0.03 | 0.0002 | 9.9999 | -0.0025 | 9.9999 | -14.5464 | 0.1704 | 0.0563 | 0.0779 | 0.3304 | 0.4574 |
| 28 | 29.50 | 0.03 | -0.0025 | 9.9999 | -0.0045 | 9.9999 | 1.8058 | 0.1890 | 0.0578 | 0.0861 | 0.3058 | 0.4554 |
| 29 | 29.79 | 0.05 | 0.0125 | 9.9999 | 0.0021 | 9.9999 | 0.1685 | 0.1880 | 0.0604 | 0.0858 | 0.3213 | 0.4562 |
| 30 | 30.07 | 0.04 | 0.0067 | 9.9999 | 0.0055 | 9.9999 | 0.2008 | 0.2103 | 0.0644 | 0.0976 | 0.2991 | 0.4533 |
| 31 | 30.33 | 0.05 | 0.0084 | 9.9999 | 0.0026 | 9.9999 | 0.0955 | 0.2241 | 0.0661 | 0.1024 | 0.2949 | 0.4576 |
| 32 | 30.60 | 0.04 | 0.0015 | 9.9999 | -0.0010 | 9.9999 | -0.0008 | 0.2526 | 0.0698 | 0.1142 | 0.2763 | 0.4515 |
| 33 | 30.68 | 0.03 | 0.0247 | 9.9999 | 0.0066 | 9.9999 | 0.3493 | 0.2723 | 0.0717 | 0.1223 | 0.2633 | 0.4491 |
| 34 | 31.14 | 0.03 | 0.0 | 9.9999 | 0.0 | 9.9999 | 0.0 | 0.3338 | 0.0759 | 0.1484 | 0.2274 | 0.4448 |
| 35 | 31.42 | 0.04 | 0.0070 | 9.9999 | 0.0011 | 9.9999 | 0.1576 | 0.3523 | 0.0770 | 0.1571 | 0.2188 | 0.4460 |
| 36 | 31.68 | 0.03 | -0.0007 | 9.9999 | -0.0044 | 9.9999 | 0.0500 | 0.3646 | 0.0779 | 0.1641 | 0.2137 | 0.4500 |
| 37 | 31.95 | 0.02 | -0.0016 | 9.9999 | -0.0033 | 9.9999 | 0.4868 | 0.4075 | 0.0812 | 0.1811 | 0.1993 | 0.4446 |
| 38 | 32.22 | 0.03 | -0.0066 | 9.9999 | -0.0033 | 9.9999 | 0.4066 | 0.4169 | 0.0812 | 0.1845 | 0.1948 | 0.4420 |
| 39 | 32.46 | 0.04 | 0.0083 | 9.9999 | 0.0023 | 9.9999 | 0.2780 | 0.4446 | 0.0828 | 0.1956 | 0.1863 | 0.4404 |
| 40 | 32.75 | 0.04 | 0.0065 | 9.9999 | 0.0015 | 9.9999 | 0.2181 | 0.4491 | 0.0834 | 0.1996 | 0.1857 | 0.4445 |
| 41 | 33.00 | 0.04 | -0.0013 | 9.9999 | -0.0015 | 9.9999 | 1.4662 | 0.4227 | 0.0826 | 0.1886 | 0.1955 | 0.4461 |
| 42 | 33.26 | 0.05 | 0.0041 | 9.9999 | 0.0020 | 9.9999 | 0.4094 | 0.4337 | 0.0826 | 0.1930 | 0.1905 | 0.4450 |
| 43 | 33.50 | 0.06 | 0.0067 | 9.9999 | 0.0040 | 9.9999 | 0.5989 | 0.4630 | 0.0842 | 0.2041 | 0.1819 | 0.4405 |
| 44 | 33.78 | 0.07 | 0.0122 | 9.9999 | 0.0061 | 9.9999 | 0.5016 | 0.4731 | 0.0821 | 0.2077 | 0.1736 | 0.4385 |
| 45 | 34.03 | 0.07 | 0.0151 | 9.9999 | 0.0055 | 9.9999 | 0.3654 | 0.5061 | 0.0824 | 0.2193 | 0.1629 | 0.4333 |
| 46 | 34.26 | 0.08 | 0.0165 | 9.9999 | 0.0046 | 9.9999 | 0.4234 | 0.5202 | 0.0824 | 0.2242 | 0.1584 | 0.4310 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK0) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 114 MACH 0.80 RNIC-6 1.7 PHI 0.0 CONF BIBCF13 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.08 | 0.0054 | 0.9999 | 0.0025 | 0.9999 | 0.4666 | 0.5359 | 0.0826 | 0.2316 | 0.1542 | 0.4323 |
| 48 | 34.79 | 0.09 | 0.0152 | 0.9999 | 0.0065 | 0.9999 | 0.3350 | 0.5402 | 0.0832 | 0.2362 | 0.1518 | 0.4308 |
| 49 | 34.98 | 0.09 | 0.0150 | 0.9999 | 0.0062 | 0.9999 | 0.4414 | 0.5377 | 0.0832 | 0.2405 | 0.1492 | 0.4312 |
| 50 | 35.23 | 0.09 | 0.0264 | 0.9999 | 0.0091 | 0.9999 | 0.4475 | 0.5720 | 0.0826 | 0.2462 | 0.1448 | 0.4304 |
| 51 | 35.46 | 0.09 | 0.0122 | 0.9999 | 0.0061 | 0.9999 | 0.5016 | 0.5687 | 0.0830 | 0.2437 | 0.1460 | 0.4285 |
| 52 | 35.70 | 0.09 | 0.0265 | 0.9999 | 0.0087 | 0.9999 | 0.4457 | 0.5555 | 0.0836 | 0.2406 | 0.1509 | 0.4335 |
| 53 | 35.93 | 0.08 | 0.0055 | 0.9999 | 0.0014 | 0.9999 | 0.2554 | 0.5539 | 0.0838 | 0.2411 | 0.1513 | 0.4353 |
| 54 | 36.16 | 0.08 | 0.0314 | 0.9999 | 0.0134 | 0.9999 | 0.4249 | 0.5696 | 0.0839 | 0.2461 | 0.1473 | 0.4321 |
| 55 | 36.41 | 0.08 | 0.0260 | 0.9999 | 0.0105 | 0.9999 | 0.4051 | 0.5743 | 0.0840 | 0.2475 | 0.1463 | 0.4317 |
| 56 | 36.64 | 0.10 | 0.0315 | 0.9999 | 0.0130 | 0.9999 | 0.4106 | 0.6018 | 0.0819 | 0.2589 | 0.1361 | 0.4301 |
| 57 | 36.86 | 0.09 | 0.0055 | 0.9999 | 0.0014 | 0.9999 | 0.2554 | 0.6033 | 0.0823 | 0.2605 | 0.1364 | 0.4317 |
| 58 | 37.12 | 0.09 | 0.0260 | 0.9999 | 0.0105 | 0.9999 | 0.4051 | 0.6108 | 0.0803 | 0.2668 | 0.1302 | 0.4326 |
| 59 | 37.34 | 0.09 | 0.0055 | 0.9999 | 0.0058 | 0.9999 | 0.5914 | 0.6143 | 0.0790 | 0.2692 | 0.1140 | 0.4284 |
| 60 | 37.58 | 0.10 | 0.0136 | 0.9999 | 0.0073 | 0.9999 | 0.5385 | 0.5284 | 0.0539 | 0.2276 | 0.1019 | 0.4308 |
| 61 | 37.82 | 0.09 | 0.0231 | 0.9999 | 0.0114 | 0.9999 | 0.4951 | 0.5170 | 0.0518 | 0.2217 | 0.1001 | 0.4289 |
| 62 | 38.04 | 0.10 | 0.0054 | 0.9999 | 0.0026 | 0.9999 | 0.7471 | 0.5249 | 0.0526 | 0.2293 | 0.0993 | 0.4332 |
| 63 | 38.27 | 0.09 | 0.0053 | 0.9999 | 0.0043 | 0.9999 | 0.8139 | 0.5346 | 0.0524 | 0.2306 | 0.0980 | 0.4314 |
| 64 | 38.51 | 0.09 | 0.0011 | 0.9999 | 0.0037 | 0.9999 | 3.3744 | 0.5392 | 0.0530 | 0.2345 | 0.0983 | 0.4348 |
| 65 | 38.74 | 0.08 | -0.0071 | 0.9999 | 0.0014 | 0.9999 | -0.1976 | 0.5159 | 0.0522 | 0.2266 | 0.1011 | 0.4353 |
| 66 | 38.94 | 0.07 | -0.0113 | 0.9999 | 0.0005 | 0.9999 | -0.0799 | 0.5254 | 0.0521 | 0.2310 | 0.0991 | 0.4398 |
| 67 | 39.17 | 0.07 | -0.0003 | 0.9999 | 0.0043 | 0.9999 | -14.3752 | 0.5131 | 0.0516 | 0.2280 | 0.1005 | 0.4445 |
| 68 | 39.39 | 0.08 | -0.0003 | 0.9999 | 0.0043 | 0.9999 | -14.3752 | 0.5241 | 0.0516 | 0.2329 | 0.0984 | 0.4443 |
| 69 | 39.56 | 0.07 | 0.0052 | 0.9999 | 0.0057 | 0.9999 | 1.0997 | 0.5259 | 0.0510 | 0.2341 | 0.0965 | 0.4451 |
| 70 | 39.81 | 0.08 | -0.0031 | 0.9999 | 0.0036 | 0.9999 | -1.2297 | 0.5310 | 0.0514 | 0.2347 | 0.0964 | 0.4419 |
| 71 | 40.03 | 0.08 | 0.0071 | 0.9999 | 0.0048 | 0.9999 | 0.3776 | 0.5315 | 0.0506 | 0.2334 | 0.0940 | 0.4428 |
| 72 | 40.20 | 0.08 | 0.0050 | 0.9999 | 0.0079 | 0.9999 | 1.5851 | 0.5348 | 0.0506 | 0.2347 | 0.0949 | 0.4404 |
| 73 | 40.35 | 0.09 | 0.0115 | 0.9999 | 0.0068 | 0.9999 | 0.9105 | 0.5318 | 0.0493 | 0.2361 | 0.0927 | 0.4435 |
| 74 | 40.59 | 0.08 | 0.0132 | 0.9999 | 0.0110 | 0.9999 | 0.8816 | 0.5259 | 0.0491 | 0.2326 | 0.0937 | 0.4439 |
| 75 | 40.83 | 0.10 | 0.0200 | 0.9999 | 0.0142 | 0.9999 | 0.7073 | 0.5203 | 0.0506 | 0.2330 | 0.0972 | 0.4478 |
| 76 | 41.03 | 0.10 | 0.0155 | 0.9999 | 0.0157 | 0.9999 | 0.7004 | 0.5215 | 0.0501 | 0.2377 | 0.0942 | 0.4472 |
| 77 | 41.23 | 0.09 | 0.0173 | 0.9999 | 0.0128 | 0.9999 | 0.7249 | 0.5267 | 0.0495 | 0.2383 | 0.0936 | 0.4507 |
| 78 | 41.45 | 0.09 | 0.0133 | 0.9999 | 0.0105 | 0.9999 | 0.7920 | 0.5257 | 0.0502 | 0.2370 | 0.0954 | 0.4508 |
| 79 | 41.62 | 0.09 | 0.0132 | 0.9999 | 0.0104 | 0.9999 | 0.7906 | 0.5236 | 0.0489 | 0.2364 | 0.0933 | 0.4514 |
| 80 | 41.83 | 0.09 | 0.0173 | 0.9999 | 0.0117 | 0.9999 | 0.6785 | 0.5264 | 0.0493 | 0.2386 | 0.0933 | 0.4517 |
| 81 | 42.03 | 0.11 | 0.0146 | 0.9999 | 0.0105 | 0.9999 | 0.7215 | 0.5313 | 0.0493 | 0.2410 | 0.0927 | 0.4536 |
| 82 | 42.20 | 0.10 | 0.0240 | 0.9999 | 0.0164 | 0.9999 | 0.6736 | 0.5265 | 0.0496 | 0.2385 | 0.0942 | 0.4530 |
| 83 | 42.40 | 0.09 | 0.0254 | 0.9999 | 0.0159 | 0.9999 | 0.6082 | 0.5236 | 0.0491 | 0.2387 | 0.0937 | 0.4529 |
| 84 | 42.58 | 0.10 | 0.0241 | 0.9999 | 0.0147 | 0.9999 | 0.6077 | 0.5292 | 0.0493 | 0.2453 | 0.0914 | 0.4545 |
| 85 | 42.78 | 0.10 | 0.0158 | 0.9999 | 0.0136 | 0.9999 | 0.8572 | 0.5300 | 0.0489 | 0.2413 | 0.0922 | 0.4553 |
| 86 | 42.93 | 0.10 | 0.0200 | 0.9999 | 0.0134 | 0.9999 | 0.8071 | 0.5335 | 0.0480 | 0.2445 | 0.0899 | 0.4583 |
| 87 | 43.13 | 0.11 | 0.0254 | 0.9999 | 0.0155 | 0.9999 | 0.6862 | 0.5375 | 0.0488 | 0.2457 | 0.0870 | 0.4571 |
| 88 | 43.32 | 0.12 | 0.0227 | 0.9999 | 0.0143 | 0.9999 | 0.6278 | 0.5397 | 0.0476 | 0.2455 | 0.0881 | 0.4545 |
| 89 | 43.49 | 0.11 | 0.0305 | 0.9999 | 0.0178 | 0.9999 | 0.5882 | 0.5417 | 0.0487 | 0.2471 | 0.0862 | 0.4562 |
| 90 | 43.66 | 0.12 | 0.0254 | 0.9999 | 0.0166 | 0.9999 | 0.6517 | 0.5373 | 0.0460 | 0.2460 | 0.0856 | 0.4579 |
| 91 | 43.85 | 0.12 | 0.0227 | 0.9999 | 0.0147 | 0.9999 | 0.6652 | 0.5357 | 0.0461 | 0.2456 | 0.0860 | 0.4585 |
| 92 | 44.02 | 0.12 | 0.0265 | 0.9999 | 0.0235 | 0.9999 | 0.6035 | 0.5403 | 0.0448 | 0.2476 | 0.0829 | 0.4583 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 114 | MACH 0.80 | RX10=6 1.7 | PHI 0.0 | CONF 0 1b0F13 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.21 | 0.11 | 0.0222 | 9.9999 | 0.0161 | 9.9999 | 0.7102 | 0.5338 | 0.0454 | 0.2439 | 0.0850 | 0.4565 |
| 94 | 44.40 | 0.12 | 0.0214 | 9.9999 | 0.0146 | 9.9999 | 0.6797 | 0.5370 | 0.0452 | 0.2466 | 0.0841 | 0.4581 |
| 95 | 44.59 | 0.12 | 0.0253 | 9.9999 | 0.0183 | 9.9999 | 0.8189 | 0.5385 | 0.0454 | 0.2472 | 0.0842 | 0.4591 |
| 96 | 44.77 | 0.11 | 0.0375 | 9.9999 | 0.0231 | 9.9999 | 0.8153 | 0.5387 | 0.0449 | 0.2468 | 0.0833 | 0.4582 |
| 97 | 44.93 | 0.11 | 0.0240 | 9.9999 | 0.0162 | 9.9999 | 0.8730 | 0.5512 | 0.0450 | 0.2526 | 0.0816 | 0.4572 |
| 98 | 45.13 | 0.11 | 0.0294 | 9.9999 | 0.0197 | 9.9999 | 0.8888 | 0.5404 | 0.0453 | 0.2503 | 0.0826 | 0.4581 |
| 99 | 45.30 | 0.11 | 0.0303 | 9.9999 | 0.0205 | 9.9999 | 0.6666 | 0.5512 | 0.0452 | 0.2532 | 0.0819 | 0.4594 |
| 100 | 45.47 | 0.12 | 0.0260 | 9.9999 | 0.0185 | 9.9999 | 0.8736 | 0.5542 | 0.0453 | 0.2533 | 0.0817 | 0.4571 |
| 101 | 45.65 | 0.10 | 0.0322 | 9.9999 | 0.0195 | 9.9999 | 0.8044 | 0.5542 | 0.0454 | 0.2533 | 0.0819 | 0.4571 |
| 102 | 45.82 | 0.12 | 0.0253 | 9.9999 | 0.0161 | 9.9999 | 0.7137 | 0.5416 | 0.0456 | 0.2485 | 0.0841 | 0.4589 |
| 103 | 46.00 | 0.11 | 0.0212 | 9.9999 | 0.0168 | 9.9999 | 0.7903 | 0.5354 | 0.0456 | 0.2478 | 0.0851 | 0.4629 |
| 104 | 46.16 | 0.11 | 0.0365 | 9.9999 | 0.0235 | 9.9999 | 0.8138 | 0.5401 | 0.0463 | 0.2511 | 0.0847 | 0.4595 |
| 105 | 46.33 | 0.11 | 0.0280 | 9.9999 | 0.0200 | 9.9999 | 0.7130 | 0.5384 | 0.0460 | 0.2480 | 0.0854 | 0.4607 |
| 106 | 46.52 | 0.10 | 0.0321 | 9.9999 | 0.0217 | 9.9999 | 0.8750 | 0.5599 | 0.0457 | 0.2564 | 0.0816 | 0.4614 |
| 107 | 46.69 | 0.11 | 0.0254 | 9.9999 | 0.0205 | 9.9999 | 0.8961 | 0.5663 | 0.0455 | 0.2618 | 0.0803 | 0.4622 |
| 108 | 46.85 | 0.11 | 0.0253 | 9.9999 | 0.0156 | 9.9999 | 0.7732 | 0.5646 | 0.0456 | 0.2605 | 0.0811 | 0.4620 |
| 109 | 47.02 | 0.10 | 0.0253 | 9.9999 | 0.0185 | 9.9999 | 0.7296 | 0.5757 | 0.0455 | 0.2657 | 0.0790 | 0.4615 |
| 110 | 47.20 | 0.10 | 0.0335 | 9.9999 | 0.0214 | 9.9999 | 0.8375 | 0.5723 | 0.0465 | 0.2652 | 0.0812 | 0.4634 |
| 111 | 47.39 | 0.10 | 0.0293 | 9.9999 | 0.0212 | 9.9999 | 0.7224 | 0.5818 | 0.0461 | 0.2695 | 0.0792 | 0.4632 |
| 112 | 47.54 | 0.10 | 0.0216 | 9.9999 | 0.0168 | 9.9999 | 0.7903 | 0.5834 | 0.0461 | 0.2707 | 0.0790 | 0.4640 |
| 113 | 47.71 | 0.10 | 0.0156 | 9.9999 | 0.0171 | 9.9999 | 0.8613 | 0.5753 | 0.0469 | 0.2673 | 0.0815 | 0.4648 |
| 114 | 47.89 | 0.10 | 0.0234 | 9.9999 | 0.0191 | 9.9999 | 0.7975 | 0.5912 | 0.0461 | 0.2738 | 0.0775 | 0.4631 |
| 115 | 48.06 | 0.10 | 0.0185 | 9.9999 | 0.0158 | 9.9999 | 0.8405 | 0.5926 | 0.0468 | 0.2762 | 0.0785 | 0.4661 |
| 116 | 48.23 | 0.09 | 0.0163 | 9.9999 | 0.0165 | 9.9999 | 1.0720 | 0.6007 | 0.0461 | 0.2796 | 0.0767 | 0.4655 |
| 117 | 48.38 | 0.08 | 0.0118 | 9.9999 | 0.0138 | 9.9999 | 1.1848 | 0.6052 | 0.0470 | 0.2823 | 0.0776 | 0.4664 |
| 118 | 48.57 | 0.10 | 0.0334 | 9.9999 | 0.0225 | 9.9999 | 0.8048 | 0.5986 | 0.0470 | 0.2773 | 0.0795 | 0.4633 |
| 119 | 48.73 | 0.09 | 0.0235 | 9.9999 | 0.0184 | 9.9999 | 0.7681 | 0.6144 | 0.0477 | 0.2871 | 0.0776 | 0.4673 |
| 120 | 48.88 | 0.08 | 0.0213 | 9.9999 | 0.0168 | 9.9999 | 0.7305 | 0.6309 | 0.0487 | 0.2930 | 0.0771 | 0.4644 |
| 121 | 49.06 | 0.07 | 0.0062 | 9.9999 | 0.0112 | 9.9999 | 1.0122 | 0.6327 | 0.0481 | 0.2931 | 0.0760 | 0.4633 |
| 122 | 49.25 | 0.09 | 0.0240 | 9.9999 | 0.0177 | 9.9999 | 0.7357 | 0.6345 | 0.0473 | 0.2943 | 0.0745 | 0.4607 |
| 123 | 49.41 | 0.07 | 0.0104 | 9.9999 | 0.0111 | 9.9999 | 1.0707 | 0.6423 | 0.0477 | 0.2985 | 0.0742 | 0.4648 |
| 124 | 49.58 | 0.07 | 0.0155 | 9.9999 | 0.0166 | 9.9999 | 0.8016 | 0.6521 | 0.0467 | 0.3012 | 0.0718 | 0.4619 |
| 125 | 49.75 | 0.07 | 0.0158 | 9.9999 | 0.0178 | 9.9999 | 0.8966 | 0.6424 | 0.0475 | 0.2970 | 0.0739 | 0.4624 |
| 126 | 49.93 | 0.07 | 0.0117 | 9.9999 | 0.0135 | 9.9999 | 1.1490 | 0.6564 | 0.0469 | 0.3023 | 0.0714 | 0.4606 |
| 127 | 50.10 | 0.06 | 0.0145 | 9.9999 | 0.0140 | 9.9999 | 0.9817 | 0.6578 | 0.0474 | 0.3032 | 0.0720 | 0.4610 |
| 128 | 50.28 | 0.07 | 0.0077 | 9.9999 | 0.0102 | 9.9999 | 1.3269 | 0.6663 | 0.0476 | 0.3063 | 0.0684 | 0.4596 |
| 129 | 50.42 | 0.05 | 0.0105 | 9.9999 | 0.0111 | 9.9999 | 1.0605 | 0.6659 | 0.0466 | 0.3064 | 0.0695 | 0.4601 |
| 130 | 50.59 | 0.05 | 0.0056 | 9.9999 | 0.0086 | 9.9999 | 1.7255 | 0.6620 | 0.0446 | 0.3036 | 0.0673 | 0.4587 |
| 131 | 50.76 | 0.05 | 0.0077 | 9.9999 | 0.0102 | 9.9999 | 1.3289 | 0.6732 | 0.0440 | 0.3077 | 0.0653 | 0.4576 |
| 132 | 50.91 | 0.05 | 0.0260 | 9.9999 | 0.0161 | 9.9999 | 0.8026 | 0.6745 | 0.0445 | 0.3093 | 0.0665 | 0.4585 |
| 133 | 51.08 | 0.04 | 0.0105 | 9.9999 | 0.0104 | 9.9999 | 0.9936 | 0.6673 | 0.0471 | 0.3065 | 0.0705 | 0.4592 |
| 134 | 51.27 | 0.05 | 0.0096 | 9.9999 | 0.0114 | 9.9999 | 1.2707 | 0.6689 | 0.0469 | 0.3065 | 0.0701 | 0.4581 |
| 135 | 51.46 | 0.07 | 0.0077 | 9.9999 | 0.0110 | 9.9999 | 1.4331 | 0.6768 | 0.0469 | 0.3088 | 0.0692 | 0.4562 |
| 136 | 51.61 | 0.06 | 0.0054 | 9.9999 | 0.0103 | 9.9999 | 1.1355 | 0.6816 | 0.0467 | 0.3102 | 0.0685 | 0.4550 |
| 137 | 51.80 | 0.07 | 0.0091 | 9.9999 | 0.0110 | 9.9999 | 1.2127 | 0.6844 | 0.0477 | 0.3120 | 0.0696 | 0.4558 |
| 138 | 51.96 | 0.07 | 0.0104 | 9.9999 | 0.0115 | 9.9999 | 1.1093 | 0.6956 | 0.0471 | 0.3159 | 0.0677 | 0.4541 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 114 MACH 0.80 RX1C-6 4.7 PHI C.C CONF BODY13 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.16 | C.05 | C.0051 | 5.9999 | C.C103 | 5.9999 | 1.1355 | 0.6972 | 0.0470 | 0.3172 | 0.0674 | 0.4549 |
| 140 | 52.31 | 0.07 | C.C105 | 5.9999 | 0.0104 | 5.9999 | 0.9936 | 0.7017 | 0.0479 | 0.3188 | 0.0682 | 0.4543 |
| 141 | 52.48 | 0.07 | C.C174 | 5.9999 | 0.0126 | 5.9999 | 0.7207 | 0.7069 | 0.0465 | 0.3201 | 0.0657 | 0.4528 |
| 142 | 52.66 | 0.05 | 0.0105 | 5.9999 | C.C106 | 5.9999 | 0.9554 | 0.7128 | 0.0479 | 0.3255 | 0.0672 | 0.4561 |
| 143 | [redacted] | C.1C | [redacted] | 5.9999 | 0.0108 | 5.9999 | 0.9105 | 0.7225 | 0.0474 | 0.3250 | 0.0656 | 0.4555 |
| 144 | [redacted] | 0.1C | [redacted] | 5.9999 | C.C151 | 5.9999 | 0.0000 | 0.7200 | 0.0465 | 0.3312 | 0.0640 | 0.4562 |
| 145 | [redacted] | C.1C | [redacted] | 5.9999 | C.C127 | 5.9999 | 0.8724 | 0.7296 | 0.0454 | 0.3332 | 0.0622 | 0.4568 |
| 146 | [redacted] | 0.11 | C.C754 | 5.9999 | C.C162 | 5.9999 | 0.7149 | 0.7315 | 0.0439 | 0.3337 | 0.0600 | 0.4562 |
| 147 | 53.51 | 0.11 | C.C161 | 5.9999 | 0.0125 | 5.9999 | 0.8026 | 0.7444 | 0.0431 | 0.3357 | 0.0578 | 0.4563 |
| 148 | 53.66 | 0.10 | C.0261 | 5.9999 | 0.0135 | 5.9999 | 0.8088 | 0.7274 | 0.0426 | 0.3324 | 0.0565 | 0.4565 |
| 149 | 53.83 | 0.11 | C.0173 | 5.9999 | C.C141 | 5.9999 | 0.8118 | 0.7367 | 0.0424 | 0.3365 | 0.0575 | 0.4568 |
| 150 | 53.99 | 0.12 | 0.0222 | 5.9999 | 0.C16C | 5.9999 | 0.7260 | 0.7555 | 0.0425 | 0.3453 | 0.0562 | 0.4571 |
| 151 | 54.17 | C.12 | C.0173 | 5.9999 | C.C141 | 5.9999 | 0.8118 | 0.7590 | 0.0415 | 0.3470 | 0.0546 | 0.4572 |
| 152 | 54.34 | 0.10 | C.0225 | 5.9999 | C.C163 | 5.9999 | 0.7097 | 0.7715 | 0.0418 | 0.3524 | 0.0541 | C.4568 |
| 153 | 54.50 | C.11 | C.0242 | 5.9999 | C.C17E | 5.9999 | 0.7337 | 0.7602 | 0.0422 | 0.3477 | C.0555 | C.4574 |
| 154 | 54.66 | 0.10 | 0.0264 | 5.9999 | C.C15E | 5.9999 | 0.7036 | 0.7003 | 0.0426 | 0.3488 | 0.0558 | C.4552 |
| 155 | 54.81 | 0.11 | C.0202 | 5.9999 | C.C143 | 5.9999 | 0.7052 | 0.7569 | 0.0426 | 0.3468 | 0.0562 | 0.4582 |
| 156 | 55.01 | 0.12 | 0.0263 | 5.9999 | C.C165 | 5.9999 | 1.0720 | 0.7651 | 0.0416 | 0.3488 | 0.0543 | 0.4559 |
| 157 | 55.16 | 0.11 | 0.0241 | 5.9999 | C.C17E | 5.9999 | 0.7366 | 0.7681 | 0.0422 | 0.3513 | 0.0549 | 0.4574 |
| 158 | 55.31 | 0.11 | C.0241 | 5.9999 | 0.C165 | 5.9999 | 0.7659 | 0.7745 | 0.0418 | 0.3523 | 0.0535 | 0.4549 |
| 159 | 55.48 | 0.11 | 0.0173 | 5.9999 | 0.C15E | 5.9999 | 0.8988 | 0.7759 | 0.0421 | 0.3530 | 0.0542 | 0.4556 |
| 160 | 55.64 | 0.12 | 0.0216 | 5.9999 | C.C154 | 5.9999 | 0.8408 | 0.7681 | 0.0419 | 0.3506 | 0.0545 | C.4568 |
| 161 | 55.80 | 0.12 | C.0214 | 5.9999 | C.C165 | 5.9999 | 0.7666 | 0.7645 | 0.0420 | 0.3455 | 0.0545 | 0.4576 |
| 162 | 55.94 | 0.09 | 0.0173 | 5.9999 | C.C141 | 5.9999 | 0.8116 | 0.7600 | 0.0424 | 0.3481 | 0.0557 | 0.4581 |
| 163 | 56.12 | 0.11 | C.0241 | 5.9999 | C.C17C | 5.9999 | 0.7035 | 0.7777 | 0.0415 | 0.3565 | 0.0533 | 0.4583 |
| 164 | 56.29 | 0.11 | 0.0200 | 5.9999 | C.C142 | 5.9999 | 0.7073 | 0.7675 | 0.0406 | 0.3554 | 0.0515 | 0.4563 |
| 165 | 56.45 | 0.11 | 0.0155 | 5.9999 | 0.C157 | 5.9999 | 0.7864 | 0.7672 | 0.0414 | 0.3606 | 0.0525 | C.4580 |
| 166 | 56.61 | 0.12 | 0.0155 | 5.9999 | 0.C164 | 5.9999 | 0.8217 | 0.7743 | 0.0422 | 0.3555 | 0.0544 | C.4591 |
| 167 | 56.77 | 0.11 | C.0213 | 5.9999 | 0.0161 | 5.9999 | 0.7536 | 0.7795 | 0.0412 | 0.3584 | 0.0528 | 0.4557 |
| 168 | 56.91 | 0.08 | 0.0241 | 5.9999 | C.C162 | 5.9999 | 0.8702 | 0.7697 | 0.0416 | 0.3521 | 0.0543 | 0.4575 |
| 169 | 57.08 | C.1C | C.C1E5 | 5.9999 | 0.C144 | 5.9999 | 0.7754 | 0.7751 | 0.0403 | 0.3573 | 0.0519 | 0.4605 |
| 170 | 57.21 | 0.09 | C.C1E5 | 5.9999 | C.C144 | 5.9999 | 0.7754 | 0.7844 | 0.0404 | 0.3595 | C.C515 | 0.4583 |
| 171 | 57.36 | 0.07 | 0.0118 | 5.9999 | 0.C111 | 5.9999 | 0.9437 | 0.7765 | 0.0406 | 0.3576 | 0.0522 | 0.4605 |
| 172 | 57.51 | 0.06 | 0.C11E | 5.9999 | 0.0111 | 5.9999 | 0.9437 | 0.7622 | 0.0412 | 0.3514 | 0.C54C | C.4611 |
| 173 | 57.65 | C.06 | 0.0226 | 5.9999 | C.C157 | 5.9999 | 0.6925 | 0.7733 | 0.0407 | 0.3551 | 0.0528 | 0.4591 |
| 174 | 57.80 | 0.07 | 0.0155 | 5.9999 | 0.C145 | 5.9999 | 0.7401 | 0.7672 | 0.0400 | 0.3510 | 0.0521 | 0.4576 |
| 175 | 57.96 | 0.06 | 0.0157 | 5.9999 | 0.C142 | 5.9999 | 0.9010 | 0.7593 | 0.0407 | 0.3489 | 0.0535 | 0.4556 |
| 176 | 58.11 | 0.08 | 0.0171 | 5.9999 | 0.C136 | 5.9999 | 0.7920 | 0.7830 | 0.0399 | 0.3593 | 0.0509 | 0.4588 |
| 177 | 58.21 | 0.09 | C.0095 | 5.9999 | 0.C102 | 5.9999 | 1.1370 | 0.7734 | 0.0403 | 0.3534 | 0.0523 | 0.4576 |
| 178 | 58.21 | 0.07 | 0.0156 | 5.9999 | 0.0135 | 5.9999 | 0.8308 | 0.7688 | 0.0404 | 0.3532 | 0.0525 | C.4595 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 115 | MACH 0.90 | REYNO-E 1.7 | PHI 0.0 | CONF 81N0F15 | C 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | -1.6255 | 5.9645 | 0.1020 | -0.2141 | 0.0034 | 1.2466 | 0.4237 | 0.8249 | -3.6602 |
| 2 | -5.75 | 0.02 | -1.6251 | 5.9604 | 0.1004 | -0.1484 | 0.0096 | 1.2500 | 0.4107 | 0.8313 | -3.6485 |
| 3 | -5.74 | 0.02 | -1.6251 | 5.9673 | 0.0832 | -0.1584 | 0.0100 | 1.2502 | 0.4251 | 0.8251 | -3.7441 |
| 4 | -5.65 | 0.01 | -1.5766 | 5.8952 | 0.0244 | -0.1753 | 0.0034 | 1.2483 | 0.4210 | 0.8273 | -3.7339 |
| 5 | -4.13 | 0.02 | -1.4154 | 5.7241 | 0.0560 | -0.2885 | 0.0106 | 1.2439 | 0.4284 | 0.8155 | -4.0723 |
| 6 | -2.58 | 0.02 | -1.2543 | 5.5705 | 0.1341 | -0.3509 | 0.0175 | 1.2207 | 0.4234 | 0.7973 | -4.3745 |
| 7 | -0.58 | 0.01 | -1.2228 | 5.6427 | 0.0347 | -0.2182 | 0.0114 | 1.1808 | 0.3761 | 0.8047 | -4.7741 |
| 8 | 1.21 | 0.01 | -1.2284 | 6.0010 | -0.0008 | -0.1394 | 0.0121 | 1.1722 | 0.3077 | 0.8645 | -5.3306 |
| 9 | 3.07 | 0.01 | -1.1535 | 6.0353 | -0.0065 | -0.0227 | 0.0125 | 1.1320 | 0.2674 | 0.8645 | -5.7731 |
| 10 | 4.78 | 0.02 | -1.0016 | 6.4756 | 0.0524 | -0.1451 | 0.0131 | 1.0919 | 0.2583 | 0.8335 | -6.4693 |
| 11 | 6.60 | 0.01 | -0.8365 | 6.8215 | 0.0256 | -0.0900 | 0.0136 | 1.0479 | 0.2480 | 0.7999 | -7.5573 |
| 12 | 8.37 | 0.02 | -0.7085 | 6.8250 | 0.1185 | -0.1849 | 0.0069 | 1.0082 | 0.2350 | 0.7692 | -8.6063 |
| 13 | 10.14 | 0.01 | -0.4463 | 6.9516 | 0.0126 | -0.0465 | 0.0147 | 0.9503 | 0.2337 | 0.7166 | -13.2502 |
| 14 | 11.90 | 0.01 | -0.1852 | 6.9164 | -0.0794 | -0.0200 | 0.0150 | 0.8645 | 0.2279 | 0.6366 | -29.2039 |
| 15 | 13.74 | 0.01 | 0.0868 | 6.8775 | -0.0196 | -0.0216 | 0.0158 | 0.7916 | 0.2086 | 0.5830 | 58.4664 |
| 16 | 15.60 | 0.01 | 0.4127 | 6.9151 | 0.0217 | -0.0175 | 0.0420 | 0.7038 | 0.2053 | 0.4985 | 10.9498 |
| 17 | 17.45 | 0.01 | 0.7523 | 6.7458 | -0.0125 | 0.1167 | 0.0675 | 0.6039 | 0.2053 | 0.3986 | 4.7327 |
| 18 | 19.33 | 0.01 | 1.1011 | 6.5234 | -0.0701 | 0.2537 | 0.0930 | 0.5029 | 0.2127 | 0.2902 | 2.4785 |
| 19 | 21.21 | -0.00 | 1.5750 | 6.2101 | -0.2681 | 0.6375 | 0.1163 | 0.4170 | 0.2185 | 0.1993 | 1.4032 |
| 20 | 23.09 | -0.01 | 1.9886 | 6.0341 | -0.3191 | 0.8179 | 0.1060 | 0.3172 | 0.2271 | 0.0900 | 0.8217 |
| 21 | 24.94 | 0.01 | 2.3725 | 6.2443 | -0.1406 | 0.5211 | 0.0571 | 0.2397 | 0.2349 | 0.0048 | 0.5245 |
| 22 | 26.80 | 0.03 | 2.8727 | 6.1256 | 0.2545 | -0.2155 | 0.0929 | 0.1444 | 0.2320 | -0.0876 | 0.3919 |
| 23 | 28.18 | 0.04 | 3.1347 | 6.0656 | 0.4234 | -0.1697 | 0.1144 | 0.0942 | 0.2348 | -0.1406 | 0.3397 |
| 24 | 28.18 | 0.04 | 3.1474 | 6.0082 | 0.3283 | -0.1204 | 0.1140 | 0.0897 | 0.2324 | -0.1427 | 0.3178 |
| 25 | 28.21 | 0.04 | 3.1217 | 6.0156 | 0.4085 | -0.0755 | 0.1145 | 0.0970 | 0.2312 | -0.1343 | 0.3266 |
| 26 | 28.61 | 0.05 | 3.2481 | 6.0917 | 0.5036 | -0.2650 | 0.1215 | 0.0613 | 0.2307 | -0.1694 | 0.2745 |
| 27 | 28.07 | 0.05 | 3.3145 | 6.2710 | 0.5524 | -0.4446 | 0.1283 | 0.0686 | 0.2324 | -0.1638 | 0.2627 |
| 28 | 29.10 | 0.04 | 3.3921 | 6.2712 | 0.5179 | -0.1683 | 0.1411 | 0.0426 | 0.2306 | -0.1880 | 0.2273 |
| 29 | 29.49 | 0.07 | 3.5051 | 6.0370 | 0.7301 | -0.2563 | 0.1673 | 0.0279 | 0.2331 | -0.2052 | 0.1817 |
| 30 | 29.78 | 0.06 | 3.6527 | 6.4807 | 0.7154 | -0.3010 | 0.2000 | 0.0051 | 0.2331 | -0.2280 | 0.1316 |
| 31 | 30.05 | 0.06 | 3.6797 | 6.5238 | 0.7584 | -0.4678 | 0.1940 | -0.0060 | 0.2377 | -0.2437 | 0.1423 |
| 32 | 30.34 | 0.07 | 3.8101 | 6.4249 | 0.8325 | -0.5073 | 0.2073 | -0.0206 | 0.2306 | -0.2574 | 0.1109 |
| 33 | 30.61 | 0.06 | 3.9550 | 6.3422 | 0.7716 | -0.4769 | 0.2077 | -0.0410 | 0.2380 | -0.2790 | 0.0865 |
| 34 | 30.69 | 0.08 | 4.0790 | 6.3545 | 0.9034 | -0.5769 | 0.2209 | -0.0603 | 0.2343 | -0.2997 | 0.0870 |
| 35 | 31.16 | 0.07 | 4.1958 | 6.3238 | 0.9582 | -0.6934 | 0.2279 | -0.0727 | 0.2413 | -0.3141 | 0.0771 |
| 36 | 31.44 | 0.08 | 4.2904 | 6.2705 | 0.9706 | -0.6893 | 0.2340 | -0.0786 | 0.2455 | -0.3246 | 0.0630 |
| 37 | 31.71 | 0.08 | 4.3761 | 6.2405 | 0.7498 | -0.6199 | 0.2339 | -0.0926 | 0.2460 | -0.3385 | 0.0564 |
| 38 | 31.97 | 0.08 | 4.4545 | 6.2182 | 0.8803 | -0.8072 | 0.2340 | -0.0917 | 0.2400 | -0.3378 | 0.0450 |
| 39 | 32.25 | 0.07 | 4.5229 | 6.3214 | 0.8296 | -0.8827 | 0.2095 | -0.1249 | 0.2439 | -0.3688 | 0.0695 |
| 40 | 32.52 | 0.09 | 4.5913 | 6.1814 | 0.8341 | -0.9524 | 0.2217 | -0.1513 | 0.2448 | -0.3961 | 0.0337 |
| 41 | 32.78 | 0.07 | 4.6745 | 6.2222 | 0.7508 | -0.8560 | 0.2100 | -0.1538 | 0.2415 | -0.3953 | 0.0456 |
| 42 | 33.04 | 0.07 | 4.7415 | 6.4917 | 0.8204 | -1.3522 | 0.1856 | -0.1618 | 0.2344 | -0.4162 | 0.0914 |
| 43 | 33.29 | 0.07 | 5.0313 | 6.8002 | 0.9175 | -1.7102 | 0.1739 | -0.1656 | 0.2319 | -0.4175 | 0.1193 |
| 44 | 33.53 | 0.07 | 5.0824 | 6.9647 | 0.8836 | -1.8230 | 0.1486 | -0.1955 | 0.2298 | -0.4253 | 0.1111 |
| 45 | 33.80 | 0.07 | 5.1575 | 6.7251 | 0.8628 | -1.8332 | 0.1491 | -0.1877 | 0.2324 | -0.4201 | 0.1402 |
| 46 | 34.05 | 0.06 | 5.3365 | 6.7731 | 0.7592 | -1.5409 | 0.1437 | -0.2281 | 0.2296 | -0.4579 | 0.1449 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 115 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF BLEOFF L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.29 | 0.07 | 5.4026 | 0.8227 | 0.5188 | -1.7341 | 0.1503 | -0.2077 | 0.2336 | -0.4413 | 0.1523 |
| 48 | 34.54 | 0.06 | 5.4045 | 0.8524 | 0.7513 | -1.3005 | 0.1503 | -0.2249 | 0.2327 | -0.4620 | 0.1189 |
| 49 | 34.80 | 0.04 | 5.5869 | 0.9951 | 0.5568 | -1.2303 | 0.1246 | -0.2497 | 0.2295 | -0.4798 | 0.1781 |
| 50 | 35.03 | 0.02 | 5.6626 | 1.0011 | 0.2594 | -0.5796 | 0.1116 | -0.2603 | 0.2265 | -0.4869 | 0.1762 |
| 51 | 35.28 | 0.03 | 5.6158 | 1.0085 | 0.3133 | -0.7824 | 0.0992 | -0.2783 | 0.2241 | -0.5025 | 0.1734 |
| 52 | 35.51 | 0.01 | 5.6407 | 1.0877 | 0.1735 | -0.4255 | 0.0475 | -0.2841 | 0.2241 | -0.5083 | 0.1862 |
| 53 | 35.76 | 0.02 | 5.6544 | 1.0946 | 0.2765 | -0.7148 | 0.0994 | -0.2849 | 0.2232 | -0.5082 | 0.1771 |
| 54 | 36.00 | 0.01 | 6.0052 | 1.1017 | 0.1625 | -0.2134 | 0.0288 | -0.2934 | 0.2267 | -0.5161 | 0.1968 |
| 55 | 36.21 | 0.01 | 6.0257 | 1.1371 | 0.0814 | 0.0223 | 0.0091 | -0.2935 | 0.2220 | -0.5155 | 0.1887 |
| 56 | 36.47 | -0.01 | 6.1976 | 1.2537 | -0.1439 | 0.5371 | -0.0238 | -0.3163 | 0.2230 | -0.5393 | 0.2023 |
| 57 | 36.70 | 0.02 | 6.3440 | 1.3216 | 0.1533 | 0.3864 | 0.0407 | -0.3276 | 0.2216 | -0.5492 | 0.2083 |
| 58 | 36.94 | -0.02 | 6.3551 | 1.2275 | -0.2757 | 1.0129 | -0.0052 | -0.3276 | 0.2204 | -0.5480 | 0.1932 |
| 59 | 37.18 | 0.00 | 6.4109 | 1.2228 | -0.1146 | 0.5845 | -0.0949 | -0.3263 | 0.2208 | -0.5471 | 0.1909 |
| 60 | 37.41 | -0.01 | 6.4946 | 1.2352 | -0.1512 | 0.7769 | -0.0171 | -0.3305 | 0.2225 | -0.5590 | 0.1902 |
| 61 | 37.64 | -0.02 | 6.5562 | 1.2177 | -0.2665 | 0.9102 | -0.0171 | -0.3425 | 0.2217 | -0.5642 | 0.1856 |
| 62 | 37.88 | 0.00 | 6.6304 | 1.1541 | 0.0072 | 0.7325 | 0.0280 | -0.3478 | 0.2220 | -0.5698 | 0.1739 |
| 63 | 38.11 | -0.00 | 6.6663 | 1.2414 | -0.0144 | 0.5696 | 0.0417 | -0.3439 | 0.2246 | -0.5685 | 0.1862 |
| 64 | 38.35 | 0.02 | 6.7066 | 1.2265 | 0.2165 | 0.3153 | 0.1131 | -0.3462 | 0.2254 | -0.5716 | 0.1812 |
| 65 | 38.59 | -0.01 | 6.8637 | 1.2736 | -0.1306 | 0.5505 | 0.1052 | -0.3471 | 0.2276 | -0.5749 | 0.1856 |
| 66 | 38.81 | -0.01 | 6.9620 | 1.1066 | -0.1618 | 1.1423 | 0.0408 | -0.3724 | 0.2296 | -0.6020 | 0.1703 |
| 67 | 39.04 | 0.02 | 7.0701 | 1.1805 | 0.1652 | 0.7173 | 0.0422 | -0.3866 | 0.2295 | -0.6183 | 0.1670 |
| 68 | 39.28 | -0.00 | 7.1374 | 1.2238 | -0.1493 | 1.0033 | 0.0022 | -0.3883 | 0.2333 | -0.6216 | 0.1715 |
| 69 | 39.49 | 0.01 | 7.2121 | 1.2705 | 0.0217 | 1.5243 | 0.0462 | -0.3864 | 0.2382 | -0.6066 | 0.1762 |
| 70 | 39.71 | 0.00 | 7.3131 | 1.2117 | -0.1174 | 1.4895 | 0.0260 | -0.3883 | 0.2396 | -0.6201 | 0.1657 |
| 71 | 39.94 | -0.03 | 7.4120 | 1.3064 | -0.4478 | 1.9152 | 0.0019 | -0.3936 | 0.2395 | -0.6331 | 0.1765 |
| 72 | 40.14 | -0.01 | 7.4981 | 1.1835 | -0.1705 | 1.7462 | 0.0086 | -0.3934 | 0.2365 | -0.6299 | 0.1552 |
| 73 | 40.35 | -0.03 | 7.5572 | 1.2560 | -0.5070 | 2.3362 | 0.0072 | -0.4114 | 0.2395 | -0.6509 | 0.1665 |
| 74 | 40.54 | -0.01 | 7.6564 | 1.2141 | -0.2559 | 2.1275 | -0.0117 | -0.3965 | 0.2376 | -0.6263 | 0.1611 |
| 75 | 40.75 | -0.03 | 7.6326 | 1.2825 | -0.4652 | 2.0926 | -0.0236 | -0.4244 | 0.2402 | -0.6646 | 0.1681 |
| 76 | 40.96 | -0.03 | 7.6805 | 1.1991 | -0.3702 | 1.9734 | 0.0009 | -0.3994 | 0.2444 | -0.6438 | 0.1561 |
| 77 | 41.17 | -0.02 | 7.7885 | 1.2268 | -0.3575 | 2.0492 | -0.0422 | -0.4229 | 0.2412 | -0.6641 | 0.1575 |
| 78 | 41.39 | -0.01 | 7.8865 | 1.0537 | -0.2617 | 2.3582 | -0.0178 | -0.4096 | 0.2523 | -0.6619 | 0.1330 |
| 79 | 41.60 | -0.01 | 7.9155 | 1.1721 | -0.1583 | 2.0014 | -0.0099 | -0.4313 | 0.2386 | -0.6695 | 0.1480 |
| 80 | 41.81 | -0.04 | 8.0075 | 1.1571 | -0.5067 | 1.8526 | -0.0340 | -0.4602 | 0.2362 | -0.6965 | 0.1445 |
| 81 | 42.02 | -0.02 | 8.1130 | 1.0355 | -0.2426 | 2.1918 | -0.0099 | -0.4457 | 0.2426 | -0.6882 | 0.1281 |
| 82 | 42.22 | -0.02 | 8.1065 | 1.2491 | -0.2230 | 1.5005 | -0.0197 | -0.4063 | 0.2329 | -0.7192 | 0.1521 |
| 83 | 42.42 | -0.02 | 8.2228 | 1.1445 | -0.3445 | 2.0709 | -0.0151 | -0.4559 | 0.2412 | -0.6972 | 0.1392 |
| 84 | 42.61 | -0.02 | 8.2627 | 1.2662 | -0.2745 | 1.6859 | -0.0183 | -0.4751 | 0.2337 | -0.7089 | 0.1486 |
| 85 | 42.79 | -0.01 | 8.3700 | 1.1575 | -0.1705 | 1.4723 | -0.0130 | -0.4902 | 0.2378 | -0.7280 | 0.1383 |
| 86 | 42.97 | -0.02 | 8.3696 | 1.2416 | -0.1867 | 0.8934 | 0.0218 | -0.5060 | 0.2271 | -0.7331 | 0.1483 |
| 87 | 43.15 | -0.02 | 8.5266 | 1.0058 | -0.3089 | 1.4226 | -0.0310 | -0.5350 | 0.2229 | -0.7579 | 0.1179 |
| 88 | 43.32 | -0.01 | 8.5273 | 1.0356 | -0.2237 | 1.2263 | -0.0303 | -0.5157 | 0.2290 | -0.7447 | 0.1219 |
| 89 | 43.51 | -0.02 | 8.5933 | 1.0368 | -0.3092 | 1.1699 | -0.0108 | -0.5202 | 0.2316 | -0.7518 | 0.1207 |
| 90 | 43.69 | -0.02 | 8.6556 | 0.9952 | -0.4448 | 1.4025 | -0.0322 | -0.5109 | 0.2349 | -0.7458 | 0.1154 |
| 91 | 43.88 | -0.01 | 8.8033 | 1.0521 | -0.1671 | 0.7498 | -0.0139 | -0.5450 | 0.2237 | -0.7687 | 0.1195 |
| 92 | 44.04 | -0.02 | 8.7162 | 0.9928 | -0.3445 | 1.0230 | -0.0181 | -0.5146 | 0.2465 | -0.7611 | 0.1139 |

TEST 7 PART 115 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 81&OF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.23 | 0.01 | 8.9126 | 0.8887 | -0.0195 | 0.5757 | -0.0277 | -0.5563 | 0.2315 | -0.7878 | 0.0955 |
| 94 | 44.46 | -0.00 | 8.9592 | 1.0231 | -0.1422 | 0.7148 | 0.0188 | -0.5400 | 0.2352 | -0.7752 | 0.1142 |
| 95 | 44.62 | -0.01 | 8.9583 | 1.0937 | -0.1909 | 0.2571 | -0.0112 | -0.5295 | 0.2331 | -0.7626 | 0.1221 |
| 96 | 44.81 | 0.01 | 9.0022 | 1.0090 | -0.0462 | 0.8206 | -0.0263 | -0.5501 | 0.2336 | -0.7837 | 0.1113 |
| 97 | 44.94 | 0.00 | 9.0920 | 0.8447 | -0.1455 | 1.7336 | -0.0488 | -0.5313 | 0.2431 | -0.7744 | 0.0929 |
| 98 | 45.17 | -0.00 | 9.1130 | 1.0349 | 0.0466 | 0.4502 | 0.0009 | -0.5504 | 0.2349 | -0.7908 | 0.1136 |
| 99 | 45.35 | -0.02 | 9.2528 | 0.8312 | -0.1600 | 1.1448 | 0.0117 | -0.5646 | 0.2402 | -0.8048 | 0.0898 |
| 100 | 45.53 | -0.03 | 9.3337 | 0.8814 | -0.3005 | 1.4951 | -0.0466 | -0.5693 | 0.2368 | -0.8061 | 0.0944 |
| 101 | 45.73 | -0.02 | 9.4144 | 0.9158 | -0.0880 | 0.4126 | -0.0104 | -0.5722 | 0.2361 | -0.8083 | 0.0973 |
| 102 | 45.89 | -0.02 | 9.4233 | 0.8113 | -0.2701 | 1.8103 | -0.0284 | -0.5582 | 0.2510 | -0.8092 | 0.0861 |
| 103 | 46.07 | -0.02 | 9.5746 | 0.8862 | -0.1066 | 0.5587 | -0.0104 | -0.5829 | 0.2486 | -0.8315 | 0.0926 |
| 104 | 46.24 | -0.01 | 9.6065 | 0.8016 | -0.0116 | 0.0541 | 0.0107 | -0.5910 | 0.2373 | -0.8283 | 0.0835 |
| 105 | 46.42 | -0.03 | 9.6572 | 0.7866 | -0.2236 | 0.6891 | -0.0230 | -0.5947 | 0.2369 | -0.8316 | 0.0805 |
| 106 | 46.59 | -0.01 | 9.6777 | 0.8327 | -0.0536 | 0.5800 | -0.0101 | -0.6003 | 0.2361 | -0.8364 | 0.0964 |
| 107 | 46.78 | -0.01 | 9.8330 | 0.7577 | -0.0292 | 0.5183 | -0.0095 | -0.6133 | 0.2381 | -0.8514 | 0.0811 |
| 108 | 46.94 | 0.00 | 9.8961 | 0.9145 | -0.0372 | 1.4033 | -0.0256 | -0.6037 | 0.2418 | -0.8455 | 0.0924 |
| 109 | 47.13 | 0.00 | 10.0426 | 0.5951 | -0.1767 | 2.8260 | -0.0813 | -0.5371 | 0.2667 | -0.8038 | 0.0597 |
| 110 | 47.29 | 0.01 | 9.9750 | 0.9523 | 0.0896 | 1.2528 | -0.0245 | -0.5892 | 0.2365 | -0.8257 | 0.0955 |
| 111 | 47.46 | -0.01 | 10.0633 | 0.8658 | -0.1658 | 1.7163 | -0.0384 | -0.5983 | 0.2460 | -0.8443 | 0.0864 |
| 112 | 47.64 | -0.01 | 10.0515 | 0.8015 | -0.2575 | 1.9004 | -0.0383 | -0.6059 | 0.2597 | -0.8656 | 0.0782 |
| 113 | 47.82 | 0.01 | 10.2331 | 0.8171 | -0.0142 | 1.8863 | -0.0514 | -0.6103 | 0.2508 | -0.8672 | 0.0798 |
| 114 | 48.01 | -0.02 | 10.3783 | 0.7674 | -0.2415 | 1.8780 | -0.0371 | -0.6411 | 0.2517 | -0.8929 | 0.0739 |
| 115 | 48.18 | 0.00 | 10.3704 | 0.8320 | 0.2608 | 1.8290 | -0.0386 | -0.6293 | 0.2667 | -0.8961 | 0.0802 |
| 116 | 48.36 | 0.00 | 10.4836 | 0.7616 | 0.0217 | 2.0000 | -0.0321 | -0.6062 | 0.2616 | -0.8679 | 0.0726 |
| 117 | 48.54 | 0.00 | 10.5767 | 0.8656 | 0.0332 | 2.0237 | -0.0361 | -0.6190 | 0.2728 | -0.8919 | 0.0829 |
| 118 | 48.68 | 0.01 | 10.4888 | 0.7132 | 0.0302 | 2.3959 | -0.0461 | -0.5895 | 0.2872 | -0.8768 | 0.0680 |
| 119 | 48.88 | 0.01 | 10.7230 | 0.5765 | 0.1750 | 2.4007 | -0.0710 | -0.5688 | 0.3030 | -0.8888 | 0.0540 |
| 120 | 49.05 | 0.01 | 10.8356 | 0.6351 | 0.1430 | 3.0305 | -0.0732 | -0.5315 | 0.3647 | -0.8952 | 0.0032 |
| 121 | 49.21 | 0.00 | 10.8992 | 0.1462 | 0.1441 | 2.8040 | -0.0567 | -0.5435 | 0.3517 | -0.8952 | 0.0134 |
| 122 | 49.39 | 0.01 | 11.0664 | -0.3631 | 0.2051 | 2.2207 | -0.0765 | -0.5276 | 0.3507 | -0.8863 | -0.0346 |
| 123 | 49.58 | 0.03 | 11.1661 | -0.6056 | 0.4412 | 2.0174 | -0.0341 | -0.5065 | 0.3636 | -0.8501 | -0.0537 |
| 124 | 49.75 | 0.02 | 11.2251 | -0.5417 | 0.2555 | 2.4044 | -0.0638 | -0.5239 | 0.3739 | -0.8978 | -0.0482 |
| 125 | 49.97 | 0.06 | 11.8778 | -1.7527 | 0.6454 | 2.9176 | -0.0375 | -0.4700 | 0.4532 | -0.9233 | -0.1476 |
| 126 | 50.14 | 0.04 | 11.9356 | -2.0672 | 0.4066 | 3.0548 | -0.0395 | -0.4754 | 0.4128 | -0.8883 | -0.1748 |
| 127 | 50.31 | 0.02 | 11.8403 | -1.3852 | 0.3460 | 2.0765 | -0.0101 | -0.5140 | 0.3717 | -0.8857 | -0.1339 |
| 128 | 50.46 | 0.05 | 11.9506 | -1.7955 | 0.6632 | 2.0795 | -0.0233 | -0.5226 | 0.3630 | -0.8856 | -0.1503 |
| 129 | 50.65 | 0.05 | 12.0851 | -1.7496 | 0.6565 | 1.7566 | 0.0102 | -0.5143 | 0.3743 | -0.8886 | -0.1450 |
| 130 | 50.81 | 0.07 | 12.1027 | -1.8561 | 0.6051 | 1.9365 | 0.0029 | -0.5120 | 0.3716 | -0.8836 | -0.1533 |
| 131 | 51.00 | 0.07 | 12.3625 | -2.4112 | 0.5457 | 1.9230 | -0.0093 | -0.5171 | 0.3680 | -0.9051 | -0.1947 |
| 132 | 51.18 | 0.05 | 12.3026 | -2.5445 | 0.7995 | 1.7479 | 0.0177 | -0.4810 | 0.4055 | -0.8866 | -0.2035 |
| 133 | 51.33 | 0.08 | 12.5266 | -2.6124 | 1.0223 | 2.1527 | 0.0156 | -0.5234 | 0.4014 | -0.9248 | -0.2085 |
| 134 | 51.54 | 0.03 | 13.0060 | -3.4967 | 0.4687 | 2.3531 | -0.0210 | -0.4807 | 0.4309 | -0.9117 | -0.2672 |
| 135 | 51.69 | 0.07 | 12.9711 | -3.3107 | 0.8384 | 2.5187 | -0.0226 | -0.4740 | 0.4347 | -0.9088 | -0.2564 |
| 136 | 51.85 | 0.04 | 12.9116 | -3.2801 | 0.9394 | 2.4521 | -0.0345 | -0.4683 | 0.4407 | -0.9091 | -0.2540 |
| 137 | 52.00 | 0.05 | 13.4257 | -3.5132 | 0.7637 | 2.3831 | -0.0078 | -0.4676 | 0.4515 | -0.9192 | -0.2914 |
| 138 | 52.22 | 0.08 | 13.3088 | -3.6565 | 1.0502 | 2.1995 | -0.0076 | -0.4666 | 0.4574 | -0.9241 | -0.2773 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASROCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 115 MACH 0.90 RNIG-6 1.7 PHI 0.0 CONF B1+OF13 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.38 | 0.08 | 13.2982 | -3.7555 | 0.7546 | 2.2277 | -0.0073 | -0.4314 | 0.4656 | -0.8971 | -0.2824 |
| 140 | 52.56 | 0.12 | 13.3717 | -3.8028 | 1.3016 | 2.2672 | 0.0173 | -0.4492 | 0.4738 | -0.9201 | -0.2709 |
| 141 | 52.73 | 0.08 | 13.5405 | -3.7773 | 1.0060 | 2.1486 | 0.0315 | -0.4288 | 0.4741 | -0.9030 | -0.2750 |
| 142 | 52.91 | 0.11 | 13.6416 | -3.8762 | 1.2666 | 1.9501 | 0.0193 | -0.4346 | 0.4745 | -0.9292 | -0.2837 |
| 143 | 53.08 | 0.10 | 13.7165 | -3.8582 | 1.2196 | 2.1179 | 0.0190 | -0.4555 | 0.4758 | -0.9354 | -0.2842 |
| 144 | 53.23 | 0.05 | 13.6472 | -3.8758 | 0.8697 | 1.8372 | 0.0206 | -0.4714 | 0.4852 | -0.9566 | -0.2913 |
| 145 | 53.46 | 0.11 | 13.7754 | -4.0300 | 1.4225 | 1.9574 | 0.0193 | -0.4585 | 0.4850 | -0.9475 | -0.2926 |
| 146 | 53.56 | 0.10 | 13.8296 | -3.8512 | 1.3492 | 1.7963 | 0.0199 | -0.4586 | 0.4849 | -0.9215 | -0.2826 |
| 147 | 53.73 | 0.08 | 13.7053 | -3.9413 | 1.0253 | 1.8201 | 0.0179 | -0.4422 | 0.4909 | -0.9331 | -0.2876 |
| 148 | 53.88 | 0.09 | 13.8760 | -4.0084 | 1.2209 | 1.8578 | 0.0208 | -0.4233 | 0.4898 | -0.9131 | -0.2930 |
| 149 | 54.04 | 0.05 | 13.7265 | -3.9835 | 1.1036 | 1.7119 | 0.0210 | -0.4415 | 0.4934 | -0.9349 | -0.2902 |
| 150 | 54.19 | 0.08 | 13.7859 | -4.0864 | 0.8716 | 1.6457 | 0.0344 | -0.4041 | 0.4885 | -0.9526 | -0.2964 |
| 151 | 54.36 | 0.07 | 13.8211 | -4.0865 | 0.9153 | 1.5965 | 0.0221 | -0.4632 | 0.4950 | -0.9582 | -0.2963 |
| 152 | 54.50 | 0.07 | 13.8611 | -3.8327 | 0.9494 | 1.8345 | 0.0335 | -0.4153 | 0.4979 | -0.9132 | -0.2801 |
| 153 | 54.66 | 0.07 | 13.9523 | -4.0732 | 0.9464 | 1.2696 | 0.0303 | -0.4385 | 0.5044 | -0.9429 | -0.2911 |
| 154 | 54.83 | 0.06 | 13.8538 | -3.9965 | 0.8594 | 1.3951 | 0.0405 | -0.4033 | 0.5064 | -0.9657 | -0.2885 |
| 155 | 54.97 | 0.07 | 13.8864 | -4.0367 | 0.9335 | 1.2919 | 0.0363 | -0.4494 | 0.5073 | -0.9567 | -0.2906 |
| 156 | 55.14 | 0.06 | 14.0135 | -3.9962 | 1.0741 | 1.1406 | 0.0360 | -0.4609 | 0.5122 | -0.9531 | -0.2852 |
| 157 | 55.31 | 0.05 | 14.0469 | -3.9025 | 0.8397 | 1.2967 | 0.0325 | -0.4302 | 0.5109 | -0.9411 | -0.2782 |
| 158 | 55.44 | 0.05 | 14.0435 | -3.9367 | 1.1858 | 1.0812 | 0.0328 | -0.4428 | 0.5138 | -0.9586 | -0.2803 |
| 159 | 55.59 | 0.06 | 14.0467 | -3.8771 | 0.8152 | 1.0631 | 0.0308 | -0.4654 | 0.5215 | -0.9673 | -0.2760 |
| 160 | 55.73 | 0.07 | 13.9265 | -3.8442 | 0.9525 | 1.1636 | 0.0388 | -0.4467 | 0.5239 | -0.9706 | -0.2760 |
| 161 | 55.90 | 0.03 | 13.9110 | -3.7785 | 0.5726 | 1.0611 | 0.0695 | -0.4510 | 0.5333 | -0.9843 | -0.2716 |
| 162 | 56.06 | 0.01 | 13.8764 | -3.8116 | 0.3309 | 1.3110 | 0.0695 | -0.4316 | 0.5341 | -0.9659 | -0.2602 |
| 163 | 56.19 | 0.06 | 13.8775 | -3.9166 | 0.7437 | 1.5226 | 0.0680 | -0.4073 | 0.5460 | -0.9473 | -0.2462 |
| 164 | 56.35 | 0.05 | 13.9803 | -3.8085 | 1.0023 | 1.4524 | 0.0679 | -0.4288 | 0.5457 | -0.9745 | -0.2581 |
| 165 | 56.52 | 0.03 | 14.0139 | -3.9578 | 0.4817 | 1.6361 | 0.0558 | -0.4376 | 0.5584 | -0.9960 | -0.2567 |
| 166 | 56.66 | 0.04 | 13.9733 | -3.9458 | 0.6320 | 1.4267 | 0.0669 | -0.4465 | 0.5629 | -1.0094 | -0.2540 |
| 167 | 56.82 | 0.03 | 13.9671 | -3.8478 | 0.5964 | 1.5241 | 0.0685 | -0.4256 | 0.5730 | -0.9986 | -0.2612 |
| 168 | 56.97 | 0.04 | 14.0111 | -3.9742 | 0.6753 | 1.5067 | 0.0744 | -0.4309 | 0.5665 | -0.9974 | -0.2551 |
| 169 | 57.13 | 0.02 | 14.0166 | -3.8215 | 0.4435 | 1.7015 | 0.0683 | -0.4197 | 0.5645 | -0.9842 | -0.2584 |
| 170 | 57.28 | 0.02 | 14.1005 | -3.8432 | 0.3914 | 1.7089 | 0.0624 | -0.4431 | 0.5792 | -1.0223 | -0.2584 |
| 171 | 57.43 | 0.02 | 14.1483 | -3.8806 | 0.4248 | 1.3047 | 0.0513 | -0.4642 | 0.5735 | -1.0377 | -0.2587 |
| 172 | 57.56 | 0.00 | 14.0047 | -3.9021 | 0.2935 | 1.6314 | 0.0584 | -0.4097 | 0.5818 | -0.9915 | -0.2501 |
| 173 | 57.71 | -0.04 | 14.0222 | -3.8648 | -0.1274 | 1.2462 | 0.0591 | -0.4432 | 0.5726 | -1.0158 | -0.2186 |
| 174 | 57.86 | -0.02 | 14.1425 | -3.8500 | 0.0624 | 0.8029 | 0.0547 | -0.5411 | 0.5501 | -1.0912 | -0.1874 |
| 175 | 58.00 | -0.10 | 14.0074 | -3.8324 | -0.5835 | -0.8282 | 0.0575 | -0.5418 | 0.5332 | -1.0750 | -0.1879 |
| 176 | 58.15 | -0.05 | 14.1076 | -3.8395 | -0.3131 | -1.0043 | 0.0583 | -0.4984 | 0.5616 | -1.0599 | -0.2225 |
| 177 | 58.30 | -0.12 | 14.0843 | -3.8904 | -0.5832 | -1.2044 | 0.0643 | -0.4726 | 0.5722 | -1.0448 | -0.2194 |
| 178 | 58.44 | -0.07 | 14.2034 | -3.9258 | -0.0911 | -0.9143 | 0.0650 | -0.4874 | 0.5821 | -1.0695 | -0.2412 |
| 179 | 58.47 | -0.07 | 14.2245 | -3.9025 | -0.1072 | -0.8428 | 0.0585 | -0.4836 | 0.5777 | -1.0614 | -0.2463 |
| 180 | 58.47 | -0.09 | 14.2285 | -3.8868 | -0.3811 | -0.9059 | 0.0564 | -0.4551 | 0.5825 | -1.0376 | -0.2433 |

PANTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH REIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 115 0.90 4.7 0.0 BODIES 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | 0.0221 | 0.0055 | 0.0147 | 0.4482 | 0.6627 | -0.8471 | -0.0184 | -0.3828 | 0.0218 | 0.4519 |
| 2 | -5.75 | 0.02 | 0.0165 | 0.0058 | 0.0125 | 0.5336 | 0.7539 | -0.8432 | -0.0189 | -0.3818 | 0.0224 | 0.4528 |
| 3 | -5.74 | 0.02 | 0.0210 | 0.0050 | 0.0148 | 0.4574 | 0.6927 | -0.8436 | -0.0189 | -0.3796 | 0.0225 | 0.4512 |
| 4 | -5.69 | 0.01 | 0.0199 | 0.0065 | 0.0112 | 0.5966 | 0.7003 | -0.8231 | -0.0193 | -0.3732 | 0.0234 | 0.4524 |
| 5 | -4.73 | 0.02 | 0.0232 | 0.0104 | 0.0151 | 0.4485 | 0.6486 | -0.8051 | -0.0200 | -0.3679 | 0.0245 | 0.4570 |
| 6 | -2.38 | 0.02 | 0.0361 | 0.0112 | 0.0176 | 0.3723 | 0.5633 | -0.7987 | -0.0162 | -0.3661 | 0.0228 | 0.4584 |
| 7 | -0.58 | 0.01 | 0.0238 | 0.0100 | 0.0124 | 0.4204 | 0.5185 | -0.7845 | -0.0176 | -0.3593 | 0.0225 | 0.4580 |
| 8 | 1.21 | 0.01 | 0.0240 | 0.0117 | 0.0103 | 0.4401 | 0.4305 | -0.8850 | -0.0212 | -0.3567 | 0.0239 | 0.4463 |
| 9 | 3.07 | 0.01 | 0.0310 | 0.0112 | 0.0115 | 0.3615 | 0.3722 | -0.8562 | -0.0249 | -0.3806 | 0.0291 | 0.4445 |
| 10 | 4.78 | 0.02 | 0.0265 | 0.0087 | 0.0110 | 0.3285 | 0.4164 | -0.8203 | -0.0320 | -0.3637 | 0.0391 | 0.4433 |
| 11 | 6.60 | 0.01 | 0.0254 | 0.0063 | 0.0151 | 0.2825 | 0.5118 | -0.7731 | -0.0391 | -0.3381 | 0.0505 | 0.4373 |
| 12 | 8.37 | 0.02 | 0.0245 | 0.0055 | 0.0196 | 0.2871 | 0.5870 | -0.7353 | -0.0426 | -0.3275 | 0.0583 | 0.4467 |
| 13 | 10.14 | 0.01 | 0.0343 | 0.0055 | 0.0210 | 0.2868 | 0.6113 | -0.6623 | -0.0483 | -0.3224 | 0.0729 | 0.4868 |
| 14 | 11.96 | 0.01 | 0.0227 | 0.0061 | 0.0187 | 0.3570 | 0.6220 | -0.5708 | -0.0488 | -0.2866 | 0.0843 | 0.4951 |
| 15 | 13.74 | 0.01 | 0.0207 | 0.0073 | 0.0168 | 0.3528 | 0.6093 | -0.5371 | -0.0457 | -0.2546 | 0.0850 | 0.4741 |
| 16 | 15.60 | 0.01 | 0.0312 | 0.0071 | 0.0254 | 0.2277 | 0.6139 | -0.4602 | -0.0431 | -0.2250 | 0.0936 | 0.4886 |
| 17 | 17.49 | 0.01 | 0.0415 | 0.0055 | 0.0335 | 0.1313 | 0.6093 | -0.3627 | -0.0409 | -0.1835 | 0.1126 | 0.5058 |
| 18 | 19.33 | 0.01 | 0.0651 | 0.0029 | 0.0543 | 0.0446 | 0.6350 | -0.2465 | -0.0337 | -0.1291 | 0.1392 | 0.5324 |
| 19 | 21.21 | -0.00 | 0.0694 | -0.0001 | 0.0651 | -0.0014 | 0.9381 | -0.1449 | -0.0214 | -0.0847 | 0.1675 | 0.5847 |
| 20 | 23.05 | -0.01 | 0.0497 | -0.0047 | 0.0613 | -0.0946 | 1.2313 | -0.0558 | -0.0028 | -0.0453 | 0.0503 | 0.8123 |
| 21 | 24.59 | 0.01 | 0.0361 | 0.0020 | 0.0275 | 0.0554 | 0.7614 | 0.0519 | 0.0253 | -0.0012 | 0.5648 | -0.0232 |
| 22 | 26.86 | 0.03 | 0.1214 | 0.0142 | 0.0678 | 0.1171 | 0.5583 | 0.1439 | 0.0522 | 0.0337 | 0.3625 | 0.2344 |
| 23 | 28.18 | 0.04 | 0.2474 | 0.0332 | 0.1152 | 0.1344 | 0.4655 | 0.2056 | 0.0605 | 0.0613 | 0.2962 | 0.2979 |
| 24 | 26.16 | 0.04 | 0.1862 | 0.0227 | 0.0877 | 0.1241 | 0.4706 | 0.1901 | 0.0620 | 0.0567 | 0.3130 | 0.2864 |
| 25 | 28.21 | 0.04 | 0.2820 | 0.0367 | 0.1278 | 0.1366 | 0.4517 | 0.2292 | 0.0641 | 0.0702 | 0.2796 | 0.3062 |
| 26 | 28.61 | 0.05 | 0.2659 | 0.0376 | 0.1226 | 0.1371 | 0.4550 | 0.2457 | 0.0662 | 0.0775 | 0.2775 | 0.3155 |
| 27 | 28.87 | 0.05 | 0.3407 | 0.0483 | 0.1483 | 0.1358 | 0.4353 | 0.2717 | 0.0695 | 0.0882 | 0.2558 | 0.3244 |
| 28 | 29.16 | 0.04 | 0.3159 | 0.0415 | 0.1486 | 0.1312 | 0.4711 | 0.2677 | 0.0736 | 0.0878 | 0.2749 | 0.3278 |
| 29 | 29.49 | 0.07 | 0.3623 | 0.0453 | 0.1665 | 0.1249 | 0.4606 | 0.2757 | 0.0746 | 0.0897 | 0.2707 | 0.3253 |
| 30 | 29.78 | 0.06 | 0.3365 | 0.0446 | 0.1696 | 0.1233 | 0.4746 | 0.2890 | 0.0766 | 0.0963 | 0.2651 | 0.3332 |
| 31 | 30.05 | 0.06 | 0.3218 | 0.0414 | 0.1585 | 0.1247 | 0.4788 | 0.3003 | 0.0798 | 0.1026 | 0.2658 | 0.3418 |
| 32 | 30.34 | 0.07 | 0.3890 | 0.0455 | 0.1780 | 0.1175 | 0.4577 | 0.3134 | 0.0838 | 0.1079 | 0.2579 | 0.3444 |
| 33 | 30.61 | 0.06 | 0.3744 | 0.0444 | 0.1775 | 0.1185 | 0.4752 | 0.3223 | 0.0822 | 0.1131 | 0.2551 | 0.3508 |
| 34 | 30.89 | 0.06 | 0.4016 | 0.0466 | 0.1877 | 0.1155 | 0.4671 | 0.3325 | 0.0839 | 0.1154 | 0.2524 | 0.3591 |
| 35 | 31.16 | 0.07 | 0.4157 | 0.0475 | 0.1911 | 0.1152 | 0.4597 | 0.3429 | 0.0856 | 0.1221 | 0.2497 | 0.3561 |
| 36 | 31.44 | 0.08 | 0.3954 | 0.0452 | 0.1881 | 0.1131 | 0.4709 | 0.3441 | 0.0868 | 0.1226 | 0.2523 | 0.3563 |
| 37 | 31.71 | 0.06 | 0.4046 | 0.0467 | 0.1890 | 0.1154 | 0.4671 | 0.3487 | 0.0872 | 0.1259 | 0.2501 | 0.3595 |
| 38 | 31.97 | 0.08 | 0.3886 | 0.0442 | 0.1835 | 0.1137 | 0.4732 | 0.3642 | 0.0882 | 0.1334 | 0.2422 | 0.3664 |
| 39 | 32.25 | 0.07 | 0.3750 | 0.0458 | 0.1754 | 0.1207 | 0.4628 | 0.3955 | 0.0896 | 0.1479 | 0.2266 | 0.3746 |
| 40 | 32.52 | 0.05 | 0.3422 | 0.0465 | 0.1656 | 0.1194 | 0.4638 | 0.3888 | 0.0912 | 0.1455 | 0.2347 | 0.3743 |
| 41 | 32.78 | 0.07 | 0.3164 | 0.0386 | 0.1545 | 0.1219 | 0.4884 | 0.4055 | 0.0920 | 0.1559 | 0.2270 | 0.3846 |
| 42 | 33.04 | 0.07 | 0.3688 | 0.0446 | 0.1656 | 0.1192 | 0.4489 | 0.4401 | 0.0916 | 0.1737 | 0.2054 | 0.3894 |
| 43 | 33.29 | 0.07 | 0.3648 | 0.0473 | 0.1657 | 0.1228 | 0.4409 | 0.4818 | 0.0903 | 0.1818 | 0.1958 | 0.3933 |
| 44 | 33.53 | 0.07 | 0.3772 | 0.0485 | 0.1578 | 0.1285 | 0.4164 | 0.4933 | 0.0902 | 0.1936 | 0.1829 | 0.3924 |
| 45 | 33.80 | 0.07 | 0.3822 | 0.0458 | 0.1576 | 0.1279 | 0.4113 | 0.4882 | 0.0890 | 0.1915 | 0.1823 | 0.3922 |
| 46 | 34.05 | 0.06 | 0.3263 | 0.0450 | 0.1325 | 0.1395 | 0.4125 | 0.4976 | 0.0880 | 0.1945 | 0.1769 | 0.3909 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 2 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 115 MACH 0.90 RNIC-6 1.7 PHI 0.0 CONF 13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.29 | 0.07 | 0.3458 | 0.0471 | 0.1453 | 0.1345 | 0.4153 | 0.5051 | 0.0878 | 0.1965 | 0.1739 | 0.3899 |
| 48 | 34.54 | 0.06 | 0.3156 | 0.0435 | 0.1384 | 0.1380 | 0.4329 | 0.5000 | 0.0876 | 0.1952 | 0.1730 | 0.3853 |
| 49 | 34.80 | 0.04 | 0.2865 | 0.0364 | 0.1164 | 0.1300 | 0.4215 | 0.5091 | 0.0872 | 0.1982 | 0.1713 | 0.3894 |
| 50 | 35.05 | 0.02 | 0.2447 | 0.0328 | 0.1040 | 0.1342 | 0.4275 | 0.5290 | 0.0861 | 0.2045 | 0.1628 | 0.3867 |
| 51 | 35.28 | 0.03 | 0.1972 | 0.0266 | 0.0752 | 0.1422 | 0.4016 | 0.5357 | 0.0856 | 0.2063 | 0.1598 | 0.3852 |
| 52 | 35.51 | 0.01 | 0.1636 | 0.0223 | 0.0556 | 0.1366 | 0.3888 | 0.5237 | 0.0865 | 0.2025 | 0.1652 | 0.3873 |
| 53 | 35.76 | 0.02 | 0.2451 | 0.0306 | 0.1026 | 0.1250 | 0.4195 | 0.5370 | 0.0856 | 0.2060 | 0.1595 | 0.3837 |
| 54 | 36.00 | 0.01 | 0.0214 | 0.0065 | -0.0135 | 0.3574 | -0.0469 | 0.5290 | 0.0863 | 0.2045 | 0.1632 | 0.3867 |
| 55 | 36.21 | 0.01 | 0.0226 | 0.0065 | -0.0134 | 0.3765 | -0.5904 | 0.5329 | 0.0861 | 0.2072 | 0.1616 | 0.3889 |
| 56 | 36.47 | -0.01 | -0.1261 | -0.0076 | -0.0004 | 0.0615 | 0.7006 | 0.5197 | 0.0853 | 0.2040 | 0.1642 | 0.3926 |
| 57 | 36.70 | 0.02 | -0.0562 | -0.0015 | -0.0416 | 0.0327 | 0.7148 | 0.5144 | 0.0854 | 0.2026 | 0.1661 | 0.3939 |
| 58 | 36.94 | -0.02 | -0.1261 | -0.0065 | -0.0681 | 0.0707 | 0.6983 | 0.5263 | 0.0844 | 0.2079 | 0.1604 | 0.3949 |
| 59 | 37.18 | 0.00 | -0.1636 | -0.0116 | -0.1105 | 0.0712 | 0.6774 | 0.5361 | 0.0831 | 0.2121 | 0.1550 | 0.3958 |
| 60 | 37.41 | -0.01 | -0.1966 | -0.0155 | -0.0543 | 0.0676 | 0.6430 | 0.5415 | 0.0822 | 0.2127 | 0.1518 | 0.3927 |
| 61 | 37.64 | -0.02 | -0.1107 | -0.0074 | -0.0781 | 0.0665 | 0.7057 | 0.5414 | 0.0820 | 0.2146 | 0.1515 | 0.3967 |
| 62 | 37.86 | 0.00 | -0.0303 | -0.0015 | -0.0268 | 0.0627 | 0.8840 | 0.5303 | 0.0820 | 0.2117 | 0.1529 | 0.3947 |
| 63 | 38.11 | -0.00 | 0.0122 | 0.0020 | -0.0076 | 0.1640 | -0.6249 | 0.5494 | 0.0811 | 0.2170 | 0.1476 | 0.3950 |
| 64 | 38.35 | 0.02 | 0.1008 | 0.0050 | 0.0454 | 0.0694 | 0.4503 | 0.5481 | 0.0815 | 0.2162 | 0.1487 | 0.3944 |
| 65 | 38.59 | -0.01 | 0.0565 | 0.0042 | 0.0265 | 0.0722 | 0.4551 | 0.5402 | 0.0816 | 0.2144 | 0.1511 | 0.3965 |
| 66 | 38.81 | -0.01 | -0.0396 | -0.0046 | -0.0335 | 0.1150 | 0.8419 | 0.5626 | 0.0802 | 0.2225 | 0.1426 | 0.3962 |
| 67 | 39.04 | 0.02 | 0.0151 | 0.0022 | -0.0045 | 0.0105 | -0.2369 | 0.5632 | 0.0800 | 0.2245 | 0.1416 | 0.3972 |
| 68 | 39.28 | -0.00 | -0.0693 | -0.0106 | -0.0501 | 0.1245 | 0.8582 | 0.5664 | 0.0797 | 0.2267 | 0.1407 | 0.4003 |
| 69 | 39.49 | 0.01 | 0.0040 | -0.0006 | -0.0016 | -0.1501 | -0.4514 | 0.5599 | 0.0806 | 0.2228 | 0.1440 | 0.3979 |
| 70 | 39.71 | 0.00 | -0.0301 | -0.0055 | -0.0198 | 0.1901 | 0.8268 | 0.5624 | 0.0804 | 0.2250 | 0.1430 | 0.4001 |
| 71 | 39.94 | -0.03 | -0.0557 | -0.0057 | -0.0554 | 0.1577 | 0.5560 | 0.5623 | 0.0805 | 0.2261 | 0.1435 | 0.4021 |
| 72 | 40.14 | -0.01 | -0.0862 | -0.0105 | -0.0441 | 0.1382 | 0.5498 | 0.5745 | 0.0789 | 0.2281 | 0.1374 | 0.3971 |
| 73 | 40.35 | -0.03 | -0.1050 | -0.0141 | -0.0536 | 0.1345 | 0.5107 | 0.5756 | 0.0792 | 0.2310 | 0.1376 | 0.4014 |
| 74 | 40.54 | -0.01 | -0.0944 | -0.0135 | -0.0453 | 0.1432 | 0.4798 | 0.5745 | 0.0791 | 0.2281 | 0.1377 | 0.3971 |
| 75 | 40.75 | -0.03 | -0.1469 | -0.0216 | -0.0813 | 0.1472 | 0.5535 | 0.5995 | 0.0767 | 0.2398 | 0.1279 | 0.3955 |
| 76 | 40.96 | -0.03 | -0.0965 | -0.0137 | -0.0494 | 0.1395 | 0.5016 | 0.5903 | 0.0773 | 0.2354 | 0.1310 | 0.3987 |
| 77 | 41.17 | -0.02 | -0.1438 | -0.0204 | -0.0785 | 0.1420 | 0.5487 | 0.6116 | 0.0754 | 0.2435 | 0.1233 | 0.3988 |
| 78 | 41.39 | -0.01 | -0.1316 | -0.0171 | -0.0672 | 0.1361 | 0.5104 | 0.6051 | 0.0757 | 0.2404 | 0.1251 | 0.3973 |
| 79 | 41.60 | -0.01 | -0.1136 | -0.0155 | -0.0658 | 0.1402 | 0.5789 | 0.6343 | 0.0722 | 0.2517 | 0.1138 | 0.3965 |
| 80 | 41.81 | -0.04 | -0.1616 | -0.0181 | -0.0713 | 0.1498 | 0.5091 | 0.6474 | 0.0716 | 0.2576 | 0.1106 | 0.3981 |
| 81 | 42.02 | -0.02 | -0.1485 | -0.0154 | -0.0711 | 0.1326 | 0.4852 | 0.6223 | 0.0741 | 0.2473 | 0.1191 | 0.3974 |
| 82 | 42.22 | -0.02 | -0.0731 | -0.0111 | -0.0506 | 0.1521 | 0.7008 | 0.6006 | 0.0711 | 0.2621 | 0.1076 | 0.3967 |
| 83 | 42.44 | -0.02 | -0.1112 | -0.0132 | -0.0602 | 0.1169 | 0.5418 | 0.6366 | 0.0734 | 0.2530 | 0.1153 | 0.3974 |
| 84 | 42.61 | -0.02 | -0.0474 | -0.0085 | -0.0384 | 0.1372 | 0.8085 | 0.6592 | 0.0716 | 0.2616 | 0.1089 | 0.3968 |
| 85 | 42.79 | -0.01 | -0.0512 | -0.0071 | -0.0373 | 0.1387 | 0.7269 | 0.6659 | 0.0708 | 0.2641 | 0.1063 | 0.3966 |
| 86 | 42.97 | -0.02 | -0.0665 | -0.0021 | -0.0348 | 0.3049 | 5.0451 | 0.6952 | 0.0677 | 0.2730 | 0.0974 | 0.3927 |
| 87 | 43.15 | -0.02 | -0.0724 | -0.0105 | -0.0540 | 0.1508 | 0.7465 | 0.6961 | 0.0685 | 0.2741 | 0.0984 | 0.3938 |
| 88 | 43.32 | -0.01 | -0.1073 | -0.0144 | -0.0688 | 0.1344 | 0.6410 | 0.6935 | 0.0684 | 0.2726 | 0.0986 | 0.3931 |
| 89 | 43.51 | -0.02 | -0.1068 | -0.0161 | -0.0720 | 0.1513 | 0.6756 | 0.7016 | 0.0677 | 0.2734 | 0.0965 | 0.3897 |
| 90 | 43.69 | -0.02 | -0.0757 | -0.0095 | -0.0614 | 0.1244 | 0.7700 | 0.7000 | 0.0688 | 0.2754 | 0.0983 | 0.3934 |
| 91 | 43.88 | -0.01 | -0.0731 | -0.0095 | -0.0506 | 0.1357 | 0.6954 | 0.6948 | 0.0698 | 0.2713 | 0.1005 | 0.3905 |
| 92 | 44.04 | -0.02 | -0.1065 | -0.0140 | -0.0732 | 0.1316 | 0.6873 | 0.7095 | 0.0670 | 0.2770 | 0.0944 | 0.3904 |

MANTIA MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNID-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 115 | 0.90 | 1.7 | 0.0 | 81.0F1a | 6.6 | 0 | -30 | 0 | -30 | UNKNOWN |

| PLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.23 | 0.01 | -0.0743 | -0.0091 | -0.0052 | 0.1227 | 0.8775 | 0.7267 | 0.0659 | 0.2811 | 0.0907 | 0.3868 |
| 94 | 44.46 | -0.00 | 0.0056 | 0.0018 | -0.0131 | 0.1d7a | -1.9585 | 0.7147 | 0.0548 | 0.2751 | 0.0766 | 0.3849 |
| 95 | 44.62 | -0.01 | -0.0324 | -0.0043 | -0.0542 | 0.1320 | 1.6017 | 0.7297 | 0.0517 | 0.2784 | 0.0708 | 0.3816 |
| 96 | 44.81 | 0.01 | -0.1062 | -0.0140 | -0.0757 | 0.1396 | 0.7169 | 0.7202 | 0.0541 | 0.2758 | 0.0751 | 0.3830 |
| 97 | 44.99 | 0.00 | -0.1610 | -0.0215 | -0.0940 | 0.1362 | 0.5036 | 0.7002 | 0.0549 | 0.2705 | 0.0784 | 0.3863 |
| 98 | 45.17 | -0.00 | 0.0023 | 0.0013 | -0.0330 | 0.0053 | -14.3301 | 0.7307 | 0.0526 | 0.2650 | 0.0712 | 0.3856 |
| 99 | 45.35 | -0.02 | -0.0474 | -0.0044 | -0.0357 | 0.0525 | 0.8360 | 0.7227 | 0.0544 | 0.2787 | 0.0752 | 0.3857 |
| 100 | 45.53 | -0.03 | -0.1364 | -0.0160 | -0.0625 | 0.1321 | 0.6080 | 0.7121 | 0.0551 | 0.2736 | 0.0773 | 0.3842 |
| 101 | 45.73 | -0.02 | 0.0052 | 0.0043 | -0.0372 | 0.8274 | -7.1381 | 0.7468 | 0.0516 | 0.2861 | 0.0691 | 0.3831 |
| 102 | 45.89 | -0.02 | -0.0091 | -0.0006 | -0.0542 | 0.1001 | 0.7851 | 0.7211 | 0.0504 | 0.2794 | 0.0782 | 0.3875 |
| 103 | 46.07 | -0.02 | 0.0155 | 0.0050 | -0.0201 | 0.3228 | -1.2944 | 0.7593 | 0.0669 | 0.2961 | 0.0681 | 0.3928 |
| 104 | 46.24 | -0.01 | -0.0335 | -0.0035 | -0.0461 | 0.1151 | 1.1806 | 0.7673 | 0.0664 | 0.3000 | 0.0865 | 0.3910 |
| 105 | 46.42 | -0.03 | -0.0806 | -0.0091 | -0.0631 | 0.1131 | 0.7826 | 0.7627 | 0.0625 | 0.2942 | 0.0819 | 0.3857 |
| 106 | 46.59 | -0.01 | -0.0048 | 0.0020 | -0.0351 | -0.5420 | 7.3150 | 0.7685 | 0.0664 | 0.2998 | 0.0864 | 0.3895 |
| 107 | 46.78 | -0.01 | -0.0158 | 0.0023 | -0.0405 | -0.1174 | 2.0781 | 0.7706 | 0.0662 | 0.3029 | 0.0853 | 0.3902 |
| 108 | 46.94 | 0.00 | -0.0720 | -0.0076 | -0.0574 | 0.1056 | 0.8051 | 0.7685 | 0.0669 | 0.2969 | 0.0870 | 0.3890 |
| 109 | 47.13 | 0.00 | -0.2637 | -0.0352 | -0.1255 | 0.1333 | 0.4759 | 0.7275 | 0.0596 | 0.2787 | 0.0815 | 0.3832 |
| 110 | 47.29 | 0.01 | -0.1317 | -0.0156 | -0.0813 | 0.1186 | 0.6175 | 0.7554 | 0.0560 | 0.2901 | 0.0741 | 0.3840 |
| 111 | 47.48 | -0.01 | -0.1284 | -0.0166 | -0.0817 | 0.1233 | 0.5991 | 0.7675 | 0.0645 | 0.2973 | 0.0840 | 0.3874 |
| 112 | 47.64 | -0.01 | -0.0950 | -0.0123 | -0.0654 | 0.1266 | 0.6824 | 0.7635 | 0.0535 | 0.2933 | 0.0700 | 0.3842 |
| 113 | 47.82 | 0.01 | -0.1447 | -0.0152 | -0.0858 | 0.1329 | 0.5571 | 0.7627 | 0.0665 | 0.2944 | 0.0793 | 0.3866 |
| 114 | 48.01 | -0.02 | -0.1178 | -0.0155 | -0.0765 | 0.1318 | 0.5960 | 0.7723 | 0.0664 | 0.3007 | 0.0860 | 0.3894 |
| 115 | 48.18 | 0.04 | -0.1578 | -0.0211 | -0.0838 | 0.1340 | 0.5319 | 0.7618 | 0.0550 | 0.2935 | 0.0722 | 0.3858 |
| 116 | 48.36 | 0.00 | -0.1976 | -0.0281 | -0.1008 | 0.1424 | 0.5102 | 0.7593 | 0.0543 | 0.2923 | 0.0715 | 0.3850 |
| 117 | 48.54 | 0.00 | -0.1082 | -0.0131 | -0.0835 | 0.1271 | 0.6150 | 0.7673 | 0.0527 | 0.2958 | 0.0687 | 0.3855 |
| 118 | 48.68 | 0.01 | -0.1667 | -0.0226 | -0.0978 | 0.1354 | 0.5204 | 0.7618 | 0.0548 | 0.2949 | 0.0719 | 0.3871 |
| 119 | 48.88 | 0.01 | -0.1813 | -0.0265 | -0.0960 | 0.1409 | 0.5296 | 0.7843 | 0.0523 | 0.3037 | 0.0667 | 0.3873 |
| 120 | 49.05 | 0.01 | -0.1970 | -0.0343 | -0.1015 | 0.1744 | 0.5194 | 0.7963 | 0.0494 | 0.3072 | 0.0620 | 0.3857 |
| 121 | 49.21 | 0.00 | -0.1743 | -0.0328 | -0.0933 | 0.1885 | 0.5353 | 0.7912 | 0.0485 | 0.3043 | 0.0613 | 0.3847 |
| 122 | 49.39 | 0.01 | -0.1761 | -0.0221 | -0.1006 | 0.1257 | 0.5715 | 0.7967 | 0.0467 | 0.3054 | 0.0586 | 0.3833 |
| 123 | 49.56 | 0.03 | -0.1257 | -0.0258 | -0.0688 | 0.2136 | 0.4923 | 0.7858 | 0.0502 | 0.3019 | 0.0638 | 0.3842 |
| 124 | 49.75 | 0.02 | -0.1404 | -0.0217 | -0.0786 | 0.1404 | 0.5297 | 0.7938 | 0.0471 | 0.3059 | 0.0593 | 0.3853 |
| 125 | 49.97 | 0.06 | -0.0557 | -0.0247 | -0.0378 | 0.2481 | 0.3787 | 0.7829 | 0.0506 | 0.3025 | 0.0646 | 0.3864 |
| 126 | 50.14 | 0.04 | -0.1224 | -0.0340 | -0.0645 | 0.2618 | 0.5135 | 0.7988 | 0.0486 | 0.3075 | 0.0611 | 0.3849 |
| 127 | 50.31 | 0.02 | -0.0686 | -0.0225 | -0.0486 | 0.3345 | 0.7118 | 0.7928 | 0.0436 | 0.3045 | 0.0549 | 0.3841 |
| 128 | 50.48 | 0.05 | -0.0556 | -0.0265 | -0.0529 | 0.3682 | 0.9492 | 0.8220 | 0.0430 | 0.3145 | 0.0486 | 0.3828 |
| 129 | 50.65 | 0.05 | -0.0196 | -0.0173 | -0.0347 | 1.1096 | 2.2250 | 0.8144 | 0.0378 | 0.3099 | 0.0484 | 0.3805 |
| 130 | 50.81 | 0.07 | -0.0247 | -0.0178 | -0.0376 | 0.7210 | 1.5271 | 0.8300 | 0.0384 | 0.3170 | 0.0462 | 0.3819 |
| 131 | 51.00 | 0.07 | -0.0177 | -0.0161 | -0.0270 | -0.5709 | -1.5240 | 0.8275 | 0.0379 | 0.3158 | 0.0457 | 0.3816 |
| 132 | 51.18 | 0.05 | 0.0004 | -0.0126 | -0.0367 | -2.0811 | -4.7965 | 0.8366 | 0.0382 | 0.3182 | 0.0432 | 0.3803 |
| 133 | 51.33 | 0.08 | -0.0034 | -0.0148 | -0.0356 | 4.3533 | 10.4746 | 0.8407 | 0.0356 | 0.3195 | 0.0423 | 0.3801 |
| 134 | 51.54 | 0.03 | -0.0141 | -0.0152 | -0.0443 | 0.5307 | 1.1377 | 0.8484 | 0.0369 | 0.3228 | 0.0434 | 0.3805 |
| 135 | 51.69 | 0.07 | -0.0385 | -0.0130 | -0.0542 | 0.3344 | 1.3928 | 0.8431 | 0.0370 | 0.3196 | 0.0438 | 0.3791 |
| 136 | 51.85 | 0.04 | -0.0447 | -0.0156 | -0.0546 | 0.3537 | 1.2254 | 0.8509 | 0.0364 | 0.3236 | 0.0427 | 0.3803 |
| 137 | 52.06 | 0.05 | -0.0068 | -0.0048 | -0.0472 | 0.7063 | 6.9339 | 0.8377 | 0.0375 | 0.3168 | 0.0447 | 0.3782 |
| 138 | 52.22 | 0.08 | -0.0262 | -0.0076 | -0.0525 | 0.2902 | 2.0026 | 0.8260 | 0.0363 | 0.3118 | 0.0439 | 0.3775 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 115 MACH 0.60 RATIO-0 1.7 PHI 0.0 CONF 81B0F13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -90 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.38 | 0.06 | -0.0173 | -0.0036 | -0.0495 | 0.2082 | 2.8586 | 0.8194 | 0.0360 | 0.3094 | 0.0446 | 0.3775 |
| 140 | 52.56 | 0.12 | -0.0127 | -0.0063 | -0.0214 | -0.4563 | -1.0007 | 0.8243 | 0.0384 | 0.3108 | 0.0465 | 0.3770 |
| 141 | 52.73 | 0.06 | -0.0005 | -0.0041 | -0.0291 | 8.2044 | 58.1856 | 0.8190 | 0.0378 | 0.3097 | 0.0461 | 0.3781 |
| 142 | 52.91 | 0.11 | -0.0068 | -0.0036 | -0.0345 | 0.5297 | 5.0455 | 0.8114 | 0.0368 | 0.3046 | 0.0453 | 0.3754 |
| 143 | 53.06 | 0.10 | -0.0198 | -0.0058 | -0.0353 | 0.2527 | 1.7835 | 0.8087 | 0.0367 | 0.3050 | 0.0453 | 0.3747 |
| 144 | 53.23 | 0.05 | -0.0165 | -0.0046 | -0.0496 | 0.3202 | 2.3075 | 0.8218 | 0.0382 | 0.3104 | 0.0440 | 0.3777 |
| 145 | 53.40 | 0.11 | -0.0078 | -0.0062 | -0.0361 | 0.0257 | 3.8456 | 0.8230 | 0.0356 | 0.3087 | 0.0434 | 0.3750 |
| 146 | 53.56 | 0.10 | -0.0196 | -0.0062 | -0.0313 | 0.1919 | 2.1438 | 0.8230 | 0.0357 | 0.3090 | 0.0433 | 0.3754 |
| 147 | 53.73 | 0.08 | -0.0313 | -0.0069 | -0.0375 | 0.1375 | 1.2404 | 0.8100 | 0.0355 | 0.3027 | 0.0438 | 0.3737 |
| 148 | 53.88 | 0.09 | -0.0154 | -0.0054 | -0.0319 | 0.0762 | 1.6444 | 0.8257 | 0.0354 | 0.3086 | 0.0428 | 0.3740 |
| 149 | 54.04 | 0.09 | -0.0389 | -0.0043 | -0.0362 | 0.1106 | 0.9310 | 0.8176 | 0.0364 | 0.3063 | 0.0445 | 0.3746 |
| 150 | 54.19 | 0.06 | -0.0045 | -0.0060 | -0.0213 | 0.1334 | 4.7262 | 0.8270 | 0.0355 | 0.3092 | 0.0429 | 0.3739 |
| 151 | 54.36 | 0.07 | 0.0021 | -0.0026 | -0.0185 | 0.9529 | -8.9810 | 0.8176 | 0.0355 | 0.3055 | 0.0434 | 0.3736 |
| 152 | 54.53 | 0.07 | -0.0070 | -0.0042 | -0.0218 | -0.2480 | 3.0526 | 0.8359 | 0.0354 | 0.3124 | 0.0423 | 0.3737 |
| 153 | 54.68 | 0.07 | -0.0134 | -0.0016 | -0.0265 | -0.1195 | 1.9764 | 0.8307 | 0.0354 | 0.3100 | 0.0426 | 0.3732 |
| 154 | 54.83 | 0.06 | -0.0038 | -0.0037 | -0.0196 | 0.9742 | -2.3786 | 0.8148 | 0.0360 | 0.3034 | 0.0441 | 0.3724 |
| 155 | 54.97 | 0.07 | -0.0019 | -0.0045 | -0.0123 | 2.3697 | -6.4416 | 0.8331 | 0.0360 | 0.3106 | 0.0432 | 0.3731 |
| 156 | 55.14 | 0.08 | -0.0216 | -0.0065 | -0.0007 | 0.4240 | 0.0334 | 0.8278 | 0.0362 | 0.3095 | 0.0437 | 0.3739 |
| 157 | 55.31 | 0.05 | -0.0154 | -0.0075 | -0.0014 | 0.5153 | -0.0912 | 0.8265 | 0.0361 | 0.3076 | 0.0436 | 0.3721 |
| 158 | 55.44 | 0.09 | -0.0196 | -0.0075 | -0.0015 | 0.4053 | 0.0972 | 0.8318 | 0.0360 | 0.3086 | 0.0432 | 0.3713 |
| 159 | 55.59 | 0.06 | -0.0050 | -0.0077 | -0.0039 | 1.5408 | -3.7825 | 0.8381 | 0.0358 | 0.3131 | 0.0427 | 0.3736 |
| 160 | 55.73 | 0.07 | -0.0206 | -0.0105 | -0.0118 | 0.3541 | 0.3843 | 0.8290 | 0.0357 | 0.3077 | 0.0430 | 0.3711 |
| 161 | 55.90 | 0.03 | -0.0183 | -0.0111 | -0.0078 | 0.6069 | 0.4276 | 0.8211 | 0.0361 | 0.3044 | 0.0439 | 0.3708 |
| 162 | 56.06 | 0.01 | -0.0165 | -0.0106 | -0.0115 | 1.0101 | 1.0796 | 0.8133 | 0.0364 | 0.3025 | 0.0447 | 0.3720 |
| 163 | 56.19 | 0.06 | -0.0173 | -0.0116 | -0.0047 | -0.6709 | -0.2725 | 0.8001 | 0.0383 | 0.2970 | 0.0478 | 0.3712 |
| 164 | 56.35 | 0.05 | -0.0163 | -0.0117 | -0.0059 | -1.1365 | -0.5746 | 0.8042 | 0.0380 | 0.2996 | 0.0469 | 0.3703 |
| 165 | 56.52 | 0.03 | -0.0358 | -0.0094 | -0.0012 | -0.2627 | -0.0336 | 0.8000 | 0.0377 | 0.2973 | 0.0471 | 0.3716 |
| 166 | 56.66 | 0.04 | -0.0213 | -0.0112 | -0.0078 | -0.5201 | -0.3344 | 0.7988 | 0.0375 | 0.2966 | 0.0469 | 0.3713 |
| 167 | 56.82 | 0.03 | -0.0138 | -0.0111 | -0.0125 | -0.8048 | -0.9014 | 0.8064 | 0.0376 | 0.3011 | 0.0466 | 0.3734 |
| 168 | 56.97 | 0.04 | -0.0251 | -0.0102 | -0.0105 | -0.4100 | -0.3397 | 0.8025 | 0.0381 | 0.2992 | 0.0474 | 0.3729 |
| 169 | 57.13 | 0.02 | -0.0306 | -0.0053 | -0.0063 | -0.3041 | -0.2065 | 0.8078 | 0.0385 | 0.3011 | 0.0451 | 0.3728 |
| 170 | 57.28 | 0.02 | -0.0496 | -0.0056 | -0.0101 | -0.2274 | -0.2272 | 0.8102 | 0.0372 | 0.3024 | 0.0459 | 0.3733 |
| 171 | 57.45 | 0.02 | -0.0425 | -0.0056 | -0.0071 | -0.2095 | -0.1660 | 0.8141 | 0.0367 | 0.3046 | 0.0450 | 0.3742 |
| 172 | 57.58 | 0.00 | -0.0482 | -0.0051 | -0.0102 | -0.1869 | -0.2123 | 0.8057 | 0.0373 | 0.2996 | 0.0464 | 0.3728 |
| 173 | 57.71 | -0.04 | -0.0464 | -0.0078 | -0.0114 | -0.1612 | -0.2363 | 0.8063 | 0.0361 | 0.3000 | 0.0447 | 0.3721 |
| 174 | 57.88 | -0.02 | -0.0474 | -0.0051 | -0.0127 | -0.1353 | -0.0402 | 0.8101 | 0.0367 | 0.3127 | 0.0436 | 0.3722 |
| 175 | 58.00 | -0.10 | -0.0340 | -0.0068 | -0.0115 | -0.2531 | -0.3393 | 0.8532 | 0.0343 | 0.3204 | 0.0403 | 0.3756 |
| 176 | 58.15 | -0.05 | -0.0330 | -0.0046 | -0.0051 | -0.0925 | -0.0905 | 0.8403 | 0.0343 | 0.3137 | 0.0409 | 0.3733 |
| 177 | 58.30 | -0.12 | -0.0332 | -0.0042 | -0.0158 | -0.1266 | -0.6744 | 0.8220 | 0.0341 | 0.3075 | 0.0415 | 0.3740 |
| 178 | 58.44 | -0.07 | -0.0425 | -0.0037 | -0.0130 | -0.0851 | -0.2975 | 0.8291 | 0.0343 | 0.3124 | 0.0411 | 0.3741 |
| 179 | 58.47 | -0.07 | -0.0602 | -0.0057 | -0.0040 | -0.0545 | -0.0668 | 0.8436 | 0.0336 | 0.3141 | 0.0398 | 0.3737 |
| 180 | 58.47 | -0.09 | -0.0696 | -0.0056 | -0.0033 | -0.0697 | -0.0475 | 0.8390 | 0.0338 | 0.3123 | 0.0403 | 0.3722 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 115 | MACH 0.90 | RXIO-6 1.7 | PHI C.0 | CONF 8 1&0F13 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | 0.0261 | 9.9999 | 0.0132 | 9.9999 | 0.5035 | -0.8672 | -0.0186 | -0.3693 | 0.0215 | 0.4259 |
| 2 | -5.75 | 0.02 | 0.0154 | 9.9999 | 0.0084 | 9.9999 | 0.5472 | -0.8653 | -0.0183 | -0.3683 | 0.0212 | 0.4266 |
| 3 | -5.74 | 0.02 | 0.0141 | 9.9999 | 0.0087 | 9.9999 | 0.6190 | -0.8646 | -0.0186 | -0.3679 | 0.0215 | 0.4255 |
| 4 | -5.65 | 0.01 | 0.0063 | 9.9999 | 0.0072 | 9.9999 | 0.7767 | -0.8562 | -0.0190 | -0.3635 | 0.0222 | 0.4245 |
| 5 | -4.13 | 0.02 | 0.0128 | 9.9999 | 0.0095 | 9.9999 | 0.7755 | -0.8226 | -0.0199 | -0.3507 | 0.0242 | 0.4262 |
| 6 | -2.38 | 0.02 | 0.0062 | 9.9999 | 0.0100 | 9.9999 | 0.5179 | -0.7857 | -0.0211 | -0.3324 | 0.0270 | 0.4241 |
| 7 | -0.58 | 0.01 | 0.0130 | 9.9999 | 0.0080 | 9.9999 | 0.6174 | -0.8120 | -0.0191 | -0.3444 | 0.0236 | 0.4241 |
| 8 | 1.21 | 0.01 | -0.0025 | 9.9999 | 0.0059 | 9.9999 | -2.0410 | -0.9058 | -0.0222 | -0.3786 | 0.0245 | 0.4179 |
| 9 | 3.07 | 0.01 | -0.0174 | 9.9999 | 0.0132 | 9.9999 | -0.1845 | -0.9045 | -0.0252 | -0.3749 | 0.0279 | 0.4145 |
| 10 | 4.78 | 0.02 | -0.0127 | 9.9999 | 0.0154 | 9.9999 | -0.4200 | -0.8525 | -0.0321 | -0.3530 | 0.0377 | 0.4141 |
| 11 | 6.60 | 0.01 | -0.0152 | 9.9999 | 0.0165 | 9.9999 | -0.4290 | -0.8080 | -0.0405 | -0.3333 | 0.0501 | 0.4124 |
| 12 | 8.37 | 0.02 | -0.0175 | 9.9999 | 0.0142 | 9.9999 | -0.2406 | -0.7051 | -0.0480 | -0.3107 | 0.0585 | 0.4034 |
| 13 | 10.14 | 0.01 | -0.0188 | 9.9999 | 0.0154 | 9.9999 | -0.2882 | -0.7392 | -0.0493 | -0.3131 | 0.0667 | 0.4236 |
| 14 | 11.96 | 0.01 | -0.0185 | 9.9999 | 0.0163 | 9.9999 | -0.3344 | -0.6518 | -0.0520 | -0.2851 | 0.0797 | 0.4374 |
| 15 | 13.74 | 0.01 | -0.0156 | 9.9999 | 0.0146 | 9.9999 | -0.2675 | -0.5629 | -0.0519 | -0.2509 | 0.0890 | 0.4305 |
| 16 | 15.60 | 0.01 | -0.0003 | 9.9999 | 0.0144 | 9.9999 | -14.7136 | -0.4880 | -0.0519 | -0.2125 | 0.1063 | 0.4354 |
| 17 | 17.49 | 0.01 | -0.0014 | 9.9999 | 0.0131 | 9.9999 | -2.2214 | -0.3556 | -0.0497 | -0.1602 | 0.1357 | 0.4504 |
| 18 | 19.33 | 0.01 | -0.0243 | 9.9999 | -0.0036 | 9.9999 | 0.1569 | -0.2188 | -0.0366 | -0.0991 | 0.1671 | 0.4530 |
| 19 | 21.21 | -0.00 | -0.0325 | 9.9999 | -0.0051 | 9.9999 | 0.1402 | -0.1068 | -0.0200 | -0.0528 | 0.1875 | 0.4965 |
| 20 | 23.09 | -0.01 | -0.0340 | 9.9999 | -0.0056 | 9.9999 | 0.1652 | -0.0013 | 0.0025 | -0.0056 | -2.2320 | 4.3215 |
| 21 | 24.94 | 0.01 | -0.0121 | 9.9999 | -0.0032 | 9.9999 | 0.2653 | 0.0442 | 0.0285 | 0.0149 | 0.6451 | 0.3359 |
| 22 | 26.80 | 0.03 | 0.0025 | 9.9999 | -0.0002 | 9.9999 | -0.0003 | 0.1147 | 0.0456 | 0.0447 | 0.4339 | 0.3895 |
| 23 | 28.18 | 0.04 | 0.0324 | 9.9999 | 0.0105 | 9.9999 | 0.3375 | 0.1200 | 0.0578 | 0.0450 | 0.4815 | 0.4083 |
| 24 | 28.16 | 0.04 | 0.0196 | 9.9999 | 0.0036 | 9.9999 | 0.2061 | 0.1380 | 0.0564 | 0.0571 | 0.4236 | 0.4139 |
| 25 | 28.21 | 0.04 | 0.0265 | 9.9999 | 0.0059 | 9.9999 | 0.3402 | 0.1172 | 0.0588 | 0.0497 | 0.5015 | 0.4241 |
| 26 | 28.61 | 0.05 | 0.0372 | 9.9999 | 0.0136 | 9.9999 | 0.3695 | 0.1321 | 0.0632 | 0.0561 | 0.4763 | 0.4248 |
| 27 | 28.87 | 0.05 | 0.0300 | 9.9999 | 0.0111 | 9.9999 | 0.3712 | 0.1147 | 0.0619 | 0.0505 | 0.5396 | 0.4403 |
| 28 | 29.16 | 0.04 | 0.0253 | 9.9999 | 0.0087 | 9.9999 | 0.3450 | 0.1065 | 0.0685 | 0.0681 | 0.4376 | 0.4349 |
| 29 | 29.45 | 0.07 | 0.0345 | 9.9999 | 0.0125 | 9.9999 | 0.3564 | 0.1664 | 0.0704 | 0.0742 | 0.4182 | 0.4408 |
| 30 | 29.78 | 0.06 | 0.0266 | 9.9999 | 0.0078 | 9.9999 | 0.2942 | 0.1967 | 0.0753 | 0.0876 | 0.3750 | 0.4417 |
| 31 | 30.05 | 0.06 | 0.0254 | 9.9999 | 0.0074 | 9.9999 | 0.2923 | 0.2066 | 0.0763 | 0.0903 | 0.3654 | 0.4376 |
| 32 | 30.34 | 0.07 | 0.0326 | 9.9999 | 0.0107 | 9.9999 | 0.3293 | 0.2124 | 0.0793 | 0.0938 | 0.3734 | 0.4414 |
| 33 | 30.61 | 0.06 | 0.0314 | 9.9999 | 0.0100 | 9.9999 | 0.3195 | 0.2335 | 0.0821 | 0.1025 | 0.3517 | 0.4396 |
| 34 | 30.89 | 0.08 | 0.0422 | 9.9999 | 0.0145 | 9.9999 | 0.3423 | 0.2662 | 0.0871 | 0.1165 | 0.3272 | 0.4375 |
| 35 | 31.16 | 0.07 | 0.0483 | 9.9999 | 0.0164 | 9.9999 | 0.3386 | 0.2774 | 0.0871 | 0.1218 | 0.3141 | 0.4391 |
| 36 | 31.44 | 0.08 | 0.0350 | 9.9999 | 0.0111 | 9.9999 | 0.3162 | 0.3045 | 0.0864 | 0.1320 | 0.2904 | 0.4337 |
| 37 | 31.71 | 0.08 | 0.0445 | 9.9999 | 0.0165 | 9.9999 | 0.3697 | 0.3185 | 0.0902 | 0.1385 | 0.2833 | 0.4348 |
| 38 | 31.97 | 0.08 | 0.0374 | 9.9999 | 0.0126 | 9.9999 | 0.3353 | 0.3391 | 0.0906 | 0.1480 | 0.2673 | 0.4365 |
| 39 | 32.25 | 0.07 | 0.0349 | 9.9999 | 0.0131 | 9.9999 | 0.3737 | 0.3415 | 0.0919 | 0.1523 | 0.2692 | 0.4466 |
| 40 | 32.52 | 0.05 | 0.0337 | 9.9999 | 0.0115 | 9.9999 | 0.3304 | 0.3600 | 0.0925 | 0.1692 | 0.2435 | 0.4452 |
| 41 | 32.76 | 0.07 | 0.0250 | 9.9999 | 0.0092 | 9.9999 | 0.3163 | 0.3882 | 0.0930 | 0.1747 | 0.2397 | 0.4501 |
| 42 | 33.04 | 0.07 | 0.0373 | 9.9999 | 0.0132 | 9.9999 | 0.3523 | 0.3713 | 0.0940 | 0.1702 | 0.2532 | 0.4583 |
| 43 | 33.29 | 0.07 | 0.0452 | 9.9999 | 0.0163 | 9.9999 | 0.3915 | 0.3395 | 0.0939 | 0.1568 | 0.2767 | 0.4620 |
| 44 | 33.53 | 0.07 | 0.0461 | 9.9999 | 0.0163 | 9.9999 | 0.3796 | 0.3448 | 0.0946 | 0.1606 | 0.2745 | 0.4656 |
| 45 | 33.80 | 0.07 | 0.0461 | 9.9999 | 0.0183 | 9.9999 | 0.3796 | 0.3550 | 0.0949 | 0.1647 | 0.2689 | 0.4665 |
| 46 | 34.05 | 0.06 | 0.0503 | 9.9999 | 0.0205 | 9.9999 | 0.4148 | 0.3789 | 0.0961 | 0.1769 | 0.2537 | 0.4685 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST / 115 PART 6.90 MACH 1.7 REYNOLDS 6.0 PHI 0.0 CONF 13 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.29 | 0.07 | 0.0357 | 9.9999 | 0.0156 | 9.9999 | 0.3917 | 0.3711 | 0.0963 | 0.1727 | 0.2598 | 0.4653 |
| 48 | 34.54 | 0.06 | 0.0405 | 9.9999 | 0.0163 | 9.9999 | 0.3974 | 0.4156 | 0.0962 | 0.1926 | 0.2316 | 0.4634 |
| 49 | 34.80 | 0.04 | 0.0420 | 9.9999 | 0.0178 | 9.9999 | 0.4180 | 0.4157 | 0.0961 | 0.1932 | 0.2313 | 0.4648 |
| 50 | 35.03 | 0.02 | 0.0153 | 9.9999 | 0.0171 | 9.9999 | 0.3691 | 0.4356 | 0.0961 | 0.2006 | 0.2210 | 0.4612 |
| 51 | 35.28 | 0.03 | 0.0157 | 9.9999 | 0.0156 | 9.9999 | 0.3578 | 0.4367 | 0.0953 | 0.2020 | 0.2183 | 0.4626 |
| 52 | 35.51 | 0.01 | 0.0252 | 9.9999 | 0.0165 | 9.9999 | 0.4339 | 0.4535 | 0.0952 | 0.2075 | 0.2101 | 0.4576 |
| 53 | 35.76 | 0.02 | 0.0255 | 9.9999 | 0.0135 | 9.9999 | 0.4496 | 0.4563 | 0.0946 | 0.2054 | 0.2074 | 0.4588 |
| 54 | 36.00 | 0.01 | 0.0203 | 9.9999 | 0.0097 | 9.9999 | 0.4794 | 0.4606 | 0.0929 | 0.2160 | 0.1925 | 0.4548 |
| 55 | 36.21 | 0.01 | 0.0227 | 9.9999 | 0.0111 | 9.9999 | 0.4906 | 0.4632 | 0.0928 | 0.2151 | 0.1921 | 0.4534 |
| 56 | 36.47 | -0.01 | 0.0119 | 9.9999 | 0.0081 | 9.9999 | 0.5142 | 0.5052 | 0.0895 | 0.2260 | 0.1772 | 0.4474 |
| 57 | 36.70 | 0.02 | 0.0107 | 9.9999 | 0.0054 | 9.9999 | 0.5063 | 0.5125 | 0.0884 | 0.2286 | 0.1726 | 0.4461 |
| 58 | 36.94 | -0.02 | 0.0011 | 9.9999 | 0.0013 | 9.9999 | 1.1656 | 0.5209 | 0.0868 | 0.2330 | 0.1648 | 0.4421 |
| 59 | 37.18 | 0.00 | 0.0154 | 9.9999 | 0.0085 | 9.9999 | 0.5537 | 0.5315 | 0.0872 | 0.2354 | 0.1641 | 0.4428 |
| 60 | 37.41 | -0.01 | 0.0036 | 9.9999 | 0.0011 | 9.9999 | 0.3005 | 0.5320 | 0.0859 | 0.2356 | 0.1615 | 0.4428 |
| 61 | 37.64 | -0.02 | 0.0179 | 9.9999 | 0.0088 | 9.9999 | 0.4820 | 0.5477 | 0.0843 | 0.2417 | 0.1540 | 0.4413 |
| 62 | 37.88 | 0.00 | 0.0062 | 9.9999 | 0.0050 | 9.9999 | 0.6729 | 0.5582 | 0.0823 | 0.2461 | 0.1475 | 0.4405 |
| 63 | 38.11 | -0.00 | 0.0047 | 9.9999 | 0.0038 | 9.9999 | 0.8111 | 0.5539 | 0.0826 | 0.2435 | 0.1492 | 0.4403 |
| 64 | 38.35 | 0.02 | 0.0059 | 9.9999 | 0.0072 | 9.9999 | 0.7664 | 0.5613 | 0.0814 | 0.2472 | 0.1450 | 0.4404 |
| 65 | 38.59 | -0.01 | 0.0063 | 9.9999 | 0.0049 | 9.9999 | 0.5922 | 0.5708 | 0.0782 | 0.2508 | 0.1370 | 0.4394 |
| 66 | 38.81 | -0.01 | 0.0035 | 9.9999 | 0.0034 | 9.9999 | 0.9745 | 0.5790 | 0.0782 | 0.2546 | 0.1351 | 0.4398 |
| 67 | 39.04 | 0.02 | 0.0107 | 9.9999 | 0.0083 | 9.9999 | 0.5907 | 0.5823 | 0.0768 | 0.2546 | 0.1315 | 0.4373 |
| 68 | 39.28 | -0.00 | 0.0062 | 9.9999 | 0.0064 | 9.9999 | 0.7585 | 0.5905 | 0.0771 | 0.2599 | 0.1306 | 0.4400 |
| 69 | 39.49 | 0.01 | -0.0058 | 9.9999 | -0.0012 | 9.9999 | 0.1228 | 0.5838 | 0.0765 | 0.2557 | 0.1310 | 0.4381 |
| 70 | 39.71 | 0.00 | 0.0010 | 9.9999 | 0.0038 | 9.9999 | 3.0115 | 0.5966 | 0.0750 | 0.2616 | 0.1257 | 0.4372 |
| 71 | 39.94 | -0.03 | -0.0026 | 9.9999 | 0.0021 | 9.9999 | -0.8103 | 0.5998 | 0.0743 | 0.2628 | 0.1235 | 0.4381 |
| 72 | 40.14 | -0.01 | -0.0003 | 9.9999 | 0.0038 | 9.9999 | -12.7372 | 0.5950 | 0.0724 | 0.2604 | 0.1217 | 0.4378 |
| 73 | 40.35 | -0.03 | -0.0183 | 9.9999 | -0.0032 | 9.9999 | 0.1754 | 0.5976 | 0.0729 | 0.2619 | 0.1220 | 0.4382 |
| 74 | 40.54 | -0.01 | -0.0075 | 9.9999 | 0.0015 | 9.9999 | -0.2006 | 0.5961 | 0.0693 | 0.2589 | 0.1162 | 0.4342 |
| 75 | 40.75 | -0.03 | -0.0178 | 9.9999 | -0.0075 | 9.9999 | 0.2706 | 0.6006 | 0.0742 | 0.2655 | 0.1237 | 0.4424 |
| 76 | 40.98 | -0.03 | -0.0068 | 9.9999 | 0.0018 | 9.9999 | -0.2052 | 0.6021 | 0.0682 | 0.2631 | 0.1133 | 0.4365 |
| 77 | 41.17 | -0.02 | -0.0026 | 9.9999 | 0.0050 | 9.9999 | -1.7914 | 0.6077 | 0.0685 | 0.2679 | 0.1127 | 0.4402 |
| 78 | 41.39 | -0.01 | -0.0148 | 9.9999 | -0.0006 | 9.9999 | 0.0542 | 0.6114 | 0.0696 | 0.2695 | 0.1142 | 0.4408 |
| 79 | 41.60 | -0.01 | -0.0305 | 9.9999 | -0.0080 | 9.9999 | 0.2049 | 0.6097 | 0.0708 | 0.2705 | 0.1161 | 0.4437 |
| 80 | 41.81 | -0.04 | -0.0156 | 9.9999 | -0.0023 | 9.9999 | 0.1177 | 0.6103 | 0.0680 | 0.2736 | 0.1103 | 0.4440 |
| 81 | 42.02 | -0.02 | -0.0155 | 9.9999 | -0.0015 | 9.9999 | 0.0746 | 0.6494 | 0.0757 | 0.2932 | 0.1166 | 0.4515 |
| 82 | 42.22 | -0.02 | -0.0064 | 9.9999 | 0.0025 | 9.9999 | -0.3919 | 0.6216 | 0.0705 | 0.2784 | 0.1135 | 0.4464 |
| 83 | 42.42 | -0.02 | -0.0016 | 9.9999 | 0.0057 | 9.9999 | -3.5739 | 0.6296 | 0.0693 | 0.2801 | 0.1101 | 0.4450 |
| 84 | 42.61 | -0.02 | 0.0000 | 9.9999 | 0.0054 | 9.9999 | 1.1766 | 0.6188 | 0.0651 | 0.2752 | 0.1052 | 0.4448 |
| 85 | 42.79 | -0.01 | -0.0040 | 9.9999 | 0.0036 | 9.9999 | -0.9029 | 0.6292 | 0.0669 | 0.2810 | 0.1083 | 0.4469 |
| 86 | 42.97 | -0.02 | 0.0079 | 9.9999 | 0.0100 | 9.9999 | 1.2099 | 0.6273 | 0.0764 | 0.2884 | 0.1215 | 0.4597 |
| 87 | 43.15 | -0.02 | -0.0173 | 9.9999 | 0.0 | 9.9999 | 0.0 | 0.6537 | 0.0748 | 0.2996 | 0.1144 | 0.4587 |
| 88 | 43.32 | -0.01 | -0.0065 | 9.9999 | 0.0030 | 9.9999 | -0.3382 | 0.6509 | 0.0748 | 0.2976 | 0.1149 | 0.4572 |
| 89 | 43.51 | -0.02 | -0.0093 | 9.9999 | 0.0045 | 9.9999 | -0.8518 | 0.6480 | 0.0734 | 0.2988 | 0.1164 | 0.4608 |
| 90 | 43.69 | -0.02 | -0.0053 | 9.9999 | 0.0045 | 9.9999 | -0.8516 | 0.6507 | 0.0735 | 0.2987 | 0.1160 | 0.4591 |
| 91 | 43.88 | -0.01 | -0.0028 | 9.9999 | 0.0040 | 9.9999 | -1.4331 | 0.6653 | 0.0732 | 0.3036 | 0.1100 | 0.4564 |
| 92 | 44.04 | -0.02 | -0.0052 | 9.9999 | 0.0035 | 9.9999 | -0.7524 | 0.6510 | 0.0748 | 0.2997 | 0.1149 | 0.4604 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7  PART 115  MACH 0.90  RNIO-6 1.7  PHI 0.0  CONF 81NCF13  L 6.0  DEL1 0  DEL2 -30  DEL3 0  DEL4 -30  TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.23 | 0.01 | -0.0005 | 9.9999 | 0.0070 | 9.9999 | -14.0446 | 0.6564 | 0.0739 | 0.3009 | 0.1126 | 0.4585 |
| 94 | 44.46 | -0.00 | -0.0025 | 9.9999 | 0.0056 | 9.9999 | -1.9372 | 0.6608 | 0.0734 | 0.3042 | 0.1111 | 0.4604 |
| 95 | 44.62 | -0.01 | -0.0053 | 9.9999 | 0.0052 | 9.9999 | -0.9343 | 0.6320 | 0.0764 | 0.2938 | 0.1209 | 0.4649 |
| 96 | 44.81 | 0.01 | -0.0040 | 9.9999 | 0.0046 | 9.9999 | -1.1537 | 0.6620 | 0.0740 | 0.3061 | 0.1118 | 0.4623 |
| 97 | 44.99 | 0.00 | -0.0029 | 9.9999 | 0.0053 | 9.9999 | -1.8334 | 0.6600 | 0.0735 | 0.3117 | 0.1087 | 0.4583 |
| 98 | 45.17 | -0.00 | 0.0075 | 9.9999 | 0.0107 | 9.9999 | 1.3500 | 0.6496 | 0.0737 | 0.3005 | 0.1135 | 0.4623 |
| 99 | 45.35 | -0.02 | -0.0077 | 9.9999 | 0.0038 | 9.9999 | -0.4951 | 0.6804 | 0.0727 | 0.3120 | 0.1069 | 0.4585 |
| 100 | 45.53 | -0.03 | -0.0101 | 9.9999 | 0.0029 | 9.9999 | -0.2205 | 0.6659 | 0.0731 | 0.3160 | 0.1066 | 0.4607 |
| 101 | 45.73 | -0.02 | 0.0007 | 9.9999 | 0.0077 | 9.9999 | 11.0352 | 0.6621 | 0.0740 | 0.3074 | 0.1118 | 0.4642 |
| 102 | 45.84 | -0.02 | -0.0066 | 9.9999 | 0.0051 | 9.9999 | -0.7752 | 0.6890 | 0.0722 | 0.3167 | 0.1048 | 0.4596 |
| 103 | 46.07 | -0.02 | 0.0163 | 9.9999 | 0.0141 | 9.9999 | 0.8616 | 0.6776 | 0.0731 | 0.3132 | 0.1079 | 0.4622 |
| 104 | 46.24 | -0.01 | 0.0104 | 9.9999 | 0.0106 | 9.9999 | 1.0416 | 0.6658 | 0.0735 | 0.3167 | 0.1072 | 0.4618 |
| 105 | 46.42 | -0.03 | 0.0054 | 9.9999 | 0.0105 | 9.9999 | 1.9537 | 0.6930 | 0.0734 | 0.3203 | 0.1059 | 0.4622 |
| 106 | 46.59 | -0.01 | 0.0164 | 9.9999 | 0.0131 | 9.9999 | 0.7952 | 0.6669 | 0.0722 | 0.3187 | 0.1048 | 0.4626 |
| 107 | 46.78 | -0.01 | 0.0052 | 9.9999 | 0.0058 | 9.9999 | 1.0686 | 0.7000 | 0.0720 | 0.3230 | 0.1029 | 0.4614 |
| 108 | 46.94 | 0.00 | 0.0019 | 9.9999 | 0.0084 | 9.9999 | 4.4332 | 0.7070 | 0.0721 | 0.3267 | 0.1020 | 0.4621 |
| 109 | 47.13 | 0.00 | -0.0254 | 9.9999 | -0.0035 | 9.9999 | 0.1164 | 0.7051 | 0.0778 | 0.3296 | 0.1103 | 0.4675 |
| 110 | 47.29 | 0.01 | -0.0026 | 9.9999 | 0.0050 | 9.9999 | -1.7914 | 0.7214 | 0.0712 | 0.3337 | 0.0987 | 0.4628 |
| 111 | 47.46 | -0.01 | -0.0077 | 9.9999 | 0.0044 | 9.9999 | -0.5733 | 0.7157 | 0.0732 | 0.3315 | 0.1026 | 0.4644 |
| 112 | 47.64 | -0.01 | -0.0101 | 9.9999 | 0.0036 | 9.9999 | -0.3576 | 0.7137 | 0.0733 | 0.3335 | 0.1027 | 0.4672 |
| 113 | 47.82 | 0.01 | 0.0007 | 9.9999 | 0.0071 | 9.9999 | 10.1753 | 0.7168 | 0.0729 | 0.3338 | 0.1017 | 0.4657 |
| 114 | 48.01 | -0.02 | -0.0018 | 9.9999 | 0.0094 | 9.9999 | 5.2589 | 0.7323 | 0.0713 | 0.3406 | 0.0974 | 0.4643 |
| 115 | 48.18 | 0.04 | -0.0006 | 9.9999 | 0.0086 | 9.9999 | -13.3760 | 0.7265 | 0.0720 | 0.3377 | 0.0991 | 0.4648 |
| 116 | 48.36 | 0.00 | -0.0161 | 9.9999 | 0.0014 | 9.9999 | -0.9872 | 0.7228 | 0.0753 | 0.3393 | 0.1042 | 0.4694 |
| 117 | 48.54 | 0.00 | 0.0075 | 9.9999 | 0.0105 | 9.9999 | 1.3842 | 0.7367 | 0.0708 | 0.3420 | 0.0961 | 0.4643 |
| 118 | 48.68 | 0.01 | 0.0007 | 9.9999 | 0.0077 | 9.9999 | 11.0352 | 0.7367 | 0.0711 | 0.3434 | 0.0965 | 0.4662 |
| 119 | 48.88 | 0.01 | 0.0031 | 9.9999 | 0.0084 | 9.9999 | 2.7183 | 0.7354 | 0.0711 | 0.3425 | 0.0967 | 0.4658 |
| 120 | 49.05 | 0.01 | -0.0165 | 9.9999 | 0.0025 | 9.9999 | -0.2906 | 0.7264 | 0.0747 | 0.3446 | 0.1026 | 0.4731 |
| 121 | 49.21 | 0.00 | -0.0065 | 9.9999 | 0.0041 | 9.9999 | -0.6326 | 0.7232 | 0.0736 | 0.3402 | 0.1021 | 0.4704 |
| 122 | 49.39 | 0.01 | 0.0163 | 9.9999 | 0.0146 | 9.9999 | 0.8055 | 0.7262 | 0.0704 | 0.3367 | 0.0974 | 0.4624 |
| 123 | 49.58 | 0.03 | 0.0245 | 9.9999 | 0.0186 | 9.9999 | 0.7575 | 0.7110 | 0.0620 | 0.3317 | 0.0872 | 0.4664 |
| 124 | 49.75 | 0.02 | 0.0222 | 9.9999 | 0.0178 | 9.9999 | 0.7996 | 0.7291 | 0.0573 | 0.3384 | 0.0786 | 0.4641 |
| 125 | 49.97 | 0.06 | 0.0091 | 9.9999 | 0.0110 | 9.9999 | 1.2127 | 0.7165 | 0.0652 | 0.3354 | 0.0910 | 0.4681 |
| 126 | 50.14 | 0.04 | 0.0102 | 9.9999 | 0.0120 | 9.9999 | 1.1802 | 0.7130 | 0.0750 | 0.3379 | 0.1052 | 0.4739 |
| 127 | 50.31 | 0.02 | 0.0222 | 9.9999 | 0.0172 | 9.9999 | 0.7727 | 0.7082 | 0.0692 | 0.3331 | 0.0977 | 0.4703 |
| 128 | 50.48 | 0.05 | 0.0233 | 9.9999 | 0.0175 | 9.9999 | 0.7004 | 0.7267 | 0.0674 | 0.3390 | 0.0934 | 0.4665 |
| 129 | 50.65 | 0.05 | 0.0174 | 9.9999 | 0.0156 | 9.9999 | 0.8591 | 0.7221 | 0.0720 | 0.3382 | 0.0957 | 0.4684 |
| 130 | 50.81 | 0.07 | 0.0157 | 9.9999 | 0.0164 | 9.9999 | 0.8501 | 0.7255 | 0.0670 | 0.3395 | 0.0924 | 0.4680 |
| 131 | 51.00 | 0.07 | 0.0220 | 9.9999 | 0.0191 | 9.9999 | 0.8664 | 0.7125 | 0.0573 | 0.3333 | 0.0804 | 0.4677 |
| 132 | 51.18 | 0.05 | 0.0216 | 9.9999 | 0.0154 | 9.9999 | 0.7500 | 0.7161 | 0.0577 | 0.3359 | 0.0803 | 0.4678 |
| 133 | 51.33 | 0.06 | 0.0150 | 9.9999 | 0.0135 | 9.9999 | 0.9229 | 0.7152 | 0.0581 | 0.3354 | 0.0812 | 0.4690 |
| 134 | 51.54 | 0.03 | 0.0161 | 9.9999 | 0.0153 | 9.9999 | 0.9471 | 0.7196 | 0.0675 | 0.3366 | 0.0938 | 0.4680 |
| 135 | 51.69 | 0.07 | 0.0102 | 9.9999 | 0.0127 | 9.9999 | 1.2392 | 0.7103 | 0.0594 | 0.3332 | 0.0836 | 0.4690 |
| 136 | 51.85 | 0.04 | 0.0161 | 9.9999 | 0.0157 | 9.9999 | 0.8414 | 0.7129 | 0.0555 | 0.3331 | 0.0775 | 0.4672 |
| 137 | 52.06 | 0.05 | 0.0150 | 9.9999 | 0.0142 | 9.9999 | 0.9430 | 0.7093 | 0.0579 | 0.3316 | 0.0816 | 0.4674 |
| 138 | 52.22 | 0.08 | 0.0156 | 9.9999 | 0.0151 | 9.9999 | 0.9000 | 0.7015 | 0.0540 | 0.3273 | 0.0770 | 0.4667 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 4 OF 6

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 115 MACH 0.56 RX10-6 1.7 PHI C.C BLOCF13 C.C L 0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.38 | 0.06 | 0.0226 | 9.9999 | 0.0184 | 9.9999 | 0.8345 | 0.7088 | 0.0522 | 0.3296 | 0.0736 | 0.4651 |
| 140 | 52.56 | 0.12 | 0.0257 | 9.9999 | 0.0183 | 9.9999 | 0.7104 | 0.7118 | 0.0650 | 0.3281 | 0.0913 | 0.4610 |
| 141 | 52.73 | 0.08 | 0.0220 | 9.9999 | 0.0177 | 9.9999 | 0.8026 | 0.7162 | 0.0526 | 0.3324 | 0.0732 | 0.4628 |
| 142 | 52.91 | 0.11 | 0.0260 | 9.9999 | 0.0193 | 9.9999 | 0.6879 | 0.7238 | 0.0522 | 0.3347 | 0.0721 | 0.4624 |
| 143 | 53.08 | 0.10 | 0.0252 | 9.9999 | 0.0208 | 9.9999 | 0.7043 | 0.7313 | 0.0502 | 0.3382 | 0.0686 | 0.4625 |
| 144 | 53.23 | 0.05 | 0.0292 | 9.9999 | 0.0200 | 9.9999 | 0.6037 | 0.7206 | 0.0481 | 0.3356 | 0.0662 | 0.4621 |
| 145 | 53.40 | 0.11 | 0.0220 | 9.9999 | 0.0196 | 9.9999 | 0.6967 | 0.7304 | 0.0492 | 0.3366 | 0.0673 | 0.4608 |
| 146 | 53.56 | 0.10 | 0.0244 | 9.9999 | 0.0178 | 9.9999 | 0.7277 | 0.7269 | 0.0476 | 0.3356 | 0.0654 | 0.4617 |
| 147 | 53.73 | 0.08 | 0.0335 | 9.9999 | 0.0222 | 9.9999 | 0.6540 | 0.7350 | 0.0472 | 0.3387 | 0.0642 | 0.4608 |
| 148 | 53.88 | 0.09 | 0.0267 | 9.9999 | 0.0195 | 9.9999 | 0.7289 | 0.7390 | 0.0462 | 0.3401 | 0.0624 | 0.4599 |
| 149 | 54.04 | 0.05 | 0.0326 | 9.9999 | 0.0230 | 9.9999 | 0.7047 | 0.7363 | 0.0455 | 0.3393 | 0.0621 | 0.4596 |
| 150 | 54.19 | 0.06 | 0.0267 | 9.9999 | 0.0196 | 9.9999 | 0.7462 | 0.7455 | 0.0450 | 0.3423 | 0.0603 | 0.4592 |
| 151 | 54.36 | 0.07 | 0.0267 | 9.9999 | 0.0205 | 9.9999 | 0.7065 | 0.7496 | 0.0445 | 0.3447 | 0.0593 | 0.4595 |
| 152 | 54.50 | 0.07 | 0.0196 | 9.9999 | 0.0160 | 9.9999 | 0.8136 | 0.7454 | 0.0440 | 0.3415 | 0.0598 | 0.4582 |
| 153 | 54.68 | 0.07 | 0.0256 | 9.9999 | 0.0188 | 9.9999 | 0.7328 | 0.7538 | 0.0444 | 0.3459 | 0.0589 | 0.4585 |
| 154 | 54.83 | 0.06 | 0.0291 | 9.9999 | 0.0206 | 9.9999 | 0.7067 | 0.7490 | 0.0435 | 0.3412 | 0.0585 | 0.4592 |
| 155 | 54.97 | 0.07 | 0.0196 | 9.9999 | 0.0165 | 9.9999 | 0.8099 | 0.7417 | 0.0434 | 0.3408 | 0.0585 | 0.4599 |
| 156 | 55.14 | 0.08 | 0.0215 | 9.9999 | 0.0183 | 9.9999 | 0.8337 | 0.7582 | 0.0429 | 0.3463 | 0.0565 | 0.4568 |
| 157 | 55.31 | 0.05 | 0.0160 | 9.9999 | 0.0142 | 9.9999 | 0.9217 | 0.7584 | 0.0428 | 0.3478 | 0.0564 | 0.4586 |
| 158 | 55.44 | 0.05 | 0.0173 | 9.9999 | 0.0136 | 9.9999 | 0.7628 | 0.7554 | 0.0434 | 0.3470 | 0.0574 | 0.4594 |
| 159 | 55.59 | 0.06 | 0.0173 | 9.9999 | 0.0145 | 9.9999 | 0.8562 | 0.7652 | 0.0422 | 0.3508 | 0.0551 | 0.4585 |
| 160 | 55.73 | 0.07 | 0.0145 | 9.9999 | 0.0134 | 9.9999 | 1.0674 | 0.7615 | 0.0414 | 0.3508 | 0.0543 | 0.4607 |
| 161 | 55.90 | 0.03 | 0.0113 | 9.9999 | 0.0130 | 9.9999 | 1.1452 | 0.7567 | 0.0416 | 0.3486 | 0.0548 | 0.4595 |
| 162 | 56.06 | 0.01 | 0.0159 | 9.9999 | 0.0161 | 9.9999 | 1.0095 | 0.7644 | 0.0409 | 0.3515 | 0.0535 | 0.4595 |
| 163 | 56.19 | 0.06 | 0.0124 | 9.9999 | 0.0140 | 9.9999 | 1.1245 | 0.7646 | 0.0403 | 0.3518 | 0.0527 | 0.4602 |
| 164 | 56.35 | 0.05 | 0.0173 | 9.9999 | 0.0146 | 9.9999 | 0.8406 | 0.7604 | 0.0402 | 0.3511 | 0.0528 | 0.4618 |
| 165 | 56.52 | 0.03 | 0.0138 | 9.9999 | 0.0144 | 9.9999 | 1.0548 | 0.7592 | 0.0399 | 0.3506 | 0.0525 | 0.4615 |
| 166 | 56.66 | 0.04 | 0.0054 | 9.9999 | 0.0101 | 9.9999 | 1.8763 | 0.7604 | 0.0400 | 0.3511 | 0.0525 | 0.4618 |
| 167 | 56.82 | 0.03 | 0.0111 | 9.9999 | 0.0123 | 9.9999 | 1.2116 | 0.7673 | 0.0401 | 0.3535 | 0.0522 | 0.4608 |
| 168 | 56.97 | 0.04 | 0.0113 | 9.9999 | 0.0147 | 9.9999 | 1.1180 | 0.7620 | 0.0396 | 0.3516 | 0.0519 | 0.4615 |
| 169 | 57.13 | 0.02 | 0.0025 | 9.9999 | 0.0121 | 9.9999 | 1.3639 | 0.7538 | 0.0396 | 0.3468 | 0.0525 | 0.4601 |
| 170 | 57.28 | 0.02 | 0.0089 | 9.9999 | 0.0126 | 9.9999 | 1.4090 | 0.7603 | 0.0396 | 0.3503 | 0.0523 | 0.4608 |
| 171 | 57.43 | 0.02 | 0.0243 | 9.9999 | 0.0184 | 9.9999 | 0.7555 | 0.7522 | 0.0398 | 0.3482 | 0.0525 | 0.4630 |
| 172 | 57.58 | 0.00 | 0.0076 | 9.9999 | 0.0165 | 9.9999 | 1.3505 | 0.7512 | 0.0389 | 0.3481 | 0.0517 | 0.4634 |
| 173 | 57.71 | -0.04 | 0.0077 | 9.9999 | 0.0118 | 9.9999 | 1.5374 | 0.7635 | 0.0380 | 0.3502 | 0.0497 | 0.4587 |
| 174 | 57.86 | -0.02 | 0.0054 | 9.9999 | 0.0104 | 9.9999 | 1.9321 | 0.6006 | 0.0376 | 0.3658 | 0.0469 | 0.4565 |
| 175 | 58.00 | -0.10 | 0.0018 | 9.9999 | 0.0092 | 9.9999 | 5.1275 | 0.6075 | 0.0371 | 0.3665 | 0.0459 | 0.4535 |
| 176 | 58.15 | -0.09 | -0.0026 | 9.9999 | 0.0065 | 9.9999 | -2.2485 | 0.7731 | 0.0380 | 0.3537 | 0.0491 | 0.4576 |
| 177 | 58.30 | -0.12 | 0.0017 | 9.9999 | 0.0099 | 9.9999 | 5.8422 | 0.7729 | 0.0380 | 0.3497 | 0.0491 | 0.4529 |
| 178 | 58.44 | -0.07 | 0.0006 | 9.9999 | 0.0088 | 9.9999 | 14.6000 | 0.7578 | 0.0384 | 0.3440 | 0.0506 | 0.4540 |
| 179 | 58.47 | -0.07 | -0.0053 | 9.9999 | 0.0063 | 9.9999 | -1.1925 | 0.7440 | 0.0389 | 0.3396 | 0.0522 | 0.4565 |
| 180 | 58.47 | -0.09 | -0.0065 | 9.9999 | 0.0050 | 9.9999 | -0.7717 | 0.7506 | 0.0390 | 0.3434 | 0.0519 | 0.4575 |

MARTAN MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 PACK 1.00 RXIC=6 1.7 PHI 0.0 CCAF 0.1800E-03 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.91 | 0.01 | -1.8532 | 7.2031 | 0.0671 | -0.2934 | 0.0335 | 1.4491 | 0.4596 | 0.9895 | -3.8048 |
| 2 | -5.90 | 0.01 | -1.8636 | 7.2446 | 0.1097 | -0.3306 | 0.0278 | 1.4427 | 0.4588 | 0.9839 | -3.8082 |
| 3 | -5.90 | 0.00 | -1.8931 | 7.2538 | 0.1102 | -0.3157 | 0.0337 | 1.4600 | 0.4587 | 1.0012 | -3.8317 |
| 4 | -5.90 | 0.00 | -1.8836 | 7.1022 | 0.1200 | -0.4334 | 0.0396 | 1.4327 | 0.4553 | 0.9774 | -3.8105 |
| 5 | -5.91 | 0.00 | -1.8818 | 7.1582 | 0.1355 | -0.2960 | 0.0357 | 1.4572 | 0.4588 | 0.9983 | -3.8452 |
| 6 | -5.90 | 0.01 | -1.8916 | 7.0824 | 0.1004 | -0.2854 | 0.0278 | 1.4416 | 0.4542 | 0.9876 | -3.8487 |
| 7 | -5.90 | -0.00 | -1.8713 | 7.1785 | 0.1085 | -0.3742 | 0.0455 | 1.4506 | 0.4550 | 0.9958 | -3.8364 |
| 8 | -5.71 | 0.01 | -1.8574 | 7.2645 | 0.1356 | -0.3041 | 0.0277 | 1.4702 | 0.4575 | 1.0126 | -3.9538 |
| 9 | -3.89 | 0.01 | -1.5031 | 8.1052 | 0.2033 | -0.5555 | 0.1706 | 1.5192 | 0.4324 | 1.0868 | -4.2610 |
| 10 | -2.22 | 0.01 | -2.0774 | 9.2916 | 0.1044 | -0.1936 | 0.0179 | 1.5591 | 0.3594 | 1.1997 | -4.4729 |
| 11 | -0.45 | 0.00 | -1.9561 | 9.3524 | 0.0575 | -0.1603 | 0.0185 | 1.5601 | 0.3458 | 1.2143 | -4.7811 |
| 12 | 1.31 | 0.01 | -1.7731 | 9.0635 | 0.1033 | -0.2244 | 0.0246 | 1.5144 | 0.3374 | 1.1770 | -5.0893 |
| 13 | 3.17 | 0.01 | -1.5823 | 8.6827 | 0.0804 | -0.1922 | 0.0134 | 1.4559 | 0.3216 | 1.1341 | -5.4747 |
| 14 | 4.86 | 0.01 | -1.3812 | 8.1926 | 0.0355 | -0.0986 | 0.0136 | 1.4011 | 0.3142 | 1.0820 | -6.0187 |
| 15 | 6.70 | 0.01 | -1.1637 | 7.9161 | 0.0242 | -0.0590 | 0.0259 | 1.3544 | 0.3101 | 1.0443 | -6.8042 |
| 16 | 8.48 | 0.01 | -0.9001 | 7.3743 | 0.0220 | -0.0829 | 0.0204 | 1.2883 | 0.2979 | 0.9704 | -8.1930 |
| 17 | 10.27 | 0.01 | -0.5505 | 6.5765 | 0.0161 | -0.0412 | 0.0384 | 1.1835 | 0.2982 | 0.8854 | -11.9416 |
| 18 | 12.11 | 0.01 | -0.2182 | 5.9062 | -0.0300 | 0.0533 | 0.0270 | 1.1241 | 0.2937 | 0.8284 | -27.3505 |
| 19 | 13.93 | 0.01 | 0.1327 | 5.2736 | -0.0266 | 0.0830 | 0.0277 | 1.0242 | 0.2885 | 0.7377 | 39.4540 |
| 20 | 15.84 | 0.00 | 0.5321 | 4.5278 | -0.0550 | 0.1204 | 0.0342 | 0.9156 | 0.2797 | 0.6358 | 8.5057 |
| 21 | 17.76 | 0.01 | 0.9207 | 3.8014 | -0.0822 | 0.1561 | 0.0287 | 0.7904 | 0.2699 | 0.5205 | 4.1941 |
| 22 | 19.63 | 0.01 | 1.3007 | 3.1023 | -0.1472 | 0.4032 | 0.0465 | 0.6746 | 0.2608 | 0.4137 | 2.3387 |
| 23 | 21.56 | 0.02 | 1.7027 | 2.7065 | -0.0441 | 0.2236 | 0.0130 | 0.5583 | 0.2486 | 0.3097 | 1.5182 |
| 24 | 23.52 | 0.01 | 2.1073 | 2.3065 | -0.1297 | 0.4833 | -0.0092 | 0.4436 | 0.2346 | 0.2092 | 0.9843 |
| 25 | 25.48 | 0.03 | 2.5053 | 2.2016 | 0.2706 | -0.5466 | 0.0191 | 0.3279 | 0.2282 | 0.0993 | 0.7173 |
| 26 | 27.50 | 0.08 | 3.7867 | 1.9008 | 0.8465 | -2.1558 | 0.1236 | 0.2496 | 0.2445 | -0.0149 | 0.5228 |
| 27 | 42.07 | 2.77 | 3.7265 | 2.2185 | 0.8572 | -2.0078 | 0.1298 | -0.0795 | 0.2422 | -0.3218 | 0.5953 |
| 28 | 28.45 | 0.07 | 3.9557 | 1.9293 | 0.8595 | -2.0253 | 0.1301 | 0.1618 | 0.2413 | -0.0595 | 0.4828 |
| 29 | 28.81 | 0.08 | 4.1320 | 1.9358 | 0.8547 | -2.1032 | 0.1605 | 0.1612 | 0.2438 | -0.0826 | 0.4685 |
| 30 | 29.15 | 0.08 | 4.2030 | 1.9262 | 0.8546 | -1.9523 | 0.1488 | 0.1425 | 0.2389 | -0.0965 | 0.4583 |
| 31 | 29.42 | 0.08 | 4.3021 | 1.9082 | 0.9505 | -2.0330 | 0.1670 | 0.1203 | 0.2370 | -0.1168 | 0.4431 |
| 32 | 29.73 | 0.06 | 4.4188 | 1.8846 | 1.0506 | -2.4161 | 0.1796 | 0.1163 | 0.2437 | -0.1315 | 0.4219 |
| 33 | 30.02 | 0.07 | 4.5161 | 1.9072 | 0.8578 | -1.7610 | 0.1499 | 0.0756 | 0.2357 | -0.1601 | 0.4223 |
| 34 | 30.31 | 0.08 | 4.6565 | 1.7503 | 0.9334 | -1.9078 | 0.1685 | 0.0470 | 0.2345 | -0.1875 | 0.3731 |
| 35 | 30.58 | 0.07 | 4.7413 | 1.7983 | 0.8623 | -1.7051 | 0.1743 | 0.0329 | 0.2334 | -0.2005 | 0.3793 |
| 36 | 30.84 | 0.07 | 4.8234 | 1.8035 | 0.8820 | -1.7842 | 0.1514 | 0.0414 | 0.2326 | -0.1912 | 0.4070 |
| 37 | 31.13 | 0.07 | 4.9446 | 1.8508 | 0.8562 | -1.7762 | 0.1753 | 0.0219 | 0.2361 | -0.2122 | 0.3755 |
| 38 | 31.39 | 0.08 | 5.0343 | 1.8051 | 0.8703 | -1.8065 | 0.1758 | 0.0092 | 0.2314 | -0.2222 | 0.3593 |
| 39 | 31.68 | 0.08 | 5.1398 | 1.8549 | 1.0211 | -2.1652 | 0.2004 | 0.0226 | 0.2363 | -0.2137 | 0.3609 |
| 40 | 31.95 | 0.07 | 5.2441 | 1.7825 | 0.9050 | -2.1306 | 0.1711 | 0.0025 | 0.2303 | -0.2278 | 0.3361 |
| 41 | 32.23 | 0.07 | 5.4013 | 1.8419 | 1.0406 | -2.4293 | 0.1545 | -0.0184 | 0.2268 | -0.2432 | 0.3410 |
| 42 | 32.50 | 0.06 | 5.4536 | 1.8075 | 0.8503 | -1.8975 | 0.0947 | -0.0406 | 0.2207 | -0.2673 | 0.3314 |
| 43 | 32.75 | 0.07 | 5.5328 | 1.8556 | 0.9240 | -2.1022 | 0.1169 | -0.0460 | 0.2186 | -0.2648 | 0.3000 |
| 44 | 33.02 | 0.03 | 5.6265 | 1.7557 | 0.8103 | -1.8004 | -0.0006 | -0.0673 | 0.2061 | -0.2955 | 0.3120 |
| 45 | 33.28 | 0.03 | 5.7035 | 1.8278 | 0.3099 | -0.4367 | -0.0304 | -0.0935 | 0.2043 | -0.2949 | 0.3205 |
| 46 | 33.53 | 0.03 | 5.8175 | 1.8248 | 0.3505 | -0.7433 | -0.0177 | -0.0954 | 0.2016 | -0.2971 | 0.3137 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11a MACH 1.00 RNIC-6 1.7 PHI 0.0 CONF BINDFIN L 0.6 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.78 | 0.02 | 8.9358 | 1.9059 | 0.2612 | -0.3456 | 0.0358 | -0.1146 | 0.1955 | -0.3101 | 0.3210 |
| 48 | 34.03 | 0.01 | 8.9132 | 1.7916 | 0.1467 | -0.1495 | -0.0174 | -0.1225 | 0.1944 | -0.3165 | 0.2578 |
| 49 | 34.27 | 0.02 | 8.8827 | 1.7806 | 0.1565 | -0.0500 | 0.0354 | -0.1469 | 0.1944 | -0.3413 | 0.2537 |
| 50 | 34.54 | 0.03 | 8.1040 | 1.7143 | 0.2301 | -0.0636 | 0.0173 | -0.1506 | 0.1913 | -0.3419 | 0.2772 |
| 51 | 34.78 | 0.05 | 8.3512 | 1.6635 | 0.4706 | -0.6853 | 0.1201 | -0.1765 | 0.1929 | -0.3694 | 0.2603 |
| 52 | 35.03 | 0.03 | 8.4451 | 1.5831 | 0.3366 | -0.4250 | 0.1074 | -0.1763 | 0.1926 | -0.3689 | 0.2455 |
| 53 | 35.29 | 0.03 | 8.5743 | 1.5720 | 0.3531 | -0.5436 | 0.1203 | -0.1948 | 0.1941 | -0.3889 | 0.2351 |
| 54 | 35.53 | 0.04 | 8.6174 | 1.6015 | 0.3844 | -0.6351 | 0.1365 | -0.1974 | 0.1910 | -0.3884 | 0.2541 |
| 55 | 35.75 | 0.02 | 8.2834 | 1.5457 | 0.5016 | -0.6009 | 0.1385 | -0.2130 | 0.1907 | -0.4037 | 0.2313 |
| 56 | 36.02 | 0.05 | 8.8828 | 1.5212 | 0.4460 | -0.6157 | 0.1216 | -0.2281 | 0.1887 | -0.4168 | 0.2210 |
| 57 | 36.25 | 0.06 | 8.8574 | 1.5558 | 0.5341 | -0.6373 | 0.1395 | -0.2263 | 0.1899 | -0.4162 | 0.2269 |
| 58 | 36.47 | 0.06 | 8.9246 | 1.4776 | 0.5016 | -0.6006 | 0.1217 | -0.2323 | 0.1922 | -0.4245 | 0.2134 |
| 59 | 36.72 | 0.05 | 7.8627 | 1.4886 | 0.4777 | -0.7528 | 0.1165 | -0.2469 | 0.1834 | -0.4323 | 0.2104 |
| 60 | 36.97 | 0.05 | 7.8731 | 1.4164 | 0.4814 | -0.6525 | 0.0755 | -0.2742 | 0.1811 | -0.4553 | 0.1970 |
| 61 | 37.20 | 0.05 | 7.8537 | 1.4556 | 0.4512 | -0.6505 | 0.1049 | -0.2645 | 0.1880 | -0.4725 | 0.1984 |
| 62 | 37.44 | 0.06 | 7.8418 | 1.3576 | 0.5315 | -0.8756 | 0.1471 | -0.2759 | 0.1860 | -0.4619 | 0.1848 |
| 63 | 37.68 | 0.06 | 7.8065 | 1.3725 | 0.5035 | -0.7572 | 0.1475 | -0.2935 | 0.1845 | -0.4779 | 0.1829 |
| 64 | 37.90 | 0.06 | 7.8174 | 1.3545 | 0.5145 | -0.7671 | 0.1476 | -0.3006 | 0.1815 | -0.4821 | 0.1855 |
| 65 | 38.14 | 0.04 | 7.5946 | 1.3455 | 0.3354 | -0.6092 | 0.1359 | -0.3201 | 0.1791 | -0.4992 | 0.1772 |
| 66 | 38.38 | 0.06 | 7.7066 | 1.3142 | 0.5245 | -0.7956 | 0.1040 | -0.3233 | 0.1794 | -0.5027 | 0.1693 |
| 67 | 38.60 | 0.05 | 7.8658 | 1.3785 | 0.5545 | -0.9201 | 0.1500 | -0.3352 | 0.1859 | -0.5211 | 0.1752 |
| 68 | 38.84 | 0.04 | 7.9265 | 1.2672 | 0.3634 | -0.7493 | 0.1025 | -0.3572 | 0.1714 | -0.5286 | 0.1625 |
| 69 | 39.06 | 0.04 | 8.0089 | 1.2149 | 0.4635 | -0.9601 | 0.1858 | -0.3394 | 0.1779 | -0.5173 | 0.1516 |
| 70 | 39.27 | 0.05 | 8.0947 | 1.2731 | 0.5430 | -1.0856 | 0.1069 | -0.3599 | 0.1716 | -0.5315 | 0.1573 |
| 71 | 39.50 | 0.05 | 8.1408 | 1.2430 | 0.5783 | -1.1073 | 0.1512 | -0.3561 | 0.1725 | -0.5286 | 0.1527 |
| 72 | 39.72 | 0.05 | 8.2025 | 1.2078 | 0.5377 | -1.1508 | 0.1279 | -0.3653 | 0.1661 | -0.5514 | 0.1462 |
| 73 | 39.93 | 0.04 | 8.3592 | 1.1535 | 0.4462 | -1.0120 | 0.0926 | -0.3766 | 0.1667 | -0.5433 | 0.1428 |
| 74 | 40.15 | 0.04 | 8.4469 | 1.1025 | 0.4850 | -0.9941 | 0.0721 | -0.3939 | 0.1649 | -0.5588 | 0.1305 |
| 75 | 40.34 | 0.04 | 8.3600 | 1.1702 | 0.4494 | -0.9819 | 0.0513 | -0.3751 | 0.1714 | -0.5465 | 0.1400 |
| 76 | 40.55 | 0.04 | 8.5455 | 1.1058 | 0.4322 | -1.0264 | 0.0108 | -0.3961 | 0.1683 | -0.5644 | 0.1369 |
| 77 | 40.76 | 0.05 | 8.6072 | 1.1455 | 0.5368 | -1.1566 | 0.0407 | -0.3972 | 0.1690 | -0.5662 | 0.1336 |
| 78 | 41.00 | 0.04 | 8.7539 | 1.1057 | 0.5158 | -1.0549 | 0.0235 | -0.4025 | 0.1679 | -0.5704 | 0.1268 |
| 79 | 41.23 | 0.03 | 8.8848 | 1.0254 | 0.3618 | -0.9595 | -0.0059 | -0.4226 | 0.1687 | -0.5913 | 0.1154 |
| 80 | 41.42 | 0.05 | 8.9248 | 1.0155 | 0.6375 | -1.3447 | 0.0857 | -0.4255 | 0.1694 | -0.5949 | 0.1142 |
| 81 | 41.68 | 0.02 | 8.9853 | 1.0287 | 0.3801 | -0.9806 | 0.0534 | -0.4246 | 0.1713 | -0.5959 | 0.1147 |
| 82 | 41.89 | 0.02 | 9.0840 | 0.9974 | 0.3153 | -1.2670 | 0.0185 | -0.4372 | 0.1716 | -0.6088 | 0.1056 |
| 83 | 42.07 | 0.04 | 9.1232 | 0.9553 | 0.5961 | -1.2116 | 0.0367 | -0.4514 | 0.1705 | -0.6219 | 0.1047 |
| 84 | 42.27 | 0.04 | 9.2642 | 0.9335 | 0.5251 | -1.3345 | -0.0180 | -0.4297 | 0.1764 | -0.6061 | 0.1015 |
| 85 | 42.47 | 0.03 | 9.2382 | 1.0222 | 0.5328 | -1.4106 | 0.0315 | -0.4436 | 0.1741 | -0.6177 | 0.1107 |
| 86 | 42.65 | 0.03 | 9.3373 | 0.8763 | 0.4724 | -0.9525 | 0.0436 | -0.4473 | 0.1740 | -0.6213 | 0.0939 |
| 87 | 42.85 | 0.04 | 9.4071 | 0.9753 | 0.5769 | -1.3073 | 0.0497 | -0.4508 | 0.1724 | -0.6232 | 0.1041 |
| 88 | 43.03 | 0.02 | 9.5458 | 1.0262 | 0.3335 | -0.8216 | 0.0495 | -0.4626 | 0.1714 | -0.6340 | 0.1075 |
| 89 | 43.21 | 0.03 | 9.5200 | 0.8956 | 0.5185 | -0.8533 | 0.0850 | -0.4485 | 0.1780 | -0.6245 | 0.0903 |
| 90 | 43.38 | 0.01 | 9.5504 | 1.0107 | 0.3574 | -1.2028 | 0.0266 | -0.4439 | 0.1777 | -0.6216 | 0.1054 |
| 91 | 43.57 | 0.03 | 9.7185 | 1.0088 | 0.5390 | -1.1286 | 0.0960 | -0.4655 | 0.1705 | -0.6360 | 0.1038 |
| 92 | 43.78 | 0.03 | 9.8252 | 1.0201 | 0.5725 | -1.2015 | 0.0867 | -0.4724 | 0.1699 | -0.6423 | 0.1038 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 116 MACH 1.60 REXIO-6 1.7 PHI 0.0 CONF 81 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.95 | 0.04 | 5.6602 | 0.9353 | 0.6337 | -0.5404 | 0.1330 | -0.4599 | 0.1765 | -0.6364 | 0.0953 |
| 94 | 44.14 | 0.03 | 5.6352 | 0.8537 | 0.6016 | -0.1604 | 0.0375 | -0.4601 | 0.1766 | -0.6367 | 0.0859 |
| 95 | 44.32 | 0.02 | 5.6563 | 1.0366 | 0.5055 | -0.5573 | 0.0871 | -0.4622 | 0.1741 | -0.6363 | 0.1037 |
| 96 | 44.45 | 0.03 | 10.0670 | 1.0357 | 0.5155 | -0.5456 | 0.1458 | -0.4651 | 0.1779 | -0.6430 | 0.1027 |
| 97 | 44.67 | 0.02 | 10.0656 | 1.0113 | 0.4543 | -0.6543 | 0.0926 | -0.4668 | 0.1751 | -0.6435 | 0.1002 |
| 98 | 44.88 | 0.01 | 10.0564 | 0.9864 | 0.3889 | -0.7363 | 0.0755 | -0.4616 | 0.1752 | -0.6370 | 0.0938 |
| 99 | 45.05 | 0.01 | 10.2221 | 1.0132 | 0.3565 | -0.9606 | 0.0642 | -0.4664 | 0.1733 | -0.6397 | 0.0991 |
| 100 | 45.24 | 0.03 | 10.2857 | 0.9733 | 0.0536 | -0.9247 | 0.0704 | -0.4638 | 0.1771 | -0.6409 | 0.0946 |
| 101 | 45.41 | 0.01 | 10.4200 | 0.8588 | 0.3452 | -0.5785 | 0.0877 | -0.4931 | 0.1774 | -0.6704 | 0.0824 |
| 102 | 45.61 | 0.01 | 10.3956 | 0.9265 | 0.3546 | -0.6638 | 0.0590 | -0.4668 | 0.1627 | -0.6515 | 0.0876 |
| 103 | 45.79 | 0.00 | 10.5246 | 1.0456 | 0.4062 | -1.0193 | 0.0420 | -0.4657 | 0.1635 | -0.6456 | 0.0957 |
| 104 | 45.98 | 0.00 | 10.7035 | 0.9463 | 0.3796 | -0.8504 | 0.0540 | -0.4722 | 0.1639 | -0.6561 | 0.0878 |
| 105 | 46.15 | 0.00 | 10.7046 | 0.8284 | 0.3462 | -0.4503 | 0.0534 | -0.4736 | 0.1831 | -0.6567 | 0.0774 |
| 106 | 46.34 | -0.01 | 10.8492 | 0.8963 | 0.2060 | -0.4110 | 0.0714 | -0.4812 | 0.1611 | -0.6623 | 0.0781 |
| 107 | 46.51 | -0.02 | 10.8411 | 1.2474 | 0.0484 | 0.4735 | 0.0866 | -0.4636 | 0.1672 | -0.6508 | 0.1151 |
| 108 | 46.69 | -0.01 | 10.8873 | 1.2236 | 0.1647 | 0.3017 | 0.0951 | -0.4731 | 0.1644 | -0.6575 | 0.1124 |
| 109 | 46.83 | 0.02 | 10.9056 | 0.9575 | 0.4320 | -0.0232 | 0.0996 | -0.4712 | 0.1853 | -0.6565 | 0.0915 |
| 110 | 47.03 | 0.00 | 10.9637 | 1.0052 | 0.1741 | 0.5118 | 0.0924 | -0.4708 | 0.1930 | -0.6614 | 0.0970 |
| 111 | 47.21 | -0.00 | 10.9552 | 1.2172 | 0.2795 | 0.6431 | 0.0800 | -0.4649 | 0.1932 | -0.6581 | 0.1111 |
| 112 | 47.37 | -0.01 | 11.0159 | 1.0553 | 0.1836 | 0.7108 | 0.0859 | -0.4659 | 0.2170 | -0.6829 | 0.0998 |
| 113 | 47.53 | 0.02 | 11.0035 | 1.1765 | 0.4911 | 0.4242 | 0.0573 | -0.4525 | 0.2407 | -0.6933 | 0.1071 |
| 114 | 47.74 | 0.03 | 11.1065 | 0.9454 | 0.5332 | 0.5288 | 0.0626 | -0.4412 | 0.2645 | -0.7058 | 0.0585 |
| 115 | 47.93 | -0.00 | 11.2283 | 0.5277 | 0.2020 | 0.5857 | 0.0575 | -0.4610 | 0.2726 | -0.7339 | 0.0470 |
| 116 | 48.10 | 0.03 | 11.4613 | -0.1662 | 0.4458 | 1.0282 | 0.0440 | -0.4370 | 0.2856 | -0.7227 | -0.0157 |
| 117 | 48.28 | 0.02 | 11.5433 | -0.1887 | 0.2643 | 1.2417 | 0.0437 | -0.4360 | 0.3219 | -0.7579 | -0.0163 |
| 118 | 48.47 | 0.04 | 11.6434 | -1.3714 | 0.3870 | 1.8028 | 0.0309 | -0.3297 | 0.3554 | -0.6851 | -0.1158 |
| 119 | 48.64 | 0.07 | 12.1005 | -2.1030 | 0.6811 | 1.7781 | 0.0242 | -0.3060 | 0.4060 | -0.7060 | -0.1738 |
| 120 | 48.77 | 0.05 | 12.2045 | -2.2220 | 0.4716 | 1.7573 | 0.0189 | -0.3104 | 0.4045 | -0.7149 | -0.1821 |
| 121 | 49.00 | 0.06 | 12.3020 | -2.2677 | 0.4667 | 2.1550 | 0.0122 | -0.3311 | 0.4024 | -0.7335 | -0.1848 |
| 122 | 49.16 | 0.06 | 12.3782 | -2.1464 | 0.5732 | 2.1165 | 0.0086 | -0.3292 | 0.3960 | -0.7252 | -0.1729 |
| 123 | 49.36 | 0.05 | 12.5188 | -2.0784 | 0.4816 | 2.2549 | 0.0059 | -0.3448 | 0.3904 | -0.7352 | -0.1661 |
| 124 | 49.51 | 0.04 | 12.5469 | -2.0765 | 0.3960 | 2.2687 | 0.0070 | -0.3243 | 0.3804 | -0.7047 | -0.1659 |
| 125 | 49.69 | 0.05 | 12.6748 | -2.0117 | 0.4518 | 2.1646 | 0.0079 | -0.3429 | 0.3673 | -0.7102 | -0.1587 |
| 126 | 49.87 | 0.05 | 12.7118 | -2.0831 | 0.4943 | 2.0173 | -0.0032 | -0.3792 | 0.3705 | -0.7497 | -0.1623 |
| 127 | 50.07 | 0.02 | 12.7870 | -2.1565 | 0.2311 | 1.9219 | -0.0136 | -0.3947 | 0.3486 | -0.7433 | -0.1688 |
| 128 | 50.26 | 0.03 | 13.0370 | -2.0536 | 0.2747 | 1.8269 | -0.0011 | -0.3882 | 0.3540 | -0.7422 | -0.1805 |
| 129 | 50.40 | 0.01 | 13.0550 | -2.0527 | 0.1160 | 1.8537 | -0.0124 | -0.3708 | 0.3667 | -0.7375 | -0.1633 |
| 130 | 50.59 | 0.01 | 13.1026 | -2.0860 | 0.2199 | 1.7235 | 0.0172 | -0.3533 | 0.3799 | -0.7332 | -0.2021 |
| 131 | 50.76 | 0.04 | 13.1683 | -2.0882 | 0.4714 | 1.5815 | 0.0117 | -0.3443 | 0.3780 | -0.7223 | -0.1870 |
| 132 | 50.92 | 0.01 | 13.1913 | -2.0214 | 0.2596 | 1.1218 | 0.0314 | -0.3674 | 0.3700 | -0.7374 | -0.1911 |
| 133 | 51.08 | -0.00 | 13.0451 | -2.8234 | 0.1264 | 1.1219 | 0.0311 | -0.3892 | 0.3565 | -0.7457 | -0.2003 |
| 134 | 51.26 | 0.02 | 13.3020 | -2.7440 | 0.4340 | 1.0736 | 0.0372 | -0.3731 | 0.3621 | -0.7352 | -0.2063 |
| 135 | 51.41 | 0.02 | 13.0245 | -2.2605 | 0.4058 | 0.7672 | 0.0612 | -0.3721 | 0.3621 | -0.7342 | -0.1731 |
| 136 | 51.55 | 0.01 | 12.9646 | -2.0277 | 0.3303 | 0.6021 | 0.0721 | -0.3637 | 0.3772 | -0.7409 | -0.1564 |
| 137 | 51.72 | 0.02 | 12.9416 | -1.7724 | 0.4426 | 0.7549 | 0.0613 | -0.3605 | 0.3768 | -0.7373 | -0.1370 |
| 138 | 51.90 | 0.02 | 13.0948 | -1.9052 | 0.4566 | 0.8499 | 0.0554 | -0.3542 | 0.3856 | -0.7438 | -0.1455 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 116 MACH 1.00 RX10-6 1.7 PHI 0.0 CONF 81&CF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.05 | -0.01 | 12.9779 | -2.3456 | 0.2276 | 0.8637 | 0.0554 | -0.3578 | 0.3952 | -0.7530 | -0.1579 |
| 140 | 52.41 | -0.00 | 13.0178 | -2.3814 | 0.3104 | 0.8101 | 0.0556 | -0.3567 | 0.3933 | -0.7500 | -0.1522 |
| 141 | 52.38 | -0.00 | 12.9432 | -1.7423 | 0.3311 | 0.7364 | 0.0559 | -0.3302 | 0.3953 | -0.7315 | -0.1346 |
| 142 | 52.39 | 0.00 | 13.0342 | -1.7764 | 0.3063 | 0.7941 | 0.0440 | -0.3330 | 0.3979 | -0.7309 | -0.1358 |
| 143 | 52.74 | 0.00 | 13.1398 | -1.7525 | 0.3427 | 0.9544 | 0.0499 | -0.3395 | 0.4009 | -0.7404 | -0.1334 |
| 144 | 52.69 | -0.00 | 13.2053 | -1.8026 | 0.1944 | 1.1312 | 0.0498 | -0.3492 | 0.3979 | -0.7421 | -0.1407 |
| 145 | 53.04 | -0.02 | 13.1948 | -1.8103 | 0.2215 | 1.0074 | 0.0502 | -0.3247 | 0.4074 | -0.7321 | -0.1372 |
| 146 | 53.22 | -0.03 | 13.1977 | -1.8056 | 0.2594 | 0.9724 | 0.0490 | -0.3256 | 0.4089 | -0.7445 | -0.1413 |
| 147 | 53.38 | -0.00 | 13.1848 | -1.8571 | 0.2512 | 0.9217 | 0.0389 | -0.3116 | 0.4188 | -0.7304 | -0.1257 |
| 148 | 53.34 | -0.02 | 13.2675 | -1.8727 | 0.0847 | 0.9502 | 0.0454 | -0.2941 | 0.4289 | -0.7230 | -0.1481 |
| 149 | 53.71 | 0.00 | 13.3160 | -2.1157 | 0.2511 | 1.1059 | 0.0500 | -0.3247 | 0.4252 | -0.7499 | -0.1589 |
| 150 | 53.68 | -0.04 | 13.4764 | -2.3750 | -0.0275 | 0.9501 | 0.0518 | -0.3246 | 0.4316 | -0.7502 | -0.1762 |
| 151 | 54.04 | -0.01 | 13.4253 | -2.1552 | 0.1755 | 0.9614 | 0.0514 | -0.3168 | 0.4415 | -0.7583 | -0.1638 |
| 152 | 54.16 | 0.01 | 13.3756 | -2.2444 | 0.3246 | 1.1985 | 0.0555 | -0.3108 | 0.4471 | -0.7579 | -0.1678 |
| 153 | 54.36 | -0.02 | 13.5558 | -2.0841 | 0.0855 | 0.9512 | 0.0455 | -0.3397 | 0.4476 | -0.7873 | -0.1574 |
| 154 | 54.50 | 0.01 | 13.4820 | -2.3978 | 0.3045 | 1.1826 | 0.0442 | -0.3156 | 0.4464 | -0.7625 | -0.1781 |
| 155 | 54.65 | -0.00 | 13.4471 | -2.3868 | 0.2593 | 1.0053 | 0.0507 | -0.3323 | 0.4480 | -0.7803 | -0.1761 |
| 156 | 54.81 | -0.02 | 13.4352 | -2.2857 | 0.1016 | 1.0006 | 0.0450 | -0.3250 | 0.4484 | -0.7739 | -0.1701 |
| 157 | 54.98 | -0.01 | 13.6095 | -2.1405 | 0.1027 | 0.8514 | 0.0526 | -0.2912 | 0.4513 | -0.7425 | -0.1573 |
| 158 | 55.11 | -0.03 | 13.5625 | -2.3846 | -0.0337 | 0.8329 | 0.0467 | -0.3229 | 0.4476 | -0.7705 | -0.1758 |
| 159 | 55.28 | -0.02 | 13.6257 | -2.4778 | 0.0160 | 0.8493 | 0.0408 | -0.3262 | 0.4491 | -0.7773 | -0.1818 |
| 160 | 55.43 | -0.02 | 13.6026 | -2.3004 | 0.1436 | 0.8194 | 0.0384 | -0.3126 | 0.4533 | -0.7659 | -0.1691 |
| 161 | 55.57 | 0.00 | 13.5564 | -2.3845 | 0.3475 | 0.5466 | 0.0530 | -0.3304 | 0.4486 | -0.7790 | -0.1754 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 11a | MACH 1.00 | RX10-6 1.7 | PHI 0.0 | CONF BIAUF13 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.91 | 0.01 | 0.0027 | 0.0108 | 0.0101 | 4.0021 | 6.6389 | -1.0066 | -0.0047 | -0.4566 | 0.0047 | 0.4538 |
| 2 | -5.90 | 0.01 | 0.0067 | 0.0056 | 0.0165 | 14.0075 | 24.0766 | -1.0065 | -0.0047 | -0.4570 | 0.0047 | 0.4540 |
| 3 | -5.90 | 0.00 | -0.0055 | 0.0089 | 0.0146 | -1.8190 | -2.8448 | -1.0105 | -0.0047 | -0.4564 | 0.0047 | 0.4516 |
| 4 | -5.90 | 0.00 | -0.0005 | 0.0056 | 0.0165 | -32.0170 | -54.8416 | -1.0203 | -0.0036 | -0.4595 | 0.0035 | 0.4563 |
| 5 | -5.91 | 0.00 | 0.0006 | 0.0103 | 0.0176 | 17.1758 | 29.2600 | -1.0129 | -0.0044 | -0.4588 | 0.0044 | 0.4525 |
| 6 | -5.90 | 0.01 | -0.0014 | 0.0056 | 0.0162 | -7.0752 | -11.5300 | -1.0105 | -0.0043 | -0.4577 | 0.0043 | 0.4525 |
| 7 | -5.90 | -0.00 | -0.0044 | 0.0085 | 0.0148 | -2.0238 | -3.3060 | -1.0203 | -0.0040 | -0.4592 | 0.0039 | 0.4550 |
| 8 | -5.71 | 0.01 | 0.0046 | 0.0106 | 0.0185 | 2.2512 | 3.9292 | -1.0467 | -0.0024 | -0.4732 | 0.0023 | 0.4521 |
| 9 | -3.89 | 0.01 | 0.0111 | 0.0115 | 0.0203 | 1.0725 | 1.8256 | -1.2961 | 0.0063 | -0.5832 | -0.0049 | 0.4550 |
| 10 | -2.02 | 0.01 | -0.0021 | 0.0052 | 0.0192 | -9.3633 | -6.7358 | -1.2415 | 0.0047 | -0.5593 | -0.0038 | 0.4553 |
| 11 | -0.05 | 0.00 | 0.0156 | 0.0106 | 0.0156 | 0.6839 | 1.2381 | -1.2468 | 0.0015 | -0.5746 | -0.0012 | 0.4610 |
| 12 | 1.81 | 0.01 | 0.0196 | 0.0101 | 0.0183 | 0.6737 | 1.2172 | -1.2037 | -0.0076 | -0.5590 | 0.0063 | 0.4644 |
| 13 | 3.17 | 0.01 | 0.0169 | 0.0094 | 0.0181 | 0.5111 | 0.9814 | -1.1396 | -0.0125 | -0.5268 | 0.0113 | 0.4660 |
| 14 | 4.88 | 0.01 | 0.0077 | 0.0075 | 0.0160 | 1.0265 | 2.0715 | -1.0695 | -0.0195 | -0.4959 | 0.0183 | 0.4637 |
| 15 | 6.70 | 0.01 | 0.0118 | 0.0063 | 0.0247 | 0.5342 | 2.0914 | -1.0279 | -0.0243 | -0.5013 | 0.0237 | 0.4876 |
| 16 | 8.48 | 0.01 | 0.0006 | 0.0056 | 0.0180 | 9.8386 | 31.2004 | -0.9234 | -0.0243 | -0.4590 | 0.0264 | 0.4570 |
| 17 | 10.27 | 0.01 | 0.0197 | 0.0031 | 0.0305 | 0.2590 | 1.5684 | -0.7965 | -0.0274 | -0.4026 | 0.0344 | 0.5042 |
| 18 | 12.14 | 0.01 | 0.0011 | 0.0061 | 0.0210 | 7.3670 | 19.6080 | -0.6967 | -0.0188 | -0.3699 | 0.0270 | 0.5305 |
| 19 | 13.93 | 0.01 | 0.0305 | 0.0072 | 0.0231 | 8.0643 | 25.6373 | -0.5724 | -0.0159 | -0.3161 | 0.0278 | 0.5522 |
| 20 | 15.84 | 0.01 | 0.0061 | 0.0071 | 0.0204 | 0.8770 | 3.2573 | -0.4522 | -0.0118 | -0.2556 | 0.0261 | 0.5653 |
| 21 | 17.76 | 0.01 | -0.0065 | 0.0014 | 0.0228 | -0.2155 | -3.5035 | -0.3344 | -0.0062 | -0.1982 | 0.0186 | 0.5527 |
| 22 | 19.63 | 0.01 | -0.0097 | 0.0 | 0.0288 | 0.0 | -2.9062 | -0.2084 | 0.0018 | -0.1373 | -0.0087 | 0.6587 |
| 23 | 21.56 | 0.02 | -0.0232 | 0.0011 | 0.0104 | -0.0474 | -0.4497 | -0.0824 | 0.0123 | -0.0821 | -0.1495 | 0.5571 |
| 24 | 23.52 | 0.01 | -0.0948 | -0.0142 | -0.0200 | 0.1500 | 0.2106 | -0.0155 | 0.0233 | -0.0461 | -1.5040 | 2.9708 |
| 25 | 25.46 | 0.03 | 0.0454 | 0.0231 | 0.0238 | 0.5091 | 0.5237 | 0.1374 | 0.0320 | 0.0160 | 0.2332 | 0.1162 |
| 26 | 27.50 | 0.08 | 0.3362 | 0.0035 | 0.1456 | 0.1923 | 0.4531 | 0.2736 | 0.0373 | 0.0754 | 0.1361 | 0.2756 |
| 27 | 42.07 | 2.77 | 0.3361 | 0.0627 | 0.1546 | 0.1865 | 0.4595 | 0.2963 | 0.0390 | 0.0854 | 0.1315 | 0.2884 |
| 28 | 26.45 | 0.07 | 0.3555 | 0.0636 | 0.1693 | 0.1756 | 0.4709 | 0.3049 | 0.0399 | 0.0903 | 0.1367 | 0.2961 |
| 29 | 28.81 | 0.08 | 0.3714 | 0.0639 | 0.1765 | 0.1720 | 0.4752 | 0.3188 | 0.0409 | 0.0955 | 0.1282 | 0.2959 |
| 30 | 29.15 | 0.06 | 0.3645 | 0.0624 | 0.1754 | 0.1688 | 0.4736 | 0.3404 | 0.0425 | 0.1067 | 0.1226 | 0.3081 |
| 31 | 29.42 | 0.06 | 0.3616 | 0.0617 | 0.1815 | 0.1616 | 0.4754 | 0.3511 | 0.0432 | 0.1093 | 0.1229 | 0.3114 |
| 32 | 29.73 | 0.08 | 0.4259 | 0.0670 | 0.1992 | 0.1573 | 0.4678 | 0.3693 | 0.0446 | 0.1183 | 0.1207 | 0.3203 |
| 33 | 30.02 | 0.07 | 0.3111 | 0.0502 | 0.1521 | 0.1613 | 0.4690 | 0.3775 | 0.0468 | 0.1221 | 0.1239 | 0.3234 |
| 34 | 30.31 | 0.08 | 0.3672 | 0.0561 | 0.1773 | 0.1527 | 0.4629 | 0.4129 | 0.0484 | 0.1392 | 0.1172 | 0.3371 |
| 35 | 30.58 | 0.07 | 0.3643 | 0.0523 | 0.1762 | 0.1435 | 0.4837 | 0.4141 | 0.0490 | 0.1390 | 0.1183 | 0.3356 |
| 36 | 30.84 | 0.07 | 0.3311 | 0.0454 | 0.1623 | 0.1491 | 0.4901 | 0.4151 | 0.0490 | 0.1416 | 0.1180 | 0.3411 |
| 37 | 31.13 | 0.07 | 0.3793 | 0.0510 | 0.1804 | 0.1344 | 0.4757 | 0.4186 | 0.0497 | 0.1441 | 0.1187 | 0.3442 |
| 38 | 31.39 | 0.06 | 0.3734 | 0.0508 | 0.1785 | 0.1360 | 0.4781 | 0.4310 | 0.0505 | 0.1514 | 0.1171 | 0.3513 |
| 39 | 31.68 | 0.08 | 0.3811 | 0.0509 | 0.1858 | 0.1324 | 0.4874 | 0.4347 | 0.0502 | 0.1519 | 0.1154 | 0.3495 |
| 40 | 31.95 | 0.07 | 0.3426 | 0.0485 | 0.1665 | 0.1417 | 0.4879 | 0.4514 | 0.0516 | 0.1608 | 0.1143 | 0.3561 |
| 41 | 32.23 | 0.07 | 0.3285 | 0.0508 | 0.1515 | 0.1546 | 0.4607 | 0.4767 | 0.0511 | 0.1729 | 0.1071 | 0.3627 |
| 42 | 32.50 | 0.06 | 0.2031 | 0.0406 | 0.0864 | 0.1597 | 0.4252 | 0.4686 | 0.0519 | 0.1788 | 0.1062 | 0.3660 |
| 43 | 32.75 | 0.07 | 0.2971 | 0.0459 | 0.1142 | 0.1784 | 0.4463 | 0.4909 | 0.0526 | 0.1808 | 0.1071 | 0.3684 |
| 44 | 33.02 | 0.03 | 0.0079 | 0.0184 | -0.0074 | 2.3437 | -0.9397 | 0.5025 | 0.0561 | 0.1895 | 0.1116 | 0.3771 |
| 45 | 33.28 | 0.03 | -0.0033 | 0.0164 | -0.0188 | -4.5723 | 5.8240 | 0.4926 | 0.0574 | 0.1851 | 0.1165 | 0.3756 |
| 46 | 33.53 | 0.03 | -0.0557 | 0.0069 | -0.0367 | -0.1242 | 0.6300 | 0.4972 | 0.0606 | 0.1863 | 0.1219 | 0.3787 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART Alb MACH 1.00 RX10-6 1.7 PHI 0.0 CONF SIMOPTIS C.G DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.76 | 0.02 | 0.0538 | 0.0175 | 0.0188 | 0.3255 | 0.3487 | 0.5092 | 0.0597 | 0.1951 | 0.1172 | 0.3832 |
| 48 | 34.03 | 0.01 | 0.0156 | 0.0065 | -0.0053 | 0.5676 | -0.3545 | 0.5079 | 0.0608 | 0.1941 | 0.1157 | 0.3822 |
| 49 | 34.27 | 0.02 | 0.0770 | 0.0131 | 0.0256 | 0.1706 | 0.3648 | 0.5140 | 0.0603 | 0.1967 | 0.1173 | 0.3827 |
| 50 | 34.54 | 0.03 | 0.0225 | 0.0032 | 0.0047 | 0.1423 | 0.2396 | 0.5126 | 0.0620 | 0.1973 | 0.1209 | 0.3849 |
| 51 | 34.78 | 0.05 | 0.1887 | 0.0178 | 0.0540 | 0.0945 | 0.4961 | 0.5259 | 0.0603 | 0.2045 | 0.1146 | 0.3885 |
| 52 | 35.03 | 0.03 | 0.0865 | 0.0009 | 0.0405 | 0.0792 | 0.5798 | 0.5323 | 0.0614 | 0.2080 | 0.1150 | 0.3907 |
| 53 | 35.29 | 0.03 | 0.1904 | 0.0168 | 0.0552 | 0.0884 | 0.5006 | 0.5442 | 0.0610 | 0.2157 | 0.1121 | 0.3963 |
| 54 | 35.53 | 0.04 | 0.1758 | 0.0156 | 0.0503 | 0.0855 | 0.5136 | 0.5441 | 0.0614 | 0.2167 | 0.1128 | 0.3983 |
| 55 | 35.75 | 0.06 | 0.1466 | 0.0094 | 0.0795 | 0.0842 | 0.5423 | 0.5559 | 0.0620 | 0.2248 | 0.1115 | 0.4044 |
| 56 | 36.02 | 0.05 | 0.1592 | 0.0102 | 0.0754 | 0.1019 | 0.4735 | 0.5751 | 0.0625 | 0.2335 | 0.1087 | 0.4059 |
| 57 | 36.25 | 0.06 | 0.2402 | 0.0215 | 0.1160 | 0.0913 | 0.4828 | 0.5630 | 0.0624 | 0.2258 | 0.1108 | 0.4082 |
| 58 | 36.47 | 0.06 | 0.1743 | 0.0140 | 0.0803 | 0.0805 | 0.4950 | 0.5846 | 0.0631 | 0.2402 | 0.1079 | 0.4168 |
| 59 | 36.72 | 0.05 | 0.2318 | 0.0215 | 0.1125 | 0.0946 | 0.4851 | 0.5967 | 0.0629 | 0.2447 | 0.1054 | 0.4161 |
| 60 | 36.97 | 0.05 | 0.2455 | 0.0199 | 0.1224 | 0.0949 | 0.4862 | 0.6206 | 0.0632 | 0.2564 | 0.1018 | 0.4131 |
| 61 | 37.20 | 0.05 | 0.2503 | 0.0252 | 0.1300 | 0.0869 | 0.4884 | 0.6110 | 0.0641 | 0.2533 | 0.1049 | 0.4147 |
| 62 | 37.44 | 0.06 | 0.2562 | 0.0241 | 0.1227 | 0.0884 | 0.4904 | 0.6206 | 0.0636 | 0.2581 | 0.1025 | 0.4158 |
| 63 | 37.68 | 0.06 | 0.2693 | 0.0235 | 0.1260 | 0.0874 | 0.4753 | 0.6279 | 0.0642 | 0.2598 | 0.1022 | 0.4137 |
| 64 | 37.90 | 0.06 | 0.2666 | 0.0203 | 0.1257 | 0.0782 | 0.4715 | 0.6241 | 0.0656 | 0.2584 | 0.1051 | 0.4140 |
| 65 | 38.14 | 0.04 | 0.2577 | 0.0201 | 0.1207 | 0.0781 | 0.4683 | 0.6357 | 0.0651 | 0.2641 | 0.1024 | 0.4154 |
| 66 | 38.38 | 0.06 | 0.2590 | 0.0203 | 0.1259 | 0.0785 | 0.4861 | 0.6281 | 0.0678 | 0.2625 | 0.1079 | 0.4179 |
| 67 | 38.60 | 0.05 | 0.2650 | 0.0224 | 0.0922 | 0.0630 | 0.4997 | 0.6521 | 0.0676 | 0.2742 | 0.1040 | 0.4205 |
| 68 | 38.84 | 0.04 | 0.2636 | 0.0224 | 0.0960 | 0.0812 | 0.4472 | 0.6643 | 0.0685 | 0.2775 | 0.1031 | 0.4178 |
| 69 | 39.06 | 0.04 | 0.2323 | 0.0151 | 0.1064 | 0.0823 | 0.4582 | 0.6641 | 0.0688 | 0.2791 | 0.1036 | 0.4203 |
| 70 | 39.27 | 0.05 | 0.2465 | 0.0204 | 0.1340 | 0.0703 | 0.4615 | 0.6684 | 0.0703 | 0.2803 | 0.1052 | 0.4194 |
| 71 | 39.50 | 0.05 | 0.2263 | 0.0154 | 0.1045 | 0.0676 | 0.4578 | 0.6684 | 0.0717 | 0.2817 | 0.1073 | 0.4214 |
| 72 | 39.72 | 0.05 | 0.2267 | 0.0161 | 0.1016 | 0.0711 | 0.4456 | 0.6850 | 0.0720 | 0.2861 | 0.1054 | 0.4188 |
| 73 | 39.95 | 0.04 | 0.1714 | 0.0141 | 0.0721 | 0.0824 | 0.4207 | 0.6878 | 0.0724 | 0.2883 | 0.1053 | 0.4191 |
| 74 | 40.15 | 0.04 | 0.2656 | 0.0125 | 0.1340 | 0.1435 | 0.1022 | 0.7167 | 0.0720 | 0.3032 | 0.1005 | 0.4231 |
| 75 | 40.34 | 0.04 | 0.1530 | 0.0155 | 0.0485 | 0.1040 | 0.3195 | 0.7033 | 0.0731 | 0.2966 | 0.1039 | 0.4217 |
| 76 | 40.55 | 0.04 | 0.2650 | 0.0187 | 0.1073 | 0.2016 | 0.0003 | 0.7237 | 0.0738 | 0.3048 | 0.1020 | 0.4213 |
| 77 | 40.76 | 0.05 | 0.1556 | 0.0177 | 0.0552 | 0.1143 | 0.3562 | 0.7225 | 0.0752 | 0.3038 | 0.1041 | 0.4207 |
| 78 | 41.00 | 0.04 | 0.2551 | 0.0177 | 0.0225 | 0.1789 | 0.2310 | 0.7330 | 0.0760 | 0.3097 | 0.1037 | 0.4225 |
| 79 | 41.23 | 0.03 | 0.3557 | 0.0195 | -0.0106 | 0.3509 | -0.1913 | 0.7498 | 0.0763 | 0.3185 | 0.1018 | 0.4248 |
| 80 | 41.42 | 0.05 | 0.1464 | 0.0191 | 0.0393 | 0.1513 | 0.3106 | 0.7475 | 0.0770 | 0.3148 | 0.1030 | 0.4211 |
| 81 | 41.68 | 0.02 | 0.1967 | 0.0265 | 0.0763 | 0.1345 | 0.3880 | 0.7341 | 0.0763 | 0.3084 | 0.1040 | 0.4201 |
| 82 | 41.85 | 0.02 | 0.1362 | 0.0256 | 0.0321 | 0.1697 | 0.2359 | 0.7595 | 0.0756 | 0.3195 | 0.0998 | 0.4207 |
| 83 | 42.07 | 0.04 | 0.1322 | 0.0248 | 0.0355 | 0.1878 | 0.2719 | 0.7607 | 0.0763 | 0.3190 | 0.1003 | 0.4194 |
| 84 | 42.27 | 0.04 | 0.0860 | 0.0230 | 0.0021 | 0.2675 | 0.0240 | 0.7730 | 0.0761 | 0.3255 | 0.0984 | 0.4208 |
| 85 | 42.47 | 0.03 | 0.1402 | 0.0254 | 0.0355 | 0.1814 | 0.2535 | 0.7556 | 0.0769 | 0.3155 | 0.1018 | 0.4175 |
| 86 | 42.65 | 0.03 | 0.1058 | 0.0235 | 0.0025 | 0.1440 | 0.3773 | 0.7353 | 0.0776 | 0.3029 | 0.1056 | 0.4120 |
| 87 | 42.85 | 0.04 | 0.1508 | 0.0260 | 0.0437 | 0.1726 | 0.2896 | 0.7521 | 0.0769 | 0.3129 | 0.1023 | 0.4166 |
| 88 | 43.03 | 0.02 | 0.1367 | 0.0218 | 0.0377 | 0.1582 | 0.2754 | 0.7575 | 0.0774 | 0.3187 | 0.1022 | 0.4207 |
| 89 | 43.21 | 0.03 | 0.1564 | 0.0237 | 0.0597 | 0.1498 | 0.3771 | 0.7411 | 0.0769 | 0.3048 | 0.1038 | 0.4114 |
| 90 | 43.38 | 0.01 | 0.1454 | 0.0235 | 0.0235 | 0.1408 | 0.1900 | 0.7049 | 0.0777 | 0.3214 | 0.1016 | 0.4202 |
| 91 | 43.57 | 0.03 | 0.1656 | 0.0261 | 0.0563 | 0.1658 | 0.3318 | 0.7589 | 0.0777 | 0.3178 | 0.1024 | 0.4188 |
| 92 | 43.78 | 0.03 | 0.1776 | 0.0267 | 0.0633 | 0.1619 | 0.3565 | 0.7455 | 0.0789 | 0.3103 | 0.1059 | 0.4163 |

PARTIAL MISSILE TAILS EFFECTS DATA

| | TEST | PART | MACH | REIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 11a | 1.00 | 1.7 | C.C | B1buf13 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| FCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.99 | 0.04 | 0.1646 | 0.0226 | 0.C76C | 0.1411 | 0.4010 | 0.7227 | 0.0788 | 0.2978 | 0.1091 | 0.4121 |
| 94 | 44.12 | 0.03 | 0.1515 | 0.0266 | 0.0467 | 0.1758 | 0.3081 | 0.7621 | 0.0760 | 0.3176 | 0.1024 | 0.4167 |
| 95 | 44.32 | 0.02 | 0.1628 | 0.0245 | 0.0718 | 0.1342 | 0.3917 | 0.7260 | 0.0791 | 0.3005 | 0.1050 | 0.4140 |
| 96 | 44.49 | 0.03 | 0.1644 | 0.0243 | 0.0674 | 0.1486 | 0.4097 | 0.6970 | 0.0802 | 0.2867 | 0.1151 | 0.4113 |
| 97 | 44.67 | 0.02 | 0.1255 | 0.0206 | 0.0412 | 0.1666 | 0.3280 | 0.7321 | 0.0764 | 0.3047 | 0.1071 | 0.4163 |
| 98 | 44.88 | 0.01 | 0.1217 | 0.0225 | 0.0295 | 0.1869 | 0.2425 | 0.7370 | 0.0786 | 0.3079 | 0.1067 | 0.4177 |
| 99 | 45.05 | 0.01 | 0.1416 | 0.0251 | 0.0364 | 0.1775 | 0.2574 | 0.7455 | 0.0781 | 0.3115 | 0.1048 | 0.4184 |
| 100 | 45.24 | 0.03 | 0.1275 | 0.0216 | 0.0352 | 0.1665 | 0.2764 | 0.7248 | 0.0781 | 0.3032 | 0.1078 | 0.4184 |
| 101 | 45.41 | 0.01 | 0.1252 | 0.0183 | 0.0425 | 0.1464 | 0.3392 | 0.7323 | 0.0777 | 0.3023 | 0.1061 | 0.4129 |
| 102 | 45.61 | 0.01 | 0.1037 | 0.0191 | 0.0191 | 0.1645 | 0.1840 | 0.7295 | 0.0779 | 0.3034 | 0.1068 | 0.4160 |
| 103 | 45.79 | 0.00 | 0.0873 | 0.0202 | 0.0047 | 0.2318 | 0.0541 | 0.7320 | 0.0777 | 0.3035 | 0.1062 | 0.4147 |
| 104 | 45.98 | 0.00 | 0.0883 | 0.0192 | 0.0096 | 0.2229 | 0.1117 | 0.7345 | 0.0781 | 0.3049 | 0.1064 | 0.4152 |
| 105 | 46.15 | 0.00 | 0.0863 | 0.0188 | 0.0132 | 0.2071 | 0.1639 | 0.7227 | 0.0780 | 0.2971 | 0.1080 | 0.4111 |
| 106 | 46.32 | -0.01 | 0.0956 | 0.0252 | 0.0166 | 0.2123 | 0.1763 | 0.7230 | 0.0766 | 0.2971 | 0.1062 | 0.4116 |
| 107 | 46.51 | -0.02 | 0.0763 | 0.0114 | 0.0232 | 0.1497 | 0.3041 | 0.6786 | 0.0785 | 0.2782 | 0.1157 | 0.4100 |
| 108 | 46.69 | -0.01 | 0.0966 | 0.0175 | 0.0276 | 0.1776 | 0.2621 | 0.6967 | 0.0770 | 0.2867 | 0.1102 | 0.4103 |
| 109 | 46.83 | 0.02 | 0.0976 | 0.0135 | 0.0334 | 0.1365 | 0.3426 | 0.6810 | 0.0775 | 0.2772 | 0.1138 | 0.4071 |
| 110 | 47.03 | 0.00 | 0.0865 | 0.0091 | 0.0227 | 0.1371 | 0.3415 | 0.6726 | 0.0783 | 0.2739 | 0.1164 | 0.4073 |
| 111 | 47.21 | -0.00 | 0.0942 | 0.0170 | 0.0141 | 0.1424 | 0.2855 | 0.6736 | 0.0753 | 0.2753 | 0.1177 | 0.4087 |
| 112 | 47.37 | -0.01 | 0.0836 | 0.0115 | 0.0173 | 0.1803 | 0.2705 | 0.7301 | 0.0781 | 0.3006 | 0.1070 | 0.4118 |
| 113 | 47.53 | 0.02 | 0.0814 | 0.0123 | 0.0126 | 0.2006 | 0.2078 | 0.7127 | 0.0785 | 0.2945 | 0.1107 | 0.4132 |
| 114 | 47.74 | 0.03 | 0.0427 | 0.0171 | 0.0092 | 0.4067 | 0.0752 | 0.7035 | 0.0760 | 0.3152 | 0.0956 | 0.4128 |
| 115 | 47.93 | -0.00 | 0.0388 | 0.0157 | -0.0005 | 0.5082 | -0.0233 | 0.6029 | 0.0751 | 0.3332 | 0.0935 | 0.4145 |
| 116 | 48.10 | 0.03 | -0.0093 | 0.0150 | -0.0170 | -2.0441 | 1.8230 | 0.7594 | 0.0736 | 0.3060 | 0.0969 | 0.4025 |
| 117 | 48.26 | 0.02 | -0.0470 | 0.0136 | -0.0396 | -0.2895 | 0.8410 | 0.7929 | 0.0715 | 0.3192 | 0.0902 | 0.4026 |
| 118 | 48.47 | 0.04 | 0.0065 | -0.0015 | 0.0013 | -0.2309 | 0.2006 | 0.7590 | 0.0723 | 0.3103 | 0.0953 | 0.4088 |
| 119 | 48.64 | 0.07 | 0.0157 | -0.0046 | 0.0033 | -0.2032 | 0.1660 | 0.7623 | 0.0728 | 0.3102 | 0.0955 | 0.4085 |
| 120 | 48.77 | 0.05 | 0.0439 | -0.0038 | 0.0041 | -0.0800 | 0.0937 | 0.7696 | 0.0729 | 0.3112 | 0.0947 | 0.4043 |
| 121 | 49.00 | 0.06 | 0.0231 | -0.0058 | -0.0029 | -0.2512 | -0.1259 | 0.7792 | 0.0726 | 0.3165 | 0.0932 | 0.4062 |
| 122 | 49.16 | 0.06 | 0.0228 | -0.0055 | -0.0013 | -0.2414 | -0.0572 | 0.7760 | 0.0721 | 0.3168 | 0.0929 | 0.4065 |
| 123 | 49.36 | 0.05 | 0.0106 | -0.0050 | -0.0061 | -0.8495 | -0.5773 | 0.7842 | 0.0722 | 0.3152 | 0.0921 | 0.4015 |
| 124 | 49.51 | 0.04 | 0.0155 | -0.0065 | -0.0013 | -0.3335 | -0.0069 | 0.7776 | 0.0709 | 0.3080 | 0.0912 | 0.3966 |
| 125 | 49.69 | 0.05 | 0.0164 | -0.0076 | -0.0022 | -0.4637 | -0.1346 | 0.7729 | 0.0705 | 0.3055 | 0.0912 | 0.3952 |
| 126 | 49.87 | 0.05 | 0.0245 | -0.0167 | 0.0032 | -0.4370 | 0.1310 | 0.8025 | 0.0713 | 0.3195 | 0.0888 | 0.3981 |
| 127 | 50.07 | 0.02 | 0.0376 | -0.0128 | 0.0046 | -0.3406 | 0.1227 | 0.8457 | 0.0694 | 0.3373 | 0.0821 | 0.3988 |
| 128 | 50.26 | 0.03 | 0.0546 | -0.0161 | 0.0109 | -0.1114 | 0.1995 | 0.8434 | 0.0696 | 0.3340 | 0.0828 | 0.3966 |
| 129 | 50.40 | 0.01 | 0.0482 | -0.0076 | 0.0054 | -0.1453 | 0.1124 | 0.8530 | 0.0691 | 0.3377 | 0.0810 | 0.3959 |
| 130 | 50.59 | 0.01 | 0.0764 | -0.0091 | 0.0133 | -0.0458 | 0.1870 | 0.8297 | 0.0678 | 0.3225 | 0.0817 | 0.3887 |
| 131 | 50.76 | 0.04 | 0.0856 | 0.0001 | 0.0224 | 0.0012 | 0.2017 | 0.8385 | 0.0700 | 0.3337 | 0.0835 | 0.3979 |
| 132 | 50.92 | 0.01 | 0.0883 | 0.0059 | 0.0116 | 0.0669 | 0.1251 | 0.8031 | 0.0649 | 0.3036 | 0.0808 | 0.3781 |
| 133 | 51.08 | -0.00 | 0.0860 | 0.0046 | 0.0084 | 0.0576 | 0.1055 | 0.8104 | 0.0661 | 0.3054 | 0.0791 | 0.3768 |
| 134 | 51.20 | 0.02 | 0.0763 | 0.0061 | 0.0065 | 0.0801 | 0.0513 | 0.7941 | 0.0622 | 0.2957 | 0.0783 | 0.3724 |
| 135 | 51.41 | 0.02 | 0.0918 | 0.0100 | 0.0157 | 0.1093 | 0.1710 | 0.7867 | 0.0648 | 0.2998 | 0.0819 | 0.3799 |
| 136 | 51.55 | 0.01 | 0.0963 | 0.0057 | 0.0081 | 0.1727 | 0.0953 | 0.7720 | 0.0647 | 0.2936 | 0.0838 | 0.3803 |
| 137 | 51.72 | 0.02 | 0.0894 | 0.0100 | 0.0045 | 0.2025 | 0.0914 | 0.7633 | 0.0650 | 0.2905 | 0.0851 | 0.3808 |
| 138 | 51.90 | 0.03 | 0.0867 | 0.0091 | -0.0051 | 0.3015 | -0.1694 | 0.7588 | 0.0640 | 0.2855 | 0.0843 | 0.3762 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 110 MACH 1.00 RX10=6 1.7 PHI 0.0 CONF B1BOF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.05 | -0.01 | 0.0371 | 0.0051 | -0.0008 | 0.2454 | -0.0216 | 0.7681 | 0.0644 | 0.2924 | 0.0838 | 0.3807 |
| 140 | 52.21 | -0.00 | 0.0371 | 0.0013 | -0.0013 | 0.0347 | -0.0052 | 0.7681 | 0.0033 | 0.2881 | 0.0826 | 0.3760 |
| 141 | 52.38 | -0.00 | 0.0375 | 0.0075 | -0.0038 | 0.2690 | -0.1366 | 0.7527 | 0.0627 | 0.2822 | 0.0833 | 0.3745 |
| 142 | 52.54 | 0.02 | 0.0384 | 0.0066 | -0.0121 | 0.0100 | -1.4451 | 0.7549 | 0.0621 | 0.2808 | 0.0825 | 0.3730 |
| 143 | 52.74 | 0.00 | 0.0228 | 0.0060 | -0.0066 | 0.3561 | -0.2904 | 0.7601 | 0.0622 | 0.2826 | 0.0818 | 0.3717 |
| 144 | 52.89 | -0.02 | 0.0064 | 0.0057 | -0.0115 | 0.6789 | -1.3734 | 0.7498 | 0.0610 | 0.2742 | 0.0815 | 0.3682 |
| 145 | 53.04 | -0.02 | 0.0064 | 0.0068 | -0.0117 | 0.7258 | -1.2487 | 0.7493 | 0.0608 | 0.2763 | 0.0811 | 0.3688 |
| 146 | 53.22 | -0.03 | 0.0064 | 0.0057 | -0.0131 | 0.8911 | -2.0377 | 0.7541 | 0.0630 | 0.2785 | 0.0795 | 0.3694 |
| 147 | 53.38 | -0.00 | -0.0028 | 0.0050 | -0.0172 | -1.7867 | 6.1267 | 0.7258 | 0.0585 | 0.2644 | 0.0806 | 0.3643 |
| 148 | 53.54 | -0.02 | -0.0036 | 0.0052 | -0.0154 | -1.8342 | 5.2635 | 0.7234 | 0.0582 | 0.2633 | 0.0804 | 0.3640 |
| 149 | 53.71 | 0.00 | -0.0271 | 0.0055 | -0.0235 | -0.2178 | 0.6810 | 0.7267 | 0.0582 | 0.2631 | 0.0801 | 0.3620 |
| 150 | 53.88 | -0.04 | -0.0228 | 0.0050 | -0.0227 | -0.2194 | 0.9544 | 0.7397 | 0.0586 | 0.2706 | 0.0792 | 0.3658 |
| 151 | 54.04 | -0.01 | -0.0161 | 0.0057 | -0.0175 | -0.3542 | 1.0842 | 0.7505 | 0.0574 | 0.2769 | 0.0785 | 0.3690 |
| 152 | 54.18 | 0.01 | -0.0347 | 0.0052 | -0.0274 | -0.1311 | 0.6949 | 0.7063 | 0.0441 | 0.2584 | 0.0824 | 0.3658 |
| 153 | 54.36 | -0.02 | -0.0222 | 0.0057 | -0.0206 | -0.2569 | 0.9354 | 0.7372 | 0.0566 | 0.2690 | 0.0768 | 0.3645 |
| 154 | 54.50 | 0.01 | -0.0472 | 0.0063 | -0.0297 | -0.1335 | 0.6291 | 0.7420 | 0.0562 | 0.2718 | 0.0757 | 0.3663 |
| 155 | 54.69 | -0.00 | -0.0372 | 0.0064 | -0.0240 | -0.1721 | 0.6445 | 0.7610 | 0.0568 | 0.2800 | 0.0746 | 0.3680 |
| 156 | 54.81 | -0.02 | -0.0277 | 0.0062 | -0.0211 | -0.2439 | 0.7005 | 0.7444 | 0.0553 | 0.2735 | 0.0743 | 0.3674 |
| 157 | 54.98 | -0.01 | -0.0135 | 0.0064 | -0.0138 | -0.4743 | 1.0161 | 0.7056 | 0.0426 | 0.2601 | 0.0808 | 0.3686 |
| 158 | 55.11 | -0.03 | -0.0131 | 0.0055 | -0.0160 | -0.4506 | 1.2176 | 0.7303 | 0.0496 | 0.2681 | 0.0679 | 0.3671 |
| 159 | 55.28 | -0.02 | -0.0193 | 0.0055 | -0.0187 | -0.3059 | 0.9666 | 0.7549 | 0.0550 | 0.2773 | 0.0728 | 0.3674 |
| 160 | 55.43 | -0.02 | -0.0219 | 0.0053 | -0.0184 | -0.2421 | 0.7467 | 0.7152 | 0.0428 | 0.2651 | 0.0598 | 0.3707 |
| 161 | 55.57 | 0.00 | -0.0041 | 0.0062 | -0.0103 | -1.5130 | 2.5202 | 0.7416 | 0.0523 | 0.2729 | 0.0705 | 0.3686 |

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MANTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH NX10-6 PHI CONF L DELT DEL2 DEL3 DEL4 TRANSITION
7 11c 1.60 1.7 0.0 BIBUF13 C.C 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.91 | 0.01 | 0.0666 | 0.0000 | 0.0004 | 0.0000 | 0.0564 | -1.0341 | -0.0095 | -0.4207 | 0.0090 | 0.4068 |
| 2 | -5.90 | 0.01 | 0.0659 | 0.0000 | 0.0007 | 0.0000 | 0.0469 | -1.0343 | -0.0087 | -0.4213 | 0.0084 | 0.4073 |
| 3 | -5.90 | 0.01 | 0.0550 | 0.0000 | 0.0005 | 0.0000 | 0.0385 | -1.0515 | -0.0077 | -0.4277 | 0.0073 | 0.4067 |
| 4 | -5.90 | 0.00 | 0.0733 | 0.0000 | 0.0002 | 0.0000 | 0.0050 | -1.0135 | -0.0107 | -0.4110 | 0.0106 | 0.4055 |
| 5 | -5.91 | 0.00 | 0.0700 | 0.0000 | 0.0004 | 0.0000 | 0.0000 | -1.0410 | -0.0085 | -0.4240 | 0.0080 | 0.4073 |
| 6 | -5.90 | 0.01 | 0.0656 | 0.0000 | 0.0002 | 0.0000 | 0.0490 | -1.0333 | -0.0094 | -0.4203 | 0.0091 | 0.4066 |
| 7 | -5.90 | -0.00 | 0.0645 | 0.0000 | 0.0022 | 0.0000 | 0.0543 | -1.0319 | -0.0090 | -0.4199 | 0.0087 | 0.4065 |
| 8 | -5.71 | 0.01 | 0.0799 | 0.0000 | 0.0005 | 0.0000 | 0.1194 | -1.0097 | -0.0105 | -0.4102 | 0.0104 | 0.4062 |
| 9 | -3.86 | 0.01 | 0.1171 | 0.0000 | 0.0267 | 0.0000 | 0.2261 | -0.9999 | -0.0101 | -0.4068 | 0.0101 | 0.4068 |
| 10 | -2.22 | 0.01 | 0.0454 | 0.0000 | -0.0017 | 0.0000 | -0.0376 | -1.0200 | 0.0006 | -0.0425 | -0.0005 | 0.4091 |
| 11 | -0.45 | 0.00 | 0.0554 | 0.0000 | 0.0026 | 0.0000 | 0.0472 | -1.0455 | -0.0013 | -0.0508 | 0.0010 | 0.4093 |
| 12 | 1.31 | 0.01 | 0.0406 | 0.0000 | -0.0006 | 0.0000 | -0.0197 | -1.0720 | -0.0100 | -0.0240 | 0.0077 | 0.4092 |
| 13 | 3.17 | 0.01 | 0.0474 | 0.0000 | 0.0025 | 0.0000 | 0.0529 | -1.0438 | -0.0105 | -0.0048 | 0.0109 | 0.4058 |
| 14 | 4.82 | 0.01 | 0.0356 | 0.0000 | -0.0003 | 0.0000 | -0.0076 | -1.0737 | -0.0228 | -0.0736 | 0.0195 | 0.4036 |
| 15 | 6.70 | 0.01 | 0.0357 | 0.0000 | -0.0011 | 0.0000 | -0.0276 | -1.1254 | -0.0299 | -0.0545 | 0.0266 | 0.4042 |
| 16 | 8.48 | 0.01 | 0.0306 | 0.0000 | -0.0042 | 0.0000 | -0.1366 | -1.0406 | -0.0317 | -0.0412 | 0.0305 | 0.4240 |
| 17 | 10.27 | 0.01 | 0.0278 | 0.0000 | -0.0055 | 0.0000 | -0.2145 | -0.9127 | -0.0332 | -0.3870 | 0.0385 | 0.4240 |
| 18 | 12.11 | 0.01 | 0.0116 | 0.0000 | -0.0056 | 0.0000 | -0.2229 | -0.8202 | -0.0253 | -0.3502 | 0.0309 | 0.4270 |
| 19 | 13.93 | 0.01 | 0.0322 | 0.0000 | -0.0075 | 0.0000 | -0.2481 | -0.0971 | -0.0228 | -0.2556 | 0.0328 | 0.4240 |
| 20 | 15.64 | 0.00 | 0.0350 | 0.0000 | -0.0074 | 0.0000 | -0.2934 | -0.5506 | -0.0183 | -0.2336 | 0.0333 | 0.4242 |
| 21 | 17.76 | 0.01 | 0.0365 | 0.0000 | -0.0103 | 0.0000 | -0.2800 | -0.4267 | -0.0115 | -0.1729 | 0.0269 | 0.4033 |
| 22 | 19.83 | 0.01 | 0.0314 | 0.0000 | -0.0116 | 0.0000 | -0.3770 | -0.2957 | -0.0010 | -0.1133 | 0.0034 | 0.3831 |
| 23 | 21.56 | 0.02 | 0.0351 | 0.0000 | -0.0125 | 0.0000 | -0.2161 | -0.1956 | 0.0096 | -0.0645 | -0.0452 | 0.3317 |
| 24 | 23.52 | 0.01 | 0.0379 | 0.0000 | -0.0082 | 0.0000 | -0.2171 | -0.0974 | 0.0184 | -0.0192 | -0.1892 | 0.1965 |
| 25 | 25.48 | 0.03 | 0.0554 | 0.0000 | 0.0017 | 0.0000 | 0.0308 | -0.0276 | 0.0284 | 0.0147 | -1.0295 | -0.5307 |
| 26 | 27.50 | 0.04 | 0.0627 | 0.0000 | 0.0169 | 0.0000 | 0.1963 | 0.0299 | 0.0577 | 0.0431 | 1.2582 | 1.4394 |
| 27 | 42.07 | 2.77 | 0.0715 | 0.0000 | 0.0075 | 0.0000 | 0.1104 | 0.0515 | 0.0468 | 0.0515 | 0.7507 | 0.9993 |
| 28 | 26.45 | 0.07 | 0.0606 | 0.0000 | 0.0110 | 0.0000 | 0.1367 | 0.0590 | 0.0414 | 0.0557 | 0.7016 | 0.9453 |
| 29 | 28.81 | 0.08 | 0.0665 | 0.0000 | 0.0143 | 0.0000 | 0.1649 | 0.0809 | 0.0445 | 0.0650 | 0.5456 | 0.8033 |
| 30 | 29.15 | 0.06 | 0.0766 | 0.0000 | 0.0096 | 0.0000 | 0.1459 | 0.0940 | 0.0452 | 0.0707 | 0.4775 | 0.7474 |
| 31 | 29.42 | 0.08 | 0.0886 | 0.0000 | 0.0135 | 0.0000 | 0.1554 | 0.1130 | 0.0471 | 0.0752 | 0.4165 | 0.7011 |
| 32 | 29.73 | 0.06 | 0.0912 | 0.0000 | 0.0141 | 0.0000 | 0.1531 | 0.1165 | 0.0499 | 0.0826 | 0.4208 | 0.6973 |
| 33 | 30.02 | 0.07 | 0.0845 | 0.0000 | 0.0121 | 0.0000 | 0.1438 | 0.1709 | 0.0454 | 0.1036 | 0.2850 | 0.6065 |
| 34 | 30.31 | 0.06 | 0.0935 | 0.0000 | 0.0144 | 0.0000 | 0.1536 | 0.1952 | 0.0536 | 0.1150 | 0.2725 | 0.5891 |
| 35 | 30.58 | 0.07 | 0.0781 | 0.0000 | 0.0071 | 0.0000 | 0.0913 | 0.2057 | 0.0525 | 0.1195 | 0.2551 | 0.5809 |
| 36 | 30.84 | 0.07 | 0.0862 | 0.0000 | 0.0115 | 0.0000 | 0.1295 | 0.2083 | 0.0522 | 0.1196 | 0.2565 | 0.5756 |
| 37 | 31.13 | 0.07 | 0.0861 | 0.0000 | 0.0114 | 0.0000 | 0.1300 | 0.2204 | 0.0542 | 0.1269 | 0.2458 | 0.5759 |
| 38 | 31.39 | 0.06 | 0.0893 | 0.0000 | 0.0118 | 0.0000 | 0.1327 | 0.2431 | 0.0554 | 0.1371 | 0.2278 | 0.5638 |
| 39 | 31.63 | 0.08 | 0.0865 | 0.0000 | 0.0105 | 0.0000 | 0.1291 | 0.2235 | 0.0556 | 0.1258 | 0.2491 | 0.5759 |
| 40 | 31.95 | 0.07 | 0.0955 | 0.0000 | 0.0157 | 0.0000 | 0.1635 | 0.2569 | 0.0564 | 0.1456 | 0.2194 | 0.5678 |
| 41 | 32.23 | 0.07 | 0.0960 | 0.0000 | 0.0176 | 0.0000 | 0.1753 | 0.2498 | 0.0584 | 0.1442 | 0.2337 | 0.5772 |
| 42 | 32.50 | 0.06 | 0.0965 | 0.0000 | 0.0155 | 0.0000 | 0.1549 | 0.2795 | 0.0574 | 0.1584 | 0.2071 | 0.5676 |
| 43 | 32.75 | 0.07 | 0.0979 | 0.0000 | 0.0182 | 0.0000 | 0.1857 | 0.2701 | 0.0589 | 0.1549 | 0.2180 | 0.5735 |
| 44 | 33.02 | 0.03 | 0.0746 | 0.0000 | 0.0065 | 0.0000 | 0.1279 | 0.3207 | 0.0570 | 0.1773 | 0.1777 | 0.5526 |
| 45 | 33.26 | 0.03 | 0.0766 | 0.0000 | 0.0111 | 0.0000 | 0.1452 | 0.3219 | 0.0573 | 0.1777 | 0.1780 | 0.5521 |
| 46 | 33.53 | 0.03 | 0.0800 | 0.0000 | 0.0143 | 0.0000 | 0.1763 | 0.3429 | 0.0590 | 0.1877 | 0.1720 | 0.5473 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 11b | 1.00 | 1.7 | 0.0 | BLNDFLG | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| FLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.78 | 0.02 | 0.0656 | 9.9999 | 0.0085 | 9.9999 | 0.1302 | 0.3286 | 0.0579 | 0.1840 | 0.1822 | 0.5598 |
| 48 | 34.03 | 0.01 | 0.0649 | 9.9999 | 0.0081 | 9.9999 | 0.1262 | 0.3659 | 0.0611 | 0.1985 | 0.1675 | 0.5466 |
| 49 | 34.27 | 0.02 | 0.0611 | 9.9999 | 0.0078 | 9.9999 | 0.1250 | 0.3651 | 0.0624 | 0.2079 | 0.1620 | 0.5397 |
| 50 | 34.54 | 0.03 | 0.0666 | 9.9999 | 0.0106 | 9.9999 | 0.1044 | 0.4120 | 0.0624 | 0.2208 | 0.1514 | 0.5360 |
| 51 | 34.78 | 0.05 | 0.0610 | 9.9999 | 0.0085 | 9.9999 | 0.1400 | 0.4166 | 0.0638 | 0.2236 | 0.1531 | 0.5368 |
| 52 | 35.03 | 0.03 | 0.0656 | 9.9999 | 0.0095 | 9.9999 | 0.0705 | 0.4292 | 0.0625 | 0.2304 | 0.1458 | 0.5306 |
| 53 | 35.29 | 0.03 | 0.0605 | 9.9999 | 0.0094 | 9.9999 | 0.0867 | 0.4364 | 0.0640 | 0.2350 | 0.1466 | 0.5304 |
| 54 | 35.53 | 0.04 | 0.0620 | 9.9999 | 0.0097 | 9.9999 | 0.1572 | 0.4540 | 0.0647 | 0.2438 | 0.1425 | 0.5370 |
| 55 | 35.75 | 0.06 | 0.0542 | 9.9999 | 0.0101 | 9.9999 | 0.1129 | 0.4641 | 0.0648 | 0.2477 | 0.1396 | 0.5337 |
| 56 | 36.02 | 0.05 | 0.0664 | 9.9999 | 0.0124 | 9.9999 | 0.1001 | 0.4837 | 0.0660 | 0.2490 | 0.1423 | 0.5370 |
| 57 | 36.25 | 0.06 | 0.0782 | 9.9999 | 0.0173 | 9.9999 | 0.2287 | 0.4827 | 0.0665 | 0.2591 | 0.1377 | 0.5366 |
| 58 | 36.47 | 0.06 | 0.0690 | 9.9999 | 0.0126 | 9.9999 | 0.2010 | 0.4826 | 0.0667 | 0.2579 | 0.1382 | 0.5343 |
| 59 | 36.72 | 0.05 | 0.0665 | 9.9999 | 0.0145 | 9.9999 | 0.2171 | 0.4810 | 0.0675 | 0.2588 | 0.1403 | 0.5375 |
| 60 | 36.97 | 0.05 | 0.0669 | 9.9999 | 0.0136 | 9.9999 | 0.2046 | 0.4960 | 0.0689 | 0.2678 | 0.1385 | 0.5400 |
| 61 | 37.20 | 0.05 | 0.0615 | 9.9999 | 0.0115 | 9.9999 | 0.1867 | 0.5151 | 0.0691 | 0.2774 | 0.1342 | 0.5386 |
| 62 | 37.44 | 0.06 | 0.0618 | 9.9999 | 0.0121 | 9.9999 | 0.1967 | 0.5094 | 0.0694 | 0.2741 | 0.1361 | 0.5376 |
| 63 | 37.68 | 0.06 | 0.0665 | 9.9999 | 0.0145 | 9.9999 | 0.2171 | 0.5413 | 0.0706 | 0.2892 | 0.1304 | 0.5342 |
| 64 | 37.90 | 0.06 | 0.0567 | 9.9999 | 0.0108 | 9.9999 | 0.1946 | 0.5367 | 0.0706 | 0.2869 | 0.1311 | 0.5325 |
| 65 | 38.14 | 0.04 | 0.0656 | 9.9999 | 0.0178 | 9.9999 | 0.1537 | 0.5368 | 0.0705 | 0.2862 | 0.1313 | 0.5331 |
| 66 | 38.38 | 0.06 | 0.0618 | 9.9999 | 0.0131 | 9.9999 | 0.2114 | 0.5619 | 0.0720 | 0.2997 | 0.1281 | 0.5334 |
| 67 | 38.60 | 0.05 | 0.0607 | 9.9999 | 0.0127 | 9.9999 | 0.2086 | 0.5500 | 0.0729 | 0.2945 | 0.1328 | 0.5355 |
| 68 | 38.84 | 0.04 | 0.0441 | 9.9999 | 0.0093 | 9.9999 | 0.1706 | 0.5520 | 0.0740 | 0.2966 | 0.1352 | 0.5373 |
| 69 | 39.08 | 0.04 | 0.0555 | 9.9999 | 0.0132 | 9.9999 | 0.2212 | 0.5544 | 0.0749 | 0.2971 | 0.1351 | 0.5359 |
| 70 | 39.27 | 0.05 | 0.0517 | 9.9999 | 0.0101 | 9.9999 | 0.1966 | 0.5479 | 0.0708 | 0.2934 | 0.1402 | 0.5355 |
| 71 | 39.50 | 0.05 | 0.0528 | 9.9999 | 0.0107 | 9.9999 | 0.2033 | 0.5544 | 0.0778 | 0.2966 | 0.1404 | 0.5350 |
| 72 | 39.72 | 0.05 | 0.0516 | 9.9999 | 0.0104 | 9.9999 | 0.2022 | 0.5403 | 0.0750 | 0.2932 | 0.1446 | 0.5367 |
| 73 | 39.93 | 0.04 | 0.0527 | 9.9999 | 0.0110 | 9.9999 | 0.2094 | 0.5397 | 0.0795 | 0.2904 | 0.1473 | 0.5381 |
| 74 | 40.15 | 0.04 | 0.0529 | 9.9999 | 0.0093 | 9.9999 | 0.1764 | 0.5247 | 0.0822 | 0.2836 | 0.1567 | 0.5404 |
| 75 | 40.34 | 0.04 | 0.0551 | 9.9999 | 0.0111 | 9.9999 | 0.2025 | 0.5404 | 0.0810 | 0.2899 | 0.1499 | 0.5364 |
| 76 | 40.55 | 0.04 | 0.0535 | 9.9999 | 0.0106 | 9.9999 | 0.2010 | 0.5325 | 0.0846 | 0.2850 | 0.1589 | 0.5352 |
| 77 | 40.76 | 0.05 | 0.0505 | 9.9999 | 0.0097 | 9.9999 | 0.1927 | 0.5363 | 0.0845 | 0.2866 | 0.1576 | 0.5347 |
| 78 | 41.00 | 0.04 | 0.0516 | 9.9999 | 0.0104 | 9.9999 | 0.2022 | 0.5404 | 0.0848 | 0.2907 | 0.1552 | 0.5326 |
| 79 | 41.23 | 0.03 | 0.0571 | 9.9999 | 0.0143 | 9.9999 | 0.2499 | 0.5497 | 0.0862 | 0.2913 | 0.1565 | 0.5295 |
| 80 | 41.42 | 0.05 | 0.0567 | 9.9999 | 0.0114 | 9.9999 | 0.2094 | 0.5694 | 0.0846 | 0.3009 | 0.1486 | 0.5285 |
| 81 | 41.68 | 0.02 | 0.0438 | 9.9999 | 0.0082 | 9.9999 | 0.1876 | 0.5620 | 0.0845 | 0.3045 | 0.1452 | 0.5233 |
| 82 | 41.89 | 0.02 | 0.0459 | 9.9999 | 0.0100 | 9.9999 | 0.2031 | 0.5657 | 0.0870 | 0.2958 | 0.1538 | 0.5229 |
| 83 | 42.07 | 0.04 | 0.0618 | 9.9999 | 0.0180 | 9.9999 | 0.2594 | 0.5869 | 0.0862 | 0.3057 | 0.1484 | 0.5196 |
| 84 | 42.27 | 0.04 | 0.0548 | 9.9999 | 0.0148 | 9.9999 | 0.2091 | 0.5700 | 0.0871 | 0.2942 | 0.1528 | 0.5161 |
| 85 | 42.47 | 0.03 | 0.0605 | 9.9999 | 0.0165 | 9.9999 | 0.2724 | 0.5919 | 0.0867 | 0.3039 | 0.1465 | 0.5135 |
| 86 | 42.69 | 0.03 | 0.0525 | 9.9999 | 0.0134 | 9.9999 | 0.2503 | 0.6145 | 0.0856 | 0.3168 | 0.1393 | 0.5156 |
| 87 | 42.85 | 0.04 | 0.0603 | 9.9999 | 0.0171 | 9.9999 | 0.2833 | 0.6015 | 0.0859 | 0.3081 | 0.1428 | 0.5121 |
| 88 | 43.05 | 0.02 | 0.0414 | 9.9999 | 0.0104 | 9.9999 | 0.2520 | 0.6030 | 0.0870 | 0.3083 | 0.1443 | 0.5112 |
| 89 | 43.21 | 0.02 | 0.0281 | 9.9999 | 0.0058 | 9.9999 | 0.1999 | 0.6199 | 0.0866 | 0.3169 | 0.1397 | 0.5112 |
| 90 | 43.38 | 0.01 | 0.0243 | 9.9999 | 0.0107 | 9.9999 | 0.3184 | 0.5962 | 0.0856 | 0.3039 | 0.1436 | 0.5098 |
| 91 | 43.57 | 0.03 | 0.0446 | 9.9999 | 0.0127 | 9.9999 | 0.2836 | 0.6079 | 0.0856 | 0.3102 | 0.1405 | 0.5103 |
| 92 | 43.78 | 0.03 | 0.0536 | 9.9999 | 0.0156 | 9.9999 | 0.2901 | 0.6228 | 0.0852 | 0.3181 | 0.1368 | 0.5108 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 11e | MACH 1.00 | RX10-6 1.7 | PHI 0.0 | CONF BLNDF13 | L 6.6 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.95 | 0.04 | 0.0412 | 9.9999 | 0.0123 | 9.9999 | 0.2971 | 0.6398 | 0.0849 | 0.3259 | 0.1327 | 0.5054 |
| 94 | 44.42 | 0.03 | 0.0346 | 9.9999 | 0.0095 | 9.9999 | 0.2754 | 0.6235 | 0.0821 | 0.3183 | 0.1364 | 0.5102 |
| 95 | 44.32 | 0.02 | 0.0375 | 9.9999 | 0.0099 | 9.9999 | 0.2820 | 0.6384 | 0.0847 | 0.3248 | 0.1327 | 0.5088 |
| 96 | 44.49 | 0.03 | 0.0376 | 9.9999 | 0.0111 | 9.9999 | 0.2936 | 0.6501 | 0.0842 | 0.3301 | 0.1296 | 0.5077 |
| 97 | 44.67 | 0.02 | 0.0532 | 9.9999 | 0.0176 | 9.9999 | 0.3357 | 0.6365 | 0.0852 | 0.3235 | 0.1335 | 0.5067 |
| 98 | 44.88 | 0.01 | 0.0463 | 9.9999 | 0.0152 | 9.9999 | 0.3220 | 0.6260 | 0.0836 | 0.3182 | 0.1375 | 0.5061 |
| 99 | 45.05 | 0.01 | 0.0455 | 9.9999 | 0.0156 | 9.9999 | 0.2977 | 0.6119 | 0.0856 | 0.3107 | 0.1399 | 0.5078 |
| 100 | 45.24 | 0.03 | 0.0474 | 9.9999 | 0.0153 | 9.9999 | 0.3156 | 0.6359 | 0.0856 | 0.3217 | 0.1347 | 0.5059 |
| 101 | 45.41 | 0.01 | 0.0278 | 9.9999 | 0.0073 | 9.9999 | 0.2634 | 0.6399 | 0.0852 | 0.3250 | 0.1332 | 0.5080 |
| 102 | 45.61 | 0.01 | 0.0478 | 9.9999 | 0.0161 | 9.9999 | 0.3372 | 0.6290 | 0.0834 | 0.3148 | 0.1371 | 0.5053 |
| 103 | 45.79 | 0.00 | 0.0508 | 9.9999 | 0.0185 | 9.9999 | 0.3713 | 0.6209 | 0.0842 | 0.3124 | 0.1357 | 0.5031 |
| 104 | 45.98 | 0.00 | 0.0211 | 9.9999 | 0.0059 | 9.9999 | 0.2756 | 0.6130 | 0.0860 | 0.3115 | 0.1403 | 0.5082 |
| 105 | 46.15 | 0.00 | 0.0367 | 9.9999 | 0.0120 | 9.9999 | 0.3111 | 0.6388 | 0.0849 | 0.3232 | 0.1329 | 0.5060 |
| 106 | 46.32 | -0.01 | 0.0254 | 9.9999 | 0.0085 | 9.9999 | 0.3276 | 0.6328 | 0.0850 | 0.3200 | 0.1344 | 0.5057 |
| 107 | 46.51 | -0.02 | 0.0168 | 9.9999 | 0.0050 | 9.9999 | 0.3022 | 0.6397 | 0.0843 | 0.3235 | 0.1318 | 0.5064 |
| 108 | 46.69 | -0.01 | 0.0258 | 9.9999 | 0.0092 | 9.9999 | 0.3097 | 0.6327 | 0.0846 | 0.3208 | 0.1341 | 0.5071 |
| 109 | 46.83 | 0.02 | 0.0267 | 9.9999 | 0.0082 | 9.9999 | 0.2866 | 0.6522 | 0.0842 | 0.3304 | 0.1291 | 0.5065 |
| 110 | 47.03 | 0.00 | 0.0243 | 9.9999 | 0.0074 | 9.9999 | 0.3055 | 0.6475 | 0.0832 | 0.3263 | 0.1285 | 0.5046 |
| 111 | 47.21 | -0.00 | 0.0165 | 9.9999 | 0.0056 | 9.9999 | 0.3526 | 0.6322 | 0.0834 | 0.3191 | 0.1320 | 0.5048 |
| 112 | 47.37 | -0.01 | 0.0149 | 9.9999 | 0.0044 | 9.9999 | 0.2787 | 0.6617 | 0.0833 | 0.3353 | 0.1259 | 0.5067 |
| 113 | 47.53 | 0.02 | 0.0297 | 9.9999 | 0.0100 | 9.9999 | 0.3376 | 0.6560 | 0.0837 | 0.3314 | 0.1276 | 0.5051 |
| 114 | 47.74 | 0.03 | 0.0188 | 9.9999 | 0.0054 | 9.9999 | 0.2862 | 0.7160 | 0.0789 | 0.3549 | 0.1102 | 0.4956 |
| 115 | 47.93 | -0.00 | 0.0058 | 9.9999 | 0.0040 | 9.9999 | 0.4095 | 0.7349 | 0.0791 | 0.3648 | 0.1077 | 0.4964 |
| 116 | 48.10 | 0.03 | 0.0279 | 9.9999 | 0.0102 | 9.9999 | 0.3735 | 0.7217 | 0.0701 | 0.3587 | 0.0933 | 0.4772 |
| 117 | 48.26 | 0.02 | 0.0256 | 9.9999 | 0.0040 | 9.9999 | 0.4095 | 0.7485 | 0.0717 | 0.3682 | 0.0958 | 0.4812 |
| 118 | 48.47 | 0.04 | 0.0405 | 9.9999 | 0.0156 | 9.9999 | 0.3839 | 0.6896 | 0.0748 | 0.3449 | 0.1085 | 0.4987 |
| 119 | 48.64 | 0.07 | 0.0365 | 9.9999 | 0.0144 | 9.9999 | 0.3832 | 0.6693 | 0.0740 | 0.3376 | 0.1106 | 0.5044 |
| 120 | 48.77 | 0.05 | 0.0483 | 9.9999 | 0.0178 | 9.9999 | 0.3878 | 0.6505 | 0.0736 | 0.3292 | 0.1135 | 0.5062 |
| 121 | 49.00 | 0.06 | 0.0273 | 9.9999 | 0.0113 | 9.9999 | 0.4152 | 0.6459 | 0.0730 | 0.3258 | 0.1130 | 0.5014 |
| 122 | 49.16 | 0.06 | 0.0436 | 9.9999 | 0.0167 | 9.9999 | 0.3802 | 0.6452 | 0.0734 | 0.3225 | 0.1141 | 0.5014 |
| 123 | 49.36 | 0.05 | 0.0284 | 9.9999 | 0.0124 | 9.9999 | 0.4345 | 0.6254 | 0.0737 | 0.3133 | 0.1179 | 0.5010 |
| 124 | 49.51 | 0.04 | 0.0406 | 9.9999 | 0.0165 | 9.9999 | 0.4072 | 0.6334 | 0.0735 | 0.3170 | 0.1161 | 0.5005 |
| 125 | 49.65 | 0.05 | 0.0316 | 9.9999 | 0.0145 | 9.9999 | 0.4572 | 0.6253 | 0.0735 | 0.3103 | 0.1179 | 0.4978 |
| 126 | 49.87 | 0.05 | 0.0370 | 9.9999 | 0.0161 | 9.9999 | 0.4311 | 0.6221 | 0.0740 | 0.3087 | 0.1190 | 0.4962 |
| 127 | 50.07 | 0.02 | 0.0184 | 9.9999 | 0.0094 | 9.9999 | 0.5125 | 0.6190 | 0.0758 | 0.3076 | 0.1225 | 0.4972 |
| 128 | 50.26 | 0.03 | 0.0146 | 9.9999 | 0.0077 | 9.9999 | 0.5218 | 0.6208 | 0.0742 | 0.3077 | 0.1195 | 0.4956 |
| 129 | 50.40 | 0.01 | 0.0163 | 9.9999 | 0.0072 | 9.9999 | 0.4431 | 0.6344 | 0.0750 | 0.3168 | 0.1182 | 0.4994 |
| 130 | 50.59 | 0.01 | 0.0136 | 9.9999 | 0.0068 | 9.9999 | 0.5248 | 0.6284 | 0.0737 | 0.3008 | 0.1212 | 0.4945 |
| 131 | 50.76 | 0.04 | 0.0365 | 9.9999 | 0.0160 | 9.9999 | 0.4866 | 0.6321 | 0.0743 | 0.3138 | 0.1176 | 0.4984 |
| 132 | 50.92 | 0.01 | 0.0227 | 9.9999 | 0.0115 | 9.9999 | 0.5259 | 0.6324 | 0.0741 | 0.3110 | 0.1172 | 0.4918 |
| 133 | 51.08 | -0.00 | 0.0150 | 9.9999 | 0.0068 | 9.9999 | 0.5248 | 0.6387 | 0.0737 | 0.3091 | 0.1154 | 0.4839 |
| 134 | 51.26 | 0.02 | 0.0146 | 9.9999 | 0.0063 | 9.9999 | 0.5548 | 0.6286 | 0.0736 | 0.3042 | 0.1171 | 0.4840 |
| 135 | 51.41 | 0.02 | 0.0155 | 9.9999 | 0.0100 | 9.9999 | 0.5145 | 0.6586 | 0.0741 | 0.3178 | 0.1125 | 0.4825 |
| 136 | 51.55 | 0.01 | 0.0057 | 9.9999 | 0.0044 | 9.9999 | 0.5308 | 0.6810 | 0.0747 | 0.3284 | 0.1097 | 0.4823 |
| 137 | 51.72 | 0.02 | 0.0271 | 9.9999 | 0.0134 | 9.9999 | 0.4923 | 0.6787 | 0.0725 | 0.3239 | 0.1068 | 0.4773 |
| 138 | 51.90 | 0.02 | 0.0203 | 9.9999 | 0.0115 | 9.9999 | 0.5028 | 0.6849 | 0.0726 | 0.3276 | 0.1063 | 0.4784 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11b MACH 1.00 REXIC-E 1.7 PHI 0.C CONF 61bCF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CN3 | CB3 | XCPF3 | YCPF3 | CNF4 | CN4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.05 | -0.01 | 0.0235 | 5.5555 | 0.0114 | 5.5599 | 0.4785 | 0.6926 | 0.0721 | 0.3291 | 0.1041 | 0.4752 |
| 140 | 52.21 | -0.00 | 0.0154 | 5.5555 | 0.0106 | 5.5599 | 0.5481 | 0.6851 | 0.0715 | 0.3238 | 0.1046 | 0.4727 |
| 141 | 52.38 | -0.00 | 0.0141 | 5.5555 | 0.0074 | 5.5599 | 0.5265 | 0.6735 | 0.0714 | 0.3186 | 0.1060 | 0.4736 |
| 142 | 52.54 | 0.02 | 0.0365 | 5.5555 | 0.0106 | 5.5599 | 0.4866 | 0.6749 | 0.0708 | 0.3165 | 0.1049 | 0.4689 |
| 143 | 52.74 | 0.00 | 0.0162 | 5.5555 | 0.0096 | 5.5599 | 0.5545 | 0.6724 | 0.0708 | 0.3167 | 0.1053 | 0.4716 |
| 144 | 52.89 | -0.02 | 0.0115 | 5.5555 | 0.0104 | 5.5599 | 0.5395 | 0.6496 | 0.0678 | 0.3035 | 0.1044 | 0.4673 |
| 145 | 53.04 | -0.02 | 0.0056 | 5.5555 | 0.0046 | 5.5599 | 0.4709 | 0.6627 | 0.0683 | 0.3085 | 0.1031 | 0.4661 |
| 146 | 53.22 | -0.03 | 0.0162 | 5.5555 | 0.0093 | 5.5599 | 0.5759 | 0.6580 | 0.0672 | 0.3048 | 0.1021 | 0.4633 |
| 147 | 53.38 | -0.00 | 0.0130 | 5.5555 | 0.0076 | 5.5599 | 0.5711 | 0.6482 | 0.0667 | 0.3012 | 0.1029 | 0.4647 |
| 148 | 53.54 | -0.02 | 0.0067 | 5.5555 | 0.0055 | 5.5599 | 0.5088 | 0.6335 | 0.0653 | 0.2920 | 0.1031 | 0.4609 |
| 149 | 53.71 | 0.00 | 0.0130 | 5.5555 | 0.0065 | 5.5599 | 0.5016 | 0.6837 | 0.0646 | 0.3145 | 0.0945 | 0.4602 |
| 150 | 53.88 | -0.04 | 0.0164 | 5.5555 | 0.0097 | 5.5599 | 0.5269 | 0.6833 | 0.0656 | 0.3143 | 0.0960 | 0.4595 |
| 151 | 54.04 | -0.01 | 0.0076 | 5.5555 | 0.0039 | 5.5599 | 0.5148 | 0.6799 | 0.0647 | 0.3141 | 0.0951 | 0.4615 |
| 152 | 54.18 | 0.01 | 0.0152 | 5.5555 | 0.0084 | 5.5599 | 0.5544 | 0.7002 | 0.0643 | 0.3218 | 0.0918 | 0.4596 |
| 153 | 54.36 | -0.02 | 0.0195 | 5.5555 | 0.0105 | 5.5599 | 0.5808 | 0.6885 | 0.0641 | 0.3166 | 0.0931 | 0.4556 |
| 154 | 54.50 | 0.01 | 0.0163 | 5.5555 | 0.0090 | 5.5599 | 0.5539 | 0.7094 | 0.0622 | 0.3261 | 0.0877 | 0.4597 |
| 155 | 54.65 | -0.00 | 0.0082 | 5.5555 | 0.0054 | 5.5599 | 0.6299 | 0.7118 | 0.0625 | 0.3275 | 0.0878 | 0.4601 |
| 156 | 54.81 | -0.02 | 0.0162 | 5.5555 | 0.0056 | 5.5599 | 0.5945 | 0.6890 | 0.0625 | 0.3165 | 0.0907 | 0.4593 |
| 157 | 54.98 | -0.01 | 0.0054 | 5.5555 | 0.0038 | 5.5599 | 0.7060 | 0.6464 | 0.0521 | 0.3010 | 0.0803 | 0.4643 |
| 158 | 55.11 | -0.03 | 0.0075 | 5.5555 | 0.0091 | 5.5599 | 0.6822 | 0.6678 | 0.0608 | 0.3070 | 0.0910 | 0.4596 |
| 159 | 55.28 | -0.02 | 0.0228 | 5.5555 | 0.0124 | 5.5599 | 0.5912 | 0.6903 | 0.0613 | 0.3168 | 0.0888 | 0.4585 |
| 160 | 55.43 | -0.02 | 0.0119 | 5.5555 | 0.0078 | 5.5599 | 0.6407 | 0.6832 | 0.0606 | 0.3145 | 0.0878 | 0.4603 |
| 161 | 55.57 | 0.00 | 0.0058 | 5.5555 | 0.0058 | 5.5599 | 0.5937 | 0.6740 | 0.0598 | 0.3094 | 0.0887 | 0.4590 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 117 MACH 1.10 RN10-6 1.7 PHI 0.0 CONF 6 LABOF 13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.80 | 0.02 | -2.5440 | 10.0905 | 0.0542 | -0.2308 | 0.0106 | 1.7436 | 0.3965 | 1.3471 | -3.9665 |
| 2 | -5.81 | 0.04 | -2.5751 | 10.1419 | -0.0065 | -0.1611 | 0.0104 | 1.7507 | 0.3973 | 1.3534 | -3.9375 |
| 3 | -5.84 | 0.01 | -2.5873 | 10.1510 | 0.0273 | -0.1211 | 0.0156 | 1.7537 | 0.3952 | 1.3585 | -3.9233 |
| 4 | -4.35 | 0.02 | -2.4461 | 10.1765 | 0.0007 | -0.2145 | 0.0220 | 1.7473 | 0.3823 | 1.3650 | -4.1706 |
| 5 | -2.83 | 0.02 | -2.2753 | 9.9815 | 0.0414 | -0.0777 | 0.0169 | 1.7246 | 0.3846 | 1.3398 | -4.3869 |
| 6 | -0.83 | 0.03 | -2.0602 | 9.7381 | 0.1372 | -0.1906 | 0.0231 | 1.6998 | 0.3847 | 1.3151 | -4.7131 |
| 7 | 0.93 | 0.03 | -1.8265 | 9.3805 | 0.0528 | -0.1636 | 0.0125 | 1.6847 | 0.3907 | 1.2740 | -4.8844 |
| 8 | 2.78 | 0.02 | -1.6744 | 8.9564 | -0.0513 | 0.0946 | 0.0125 | 1.6061 | 0.3934 | 1.2127 | -5.3021 |
| 9 | 4.53 | 0.02 | -1.4940 | 8.7193 | 0.0214 | -0.0305 | 0.0134 | 1.5948 | 0.3959 | 1.1989 | -5.8363 |
| 10 | 6.35 | 0.04 | -1.1764 | 8.0243 | 0.1511 | 0.0485 | 0.0060 | 1.5185 | 0.3925 | 1.1230 | -6.8054 |
| 11 | 8.17 | 0.02 | -0.8567 | 7.4058 | -0.0001 | -0.0113 | 0.0089 | 1.4623 | 0.4021 | 1.0601 | -8.2409 |
| 12 | 9.96 | 0.04 | -0.5301 | 6.8208 | 0.0811 | 0.0074 | 0.0145 | 1.3955 | 0.4084 | 0.9471 | -14.3017 |
| 13 | 11.84 | 0.02 | -0.1753 | 5.7558 | -0.0547 | 0.1140 | 0.0257 | 1.2735 | 0.4059 | 0.8676 | -32.1028 |
| 14 | 13.70 | 0.01 | 0.2286 | 4.9725 | -0.1247 | 0.1991 | 0.0315 | 1.1731 | 0.4041 | 0.7690 | 21.8075 |
| 15 | 15.63 | 0.03 | 0.6209 | 4.1852 | -0.0060 | 0.0683 | 0.0271 | 1.0547 | 0.3968 | 0.6579 | 6.7468 |
| 16 | 17.61 | 0.01 | 1.0658 | 3.3764 | -0.1913 | 0.4524 | 0.0303 | 0.9389 | 0.3958 | 0.5431 | 3.1172 |
| 17 | 19.52 | 0.02 | 1.5317 | 2.7558 | -0.1048 | 0.3522 | 0.0367 | 0.8055 | 0.3833 | 0.4226 | 1.6016 |
| 18 | 21.51 | 0.03 | 2.0075 | 2.0233 | -0.0409 | 0.2552 | 0.0329 | 0.7216 | 0.3831 | 0.3385 | 1.2071 |
| 19 | 23.55 | 0.01 | 2.5525 | 2.2085 | -0.2285 | 0.7001 | -0.0366 | 0.6296 | 0.3499 | 0.2797 | 0.6202 |
| 20 | 25.54 | 0.04 | 3.2759 | 2.0879 | 0.6934 | -0.0038 | -0.0024 | 0.5317 | 0.3406 | 0.1911 | 0.6374 |
| 21 | 27.61 | 0.06 | 4.0640 | 1.9451 | 0.8017 | -1.5107 | 0.1352 | 0.4631 | 0.3389 | 0.1243 | 0.4763 |
| 22 | 28.35 | 0.05 | 4.2240 | 1.8517 | 0.4815 | -1.3797 | 0.1215 | 0.4359 | 0.3357 | 0.0997 | 0.4384 |
| 23 | 28.59 | 0.07 | 4.3108 | 1.7705 | 0.5516 | -1.4175 | 0.1434 | 0.4251 | 0.3295 | 0.0956 | 0.4108 |
| 24 | 28.91 | 0.06 | 4.4366 | 1.8203 | 0.4154 | -0.9920 | 0.1109 | 0.3870 | 0.3219 | 0.0651 | 0.4103 |
| 25 | 29.26 | 0.05 | 4.5570 | 1.7544 | 0.3176 | -0.8414 | 0.1004 | 0.4027 | 0.3198 | 0.0829 | 0.3937 |
| 26 | 29.56 | 0.06 | 4.7231 | 1.8552 | 0.4306 | -0.9353 | 0.1006 | 0.3816 | 0.3191 | 0.0625 | 0.3589 |
| 27 | 29.85 | 0.04 | 4.8525 | 1.5455 | 0.3226 | -0.5527 | 0.1444 | 0.3417 | 0.3176 | 0.0241 | 0.3153 |
| 28 | 30.16 | 0.05 | 5.0263 | 1.4217 | 0.5236 | -1.3078 | 0.2266 | 0.3365 | 0.3260 | 0.0105 | 0.2828 |
| 29 | 30.44 | 0.06 | 5.1314 | 1.3028 | 0.5565 | -1.3798 | 0.2110 | 0.3490 | 0.3291 | 0.0199 | 0.2539 |
| 30 | 30.72 | 0.08 | 5.3046 | 1.2645 | 0.7922 | -1.4693 | 0.2173 | 0.3203 | 0.3246 | -0.0043 | 0.2269 |
| 31 | 30.98 | 0.09 | 5.2646 | 1.2001 | 1.0056 | -2.2387 | 0.2533 | 0.3326 | 0.3296 | 0.0030 | 0.2271 |
| 32 | 31.28 | 0.06 | 5.5237 | 1.0365 | 0.6206 | -1.2204 | 0.2340 | 0.3023 | 0.3251 | -0.0208 | 0.1917 |
| 33 | 31.54 | 0.06 | 5.6023 | 0.9511 | 0.5612 | -0.7421 | 0.1668 | 0.2868 | 0.3267 | -0.0398 | 0.1658 |
| 34 | 31.84 | 0.04 | 5.7057 | 0.9276 | 0.4926 | -0.6496 | 0.2180 | 0.2708 | 0.3266 | -0.0559 | 0.1608 |
| 35 | 32.10 | 0.05 | 5.8775 | 0.8117 | 0.4402 | -0.7425 | 0.1965 | 0.2658 | 0.3286 | -0.0627 | 0.1381 |
| 36 | 32.37 | 0.03 | 5.9663 | 0.8562 | 0.2655 | -0.5340 | 0.1695 | 0.2519 | 0.3251 | -0.0731 | 0.1401 |
| 37 | 32.66 | 0.02 | 6.1060 | 0.7174 | 0.1867 | -0.3567 | 0.1427 | 0.2402 | 0.3292 | -0.0889 | 0.1174 |
| 38 | 32.91 | 0.03 | 6.2011 | 0.4753 | 0.4304 | -0.6446 | 0.1476 | 0.2320 | 0.3359 | -0.1036 | 0.0757 |
| 39 | 33.17 | 0.02 | 6.3655 | 0.4745 | 0.2162 | -0.4785 | 0.1529 | 0.2238 | 0.3317 | -0.1079 | 0.0745 |
| 40 | 33.44 | 0.01 | 6.4788 | 0.3364 | 0.0406 | -0.4570 | 0.1035 | 0.2151 | 0.3360 | -0.1209 | 0.0519 |
| 41 | 33.70 | 0.01 | 6.6350 | 0.1856 | 0.0881 | -0.2555 | 0.1354 | 0.1951 | 0.3370 | -0.1419 | 0.0280 |
| 42 | 33.96 | 0.00 | 6.7846 | 0.0647 | 0.0233 | -0.1575 | 0.1735 | 0.1909 | 0.3360 | -0.1491 | 0.0007 |
| 43 | 34.20 | 0.01 | 6.8425 | -0.0122 | 0.1333 | -0.2412 | 0.2075 | 0.1833 | 0.3419 | -0.1586 | -0.0018 |
| 44 | 34.45 | 0.02 | 6.9365 | -0.1247 | 0.2656 | -0.0674 | 0.2507 | 0.1671 | 0.3419 | -0.1748 | -0.0180 |
| 45 | 34.73 | 0.03 | 7.0577 | -0.2461 | 0.3027 | -0.2262 | 0.2201 | 0.1420 | 0.3371 | -0.1951 | -0.0347 |
| 46 | 34.97 | 0.01 | 7.2777 | -0.3176 | 0.1726 | -0.0557 | 0.2526 | 0.1491 | 0.3459 | -0.2008 | -0.0711 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 117 1.10 1.7 0.0 BINOF13 0.0 0 -30 0 -30 UNKNOWN

| FLINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.20 | 0.01 | 7.3788 | -0.5156 | 0.0834 | 0.3837 | 0.1974 | 0.1186 | 0.3405 | -0.2217 | -0.0699 |
| 48 | 35.46 | 0.02 | 7.4566 | -0.5814 | 0.2020 | -0.1320 | 0.2369 | 0.1196 | 0.3401 | -0.2303 | -0.0782 |
| 49 | 35.70 | 0.02 | 7.5458 | -0.7618 | 0.2868 | -0.1370 | 0.2478 | 0.1122 | 0.3377 | -0.2255 | -0.1009 |
| 50 | 35.94 | 0.03 | 7.7414 | -0.7415 | 0.3555 | -0.1024 | 0.2054 | 0.0967 | 0.3408 | -0.2300 | -0.0958 |
| 51 | 36.20 | 0.02 | 7.8409 | -0.8752 | 0.2132 | 0.0113 | 0.2216 | 0.0850 | 0.3425 | -0.2574 | -0.1115 |
| 52 | 36.43 | 0.03 | 7.8871 | -0.9868 | 0.2721 | 0.0503 | 0.2097 | 0.0817 | 0.3432 | -0.2614 | -0.1251 |
| 53 | 36.65 | 0.02 | 7.9657 | -1.0462 | 0.2653 | -0.0857 | 0.2222 | 0.0873 | 0.3321 | -0.2647 | -0.1313 |
| 54 | 36.90 | 0.02 | 8.1277 | -1.1174 | 0.1643 | 0.1140 | 0.2382 | 0.0504 | 0.3300 | -0.2735 | -0.1375 |
| 55 | 37.16 | 0.03 | 8.2440 | -1.1775 | 0.2265 | 0.0917 | 0.2178 | 0.0502 | 0.3363 | -0.2860 | -0.1428 |
| 56 | 37.37 | 0.02 | 8.3636 | -1.4384 | 0.2131 | 0.0698 | 0.2183 | 0.0500 | 0.3304 | -0.3004 | -0.1720 |
| 57 | 37.63 | 0.02 | 8.3928 | -1.2892 | 0.1080 | 0.1662 | 0.2020 | 0.0398 | 0.3245 | -0.2846 | -0.1536 |
| 58 | 37.87 | 0.02 | 8.5761 | -1.4774 | 0.1777 | -0.0242 | 0.2249 | 0.0158 | 0.3290 | -0.3152 | -0.1723 |
| 59 | 38.09 | 0.02 | 8.5765 | -1.4656 | 0.1351 | 0.0383 | 0.1925 | -0.0008 | 0.3197 | -0.3205 | -0.1715 |
| 60 | 38.33 | 0.04 | 8.6660 | -1.5913 | 0.1150 | 0.1020 | 0.1960 | -0.0049 | 0.3221 | -0.3270 | -0.1776 |
| 61 | 38.59 | 0.02 | 8.8310 | -1.5950 | 0.1528 | -0.0636 | 0.1976 | -0.0306 | 0.3141 | -0.3447 | -0.1811 |
| 62 | 38.83 | 0.03 | 8.9160 | -1.6965 | 0.2675 | -0.0879 | 0.1908 | -0.0431 | 0.3095 | -0.3526 | -0.1851 |
| 63 | 39.09 | -0.00 | 8.9567 | -1.7651 | -0.1043 | 0.4531 | 0.1660 | -0.0472 | 0.3152 | -0.3624 | -0.1958 |
| 64 | 39.35 | 0.02 | 9.0169 | -1.8066 | 0.1156 | 0.1437 | 0.1667 | -0.0260 | 0.3075 | -0.3335 | -0.2092 |
| 65 | 39.57 | 0.01 | 9.2289 | -1.9421 | 0.0383 | -0.0523 | 0.1197 | -0.0665 | 0.3033 | -0.3718 | -0.2164 |
| 66 | 39.79 | 0.04 | 9.2586 | -2.0187 | 0.1607 | 0.0945 | 0.1405 | -0.0714 | 0.3135 | -0.3869 | -0.2180 |
| 67 | 40.00 | 0.01 | 9.2665 | -2.0501 | 0.0638 | -0.0291 | 0.1304 | -0.0615 | 0.3002 | -0.3817 | -0.2208 |
| 68 | 40.20 | 0.01 | 9.4165 | -2.1050 | 0.0955 | 0.0740 | 0.1143 | -0.0704 | 0.2999 | -0.3763 | -0.2297 |
| 69 | 40.44 | 0.02 | 9.6255 | -2.2900 | 0.1535 | -0.1587 | 0.0870 | -0.1116 | 0.2992 | -0.4169 | -0.2482 |
| 70 | 40.65 | 0.02 | 9.6664 | -2.3952 | 0.1731 | -0.1207 | 0.0866 | -0.1208 | 0.2900 | -0.4195 | -0.2473 |
| 71 | 40.84 | 0.03 | 9.7069 | -2.4656 | 0.2538 | -0.2140 | 0.0672 | -0.1167 | 0.2963 | -0.4329 | -0.2546 |
| 72 | 41.07 | 0.01 | 9.8962 | -2.6016 | 0.1685 | -0.1157 | 0.0510 | -0.1359 | 0.2978 | -0.4316 | -0.2659 |
| 73 | 41.26 | 0.01 | 9.9510 | -2.7578 | -0.0073 | 0.3743 | 0.1308 | -0.1432 | 0.2935 | -0.4416 | -0.2771 |
| 74 | 41.46 | 0.02 | 9.9265 | -2.8137 | 0.1233 | 0.2536 | 0.0988 | -0.1191 | 0.2950 | -0.4140 | -0.2685 |
| 75 | 41.68 | 0.01 | 9.9558 | -2.8575 | 0.0707 | 0.1103 | 0.0868 | -0.1362 | 0.2968 | -0.4329 | -0.2758 |
| 76 | 41.88 | 0.01 | 10.1070 | -2.9621 | 0.0822 | 0.1093 | 0.0840 | -0.1640 | 0.2957 | -0.4596 | -0.2849 |
| 77 | 42.09 | 0.00 | 10.2674 | -2.9678 | -0.0421 | 0.5521 | 0.0860 | -0.1632 | 0.3013 | -0.4644 | -0.2885 |
| 78 | 42.30 | -0.01 | 10.4033 | -3.0744 | -0.2138 | 0.5800 | 0.0633 | -0.1638 | 0.2995 | -0.4833 | -0.2974 |
| 79 | 42.51 | -0.01 | 10.4656 | -3.1155 | -0.1325 | 0.6097 | 0.0532 | -0.1956 | 0.2992 | -0.4548 | -0.2979 |
| 80 | 42.70 | -0.01 | 10.5965 | -3.2715 | -0.1486 | 0.7406 | 0.0631 | -0.1932 | 0.3037 | -0.4969 | -0.3087 |
| 81 | 42.88 | -0.02 | 10.8354 | -3.3773 | -0.2654 | 0.9084 | 0.0627 | -0.2014 | 0.3079 | -0.5093 | -0.3176 |
| 82 | 43.07 | 0.01 | 10.7554 | -3.3114 | -0.0544 | 1.1426 | 0.0703 | -0.2243 | 0.3114 | -0.5357 | -0.3265 |
| 83 | 43.26 | -0.02 | 10.8241 | -3.4004 | -0.1465 | 0.3250 | 0.0585 | -0.2260 | 0.3072 | -0.5332 | -0.3141 |
| 84 | 43.46 | -0.02 | 10.8673 | -3.4231 | -0.2033 | 0.7909 | 0.0577 | -0.2208 | 0.3096 | -0.5304 | -0.3167 |
| 85 | 43.60 | 0.00 | 10.9548 | -3.5155 | -0.1066 | 0.9058 | 0.0020 | -0.2242 | 0.3214 | -0.5456 | -0.3213 |
| 86 | 43.79 | -0.02 | 11.0067 | -3.5156 | -0.3046 | 0.5996 | 0.0530 | -0.2401 | 0.2977 | -0.5378 | -0.3194 |
| 87 | 43.98 | -0.01 | 11.0724 | -3.5668 | -0.1634 | 0.6797 | 0.0472 | -0.2468 | 0.2984 | -0.5432 | -0.3221 |
| 88 | 44.12 | 0.02 | 11.1219 | -3.5975 | -0.0706 | 0.1344 | 0.0439 | -0.2620 | 0.2955 | -0.5575 | -0.3235 |
| 89 | 44.32 | -0.00 | 11.1909 | -3.5992 | -0.1162 | 0.4814 | 0.0429 | -0.2487 | 0.3053 | -0.5540 | -0.3218 |
| 90 | 44.51 | -0.00 | 11.3165 | -3.6653 | 0.0227 | 0.5896 | 0.0247 | -0.2551 | 0.3088 | -0.5639 | -0.3362 |
| 91 | 44.70 | -0.02 | 11.3608 | -3.6248 | -0.0831 | 0.4500 | 0.0434 | -0.2792 | 0.2957 | -0.5749 | -0.3367 |
| 92 | 44.89 | -0.01 | 11.4909 | -3.6513 | -0.0695 | 0.4934 | 0.0381 | -0.2807 | 0.2942 | -0.5749 | -0.3439 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 117 MACH 1.10 RATIO=6 PHI 0.0 CONF BIBOFIN L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CA | CLN | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 45.08 | -0.03 | 11.5243 | -3.9656 | -0.1513 | 0.0147 | 0.0567 | -0.2927 | 0.2890 | -0.5817 | -0.3441 |
| 94 | 45.26 | -0.01 | 11.6311 | -4.0745 | -0.4456 | 0.0126 | 0.0243 | -0.2861 | 0.2926 | -0.5787 | -0.3563 |
| 95 | 45.45 | -0.01 | 11.7077 | -4.1054 | -0.0146 | 0.0002 | 0.0460 | -0.3051 | 0.2975 | -0.6025 | -0.3567 |
| 96 | 45.61 | -0.01 | 11.7452 | -4.1715 | -0.0418 | 0.0049 | 0.0421 | -0.3067 | 0.2946 | -0.6014 | -0.3558 |
| 97 | 45.81 | -0.01 | 11.8456 | -4.1875 | -0.0497 | 0.0206 | 0.0233 | -0.3066 | 0.2957 | -0.6022 | -0.3534 |
| 98 | 46.00 | -0.03 | 11.9283 | -4.2624 | -0.2876 | 0.0523 | -0.0157 | -0.3034 | 0.2982 | -0.6015 | -0.3520 |
| 99 | 46.18 | -0.03 | 11.9883 | -4.3446 | -0.3752 | 1.4595 | -0.0282 | -0.3104 | 0.3038 | -0.6141 | -0.3625 |
| 100 | 46.33 | -0.03 | 11.9979 | -4.1157 | -0.2463 | 0.7340 | 0.0076 | -0.3013 | 0.2947 | -0.5955 | -0.3430 |
| 101 | 46.51 | -0.01 | 12.0160 | -4.1324 | -0.1504 | 0.5490 | 0.0307 | -0.2961 | 0.2985 | -0.5945 | -0.3438 |
| 102 | 46.68 | -0.02 | 12.0374 | -4.1492 | -0.2577 | 1.2420 | -0.0435 | -0.2741 | 0.3041 | -0.5782 | -0.3443 |
| 103 | 46.86 | -0.01 | 12.1708 | -4.2208 | -0.0746 | 0.6172 | 0.0023 | -0.3108 | 0.2985 | -0.6092 | -0.3468 |
| 104 | 47.02 | -0.02 | 12.2261 | -4.0265 | -0.2236 | 1.0059 | -0.0312 | -0.2950 | 0.3049 | -0.5956 | -0.3294 |
| 105 | 47.21 | -0.03 | 12.2947 | -4.0256 | -0.2511 | 0.9774 | -0.0356 | -0.2891 | 0.3076 | -0.5967 | -0.3276 |
| 106 | 47.39 | -0.03 | 12.3834 | -3.8067 | -0.2479 | 1.2038 | -0.0529 | -0.2940 | 0.3214 | -0.5760 | -0.3059 |
| 107 | 47.55 | -0.03 | 12.3305 | -3.7494 | -0.2264 | 1.0128 | -0.0517 | -0.2956 | 0.3209 | -0.5667 | -0.3041 |
| 108 | 47.71 | -0.03 | 12.3467 | -3.8128 | -0.2126 | 0.8445 | -0.0402 | -0.2564 | 0.3244 | -0.5868 | -0.3088 |
| 109 | 47.90 | -0.03 | 12.4440 | -3.7306 | -0.1972 | 0.8501 | -0.0430 | -0.2615 | 0.3202 | -0.5817 | -0.2998 |
| 110 | 48.08 | -0.04 | 12.4763 | -3.8296 | -0.1684 | 0.8836 | -0.0347 | -0.2645 | 0.3191 | -0.5836 | -0.3070 |
| 111 | 48.25 | -0.01 | 12.5606 | -4.2766 | -0.0165 | 0.8521 | -0.0337 | -0.2921 | 0.3233 | -0.6153 | -0.3378 |
| 112 | 48.43 | -0.01 | 12.5153 | -4.7654 | 0.0575 | 0.2115 | 0.0063 | -0.2681 | 0.3384 | -0.6065 | -0.3689 |
| 113 | 48.61 | -0.01 | 12.5410 | -4.9351 | 0.0585 | 0.1536 | 0.0109 | -0.2864 | 0.3530 | -0.6354 | -0.3817 |
| 114 | 48.78 | -0.02 | 12.6175 | -4.8057 | 0.0671 | 0.0374 | 0.0062 | -0.2754 | 0.3744 | -0.5956 | -0.3741 |
| 115 | 48.96 | -0.01 | 12.6842 | -5.1874 | 0.1296 | -0.0661 | 0.0132 | -0.2939 | 0.3695 | -0.6633 | -0.3941 |
| 116 | 49.12 | -0.01 | 12.6191 | -4.2956 | 0.1536 | 0.4196 | 0.0443 | -0.2260 | 0.3821 | -0.6081 | -0.3302 |
| 117 | 49.28 | -0.00 | 12.6297 | -4.2018 | 0.1246 | 0.4979 | 0.0347 | -0.2241 | 0.3686 | -0.6121 | -0.3215 |
| 118 | 49.43 | -0.01 | 12.6554 | -4.2362 | 0.1225 | 0.4918 | 0.0496 | -0.2269 | 0.3894 | -0.6183 | -0.3234 |
| 119 | 49.62 | -0.01 | 12.6755 | -4.0337 | 0.0601 | 0.0032 | 0.0464 | -0.2191 | 0.3673 | -0.6084 | -0.3085 |
| 120 | 49.79 | -0.01 | 12.7028 | -3.5646 | 0.0343 | 0.5124 | 0.0462 | -0.2112 | 0.3884 | -0.5996 | -0.2695 |
| 121 | 49.96 | 0.00 | 12.6353 | -3.0234 | 0.2075 | 0.7777 | 0.0465 | -0.2088 | 0.3943 | -0.6029 | -0.2779 |
| 122 | 50.16 | -0.01 | 12.7040 | -3.2751 | 0.1235 | 0.5344 | 0.0403 | -0.2141 | 0.3962 | -0.6123 | -0.2942 |
| 123 | 50.33 | 0.01 | 12.7229 | -3.8178 | 0.2755 | 0.9646 | 0.0335 | -0.2127 | 0.4041 | -0.6168 | -0.2867 |
| 124 | 50.49 | 0.01 | 12.7152 | -3.5672 | 0.2622 | 0.8513 | 0.0343 | -0.2122 | 0.4041 | -0.6163 | -0.2979 |
| 125 | 50.66 | 0.00 | 12.7651 | -3.7909 | 0.2238 | 1.1096 | 0.0445 | -0.2066 | 0.4101 | -0.6187 | -0.2832 |
| 126 | 50.80 | 0.03 | 12.7794 | -3.8079 | 0.2301 | 1.0960 | 0.0759 | -0.2028 | 0.4094 | -0.6122 | -0.2741 |
| 127 | 51.02 | 0.02 | 12.7146 | -3.7767 | 0.1267 | 1.0245 | 0.0736 | -0.1978 | 0.4115 | -0.6093 | -0.2811 |
| 128 | 51.19 | 0.03 | 12.7849 | -3.8521 | 0.2506 | 1.0163 | 0.0697 | -0.2124 | 0.4094 | -0.6218 | -0.2878 |
| 129 | 45.67 | 0.01 | 12.0541 | -4.7674 | 0.2269 | 0.2834 | 0.0495 | -0.2918 | 0.3929 | -0.6347 | -0.3641 |
| 130 | 46.69 | -0.03 | 12.0665 | -4.0711 | -0.4642 | 1.1756 | -0.0526 | -0.2601 | 0.3417 | -0.6076 | -0.3288 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL PISSALE TAILS EFFECTS DATA

TEST 7 PART 117 MACH 1.10 REX10-6 1.7 PHI 0.0 CONF DIAGF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.20 | 0.02 | 0.0130 | 0.0056 | 0.0150 | 0.7389 | 1.1496 | -1.3907 | 0.0128 | -0.6374 | -0.0092 | 0.4583 |
| 2 | -5.01 | 0.02 | 0.0135 | 0.0056 | 0.0150 | 0.7410 | 1.1187 | -1.3929 | 0.0128 | -0.6381 | -0.0092 | 0.4581 |
| 3 | -5.29 | 0.01 | 0.0034 | 0.0014 | 0.0118 | 2.6719 | 3.4817 | -1.3840 | 0.0121 | -0.6353 | -0.0088 | 0.4596 |
| 4 | -4.35 | 0.02 | 0.0053 | 0.0024 | 0.0116 | 1.6146 | 0.9114 | -1.3848 | 0.0124 | -0.6412 | -0.0090 | 0.4631 |
| 5 | -2.63 | 0.02 | 0.0165 | 0.0068 | 0.0125 | 0.9336 | 0.7782 | -1.3377 | 0.0123 | -0.6333 | -0.0092 | 0.4734 |
| 6 | -0.83 | 0.03 | 0.0175 | 0.0066 | 0.0132 | 0.8574 | 0.7510 | -1.2739 | 0.0082 | -0.6174 | -0.0064 | 0.4847 |
| 7 | 0.95 | 0.03 | 0.0156 | 0.0078 | 0.0121 | 0.8541 | 0.8131 | -1.2164 | 0.0039 | -0.5876 | -0.0032 | 0.4831 |
| 8 | 2.78 | 0.02 | 0.0144 | 0.0071 | 0.0102 | 0.8533 | 0.8713 | -1.1342 | -0.0014 | -0.5553 | 0.0012 | 0.4896 |
| 9 | 4.53 | 0.02 | 0.0086 | 0.0050 | 0.0076 | 0.8617 | 0.8106 | -1.1241 | -0.0047 | -0.5476 | 0.0042 | 0.5044 |
| 10 | 6.35 | 0.04 | -0.0048 | 0.0040 | 0.0060 | -0.8336 | -1.8720 | -0.9962 | -0.0086 | -0.5121 | 0.0086 | 0.5140 |
| 11 | 8.17 | 0.02 | -0.0015 | 0.0047 | 0.0145 | -2.4750 | -7.8032 | -0.8873 | -0.0072 | -0.4678 | 0.0081 | 0.5272 |
| 12 | 9.96 | 0.04 | -0.0096 | 0.0052 | 0.0115 | -1.5420 | -1.2017 | -0.7719 | -0.0094 | -0.4119 | 0.0122 | 0.5336 |
| 13 | 11.84 | 0.02 | 0.0145 | 0.0085 | 0.0246 | 0.5865 | 1.8535 | -0.6503 | -0.0035 | -0.3518 | 0.0146 | 0.5411 |
| 14 | 13.76 | 0.01 | -0.0004 | 0.0007 | 0.0222 | -16.7505 | -55.4266 | -0.5167 | -0.0077 | -0.2868 | 0.0149 | 0.5550 |
| 15 | 15.63 | 0.03 | 0.0026 | 0.0042 | 0.0275 | 5.2528 | 34.8612 | -0.3786 | -0.0024 | -0.2244 | 0.0063 | 0.5924 |
| 16 | 17.61 | 0.01 | -0.0054 | 0.0035 | 0.0260 | -0.9151 | -2.9776 | -0.2512 | 0.0031 | -0.1606 | -0.0124 | 0.6391 |
| 17 | 19.52 | 0.02 | -0.0106 | 0.0025 | 0.0302 | -0.2667 | -0.7955 | -0.1312 | 0.0106 | -0.1048 | -0.0809 | 0.7589 |
| 18 | 21.51 | 0.03 | -0.0045 | 0.0042 | -0.0046 | -0.1038 | 0.0391 | -0.0252 | 0.0226 | -0.0494 | -0.8573 | 1.9586 |
| 19 | 23.55 | 0.01 | -0.0524 | -0.0075 | -0.0162 | 0.0804 | 0.1946 | 0.0196 | 0.0339 | -0.0258 | 1.7305 | -1.3154 |
| 20 | 25.34 | 0.04 | -0.0288 | 0.0044 | -0.0006 | -0.1545 | 0.0209 | 0.1545 | 0.0457 | 0.0292 | 0.3034 | 0.1941 |
| 21 | 27.01 | 0.08 | 0.2420 | 0.0265 | 0.1125 | 0.1113 | 0.4063 | 0.2493 | 0.0496 | 0.0737 | 0.1980 | 0.2556 |
| 22 | 28.35 | 0.05 | 0.0820 | 0.0260 | 0.1206 | 0.1021 | 0.4071 | 0.2481 | 0.0498 | 0.0745 | 0.2006 | 0.3003 |
| 23 | 28.59 | 0.07 | 0.2067 | 0.0219 | 0.1367 | 0.0822 | 0.5123 | 0.2532 | 0.0520 | 0.0767 | 0.2052 | 0.3105 |
| 24 | 28.91 | 0.06 | 0.2150 | 0.0155 | 0.1134 | 0.0722 | 0.5273 | 0.2364 | 0.0533 | 0.0740 | 0.2254 | 0.3130 |
| 25 | 29.26 | 0.05 | 0.1365 | 0.0117 | 0.0788 | 0.0858 | 0.5774 | 0.2472 | 0.0554 | 0.0797 | 0.2240 | 0.3225 |
| 26 | 29.56 | 0.06 | 0.2455 | 0.0126 | 0.1432 | 0.0605 | 0.5394 | 0.2551 | 0.0541 | 0.0862 | 0.2120 | 0.3377 |
| 27 | 29.85 | 0.04 | 0.2204 | 0.0127 | 0.1156 | 0.0577 | 0.5253 | 0.2706 | 0.0548 | 0.0948 | 0.2024 | 0.3502 |
| 28 | 30.10 | 0.05 | 0.3556 | 0.0143 | 0.1643 | 0.0396 | 0.5121 | 0.2729 | 0.0525 | 0.0984 | 0.1923 | 0.3605 |
| 29 | 30.44 | 0.06 | 0.3221 | 0.0124 | 0.1667 | 0.0388 | 0.5175 | 0.2661 | 0.0535 | 0.1045 | 0.1869 | 0.3654 |
| 30 | 30.72 | 0.08 | 0.3772 | 0.0147 | 0.1655 | 0.0356 | 0.5033 | 0.3091 | 0.0535 | 0.1162 | 0.1730 | 0.3759 |
| 31 | 30.98 | 0.09 | 0.5035 | 0.0245 | 0.2411 | 0.0467 | 0.4789 | 0.3140 | 0.0514 | 0.1195 | 0.1636 | 0.3806 |
| 32 | 31.26 | 0.06 | 0.3160 | 0.0155 | 0.1694 | 0.0301 | 0.5361 | 0.3191 | 0.0553 | 0.1223 | 0.1732 | 0.3833 |
| 33 | 31.54 | 0.08 | 0.2235 | 0.0044 | 0.1237 | 0.0197 | 0.5525 | 0.3167 | 0.0570 | 0.1213 | 0.1799 | 0.3836 |
| 34 | 31.84 | 0.09 | 0.3025 | 0.0081 | 0.1646 | 0.0201 | 0.5396 | 0.3212 | 0.0559 | 0.1242 | 0.1740 | 0.3667 |
| 35 | 32.10 | 0.05 | 0.1983 | 0.0072 | 0.1157 | 0.0384 | 0.5634 | 0.3428 | 0.0573 | 0.1342 | 0.1671 | 0.3916 |
| 36 | 32.37 | 0.03 | 0.1783 | 0.0060 | 0.1014 | 0.0449 | 0.5689 | 0.3647 | 0.0578 | 0.1454 | 0.1584 | 0.3988 |
| 37 | 32.68 | 0.02 | 0.1875 | 0.0059 | 0.1008 | 0.0529 | 0.5378 | 0.3747 | 0.0589 | 0.1503 | 0.1518 | 0.4011 |
| 38 | 32.91 | 0.03 | 0.2043 | 0.0065 | 0.1168 | 0.0522 | 0.5773 | 0.3802 | 0.0564 | 0.1533 | 0.1483 | 0.4032 |
| 39 | 33.17 | 0.02 | 0.0538 | 0.0031 | 0.0704 | 0.0331 | 0.7505 | 0.3867 | 0.0578 | 0.1572 | 0.1454 | 0.4067 |
| 40 | 33.44 | 0.01 | 0.0163 | 0.0017 | 0.0583 | 0.0257 | 0.8805 | 0.3975 | 0.0578 | 0.1614 | 0.1454 | 0.4060 |
| 41 | 33.70 | 0.01 | 0.1266 | 0.0055 | 0.0537 | 0.0349 | 0.7369 | 0.4020 | 0.0567 | 0.1637 | 0.1410 | 0.4072 |
| 42 | 33.96 | 0.00 | 0.0533 | -0.0011 | 0.0294 | -0.0118 | 0.9160 | 0.4185 | 0.0565 | 0.1711 | 0.1350 | 0.4089 |
| 43 | 34.20 | 0.01 | 0.1468 | 0.0015 | 0.1036 | 0.0131 | 0.7293 | 0.4208 | 0.0523 | 0.1730 | 0.1314 | 0.4112 |
| 44 | 34.45 | 0.02 | 0.2615 | 0.0061 | 0.1624 | 0.0217 | 0.5789 | 0.4378 | 0.0550 | 0.1800 | 0.1210 | 0.4112 |
| 45 | 34.73 | 0.03 | 0.2433 | 0.0065 | 0.1464 | 0.0284 | 0.6017 | 0.4674 | 0.0515 | 0.1956 | 0.1110 | 0.4185 |
| 46 | 34.97 | 0.01 | 0.2661 | 0.0062 | 0.1545 | 0.0316 | 0.5956 | 0.4796 | 0.0510 | 0.2013 | 0.1063 | 0.4197 |

TEST PART MACH REXIO-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 117 1.40 1.7 0.0 BLANK 13 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.20 | 0.01 | 0.1676 | C.0038 | C.1162 | 0.0227 | 0.7345 | 0.4894 | 0.0520 | 0.2051 | 0.1062 | 0.4191 |
| 48 | 35.46 | 0.02 | C.2227 | C.0116 | C.1367 | 0.0361 | 0.5966 | 0.4917 | 0.0510 | 0.2058 | 0.1037 | C.4186 |
| 49 | 35.70 | 0.02 | 0.2765 | C.0128 | 0.1631 | 0.0434 | 0.5890 | 0.4962 | 0.0499 | 0.2100 | 0.1005 | C.4232 |
| 50 | 35.94 | 0.03 | C.1765 | 0.0048 | 0.1116 | C.0549 | 0.0203 | 0.5171 | 0.0496 | 0.2200 | 0.0959 | 0.4255 |
| 51 | 36.20 | 0.02 | 0.2451 | C.0165 | C.1443 | 0.0674 | 0.5886 | 0.5081 | 0.0484 | 0.2164 | 0.0956 | 0.4276 |
| 52 | 36.43 | 0.03 | 0.2902 | C.0233 | 0.1636 | C.0873 | 0.5044 | 0.5062 | 0.0481 | 0.2184 | 0.0910 | C.4315 |
| 53 | 36.65 | 0.02 | 0.2525 | C.0175 | C.1461 | 0.0765 | 0.5776 | 0.5270 | 0.0462 | 0.2250 | 0.0876 | 0.4346 |
| 54 | 36.90 | 0.02 | 0.2368 | C.0145 | C.1436 | C.0825 | 0.6063 | 0.5250 | 0.0445 | 0.2277 | 0.0843 | 0.4338 |
| 55 | 37.16 | 0.03 | 0.2141 | C.0156 | C.1256 | 0.0744 | 0.6027 | 0.5436 | 0.0440 | 0.2385 | C.0805 | 0.4387 |
| 56 | 37.37 | 0.02 | 0.2243 | C.0161 | 0.1342 | C.0806 | 0.5965 | 0.5623 | 0.0427 | 0.2484 | 0.0759 | 0.4418 |
| 57 | 37.63 | 0.02 | 0.1840 | C.0182 | 0.1102 | 0.0568 | 0.5966 | 0.5724 | 0.0424 | 0.2504 | 0.0740 | 0.4375 |
| 58 | 37.87 | 0.02 | 0.2245 | C.0217 | 0.1311 | C.0800 | 0.5631 | 0.5676 | 0.0418 | 0.2495 | 0.0736 | 0.4396 |
| 59 | 38.09 | 0.02 | 0.2213 | C.0245 | C.1270 | C.1127 | 0.5740 | 0.5785 | 0.0421 | 0.2552 | 0.0727 | 0.4412 |
| 60 | 38.33 | 0.02 | 0.2064 | C.0256 | 0.1261 | 0.0960 | 0.5988 | 0.5917 | 0.0430 | 0.2602 | 0.0726 | 0.4397 |
| 61 | 38.59 | 0.02 | C.1250 | C.0158 | C.0735 | 0.1226 | 0.5728 | 0.6136 | 0.0440 | 0.2703 | 0.0717 | 0.4408 |
| 62 | 38.83 | C.03 | 0.1804 | 0.0165 | 0.1065 | C.1044 | 0.5907 | 0.6115 | 0.0442 | 0.2678 | 0.0722 | 0.4380 |
| 63 | 39.09 | -0.00 | 0.1437 | C.0156 | 0.0822 | C.1360 | 0.5722 | 0.6334 | 0.0452 | 0.2785 | 0.0713 | C.4398 |
| 64 | 39.35 | 0.02 | 0.1916 | C.0226 | 0.1119 | C.1181 | 0.5813 | 0.6322 | 0.0451 | 0.2790 | 0.0713 | 0.4414 |
| 65 | 39.57 | 0.01 | 0.1410 | C.0206 | 0.0745 | 0.1477 | 0.5247 | 0.6620 | 0.0447 | 0.2911 | 0.0675 | C.4397 |
| 66 | 39.79 | 0.02 | 0.0852 | 0.0156 | 0.0446 | 0.2134 | 0.4932 | 0.6817 | 0.0449 | 0.3020 | 0.0658 | 0.4431 |
| 67 | 40.00 | 0.01 | 0.1512 | C.0217 | 0.0794 | C.1457 | 0.5252 | 0.6773 | 0.0452 | 0.2991 | 0.0667 | 0.4416 |
| 68 | 40.20 | 0.01 | 0.1271 | C.0156 | C.0665 | C.1544 | 0.5229 | 0.6794 | 0.0457 | 0.3007 | C.0672 | 0.4426 |
| 69 | 40.44 | 0.02 | 0.0844 | C.0172 | 0.0372 | 0.2041 | 0.4403 | 0.7092 | 0.0451 | 0.3131 | 0.0635 | 0.4414 |
| 70 | 40.65 | 0.02 | 0.0861 | C.0175 | C.0365 | 0.2035 | 0.4412 | 0.7170 | 0.0455 | 0.3108 | 0.0634 | 0.4415 |
| 71 | 40.84 | 0.03 | 0.0854 | 0.0156 | 0.0371 | 0.2129 | 0.4145 | 0.7314 | 0.0456 | 0.3208 | 0.0626 | 0.4387 |
| 72 | 41.07 | 0.01 | 0.0840 | 0.0210 | C.0200 | 0.2504 | 0.3169 | 0.7579 | 0.0460 | 0.3316 | 0.0607 | 0.4375 |
| 73 | 41.26 | 0.01 | 0.1270 | C.0187 | 0.0673 | 0.1474 | 0.5297 | 0.7213 | 0.0467 | 0.3173 | 0.0647 | 0.4399 |
| 74 | 41.46 | 0.02 | C.1027 | 0.0166 | 0.0454 | C.1619 | 0.4811 | 0.7347 | 0.0473 | 0.3268 | C.0643 | 0.4367 |
| 75 | 41.66 | 0.01 | 0.1141 | C.0160 | 0.0614 | 0.1404 | 0.5377 | 0.7269 | 0.0477 | 0.3175 | 0.0654 | 0.4356 |
| 76 | 41.86 | 0.01 | 0.1066 | 0.0166 | 0.0512 | 0.1560 | 0.4804 | 0.7405 | 0.0483 | 0.3250 | 0.0647 | C.4354 |
| 77 | 42.09 | 0.00 | 0.0880 | C.0147 | C.0413 | 0.1873 | 0.4691 | 0.7609 | 0.0479 | 0.3313 | 0.0629 | 0.4354 |
| 78 | 42.30 | -0.01 | 0.0661 | 0.0055 | 0.0341 | 0.1440 | 0.5108 | 0.7730 | 0.0482 | 0.3361 | 0.0623 | 0.4348 |
| 79 | 42.51 | -0.01 | 0.0635 | C.0075 | C.0332 | 0.1251 | 0.5254 | 0.7743 | 0.0479 | 0.3347 | 0.0618 | 0.4322 |
| 80 | 42.70 | -0.01 | 0.0491 | 0.0061 | 0.0200 | 0.1243 | 0.5414 | 0.7803 | 0.0483 | 0.3410 | 0.0614 | 0.4337 |
| 81 | 42.88 | -0.02 | C.0515 | C.0047 | C.0316 | 0.0513 | 0.6019 | 0.7884 | 0.0486 | 0.3420 | 0.0616 | 0.4336 |
| 82 | 43.07 | 0.01 | 0.0311 | C.0016 | C.0201 | C.0515 | 0.0451 | 0.7990 | 0.0479 | 0.3452 | 0.0595 | 0.4317 |
| 83 | 43.26 | -0.02 | 0.0472 | 0.0025 | 0.0154 | 0.1667 | 0.4102 | 0.8162 | 0.0488 | 0.3512 | 0.0597 | 0.4303 |
| 84 | 43.42 | -0.02 | 0.0371 | 0.0016 | 0.0211 | 0.0485 | 0.5078 | 0.8070 | 0.0482 | 0.3468 | 0.0597 | 0.4297 |
| 85 | 43.60 | 0.00 | C.0329 | C.0045 | C.0155 | C.1309 | 0.4696 | 0.8345 | 0.0483 | 0.3592 | 0.0578 | 0.4304 |
| 86 | 43.79 | -0.02 | C.0220 | 0.0005 | C.0212 | C.0221 | 0.4972 | 0.8301 | 0.0483 | 0.3574 | 0.0582 | 0.4305 |
| 87 | 43.96 | -0.01 | C.0252 | C.0055 | 0.0066 | 0.2343 | 0.2389 | 0.8479 | 0.0487 | 0.3626 | 0.0574 | 0.4278 |
| 88 | 44.12 | 0.02 | 0.0263 | 0.0061 | 0.0056 | C.2321 | 0.2212 | 0.8651 | 0.0495 | 0.3692 | 0.0572 | 0.4268 |
| 89 | 44.32 | -0.00 | C.0155 | C.0032 | 0.0042 | 0.2066 | 0.2718 | 0.8639 | 0.0500 | 0.3694 | C.0578 | C.4278 |
| 90 | 44.51 | -0.04 | -0.0351 | -C.0054 | -C.0143 | C.1536 | 0.4059 | 0.8596 | 0.0498 | 0.3674 | 0.0575 | 0.4274 |
| 91 | 44.70 | -0.02 | 0.0135 | C.0026 | 0.0015 | C.2735 | 0.1063 | 0.8832 | C.0503 | 0.3759 | 0.0569 | 0.4257 |
| 92 | 44.89 | -0.01 | -C.0258 | -C.0022 | -0.0160 | 0.0739 | 0.5353 | 0.8821 | 0.0506 | 0.3746 | 0.0573 | 0.4247 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 117 MACH 1.10 REYC-6 1.7 PHI 0.0 CONF 31=OF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| FLIAT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 45.08 | -0.03 | 0.0625 | 0.0174 | 0.0156 | 0.2772 | 0.2476 | 0.9114 | 0.0498 | 0.3850 | 0.0546 | 0.4224 |
| 94 | 45.20 | -0.01 | -0.0768 | -0.0075 | -0.0326 | 0.1001 | 0.4526 | 0.8991 | 0.0506 | 0.3818 | 0.0565 | 0.4244 |
| 95 | 45.45 | -0.01 | 0.0051 | 0.0053 | -0.0015 | 1.0398 | -0.3737 | 0.9002 | 0.0515 | 0.3805 | 0.0572 | 0.4226 |
| 96 | 45.01 | -0.01 | -0.0446 | -0.0031 | -0.0249 | 0.0695 | 0.5576 | 0.9001 | 0.0522 | 0.3806 | 0.0580 | 0.4228 |
| 97 | 45.81 | -0.01 | -0.0385 | -0.0031 | -0.0190 | 0.0806 | 0.4925 | 0.9000 | 0.0541 | 0.3800 | 0.0601 | 0.4222 |
| 98 | 46.00 | -0.03 | -0.0155 | -0.0106 | -0.0066 | 0.1208 | 0.4842 | 0.8967 | 0.0566 | 0.3784 | 0.0623 | 0.4211 |
| 99 | 46.16 | -0.03 | -0.0558 | -0.0117 | -0.0455 | 0.1223 | 0.4749 | 0.9054 | 0.0551 | 0.3818 | 0.0608 | 0.4216 |
| 100 | 46.33 | -0.03 | -0.0367 | -0.0014 | -0.0237 | 0.0362 | 0.6451 | 0.9049 | 0.0556 | 0.3821 | 0.0611 | 0.4199 |
| 101 | 46.51 | -0.01 | -0.0665 | -0.0062 | -0.0534 | 0.0934 | 0.5031 | 0.9154 | 0.0557 | 0.3845 | 0.0608 | 0.4200 |
| 102 | 46.66 | -0.02 | -0.1336 | -0.0162 | -0.0812 | 0.1364 | 0.4576 | 0.8865 | 0.0574 | 0.3727 | 0.0647 | 0.4204 |
| 103 | 46.86 | -0.01 | -0.0560 | -0.0115 | -0.0451 | 0.1175 | 0.4601 | 0.8954 | 0.0571 | 0.3750 | 0.0637 | 0.4188 |
| 104 | 47.02 | -0.02 | -0.1002 | -0.0128 | -0.0491 | 0.1279 | 0.4901 | 0.8955 | 0.0560 | 0.3750 | 0.0625 | 0.4188 |
| 105 | 47.21 | -0.03 | -0.0543 | -0.0154 | -0.0465 | 0.1636 | 0.4931 | 0.9033 | 0.0556 | 0.3781 | 0.0615 | 0.4186 |
| 106 | 47.39 | -0.03 | -0.0874 | -0.0153 | -0.0806 | 0.2275 | 0.5456 | 0.9176 | 0.0538 | 0.3854 | 0.0586 | 0.4199 |
| 107 | 47.55 | -0.03 | -0.0866 | -0.0146 | -0.0442 | 0.1723 | 0.5103 | 0.8957 | 0.0555 | 0.3735 | 0.0615 | 0.4176 |
| 108 | 47.71 | -0.03 | -0.0599 | -0.0146 | -0.0292 | 0.3711 | 0.7317 | 0.9269 | 0.0535 | 0.3850 | 0.0577 | 0.4153 |
| 109 | 47.90 | -0.03 | -0.0355 | -0.0135 | -0.0257 | 0.3385 | 0.7442 | 0.9102 | 0.0549 | 0.3778 | 0.0603 | 0.4151 |
| 110 | 48.06 | -0.02 | -0.0243 | -0.0138 | -0.0251 | 0.3682 | 1.0321 | 0.9281 | 0.0535 | 0.3836 | 0.0576 | 0.4133 |
| 111 | 48.25 | -0.01 | -0.0039 | -0.0163 | -0.0176 | 0.1817 | 0.5530 | 0.9542 | 0.0513 | 0.3901 | 0.0537 | 0.4088 |
| 112 | 48.43 | -0.01 | 0.0059 | -0.0144 | 0.0038 | -0.2872 | 0.0003 | 0.9906 | 0.0433 | 0.4014 | 0.0437 | 0.4053 |
| 113 | 48.61 | -0.01 | 0.0021 | -0.0124 | 0.0110 | -0.1513 | 0.1346 | 0.9784 | 0.0403 | 0.3840 | 0.0411 | 0.3925 |
| 114 | 48.76 | -0.02 | 0.1422 | -0.0026 | 0.0525 | -0.0183 | 0.2916 | 0.9369 | 0.0363 | 0.3614 | 0.0408 | 0.3857 |
| 115 | 48.96 | -0.01 | 0.1358 | 0.0057 | 0.0235 | 0.0726 | 0.1756 | 1.0120 | 0.0430 | 0.4216 | 0.0425 | 0.4166 |
| 116 | 49.12 | -0.01 | 0.0627 | 0.0017 | 0.0029 | 0.2063 | 0.0352 | 0.8909 | 0.0532 | 0.3634 | 0.0597 | 0.4079 |
| 117 | 49.26 | -0.00 | 0.0768 | 0.0185 | 0.0226 | 0.2342 | 0.0370 | 0.8946 | 0.0545 | 0.3675 | 0.0605 | 0.4108 |
| 118 | 49.43 | -0.01 | 0.0353 | 0.0142 | -0.0076 | 0.4025 | -0.1989 | 0.8857 | 0.0574 | 0.3522 | 0.0663 | 0.4065 |
| 119 | 49.62 | -0.01 | 0.0140 | 0.0112 | -0.0135 | 0.8004 | -0.9602 | 0.8836 | 0.0563 | 0.3521 | 0.0652 | 0.4078 |
| 120 | 49.79 | -0.01 | 0.0091 | 0.0055 | -0.0135 | 1.0885 | -1.5213 | 0.8404 | 0.0572 | 0.3398 | 0.0680 | 0.4043 |
| 121 | 49.96 | 0.00 | 0.0075 | 0.0056 | -0.0131 | 1.2158 | -1.6508 | 0.8526 | 0.0565 | 0.3455 | 0.0662 | 0.4053 |
| 122 | 50.16 | -0.01 | 0.0144 | 0.0064 | -0.0088 | 0.8531 | -0.8131 | 0.8538 | 0.0558 | 0.3459 | 0.0653 | 0.4052 |
| 123 | 50.33 | 0.01 | 0.0093 | 0.0074 | -0.0087 | 0.7581 | -0.9385 | 0.8506 | 0.0557 | 0.3430 | 0.0655 | 0.4033 |
| 124 | 50.49 | 0.01 | 0.0113 | 0.0072 | -0.0068 | 0.8375 | -0.7369 | 0.8382 | 0.0552 | 0.3372 | 0.0660 | 0.4032 |
| 125 | 50.68 | 0.00 | 0.0015 | 0.0068 | -0.0105 | 0.6023 | -0.9224 | 0.8314 | 0.0543 | 0.3315 | 0.0653 | 0.3992 |
| 126 | 50.86 | 0.03 | 0.0054 | 0.0063 | -0.0097 | 1.1675 | -1.6020 | 0.7964 | 0.0544 | 0.3133 | 0.0681 | 0.3924 |
| 127 | 51.02 | 0.02 | 0.0054 | 0.0059 | -0.0091 | 1.0932 | -1.6906 | 0.8227 | 0.0537 | 0.3262 | 0.0652 | 0.3965 |
| 128 | 51.13 | 0.03 | 0.0055 | 0.0075 | -0.0102 | 1.3644 | -1.8035 | 0.8422 | 0.0551 | 0.3343 | 0.0654 | 0.4025 |
| 129 | 45.67 | 0.01 | 0.0501 | 0.0195 | 0.0074 | 0.2168 | 0.0325 | 0.9562 | 0.0482 | 0.3949 | 0.0504 | 0.4130 |
| 130 | 46.09 | -0.03 | -0.0657 | -0.0166 | -0.0353 | 0.2502 | 0.5363 | 0.9384 | 0.0544 | 0.3905 | 0.0586 | 0.4162 |

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PARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 117 MACH 1.10 REXIE 1.7 PHI 0.0 CONF 61BCF13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.80 | 0.02 | 0.0357 | 9.9999 | 0.0003 | 9.9999 | 0.2332 | -1.4975 | 0.0141 | -0.6147 | -0.0094 | 0.4105 |
| 2 | -5.81 | 0.02 | 0.0367 | 9.9999 | 0.0007 | 9.9999 | 0.2032 | -1.4985 | 0.0137 | -0.6144 | -0.0092 | 0.4100 |
| 3 | -5.89 | 0.01 | 0.0025 | 9.9999 | 0.0051 | 9.9999 | 0.1959 | -1.4913 | 0.0130 | -0.6124 | -0.0087 | 0.4107 |
| 4 | -4.85 | 0.02 | 0.0214 | 9.9999 | 0.0004 | 9.9999 | 0.3979 | -1.4014 | 0.0113 | -0.6110 | -0.0076 | 0.4124 |
| 5 | -2.83 | 0.02 | 0.0161 | 9.9999 | 0.0005 | 9.9999 | 0.4050 | -1.4555 | 0.0098 | -0.6076 | -0.0067 | 0.4174 |
| 6 | -0.83 | 0.03 | 0.0111 | 9.9999 | 0.0041 | 9.9999 | 0.3706 | -1.3945 | 0.0093 | -0.5904 | -0.0031 | 0.4234 |
| 7 | 0.93 | 0.03 | 0.0061 | 9.9999 | 0.0022 | 9.9999 | 0.3468 | -1.3360 | 0.0084 | -0.5853 | -0.0003 | 0.4231 |
| 8 | 2.70 | 0.02 | 0.0022 | 9.9999 | -0.0014 | 9.9999 | -0.5472 | -1.2540 | -0.0056 | -0.5310 | 0.0045 | 0.4232 |
| 9 | 4.53 | 0.02 | 0.0054 | 9.9999 | -0.0025 | 9.9999 | -0.5388 | -1.2483 | -0.0116 | -0.5448 | 0.0093 | 0.4364 |
| 10 | 6.35 | 0.04 | 0.0085 | 9.9999 | -0.0028 | 9.9999 | -0.3305 | -1.1424 | -0.0149 | -0.4924 | 0.0131 | 0.4310 |
| 11 | 8.17 | 0.02 | 0.0157 | 9.9999 | -0.0003 | 9.9999 | -0.0153 | -1.0492 | -0.0126 | -0.4552 | 0.0120 | 0.4338 |
| 12 | 9.96 | 0.04 | 0.0078 | 9.9999 | -0.0052 | 9.9999 | -0.0084 | -0.9074 | -0.0157 | -0.3933 | 0.0173 | 0.4334 |
| 13 | 11.84 | 0.02 | 0.0038 | 9.9999 | -0.0070 | 9.9999 | -1.9507 | -0.7764 | -0.0135 | -0.3354 | 0.0199 | 0.4368 |
| 14 | 13.70 | 0.01 | 0.0006 | 9.9999 | -0.0091 | 9.9999 | -15.4152 | -0.6265 | -0.0129 | -0.2713 | 0.0206 | 0.4317 |
| 15 | 15.63 | 0.03 | 0.0007 | 9.9999 | -0.0069 | 9.9999 | -1.0331 | -0.4792 | -0.0078 | -0.2067 | 0.0163 | 0.4314 |
| 16 | 17.61 | 0.01 | -0.0059 | 9.9999 | -0.0121 | 9.9999 | 2.2479 | -0.3359 | 0.0005 | -0.1403 | -0.0015 | 0.4178 |
| 17 | 19.52 | 0.02 | -0.0083 | 9.9999 | -0.0130 | 9.9999 | 2.0542 | -0.2200 | 0.0064 | -0.0809 | -0.0382 | 0.3675 |
| 18 | 21.51 | 0.03 | 0.0117 | 9.9999 | -0.0045 | 9.9999 | -0.3658 | -0.1665 | 0.0174 | -0.0482 | -0.1034 | 0.2661 |
| 19 | 23.55 | 0.01 | -0.0024 | 9.9999 | -0.0095 | 9.9999 | 9.9719 | -0.0785 | 0.0264 | -0.0084 | -0.3624 | 0.1075 |
| 20 | 25.54 | 0.04 | 0.0038 | 9.9999 | -0.0068 | 9.9999 | -1.6949 | -0.0065 | 0.0406 | 0.0253 | -4.7672 | -2.9742 |
| 21 | 27.61 | 0.06 | 0.0326 | 9.9999 | 0.0022 | 9.9999 | 0.0690 | 0.0277 | 0.0525 | 0.0430 | 1.8527 | 1.5501 |
| 22 | 29.35 | 0.05 | 0.0361 | 9.9999 | 0.0038 | 9.9999 | 0.1050 | 0.0321 | 0.0535 | 0.0404 | 1.6044 | 1.4439 |
| 23 | 28.59 | 0.07 | 0.0356 | 9.9999 | 0.0040 | 9.9999 | 0.1147 | 0.0624 | 0.0566 | 0.0601 | 0.9074 | 0.9646 |
| 24 | 28.91 | 0.06 | 0.0265 | 9.9999 | 0.0029 | 9.9999 | 0.1007 | 0.0788 | 0.0566 | 0.0698 | 0.7183 | 0.8855 |
| 25 | 29.26 | 0.05 | 0.0116 | 9.9999 | -0.0023 | 9.9999 | -0.1989 | 0.0960 | 0.0572 | 0.0778 | 0.5957 | 0.8107 |
| 26 | 29.56 | 0.06 | 0.0158 | 9.9999 | -0.0024 | 9.9999 | -0.1524 | 0.1297 | 0.0607 | 0.0907 | 0.4678 | 0.6990 |
| 27 | 29.85 | 0.04 | 0.0229 | 9.9999 | -0.0004 | 9.9999 | -0.0175 | 0.1455 | 0.0624 | 0.0997 | 0.4287 | 0.6851 |
| 28 | 30.16 | 0.05 | 0.0341 | 9.9999 | 0.0037 | 9.9999 | 0.1089 | 0.1471 | 0.0645 | 0.1024 | 0.4383 | 0.6947 |
| 29 | 30.44 | 0.06 | 0.0300 | 9.9999 | 0.0024 | 9.9999 | 0.0803 | 0.1661 | 0.0648 | 0.1115 | 0.3856 | 0.6656 |
| 30 | 30.72 | 0.08 | 0.0402 | 9.9999 | 0.0048 | 9.9999 | 0.1196 | 0.1685 | 0.0664 | 0.1230 | 0.3523 | 0.6526 |
| 31 | 30.98 | 0.05 | 0.0402 | 9.9999 | 0.0055 | 9.9999 | 0.1472 | 0.1765 | 0.0680 | 0.1178 | 0.3853 | 0.6675 |
| 32 | 31.26 | 0.06 | 0.0266 | 9.9999 | 0.0011 | 9.9999 | 0.0424 | 0.2286 | 0.0656 | 0.1414 | 0.2867 | 0.6179 |
| 33 | 31.54 | 0.06 | 0.0361 | 9.9999 | 0.0044 | 9.9999 | 0.1278 | 0.2608 | 0.0640 | 0.1540 | 0.2453 | 0.5905 |
| 34 | 31.84 | 0.04 | 0.0321 | 9.9999 | 0.0026 | 9.9999 | 0.0675 | 0.2710 | 0.0650 | 0.1598 | 0.2358 | 0.5894 |
| 35 | 32.10 | 0.05 | 0.0341 | 9.9999 | 0.0035 | 9.9999 | 0.1147 | 0.2874 | 0.0643 | 0.1679 | 0.2237 | 0.5842 |
| 36 | 32.37 | 0.03 | 0.0260 | 9.9999 | -0.0002 | 9.9999 | -0.0090 | 0.2941 | 0.0642 | 0.1733 | 0.2146 | 0.5755 |
| 37 | 32.66 | 0.02 | 0.0137 | 9.9999 | -0.0025 | 9.9999 | -0.1831 | 0.2979 | 0.0643 | 0.1725 | 0.2158 | 0.5805 |
| 38 | 32.91 | 0.03 | 0.0167 | 9.9999 | -0.0001 | 9.9999 | -0.0054 | 0.3312 | 0.0627 | 0.1866 | 0.1693 | 0.5700 |
| 39 | 33.17 | 0.02 | 0.0045 | 9.9999 | -0.0051 | 9.9999 | -1.1370 | 0.3494 | 0.0609 | 0.1972 | 0.1743 | 0.5644 |
| 40 | 33.44 | 0.01 | 0.0156 | 9.9999 | 0.0006 | 9.9999 | 0.0386 | 0.3770 | 0.0593 | 0.2093 | 0.1570 | 0.5541 |
| 41 | 33.70 | 0.01 | 0.0166 | 9.9999 | 0.0006 | 9.9999 | 0.0363 | 0.3918 | 0.0592 | 0.2157 | 0.1511 | 0.5508 |
| 42 | 33.96 | 0.00 | 0.0157 | 9.9999 | -0.0008 | 9.9999 | -0.0311 | 0.4155 | 0.0582 | 0.2276 | 0.1400 | 0.5479 |
| 43 | 34.20 | 0.01 | 0.0158 | 9.9999 | 0.0024 | 9.9999 | 0.1226 | 0.4223 | 0.0585 | 0.2302 | 0.1385 | 0.5452 |
| 44 | 34.45 | 0.04 | 0.0078 | 9.9999 | -0.0042 | 9.9999 | -0.2344 | 0.4356 | 0.0580 | 0.2375 | 0.1331 | 0.5461 |
| 45 | 34.73 | 0.03 | 0.0065 | 9.9999 | -0.0015 | 9.9999 | -0.2006 | 0.4306 | 0.0591 | 0.2361 | 0.1372 | 0.5482 |
| 46 | 34.97 | 0.01 | 0.0126 | 9.9999 | -0.0026 | 9.9999 | -0.1592 | 0.4509 | 0.0579 | 0.2466 | 0.1284 | 0.5465 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 117 | MACH 1.10 | RX10-6 1.07 | PHI C.C | CONF 01bdF13 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.20 | 0.01 | 0.0167 | 5.5555 | -0.0013 | 5.9999 | -0.0781 | 0.4788 | 0.0568 | 0.2586 | 0.1144 | 0.5396 |
| 48 | 35.46 | 0.02 | 0.0267 | 5.5555 | 0.0006 | 5.9999 | 0.0388 | 0.4928 | 0.0545 | 0.2653 | 0.1105 | 0.5342 |
| 49 | 35.70 | 0.02 | 0.0256 | 5.5555 | 0.0024 | 5.9999 | 0.0933 | 0.4964 | 0.0545 | 0.2666 | 0.1098 | 0.5371 |
| 50 | 35.94 | 0.03 | 0.0355 | 5.5555 | 0.0056 | 5.9999 | 0.1305 | 0.4954 | 0.0540 | 0.2657 | 0.1090 | 0.5364 |
| 51 | 36.20 | 0.02 | 0.0255 | 5.5555 | 0.0014 | 5.9999 | 0.0542 | 0.5155 | 0.0534 | 0.2754 | 0.1035 | 0.5343 |
| 52 | 36.43 | 0.03 | 0.0353 | 5.5555 | 0.0007 | 5.9999 | 0.0295 | 0.5308 | 0.0527 | 0.2801 | 0.0992 | 0.5278 |
| 53 | 36.65 | 0.02 | 0.0225 | 5.5555 | 0.0004 | 5.9999 | 0.0176 | 0.5328 | 0.0536 | 0.2829 | 0.1006 | 0.5305 |
| 54 | 36.90 | 0.02 | 0.0256 | 5.5555 | 0.0037 | 5.9999 | 0.1496 | 0.5519 | 0.0522 | 0.2914 | 0.0945 | 0.5280 |
| 55 | 37.16 | 0.03 | 0.0295 | 5.5555 | 0.0032 | 5.9999 | 0.1074 | 0.5475 | 0.0537 | 0.2891 | 0.0980 | 0.5276 |
| 56 | 37.37 | 0.02 | 0.0234 | 5.5555 | -0.0001 | 5.9999 | -0.0042 | 0.5628 | 0.0542 | 0.2947 | 0.0963 | 0.5236 |
| 57 | 37.63 | 0.02 | 0.0218 | 5.5555 | 0.0003 | 5.9999 | 0.0138 | 0.5404 | 0.0551 | 0.2854 | 0.1015 | 0.5281 |
| 58 | 37.87 | 0.02 | 0.0361 | 5.5555 | 0.0043 | 5.9999 | 0.1195 | 0.5688 | 0.0544 | 0.2970 | 0.0957 | 0.5225 |
| 59 | 38.09 | 0.02 | 0.0320 | 5.5555 | 0.0033 | 5.9999 | 0.1035 | 0.5795 | 0.0548 | 0.3030 | 0.0945 | 0.5225 |
| 60 | 38.33 | 0.02 | 0.0044 | 5.5555 | -0.0176 | 5.9999 | -1.4941 | 0.5676 | 0.0555 | 0.2985 | 0.0977 | 0.5259 |
| 61 | 38.59 | 0.02 | 0.0267 | 5.5555 | 0.0038 | 5.9999 | 0.1428 | 0.5627 | 0.0563 | 0.2951 | 0.1000 | 0.5244 |
| 62 | 38.83 | 0.03 | 0.0228 | 5.5555 | 0.0004 | 5.9999 | 0.0346 | 0.5826 | 0.0560 | 0.3056 | 0.0961 | 0.5244 |
| 63 | 39.09 | -0.00 | 0.0035 | 5.5555 | -0.0052 | 5.9999 | -1.4905 | 0.5741 | 0.0570 | 0.3026 | 0.0993 | 0.5271 |
| 64 | 39.33 | 0.02 | 0.0175 | 5.5555 | 0.0026 | 5.9999 | 0.1147 | 0.6107 | 0.0559 | 0.3178 | 0.0915 | 0.5204 |
| 65 | 39.57 | 0.01 | 0.0125 | 5.5555 | 0.0008 | 5.9999 | 0.0518 | 0.5836 | 0.0567 | 0.3071 | 0.0971 | 0.5261 |
| 66 | 39.79 | 0.02 | 0.0225 | 5.5555 | 0.0047 | 5.9999 | 0.2096 | 0.5764 | 0.0571 | 0.3027 | 0.0990 | 0.5252 |
| 67 | 40.00 | 0.01 | 0.0003 | 5.5555 | -0.0043 | 5.9999 | -14.3792 | 0.5905 | 0.0568 | 0.3097 | 0.0962 | 0.5246 |
| 68 | 40.20 | 0.01 | 0.0225 | 5.5555 | 0.0047 | 5.9999 | 0.2096 | 0.6209 | 0.0566 | 0.3226 | 0.0911 | 0.5196 |
| 69 | 40.44 | 0.02 | 0.0337 | 5.5555 | 0.0088 | 5.9999 | 0.2620 | 0.6219 | 0.0570 | 0.3227 | 0.0916 | 0.5196 |
| 70 | 40.65 | 0.02 | 0.0255 | 5.5555 | 0.0067 | 5.9999 | 0.2636 | 0.6288 | 0.0573 | 0.3256 | 0.0911 | 0.5179 |
| 71 | 40.84 | 0.03 | 0.0144 | 5.5555 | 0.0018 | 5.9999 | 0.1254 | 0.6249 | 0.0583 | 0.3246 | 0.0933 | 0.5155 |
| 72 | 41.07 | 0.01 | 0.0073 | 5.5555 | -0.0002 | 5.9999 | -0.0275 | 0.6247 | 0.0588 | 0.3238 | 0.0941 | 0.5184 |
| 73 | 41.26 | 0.01 | 0.0112 | 5.5555 | 0.0027 | 5.9999 | 0.2418 | 0.6715 | 0.0578 | 0.3415 | 0.0860 | 0.5086 |
| 74 | 41.46 | 0.02 | 0.0153 | 5.5555 | 0.0040 | 5.9999 | 0.2623 | 0.6666 | 0.0585 | 0.3405 | 0.0877 | 0.5108 |
| 75 | 41.66 | 0.01 | 0.0001 | 5.5555 | -0.0015 | 5.5555 | -19.0508 | 0.6852 | 0.0576 | 0.3474 | 0.0843 | 0.5076 |
| 76 | 41.88 | 0.01 | 0.0246 | 5.5555 | 0.0056 | 5.9999 | 0.2284 | 0.6929 | 0.0589 | 0.3504 | 0.0850 | 0.5057 |
| 77 | 42.09 | 0.00 | 0.0132 | 5.5555 | 0.0035 | 5.5555 | 0.2964 | 0.6995 | 0.0599 | 0.3522 | 0.0856 | 0.5035 |
| 78 | 42.30 | -0.01 | 0.0050 | 5.5555 | 0.0024 | 5.5555 | 0.4815 | 0.7187 | 0.0586 | 0.3594 | 0.0815 | 0.5001 |
| 79 | 42.51 | -0.01 | 0.0011 | 5.5555 | -0.0002 | 5.9999 | -0.1824 | 0.7174 | 0.0589 | 0.3591 | 0.0821 | 0.5005 |
| 80 | 42.70 | -0.01 | 0.0114 | 5.5555 | 0.0027 | 5.9999 | 0.2416 | 0.7399 | 0.0578 | 0.3678 | 0.0781 | 0.4971 |
| 81 | 42.88 | -0.02 | 0.0051 | 5.5555 | 0.0015 | 5.9999 | 0.3737 | 0.7503 | 0.0580 | 0.3718 | 0.0773 | 0.4958 |
| 82 | 43.07 | 0.01 | 0.0113 | 5.5555 | 0.0019 | 5.9999 | 0.1667 | 0.7623 | 0.0570 | 0.3765 | 0.0748 | 0.4940 |
| 83 | 43.26 | -0.02 | 0.0153 | 5.5555 | 0.0067 | 5.9999 | 0.3483 | 0.7455 | 0.0594 | 0.3724 | 0.0783 | 0.4998 |
| 84 | 43.46 | -0.02 | 0.0161 | 5.5555 | 0.0034 | 5.9999 | 0.4211 | 0.7593 | 0.0575 | 0.3764 | 0.0757 | 0.4958 |
| 85 | 43.60 | 0.00 | -0.0050 | 5.5555 | -0.0024 | 5.9999 | 0.4815 | 0.7588 | 0.0581 | 0.3768 | 0.0765 | 0.4966 |
| 86 | 43.79 | -0.02 | 0.0112 | 5.5555 | 0.0036 | 5.9999 | 0.3225 | 0.7696 | 0.0575 | 0.3820 | 0.0747 | 0.4971 |
| 87 | 43.98 | -0.01 | 0.0111 | 5.5555 | 0.0045 | 5.9999 | 0.4429 | 0.7624 | 0.0579 | 0.3800 | 0.0759 | 0.4984 |
| 88 | 44.12 | 0.02 | 0.0122 | 5.5555 | 0.0050 | 5.9999 | 0.4111 | 0.7700 | 0.0582 | 0.3829 | 0.0756 | 0.4972 |
| 89 | 44.32 | -0.00 | 0.0062 | 5.5555 | 0.0021 | 5.9999 | 0.2369 | 0.7793 | 0.0593 | 0.3865 | 0.0748 | 0.4959 |
| 90 | 44.51 | -0.00 | 0.0091 | 5.5555 | 0.0037 | 5.9999 | 0.4079 | 0.8021 | 0.0600 | 0.3937 | 0.0695 | 0.4914 |
| 91 | 44.70 | -0.02 | 0.0050 | 5.5555 | 0.0027 | 5.9999 | 0.5417 | 0.7889 | 0.0588 | 0.3896 | 0.0745 | 0.4938 |
| 92 | 44.89 | -0.01 | -0.0082 | 5.5555 | -0.0023 | 5.5555 | 0.2014 | 0.7977 | 0.0571 | 0.3930 | 0.0716 | 0.4927 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11e 0.00 MACH 1.7 AXIS=E PHI 0.0 CONF 81 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.51 | 0.00 | -3.7935 | 12.7051 | 0.0007 | -0.0007 | 0.0178 | 1.8837 | 0.3489 | 1.5348 | -3.3499 |
| 2 | -5.50 | -0.01 | -3.7636 | 12.6495 | -0.0505 | 0.0436 | -0.0115 | 1.8833 | 0.3516 | 1.5315 | -3.3493 |
| 3 | -5.50 | 0.02 | -3.7538 | 12.6078 | 0.0210 | -0.0379 | 0.0033 | 1.8760 | 0.3513 | 1.5247 | -3.3586 |
| 4 | -5.50 | 0.02 | -3.7507 | 12.6251 | -0.0048 | 0.0007 | 0.0030 | 1.8823 | 0.3489 | 1.5334 | -3.3306 |
| 5 | -5.49 | 0.02 | -3.7442 | 12.5120 | -0.0001 | 0.0444 | 0.0030 | 1.8646 | 0.3489 | 1.5157 | -3.3617 |
| 6 | -5.51 | 0.02 | -3.7679 | 12.6355 | -0.0041 | -0.0031 | 0.0031 | 1.8838 | 0.3489 | 1.5349 | -3.3540 |
| 7 | -5.50 | 0.02 | -3.7600 | 12.6446 | -0.0505 | 0.0436 | -0.0116 | 1.8797 | 0.3508 | 1.5285 | -3.3276 |
| 8 | -5.66 | 0.02 | -3.8173 | 12.8140 | 0.0388 | -0.0100 | 0.0397 | 1.9029 | 0.3433 | 1.5596 | -3.3570 |
| 9 | -4.98 | 0.02 | -3.5122 | 13.2564 | 0.0227 | -0.0366 | 0.0035 | 1.9243 | 0.3206 | 1.6037 | -3.3967 |
| 10 | -5.26 | 0.02 | -3.6759 | 12.9067 | 0.0235 | -0.0396 | -0.0035 | 1.7006 | 0.1950 | 1.5056 | -3.5057 |
| 11 | -1.64 | 0.02 | -3.2680 | 12.1173 | 0.0093 | -0.0006 | -0.0028 | 1.6712 | 0.1497 | 1.5215 | -3.7079 |
| 12 | -1.38 | 0.02 | -3.0461 | 12.1085 | -0.0262 | 0.0200 | 0.0040 | 1.6613 | 0.1473 | 1.5140 | -3.6166 |
| 13 | -0.30 | 0.02 | -3.0427 | 11.9279 | -0.0057 | 0.0436 | 0.0044 | 1.6082 | 0.1501 | 1.4582 | -3.7557 |
| 14 | 1.38 | 0.02 | -2.8745 | 10.5203 | 0.0004 | -0.0157 | 0.0050 | 1.5088 | 0.1544 | 1.3544 | -3.5336 |
| 15 | 3.14 | 0.02 | -2.5088 | 9.5984 | 0.0362 | -0.0658 | 0.0054 | 1.3938 | 0.1610 | 1.2328 | -4.1573 |
| 16 | 4.77 | 0.02 | -1.9845 | 8.7985 | 0.0304 | -0.0003 | -0.0015 | 1.3018 | 0.1700 | 1.1318 | -4.4335 |
| 17 | 6.50 | 0.02 | -1.5076 | 7.9067 | 0.0041 | -0.0875 | -0.0010 | 1.1826 | 0.1771 | 1.0055 | -4.9802 |
| 18 | 8.23 | 0.02 | -1.2314 | 7.4065 | 0.0497 | -0.1450 | -0.0004 | 1.0804 | 0.1624 | 0.8980 | -5.7712 |
| 19 | 9.90 | 0.02 | -0.8582 | 6.2207 | -0.0062 | -0.0150 | 0.0072 | 0.9730 | 0.1856 | 0.7874 | -7.4211 |
| 20 | 11.69 | 0.02 | -0.4035 | 5.3333 | -0.0244 | -0.0010 | -0.0069 | 0.8004 | 0.1670 | 0.6734 | -11.4957 |
| 21 | 13.40 | 0.02 | -0.0841 | 4.5478 | 0.0250 | -0.0453 | -0.0062 | 0.7543 | 0.1647 | 0.5896 | -54.0481 |
| 22 | 15.17 | 0.02 | 0.3318 | 3.8416 | -0.0022 | 0.0022 | -0.0056 | 0.6584 | 0.1852 | 0.4732 | 11.5771 |
| 23 | 16.99 | 0.02 | 0.7225 | 3.0300 | -0.1183 | 0.1791 | 0.0093 | 0.5519 | 0.1881 | 0.3638 | 4.1916 |
| 24 | 18.79 | 0.01 | 1.0938 | 2.4421 | -0.1405 | 0.2298 | 0.0095 | 0.4578 | 0.1889 | 0.2686 | 2.2053 |
| 25 | 20.58 | 0.01 | 1.4557 | 1.8885 | -0.3602 | 0.9000 | 0.0304 | 0.3868 | 0.2012 | 0.1856 | 1.2976 |
| 26 | 22.37 | 0.00 | 1.7506 | 1.5954 | -0.4691 | 1.4115 | 0.0223 | 0.3316 | 0.2168 | 0.1150 | 0.9112 |
| 27 | 24.17 | -0.00 | 2.0512 | 1.4428 | -0.5481 | 1.4681 | 0.0088 | 0.2826 | 0.2257 | 0.0569 | 0.7036 |
| 28 | 25.95 | 0.00 | 2.3067 | 1.3765 | -0.4157 | 0.9443 | 0.0046 | 0.2442 | 0.2342 | 0.0100 | 0.5742 |
| 29 | 27.79 | 0.05 | 2.5810 | 1.3602 | 0.4507 | -1.0840 | 0.0841 | 0.1928 | 0.2375 | -0.0447 | 0.4754 |
| 30 | 28.12 | 0.05 | 2.7949 | 1.4303 | 0.3156 | -0.5014 | 0.0541 | 0.1788 | 0.2370 | -0.0582 | 0.5143 |
| 31 | 28.42 | 0.06 | 2.8414 | 1.4324 | 0.5262 | -1.3458 | 0.0845 | 0.1759 | 0.2375 | -0.0616 | 0.5041 |
| 32 | 28.68 | 0.06 | 2.9009 | 1.4411 | 0.5060 | -1.1867 | 0.0646 | 0.1637 | 0.2385 | -0.0748 | 0.4968 |
| 33 | 29.01 | 0.05 | 2.9579 | 1.4168 | 0.4872 | -1.2323 | 0.0775 | 0.1625 | 0.2394 | -0.0769 | 0.4790 |
| 34 | 29.33 | 0.07 | 3.0333 | 1.3751 | 0.0693 | -1.0504 | 0.1077 | 0.1464 | 0.2422 | -0.0958 | 0.4534 |
| 35 | 29.61 | 0.07 | 3.1242 | 1.4134 | 0.7408 | -1.3944 | 0.1006 | 0.1321 | 0.2413 | -0.1093 | 0.4524 |
| 36 | 29.88 | 0.06 | 3.1197 | 1.4576 | 0.4551 | -0.9191 | 0.0707 | 0.1313 | 0.2432 | -0.1120 | 0.4670 |
| 37 | 30.17 | 0.08 | 3.2417 | 1.3585 | 0.9297 | -1.8145 | 0.1235 | 0.1171 | 0.2483 | -0.1313 | 0.4192 |
| 38 | 30.44 | 0.09 | 3.3238 | 1.3386 | 1.0745 | -2.2330 | 0.1314 | 0.1101 | 0.2536 | -0.1436 | 0.4025 |
| 39 | 30.70 | 0.08 | 3.3746 | 1.3629 | 0.9866 | -2.0187 | 0.1175 | 0.1059 | 0.2546 | -0.1488 | 0.4039 |
| 40 | 30.96 | 0.07 | 3.4424 | 1.3345 | 0.5100 | -0.2559 | 0.0033 | 0.0945 | 0.2612 | -0.1667 | 0.3877 |
| 41 | 31.25 | 0.07 | 3.5015 | 1.3062 | 0.6024 | -0.7672 | 0.1315 | 0.0947 | 0.2645 | -0.1698 | 0.3730 |
| 42 | 31.53 | 0.06 | 3.5849 | 1.2044 | 0.4356 | -0.1090 | 0.0633 | 0.0712 | 0.2720 | -0.2008 | 0.3374 |
| 43 | 31.79 | 0.07 | 3.6501 | 1.1452 | 0.5871 | -0.2618 | 0.0559 | 0.0699 | 0.2777 | -0.2078 | 0.3103 |
| 44 | 32.06 | 0.06 | 3.6733 | 1.2136 | 0.2753 | 0.0546 | 0.0391 | 0.0671 | 0.2786 | -0.2115 | 0.3304 |
| 45 | 32.32 | 0.07 | 3.6865 | 1.1262 | 0.5503 | -0.2446 | 0.0625 | 0.0526 | 0.2843 | -0.2317 | 0.2957 |
| 46 | 32.57 | 0.07 | 3.7026 | 1.1691 | 0.3056 | -0.0833 | 0.0715 | 0.0490 | 0.2810 | -0.2380 | 0.2981 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 117 RACK 1.0 REX10=6 1.7 PHI 0.0 CONF 13 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 45.03 | -0.03 | -0.0143 | 5.9999 | -0.0043 | 5.9999 | 0.3017 | 0.7729 | 0.0594 | 0.3852 | 0.0768 | 0.4984 |
| 94 | 45.20 | -0.01 | -0.0020 | 5.9999 | -0.0005 | 5.9999 | 0.4514 | 0.8159 | 0.0563 | 0.3990 | 0.0690 | 0.4890 |
| 95 | 45.45 | -0.01 | 0.0141 | 5.9999 | 0.0061 | 5.9999 | 0.4340 | 0.8009 | 0.0590 | 0.3936 | 0.0736 | 0.4914 |
| 96 | 45.61 | -0.01 | 0.0051 | 5.9999 | 0.0042 | 5.9999 | 0.4636 | 0.8160 | 0.0569 | 0.3987 | 0.0695 | 0.4886 |
| 97 | 45.81 | -0.01 | 0.0060 | 5.9999 | 0.0048 | 5.9999 | 0.5350 | 0.8078 | 0.0592 | 0.3957 | 0.0733 | 0.4895 |
| 98 | 46.00 | -0.03 | 0.0071 | 5.9999 | 0.0033 | 5.9999 | 0.4803 | 0.8149 | 0.0590 | 0.3969 | 0.0724 | 0.4895 |
| 99 | 46.16 | -0.03 | -0.0031 | 5.9999 | -0.0010 | 5.9999 | 0.3230 | 0.8198 | 0.0582 | 0.4002 | 0.0710 | 0.4882 |
| 100 | 46.33 | -0.03 | -0.0021 | 5.9999 | -0.0004 | 5.9999 | 0.1911 | 0.8066 | 0.0603 | 0.3975 | 0.0746 | 0.4916 |
| 101 | 46.51 | -0.01 | -0.0021 | 5.9999 | 0.0007 | 5.9999 | -0.3344 | 0.8193 | 0.0597 | 0.4006 | 0.0728 | 0.4890 |
| 102 | 46.68 | -0.02 | 0.0030 | 5.9999 | 0.0023 | 5.9999 | 0.7091 | 0.7650 | 0.0617 | 0.3798 | 0.0806 | 0.4964 |
| 103 | 46.86 | -0.01 | 0.0172 | 5.9999 | 0.0074 | 5.9999 | 0.4316 | 0.8110 | 0.0600 | 0.3974 | 0.0740 | 0.4900 |
| 104 | 47.02 | -0.02 | -0.0062 | 5.9999 | 0.0030 | 5.9999 | -15.0480 | 0.7627 | 0.0612 | 0.3875 | 0.0782 | 0.4951 |
| 105 | 47.21 | -0.03 | 0.0050 | 5.9999 | 0.0021 | 5.9999 | 0.5085 | 0.7624 | 0.0624 | 0.3786 | 0.0818 | 0.4965 |
| 106 | 47.39 | -0.03 | -0.0061 | 5.9999 | 0.0013 | 5.9999 | -13.0410 | 0.7252 | 0.0652 | 0.3638 | 0.0899 | 0.5017 |
| 107 | 47.55 | -0.03 | 0.0010 | 5.9999 | 0.0011 | 5.9999 | 1.1035 | 0.7405 | 0.0648 | 0.3665 | 0.0875 | 0.4977 |
| 108 | 47.71 | -0.03 | 0.0185 | 5.9999 | 0.0064 | 5.9999 | 0.7214 | 0.7336 | 0.0647 | 0.3667 | 0.0882 | 0.4999 |
| 109 | 47.90 | -0.03 | 0.0025 | 5.9999 | 0.0037 | 5.9999 | 1.2799 | 0.7177 | 0.0664 | 0.3589 | 0.0925 | 0.5001 |
| 110 | 48.08 | -0.02 | -0.0011 | 5.9999 | 0.0005 | 5.9999 | -0.4960 | 0.7162 | 0.0671 | 0.3561 | 0.0937 | 0.4972 |
| 111 | 48.25 | -0.01 | 0.0005 | 5.9999 | 0.0022 | 5.9999 | 2.4523 | 0.7332 | 0.0655 | 0.3651 | 0.0893 | 0.4986 |
| 112 | 48.43 | -0.01 | 0.0035 | 5.9999 | 0.0032 | 5.9999 | 0.8231 | 0.7499 | 0.0644 | 0.3703 | 0.0859 | 0.4938 |
| 113 | 48.61 | -0.01 | 0.0019 | 5.9999 | 0.0025 | 5.9999 | 1.3200 | 0.7550 | 0.0632 | 0.3734 | 0.0837 | 0.4946 |
| 114 | 48.78 | -0.02 | -0.0063 | 5.9999 | -0.0004 | 5.9999 | 0.0483 | 0.7594 | 0.0640 | 0.3742 | 0.0843 | 0.4928 |
| 115 | 48.96 | -0.01 | 0.0070 | 5.9999 | 0.0044 | 5.9999 | 0.6306 | 0.7664 | 0.0639 | 0.3771 | 0.0834 | 0.4921 |
| 116 | 49.12 | -0.01 | 0.0055 | 5.9999 | 0.0044 | 5.9999 | 0.7401 | 0.7675 | 0.0637 | 0.3796 | 0.0830 | 0.4945 |
| 117 | 49.28 | -0.00 | -0.0001 | 5.9999 | 0.0011 | 5.9999 | -11.0352 | 0.7775 | 0.0635 | 0.3833 | 0.0817 | 0.4929 |
| 118 | 49.43 | -0.01 | 0.0130 | 5.9999 | 0.0074 | 5.9999 | 0.5711 | 0.7845 | 0.0637 | 0.3856 | 0.0812 | 0.4919 |
| 119 | 49.62 | -0.01 | -0.0021 | 5.9999 | 0.0007 | 5.9999 | -0.3344 | 0.7799 | 0.0633 | 0.3836 | 0.0812 | 0.4918 |
| 120 | 49.79 | -0.01 | -0.0042 | 5.9999 | 0.0005 | 5.9999 | -0.2150 | 0.7785 | 0.0644 | 0.3751 | 0.0845 | 0.4948 |
| 121 | 49.96 | 0.00 | 0.0030 | 5.9999 | 0.0023 | 5.9999 | 0.7691 | 0.7775 | 0.0636 | 0.3821 | 0.0818 | 0.4914 |
| 122 | 50.10 | -0.01 | 0.0111 | 5.9999 | 0.0054 | 5.9999 | 0.4680 | 0.7773 | 0.0640 | 0.3824 | 0.0823 | 0.4919 |
| 123 | 50.33 | 0.01 | 0.0005 | 5.9999 | 0.0030 | 5.9999 | 3.7620 | 0.7774 | 0.0637 | 0.3818 | 0.0815 | 0.4911 |
| 124 | 50.49 | 0.01 | 0.0060 | 5.9999 | 0.0042 | 5.9999 | 0.5267 | 0.7773 | 0.0640 | 0.3810 | 0.0823 | 0.4909 |
| 125 | 50.68 | 0.00 | 0.0030 | 5.9999 | 0.0018 | 5.9999 | 0.8019 | 0.7820 | 0.0622 | 0.3848 | 0.0795 | 0.4920 |
| 126 | 50.86 | 0.02 | 0.0050 | 5.9999 | 0.0024 | 5.9999 | 0.4015 | 0.7770 | 0.0630 | 0.3812 | 0.0811 | 0.4906 |
| 127 | 51.02 | 0.02 | 0.0050 | 5.9999 | 0.0035 | 5.9999 | 0.7022 | 0.7842 | 0.0624 | 0.3829 | 0.0796 | 0.4882 |
| 128 | 51.13 | 0.03 | 0.0061 | 5.9999 | 0.0034 | 5.9999 | 0.4211 | 0.7840 | 0.0633 | 0.3861 | 0.0807 | 0.4924 |
| 129 | 49.67 | 0.01 | 0.0140 | 5.9999 | 0.0080 | 5.9999 | 0.5733 | 0.7828 | 0.0622 | 0.3880 | 0.0794 | 0.4958 |
| 130 | 48.69 | -0.03 | 0.0060 | 5.9999 | 0.0036 | 5.9999 | 0.8354 | 0.7393 | 0.0646 | 0.3719 | 0.0874 | 0.5031 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11e MACH 0.60 RX10-6 4.7 PHI 0.0 CONF 31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.84 | 0.09 | 3.9566 | 1.2271 | 0.7816 | -0.4306 | 0.0950 | 0.0400 | 0.2907 | -0.2506 | 0.3075 |
| 48 | 33.10 | 0.11 | 4.1227 | 1.3366 | 1.1666 | -1.4579 | 0.1054 | 0.0126 | 0.2803 | -0.2735 | 0.3247 |
| 49 | 33.34 | 0.10 | 4.2577 | 1.2161 | 1.0175 | -0.3790 | 0.1051 | 0.0240 | 0.2944 | -0.2703 | 0.2870 |
| 50 | 33.60 | 0.11 | 4.3613 | 1.2751 | 1.1333 | -1.1257 | 0.0903 | 0.0101 | 0.3035 | -0.2934 | 0.2964 |
| 51 | 33.84 | 0.11 | 4.3986 | 1.3424 | 1.0802 | -0.7569 | 0.0902 | 0.0044 | 0.3136 | -0.3062 | 0.3052 |
| 52 | 34.08 | 0.10 | 4.4664 | 1.2260 | 1.0782 | -0.7682 | 0.0901 | 0.0002 | 0.3167 | -0.3165 | 0.2731 |
| 53 | 34.35 | 0.11 | 4.5756 | 1.1766 | 1.0306 | -0.6050 | 0.0903 | -0.0194 | 0.3211 | -0.3405 | 0.2572 |
| 54 | 34.59 | 0.12 | 4.6662 | 1.2691 | 1.2659 | -0.9549 | 0.0917 | -0.0348 | 0.3272 | -0.3626 | 0.2771 |
| 55 | 34.82 | 0.12 | 4.7517 | 1.2252 | 1.2443 | -0.8502 | 0.0916 | -0.0347 | 0.3334 | -0.3661 | 0.2578 |
| 56 | 35.07 | 0.12 | 4.8436 | 1.2082 | 1.2365 | -0.8583 | 0.0914 | -0.0370 | 0.3391 | -0.3781 | 0.2495 |
| 57 | 35.32 | 0.13 | 5.0135 | 0.9964 | 1.4055 | -0.7156 | 0.1005 | -0.0567 | 0.3469 | -0.4056 | 0.1587 |
| 58 | 35.54 | 0.13 | 5.0961 | 1.2164 | 1.3507 | -1.1665 | 0.0941 | -0.0652 | 0.3476 | -0.4128 | 0.2415 |
| 59 | 35.79 | 0.12 | 5.1048 | 1.2112 | 1.2645 | -1.3774 | 0.0949 | -0.0689 | 0.3486 | -0.4175 | 0.2373 |
| 60 | 36.01 | 0.12 | 5.1214 | 1.2514 | 1.5571 | -3.0544 | 0.0976 | -0.0542 | 0.3443 | -0.4385 | 0.2443 |
| 61 | 36.24 | 0.12 | 5.2060 | 1.2040 | 1.4515 | -2.6596 | 0.0896 | -0.0593 | 0.3476 | -0.4468 | 0.2311 |
| 62 | 36.48 | 0.12 | 5.3154 | 1.1776 | 1.3586 | -2.3146 | 0.0897 | -0.1046 | 0.3533 | -0.4578 | 0.2214 |
| 63 | 36.72 | 0.12 | 5.4265 | 1.0367 | 1.4512 | -2.2341 | 0.0828 | -0.1142 | 0.3605 | -0.4746 | 0.1879 |
| 64 | 36.95 | 0.12 | 5.5341 | 1.0751 | 1.4643 | -2.2475 | 0.0830 | -0.1348 | 0.3638 | -0.4966 | 0.1762 |
| 65 | 37.18 | 0.12 | 5.6347 | 0.8824 | 1.2813 | -1.1568 | 0.0808 | -0.1371 | 0.3701 | -0.5072 | 0.1566 |
| 66 | 37.43 | 0.12 | 5.7769 | 0.7014 | 1.3113 | -1.1672 | 0.0745 | -0.1773 | 0.3705 | -0.5478 | 0.1212 |
| 67 | 37.65 | 0.12 | 5.8869 | 0.8122 | 1.1736 | 0.1285 | 0.0551 | -0.1803 | 0.3814 | -0.5477 | 0.1040 |
| 68 | 37.89 | 0.12 | 6.0396 | 0.4957 | 1.1525 | 0.0100 | 0.0561 | -0.1886 | 0.3782 | -0.5668 | 0.0828 |
| 69 | 38.14 | 0.12 | 6.2593 | 0.2507 | 0.9544 | 1.0456 | 0.0529 | -0.2301 | 0.3800 | -0.6101 | 0.0401 |
| 70 | 38.38 | 0.10 | 6.4135 | -0.0062 | 0.7645 | 1.9780 | 0.0573 | -0.2924 | 0.3848 | -0.6372 | -0.0106 |
| 71 | 38.60 | 0.10 | 6.5507 | -0.2570 | 0.5807 | 2.8204 | 0.0702 | -0.2713 | 0.3858 | -0.6571 | -0.0451 |
| 72 | 38.82 | 0.09 | 6.7642 | -0.5956 | 0.3714 | 3.4215 | 0.0974 | -0.2973 | 0.3920 | -0.6893 | -0.0881 |
| 73 | 39.04 | 0.10 | 6.8823 | -0.7048 | 0.3757 | 3.5849 | 0.0971 | -0.3120 | 0.3920 | -0.7040 | -0.1024 |
| 74 | 39.26 | 0.09 | 6.9826 | -0.8156 | 0.2466 | 3.7745 | 0.0820 | -0.3242 | 0.3939 | -0.7181 | -0.1168 |
| 75 | 39.48 | 0.08 | 7.0450 | -0.7541 | 0.2548 | 3.5648 | 0.0757 | -0.3249 | 0.3966 | -0.7235 | -0.1070 |
| 76 | 39.67 | 0.09 | 7.2040 | -0.9300 | 0.3253 | 3.7305 | 0.0828 | -0.3606 | 0.3970 | -0.7576 | -0.1331 |
| 77 | 39.89 | 0.09 | 7.1825 | -0.8674 | 0.4155 | 3.0457 | 0.0709 | -0.3499 | 0.4036 | -0.7537 | -0.0929 |
| 78 | 40.08 | 0.10 | 7.0449 | -0.1545 | 0.7702 | 1.5440 | 0.0835 | -0.3352 | 0.3980 | -0.7332 | -0.0276 |
| 79 | 40.27 | 0.10 | 7.0811 | -0.0362 | 0.8403 | 1.0317 | 0.0763 | -0.3201 | 0.4047 | -0.7248 | -0.0055 |
| 80 | 40.48 | 0.11 | 7.1048 | 0.1013 | 1.1666 | 0.0124 | 0.0909 | -0.3417 | 0.4014 | -0.7431 | 0.0227 |
| 81 | 40.70 | 0.11 | 7.3220 | -0.2273 | 0.9888 | 1.3726 | 0.0921 | -0.3699 | 0.4066 | -0.7765 | -0.0310 |
| 82 | 40.89 | 0.10 | 7.3466 | -0.0064 | 1.0691 | 0.7507 | 0.0874 | -0.3507 | 0.4033 | -0.7600 | -0.0011 |
| 83 | 41.11 | 0.11 | 7.4156 | -0.1341 | 1.1106 | 0.5545 | 0.0939 | -0.3639 | 0.4076 | -0.7715 | -0.0181 |
| 84 | 41.31 | 0.10 | 7.5073 | -0.1516 | 1.0383 | 1.1150 | 0.0791 | -0.3631 | 0.4075 | -0.7906 | -0.0175 |
| 85 | 41.50 | 0.10 | 7.6786 | -0.4631 | 1.0010 | 1.8120 | 0.0923 | -0.4131 | 0.4071 | -0.8252 | -0.0603 |
| 86 | 41.70 | 0.11 | 7.6649 | -0.4051 | 0.9634 | 2.1096 | 0.0906 | -0.4207 | 0.4123 | -0.8390 | -0.1024 |
| 87 | 41.90 | 0.10 | 7.5420 | -0.7565 | 0.8474 | 2.2707 | 0.0833 | -0.4401 | 0.4147 | -0.8548 | -0.0953 |
| 88 | 42.10 | 0.11 | 8.0470 | -0.0192 | 0.9401 | 1.9329 | 0.1071 | -0.4404 | 0.4195 | -0.8666 | -0.1018 |
| 89 | 42.29 | 0.12 | 8.2676 | -1.1356 | 1.1311 | 2.0185 | 0.1216 | -0.4717 | 0.4262 | -0.8980 | -0.1374 |
| 90 | 42.47 | 0.12 | 8.3467 | -1.0036 | 1.0006 | 2.1900 | 0.1065 | -0.4856 | 0.4224 | -0.9082 | -0.1275 |
| 91 | 42.66 | 0.12 | 8.4730 | -1.3054 | 1.0466 | 2.5509 | 0.1054 | -0.4903 | 0.4295 | -0.9196 | -0.1541 |
| 92 | 42.85 | 0.12 | 8.6542 | -1.4016 | 1.1524 | 2.3911 | 0.1137 | -0.5112 | 0.4310 | -0.9422 | -0.1689 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 118 MACH 0.80 RNIC=6 4.7 PHI 0.0 CONF 81ACKF31 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.01 | 0.11 | 8.7330 | -1.0425 | 0.5388 | 2.3891 | 0.1049 | -0.5165 | 0.4348 | -0.9533 | -0.1888 |
| 94 | 43.20 | 0.12 | 8.8544 | -1.0735 | 1.0744 | 1.9668 | 0.1003 | -0.5239 | 0.4262 | -0.9501 | -0.1495 |
| 95 | 43.35 | 0.11 | 8.7813 | -1.0520 | 1.0538 | 2.2431 | 0.1146 | -0.5264 | 0.4363 | -0.9627 | -0.1711 |
| 96 | 43.58 | 0.12 | 8.8665 | -1.0594 | 1.1941 | 2.3730 | 0.1073 | -0.5495 | 0.4307 | -0.9862 | -0.1852 |
| 97 | 43.74 | 0.13 | 8.8006 | -1.0566 | 1.2410 | 2.6657 | 0.1209 | -0.5628 | 0.4410 | -1.0038 | -0.2161 |
| 98 | 43.93 | 0.12 | 8.8164 | -1.0610 | 1.1260 | 2.5216 | 0.1204 | -0.5460 | 0.4439 | -0.9914 | -0.2195 |
| 99 | 44.11 | 0.12 | 8.8664 | -1.0620 | 1.1174 | 2.7078 | 0.1217 | -0.5721 | 0.4410 | -1.0131 | -0.2160 |
| 100 | 44.30 | 0.13 | 8.9463 | -1.0784 | 1.2557 | 2.3594 | 0.1227 | -0.5661 | 0.4439 | -1.0300 | -0.2119 |
| 101 | 44.49 | 0.13 | 8.9332 | -1.0802 | 1.2107 | 2.1259 | 0.1367 | -0.5804 | 0.4425 | -1.0229 | -0.2085 |
| 102 | 44.65 | 0.14 | 8.9275 | -1.0869 | 1.3407 | 2.4356 | 0.1374 | -0.5877 | 0.4449 | -1.0326 | -0.2276 |
| 103 | 44.86 | 0.13 | 8.9618 | -1.0945 | 1.3533 | 1.9084 | 0.1543 | -0.6118 | 0.4411 | -1.0529 | -0.2322 |
| 104 | 45.03 | 0.13 | 9.0134 | -1.0970 | 1.2751 | 1.9760 | 0.1397 | -0.6093 | 0.4454 | -1.0547 | -0.2245 |
| 105 | 45.21 | 0.14 | 8.9797 | -1.0982 | 1.4105 | 2.1150 | 0.1537 | -0.6287 | 0.4425 | -1.0713 | -0.2447 |
| 106 | 45.39 | 0.13 | 8.9546 | -1.0956 | 1.2566 | 2.4442 | 0.1382 | -0.6321 | 0.4416 | -1.0734 | -0.2415 |
| 107 | 45.56 | 0.12 | 8.8295 | -1.0785 | 1.2004 | 2.3860 | 0.1389 | -0.6298 | 0.4476 | -1.0777 | -0.2399 |
| 108 | 45.73 | 0.12 | 8.8962 | -1.0870 | 1.1732 | 2.0332 | 0.1382 | -0.6239 | 0.4530 | -1.0770 | -0.2396 |
| 109 | 45.92 | 0.13 | 10.1358 | -1.2657 | 1.4125 | 2.1524 | 0.1623 | -0.6580 | 0.4525 | -1.1106 | -0.2633 |
| 110 | 46.09 | 0.12 | 10.1736 | -1.2665 | 1.3087 | 2.2069 | 0.1550 | -0.6612 | 0.4535 | -1.1148 | -0.2543 |
| 111 | 46.28 | 0.12 | 10.1360 | -1.2604 | 1.4258 | 1.9325 | 0.1708 | -0.6818 | 0.4540 | -1.1159 | -0.2657 |
| 112 | 46.45 | 0.12 | 10.1664 | -1.2663 | 1.3015 | 2.1577 | 0.1702 | -0.6516 | 0.4545 | -1.1062 | -0.2563 |
| 113 | 46.66 | 0.11 | 10.1056 | -1.2617 | 1.2830 | 2.0571 | 0.1558 | -0.6737 | 0.4535 | -1.1272 | -0.2582 |
| 114 | 46.79 | 0.11 | 10.1019 | -1.2660 | 1.1659 | 2.0471 | 0.1620 | -0.6661 | 0.4506 | -1.1230 | -0.2577 |
| 115 | 46.97 | 0.12 | 10.1788 | -1.2723 | 1.3004 | 2.7481 | 0.1541 | -0.6614 | 0.4563 | -1.1377 | -0.2715 |
| 116 | 47.13 | 0.13 | 10.1708 | -1.2755 | 1.3628 | 2.7552 | 0.1470 | -0.6647 | 0.4615 | -1.1462 | -0.2825 |
| 117 | 47.30 | 0.11 | 10.1525 | -1.2775 | 1.1108 | 2.9528 | 0.1246 | -0.6817 | 0.4629 | -1.1446 | -0.2645 |
| 118 | 47.48 | 0.11 | 10.1420 | -1.2769 | 1.1003 | 3.0508 | 0.1319 | -0.6674 | 0.4672 | -1.1546 | -0.2671 |
| 119 | 47.66 | 0.10 | 10.1417 | -1.2748 | 0.9559 | 3.1793 | 0.1245 | -0.6755 | 0.4715 | -1.1470 | -0.2602 |
| 120 | 47.82 | 0.12 | 10.1355 | -1.2737 | 1.2073 | 3.0593 | 0.1251 | -0.6803 | 0.4720 | -1.1603 | -0.2710 |
| 121 | 47.98 | 0.08 | 10.1456 | -1.2834 | 0.7334 | 3.8187 | 0.1154 | -0.6890 | 0.4710 | -1.1600 | -0.2453 |
| 122 | 48.16 | 0.09 | 10.0963 | -1.2822 | 0.7857 | 3.9504 | 0.1077 | -0.6873 | 0.4762 | -1.1635 | -0.2470 |
| 123 | 48.32 | 0.09 | 10.0854 | -1.2802 | 0.8268 | 3.8899 | 0.1060 | -0.6831 | 0.4757 | -1.1588 | -0.2450 |
| 124 | 48.50 | 0.07 | 10.0795 | -1.2801 | 0.5942 | 4.1074 | 0.0892 | -0.7013 | 0.4753 | -1.1766 | -0.2436 |
| 125 | 48.65 | 0.08 | 10.0677 | -1.2771 | 0.5650 | 4.5545 | 0.0838 | -0.7213 | 0.4743 | -1.1956 | -0.2456 |
| 126 | 48.83 | 0.06 | 11.0264 | -1.3058 | 0.5471 | 4.5305 | 0.0825 | -0.6982 | 0.4791 | -1.1773 | -0.2342 |
| 127 | 49.00 | 0.05 | 11.0356 | -1.3298 | 0.2353 | 4.7137 | 0.0624 | -0.7307 | 0.4744 | -1.2051 | -0.2473 |
| 128 | 49.18 | 0.06 | 11.0265 | -1.3178 | 0.3458 | 4.9868 | 0.0674 | -0.7064 | 0.4777 | -1.1841 | -0.2434 |
| 129 | 49.33 | 0.05 | 11.0628 | -1.3241 | 0.1307 | 5.3872 | 0.0592 | -0.7374 | 0.4730 | -1.2304 | -0.2349 |
| 130 | 49.53 | 0.05 | 11.1766 | -1.3381 | 0.3288 | 4.4175 | 0.0790 | -0.6993 | 0.4753 | -1.1746 | -0.2108 |
| 131 | 49.71 | 0.05 | 11.1901 | -1.3928 | 0.2500 | 4.5726 | 0.0421 | -0.7080 | 0.4814 | -1.1894 | -0.2049 |
| 132 | 49.87 | 0.06 | 11.2413 | -1.4042 | 0.3487 | 4.8159 | 0.0352 | -0.7526 | 0.4805 | -1.2331 | -0.2141 |
| 133 | 50.02 | 0.02 | 11.1252 | -1.3277 | -0.1423 | 5.4503 | -0.0027 | -0.7785 | 0.4730 | -1.2489 | -0.1912 |
| 134 | 50.20 | 0.03 | 11.2126 | -1.3631 | -0.0639 | 5.1919 | -0.0167 | -0.7858 | 0.4734 | -1.2592 | -0.1876 |
| 135 | 50.37 | 0.02 | 11.3422 | -1.3972 | -0.2138 | 5.3811 | -0.0467 | -0.7967 | 0.4772 | -1.2700 | -0.1972 |
| 136 | 50.54 | 0.01 | 11.3638 | -1.4033 | -0.3028 | 5.0058 | -0.0760 | -0.7963 | 0.4763 | -1.2687 | -0.1928 |
| 137 | 50.70 | 0.02 | 11.3052 | -1.3861 | -0.2514 | 5.4353 | -0.0698 | -0.8026 | 0.4763 | -1.2790 | -0.1839 |
| 138 | 50.87 | 0.03 | 11.4914 | -1.4171 | -0.0009 | 5.1993 | -0.0071 | -0.7953 | 0.4863 | -1.2816 | -0.2103 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11d MACH 0.80 RX10-6 1.7 PRI 0.0 CONF BIBWF31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.09 | 0.03 | 11.2035 | -2.3241 | -0.0897 | 5.2840 | -0.0959 | -0.8017 | 0.6924 | -1.2941 | -0.2063 |
| 140 | 51.21 | 0.05 | 11.2754 | -2.3133 | 0.2448 | 4.5844 | 0.0180 | -0.7274 | 0.5169 | -1.2447 | -0.1985 |
| 141 | 51.38 | 0.05 | 11.2746 | -2.2478 | 0.3137 | 4.1270 | 0.0548 | -0.6861 | 0.5321 | -1.2201 | -0.1917 |
| 142 | 51.55 | 0.07 | 11.2640 | -2.3047 | 0.5256 | 3.9757 | 0.0644 | -0.6825 | 0.5367 | -1.2211 | -0.1943 |
| 143 | 51.71 | 0.07 | 11.2664 | -2.3446 | 0.5429 | 3.8257 | 0.0561 | -0.6962 | 0.5392 | -1.2353 | -0.1960 |
| 144 | 51.90 | 0.09 | 11.2610 | -2.4063 | 0.7421 | 4.3250 | 0.0585 | -0.6816 | 0.5514 | -1.2336 | -0.2056 |
| 145 | 52.08 | 0.07 | 11.2567 | -2.3227 | 0.6504 | 3.9170 | 0.0560 | -0.6839 | 0.5529 | -1.2427 | -0.2084 |
| 146 | 52.24 | 0.09 | 11.2518 | -2.4813 | 0.8512 | 4.6414 | 0.0390 | -0.7029 | 0.5571 | -1.2599 | -0.2171 |
| 147 | 52.41 | 0.10 | 11.2380 | -2.5982 | 0.9507 | 4.5108 | 0.0560 | -0.7134 | 0.5600 | -1.2734 | -0.2106 |
| 148 | 52.57 | 0.08 | 11.2363 | -2.4753 | 0.7634 | 4.8859 | 0.0300 | -0.7456 | 0.5650 | -1.3148 | -0.2192 |
| 149 | 52.75 | 0.08 | 11.2360 | -2.4281 | 0.7432 | 5.2390 | -0.0132 | -0.7129 | 0.5896 | -1.3025 | -0.2235 |
| 150 | 52.92 | 0.06 | 11.2341 | -2.4517 | 0.8419 | 5.3107 | -0.0211 | -0.7315 | 0.5833 | -1.3148 | -0.2286 |
| 151 | 53.08 | 0.09 | 11.2335 | -2.5256 | 0.8011 | 5.4167 | -0.0288 | -0.7283 | 0.5868 | -1.3151 | -0.2310 |
| 152 | 53.26 | 0.08 | 11.2322 | -2.4221 | 0.7254 | 5.7147 | -0.1323 | -0.7100 | 0.5956 | -1.3142 | -0.2434 |
| 153 | 53.40 | 0.09 | 11.2310 | -2.3137 | 0.7505 | 5.8813 | -0.1477 | -0.7265 | 0.5944 | -1.3209 | -0.2430 |
| 154 | 53.58 | 0.10 | 11.2237 | -2.3073 | 0.8535 | 5.5834 | -0.2131 | -0.7430 | 0.5958 | -1.3426 | -0.2532 |
| 155 | 53.74 | 0.09 | 11.2251 | -2.5052 | 0.8805 | 5.2057 | -0.2630 | -0.7394 | 0.6169 | -1.3563 | -0.2634 |
| 156 | 53.90 | 0.09 | 11.2047 | -2.4614 | 0.9006 | 5.0030 | -0.2021 | -0.7194 | 0.6201 | -1.3395 | -0.2582 |
| 157 | 54.07 | 0.09 | 11.2347 | -2.6423 | 0.9822 | 4.2189 | -0.2147 | -0.7277 | 0.6254 | -1.3531 | -0.2711 |
| 158 | 54.25 | 0.09 | 11.2761 | -2.8026 | 1.0836 | 3.9783 | -0.1846 | -0.7056 | 0.6382 | -1.3438 | -0.2676 |
| 159 | 54.42 | 0.10 | 11.2269 | -2.8315 | 1.1397 | 3.8648 | -0.1345 | -0.7139 | 0.6356 | -1.3455 | -0.2684 |
| 160 | 54.58 | 0.10 | 11.2056 | -2.7558 | 1.1079 | 3.9016 | -0.1315 | -0.7227 | 0.6369 | -1.3596 | -0.2743 |
| 161 | 54.73 | 0.09 | 11.2752 | -2.8736 | 1.1481 | 3.3473 | -0.0934 | -0.7065 | 0.6571 | -1.3636 | -0.2705 |
| 162 | 54.92 | 0.06 | 11.2218 | -2.8750 | 0.9524 | 3.4512 | -0.0831 | -0.7145 | 0.6557 | -1.3702 | -0.2807 |
| 163 | 55.09 | 0.06 | 11.2145 | -2.8926 | 1.0438 | 3.5232 | -0.0856 | -0.7366 | 0.6516 | -1.3904 | -0.2807 |
| 164 | 55.24 | 0.06 | 11.2113 | -2.8057 | 1.1035 | 3.4803 | -0.0559 | -0.7375 | 0.6615 | -1.3990 | -0.2795 |
| 165 | 55.40 | 0.06 | 14.0305 | -4.0024 | 1.1517 | 3.4873 | -0.0486 | -0.7304 | 0.6688 | -1.3992 | -0.2853 |
| 166 | 55.57 | 0.09 | 14.1647 | -4.1239 | 1.2067 | 3.6733 | -0.0632 | -0.7317 | 0.6742 | -1.4058 | -0.2911 |
| 167 | 55.73 | 0.09 | 14.2259 | -4.1153 | 1.2639 | 3.2505 | -0.0394 | -0.7416 | 0.6844 | -1.4259 | -0.2893 |
| 168 | 55.89 | 0.09 | 14.2017 | -4.1176 | 1.2261 | 3.2635 | -0.0772 | -0.7293 | 0.6853 | -1.4145 | -0.2879 |
| 169 | 56.05 | 0.06 | 14.2755 | -4.1551 | 1.1621 | 3.4593 | -0.0815 | -0.7359 | 0.6922 | -1.4275 | -0.2850 |
| 170 | 56.18 | 0.09 | 14.1312 | -4.0911 | 1.2261 | 3.4641 | -0.0396 | -0.7263 | 0.6999 | -1.4281 | -0.2754 |
| 171 | 56.35 | 0.08 | 14.3279 | -4.0422 | 1.1546 | 3.4069 | -0.0317 | -0.7384 | 0.7056 | -1.4439 | -0.2822 |
| 172 | 56.52 | 0.10 | 14.4549 | -4.0345 | 1.4157 | 3.1624 | -0.0307 | -0.7316 | 0.7050 | -1.4407 | -0.2790 |
| 173 | 56.65 | 0.09 | 14.3042 | -4.0342 | 1.2433 | 3.1662 | -0.0382 | -0.7324 | 0.7076 | -1.4399 | -0.2820 |
| 174 | 56.82 | 0.06 | 14.4656 | -4.1477 | 1.2151 | 3.1543 | -0.0305 | -0.7306 | 0.7129 | -1.4516 | -0.2879 |
| 175 | 56.99 | 0.08 | 14.5203 | -4.0732 | 1.1053 | 3.2422 | -0.0151 | -0.7370 | 0.7211 | -1.4581 | -0.2805 |
| 176 | 57.16 | 0.06 | 14.6300 | -4.0672 | 1.1695 | 3.0311 | 0.0009 | -0.7150 | 0.7259 | -1.4388 | -0.2780 |
| 177 | 57.30 | 0.07 | 14.6758 | -4.2071 | 1.0635 | 3.0744 | -0.0286 | -0.7364 | 0.7326 | -1.4690 | -0.2866 |
| 178 | 57.44 | 0.07 | 14.6224 | -4.0725 | 0.9789 | 3.2721 | 0.0004 | -0.7209 | 0.7335 | -1.4624 | -0.2785 |
| 179 | 57.57 | 0.08 | 14.6750 | -4.0278 | 1.2221 | 2.8499 | 0.0067 | -0.7226 | 0.7291 | -1.4515 | -0.2644 |
| 180 | 57.74 | 0.06 | 14.7359 | -4.1398 | 1.2165 | 2.8893 | 0.0019 | -0.7417 | 0.7426 | -1.4843 | -0.2809 |
| 181 | 57.88 | 0.05 | 14.5377 | -4.0079 | 0.8503 | 2.9722 | 0.0091 | -0.7271 | 0.7376 | -1.4649 | -0.2757 |
| 182 | 58.02 | 0.06 | 14.7763 | -4.1957 | 1.0355 | 2.8408 | 0.0109 | -0.7144 | 0.7316 | -1.4660 | -0.2838 |
| 183 | 58.18 | 0.07 | 14.5157 | -4.0017 | 1.0664 | 2.7027 | -0.0047 | -0.7455 | 0.7368 | -1.4827 | -0.2619 |
| 184 | 58.26 | 0.08 | 14.6262 | -4.1558 | 1.4952 | 2.5226 | -0.0136 | -0.7492 | 0.7472 | -1.4874 | -0.2833 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 5 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RAIG-E | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 118 | 0.60 | 1.7 | C.C | BIROF3A | C.C | 0 | -30 | 0 | -30 | UNKNOWN |

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 58.25 | 0.05 | 14.5439 | -4.1216 | 0.9467 | 2.5191 | 0.0255 | -0.7306 | 0.7487 | -1.4793 | -0.2833 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11d 0.00 PACF 1.7 RX10-6 PHI 0.0 CONF 81bCF31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.51 | 0.00 | -0.0094 | 0.0027 | 0.0024 | -0.2872 | -0.2553 | -1.1873 | -0.0377 | -0.4874 | 0.0323 | 0.4175 |
| 2 | -5.50 | -0.01 | -0.0024 | 0.0014 | 0.0048 | -0.5833 | -2.0000 | -1.1149 | -0.0321 | -0.4614 | 0.0288 | 0.4146 |
| 3 | -5.50 | 0.02 | -0.0040 | 0.0020 | 0.0044 | -0.5000 | -1.1000 | -1.1211 | -0.0329 | -0.4660 | 0.0293 | 0.4156 |
| 4 | -5.50 | 0.02 | -0.0070 | 0.0021 | 0.0036 | -0.3500 | -0.4571 | -1.1474 | -0.0362 | -0.4761 | 0.0315 | 0.4146 |
| 5 | -5.49 | 0.02 | -0.0054 | 0.0013 | 0.0038 | -0.2407 | -0.7037 | -1.1178 | -0.0324 | -0.4650 | 0.0250 | 0.4160 |
| 6 | -5.51 | 0.02 | -0.0031 | 0.0013 | 0.0044 | -0.4194 | -1.4193 | -1.1283 | -0.0326 | -0.4691 | 0.0269 | 0.4165 |
| 7 | -5.50 | 0.02 | -0.0046 | 0.0014 | 0.0035 | -0.3043 | -0.8478 | -1.1294 | -0.0334 | -0.4698 | 0.0295 | 0.4159 |
| 8 | -5.00 | 0.02 | -0.0026 | 0.0035 | 0.0028 | -0.4375 | -0.3500 | -1.1734 | -0.0400 | -0.4902 | 0.0341 | 0.4178 |
| 9 | -4.98 | 0.02 | -0.0032 | 0.0021 | 0.0042 | -0.6250 | -1.3125 | -1.1814 | -0.0413 | -0.4978 | 0.0345 | 0.4214 |
| 10 | -5.20 | 0.02 | -0.0065 | 0.0016 | 0.0051 | -2.0000 | -5.6667 | -1.1366 | -0.0330 | -0.4671 | 0.0295 | 0.4366 |
| 11 | -1.64 | 0.02 | -0.0030 | 0.0014 | 0.0034 | -0.4667 | -1.1333 | -1.0895 | -0.0256 | -0.4823 | 0.0235 | 0.4427 |
| 12 | -1.30 | 0.02 | -0.0007 | 0.0016 | 0.0034 | -2.2857 | -4.0571 | -1.0779 | -0.0246 | -0.4776 | 0.0230 | 0.4432 |
| 13 | -0.30 | 0.02 | -0.0015 | 0.0012 | 0.0023 | -2.4000 | -4.6000 | -1.0305 | -0.0220 | -0.4620 | 0.0214 | 0.4482 |
| 14 | 1.36 | 0.02 | 0.0032 | 0.0015 | 0.0037 | 0.4000 | 1.1000 | -0.9382 | -0.0216 | -0.4284 | 0.0231 | 0.4566 |
| 15 | 3.14 | 0.02 | 0.0025 | 0.0011 | 0.0035 | 0.4000 | 1.4000 | -0.8505 | -0.0219 | -0.3932 | 0.0258 | 0.4623 |
| 16 | 4.77 | 0.02 | 0.0010 | 0.0006 | 0.0038 | 0.6000 | 3.0000 | -0.7632 | -0.0217 | -0.3555 | 0.0285 | 0.4659 |
| 17 | 6.50 | 0.02 | 0.0024 | 0.0010 | 0.0043 | 0.4167 | 1.8750 | -0.6740 | -0.0189 | -0.3155 | 0.0281 | 0.4682 |
| 18 | 8.23 | 0.02 | -0.0024 | 0.0006 | 0.0058 | -0.3333 | -2.3333 | -0.5926 | -0.0172 | -0.2862 | 0.0251 | 0.4728 |
| 19 | 9.90 | 0.02 | -0.0021 | 0.0005 | 0.0063 | -0.4500 | -4.1500 | -0.5070 | -0.0149 | -0.2375 | 0.0294 | 0.4684 |
| 20 | 11.69 | 0.02 | -0.0041 | 0.0015 | 0.0066 | -0.2143 | -1.6385 | -0.4265 | -0.0124 | -0.2046 | 0.0291 | 0.4704 |
| 21 | 13.40 | 0.02 | -0.0135 | 0.0013 | 0.0045 | -0.0577 | -0.3664 | -0.3491 | -0.0108 | -0.1630 | 0.0310 | 0.4670 |
| 22 | 15.17 | 0.02 | -0.0148 | 0.0007 | 0.0055 | -0.0473 | -0.3501 | -0.2785 | -0.0094 | -0.1269 | 0.0338 | 0.4626 |
| 23 | 16.99 | 0.02 | -0.0082 | 0.0011 | 0.0061 | -0.1341 | -0.9878 | -0.2026 | -0.0077 | -0.0969 | 0.0381 | 0.4782 |
| 24 | 18.79 | 0.01 | -0.0058 | 0.0006 | 0.0142 | -0.1375 | -2.4483 | -0.1455 | -0.0062 | -0.0705 | 0.0427 | 0.4848 |
| 25 | 20.53 | 0.01 | -0.0188 | -0.0001 | 0.0202 | 0.0053 | -1.0745 | -0.0956 | -0.0031 | -0.0457 | 0.0325 | 0.4780 |
| 26 | 22.37 | 0.00 | -0.0387 | -0.0013 | 0.0178 | 0.0357 | -0.4011 | -0.0697 | 0.0014 | -0.0325 | -0.0201 | 0.4655 |
| 27 | 24.17 | -0.00 | -0.0435 | -0.0017 | 0.0188 | 0.0160 | -0.2305 | -0.0303 | 0.0062 | -0.0161 | -0.2053 | 0.5553 |
| 28 | 25.95 | 0.00 | -0.0139 | 0.0011 | 0.0058 | -0.0791 | -0.7050 | 0.0044 | 0.0130 | -0.0053 | 2.6545 | -1.2045 |
| 29 | 27.79 | 0.05 | 0.1240 | 0.0071 | 0.0755 | 0.0574 | 0.6071 | 0.0536 | 0.0200 | 0.0094 | 0.3738 | 0.1757 |
| 30 | 28.12 | 0.05 | 0.0000 | 0.0002 | 0.0487 | 0.1100 | 0.0007 | 0.0400 | 0.0201 | 0.0042 | 0.5038 | 0.1053 |
| 31 | 28.42 | 0.08 | 0.1535 | 0.0104 | 0.0887 | 0.0677 | 0.5716 | 0.0634 | 0.0213 | 0.0124 | 0.3365 | 0.1559 |
| 32 | 28.66 | 0.06 | 0.1123 | 0.0105 | 0.0753 | 0.0610 | 0.0599 | 0.0615 | 0.0221 | 0.0116 | 0.3599 | 0.1885 |
| 33 | 29.01 | 0.05 | 0.1183 | 0.0081 | 0.0756 | 0.0686 | 0.6366 | 0.0672 | 0.0230 | 0.0135 | 0.3428 | 0.2072 |
| 34 | 29.33 | 0.07 | 0.1017 | 0.0127 | 0.1005 | 0.0700 | 0.5532 | 0.0648 | 0.0240 | 0.0209 | 0.2837 | 0.2470 |
| 35 | 29.61 | 0.07 | 0.1481 | 0.0118 | 0.0886 | 0.0796 | 0.5995 | 0.0811 | 0.0252 | 0.0157 | 0.3103 | 0.2435 |
| 36 | 29.80 | 0.06 | 0.1465 | 0.0124 | 0.0844 | 0.0837 | 0.5682 | 0.0835 | 0.0259 | 0.0206 | 0.3097 | 0.2473 |
| 37 | 30.17 | 0.08 | 0.1907 | 0.0130 | 0.1021 | 0.0946 | 0.5349 | 0.1038 | 0.0275 | 0.0271 | 0.2724 | 0.2684 |
| 38 | 30.44 | 0.09 | 0.1935 | 0.0188 | 0.1037 | 0.0972 | 0.5349 | 0.1093 | 0.0283 | 0.0306 | 0.2565 | 0.2796 |
| 39 | 30.70 | 0.08 | 0.2299 | 0.0241 | 0.1134 | 0.1051 | 0.4935 | 0.1177 | 0.0293 | 0.0356 | 0.2485 | 0.3021 |
| 40 | 30.98 | 0.07 | 0.0081 | 0.0192 | 0.0938 | 0.2824 | 0.0397 | 0.0867 | 0.0312 | 0.0215 | 0.3595 | 0.2486 |
| 41 | 31.25 | 0.07 | 0.1335 | 0.0228 | 0.0725 | 0.1998 | 0.5469 | 0.1008 | 0.0322 | 0.0283 | 0.3191 | 0.2803 |
| 42 | 31.53 | 0.06 | 0.1113 | 0.0263 | 0.0561 | 0.2538 | 0.5032 | 0.1021 | 0.0334 | 0.0265 | 0.3268 | 0.2826 |
| 43 | 31.79 | 0.07 | 0.0933 | 0.0292 | 0.0546 | 0.3126 | 0.5854 | 0.1044 | 0.0345 | 0.0296 | 0.3301 | 0.2831 |
| 44 | 32.06 | 0.08 | 0.0382 | 0.0261 | 0.0283 | 0.0624 | 0.7402 | 0.1009 | 0.0351 | 0.0280 | 0.3476 | 0.2771 |
| 45 | 32.32 | 0.07 | 0.0823 | 0.0292 | 0.0364 | 0.4678 | 0.6158 | 0.1133 | 0.0362 | 0.0332 | 0.3192 | 0.2927 |
| 46 | 32.57 | 0.07 | 0.0961 | 0.0334 | 0.0511 | 0.3472 | 0.5318 | 0.1234 | 0.0370 | 0.0369 | 0.2998 | 0.2989 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSCT 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DELT DEL2 DEL3 DEL4 TRANSITION
7 11a 0.80 1.7 0.0 81.0F31 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | Cm1 | XCPF1 | YCPF1 | CNF2 | CH2 | Cm2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.84 | 0.09 | 0.1307 | 0.0354 | 0.1636 | 0.2707 | 0.4324 | 0.1430 | 0.0379 | 0.0451 | 0.2649 | 0.3153 |
| 48 | 33.10 | 0.11 | 0.1453 | 0.0364 | 0.1806 | 0.2722 | 0.4354 | 0.1650 | 0.0382 | 0.0562 | 0.2313 | 0.3406 |
| 49 | 33.34 | 0.10 | 0.1742 | 0.0457 | 0.2182 | 0.2624 | 0.4488 | 0.1629 | 0.0394 | 0.0551 | 0.2417 | 0.3383 |
| 50 | 33.60 | 0.11 | 0.1516 | 0.0434 | 0.1911 | 0.2658 | 0.4486 | 0.1661 | 0.0403 | 0.0556 | 0.2425 | 0.3356 |
| 51 | 33.84 | 0.11 | 0.1357 | 0.0405 | 0.1683 | 0.2984 | 0.4889 | 0.1658 | 0.0413 | 0.0566 | 0.2489 | 0.3414 |
| 52 | 34.08 | 0.10 | 0.1466 | 0.0482 | 0.1879 | 0.3208 | 0.4834 | 0.1775 | 0.0425 | 0.0608 | 0.2354 | 0.3421 |
| 53 | 34.35 | 0.11 | 0.1447 | 0.0435 | 0.1886 | 0.3033 | 0.4505 | 0.1654 | 0.0430 | 0.0643 | 0.2315 | 0.3476 |
| 54 | 34.59 | 0.14 | 0.1476 | 0.0465 | 0.2083 | 0.3313 | 0.4830 | 0.1845 | 0.0431 | 0.0639 | 0.2336 | 0.3466 |
| 55 | 34.82 | 0.12 | 0.1443 | 0.0504 | 0.1870 | 0.3493 | 0.4646 | 0.1895 | 0.0436 | 0.0654 | 0.2300 | 0.3453 |
| 56 | 35.07 | 0.12 | 0.1447 | 0.0533 | 0.1865 | 0.3684 | 0.4598 | 0.2014 | 0.0442 | 0.0695 | 0.2154 | 0.3453 |
| 57 | 35.32 | 0.13 | 0.1392 | 0.0507 | 0.1840 | 0.4363 | 0.4600 | 0.2035 | 0.0444 | 0.0741 | 0.2129 | 0.3551 |
| 58 | 35.54 | 0.13 | 0.1596 | 0.0523 | 0.1941 | 0.3277 | 0.4639 | 0.2206 | 0.0453 | 0.0764 | 0.2052 | 0.3556 |
| 59 | 35.79 | 0.12 | 0.1713 | 0.0575 | 0.2165 | 0.2949 | 0.4582 | 0.2360 | 0.0456 | 0.0859 | 0.1945 | 0.3635 |
| 60 | 36.01 | 0.12 | 0.2201 | 0.0856 | 0.1652 | 0.1751 | 0.4054 | 0.2633 | 0.0459 | 0.0998 | 0.1743 | 0.3790 |
| 61 | 36.24 | 0.12 | 0.2006 | 0.0825 | 0.1536 | 0.2136 | 0.4661 | 0.2589 | 0.0465 | 0.0971 | 0.1756 | 0.3750 |
| 62 | 36.48 | 0.12 | 0.1967 | 0.0964 | 0.1672 | 0.2433 | 0.4572 | 0.2672 | 0.0474 | 0.1007 | 0.1774 | 0.3768 |
| 63 | 36.72 | 0.12 | 0.1741 | 0.0462 | 0.0777 | 0.2665 | 0.4514 | 0.2697 | 0.0481 | 0.1020 | 0.1784 | 0.3783 |
| 64 | 36.95 | 0.12 | 0.1606 | 0.0475 | 0.0830 | 0.2653 | 0.4639 | 0.2650 | 0.0484 | 0.1041 | 0.1658 | 0.3825 |
| 65 | 37.18 | 0.12 | 0.1215 | 0.0500 | 0.0556 | 0.4100 | 0.4560 | 0.2718 | 0.0496 | 0.1027 | 0.1825 | 0.3775 |
| 66 | 37.43 | 0.12 | 0.1265 | 0.0517 | 0.0576 | 0.4070 | 0.4542 | 0.2915 | 0.0497 | 0.1115 | 0.1705 | 0.3826 |
| 67 | 37.65 | 0.12 | 0.0358 | 0.0504 | 0.0220 | 1.4090 | 0.6162 | 0.2647 | 0.0507 | 0.0981 | 0.1915 | 0.3706 |
| 68 | 37.89 | 0.12 | 0.0510 | 0.0519 | 0.0250 | 1.0675 | 0.4892 | 0.2723 | 0.0510 | 0.1025 | 0.1873 | 0.3765 |
| 69 | 38.14 | 0.12 | -0.0093 | 0.0476 | 0.0012 | -5.0430 | -0.1290 | 0.2601 | 0.0517 | 0.0981 | 0.1988 | 0.3694 |
| 70 | 38.38 | 0.10 | -0.0061 | 0.0491 | -0.0101 | -0.6500 | 0.3017 | 0.2557 | 0.0523 | 0.0937 | 0.2045 | 0.3664 |
| 71 | 38.63 | 0.10 | -0.0248 | 0.0511 | -0.0175 | -0.3664 | 0.2116 | 0.2495 | 0.0520 | 0.0891 | 0.2081 | 0.3585 |
| 72 | 38.86 | 0.09 | -0.0357 | 0.0528 | -0.0175 | -0.2583 | 0.1799 | 0.2584 | 0.0520 | 0.0935 | 0.2012 | 0.3633 |
| 73 | 39.04 | 0.10 | -0.0503 | 0.0225 | -0.0155 | -0.2383 | 0.1655 | 0.2637 | 0.0512 | 0.0983 | 0.1941 | 0.3651 |
| 74 | 39.26 | 0.09 | -0.1165 | 0.0197 | -0.0196 | -0.1684 | 0.1634 | 0.2639 | 0.0508 | 0.0943 | 0.1925 | 0.3573 |
| 75 | 39.48 | 0.08 | -0.1325 | 0.0175 | -0.0318 | -0.1320 | 0.2391 | 0.2725 | 0.0510 | 0.0981 | 0.1872 | 0.3601 |
| 76 | 39.67 | 0.09 | -0.1227 | 0.0185 | -0.0287 | -0.1544 | 0.2337 | 0.2675 | 0.0514 | 0.1043 | 0.1788 | 0.3628 |
| 77 | 39.89 | 0.09 | -0.0980 | 0.0257 | -0.0255 | -0.3027 | 0.2636 | 0.3010 | 0.0521 | 0.1110 | 0.1731 | 0.3686 |
| 78 | 40.06 | 0.10 | 0.0097 | 0.0481 | 0.0090 | 0.7463 | 0.4278 | 0.3259 | 0.0520 | 0.1238 | 0.1596 | 0.3798 |
| 79 | 40.27 | 0.10 | 0.0160 | 0.0473 | 0.0137 | 2.9500 | 0.8562 | 0.3320 | 0.0520 | 0.1250 | 0.1567 | 0.3764 |
| 80 | 40.46 | 0.11 | 0.0441 | 0.0487 | 0.0224 | 1.1045 | 0.5091 | 0.3413 | 0.0527 | 0.1286 | 0.1544 | 0.3767 |
| 81 | 40.70 | 0.11 | 0.0100 | 0.0481 | 0.0095 | 4.8000 | 0.9900 | 0.3404 | 0.0526 | 0.1285 | 0.1545 | 0.3774 |
| 82 | 40.89 | 0.10 | 0.0454 | 0.0487 | 0.0128 | 3.0200 | 0.8512 | 0.3447 | 0.0526 | 0.1303 | 0.1526 | 0.3775 |
| 83 | 41.11 | 0.11 | 0.0005 | 0.0479 | 0.0035 | 55.6000 | 7.0300 | 0.3448 | 0.0523 | 0.1302 | 0.1517 | 0.3775 |
| 84 | 41.31 | 0.10 | 0.0062 | 0.0482 | 0.0041 | 5.9140 | 0.9000 | 0.3524 | 0.0527 | 0.1330 | 0.1496 | 0.3773 |
| 85 | 41.50 | 0.10 | 0.0114 | 0.0505 | 0.0080 | 4.4210 | 0.7018 | 0.3654 | 0.0524 | 0.1385 | 0.1434 | 0.3789 |
| 86 | 41.70 | 0.11 | -0.0302 | 0.0436 | -0.0059 | -1.4591 | 0.1701 | 0.3675 | 0.0515 | 0.1382 | 0.1402 | 0.3761 |
| 87 | 41.90 | 0.10 | -0.0366 | 0.0440 | -0.0112 | -1.2027 | 0.3178 | 0.3662 | 0.0527 | 0.1379 | 0.1435 | 0.3765 |
| 88 | 42.10 | 0.11 | -0.0061 | 0.0490 | 0.0044 | -8.0164 | -0.7213 | 0.3644 | 0.0521 | 0.1462 | 0.1356 | 0.3803 |
| 89 | 42.29 | 0.12 | -0.0232 | 0.0467 | 0.0018 | -1.9224 | -0.0776 | 0.3872 | 0.0518 | 0.1454 | 0.1338 | 0.3755 |
| 90 | 42.47 | 0.12 | -0.0257 | 0.0488 | -0.0071 | -1.5777 | 0.2594 | 0.3870 | 0.0524 | 0.1466 | 0.1354 | 0.3788 |
| 91 | 42.66 | 0.12 | -0.0362 | 0.0425 | -0.0052 | -1.1745 | 0.1440 | 0.3983 | 0.0516 | 0.1512 | 0.1296 | 0.3796 |
| 92 | 42.85 | 0.12 | -0.0254 | 0.0425 | -0.0026 | -1.4471 | 0.0956 | 0.4034 | 0.0519 | 0.1534 | 0.1287 | 0.3803 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 110 MACH 0.80 RX10-6 1.7 PHI 0.0 CONF 51BCF31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.01 | 0.11 | -0.0367 | 0.0376 | -0.0027 | -0.9580 | 0.0695 | 0.4130 | 0.0509 | 0.1582 | 0.1232 | 0.3831 |
| 94 | 43.20 | 0.12 | -0.0198 | 0.0196 | -0.0036 | -2.3030 | 0.1915 | 0.4128 | 0.0519 | 0.1580 | 0.1257 | 0.3828 |
| 95 | 43.39 | 0.11 | -0.0205 | 0.0440 | 0.0002 | -2.1415 | -0.0098 | 0.4206 | 0.0520 | 0.1600 | 0.1237 | 0.3805 |
| 96 | 43.58 | 0.12 | -0.0363 | 0.0441 | -0.0045 | -1.4509 | 0.1490 | 0.4215 | 0.0517 | 0.1604 | 0.1227 | 0.3806 |
| 97 | 43.74 | 0.13 | -0.0247 | 0.0357 | 0.0013 | -1.0096 | -0.0526 | 0.4368 | 0.0509 | 0.1662 | 0.1160 | 0.3834 |
| 98 | 43.93 | 0.12 | -0.0254 | 0.0375 | 0.0015 | -1.4496 | -0.0561 | 0.4367 | 0.0510 | 0.1666 | 0.1170 | 0.3799 |
| 99 | 44.11 | 0.12 | -0.0075 | 0.0356 | 0.0101 | -5.2667 | -1.3467 | 0.4526 | 0.0507 | 0.1746 | 0.1120 | 0.3857 |
| 100 | 44.30 | 0.13 | -0.0040 | 0.0426 | 0.0096 | -10.0250 | -2.4000 | 0.4586 | 0.0503 | 0.1768 | 0.1097 | 0.3854 |
| 101 | 44.49 | 0.13 | 0.0162 | 0.0452 | 0.0174 | 2.4760 | 0.9560 | 0.4636 | 0.0506 | 0.1793 | 0.1091 | 0.3866 |
| 102 | 44.68 | 0.14 | 0.0042 | 0.0422 | 0.0134 | 10.0630 | 3.1905 | 0.4671 | 0.0507 | 0.1797 | 0.1086 | 0.3847 |
| 103 | 44.86 | 0.13 | 0.0320 | 0.0472 | 0.0237 | 1.4705 | 0.7429 | 0.4782 | 0.0507 | 0.1831 | 0.1060 | 0.3825 |
| 104 | 45.03 | 0.13 | 0.0240 | 0.0454 | 0.0204 | 1.6675 | 0.6500 | 0.4765 | 0.0507 | 0.1829 | 0.1064 | 0.3838 |
| 105 | 45.21 | 0.14 | 0.0338 | 0.0424 | 0.0254 | 1.2552 | 0.8094 | 0.4938 | 0.0498 | 0.1906 | 0.1009 | 0.3856 |
| 106 | 45.39 | 0.13 | 0.0075 | 0.0380 | 0.0185 | 5.0533 | 2.4400 | 0.4815 | 0.0506 | 0.1854 | 0.1055 | 0.3850 |
| 107 | 45.56 | 0.12 | 0.0157 | 0.0432 | 0.0200 | 2.1878 | 1.0152 | 0.4935 | 0.0507 | 0.1905 | 0.1027 | 0.3860 |
| 108 | 45.73 | 0.12 | -0.0050 | 0.0378 | 0.0119 | -7.5400 | -2.3800 | 0.4848 | 0.0510 | 0.1857 | 0.1064 | 0.3830 |
| 109 | 45.92 | 0.13 | 0.0317 | 0.0352 | 0.0223 | 1.2373 | 1.0190 | 0.5021 | 0.0506 | 0.1932 | 0.1008 | 0.3848 |
| 110 | 46.09 | 0.12 | 0.0469 | 0.0357 | 0.0227 | 0.9726 | 0.7990 | 0.5055 | 0.0507 | 0.1945 | 0.1003 | 0.3847 |
| 111 | 46.28 | 0.12 | 0.0605 | 0.0427 | 0.0406 | 0.7053 | 0.6705 | 0.5183 | 0.0501 | 0.2003 | 0.0967 | 0.3865 |
| 112 | 46.43 | 0.12 | 0.0553 | 0.0415 | 0.0395 | 0.7572 | 0.7138 | 0.5181 | 0.0506 | 0.2011 | 0.0977 | 0.3882 |
| 113 | 46.60 | 0.11 | 0.0378 | 0.0416 | 0.0369 | 1.0743 | 0.8170 | 0.5181 | 0.0509 | 0.1997 | 0.0983 | 0.3855 |
| 114 | 46.79 | 0.11 | 0.0526 | 0.0377 | 0.0314 | 1.1767 | 0.9749 | 0.5233 | 0.0505 | 0.2025 | 0.0965 | 0.3870 |
| 115 | 46.97 | 0.12 | 0.0104 | 0.0350 | 0.0245 | 3.3558 | 2.3401 | 0.5214 | 0.0510 | 0.2021 | 0.0978 | 0.3877 |
| 116 | 47.13 | 0.13 | 0.0275 | 0.0358 | 0.0321 | 1.2590 | 1.1079 | 0.5352 | 0.0505 | 0.2076 | 0.0944 | 0.3885 |
| 117 | 47.30 | 0.11 | -0.0047 | 0.0360 | 0.0196 | -6.4894 | -4.1702 | 0.5273 | 0.0512 | 0.2043 | 0.0971 | 0.3875 |
| 118 | 47.48 | 0.11 | 0.0052 | 0.0321 | 0.0238 | 10.0000 | 7.4375 | 0.5310 | 0.0511 | 0.2057 | 0.0961 | 0.3870 |
| 119 | 47.66 | 0.10 | -0.0075 | 0.0265 | 0.0156 | -3.6400 | -2.6400 | 0.5269 | 0.0517 | 0.2052 | 0.0978 | 0.3860 |
| 120 | 47.82 | 0.12 | -0.0050 | 0.0304 | 0.0225 | -6.0000 | -4.5000 | 0.5419 | 0.0508 | 0.2113 | 0.0938 | 0.3900 |
| 121 | 47.98 | 0.08 | -0.0529 | 0.0217 | 0.0024 | -0.9110 | -0.0455 | 0.5149 | 0.0532 | 0.1987 | 0.1033 | 0.3855 |
| 122 | 48.16 | 0.09 | -0.0063 | 0.0218 | -0.0042 | -0.3505 | 0.0314 | 0.5103 | 0.0531 | 0.2002 | 0.1029 | 0.3878 |
| 123 | 48.32 | 0.09 | -0.0022 | 0.0205 | -0.0019 | -0.3301 | 0.0306 | 0.5230 | 0.0537 | 0.2029 | 0.1027 | 0.3880 |
| 124 | 48.50 | 0.07 | -0.0163 | 0.0166 | -0.0029 | -0.1527 | 0.2107 | 0.5059 | 0.0540 | 0.1964 | 0.1073 | 0.3859 |
| 125 | 48.65 | 0.08 | -0.0168 | 0.0159 | -0.0060 | -0.1364 | 0.2393 | 0.5184 | 0.0544 | 0.2012 | 0.1050 | 0.3882 |
| 126 | 48.83 | 0.08 | -0.0150 | 0.0145 | -0.0001 | -0.1384 | 0.1918 | 0.5217 | 0.0546 | 0.2026 | 0.1047 | 0.3884 |
| 127 | 49.00 | 0.05 | -0.0154 | 0.0112 | -0.0066 | -0.0726 | 0.2495 | 0.5209 | 0.0547 | 0.2008 | 0.1050 | 0.3855 |
| 128 | 49.16 | 0.08 | -0.0003 | 0.0227 | 0.0252 | -53.3333 | -83.6667 | 0.5579 | 0.0522 | 0.2152 | 0.0936 | 0.3930 |
| 129 | 49.33 | 0.05 | -0.2294 | 0.0097 | -0.0107 | -0.0433 | 0.3595 | 0.5182 | 0.0550 | 0.2003 | 0.1062 | 0.3866 |
| 130 | 49.53 | 0.05 | -0.0047 | 0.0168 | -0.0077 | -0.2225 | 0.0840 | 0.5354 | 0.0545 | 0.2064 | 0.1018 | 0.3856 |
| 131 | 49.71 | 0.05 | -0.1332 | 0.0161 | -0.0360 | -0.1211 | 0.2701 | 0.5318 | 0.0552 | 0.2042 | 0.1038 | 0.3840 |
| 132 | 49.87 | 0.06 | -0.1906 | 0.0125 | -0.0660 | -0.0657 | 0.3149 | 0.5367 | 0.0548 | 0.2081 | 0.1017 | 0.3863 |
| 133 | 50.02 | 0.02 | -0.2655 | 0.0072 | -0.1025 | -0.0267 | 0.3799 | 0.5397 | 0.0544 | 0.2078 | 0.1008 | 0.3851 |
| 134 | 50.20 | 0.03 | -0.2508 | 0.0065 | -0.0978 | -0.0270 | 0.3691 | 0.5437 | 0.0549 | 0.2099 | 0.1010 | 0.3861 |
| 135 | 50.37 | 0.02 | -0.2734 | 0.0061 | -0.1042 | -0.0224 | 0.3812 | 0.5433 | 0.0549 | 0.2103 | 0.0975 | 0.3894 |
| 136 | 50.54 | 0.01 | -0.2967 | 0.0013 | -0.1173 | -0.0044 | 0.3955 | 0.5424 | 0.0550 | 0.2102 | 0.0978 | 0.3881 |
| 137 | 50.70 | 0.02 | -0.2835 | 0.0038 | -0.1155 | -0.0134 | 0.4079 | 0.5710 | 0.0545 | 0.2231 | 0.0955 | 0.3907 |
| 138 | 50.87 | 0.03 | -0.2554 | 0.0015 | -0.0965 | -0.0059 | 0.3794 | 0.5650 | 0.0534 | 0.2261 | 0.0913 | 0.3864 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSROC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 11B 0.60 1.7 0.0 B1BOF31 0.0 0 -30 0 -30 UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.04 | 0.03 | -0.2923 | -0.0024 | -0.1158 | 0.0082 | 0.3963 | 0.5900 | 0.0531 | 0.2313 | 0.0900 | 0.3520 |
| 140 | 51.21 | 0.05 | -0.1222 | 0.0627 | -0.0456 | -0.0103 | 0.2084 | 0.5801 | 0.0557 | 0.2103 | 0.0965 | 0.3755 |
| 141 | 51.38 | 0.05 | -0.1225 | -0.0008 | -0.0505 | 0.0048 | 0.3049 | 0.5670 | 0.0558 | 0.2139 | 0.0984 | 0.3773 |
| 142 | 51.55 | 0.07 | -0.0942 | 0.0147 | 0.0004 | -0.0333 | -0.1451 | 0.5545 | 0.0579 | 0.2073 | 0.1044 | 0.3739 |
| 143 | 51.71 | 0.07 | -0.0482 | 0.0100 | -0.0033 | -0.3409 | 0.0076 | 0.5622 | 0.0579 | 0.2103 | 0.1030 | 0.3742 |
| 144 | 51.90 | 0.09 | -0.0281 | 0.0245 | 0.0060 | -0.8675 | -0.2857 | 0.5614 | 0.0581 | 0.2089 | 0.1036 | 0.3723 |
| 145 | 52.06 | 0.07 | -0.0226 | 0.0242 | 0.0053 | -1.3768 | -0.4115 | 0.5763 | 0.0582 | 0.2168 | 0.1007 | 0.3756 |
| 146 | 52.24 | 0.09 | -0.0050 | 0.0236 | -0.0076 | -0.4299 | 0.1384 | 0.5916 | 0.0589 | 0.2235 | 0.0996 | 0.3777 |
| 147 | 52.41 | 0.10 | -0.0265 | 0.0331 | -0.0014 | -1.2513 | 0.0522 | 0.5542 | 0.0567 | 0.2261 | 0.0988 | 0.3806 |
| 148 | 52.57 | 0.08 | -0.0365 | 0.0269 | -0.0164 | -0.4589 | 0.2008 | 0.6205 | 0.0586 | 0.2392 | 0.0945 | 0.3655 |
| 149 | 52.75 | 0.08 | -0.0775 | 0.0253 | -0.0233 | -0.3243 | 0.2999 | 0.6258 | 0.0594 | 0.2414 | 0.0950 | 0.3857 |
| 150 | 52.92 | 0.08 | -0.0059 | 0.0217 | -0.0203 | -0.4233 | 0.3113 | 0.6197 | 0.0600 | 0.2382 | 0.0965 | 0.3844 |
| 151 | 53.08 | 0.09 | -0.1010 | 0.0205 | -0.0346 | -0.2034 | 0.3423 | 0.6314 | 0.0538 | 0.2445 | 0.0932 | 0.3872 |
| 152 | 53.26 | 0.08 | -0.1551 | -0.0034 | -0.0556 | 0.0220 | 0.3605 | 0.6744 | 0.0562 | 0.2636 | 0.0834 | 0.3909 |
| 153 | 53.43 | 0.09 | -0.1938 | -0.0115 | -0.0715 | 0.0615 | 0.3692 | 0.6794 | 0.0555 | 0.2650 | 0.0817 | 0.3901 |
| 154 | 53.58 | 0.10 | -0.1902 | -0.0185 | -0.0687 | 0.0675 | 0.3814 | 0.7105 | 0.0533 | 0.2788 | 0.0750 | 0.3924 |
| 155 | 53.74 | 0.09 | -0.1734 | -0.0222 | -0.0616 | 0.1263 | 0.3555 | 0.7314 | 0.0513 | 0.2852 | 0.0701 | 0.3899 |
| 156 | 53.90 | 0.09 | -0.1664 | -0.0236 | -0.0575 | 0.1421 | 0.3456 | 0.7407 | 0.0517 | 0.2905 | 0.0698 | 0.3922 |
| 157 | 54.07 | 0.09 | -0.1505 | -0.0275 | -0.0465 | 0.1824 | 0.3039 | 0.7392 | 0.0520 | 0.2842 | 0.0704 | 0.3844 |
| 158 | 54.25 | 0.09 | -0.1268 | -0.0242 | -0.0346 | 0.1891 | 0.3104 | 0.7310 | 0.0534 | 0.2782 | 0.0731 | 0.3778 |
| 159 | 54.42 | 0.10 | -0.1248 | -0.0282 | -0.0380 | 0.2084 | 0.3049 | 0.7376 | 0.0534 | 0.2779 | 0.0724 | 0.3767 |
| 160 | 54.58 | 0.10 | -0.0731 | -0.0195 | -0.0188 | 0.2720 | 0.2548 | 0.7166 | 0.0544 | 0.2641 | 0.0759 | 0.3686 |
| 161 | 54.73 | 0.05 | -0.0595 | -0.0176 | -0.0132 | 0.2543 | 0.2207 | 0.6991 | 0.0553 | 0.2537 | 0.0751 | 0.3625 |
| 162 | 54.92 | 0.06 | -0.0353 | -0.0134 | -0.0050 | 0.3007 | 0.1920 | 0.6991 | 0.0554 | 0.2530 | 0.0793 | 0.3619 |
| 163 | 55.09 | 0.08 | -0.0364 | -0.0161 | -0.0116 | 0.3687 | 0.2024 | 0.7114 | 0.0548 | 0.2582 | 0.0771 | 0.3630 |
| 164 | 55.24 | 0.06 | -0.0681 | -0.0165 | -0.0150 | 0.2561 | 0.2273 | 0.6981 | 0.0561 | 0.2566 | 0.0804 | 0.3590 |
| 165 | 55.40 | 0.08 | -0.0469 | -0.0134 | -0.0080 | 0.2863 | 0.1709 | 0.6992 | 0.0552 | 0.2510 | 0.0790 | 0.3590 |
| 166 | 55.57 | 0.05 | -0.0514 | -0.0153 | -0.0076 | 0.2582 | 0.1481 | 0.7044 | 0.0554 | 0.2528 | 0.0787 | 0.3589 |
| 167 | 55.73 | 0.05 | -0.0252 | -0.0127 | 0.0022 | 0.4364 | -0.0756 | 0.7079 | 0.0554 | 0.2524 | 0.0783 | 0.3565 |
| 168 | 55.89 | 0.05 | -0.0455 | -0.0144 | -0.0081 | 0.2927 | 0.1240 | 0.7129 | 0.0562 | 0.2564 | 0.0785 | 0.3597 |
| 169 | 56.05 | 0.08 | -0.0548 | -0.0145 | -0.0071 | 0.2651 | 0.1296 | 0.7113 | 0.0557 | 0.2538 | 0.0783 | 0.3565 |
| 170 | 56.18 | 0.05 | -0.0427 | -0.0140 | -0.0023 | 0.3286 | 0.0540 | 0.7202 | 0.0548 | 0.2575 | 0.0761 | 0.3576 |
| 171 | 56.35 | 0.08 | -0.0437 | -0.0132 | -0.0018 | 0.3028 | 0.0413 | 0.7151 | 0.0561 | 0.2525 | 0.0787 | 0.3547 |
| 172 | 56.52 | 0.10 | -0.0412 | -0.0145 | -0.0016 | 0.3528 | 0.0242 | 0.7199 | 0.0561 | 0.2573 | 0.0780 | 0.3575 |
| 173 | 56.65 | 0.05 | -0.0412 | -0.0145 | 0.0004 | 0.3625 | -0.0097 | 0.7150 | 0.0559 | 0.2534 | 0.0782 | 0.3544 |
| 174 | 56.82 | 0.06 | -0.0187 | -0.0115 | 0.0083 | 0.4504 | -0.1436 | 0.7198 | 0.0560 | 0.2614 | 0.0789 | 0.3536 |
| 175 | 56.99 | 0.08 | -0.0333 | -0.0113 | 0.0025 | 0.3604 | -0.0753 | 0.7029 | 0.0572 | 0.2480 | 0.0814 | 0.3530 |
| 176 | 57.16 | 0.06 | -0.0256 | -0.0123 | 0.0100 | 0.4540 | -0.2731 | 0.7026 | 0.0571 | 0.2456 | 0.0813 | 0.3495 |
| 177 | 57.30 | 0.07 | -0.0415 | -0.0121 | -0.0006 | 0.2923 | 0.0145 | 0.7218 | 0.0568 | 0.2567 | 0.0787 | 0.3557 |
| 178 | 57.44 | 0.07 | -0.0154 | -0.0121 | 0.0081 | 0.6237 | -0.4175 | 0.7099 | 0.0568 | 0.2495 | 0.0800 | 0.3501 |
| 179 | 57.57 | 0.06 | -0.0124 | -0.0088 | 0.0107 | 0.7097 | -0.8629 | 0.7013 | 0.0575 | 0.2447 | 0.0820 | 0.3485 |
| 180 | 57.74 | 0.08 | -0.0166 | -0.0113 | 0.0087 | 0.6011 | -0.4028 | 0.7030 | 0.0574 | 0.2462 | 0.0817 | 0.3502 |
| 181 | 57.88 | 0.05 | -0.0146 | -0.0101 | 0.0098 | 0.7014 | -0.6806 | 0.7113 | 0.0573 | 0.2506 | 0.0806 | 0.3515 |
| 182 | 58.02 | 0.06 | -0.0181 | -0.0106 | 0.0092 | 0.5967 | -0.5083 | 0.7192 | 0.0569 | 0.2526 | 0.0791 | 0.3513 |
| 183 | 58.18 | 0.07 | -0.0265 | -0.0096 | 0.0053 | 0.3636 | -0.2008 | 0.7178 | 0.0573 | 0.2521 | 0.0795 | 0.3512 |
| 184 | 58.26 | 0.06 | -0.0192 | -0.0111 | 0.0065 | 0.5781 | -0.3594 | 0.7216 | 0.0570 | 0.2545 | 0.0790 | 0.3527 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 5 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RN/FT | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 118 | 0.60 | 1.7 | C.C | BLNCF31 | C.C | 0 | -30 | 0 | -30 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 165 | 58.25 | 0.05 | -0.0168 | -0.0056 | 0.0117 | 0.8333 | -1.0333 | 0.7114 | 0.0571 | 0.2492 | 0.0803 | 0.3503 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 5

MANUAL PASSIVE TAILS EFFECTS DATA

TEST 7 PART 11d MACH 0.80 RX10-6 1.7 PHI 0.0 CONF 31 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.51 | 0.00 | 0.0000 | 0.9999 | 0.0076 | 0.9999 | 1.2667 | -1.1168 | -0.0358 | -0.4452 | 0.0320 | 0.3987 |
| 2 | -5.50 | -0.01 | -0.0043 | 0.9999 | 0.0077 | 0.9999 | -1.7907 | -1.1300 | -0.0367 | -0.4507 | 0.0325 | 0.3986 |
| 3 | -5.50 | 0.02 | -0.0012 | 0.9999 | 0.0076 | 0.9999 | -6.3333 | -1.1253 | -0.0361 | -0.4479 | 0.0321 | 0.3980 |
| 4 | -5.50 | 0.02 | -0.0012 | 0.9999 | 0.0076 | 0.9999 | -6.3333 | -1.1300 | -0.0369 | -0.4538 | 0.0325 | 0.3999 |
| 5 | -5.49 | 0.02 | -0.0043 | 0.9999 | 0.0071 | 0.9999 | -1.6512 | -1.1200 | -0.0361 | -0.4472 | 0.0322 | 0.3993 |
| 6 | -5.51 | 0.02 | -0.0038 | 0.9999 | 0.0087 | 0.9999 | -2.4167 | -1.1367 | -0.0366 | -0.4556 | 0.0329 | 0.4001 |
| 7 | -5.50 | 0.02 | -0.0043 | 0.9999 | 0.0077 | 0.9999 | -1.7907 | -1.1362 | -0.0375 | -0.4537 | 0.0330 | 0.3993 |
| 8 | -5.66 | 0.02 | 0.0051 | 0.9999 | 0.0081 | 0.9999 | 0.8901 | -1.1208 | -0.0373 | -0.4476 | 0.0333 | 0.3997 |
| 9 | -4.98 | 0.02 | -0.0020 | 0.9999 | 0.0094 | 0.9999 | -4.7000 | -1.1959 | -0.0460 | -0.4808 | 0.0385 | 0.4020 |
| 10 | -5.26 | 0.02 | 0.0018 | 0.9999 | 0.0112 | 0.9999 | 6.2222 | -1.1638 | -0.0377 | -0.4775 | 0.0324 | 0.4103 |
| 11 | -1.24 | 0.02 | 0.0011 | 0.9999 | 0.0103 | 0.9999 | 9.3636 | -1.1078 | -0.0312 | -0.4621 | 0.0281 | 0.4172 |
| 12 | -1.38 | 0.02 | -0.0005 | 0.9999 | 0.0104 | 0.9999 | -20.8000 | -1.0955 | -0.0310 | -0.4579 | 0.0283 | 0.4186 |
| 13 | -0.30 | 0.02 | 0.0003 | 0.9999 | 0.0102 | 0.9999 | 34.0000 | -1.0376 | -0.0281 | -0.4407 | 0.0270 | 0.4247 |
| 14 | 1.38 | 0.02 | 0.0026 | 0.9999 | 0.0115 | 0.9999 | 4.5769 | -0.9539 | -0.0270 | -0.4080 | 0.0283 | 0.4278 |
| 15 | 3.14 | 0.02 | 0.0026 | 0.9999 | 0.0126 | 0.9999 | 4.9231 | -0.8641 | -0.0275 | -0.3725 | 0.0318 | 0.4311 |
| 16 | 4.77 | 0.02 | 0.0018 | 0.9999 | 0.0128 | 0.9999 | 7.1111 | -0.7795 | -0.0254 | -0.3371 | 0.0325 | 0.4324 |
| 17 | 6.50 | 0.02 | 0.0010 | 0.9999 | 0.0124 | 0.9999 | 12.4000 | -0.6942 | -0.0231 | -0.2984 | 0.0333 | 0.4298 |
| 18 | 8.23 | 0.02 | -0.0007 | 0.9999 | 0.0136 | 0.9999 | -19.7143 | -0.6065 | -0.0203 | -0.2619 | 0.0335 | 0.4319 |
| 19 | 9.90 | 0.02 | -0.0037 | 0.9999 | 0.0105 | 0.9999 | -2.8378 | -0.5257 | -0.0172 | -0.2246 | 0.0328 | 0.4272 |
| 20 | 11.69 | 0.02 | 0.0026 | 0.9999 | 0.0128 | 0.9999 | 4.9231 | -0.4439 | -0.0151 | -0.1865 | 0.0341 | 0.4255 |
| 21 | 13.40 | 0.02 | 0.0050 | 0.9999 | 0.0105 | 0.9999 | 2.1800 | -0.3513 | -0.0132 | -0.1505 | 0.0376 | 0.4284 |
| 22 | 15.17 | 0.02 | 0.0056 | 0.9999 | 0.0102 | 0.9999 | 1.1333 | -0.2658 | -0.0106 | -0.1164 | 0.0372 | 0.4274 |
| 23 | 16.99 | 0.02 | 0.0055 | 0.9999 | 0.0088 | 0.9999 | 0.8889 | -0.2133 | -0.0088 | -0.0782 | 0.0413 | 0.3664 |
| 24 | 18.79 | 0.01 | 0.0059 | 0.9999 | 0.0074 | 0.9999 | 0.7273 | -0.1398 | -0.0065 | -0.0476 | 0.0466 | 0.3405 |
| 25 | 20.58 | 0.01 | 0.0030 | 0.9999 | 0.0036 | 0.9999 | 1.2000 | -0.0692 | -0.0037 | -0.0186 | 0.0535 | 0.2652 |
| 26 | 22.37 | 0.00 | 0.0023 | 0.9999 | 0.0023 | 0.9999 | 1.0000 | -0.0211 | 0.0019 | 0.0014 | -0.0900 | -0.0664 |
| 27 | 24.17 | -0.00 | 0.0015 | 0.9999 | 0.0023 | 0.9999 | 1.5333 | -0.0020 | 0.0084 | 0.0050 | -4.2000 | -4.5000 |
| 28 | 25.95 | 0.00 | 0.0063 | 0.9999 | 0.0041 | 0.9999 | 0.4405 | 0.0046 | 0.0141 | 0.0113 | 3.0652 | 2.4565 |
| 29 | 27.79 | 0.05 | 0.0263 | 0.9999 | 0.0147 | 0.9999 | 0.5611 | 0.0053 | 0.0186 | 0.0098 | 3.5094 | 1.8491 |
| 30 | 29.12 | 0.05 | 0.0266 | 0.9999 | 0.0155 | 0.9999 | 0.5439 | 0.0183 | 0.0186 | 0.0146 | 1.0273 | 0.8087 |
| 31 | 28.42 | 0.06 | 0.0302 | 0.9999 | 0.0159 | 0.9999 | 0.5282 | 0.0028 | 0.0154 | 0.0089 | 6.5286 | 3.1786 |
| 32 | 28.08 | 0.06 | 0.0332 | 0.9999 | 0.0165 | 0.9999 | 0.5710 | 0.0189 | 0.0268 | 0.0144 | 1.1005 | 0.7619 |
| 33 | 29.01 | 0.05 | 0.0345 | 0.9999 | 0.0154 | 0.9999 | 0.5591 | 0.0211 | 0.0213 | 0.0151 | 1.0055 | 0.7156 |
| 34 | 29.33 | 0.07 | 0.0365 | 0.9999 | 0.0161 | 0.9999 | 0.5677 | 0.0101 | 0.0217 | 0.0115 | 2.1485 | 1.1386 |
| 35 | 29.01 | 0.07 | 0.0332 | 0.9999 | 0.0165 | 0.9999 | 0.5710 | 0.0280 | 0.0233 | 0.0175 | 0.8351 | 0.6272 |
| 36 | 29.00 | 0.06 | 0.0355 | 0.9999 | 0.0200 | 0.9999 | 0.5650 | 0.0284 | 0.0238 | 0.0160 | 0.8410 | 0.6360 |
| 37 | 30.17 | 0.08 | 0.0399 | 0.9999 | 0.0210 | 0.9999 | 0.5932 | 0.0284 | 0.0247 | 0.0186 | 0.8693 | 0.6572 |
| 38 | 30.44 | 0.09 | 0.0462 | 0.9999 | 0.0238 | 0.9999 | 0.5935 | 0.0359 | 0.0262 | 0.0216 | 0.7250 | 0.6034 |
| 39 | 30.70 | 0.08 | 0.0441 | 0.9999 | 0.0258 | 0.9999 | 0.5841 | 0.0318 | 0.0260 | 0.0199 | 0.8170 | 0.6278 |
| 40 | 30.48 | 0.07 | 0.0185 | 0.9999 | 0.0123 | 0.9999 | 0.6049 | 0.0726 | 0.0277 | 0.0363 | 0.3807 | 0.4993 |
| 41 | 31.45 | 0.07 | 0.0278 | 0.9999 | 0.0183 | 0.9999 | 0.6806 | 0.0691 | 0.0276 | 0.0344 | 0.3986 | 0.4971 |
| 42 | 31.53 | 0.06 | 0.0301 | 0.9999 | 0.0197 | 0.9999 | 0.6567 | 0.0635 | 0.0292 | 0.0415 | 0.3493 | 0.4970 |
| 43 | 31.79 | 0.07 | 0.0271 | 0.9999 | 0.0170 | 0.9999 | 0.6296 | 0.0939 | 0.0295 | 0.0463 | 0.3138 | 0.4531 |
| 44 | 32.06 | 0.06 | 0.0230 | 0.9999 | 0.0103 | 0.9999 | 0.7007 | 0.1086 | 0.0306 | 0.0520 | 0.2814 | 0.4768 |
| 45 | 32.32 | 0.07 | 0.0215 | 0.9999 | 0.0155 | 0.9999 | 0.7395 | 0.1082 | 0.0311 | 0.0537 | 0.2870 | 0.4583 |
| 46 | 32.57 | 0.07 | 0.0253 | 0.9999 | 0.0202 | 0.9999 | 0.6918 | 0.1169 | 0.0317 | 0.0543 | 0.2804 | 0.4809 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11d MACH 0.80 RNIC-6 1.7 PHI 0.0 CONF BLELF31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | Cm3 | CB3 | XCPF3 | YCPF3 | CNF4 | Cm4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.84 | 0.09 | 0.0271 | 9.9999 | 0.0175 | 9.9999 | 0.6030 | 0.1109 | 0.0321 | 0.0534 | 0.2891 | 0.4815 |
| 48 | 33.10 | 0.11 | 0.0465 | 9.9999 | 0.0286 | 9.9999 | 0.6185 | 0.1034 | 0.0325 | 0.0487 | 0.3140 | 0.4709 |
| 49 | 33.34 | 0.10 | 0.0445 | 9.9999 | 0.0287 | 9.9999 | 0.6384 | 0.1177 | 0.0324 | 0.0549 | 0.2745 | 0.4664 |
| 50 | 33.60 | 0.11 | 0.0463 | 9.9999 | 0.0245 | 9.9999 | 0.6169 | 0.1238 | 0.0327 | 0.0561 | 0.2640 | 0.4698 |
| 51 | 33.84 | 0.11 | 0.0442 | 9.9999 | 0.0265 | 9.9999 | 0.5966 | 0.1375 | 0.0330 | 0.0647 | 0.2435 | 0.4655 |
| 52 | 34.09 | 0.10 | 0.0419 | 9.9999 | 0.0241 | 9.9999 | 0.5742 | 0.1474 | 0.0333 | 0.0669 | 0.2317 | 0.4634 |
| 53 | 34.35 | 0.11 | 0.0443 | 9.9999 | 0.0259 | 9.9999 | 0.5637 | 0.1572 | 0.0350 | 0.0736 | 0.2224 | 0.4678 |
| 54 | 34.59 | 0.12 | 0.0525 | 9.9999 | 0.0300 | 9.9999 | 0.5803 | 0.1639 | 0.0355 | 0.0764 | 0.2164 | 0.4688 |
| 55 | 34.82 | 0.12 | 0.0521 | 9.9999 | 0.0295 | 9.9999 | 0.5731 | 0.1683 | 0.0355 | 0.0788 | 0.2107 | 0.4679 |
| 56 | 35.07 | 0.12 | 0.0420 | 9.9999 | 0.0235 | 9.9999 | 0.5809 | 0.1701 | 0.0355 | 0.0793 | 0.2085 | 0.4656 |
| 57 | 35.32 | 0.13 | 0.0506 | 9.9999 | 0.0293 | 9.9999 | 0.5782 | 0.1948 | 0.0372 | 0.0913 | 0.1908 | 0.4686 |
| 58 | 35.54 | 0.13 | 0.0484 | 9.9999 | 0.0288 | 9.9999 | 0.5942 | 0.1821 | 0.0365 | 0.0854 | 0.2025 | 0.4689 |
| 59 | 35.79 | 0.12 | 0.0459 | 9.9999 | 0.0255 | 9.9999 | 0.5984 | 0.1868 | 0.0377 | 0.0859 | 0.2039 | 0.4647 |
| 60 | 36.01 | 0.12 | 0.0447 | 9.9999 | 0.0279 | 9.9999 | 0.5851 | 0.1897 | 0.0385 | 0.0898 | 0.2267 | 0.4695 |
| 61 | 36.24 | 0.12 | 0.0522 | 9.9999 | 0.0310 | 9.9999 | 0.5931 | 0.1720 | 0.0380 | 0.0801 | 0.2205 | 0.4656 |
| 62 | 36.48 | 0.12 | 0.0455 | 9.9999 | 0.0296 | 9.9999 | 0.5924 | 0.1857 | 0.0387 | 0.0873 | 0.2083 | 0.4700 |
| 63 | 36.72 | 0.12 | 0.0522 | 9.9999 | 0.0322 | 9.9999 | 0.6161 | 0.1994 | 0.0392 | 0.0937 | 0.1965 | 0.4698 |
| 64 | 36.93 | 0.14 | 0.0525 | 9.9999 | 0.0335 | 9.9999 | 0.6402 | 0.2078 | 0.0395 | 0.0972 | 0.1921 | 0.4681 |
| 65 | 37.18 | 0.12 | 0.0437 | 9.9999 | 0.0253 | 9.9999 | 0.5780 | 0.2286 | 0.0405 | 0.1068 | 0.1771 | 0.4761 |
| 66 | 37.43 | 0.14 | 0.0436 | 9.9999 | 0.0275 | 9.9999 | 0.6295 | 0.2506 | 0.0417 | 0.1187 | 0.1663 | 0.4738 |
| 67 | 37.65 | 0.12 | 0.0413 | 9.9999 | 0.0252 | 9.9999 | 0.6092 | 0.2962 | 0.0407 | 0.1437 | 0.1364 | 0.4815 |
| 68 | 37.89 | 0.12 | 0.0414 | 9.9999 | 0.0270 | 9.9999 | 0.6545 | 0.2993 | 0.0413 | 0.1437 | 0.1379 | 0.4801 |
| 69 | 38.14 | 0.12 | 0.0365 | 9.9999 | 0.0256 | 9.9999 | 0.6572 | 0.3452 | 0.0402 | 0.1668 | 0.1164 | 0.4833 |
| 70 | 38.38 | 0.10 | 0.0341 | 9.9999 | 0.0208 | 9.9999 | 0.6710 | 0.3651 | 0.0388 | 0.1675 | 0.1007 | 0.4865 |
| 71 | 38.60 | 0.10 | 0.0264 | 9.9999 | 0.0183 | 9.9999 | 0.6956 | 0.4226 | 0.0362 | 0.2076 | 0.0856 | 0.4913 |
| 72 | 38.82 | 0.09 | 0.0178 | 9.9999 | 0.0120 | 9.9999 | 0.7079 | 0.4500 | 0.0356 | 0.2193 | 0.0790 | 0.4874 |
| 73 | 39.06 | 0.10 | 0.0177 | 9.9999 | 0.0135 | 9.9999 | 0.7853 | 0.4629 | 0.0352 | 0.2275 | 0.0760 | 0.4913 |
| 74 | 39.28 | 0.09 | 0.0178 | 9.9999 | 0.0132 | 9.9999 | 0.7410 | 0.4693 | 0.0339 | 0.2406 | 0.0692 | 0.4917 |
| 75 | 39.48 | 0.08 | 0.0170 | 9.9999 | 0.0126 | 9.9999 | 0.7412 | 0.4873 | 0.0342 | 0.2395 | 0.0701 | 0.4915 |
| 76 | 39.67 | 0.09 | 0.0170 | 9.9999 | 0.0141 | 9.9999 | 0.8294 | 0.4907 | 0.0353 | 0.2452 | 0.0719 | 0.4956 |
| 77 | 39.89 | 0.09 | 0.0139 | 9.9999 | 0.0108 | 9.9999 | 0.7770 | 0.4850 | 0.0366 | 0.2262 | 0.0791 | 0.4907 |
| 78 | 40.08 | 0.10 | 0.0174 | 9.9999 | 0.0214 | 9.9999 | 0.7823 | 0.4983 | 0.0407 | 0.1969 | 0.1001 | 0.4846 |
| 79 | 40.27 | 0.10 | 0.0365 | 9.9999 | 0.0267 | 9.9999 | 0.7306 | 0.4122 | 0.0402 | 0.1595 | 0.0975 | 0.4840 |
| 80 | 40.48 | 0.11 | 0.0412 | 9.9999 | 0.0286 | 9.9999 | 0.6934 | 0.4146 | 0.0414 | 0.2004 | 0.0998 | 0.4833 |
| 81 | 40.70 | 0.11 | 0.0264 | 9.9999 | 0.0205 | 9.9999 | 0.7795 | 0.4317 | 0.0396 | 0.2093 | 0.0917 | 0.4849 |
| 82 | 40.89 | 0.10 | 0.0342 | 9.9999 | 0.0245 | 9.9999 | 0.7273 | 0.4301 | 0.0403 | 0.2091 | 0.0937 | 0.4863 |
| 83 | 41.11 | 0.11 | 0.0350 | 9.9999 | 0.0253 | 9.9999 | 0.7221 | 0.4479 | 0.0395 | 0.2181 | 0.0881 | 0.4870 |
| 84 | 41.31 | 0.10 | 0.0361 | 9.9999 | 0.0271 | 9.9999 | 0.7105 | 0.4405 | 0.0400 | 0.2165 | 0.0895 | 0.4850 |
| 85 | 41.50 | 0.10 | 0.0318 | 9.9999 | 0.0243 | 9.9999 | 0.7666 | 0.4686 | 0.0395 | 0.2276 | 0.0843 | 0.4857 |
| 86 | 41.70 | 0.11 | 0.0327 | 9.9999 | 0.0252 | 9.9999 | 0.7117 | 0.5061 | 0.0376 | 0.2501 | 0.0739 | 0.4922 |
| 87 | 41.90 | 0.10 | 0.0334 | 9.9999 | 0.0246 | 9.9999 | 0.7357 | 0.5112 | 0.0381 | 0.2495 | 0.0745 | 0.4880 |
| 88 | 42.10 | 0.11 | 0.0326 | 9.9999 | 0.0254 | 9.9999 | 0.7765 | 0.5124 | 0.0384 | 0.2515 | 0.0745 | 0.4886 |
| 89 | 42.29 | 0.12 | 0.0373 | 9.9999 | 0.0264 | 9.9999 | 0.7070 | 0.5513 | 0.0373 | 0.2681 | 0.0676 | 0.4864 |
| 90 | 42.47 | 0.12 | 0.0373 | 9.9999 | 0.0264 | 9.9999 | 0.7070 | 0.5377 | 0.0381 | 0.2609 | 0.0708 | 0.4853 |
| 91 | 42.66 | 0.12 | 0.0341 | 9.9999 | 0.0248 | 9.9999 | 0.7206 | 0.5593 | 0.0370 | 0.2722 | 0.0661 | 0.4886 |
| 92 | 42.85 | 0.12 | 0.0349 | 9.9999 | 0.0250 | 9.9999 | 0.7159 | 0.5681 | 0.0372 | 0.2755 | 0.0654 | 0.4849 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 118 MACH 0.80 RNIG-6 1.7 PHI 0.0 CONF B1B0F31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.01 | 0.11 | 0.0341 | 5.9999 | 0.0255 | 5.9999 | 0.7471 | 0.5883 | 0.0366 | 0.2831 | 0.0622 | 0.4812 |
| 94 | 43.20 | 0.12 | 0.0388 | 5.9999 | 0.0284 | 5.9999 | 0.7313 | 0.5809 | 0.0382 | 0.2752 | 0.0671 | 0.4837 |
| 95 | 43.39 | 0.11 | 0.0341 | 5.9999 | 0.0245 | 5.9999 | 0.7294 | 0.5784 | 0.0376 | 0.2790 | 0.0650 | 0.4823 |
| 96 | 43.58 | 0.12 | 0.0426 | 5.9999 | 0.0266 | 5.9999 | 0.6859 | 0.5876 | 0.0374 | 0.2842 | 0.0636 | 0.4836 |
| 97 | 43.74 | 0.13 | 0.0404 | 5.9999 | 0.0278 | 5.9999 | 0.6824 | 0.6032 | 0.0378 | 0.2906 | 0.0626 | 0.4821 |
| 98 | 43.93 | 0.12 | 0.0341 | 5.9999 | 0.0245 | 5.9999 | 0.7294 | 0.6043 | 0.0376 | 0.2915 | 0.0622 | 0.4823 |
| 99 | 44.11 | 0.12 | 0.0305 | 5.9999 | 0.0245 | 5.9999 | 0.8052 | 0.6043 | 0.0375 | 0.2898 | 0.0620 | 0.4795 |
| 100 | 44.30 | 0.13 | 0.0387 | 5.9999 | 0.0277 | 5.9999 | 0.7156 | 0.6079 | 0.0371 | 0.2931 | 0.0610 | 0.4821 |
| 101 | 44.49 | 0.13 | 0.0340 | 5.9999 | 0.0255 | 5.9999 | 0.7493 | 0.6069 | 0.0381 | 0.2913 | 0.0627 | 0.4795 |
| 102 | 44.68 | 0.14 | 0.0358 | 5.9999 | 0.0245 | 5.9999 | 0.6966 | 0.6117 | 0.0375 | 0.2936 | 0.0613 | 0.4790 |
| 103 | 44.86 | 0.13 | 0.0435 | 5.9999 | 0.0302 | 5.9999 | 0.6968 | 0.6204 | 0.0376 | 0.2956 | 0.0606 | 0.4765 |
| 104 | 45.03 | 0.13 | 0.0417 | 5.9999 | 0.0307 | 5.9999 | 0.7356 | 0.6255 | 0.0379 | 0.2951 | 0.0606 | 0.4782 |
| 105 | 45.21 | 0.14 | 0.0324 | 5.9999 | 0.0235 | 5.9999 | 0.7399 | 0.6259 | 0.0374 | 0.2976 | 0.0597 | 0.4755 |
| 106 | 45.39 | 0.13 | 0.0358 | 5.9999 | 0.0252 | 5.9999 | 0.7070 | 0.6354 | 0.0377 | 0.3024 | 0.0593 | 0.4756 |
| 107 | 45.56 | 0.12 | 0.0388 | 5.9999 | 0.0283 | 5.9999 | 0.7325 | 0.6362 | 0.0378 | 0.3021 | 0.0594 | 0.4745 |
| 108 | 45.73 | 0.12 | 0.0355 | 5.9999 | 0.0262 | 5.9999 | 0.7373 | 0.6425 | 0.0369 | 0.3046 | 0.0574 | 0.4741 |
| 109 | 45.92 | 0.13 | 0.0425 | 5.9999 | 0.0307 | 5.9999 | 0.7217 | 0.6494 | 0.0370 | 0.3061 | 0.0565 | 0.4714 |
| 110 | 46.09 | 0.12 | 0.0425 | 5.9999 | 0.0301 | 5.9999 | 0.7075 | 0.6470 | 0.0378 | 0.3036 | 0.0581 | 0.4696 |
| 111 | 46.28 | 0.12 | 0.0425 | 5.9999 | 0.0291 | 5.9999 | 0.6840 | 0.6491 | 0.0376 | 0.3045 | 0.0575 | 0.4691 |
| 112 | 46.43 | 0.12 | 0.0418 | 5.9999 | 0.0305 | 5.9999 | 0.7022 | 0.6499 | 0.0377 | 0.3049 | 0.0580 | 0.4692 |
| 113 | 46.60 | 0.11 | 0.0370 | 5.9999 | 0.0285 | 5.9999 | 0.7156 | 0.6545 | 0.0376 | 0.3075 | 0.0574 | 0.4695 |
| 114 | 46.79 | 0.11 | 0.0347 | 5.9999 | 0.0249 | 5.9999 | 0.7052 | 0.6557 | 0.0375 | 0.3100 | 0.0562 | 0.4672 |
| 115 | 46.97 | 0.12 | 0.0402 | 5.9999 | 0.0271 | 5.9999 | 0.6733 | 0.6706 | 0.0374 | 0.3115 | 0.0557 | 0.4652 |
| 116 | 47.13 | 0.13 | 0.0388 | 5.9999 | 0.0270 | 5.9999 | 0.6987 | 0.6652 | 0.0381 | 0.3078 | 0.0583 | 0.4642 |
| 117 | 47.30 | 0.11 | 0.0339 | 5.9999 | 0.0260 | 5.9999 | 0.7663 | 0.6642 | 0.0385 | 0.3081 | 0.0579 | 0.4639 |
| 118 | 47.48 | 0.11 | 0.0411 | 5.9999 | 0.0286 | 5.9999 | 0.6975 | 0.6693 | 0.0387 | 0.3092 | 0.0578 | 0.4620 |
| 119 | 47.66 | 0.10 | 0.0378 | 5.9999 | 0.0268 | 5.9999 | 0.7029 | 0.6620 | 0.0406 | 0.3040 | 0.0613 | 0.4593 |
| 120 | 47.82 | 0.12 | 0.0364 | 5.9999 | 0.0264 | 5.9999 | 0.7230 | 0.6629 | 0.0398 | 0.3055 | 0.0600 | 0.4605 |
| 121 | 47.98 | 0.08 | 0.0278 | 5.9999 | 0.0201 | 5.9999 | 0.7256 | 0.6804 | 0.0382 | 0.3128 | 0.0561 | 0.4598 |
| 122 | 48.16 | 0.09 | 0.0292 | 5.9999 | 0.0218 | 5.9999 | 0.7491 | 0.6811 | 0.0386 | 0.3141 | 0.0566 | 0.4612 |
| 123 | 48.32 | 0.09 | 0.0293 | 5.9999 | 0.0211 | 5.9999 | 0.7226 | 0.6751 | 0.0403 | 0.3100 | 0.0597 | 0.4593 |
| 124 | 48.50 | 0.07 | 0.0241 | 5.9999 | 0.0223 | 5.9999 | 0.7690 | 0.7059 | 0.0384 | 0.3243 | 0.0515 | 0.4593 |
| 125 | 48.65 | 0.08 | 0.0258 | 5.9999 | 0.0161 | 5.9999 | 0.8131 | 0.7101 | 0.0349 | 0.3275 | 0.0491 | 0.4612 |
| 126 | 48.83 | 0.06 | 0.0283 | 5.9999 | 0.0226 | 5.9999 | 0.8014 | 0.6869 | 0.0393 | 0.3185 | 0.0570 | 0.4623 |
| 127 | 49.00 | 0.05 | 0.0150 | 5.9999 | 0.0165 | 5.9999 | 0.8395 | 0.7276 | 0.0324 | 0.3325 | 0.0445 | 0.4570 |
| 128 | 49.18 | 0.08 | 0.0283 | 5.9999 | 0.0232 | 5.9999 | 0.8227 | 0.6963 | 0.0417 | 0.3067 | 0.0635 | 0.4582 |
| 129 | 49.33 | 0.05 | 0.0183 | 5.9999 | 0.0153 | 5.9999 | 0.8381 | 0.7335 | 0.0327 | 0.3360 | 0.0443 | 0.4581 |
| 130 | 49.53 | 0.05 | 0.0236 | 5.9999 | 0.0204 | 5.9999 | 0.8044 | 0.6879 | 0.0385 | 0.3185 | 0.0559 | 0.4625 |
| 131 | 49.71 | 0.05 | 0.0158 | 5.9999 | 0.0167 | 5.9999 | 0.8434 | 0.7099 | 0.0352 | 0.3298 | 0.0495 | 0.4668 |
| 132 | 49.87 | 0.06 | 0.0152 | 5.9999 | 0.0132 | 5.9999 | 0.8084 | 0.7339 | 0.0332 | 0.3398 | 0.0452 | 0.4630 |
| 133 | 50.02 | 0.02 | 0.0121 | 5.9999 | 0.0111 | 5.9999 | 0.9174 | 0.7239 | 0.0327 | 0.3363 | 0.0451 | 0.4648 |
| 134 | 50.20 | 0.03 | 0.0166 | 5.9999 | 0.0178 | 5.9999 | 1.4067 | 0.7236 | 0.0329 | 0.3357 | 0.0454 | 0.4635 |
| 135 | 50.37 | 0.02 | 0.0125 | 5.9999 | 0.0109 | 5.9999 | 0.8450 | 0.7429 | 0.0330 | 0.3417 | 0.0444 | 0.4599 |
| 136 | 50.54 | 0.01 | 0.0064 | 5.9999 | 0.0074 | 5.9999 | 0.8010 | 0.7348 | 0.0343 | 0.3379 | 0.0467 | 0.4660 |
| 137 | 50.70 | 0.02 | 0.0137 | 5.9999 | 0.0122 | 5.9999 | 0.8905 | 0.7243 | 0.0357 | 0.3330 | 0.0493 | 0.4597 |
| 138 | 50.87 | 0.03 | 0.0183 | 5.9999 | 0.0144 | 5.9999 | 0.7809 | 0.7273 | 0.0363 | 0.3357 | 0.0499 | 0.4618 |

TEST 7 | PART 11a | MACH 0.60 | RNIC-6 1.7 | PHI 0.0 | CONF 81&CF31 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.04 | 0.03 | 0.0137 | 0.9999 | 0.0115 | 0.9999 | 0.8666 | 0.7173 | 0.0374 | 0.3306 | 0.0521 | 0.4606 |
| 140 | 51.21 | 0.05 | 0.0163 | 0.9999 | 0.0160 | 0.9999 | 0.8743 | 0.6730 | 0.0426 | 0.3085 | 0.0628 | 0.4597 |
| 141 | 51.38 | 0.05 | 0.0091 | 0.9999 | 0.0094 | 0.9999 | 1.0330 | 0.6733 | 0.0438 | 0.3076 | 0.0650 | 0.4565 |
| 142 | 51.55 | 0.07 | 0.0183 | 0.9999 | 0.0186 | 0.9999 | 0.9071 | 0.6354 | 0.0453 | 0.2853 | 0.0713 | 0.4553 |
| 143 | 51.71 | 0.07 | 0.0221 | 0.9999 | 0.0215 | 0.9999 | 0.8269 | 0.6324 | 0.0465 | 0.2885 | 0.0735 | 0.4562 |
| 144 | 51.90 | 0.09 | 0.0248 | 0.9999 | 0.0235 | 0.9999 | 0.8345 | 0.6458 | 0.0490 | 0.2958 | 0.0690 | 0.4586 |
| 145 | 52.06 | 0.07 | 0.0275 | 0.9999 | 0.0241 | 0.9999 | 0.8796 | 0.6309 | 0.0462 | 0.2853 | 0.0732 | 0.4585 |
| 146 | 52.24 | 0.05 | 0.0322 | 0.9999 | 0.0270 | 0.9999 | 0.8360 | 0.6301 | 0.0464 | 0.2857 | 0.0729 | 0.4554 |
| 147 | 52.41 | 0.10 | 0.0285 | 0.9999 | 0.0236 | 0.9999 | 0.8086 | 0.6338 | 0.0471 | 0.2927 | 0.0727 | 0.4618 |
| 148 | 52.57 | 0.08 | 0.0284 | 0.9999 | 0.0234 | 0.9999 | 0.8198 | 0.6451 | 0.0471 | 0.2955 | 0.0730 | 0.4581 |
| 149 | 52.75 | 0.08 | 0.0284 | 0.9999 | 0.0233 | 0.9999 | 0.8233 | 0.6168 | 0.0502 | 0.2834 | 0.0814 | 0.4595 |
| 150 | 52.92 | 0.06 | 0.0245 | 0.9999 | 0.0214 | 0.9999 | 0.8770 | 0.6322 | 0.0485 | 0.2890 | 0.0773 | 0.4571 |
| 151 | 53.08 | 0.05 | 0.0323 | 0.9999 | 0.0259 | 0.9999 | 0.8012 | 0.6366 | 0.0503 | 0.2912 | 0.0790 | 0.4574 |
| 152 | 53.26 | 0.06 | 0.0247 | 0.9999 | 0.0206 | 0.9999 | 0.8374 | 0.6015 | 0.0554 | 0.2759 | 0.0921 | 0.4586 |
| 153 | 53.40 | 0.09 | 0.0278 | 0.9999 | 0.0237 | 0.9999 | 0.8556 | 0.5853 | 0.0565 | 0.2682 | 0.0972 | 0.4583 |
| 154 | 53.58 | 0.10 | 0.0333 | 0.9999 | 0.0284 | 0.9999 | 0.7922 | 0.5806 | 0.0600 | 0.2559 | 0.1070 | 0.4562 |
| 155 | 53.74 | 0.09 | 0.0372 | 0.9999 | 0.0256 | 0.9999 | 0.7951 | 0.5366 | 0.0618 | 0.2456 | 0.1147 | 0.4556 |
| 156 | 53.90 | 0.09 | 0.0325 | 0.9999 | 0.0223 | 0.9999 | 0.8704 | 0.5225 | 0.0611 | 0.2376 | 0.1170 | 0.4547 |
| 157 | 54.07 | 0.05 | 0.0345 | 0.9999 | 0.0268 | 0.9999 | 0.8247 | 0.5357 | 0.0640 | 0.2438 | 0.1155 | 0.4551 |
| 158 | 54.25 | 0.09 | 0.0360 | 0.9999 | 0.0313 | 0.9999 | 0.8432 | 0.5423 | 0.0648 | 0.2462 | 0.1155 | 0.4577 |
| 159 | 54.42 | 0.10 | 0.0361 | 0.9999 | 0.0313 | 0.9999 | 0.8211 | 0.5460 | 0.0651 | 0.2502 | 0.1153 | 0.4582 |
| 160 | 54.58 | 0.10 | 0.0343 | 0.9999 | 0.0282 | 0.9999 | 0.8216 | 0.5762 | 0.0645 | 0.2657 | 0.1127 | 0.4612 |
| 161 | 54.73 | 0.09 | 0.0366 | 0.9999 | 0.0300 | 0.9999 | 0.8192 | 0.5621 | 0.0654 | 0.2701 | 0.1124 | 0.4635 |
| 162 | 54.92 | 0.08 | 0.0328 | 0.9999 | 0.0259 | 0.9999 | 0.7890 | 0.6013 | 0.0651 | 0.2777 | 0.1083 | 0.4618 |
| 163 | 55.09 | 0.08 | 0.0343 | 0.9999 | 0.0285 | 0.9999 | 0.8421 | 0.6008 | 0.0656 | 0.2765 | 0.1092 | 0.4601 |
| 164 | 55.24 | 0.08 | 0.0375 | 0.9999 | 0.0258 | 0.9999 | 0.7941 | 0.6043 | 0.0657 | 0.2776 | 0.1088 | 0.4596 |
| 165 | 55.40 | 0.08 | 0.0355 | 0.9999 | 0.0284 | 0.9999 | 0.7905 | 0.6023 | 0.0649 | 0.2761 | 0.1078 | 0.4583 |
| 166 | 55.57 | 0.09 | 0.0368 | 0.9999 | 0.0250 | 0.9999 | 0.8076 | 0.5977 | 0.0665 | 0.2756 | 0.1120 | 0.4600 |
| 167 | 55.73 | 0.09 | 0.0319 | 0.9999 | 0.0286 | 0.9999 | 0.8396 | 0.6031 | 0.0665 | 0.2767 | 0.1110 | 0.4587 |
| 168 | 55.89 | 0.09 | 0.0358 | 0.9999 | 0.0296 | 0.9999 | 0.8263 | 0.6037 | 0.0671 | 0.2752 | 0.1112 | 0.4558 |
| 169 | 56.05 | 0.08 | 0.0345 | 0.9999 | 0.0278 | 0.9999 | 0.8041 | 0.6084 | 0.0669 | 0.2771 | 0.1100 | 0.4554 |
| 170 | 56.18 | 0.09 | 0.0364 | 0.9999 | 0.0251 | 0.9999 | 0.8251 | 0.6062 | 0.0664 | 0.2772 | 0.1096 | 0.4572 |
| 171 | 56.35 | 0.08 | 0.0364 | 0.9999 | 0.0254 | 0.9999 | 0.8350 | 0.6136 | 0.0672 | 0.2803 | 0.1096 | 0.4568 |
| 172 | 56.52 | 0.10 | 0.0360 | 0.9999 | 0.0265 | 0.9999 | 0.8270 | 0.6030 | 0.0672 | 0.2732 | 0.1114 | 0.4525 |
| 173 | 56.65 | 0.09 | 0.0312 | 0.9999 | 0.0241 | 0.9999 | 0.7749 | 0.6083 | 0.0673 | 0.2755 | 0.1107 | 0.4528 |
| 174 | 56.82 | 0.08 | 0.0312 | 0.9999 | 0.0241 | 0.9999 | 0.7749 | 0.6233 | 0.0677 | 0.2840 | 0.1087 | 0.4556 |
| 175 | 56.99 | 0.08 | 0.0327 | 0.9999 | 0.0256 | 0.9999 | 0.7822 | 0.6174 | 0.0673 | 0.2801 | 0.1091 | 0.4537 |
| 176 | 57.16 | 0.08 | 0.0313 | 0.9999 | 0.0313 | 0.9999 | 0.7573 | 0.6063 | 0.0690 | 0.2727 | 0.1135 | 0.4482 |
| 177 | 57.30 | 0.07 | 0.0311 | 0.9999 | 0.0240 | 0.9999 | 0.7742 | 0.6087 | 0.0673 | 0.2741 | 0.1108 | 0.4562 |
| 178 | 57.44 | 0.07 | 0.0268 | 0.9999 | 0.0223 | 0.9999 | 0.7770 | 0.6203 | 0.0684 | 0.2825 | 0.1103 | 0.4554 |
| 179 | 57.57 | 0.08 | 0.0311 | 0.9999 | 0.0231 | 0.9999 | 0.7452 | 0.6228 | 0.0685 | 0.2814 | 0.1107 | 0.4518 |
| 180 | 57.74 | 0.08 | 0.0311 | 0.9999 | 0.0231 | 0.9999 | 0.7452 | 0.6098 | 0.0684 | 0.2744 | 0.1122 | 0.4495 |
| 181 | 57.88 | 0.05 | 0.0310 | 0.9999 | 0.0227 | 0.9999 | 0.7346 | 0.6307 | 0.0682 | 0.2878 | 0.1072 | 0.4517 |
| 182 | 58.02 | 0.06 | 0.0303 | 0.9999 | 0.0210 | 0.9999 | 0.6954 | 0.6188 | 0.0683 | 0.2788 | 0.1104 | 0.4505 |
| 183 | 58.18 | 0.07 | 0.0286 | 0.9999 | 0.0208 | 0.9999 | 0.7298 | 0.6174 | 0.0687 | 0.2793 | 0.1113 | 0.4524 |
| 184 | 58.26 | 0.06 | 0.0335 | 0.9999 | 0.0237 | 0.9999 | 0.7012 | 0.6217 | 0.0675 | 0.2801 | 0.1086 | 0.4505 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | REYNOLDS | PHI | CONF | I | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 118 | 0.80 | 1.7 | 0.0 | BLKOF31 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| POINT | ALPHA | BETA | CNF2 | CM3 | CB2 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 165 | 58.25 | 0.05 | 0.0262 | 9.9999 | 0.0200 | 9.9999 | 0.7663 | 0.8292 | 0.0680 | 0.2861 | 0.1081 | 0.4547 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 11y MACH 0.90 RNIC-6 1.7 PHI 0.0 CONF 61nGF31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | ACP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.56 | 0.02 | -3.6527 | 13.0960 | 0.0814 | -0.0611 | -0.0096 | 1.9700 | 0.3458 | 1.6242 | -3.3627 |
| 2 | -5.55 | 0.03 | -3.6436 | 12.9554 | 0.0695 | -0.0696 | 0.0033 | 1.9536 | 0.3445 | 1.6085 | -3.3706 |
| 3 | -5.56 | 0.02 | -3.6509 | 13.0565 | -0.1120 | 0.0902 | 0.0033 | 1.9670 | 0.3445 | 1.6225 | -3.3906 |
| 4 | -5.56 | 0.03 | -3.6538 | 13.0826 | 0.0216 | -0.0604 | 0.0034 | 1.9668 | 0.3437 | 1.6231 | -3.3659 |
| 5 | -5.64 | 0.03 | -3.7437 | 12.0531 | 0.0603 | -0.0515 | 0.0035 | 1.9670 | 0.3467 | 1.6203 | -3.3680 |
| 6 | -5.58 | 0.03 | -3.6617 | 12.7467 | 0.0618 | -0.1377 | 0.0107 | 1.9640 | 0.3432 | 1.6208 | -3.4022 |
| 7 | -2.35 | 0.03 | -3.5753 | 12.8556 | 0.0188 | -0.0594 | 0.0045 | 1.6242 | 0.2031 | 1.6191 | -3.6345 |
| 8 | -0.04 | 0.04 | -3.4633 | 12.3668 | -0.0367 | 0.0240 | 0.0048 | 1.7280 | 0.1531 | 1.5749 | -3.7712 |
| 9 | 1.07 | 0.02 | -2.9504 | 11.3240 | -0.0625 | -0.0142 | 0.0051 | 1.6495 | 0.1572 | 1.4923 | -3.9043 |
| 10 | 2.65 | 0.04 | -2.6565 | 10.3673 | -0.0375 | -0.0016 | 0.0035 | 1.5234 | 0.1553 | 1.3681 | -4.1060 |
| 11 | 4.57 | 0.03 | -2.0784 | 8.2622 | 0.0034 | -0.1001 | -0.0005 | 1.4041 | 0.1652 | 1.2389 | -4.4585 |
| 12 | 6.34 | 0.04 | -1.6946 | 6.3286 | -0.0596 | -0.0073 | -0.0002 | 1.2832 | 0.1741 | 1.1091 | -4.9273 |
| 13 | 8.15 | 0.03 | -1.2483 | 4.1926 | 0.0340 | -0.0499 | 0.0068 | 1.1477 | 0.1779 | 0.9698 | -5.7709 |
| 14 | 9.89 | 0.03 | -0.8947 | 2.3954 | 0.0204 | -0.0488 | 0.0006 | 1.0430 | 0.1817 | 0.8613 | -7.1528 |
| 15 | 11.76 | 0.02 | -0.4431 | 0.4175 | -0.0862 | 0.1258 | 0.0075 | 0.9152 | 0.1829 | 0.7323 | -12.2264 |
| 16 | 13.55 | 0.03 | 0.0096 | -1.9842 | 0.0785 | -0.0470 | -0.0045 | 0.8008 | 0.1838 | 0.6175 | 466.8599 |
| 17 | 15.43 | 0.03 | 0.3553 | -3.8951 | -0.0236 | 0.1423 | -0.0044 | 0.6903 | 0.1854 | 0.5049 | 9.2537 |
| 18 | 17.35 | 0.03 | 0.8085 | -5.8615 | -0.0507 | 0.2882 | 0.0025 | 0.5858 | 0.1883 | 0.3995 | 3.7129 |
| 19 | 19.23 | 0.03 | 1.2654 | -7.7204 | -0.1097 | 0.3501 | 0.0098 | 0.4772 | 0.1898 | 0.2874 | 1.7547 |
| 20 | 21.12 | 0.02 | 1.6985 | -9.4481 | -0.2591 | 0.3820 | 0.0080 | 0.4067 | 0.2042 | 0.2025 | 1.1489 |
| 21 | 23.02 | 0.02 | 1.9460 | -10.6559 | -0.3050 | 0.3820 | 0.0095 | 0.3592 | 0.2152 | 0.1440 | 0.8507 |
| 22 | 24.88 | 0.03 | 2.2267 | -11.9068 | -0.1057 | 0.4285 | 0.0197 | 0.3056 | 0.2214 | 0.0841 | 0.8503 |
| 23 | 26.79 | 0.04 | 2.6587 | -13.1582 | 0.2259 | -0.3538 | 0.0236 | 0.2505 | 0.2252 | 0.0253 | 0.8337 |
| 24 | 28.17 | 0.07 | 2.8702 | -13.9503 | 0.5142 | -0.5922 | 0.0454 | 0.2041 | 0.2315 | -0.0224 | 0.7580 |
| 25 | 28.21 | 0.06 | 2.8541 | -13.9238 | 0.5585 | -0.5778 | 0.0656 | 0.2102 | 0.2345 | -0.0243 | 0.8029 |
| 26 | 28.62 | 0.05 | 3.0266 | -14.1178 | 0.6868 | -0.6715 | 0.0933 | 0.1997 | 0.2367 | -0.0390 | 0.7323 |
| 27 | 28.89 | 0.08 | 3.0501 | -14.1878 | 0.8013 | -0.9031 | 0.0930 | 0.2035 | 0.2378 | -0.0343 | 0.7172 |
| 28 | 29.18 | 0.07 | 3.1219 | -14.1411 | 0.5691 | -0.6223 | 0.0860 | 0.2013 | 0.2390 | -0.0377 | 0.6764 |
| 29 | 29.50 | 0.07 | 3.2813 | -14.3316 | 0.4803 | -0.7102 | 0.0530 | 0.1807 | 0.2391 | -0.0584 | 0.6151 |
| 30 | 29.80 | 0.09 | 3.3866 | -14.3267 | 0.7614 | -0.2830 | 0.0805 | 0.1781 | 0.2345 | -0.0614 | 0.6014 |
| 31 | 30.07 | 0.08 | 3.4364 | -14.3581 | 0.7317 | -0.4557 | 0.1072 | 0.1635 | 0.2417 | -0.0582 | 0.5925 |
| 32 | 30.35 | 0.11 | 3.4838 | -14.3941 | 1.1652 | -0.2913 | 0.1422 | 0.1607 | 0.2510 | -0.0643 | 0.5885 |
| 33 | 30.62 | 0.09 | 3.4841 | -14.3765 | 0.8320 | -0.8638 | 0.1219 | 0.1681 | 0.2484 | -0.0803 | 0.5908 |
| 34 | 30.91 | 0.10 | 3.5456 | -14.3947 | 1.0242 | -0.5074 | 0.1360 | 0.1633 | 0.2581 | -0.0948 | 0.5993 |
| 35 | 31.17 | 0.11 | 3.5838 | -14.3328 | 1.1715 | -0.6585 | 0.1504 | 0.1428 | 0.2606 | -0.1181 | 0.5885 |
| 36 | 31.45 | 0.11 | 3.6233 | -14.3310 | 1.1800 | -0.6199 | 0.1245 | 0.1497 | 0.2589 | -0.1093 | 0.6042 |
| 37 | 31.73 | 0.09 | 3.6613 | -14.4227 | 0.8714 | -0.8694 | 0.0970 | 0.1413 | 0.2657 | -0.1245 | 0.5907 |
| 38 | 31.98 | 0.10 | 3.6538 | -14.3987 | 0.9383 | -0.8157 | 0.1041 | 0.1406 | 0.2652 | -0.1367 | 0.5775 |
| 39 | 32.27 | 0.10 | 3.7351 | -14.3985 | 0.9683 | -0.8035 | 0.1113 | 0.1193 | 0.2737 | -0.1545 | 0.5677 |
| 40 | 32.52 | 0.10 | 3.7709 | -14.4490 | 1.0187 | -0.8081 | 0.0965 | 0.1122 | 0.2713 | -0.1592 | 0.5603 |
| 41 | 32.79 | 0.12 | 3.8533 | -14.5380 | 1.2337 | -0.8545 | 0.1134 | 0.0979 | 0.2767 | -0.1789 | 0.5574 |
| 42 | 33.07 | 0.13 | 3.9053 | -14.5518 | 1.4018 | -0.9483 | 0.1217 | 0.0884 | 0.2809 | -0.2147 | 0.5513 |
| 43 | 33.31 | 0.13 | 3.9521 | -14.5967 | 1.4620 | -0.9567 | 0.1287 | 0.0828 | 0.2813 | -0.1987 | 0.5452 |
| 44 | 33.56 | 0.13 | 3.9926 | -14.6446 | 1.5746 | -0.9705 | 0.1296 | 0.0792 | 0.2816 | -0.2076 | 0.5599 |
| 45 | 33.82 | 0.14 | 4.0277 | -14.6951 | 1.6400 | -1.0161 | 0.1367 | 0.0717 | 0.2852 | -0.2135 | 0.5425 |
| 46 | 34.08 | 0.12 | 4.0756 | -14.6286 | 1.3185 | -0.9589 | 0.1301 | 0.0572 | 0.2756 | -0.2186 | 0.5765 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 115 PAGE 0.90 RXIC-6 2.7 PHI 0.0 CONF 81 L 6.6 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.32 | 0.11 | 5.1966 | 2.9002 | 1.2752 | -2.6271 | 0.1435 | 0.0355 | 0.2779 | -0.2424 | 0.5599 |
| 48 | 34.56 | 0.11 | 5.2446 | 3.1216 | 1.1905 | -2.6328 | 0.1437 | 0.0292 | 0.2756 | -0.2466 | 0.5951 |
| 49 | 34.82 | 0.10 | 5.2705 | 2.9455 | 1.2330 | -2.4266 | 0.1374 | -0.0017 | 0.2787 | -0.2804 | 0.5485 |
| 50 | 35.06 | 0.08 | 5.3260 | 3.1625 | 0.9532 | -2.2210 | 0.1374 | -0.0075 | 0.2711 | -0.2786 | 0.5833 |
| 51 | 35.29 | 0.06 | 5.4440 | 3.3242 | 0.6265 | -1.8721 | 0.0973 | -0.0015 | 0.2660 | -0.2675 | 0.6106 |
| 52 | 35.53 | 0.06 | 5.5035 | 3.1342 | 0.5785 | -1.5578 | 0.0778 | -0.0515 | 0.2627 | -0.3143 | 0.5622 |
| 53 | 35.78 | 0.04 | 5.6435 | 3.3378 | 0.3771 | -1.6161 | 0.0246 | -0.0857 | 0.2542 | -0.3200 | 0.5914 |
| 54 | 36.02 | 0.04 | 5.7483 | 3.4510 | 0.3915 | -0.7813 | 0.0513 | -0.0021 | 0.2503 | -0.3165 | 0.5569 |
| 55 | 36.24 | 0.03 | 5.8201 | 3.3321 | 0.2694 | -0.4055 | 0.0116 | -0.0832 | 0.2542 | -0.3375 | 0.5725 |
| 56 | 36.48 | 0.03 | 5.8858 | 3.4551 | 0.1285 | 0.0705 | -0.0157 | -0.0707 | 0.2546 | -0.3314 | 0.5940 |
| 57 | 36.72 | 0.02 | 6.0584 | 3.5726 | 0.0454 | 0.0838 | 0.0049 | -0.1294 | 0.2508 | -0.3802 | 0.5567 |
| 58 | 36.93 | 0.04 | 6.0696 | 3.5640 | 0.2627 | -0.1631 | 0.0103 | -0.1029 | 0.2546 | -0.3575 | 0.5447 |
| 59 | 37.20 | 0.03 | 6.1574 | 3.4268 | 0.1622 | -0.0845 | 0.0059 | -0.1312 | 0.2529 | -0.3841 | 0.5529 |
| 60 | 37.41 | 0.03 | 6.2481 | 3.4157 | 0.2387 | -0.2154 | 0.0195 | -0.1358 | 0.2512 | -0.3870 | 0.5508 |
| 61 | 37.65 | 0.04 | 6.3745 | 3.3694 | 0.3494 | -0.6176 | 0.0403 | -0.1575 | 0.2529 | -0.4104 | 0.5286 |
| 62 | 37.90 | 0.04 | 6.4966 | 3.2729 | 0.4535 | -0.9348 | 0.0305 | -0.1547 | 0.2541 | -0.4068 | 0.5038 |
| 63 | 38.12 | 0.04 | 6.5162 | 3.3105 | 0.5736 | -1.0252 | 0.0340 | -0.1546 | 0.2563 | -0.4109 | 0.5086 |
| 64 | 38.37 | 0.05 | 6.5545 | 3.3725 | 0.7196 | -1.1734 | 0.1077 | -0.1498 | 0.2589 | -0.4067 | 0.5145 |
| 65 | 38.60 | 0.04 | 6.6228 | 3.2251 | 0.4715 | -0.7106 | 0.0675 | -0.1692 | 0.2546 | -0.4438 | 0.4876 |
| 66 | 38.83 | 0.04 | 6.7331 | 3.2461 | 0.3624 | -0.5372 | 0.0580 | -0.1965 | 0.2534 | -0.4519 | 0.4765 |
| 67 | 39.04 | 0.02 | 6.8421 | 3.2658 | 0.2186 | -0.2890 | 0.0077 | -0.2023 | 0.2564 | -0.4607 | 0.4685 |
| 68 | 39.26 | 0.05 | 6.9477 | 3.2571 | 0.6220 | -0.8002 | 0.0950 | -0.1949 | 0.2677 | -0.4621 | 0.4746 |
| 69 | 39.45 | 0.03 | 6.9566 | 3.2284 | 0.3552 | 0.1665 | 0.0004 | -0.2185 | 0.2618 | -0.4803 | 0.4614 |
| 70 | 39.70 | 0.03 | 7.1011 | 3.0182 | 0.2034 | 0.2695 | 0.0797 | -0.2514 | 0.2677 | -0.5192 | 0.4214 |
| 71 | 39.92 | 0.00 | 7.2653 | 2.9846 | 0.0365 | 0.7374 | 0.0524 | -0.2654 | 0.2665 | -0.5320 | 0.4106 |
| 72 | 40.11 | 0.02 | 7.2467 | 2.9552 | 0.2356 | 0.2603 | 0.0004 | -0.2460 | 0.2643 | -0.5124 | 0.4077 |
| 73 | 40.34 | 0.02 | 7.4455 | 2.9895 | 0.1556 | 0.6525 | 0.0530 | -0.2873 | 0.2664 | -0.5538 | 0.4014 |
| 74 | 40.56 | 0.03 | 7.5579 | 2.8568 | 0.3e50 | 0.4677 | 0.0955 | -0.2906 | 0.2698 | -0.5604 | 0.3760 |
| 75 | 40.75 | 0.02 | 7.5162 | 2.8442 | 0.2774 | 0.5486 | 0.0535 | -0.2943 | 0.2623 | -0.5566 | 0.3783 |
| 76 | 40.97 | 0.01 | 7.5263 | 2.9231 | 0.2287 | 0.4038 | 0.0742 | -0.2817 | 0.2677 | -0.5495 | 0.3865 |
| 77 | 41.16 | 0.00 | 7.6454 | 2.8454 | 0.1324 | 0.4142 | 0.0369 | -0.3186 | 0.2580 | -0.5766 | 0.3720 |
| 78 | 41.37 | 0.02 | 7.7000 | 2.7363 | 0.3137 | 0.4305 | 0.0547 | -0.3382 | 0.2648 | -0.6030 | 0.3514 |
| 79 | 41.63 | 0.01 | 7.7758 | 2.7753 | 0.2592 | 0.0546 | 0.0388 | -0.3326 | 0.2608 | -0.5932 | 0.3572 |
| 80 | 41.82 | -0.01 | 7.6356 | 2.7536 | -0.0784 | 0.3554 | -0.0260 | -0.3502 | 0.2614 | -0.6196 | 0.3468 |
| 81 | 42.01 | 0.01 | 7.9555 | 2.8056 | 0.2126 | 0.6315 | 0.0660 | -0.3261 | 0.2737 | -0.5998 | 0.3378 |
| 82 | 42.21 | 0.00 | 8.0562 | 2.8014 | 0.1e05 | 0.1414 | 0.0112 | -0.3511 | 0.2648 | -0.6159 | 0.3266 |
| 83 | 42.44 | 0.01 | 8.1219 | 2.4951 | 0.0e54 | 0.8101 | 0.0755 | -0.3769 | 0.2673 | -0.6438 | 0.3097 |
| 84 | 42.64 | 0.02 | 8.1967 | 2.5052 | 0.3e16 | 0.2558 | 0.0578 | -0.3e37 | 0.2720 | -0.6365 | 0.3134 |
| 85 | 42.80 | 0.01 | 8.2586 | 2.5e81 | 0.2800 | 0.3086 | 0.0511 | -0.3735 | 0.2669 | -0.6406 | 0.3141 |
| 86 | 42.99 | 0.03 | 8.3627 | 2.5055 | 0.3e03 | 0.5238 | 0.0702 | -0.3792 | 0.2741 | -0.6533 | 0.2996 |
| 87 | 43.16 | 0.00 | 8.5091 | 2.4446 | 0.1227 | 0.5037 | 0.0450 | -0.3666 | 0.2885 | -0.6752 | 0.2873 |
| 88 | 43.34 | 0.00 | 8.4929 | 2.5055 | 0.1e6e | 0.6250 | 0.0403 | -0.3914 | 0.2719 | -0.6633 | 0.2955 |
| 89 | 43.53 | 0.00 | 8.5540 | 2.5230 | 0.1788 | 0.7500 | 0.0966 | -0.3849 | 0.2889 | -0.6730 | 0.2998 |
| 90 | 43.72 | -0.01 | 8.7357 | 2.5e78 | 0.2e48 | -0.4597 | 0.0422 | -0.4210 | 0.2757 | -0.6968 | 0.2733 |
| 91 | 43.90 | 0.02 | 8.6461 | 2.3521 | 0.4612 | -0.4835 | 0.0684 | -0.3985 | 0.2779 | -0.6765 | 0.2766 |
| 92 | 44.07 | 0.01 | 8.7522 | 2.2008 | 0.3119 | -0.3809 | 0.0464 | -0.4198 | 0.2842 | -0.6951 | 0.2578 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 115 MACH 0.90 RXIO-6 1.7 PHI 0.0 BIBOPSI CCRF 0.0 L DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.26 | 0.01 | 8.9378 | 2.3122 | C.2651 | -C.1876 | 0.0753 | -0.4044 | 0.2638 | -0.6883 | 0.2587 |
| 94 | 44.46 | 0.01 | 9.0514 | 2.3350 | C.2467 | C.1578 | 0.0677 | -0.4316 | 0.2868 | -0.7185 | 0.2580 |
| 95 | 44.63 | C.01 | 9.0491 | 2.1810 | C.3642 | -C.7322 | 0.0699 | -0.4445 | 0.2858 | -0.7304 | 0.2410 |
| 96 | 44.81 | 0.01 | 9.0560 | 2.2052 | C.4696 | -0.2300 | 0.0750 | -0.4436 | 0.2870 | -0.7315 | 0.2512 |
| 97 | 45.00 | -0.01 | 9.2455 | 2.2655 | C.2451 | -C.5208 | 0.0442 | -0.4478 | 0.2914 | -0.7392 | 0.2455 |
| 98 | 45.19 | 0.02 | 9.3487 | 2.1061 | C.7034 | -1.0320 | 0.0051 | -0.4573 | 0.3012 | -0.7505 | 0.2256 |
| 99 | 45.36 | 0.02 | 9.3445 | 2.0127 | C.4354 | 0.4383 | 0.0934 | -0.4526 | 0.3021 | -0.7547 | 0.2154 |
| 100 | 45.54 | -0.02 | 9.4702 | 2.0257 | -C.1723 | 1.3073 | 0.0711 | -0.4320 | 0.3076 | -0.7596 | 0.2139 |
| 101 | 45.73 | 0.01 | 9.5424 | 2.1185 | C.3564 | C.4365 | 0.0883 | -0.4506 | 0.3081 | -0.7589 | 0.2218 |
| 102 | 45.89 | 0.00 | 9.4470 | 1.9994 | C.4249 | -C.5502 | 0.0584 | -0.4571 | 0.3038 | -0.7605 | C.2105 |
| 103 | 46.06 | 0.02 | 9.7130 | 2.0385 | C.6163 | -1.0653 | 0.0595 | -0.4769 | 0.3093 | -0.7862 | 0.2056 |
| 104 | 46.24 | 0.06 | 9.7616 | 1.9372 | C.5116 | 0.1707 | 0.0835 | -0.4816 | 0.3119 | -0.7934 | 0.1985 |
| 105 | 46.41 | -0.03 | 9.7828 | 1.8751 | -0.0588 | 0.2408 | 0.0640 | -0.4770 | 0.3177 | -0.7947 | 0.1921 |
| 106 | 46.59 | 0.02 | 9.9363 | 1.8253 | C.3645 | C.8756 | 0.0611 | -0.5052 | 0.3196 | -0.8207 | 0.1841 |
| 107 | 46.77 | -0.01 | 9.8642 | 1.7452 | C.2185 | C.1899 | 0.0538 | -0.5045 | 0.3122 | -0.8166 | C.1773 |
| 108 | 46.94 | 0.02 | 9.9544 | 1.8378 | C.4733 | C.2883 | 0.0503 | -0.4912 | 0.3135 | -0.8040 | 0.1846 |
| 109 | 47.12 | -0.00 | 10.0474 | 1.8185 | C.3366 | -C.8095 | 0.0869 | -0.4976 | 0.3139 | -0.8116 | 0.1808 |
| 110 | 47.30 | 0.01 | 10.1542 | 1.8285 | C.4657 | -C.4522 | 0.0478 | -0.5191 | 0.3152 | -0.8342 | C.1852 |
| 111 | 47.47 | -0.00 | 10.1224 | 1.6853 | C.3645 | -C.1292 | 0.0464 | -0.4837 | 0.3241 | -0.8077 | 0.1945 |
| 112 | 47.64 | 0.01 | 10.2483 | 1.7171 | C.4446 | C.3416 | 0.0514 | -0.5071 | 0.3238 | -0.8308 | 0.1871 |
| 113 | 47.81 | -0.01 | 10.3971 | 1.8527 | C.2884 | -C.3445 | 0.0942 | -0.5193 | 0.3267 | -0.8459 | C.1762 |
| 114 | 48.00 | 0.02 | 10.4926 | 1.8004 | C.4555 | C.7330 | 0.0760 | -0.4970 | 0.3340 | -0.8309 | C.1762 |
| 115 | 48.17 | 0.03 | 10.4715 | 1.6706 | C.7306 | -C.4766 | 0.0945 | -0.5064 | 0.3276 | -0.8339 | C.1882 |
| 116 | 48.33 | -0.00 | 10.4755 | 1.8521 | C.1794 | 1.3548 | 0.0884 | -0.4781 | 0.3432 | -0.8213 | 0.1768 |
| 117 | 48.52 | 0.03 | 10.6201 | 1.8748 | C.6746 | C.6769 | 0.1035 | -0.4943 | 0.3508 | -0.8456 | 0.1577 |
| 118 | 48.67 | 0.03 | 10.6424 | 1.7034 | C.5256 | 1.3015 | 0.1016 | -0.4722 | 0.3540 | -0.8262 | 0.1676 |
| 119 | 48.86 | 0.02 | 10.8563 | 1.4461 | C.3140 | 2.0858 | 0.0598 | -0.4991 | 0.3705 | -0.8696 | 0.1326 |
| 120 | 49.03 | 0.02 | 10.6661 | 1.4081 | C.3305 | 1.8627 | 0.0541 | -0.5070 | 0.3739 | -0.8809 | 0.1294 |
| 121 | 49.19 | 0.02 | 10.5769 | 1.3671 | C.3531 | 2.3126 | 0.0395 | -0.5182 | 0.3812 | -0.8994 | C.1245 |
| 122 | 49.36 | 0.03 | 11.0715 | C.8951 | C.2363 | 3.0445 | 0.0016 | -0.4825 | 0.4114 | -0.8969 | 0.0776 |
| 123 | 49.56 | 0.00 | 11.3456 | C.4256 | -C.0025 | 3.2830 | -0.0157 | -0.5466 | 0.4407 | -0.9875 | C.0375 |
| 124 | 49.74 | 0.03 | 11.4741 | -0.2571 | C.2525 | 3.0378 | -0.0515 | -0.5240 | 0.4435 | -0.9645 | -0.0259 |
| 125 | 49.91 | 0.00 | 11.6646 | -C.0368 | C.5735 | 3.3367 | -0.0565 | -0.6015 | 0.4435 | -1.0454 | -0.0546 |
| 126 | 50.08 | 0.03 | 11.6937 | -C.3947 | C.8266 | 3.1947 | -0.0421 | -0.5811 | 0.4497 | -1.0108 | -0.0509 |
| 127 | 50.29 | 0.04 | 12.1501 | -1.7557 | C.2566 | 4.4868 | -0.0663 | -0.6269 | 0.4501 | -1.0831 | -0.1445 |
| 128 | 50.48 | 0.06 | 12.4137 | -2.1034 | C.4222 | 4.5601 | 0.0556 | -0.5877 | 0.4635 | -1.0914 | -0.1688 |
| 129 | 50.65 | 0.06 | 12.5843 | -2.0226 | C.8054 | 3.7038 | 0.1156 | -0.5023 | 0.5173 | -1.0195 | -0.1607 |
| 130 | 50.83 | 0.05 | 12.6166 | -2.4459 | C.4914 | 4.5347 | 0.0281 | -0.4877 | 0.5295 | -0.9970 | -0.1753 |
| 131 | 51.00 | 0.11 | 12.6538 | -2.2481 | 1.2521 | 2.9056 | 0.1125 | -0.4516 | 0.5241 | -0.9759 | -0.1749 |
| 132 | 51.18 | C.10 | 13.0014 | -2.5014 | C.5176 | 4.2551 | 0.0091 | -0.4821 | 0.5583 | -1.0403 | -0.1917 |
| 133 | 51.34 | 0.08 | 13.0052 | -2.5436 | 0.7142 | 4.7227 | -0.0120 | -0.4591 | 0.5630 | -1.0221 | -0.1963 |
| 134 | 51.51 | 0.06 | 13.2650 | -2.8017 | C.4035 | 4.7361 | -0.1107 | -0.4503 | 0.5665 | -1.0168 | -0.2122 |
| 135 | 51.68 | 0.04 | 13.2485 | -2.8134 | C.2431 | 5.0933 | -0.1115 | -0.4566 | 0.5642 | -1.0008 | -0.1973 |
| 136 | 51.85 | 0.04 | 13.3043 | -2.8152 | C.2566 | 4.8394 | -0.2025 | -0.5275 | 0.5557 | -1.0832 | -0.2108 |
| 137 | 52.03 | C.06 | 13.6049 | -3.1823 | C.4868 | 4.0533 | -0.1950 | -0.5161 | 0.5659 | -1.0820 | -0.2339 |
| 138 | 52.19 | 0.03 | 13.5084 | -3.0358 | C.1758 | 4.3652 | -0.1939 | -0.5267 | 0.5556 | -1.0823 | -0.2250 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN PASSALE TAILS EFFECTS DATA

TEST 7 | PART 119 | MACH 0.90 | RNIG-6 1.7 | PHI 0.0 | CONF BIBLIOG31 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | LA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.37 | 0.04 | 13.7844 | -3.4626 | 0.5012 | 3.5187 | -0.1737 | -0.4978 | 0.5723 | -1.0701 | -0.2515 |
| 140 | 52.54 | 0.07 | 13.7417 | -3.4654 | 0.7252 | 3.6049 | -0.1777 | -0.4870 | 0.5730 | -1.0599 | -0.2481 |
| 141 | 52.71 | 0.05 | 13.9232 | -3.4757 | 0.5630 | 3.5152 | -0.1772 | -0.5033 | 0.5646 | -1.0679 | -0.2453 |
| 142 | 52.88 | 0.06 | 13.9701 | -3.4883 | 0.7000 | 3.4363 | -0.1762 | -0.4916 | 0.5434 | -1.0855 | -0.2497 |
| 143 | 53.06 | 0.08 | 13.9746 | -3.4842 | 0.8048 | 3.4744 | -0.1732 | -0.5055 | 0.5526 | -1.0981 | -0.2579 |
| 144 | 53.22 | 0.06 | 14.0159 | -3.5797 | 0.7066 | 3.1653 | -0.1679 | -0.4829 | 0.5550 | -1.0779 | -0.2554 |
| 145 | 53.39 | 0.08 | 14.1355 | -3.6285 | 0.7385 | 3.2576 | -0.1662 | -0.5155 | 0.6036 | -1.1191 | -0.2610 |
| 146 | 53.55 | 0.06 | 14.1127 | -3.5877 | 0.6843 | 3.0314 | -0.1759 | -0.4867 | 0.6034 | -1.0901 | -0.2528 |
| 147 | 53.73 | 0.07 | 14.1257 | -3.5956 | 0.9211 | 2.7499 | -0.1660 | -0.4999 | 0.6047 | -1.1046 | -0.2510 |
| 148 | 53.80 | 0.06 | 14.1607 | -3.6832 | 0.7015 | 2.9399 | -0.1660 | -0.4842 | 0.6147 | -1.0790 | -0.2587 |
| 149 | 54.04 | 0.05 | 14.2147 | -3.6826 | 0.6635 | 2.6736 | -0.1577 | -0.4821 | 0.6157 | -1.0978 | -0.2591 |
| 150 | 54.20 | 0.06 | 14.2520 | -3.7010 | 0.7052 | 2.9119 | -0.1591 | -0.4983 | 0.6174 | -1.1157 | -0.2639 |
| 151 | 54.35 | 0.06 | 14.1871 | -3.5331 | 0.6587 | 2.5457 | -0.1244 | -0.4948 | 0.6166 | -1.1116 | -0.2690 |
| 152 | 54.51 | 0.06 | 14.2761 | -3.6036 | 0.7240 | 2.5166 | -0.1504 | -0.4882 | 0.6270 | -1.1158 | -0.2565 |
| 153 | 54.67 | 0.07 | 14.2158 | -3.6752 | 0.8185 | 2.1935 | -0.1229 | -0.4824 | 0.6266 | -1.1092 | -0.2585 |
| 154 | 54.82 | 0.05 | 14.2164 | -3.5817 | 1.0474 | 2.0549 | -0.1227 | -0.4717 | 0.6249 | -1.0967 | -0.2519 |
| 155 | 54.98 | 0.06 | 14.2167 | -3.4857 | 0.7801 | 2.2640 | -0.1163 | -0.4714 | 0.6283 | -1.0958 | -0.2451 |
| 156 | 55.13 | 0.04 | 14.2921 | -3.6196 | 0.5115 | 2.1723 | -0.1216 | -0.4924 | 0.6209 | -1.1153 | -0.2529 |
| 157 | 55.29 | 0.05 | 14.3586 | -3.6076 | 0.6254 | 2.2558 | -0.1222 | -0.4924 | 0.6324 | -1.1248 | -0.2505 |
| 158 | 55.43 | 0.06 | 14.3534 | -3.6466 | 0.7466 | 1.9636 | -0.0965 | -0.4937 | 0.6347 | -1.1284 | -0.2541 |
| 159 | 55.59 | 0.08 | 14.4112 | -3.5057 | 1.0425 | 1.7113 | -0.0941 | -0.4637 | 0.6451 | -1.1089 | -0.2433 |
| 160 | 55.75 | 0.06 | 14.3634 | -3.4751 | 0.8381 | 1.8052 | -0.0809 | -0.4747 | 0.6409 | -1.1157 | -0.2419 |
| 161 | 55.91 | 0.05 | 14.4654 | -3.4611 | 0.7728 | 1.8094 | -0.0867 | -0.4949 | 0.6477 | -1.1426 | -0.2393 |
| 162 | 56.06 | 0.05 | 14.4620 | -3.5261 | 0.7571 | 1.5700 | -0.0800 | -0.5089 | 0.6472 | -1.1561 | -0.2437 |
| 163 | 56.22 | 0.06 | 14.4670 | -3.5555 | 1.1718 | 1.5715 | -0.0613 | -0.5188 | 0.6638 | -1.1796 | -0.2461 |
| 164 | 56.37 | 0.05 | 14.4585 | -3.5674 | 0.8727 | 1.1605 | -0.0522 | -0.4853 | 0.6614 | -1.1467 | -0.2343 |
| 165 | 56.53 | 0.04 | 14.4664 | -3.5287 | 0.6406 | 1.4835 | -0.0266 | -0.4807 | 0.6686 | -1.1494 | -0.2440 |
| 166 | 56.68 | 0.06 | 14.4495 | -3.5324 | 0.7965 | 1.1584 | -0.0125 | -0.5036 | 0.6714 | -1.1750 | -0.2306 |
| 167 | 56.84 | 0.07 | 14.4855 | -3.4535 | 0.5786 | 1.0829 | 0.0008 | -0.4971 | 0.6736 | -1.1767 | -0.2384 |
| 168 | 56.99 | 0.04 | 14.5076 | -3.4661 | 0.6502 | 1.1465 | 0.0021 | -0.4984 | 0.6839 | -1.1822 | -0.2389 |
| 169 | 57.14 | 0.05 | 14.5376 | -3.4355 | 0.7357 | 1.2525 | -0.0126 | -0.5282 | 0.6836 | -1.2117 | -0.2368 |
| 170 | 57.28 | 0.06 | 14.4977 | -3.4456 | 0.6916 | 1.2695 | 0.0062 | -0.5310 | 0.6841 | -1.2150 | -0.2394 |
| 171 | 57.43 | 0.06 | 14.5479 | -3.5447 | 0.8530 | 1.0596 | 0.0271 | -0.5269 | 0.6853 | -1.2161 | -0.2437 |
| 172 | 57.59 | 0.04 | 14.6449 | -3.5767 | 0.4837 | 1.1349 | 0.0539 | -0.5566 | 0.6859 | -1.2464 | -0.2306 |
| 173 | 57.73 | 0.00 | 14.5240 | -3.4156 | 0.3059 | 0.8841 | 0.0291 | -0.5660 | 0.6857 | -1.2516 | -0.2148 |
| 174 | 57.89 | -0.02 | 14.7020 | -2.8356 | 0.1704 | -0.0415 | 0.0080 | -0.6704 | 0.6719 | -1.3424 | -0.1589 |
| 175 | 58.03 | -0.04 | 14.5456 | -2.7166 | -0.0054 | -0.3564 | -0.0112 | -0.6578 | 0.6433 | -1.3012 | -0.1455 |
| 176 | 58.17 | -0.05 | 14.5021 | -2.6257 | -0.4215 | -0.9125 | -0.0308 | -0.6316 | 0.6544 | -1.2661 | -0.1489 |
| 177 | 58.33 | -0.10 | 14.6543 | -2.8486 | -0.6356 | -1.0495 | -0.0371 | -0.5992 | 0.6779 | -1.2771 | -0.1538 |
| 178 | 58.48 | -0.06 | 14.8539 | -3.0365 | -0.1133 | -1.2599 | -0.0297 | -0.5713 | 0.7062 | -1.2775 | -0.2383 |
| 179 | 58.48 | -0.07 | 14.7128 | -3.3641 | -0.2612 | -1.1981 | -0.0302 | -0.5950 | 0.6937 | -1.2887 | -0.2287 |
| 180 | 58.48 | -0.09 | 14.7078 | -3.4061 | -0.4263 | -1.4153 | -0.0431 | -0.5763 | 0.6928 | -1.2711 | -0.2221 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 11? PACF 0.50 RXIO=E 1.7 PHI 0.0 CONF 81?0F31 E 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.56 | 0.02 | -0.0057 | 0.0006 | 0.0037 | -0.0625 | -0.3814 | -1.1109 | -0.0194 | -0.4687 | 0.0175 | 0.4215 |
| 2 | -5.55 | 0.03 | -0.0066 | 0.0062 | 0.0045 | -0.0630 | -0.7469 | -1.1076 | -0.0202 | -0.4674 | 0.0183 | 0.4218 |
| 3 | -5.56 | 0.02 | -0.0112 | 0.0011 | 0.0035 | -0.0562 | -0.3482 | -1.1197 | -0.0206 | -0.4720 | 0.0184 | 0.4215 |
| 4 | -5.56 | 0.03 | -0.0111 | 0.0005 | 0.0033 | -0.0611 | -0.2973 | -1.1245 | -0.0197 | -0.4738 | 0.0176 | 0.4213 |
| 5 | -5.64 | 0.03 | -0.0073 | 0.0024 | 0.0050 | -0.0288 | -0.6849 | -1.1007 | -0.0228 | -0.4651 | 0.0208 | 0.4225 |
| 6 | -3.98 | 0.03 | -0.0019 | 0.0029 | 0.0001 | -1.0032 | -3.2105 | -1.1220 | -0.0292 | -0.4502 | 0.0260 | 0.4366 |
| 7 | -2.35 | 0.03 | -0.0066 | 0.0006 | 0.0033 | -0.0682 | -0.4853 | -1.1123 | -0.0183 | -0.4982 | 0.0165 | 0.4475 |
| 8 | -0.64 | 0.02 | -0.0022 | 0.0014 | 0.0043 | -0.0304 | -1.9545 | -1.0503 | -0.0097 | -0.4756 | 0.0093 | 0.4528 |
| 9 | 1.07 | 0.02 | -0.0035 | 0.0004 | 0.0030 | -0.1026 | -0.7692 | -0.9720 | -0.0081 | -0.4487 | 0.0084 | 0.4616 |
| 10 | 2.85 | 0.02 | -0.0019 | 0.0005 | 0.0032 | -0.2052 | -1.6042 | -0.8693 | -0.0130 | -0.4123 | 0.0115 | 0.4744 |
| 11 | 4.57 | 0.03 | 0.0021 | 0.0005 | 0.0051 | 0.2331 | 2.4286 | -0.7736 | -0.0098 | -0.3718 | 0.0127 | 0.4806 |
| 12 | 6.34 | 0.02 | -0.0027 | 0.0006 | 0.0049 | -0.2222 | -1.5926 | -0.6776 | -0.0107 | -0.3329 | 0.0158 | 0.4913 |
| 13 | 8.15 | 0.03 | -0.0071 | 0.0006 | 0.0057 | -0.0845 | -0.6026 | -0.5696 | -0.0105 | -0.2858 | 0.0185 | 0.5016 |
| 14 | 9.89 | 0.03 | -0.0101 | 0.0004 | 0.0060 | -0.0390 | -0.7921 | -0.4806 | -0.0103 | -0.2420 | 0.0212 | 0.4573 |
| 15 | 11.76 | 0.02 | -0.0153 | -0.0001 | 0.0049 | 0.0065 | -0.3205 | -0.4004 | -0.0092 | -0.2015 | 0.0230 | 0.5033 |
| 16 | 13.55 | 0.03 | -0.0242 | 0.0003 | 0.0048 | -0.0149 | -0.2376 | -0.3203 | -0.0085 | -0.1627 | 0.0266 | 0.5081 |
| 17 | 15.43 | 0.03 | -0.0182 | 0.0002 | 0.0053 | -0.0110 | -0.2912 | -0.2311 | -0.0074 | -0.1205 | 0.0321 | 0.5217 |
| 18 | 17.35 | 0.03 | -0.0256 | -0.0004 | 0.0038 | 0.0101 | -0.1526 | -0.1636 | -0.0071 | -0.0899 | 0.0435 | 0.5463 |
| 19 | 19.23 | 0.03 | -0.0232 | -0.0001 | 0.0075 | 0.0043 | -0.3147 | -0.0929 | -0.0046 | -0.0562 | 0.0496 | 0.6052 |
| 20 | 21.12 | 0.04 | -0.0341 | -0.0008 | 0.0110 | 0.0285 | -0.3235 | -0.0461 | -0.0012 | -0.0341 | 0.0261 | 0.7391 |
| 21 | 23.02 | 0.02 | -0.0443 | -0.0015 | 0.0038 | 0.0339 | -0.3860 | -0.0124 | 0.0034 | -0.0201 | -0.2742 | 1.6210 |
| 22 | 24.88 | 0.03 | 0.0075 | 0.0019 | 0.0218 | 0.2953 | 2.9367 | 0.0278 | 0.0053 | -0.0063 | 0.3357 | -0.2274 |
| 23 | 26.79 | 0.04 | 0.0215 | 0.0041 | 0.0201 | 0.1672 | 0.9176 | 0.0542 | 0.0189 | 0.0006 | 0.3454 | 0.0148 |
| 24 | 28.17 | 0.07 | 0.0761 | 0.0057 | 0.0450 | 0.0751 | 0.5916 | 0.0783 | 0.0254 | 0.0105 | 0.3239 | 0.1344 |
| 25 | 28.21 | 0.06 | 0.1226 | 0.0067 | 0.0653 | 0.0547 | 0.5645 | 0.0904 | 0.0261 | 0.0156 | 0.2882 | 0.1725 |
| 26 | 28.02 | 0.09 | 0.1548 | 0.0100 | 0.0847 | 0.0648 | 0.5476 | 0.1039 | 0.0269 | 0.0189 | 0.2584 | 0.1823 |
| 27 | 28.85 | 0.08 | 0.1617 | 0.0095 | 0.0895 | 0.0613 | 0.5558 | 0.1068 | 0.0273 | 0.0210 | 0.2552 | 0.1876 |
| 28 | 29.16 | 0.07 | 0.0705 | 0.0061 | 0.0503 | 0.1130 | 0.7090 | 0.0937 | 0.0281 | 0.0145 | 0.2995 | 0.1551 |
| 29 | 29.50 | 0.07 | 0.0705 | 0.0059 | 0.0507 | 0.1406 | 0.7168 | 0.0921 | 0.0285 | 0.0141 | 0.3090 | 0.1534 |
| 30 | 29.80 | 0.09 | 0.0826 | 0.0102 | 0.0550 | 0.1438 | 0.6003 | 0.0987 | 0.0293 | 0.0163 | 0.2964 | 0.1655 |
| 31 | 30.07 | 0.08 | 0.1592 | 0.0166 | 0.0891 | 0.1045 | 0.5595 | 0.1075 | 0.0305 | 0.0205 | 0.2833 | 0.1911 |
| 32 | 30.33 | 0.11 | 0.2255 | 0.0238 | 0.1153 | 0.1058 | 0.5116 | 0.1225 | 0.0313 | 0.0265 | 0.2553 | 0.2160 |
| 33 | 30.62 | 0.09 | 0.1945 | 0.0183 | 0.1016 | 0.0943 | 0.5224 | 0.1209 | 0.0312 | 0.0270 | 0.2577 | 0.2229 |
| 34 | 30.91 | 0.10 | 0.2095 | 0.0205 | 0.1143 | 0.1263 | 0.4978 | 0.1341 | 0.0332 | 0.0322 | 0.2474 | 0.2395 |
| 35 | 31.17 | 0.11 | 0.2110 | 0.0208 | 0.1161 | 0.1268 | 0.5026 | 0.1379 | 0.0339 | 0.0351 | 0.2456 | 0.2544 |
| 36 | 31.45 | 0.11 | 0.2165 | 0.0238 | 0.1168 | 0.1099 | 0.4979 | 0.1446 | 0.0342 | 0.0384 | 0.2363 | 0.2654 |
| 37 | 31.73 | 0.09 | 0.1612 | 0.0254 | 0.0752 | 0.1821 | 0.4910 | 0.1335 | 0.0361 | 0.0334 | 0.2703 | 0.2500 |
| 38 | 31.98 | 0.10 | 0.1820 | 0.0276 | 0.0914 | 0.1481 | 0.5011 | 0.1447 | 0.0366 | 0.0390 | 0.2528 | 0.2694 |
| 39 | 32.27 | 0.10 | 0.1818 | 0.0310 | 0.0933 | 0.1513 | 0.5146 | 0.1467 | 0.0378 | 0.0393 | 0.2575 | 0.2678 |
| 40 | 32.52 | 0.10 | 0.1557 | 0.0245 | 0.0817 | 0.1540 | 0.5245 | 0.1514 | 0.0381 | 0.0425 | 0.2515 | 0.2806 |
| 41 | 32.79 | 0.12 | 0.1833 | 0.0306 | 0.0922 | 0.1668 | 0.5030 | 0.1637 | 0.0385 | 0.0482 | 0.2350 | 0.2944 |
| 42 | 33.07 | 0.13 | 0.2063 | 0.0322 | 0.1145 | 0.1255 | 0.4984 | 0.1942 | 0.0386 | 0.0626 | 0.1987 | 0.3225 |
| 43 | 33.31 | 0.13 | 0.2776 | 0.0328 | 0.1282 | 0.1176 | 0.4969 | 0.2049 | 0.0381 | 0.0683 | 0.1898 | 0.3335 |
| 44 | 33.56 | 0.13 | 0.2658 | 0.0345 | 0.1238 | 0.1312 | 0.4955 | 0.2052 | 0.0394 | 0.0680 | 0.1943 | 0.3315 |
| 45 | 33.82 | 0.14 | 0.3023 | 0.0342 | 0.1378 | 0.1130 | 0.4551 | 0.2190 | 0.0394 | 0.0749 | 0.1798 | 0.3417 |
| 46 | 34.08 | 0.12 | 0.2546 | 0.0331 | 0.1334 | 0.1124 | 0.4527 | 0.2198 | 0.0393 | 0.0765 | 0.1787 | 0.3478 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

MANTA MISSILE TAILS EFFECTS DATA

TEST 7 PART 11W M=0.90 R*1E-6 1.7 PHI 0.0 CONF H1B0DY81 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.32 | 0.11 | 0.2745 | 0.0245 | 0.1276 | 0.0891 | 0.4658 | 0.2117 | 0.0408 | 0.0736 | 0.1926 | 0.3474 |
| 48 | 34.36 | 0.11 | 0.2763 | 0.0254 | 0.1266 | 0.0926 | 0.4586 | 0.2132 | 0.0405 | 0.0746 | 0.1917 | 0.3496 |
| 49 | 34.82 | 0.10 | 0.2550 | 0.0155 | 0.1193 | 0.0782 | 0.4680 | 0.2193 | 0.0409 | 0.0770 | 0.1864 | 0.3508 |
| 50 | 35.06 | 0.08 | 0.2361 | 0.0144 | 0.1145 | 0.0811 | 0.4866 | 0.2117 | 0.0407 | 0.0742 | 0.1921 | 0.3562 |
| 51 | 35.29 | 0.06 | 0.1725 | 0.0041 | 0.0865 | 0.0236 | 0.5015 | 0.2137 | 0.0390 | 0.0742 | 0.1824 | 0.3469 |
| 52 | 35.33 | 0.06 | 0.1482 | 0.0041 | 0.0774 | 0.0277 | 0.5220 | 0.2100 | 0.0387 | 0.0757 | 0.1832 | 0.3492 |
| 53 | 35.78 | 0.04 | 0.0568 | -0.0016 | 0.0316 | -0.0302 | 0.5276 | 0.2170 | 0.0382 | 0.0756 | 0.1759 | 0.3481 |
| 54 | 36.02 | 0.04 | 0.0564 | 0.0022 | 0.0353 | 0.0224 | 0.5521 | 0.2228 | 0.0396 | 0.0777 | 0.1777 | 0.3486 |
| 55 | 36.24 | 0.03 | -0.0001 | -0.0031 | 0.0051 | 31.0000 | -51.0000 | 0.2222 | 0.0391 | 0.0776 | 0.1759 | 0.3491 |
| 56 | 36.46 | 0.03 | -0.0356 | -0.0002 | -0.0115 | 0.0056 | 0.5353 | 0.2058 | 0.0402 | 0.0699 | 0.1952 | 0.3398 |
| 57 | 36.72 | 0.02 | -0.0036 | 0.0005 | -0.0072 | -0.0210 | 0.5025 | 0.2225 | 0.0407 | 0.0769 | 0.1829 | 0.3455 |
| 58 | 36.93 | 0.04 | 0.0168 | 0.0022 | 0.0122 | 0.2037 | 1.1290 | 0.2238 | 0.0418 | 0.0771 | 0.1807 | 0.3444 |
| 59 | 37.20 | 0.03 | 0.0166 | 0.0016 | 0.0081 | 0.1606 | 0.8100 | 0.2315 | 0.0414 | 0.0808 | 0.1788 | 0.3489 |
| 60 | 37.41 | 0.03 | 0.0436 | 0.0024 | 0.0259 | 0.0554 | 0.5874 | 0.2437 | 0.0413 | 0.0858 | 0.1694 | 0.3520 |
| 61 | 37.65 | 0.04 | 0.0535 | 0.0034 | 0.0324 | 0.0632 | 0.6004 | 0.2434 | 0.0424 | 0.0852 | 0.1741 | 0.3455 |
| 62 | 37.90 | 0.04 | 0.1165 | 0.0078 | 0.0636 | 0.0857 | 0.5508 | 0.2598 | 0.0436 | 0.0932 | 0.1685 | 0.3587 |
| 63 | 38.12 | 0.04 | 0.1383 | 0.0078 | 0.0727 | 0.0551 | 0.5261 | 0.2706 | 0.0435 | 0.0977 | 0.1607 | 0.3611 |
| 64 | 38.37 | 0.05 | 0.1121 | 0.0059 | 0.0594 | 0.0267 | 0.5800 | 0.2722 | 0.0433 | 0.0984 | 0.1591 | 0.3616 |
| 65 | 38.60 | 0.04 | 0.0917 | 0.0056 | 0.0481 | 0.0612 | 0.5246 | 0.2817 | 0.0423 | 0.1012 | 0.1501 | 0.3543 |
| 66 | 38.83 | 0.04 | 0.1324 | 0.0082 | 0.0689 | 0.0821 | 0.5170 | 0.2880 | 0.0433 | 0.1053 | 0.1498 | 0.3644 |
| 67 | 39.04 | 0.02 | 0.1240 | 0.0132 | 0.0820 | 0.1002 | 0.4980 | 0.2806 | 0.0403 | 0.1007 | 0.1650 | 0.3585 |
| 68 | 39.28 | 0.05 | 0.0665 | 0.0105 | 0.0492 | 0.1217 | 0.5089 | 0.2728 | 0.0407 | 0.0979 | 0.1712 | 0.3589 |
| 69 | 39.49 | 0.03 | 0.0706 | 0.0147 | 0.0357 | 0.2085 | 0.5617 | 0.2694 | 0.0403 | 0.0957 | 0.1793 | 0.3553 |
| 70 | 39.70 | 0.03 | 0.0157 | 0.0105 | 0.0100 | 0.0643 | 1.0573 | 0.2745 | 0.0479 | 0.0980 | 0.1745 | 0.3571 |
| 71 | 39.92 | 0.00 | 0.0365 | 0.0143 | 0.0218 | 0.3724 | 0.5677 | 0.2766 | 0.0489 | 0.0991 | 0.1754 | 0.3555 |
| 72 | 40.11 | 0.02 | 0.0378 | 0.0122 | 0.0231 | 0.3230 | 0.6031 | 0.2819 | 0.0480 | 0.1017 | 0.1724 | 0.3608 |
| 73 | 40.34 | 0.02 | -0.0027 | 0.0065 | 0.0031 | -3.2963 | -1.1481 | 0.2916 | 0.0468 | 0.1051 | 0.1605 | 0.3605 |
| 74 | 40.56 | 0.03 | 0.0124 | 0.0131 | 0.0105 | 0.9770 | 1.1567 | 0.2912 | 0.0483 | 0.1043 | 0.1659 | 0.3582 |
| 75 | 40.75 | 0.02 | -0.0031 | 0.0112 | 0.0057 | -3.0129 | -1.1935 | 0.2906 | 0.0477 | 0.1036 | 0.1641 | 0.3566 |
| 76 | 40.97 | 0.01 | 0.0246 | 0.0100 | 0.0055 | 0.4062 | 0.6327 | 0.3085 | 0.0484 | 0.1117 | 0.1504 | 0.3621 |
| 77 | 41.16 | 0.00 | -0.0016 | 0.0087 | 0.0004 | -5.4375 | -0.2500 | 0.3196 | 0.0452 | 0.1155 | 0.1414 | 0.3618 |
| 78 | 41.37 | 0.02 | 0.0070 | 0.0075 | 0.0077 | 0.9866 | 1.0132 | 0.3330 | 0.0444 | 0.1225 | 0.1331 | 0.3671 |
| 79 | 41.63 | 0.01 | -0.0137 | 0.0036 | -0.0028 | -0.2626 | 0.2044 | 0.3387 | 0.0425 | 0.1242 | 0.1254 | 0.3668 |
| 80 | 41.82 | -0.01 | -0.0270 | 0.0039 | -0.0152 | -0.1264 | 0.5467 | 0.3470 | 0.0420 | 0.1281 | 0.1210 | 0.3650 |
| 81 | 42.01 | 0.01 | 0.0186 | 0.0142 | 0.0095 | 0.7553 | 0.5053 | 0.3298 | 0.0465 | 0.1188 | 0.1410 | 0.3604 |
| 82 | 42.21 | 0.00 | -0.0120 | 0.0062 | -0.0060 | -0.0167 | 0.5300 | 0.3705 | 0.0405 | 0.1360 | 0.1093 | 0.3671 |
| 83 | 42.44 | 0.01 | 0.0145 | 0.0124 | 0.0115 | 0.9241 | 0.7931 | 0.3437 | 0.0456 | 0.1215 | 0.1327 | 0.3538 |
| 84 | 42.62 | 0.02 | -0.0057 | 0.0058 | -0.0026 | -1.0175 | 0.3509 | 0.3670 | 0.0419 | 0.1334 | 0.1141 | 0.3635 |
| 85 | 42.80 | 0.01 | 0.0053 | 0.0148 | 0.0046 | 2.7924 | 0.8079 | 0.3383 | 0.0464 | 0.1185 | 0.1371 | 0.3504 |
| 86 | 42.99 | 0.03 | 0.0078 | 0.0141 | 0.0065 | 1.5921 | 0.8253 | 0.3515 | 0.0455 | 0.1248 | 0.1294 | 0.3549 |
| 87 | 43.16 | 0.00 | -0.0116 | 0.0107 | -0.0013 | -0.9224 | 0.1121 | 0.3489 | 0.0464 | 0.1244 | 0.1330 | 0.3564 |
| 88 | 43.34 | 0.00 | 0.0161 | 0.0088 | 0.0066 | 0.4099 | 0.5342 | 0.3778 | 0.0420 | 0.1358 | 0.1111 | 0.3594 |
| 89 | 43.53 | 0.00 | 0.0005 | 0.0174 | 0.0048 | 34.8000 | 9.6000 | 0.3449 | 0.0503 | 0.1207 | 0.1458 | 0.3501 |
| 90 | 43.72 | -0.01 | 0.0546 | 0.0061 | 0.0288 | 0.1119 | 0.5200 | 0.4004 | 0.0407 | 0.1432 | 0.1016 | 0.3576 |
| 91 | 43.90 | 0.02 | 0.0464 | 0.0037 | 0.0254 | 0.0766 | 0.5238 | 0.4006 | 0.0405 | 0.1452 | 0.0956 | 0.3571 |
| 92 | 44.07 | 0.01 | 0.0402 | 0.0079 | 0.0238 | 0.1941 | 0.5848 | 0.3944 | 0.0434 | 0.1406 | 0.1100 | 0.3565 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST PART MACH RN/D=6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 115 0.90 1.7 0.0 BIHOF31 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CMF | CBF | ACPF1 | YCPF1 | CNF2 | CBF2 | CBF2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.26 | 0.01 | 0.0479 | 0.0095 | 0.0264 | 0.2071 | 0.5502 | 0.3974 | 0.0436 | 0.1414 | 0.1097 | 0.3558 |
| 94 | 44.46 | 0.01 | 0.0456 | 0.0099 | 0.0242 | 0.1922 | 0.5269 | 0.4062 | 0.0420 | 0.1457 | 0.1034 | 0.3587 |
| 95 | 44.63 | 0.01 | 0.0525 | 0.0083 | 0.0300 | 0.1564 | 0.5706 | 0.4123 | 0.0421 | 0.1475 | 0.1021 | 0.3577 |
| 96 | 44.81 | 0.01 | 0.0504 | 0.0106 | 0.0238 | 0.1900 | 0.4573 | 0.4152 | 0.0423 | 0.1486 | 0.1018 | 0.3586 |
| 97 | 45.00 | -0.01 | 0.0596 | 0.0029 | 0.0255 | 0.0466 | 0.4255 | 0.4435 | 0.0396 | 0.1607 | 0.0892 | 0.3624 |
| 98 | 45.19 | 0.02 | 0.0478 | 0.0076 | 0.0249 | 0.0000 | 0.4386 | 0.4416 | 0.0403 | 0.1588 | 0.0912 | 0.3595 |
| 99 | 45.38 | 0.02 | 0.0354 | 0.0158 | 0.0159 | 0.4478 | 0.4504 | 0.4035 | 0.0465 | 0.1410 | 0.1152 | 0.3454 |
| 100 | 45.54 | -0.02 | -0.0567 | 0.0172 | -0.0297 | -0.6935 | 0.5051 | 0.3755 | 0.0505 | 0.1292 | 0.1345 | 0.3440 |
| 101 | 45.73 | 0.01 | 0.0154 | 0.0123 | 0.0056 | 0.7987 | 0.3036 | 0.4223 | 0.0442 | 0.1504 | 0.1047 | 0.3562 |
| 102 | 45.85 | 0.00 | 0.0023 | 0.0100 | 0.0045 | 0.1000 | 0.4727 | 0.4409 | 0.0419 | 0.1625 | 0.0933 | 0.3621 |
| 103 | 46.00 | 0.02 | 0.0752 | 0.0055 | 0.0371 | 0.1203 | 0.4084 | 0.4568 | 0.0412 | 0.1643 | 0.0902 | 0.3597 |
| 104 | 46.24 | 0.00 | 0.0128 | 0.0136 | 0.0057 | 0.7550 | 0.3107 | 0.4290 | 0.0452 | 0.1509 | 0.1053 | 0.3505 |
| 105 | 46.41 | -0.03 | 0.0771 | 0.0111 | 0.0340 | 0.1443 | 0.4436 | 0.4618 | 0.0417 | 0.1672 | 0.0903 | 0.3621 |
| 106 | 46.59 | 0.02 | -0.0359 | 0.0152 | -0.0157 | -0.4306 | 0.4440 | 0.4177 | 0.0474 | 0.1455 | 0.1135 | 0.3484 |
| 107 | 46.77 | -0.01 | 0.0157 | 0.0135 | 0.0070 | 0.8853 | 0.4459 | 0.4403 | 0.0457 | 0.1548 | 0.1038 | 0.3518 |
| 108 | 46.94 | 0.02 | -0.0155 | 0.0125 | -0.0069 | -0.7662 | 0.5000 | 0.4427 | 0.0454 | 0.1556 | 0.1025 | 0.3515 |
| 109 | 47.12 | -0.00 | 0.0053 | 0.0051 | 0.0029 | 0.1396 | 0.4571 | 0.4695 | 0.0423 | 0.1672 | 0.0901 | 0.3562 |
| 110 | 47.30 | 0.01 | 0.0257 | 0.0070 | 0.0102 | 0.2969 | 0.3984 | 0.4696 | 0.0420 | 0.1666 | 0.0894 | 0.3553 |
| 111 | 47.47 | -0.00 | 0.0061 | 0.0105 | 0.0066 | 1.2209 | 0.7907 | 0.4624 | 0.0428 | 0.1654 | 0.0925 | 0.3577 |
| 112 | 47.64 | 0.01 | -0.0222 | 0.0137 | -0.0146 | -0.5405 | 0.6293 | 0.4376 | 0.0473 | 0.1513 | 0.1081 | 0.3456 |
| 113 | 47.81 | -0.01 | 0.0773 | 0.0166 | 0.0287 | 0.2412 | 0.3709 | 0.4571 | 0.0458 | 0.1592 | 0.1002 | 0.3483 |
| 114 | 48.00 | 0.02 | -0.0394 | 0.0186 | -0.0236 | -0.4753 | 0.5052 | 0.4139 | 0.0525 | 0.1401 | 0.1208 | 0.3384 |
| 115 | 48.17 | 0.03 | 0.0685 | 0.0184 | 0.0250 | 0.2650 | 0.3640 | 0.4535 | 0.0480 | 0.1567 | 0.1058 | 0.3456 |
| 116 | 48.33 | -0.00 | -0.1066 | 0.0101 | -0.0512 | -0.1402 | 0.4705 | 0.4012 | 0.0542 | 0.1354 | 0.1351 | 0.3374 |
| 117 | 48.52 | 0.03 | 0.0235 | 0.0234 | 0.0000 | 0.9791 | 0.0251 | 0.4376 | 0.0529 | 0.1502 | 0.1209 | 0.3433 |
| 118 | 48.67 | 0.03 | -0.0072 | 0.0158 | -0.0100 | -2.7500 | 1.3689 | 0.4250 | 0.0533 | 0.1475 | 0.1243 | 0.3438 |
| 119 | 48.86 | 0.02 | -0.0517 | 0.0162 | -0.0478 | -0.1770 | 0.5191 | 0.4175 | 0.0559 | 0.1426 | 0.1339 | 0.3423 |
| 120 | 49.03 | 0.02 | -0.0774 | 0.0174 | -0.0413 | -0.2234 | 0.5302 | 0.4284 | 0.0551 | 0.1480 | 0.1287 | 0.3455 |
| 121 | 49.19 | 0.02 | -0.1085 | 0.0151 | -0.0533 | -0.1394 | 0.4912 | 0.4276 | 0.0556 | 0.1470 | 0.1301 | 0.3438 |
| 122 | 49.38 | 0.03 | -0.1055 | 0.0155 | -0.0475 | -0.1290 | 0.4726 | 0.4310 | 0.0538 | 0.1505 | 0.1245 | 0.3492 |
| 123 | 49.55 | 0.00 | -0.1540 | 0.0078 | -0.0744 | -0.0494 | 0.4828 | 0.4492 | 0.0520 | 0.1567 | 0.1158 | 0.3485 |
| 124 | 49.74 | 0.03 | -0.0255 | 0.0068 | -0.0300 | -0.0421 | 0.4706 | 0.5293 | 0.0469 | 0.1965 | 0.0886 | 0.3713 |
| 125 | 49.91 | 0.06 | -0.1057 | 0.0108 | -0.0433 | -0.0641 | 0.5024 | 0.5578 | 0.0461 | 0.2102 | 0.0826 | 0.3765 |
| 126 | 50.08 | 0.03 | -0.1962 | 0.0128 | -0.0514 | -0.0874 | 0.4805 | 0.5551 | 0.0493 | 0.2064 | 0.0816 | 0.3716 |
| 127 | 50.29 | 0.04 | -0.2455 | 0.0180 | -0.1214 | -0.0643 | 0.4867 | 0.5457 | 0.0466 | 0.1996 | 0.0854 | 0.3658 |
| 128 | 50.48 | 0.06 | -0.2981 | 0.0186 | -0.1505 | -0.1540 | 0.5146 | 0.4951 | 0.0555 | 0.1747 | 0.1121 | 0.3487 |
| 129 | 50.65 | 0.08 | -0.3245 | 0.0284 | 0.0025 | -1.1598 | -0.1025 | 0.5012 | 0.0556 | 0.1757 | 0.1110 | 0.3503 |
| 130 | 50.83 | 0.05 | -0.0423 | 0.0166 | 0.00 | -0.4408 | 0.00 | 0.5089 | 0.0553 | 0.1805 | 0.1087 | 0.3546 |
| 131 | 51.00 | 0.11 | -0.0854 | 0.0488 | 0.0483 | 0.5235 | 0.5404 | 0.5353 | 0.0546 | 0.1929 | 0.1020 | 0.3598 |
| 132 | 51.18 | 0.10 | -0.1363 | 0.0063 | -0.0424 | -0.0816 | 0.3110 | 0.5447 | 0.0514 | 0.1959 | 0.0944 | 0.3596 |
| 133 | 51.34 | 0.08 | -0.1228 | 0.0030 | -0.0252 | -0.0245 | 0.2376 | 0.5356 | 0.0535 | 0.1905 | 0.0955 | 0.3555 |
| 134 | 51.51 | 0.06 | -0.1612 | 0.0133 | -0.0621 | 0.0736 | 0.3425 | 0.5054 | 0.0469 | 0.2152 | 0.0795 | 0.3645 |
| 135 | 51.68 | 0.04 | -0.1980 | -0.0173 | -0.0611 | 0.0876 | 0.3087 | 0.5913 | 0.0474 | 0.2147 | 0.0801 | 0.3630 |
| 136 | 51.85 | 0.04 | -0.2366 | -0.0325 | -0.0505 | 0.1455 | 0.3494 | 0.6208 | 0.0420 | 0.2272 | 0.0676 | 0.3659 |
| 137 | 52.03 | 0.06 | -0.1476 | -0.0227 | -0.0476 | 0.1535 | 0.3220 | 0.6681 | 0.0395 | 0.2472 | 0.0591 | 0.3706 |
| 138 | 52.19 | 0.03 | -0.1850 | -0.0226 | -0.0643 | 0.1192 | 0.3476 | 0.6497 | 0.0417 | 0.2357 | 0.0642 | 0.3685 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 115 0.60 1.7 0.0 BINCFS1 0.0 0 -30 0 -30 UNKNOWN

| PCANT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.37 | 0.04 | -0.1277 | -0.0195 | -0.0371 | 0.1531 | 0.2906 | 0.6714 | 0.0418 | 0.2468 | 0.0622 | 0.3676 |
| 140 | 52.54 | 0.07 | -0.1256 | -0.0217 | -0.0382 | 0.1414 | 0.3251 | 0.6545 | 0.0441 | 0.2411 | 0.0668 | 0.3655 |
| 141 | 52.71 | 0.09 | -0.1216 | -0.0204 | -0.0410 | 0.1551 | 0.3110 | 0.6565 | 0.0442 | 0.2361 | 0.0673 | 0.3626 |
| 142 | 52.88 | 0.08 | -0.1455 | -0.0225 | -0.0455 | 0.1504 | 0.3061 | 0.6609 | 0.0450 | 0.2394 | 0.0681 | 0.3622 |
| 143 | 53.06 | 0.08 | -0.1536 | -0.0232 | -0.0494 | 0.1515 | 0.3203 | 0.6747 | 0.0446 | 0.2467 | 0.0664 | 0.3657 |
| 144 | 53.22 | 0.06 | -0.1665 | -0.0252 | -0.0555 | 0.1461 | 0.3199 | 0.6660 | 0.0455 | 0.2465 | 0.0681 | 0.3630 |
| 145 | 53.39 | 0.06 | -0.1263 | -0.0172 | -0.0373 | 0.1344 | 0.2906 | 0.6860 | 0.0445 | 0.2457 | 0.0646 | 0.3640 |
| 146 | 53.55 | 0.06 | -0.1366 | -0.0205 | -0.0421 | 0.1502 | 0.3077 | 0.6845 | 0.0451 | 0.2506 | 0.0659 | 0.3652 |
| 147 | 53.73 | 0.07 | -0.1191 | -0.0185 | -0.0384 | 0.1556 | 0.2801 | 0.6845 | 0.0455 | 0.2476 | 0.0665 | 0.3617 |
| 148 | 53.88 | 0.06 | -0.1078 | -0.0166 | -0.0348 | 0.1543 | 0.2644 | 0.6867 | 0.0456 | 0.2473 | 0.0665 | 0.3591 |
| 149 | 54.04 | 0.05 | -0.1152 | -0.0151 | -0.0338 | 0.1269 | 0.2815 | 0.6955 | 0.0436 | 0.2525 | 0.0630 | 0.3631 |
| 150 | 54.20 | 0.06 | -0.0983 | -0.0136 | -0.0315 | 0.1598 | 0.2303 | 0.6950 | 0.0435 | 0.2488 | 0.0626 | 0.3586 |
| 151 | 54.35 | 0.06 | -0.0911 | -0.0144 | -0.0326 | 0.1564 | 0.2406 | 0.6861 | 0.0449 | 0.2448 | 0.0654 | 0.3568 |
| 152 | 54.51 | 0.06 | -0.0965 | -0.0131 | -0.0297 | 0.1472 | 0.2436 | 0.6946 | 0.0455 | 0.2466 | 0.0655 | 0.3553 |
| 153 | 54.67 | 0.07 | -0.0736 | -0.0140 | -0.0336 | 0.1584 | 0.1348 | 0.6668 | 0.0445 | 0.2438 | 0.0652 | 0.3539 |
| 154 | 54.82 | 0.05 | -0.0786 | -0.0134 | -0.0304 | 0.1664 | 0.2092 | 0.6853 | 0.0460 | 0.2421 | 0.0671 | 0.3533 |
| 155 | 54.96 | 0.06 | -0.0791 | -0.0132 | -0.0314 | 0.1673 | 0.2269 | 0.6931 | 0.0454 | 0.2433 | 0.0655 | 0.3516 |
| 156 | 55.13 | 0.04 | -0.0816 | -0.0132 | -0.0302 | 0.1634 | 0.2252 | 0.6993 | 0.0457 | 0.2481 | 0.0653 | 0.3548 |
| 157 | 55.29 | 0.05 | -0.0738 | -0.0144 | -0.0335 | 0.1557 | 0.1834 | 0.6846 | 0.0466 | 0.2413 | 0.0676 | 0.3495 |
| 158 | 55.43 | 0.06 | -0.0576 | -0.0138 | -0.0305 | 0.2465 | 0.1142 | 0.6930 | 0.0467 | 0.2421 | 0.0674 | 0.3493 |
| 159 | 55.59 | 0.06 | -0.0802 | -0.0112 | -0.0263 | 0.1845 | 0.1367 | 0.6835 | 0.0466 | 0.2367 | 0.0682 | 0.3463 |
| 160 | 55.75 | 0.06 | -0.0495 | -0.0147 | -0.0341 | 0.2536 | 0.0622 | 0.6864 | 0.0474 | 0.2391 | 0.0688 | 0.3471 |
| 161 | 55.91 | 0.05 | -0.0305 | -0.0115 | -0.0250 | 0.3914 | -0.0987 | 0.6744 | 0.0476 | 0.2325 | 0.0706 | 0.3447 |
| 162 | 56.06 | 0.05 | -0.0394 | -0.0110 | -0.0244 | 0.3108 | -0.0290 | 0.6736 | 0.0475 | 0.2305 | 0.0705 | 0.3422 |
| 163 | 56.22 | 0.06 | -0.0314 | -0.0110 | -0.0232 | 0.3514 | -0.1022 | 0.6625 | 0.0480 | 0.2356 | 0.0703 | 0.3452 |
| 164 | 56.37 | 0.05 | -0.0142 | -0.0093 | -0.0196 | 0.6549 | -0.0761 | 0.6777 | 0.0476 | 0.2324 | 0.0702 | 0.3425 |
| 165 | 56.53 | 0.04 | -0.0066 | -0.0056 | -0.0111 | 1.0227 | -1.2614 | 0.6759 | 0.0485 | 0.2257 | 0.0723 | 0.3358 |
| 166 | 56.68 | 0.06 | -0.0050 | -0.0078 | 0.0125 | 1.5000 | -2.5000 | 0.6702 | 0.0489 | 0.2270 | 0.0730 | 0.3387 |
| 167 | 56.84 | 0.07 | -0.0075 | -0.0063 | 0.0124 | 1.1857 | -1.7714 | 0.6696 | 0.0496 | 0.2245 | 0.0741 | 0.3358 |
| 168 | 56.99 | 0.04 | -0.0064 | -0.0067 | 0.0144 | 15.5000 | -36.0000 | 0.6772 | 0.0491 | 0.2310 | 0.0725 | 0.3411 |
| 169 | 57.14 | 0.05 | -0.0150 | -0.0075 | 0.0106 | 0.5000 | -0.5867 | 0.6865 | 0.0493 | 0.2254 | 0.0738 | 0.3371 |
| 170 | 57.28 | 0.06 | -0.0110 | -0.0078 | 0.0103 | 0.7091 | -0.9304 | 0.6750 | 0.0493 | 0.2279 | 0.0733 | 0.3386 |
| 171 | 57.43 | 0.06 | -0.0078 | -0.0080 | 0.0127 | 1.0256 | -1.6262 | 0.6762 | 0.0495 | 0.2279 | 0.0738 | 0.3370 |
| 172 | 57.59 | 0.04 | -0.0112 | -0.0056 | 0.0100 | -0.4404 | 1.0780 | 0.6651 | 0.0503 | 0.2234 | 0.0756 | 0.3358 |
| 173 | 57.73 | 0.00 | 0.0017 | -0.0045 | 0.0155 | -2.6471 | 9.1176 | 0.6788 | 0.0498 | 0.2293 | 0.0734 | 0.3378 |
| 174 | 57.87 | -0.02 | 0.0063 | -0.0024 | 0.0161 | -0.3478 | 2.3333 | 0.7160 | 0.0483 | 0.2456 | 0.0678 | 0.3463 |
| 175 | 58.03 | -0.04 | 0.0062 | -0.0030 | 0.0193 | -15.0000 | 71.5000 | 0.6991 | 0.0490 | 0.2415 | 0.0701 | 0.3454 |
| 176 | 58.17 | -0.04 | -0.0375 | -0.0024 | -0.0046 | 0.6042 | 0.1070 | 0.7353 | 0.0482 | 0.2585 | 0.0657 | 0.3526 |
| 177 | 58.33 | -0.10 | -0.0304 | -0.0015 | -0.0005 | 0.0495 | 0.0297 | 0.7256 | 0.0490 | 0.2515 | 0.0675 | 0.3466 |
| 178 | 58.48 | -0.06 | -0.0156 | -0.0024 | 0.0047 | 0.1424 | -0.2348 | 0.7057 | 0.0496 | 0.2427 | 0.0696 | 0.3420 |
| 179 | 58.48 | -0.07 | -0.0136 | -0.0010 | 0.0062 | 0.0725 | -0.4493 | 0.7121 | 0.0496 | 0.2429 | 0.0699 | 0.3411 |
| 180 | 58.48 | -0.05 | -0.0178 | -0.0012 | 0.0045 | 0.0674 | -0.2753 | 0.7211 | 0.0499 | 0.2479 | 0.0692 | 0.3438 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 115 | MACH 0.90 | RNIC-6 1.7 | PHI 0.0 | CONF BIMCF31 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -90 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.56 | 0.02 | -0.0050 | 0.9999 | 0.0154 | 0.9999 | -3.0000 | -1.1036 | -0.0246 | -0.4590 | 0.0211 | 0.3945 |
| 2 | -5.55 | 0.03 | -0.0001 | 0.9999 | 0.0161 | 0.9999 | -16.0000 | -1.1917 | -0.0238 | -0.4532 | 0.0207 | 0.3935 |
| 3 | -5.56 | 0.02 | -0.0014 | 0.9999 | 0.0154 | 0.9999 | -11.0000 | -1.1044 | -0.0258 | -0.4594 | 0.0205 | 0.3946 |
| 4 | -5.56 | 0.03 | -0.0014 | 0.9999 | 0.0154 | 0.9999 | -11.0000 | -1.1033 | -0.0232 | -0.4583 | 0.0206 | 0.3940 |
| 5 | -5.04 | 0.03 | 0.0007 | 0.9999 | 0.0158 | 0.9999 | 22.5714 | -1.1404 | -0.0257 | -0.4512 | 0.0225 | 0.3957 |
| 6 | -3.98 | 0.03 | 0.0082 | 0.9999 | 0.0214 | 0.9999 | 2.6096 | -1.1411 | -0.0302 | -0.4503 | 0.0317 | 0.4017 |
| 7 | -2.95 | 0.03 | -0.0005 | 0.9999 | 0.0175 | 0.9999 | -19.3889 | -1.1560 | -0.0246 | -0.4763 | 0.0214 | 0.4137 |
| 8 | -0.64 | 0.02 | 0.0055 | 0.9999 | 0.0158 | 0.9999 | 3.0000 | -1.1037 | -0.0166 | -0.4598 | 0.0153 | 0.4167 |
| 9 | 1.07 | 0.02 | 0.0044 | 0.9999 | 0.0197 | 0.9999 | 4.9250 | -1.0107 | -0.0154 | -0.4271 | 0.0151 | 0.4152 |
| 10 | 2.05 | 0.02 | 0.0068 | 0.9999 | 0.0204 | 0.9999 | 3.0000 | -0.9194 | -0.0156 | -0.3895 | 0.0172 | 0.4237 |
| 11 | 4.57 | 0.03 | 0.0066 | 0.9999 | 0.0226 | 0.9999 | 2.5909 | -0.8313 | -0.0153 | -0.3542 | 0.0184 | 0.4261 |
| 12 | 6.34 | 0.02 | 0.0067 | 0.9999 | 0.0231 | 0.9999 | 3.4478 | -0.7300 | -0.0148 | -0.3119 | 0.0201 | 0.4234 |
| 13 | 8.15 | 0.03 | 0.0018 | 0.9999 | 0.0215 | 0.9999 | 12.1667 | -0.6273 | -0.0143 | -0.2669 | 0.0228 | 0.4256 |
| 14 | 9.89 | 0.03 | 0.0032 | 0.9999 | 0.0223 | 0.9999 | 6.9000 | -0.5515 | -0.0125 | -0.2306 | 0.0227 | 0.4181 |
| 15 | 11.76 | 0.02 | 0.0005 | 0.9999 | 0.0196 | 0.9999 | 39.8000 | -0.4519 | -0.0116 | -0.1861 | 0.0257 | 0.4118 |
| 16 | 13.55 | 0.03 | 0.0065 | 0.9999 | 0.0211 | 0.9999 | 2.3708 | -0.3730 | -0.0108 | -0.1451 | 0.0269 | 0.3876 |
| 17 | 15.43 | 0.03 | 0.0119 | 0.9999 | 0.0175 | 0.9999 | 1.4706 | -0.2902 | -0.0092 | -0.1064 | 0.0318 | 0.3667 |
| 18 | 17.35 | 0.03 | 0.0135 | 0.9999 | 0.0143 | 0.9999 | 1.0593 | -0.2203 | -0.0060 | -0.0697 | 0.0391 | 0.3167 |
| 19 | 19.23 | 0.03 | 0.0212 | 0.9999 | 0.0157 | 0.9999 | 0.7406 | -0.1294 | -0.0060 | -0.0348 | 0.0465 | 0.2688 |
| 20 | 21.14 | 0.04 | 0.0156 | 0.9999 | 0.0134 | 0.9999 | 0.8667 | -0.0672 | -0.0026 | -0.0080 | 0.0387 | 0.1192 |
| 21 | 23.02 | 0.02 | 0.0164 | 0.9999 | 0.0115 | 0.9999 | 0.7012 | -0.0303 | 0.0036 | 0.0067 | -0.1258 | -0.2881 |
| 22 | 24.88 | 0.03 | 0.0262 | 0.9999 | 0.0101 | 0.9999 | 0.6169 | -0.0149 | 0.0132 | 0.0109 | -0.6633 | -0.5477 |
| 23 | 26.79 | 0.04 | 0.0337 | 0.9999 | 0.0215 | 0.9999 | 0.6518 | -0.0028 | 0.0197 | 0.0180 | -7.0357 | -6.4266 |
| 24 | 28.17 | 0.03 | 0.0463 | 0.9999 | 0.0284 | 0.9999 | 0.5871 | 0.0072 | 0.0240 | 0.0215 | 3.3333 | 2.9861 |
| 25 | 28.21 | 0.06 | 0.0464 | 0.9999 | 0.0256 | 0.9999 | 0.5983 | -0.0023 | 0.0241 | 0.0191 | -10.4783 | -8.3043 |
| 26 | 28.62 | 0.05 | 0.0538 | 0.9999 | 0.0336 | 0.9999 | 0.6127 | -0.0042 | 0.0243 | 0.0173 | -5.7857 | -4.1190 |
| 27 | 28.89 | 0.06 | 0.0567 | 0.9999 | 0.0330 | 0.9999 | 0.5813 | -0.0057 | 0.0243 | 0.0180 | -4.2632 | -3.1575 |
| 28 | 29.16 | 0.07 | 0.0463 | 0.9999 | 0.0272 | 0.9999 | 0.5800 | 0.0198 | 0.0257 | 0.0283 | 1.2525 | 1.4242 |
| 29 | 29.50 | 0.07 | 0.0428 | 0.9999 | 0.0261 | 0.9999 | 0.6089 | 0.0176 | 0.0255 | 0.0272 | 1.4432 | 1.5358 |
| 30 | 29.80 | 0.05 | 0.0441 | 0.9999 | 0.0262 | 0.9999 | 0.5953 | 0.0191 | 0.0264 | 0.0279 | 1.3770 | 1.4555 |
| 31 | 30.07 | 0.06 | 0.0567 | 0.9999 | 0.0330 | 0.9999 | 0.5813 | 0.0114 | 0.0262 | 0.0237 | 2.2855 | 2.0789 |
| 32 | 30.35 | 0.11 | 0.0628 | 0.9999 | 0.0306 | 0.9999 | 0.5780 | 0.0092 | 0.0281 | 0.0225 | 2.9474 | 2.4105 |
| 33 | 30.62 | 0.05 | 0.0555 | 0.9999 | 0.0335 | 0.9999 | 0.5986 | 0.0106 | 0.0286 | 0.0238 | 2.6887 | 2.2453 |
| 34 | 30.91 | 0.10 | 0.0535 | 0.9999 | 0.0311 | 0.9999 | 0.5702 | 0.0193 | 0.0294 | 0.0277 | 1.5181 | 1.4300 |
| 35 | 31.17 | 0.11 | 0.0567 | 0.9999 | 0.0333 | 0.9999 | 0.5866 | 0.0206 | 0.0301 | 0.0308 | 1.4521 | 1.1585 |
| 36 | 31.45 | 0.11 | 0.0623 | 0.9999 | 0.0362 | 0.9999 | 0.5804 | 0.0248 | 0.0312 | 0.0307 | 1.2591 | 1.2385 |
| 37 | 31.73 | 0.05 | 0.0553 | 0.9999 | 0.0325 | 0.9999 | 0.5962 | 0.0515 | 0.0366 | 0.0415 | 0.9534 | 0.8054 |
| 38 | 31.98 | 0.10 | 0.0624 | 0.9999 | 0.0368 | 0.9999 | 0.5837 | 0.0516 | 0.0316 | 0.0416 | 0.6164 | 0.8004 |
| 39 | 32.27 | 0.10 | 0.0605 | 0.9999 | 0.0361 | 0.9999 | 0.5921 | 0.0684 | 0.0319 | 0.0487 | 0.4656 | 0.7116 |
| 40 | 32.52 | 0.10 | 0.0610 | 0.9999 | 0.0346 | 0.9999 | 0.5858 | 0.0800 | 0.0326 | 0.0478 | 0.4962 | 0.7238 |
| 41 | 32.79 | 0.12 | 0.0681 | 0.9999 | 0.0390 | 0.9999 | 0.5721 | 0.0883 | 0.0331 | 0.0495 | 0.4836 | 0.7243 |
| 42 | 33.07 | 0.13 | 0.0758 | 0.9999 | 0.0432 | 0.9999 | 0.5701 | 0.0942 | 0.0337 | 0.0491 | 0.6211 | 0.7948 |
| 43 | 33.31 | 0.13 | 0.0696 | 0.9999 | 0.0402 | 0.9999 | 0.5786 | 0.0959 | 0.0340 | 0.0497 | 0.7402 | 0.8646 |
| 44 | 33.56 | 0.13 | 0.0772 | 0.9999 | 0.0435 | 0.9999 | 0.5688 | 0.0988 | 0.0345 | 0.0481 | 0.5157 | 0.7196 |
| 45 | 33.82 | 0.14 | 0.0753 | 0.9999 | 0.0446 | 0.9999 | 0.5626 | 0.0997 | 0.0354 | 0.0449 | 0.5523 | 0.7517 |
| 46 | 34.08 | 0.12 | 0.0654 | 0.9999 | 0.0397 | 0.9999 | 0.5714 | 0.0978 | 0.0356 | 0.0449 | 0.6153 | 0.7764 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 115 | MACH 0.90 | RXIC-6 1.7 | PHI 0.0 | CONF 31 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CO3 | XCPF3 | YCPF3 | CNF4 | CM4 | CO4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.32 | 0.11 | 0.0715 | 5.5555 | 0.0415 | 5.5555 | 0.5796 | 0.0739 | 0.0371 | 0.0521 | 0.5020 | 0.7056 |
| 48 | 34.56 | 0.11 | 0.0673 | 5.5555 | 0.0401 | 5.5555 | 0.5952 | 0.0769 | 0.0373 | 0.0530 | 0.4850 | 0.7001 |
| 49 | 34.82 | 0.10 | 0.0582 | 5.5555 | 0.0335 | 5.5555 | 0.6025 | 0.0784 | 0.0381 | 0.0548 | 0.4859 | 0.6955 |
| 50 | 35.06 | 0.08 | 0.0596 | 5.5555 | 0.0375 | 5.5555 | 0.6200 | 0.0800 | 0.0388 | 0.0567 | 0.4479 | 0.6898 |
| 51 | 35.29 | 0.06 | 0.0443 | 5.5555 | 0.0286 | 5.5555 | 0.6493 | 0.0970 | 0.0394 | 0.0636 | 0.4060 | 0.6560 |
| 52 | 35.53 | 0.06 | 0.0546 | 5.5555 | 0.0346 | 5.5555 | 0.6438 | 0.1148 | 0.0399 | 0.0709 | 0.3473 | 0.6176 |
| 53 | 35.78 | 0.04 | 0.0438 | 5.5555 | 0.0290 | 5.5555 | 0.6644 | 0.1233 | 0.0402 | 0.0764 | 0.3260 | 0.6195 |
| 54 | 36.02 | 0.04 | 0.0373 | 5.5555 | 0.0260 | 5.5555 | 0.6562 | 0.1236 | 0.0399 | 0.0767 | 0.3228 | 0.6204 |
| 55 | 36.24 | 0.03 | 0.0367 | 5.5555 | 0.0267 | 5.5555 | 0.6391 | 0.1461 | 0.0412 | 0.0875 | 0.2619 | 0.5588 |
| 56 | 36.48 | 0.03 | 0.0345 | 5.5555 | 0.0255 | 5.5555 | 0.7320 | 0.1555 | 0.0398 | 0.0922 | 0.2558 | 0.5928 |
| 57 | 36.72 | 0.02 | 0.0324 | 5.5555 | 0.0235 | 5.5555 | 0.7395 | 0.1750 | 0.0403 | 0.1011 | 0.2302 | 0.5775 |
| 58 | 36.93 | 0.04 | 0.0387 | 5.5555 | 0.0273 | 5.5555 | 0.7047 | 0.1726 | 0.0398 | 0.0993 | 0.2311 | 0.5768 |
| 59 | 37.20 | 0.03 | 0.0353 | 5.5555 | 0.0252 | 5.5555 | 0.7423 | 0.1829 | 0.0394 | 0.1026 | 0.2153 | 0.5611 |
| 60 | 37.41 | 0.03 | 0.0321 | 5.5555 | 0.0245 | 5.5555 | 0.7515 | 0.1730 | 0.0398 | 0.0993 | 0.2300 | 0.5742 |
| 61 | 37.65 | 0.04 | 0.0442 | 5.5555 | 0.0321 | 5.5555 | 0.7256 | 0.1843 | 0.0397 | 0.1046 | 0.2153 | 0.5688 |
| 62 | 37.90 | 0.04 | 0.0467 | 5.5555 | 0.0346 | 5.5555 | 0.6956 | 0.1929 | 0.0400 | 0.1078 | 0.2104 | 0.5598 |
| 63 | 38.12 | 0.04 | 0.0388 | 5.5555 | 0.0284 | 5.5555 | 0.7351 | 0.1820 | 0.0404 | 0.1022 | 0.2215 | 0.5617 |
| 64 | 38.37 | 0.05 | 0.0442 | 5.5555 | 0.0316 | 5.5555 | 0.7143 | 0.1953 | 0.0405 | 0.1079 | 0.2073 | 0.5526 |
| 65 | 38.60 | 0.04 | 0.0421 | 5.5555 | 0.0306 | 5.5555 | 0.7262 | 0.2067 | 0.0403 | 0.1146 | 0.1945 | 0.5545 |
| 66 | 38.83 | 0.02 | 0.0425 | 5.5555 | 0.0301 | 5.5555 | 0.6912 | 0.2050 | 0.0412 | 0.1130 | 0.2009 | 0.5513 |
| 67 | 39.04 | 0.02 | 0.0400 | 5.5555 | 0.0290 | 5.5555 | 0.7243 | 0.2205 | 0.0401 | 0.1214 | 0.1818 | 0.5505 |
| 68 | 39.28 | 0.05 | 0.0414 | 5.5555 | 0.0300 | 5.5555 | 0.7240 | 0.2304 | 0.0397 | 0.1303 | 0.1665 | 0.5464 |
| 69 | 39.49 | 0.03 | 0.0388 | 5.5555 | 0.0285 | 5.5555 | 0.7481 | 0.2568 | 0.0383 | 0.1356 | 0.1479 | 0.5393 |
| 70 | 39.70 | 0.03 | 0.0381 | 5.5555 | 0.0241 | 5.5555 | 0.7005 | 0.2622 | 0.0377 | 0.1510 | 0.1335 | 0.5352 |
| 71 | 39.92 | 0.00 | 0.0348 | 5.5555 | 0.0258 | 5.5555 | 0.7391 | 0.2914 | 0.0381 | 0.1553 | 0.1307 | 0.5330 |
| 72 | 40.11 | 0.02 | 0.0373 | 5.5555 | 0.0275 | 5.5555 | 0.7306 | 0.2855 | 0.0384 | 0.1547 | 0.1344 | 0.5314 |
| 73 | 40.34 | 0.02 | 0.0352 | 5.5555 | 0.0249 | 5.5555 | 0.7492 | 0.2982 | 0.0380 | 0.1562 | 0.1282 | 0.5274 |
| 74 | 40.56 | 0.03 | 0.0331 | 5.5555 | 0.0252 | 5.5555 | 0.7606 | 0.3067 | 0.0375 | 0.1611 | 0.1214 | 0.5219 |
| 75 | 40.75 | 0.02 | 0.0373 | 5.5555 | 0.0272 | 5.5555 | 0.7285 | 0.3127 | 0.0374 | 0.1622 | 0.1155 | 0.5187 |
| 76 | 40.97 | 0.01 | 0.0331 | 5.5555 | 0.0255 | 5.5555 | 0.7697 | 0.3019 | 0.0387 | 0.1565 | 0.1281 | 0.5184 |
| 77 | 41.16 | 0.00 | 0.0318 | 5.5555 | 0.0241 | 5.5555 | 0.7803 | 0.3119 | 0.0390 | 0.1615 | 0.1256 | 0.5178 |
| 78 | 41.37 | 0.02 | 0.0304 | 5.5555 | 0.0232 | 5.5555 | 0.7857 | 0.3193 | 0.0388 | 0.1623 | 0.1215 | 0.5085 |
| 79 | 41.63 | 0.01 | 0.0354 | 5.5555 | 0.0262 | 5.5555 | 0.7436 | 0.3100 | 0.0401 | 0.1596 | 0.1293 | 0.5145 |
| 80 | 41.82 | -0.01 | 0.0374 | 5.5555 | 0.0272 | 5.5555 | 0.7265 | 0.3155 | 0.0407 | 0.1625 | 0.1269 | 0.5151 |
| 81 | 42.01 | 0.01 | 0.0325 | 5.5555 | 0.0245 | 5.5555 | 0.7656 | 0.3373 | 0.0373 | 0.1717 | 0.1105 | 0.5089 |
| 82 | 42.21 | 0.00 | 0.0314 | 5.5555 | 0.0267 | 5.5555 | 0.7131 | 0.3223 | 0.0411 | 0.1643 | 0.1275 | 0.5099 |
| 83 | 42.44 | 0.01 | 0.0312 | 5.5555 | 0.0231 | 5.5555 | 0.7428 | 0.3357 | 0.0382 | 0.1796 | 0.1017 | 0.5048 |
| 84 | 42.62 | 0.02 | 0.0353 | 5.5555 | 0.0262 | 5.5555 | 0.7415 | 0.3415 | 0.0393 | 0.1736 | 0.1150 | 0.5070 |
| 85 | 42.80 | 0.01 | 0.0353 | 5.5555 | 0.0257 | 5.5555 | 0.7273 | 0.3635 | 0.0356 | 0.1825 | 0.0978 | 0.5019 |
| 86 | 42.95 | 0.03 | 0.0319 | 5.5555 | 0.0226 | 5.5555 | 0.7170 | 0.3502 | 0.0361 | 0.1802 | 0.1007 | 0.5029 |
| 87 | 43.16 | 0.00 | 0.0360 | 5.5555 | 0.0265 | 5.5555 | 0.7298 | 0.3776 | 0.0380 | 0.1883 | 0.0953 | 0.4987 |
| 88 | 43.34 | 0.00 | 0.0318 | 5.5555 | 0.0246 | 5.5555 | 0.7729 | 0.3531 | 0.0382 | 0.1795 | 0.1081 | 0.5082 |
| 89 | 43.53 | 0.00 | 0.0270 | 5.5555 | 0.0205 | 5.5555 | 0.7621 | 0.4016 | 0.0336 | 0.1990 | 0.0831 | 0.4955 |
| 90 | 43.72 | -0.01 | 0.0341 | 5.5555 | 0.0256 | 5.5555 | 0.7375 | 0.3563 | 0.0394 | 0.1800 | 0.1055 | 0.5022 |
| 91 | 43.90 | 0.02 | 0.0331 | 5.5555 | 0.0252 | 5.5555 | 0.7606 | 0.3438 | 0.0411 | 0.1737 | 0.1195 | 0.5051 |
| 92 | 44.07 | 0.01 | 0.0342 | 5.5555 | 0.0261 | 5.5555 | 0.7126 | 0.3784 | 0.0376 | 0.1890 | 0.1000 | 0.4988 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 119 MACH 0.90 RNLG=6 1.7 PHI 0.0 CONF 31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.26 | 0.01 | 0.0227 | 9.9999 | 0.0173 | 9.9999 | 0.7621 | 0.3722 | 0.0382 | 0.1857 | 0.1026 | 0.4989 |
| 94 | 44.46 | 0.01 | 0.0354 | 9.9999 | 0.0274 | 9.9999 | 0.7074 | 0.3743 | 0.0401 | 0.1867 | 0.1071 | 0.4986 |
| 95 | 44.63 | 0.01 | 0.0373 | 9.9999 | 0.0283 | 9.9999 | 0.7043 | 0.3629 | 0.0388 | 0.1895 | 0.1013 | 0.4959 |
| 96 | 44.81 | 0.01 | 0.0318 | 9.9999 | 0.0233 | 9.9999 | 0.7350 | 0.3733 | 0.0402 | 0.1852 | 0.1077 | 0.4961 |
| 97 | 45.00 | -0.01 | 0.0366 | 9.9999 | 0.0286 | 9.9999 | 0.7315 | 0.3539 | 0.0436 | 0.1757 | 0.1232 | 0.4963 |
| 98 | 45.19 | 0.02 | 0.0354 | 9.9999 | 0.0279 | 9.9999 | 0.7074 | 0.3681 | 0.0423 | 0.1840 | 0.1149 | 0.4995 |
| 99 | 45.36 | 0.02 | 0.0353 | 9.9999 | 0.0281 | 9.9999 | 0.6847 | 0.4067 | 0.0366 | 0.2019 | 0.0895 | 0.4940 |
| 100 | 45.54 | -0.02 | 0.0277 | 9.9999 | 0.0194 | 9.9999 | 0.7029 | 0.4511 | 0.0332 | 0.2198 | 0.0735 | 0.4873 |
| 101 | 45.73 | 0.01 | 0.0340 | 9.9999 | 0.0238 | 9.9999 | 0.7021 | 0.4013 | 0.0391 | 0.1955 | 0.0974 | 0.4971 |
| 102 | 45.89 | 0.00 | 0.0326 | 9.9999 | 0.0220 | 9.9999 | 0.6769 | 0.3800 | 0.0421 | 0.1900 | 0.1108 | 0.5000 |
| 103 | 46.06 | 0.02 | 0.0358 | 9.9999 | 0.0305 | 9.9999 | 0.6740 | 0.3783 | 0.0436 | 0.1878 | 0.1158 | 0.4964 |
| 104 | 46.24 | 0.00 | 0.0402 | 9.9999 | 0.0277 | 9.9999 | 0.6883 | 0.4100 | 0.0395 | 0.2070 | 0.0943 | 0.4946 |
| 105 | 46.41 | -0.03 | 0.0366 | 9.9999 | 0.0273 | 9.9999 | 0.7028 | 0.3996 | 0.0415 | 0.1980 | 0.1038 | 0.4955 |
| 106 | 46.59 | 0.02 | 0.0360 | 9.9999 | 0.0269 | 9.9999 | 0.6743 | 0.4536 | 0.0362 | 0.2231 | 0.0797 | 0.4917 |
| 107 | 46.77 | -0.01 | 0.0360 | 9.9999 | 0.0257 | 9.9999 | 0.7131 | 0.4358 | 0.0385 | 0.2146 | 0.0887 | 0.4948 |
| 108 | 46.94 | 0.02 | 0.0354 | 9.9999 | 0.0263 | 9.9999 | 0.6666 | 0.4444 | 0.0382 | 0.2185 | 0.0859 | 0.4918 |
| 109 | 47.12 | -0.00 | 0.0417 | 9.9999 | 0.0281 | 9.9999 | 0.6731 | 0.4128 | 0.0427 | 0.2040 | 0.1034 | 0.4944 |
| 110 | 47.30 | 0.01 | 0.0395 | 9.9999 | 0.0274 | 9.9999 | 0.6929 | 0.4112 | 0.0433 | 0.2050 | 0.1053 | 0.4985 |
| 111 | 47.47 | -0.00 | 0.0355 | 9.9999 | 0.0231 | 9.9999 | 0.6525 | 0.4216 | 0.0410 | 0.2088 | 0.0972 | 0.4954 |
| 112 | 47.64 | 0.01 | 0.0365 | 9.9999 | 0.0268 | 9.9999 | 0.6881 | 0.4478 | 0.0397 | 0.2211 | 0.0866 | 0.4938 |
| 113 | 47.81 | -0.01 | 0.0417 | 9.9999 | 0.0276 | 9.9999 | 0.6811 | 0.4199 | 0.0427 | 0.2081 | 0.1017 | 0.4957 |
| 114 | 48.00 | 0.02 | 0.0341 | 9.9999 | 0.0215 | 9.9999 | 0.6441 | 0.4757 | 0.0381 | 0.2341 | 0.0801 | 0.4921 |
| 115 | 48.17 | 0.03 | 0.0472 | 9.9999 | 0.0311 | 9.9999 | 0.6582 | 0.4343 | 0.0427 | 0.2159 | 0.0983 | 0.4972 |
| 116 | 48.33 | -0.00 | 0.0299 | 9.9999 | 0.0196 | 9.9999 | 0.6577 | 0.4537 | 0.0388 | 0.2423 | 0.0741 | 0.4908 |
| 117 | 48.52 | 0.03 | 0.0383 | 9.9999 | 0.0223 | 9.9999 | 0.6717 | 0.4705 | 0.0368 | 0.2313 | 0.0824 | 0.4912 |
| 118 | 48.67 | 0.03 | 0.0272 | 9.9999 | 0.0185 | 9.9999 | 0.6238 | 0.4734 | 0.0381 | 0.2333 | 0.0804 | 0.4923 |
| 119 | 48.86 | 0.02 | 0.0313 | 9.9999 | 0.0197 | 9.9999 | 0.6314 | 0.5153 | 0.0358 | 0.2513 | 0.0654 | 0.4877 |
| 120 | 49.03 | 0.02 | 0.0376 | 9.9999 | 0.0238 | 9.9999 | 0.6347 | 0.5129 | 0.0358 | 0.2496 | 0.0657 | 0.4866 |
| 121 | 49.19 | 0.02 | 0.0334 | 9.9999 | 0.0207 | 9.9999 | 0.6218 | 0.5244 | 0.0355 | 0.2545 | 0.0676 | 0.4854 |
| 122 | 49.36 | 0.03 | 0.0268 | 9.9999 | 0.0180 | 9.9999 | 0.6250 | 0.5478 | 0.0328 | 0.2645 | 0.0598 | 0.4829 |
| 123 | 49.56 | 0.00 | 0.0307 | 9.9999 | 0.0188 | 9.9999 | 0.6144 | 0.5357 | 0.0361 | 0.2605 | 0.0673 | 0.4863 |
| 124 | 49.74 | 0.03 | 0.0348 | 9.9999 | 0.0226 | 9.9999 | 0.6340 | 0.5037 | 0.0314 | 0.2424 | 0.0520 | 0.4843 |
| 125 | 49.91 | 0.00 | 0.0383 | 9.9999 | 0.0248 | 9.9999 | 0.6466 | 0.5963 | 0.0332 | 0.2513 | 0.0556 | 0.4865 |
| 126 | 50.08 | 0.03 | 0.0377 | 9.9999 | 0.0235 | 9.9999 | 0.6356 | 0.6174 | 0.0292 | 0.3002 | 0.0472 | 0.4863 |
| 127 | 50.29 | 0.04 | 0.0344 | 9.9999 | 0.0226 | 9.9999 | 0.6322 | 0.6554 | 0.0263 | 0.3145 | 0.0401 | 0.4799 |
| 128 | 50.48 | 0.00 | 0.0358 | 9.9999 | 0.0252 | 9.9999 | 0.6535 | 0.6426 | 0.0300 | 0.3046 | 0.0479 | 0.4739 |
| 129 | 50.65 | 0.08 | 0.0323 | 9.9999 | 0.0230 | 9.9999 | 0.6303 | 0.6205 | 0.0323 | 0.2943 | 0.0520 | 0.4743 |
| 130 | 50.83 | 0.05 | 0.0366 | 9.9999 | 0.0247 | 9.9999 | 0.6094 | 0.5257 | 0.0430 | 0.2501 | 0.0818 | 0.4758 |
| 131 | 51.00 | 0.11 | 0.0385 | 9.9999 | 0.0295 | 9.9999 | 0.6315 | 0.5024 | 0.0421 | 0.2363 | 0.0838 | 0.4703 |
| 132 | 51.18 | 0.10 | 0.0362 | 9.9999 | 0.0308 | 9.9999 | 0.6309 | 0.5476 | 0.0437 | 0.2644 | 0.0798 | 0.4829 |
| 133 | 51.34 | 0.08 | 0.0401 | 9.9999 | 0.0306 | 9.9999 | 0.6036 | 0.5328 | 0.0465 | 0.2577 | 0.0873 | 0.4837 |
| 134 | 51.51 | 0.06 | 0.0454 | 9.9999 | 0.0300 | 9.9999 | 0.6000 | 0.5067 | 0.0492 | 0.2433 | 0.0971 | 0.4801 |
| 135 | 51.68 | 0.04 | 0.0446 | 9.9999 | 0.0302 | 9.9999 | 0.6734 | 0.5253 | 0.0509 | 0.2553 | 0.0969 | 0.4861 |
| 136 | 51.85 | 0.04 | 0.0401 | 9.9999 | 0.0283 | 9.9999 | 0.6469 | 0.5237 | 0.0531 | 0.2557 | 0.1020 | 0.4911 |
| 137 | 52.03 | 0.06 | 0.0420 | 9.9999 | 0.0288 | 9.9999 | 0.6325 | 0.4813 | 0.0512 | 0.2306 | 0.1064 | 0.4795 |
| 138 | 52.19 | 0.03 | 0.0511 | 9.9999 | 0.0333 | 9.9999 | 0.6434 | 0.5118 | 0.0512 | 0.2475 | 0.1000 | 0.4836 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK0) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 119 PACK 6.96 RX10-6 1.7 PHI 0.0 CONF 31 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.37 | 0.06 | 0.0475 | 5.9999 | 0.0318 | 5.9999 | 0.6688 | 0.4919 | 0.0518 | 0.2347 | 0.1053 | 0.4771 |
| 140 | 52.54 | 0.07 | 0.0502 | 5.9999 | 0.0323 | 5.9999 | 0.6427 | 0.5048 | 0.0532 | 0.2429 | 0.1054 | 0.4611 |
| 141 | 52.71 | 0.09 | 0.0516 | 5.9999 | 0.0345 | 5.9999 | 0.6757 | 0.4966 | 0.0525 | 0.2379 | 0.1057 | 0.4790 |
| 142 | 52.88 | 0.08 | 0.0505 | 5.9999 | 0.0343 | 5.9999 | 0.6732 | 0.4918 | 0.0540 | 0.2356 | 0.1058 | 0.4790 |
| 143 | 53.06 | 0.08 | 0.0493 | 5.9999 | 0.0328 | 5.9999 | 0.6412 | 0.4938 | 0.0545 | 0.2392 | 0.1104 | 0.4846 |
| 144 | 53.22 | 0.08 | 0.0552 | 5.9999 | 0.0402 | 5.9999 | 0.6817 | 0.4997 | 0.0524 | 0.2395 | 0.1045 | 0.4792 |
| 145 | 53.39 | 0.08 | 0.0445 | 5.9999 | 0.0301 | 5.9999 | 0.6757 | 0.4907 | 0.0536 | 0.2347 | 0.1088 | 0.4783 |
| 146 | 53.55 | 0.08 | 0.0542 | 5.9999 | 0.0381 | 5.9999 | 0.6654 | 0.4931 | 0.0540 | 0.2363 | 0.1095 | 0.4792 |
| 147 | 53.73 | 0.07 | 0.0558 | 5.9999 | 0.0355 | 5.9999 | 0.6459 | 0.4856 | 0.0544 | 0.2317 | 0.1121 | 0.4771 |
| 148 | 53.88 | 0.06 | 0.0513 | 5.9999 | 0.0335 | 5.9999 | 0.6002 | 0.4928 | 0.0558 | 0.2350 | 0.1133 | 0.4768 |
| 149 | 54.04 | 0.05 | 0.0568 | 5.9999 | 0.0370 | 5.9999 | 0.6508 | 0.4980 | 0.0536 | 0.2364 | 0.1076 | 0.4746 |
| 150 | 54.20 | 0.06 | 0.0402 | 5.9999 | 0.0263 | 5.9999 | 0.6534 | 0.4915 | 0.0545 | 0.2339 | 0.1109 | 0.4758 |
| 151 | 54.35 | 0.06 | 0.0493 | 5.9999 | 0.0286 | 5.9999 | 0.6493 | 0.5001 | 0.0562 | 0.2385 | 0.1124 | 0.4769 |
| 152 | 54.51 | 0.06 | 0.0458 | 5.9999 | 0.0305 | 5.9999 | 0.6197 | 0.4906 | 0.0554 | 0.2357 | 0.1116 | 0.4746 |
| 153 | 54.67 | 0.07 | 0.0496 | 5.9999 | 0.0320 | 5.9999 | 0.6415 | 0.5028 | 0.0564 | 0.2382 | 0.1122 | 0.4737 |
| 154 | 54.82 | 0.05 | 0.0498 | 5.9999 | 0.0305 | 5.9999 | 0.6197 | 0.5010 | 0.0557 | 0.2372 | 0.1112 | 0.4734 |
| 155 | 54.98 | 0.06 | 0.0425 | 5.9999 | 0.0273 | 5.9999 | 0.6355 | 0.5087 | 0.0568 | 0.2419 | 0.1117 | 0.4755 |
| 156 | 55.13 | 0.04 | 0.0421 | 5.9999 | 0.0272 | 5.9999 | 0.6452 | 0.5069 | 0.0559 | 0.2386 | 0.1103 | 0.4706 |
| 157 | 55.29 | 0.05 | 0.0442 | 5.9999 | 0.0295 | 5.9999 | 0.6757 | 0.5055 | 0.0573 | 0.2380 | 0.1134 | 0.4708 |
| 158 | 55.43 | 0.06 | 0.0460 | 5.9999 | 0.0287 | 5.9999 | 0.6067 | 0.5069 | 0.0562 | 0.2395 | 0.1148 | 0.4724 |
| 159 | 55.59 | 0.08 | 0.0497 | 5.9999 | 0.0331 | 5.9999 | 0.6653 | 0.5115 | 0.0576 | 0.2405 | 0.1126 | 0.4701 |
| 160 | 55.75 | 0.06 | 0.0393 | 5.9999 | 0.0263 | 5.9999 | 0.6429 | 0.5050 | 0.0564 | 0.2388 | 0.1157 | 0.4728 |
| 161 | 55.91 | 0.05 | 0.0482 | 5.9999 | 0.0323 | 5.9999 | 0.6094 | 0.5211 | 0.0582 | 0.2458 | 0.1117 | 0.4717 |
| 162 | 56.06 | 0.05 | 0.0462 | 5.9999 | 0.0291 | 5.9999 | 0.6291 | 0.5203 | 0.0588 | 0.2462 | 0.1131 | 0.4732 |
| 163 | 56.22 | 0.06 | 0.0414 | 5.9999 | 0.0263 | 5.9999 | 0.6344 | 0.5150 | 0.0596 | 0.2422 | 0.1154 | 0.4703 |
| 164 | 56.37 | 0.05 | 0.0441 | 5.9999 | 0.0270 | 5.9999 | 0.6114 | 0.5277 | 0.0592 | 0.2491 | 0.1122 | 0.4721 |
| 165 | 56.53 | 0.04 | 0.0441 | 5.9999 | 0.0275 | 5.9999 | 0.6227 | 0.5359 | 0.0596 | 0.2540 | 0.1113 | 0.4746 |
| 166 | 56.68 | 0.06 | 0.0426 | 5.9999 | 0.0264 | 5.9999 | 0.6159 | 0.5371 | 0.0601 | 0.2536 | 0.1119 | 0.4722 |
| 167 | 56.84 | 0.07 | 0.0468 | 5.9999 | 0.0287 | 5.9999 | 0.6338 | 0.5517 | 0.0595 | 0.2582 | 0.1079 | 0.4680 |
| 168 | 56.99 | 0.04 | 0.0421 | 5.9999 | 0.0257 | 5.9999 | 0.6055 | 0.5657 | 0.0591 | 0.2667 | 0.1045 | 0.4716 |
| 169 | 57.14 | 0.05 | 0.0413 | 5.9999 | 0.0259 | 5.9999 | 0.6262 | 0.5582 | 0.0597 | 0.2602 | 0.1070 | 0.4682 |
| 170 | 57.28 | 0.06 | 0.0392 | 5.9999 | 0.0247 | 5.9999 | 0.6119 | 0.5555 | 0.0601 | 0.2604 | 0.1082 | 0.4688 |
| 171 | 57.43 | 0.06 | 0.0400 | 5.9999 | 0.0245 | 5.9999 | 0.6115 | 0.5671 | 0.0605 | 0.2643 | 0.1067 | 0.4662 |
| 172 | 57.59 | 0.02 | 0.0373 | 5.9999 | 0.0246 | 5.9999 | 0.5991 | 0.5837 | 0.0594 | 0.2722 | 0.1018 | 0.4663 |
| 173 | 57.73 | 0.00 | 0.0355 | 5.9999 | 0.0198 | 5.9999 | 0.5475 | 0.5829 | 0.0602 | 0.2706 | 0.1033 | 0.4642 |
| 174 | 57.89 | -0.02 | 0.0359 | 5.9999 | 0.0202 | 5.9999 | 0.5642 | 0.5903 | 0.0600 | 0.2744 | 0.1017 | 0.4648 |
| 175 | 58.03 | -0.04 | 0.0400 | 5.9999 | 0.0224 | 5.9999 | 0.5614 | 0.5898 | 0.0602 | 0.2755 | 0.1021 | 0.4660 |
| 176 | 58.17 | -0.05 | 0.0354 | 5.9999 | 0.0201 | 5.9999 | 0.5114 | 0.5818 | 0.0595 | 0.2682 | 0.1023 | 0.4611 |
| 177 | 58.33 | -0.10 | 0.0335 | 5.9999 | 0.0175 | 5.9999 | 0.5178 | 0.5812 | 0.0599 | 0.2644 | 0.1031 | 0.4596 |
| 178 | 58.48 | -0.06 | 0.0346 | 5.9999 | 0.0173 | 5.9999 | 0.5014 | 0.5869 | 0.0584 | 0.2590 | 0.1031 | 0.4595 |
| 179 | 58.48 | -0.07 | 0.0325 | 5.9999 | 0.0157 | 5.9999 | 0.4846 | 0.5732 | 0.0596 | 0.2570 | 0.1040 | 0.4684 |
| 180 | 58.48 | -0.09 | 0.0373 | 5.9999 | 0.0151 | 5.9999 | 0.5134 | 0.5701 | 0.0588 | 0.2591 | 0.1032 | 0.4675 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 420 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF 61n0F31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.02 | 0.01 | -3.9748 | 13.5463 | -0.0077 | -0.0041 | -0.0080 | 2.1258 | 0.4543 | 1.6715 | -3.4086 |
| 2 | -5.03 | 0.02 | -4.0240 | 13.6722 | 0.0373 | -0.0775 | 0.0039 | 2.1395 | 0.4542 | 1.6853 | -3.3977 |
| 3 | -5.02 | 0.02 | -4.0032 | 13.7223 | -0.0778 | 0.0605 | 0.0036 | 2.1381 | 0.4539 | 1.6842 | -3.4023 |
| 4 | -5.02 | 0.03 | -4.0226 | 13.6188 | 0.0136 | -0.0203 | -0.0022 | 2.1377 | 0.4527 | 1.6850 | -3.3809 |
| 5 | -4.01 | 0.03 | -3.2570 | 14.0318 | -0.0005 | -0.1040 | 0.0044 | 2.0663 | 0.3785 | 1.6878 | -3.5461 |
| 6 | -2.92 | 0.02 | -3.7491 | 13.7755 | -0.1146 | -0.1753 | 0.0343 | 1.9413 | 0.2585 | 1.6828 | -3.6755 |
| 7 | -1.27 | 0.03 | -3.3663 | 12.6965 | 0.0162 | -0.0584 | -0.0038 | 1.8080 | 0.1613 | 1.6267 | -3.6091 |
| 8 | 0.49 | 0.03 | -3.0113 | 11.9304 | 0.0121 | -0.0888 | -0.0063 | 1.7017 | 0.1669 | 1.5348 | -3.5619 |
| 9 | 2.22 | 0.02 | -2.6267 | 10.9505 | -0.0445 | -0.0220 | -0.0003 | 1.5765 | 0.1600 | 1.4165 | -4.1582 |
| 10 | 3.96 | 0.03 | -2.2914 | 10.0527 | 0.0635 | -0.1150 | 0.0003 | 1.4689 | 0.1512 | 1.3177 | -4.3872 |
| 11 | 5.74 | 0.03 | -1.8318 | 8.9088 | 0.0628 | -0.1353 | -0.0052 | 1.3318 | 0.1573 | 1.1745 | -4.8637 |
| 12 | 7.59 | 0.02 | -1.4263 | 7.8317 | -0.0592 | -0.0802 | -0.0050 | 1.2058 | 0.1664 | 1.0452 | -5.5140 |
| 13 | 9.36 | 0.03 | -1.0189 | 6.8203 | -0.0413 | -0.0681 | -0.0047 | 1.0753 | 0.1661 | 0.9152 | -6.6936 |
| 14 | 11.22 | 0.03 | -0.5494 | 5.7081 | 0.0074 | -0.0227 | -0.0156 | 0.9550 | 0.1615 | 0.7935 | -10.5763 |
| 15 | 13.05 | 0.04 | -0.0995 | 4.6805 | 0.0351 | -0.0077 | -0.0152 | 0.8360 | 0.1586 | 0.6761 | -49.0740 |
| 16 | 14.99 | 0.01 | 0.3586 | 3.6956 | -0.1328 | 0.1286 | -0.0147 | 0.7156 | 0.1585 | 0.5551 | 11.4724 |
| 17 | 16.89 | 0.03 | 0.8162 | 3.2012 | -0.0410 | 0.2324 | -0.0202 | 0.6073 | 0.1664 | 0.4409 | 3.9076 |
| 18 | 18.82 | 0.03 | 1.2466 | 2.8543 | -0.0757 | 0.3266 | -0.0137 | 0.5047 | 0.1654 | 0.3373 | 2.6895 |
| 19 | 20.74 | 0.02 | 1.6211 | 2.1257 | -0.1920 | 0.7016 | -0.0373 | 0.4184 | 0.1760 | 0.2424 | 1.3158 |
| 20 | 22.67 | 0.03 | 2.1342 | 2.1567 | -0.1602 | 0.6106 | -0.0654 | 0.3420 | 0.1716 | 0.1710 | 1.0293 |
| 21 | 24.63 | 0.03 | 2.7136 | 2.0248 | 0.0216 | -0.0306 | 0.0112 | 0.2825 | 0.1672 | 0.1154 | 0.9673 |
| 22 | 26.61 | 0.04 | 3.2886 | 2.9243 | 0.0809 | -0.2897 | 0.1354 | 0.2569 | 0.1905 | 0.0664 | 0.8853 |
| 23 | 28.36 | 0.11 | 3.7176 | 3.1633 | 1.0765 | -0.6754 | 0.1362 | 0.2127 | 0.2040 | 0.0087 | 0.8510 |
| 24 | 28.31 | 0.10 | 3.7184 | 3.1764 | 0.9852 | -0.4870 | 0.1497 | 0.2143 | 0.2058 | 0.0087 | 0.8542 |
| 25 | 28.33 | 0.11 | 3.6276 | 3.0617 | 1.1241 | -0.7500 | 0.1563 | 0.1955 | 0.2025 | -0.0070 | 0.7999 |
| 26 | 28.34 | 0.11 | 3.6351 | 3.2261 | 1.1266 | -0.7106 | 0.1507 | 0.1947 | 0.2046 | -0.0101 | 0.8360 |
| 27 | 28.39 | 0.12 | 3.5865 | 3.1762 | 1.2178 | -0.8582 | 0.1513 | 0.1727 | 0.2052 | -0.0325 | 0.7588 |
| 28 | 29.29 | 0.10 | 4.0796 | 3.4047 | 0.8727 | -1.0544 | 0.1152 | 0.1660 | 0.2033 | -0.0367 | 0.8345 |
| 29 | 29.63 | 0.10 | 4.1171 | 3.4341 | 0.9426 | -0.0816 | 0.1274 | 0.1594 | 0.2033 | -0.0439 | 0.8341 |
| 30 | 29.92 | 0.10 | 4.2364 | 3.4865 | 0.9706 | -2.4087 | 0.1521 | 0.1691 | 0.2046 | -0.0408 | 0.8204 |
| 31 | 30.19 | 0.08 | 4.3007 | 3.5564 | 0.8010 | -1.7514 | 0.1160 | 0.1427 | 0.2002 | -0.0575 | 0.8362 |
| 32 | 30.47 | 0.10 | 4.4139 | 3.6163 | 1.1004 | -2.5736 | 0.1533 | 0.1425 | 0.2055 | -0.0630 | 0.8194 |
| 33 | 30.74 | 0.11 | 4.4949 | 3.6832 | 1.1124 | -2.4208 | 0.1596 | 0.1312 | 0.2054 | -0.0742 | 0.8150 |
| 34 | 31.02 | 0.10 | 4.5651 | 3.7675 | 1.0198 | -2.4796 | 0.1654 | 0.1259 | 0.2027 | -0.0768 | 0.8253 |
| 35 | 31.28 | 0.10 | 4.6527 | 3.7513 | 1.0405 | -2.3752 | 0.1427 | 0.1209 | 0.2116 | -0.0905 | 0.7954 |
| 36 | 31.57 | 0.11 | 4.7717 | 3.7063 | 1.2515 | -2.9265 | 0.1735 | 0.1161 | 0.2175 | -0.1019 | 0.7880 |
| 37 | 31.84 | 0.11 | 4.8500 | 3.7857 | 1.2100 | -3.0543 | 0.1918 | 0.1211 | 0.2155 | -0.0944 | 0.7805 |
| 38 | 32.11 | 0.10 | 4.9243 | 3.8053 | 1.0696 | -2.7747 | 0.1740 | 0.1194 | 0.2121 | -0.0927 | 0.7862 |
| 39 | 32.39 | 0.05 | 5.1014 | 3.7824 | 0.9591 | -2.2991 | 0.1206 | 0.0869 | 0.2117 | -0.1228 | 0.7414 |
| 40 | 32.64 | 0.00 | 5.2185 | 3.9771 | 0.7259 | -1.6310 | 0.0722 | 0.0606 | 0.1951 | -0.1345 | 0.7770 |
| 41 | 32.91 | 0.05 | 5.2676 | 3.8433 | 0.8750 | -2.2306 | 0.1211 | 0.0713 | 0.2005 | -0.1292 | 0.7256 |
| 42 | 33.17 | 0.06 | 5.3203 | 3.8651 | 0.9503 | -0.7624 | 0.0301 | 0.0497 | 0.1890 | -0.1393 | 0.7303 |
| 43 | 33.42 | 0.04 | 5.3535 | 3.9164 | 0.2211 | -0.3025 | -0.0060 | 0.0329 | 0.1859 | -0.1530 | 0.7264 |
| 44 | 33.67 | 0.07 | 5.3956 | 3.7629 | 0.6653 | -1.5261 | 0.0735 | 0.0144 | 0.1924 | -0.1775 | 0.6807 |
| 45 | 33.94 | 0.05 | 5.4830 | 3.9793 | 0.4206 | -0.8909 | 0.0613 | -0.0133 | 0.1847 | -0.1980 | 0.7062 |
| 46 | 34.19 | 0.05 | 5.5257 | 3.7558 | 0.4542 | -0.7826 | 0.0355 | -0.0140 | 0.1912 | -0.2052 | 0.6584 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NASA/CC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 2 OF 4

PARTIN MISSILE TAILS EFFECTS-DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 140 | 1.00 | 1.7 | 0.0 | BIaOF31 | C.C | 0 | -30 | 0 | -30 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.42 | 0.05 | 5.8395 | 3.7777 | 0.2732 | -0.0773 | -0.0353 | -0.0349 | 0.1897 | -0.2246 | 0.6469 |
| 48 | 34.68 | 0.05 | 5.9491 | 3.8333 | 0.4665 | -1.0424 | 0.0664 | -0.0159 | 0.1905 | -0.2064 | 0.6443 |
| 49 | 34.93 | 0.05 | 5.9508 | 3.9171 | 0.4582 | -1.0231 | 0.0806 | -0.0147 | 0.1912 | -0.2059 | 0.6538 |
| 50 | 35.18 | 0.07 | 6.1719 | 3.7172 | 0.6483 | -1.4036 | 0.1055 | -0.0396 | 0.1893 | -0.2289 | 0.6023 |
| 51 | 35.43 | 0.06 | 6.3550 | 3.5554 | 0.8566 | -1.9233 | 0.1246 | -0.0586 | 0.1953 | -0.2579 | 0.5601 |
| 52 | 35.66 | 0.11 | 6.4919 | 3.4031 | 1.3479 | -3.1225 | 0.1603 | -0.0298 | 0.2224 | -0.2522 | 0.5246 |
| 53 | 35.94 | 0.07 | 6.7155 | 3.2712 | 0.8586 | -2.2235 | 0.1377 | -0.0757 | 0.2036 | -0.2791 | 0.4868 |
| 54 | 36.18 | 0.05 | 6.7653 | 3.4165 | 1.0767 | -2.5722 | 0.1510 | -0.0672 | 0.2048 | -0.2720 | 0.5051 |
| 55 | 36.39 | 0.08 | 6.8481 | 3.3438 | 0.5481 | -2.2105 | 0.1266 | -0.1012 | 0.2018 | -0.3030 | 0.4683 |
| 56 | 36.65 | 0.12 | 7.0469 | 3.1356 | 1.5255 | -3.7154 | 0.1884 | -0.0444 | 0.2303 | -0.2807 | 0.4456 |
| 57 | 36.87 | 0.05 | 7.0635 | 3.1173 | 1.1073 | -2.8372 | 0.1636 | -0.0822 | 0.2137 | -0.2960 | 0.4413 |
| 58 | 37.11 | 0.09 | 7.1715 | 3.1056 | 1.0316 | -2.6436 | 0.1400 | -0.0922 | 0.2131 | -0.3054 | 0.4332 |
| 59 | 37.37 | 0.10 | 7.3457 | 3.1112 | 1.1687 | -2.8083 | 0.1407 | -0.1087 | 0.2167 | -0.3254 | 0.4233 |
| 60 | 37.60 | 0.09 | 7.4520 | 3.1057 | 1.0647 | -2.6563 | 0.1647 | -0.0946 | 0.2263 | -0.3210 | 0.4292 |
| 61 | 37.83 | 0.07 | 7.5744 | 3.0325 | 0.7577 | -1.9272 | 0.1283 | -0.1413 | 0.2094 | -0.3507 | 0.4004 |
| 62 | 38.08 | 0.07 | 7.7079 | 2.9887 | 0.7715 | -1.9478 | 0.1054 | -0.1578 | 0.2040 | -0.3616 | 0.3877 |
| 63 | 38.29 | 0.05 | 7.7164 | 3.0151 | 0.9591 | -2.2612 | 0.1409 | -0.1511 | 0.1906 | -0.3417 | 0.3907 |
| 64 | 38.53 | 0.07 | 7.7565 | 2.9574 | 0.7642 | -2.0151 | 0.1114 | -0.1624 | 0.1936 | -0.3560 | 0.3843 |
| 65 | 38.77 | 0.05 | 7.9041 | 2.8424 | 0.5570 | -2.4608 | 0.1534 | -0.1691 | 0.1940 | -0.3631 | 0.3556 |
| 66 | 38.99 | 0.06 | 8.0122 | 2.8516 | 0.5574 | -1.5513 | 0.0640 | -0.2311 | 0.1737 | -0.4048 | 0.3367 |
| 67 | 39.22 | 0.06 | 8.1157 | 2.8440 | 0.6267 | -1.6352 | 0.1064 | -0.2375 | 0.1801 | -0.4180 | 0.3180 |
| 68 | 39.44 | 0.05 | 8.2366 | 2.7834 | 0.2555 | -0.8441 | -0.0181 | -0.2391 | 0.1636 | -0.4027 | 0.3355 |
| 69 | 39.65 | 0.07 | 8.2465 | 2.7765 | 0.7436 | -1.7254 | 0.1235 | -0.2114 | 0.1717 | -0.3831 | 0.3367 |
| 70 | 39.88 | 0.04 | 8.4250 | 2.8443 | 0.3283 | -0.8010 | 0.0120 | -0.2372 | 0.1635 | -0.4007 | 0.3137 |
| 71 | 40.08 | 0.07 | 8.4514 | 2.5238 | 0.7423 | -1.7434 | 0.0893 | -0.2399 | 0.1736 | -0.4135 | 0.2986 |
| 72 | 40.30 | 0.07 | 8.5668 | 2.4324 | 0.7373 | -1.6376 | 0.1013 | -0.2554 | 0.1733 | -0.4287 | 0.2839 |
| 73 | 40.52 | 0.08 | 8.7357 | 2.4372 | 0.6483 | -1.6319 | 0.0841 | -0.2417 | 0.1686 | -0.4103 | 0.2790 |
| 74 | 40.72 | 0.05 | 8.7965 | 2.3666 | 0.6139 | -1.5780 | 0.0956 | -0.2509 | 0.1677 | -0.4186 | 0.2707 |
| 75 | 40.93 | 0.05 | 8.9089 | 2.2658 | 0.6305 | -1.5124 | 0.0789 | -0.2661 | 0.1684 | -0.4345 | 0.2547 |
| 76 | 41.14 | 0.05 | 9.0161 | 2.1908 | 0.6006 | -1.5051 | 0.1912 | -0.2651 | 0.1680 | -0.4335 | 0.2431 |
| 77 | 41.34 | 0.03 | 9.1036 | 2.2918 | 0.3846 | -1.0535 | 0.0589 | -0.2553 | 0.1779 | -0.4332 | 0.2462 |
| 78 | 41.54 | 0.03 | 9.1465 | 2.3267 | 0.4041 | -1.1735 | 0.0364 | -0.2706 | 0.1699 | -0.4407 | 0.2537 |
| 79 | 41.77 | 0.03 | 9.3457 | 2.0534 | 0.4235 | -1.0670 | 0.0039 | -0.2598 | 0.1767 | -0.4365 | 0.2196 |
| 80 | 41.98 | 0.03 | 9.4386 | 2.0316 | 0.3763 | -1.0500 | 0.0331 | -0.2777 | 0.1684 | -0.4461 | 0.2390 |
| 81 | 42.16 | 0.04 | 9.5256 | 1.8904 | 0.5318 | -1.3056 | 0.0880 | -0.2863 | 0.1778 | -0.4641 | 0.1990 |
| 82 | 42.36 | 0.03 | 9.6295 | 1.9185 | 0.4161 | -1.0010 | 0.0978 | -0.2883 | 0.1771 | -0.4634 | 0.1952 |
| 83 | 42.55 | 0.05 | 9.5735 | 2.0618 | 0.5215 | -1.2219 | 0.1212 | -0.2888 | 0.1835 | -0.4923 | 0.2153 |
| 84 | 42.73 | 0.04 | 9.5824 | 2.0295 | 0.5121 | -1.2200 | 0.1300 | -0.3140 | 0.1803 | -0.4748 | 0.2306 |
| 85 | 42.92 | 0.03 | 9.8135 | 1.7643 | 0.4854 | -1.1545 | 0.1218 | -0.3238 | 0.1776 | -0.5014 | 0.1758 |
| 86 | 43.09 | 0.04 | 9.7130 | 2.2164 | 0.5480 | -1.4221 | 0.0900 | -0.2997 | 0.1750 | -0.4746 | 0.2276 |
| 87 | 43.25 | 0.03 | 9.6869 | 2.3184 | 0.3978 | -0.9038 | 0.0748 | -0.3108 | 0.1739 | -0.4847 | 0.2393 |
| 88 | 43.44 | 0.03 | 9.8131 | 2.1860 | 0.4585 | -1.2542 | 0.0757 | -0.3298 | 0.1708 | -0.5066 | 0.2228 |
| 89 | 43.63 | 0.03 | 9.8865 | 2.1452 | 0.4168 | -1.1980 | 0.0350 | -0.3291 | 0.1838 | -0.5127 | 0.2174 |
| 90 | 43.81 | 0.04 | 10.0087 | 1.9994 | 0.5526 | -1.2577 | 0.1116 | -0.3331 | 0.1861 | -0.5194 | 0.1998 |
| 91 | 43.99 | 0.03 | 10.0810 | 2.0886 | 0.5072 | -1.1756 | 0.1351 | -0.3437 | 0.1938 | -0.5375 | 0.2056 |
| 92 | 44.16 | 0.05 | 10.0710 | 2.2146 | 0.5751 | -1.3536 | 0.1936 | -0.2935 | 0.2036 | -0.4971 | 0.2199 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 120 1.00 1.7 | PATCH RAIG-6 | PHI 0.0 | CONF 81A0F31 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.33 | 0.02 | 10.2511 | 1.9575 | 0.3692 | -1.0846 | 0.0654 | -0.3390 | 0.2002 | -0.5392 | 0.1949 |
| 94 | 44.55 | 0.02 | 10.2628 | 2.1454 | 0.4121 | -1.1256 | 0.0599 | -0.3272 | 0.1957 | -0.5229 | 0.2086 |
| 95 | 44.72 | 0.03 | 10.4013 | 2.0385 | 0.5053 | -1.2136 | 0.0760 | -0.3406 | 0.1934 | -0.5350 | 0.1960 |
| 96 | 44.90 | 0.04 | 10.3504 | 2.0246 | 0.4944 | -0.8373 | 0.1303 | -0.3139 | 0.2047 | -0.5186 | 0.2172 |
| 97 | 45.05 | 0.03 | 10.4150 | 2.3066 | 0.4584 | -0.4977 | 0.1596 | -0.3096 | 0.2167 | -0.5263 | 0.2217 |
| 98 | 45.23 | 0.02 | 10.4454 | 2.1013 | 0.4516 | -1.1245 | 0.1016 | -0.3414 | 0.2063 | -0.5477 | 0.2012 |
| 99 | 45.43 | 0.04 | 10.3302 | 2.5337 | 0.5456 | -0.9208 | 0.1192 | -0.3450 | 0.1972 | -0.5428 | 0.2453 |
| 100 | 45.61 | 0.03 | 10.5116 | 2.1603 | 0.5526 | -1.0476 | 0.0964 | -0.3417 | 0.2103 | -0.5526 | 0.2054 |
| 101 | 45.81 | 0.03 | 10.7210 | 2.0175 | 0.4835 | -1.1550 | 0.0676 | -0.3549 | 0.2123 | -0.5672 | 0.1882 |
| 102 | 45.98 | 0.03 | 10.7365 | 2.1214 | 0.5004 | -1.1248 | 0.0678 | -0.3502 | 0.2061 | -0.5563 | 0.1976 |
| 103 | 46.14 | 0.04 | 10.7062 | 2.1112 | 0.5333 | -1.2013 | 0.0856 | -0.3573 | 0.2092 | -0.5665 | 0.1957 |
| 104 | 46.32 | 0.04 | 10.7004 | 2.0413 | 0.5163 | -0.8665 | 0.1145 | -0.3286 | 0.2210 | -0.5496 | 0.2082 |
| 105 | 46.51 | 0.04 | 10.9957 | 2.0036 | 0.4663 | -0.4883 | 0.1325 | -0.3388 | 0.2331 | -0.5719 | 0.1876 |
| 106 | 46.68 | 0.04 | 10.9658 | 2.2416 | 0.5357 | -0.6705 | 0.1035 | -0.3010 | 0.2365 | -0.5375 | 0.2128 |
| 107 | 46.84 | 0.04 | 10.9348 | 2.2265 | 0.4721 | -0.4584 | 0.1090 | -0.3337 | 0.2646 | -0.5983 | 0.2038 |
| 108 | 47.00 | 0.05 | 11.0963 | 2.0650 | 0.5883 | -0.8300 | 0.1273 | -0.2448 | 0.3273 | -0.5721 | 0.2437 |
| 109 | 47.16 | 0.07 | 10.7261 | 2.3700 | 0.8613 | -1.3057 | 0.0925 | -0.1729 | 0.3319 | -0.5048 | 0.2211 |
| 110 | 47.30 | 0.06 | 11.2044 | 0.8864 | 0.5943 | -0.8300 | 0.0901 | -0.2808 | 0.3905 | -0.6711 | 0.0786 |
| 111 | 47.51 | 0.07 | 11.0067 | 1.5561 | 0.7331 | -0.5245 | 0.1139 | -0.2803 | 0.3662 | -0.6465 | 0.1414 |
| 112 | 47.69 | 0.06 | 11.3627 | 0.7469 | 0.6521 | -0.2036 | 0.0961 | -0.2980 | 0.3918 | -0.6898 | 0.0659 |
| 113 | 47.86 | 0.07 | 11.0674 | 0.9266 | 0.8687 | 0.3798 | 0.0826 | -0.3136 | 0.4036 | -0.7172 | 0.0025 |
| 114 | 48.07 | 0.07 | 11.6469 | 0.4483 | 0.5906 | 0.1848 | 0.0723 | -0.2698 | 0.4126 | -0.7026 | 0.0385 |
| 115 | 48.25 | 0.06 | 11.9388 | -0.5120 | 0.3137 | 2.2542 | -0.0056 | -0.1762 | 0.4450 | -0.6232 | -0.0429 |
| 116 | 48.43 | 0.06 | 12.1225 | -1.1336 | 0.3505 | 1.9712 | -0.0100 | -0.1695 | 0.4627 | -0.6322 | -0.0435 |
| 117 | 48.61 | 0.05 | 12.1230 | -1.1512 | 0.4108 | 2.2429 | -0.0266 | -0.1755 | 0.4601 | -0.6356 | -0.0545 |
| 118 | 48.77 | 0.07 | 12.3494 | -1.2531 | 0.3955 | 2.1836 | -0.0396 | -0.1674 | 0.4677 | -0.6351 | -0.1047 |
| 119 | 48.96 | 0.06 | 12.4016 | -1.0816 | 0.2748 | 2.5099 | -0.0227 | -0.1603 | 0.4732 | -0.6535 | -0.0872 |
| 120 | 49.13 | 0.07 | 12.4970 | -1.2545 | 0.3796 | 2.3029 | -0.0338 | -0.1696 | 0.4755 | -0.6361 | -0.1002 |
| 121 | 49.29 | 0.05 | 12.4563 | -1.0621 | 0.2086 | 2.6736 | -0.0346 | -0.2206 | 0.4524 | -0.6730 | -0.0692 |
| 122 | 49.47 | 0.07 | 12.4552 | -1.3022 | 0.3726 | 2.4774 | -0.0219 | -0.1671 | 0.4645 | -0.6316 | -0.1029 |
| 123 | 49.64 | 0.05 | 12.5148 | -1.0473 | 0.1700 | 2.7776 | -0.0406 | -0.2214 | 0.4560 | -0.6755 | -0.0677 |
| 124 | 49.83 | 0.06 | 12.7379 | -1.1056 | 0.3284 | 2.5722 | -0.0394 | -0.2035 | 0.4574 | -0.6665 | -0.0868 |
| 125 | 49.99 | 0.05 | 12.6150 | -0.9845 | 0.1764 | 2.5759 | -0.0276 | -0.1647 | 0.4539 | -0.6386 | -0.0765 |
| 126 | 50.16 | 0.04 | 12.6521 | -1.0463 | 0.1036 | 2.8178 | -0.0395 | -0.2248 | 0.4507 | -0.6616 | -0.0776 |
| 127 | 50.37 | 0.03 | 12.9549 | -1.1477 | 0.2466 | 2.2352 | -0.0135 | -0.1794 | 0.4784 | -0.6578 | -0.0883 |
| 128 | 50.52 | 0.01 | 12.8101 | -0.9574 | -0.0528 | 2.8006 | -0.0388 | -0.2265 | 0.4500 | -0.6626 | -0.0747 |
| 129 | 50.70 | 0.03 | 12.9706 | -1.1564 | 0.1022 | 2.2529 | -0.0312 | -0.2158 | 0.4662 | -0.6821 | -0.0521 |
| 130 | 50.88 | 0.03 | 13.1931 | -1.0375 | 0.2165 | 2.1269 | -0.0460 | -0.2384 | 0.4575 | -0.6566 | -0.1241 |
| 131 | 51.04 | 0.03 | 13.1284 | -1.1425 | 0.2419 | 1.5556 | -0.0343 | -0.2167 | 0.4655 | -0.6823 | -0.1089 |
| 132 | 51.16 | 0.03 | 12.7651 | -0.8342 | 0.3575 | 0.9271 | 0.0146 | -0.1571 | 0.4440 | -0.6417 | -0.0454 |
| 133 | 51.34 | 0.04 | 12.9076 | -0.8346 | 0.4006 | 0.8102 | 0.0096 | -0.1630 | 0.4606 | -0.6236 | -0.0647 |
| 134 | 51.52 | 0.02 | 12.8404 | -0.9462 | 0.2533 | 0.8437 | 0.0041 | -0.2178 | 0.4486 | -0.6658 | -0.0432 |
| 135 | 51.70 | 0.03 | 12.7483 | -0.9513 | 0.3881 | 0.8003 | 0.0388 | -0.1833 | 0.4495 | -0.6328 | -0.0354 |
| 136 | 51.88 | 0.03 | 12.8381 | -0.9567 | 0.4013 | 0.9000 | 0.0217 | -0.1705 | 0.4711 | -0.6462 | -0.0460 |
| 137 | 52.02 | 0.03 | 12.7826 | -0.8031 | 0.3811 | 0.6591 | 0.0511 | -0.2031 | 0.4560 | -0.6591 | -0.0472 |
| 138 | 52.19 | 0.03 | 12.8919 | -0.9078 | 0.3257 | 0.7954 | 0.0505 | -0.2024 | 0.4484 | -0.6508 | -0.0306 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 126 PACK 1.00 RX10-6 1.7 PHI 0.0 CONF 31 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.33 | 0.03 | 12.5220 | -0.1314 | 0.3506 | 0.7743 | 0.0384 | -0.2214 | 0.4176 | -0.6390 | -0.0105 |
| 140 | 52.54 | 0.02 | 13.0162 | -0.1430 | 0.2834 | 0.6500 | 0.0461 | -0.1776 | 0.4708 | -0.6544 | -0.0617 |
| 141 | 52.68 | 0.02 | 12.8155 | -0.1308 | 0.2824 | 0.7628 | 0.0454 | -0.1992 | 0.4666 | -0.6660 | -0.0359 |
| 142 | 52.80 | 0.02 | 13.0272 | -0.0834 | 0.2508 | 0.7787 | 0.0403 | -0.1832 | 0.4606 | -0.6638 | -0.0432 |
| 143 | 53.03 | 0.02 | 12.9452 | -0.1310 | 0.2444 | 0.6730 | 0.0171 | -0.1337 | 0.5045 | -0.6435 | -0.0256 |
| 144 | 53.20 | 0.02 | 13.0755 | -0.1456 | 0.2439 | 0.6624 | 0.0290 | -0.1593 | 0.4966 | -0.6559 | -0.0573 |
| 145 | 53.37 | 0.01 | 12.9463 | -0.1011 | 0.1295 | 0.6128 | 0.0175 | -0.1687 | 0.4959 | -0.6645 | -0.0358 |
| 146 | 53.58 | 0.00 | 13.0163 | -1.2446 | 0.1113 | 0.4536 | -0.0041 | -0.1802 | 0.5217 | -0.7019 | -0.0521 |
| 147 | 53.70 | 0.01 | 12.8669 | -0.0745 | 0.2327 | 0.6840 | 0.0167 | -0.2054 | 0.4661 | -0.6715 | -0.0330 |
| 148 | 53.80 | 0.01 | 12.7883 | -0.0162 | 0.2460 | 0.6017 | 0.0167 | -0.1698 | 0.4704 | -0.6662 | -0.0404 |
| 149 | 54.06 | 0.01 | 13.2576 | -1.0525 | 0.2307 | 0.4015 | 0.0072 | -0.2008 | 0.5057 | -0.7085 | -0.0752 |
| 150 | 54.20 | 0.02 | 13.2668 | -1.0453 | 0.2563 | 0.4367 | 0.0008 | -0.1884 | 0.4653 | -0.6737 | -0.0629 |
| 151 | 54.38 | 0.00 | 13.2438 | -1.1775 | 0.2056 | 0.3534 | 0.0069 | -0.2364 | 0.4937 | -0.7321 | -0.0889 |
| 152 | 54.54 | 0.00 | 13.4251 | -1.0456 | 0.2255 | 0.3811 | -0.0040 | -0.2435 | 0.5096 | -0.7531 | -0.1047 |
| 153 | 54.71 | -0.00 | 13.4148 | -1.0415 | 0.0725 | 0.4705 | 0.0073 | -0.2265 | 0.5174 | -0.7439 | -0.1052 |
| 154 | 54.85 | 0.01 | 13.5071 | -1.0460 | 0.2006 | 0.5336 | 0.0070 | -0.2214 | 0.5144 | -0.7358 | -0.1141 |
| 155 | 55.01 | 0.00 | 13.4976 | -1.4311 | 0.2052 | 0.3635 | 0.0077 | -0.2233 | 0.5030 | -0.7263 | -0.1060 |
| 156 | 55.17 | 0.01 | 13.5403 | -1.0463 | 0.2544 | 0.1744 | -0.0053 | -0.2226 | 0.5076 | -0.7302 | -0.1101 |
| 157 | 55.30 | -0.00 | 13.2763 | -1.0782 | 0.1645 | 0.3171 | 0.0076 | -0.2166 | 0.5075 | -0.7243 | -0.0813 |
| 158 | 55.45 | -0.01 | 13.4571 | -1.0434 | 0.1111 | 0.2411 | 0.0065 | -0.2275 | 0.5060 | -0.7335 | -0.0961 |
| 159 | 55.63 | -0.00 | 13.0421 | -1.5357 | 0.1628 | 0.1846 | -0.0027 | -0.2179 | 0.5110 | -0.7289 | -0.1126 |
| 160 | 55.74 | 0.00 | 13.2757 | -1.0167 | 0.2216 | 0.2013 | -0.0039 | -0.2352 | 0.4943 | -0.7295 | -0.0919 |
| 161 | 55.93 | 0.01 | 13.2163 | -1.5704 | 0.3245 | 0.2920 | 0.0083 | -0.2178 | 0.5335 | -0.7513 | -0.1153 |
| 162 | 56.09 | 0.03 | 13.4874 | -1.5764 | 0.4404 | 0.3716 | 0.0191 | -0.2324 | 0.5198 | -0.7522 | -0.1016 |
| 163 | 56.27 | 0.01 | 13.5345 | -1.4546 | 0.2671 | 0.0438 | -0.0026 | -0.2427 | 0.5200 | -0.7627 | -0.1074 |
| 164 | 56.43 | 0.02 | 13.5515 | -1.5571 | 0.4616 | 0.3230 | 0.0195 | -0.2532 | 0.5162 | -0.7694 | -0.1179 |
| 165 | 56.60 | -0.02 | 13.7615 | -1.8155 | -0.0247 | 0.2630 | 0.0094 | -0.2541 | 0.5165 | -0.7706 | -0.1320 |
| 166 | 56.77 | -0.02 | 13.5612 | -1.1462 | 0.0755 | -0.3558 | 0.0178 | -0.3164 | 0.5091 | -0.8254 | -0.0622 |
| 167 | 56.95 | -0.01 | 14.1022 | -1.3168 | 0.0571 | -0.0610 | 0.0236 | -0.3399 | 0.5116 | -0.8514 | -0.0934 |
| 168 | 57.05 | -0.04 | 13.5760 | -0.7023 | -0.1012 | -0.7590 | -0.0008 | -0.3208 | 0.5024 | -0.8291 | -0.0562 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REIC-C PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 120 1.60 1.7 0.0 BINOMIAL 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.62 | 0.01 | -0.0076 | 0.0010 | 0.0045 | -0.1316 | -0.5921 | -1.1577 | -0.0108 | -0.4864 | 0.0093 | 0.4202 |
| 2 | -5.63 | 0.03 | -0.0077 | 0.0005 | 0.0051 | -0.1169 | -0.6023 | -1.1526 | -0.0090 | -0.5015 | 0.0076 | 0.4240 |
| 3 | -5.62 | 0.02 | -0.0101 | 0.0007 | 0.0042 | -0.0893 | -0.4156 | -1.1801 | -0.0093 | -0.4596 | 0.0079 | 0.4234 |
| 4 | -5.62 | 0.03 | -0.0083 | 0.0005 | 0.0047 | -0.1084 | -0.5003 | -1.1772 | -0.0096 | -0.4994 | 0.0082 | 0.4242 |
| 5 | -4.61 | 0.03 | -0.0069 | 0.0002 | 0.0047 | -0.0290 | -0.6812 | -1.1963 | 0.0027 | -0.5233 | -0.0023 | 0.4374 |
| 6 | -2.62 | 0.02 | -0.0027 | -0.0006 | 0.0075 | 0.2963 | -2.7770 | -1.1500 | 0.0169 | -0.5144 | -0.0146 | 0.4446 |
| 7 | -1.27 | 0.03 | -0.0052 | 0.0008 | 0.0056 | -0.1538 | -0.9815 | -1.0852 | 0.0224 | -0.4524 | -0.0207 | 0.4537 |
| 8 | 0.49 | 0.03 | -0.0065 | 0.0016 | 0.0045 | -0.2051 | -1.2564 | -0.9991 | 0.0199 | -0.4025 | -0.0200 | 0.4629 |
| 9 | 2.42 | 0.02 | -0.0062 | 0.0004 | 0.0032 | -0.1645 | -0.5161 | -0.9036 | 0.0154 | -0.4248 | -0.0171 | 0.4701 |
| 10 | 3.50 | 0.03 | -0.0025 | 0.0005 | 0.0044 | -0.2000 | -1.7600 | -0.8133 | 0.0113 | -0.3858 | -0.0139 | 0.4744 |
| 11 | 5.74 | 0.03 | -0.0032 | 0.0004 | 0.0051 | -0.1250 | -1.5938 | -0.7076 | 0.0076 | -0.3465 | -0.0108 | 0.4857 |
| 12 | 7.59 | 0.04 | -0.0056 | -0.0002 | 0.0068 | 0.0345 | -1.1724 | -0.6079 | 0.0046 | -0.3025 | -0.0076 | 0.4976 |
| 13 | 9.36 | 0.03 | -0.0125 | 0.0 | 0.0070 | 0.0 | -0.5420 | -0.5096 | 0.0013 | -0.2586 | -0.0026 | 0.5075 |
| 14 | 11.42 | 0.03 | -0.0186 | 0.0001 | 0.0105 | -0.0062 | -0.4312 | -0.4090 | -0.0001 | -0.2129 | 0.0002 | 0.5206 |
| 15 | 13.05 | 0.04 | -0.0173 | 0.0007 | 0.0062 | -0.0405 | -0.3564 | -0.3317 | -0.0022 | -0.1770 | 0.0066 | 0.5335 |
| 16 | 14.99 | 0.01 | -0.0156 | 0.0010 | 0.0072 | -0.0041 | -0.4015 | -0.2496 | -0.0021 | -0.1355 | 0.0084 | 0.5428 |
| 17 | 16.89 | 0.03 | -0.0250 | 0.0007 | 0.0030 | -0.0242 | -0.1038 | -0.1717 | -0.0016 | -0.0578 | 0.0093 | 0.5656 |
| 18 | 18.82 | 0.03 | -0.0302 | 0.0018 | 0.0011 | -0.0398 | -0.0365 | -0.1074 | -0.0007 | -0.0684 | 0.0065 | 0.6371 |
| 19 | 20.74 | 0.02 | -0.0435 | 0.0015 | -0.0002 | -0.0350 | 0.1911 | -0.0450 | 0.0016 | -0.0377 | -0.0356 | 0.8374 |
| 20 | 22.67 | 0.03 | -0.0656 | 0.0045 | -0.0357 | -0.0503 | 0.3982 | -0.0174 | 0.0065 | -0.0266 | -0.3736 | 1.5230 |
| 21 | 24.63 | 0.03 | 0.0055 | -0.0007 | 0.0133 | -0.1273 | 2.4182 | 0.0154 | 0.0122 | -0.0144 | 0.7522 | -0.9351 |
| 22 | 26.61 | 0.05 | 0.2136 | -0.0077 | 0.4213 | -0.6381 | 0.5080 | 0.0746 | 0.0177 | 0.0074 | 0.2375 | 0.0995 |
| 23 | 28.50 | 0.11 | 0.2643 | -0.0005 | 0.1401 | -0.0034 | 0.5295 | 0.1066 | 0.0230 | 0.0158 | 0.1845 | 0.1827 |
| 24 | 28.31 | 0.10 | 0.2735 | -0.0002 | 0.1424 | -0.0007 | 0.5225 | 0.1149 | 0.0193 | 0.0233 | 0.1683 | 0.2031 |
| 25 | 28.33 | 0.11 | 0.2681 | 0.0003 | 0.1436 | 0.0011 | 0.5355 | 0.1161 | 0.0198 | 0.0240 | 0.1708 | 0.2071 |
| 26 | 28.74 | 0.11 | 0.2567 | 0.0012 | 0.1375 | 0.0047 | 0.5355 | 0.1156 | 0.0216 | 0.0239 | 0.1872 | 0.2071 |
| 27 | 28.99 | 0.12 | 0.2565 | 0.0007 | 0.1516 | 0.0226 | 0.5120 | 0.1390 | 0.0216 | 0.0350 | 0.1557 | 0.2516 |
| 28 | 29.29 | 0.10 | 0.2428 | 0.0008 | 0.1278 | 0.0157 | 0.5254 | 0.1222 | 0.0244 | 0.0295 | 0.2033 | 0.2410 |
| 29 | 29.03 | 0.10 | 0.1543 | 0.0050 | 0.1088 | 0.0258 | 0.5498 | 0.1183 | 0.0266 | 0.0283 | 0.2244 | 0.2388 |
| 30 | 29.92 | 0.10 | 0.2446 | 0.0046 | 0.1326 | 0.0197 | 0.5420 | 0.1280 | 0.0291 | 0.0329 | 0.2271 | 0.2565 |
| 31 | 30.19 | 0.08 | 0.1804 | 0.0059 | 0.0921 | 0.0365 | 0.5740 | 0.1118 | 0.0295 | 0.0267 | 0.2670 | 0.2384 |
| 32 | 30.47 | 0.10 | 0.2061 | 0.0064 | 0.1275 | 0.0250 | 0.5583 | 0.1341 | 0.0322 | 0.0377 | 0.2395 | 0.2810 |
| 33 | 30.74 | 0.11 | 0.2503 | 0.0063 | 0.1358 | 0.0252 | 0.5424 | 0.1321 | 0.0326 | 0.0368 | 0.2466 | 0.2785 |
| 34 | 31.02 | 0.10 | 0.2765 | 0.0025 | 0.1456 | 0.0126 | 0.5221 | 0.1439 | 0.0321 | 0.0421 | 0.2228 | 0.2925 |
| 35 | 31.28 | 0.10 | 0.2939 | 0.0029 | 0.1275 | 0.0119 | 0.5226 | 0.1377 | 0.0331 | 0.0384 | 0.2402 | 0.2787 |
| 36 | 31.57 | 0.11 | 0.2988 | -0.0043 | 0.1365 | -0.0100 | 0.5330 | 0.1554 | 0.0310 | 0.0474 | 0.1992 | 0.3056 |
| 37 | 31.84 | 0.11 | 0.2911 | -0.0037 | 0.1331 | -0.0127 | 0.5280 | 0.1527 | 0.0311 | 0.0452 | 0.2034 | 0.2959 |
| 38 | 32.11 | 0.10 | 0.2921 | -0.0006 | 0.1456 | -0.0125 | 0.5129 | 0.1522 | 0.0302 | 0.0459 | 0.1982 | 0.3015 |
| 39 | 32.39 | 0.05 | 0.2654 | -0.0027 | 0.1315 | -0.0140 | 0.4968 | 0.1596 | 0.0299 | 0.0490 | 0.1873 | 0.3074 |
| 40 | 32.64 | 0.08 | 0.1964 | -0.0003 | 0.0584 | -0.0028 | 0.5434 | 0.1370 | 0.0313 | 0.0382 | 0.2282 | 0.2787 |
| 41 | 32.91 | 0.05 | 0.1843 | -0.0026 | 0.0387 | -0.0169 | 0.5747 | 0.1565 | 0.0306 | 0.0483 | 0.1940 | 0.3086 |
| 42 | 33.17 | 0.06 | 0.0247 | -0.0002 | 0.0177 | -0.0061 | 0.7195 | 0.1423 | 0.0316 | 0.0420 | 0.2232 | 0.2951 |
| 43 | 33.42 | 0.04 | -0.0310 | 0.0011 | -0.0144 | -0.0356 | 0.4660 | 0.1441 | 0.0327 | 0.0428 | 0.2287 | 0.2965 |
| 44 | 33.67 | 0.07 | 0.0464 | -0.0022 | 0.0355 | -0.0455 | 0.7329 | 0.1656 | 0.0323 | 0.0534 | 0.1948 | 0.3224 |
| 45 | 33.94 | 0.05 | 0.0893 | -0.0019 | 0.0555 | -0.0213 | 0.6263 | 0.1720 | 0.0322 | 0.0555 | 0.1871 | 0.3252 |
| 46 | 34.19 | 0.05 | 0.1165 | -0.0032 | 0.0695 | -0.0289 | 0.5727 | 0.1787 | 0.0327 | 0.0598 | 0.1828 | 0.3348 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 120 | MACH 1.60 | RN/FT 1.7 | PHI 0.0 | CONF 61 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.42 | 0.05 | -0.0131 | 0.0018 | -0.0047 | -0.1374 | 0.3588 | 0.1008 | 0.0350 | 0.0505 | 0.2174 | 0.3146 |
| 48 | 34.68 | 0.05 | 0.1277 | -0.0046 | 0.0747 | -0.1301 | 0.5046 | 0.1932 | 0.0327 | 0.0663 | 0.1691 | 0.3434 |
| 49 | 34.93 | 0.05 | 0.0959 | -0.0027 | 0.0550 | -0.1262 | 0.5737 | 0.1790 | 0.0340 | 0.0597 | 0.1898 | 0.3337 |
| 50 | 35.18 | 0.07 | 0.0691 | -0.0039 | 0.1123 | -0.1187 | 0.5371 | 0.2006 | 0.0337 | 0.0740 | 0.1629 | 0.3579 |
| 51 | 35.43 | 0.06 | 0.2226 | -0.0040 | 0.1168 | -0.0175 | 0.5106 | 0.2320 | 0.0321 | 0.0861 | 0.1382 | 0.3711 |
| 52 | 35.68 | 0.11 | 0.3064 | -0.0014 | 0.1494 | -0.0040 | 0.4990 | 0.2389 | 0.0316 | 0.0977 | 0.1221 | 0.3781 |
| 53 | 35.94 | 0.07 | 0.2574 | 0.0023 | 0.1427 | 0.0077 | 0.4798 | 0.2674 | 0.0316 | 0.1013 | 0.1180 | 0.3788 |
| 54 | 36.18 | 0.09 | 0.2926 | 0.0037 | 0.1662 | 0.0127 | 0.4791 | 0.2671 | 0.0316 | 0.1064 | 0.1189 | 0.3758 |
| 55 | 36.39 | 0.08 | 0.2245 | -0.0015 | 0.1117 | -0.0067 | 0.4969 | 0.2730 | 0.0301 | 0.1028 | 0.1114 | 0.3808 |
| 56 | 36.65 | 0.12 | 0.3469 | 0.0160 | 0.1667 | 0.0400 | 0.4613 | 0.2947 | 0.0329 | 0.1107 | 0.1115 | 0.3757 |
| 57 | 36.87 | 0.09 | 0.3525 | 0.0125 | 0.1581 | 0.0307 | 0.4485 | 0.3026 | 0.0317 | 0.1153 | 0.1046 | 0.3811 |
| 58 | 37.11 | 0.09 | 0.2916 | 0.0127 | 0.1339 | 0.0437 | 0.4601 | 0.3020 | 0.0301 | 0.1134 | 0.0995 | 0.3756 |
| 59 | 37.37 | 0.10 | 0.2364 | 0.0056 | 0.1135 | 0.0237 | 0.4803 | 0.2941 | 0.0288 | 0.1093 | 0.0978 | 0.3717 |
| 60 | 37.60 | 0.09 | 0.2961 | 0.0121 | 0.1306 | 0.0009 | 0.4389 | 0.2888 | 0.0337 | 0.1048 | 0.1166 | 0.3625 |
| 61 | 37.83 | 0.07 | 0.2301 | 0.0030 | 0.0991 | 0.0150 | 0.4952 | 0.2893 | 0.0287 | 0.1071 | 0.0991 | 0.3703 |
| 62 | 38.08 | 0.07 | 0.1913 | 0.0041 | 0.0961 | 0.0215 | 0.4809 | 0.2932 | 0.0294 | 0.1083 | 0.1001 | 0.3654 |
| 63 | 38.29 | 0.09 | 0.2908 | 0.0075 | 0.1150 | 0.0329 | 0.4777 | 0.3017 | 0.0302 | 0.1135 | 0.1000 | 0.3763 |
| 64 | 38.53 | 0.07 | 0.2163 | 0.0045 | 0.1024 | 0.0225 | 0.4690 | 0.2991 | 0.0299 | 0.1108 | 0.0998 | 0.3705 |
| 65 | 38.77 | 0.09 | 0.2305 | 0.0071 | 0.1059 | 0.0308 | 0.4761 | 0.3096 | 0.0314 | 0.1160 | 0.1013 | 0.3748 |
| 66 | 38.99 | 0.08 | 0.1838 | 0.0037 | 0.0826 | 0.0311 | 0.4493 | 0.3205 | 0.0299 | 0.1212 | 0.0932 | 0.3784 |
| 67 | 39.22 | 0.06 | 0.1297 | 0.0041 | 0.0660 | 0.0317 | 0.4829 | 0.3149 | 0.0303 | 0.1192 | 0.0961 | 0.3786 |
| 68 | 39.44 | 0.08 | 0.0574 | 0.0027 | 0.0496 | 0.0471 | 0.3473 | 0.3106 | 0.0297 | 0.1175 | 0.0955 | 0.3784 |
| 69 | 39.65 | 0.07 | 0.1970 | 0.0107 | 0.0866 | 0.0549 | 0.4405 | 0.3092 | 0.0334 | 0.1161 | 0.1079 | 0.3756 |
| 70 | 39.88 | 0.04 | 0.0944 | 0.0041 | 0.0157 | 0.0526 | 0.3544 | 0.3163 | 0.0297 | 0.1193 | 0.0938 | 0.3773 |
| 71 | 40.08 | 0.07 | 0.1755 | 0.0111 | 0.0776 | 0.0818 | 0.4312 | 0.3276 | 0.0311 | 0.1229 | 0.0948 | 0.3750 |
| 72 | 40.30 | 0.07 | 0.1858 | 0.0104 | 0.0818 | 0.0581 | 0.4401 | 0.3238 | 0.0301 | 0.1218 | 0.0929 | 0.3764 |
| 73 | 40.52 | 0.06 | 0.1278 | 0.0070 | 0.0503 | 0.0549 | 0.3937 | 0.3328 | 0.0291 | 0.1242 | 0.0873 | 0.3731 |
| 74 | 40.72 | 0.05 | 0.1652 | 0.0118 | 0.0822 | 0.0625 | 0.4322 | 0.3204 | 0.0267 | 0.1184 | 0.0895 | 0.3697 |
| 75 | 40.95 | 0.05 | 0.1142 | 0.0068 | 0.0475 | 0.0596 | 0.4158 | 0.3300 | 0.0256 | 0.1227 | 0.0774 | 0.3717 |
| 76 | 41.14 | 0.05 | 0.2072 | 0.0145 | 0.0891 | 0.0701 | 0.4299 | 0.3225 | 0.0267 | 0.1188 | 0.0889 | 0.3688 |
| 77 | 41.34 | 0.03 | 0.1601 | 0.0088 | 0.0602 | 0.0642 | 0.3787 | 0.3341 | 0.0252 | 0.1233 | 0.0753 | 0.3685 |
| 78 | 41.54 | 0.03 | 0.0726 | 0.0049 | 0.0256 | 0.0676 | 0.3545 | 0.3349 | 0.0252 | 0.1251 | 0.0741 | 0.3684 |
| 79 | 41.77 | 0.03 | 0.0760 | 0.0052 | 0.0240 | 0.0686 | 0.3166 | 0.3411 | 0.0240 | 0.1262 | 0.0705 | 0.3695 |
| 80 | 41.98 | 0.03 | 0.0626 | 0.0040 | 0.0215 | 0.0550 | 0.3011 | 0.3491 | 0.0240 | 0.1264 | 0.0701 | 0.3683 |
| 81 | 42.18 | 0.04 | 0.1015 | 0.0062 | 0.0430 | 0.0612 | 0.4235 | 0.3422 | 0.0252 | 0.1262 | 0.0735 | 0.3687 |
| 82 | 42.38 | 0.03 | 0.1292 | 0.0106 | 0.0548 | 0.0836 | 0.4244 | 0.3367 | 0.0277 | 0.1205 | 0.0836 | 0.3645 |
| 83 | 42.55 | 0.05 | 0.1401 | 0.0113 | 0.0589 | 0.0844 | 0.4206 | 0.3286 | 0.0268 | 0.1195 | 0.0875 | 0.3638 |
| 84 | 42.73 | 0.04 | 0.1406 | 0.0136 | 0.0595 | 0.0892 | 0.4077 | 0.3398 | 0.0300 | 0.1229 | 0.0882 | 0.3615 |
| 85 | 42.92 | 0.03 | 0.1455 | 0.0115 | 0.0640 | 0.0771 | 0.4283 | 0.3506 | 0.0275 | 0.1275 | 0.0783 | 0.3635 |
| 86 | 43.09 | 0.04 | 0.1611 | 0.0114 | 0.0699 | 0.0709 | 0.4067 | 0.3367 | 0.0292 | 0.1211 | 0.0866 | 0.3598 |
| 87 | 43.25 | 0.03 | 0.0899 | 0.0085 | 0.0320 | 0.0548 | 0.3556 | 0.3523 | 0.0239 | 0.1285 | 0.0819 | 0.3585 |
| 88 | 43.44 | 0.03 | 0.1023 | 0.0141 | 0.0606 | 0.0926 | 0.3760 | 0.3561 | 0.0302 | 0.1274 | 0.0847 | 0.3576 |
| 89 | 43.63 | 0.03 | 0.1046 | 0.0082 | 0.0378 | 0.0796 | 0.3632 | 0.3715 | 0.0270 | 0.1332 | 0.0726 | 0.3585 |
| 90 | 43.81 | 0.04 | 0.1537 | 0.0142 | 0.0636 | 0.0926 | 0.4139 | 0.3608 | 0.0305 | 0.1279 | 0.0844 | 0.3543 |
| 91 | 43.99 | 0.03 | 0.1047 | 0.0133 | 0.0588 | 0.0809 | 0.4179 | 0.3676 | 0.0296 | 0.1307 | 0.0810 | 0.3555 |
| 92 | 44.16 | 0.05 | 0.1548 | 0.0165 | 0.0821 | 0.1197 | 0.4013 | 0.3275 | 0.0292 | 0.1107 | 0.1196 | 0.3381 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 120 1.00 1.7 0.0 B1=0F31 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.35 | 0.02 | 0.1327 | 0.0112 | 0.0535 | 0.0846 | 0.4033 | 0.3723 | 0.0294 | 0.1325 | 0.0789 | 0.3559 |
| 94 | 44.55 | 0.04 | 0.1422 | 0.0162 | 0.0454 | 0.0732 | 0.4045 | 0.3736 | 0.0291 | 0.1320 | 0.0773 | 0.3512 |
| 95 | 44.72 | 0.03 | 0.1310 | 0.0136 | 0.0537 | 0.1041 | 0.4101 | 0.3590 | 0.0334 | 0.1226 | 0.0929 | 0.3413 |
| 96 | 44.90 | 0.04 | 0.1408 | 0.0172 | 0.0572 | 0.1139 | 0.4064 | 0.3693 | 0.0373 | 0.1159 | 0.1065 | 0.3407 |
| 97 | 45.05 | 0.03 | 0.1345 | 0.0150 | 0.0504 | 0.1412 | 0.4183 | 0.3235 | 0.0392 | 0.1075 | 0.1210 | 0.3320 |
| 98 | 45.25 | 0.02 | 0.1469 | 0.0188 | 0.0570 | 0.1195 | 0.4090 | 0.3990 | 0.0358 | 0.1172 | 0.1025 | 0.3359 |
| 99 | 45.43 | 0.04 | 0.1278 | 0.0145 | 0.0552 | 0.1137 | 0.4322 | 0.3719 | 0.0323 | 0.1262 | 0.0868 | 0.3393 |
| 100 | 45.61 | 0.03 | 0.1084 | 0.0106 | 0.0453 | 0.0998 | 0.4177 | 0.3820 | 0.0317 | 0.1309 | 0.0829 | 0.3426 |
| 101 | 45.81 | 0.03 | 0.1207 | 0.0126 | 0.0505 | 0.0996 | 0.4216 | 0.3840 | 0.0320 | 0.1303 | 0.0832 | 0.3392 |
| 102 | 45.98 | 0.03 | 0.1121 | 0.0132 | 0.0474 | 0.1160 | 0.4227 | 0.3726 | 0.0338 | 0.1264 | 0.0906 | 0.3386 |
| 103 | 46.14 | 0.04 | 0.1195 | 0.0150 | 0.0511 | 0.1257 | 0.4275 | 0.3710 | 0.0347 | 0.1248 | 0.0935 | 0.3363 |
| 104 | 46.32 | 0.04 | 0.1074 | 0.0131 | 0.0460 | 0.1595 | 0.4095 | 0.3531 | 0.0380 | 0.1154 | 0.1075 | 0.3265 |
| 105 | 46.51 | 0.04 | 0.1185 | 0.0154 | 0.0496 | 0.1634 | 0.4170 | 0.3546 | 0.0397 | 0.1168 | 0.1119 | 0.3295 |
| 106 | 46.66 | 0.04 | 0.1169 | 0.0143 | 0.0495 | 0.1269 | 0.4419 | 0.3644 | 0.0365 | 0.1200 | 0.1001 | 0.3294 |
| 107 | 46.84 | 0.04 | 0.0954 | 0.0101 | 0.0408 | 0.1691 | 0.4275 | 0.3555 | 0.0393 | 0.1158 | 0.1105 | 0.3258 |
| 108 | 47.00 | 0.05 | 0.1055 | 0.0102 | 0.0473 | 0.1553 | 0.4465 | 0.3292 | 0.0411 | 0.1015 | 0.1248 | 0.3084 |
| 109 | 47.15 | 0.07 | 0.1432 | 0.0175 | 0.0604 | 0.1225 | 0.4220 | 0.3934 | 0.0421 | 0.1371 | 0.1070 | 0.3484 |
| 110 | 47.36 | 0.06 | 0.1264 | 0.0217 | 0.0291 | 0.2775 | 0.3708 | 0.4495 | 0.0439 | 0.1590 | 0.0976 | 0.3538 |
| 111 | 47.51 | 0.07 | 0.1235 | 0.0178 | 0.0536 | 0.1359 | 0.4280 | 0.3897 | 0.0426 | 0.1305 | 0.1077 | 0.3348 |
| 112 | 47.69 | 0.06 | 0.0930 | 0.0210 | 0.0266 | 0.2493 | 0.3329 | 0.4376 | 0.0440 | 0.1516 | 0.1005 | 0.3465 |
| 113 | 47.80 | 0.07 | -0.0136 | 0.0175 | -0.0078 | -1.3162 | 0.5735 | 0.4145 | 0.0459 | 0.1378 | 0.1107 | 0.3324 |
| 114 | 48.07 | 0.07 | 0.0634 | 0.0163 | 0.0078 | 0.4697 | 0.2190 | 0.4354 | 0.0448 | 0.1488 | 0.1025 | 0.3418 |
| 115 | 48.25 | 0.06 | -0.1033 | -0.0052 | -0.0417 | 0.0504 | 0.4035 | 0.3598 | 0.0477 | 0.1061 | 0.1326 | 0.2945 |
| 116 | 48.43 | 0.06 | -0.0624 | 0.0001 | -0.0265 | -0.0012 | 0.3504 | 0.3732 | 0.0472 | 0.1123 | 0.1265 | 0.3010 |
| 117 | 48.61 | 0.06 | -0.0711 | -0.0003 | -0.0218 | 0.0042 | 0.3070 | 0.3938 | 0.0470 | 0.1217 | 0.1193 | 0.3052 |
| 118 | 48.77 | 0.07 | -0.0731 | -0.0032 | -0.0218 | 0.0438 | 0.2980 | 0.3911 | 0.0467 | 0.1198 | 0.1194 | 0.3064 |
| 119 | 48.96 | 0.06 | -0.0707 | -0.0030 | -0.0217 | 0.0425 | 0.3074 | 0.3910 | 0.0464 | 0.1187 | 0.1187 | 0.3037 |
| 120 | 49.13 | 0.07 | -0.0652 | -0.0025 | -0.0192 | 0.0443 | 0.2949 | 0.3966 | 0.0467 | 0.1205 | 0.1177 | 0.3035 |
| 121 | 49.29 | 0.05 | -0.0660 | -0.0054 | -0.0208 | 0.0025 | 0.3112 | 0.3916 | 0.0467 | 0.1179 | 0.1141 | 0.3012 |
| 122 | 49.47 | 0.07 | -0.0642 | -0.0050 | -0.0267 | 0.0595 | 0.3167 | 0.4024 | 0.0454 | 0.1219 | 0.1128 | 0.3030 |
| 123 | 49.64 | 0.05 | -0.0511 | -0.0061 | -0.0278 | 0.0891 | 0.3067 | 0.4059 | 0.0427 | 0.1273 | 0.1041 | 0.3004 |
| 124 | 49.83 | 0.06 | -0.0766 | -0.0024 | -0.0243 | 0.0315 | 0.3172 | 0.4093 | 0.0453 | 0.1248 | 0.1106 | 0.3048 |
| 125 | 49.99 | 0.05 | -0.0660 | -0.0042 | -0.0182 | 0.0637 | 0.2958 | 0.4176 | 0.0449 | 0.1295 | 0.1075 | 0.3101 |
| 126 | 50.18 | 0.04 | -0.0604 | -0.0006 | -0.0205 | 0.0773 | 0.2808 | 0.4293 | 0.0436 | 0.1362 | 0.1020 | 0.3172 |
| 127 | 50.37 | 0.03 | -0.0492 | -0.0051 | -0.0090 | 0.1039 | 0.1833 | 0.4375 | 0.0441 | 0.1364 | 0.1008 | 0.3117 |
| 128 | 50.52 | 0.01 | -0.0387 | -0.0065 | -0.0118 | 0.1109 | 0.2014 | 0.4391 | 0.0426 | 0.1399 | 0.0974 | 0.3186 |
| 129 | 50.70 | 0.03 | -0.0420 | -0.0107 | -0.0022 | 0.2594 | 0.0521 | 0.4628 | 0.0415 | 0.1494 | 0.0898 | 0.3228 |
| 130 | 50.88 | 0.03 | -0.0345 | -0.0128 | -0.0044 | 0.2735 | 0.0405 | 0.4917 | 0.0385 | 0.1628 | 0.0783 | 0.3312 |
| 131 | 51.04 | 0.03 | -0.0201 | -0.0124 | 0.0071 | 0.6169 | -0.3532 | 0.4899 | 0.0398 | 0.1596 | 0.0812 | 0.3298 |
| 132 | 51.18 | 0.03 | 0.0215 | 0.0208 | -0.0208 | -0.2694 | 0.9498 | 0.4360 | 0.0446 | 0.1323 | 0.1023 | 0.3034 |
| 133 | 51.34 | 0.04 | -0.0188 | -0.0030 | 0.0172 | -0.1613 | 0.9247 | 0.4303 | 0.0464 | 0.1293 | 0.1078 | 0.3004 |
| 134 | 51.52 | 0.04 | 0.0227 | -0.0076 | 0.0212 | -0.3348 | 0.9539 | 0.4428 | 0.0453 | 0.1371 | 0.1023 | 0.3056 |
| 135 | 51.70 | 0.03 | 0.0246 | -0.0010 | 0.0171 | -0.0408 | 0.6980 | 0.4247 | 0.0469 | 0.1265 | 0.1104 | 0.2978 |
| 136 | 51.88 | 0.03 | 0.0177 | 0.0020 | 0.0121 | 0.1150 | 0.0836 | 0.4154 | 0.0481 | 0.1228 | 0.1158 | 0.2955 |
| 137 | 52.02 | 0.03 | 0.0220 | 0.0011 | 0.0135 | 0.0500 | 0.6318 | 0.4246 | 0.0474 | 0.1265 | 0.1116 | 0.2979 |
| 138 | 52.19 | 0.03 | 0.0175 | -0.0005 | 0.0122 | -0.0260 | 0.6971 | 0.4239 | 0.0476 | 0.1262 | 0.1123 | 0.2976 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART RACK RX13-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 [illegible] 1.7 0.0 BLANK31 0.00 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.33 | 0.03 | 0.0141 | -0.0016 | 0.0104 | -0.1135 | 0.7376 | 0.4256 | 0.0472 | 0.1275 | 0.1108 | 0.2994 |
| 140 | 52.34 | 0.02 | 0.0143 | 0.0003 | 0.0103 | 0.0271 | 0.7349 | 0.4342 | 0.0485 | 0.1296 | 0.1117 | 0.2984 |
| 141 | 52.66 | 0.02 | 0.0141 | -0.0001 | 0.0099 | -0.0071 | 0.6363 | 0.4266 | 0.0482 | 0.1284 | 0.1129 | 0.2961 |
| 142 | 52.66 | 0.02 | 0.0116 | 0.0006 | 0.0076 | 0.0517 | 0.6724 | 0.4340 | 0.0487 | 0.1292 | 0.1125 | 0.2984 |
| 143 | 53.03 | 0.02 | 0.0096 | -0.0008 | 0.0059 | -0.0033 | 0.5025 | 0.4320 | 0.0475 | 0.1290 | 0.1100 | 0.2985 |
| 144 | 53.20 | 0.02 | 0.0115 | 0.0006 | 0.0053 | 0.0702 | 0.5046 | 0.4359 | 0.0484 | 0.1300 | 0.1110 | 0.2982 |
| 145 | 53.37 | 0.01 | 0.0081 | -0.0008 | 0.0031 | -0.1311 | 0.5032 | 0.4306 | 0.0485 | 0.1313 | 0.1106 | 0.2993 |
| 146 | 53.36 | 0.00 | 0.0115 | -0.0010 | 0.0059 | -0.1391 | 0.5130 | 0.4918 | 0.0487 | 0.1555 | 0.0960 | 0.3162 |
| 147 | 53.70 | 0.01 | 0.0045 | -0.0011 | 0.0029 | -0.2245 | 0.5916 | 0.4577 | 0.0482 | 0.1408 | 0.1053 | 0.3076 |
| 148 | 53.85 | 0.01 | 0.0066 | -0.0015 | 0.0044 | -0.1744 | 0.4051 | 0.4574 | 0.0471 | 0.1395 | 0.1030 | 0.3049 |
| 149 | 54.02 | 0.01 | 0.0140 | -0.0023 | 0.0070 | -0.1643 | 0.5300 | 0.4872 | 0.0481 | 0.1524 | 0.0987 | 0.3128 |
| 150 | 54.20 | 0.02 | 0.0073 | -0.0014 | 0.0041 | -0.1918 | 0.5016 | 0.4833 | 0.0474 | 0.1506 | 0.0981 | 0.3116 |
| 151 | 54.38 | 0.00 | 0.0110 | -0.0018 | 0.0055 | -0.1636 | 0.5000 | 0.4955 | 0.0475 | 0.1574 | 0.0959 | 0.3177 |
| 152 | 54.54 | 0.00 | 0.0085 | -0.0016 | 0.0043 | -0.1884 | 0.5454 | 0.4918 | 0.0467 | 0.1545 | 0.0950 | 0.3143 |
| 153 | 54.71 | -0.00 | 0.0062 | -0.0017 | 0.0037 | -0.2742 | 0.5968 | 0.5028 | 0.0480 | 0.1590 | 0.0955 | 0.3183 |
| 154 | 54.89 | 0.01 | 0.0096 | -0.0015 | 0.0049 | -0.2000 | 0.5000 | 0.4947 | 0.0477 | 0.1556 | 0.0964 | 0.3146 |
| 155 | 55.01 | 0.00 | 0.0096 | -0.0017 | 0.0059 | -0.1771 | 0.6146 | 0.5076 | 0.0475 | 0.1615 | 0.0937 | 0.3186 |
| 156 | 55.17 | 0.01 | 0.0062 | -0.0023 | 0.0043 | -0.2716 | 0.6935 | 0.5044 | 0.0469 | 0.1601 | 0.0930 | 0.3174 |
| 157 | 55.30 | -0.00 | 0.0121 | -0.0017 | 0.0067 | -0.1405 | 0.5537 | 0.4977 | 0.0466 | 0.1568 | 0.0936 | 0.3151 |
| 158 | 55.49 | -0.01 | 0.0147 | -0.0016 | 0.0065 | -0.1200 | 0.5118 | 0.5011 | 0.0466 | 0.1596 | 0.0930 | 0.3173 |
| 159 | 55.63 | -0.00 | 0.0122 | -0.0018 | 0.0059 | -0.1475 | 0.4838 | 0.5016 | 0.0473 | 0.1566 | 0.0943 | 0.3168 |
| 160 | 55.79 | 0.00 | 0.0085 | -0.0018 | 0.0047 | -0.1802 | 0.5229 | 0.5005 | 0.0463 | 0.1589 | 0.0925 | 0.3175 |
| 161 | 55.93 | 0.01 | 0.0127 | -0.0015 | 0.0072 | -0.1498 | 0.5069 | 0.5059 | 0.0464 | 0.1605 | 0.0917 | 0.3181 |
| 162 | 56.09 | 0.03 | 0.0062 | -0.0022 | 0.0038 | -0.3548 | 0.6129 | 0.4964 | 0.0461 | 0.1588 | 0.0925 | 0.3187 |
| 163 | 56.27 | 0.01 | 0.0148 | -0.0022 | 0.0073 | -0.1507 | 0.5000 | 0.5019 | 0.0461 | 0.1598 | 0.0918 | 0.3184 |
| 164 | 56.43 | 0.02 | 0.0051 | -0.0015 | 0.0030 | -0.2688 | 0.5495 | 0.5000 | 0.0461 | 0.1623 | 0.0911 | 0.3208 |
| 165 | 56.60 | -0.02 | 0.0102 | -0.0025 | 0.0053 | -0.0463 | 0.4907 | 0.5195 | 0.0465 | 0.1675 | 0.0895 | 0.3225 |
| 166 | 56.77 | -0.02 | 0.0071 | -0.0011 | 0.0115 | -0.0407 | 0.4907 | 0.5212 | 0.0451 | 0.1687 | 0.0865 | 0.3238 |
| 167 | 56.95 | -0.01 | 0.0153 | -0.0013 | 0.0092 | -0.0674 | 0.4767 | 0.5121 | 0.0452 | 0.1650 | 0.0882 | 0.3222 |
| 168 | 57.05 | -0.04 | 0.0107 | -0.0007 | 0.0065 | -0.0419 | 0.5050 | 0.5156 | 0.0447 | 0.1671 | 0.0868 | 0.3246 |

PART-A PASSIVE TAILS EFFECTS DATA

TEST 7 PART 120 MACH 1.60 ALPHA 1.7 PHI 0.0 CONF BINCH31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.62 | 0.01 | 0.0165 | 9.9999 | 0.0060 | 9.9999 | 0.3175 | -1.2068 | -0.0150 | -0.4823 | 0.0125 | 0.3997 |
| 2 | -5.63 | 0.03 | 0.0222 | 9.9999 | 0.0077 | 9.9999 | 0.3300 | -1.2067 | -0.0146 | -0.4837 | 0.0123 | 0.4002 |
| 3 | -5.62 | 0.02 | 0.0201 | 9.9999 | 0.0066 | 9.9999 | 0.3264 | -1.2067 | -0.0147 | -0.4837 | 0.0122 | 0.4002 |
| 4 | -5.62 | 0.03 | 0.0214 | 9.9999 | 0.0074 | 9.9999 | 0.3438 | -1.2069 | -0.0152 | -0.4835 | 0.0126 | 0.4006 |
| 5 | -4.61 | 0.03 | 0.0251 | 9.9999 | 0.0112 | 9.9999 | 0.4480 | -1.2121 | -0.0088 | -0.4929 | 0.0073 | 0.4067 |
| 6 | -2.92 | 0.02 | 0.0228 | 9.9999 | 0.0092 | 9.9999 | 0.4071 | -1.1841 | 0.0025 | -0.4823 | -0.0021 | 0.4073 |
| 7 | -1.27 | 0.03 | 0.0225 | 9.9999 | 0.0125 | 9.9999 | 0.4340 | -1.1400 | 0.0180 | -0.4695 | -0.0141 | 0.4121 |
| 8 | 0.49 | 0.03 | 0.0229 | 9.9999 | 0.0140 | 9.9999 | 0.4746 | -1.0540 | 0.0129 | -0.4356 | -0.0123 | 0.4136 |
| 9 | 2.22 | 0.02 | 0.0270 | 9.9999 | 0.0131 | 9.9999 | 0.4670 | -0.9536 | 0.0097 | -0.3956 | -0.0102 | 0.4149 |
| 10 | 3.96 | 0.03 | 0.0213 | 9.9999 | 0.0105 | 9.9999 | 0.5117 | -0.8703 | 0.0065 | -0.3627 | -0.0075 | 0.4168 |
| 11 | 5.74 | 0.03 | 0.0276 | 9.9999 | 0.0154 | 9.9999 | 0.5000 | -0.7724 | 0.0036 | -0.3213 | -0.0047 | 0.4159 |
| 12 | 7.55 | 0.02 | 0.0223 | 9.9999 | 0.0130 | 9.9999 | 0.5778 | -0.6711 | 0.0018 | -0.2806 | -0.0027 | 0.4181 |
| 13 | 9.36 | 0.03 | 0.0243 | 9.9999 | 0.0154 | 9.9999 | 0.6337 | -0.5776 | -0.0020 | -0.2354 | 0.0035 | 0.4074 |
| 14 | 11.22 | 0.03 | 0.0315 | 9.9999 | 0.0192 | 9.9999 | 0.6922 | -0.4812 | -0.0035 | -0.1917 | 0.0073 | 0.3984 |
| 15 | 13.05 | 0.04 | 0.0321 | 9.9999 | 0.0145 | 9.9999 | 0.4531 | -0.4012 | -0.0045 | -0.1496 | 0.0112 | 0.3724 |
| 16 | 14.94 | 0.01 | 0.0366 | 9.9999 | 0.0131 | 9.9999 | 0.3569 | -0.3141 | -0.0043 | -0.1119 | 0.0137 | 0.3563 |
| 17 | 16.89 | 0.03 | 0.0387 | 9.9999 | 0.0110 | 9.9999 | 0.2650 | -0.2331 | -0.0037 | -0.0722 | 0.0159 | 0.3100 |
| 18 | 18.82 | 0.03 | 0.0412 | 9.9999 | 0.0112 | 9.9999 | 0.2765 | -0.1582 | -0.0028 | -0.0410 | 0.0177 | 0.2596 |
| 19 | 20.74 | 0.02 | 0.0418 | 9.9999 | 0.0122 | 9.9999 | 0.3070 | -0.0956 | -0.0038 | -0.0130 | 0.0184 | 0.1360 |
| 20 | 22.67 | 0.03 | 0.0465 | 9.9999 | 0.0115 | 9.9999 | 0.2996 | -0.0550 | 0.0040 | 0.0052 | -0.0721 | -0.0937 |
| 21 | 24.63 | 0.03 | 0.0431 | 9.9999 | 0.0115 | 9.9999 | 0.2767 | -0.0475 | 0.0105 | 0.0079 | -0.2300 | -0.1667 |
| 22 | 26.61 | 0.09 | 0.0595 | 9.9999 | 0.0204 | 9.9999 | 0.3434 | -0.0542 | 0.0197 | 0.0025 | -0.3641 | -0.0462 |
| 23 | 28.30 | 0.11 | 0.0721 | 9.9999 | 0.0270 | 9.9999 | 0.3736 | -0.0431 | 0.0251 | 0.0058 | -0.5814 | -0.1345 |
| 24 | 28.31 | 0.10 | 0.0658 | 9.9999 | 0.0226 | 9.9999 | 0.3480 | -0.0401 | 0.0252 | 0.0048 | -0.5457 | -0.1043 |
| 25 | 28.33 | 0.11 | 0.0646 | 9.9999 | 0.0224 | 9.9999 | 0.3473 | -0.0440 | 0.0259 | 0.0065 | -0.5677 | -0.1481 |
| 26 | 28.34 | 0.11 | 0.0719 | 9.9999 | 0.0249 | 9.9999 | 0.3446 | -0.0306 | 0.0271 | 0.0087 | -0.7367 | -0.2384 |
| 27 | 28.99 | 0.12 | 0.0696 | 9.9999 | 0.0242 | 9.9999 | 0.3512 | -0.0401 | 0.0278 | 0.0082 | -0.6525 | -0.2056 |
| 28 | 29.29 | 0.10 | 0.0683 | 9.9999 | 0.0252 | 9.9999 | 0.3000 | -0.0249 | 0.0296 | 0.0157 | -1.1976 | -0.6331 |
| 29 | 29.63 | 0.10 | 0.0582 | 9.9999 | 0.0205 | 9.9999 | 0.3494 | -0.0166 | 0.0302 | 0.0189 | -1.8812 | -1.1812 |
| 30 | 29.92 | 0.10 | 0.0623 | 9.9999 | 0.0227 | 9.9999 | 0.3592 | -0.0226 | 0.0316 | 0.0166 | -1.3761 | -0.7345 |
| 31 | 30.15 | 0.08 | 0.0557 | 9.9999 | 0.0194 | 9.9999 | 0.3489 | -0.0027 | 0.0313 | 0.0251 | -11.5556 | -5.2593 |
| 32 | 30.47 | 0.10 | 0.0724 | 9.9999 | 0.0273 | 9.9999 | 0.3773 | -0.0066 | 0.0331 | 0.0225 | -5.7500 | -2.5568 |
| 33 | 30.74 | 0.11 | 0.0647 | 9.9999 | 0.0235 | 9.9999 | 0.3700 | -0.0097 | 0.0333 | 0.0222 | -3.4227 | -2.2887 |
| 34 | 31.02 | 0.10 | 0.0621 | 9.9999 | 0.0242 | 9.9999 | 0.3903 | -0.0123 | 0.0353 | 0.0216 | -2.6618 | -1.7561 |
| 35 | 31.28 | 0.10 | 0.0672 | 9.9999 | 0.0267 | 9.9999 | 0.3964 | 0.0030 | 0.0350 | 0.0280 | 11.6333 | 9.3000 |
| 36 | 31.57 | 0.11 | 0.0703 | 9.9999 | 0.0282 | 9.9999 | 0.4003 | 0.0078 | 0.0374 | 0.0308 | 4.7020 | 3.9359 |
| 37 | 31.86 | 0.11 | 0.0655 | 9.9999 | 0.0271 | 9.9999 | 0.4103 | -0.0051 | 0.0367 | 0.0256 | -7.1765 | -5.0000 |
| 38 | 32.11 | 0.10 | 0.0703 | 9.9999 | 0.0297 | 9.9999 | 0.4217 | -0.0009 | 0.0382 | 0.0285 | -4.0562 | -2.6464 |
| 39 | 32.39 | 0.09 | 0.0621 | 9.9999 | 0.0265 | 9.9999 | 0.4323 | -0.0001 | 0.0380 | 0.0276 | -359.0000 | -275.0000 |
| 40 | 32.64 | 0.08 | 0.0571 | 9.9999 | 0.0234 | 9.9999 | 0.4105 | 0.0023 | 0.0339 | 0.0419 | 1.0497 | 1.2981 |
| 41 | 32.91 | 0.09 | 0.0658 | 9.9999 | 0.0265 | 9.9999 | 0.4349 | 0.0026 | 0.0336 | 0.0423 | 1.0308 | 1.2985 |
| 42 | 33.17 | 0.08 | 0.0620 | 9.9999 | 0.0215 | 9.9999 | 0.4220 | 0.0073 | 0.0320 | 0.0529 | 0.5577 | 0.9231 |
| 43 | 33.42 | 0.04 | 0.0457 | 9.9999 | 0.0187 | 9.9999 | 0.4101 | 0.0816 | 0.0323 | 0.0657 | 0.3956 | 0.8055 |
| 44 | 33.67 | 0.07 | 0.0520 | 9.9999 | 0.0232 | 9.9999 | 0.4419 | 0.0818 | 0.0328 | 0.0653 | 0.4007 | 0.7990 |
| 45 | 33.94 | 0.05 | 0.0455 | 9.9999 | 0.0212 | 9.9999 | 0.4291 | 0.0831 | 0.0336 | 0.0662 | 0.4041 | 0.7973 |
| 46 | 34.19 | 0.05 | 0.0523 | 9.9999 | 0.0250 | 9.9999 | 0.4381 | 0.0843 | 0.0339 | 0.0661 | 0.4015 | 0.7848 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(RASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&2 MACH 1.00 1.07 RXIG=6 PHI 0.0 CONF 0.0CF31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.42 | 0.05 | 0.0415 | 0.0000 | 0.0175 | 0.0000 | 0.4282 | 0.1191 | 0.0321 | 0.0813 | 0.2691 | 0.6821 |
| 48 | 34.68 | 0.05 | 0.0468 | 0.0000 | 0.0207 | 0.0000 | 0.4251 | 0.0000 | 0.0334 | 0.0000 | 0.3841 | 0.7624 |
| 49 | 34.93 | 0.05 | 0.0495 | 0.0000 | 0.0207 | 0.0000 | 0.4190 | 0.0964 | 0.0332 | 0.0695 | 0.3441 | 0.7214 |
| 50 | 35.18 | 0.07 | 0.0563 | 0.0000 | 0.0256 | 0.0000 | 0.4301 | 0.0859 | 0.0344 | 0.0662 | 0.4002 | 0.7713 |
| 51 | 35.43 | 0.08 | 0.0570 | 0.0000 | 0.0252 | 0.0000 | 0.4411 | 0.0934 | 0.0348 | 0.0684 | 0.3723 | 0.7328 |
| 52 | 35.68 | 0.11 | 0.0555 | 0.0000 | 0.0267 | 0.0000 | 0.4478 | 0.0849 | 0.0359 | 0.0652 | 0.4252 | 0.7732 |
| 53 | 35.94 | 0.07 | 0.0562 | 0.0000 | 0.0265 | 0.0000 | 0.4727 | 0.0910 | 0.0362 | 0.0675 | 0.3976 | 0.7423 |
| 54 | 36.18 | 0.09 | 0.0655 | 0.0000 | 0.0316 | 0.0000 | 0.4817 | 0.0965 | 0.0364 | 0.0713 | 0.3693 | 0.7243 |
| 55 | 36.39 | 0.08 | 0.0480 | 0.0000 | 0.0252 | 0.0000 | 0.4342 | 0.1094 | 0.0360 | 0.0749 | 0.3288 | 0.6841 |
| 56 | 36.63 | 0.12 | 0.0656 | 0.0000 | 0.0316 | 0.0000 | 0.4572 | 0.0921 | 0.0377 | 0.0693 | 0.4091 | 0.7536 |
| 57 | 36.87 | 0.09 | 0.0575 | 0.0000 | 0.0265 | 0.0000 | 0.4637 | 0.0958 | 0.0381 | 0.0693 | 0.4086 | 0.7393 |
| 58 | 37.11 | 0.05 | 0.0547 | 0.0000 | 0.0254 | 0.0000 | 0.4634 | 0.1104 | 0.0371 | 0.0765 | 0.3358 | 0.6924 |
| 59 | 37.37 | 0.10 | 0.0545 | 0.0000 | 0.0271 | 0.0000 | 0.4963 | 0.1357 | 0.0344 | 0.0874 | 0.2533 | 0.6441 |
| 60 | 37.60 | 0.06 | 0.0577 | 0.0000 | 0.0271 | 0.0000 | 0.4638 | 0.1265 | 0.0336 | 0.0839 | 0.2655 | 0.6632 |
| 61 | 37.83 | 0.07 | 0.0515 | 0.0000 | 0.0261 | 0.0000 | 0.5019 | 0.1592 | 0.0318 | 0.0586 | 0.1995 | 0.6186 |
| 62 | 38.08 | 0.07 | 0.0549 | 0.0000 | 0.0277 | 0.0000 | 0.5083 | 0.1638 | 0.0330 | 0.1020 | 0.2012 | 0.6226 |
| 63 | 38.29 | 0.06 | 0.0524 | 0.0000 | 0.0265 | 0.0000 | 0.5346 | 0.1547 | 0.0330 | 0.0967 | 0.2131 | 0.6256 |
| 64 | 38.53 | 0.07 | 0.0536 | 0.0000 | 0.0269 | 0.0000 | 0.4910 | 0.1593 | 0.0333 | 0.0990 | 0.2088 | 0.6214 |
| 65 | 38.77 | 0.09 | 0.0517 | 0.0000 | 0.0262 | 0.0000 | 0.5056 | 0.1685 | 0.0334 | 0.1039 | 0.1980 | 0.6165 |
| 66 | 38.99 | 0.08 | 0.0560 | 0.0000 | 0.0285 | 0.0000 | 0.5207 | 0.1824 | 0.0335 | 0.1109 | 0.1835 | 0.6082 |
| 67 | 39.22 | 0.06 | 0.0410 | 0.0000 | 0.0220 | 0.0000 | 0.5379 | 0.1948 | 0.0353 | 0.1160 | 0.1811 | 0.5957 |
| 68 | 39.49 | 0.03 | 0.0460 | 0.0000 | 0.0237 | 0.0000 | 0.5163 | 0.2006 | 0.0364 | 0.1190 | 0.1813 | 0.5934 |
| 69 | 39.65 | 0.07 | 0.0455 | 0.0000 | 0.0247 | 0.0000 | 0.5371 | 0.1952 | 0.0343 | 0.1163 | 0.1756 | 0.5960 |
| 70 | 39.88 | 0.04 | 0.0463 | 0.0000 | 0.0245 | 0.0000 | 0.5448 | 0.2061 | 0.0375 | 0.1202 | 0.1818 | 0.5834 |
| 71 | 40.08 | 0.07 | 0.0455 | 0.0000 | 0.0247 | 0.0000 | 0.5371 | 0.2062 | 0.0361 | 0.1208 | 0.1749 | 0.5860 |
| 72 | 40.30 | 0.07 | 0.0434 | 0.0000 | 0.0242 | 0.0000 | 0.5569 | 0.2108 | 0.0356 | 0.1223 | 0.1687 | 0.5803 |
| 73 | 40.52 | 0.06 | 0.0318 | 0.0000 | 0.0173 | 0.0000 | 0.5492 | 0.1995 | 0.0378 | 0.1143 | 0.1894 | 0.5731 |
| 74 | 40.74 | 0.05 | 0.0427 | 0.0000 | 0.0240 | 0.0000 | 0.5373 | 0.2200 | 0.0354 | 0.1242 | 0.1607 | 0.5642 |
| 75 | 40.93 | 0.05 | 0.0450 | 0.0000 | 0.0260 | 0.0000 | 0.5768 | 0.2214 | 0.0355 | 0.1225 | 0.1603 | 0.5532 |
| 76 | 41.14 | 0.05 | 0.0418 | 0.0000 | 0.0248 | 0.0000 | 0.5923 | 0.2315 | 0.0339 | 0.1280 | 0.1463 | 0.5528 |
| 77 | 41.34 | 0.03 | 0.0419 | 0.0000 | 0.0232 | 0.0000 | 0.5550 | 0.2338 | 0.0337 | 0.1263 | 0.1440 | 0.5486 |
| 78 | 41.54 | 0.03 | 0.0418 | 0.0000 | 0.0245 | 0.0000 | 0.5651 | 0.2410 | 0.0366 | 0.1212 | 0.1655 | 0.5488 |
| 79 | 41.77 | 0.03 | 0.0419 | 0.0000 | 0.0232 | 0.0000 | 0.5550 | 0.2250 | 0.0343 | 0.1253 | 0.1497 | 0.5476 |
| 80 | 41.96 | 0.03 | 0.0378 | 0.0000 | 0.0206 | 0.0000 | 0.5493 | 0.2280 | 0.0345 | 0.1238 | 0.1512 | 0.5429 |
| 81 | 42.16 | 0.04 | 0.0437 | 0.0000 | 0.0251 | 0.0000 | 0.5734 | 0.2556 | 0.0309 | 0.1363 | 0.1267 | 0.5331 |
| 82 | 42.36 | 0.03 | 0.0431 | 0.0000 | 0.0243 | 0.0000 | 0.5651 | 0.2724 | 0.0282 | 0.1417 | 0.1034 | 0.5262 |
| 83 | 42.55 | 0.05 | 0.0430 | 0.0000 | 0.0248 | 0.0000 | 0.5758 | 0.2614 | 0.0303 | 0.1375 | 0.1158 | 0.5259 |
| 84 | 42.73 | 0.04 | 0.0381 | 0.0000 | 0.0225 | 0.0000 | 0.6026 | 0.2656 | 0.0309 | 0.1365 | 0.1162 | 0.5213 |
| 85 | 42.92 | 0.03 | 0.0375 | 0.0000 | 0.0213 | 0.0000 | 0.5695 | 0.2763 | 0.0287 | 0.1430 | 0.1037 | 0.5176 |
| 86 | 43.05 | 0.04 | 0.0454 | 0.0000 | 0.0267 | 0.0000 | 0.5572 | 0.2553 | 0.0328 | 0.1342 | 0.1283 | 0.5255 |
| 87 | 43.25 | 0.03 | 0.0375 | 0.0000 | 0.0218 | 0.0000 | 0.5775 | 0.2631 | 0.0334 | 0.1370 | 0.1268 | 0.5206 |
| 88 | 43.44 | 0.03 | 0.0386 | 0.0000 | 0.0206 | 0.0000 | 0.5602 | 0.2721 | 0.0322 | 0.1424 | 0.1182 | 0.5227 |
| 89 | 43.63 | 0.03 | 0.0395 | 0.0000 | 0.0221 | 0.0000 | 0.5736 | 0.2639 | 0.0334 | 0.1374 | 0.1340 | 0.5263 |
| 90 | 43.81 | 0.04 | 0.0358 | 0.0000 | 0.0218 | 0.0000 | 0.6106 | 0.2863 | 0.0316 | 0.1474 | 0.1110 | 0.5145 |
| 91 | 43.99 | 0.03 | 0.0359 | 0.0000 | 0.0211 | 0.0000 | 0.5894 | 0.2749 | 0.0337 | 0.1423 | 0.1225 | 0.5177 |
| 92 | 44.16 | 0.05 | 0.0334 | 0.0000 | 0.0195 | 0.0000 | 0.5976 | 0.2946 | 0.0313 | 0.1500 | 0.1061 | 0.5092 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 120 MACH 1.60 RNIC-E 1.7 PHI 0.0 CONF 61HCF31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.35 | 0.02 | 0.0371 | 0.9999 | 0.0224 | 0.9999 | 0.6354 | 0.2824 | 0.0343 | 0.1445 | 0.1214 | 0.5117 |
| 94 | 44.55 | 0.02 | 0.0347 | 0.9999 | 0.0205 | 0.9999 | 0.5925 | 0.2691 | 0.0363 | 0.1374 | 0.1348 | 0.5125 |
| 95 | 44.72 | 0.03 | 0.0347 | 0.9999 | 0.0196 | 0.9999 | 0.5723 | 0.2901 | 0.0344 | 0.1478 | 0.1185 | 0.5095 |
| 96 | 44.90 | 0.04 | 0.0347 | 0.9999 | 0.0203 | 0.9999 | 0.5867 | 0.2946 | 0.0327 | 0.1489 | 0.1109 | 0.5054 |
| 97 | 45.09 | 0.03 | 0.0416 | 0.9999 | 0.0241 | 0.9999 | 0.5807 | 0.3083 | 0.0321 | 0.1545 | 0.1040 | 0.5011 |
| 98 | 45.25 | 0.02 | 0.0416 | 0.9999 | 0.0241 | 0.9999 | 0.5807 | 0.2987 | 0.0350 | 0.1496 | 0.1171 | 0.5008 |
| 99 | 45.43 | 0.04 | 0.0324 | 0.9999 | 0.0177 | 0.9999 | 0.5460 | 0.2756 | 0.0376 | 0.1417 | 0.1343 | 0.5064 |
| 100 | 45.61 | 0.03 | 0.0404 | 0.9999 | 0.0236 | 0.9999 | 0.5707 | 0.2915 | 0.0363 | 0.1462 | 0.1313 | 0.5084 |
| 101 | 45.81 | 0.03 | 0.0360 | 0.9999 | 0.0215 | 0.9999 | 0.6100 | 0.2936 | 0.0376 | 0.1470 | 0.1280 | 0.5007 |
| 102 | 45.96 | 0.03 | 0.0396 | 0.9999 | 0.0232 | 0.9999 | 0.5844 | 0.3095 | 0.0359 | 0.1545 | 0.1159 | 0.4992 |
| 103 | 46.14 | 0.04 | 0.0358 | 0.9999 | 0.0237 | 0.9999 | 0.5970 | 0.3108 | 0.0359 | 0.1530 | 0.1154 | 0.4923 |
| 104 | 46.32 | 0.04 | 0.0373 | 0.9999 | 0.0215 | 0.9999 | 0.5780 | 0.3152 | 0.0350 | 0.1550 | 0.1116 | 0.4949 |
| 105 | 46.51 | 0.04 | 0.0361 | 0.9999 | 0.0204 | 0.9999 | 0.5667 | 0.3303 | 0.0340 | 0.1635 | 0.1010 | 0.4863 |
| 106 | 46.66 | 0.04 | 0.0336 | 0.9999 | 0.0182 | 0.9999 | 0.5542 | 0.3035 | 0.0375 | 0.1483 | 0.1235 | 0.4886 |
| 107 | 46.84 | 0.04 | 0.0360 | 0.9999 | 0.0190 | 0.9999 | 0.5017 | 0.3226 | 0.0356 | 0.1569 | 0.1103 | 0.4865 |
| 108 | 47.00 | 0.05 | 0.0361 | 0.9999 | 0.0204 | 0.9999 | 0.5667 | 0.3073 | 0.0380 | 0.1497 | 0.1236 | 0.4871 |
| 109 | 47.16 | 0.07 | 0.0356 | 0.9999 | 0.0217 | 0.9999 | 0.5466 | 0.2943 | 0.0418 | 0.1471 | 0.1420 | 0.4998 |
| 110 | 47.36 | 0.08 | 0.0401 | 0.9999 | 0.0256 | 0.9999 | 0.5243 | 0.4183 | 0.0353 | 0.2093 | 0.0843 | 0.5005 |
| 111 | 47.51 | 0.07 | 0.0362 | 0.9999 | 0.0204 | 0.9999 | 0.5705 | 0.3211 | 0.0414 | 0.1609 | 0.1265 | 0.5012 |
| 112 | 47.69 | 0.08 | 0.0407 | 0.9999 | 0.0274 | 0.9999 | 0.5517 | 0.4019 | 0.0366 | 0.2023 | 0.0915 | 0.5034 |
| 113 | 47.88 | 0.07 | 0.0451 | 0.9999 | 0.0240 | 0.9999 | 0.5333 | 0.4671 | 0.0331 | 0.2403 | 0.0675 | 0.4933 |
| 114 | 48.07 | 0.07 | 0.0463 | 0.9999 | 0.0249 | 0.9999 | 0.5300 | 0.4375 | 0.0370 | 0.2204 | 0.0845 | 0.5037 |
| 115 | 48.25 | 0.06 | 0.0456 | 0.9999 | 0.0235 | 0.9999 | 0.5234 | 0.3937 | 0.0404 | 0.1872 | 0.1178 | 0.4756 |
| 116 | 48.43 | 0.06 | 0.0425 | 0.9999 | 0.0222 | 0.9999 | 0.5236 | 0.3808 | 0.0423 | 0.1846 | 0.1088 | 0.4747 |
| 117 | 48.61 | 0.08 | 0.0425 | 0.9999 | 0.0225 | 0.9999 | 0.5307 | 0.3562 | 0.0435 | 0.1697 | 0.1214 | 0.4738 |
| 118 | 48.77 | 0.07 | 0.0455 | 0.9999 | 0.0267 | 0.9999 | 0.5341 | 0.3624 | 0.0436 | 0.1711 | 0.1203 | 0.4722 |
| 119 | 48.96 | 0.06 | 0.0458 | 0.9999 | 0.0225 | 0.9999 | 0.5240 | 0.3597 | 0.0439 | 0.1698 | 0.1220 | 0.4721 |
| 120 | 49.13 | 0.07 | 0.0455 | 0.9999 | 0.0276 | 0.9999 | 0.5322 | 0.3582 | 0.0447 | 0.1696 | 0.1255 | 0.4762 |
| 121 | 49.29 | 0.05 | 0.0419 | 0.9999 | 0.0212 | 0.9999 | 0.5372 | 0.3623 | 0.0436 | 0.1710 | 0.1203 | 0.4721 |
| 122 | 49.47 | 0.07 | 0.0463 | 0.9999 | 0.0230 | 0.9999 | 0.4978 | 0.3006 | 0.0445 | 0.1740 | 0.1207 | 0.4726 |
| 123 | 49.64 | 0.05 | 0.0376 | 0.9999 | 0.0181 | 0.9999 | 0.4827 | 0.3551 | 0.0437 | 0.1703 | 0.1230 | 0.4797 |
| 124 | 49.83 | 0.06 | 0.0513 | 0.9999 | 0.0266 | 0.9999 | 0.5262 | 0.3687 | 0.0451 | 0.1756 | 0.1223 | 0.4746 |
| 125 | 49.99 | 0.05 | 0.0436 | 0.9999 | 0.0218 | 0.9999 | 0.4989 | 0.3622 | 0.0451 | 0.1721 | 0.1245 | 0.4756 |
| 126 | 50.16 | 0.04 | 0.0349 | 0.9999 | 0.0162 | 0.9999 | 0.4709 | 0.3648 | 0.0451 | 0.1733 | 0.1236 | 0.4749 |
| 127 | 50.37 | 0.03 | 0.0388 | 0.9999 | 0.0192 | 0.9999 | 0.4981 | 0.3615 | 0.0462 | 0.1713 | 0.1278 | 0.4737 |
| 128 | 50.52 | 0.01 | 0.0366 | 0.9999 | 0.0197 | 0.9999 | 0.5090 | 0.3597 | 0.0466 | 0.1716 | 0.1279 | 0.4765 |
| 129 | 50.70 | 0.03 | 0.0426 | 0.9999 | 0.0205 | 0.9999 | 0.4824 | 0.3579 | 0.0477 | 0.1698 | 0.1333 | 0.4745 |
| 130 | 50.88 | 0.03 | 0.0426 | 0.9999 | 0.0210 | 0.9999 | 0.4941 | 0.3695 | 0.0483 | 0.1757 | 0.1307 | 0.4755 |
| 131 | 51.04 | 0.03 | 0.0401 | 0.9999 | 0.0203 | 0.9999 | 0.5075 | 0.3573 | 0.0502 | 0.1695 | 0.1405 | 0.4756 |
| 132 | 51.18 | 0.03 | 0.0426 | 0.9999 | 0.0215 | 0.9999 | 0.5059 | 0.3629 | 0.0525 | 0.1645 | 0.1531 | 0.4798 |
| 133 | 51.34 | 0.04 | 0.0424 | 0.9999 | 0.0227 | 0.9999 | 0.5366 | 0.3443 | 0.0515 | 0.1640 | 0.1496 | 0.4764 |
| 134 | 51.52 | 0.02 | 0.0456 | 0.9999 | 0.0235 | 0.9999 | 0.5165 | 0.3442 | 0.0516 | 0.1662 | 0.1499 | 0.4830 |
| 135 | 51.70 | 0.03 | 0.0358 | 0.9999 | 0.0183 | 0.9999 | 0.4837 | 0.3565 | 0.0514 | 0.1701 | 0.1442 | 0.4772 |
| 136 | 51.86 | 0.03 | 0.0425 | 0.9999 | 0.0217 | 0.9999 | 0.5118 | 0.3622 | 0.0507 | 0.1731 | 0.1400 | 0.4777 |
| 137 | 52.02 | 0.03 | 0.0363 | 0.9999 | 0.0175 | 0.9999 | 0.4834 | 0.3700 | 0.0506 | 0.1771 | 0.1373 | 0.4786 |
| 138 | 52.19 | 0.03 | 0.0454 | 0.9999 | 0.0142 | 0.9999 | 0.4840 | 0.3638 | 0.0505 | 0.1734 | 0.1388 | 0.4765 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASRDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 12C MACH 1.7 RN/FT 6.0 PHI 0.0 CONF 31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.33 | 0.03 | 0.0345 | 9.9999 | 0.0181 | 9.9999 | 0.4680 | 0.3624 | 0.0509 | 0.1725 | 0.1406 | 0.4758 |
| 140 | 52.54 | 0.02 | 0.0436 | 9.9999 | 0.0221 | 9.9999 | 0.5057 | 0.3817 | 0.0506 | 0.1811 | 0.1331 | 0.4744 |
| 141 | 52.68 | 0.02 | 0.0326 | 9.9999 | 0.0186 | 9.9999 | 0.5189 | 0.3862 | 0.0504 | 0.1733 | 0.1376 | 0.4730 |
| 142 | 52.86 | 0.02 | 0.0335 | 9.9999 | 0.0184 | 9.9999 | 0.4852 | 0.3704 | 0.0513 | 0.1736 | 0.1385 | 0.4686 |
| 143 | 53.03 | 0.02 | 0.0388 | 9.9999 | 0.0182 | 9.9999 | 0.4703 | 0.3612 | 0.0515 | 0.1686 | 0.1426 | 0.4669 |
| 144 | 53.20 | 0.02 | 0.0416 | 9.9999 | 0.0206 | 9.9999 | 0.5086 | 0.3809 | 0.0509 | 0.1724 | 0.1388 | 0.4698 |
| 145 | 53.37 | 0.01 | 0.0400 | 9.9999 | 0.0198 | 9.9999 | 0.4902 | 0.3820 | 0.0521 | 0.1686 | 0.1435 | 0.4658 |
| 146 | 53.56 | 0.00 | 0.0345 | 9.9999 | 0.0186 | 9.9999 | 0.5047 | 0.3836 | 0.0513 | 0.1704 | 0.1338 | 0.4650 |
| 147 | 53.70 | 0.01 | 0.0338 | 9.9999 | 0.0153 | 9.9999 | 0.4540 | 0.3761 | 0.0509 | 0.1757 | 0.1354 | 0.4671 |
| 148 | 53.85 | 0.01 | 0.0362 | 9.9999 | 0.0166 | 9.9999 | 0.4966 | 0.3714 | 0.0507 | 0.1733 | 0.1365 | 0.4665 |
| 149 | 54.06 | 0.01 | 0.0355 | 9.9999 | 0.0206 | 9.9999 | 0.5226 | 0.3850 | 0.0514 | 0.1786 | 0.1335 | 0.4638 |
| 150 | 54.20 | 0.02 | 0.0355 | 9.9999 | 0.0214 | 9.9999 | 0.5367 | 0.3851 | 0.0512 | 0.1791 | 0.1330 | 0.4650 |
| 151 | 54.38 | 0.00 | 0.0405 | 9.9999 | 0.0211 | 9.9999 | 0.5223 | 0.3963 | 0.0509 | 0.1863 | 0.1278 | 0.4677 |
| 152 | 54.54 | 0.00 | 0.0446 | 9.9999 | 0.0241 | 9.9999 | 0.5491 | 0.4042 | 0.0506 | 0.1872 | 0.1252 | 0.4631 |
| 153 | 54.71 | -0.00 | 0.0387 | 9.9999 | 0.0202 | 9.9999 | 0.5233 | 0.4164 | 0.0511 | 0.1926 | 0.1227 | 0.4626 |
| 154 | 54.85 | 0.01 | 0.0378 | 9.9999 | 0.0193 | 9.9999 | 0.5100 | 0.4015 | 0.0510 | 0.1851 | 0.1270 | 0.4609 |
| 155 | 55.01 | 0.00 | 0.0382 | 9.9999 | 0.0196 | 9.9999 | 0.5263 | 0.4053 | 0.0514 | 0.1874 | 0.1268 | 0.4623 |
| 156 | 55.17 | 0.01 | 0.0367 | 9.9999 | 0.0202 | 9.9999 | 0.5233 | 0.4003 | 0.0520 | 0.1883 | 0.1274 | 0.4611 |
| 157 | 55.30 | -0.00 | 0.0332 | 9.9999 | 0.0158 | 9.9999 | 0.4773 | 0.3978 | 0.0517 | 0.1825 | 0.1300 | 0.4587 |
| 158 | 55.45 | -0.01 | 0.0375 | 9.9999 | 0.0191 | 9.9999 | 0.5107 | 0.4129 | 0.0516 | 0.1898 | 0.1250 | 0.4596 |
| 159 | 55.63 | -0.00 | 0.0411 | 9.9999 | 0.0231 | 9.9999 | 0.5634 | 0.4072 | 0.0509 | 0.1871 | 0.1250 | 0.4594 |
| 160 | 55.74 | 0.00 | 0.0417 | 9.9999 | 0.0238 | 9.9999 | 0.5673 | 0.4040 | 0.0512 | 0.1862 | 0.1267 | 0.4608 |
| 161 | 55.93 | 0.01 | 0.0358 | 9.9999 | 0.0182 | 9.9999 | 0.5127 | 0.4090 | 0.0513 | 0.1882 | 0.1254 | 0.4601 |
| 162 | 56.09 | 0.01 | 0.0349 | 9.9999 | 0.0176 | 9.9999 | 0.5057 | 0.4147 | 0.0512 | 0.1899 | 0.1235 | 0.4578 |
| 163 | 56.27 | 0.01 | 0.0435 | 9.9999 | 0.0253 | 9.9999 | 0.5800 | 0.4081 | 0.0516 | 0.1857 | 0.1264 | 0.4565 |
| 164 | 56.43 | 0.02 | 0.0324 | 9.9999 | 0.0169 | 9.9999 | 0.5232 | 0.4211 | 0.0515 | 0.1919 | 0.1223 | 0.4557 |
| 165 | 56.60 | -0.02 | 0.0325 | 9.9999 | 0.0157 | 9.9999 | 0.4846 | 0.4278 | 0.0516 | 0.1947 | 0.1211 | 0.4551 |
| 166 | 56.77 | -0.02 | 0.0315 | 9.9999 | 0.0151 | 9.9999 | 0.4840 | 0.4186 | 0.0515 | 0.1876 | 0.1231 | 0.4482 |
| 167 | 56.95 | -0.01 | 0.0326 | 9.9999 | 0.0147 | 9.9999 | 0.4523 | 0.4172 | 0.0520 | 0.1878 | 0.1247 | 0.4502 |
| 168 | 57.05 | -0.00 | 0.0338 | 9.9999 | 0.0166 | 9.9999 | 0.4985 | 0.4029 | 0.0512 | 0.1817 | 0.1271 | 0.4509 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 121 MACH 1.10 REIG=6 1.7 PHI 0.0 BLOCF 31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.01 | 0.02 | -4.2325 | 14.8727 | 0.0145 | -0.0226 | 0.0043 | 2.2055 | 0.3399 | 1.8657 | -3.5139 |
| 2 | -5.01 | 0.04 | -4.2456 | 14.9026 | 0.0345 | -0.1672 | 0.0044 | 2.2103 | 0.3361 | 1.8743 | -3.5068 |
| 3 | -5.01 | 0.05 | -4.2786 | 14.9501 | 0.1832 | -0.2090 | 0.0046 | 2.2226 | 0.3375 | 1.8851 | -3.5035 |
| 4 | -5.00 | 0.03 | -4.2765 | 14.9435 | -0.0455 | 0.0406 | 0.0043 | 2.1654 | 0.3257 | 1.8398 | -3.5551 |
| 5 | -5.00 | 0.03 | -3.7585 | 13.7734 | 0.0147 | -0.0235 | 0.0049 | 2.0030 | 0.3054 | 1.7626 | -3.6648 |
| 6 | -1.92 | 0.04 | -3.4250 | 12.9515 | 0.0555 | -0.1317 | -0.0053 | 2.0000 | 0.3144 | 1.6943 | -3.7816 |
| 7 | -0.21 | 0.04 | -3.0837 | 12.0851 | 0.0785 | -0.1295 | -0.0050 | 1.9859 | 0.3082 | 1.5977 | -3.9190 |
| 8 | 1.55 | 0.03 | -2.6929 | 11.1023 | 0.0154 | -0.0255 | -0.0048 | 1.7816 | 0.2999 | 1.4820 | -4.1228 |
| 9 | 3.41 | 0.04 | -2.3020 | 10.1324 | 0.0504 | -0.0211 | 0.0010 | 1.6743 | 0.2974 | 1.3769 | -4.4016 |
| 10 | 5.13 | 0.03 | -1.8922 | 9.1229 | -0.0234 | 0.0493 | 0.0013 | 1.5265 | 0.3110 | 1.2455 | -4.8214 |
| 11 | 6.96 | 0.04 | -1.5080 | 8.1325 | 0.0408 | -0.0033 | -0.0037 | 1.4468 | 0.3228 | 1.1241 | -5.4001 |
| 12 | 8.77 | 0.04 | -1.0579 | 7.0422 | 0.0627 | -0.0240 | -0.0085 | 1.3190 | 0.3284 | 0.9906 | -6.6589 |
| 13 | 10.63 | 0.05 | -0.5841 | 5.9243 | 0.1107 | 0.0165 | -0.0135 | 1.2011 | 0.3329 | 0.8683 | -10.2453 |
| 14 | 12.31 | 0.03 | -0.1216 | 4.8760 | 0.0311 | 0.0333 | -0.0120 | 1.0804 | 0.3377 | 0.7465 | -40.9333 |
| 15 | 14.41 | 0.03 | 0.3113 | 3.8556 | 0.0004 | 0.0002 | -0.0015 | 0.9848 | 0.3423 | 0.6425 | 13.0294 |
| 16 | 16.40 | 0.02 | 0.8712 | 2.8268 | -0.0852 | 0.3270 | -0.0000 | 0.8520 | 0.3469 | 0.5032 | 3.5907 |
| 17 | 18.38 | 0.02 | 1.3033 | 2.0184 | -0.1100 | 0.3763 | -0.0004 | 0.7612 | 0.3476 | 0.4134 | 1.8556 |
| 18 | 20.33 | 0.01 | 1.7022 | 2.0211 | -0.2255 | 0.7727 | -0.0104 | 0.6843 | 0.3486 | 0.3359 | 1.1443 |
| 19 | 22.32 | 0.02 | 2.1360 | 1.9278 | -0.0557 | 0.2509 | -0.0268 | 0.6201 | 0.3500 | 0.2701 | 0.8152 |
| 20 | 24.34 | 0.03 | 2.5667 | 2.1053 | 0.0215 | 0.0425 | -0.0035 | 0.5756 | 0.3594 | 0.2164 | 0.7250 |
| 21 | 26.32 | 0.05 | 3.0783 | 2.2646 | 0.3545 | -0.7890 | 0.0342 | 0.5669 | 0.3727 | 0.1942 | 0.6332 |
| 22 | 28.34 | 0.06 | 4.1917 | 2.2771 | 0.7555 | -1.6043 | 0.1120 | 0.5359 | 0.3841 | 0.1518 | 0.5426 |
| 23 | 28.38 | 0.07 | 4.2374 | 2.2706 | 0.5052 | -1.2365 | 0.0897 | 0.5546 | 0.3855 | 0.1691 | 0.5359 |
| 24 | 28.00 | 0.06 | 4.0497 | 2.1646 | 0.4058 | -1.0042 | 0.0005 | 0.5188 | 0.3809 | 0.1315 | 0.4777 |
| 25 | 28.55 | 0.05 | 4.0320 | 2.0957 | 0.3341 | -0.7391 | 0.0630 | 0.5215 | 0.3918 | 0.1297 | 0.4624 |
| 26 | 29.30 | 0.06 | 4.0210 | 2.0565 | 0.0550 | -1.5039 | 0.1101 | 0.5478 | 0.3942 | 0.1534 | 0.4451 |
| 27 | 29.00 | 0.05 | 4.7665 | 1.9510 | 0.3518 | -0.7267 | 0.0478 | 0.5091 | 0.3945 | 0.1146 | 0.4093 |
| 28 | 29.09 | 0.06 | 4.0360 | 1.0575 | 0.4321 | -0.0052 | 0.0749 | 0.5034 | 0.3963 | 0.1071 | 0.3629 |
| 29 | 30.19 | 0.06 | 5.0031 | 1.7062 | 0.5222 | -0.5512 | 0.0973 | 0.4641 | 0.4025 | 0.0615 | 0.3370 |
| 30 | 30.48 | 0.07 | 5.1651 | 1.6764 | 0.0811 | -1.0050 | 0.1251 | 0.4777 | 0.4033 | 0.0744 | 0.3053 |
| 31 | 30.75 | 0.07 | 5.3402 | 1.4866 | 0.6155 | -1.2217 | 0.0770 | 0.4706 | 0.4043 | 0.0663 | 0.2787 |
| 32 | 31.02 | 0.11 | 5.4271 | 1.4816 | 1.1808 | -2.3772 | 0.1328 | 0.4452 | 0.4029 | 0.0423 | 0.2729 |
| 33 | 31.31 | 0.06 | 5.5021 | 1.2453 | 0.8623 | -1.8018 | 0.1214 | 0.4364 | 0.4074 | 0.0290 | 0.2236 |
| 34 | 31.50 | 0.07 | 5.6303 | 1.2532 | 0.9005 | -1.8225 | 0.0005 | 0.4352 | 0.4109 | 0.0243 | 0.2227 |
| 35 | 31.80 | 0.06 | 5.7752 | 1.2830 | 0.8025 | -0.5415 | 0.0775 | 0.4324 | 0.4143 | 0.0181 | 0.2220 |
| 36 | 32.14 | 0.05 | 5.9024 | 1.1699 | 0.3478 | -0.2350 | 0.0255 | 0.4329 | 0.4153 | 0.0176 | 0.2005 |
| 37 | 32.41 | 0.06 | 6.0353 | 1.1382 | 0.4022 | -1.0174 | 0.1109 | 0.4091 | 0.4128 | -0.0037 | 0.1883 |
| 38 | 32.66 | 0.06 | 6.0922 | 0.9664 | 0.5003 | -1.0408 | 0.1271 | 0.4026 | 0.4142 | -0.0116 | 0.1623 |
| 39 | 32.95 | 0.04 | 6.0877 | 0.9532 | 0.2224 | -0.3822 | 0.1003 | 0.3977 | 0.4190 | -0.0213 | 0.1575 |
| 40 | 33.21 | 0.06 | 6.0433 | 0.8967 | 0.4037 | -0.5550 | 0.1219 | 0.3922 | 0.4210 | -0.0288 | 0.1358 |
| 41 | 33.47 | 0.03 | 6.0372 | 0.7415 | 0.2653 | -0.4129 | 0.1009 | 0.3950 | 0.4218 | -0.0268 | 0.1138 |
| 42 | 33.72 | 0.06 | 6.0115 | 0.6716 | -0.0824 | 0.4530 | 0.0262 | 0.3896 | 0.4262 | -0.0566 | 0.1015 |
| 43 | 34.00 | 0.03 | 6.0525 | 0.5917 | 0.2782 | -0.2681 | 0.1335 | 0.3951 | 0.4245 | -0.0796 | 0.0871 |
| 44 | 34.24 | 0.04 | 6.0524 | 0.4851 | 0.3326 | -0.3696 | 0.1234 | 0.3876 | 0.4307 | -0.0831 | 0.0583 |
| 45 | 34.48 | 0.02 | 6.0740 | 0.4406 | 0.0223 | 0.4852 | 0.0889 | 0.3574 | 0.4345 | -0.0771 | 0.0632 |
| 46 | 34.75 | 0.05 | 7.0712 | 0.3356 | 0.4166 | -0.4076 | 0.1453 | 0.3898 | 0.4380 | -0.0583 | 0.0481 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNIC-E | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 121 | 1.10 | 1.7 | C.C | 61eCF31 | 6.C | 0 | -30 | 0 | -30 | UNKNOWN |

| FLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.00 | C.04 | 7.3474 | C.1367 | C.3231 | -C.2637 | 0.1725 | 0.3275 | 0.4417 | -0.1143 | C.0186 |
| 48 | 35.24 | C.04 | 7.3941 | C.1365 | C.3323 | -C.5995 | 0.1765 | 0.3232 | 0.4435 | -0.1224 | C.0015 |
| 49 | 35.50 | C.05 | 7.5265 | C.0003 | 0.4235 | -C.4610 | 0.1574 | 0.3268 | 0.4462 | -0.1195 | 0.0080 |
| 50 | 35.75 | C.05 | 7.5565 | C.0366 | C.4696 | -C.0343 | 0.1685 | 0.3280 | 0.4521 | -0.1242 | 0.0048 |
| 51 | 35.97 | C.04 | 7.6457 | -C.0025 | C.2506 | -C.1053 | 0.1256 | 0.3143 | 0.4541 | -0.1399 | -C.0004 |
| 52 | 36.21 | C.03 | 7.7111 | -C.0067 | C.3275 | -C.5604 | 0.1401 | 0.3249 | 0.4541 | -0.1293 | -0.0115 |
| 53 | 36.45 | C.03 | 7.8820 | -C.1667 | C.2106 | -C.2501 | 0.1589 | 0.3183 | 0.4569 | -0.1387 | -C.0237 |
| 54 | 36.69 | C.04 | 8.0479 | -C.2062 | C.4113 | -C.0196 | 0.1611 | 0.2746 | 0.4507 | -0.1761 | -0.0260 |
| 55 | 36.93 | C.04 | 8.1184 | -C.3677 | C.3632 | -C.3884 | 0.1385 | 0.2911 | 0.4500 | -0.1550 | -0.0453 |
| 56 | 37.17 | C.03 | 8.2151 | -C.4109 | C.3653 | -C.4726 | 0.1603 | 0.2702 | 0.4497 | -0.1735 | -0.0500 |
| 57 | 37.41 | C.01 | 8.3562 | -C.5643 | C.2141 | -C.1811 | 0.1497 | 0.2608 | 0.4586 | -0.1778 | -0.0672 |
| 58 | 37.63 | C.00 | 8.3037 | -C.5446 | C.4636 | -C.5552 | 0.1768 | 0.2978 | 0.4613 | -0.1636 | -0.0656 |
| 59 | 37.88 | C.05 | 8.4517 | -C.5836 | C.5C51 | -C.5544 | 0.1399 | 0.2639 | 0.4548 | -0.1909 | -0.0691 |
| 60 | 38.11 | C.02 | 8.5755 | -C.7552 | C.2117 | -C.2102 | 0.1546 | 0.2675 | 0.4555 | -0.1880 | -0.0881 |
| 61 | 38.35 | C.02 | 8.7042 | -C.8535 | C.1767 | -C.2201 | 0.1294 | 0.2514 | 0.4556 | -0.2044 | -0.0981 |
| 62 | 38.60 | C.03 | 8.8471 | -C.9248 | C.3018 | -C.3C55 | 0.1195 | 0.2445 | 0.4579 | -0.2134 | -0.1045 |
| 63 | 38.82 | C.01 | 8.9044 | -1.0715 | C.2364 | -C.3072 | 0.1353 | 0.2164 | 0.4552 | -0.2388 | -0.1204 |
| 64 | 39.05 | C.02 | 9.0253 | -1.1122 | C.3215 | -C.2809 | 0.1144 | 0.2086 | 0.4524 | -0.2438 | -0.1232 |
| 65 | 39.27 | -C.02 | 9.0223 | -1.0872 | C.0010 | C.0495 | 0.0871 | 0.2017 | 0.4510 | -0.2493 | -0.1183 |
| 66 | 39.49 | C.01 | 9.2161 | -1.2561 | C.1547 | -C.2071 | 0.0862 | 0.1643 | 0.4490 | -0.2647 | -0.1363 |
| 67 | 39.72 | -C.01 | 9.2563 | -1.3223 | -C.0014 | C.0064 | 0.0246 | 0.1966 | 0.4562 | -0.2574 | -0.1427 |
| 68 | 39.94 | C.00 | 9.3691 | -1.4502 | C.1470 | -C.0078 | 0.0017 | 0.1652 | 0.4523 | -0.2671 | -0.1587 |
| 69 | 40.14 | C.01 | 9.4854 | -1.4878 | C.1830 | -C.2692 | 0.0784 | 0.1519 | 0.4486 | -0.2968 | -0.1571 |
| 70 | 40.36 | C.01 | 9.5160 | -1.5712 | C.1651 | -C.3289 | 0.0938 | 0.1476 | 0.4434 | -0.2965 | -0.1651 |
| 71 | 40.58 | C.01 | 9.6853 | -1.7933 | C.2057 | -C.1335 | 0.1159 | 0.1270 | 0.4493 | -0.3224 | -0.1852 |
| 72 | 40.77 | -C.01 | 9.6656 | -1.6926 | C.0083 | C.0541 | 0.0081 | 0.1234 | 0.4469 | -0.3236 | -0.1914 |
| 73 | 40.98 | C.03 | 9.8134 | -1.7885 | C.2780 | -C.2265 | 0.0088 | 0.1088 | 0.4390 | -0.3303 | -0.1801 |
| 74 | 41.19 | -C.01 | 9.9346 | -1.9755 | -C.0493 | -C.0241 | 0.0079 | 0.1141 | 0.4482 | -0.3342 | -0.1988 |
| 75 | 41.39 | C.02 | 10.0413 | -2.0835 | C.1601 | C.0830 | 0.0469 | 0.1049 | 0.4479 | -0.3431 | -0.2075 |
| 76 | 41.61 | -C.01 | 10.0644 | -2.0501 | C.1373 | -C.1457 | 0.0093 | 0.0745 | 0.4414 | -0.3669 | -0.2073 |
| 77 | 41.82 | -C.00 | 10.2777 | -2.2636 | -C.0431 | -C.1133 | 0.0377 | 0.0853 | 0.4528 | -0.3675 | -0.2202 |
| 78 | 42.02 | -C.01 | 10.2859 | -2.4165 | -C.0334 | C.3771 | 0.0840 | 0.0826 | 0.4455 | -0.3629 | -0.2357 |
| 79 | 42.24 | -C.01 | 10.4765 | -2.3951 | -C.1073 | C.5996 | 0.0340 | 0.0473 | 0.4421 | -0.3948 | -0.2286 |
| 80 | 42.44 | C.01 | 10.5947 | -2.6667 | C.0570 | C.5030 | 0.0083 | 0.0475 | 0.4437 | -0.3962 | -0.2517 |
| 81 | 42.64 | -C.02 | 10.5754 | -2.5025 | -C.1102 | C.7753 | 0.0570 | 0.0490 | 0.4510 | -0.4020 | -0.2367 |
| 82 | 42.81 | C.00 | 10.7122 | -2.7062 | -C.0612 | C.9005 | 0.0061 | 0.0311 | 0.4448 | -0.4137 | -0.2521 |
| 83 | 43.00 | C.00 | 10.8850 | -2.8532 | -C.0284 | C.4111 | 0.0480 | 0.0178 | 0.4441 | -0.4263 | -0.2533 |
| 84 | 43.19 | -C.01 | 10.9960 | -2.9946 | -C.2110 | 1.2423 | 0.0456 | 0.0065 | 0.4545 | -0.4480 | -0.2690 |
| 85 | 43.38 | C.00 | 10.8309 | -2.8101 | -C.0651 | C.3140 | 0.0380 | 0.0095 | 0.4465 | -0.4370 | -0.2596 |
| 86 | 43.54 | -C.01 | 10.9644 | -2.7200 | -C.1547 | C.7796 | 0.0309 | -0.0255 | 0.4324 | -0.4579 | -0.2481 |
| 87 | 43.73 | -C.00 | 11.0335 | -2.7753 | -C.0254 | C.2010 | 0.0338 | -0.0225 | 0.4266 | -0.4495 | -0.2519 |
| 88 | 43.92 | C.01 | 11.1141 | -2.9443 | -C.1153 | 1.1200 | 0.0305 | -0.0150 | 0.4379 | -0.4509 | -0.2649 |
| 89 | 44.12 | C.01 | 11.2300 | -2.8476 | C.0526 | C.0719 | 0.0294 | -0.0343 | 0.4303 | -0.4646 | -0.2538 |
| 90 | 44.27 | -C.01 | 11.2978 | -2.9554 | -C.1441 | C.5419 | 0.0386 | -0.0651 | 0.4314 | -0.4966 | -0.2655 |
| 91 | 44.46 | C.00 | 11.2254 | -3.0855 | C.0550 | C.4510 | 0.0228 | -0.0564 | 0.4352 | -0.4917 | -0.2719 |
| 92 | 44.66 | -C.00 | 11.4643 | -3.0223 | -C.0151 | C.4623 | 0.0236 | -0.0914 | 0.4203 | -0.5118 | -0.2636 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 421 MACH 1.10 1.7 RADIUS 6.0 PHI 0.0 0.0 CONF 31 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.84 | -0.03 | 11.6057 | -3.0990 | -0.3212 | 1.3231 | 0.0103 | -0.0803 | 0.4336 | -0.5140 | -0.2665 |
| 94 | 45.04 | -0.00 | 11.5873 | -3.1270 | -0.0653 | 0.4540 | 0.0236 | -0.0878 | 0.4267 | -0.5146 | -0.2703 |
| 95 | 45.25 | -0.01 | 11.6735 | -3.2065 | 0.0405 | -0.0865 | 0.0259 | -0.0839 | 0.4284 | -0.5124 | -0.2747 |
| 96 | 45.43 | -0.02 | 11.7040 | -3.2673 | -0.2281 | 0.0801 | 0.0132 | -0.1109 | 0.4319 | -0.5428 | -0.2772 |
| 97 | 45.62 | -0.00 | 11.6538 | -3.2237 | 0.0425 | -0.1544 | 0.0374 | -0.0947 | 0.4333 | -0.5281 | -0.2720 |
| 98 | 45.80 | -0.01 | 11.6056 | -3.2113 | -0.2740 | 1.5070 | -0.0112 | -0.1009 | 0.4434 | -0.5448 | -0.2930 |
| 99 | 45.99 | 0.01 | 11.6766 | -3.3516 | 0.0675 | 0.2306 | 0.0203 | -0.1254 | 0.4245 | -0.5503 | -0.2798 |
| 100 | 46.16 | -0.02 | 12.0352 | -3.4076 | -0.3674 | 1.6195 | -0.0224 | -0.1157 | 0.4360 | -0.5537 | -0.2880 |
| 101 | 46.34 | -0.01 | 12.1404 | -3.4479 | -0.3023 | 1.4815 | -0.0150 | -0.1413 | 0.4235 | -0.5648 | -0.2840 |
| 102 | 46.50 | -0.04 | 12.1365 | -3.4355 | -0.2467 | 1.2594 | -0.0093 | -0.1326 | 0.4336 | -0.5662 | -0.2749 |
| 103 | 46.68 | -0.00 | 12.2030 | -3.6504 | -0.1671 | 1.2322 | -0.0310 | -0.1365 | 0.4341 | -0.5706 | -0.2991 |
| 104 | 46.87 | -0.03 | 12.2560 | -3.6024 | -0.5725 | 2.4603 | -0.0016 | -0.1348 | 0.4554 | -0.5942 | -0.2899 |
| 105 | 47.05 | -0.05 | 12.4977 | -3.5001 | -0.7025 | 2.6142 | -0.0341 | -0.1123 | 0.4595 | -0.5718 | -0.2853 |
| 106 | 47.22 | -0.05 | 12.4415 | -3.4568 | -0.6497 | 2.7206 | -0.0093 | -0.1161 | 0.4535 | -0.5696 | -0.2651 |
| 107 | 47.39 | -0.04 | 12.3253 | -3.4516 | -0.6783 | 3.0740 | -0.1328 | -0.0499 | 0.4656 | -0.5196 | -0.2184 |
| 108 | 47.56 | -0.04 | 12.4341 | -3.4667 | -0.6674 | 2.8417 | -0.1102 | -0.0605 | 0.4765 | -0.5371 | -0.2399 |
| 109 | 47.71 | -0.04 | 12.3555 | -3.4361 | -0.6526 | 3.0313 | -0.1219 | -0.0396 | 0.4766 | -0.5163 | -0.2297 |
| 110 | 47.90 | -0.02 | 12.5266 | -3.4573 | -0.4503 | 2.5110 | -0.1194 | -0.0104 | 0.4975 | -0.5079 | -0.2121 |
| 111 | 48.08 | -0.04 | 12.5264 | -3.4725 | -0.6436 | 2.8290 | -0.1196 | -0.0128 | 0.5035 | -0.5163 | -0.2213 |
| 112 | 48.25 | -0.04 | 12.6366 | -3.4433 | -0.5484 | 2.6817 | -0.1243 | -0.0112 | 0.5070 | -0.5182 | -0.2250 |
| 113 | 48.42 | -0.04 | 12.7290 | -3.4473 | -0.5636 | 2.8191 | -0.1163 | -0.0393 | 0.5077 | -0.5470 | -0.2237 |
| 114 | 48.59 | -0.02 | 12.7311 | -3.4350 | -0.4840 | 2.6126 | -0.1079 | -0.0408 | 0.5140 | -0.5548 | -0.2305 |
| 115 | 48.75 | 0.00 | 13.1779 | -4.0007 | -0.0353 | 1.2634 | -0.0714 | -0.1120 | 0.5094 | -0.6213 | -0.3036 |
| 116 | 48.92 | -0.01 | 13.2713 | -4.1231 | -0.0552 | 0.8516 | -0.0478 | -0.1137 | 0.5105 | -0.6301 | -0.3107 |
| 117 | 49.13 | -0.01 | 13.2665 | -4.1575 | -0.1245 | 1.1791 | -0.0653 | -0.1235 | 0.5206 | -0.6440 | -0.3134 |
| 118 | 49.29 | 0.02 | 13.3756 | -4.2054 | 0.1541 | 0.6577 | -0.0363 | -0.1132 | 0.5206 | -0.6337 | -0.3143 |
| 119 | 49.46 | 0.02 | 13.3866 | -4.2040 | 0.2068 | 0.2586 | -0.0241 | -0.0936 | 0.5514 | -0.6450 | -0.3140 |
| 120 | 49.63 | 0.02 | 13.4564 | -4.2466 | 0.2003 | 0.5506 | 0.0078 | 0.0291 | 0.5656 | -0.5405 | -0.2375 |
| 121 | 49.80 | 0.02 | 13.2629 | -4.2032 | 0.2941 | 0.5519 | 0.0078 | 0.0280 | 0.5787 | -0.5507 | -0.2415 |
| 122 | 49.96 | 0.04 | 13.1961 | -4.1962 | 0.2915 | 0.6037 | 0.0240 | 0.0087 | 0.5811 | -0.5124 | -0.2081 |
| 123 | 50.15 | 0.03 | 13.2749 | -4.1166 | 0.2573 | 0.5675 | 0.0187 | 0.0492 | 0.5819 | -0.5327 | -0.2345 |
| 124 | 50.33 | 0.03 | 13.4534 | -4.2426 | 0.3596 | 0.6004 | 0.0394 | 0.0671 | 0.5916 | -0.5245 | -0.2203 |
| 125 | 50.48 | 0.04 | 13.4214 | -4.1804 | 0.2435 | 0.7835 | 0.0455 | 0.0584 | 0.6004 | -0.5420 | -0.2370 |
| 126 | 50.65 | 0.02 | 13.3478 | -4.2624 | 0.3321 | 0.5521 | 0.0391 | 0.0612 | 0.6035 | -0.5427 | -0.2223 |
| 127 | 50.85 | 0.04 | 13.5527 | -4.1808 | 0.3336 | 0.5701 | 0.0290 | 0.0424 | 0.5966 | -0.5542 | -0.2340 |
| 128 | 51.01 | 0.03 | 13.5417 | -4.2087 | 0.3314 | 0.4341 | 0.0236 | 0.0376 | 0.6011 | -0.5635 | -0.2221 |
| 129 | 51.18 | 0.01 | 13.5265 | -4.2938 | 0.2917 | 0.9311 | 0.0294 | 0.0384 | 0.5983 | -0.5599 | -0.2162 |
| 130 | 51.16 | 0.03 | 13.3618 | -4.2546 | 0.3011 | 1.0781 | 0.0332 | 0.0317 | 0.6006 | -0.5683 | -0.2211 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 3

MANTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH RX1C-6 PHI CONF L DELT DEL2 DEL3 DEL4 TRANSITION
/ 121 1.10 1.7 0.0 Diverg1 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.61 | 0.02 | -0.0041 | 0.0016 | 0.0038 | -0.2439 | -0.9268 | -1.2791 | 0.0359 | -0.5594 | -0.0280 | 0.4374 |
| 2 | -5.61 | 0.04 | -0.0026 | 0.0014 | 0.0040 | -0.7000 | -2.5000 | -1.2795 | 0.0364 | -0.5582 | -0.0264 | 0.4371 |
| 3 | -5.61 | 0.05 | 0.0007 | 0.0016 | 0.0062 | 2.5714 | 8.8571 | -1.2821 | 0.0367 | -0.5594 | -0.0288 | 0.4363 |
| 4 | -5.30 | 0.03 | -0.0020 | 0.0011 | 0.0035 | -0.3667 | -1.3000 | -1.2363 | 0.0349 | -0.5453 | -0.0282 | 0.4411 |
| 5 | -3.56 | 0.03 | -0.0052 | 0.0011 | 0.0025 | -0.2115 | -0.5577 | -1.1704 | 0.0342 | -0.5193 | -0.0292 | 0.4437 |
| 6 | -1.92 | 0.04 | 0.0019 | 0.0013 | 0.0047 | 0.8667 | 3.1333 | -1.0691 | 0.0338 | -0.4938 | -0.0308 | 0.4534 |
| 7 | -0.21 | 0.04 | -0.0005 | 0.0017 | 0.0036 | -1.4000 | -7.2000 | -1.0010 | 0.0282 | -0.4621 | -0.0281 | 0.4617 |
| 8 | 1.55 | 0.03 | 0.0011 | 0.0018 | 0.0030 | 0.9091 | 3.2727 | -0.9016 | 0.0217 | -0.4213 | -0.0241 | 0.4672 |
| 9 | 3.41 | 0.04 | 0.0017 | 0.0018 | 0.0034 | 0.5882 | 2.0000 | -0.8050 | 0.0167 | -0.3819 | -0.0208 | 0.4744 |
| 10 | 5.13 | 0.03 | -0.0043 | 0.0002 | 0.0021 | -0.0465 | -0.4884 | -0.7182 | 0.0120 | -0.3462 | -0.0168 | 0.4834 |
| 11 | 6.96 | 0.04 | -0.0136 | -0.0002 | 0.0025 | 0.0147 | -0.2132 | -0.6197 | 0.0072 | -0.3048 | -0.0116 | 0.4915 |
| 12 | 8.77 | 0.04 | -0.0187 | -0.0006 | 0.0017 | 0.0474 | -0.1018 | -0.5178 | 0.0046 | -0.2594 | -0.0089 | 0.5011 |
| 13 | 10.63 | 0.05 | -0.0193 | -0.0011 | 0.0040 | 0.0570 | -0.2073 | -0.4184 | 0.0023 | -0.2174 | -0.0055 | 0.5223 |
| 14 | 12.51 | 0.03 | -0.0220 | -0.0014 | 0.0020 | 0.0405 | -0.1182 | -0.3328 | 0.0006 | -0.1776 | -0.0018 | 0.5336 |
| 15 | 14.41 | 0.03 | -0.0230 | 0.0005 | 0.0076 | -0.0391 | -0.3304 | -0.2484 | -0.0017 | -0.1392 | 0.0069 | 0.5603 |
| 16 | 16.40 | 0.04 | -0.0342 | 0.0004 | 0.0051 | -0.0117 | -0.1496 | -0.1562 | -0.0035 | -0.0939 | 0.0225 | 0.6016 |
| 17 | 18.36 | 0.02 | -0.0360 | 0.0007 | 0.0057 | -0.0195 | -0.1588 | -0.0908 | -0.0032 | -0.0625 | 0.0353 | 0.6887 |
| 18 | 20.33 | 0.01 | -0.0004 | 0.0026 | -0.0043 | -0.0424 | 0.0651 | -0.0425 | 0.0006 | -0.0421 | -0.0140 | 0.9613 |
| 19 | 22.32 | 0.02 | -0.0471 | 0.0020 | -0.0088 | -0.0426 | 0.1830 | 0.0025 | 0.0057 | -0.0216 | 2.2800 | -8.6400 |
| 20 | 24.34 | 0.03 | -0.0467 | 0.0036 | -0.0044 | -0.0044 | 0.0944 | 0.0261 | 0.0138 | -0.0138 | 0.5308 | -0.5308 |
| 21 | 26.32 | 0.05 | -0.0813 | -0.0025 | 0.0010 | -0.0356 | 0.7509 | 0.0547 | 0.0210 | -0.0016 | 0.3846 | -0.0293 |
| 22 | 28.34 | 0.06 | 0.1777 | 0.0031 | 0.0078 | 0.0173 | 0.5494 | 0.0929 | 0.0229 | 0.0143 | 0.2470 | 0.1543 |
| 23 | 28.38 | 0.07 | 0.1820 | 0.0047 | 0.0100 | 0.0291 | 0.5553 | 0.0922 | 0.0225 | 0.0135 | 0.2489 | 0.1467 |
| 24 | 28.40 | 0.06 | 0.1828 | 0.0045 | 0.0122 | 0.0531 | 0.5000 | 0.0800 | 0.0242 | 0.0113 | 0.2821 | 0.1317 |
| 25 | 28.95 | 0.05 | 0.1815 | 0.0028 | 0.0066 | 0.1098 | 0.7036 | 0.0859 | 0.0246 | 0.0123 | 0.2859 | 0.1435 |
| 26 | 29.30 | 0.06 | 0.1827 | 0.0061 | 0.0115 | 0.0395 | 0.5557 | 0.0961 | 0.0230 | 0.0165 | 0.2358 | 0.1721 |
| 27 | 29.80 | 0.05 | 0.0830 | 0.0075 | 0.0481 | 0.1192 | 0.7313 | 0.0965 | 0.0247 | 0.0158 | 0.2605 | 0.1675 |
| 28 | 29.89 | 0.06 | 0.1107 | 0.0065 | 0.0057 | 0.0624 | 0.0299 | 0.1045 | 0.0240 | 0.0201 | 0.2301 | 0.1927 |
| 29 | 30.19 | 0.06 | 0.1485 | 0.0107 | 0.0245 | 0.0720 | 0.5700 | 0.1258 | 0.0236 | 0.0291 | 0.1856 | 0.2311 |
| 30 | 30.48 | 0.07 | 0.1754 | 0.0150 | 0.0571 | 0.0646 | 0.5537 | 0.1552 | 0.0231 | 0.0333 | 0.1712 | 0.2461 |
| 31 | 30.75 | 0.07 | 0.1852 | 0.0120 | 0.0488 | 0.0710 | 0.5246 | 0.1611 | 0.0211 | 0.0449 | 0.1312 | 0.2786 |
| 32 | 31.02 | 0.11 | 0.2573 | 0.0119 | 0.1266 | 0.0403 | 0.4496 | 0.1804 | 0.0192 | 0.0535 | 0.1067 | 0.2967 |
| 33 | 31.31 | 0.09 | 0.1914 | 0.0135 | 0.1025 | 0.0707 | 0.5356 | 0.1831 | 0.0206 | 0.0546 | 0.1128 | 0.2583 |
| 34 | 31.58 | 0.07 | 0.1425 | 0.0122 | 0.0734 | 0.0998 | 0.5990 | 0.1696 | 0.0219 | 0.0485 | 0.1294 | 0.2856 |
| 35 | 31.86 | 0.04 | 0.0919 | 0.0113 | 0.0421 | 0.1232 | 0.6761 | 0.1843 | 0.0232 | 0.0469 | 0.1415 | 0.2854 |
| 36 | 32.14 | 0.05 | 0.0931 | 0.0097 | 0.0435 | 0.1830 | 0.8204 | 0.1879 | 0.0239 | 0.0456 | 0.1470 | 0.2798 |
| 37 | 32.41 | 0.06 | 0.0987 | 0.0080 | 0.0478 | 0.0829 | 0.6995 | 0.1705 | 0.0241 | 0.0494 | 0.1416 | 0.2897 |
| 38 | 32.68 | 0.06 | 0.1664 | 0.0096 | 0.0538 | 0.0578 | 0.5035 | 0.1807 | 0.0243 | 0.0503 | 0.1304 | 0.3017 |
| 39 | 32.95 | 0.04 | 0.1490 | 0.0076 | 0.0805 | 0.0591 | 0.6239 | 0.1783 | 0.0255 | 0.0532 | 0.1428 | 0.2985 |
| 40 | 33.21 | 0.06 | 0.0884 | 0.0078 | 0.0085 | 0.0882 | 0.7481 | 0.1709 | 0.0276 | 0.0486 | 0.1612 | 0.2843 |
| 41 | 33.47 | 0.03 | 0.1042 | 0.0070 | 0.0714 | 0.0686 | 0.6990 | 0.1843 | 0.0264 | 0.0541 | 0.1430 | 0.2938 |
| 42 | 33.72 | 0.06 | 0.0191 | 0.0062 | 0.0313 | 0.3240 | 1.0333 | 0.1805 | 0.0270 | 0.0513 | 0.1494 | 0.2843 |
| 43 | 34.00 | 0.03 | 0.0850 | 0.0063 | 0.0481 | 0.0709 | 0.7658 | 0.1915 | 0.0274 | 0.0555 | 0.1429 | 0.2899 |
| 44 | 34.24 | 0.04 | 0.0965 | 0.0036 | 0.0736 | 0.0582 | 0.7570 | 0.1926 | 0.0278 | 0.0569 | 0.1441 | 0.2955 |
| 45 | 34.48 | 0.02 | 0.0020 | 0.0052 | 0.0277 | 2.6000 | 13.8000 | 0.1838 | 0.0288 | 0.0515 | 0.1563 | 0.2803 |
| 46 | 34.72 | 0.03 | 0.1044 | 0.0070 | 0.0775 | 0.0641 | 0.7079 | 0.1927 | 0.0276 | 0.0559 | 0.1430 | 0.2902 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 121 | MACH 0.90 | RX10-6 0.7 | PHI 0.0 | CONF 81 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.00 | 0.04 | 0.1001 | 0.0075 | 0.0728 | 0.0791 | 0.7277 | 0.2071 | 0.0265 | 0.0649 | 0.1277 | 0.3135 |
| 48 | 35.24 | 0.04 | 0.1072 | 0.0074 | 0.0685 | 0.0741 | 0.6979 | 0.2116 | 0.0259 | 0.0682 | 0.1222 | 0.3224 |
| 49 | 35.50 | 0.05 | 0.0755 | 0.0077 | 0.0833 | 0.0971 | 0.7970 | 0.2070 | 0.0262 | 0.0658 | 0.1263 | 0.3186 |
| 50 | 35.75 | 0.05 | 0.1142 | 0.0073 | 0.0705 | 0.0816 | 0.6993 | 0.2089 | 0.0258 | 0.0679 | 0.1233 | 0.3252 |
| 51 | 35.97 | 0.04 | 0.0870 | 0.0066 | 0.0817 | 0.0984 | 0.7946 | 0.2126 | 0.0256 | 0.0707 | 0.1202 | 0.3327 |
| 52 | 36.21 | 0.03 | 0.0931 | 0.0062 | 0.0783 | 0.0829 | 0.7995 | 0.2240 | 0.0251 | 0.0764 | 0.1119 | 0.3406 |
| 53 | 36.45 | 0.03 | 0.0854 | 0.0075 | 0.0815 | 0.0860 | 0.7254 | 0.2188 | 0.0252 | 0.0726 | 0.1149 | 0.3326 |
| 54 | 36.69 | 0.04 | 0.1023 | 0.0093 | 0.0716 | 0.0911 | 0.6646 | 0.2275 | 0.0256 | 0.0754 | 0.1123 | 0.3313 |
| 55 | 36.93 | 0.04 | 0.0965 | 0.0082 | 0.0778 | 0.0852 | 0.7030 | 0.2373 | 0.0256 | 0.0802 | 0.1077 | 0.3378 |
| 56 | 37.17 | 0.03 | 0.1203 | 0.0104 | 0.0757 | 0.0800 | 0.6200 | 0.2401 | 0.0256 | 0.0847 | 0.1038 | 0.3441 |
| 57 | 37.41 | 0.01 | 0.0828 | 0.0078 | 0.0802 | 0.0920 | 0.7276 | 0.2526 | 0.0248 | 0.0855 | 0.0980 | 0.3395 |
| 58 | 37.63 | 0.04 | 0.1054 | 0.0153 | 0.0855 | 0.1030 | 0.5875 | 0.2489 | 0.0272 | 0.0849 | 0.1091 | 0.3410 |
| 59 | 37.88 | 0.05 | 0.1056 | 0.0121 | 0.0717 | 0.1112 | 0.6561 | 0.2513 | 0.0266 | 0.0862 | 0.1057 | 0.3429 |
| 60 | 38.11 | 0.02 | 0.0876 | 0.0093 | 0.0822 | 0.1115 | 0.7130 | 0.2647 | 0.0245 | 0.0933 | 0.0939 | 0.3524 |
| 61 | 38.35 | 0.02 | 0.0907 | 0.0094 | 0.0825 | 0.1039 | 0.6895 | 0.2715 | 0.0249 | 0.0971 | 0.0915 | 0.3577 |
| 62 | 38.60 | 0.03 | 0.0996 | 0.0074 | 0.0784 | 0.1244 | 0.8116 | 0.2749 | 0.0237 | 0.0990 | 0.0864 | 0.3602 |
| 63 | 38.82 | 0.01 | 0.0855 | 0.0096 | 0.0865 | 0.1120 | 0.6601 | 0.2790 | 0.0247 | 0.1002 | 0.0884 | 0.3592 |
| 64 | 39.05 | 0.02 | 0.0910 | 0.0078 | 0.0838 | 0.1078 | 0.6965 | 0.2907 | 0.0247 | 0.1054 | 0.0848 | 0.3626 |
| 65 | 39.27 | -0.02 | 0.0541 | 0.0106 | 0.0826 | 0.2000 | 0.7759 | 0.2881 | 0.0255 | 0.1045 | 0.0883 | 0.3628 |
| 66 | 39.49 | 0.01 | 0.0964 | 0.0090 | 0.0815 | 0.1769 | 0.8310 | 0.2995 | 0.0241 | 0.1090 | 0.0806 | 0.3640 |
| 67 | 39.72 | -0.01 | -0.0006 | 0.0101 | 0.0833 | -1.6667 | -22.1667 | 0.3163 | 0.0214 | 0.1166 | 0.0678 | 0.3687 |
| 68 | 39.94 | 0.00 | 0.0504 | 0.0058 | 0.0819 | 0.1940 | 1.0435 | 0.3190 | 0.0233 | 0.1172 | 0.0732 | 0.3676 |
| 69 | 40.14 | 0.01 | 0.0521 | 0.0066 | 0.0824 | 0.1854 | 0.8135 | 0.3227 | 0.0235 | 0.1183 | 0.0730 | 0.3668 |
| 70 | 40.38 | 0.01 | 0.0692 | 0.0073 | 0.0819 | 0.2509 | 1.0756 | 0.3290 | 0.0238 | 0.1212 | 0.0725 | 0.3686 |
| 71 | 40.58 | 0.01 | 0.0556 | 0.0124 | 0.0857 | 0.2084 | 0.7664 | 0.3367 | 0.0253 | 0.1233 | 0.0750 | 0.3661 |
| 72 | 40.77 | -0.01 | 0.0304 | 0.0070 | 0.0815 | 0.2510 | 1.0303 | 0.3513 | 0.0228 | 0.1295 | 0.0650 | 0.3685 |
| 73 | 40.98 | 0.03 | 0.0418 | 0.0106 | 0.0865 | 0.2398 | 0.8825 | 0.3459 | 0.0248 | 0.1263 | 0.0716 | 0.3656 |
| 74 | 41.19 | -0.01 | 0.0247 | 0.0060 | 0.0822 | 0.2439 | 1.1423 | 0.3574 | 0.0232 | 0.1323 | 0.0650 | 0.3701 |
| 75 | 41.39 | 0.02 | 0.0150 | 0.0060 | 0.0825 | 0.3158 | 1.2053 | 0.3667 | 0.0235 | 0.1354 | 0.0642 | 0.3652 |
| 76 | 41.61 | -0.00 | 0.0352 | 0.0064 | 0.0826 | 0.2393 | 0.9659 | 0.3665 | 0.0240 | 0.1343 | 0.0653 | 0.3644 |
| 77 | 41.82 | -0.00 | 0.0148 | 0.0064 | 0.0824 | 0.0274 | 1.3973 | 0.3915 | 0.0212 | 0.1459 | 0.0543 | 0.3727 |
| 78 | 42.02 | -0.00 | 0.0422 | 0.0050 | 0.0824 | 0.0903 | 1.1549 | 0.3567 | 0.0245 | 0.1316 | 0.0791 | 0.3657 |
| 79 | 42.24 | -0.01 | 0.0063 | 0.0050 | 0.0850 | 2.0635 | 2.9324 | 0.3723 | 0.0282 | 0.1356 | 0.0756 | 0.3642 |
| 80 | 42.44 | 0.01 | -0.0006 | 0.0061 | 0.0854 | -20.1667 | -25.6667 | 0.3763 | 0.0273 | 0.1378 | 0.0724 | 0.3662 |
| 81 | 42.64 | -0.02 | -0.0026 | 0.0034 | 0.0843 | -0.5095 | -0.1635 | 0.3666 | 0.0295 | 0.1340 | 0.0795 | 0.3635 |
| 82 | 42.81 | 0.00 | -0.0075 | 0.0053 | -0.0117 | -0.3362 | 0.2038 | 0.3627 | 0.0326 | 0.1304 | 0.0858 | 0.3594 |
| 83 | 43.00 | 0.00 | -0.0133 | 0.0061 | 0.0886 | -0.8090 | -0.6466 | 0.3992 | 0.0264 | 0.1447 | 0.0660 | 0.3624 |
| 84 | 43.19 | -0.01 | -0.0050 | 0.0113 | -0.0110 | -0.2058 | 0.2004 | 0.3914 | 0.0299 | 0.1427 | 0.0763 | 0.3646 |
| 85 | 43.36 | 0.00 | -0.0188 | 0.0040 | 0.0875 | -0.2128 | -0.4202 | 0.4210 | 0.0241 | 0.1547 | 0.0574 | 0.3675 |
| 86 | 43.54 | -0.01 | -0.0039 | 0.0020 | 0.0804 | -0.5128 | -2.6667 | 0.4363 | 0.0248 | 0.1602 | 0.0567 | 0.3672 |
| 87 | 43.73 | -0.00 | -0.0042 | 0.0033 | 0.0812 | -0.7857 | -2.6667 | 0.4373 | 0.0248 | 0.1597 | 0.0566 | 0.3653 |
| 88 | 43.92 | 0.01 | -0.0072 | 0.0103 | -0.0293 | -0.1577 | 0.3010 | 0.3882 | 0.0330 | 0.1387 | 0.0849 | 0.3573 |
| 89 | 44.12 | 0.01 | -0.0325 | 0.0048 | 0.0838 | -0.1481 | -0.0165 | 0.4392 | 0.0262 | 0.1593 | 0.0595 | 0.3628 |
| 90 | 44.27 | -0.01 | -0.0355 | 0.0050 | -0.0097 | -0.1625 | 0.1751 | 0.4282 | 0.0295 | 0.1556 | 0.0688 | 0.3588 |
| 91 | 44.46 | 0.00 | -0.0378 | 0.0075 | -0.0107 | -0.1300 | 0.2394 | 0.4310 | 0.0286 | 0.1523 | 0.0663 | 0.3534 |
| 92 | 44.00 | -0.00 | -0.0355 | 0.0048 | -0.0034 | -0.1356 | 0.0960 | 0.4548 | 0.0277 | 0.1641 | 0.0608 | 0.3609 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 141 MACH 1.10 REYNO=E 1.07 PHI 0.0 CONF BLNCF31 E 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.84 | -0.03 | -0.0912 | 0.0088 | -0.0253 | -0.0967 | 0.3209 | 0.4361 | 0.0308 | 0.1567 | 0.0705 | 0.3594 |
| 94 | 45.04 | -0.00 | -0.0822 | 0.0075 | -0.0214 | -0.0963 | 0.2810 | 0.4376 | 0.0301 | 0.1567 | 0.0667 | 0.3581 |
| 95 | 45.25 | -0.01 | -0.0146 | 0.0032 | 0.0035 | -0.2162 | -0.2365 | 0.4772 | 0.0269 | 0.1730 | 0.0563 | 0.3625 |
| 96 | 45.43 | -0.02 | -0.0166 | 0.0021 | -0.0017 | -0.1250 | 0.1012 | 0.4778 | 0.0271 | 0.1725 | 0.0566 | 0.3609 |
| 97 | 45.62 | -0.00 | -0.0144 | 0.0026 | 0.0026 | -0.1606 | -0.1167 | 0.4836 | 0.0276 | 0.1754 | 0.0570 | 0.3626 |
| 98 | 45.80 | -0.01 | -0.1456 | 0.0062 | -0.0485 | -0.0634 | 0.3774 | 0.4537 | 0.0322 | 0.1609 | 0.0709 | 0.3547 |
| 99 | 45.99 | 0.01 | -0.0616 | 0.0062 | -0.0173 | -0.0905 | 0.2526 | 0.4662 | 0.0308 | 0.1670 | 0.0657 | 0.3568 |
| 100 | 46.16 | -0.02 | -0.1267 | 0.0051 | -0.0735 | -0.0400 | 0.3956 | 0.4447 | 0.0345 | 0.1562 | 0.0775 | 0.3513 |
| 101 | 46.34 | -0.01 | -0.1574 | 0.0077 | -0.0621 | -0.0490 | 0.3947 | 0.4521 | 0.0340 | 0.1589 | 0.0751 | 0.3515 |
| 102 | 46.50 | -0.02 | -0.1697 | 0.0090 | -0.0617 | -0.0295 | 0.3838 | 0.4482 | 0.0345 | 0.1571 | 0.0769 | 0.3505 |
| 103 | 46.68 | -0.00 | -0.1805 | 0.0084 | -0.0678 | -0.0399 | 0.4215 | 0.4577 | 0.0333 | 0.1593 | 0.0727 | 0.3481 |
| 104 | 46.87 | -0.03 | -0.2252 | 0.0033 | -0.0504 | -0.0144 | 0.3944 | 0.4402 | 0.0366 | 0.1559 | 0.0811 | 0.3494 |
| 105 | 47.05 | -0.05 | -0.1527 | 0.0005 | -0.0542 | -0.0038 | 0.4086 | 0.4723 | 0.0350 | 0.1667 | 0.0741 | 0.3531 |
| 106 | 47.22 | -0.05 | -0.2360 | -0.0042 | -0.0563 | 0.0183 | 0.4013 | 0.4403 | 0.0373 | 0.1515 | 0.0847 | 0.3441 |
| 107 | 47.39 | -0.04 | -0.2585 | -0.0159 | -0.0575 | 0.0016 | 0.3787 | 0.3995 | 0.0397 | 0.1294 | 0.0993 | 0.3238 |
| 108 | 47.56 | -0.04 | -0.2960 | -0.0116 | -0.0546 | 0.0498 | 0.3621 | 0.4445 | 0.0371 | 0.1542 | 0.0834 | 0.3466 |
| 109 | 47.71 | -0.04 | -0.2437 | -0.0150 | -0.0502 | 0.0217 | 0.3701 | 0.4165 | 0.0364 | 0.1402 | 0.0918 | 0.3352 |
| 110 | 47.90 | -0.02 | -0.1931 | -0.0111 | -0.0451 | 0.0570 | 0.3373 | 0.4513 | 0.0365 | 0.1558 | 0.0808 | 0.3452 |
| 111 | 48.08 | -0.04 | -0.1930 | -0.0143 | -0.0454 | 0.0742 | 0.3390 | 0.4436 | 0.0374 | 0.1512 | 0.0843 | 0.3409 |
| 112 | 48.25 | -0.04 | -0.1855 | -0.0128 | -0.0447 | 0.0675 | 0.3409 | 0.4595 | 0.0366 | 0.1582 | 0.0796 | 0.3443 |
| 113 | 48.42 | -0.04 | -0.1715 | -0.0121 | -0.0374 | 0.0706 | 0.3341 | 0.4676 | 0.0370 | 0.1624 | 0.0791 | 0.3474 |
| 114 | 48.59 | -0.02 | -0.1566 | -0.0091 | -0.0536 | 0.0501 | 0.3419 | 0.4719 | 0.0365 | 0.1623 | 0.0773 | 0.3446 |
| 115 | 48.75 | 0.00 | -0.0813 | -0.0148 | -0.0083 | 0.2386 | 0.1356 | 0.5595 | 0.0294 | 0.2039 | 0.0525 | 0.3644 |
| 116 | 48.90 | -0.01 | 0.0207 | -0.0166 | 0.0287 | -0.0980 | 1.3810 | 0.6014 | 0.0276 | 0.2244 | 0.0458 | 0.3730 |
| 117 | 49.13 | -0.01 | -0.0312 | -0.0149 | 0.0020 | 0.4791 | -0.0843 | 0.5748 | 0.0293 | 0.2092 | 0.0505 | 0.3640 |
| 118 | 49.29 | 0.02 | 0.0316 | -0.0156 | 0.0302 | -0.4956 | 0.9556 | 0.5901 | 0.0328 | 0.2149 | 0.0555 | 0.3642 |
| 119 | 49.46 | 0.02 | 0.0344 | -0.0119 | 0.0305 | -0.3469 | 0.8363 | 0.5741 | 0.0363 | 0.2057 | 0.0632 | 0.3584 |
| 120 | 49.63 | 0.02 | 0.0147 | -0.0067 | 0.0139 | -0.0476 | 0.9456 | 0.4970 | 0.0431 | 0.1650 | 0.0867 | 0.3321 |
| 121 | 49.80 | 0.02 | 0.0212 | 0.0008 | 0.0153 | 0.0377 | 0.7217 | 0.4931 | 0.0439 | 0.1610 | 0.0890 | 0.3266 |
| 122 | 49.96 | 0.04 | 0.0060 | 0.0026 | 0.0038 | 0.4333 | 0.0333 | 0.4483 | 0.0425 | 0.1365 | 0.0948 | 0.3089 |
| 123 | 50.15 | 0.03 | 0.0185 | 0.0012 | 0.0100 | 0.0727 | 0.6081 | 0.4846 | 0.0429 | 0.1565 | 0.0885 | 0.3238 |
| 124 | 50.33 | 0.03 | 0.0191 | 0.0022 | 0.0057 | 0.1457 | 0.3775 | 0.4560 | 0.0419 | 0.1411 | 0.0918 | 0.3094 |
| 125 | 50.48 | 0.04 | 0.0105 | 0.0020 | 0.0027 | 0.1835 | 0.2477 | 0.4573 | 0.0418 | 0.1417 | 0.0914 | 0.3098 |
| 126 | 50.65 | 0.02 | 0.0031 | 0.0021 | -0.0001 | 0.6774 | -0.0323 | 0.4515 | 0.0425 | 0.1375 | 0.0941 | 0.3045 |
| 127 | 50.85 | 0.04 | -0.0001 | 0.0021 | -0.0024 | -21.0000 | 24.0000 | 0.4777 | 0.0408 | 0.1508 | 0.0854 | 0.3157 |
| 128 | 51.01 | 0.03 | 0.0023 | 0.0010 | -0.0019 | 0.4348 | -0.0522 | 0.4791 | 0.0406 | 0.1509 | 0.0847 | 0.3150 |
| 129 | 51.18 | 0.01 | 0.0200 | -0.0027 | 0.0061 | -0.1350 | 0.3050 | 0.4780 | 0.0400 | 0.1507 | 0.0838 | 0.3153 |
| 130 | 51.18 | 0.03 | 0.0024 | 0.0024 | -0.0040 | 1.0000 | -1.0007 | 0.4575 | 0.0413 | 0.1410 | 0.0902 | 0.3081 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 121 MACH 1.60 RNIU-E 1.7 PHI 0.0 CONF 61 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN L C.C

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | ACPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.61 | 0.02 | 0.0056 | 9.9999 | 0.0078 | 9.9999 | 0.8125 | -1.3014 | 0.0286 | -0.5493 | -0.0215 | 0.4221 |
| 2 | -5.61 | 0.04 | 0.0124 | 9.9999 | 0.0152 | 9.9999 | 0.7419 | -1.3035 | 0.0282 | -0.5502 | -0.0216 | 0.4220 |
| 3 | -5.61 | 0.05 | 0.0156 | 9.9999 | 0.0198 | 9.9999 | 0.6709 | -1.3050 | 0.0280 | -0.5511 | -0.0214 | 0.4223 |
| 4 | -5.30 | 0.03 | 0.0055 | 9.9999 | 0.0085 | 9.9999 | 0.6947 | -1.2623 | 0.0270 | -0.5338 | -0.0214 | 0.4229 |
| 5 | -3.56 | 0.03 | 0.0059 | 9.9999 | 0.0085 | 9.9999 | 0.6368 | -1.1914 | 0.0271 | -0.5081 | -0.0227 | 0.4265 |
| 6 | -1.92 | 0.04 | 0.0174 | 9.9999 | 0.0141 | 9.9999 | 0.6103 | -1.1240 | 0.0254 | -0.4809 | -0.0225 | 0.4278 |
| 7 | -0.21 | 0.04 | 0.0192 | 9.9999 | 0.0138 | 9.9999 | 0.7186 | -1.0414 | 0.0210 | -0.4457 | -0.0202 | 0.4286 |
| 8 | 1.55 | 0.03 | 0.0156 | 9.9999 | 0.0125 | 9.9999 | 0.8315 | -0.9486 | 0.0168 | -0.4062 | -0.0177 | 0.4282 |
| 9 | 3.41 | 0.04 | 0.0205 | 9.9999 | 0.0105 | 9.9999 | 0.5317 | -0.8563 | 0.0124 | -0.3663 | -0.0145 | 0.4275 |
| 10 | 5.13 | 0.03 | 0.0259 | 9.9999 | 0.0104 | 9.9999 | 0.4127 | -0.7618 | 0.0085 | -0.3279 | -0.0112 | 0.4304 |
| 11 | 6.98 | 0.04 | 0.0242 | 9.9999 | 0.0085 | 9.9999 | 0.2851 | -0.6746 | 0.0047 | -0.2854 | -0.0070 | 0.4296 |
| 12 | 8.77 | 0.04 | 0.0333 | 9.9999 | 0.0057 | 9.9999 | 0.2904 | -0.5700 | 0.0011 | -0.2413 | -0.0019 | 0.4233 |
| 13 | 10.63 | 0.05 | 0.0393 | 9.9999 | 0.0097 | 9.9999 | 0.2474 | -0.4738 | -0.0026 | -0.2023 | 0.0013 | 0.4276 |
| 14 | 12.51 | 0.02 | 0.0365 | 9.9999 | 0.0081 | 9.9999 | 0.2225 | -0.3806 | -0.0022 | -0.1603 | 0.0057 | 0.4126 |
| 15 | 14.41 | 0.03 | 0.0427 | 9.9999 | 0.0118 | 9.9999 | 0.2770 | -0.2935 | -0.0037 | -0.1177 | 0.0126 | 0.4006 |
| 16 | 16.40 | 0.02 | 0.0346 | 9.9999 | 0.0108 | 9.9999 | 0.1900 | -0.2008 | -0.0054 | -0.0746 | 0.0269 | 0.3713 |
| 17 | 18.36 | 0.02 | 0.0377 | 9.9999 | 0.0082 | 9.9999 | 0.2161 | -0.1206 | -0.0045 | -0.0362 | 0.0356 | 0.3012 |
| 18 | 20.33 | 0.01 | 0.0367 | 9.9999 | 0.0100 | 9.9999 | 0.2008 | -0.0745 | -0.0026 | -0.0122 | 0.0350 | 0.1642 |
| 19 | 22.32 | 0.02 | 0.0352 | 9.9999 | 0.0124 | 9.9999 | 0.3171 | -0.0606 | 0.0051 | -0.0023 | -0.0843 | 0.0380 |
| 20 | 24.34 | 0.03 | 0.0442 | 9.9999 | 0.0178 | 9.9999 | 0.3991 | -0.0706 | 0.0139 | 0.0097 | -0.5245 | -0.3666 |
| 21 | 26.32 | 0.05 | 0.0401 | 9.9999 | 0.0165 | 9.9999 | 0.4125 | -0.0416 | 0.0225 | 0.0074 | -0.5422 | -0.1783 |
| 22 | 28.34 | 0.08 | 0.0463 | 9.9999 | 0.0204 | 9.9999 | 0.4410 | -0.0334 | 0.0268 | 0.0057 | -0.5009 | -0.1065 |
| 23 | 28.38 | 0.07 | 0.0440 | 9.9999 | 0.0193 | 9.9999 | 0.4396 | -0.0451 | 0.0263 | 0.0102 | -0.5822 | -0.2267 |
| 24 | 26.06 | 0.06 | 0.0490 | 9.9999 | 0.0224 | 9.9999 | 0.4581 | -0.0353 | 0.0256 | 0.0153 | -0.7244 | -0.4347 |
| 25 | 28.95 | 0.05 | 0.0435 | 9.9999 | 0.0204 | 9.9999 | 0.4858 | -0.0134 | 0.0242 | 0.0205 | -1.2625 | -1.0773 |
| 26 | 29.30 | 0.06 | 0.0500 | 9.9999 | 0.0256 | 9.9999 | 0.4990 | -0.0360 | 0.0257 | 0.0150 | -0.7131 | -0.4178 |
| 27 | 29.60 | 0.05 | 0.0455 | 9.9999 | 0.0212 | 9.9999 | 0.4870 | -0.0063 | 0.0246 | 0.0282 | -3.8885 | -4.4603 |
| 28 | 29.85 | 0.06 | 0.0427 | 9.9999 | 0.0192 | 9.9999 | 0.4507 | -0.0091 | 0.0247 | 0.0283 | -2.7033 | -3.0989 |
| 29 | 30.15 | 0.06 | 0.0446 | 9.9999 | 0.0221 | 9.9999 | 0.4933 | 0.0122 | 0.0234 | 0.0378 | 1.9180 | 3.0902 |
| 30 | 30.40 | 0.07 | 0.0511 | 9.9999 | 0.0260 | 9.9999 | 0.5078 | 0.0109 | 0.0241 | 0.0381 | 2.2110 | 3.4862 |
| 31 | 30.75 | 0.07 | 0.0549 | 9.9999 | 0.0281 | 9.9999 | 0.5157 | 0.0179 | 0.0245 | 0.0408 | 1.3855 | 2.2737 |
| 32 | 31.02 | 0.11 | 0.0612 | 9.9999 | 0.0331 | 9.9999 | 0.5441 | 0.0346 | 0.0266 | 0.0361 | 5.7609 | 7.8261 |
| 33 | 31.31 | 0.09 | 0.0460 | 9.9999 | 0.0235 | 9.9999 | 0.5120 | 0.0277 | 0.0256 | 0.0460 | 0.9239 | 1.6636 |
| 34 | 31.56 | 0.07 | 0.0446 | 9.9999 | 0.0229 | 9.9999 | 0.5123 | 0.0445 | 0.0252 | 0.0531 | 0.5603 | 1.1830 |
| 35 | 31.80 | 0.04 | 0.0423 | 9.9999 | 0.0223 | 9.9999 | 0.5259 | 0.0652 | 0.0235 | 0.0622 | 0.3610 | 0.9535 |
| 36 | 32.14 | 0.05 | 0.0466 | 9.9999 | 0.0229 | 9.9999 | 0.4925 | 0.0835 | 0.0227 | 0.0698 | 0.2725 | 0.8367 |
| 37 | 32.41 | 0.06 | 0.0481 | 9.9999 | 0.0260 | 9.9999 | 0.5396 | 0.0820 | 0.0240 | 0.0655 | 0.2934 | 0.8484 |
| 38 | 32.66 | 0.06 | 0.0514 | 9.9999 | 0.0187 | 9.9999 | 0.5013 | 0.0805 | 0.0242 | 0.0685 | 0.3014 | 0.6518 |
| 39 | 32.95 | 0.04 | 0.0415 | 9.9999 | 0.0224 | 9.9999 | 0.5359 | 0.0976 | 0.0227 | 0.0770 | 0.2331 | 0.7885 |
| 40 | 33.21 | 0.06 | 0.0464 | 9.9999 | 0.0237 | 9.9999 | 0.5119 | 0.1216 | 0.0205 | 0.0876 | 0.1689 | 0.7196 |
| 41 | 33.47 | 0.03 | 0.0466 | 9.9999 | 0.0265 | 9.9999 | 0.5443 | 0.1331 | 0.0195 | 0.0934 | 0.1468 | 0.7016 |
| 42 | 33.72 | 0.00 | 0.0365 | 9.9999 | 0.0206 | 9.9999 | 0.5417 | 0.1406 | 0.0191 | 0.0974 | 0.1361 | 0.6928 |
| 43 | 34.00 | 0.03 | 0.0412 | 9.9999 | 0.0212 | 9.9999 | 0.5287 | 0.1483 | 0.0185 | 0.1004 | 0.1256 | 0.6770 |
| 44 | 34.24 | 0.04 | 0.0436 | 9.9999 | 0.0224 | 9.9999 | 0.5149 | 0.1601 | 0.0182 | 0.1050 | 0.1135 | 0.6558 |
| 45 | 34.48 | 0.02 | 0.0396 | 9.9999 | 0.0207 | 9.9999 | 0.5241 | 0.1743 | 0.0171 | 0.1119 | 0.0983 | 0.6423 |
| 46 | 34.75 | 0.05 | 0.0369 | 9.9999 | 0.0171 | 9.9999 | 0.5315 | 0.1753 | 0.0174 | 0.1125 | 0.0995 | 0.6421 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 121 | MACH 1.10 | RNLG-6 6.7 | PHI 0.0 | CONF 81&0F31 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.00 | 0.04 | 0.0385 | 0.9999 | 0.0210 | 0.9999 | 0.5469 | 0.1850 | 0.0167 | 0.1159 | 0.0905 | 0.6268 |
| 48 | 35.24 | 0.04 | 0.0456 | 0.9999 | 0.0241 | 0.9999 | 0.5274 | 0.1845 | 0.0172 | 0.1155 | 0.0934 | 0.6263 |
| 49 | 35.50 | 0.05 | 0.0441 | 0.9999 | 0.0237 | 0.9999 | 0.5386 | 0.1922 | 0.0164 | 0.1194 | 0.0855 | 0.6215 |
| 50 | 35.73 | 0.05 | 0.0542 | 0.9999 | 0.0294 | 0.9999 | 0.5414 | 0.1969 | 0.0169 | 0.1215 | 0.0866 | 0.6173 |
| 51 | 35.97 | 0.04 | 0.0463 | 0.9999 | 0.0251 | 0.9999 | 0.5411 | 0.1969 | 0.0168 | 0.1232 | 0.0846 | 0.6151 |
| 52 | 36.21 | 0.03 | 0.0491 | 0.9999 | 0.0231 | 0.9999 | 0.5250 | 0.1978 | 0.0174 | 0.1229 | 0.0898 | 0.6148 |
| 53 | 36.45 | 0.03 | 0.0419 | 0.9999 | 0.0208 | 0.9999 | 0.4976 | 0.2020 | 0.0174 | 0.1240 | 0.0863 | 0.6136 |
| 54 | 36.69 | 0.04 | 0.0466 | 0.9999 | 0.0251 | 0.9999 | 0.5344 | 0.2096 | 0.0176 | 0.1275 | 0.0841 | 0.6099 |
| 55 | 36.93 | 0.04 | 0.0457 | 0.9999 | 0.0257 | 0.9999 | 0.5614 | 0.2143 | 0.0180 | 0.1310 | 0.0842 | 0.6110 |
| 56 | 37.17 | 0.03 | 0.0326 | 0.9999 | 0.0168 | 0.9999 | 0.5138 | 0.2120 | 0.0179 | 0.1293 | 0.0846 | 0.6096 |
| 57 | 37.41 | 0.01 | 0.0335 | 0.9999 | 0.0182 | 0.9999 | 0.5385 | 0.2220 | 0.0177 | 0.1328 | 0.0799 | 0.5982 |
| 58 | 37.63 | 0.04 | 0.0418 | 0.9999 | 0.0224 | 0.9999 | 0.5372 | 0.2241 | 0.0175 | 0.1346 | 0.0783 | 0.6015 |
| 59 | 37.88 | 0.05 | 0.0552 | 0.9999 | 0.0338 | 0.9999 | 0.5645 | 0.2446 | 0.0168 | 0.1433 | 0.0688 | 0.5858 |
| 60 | 38.11 | 0.04 | 0.0426 | 0.9999 | 0.0225 | 0.9999 | 0.4968 | 0.2292 | 0.0174 | 0.1382 | 0.0761 | 0.5942 |
| 61 | 38.35 | 0.02 | 0.0384 | 0.9999 | 0.0217 | 0.9999 | 0.5666 | 0.2406 | 0.0175 | 0.1399 | 0.0729 | 0.5814 |
| 62 | 38.60 | 0.03 | 0.0416 | 0.9999 | 0.0215 | 0.9999 | 0.5156 | 0.2438 | 0.0182 | 0.1416 | 0.0748 | 0.5808 |
| 63 | 38.82 | 0.01 | 0.0401 | 0.9999 | 0.0207 | 0.9999 | 0.5175 | 0.2460 | 0.0179 | 0.1423 | 0.0723 | 0.5737 |
| 64 | 39.05 | 0.02 | 0.0356 | 0.9999 | 0.0200 | 0.9999 | 0.5303 | 0.2617 | 0.0183 | 0.1482 | 0.0701 | 0.5662 |
| 65 | 39.27 | -0.02 | 0.0335 | 0.9999 | 0.0181 | 0.9999 | 0.5325 | 0.2635 | 0.0176 | 0.1496 | 0.0677 | 0.5677 |
| 66 | 39.49 | 0.01 | 0.0429 | 0.9999 | 0.0227 | 0.9999 | 0.5304 | 0.2699 | 0.0179 | 0.1510 | 0.0665 | 0.5596 |
| 67 | 39.72 | -0.01 | 0.0406 | 0.9999 | 0.0223 | 0.9999 | 0.5506 | 0.2694 | 0.0197 | 0.1508 | 0.0733 | 0.5595 |
| 68 | 39.94 | 0.00 | 0.0384 | 0.9999 | 0.0212 | 0.9999 | 0.5535 | 0.2783 | 0.0195 | 0.1545 | 0.0700 | 0.5593 |
| 69 | 40.14 | 0.01 | 0.0355 | 0.9999 | 0.0218 | 0.9999 | 0.5482 | 0.2845 | 0.0188 | 0.1564 | 0.0662 | 0.5458 |
| 70 | 40.36 | 0.01 | 0.0327 | 0.9999 | 0.0196 | 0.9999 | 0.5628 | 0.2888 | 0.0194 | 0.1571 | 0.0678 | 0.5483 |
| 71 | 40.58 | 0.01 | 0.0362 | 0.9999 | 0.0202 | 0.9999 | 0.5596 | 0.3012 | 0.0191 | 0.1633 | 0.0635 | 0.5422 |
| 72 | 40.77 | -0.01 | 0.0374 | 0.9999 | 0.0196 | 0.9999 | 0.5508 | 0.3020 | 0.0194 | 0.1632 | 0.0657 | 0.5405 |
| 73 | 40.98 | 0.03 | 0.0419 | 0.9999 | 0.0213 | 0.9999 | 0.5096 | 0.3129 | 0.0191 | 0.1686 | 0.0612 | 0.5389 |
| 74 | 41.19 | -0.01 | 0.0364 | 0.9999 | 0.0217 | 0.9999 | 0.5666 | 0.3147 | 0.0200 | 0.1696 | 0.0637 | 0.5371 |
| 75 | 41.39 | 0.02 | 0.0407 | 0.9999 | 0.0228 | 0.9999 | 0.5616 | 0.3201 | 0.0204 | 0.1713 | 0.0635 | 0.5351 |
| 76 | 41.61 | -0.00 | 0.0340 | 0.9999 | 0.0182 | 0.9999 | 0.5369 | 0.3223 | 0.0201 | 0.1706 | 0.0625 | 0.5302 |
| 77 | 41.82 | -0.00 | 0.0328 | 0.9999 | 0.0197 | 0.9999 | 0.5148 | 0.3187 | 0.0219 | 0.1696 | 0.0689 | 0.5324 |
| 78 | 42.02 | -0.00 | 0.0326 | 0.9999 | 0.0175 | 0.9999 | 0.5352 | 0.3292 | 0.0181 | 0.1684 | 0.0505 | 0.5244 |
| 79 | 42.24 | -0.01 | 0.0312 | 0.9999 | 0.0184 | 0.9999 | 0.5273 | 0.3655 | 0.0195 | 0.1891 | 0.0535 | 0.5173 |
| 80 | 42.44 | 0.01 | 0.0340 | 0.9999 | 0.0180 | 0.9999 | 0.5310 | 0.3734 | 0.0187 | 0.1923 | 0.0502 | 0.5150 |
| 81 | 42.64 | -0.02 | 0.0328 | 0.9999 | 0.0175 | 0.9999 | 0.5474 | 0.3863 | 0.0178 | 0.1993 | 0.0462 | 0.5160 |
| 82 | 42.81 | 0.00 | 0.0363 | 0.9999 | 0.0182 | 0.9999 | 0.5026 | 0.4139 | 0.0181 | 0.2116 | 0.0390 | 0.5117 |
| 83 | 43.00 | 0.00 | 0.0325 | 0.9999 | 0.0186 | 0.9999 | 0.5122 | 0.3742 | 0.0208 | 0.1917 | 0.0557 | 0.5123 |
| 84 | 43.19 | -0.01 | 0.0255 | 0.9999 | 0.0145 | 0.9999 | 0.4932 | 0.4082 | 0.0185 | 0.2071 | 0.0454 | 0.5074 |
| 85 | 43.36 | 0.00 | 0.0388 | 0.9999 | 0.0191 | 0.9999 | 0.5204 | 0.3828 | 0.0214 | 0.1961 | 0.0561 | 0.5128 |
| 86 | 43.54 | -0.01 | 0.0365 | 0.9999 | 0.0204 | 0.9999 | 0.5313 | 0.3835 | 0.0218 | 0.1943 | 0.0622 | 0.5067 |
| 87 | 43.73 | -0.00 | 0.0306 | 0.9999 | 0.0171 | 0.9999 | 0.5607 | 0.3827 | 0.0230 | 0.1965 | 0.0602 | 0.5082 |
| 88 | 43.92 | 0.01 | 0.0388 | 0.9999 | 0.0204 | 0.9999 | 0.5295 | 0.4443 | 0.0174 | 0.2234 | 0.0352 | 0.5027 |
| 89 | 44.12 | 0.01 | 0.0318 | 0.9999 | 0.0156 | 0.9999 | 0.4921 | 0.4064 | 0.0222 | 0.2050 | 0.0547 | 0.5044 |
| 90 | 44.27 | -0.01 | 0.0325 | 0.9999 | 0.0177 | 0.9999 | 0.5396 | 0.4274 | 0.0204 | 0.2138 | 0.0478 | 0.5004 |
| 91 | 44.46 | 0.00 | 0.0388 | 0.9999 | 0.0209 | 0.9999 | 0.5429 | 0.4235 | 0.0211 | 0.2123 | 0.0459 | 0.5014 |
| 92 | 44.66 | -0.00 | 0.0318 | 0.9999 | 0.0172 | 0.9999 | 0.5426 | 0.4241 | 0.0230 | 0.2110 | 0.0543 | 0.4976 |

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 121 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF 61 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.84 | -0.03 | 0.0368 | 5.9999 | 0.0145 | 5.9999 | 0.4353 | 0.4446 | 0.0209 | 0.2214 | 0.0471 | 0.4979 |
| 94 | 45.04 | -0.00 | 0.0375 | 5.9999 | 0.0155 | 5.9999 | 0.5321 | 0.4453 | 0.0209 | 0.2224 | 0.0470 | 0.4993 |
| 95 | 45.25 | -0.01 | 0.0313 | 5.9999 | 0.0160 | 5.9999 | 0.5128 | 0.4232 | 0.0249 | 0.2116 | 0.0587 | 0.5008 |
| 96 | 45.43 | -0.02 | 0.0251 | 5.9999 | 0.0145 | 5.9999 | 0.5000 | 0.4230 | 0.0251 | 0.2107 | 0.0592 | 0.4982 |
| 97 | 45.62 | -0.00 | 0.0365 | 5.9999 | 0.0167 | 5.9999 | 0.5137 | 0.4363 | 0.0251 | 0.2164 | 0.0574 | 0.4961 |
| 98 | 45.83 | -0.01 | 0.0342 | 5.9999 | 0.0176 | 5.9999 | 0.5161 | 0.4320 | 0.0214 | 0.2365 | 0.0450 | 0.4947 |
| 99 | 45.99 | 0.01 | 0.0355 | 5.9999 | 0.0195 | 5.9999 | 0.5000 | 0.4575 | 0.0237 | 0.2266 | 0.0515 | 0.4952 |
| 100 | 46.16 | -0.02 | 0.0343 | 5.9999 | 0.0165 | 5.9999 | 0.4625 | 0.4992 | 0.0197 | 0.2455 | 0.0395 | 0.4918 |
| 101 | 46.34 | -0.01 | 0.0246 | 5.9999 | 0.0121 | 5.9999 | 0.4939 | 0.4641 | 0.0216 | 0.2389 | 0.0447 | 0.4935 |
| 102 | 46.54 | -0.02 | 0.0331 | 5.9999 | 0.0171 | 5.9999 | 0.5182 | 0.4871 | 0.0251 | 0.2393 | 0.0475 | 0.4913 |
| 103 | 46.68 | -0.00 | 0.0377 | 5.9999 | 0.0193 | 5.9999 | 0.5133 | 0.4968 | 0.0217 | 0.2446 | 0.0438 | 0.4923 |
| 104 | 46.87 | -0.02 | 0.0332 | 5.9999 | 0.0172 | 5.9999 | 0.5196 | 0.5064 | 0.0237 | 0.2492 | 0.0467 | 0.4901 |
| 105 | 47.05 | -0.05 | 0.0278 | 5.9999 | 0.0115 | 5.9999 | 0.4327 | 0.4691 | 0.0305 | 0.2296 | 0.0645 | 0.4894 |
| 106 | 47.22 | -0.05 | 0.0267 | 5.9999 | 0.0134 | 5.9999 | 0.4685 | 0.4772 | 0.0314 | 0.2324 | 0.0657 | 0.4870 |
| 107 | 47.39 | -0.04 | 0.0321 | 5.9999 | 0.0155 | 5.9999 | 0.4344 | 0.4171 | 0.0410 | 0.2024 | 0.0983 | 0.4853 |
| 108 | 47.56 | -0.04 | 0.0267 | 5.9999 | 0.0134 | 5.9999 | 0.4685 | 0.4628 | 0.0358 | 0.2252 | 0.0773 | 0.4865 |
| 109 | 47.71 | -0.04 | 0.0328 | 5.9999 | 0.0145 | 5.9999 | 0.4557 | 0.4252 | 0.0391 | 0.2066 | 0.0919 | 0.4860 |
| 110 | 47.90 | -0.02 | 0.0316 | 5.9999 | 0.0141 | 5.9999 | 0.4503 | 0.3983 | 0.0397 | 0.1961 | 0.0996 | 0.4772 |
| 111 | 48.08 | -0.04 | 0.0295 | 5.9999 | 0.0128 | 5.9999 | 0.4295 | 0.3885 | 0.0407 | 0.1860 | 0.1052 | 0.4807 |
| 112 | 48.25 | -0.04 | 0.0328 | 5.9999 | 0.0144 | 5.9999 | 0.4404 | 0.3902 | 0.0405 | 0.1913 | 0.1017 | 0.4804 |
| 113 | 48.42 | -0.04 | 0.0316 | 5.9999 | 0.0139 | 5.9999 | 0.4413 | 0.3952 | 0.0405 | 0.1883 | 0.1034 | 0.4764 |
| 114 | 48.59 | -0.02 | 0.0333 | 5.9999 | 0.0156 | 5.9999 | 0.4035 | 0.3994 | 0.0356 | 0.1866 | 0.0991 | 0.4722 |
| 115 | 48.75 | 0.00 | 0.0362 | 5.9999 | 0.0178 | 5.9999 | 0.4697 | 0.4231 | 0.0385 | 0.2005 | 0.0910 | 0.4745 |
| 116 | 48.96 | -0.01 | 0.0351 | 5.9999 | 0.0164 | 5.9999 | 0.4716 | 0.4256 | 0.0393 | 0.2016 | 0.0923 | 0.4737 |
| 117 | 49.13 | -0.01 | 0.0351 | 5.9999 | 0.0164 | 5.9999 | 0.4716 | 0.4256 | 0.0391 | 0.2015 | 0.0916 | 0.4733 |
| 118 | 49.29 | 0.02 | 0.0362 | 5.9999 | 0.0177 | 5.9999 | 0.4597 | 0.4150 | 0.0399 | 0.1950 | 0.0961 | 0.4658 |
| 119 | 49.46 | 0.02 | 0.0456 | 5.9999 | 0.0228 | 5.9999 | 0.4589 | 0.4070 | 0.0411 | 0.1922 | 0.1009 | 0.4722 |
| 120 | 49.63 | 0.02 | 0.0363 | 5.9999 | 0.0137 | 5.9999 | 0.4255 | 0.3715 | 0.0441 | 0.1755 | 0.1188 | 0.4726 |
| 121 | 49.80 | 0.02 | 0.0352 | 5.9999 | 0.0156 | 5.9999 | 0.4644 | 0.3753 | 0.0446 | 0.1770 | 0.1172 | 0.4716 |
| 122 | 49.96 | 0.04 | 0.0360 | 5.9999 | 0.0174 | 5.9999 | 0.4591 | 0.3700 | 0.0426 | 0.1782 | 0.1125 | 0.4706 |
| 123 | 50.15 | 0.03 | 0.0388 | 5.9999 | 0.0172 | 5.9999 | 0.4466 | 0.3764 | 0.0435 | 0.1786 | 0.1145 | 0.4725 |
| 124 | 50.33 | 0.03 | 0.0362 | 5.9999 | 0.0175 | 5.9999 | 0.4578 | 0.3805 | 0.0420 | 0.1828 | 0.1086 | 0.4729 |
| 125 | 50.48 | 0.04 | 0.0351 | 5.9999 | 0.0165 | 5.9999 | 0.4346 | 0.4008 | 0.0414 | 0.1894 | 0.1032 | 0.4725 |
| 126 | 50.65 | 0.02 | 0.0335 | 5.9999 | 0.0143 | 5.9999 | 0.4281 | 0.3921 | 0.0416 | 0.1840 | 0.1061 | 0.4692 |
| 127 | 50.85 | 0.04 | 0.0426 | 5.9999 | 0.0203 | 5.9999 | 0.4778 | 0.4139 | 0.0412 | 0.1932 | 0.0956 | 0.4673 |
| 128 | 51.01 | 0.03 | 0.0375 | 5.9999 | 0.0164 | 5.9999 | 0.4305 | 0.4008 | 0.0422 | 0.1868 | 0.1053 | 0.4662 |
| 129 | 51.18 | 0.01 | 0.0325 | 5.9999 | 0.0133 | 5.9999 | 0.4055 | 0.3835 | 0.0430 | 0.1782 | 0.1121 | 0.4646 |
| 130 | 51.18 | 0.03 | 0.0357 | 5.9999 | 0.0154 | 5.9999 | 0.4326 | 0.3976 | 0.0408 | 0.1864 | 0.1026 | 0.4688 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 122 MACH 0.80 REYNO-E 1.7 PHI 0.0 CONF B1B0F34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.80 | -0.00 | -3.3106 | 12.8166 | 0.0362 | -0.0033 | -0.0157 | 2.1793 | 0.5147 | 1.6647 | -3.8091 |
| 2 | -5.79 | -0.00 | -3.2961 | 12.8036 | -0.0003 | -0.1436 | 0.0059 | 2.1847 | 0.5203 | 1.6645 | -3.8115 |
| 3 | -5.80 | -0.00 | -3.2958 | 12.8027 | -0.0171 | -0.1648 | 0.0059 | 2.1796 | 0.5199 | 1.6598 | -3.8117 |
| 4 | -5.80 | 0.00 | -3.1978 | 12.4854 | 0.0596 | -0.3870 | 0.0209 | 2.1932 | 0.5188 | 1.6745 | -3.8982 |
| 5 | -3.84 | 0.00 | -3.0103 | 12.0400 | 0.0613 | -0.3650 | 0.0212 | 2.1268 | 0.5100 | 1.6188 | -3.5957 |
| 6 | -2.21 | 0.00 | -2.8004 | 11.4077 | 0.0746 | -0.4103 | 0.0361 | 2.0078 | 0.4967 | 1.5491 | -4.1490 |
| 7 | -0.51 | -0.00 | -2.7715 | 12.0261 | -0.0413 | -0.0669 | 0.0146 | 2.0643 | 0.4491 | 1.6148 | -4.3385 |
| 8 | 1.16 | -0.00 | -2.7375 | 12.2950 | -0.0146 | -0.1175 | 0.0151 | 2.0107 | 0.3732 | 1.6375 | -4.4913 |
| 9 | 2.90 | -0.00 | -2.6047 | 12.0851 | -0.0176 | -0.1650 | 0.0226 | 1.9251 | 0.3215 | 1.6036 | -4.6356 |
| 10 | 4.59 | -0.00 | -2.3246 | 11.4132 | 0.0126 | -0.1567 | 0.0250 | 1.8342 | 0.2951 | 1.5392 | -4.9106 |
| 11 | 6.33 | -0.00 | -2.0758 | 10.6455 | -0.0353 | -0.0099 | 0.0017 | 1.7598 | 0.2823 | 1.4775 | -5.2731 |
| 12 | 8.05 | -0.00 | -1.8659 | 10.0793 | 0.0044 | -0.0978 | 0.0095 | 1.7165 | 0.2834 | 1.4330 | -5.6628 |
| 13 | 9.71 | -0.00 | -1.6855 | 11.2571 | -0.0410 | -0.0624 | 0.0030 | 1.7200 | 0.2787 | 1.4412 | -5.5704 |
| 14 | 11.46 | -0.00 | -1.4734 | 11.3465 | -0.0263 | -0.1432 | 0.0109 | 1.6846 | 0.2671 | 1.4174 | -6.3963 |
| 15 | 13.16 | -0.00 | -1.4352 | 10.7217 | -0.0182 | -0.1527 | 0.0107 | 1.5771 | 0.2532 | 1.3239 | -7.4703 |
| 16 | 14.93 | -0.01 | -1.0266 | 9.7406 | -0.0445 | -0.1204 | 0.0191 | 1.4320 | 0.2458 | 1.1862 | -9.4957 |
| 17 | 16.74 | -0.02 | -0.8948 | 8.5127 | -0.0527 | -0.1700 | 0.0338 | 1.2594 | 0.2374 | 1.0220 | -15.5972 |
| 18 | 18.56 | -0.01 | 0.0057 | 6.7226 | -0.0157 | -0.1908 | 0.1129 | 1.0263 | 0.2291 | 0.7992 | 78.4028 |
| 19 | 20.36 | -0.02 | 0.8157 | 4.5505 | -0.0741 | -0.1587 | 0.2127 | 0.7612 | 0.2241 | 0.5371 | 5.5750 |
| 20 | 22.22 | -0.03 | 1.5116 | 2.7564 | -0.2230 | 0.0070 | 0.3467 | 0.5367 | 0.2273 | 0.3094 | 1.8513 |
| 21 | 24.07 | -0.02 | 2.0634 | 1.4202 | -0.2212 | 0.1251 | 0.2638 | 0.3452 | 0.2264 | 0.1188 | 0.8883 |
| 22 | 25.91 | -0.01 | 2.5956 | 0.7064 | -0.0610 | -0.0333 | 0.1866 | 0.2306 | 0.2287 | 0.0019 | 0.2730 |
| 23 | 27.76 | 0.02 | 3.0726 | 0.0106 | 0.5443 | -1.2342 | -0.0321 | 0.0936 | 0.2310 | -0.1374 | 0.0035 |
| 24 | 27.80 | 0.01 | 3.0355 | 0.1178 | 0.2581 | -0.8069 | 0.0866 | 0.1005 | 0.2319 | -0.1315 | 0.0387 |
| 25 | 27.80 | 0.01 | 3.0371 | 0.0846 | 0.3561 | -0.9365 | 0.0890 | 0.1003 | 0.2311 | -0.1309 | 0.0279 |
| 26 | 27.81 | 0.01 | 3.0369 | 0.0943 | 0.3507 | -1.0742 | 0.0920 | 0.1043 | 0.2319 | -0.1277 | 0.0309 |
| 27 | 27.80 | 0.01 | 3.0157 | 0.1418 | 0.2817 | -0.8302 | 0.0817 | 0.1081 | 0.2315 | -0.1235 | 0.0470 |
| 28 | 27.69 | 0.01 | 3.1068 | 0.0417 | 0.3164 | -0.9640 | 0.0808 | 0.1022 | 0.2324 | -0.1303 | 0.0135 |
| 29 | 26.28 | 0.02 | 3.1978 | -0.0845 | 0.4447 | -1.1335 | 0.0826 | 0.0825 | 0.2319 | -0.1694 | -0.0265 |
| 30 | 26.58 | 0.02 | 3.3061 | -0.2564 | 0.4210 | -1.0373 | 0.1115 | 0.0307 | 0.2333 | -0.2046 | -0.0878 |
| 31 | 28.66 | 0.02 | 3.4458 | -0.3785 | 0.5851 | -1.4122 | 0.1126 | 0.0071 | 0.2362 | -0.2291 | -0.1053 |
| 32 | 29.16 | 0.02 | 3.5709 | -0.3784 | 0.6965 | -1.3099 | 0.1416 | -0.0345 | 0.2343 | -0.2688 | -0.1620 |
| 33 | 29.47 | 0.03 | 3.6226 | -0.4508 | 0.7302 | -1.6532 | 0.1206 | -0.0567 | 0.2361 | -0.2929 | -0.1756 |
| 34 | 29.75 | 0.03 | 3.7447 | -0.5015 | 0.7454 | -1.8026 | 0.1354 | -0.0643 | 0.2378 | -0.3242 | -0.2408 |
| 35 | 30.00 | 0.05 | 3.8552 | -1.0920 | 0.9671 | -2.4248 | 0.1364 | -0.1134 | 0.2408 | -0.3562 | -0.2833 |
| 36 | 30.26 | 0.05 | 3.9524 | -1.3748 | 0.9643 | -2.6492 | 0.2062 | -0.1557 | 0.2375 | -0.3932 | -0.3444 |
| 37 | 30.57 | 0.05 | 4.1065 | -1.5342 | 1.0657 | -2.8164 | 0.2377 | -0.1815 | 0.2408 | -0.4223 | -0.3736 |
| 38 | 30.84 | 0.04 | 4.2166 | -1.7978 | 0.7736 | -1.7504 | 0.3732 | -0.2213 | 0.2408 | -0.4021 | -0.4263 |
| 39 | 31.10 | 0.04 | 4.2969 | -2.0012 | 0.7508 | -1.7372 | 0.4380 | -0.2468 | 0.2380 | -0.4849 | -0.4657 |
| 40 | 31.36 | 0.04 | 4.4531 | -2.3954 | 0.7532 | -1.8144 | 0.4379 | -0.2960 | 0.2413 | -0.5393 | -0.5388 |
| 41 | 31.64 | 0.03 | 4.5285 | -2.5846 | 0.8618 | -1.3626 | 0.4308 | -0.3402 | 0.2399 | -0.5801 | -0.5883 |
| 42 | 31.93 | 0.04 | 4.6250 | -2.8066 | 0.8506 | -1.8732 | 0.4523 | -0.3514 | 0.2416 | -0.5932 | -0.5716 |
| 43 | 32.18 | 0.04 | 4.7971 | -2.8518 | 0.8815 | -1.9314 | 0.4304 | -0.3918 | 0.2367 | -0.6283 | -0.6028 |
| 44 | 32.45 | 0.07 | 4.9803 | -3.1932 | 1.0484 | -2.0031 | 0.4020 | -0.4286 | 0.2413 | -0.6659 | -0.6412 |
| 45 | 32.70 | 0.06 | 5.0869 | -3.2048 | 1.0141 | -2.3468 | 0.4024 | -0.4569 | 0.2358 | -0.6928 | -0.6322 |
| 46 | 32.96 | 0.07 | 5.1753 | -3.1959 | 1.0153 | -2.4478 | 0.4101 | -0.4685 | 0.2367 | -0.7053 | -0.6183 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 122 HALF 0.80 RATIO=1.7 PHI 0.0 CONF BLKOFF 34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.21 | 0.06 | 5.3099 | -3.4216 | 1.1891 | -2.6683 | 0.3534 | -0.5163 | 0.2339 | -0.7522 | -0.6444 |
| 48 | 33.40 | 0.07 | 5.4788 | -3.4055 | 1.3561 | -2.8615 | 0.4259 | -0.5394 | 0.2340 | -0.7784 | -0.6333 |
| 49 | 33.72 | 0.05 | 5.8049 | -3.6551 | 1.4887 | -2.8503 | 0.4763 | -0.5570 | 0.2445 | -0.8015 | -0.6521 |
| 50 | 33.97 | 0.08 | 5.7550 | -3.6973 | 1.4891 | -2.7220 | 0.5265 | -0.5478 | 0.2514 | -0.8497 | -0.6767 |
| 51 | 34.21 | 0.06 | 5.8874 | -4.0650 | 1.4804 | -2.7165 | 0.5117 | -0.6168 | 0.2608 | -0.8795 | -0.6905 |
| 52 | 34.43 | 0.09 | 5.9865 | -4.1431 | 1.5111 | -2.8583 | 0.5265 | -0.6342 | 0.2626 | -0.8929 | -0.6919 |
| 53 | 34.71 | 0.09 | 6.1652 | -4.2035 | 1.6797 | -2.9425 | 0.5557 | -0.6456 | 0.2708 | -0.9165 | -0.6916 |
| 54 | 34.93 | 0.10 | 6.2641 | -4.3730 | 1.7363 | -3.0350 | 0.5198 | -0.6738 | 0.2665 | -0.9423 | -0.6981 |
| 55 | 35.16 | 0.09 | 6.3469 | -4.4565 | 1.7141 | -3.0897 | 0.4346 | -0.7172 | 0.2667 | -0.9839 | -0.7337 |
| 56 | 35.43 | 0.09 | 6.4743 | -4.6065 | 1.7854 | -3.1610 | 0.4425 | -0.7324 | 0.2607 | -0.9931 | -0.7425 |
| 57 | 35.66 | 0.09 | 6.5460 | -4.6866 | 1.8638 | -3.2679 | 0.3716 | -0.7670 | 0.2606 | -1.0276 | -0.7606 |
| 58 | 35.88 | 0.09 | 6.7269 | -5.0027 | 1.7542 | -3.2985 | 0.4005 | -0.8044 | 0.2636 | -1.0707 | -0.7741 |
| 59 | 36.13 | 0.10 | 6.7854 | -5.2058 | 1.8685 | -3.3195 | 0.4079 | -0.8053 | 0.2718 | -1.0772 | -0.7751 |
| 60 | 36.37 | 0.09 | 6.9178 | -5.4246 | 1.7800 | -3.3400 | 0.4573 | -0.8162 | 0.2773 | -1.0936 | -0.7842 |
| 61 | 36.59 | 0.05 | 7.0160 | -5.5573 | 1.7142 | -3.2582 | 0.5356 | -0.8250 | 0.2856 | -1.1107 | -0.7919 |
| 62 | 36.85 | 0.10 | 7.0961 | -5.6161 | 1.7726 | -3.1017 | 0.5288 | -0.8305 | 0.2879 | -1.1445 | -0.8034 |
| 63 | 37.08 | 0.10 | 7.3166 | -5.8590 | 1.7091 | -2.9346 | 0.5302 | -0.8652 | 0.2901 | -1.1554 | -0.8006 |
| 64 | 37.29 | 0.10 | 7.4960 | -5.9837 | 1.6145 | -2.1735 | 0.0352 | -0.8591 | 0.2993 | -1.1566 | -0.7980 |
| 65 | 37.55 | 0.05 | 7.6247 | -6.1652 | 1.4606 | -1.6881 | 0.6581 | -0.8738 | 0.3069 | -1.1806 | -0.8051 |
| 66 | 37.77 | 0.09 | 7.6335 | -6.2636 | 1.4516 | -1.5113 | 0.6700 | -0.8882 | 0.3105 | -1.1786 | -0.8205 |
| 67 | 38.01 | 0.09 | 7.6960 | -6.3545 | 1.4523 | -1.4992 | 0.6502 | -0.8970 | 0.3124 | -1.2093 | -0.8192 |
| 68 | 38.25 | 0.07 | 7.9615 | -6.5962 | 1.2037 | -1.1640 | 0.6846 | -0.9128 | 0.3184 | -1.2311 | -0.8183 |
| 69 | 38.47 | 0.08 | 8.0510 | -6.6523 | 1.2111 | -0.6535 | 0.7042 | -0.9147 | 0.3234 | -1.2360 | -0.8314 |
| 70 | 38.67 | 0.06 | 8.1521 | -6.7072 | 1.1813 | -0.7008 | 0.6916 | -0.9463 | 0.3255 | -1.2738 | -0.8432 |
| 71 | 38.90 | 0.06 | 8.2755 | -6.9763 | 1.2078 | -0.4713 | 0.7125 | -0.9412 | 0.3259 | -1.2671 | -0.8426 |
| 72 | 39.11 | 0.07 | 8.3653 | -6.9712 | 1.1666 | -0.6872 | 0.6994 | -0.9527 | 0.3269 | -1.2796 | -0.8333 |
| 73 | 39.31 | 0.06 | 8.2148 | -6.5215 | 1.1608 | -1.2980 | 0.6015 | -0.9776 | 0.3190 | -1.2966 | -0.7939 |
| 74 | 39.53 | 0.07 | 8.3065 | -6.6560 | 1.3123 | -1.5356 | 0.6022 | -0.9956 | 0.3186 | -1.3142 | -0.7893 |
| 75 | 39.74 | 0.07 | 8.4052 | -6.4877 | 1.4321 | -1.6261 | 0.5812 | -0.9947 | 0.3225 | -1.3172 | -0.7719 |
| 76 | 39.92 | 0.07 | 8.3953 | -6.4791 | 1.3162 | -1.4531 | 0.5324 | -0.9948 | 0.3225 | -1.3173 | -0.7714 |
| 77 | 40.13 | 0.08 | 8.5435 | -6.6824 | 1.5328 | -1.5328 | 0.5472 | -1.0054 | 0.3266 | -1.3320 | -0.7798 |
| 78 | 40.34 | 0.09 | 8.6664 | -6.7739 | 1.5685 | -1.4657 | 0.5474 | -1.0269 | 0.3280 | -1.3489 | -0.7756 |
| 79 | 40.55 | 0.08 | 8.6648 | -6.8750 | 1.4314 | -1.3693 | 0.5325 | -0.9955 | 0.3297 | -1.3256 | -0.7691 |
| 80 | 40.75 | 0.09 | 8.6267 | -6.9555 | 1.5601 | -1.1721 | 0.5806 | -0.9995 | 0.3413 | -1.3406 | -0.7877 |
| 81 | 40.97 | 0.09 | 8.8755 | -7.2536 | 1.6134 | -1.1148 | 0.6032 | -1.0098 | 0.3477 | -1.3575 | -0.7952 |
| 82 | 41.17 | 0.08 | 8.9924 | -6.7937 | 1.4531 | -1.0879 | 0.5325 | -0.9766 | 0.3467 | -1.3235 | -0.7595 |
| 83 | 41.36 | 0.10 | 9.0443 | -6.9757 | 1.6337 | -0.9913 | 0.5532 | -0.9434 | 0.3563 | -1.3017 | -0.7713 |
| 84 | 41.56 | 0.09 | 9.2267 | -7.0287 | 1.5749 | -1.0253 | 0.5837 | -0.9547 | 0.3734 | -1.3281 | -0.7618 |
| 85 | 41.77 | 0.10 | 9.3546 | -7.2711 | 1.6646 | -1.0601 | 0.6267 | -0.9998 | 0.3687 | -1.3685 | -0.7773 |
| 86 | 41.99 | 0.10 | 9.3479 | -6.9450 | 1.7106 | -1.2073 | 0.5563 | -0.9518 | 0.3771 | -1.3089 | -0.7430 |
| 87 | 42.13 | 0.11 | 9.5079 | -7.0318 | 1.7550 | -1.3606 | 0.5267 | -0.9212 | 0.3871 | -1.3083 | -0.7396 |
| 88 | 42.31 | 0.11 | 9.5166 | -7.1016 | 1.6267 | -1.0532 | 0.5081 | -0.9398 | 0.3862 | -1.3260 | -0.7465 |
| 89 | 42.50 | 0.12 | 9.7215 | -7.2215 | 1.6645 | -1.4515 | 0.5233 | -0.9038 | 0.3986 | -1.3024 | -0.7436 |
| 90 | 42.67 | 0.12 | 9.7166 | -7.3092 | 1.6466 | -1.3270 | 0.5372 | -0.9169 | 0.4016 | -1.3187 | -0.7545 |
| 91 | 42.86 | 0.12 | 9.9056 | -7.5471 | 1.9477 | -1.5022 | 0.5955 | -0.9702 | 0.4023 | -1.3725 | -0.7619 |
| 92 | 43.05 | 0.11 | 9.9376 | -7.3916 | 1.5586 | -1.6678 | 0.5178 | -0.9061 | 0.4092 | -1.3153 | -0.7438 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 122 MACH 0.80 RNIC-6 1.7 PHI 0.0 CONF 81 OF 34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.23 | 0.12 | 10.0225 | -7.4555 | 2.0897 | -1.7088 | 0.4984 | -0.9300 | 0.4167 | -1.3467 | -0.7439 |
| 94 | 43.40 | 0.12 | 10.1114 | -7.5242 | 2.0746 | -1.6827 | 0.5154 | -0.9153 | 0.4148 | -1.3301 | -0.7442 |
| 95 | 43.59 | 0.12 | 10.2446 | -7.9477 | 2.0762 | -1.6881 | 0.6184 | -0.9750 | 0.4157 | -1.3907 | -0.7758 |
| 96 | 43.76 | 0.13 | 10.4054 | -8.3223 | 2.0385 | -1.5054 | 0.6094 | -1.0349 | 0.4180 | -1.4580 | -0.7949 |
| 97 | 43.94 | 0.12 | 10.2713 | -7.8411 | 2.0886 | -1.8742 | 0.5142 | -0.9375 | 0.4285 | -1.3660 | -0.7439 |
| 98 | 44.14 | 0.13 | 10.4351 | -7.9111 | 2.1201 | -1.8742 | 0.5301 | -0.9492 | 0.4247 | -1.3739 | -0.7578 |
| 99 | 44.32 | 0.14 | 10.6595 | -8.4251 | 2.2887 | -2.0220 | 0.6056 | -1.0586 | 0.4207 | -1.4794 | -0.7905 |
| 100 | 44.50 | 0.13 | 10.5016 | -8.0176 | 2.1716 | -2.0436 | 0.5371 | -0.9565 | 0.4262 | -1.3827 | -0.7577 |
| 101 | 44.68 | 0.13 | 10.7087 | -8.1665 | 2.1065 | -1.8411 | 0.5367 | -0.9804 | 0.4345 | -1.4149 | -0.7628 |
| 102 | 44.88 | 0.15 | 11.0265 | -9.0151 | 2.2541 | -1.4827 | 0.6714 | -1.1075 | 0.4263 | -1.5338 | -0.8176 |
| 103 | 45.05 | 0.15 | 10.9068 | -8.5784 | 2.1386 | -1.4523 | 0.6562 | -1.0881 | 0.4203 | -1.5084 | -0.7865 |
| 104 | 45.23 | 0.13 | 11.0064 | -8.5466 | 2.2433 | -1.7672 | 0.6290 | -1.0803 | 0.4204 | -1.5067 | -0.7764 |
| 105 | 45.40 | 0.12 | 11.0941 | -8.6846 | 2.0335 | -1.4181 | 0.6589 | -1.1056 | 0.4255 | -1.5311 | -0.7828 |
| 106 | 45.58 | 0.13 | 11.3366 | -9.1566 | 2.2341 | -1.6846 | 0.6723 | -1.1410 | 0.4386 | -1.5798 | -0.8079 |
| 107 | 45.76 | 0.12 | 11.4541 | -9.3328 | 2.0813 | -1.3725 | 0.6574 | -1.1444 | 0.4518 | -1.5962 | -0.8120 |
| 108 | 45.93 | 0.14 | 11.4345 | -9.1048 | 2.2005 | -1.5461 | 0.6436 | -1.1304 | 0.4463 | -1.5827 | -0.7962 |
| 109 | 46.10 | 0.13 | 11.5467 | -9.2112 | 2.1681 | -1.3520 | 0.6709 | -1.1326 | 0.4561 | -1.5887 | -0.7977 |
| 110 | 46.26 | 0.12 | 11.4673 | -8.9697 | 2.0217 | -1.3002 | 0.6434 | -1.1324 | 0.4454 | -1.5808 | -0.7756 |
| 111 | 46.45 | 0.11 | 11.5272 | -8.9157 | 1.9504 | -1.4665 | 0.6147 | -1.1311 | 0.4528 | -1.5839 | -0.7738 |
| 112 | 46.61 | 0.11 | 11.5515 | -8.8973 | 1.9098 | -1.5030 | 0.6086 | -1.0976 | 0.4511 | -1.5487 | -0.7542 |
| 113 | 46.79 | 0.12 | 11.6540 | -8.8540 | 1.9732 | -1.2333 | 0.6347 | -1.1230 | 0.4557 | -1.5787 | -0.7632 |
| 114 | 46.97 | 0.12 | 11.7421 | -8.9952 | 1.9536 | -1.1350 | 0.6561 | -1.1195 | 0.4548 | -1.5743 | -0.7618 |
| 115 | 47.14 | 0.10 | 11.7140 | -8.7127 | 1.7587 | -1.0196 | 0.6407 | -1.1109 | 0.4556 | -1.5667 | -0.7438 |
| 116 | 47.30 | 0.10 | 11.8091 | -8.8171 | 1.7572 | -0.9405 | 0.5907 | -1.1338 | 0.4511 | -1.5849 | -0.7466 |
| 117 | 47.48 | 0.10 | 11.8294 | -8.7254 | 1.6885 | -0.8141 | 0.6263 | -1.1262 | 0.4572 | -1.5834 | -0.7379 |
| 118 | 47.66 | 0.07 | 11.8674 | -8.8038 | 1.5403 | -0.4667 | 0.5815 | -1.1028 | 0.4457 | -1.6085 | -0.7275 |
| 119 | 47.82 | 0.06 | 11.8625 | -8.5924 | 1.3435 | -0.3876 | 0.5817 | -1.1569 | 0.4443 | -1.6012 | -0.7231 |
| 120 | 47.99 | 0.05 | 11.8159 | -8.4625 | 0.8621 | -0.0739 | 0.4063 | -1.1917 | 0.4273 | -1.6190 | -0.7162 |
| 121 | 48.14 | 0.02 | 11.7010 | -8.0013 | 0.4034 | 1.7547 | 0.2111 | -1.3285 | 0.3819 | -1.7104 | -0.6838 |
| 122 | 48.31 | 0.00 | 11.6464 | -7.6906 | -0.0200 | 2.7877 | 0.0443 | -1.3030 | 0.3797 | -1.6827 | -0.6603 |
| 123 | 48.45 | -0.01 | 11.6829 | -7.6568 | -0.1810 | 3.2917 | -0.0639 | -1.3033 | 0.3618 | -1.6651 | -0.6587 |
| 124 | 48.63 | -0.01 | 11.6611 | -7.6204 | -0.4299 | 3.8598 | -0.0478 | -1.3361 | 0.3735 | -1.7100 | -0.6540 |
| 125 | 48.83 | -0.01 | 11.6783 | -7.6362 | -0.2284 | 3.5219 | -0.0924 | -1.3169 | 0.3890 | -1.7059 | -0.6765 |
| 126 | 49.00 | -0.01 | 11.6667 | -7.6652 | -0.1966 | 3.3606 | -0.1273 | -1.3310 | 0.3725 | -1.7035 | -0.6645 |
| 127 | 49.21 | 0.02 | 12.2244 | -7.9860 | 0.0715 | 3.0185 | -0.1298 | -1.2878 | 0.4183 | -1.7061 | -0.6942 |
| 128 | 49.37 | 0.01 | 12.0564 | -8.1178 | 0.0173 | 3.3146 | -0.0467 | -1.3305 | 0.3845 | -1.7150 | -0.6711 |
| 129 | 49.53 | 0.01 | 12.2504 | -8.3014 | 0.0562 | 3.2285 | 0.0580 | -1.2731 | 0.4138 | -1.6889 | -0.6940 |
| 130 | 49.73 | 0.02 | 12.3638 | -8.3514 | 0.1005 | 3.1773 | 0.0160 | -1.2765 | 0.4200 | -1.7025 | -0.6916 |
| 131 | 49.91 | 0.02 | 12.5158 | -8.7242 | 0.1154 | 3.1755 | 0.0447 | -1.2654 | 0.4471 | -1.7125 | -0.6968 |
| 132 | 50.07 | 0.02 | 12.5265 | -8.5861 | 0.1157 | 3.1769 | -0.0044 | -1.1924 | 0.4612 | -1.6537 | -0.6843 |
| 133 | 50.24 | 0.01 | 12.5548 | -8.7384 | 0.0047 | 3.3515 | -0.0334 | -1.2595 | 0.4471 | -1.7067 | -0.6938 |
| 134 | 50.42 | 0.04 | 12.6465 | -9.1624 | 0.5102 | 2.5732 | 0.0686 | -1.2472 | 0.4571 | -1.7044 | -0.7132 |
| 135 | 50.59 | 0.03 | 12.7061 | -8.8367 | 0.3159 | 2.9815 | 0.0391 | -1.2207 | 0.4705 | -1.6913 | -0.6911 |
| 136 | 50.74 | 0.03 | 12.7456 | -8.9366 | 0.2472 | 3.1098 | 0.0249 | -1.2399 | 0.4606 | -1.7008 | -0.7014 |
| 137 | 50.92 | 0.06 | 13.0005 | -9.3530 | 0.7524 | 1.8416 | 0.2786 | -1.2363 | 0.4718 | -1.7082 | -0.7154 |
| 138 | 51.11 | 0.05 | 13.1727 | -9.4067 | 1.2381 | 0.9004 | 0.4166 | -1.2352 | 0.4750 | -1.7105 | -0.7141 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 1 PART 122 PACK 0.80 RATIO=6 1.7 PHI 0.0 CONF 34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.28 | 0.09 | 13.3128 | -9.5644 | 1.2150 | 1.3424 | 0.3939 | -1.2457 | 0.4955 | -1.7412 | -0.7199 |
| 140 | 51.43 | 0.09 | 13.3446 | -9.6213 | 1.2178 | 1.3459 | 0.4330 | -1.2552 | 0.4835 | -1.7387 | -0.7210 |
| 141 | 51.61 | 0.09 | 13.4257 | -9.7163 | 1.2500 | 1.3715 | 0.3689 | -1.2402 | 0.5061 | -1.7463 | -0.7237 |
| 142 | 51.78 | 0.09 | 13.4744 | -9.8012 | 1.2266 | 1.3210 | 0.3021 | -1.2593 | 0.4969 | -1.7562 | -0.7274 |
| 143 | 51.96 | 0.12 | 13.6532 | -10.0260 | 1.4769 | 1.8500 | 0.2674 | -1.2721 | 0.5165 | -1.7885 | -0.7343 |
| 144 | 52.12 | 0.12 | 13.6252 | -10.2162 | 1.4778 | 2.7740 | 0.2120 | -1.2733 | 0.5341 | -1.8073 | -0.7387 |
| 145 | 52.27 | 0.08 | 13.6516 | -10.1161 | 1.1563 | 2.2763 | 0.2578 | -1.3012 | 0.5240 | -1.8251 | -0.7385 |
| 146 | 52.43 | 0.08 | 13.7867 | -9.9931 | 1.0156 | 3.2414 | 0.2058 | -1.2322 | 0.5522 | -1.7644 | -0.7252 |
| 147 | 52.62 | 0.09 | 13.8673 | -10.0571 | 1.1130 | 3.5642 | 0.1472 | -1.2119 | 0.5634 | -1.7753 | -0.7252 |
| 148 | 52.78 | 0.08 | 14.0574 | -10.2217 | 0.9394 | 3.9937 | 0.0742 | -1.2053 | 0.5654 | -1.8507 | -0.7393 |
| 149 | 52.95 | 0.09 | 14.1210 | -10.2987 | 1.0087 | 4.4454 | 0.0435 | -1.2395 | 0.5959 | -1.8354 | -0.7392 |
| 150 | 53.14 | 0.09 | 14.4580 | -10.6724 | 0.9565 | 4.9453 | -0.0049 | -1.2294 | 0.6101 | -1.8396 | -0.7383 |
| 151 | 53.30 | 0.09 | 14.9215 | -11.0887 | 1.0526 | 4.3110 | -0.0425 | -1.2583 | 0.5987 | -1.8571 | -0.7353 |
| 152 | 53.47 | 0.08 | 14.7056 | -10.7385 | 1.0745 | 4.0007 | -0.0771 | -1.2334 | 0.6173 | -1.8508 | -0.7301 |
| 153 | 53.62 | 0.09 | 14.8966 | -10.9551 | 1.2574 | 3.5849 | -0.0903 | -1.2239 | 0.6229 | -1.8469 | -0.7212 |
| 154 | 53.79 | 0.10 | 14.8159 | -10.8918 | 1.2717 | 3.0569 | -0.0756 | -1.2118 | 0.6391 | -1.8510 | -0.7216 |
| 155 | 53.95 | 0.10 | 14.8538 | -10.9488 | 1.4030 | 2.6154 | 0.0301 | -1.1883 | 0.6196 | -1.7879 | -0.6967 |
| 156 | 54.13 | 0.09 | 15.0014 | -11.0119 | 1.2333 | 3.2067 | -0.0730 | -1.2041 | 0.6006 | -1.8047 | -0.7245 |
| 157 | 54.28 | 0.09 | 15.0266 | -11.0674 | 1.2634 | 3.2345 | -0.0365 | -1.1582 | 0.6174 | -1.7756 | -0.7101 |
| 158 | 54.43 | 0.09 | 15.0022 | -11.0716 | 1.2515 | 3.2264 | -0.0626 | -1.1795 | 0.6066 | -1.7861 | -0.7101 |
| 159 | 54.60 | 0.09 | 15.2454 | -11.2932 | 1.1816 | 3.6556 | 0.0064 | -1.2137 | 0.6085 | -1.8222 | -0.7169 |
| 160 | 54.75 | 0.08 | 15.1284 | -11.1486 | 1.1674 | 3.1941 | -0.0506 | -1.1793 | 0.6168 | -1.7961 | -0.7171 |
| 161 | 54.92 | 0.08 | 15.4333 | -11.3914 | 1.1754 | 3.3315 | -0.0281 | -1.1835 | 0.6106 | -1.7943 | -0.7161 |
| 162 | 55.08 | 0.09 | 15.2524 | -11.2150 | 1.1581 | 3.3935 | -0.0434 | -1.1563 | 0.6161 | -1.7724 | -0.7093 |
| 163 | 55.25 | 0.08 | 15.2067 | -11.2015 | 1.1436 | 3.2916 | -0.0727 | -1.1519 | 0.6252 | -1.7811 | -0.7169 |
| 164 | 55.38 | 0.08 | 15.3326 | -11.3913 | 1.1546 | 3.4100 | -0.0510 | -1.2017 | 0.6234 | -1.8251 | -0.7232 |
| 165 | 55.56 | 0.10 | 15.4369 | -11.3626 | 1.3620 | 3.5109 | -0.0435 | -1.1937 | 0.6306 | -1.8243 | -0.7267 |
| 166 | 55.69 | 0.08 | 15.3219 | -11.2762 | 1.1751 | 3.2644 | -0.1091 | -1.1804 | 0.6244 | -1.8128 | -0.7098 |
| 167 | 55.86 | 0.09 | 15.4382 | -11.3751 | 1.3623 | 3.2658 | -0.0569 | -1.2001 | 0.6340 | -1.8341 | -0.7148 |
| 168 | 56.03 | 0.09 | 15.4261 | -11.4914 | 1.2173 | 3.4342 | -0.0262 | -1.2255 | 0.6411 | -1.8067 | -0.7247 |
| 169 | 56.22 | 0.09 | 15.4855 | -11.4865 | 1.2295 | 3.7156 | -0.0270 | -1.2280 | 0.6246 | -1.8527 | -0.7227 |
| 170 | 56.37 | 0.08 | 15.4153 | -11.4251 | 1.2269 | 3.2476 | -0.0031 | -1.2356 | 0.6318 | -1.8675 | -0.7181 |
| 171 | 56.54 | 0.09 | 15.6177 | -11.5561 | 1.2792 | 3.4845 | 0.0180 | -1.1951 | 0.6389 | -1.8340 | -0.7054 |
| 172 | 56.67 | 0.07 | 15.4092 | -11.4476 | 1.1478 | 3.4027 | -0.0260 | -1.2258 | 0.6426 | -1.8087 | -0.7241 |
| 173 | 56.83 | 0.09 | 15.5024 | -11.5560 | 1.3213 | 3.0658 | -0.0317 | -1.2454 | 0.6533 | -1.8588 | -0.7246 |
| 174 | 56.97 | 0.08 | 15.4024 | -11.4264 | 1.1514 | 3.1512 | -0.0456 | -1.2017 | 0.6437 | -1.8455 | -0.7083 |
| 175 | 57.12 | 0.08 | 15.3017 | -11.4865 | 1.1110 | 3.2239 | -0.0243 | -1.2120 | 0.6579 | -1.8720 | -0.7166 |
| 176 | 57.28 | 0.05 | 15.0642 | -11.2654 | 0.9557 | 2.8080 | 0.0137 | -1.2701 | 0.6557 | -1.9258 | -0.7264 |
| 177 | 57.41 | 0.07 | 15.1278 | -11.3878 | 1.1535 | 3.1430 | 0.0202 | -1.2411 | 0.6809 | -1.9220 | -0.7247 |
| 178 | 57.55 | 0.08 | 15.3112 | -11.4073 | 1.1196 | 2.8152 | -0.0302 | -1.2110 | 0.6787 | -1.8897 | -0.7169 |
| 179 | 57.71 | 0.06 | 15.1267 | -11.2273 | 1.1044 | 2.8573 | 0.0288 | -1.2462 | 0.6808 | -1.9270 | -0.7213 |
| 180 | 57.87 | 0.08 | 15.1443 | -11.2405 | 1.1162 | 2.8629 | 0.0158 | -1.2299 | 0.6958 | -1.9257 | -0.7211 |
| 181 | 57.99 | 0.06 | 15.1004 | -11.2462 | 1.1023 | 2.8225 | 0.0434 | -1.2482 | 0.6932 | -1.9414 | -0.7168 |
| 182 | 58.15 | 0.04 | 15.1417 | -11.2662 | 0.9700 | 2.7356 | 0.0588 | -1.2379 | 0.6938 | -1.9317 | -0.7203 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSDUCT 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 122 MACH 0.80 REX10-6 1.7 PHI 0.0 CONF 81 CF34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.80 | -0.00 | 0.0184 | 0.0041 | 0.0104 | 0.2203 | 0.5637 | -0.7949 | -0.0230 | -0.3718 | 0.0289 | 0.4677 |
| 2 | -5.74 | -0.00 | 0.0201 | 0.003E | 0.0107 | 0.1917 | 0.5325 | -0.8050 | -0.0218 | -0.3771 | 0.0271 | 0.4684 |
| 3 | -5.80 | -0.00 | 0.0221 | 0.003E | 0.0119 | 0.1643 | 0.5387 | -0.8093 | -0.0221 | -0.3784 | 0.0274 | 0.4676 |
| 4 | -5.80 | 0.00 | 0.0234 | 0.0044 | 0.0147 | 0.1484 | 0.5006 | -0.8028 | -0.0216 | -0.3769 | 0.0269 | 0.4695 |
| 5 | -3.84 | 0.00 | 0.0203 | 0.0036 | 0.0103 | 0.1697 | 0.5065 | -0.7536 | -0.0243 | -0.3555 | 0.0323 | 0.4717 |
| 6 | -2.41 | 0.00 | 0.0229 | 0.0044 | 0.0145 | 0.1464 | 0.5077 | -0.7643 | -0.0220 | -0.3626 | 0.0268 | 0.4744 |
| 7 | -0.51 | -0.00 | 0.0203 | 0.0035 | 0.0102 | 0.1744 | 0.5014 | -0.7505 | -0.0230 | -0.3564 | 0.0306 | 0.4745 |
| 8 | 1.16 | -0.00 | 0.0244 | 0.004C | 0.0115 | 0.1617 | 0.4862 | -0.7557 | -0.0251 | -0.3591 | 0.0332 | 0.4753 |
| 9 | 2.96 | -0.00 | 0.0262 | 0.0042 | 0.011E | 0.1587 | 0.4434 | -0.7467 | -0.0298 | -0.3546 | 0.0400 | 0.4746 |
| 10 | 4.55 | -0.00 | 0.0241 | 0.0041 | 0.010e | 0.1681 | 0.4473 | -0.7030 | -0.0323 | -0.3340 | 0.0460 | 0.4756 |
| 11 | 6.33 | -0.00 | 0.0151 | 0.0040 | 0.0055 | 0.2065 | 0.4989 | -0.6531 | -0.0332 | -0.3140 | 0.0508 | 0.4668 |
| 12 | 8.05 | -0.00 | 0.0143 | 0.0042 | 0.0095 | 0.2699 | 0.6068 | -0.6384 | -0.0340 | -0.3041 | 0.0533 | 0.4763 |
| 13 | 9.71 | -0.00 | 0.0101 | 0.0042 | 0.0086 | 0.4124 | 0.6537 | -0.6702 | -0.0384 | -0.3168 | 0.0572 | 0.4727 |
| 14 | 11.40 | -0.00 | 0.0147 | 0.0048 | 0.0107 | 0.3262 | 0.7266 | -0.6615 | -0.0462 | -0.3144 | 0.0698 | 0.4753 |
| 15 | 13.16 | -0.00 | 0.0150 | 0.0045 | 0.0117 | 0.3264 | 0.7829 | -0.6196 | -0.0460 | -0.2989 | 0.0742 | 0.4825 |
| 16 | 14.93 | -0.01 | 0.0146 | 0.0045 | 0.0108 | 0.3183 | 0.7886 | -0.5517 | -0.0498 | -0.2749 | 0.0903 | 0.4983 |
| 17 | 16.74 | -0.02 | 0.0141 | 0.0077 | 0.021C | 0.1917 | 0.5221 | -0.4716 | -0.0457 | -0.2423 | 0.1054 | 0.5138 |
| 18 | 18.56 | -0.01 | 0.0582 | 0.0085 | 0.0306 | 0.1536 | 0.5304 | -0.3601 | -0.0445 | -0.1896 | 0.1236 | 0.5267 |
| 19 | 20.38 | -0.02 | 0.0822 | 0.0104 | 0.0485 | 0.1208 | 0.5392 | -0.2306 | -0.0341 | -0.1247 | 0.1475 | 0.5407 |
| 20 | 22.22 | -0.03 | 0.1279 | 0.0151 | 0.0715 | 0.1024 | 0.5506 | -0.1305 | -0.0232 | -0.0721 | 0.1777 | 0.5525 |
| 21 | 24.07 | -0.02 | 0.1053 | 0.0084 | 0.0634 | 0.0771 | 0.5830 | -0.0195 | -0.0056 | -0.0185 | 0.2627 | 0.5507 |
| 22 | 25.91 | -0.01 | 0.0860 | 0.0062 | 0.0491 | 0.0772 | 0.6074 | 0.0368 | 0.0193 | 0.0091 | 0.4587 | 0.2354 |
| 23 | 27.76 | 0.02 | 0.0862 | 0.015E | 0.0152 | 0.2292 | 0.1769 | 0.1324 | 0.0415 | 0.0533 | 0.3134 | 0.4029 |
| 24 | 27.80 | 0.01 | 0.0556 | 0.0138 | 0.0421 | 0.1447 | 0.4436 | 0.1111 | 0.0391 | 0.0435 | 0.3517 | 0.3911 |
| 25 | 27.80 | 0.01 | 0.0545 | 0.0173 | 0.0321 | 0.1826 | 0.3392 | 0.1233 | 0.0403 | 0.0494 | 0.3271 | 0.4004 |
| 26 | 27.81 | 0.01 | 0.0956 | 0.0162 | 0.0277 | 0.1527 | 0.2960 | 0.1247 | 0.0411 | 0.0458 | 0.3294 | 0.3954 |
| 27 | 27.80 | 0.01 | 0.0524 | 0.0167 | 0.0322 | 0.1811 | 0.3479 | 0.1204 | 0.0402 | 0.0489 | 0.3342 | 0.4058 |
| 28 | 27.80 | 0.01 | 0.1023 | 0.0156 | 0.0316 | 0.1866 | 0.3093 | 0.1293 | 0.0415 | 0.0542 | 0.3207 | 0.4187 |
| 29 | 28.28 | 0.02 | 0.1126 | 0.0220 | 0.0385 | 0.1773 | 0.3418 | 0.1424 | 0.0450 | 0.0606 | 0.3161 | 0.4253 |
| 30 | 28.58 | 0.02 | 0.1216 | 0.0166 | 0.0552 | 0.1365 | 0.4537 | 0.1507 | 0.0478 | 0.0649 | 0.3175 | 0.4310 |
| 31 | 28.68 | 0.02 | 0.1424 | 0.0215 | 0.0577 | 0.1511 | 0.4045 | 0.1617 | 0.0494 | 0.0720 | 0.3055 | 0.4453 |
| 32 | 29.18 | 0.03 | 0.1694 | 0.0272 | 0.0693 | 0.1668 | 0.3797 | 0.1833 | 0.0537 | 0.0827 | 0.2527 | 0.4510 |
| 33 | 29.47 | 0.03 | 0.1722 | 0.0251 | 0.0677 | 0.1455 | 0.3954 | 0.1928 | 0.0559 | 0.0888 | 0.2502 | 0.4607 |
| 34 | 29.75 | 0.03 | 0.1766 | 0.0267 | 0.0709 | 0.1494 | 0.3939 | 0.2050 | 0.0586 | 0.0974 | 0.2806 | 0.4661 |
| 35 | 30.00 | 0.05 | 0.2245 | 0.037E | 0.075E | 0.1686 | 0.3369 | 0.2369 | 0.0621 | 0.1118 | 0.2621 | 0.4721 |
| 36 | 30.28 | 0.05 | 0.2155 | 0.0326 | 0.0806 | 0.1467 | 0.3956 | 0.2390 | 0.0630 | 0.1150 | 0.2636 | 0.4813 |
| 37 | 30.57 | 0.05 | 0.2854 | 0.0444 | 0.1070 | 0.1556 | 0.3747 | 0.2602 | 0.0690 | 0.1269 | 0.2497 | 0.4875 |
| 38 | 30.84 | 0.04 | 0.2275 | 0.0346 | 0.1244 | 0.1508 | 0.4642 | 0.2539 | 0.0657 | 0.1243 | 0.2588 | 0.4855 |
| 39 | 31.10 | 0.04 | 0.2541 | 0.0371 | 0.1351 | 0.1262 | 0.4729 | 0.2623 | 0.0668 | 0.1296 | 0.2545 | 0.4935 |
| 40 | 31.38 | 0.04 | 0.2862 | 0.0341 | 0.1424 | 0.1183 | 0.4942 | 0.2763 | 0.0682 | 0.1373 | 0.2469 | 0.4972 |
| 41 | 31.64 | 0.03 | 0.2563 | 0.0284 | 0.1360 | 0.1107 | 0.5302 | 0.2902 | 0.0695 | 0.1461 | 0.2353 | 0.5033 |
| 42 | 31.93 | 0.04 | 0.3124 | 0.0358 | 0.1534 | 0.1145 | 0.4911 | 0.3005 | 0.0700 | 0.1522 | 0.2325 | 0.5065 |
| 43 | 32.18 | 0.04 | 0.3155 | 0.0352 | 0.1610 | 0.1102 | 0.5000 | 0.3170 | 0.0707 | 0.1614 | 0.2230 | 0.5092 |
| 44 | 32.43 | 0.07 | 0.3636 | 0.0419 | 0.1708 | 0.1152 | 0.4696 | 0.3449 | 0.0722 | 0.1778 | 0.2092 | 0.5156 |
| 45 | 32.70 | 0.06 | 0.3335 | 0.03EC | 0.158C | 0.1138 | 0.4737 | 0.3545 | 0.0726 | 0.1833 | 0.2047 | 0.5176 |
| 46 | 32.96 | 0.07 | 0.3119 | 0.0364 | 0.1462 | 0.1167 | 0.4686 | 0.3660 | 0.0733 | 0.1905 | 0.2003 | 0.5204 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST / 122 | PART 0.83 | MACH 1.7 | RXIC-6 | PHI C.C | CONF 61&0F34 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.21 | 0.06 | 0.3265 | 0.0357 | 0.1408 | 0.1216 | 0.4310 | 0.4026 | 0.0743 | 0.2166 | 0.1847 | 0.5231 |
| 48 | 33.48 | 0.07 | 0.3626 | 0.0421 | 0.1445 | 0.1169 | 0.4335 | 0.4091 | 0.0750 | 0.2150 | 0.1832 | 0.5256 |
| 49 | 33.72 | 0.09 | 0.3561 | 0.0413 | 0.1715 | 0.1159 | 0.4327 | 0.4127 | 0.0756 | 0.2167 | 0.1837 | 0.5251 |
| 50 | 33.97 | 0.08 | 0.3666 | 0.0422 | 0.1757 | 0.1151 | 0.4293 | 0.4230 | 0.0700 | 0.2226 | 0.1865 | 0.5296 |
| 51 | 34.21 | 0.08 | 0.3629 | 0.0446 | 0.1786 | 0.1159 | 0.4665 | 0.4373 | 0.0771 | 0.2311 | 0.1764 | 0.5285 |
| 52 | 34.45 | 0.09 | 0.3897 | 0.0434 | 0.1856 | 0.1113 | 0.4766 | 0.4330 | 0.0777 | 0.2276 | 0.1794 | 0.5256 |
| 53 | 34.71 | 0.09 | 0.4032 | 0.0451 | 0.1886 | 0.1119 | 0.4836 | 0.4476 | 0.0783 | 0.2360 | 0.1749 | 0.5273 |
| 54 | 34.95 | 0.10 | 0.4004 | 0.0445 | 0.1816 | 0.1122 | 0.4537 | 0.4632 | 0.0783 | 0.2446 | 0.1690 | 0.5267 |
| 55 | 35.18 | 0.09 | 0.3983 | 0.0465 | 0.1764 | 0.1222 | 0.4449 | 0.4870 | 0.0776 | 0.2586 | 0.1593 | 0.5316 |
| 56 | 35.43 | 0.09 | 0.4029 | 0.0454 | 0.1753 | 0.1227 | 0.4357 | 0.5067 | 0.0775 | 0.2674 | 0.1529 | 0.5276 |
| 57 | 35.66 | 0.09 | 0.4015 | 0.0521 | 0.1871 | 0.1295 | 0.4162 | 0.5362 | 0.0760 | 0.2838 | 0.1417 | 0.5253 |
| 58 | 35.88 | 0.09 | 0.3993 | 0.0514 | 0.1892 | 0.1288 | 0.4236 | 0.5436 | 0.0765 | 0.2857 | 0.1408 | 0.5256 |
| 59 | 36.13 | 0.10 | 0.4010 | 0.0517 | 0.1895 | 0.1289 | 0.4214 | 0.5422 | 0.0760 | 0.2871 | 0.1402 | 0.5256 |
| 60 | 36.37 | 0.09 | 0.3962 | 0.0454 | 0.1762 | 0.1187 | 0.4304 | 0.5337 | 0.0765 | 0.2817 | 0.1434 | 0.5279 |
| 61 | 36.59 | 0.09 | 0.3811 | 0.0415 | 0.1814 | 0.1089 | 0.4761 | 0.5260 | 0.0774 | 0.2802 | 0.1471 | 0.5327 |
| 62 | 36.85 | 0.10 | 0.3757 | 0.0405 | 0.1806 | 0.1088 | 0.4791 | 0.5310 | 0.0770 | 0.2821 | 0.1451 | 0.5312 |
| 63 | 37.08 | 0.10 | 0.3722 | 0.0388 | 0.1825 | 0.1042 | 0.4902 | 0.5322 | 0.0771 | 0.2826 | 0.1449 | 0.5305 |
| 64 | 37.29 | 0.10 | 0.3663 | 0.0265 | 0.1953 | 0.0724 | 0.5276 | 0.5109 | 0.0786 | 0.2749 | 0.1538 | 0.5380 |
| 65 | 37.55 | 0.09 | 0.3605 | 0.0263 | 0.1963 | 0.0562 | 0.5438 | 0.5134 | 0.0785 | 0.2763 | 0.1525 | 0.5381 |
| 66 | 37.77 | 0.09 | 0.3575 | 0.0224 | 0.1896 | 0.0625 | 0.5200 | 0.5208 | 0.0782 | 0.2796 | 0.1501 | 0.5366 |
| 67 | 38.01 | 0.09 | 0.3560 | 0.0135 | 0.2015 | 0.0386 | 0.5059 | 0.5234 | 0.0774 | 0.2805 | 0.1478 | 0.5367 |
| 68 | 38.25 | 0.07 | 0.3566 | 0.0054 | 0.2062 | 0.0194 | 0.5075 | 0.5334 | 0.0775 | 0.2838 | 0.1452 | 0.5321 |
| 69 | 38.47 | 0.08 | 0.3405 | -0.0020 | 0.2045 | -0.0058 | 0.5997 | 0.5339 | 0.0771 | 0.2851 | 0.1445 | 0.5339 |
| 70 | 38.67 | 0.08 | 0.3405 | 0.0018 | 0.2042 | 0.0052 | 0.5986 | 0.5470 | 0.0700 | 0.2896 | 0.1401 | 0.5295 |
| 71 | 38.90 | 0.08 | 0.3577 | -0.0096 | 0.2185 | -0.0253 | 0.6120 | 0.5551 | 0.0756 | 0.2939 | 0.1362 | 0.5294 |
| 72 | 39.11 | 0.07 | 0.3506 | 0.0007 | 0.2066 | 0.0021 | 0.5891 | 0.5644 | 0.0762 | 0.2967 | 0.1350 | 0.5257 |
| 73 | 39.31 | 0.08 | 0.3419 | 0.0056 | 0.1912 | 0.0206 | 0.5599 | 0.5706 | 0.0760 | 0.2991 | 0.1332 | 0.5241 |
| 74 | 39.53 | 0.07 | 0.3326 | 0.0179 | 0.1858 | 0.0537 | 0.5502 | 0.5807 | 0.0744 | 0.3039 | 0.1282 | 0.5234 |
| 75 | 39.74 | 0.07 | 0.3267 | 0.0238 | 0.1750 | 0.0729 | 0.5357 | 0.5860 | 0.0748 | 0.3081 | 0.1276 | 0.5258 |
| 76 | 39.92 | 0.07 | 0.3148 | 0.0252 | 0.1663 | 0.0796 | 0.5245 | 0.5902 | 0.0747 | 0.3115 | 0.1265 | 0.5275 |
| 77 | 40.13 | 0.08 | 0.3238 | 0.0217 | 0.1717 | 0.0671 | 0.5303 | 0.5920 | 0.0743 | 0.3127 | 0.1256 | 0.5281 |
| 78 | 40.34 | 0.09 | 0.3273 | 0.0214 | 0.1757 | 0.0654 | 0.5304 | 0.5942 | 0.0736 | 0.3119 | 0.1239 | 0.5250 |
| 79 | 40.55 | 0.08 | 0.3261 | 0.0229 | 0.1732 | 0.0702 | 0.5313 | 0.5957 | 0.0731 | 0.3116 | 0.1227 | 0.5232 |
| 80 | 40.75 | 0.09 | 0.3367 | 0.0139 | 0.1952 | 0.0377 | 0.5443 | 0.5975 | 0.0724 | 0.3135 | 0.1211 | 0.5246 |
| 81 | 40.97 | 0.09 | 0.3561 | 0.0050 | 0.1974 | 0.0254 | 0.5544 | 0.6068 | 0.0724 | 0.3183 | 0.1193 | 0.5245 |
| 82 | 41.17 | 0.06 | 0.3317 | 0.0128 | 0.1835 | 0.0366 | 0.5533 | 0.6060 | 0.0704 | 0.3101 | 0.1102 | 0.5216 |
| 83 | 41.38 | 0.10 | 0.3741 | 0.0062 | 0.2051 | 0.0175 | 0.5368 | 0.6099 | 0.0695 | 0.3172 | 0.1139 | 0.5201 |
| 84 | 41.58 | 0.09 | 0.3645 | 0.0082 | 0.2128 | 0.0213 | 0.5528 | 0.6184 | 0.0699 | 0.3217 | 0.1130 | 0.5202 |
| 85 | 41.77 | 0.10 | 0.3758 | 0.0050 | 0.2098 | 0.0131 | 0.5526 | 0.6203 | 0.0684 | 0.3213 | 0.1071 | 0.5175 |
| 86 | 41.94 | 0.10 | 0.3534 | 0.0068 | 0.2172 | 0.0227 | 0.5521 | 0.6255 | 0.0657 | 0.3224 | 0.1051 | 0.5154 |
| 87 | 42.13 | 0.11 | 0.3736 | 0.0136 | 0.2034 | 0.0365 | 0.5465 | 0.6246 | 0.0664 | 0.3238 | 0.1064 | 0.5184 |
| 88 | 42.31 | 0.11 | 0.3671 | 0.0117 | 0.2140 | 0.0296 | 0.5340 | 0.6335 | 0.0644 | 0.3280 | 0.1016 | 0.5178 |
| 89 | 42.50 | 0.12 | 0.4202 | 0.0055 | 0.2305 | 0.0141 | 0.5486 | 0.6414 | 0.0650 | 0.3327 | 0.1013 | 0.5187 |
| 90 | 42.67 | 0.12 | 0.4291 | 0.0085 | 0.2313 | 0.0208 | 0.5391 | 0.6523 | 0.0600 | 0.3352 | 0.0920 | 0.5138 |
| 91 | 42.86 | 0.12 | 0.4264 | 0.0046 | 0.2270 | 0.0107 | 0.5299 | 0.6468 | 0.0613 | 0.3354 | 0.0946 | 0.5165 |
| 92 | 43.05 | 0.11 | 0.4436 | 0.0056 | 0.2355 | 0.0215 | 0.5291 | 0.6571 | 0.0578 | 0.3362 | 0.0880 | 0.5116 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSONIC 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 122 | MACH 0.80 | RX10-6 1.7 | PHI 0.0 | CONF 41 OF 34 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CO1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.23 | 0.12 | 0.4533 | 0.0069 | 0.2297 | 0.0156 | 0.5301 | 0.6599 | 0.0588 | 0.3386 | 0.0892 | 0.5131 |
| 94 | 43.40 | 0.12 | 0.4453 | 0.0063 | 0.2345 | 0.0165 | 0.5261 | 0.6652 | 0.0586 | 0.3406 | 0.0850 | 0.5126 |
| 95 | 43.59 | 0.12 | 0.4485 | 0.0067 | 0.2406 | 0.0143 | 0.5156 | 0.6703 | 0.0585 | 0.3388 | 0.0813 | 0.5054 |
| 96 | 43.76 | 0.13 | 0.4523 | 0.0065 | 0.2315 | 0.0169 | 0.5126 | 0.6742 | 0.0584 | 0.3402 | 0.0867 | 0.5046 |
| 97 | 43.94 | 0.12 | 0.4433 | 0.0075 | 0.2255 | 0.0169 | 0.5165 | 0.6767 | 0.0567 | 0.3446 | 0.0837 | 0.5096 |
| 98 | 44.14 | 0.13 | 0.4636 | 0.0051 | 0.2357 | 0.0197 | 0.5081 | 0.6862 | 0.0592 | 0.3487 | 0.0862 | 0.5066 |
| 99 | 44.32 | 0.14 | 0.4621 | 0.0126 | 0.2403 | 0.0258 | 0.4923 | 0.6940 | 0.0539 | 0.3506 | 0.0776 | 0.5052 |
| 100 | 44.50 | 0.13 | 0.4777 | 0.0111 | 0.2400 | 0.0233 | 0.5026 | 0.6896 | 0.0549 | 0.3467 | 0.0796 | 0.5056 |
| 101 | 44.68 | 0.13 | 0.4665 | 0.0146 | 0.2315 | 0.0316 | 0.5030 | 0.6992 | 0.0535 | 0.3516 | 0.0766 | 0.5026 |
| 102 | 44.86 | 0.15 | 0.4814 | 0.0164 | 0.2163 | 0.0427 | 0.5014 | 0.7019 | 0.0525 | 0.3524 | 0.0748 | 0.5020 |
| 103 | 45.05 | 0.13 | 0.4353 | 0.0150 | 0.2228 | 0.0344 | 0.5118 | 0.6927 | 0.0525 | 0.3459 | 0.0758 | 0.4993 |
| 104 | 45.23 | 0.13 | 0.4476 | 0.0176 | 0.2243 | 0.0393 | 0.5011 | 0.6983 | 0.0523 | 0.3489 | 0.0749 | 0.4996 |
| 105 | 45.40 | 0.12 | 0.4554 | 0.0178 | 0.2305 | 0.0387 | 0.5018 | 0.7038 | 0.0531 | 0.3506 | 0.0755 | 0.4982 |
| 106 | 45.58 | 0.13 | 0.4416 | 0.0235 | 0.2403 | 0.0567 | 0.4941 | 0.7102 | 0.0514 | 0.3538 | 0.0723 | 0.4979 |
| 107 | 45.76 | 0.12 | 0.4213 | 0.0225 | 0.2356 | 0.0543 | 0.4979 | 0.7080 | 0.0503 | 0.3529 | 0.0711 | 0.4985 |
| 108 | 45.93 | 0.12 | 0.4125 | 0.0226 | 0.2441 | 0.0534 | 0.4947 | 0.7080 | 0.0513 | 0.3514 | 0.0724 | 0.4963 |
| 109 | 46.10 | 0.13 | 0.4182 | 0.0233 | 0.2372 | 0.0557 | 0.4954 | 0.7124 | 0.0501 | 0.3525 | 0.0703 | 0.4948 |
| 110 | 46.28 | 0.12 | 0.4126 | 0.0213 | 0.2363 | 0.0516 | 0.4999 | 0.7086 | 0.0508 | 0.3514 | 0.0718 | 0.4959 |
| 111 | 46.45 | 0.11 | 0.4179 | 0.0216 | 0.2367 | 0.0518 | 0.4995 | 0.7135 | 0.0504 | 0.3544 | 0.0707 | 0.4967 |
| 112 | 46.61 | 0.11 | 0.4335 | 0.0276 | 0.2188 | 0.0636 | 0.5047 | 0.7021 | 0.0489 | 0.3469 | 0.0656 | 0.4941 |
| 113 | 46.79 | 0.12 | 0.4122 | 0.0266 | 0.2295 | 0.0646 | 0.5092 | 0.7119 | 0.0486 | 0.3523 | 0.0682 | 0.4945 |
| 114 | 46.97 | 0.12 | 0.4216 | 0.0256 | 0.2162 | 0.0592 | 0.5126 | 0.7109 | 0.0476 | 0.3506 | 0.0673 | 0.4935 |
| 115 | 47.14 | 0.10 | 0.4060 | 0.0226 | 0.2130 | 0.0510 | 0.5220 | 0.7077 | 0.0473 | 0.3500 | 0.0668 | 0.4945 |
| 116 | 47.30 | 0.10 | 0.3904 | 0.0198 | 0.2114 | 0.0506 | 0.5415 | 0.7181 | 0.0477 | 0.3551 | 0.0685 | 0.4945 |
| 117 | 47.48 | 0.10 | 0.3853 | 0.0143 | 0.2052 | 0.0393 | 0.5618 | 0.7127 | 0.0469 | 0.3526 | 0.0658 | 0.4947 |
| 118 | 47.66 | 0.07 | 0.3958 | 0.0138 | 0.1995 | 0.0395 | 0.5715 | 0.7161 | 0.0472 | 0.3503 | 0.0659 | 0.4892 |
| 119 | 47.82 | 0.08 | 0.3912 | 0.0165 | 0.2004 | 0.0308 | 0.5673 | 0.7251 | 0.0492 | 0.3590 | 0.0678 | 0.4951 |
| 120 | 47.99 | 0.05 | 0.1742 | -0.0058 | 0.1377 | -0.0334 | 0.7904 | 0.7179 | 0.0489 | 0.3545 | 0.0681 | 0.4937 |
| 121 | 48.14 | 0.02 | -0.0101 | -0.0111 | 0.0418 | 1.1031 | -0.1246 | 0.7222 | 0.0516 | 0.3575 | 0.0714 | 0.4956 |
| 122 | 48.31 | 0.00 | -0.0041 | -0.0141 | 0.0041 | 0.1601 | -0.0493 | 0.7163 | 0.0507 | 0.3540 | 0.0708 | 0.4942 |
| 123 | 48.49 | -0.01 | -0.1175 | -0.0175 | -0.0125 | 0.1517 | 0.1091 | 0.7138 | 0.0506 | 0.3531 | 0.0709 | 0.4947 |
| 124 | 48.65 | -0.01 | -0.0496 | -0.0044 | -0.0036 | 0.0881 | 0.0795 | 0.7307 | 0.0515 | 0.3659 | 0.0699 | 0.4967 |
| 125 | 48.83 | -0.01 | -0.1773 | -0.0315 | -0.0373 | 0.1777 | 0.2107 | 0.7151 | 0.0490 | 0.3543 | 0.0685 | 0.4954 |
| 126 | 49.00 | -0.01 | -0.1263 | -0.0221 | -0.0257 | 0.1753 | 0.1872 | 0.7299 | 0.0500 | 0.3587 | 0.0685 | 0.4918 |
| 127 | 49.21 | 0.02 | -0.0524 | -0.0183 | 0.0367 | 0.5641 | -1.1320 | 0.7274 | 0.0483 | 0.3605 | 0.0665 | 0.4958 |
| 128 | 49.37 | 0.01 | -0.0916 | -0.0367 | 0.0123 | 0.3371 | -0.1357 | 0.7319 | 0.0482 | 0.3603 | 0.0660 | 0.4926 |
| 129 | 49.53 | 0.01 | -0.0501 | -0.0347 | 0.0377 | 0.6529 | -0.7514 | 0.7318 | 0.0469 | 0.3630 | 0.0641 | 0.4960 |
| 130 | 49.73 | 0.02 | -0.0706 | -0.0345 | 0.0227 | 0.4934 | -0.3209 | 0.7402 | 0.0469 | 0.3657 | 0.0628 | 0.4900 |
| 131 | 49.91 | 0.02 | -0.0653 | -0.0363 | 0.0263 | 0.5557 | -0.4035 | 0.7361 | 0.0461 | 0.3654 | 0.0626 | 0.4903 |
| 132 | 50.07 | 0.02 | -0.0345 | -0.0377 | 0.0345 | 1.0934 | -1.0097 | 0.7453 | 0.0445 | 0.3656 | 0.0597 | 0.4905 |
| 133 | 50.24 | 0.01 | -0.0458 | -0.0367 | 0.0285 | 0.7370 | -0.5728 | 0.7476 | 0.0446 | 0.3717 | 0.0597 | 0.4972 |
| 134 | 50.42 | 0.04 | -0.0194 | -0.0342 | 0.0436 | 1.7594 | -2.2409 | 0.7551 | 0.0435 | 0.3754 | 0.0576 | 0.4972 |
| 135 | 50.59 | 0.03 | -0.0186 | -0.0335 | 0.0428 | 1.8212 | -2.3320 | 0.7431 | 0.0435 | 0.3670 | 0.0585 | 0.4935 |
| 136 | 50.74 | 0.03 | -0.0018 | -0.0326 | 0.0526 | 18.4706 | -29.7557 | 0.7619 | 0.0441 | 0.3765 | 0.0575 | 0.4941 |
| 137 | 50.92 | 0.06 | 0.2464 | 0.0047 | 0.1375 | 0.0188 | 0.5550 | 0.7648 | 0.0453 | 0.3808 | 0.0593 | 0.4975 |
| 138 | 51.11 | 0.05 | 0.2009 | -0.0036 | 0.1040 | -0.0139 | 0.6311 | 0.7662 | 0.0449 | 0.3806 | 0.0586 | 0.4968 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 122 | MACH 0.60 1.7 | RX1C-6 | PHI 0.0 | CONF 01A0F34 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.28 | 0.05 | 0.2561 | -0.0067 | 0.1518 | -0.0026 | 0.5926 | 0.7736 | 0.0445 | 0.3848 | 0.0575 | 0.4974 |
| 140 | 51.43 | 0.05 | 0.2640 | 0.0025 | 0.1666 | 0.0269 | 0.5633 | 0.7771 | 0.0444 | 0.3808 | 0.0578 | 0.4978 |
| 141 | 51.61 | 0.05 | 0.2570 | 0.0031 | 0.1468 | 0.0121 | 0.5711 | 0.7767 | 0.0437 | 0.3862 | 0.0562 | 0.4973 |
| 142 | 51.76 | 0.05 | 0.2491 | 0.0061 | 0.1311 | 0.0252 | 0.5894 | 0.7872 | 0.0434 | 0.3918 | 0.0551 | 0.4977 |
| 143 | 51.90 | 0.12 | 0.2139 | 0.0025 | 0.1216 | 0.0117 | 0.5665 | 0.7845 | 0.0419 | 0.3903 | 0.0534 | 0.4972 |
| 144 | 52.12 | 0.12 | 0.1991 | -0.0006 | 0.0992 | -0.0052 | 0.6194 | 0.7904 | 0.0428 | 0.3961 | 0.0537 | 0.4961 |
| 145 | 52.27 | 0.06 | 0.1821 | -0.0003 | 0.1121 | -0.0017 | 0.6154 | 0.8075 | 0.0423 | 0.4002 | 0.0524 | 0.4956 |
| 146 | 52.45 | 0.06 | 0.1653 | -0.0015 | 0.0704 | -0.0181 | 0.6009 | 0.7801 | 0.0387 | 0.3870 | 0.0496 | 0.4961 |
| 147 | 52.62 | 0.05 | 0.0875 | -0.0070 | 0.0561 | -0.1032 | 0.8317 | 0.7742 | 0.0376 | 0.3851 | 0.0486 | 0.4974 |
| 148 | 52.78 | 0.06 | 0.0675 | -0.0068 | 0.0494 | -0.0995 | 0.7273 | 0.7774 | 0.0369 | 0.3861 | 0.0475 | 0.4967 |
| 149 | 52.93 | 0.05 | 0.0002 | -0.0178 | 0.0155 | -84.5000 | 95.7815 | 0.7840 | 0.0368 | 0.3890 | 0.0465 | 0.4962 |
| 150 | 53.14 | 0.05 | -0.0215 | -0.0262 | 0.0102 | 0.8317 | -0.0066 | 0.7852 | 0.0367 | 0.3929 | 0.0466 | 0.4964 |
| 151 | 53.30 | 0.05 | -0.0369 | -0.0258 | -0.0133 | 0.6578 | 0.0654 | 0.7834 | 0.0356 | 0.3897 | 0.0454 | 0.4975 |
| 152 | 53.47 | 0.08 | -0.0603 | -0.0315 | -0.0314 | 0.5224 | 0.5178 | 0.7513 | 0.0365 | 0.3746 | 0.0486 | 0.4986 |
| 153 | 53.62 | 0.05 | -0.0453 | -0.0321 | -0.0211 | 0.7067 | 0.4645 | 0.7535 | 0.0356 | 0.3775 | 0.0472 | 0.5015 |
| 154 | 53.79 | 0.10 | -0.0435 | -0.0305 | -0.0235 | 0.7105 | 0.5490 | 0.7624 | 0.0349 | 0.3813 | 0.0458 | 0.5002 |
| 155 | 53.95 | 0.10 | -0.0026 | -0.0240 | -0.0161 | 9.2400 | 0.1859 | 0.7270 | 0.0357 | 0.3645 | 0.0451 | 0.5014 |
| 156 | 54.13 | 0.05 | -0.0227 | -0.0241 | -0.0214 | 1.0642 | 0.9428 | 0.7407 | 0.0354 | 0.3730 | 0.0477 | 0.5036 |
| 157 | 54.28 | 0.05 | -0.0237 | -0.0256 | -0.0212 | 0.8772 | 0.6927 | 0.7383 | 0.0355 | 0.3747 | 0.0501 | 0.5008 |
| 158 | 54.43 | 0.05 | -0.0360 | -0.0286 | -0.0285 | 0.6349 | 0.7317 | 0.7257 | 0.0351 | 0.3664 | 0.0484 | 0.5049 |
| 159 | 54.60 | 0.05 | -0.0507 | -0.0253 | -0.0300 | 0.4982 | 0.5909 | 0.7107 | 0.0359 | 0.3569 | 0.0505 | 0.5021 |
| 160 | 54.75 | 0.06 | -0.0350 | -0.0227 | -0.0252 | 0.6374 | 0.7089 | 0.7324 | 0.0340 | 0.3667 | 0.0473 | 0.5007 |
| 161 | 54.92 | 0.08 | -0.0225 | -0.0141 | -0.0178 | 0.8182 | 0.7800 | 0.7145 | 0.0352 | 0.3591 | 0.0493 | 0.5026 |
| 162 | 55.06 | 0.09 | -0.0405 | -0.0165 | -0.0227 | 0.4631 | 0.5560 | 0.7126 | 0.0346 | 0.3570 | 0.0486 | 0.5008 |
| 163 | 55.20 | 0.06 | -0.0262 | -0.0156 | -0.0203 | 0.5609 | 0.7216 | 0.7185 | 0.0350 | 0.3607 | 0.0488 | 0.5026 |
| 164 | 55.38 | 0.08 | -0.0356 | -0.0163 | -0.0215 | 0.4591 | 0.6039 | 0.7338 | 0.0344 | 0.3674 | 0.0469 | 0.5007 |
| 165 | 55.56 | 0.10 | -0.0401 | -0.0178 | -0.0220 | 0.4378 | 0.5460 | 0.7376 | 0.0337 | 0.3705 | 0.0457 | 0.5028 |
| 166 | 55.69 | 0.08 | -0.0411 | -0.0155 | -0.0234 | 0.3772 | 0.5708 | 0.7394 | 0.0350 | 0.3710 | 0.0474 | 0.5017 |
| 167 | 55.86 | 0.09 | -0.0382 | -0.0157 | -0.0212 | 0.5471 | 0.6186 | 0.7452 | 0.0338 | 0.3745 | 0.0453 | 0.5026 |
| 168 | 56.05 | 0.05 | -0.0354 | -0.0166 | -0.0199 | 0.4723 | 0.5054 | 0.7516 | 0.0341 | 0.3764 | 0.0454 | 0.5007 |
| 169 | 56.22 | 0.05 | -0.0363 | -0.0212 | -0.0261 | 0.3636 | 0.4482 | 0.7362 | 0.0343 | 0.3696 | 0.0466 | 0.5012 |
| 170 | 56.37 | 0.08 | -0.0263 | -0.0173 | -0.0132 | 0.6501 | 0.5008 | 0.7520 | 0.0340 | 0.3764 | 0.0452 | 0.5004 |
| 171 | 56.52 | 0.05 | -0.0365 | -0.0154 | -0.0145 | 0.4169 | 0.3935 | 0.7345 | 0.0325 | 0.3686 | 0.0447 | 0.5018 |
| 172 | 56.67 | 0.07 | -0.0244 | -0.0137 | -0.0107 | 0.5617 | 0.4573 | 0.7635 | 0.0335 | 0.3830 | 0.0439 | 0.5016 |
| 173 | 56.83 | 0.05 | -0.0265 | -0.0175 | -0.0112 | 0.6486 | 0.4160 | 0.7718 | 0.0328 | 0.3863 | 0.0424 | 0.5005 |
| 174 | 56.97 | 0.06 | -0.0256 | -0.0153 | -0.0144 | 0.5158 | 0.5041 | 0.7705 | 0.0326 | 0.3863 | 0.0425 | 0.5014 |
| 175 | 57.12 | 0.06 | -0.0264 | -0.0134 | -0.0103 | 0.5079 | 0.3889 | 0.7567 | 0.0325 | 0.3790 | 0.0430 | 0.5008 |
| 176 | 57.28 | 0.05 | -0.0152 | -0.0120 | -0.0035 | 0.7877 | 0.2525 | 0.7798 | 0.0308 | 0.3894 | 0.0395 | 0.4994 |
| 177 | 57.41 | 0.07 | -0.0119 | -0.0084 | -0.0025 | 0.9439 | 0.2130 | 0.7593 | 0.0317 | 0.3795 | 0.0418 | 0.5003 |
| 178 | 57.55 | 0.06 | -0.0224 | -0.0108 | -0.0084 | 0.4630 | 0.2612 | 0.7653 | 0.0317 | 0.3844 | 0.0414 | 0.5023 |
| 179 | 57.71 | 0.06 | -0.0033 | -0.0055 | 0.0033 | 1.7813 | -0.9377 | 0.7735 | 0.0312 | 0.3877 | 0.0403 | 0.5012 |
| 180 | 57.87 | 0.06 | -0.0179 | -0.0068 | -0.0035 | 0.3775 | 0.2204 | 0.7918 | 0.0312 | 0.3958 | 0.0394 | 0.4998 |
| 181 | 57.99 | 0.06 | -0.0122 | -0.0058 | 0.0009 | 0.4786 | -0.0767 | 0.7749 | 0.0330 | 0.3882 | 0.0425 | 0.4984 |
| 182 | 57.99 | 0.04 | -0.0225 | -0.0063 | -0.0031 | 0.2773 | 0.1301 | 0.7623 | 0.0314 | 0.3799 | 0.0412 | 0.4983 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 122 MACH 0.60 RX10-6 1.7 PHI 0.0 81&0F34 C.G 0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCANT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.80 | -0.00 | 0.0053 | 5.5555 | C.0016 | 5.9999 | 0.1956 | -0.7471 | -0.0250 | -0.4009 | 0.0334 | 0.5367 |
| 2 | -5.79 | -0.00 | 0.0121 | 5.5555 | C.0037 | 5.9999 | 0.3096 | -0.7412 | -0.0256 | -0.3979 | 0.0345 | 0.5365 |
| 3 | -5.80 | -0.00 | 0.0184 | 5.5555 | C.0056 | 5.9999 | 0.3157 | -0.7377 | -0.0260 | -0.3969 | 0.0352 | 0.5380 |
| 4 | -5.80 | 0.00 | 0.0263 | 5.5555 | C.0114 | 5.9999 | 0.3145 | -0.7098 | -0.0273 | -0.3821 | 0.0385 | 0.5382 |
| 5 | -3.84 | 0.00 | 0.0188 | 5.5555 | 0.0056 | 5.9999 | 0.0539 | -0.7066 | -0.0276 | -0.3823 | 0.0389 | 0.5365 |
| 6 | -2.21 | 0.00 | 0.0254 | 5.5555 | 0.0067 | 5.9999 | 0.2961 | -0.6828 | -0.0278 | -0.3698 | 0.0407 | 0.5416 |
| 7 | -0.51 | -0.00 | 0.0106 | 5.5555 | 0.0015 | 5.9999 | 0.1369 | -0.6900 | -0.0271 | -0.3751 | 0.0393 | 0.5437 |
| 8 | 1.18 | -0.00 | 0.0047 | 5.5555 | 0.0006 | 5.9999 | 0.1330 | -0.7042 | -0.0295 | -0.3840 | 0.0419 | 0.5453 |
| 9 | 2.56 | -0.00 | 0.0121 | 5.5555 | 0.0044 | 5.9999 | 0.3612 | -0.6792 | -0.0345 | -0.3711 | 0.0508 | 0.5464 |
| 10 | 4.59 | -0.00 | 0.0060 | 5.5555 | 0.0046 | 5.9999 | 0.4745 | -0.6421 | -0.0365 | -0.3508 | 0.0568 | 0.5464 |
| 11 | 6.33 | -0.00 | 0.0008 | 5.5555 | 0.0034 | 5.9999 | 4.1156 | -0.6149 | -0.0371 | -0.3364 | 0.0604 | 0.5471 |
| 12 | 8.05 | -0.00 | 0.0053 | 5.5555 | 0.0078 | 5.9999 | 0.8408 | -0.5883 | -0.0374 | -0.3216 | 0.0638 | 0.5485 |
| 13 | 9.71 | -0.00 | 0.0065 | 5.5555 | 0.0078 | 5.9999 | 1.1336 | -0.6152 | -0.0430 | -0.3310 | 0.0700 | 0.5381 |
| 14 | 11.46 | -0.00 | 0.0062 | 5.5555 | 0.0083 | 9.9999 | 1.3303 | -0.6047 | -0.0523 | -0.3329 | 0.0858 | 0.5466 |
| 15 | 13.16 | -0.00 | 0.0045 | 5.5555 | 0.0082 | 5.9999 | 1.8330 | -0.5877 | -0.0505 | -0.3141 | 0.0850 | 0.5533 |
| 16 | 14.93 | -0.01 | 0.0068 | 5.5555 | 0.0110 | 5.9999 | 1.2442 | -0.5045 | -0.0539 | -0.2892 | 0.1068 | 0.5733 |
| 17 | 16.74 | -0.02 | 0.0123 | 5.5555 | 0.0119 | 5.9999 | 0.9724 | -0.4203 | -0.0514 | -0.2535 | 0.1222 | 0.6033 |
| 18 | 18.56 | -0.01 | 0.0165 | 5.5555 | 0.0126 | 5.9999 | 0.7406 | -0.3063 | -0.0434 | -0.1932 | 0.1415 | 0.6306 |
| 19 | 20.38 | -0.02 | 0.0128 | 5.5555 | 0.0090 | 5.9999 | 0.7174 | -0.1696 | -0.0295 | -0.1165 | 0.1741 | 0.6588 |
| 20 | 22.22 | -0.03 | 0.0064 | 5.5555 | 0.0004 | 9.9999 | 0.9977 | -0.0467 | -0.0125 | -0.0503 | 0.2673 | 1.0777 |
| 21 | 24.07 | -0.02 | 0.0085 | 5.5555 | 0.0085 | 5.9999 | 0.9977 | 0.0239 | 0.0034 | -0.0075 | 0.1435 | -0.3123 |
| 22 | 25.91 | -0.01 | 0.0047 | 5.5555 | 0.0057 | 5.9999 | 1.2194 | 0.0627 | 0.0220 | 0.0184 | 0.3516 | 0.2929 |
| 23 | 27.76 | 0.02 | 0.0348 | 5.5555 | 0.0174 | 5.9999 | 0.5004 | 0.0819 | 0.0348 | 0.0324 | 0.4251 | 0.3950 |
| 24 | 27.80 | 0.01 | 0.0246 | 5.5555 | 0.0134 | 5.9999 | 0.5431 | 0.0917 | 0.0366 | 0.0271 | 0.3951 | 0.4050 |
| 25 | 27.80 | 0.01 | 0.0252 | 5.5555 | 0.0136 | 5.9999 | 0.5401 | 0.0796 | 0.0343 | 0.0323 | 0.4308 | 0.4091 |
| 26 | 27.81 | 0.01 | 0.0326 | 5.5555 | 0.0164 | 5.9999 | 0.5020 | 0.0768 | 0.0337 | 0.0320 | 0.4384 | 0.4158 |
| 27 | 27.80 | 0.01 | 0.0219 | 5.5555 | 0.0105 | 5.9999 | 0.5085 | 0.0763 | 0.0335 | 0.0320 | 0.4387 | 0.4187 |
| 28 | 27.85 | 0.01 | 0.0286 | 5.5555 | 0.0142 | 5.9999 | 0.4935 | 0.0814 | 0.0351 | 0.0343 | 0.4317 | 0.4218 |
| 29 | 28.20 | 0.02 | 0.0355 | 5.5555 | 0.0187 | 5.9999 | 0.4726 | 0.1012 | 0.0407 | 0.0446 | 0.4018 | 0.4405 |
| 30 | 28.58 | 0.02 | 0.0247 | 5.5555 | 0.0123 | 5.9999 | 0.4969 | 0.1197 | 0.0449 | 0.0548 | 0.3753 | 0.4577 |
| 31 | 28.86 | 0.02 | 0.0357 | 5.5555 | 0.0186 | 5.9999 | 0.4712 | 0.1181 | 0.0448 | 0.0536 | 0.3841 | 0.4618 |
| 32 | 29.10 | 0.03 | 0.0504 | 5.5555 | 0.0232 | 5.9999 | 0.4606 | 0.1291 | 0.0480 | 0.0612 | 0.3720 | 0.4740 |
| 33 | 29.47 | 0.03 | 0.0442 | 5.5555 | 0.0205 | 5.9999 | 0.4648 | 0.1425 | 0.0505 | 0.0677 | 0.3545 | 0.4752 |
| 34 | 29.75 | 0.03 | 0.0470 | 5.5555 | 0.0220 | 5.9999 | 0.4660 | 0.1503 | 0.0531 | 0.0735 | 0.3467 | 0.4799 |
| 35 | 30.00 | 0.05 | 0.0436 | 5.5555 | 0.0206 | 5.9999 | 0.4739 | 0.1465 | 0.0533 | 0.0725 | 0.3552 | 0.4884 |
| 36 | 30.28 | 0.05 | 0.0492 | 5.5555 | 0.0237 | 5.9999 | 0.4609 | 0.1828 | 0.0582 | 0.0900 | 0.3185 | 0.4926 |
| 37 | 30.57 | 0.05 | 0.0453 | 5.5555 | 0.0228 | 5.9999 | 0.4631 | 0.1808 | 0.0586 | 0.0895 | 0.3247 | 0.4957 |
| 38 | 30.84 | 0.04 | 0.0328 | 5.5555 | 0.0165 | 5.9999 | 0.5036 | 0.2142 | 0.0653 | 0.1077 | 0.2885 | 0.4913 |
| 39 | 31.10 | 0.04 | 0.0277 | 5.5555 | 0.0138 | 5.9999 | 0.4914 | 0.2338 | 0.0669 | 0.1163 | 0.2775 | 0.4973 |
| 40 | 31.38 | 0.04 | 0.0361 | 5.5555 | 0.0184 | 5.9999 | 0.5069 | 0.2654 | 0.0674 | 0.1325 | 0.2538 | 0.4991 |
| 41 | 31.64 | 0.03 | 0.0367 | 5.5555 | 0.0181 | 5.9999 | 0.4918 | 0.2863 | 0.0689 | 0.1445 | 0.2467 | 0.5047 |
| 42 | 31.93 | 0.04 | 0.0446 | 5.5555 | 0.0220 | 5.9999 | 0.4930 | 0.2850 | 0.0690 | 0.1438 | 0.2435 | 0.5080 |
| 43 | 32.18 | 0.04 | 0.0412 | 5.5555 | 0.0227 | 5.9999 | 0.4921 | 0.3006 | 0.0703 | 0.1539 | 0.2338 | 0.5121 |
| 44 | 32.45 | 0.07 | 0.0435 | 5.5555 | 0.0207 | 5.9999 | 0.4774 | 0.3014 | 0.0712 | 0.1551 | 0.2363 | 0.5145 |
| 45 | 32.70 | 0.06 | 0.0522 | 5.5555 | 0.0261 | 5.9999 | 0.5008 | 0.3206 | 0.0722 | 0.1663 | 0.2251 | 0.5188 |
| 46 | 32.96 | 0.07 | 0.0512 | 5.5555 | 0.0248 | 5.9999 | 0.4847 | 0.3215 | 0.0719 | 0.1688 | 0.2238 | 0.5250 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 122 MACH 0.80 RXIC-6 1.7 PHI 0.0 CONF 81B0F34 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | Cm3 | CB3 | XCPF3 | YCPF3 | CNF4 | Cm4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.21 | 0.06 | 0.0450 | 5.9999 | 0.0215 | 5.9999 | 0.4770 | 0.3207 | 0.0722 | 0.1695 | 0.2250 | 0.5286 |
| 48 | 33.46 | 0.07 | 0.0478 | 5.9999 | 0.0228 | 5.9999 | 0.4772 | 0.3336 | 0.0732 | 0.1760 | 0.2181 | 0.5364 |
| 49 | 33.72 | 0.05 | 0.0472 | 5.9999 | 0.0225 | 5.9999 | 0.4857 | 0.3525 | 0.0742 | 0.1866 | 0.2106 | 0.5295 |
| 50 | 33.97 | 0.08 | 0.0516 | 5.9999 | 0.0247 | 5.9999 | 0.4766 | 0.3773 | 0.0756 | 0.2000 | 0.2003 | 0.5361 |
| 51 | 34.21 | 0.06 | 0.0533 | 5.9999 | 0.0257 | 5.9999 | 0.4823 | 0.3790 | 0.0761 | 0.2021 | 0.2008 | 0.5332 |
| 52 | 34.45 | 0.05 | 0.0556 | 5.9999 | 0.0264 | 5.9999 | 0.4771 | 0.4034 | 0.0767 | 0.2140 | 0.1902 | 0.5305 |
| 53 | 34.71 | 0.05 | 0.0567 | 5.9999 | 0.0224 | 5.9999 | 0.4681 | 0.4090 | 0.0776 | 0.2168 | 0.1856 | 0.5301 |
| 54 | 34.95 | 0.10 | 0.0555 | 5.9999 | 0.0274 | 5.9999 | 0.4902 | 0.4120 | 0.0776 | 0.2183 | 0.1879 | 0.5288 |
| 55 | 35.18 | 0.05 | 0.0551 | 5.9999 | 0.0267 | 5.9999 | 0.4514 | 0.4167 | 0.0780 | 0.2224 | 0.1871 | 0.5337 |
| 56 | 35.43 | 0.09 | 0.0612 | 5.9999 | 0.0285 | 5.9999 | 0.4650 | 0.4101 | 0.0781 | 0.2252 | 0.1868 | 0.5387 |
| 57 | 35.66 | 0.09 | 0.0590 | 5.9999 | 0.0271 | 5.9999 | 0.4593 | 0.4165 | 0.0785 | 0.2250 | 0.1885 | 0.5402 |
| 58 | 35.88 | 0.05 | 0.0714 | 5.9999 | 0.0324 | 5.9999 | 0.4531 | 0.4450 | 0.0790 | 0.2388 | 0.1778 | 0.5366 |
| 59 | 36.13 | 0.10 | 0.0753 | 5.9999 | 0.0344 | 5.9999 | 0.4575 | 0.4498 | 0.0789 | 0.2424 | 0.1755 | 0.5390 |
| 60 | 36.37 | 0.09 | 0.0696 | 5.9999 | 0.0332 | 5.9999 | 0.4772 | 0.4703 | 0.0788 | 0.2534 | 0.1654 | 0.5318 |
| 61 | 36.59 | 0.09 | 0.0552 | 5.9999 | 0.0255 | 5.9999 | 0.4514 | 0.4969 | 0.0782 | 0.2641 | 0.1574 | 0.5315 |
| 62 | 36.85 | 0.10 | 0.0702 | 5.9999 | 0.0324 | 5.9999 | 0.4816 | 0.5196 | 0.0783 | 0.2732 | 0.1507 | 0.5259 |
| 63 | 37.06 | 0.10 | 0.0800 | 5.9999 | 0.0366 | 5.9999 | 0.4772 | 0.5242 | 0.0784 | 0.2767 | 0.1495 | 0.5278 |
| 64 | 37.29 | 0.10 | 0.0825 | 5.9999 | 0.0355 | 5.9999 | 0.4884 | 0.5557 | 0.0788 | 0.2905 | 0.1383 | 0.5234 |
| 65 | 37.55 | 0.09 | 0.0722 | 5.9999 | 0.0247 | 5.9999 | 0.4730 | 0.5675 | 0.0781 | 0.2955 | 0.1341 | 0.5213 |
| 66 | 37.77 | 0.09 | 0.0715 | 5.9999 | 0.0255 | 5.9999 | 0.4956 | 0.5650 | 0.0780 | 0.2954 | 0.1345 | 0.5229 |
| 67 | 38.01 | 0.09 | 0.0788 | 5.9999 | 0.0288 | 5.9999 | 0.4865 | 0.5825 | 0.0787 | 0.3033 | 0.1300 | 0.5208 |
| 68 | 38.25 | 0.07 | 0.0755 | 5.9999 | 0.0281 | 5.9999 | 0.4708 | 0.5925 | 0.0787 | 0.3082 | 0.1277 | 0.5201 |
| 69 | 38.47 | 0.08 | 0.0757 | 5.9999 | 0.0156 | 5.9999 | 0.4936 | 0.5976 | 0.0745 | 0.3110 | 0.1247 | 0.5202 |
| 70 | 38.67 | 0.08 | 0.0742 | 5.9999 | 0.0213 | 5.9999 | 0.4807 | 0.6046 | 0.0742 | 0.3137 | 0.1228 | 0.5189 |
| 71 | 38.90 | 0.08 | 0.0716 | 5.9999 | 0.0201 | 5.9999 | 0.4839 | 0.6028 | 0.0751 | 0.3118 | 0.1245 | 0.5173 |
| 72 | 39.11 | 0.07 | 0.0765 | 5.9999 | 0.0175 | 5.9999 | 0.4804 | 0.6078 | 0.0745 | 0.3153 | 0.1226 | 0.5187 |
| 73 | 39.31 | 0.08 | 0.0711 | 5.9999 | 0.0185 | 5.9999 | 0.4597 | 0.6019 | 0.0743 | 0.3130 | 0.1235 | 0.5200 |
| 74 | 39.53 | 0.07 | 0.0695 | 5.9999 | 0.0230 | 5.9999 | 0.4853 | 0.6017 | 0.0744 | 0.3145 | 0.1244 | 0.5227 |
| 75 | 39.74 | 0.07 | 0.0660 | 5.9999 | 0.0217 | 5.9999 | 0.4514 | 0.6020 | 0.0731 | 0.3148 | 0.1214 | 0.5230 |
| 76 | 39.92 | 0.07 | 0.0697 | 5.9999 | 0.0226 | 5.9999 | 0.4550 | 0.6000 | 0.0730 | 0.3127 | 0.1216 | 0.5211 |
| 77 | 40.13 | 0.06 | 0.0576 | 5.9999 | 0.0201 | 5.9999 | 0.4520 | 0.6077 | 0.0710 | 0.3141 | 0.1165 | 0.5165 |
| 78 | 40.34 | 0.09 | 0.0604 | 5.9999 | 0.0275 | 5.9999 | 0.4551 | 0.6107 | 0.0719 | 0.3167 | 0.1167 | 0.5168 |
| 79 | 40.55 | 0.08 | 0.0643 | 5.9999 | 0.0285 | 5.9999 | 0.4504 | 0.6038 | 0.0654 | 0.3147 | 0.1135 | 0.5170 |
| 80 | 40.75 | 0.09 | 0.0613 | 5.9999 | 0.0282 | 5.9999 | 0.4600 | 0.6109 | 0.0691 | 0.3164 | 0.1121 | 0.5129 |
| 81 | 40.97 | 0.09 | 0.0541 | 5.9999 | 0.0244 | 5.9999 | 0.4535 | 0.6039 | 0.0638 | 0.3104 | 0.1057 | 0.5140 |
| 82 | 41.17 | 0.08 | 0.0638 | 5.9999 | 0.0268 | 5.9999 | 0.4532 | 0.6040 | 0.0624 | 0.3166 | 0.1033 | 0.5142 |
| 83 | 41.36 | 0.10 | 0.0515 | 5.9999 | 0.0231 | 5.9999 | 0.4459 | 0.5912 | 0.0618 | 0.3042 | 0.1044 | 0.5141 |
| 84 | 41.56 | 0.09 | 0.0592 | 5.9999 | 0.0276 | 5.9999 | 0.4099 | 0.5619 | 0.0523 | 0.2884 | 0.0931 | 0.5133 |
| 85 | 41.77 | 0.10 | 0.0558 | 5.9999 | 0.0256 | 5.9999 | 0.4569 | 0.6138 | 0.0604 | 0.3153 | 0.0984 | 0.5137 |
| 86 | 41.94 | 0.10 | 0.0473 | 5.9999 | 0.0224 | 5.9999 | 0.4736 | 0.5833 | 0.0526 | 0.2902 | 0.0927 | 0.5151 |
| 87 | 42.13 | 0.11 | 0.0532 | 5.9999 | 0.0267 | 5.9999 | 0.4546 | 0.5385 | 0.0486 | 0.2771 | 0.0902 | 0.5148 |
| 88 | 42.31 | 0.11 | 0.0746 | 5.9999 | 0.0331 | 5.9999 | 0.4470 | 0.5368 | 0.0492 | 0.2767 | 0.0916 | 0.5154 |
| 89 | 42.50 | 0.12 | 0.0643 | 5.9999 | 0.0310 | 5.9999 | 0.4827 | 0.5192 | 0.0491 | 0.2685 | 0.0945 | 0.5176 |
| 90 | 42.67 | 0.12 | 0.0571 | 5.9999 | 0.0266 | 5.9999 | 0.4652 | 0.5314 | 0.0489 | 0.2746 | 0.0920 | 0.5171 |
| 91 | 42.86 | 0.12 | 0.0724 | 5.9999 | 0.0325 | 5.9999 | 0.4544 | 0.5703 | 0.0526 | 0.2931 | 0.0923 | 0.5135 |
| 92 | 43.05 | 0.11 | 0.0665 | 5.9999 | 0.0297 | 5.9999 | 0.4438 | 0.5398 | 0.0507 | 0.2786 | 0.0940 | 0.5162 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 122 | MACH 0.61 | RX10-6 1.7 | PHI 0.0 | CONF 61 | L 6.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.23 | 0.12 | 0.0072 | 0.9999 | 0.0316 | 0.9999 | 0.4711 | 0.5316 | 0.0487 | 0.2752 | 0.0919 | 0.5177 |
| 94 | 43.40 | 0.12 | 0.0072 | 0.9999 | 0.0315 | 0.9999 | 0.4695 | 0.5276 | 0.0483 | 0.2744 | 0.0916 | 0.5198 |
| 95 | 43.59 | 0.12 | 0.0043 | 0.9999 | 0.0305 | 0.9999 | 0.4811 | 0.5852 | 0.0551 | 0.3019 | 0.0945 | 0.5178 |
| 96 | 43.76 | 0.13 | 0.0074 | 0.9999 | 0.0314 | 0.9999 | 0.4665 | 0.5677 | 0.0579 | 0.3691 | 0.0970 | 0.5266 |
| 97 | 43.94 | 0.12 | 0.0105 | 0.9999 | 0.0325 | 0.9999 | 0.4638 | 0.5388 | 0.0494 | 0.2794 | 0.0917 | 0.5185 |
| 98 | 44.14 | 0.13 | 0.0025 | 0.9999 | 0.0297 | 0.9999 | 0.4717 | 0.5419 | 0.0486 | 0.2792 | 0.0896 | 0.5151 |
| 99 | 44.32 | 0.14 | 0.0091 | 0.9999 | 0.0327 | 0.9999 | 0.4726 | 0.6039 | 0.0590 | 0.3156 | 0.0976 | 0.5226 |
| 100 | 44.50 | 0.13 | 0.0104 | 0.9999 | 0.0330 | 0.9999 | 0.4652 | 0.5393 | 0.0482 | 0.2770 | 0.0895 | 0.5136 |
| 101 | 44.68 | 0.13 | 0.0075 | 0.9999 | 0.0312 | 0.9999 | 0.4627 | 0.6068 | 0.0586 | 0.3154 | 0.0976 | 0.5264 |
| 102 | 44.86 | 0.15 | 0.0121 | 0.9999 | 0.0335 | 0.9999 | 0.4650 | 0.6597 | 0.0705 | 0.3568 | 0.1069 | 0.5453 |
| 103 | 45.05 | 0.13 | 0.0127 | 0.9999 | 0.0305 | 0.9999 | 0.4685 | 0.6464 | 0.0657 | 0.3437 | 0.1017 | 0.5317 |
| 104 | 45.23 | 0.13 | 0.0151 | 0.9999 | 0.0316 | 0.9999 | 0.4600 | 0.6408 | 0.0637 | 0.3462 | 0.0995 | 0.5308 |
| 105 | 45.40 | 0.12 | 0.0144 | 0.9999 | 0.0322 | 0.9999 | 0.4997 | 0.6106 | 0.0610 | 0.3272 | 0.0990 | 0.5307 |
| 106 | 45.58 | 0.13 | 0.0126 | 0.9999 | 0.0327 | 0.9999 | 0.4615 | 0.6735 | 0.0731 | 0.3703 | 0.1085 | 0.5586 |
| 107 | 45.76 | 0.12 | 0.0107 | 0.9999 | 0.0332 | 0.9999 | 0.4695 | 0.6737 | 0.0711 | 0.3717 | 0.1056 | 0.5517 |
| 108 | 45.93 | 0.14 | 0.0175 | 0.9999 | 0.0357 | 0.9999 | 0.4741 | 0.6784 | 0.0725 | 0.3745 | 0.1068 | 0.5526 |
| 109 | 46.10 | 0.13 | 0.0141 | 0.9999 | 0.0304 | 0.9999 | 0.4596 | 0.6765 | 0.0734 | 0.3724 | 0.1085 | 0.5505 |
| 110 | 46.28 | 0.12 | 0.0114 | 0.9999 | 0.0311 | 0.9999 | 0.4549 | 0.6740 | 0.0704 | 0.3687 | 0.1044 | 0.5441 |
| 111 | 46.45 | 0.11 | 0.0095 | 0.9999 | 0.0331 | 0.9999 | 0.4765 | 0.6680 | 0.0710 | 0.3613 | 0.1063 | 0.5409 |
| 112 | 46.61 | 0.11 | 0.0126 | 0.9999 | 0.0285 | 0.9999 | 0.4624 | 0.6517 | 0.0662 | 0.3472 | 0.1016 | 0.5328 |
| 113 | 46.79 | 0.12 | 0.0145 | 0.9999 | 0.0295 | 0.9999 | 0.4505 | 0.6694 | 0.0672 | 0.3576 | 0.1003 | 0.5342 |
| 114 | 46.97 | 0.12 | 0.0127 | 0.9999 | 0.0287 | 0.9999 | 0.4583 | 0.6641 | 0.0647 | 0.3542 | 0.0974 | 0.5333 |
| 115 | 47.14 | 0.10 | 0.0103 | 0.9999 | 0.0277 | 0.9999 | 0.4595 | 0.6663 | 0.0644 | 0.3538 | 0.0966 | 0.5311 |
| 116 | 47.30 | 0.10 | 0.0075 | 0.9999 | 0.0283 | 0.9999 | 0.4503 | 0.6625 | 0.0625 | 0.3505 | 0.0943 | 0.5291 |
| 117 | 47.48 | 0.10 | 0.0088 | 0.9999 | 0.0285 | 0.9999 | 0.4733 | 0.6729 | 0.0618 | 0.3550 | 0.0918 | 0.5275 |
| 118 | 47.66 | 0.07 | 0.0095 | 0.9999 | 0.0228 | 0.9999 | 0.4611 | 0.6692 | 0.0586 | 0.3612 | 0.0854 | 0.5241 |
| 119 | 47.82 | 0.08 | 0.0128 | 0.9999 | 0.0245 | 0.9999 | 0.4714 | 0.6848 | 0.0584 | 0.3567 | 0.0853 | 0.5239 |
| 120 | 47.99 | 0.05 | 0.0064 | 0.9999 | 0.0179 | 0.9999 | 0.4934 | 0.7050 | 0.0560 | 0.3640 | 0.0718 | 0.5163 |
| 121 | 48.14 | 0.02 | 0.0150 | 0.9999 | 0.0088 | 0.9999 | 0.5995 | 0.7524 | 0.0514 | 0.3516 | 0.0683 | 0.5205 |
| 122 | 48.31 | 0.00 | 0.0183 | 0.9999 | 0.0102 | 0.9999 | 0.5556 | 0.7540 | 0.0506 | 0.3531 | 0.0674 | 0.5213 |
| 123 | 48.49 | -0.01 | 0.0177 | 0.9999 | 0.0106 | 0.9999 | 0.5986 | 0.7543 | 0.0503 | 0.3534 | 0.0667 | 0.5213 |
| 124 | 48.65 | -0.01 | 0.0078 | 0.9999 | 0.0055 | 0.9999 | 0.7244 | 0.7564 | 0.0537 | 0.3560 | 0.0709 | 0.5235 |
| 125 | 48.83 | -0.01 | 0.0121 | 0.9999 | 0.0075 | 0.9999 | 0.6537 | 0.7543 | 0.0515 | 0.3546 | 0.0682 | 0.5225 |
| 126 | 49.00 | -0.01 | 0.0141 | 0.9999 | 0.0080 | 0.9999 | 0.6069 | 0.7604 | 0.0514 | 0.3558 | 0.0673 | 0.5205 |
| 127 | 49.21 | 0.02 | -0.0026 | 0.9999 | 0.0020 | 0.9999 | -0.7583 | 0.7584 | 0.0500 | 0.3558 | 0.0659 | 0.5218 |
| 128 | 49.37 | 0.01 | 0.0130 | 0.9999 | 0.0105 | 0.9999 | 0.6082 | 0.7440 | 0.0494 | 0.3676 | 0.0664 | 0.5205 |
| 129 | 49.53 | 0.01 | 0.0165 | 0.9999 | 0.0115 | 0.9999 | 0.7039 | 0.7157 | 0.0499 | 0.3727 | 0.0657 | 0.5221 |
| 130 | 49.73 | 0.02 | 0.0220 | 0.9999 | 0.0130 | 0.9999 | 0.5883 | 0.7394 | 0.0504 | 0.3646 | 0.0682 | 0.5201 |
| 131 | 49.91 | 0.02 | 0.0131 | 0.9999 | 0.0093 | 0.9999 | 0.7127 | 0.7307 | 0.0555 | 0.3650 | 0.0760 | 0.5268 |
| 132 | 50.07 | 0.02 | 0.0147 | 0.9999 | 0.0111 | 0.9999 | 0.7001 | 0.6835 | 0.0525 | 0.3553 | 0.0768 | 0.5198 |
| 133 | 50.24 | 0.01 | 0.0152 | 0.9999 | 0.0122 | 0.9999 | 0.6364 | 0.7001 | 0.0531 | 0.3685 | 0.0759 | 0.5263 |
| 134 | 50.42 | 0.04 | 0.0256 | 0.9999 | 0.0172 | 0.9999 | 0.5771 | 0.7001 | 0.0542 | 0.3664 | 0.0774 | 0.5234 |
| 135 | 50.59 | 0.03 | 0.0250 | 0.9999 | 0.0135 | 0.9999 | 0.5571 | 0.6938 | 0.0548 | 0.3647 | 0.0756 | 0.5257 |
| 136 | 50.74 | 0.03 | 0.0250 | 0.9999 | 0.0143 | 0.9999 | 0.5737 | 0.7022 | 0.0504 | 0.3680 | 0.0718 | 0.5240 |
| 137 | 50.92 | 0.06 | 0.0351 | 0.9999 | 0.0186 | 0.9999 | 0.5264 | 0.7039 | 0.0712 | 0.3806 | 0.1012 | 0.5407 |
| 138 | 51.11 | 0.05 | 0.0300 | 0.9999 | 0.0160 | 0.9999 | 0.5317 | 0.6783 | 0.0624 | 0.3592 | 0.0920 | 0.5296 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RAIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 122 | 0.60 | 1.7 | 0.0 | 81BOF34 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| FLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ALPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.28 | 0.05 | 0.0419 | 9.9999 | 0.0205 | 9.9999 | 0.4976 | 0.6953 | 0.0707 | 0.3724 | 0.1017 | 0.5356 |
| 140 | 51.43 | 0.05 | 0.0388 | 9.9999 | 0.0206 | 9.9999 | 0.5002 | 0.6979 | 0.0692 | 0.3676 | 0.1007 | 0.5348 |
| 141 | 51.61 | 0.05 | 0.0298 | 9.9999 | 0.0166 | 9.9999 | 0.5391 | 0.6978 | 0.0716 | 0.3747 | 0.1027 | 0.5372 |
| 142 | 51.78 | 0.05 | 0.0396 | 9.9999 | 0.0205 | 9.9999 | 0.5240 | 0.6978 | 0.0717 | 0.3743 | 0.1028 | 0.5366 |
| 143 | 51.96 | 0.12 | 0.0445 | 9.9999 | 0.0222 | 9.9999 | 0.4989 | 0.7059 | 0.0742 | 0.3818 | 0.1052 | 0.5408 |
| 144 | 52.12 | 0.12 | 0.0331 | 9.9999 | 0.0184 | 9.9999 | 0.5333 | 0.7164 | 0.0724 | 0.3868 | 0.1010 | 0.5400 |
| 145 | 52.27 | 0.08 | 0.0367 | 9.9999 | 0.0186 | 9.9999 | 0.5039 | 0.7007 | 0.0699 | 0.3735 | 0.0997 | 0.5336 |
| 146 | 52.45 | 0.08 | 0.0242 | 9.9999 | 0.0136 | 9.9999 | 0.5695 | 0.7194 | 0.0723 | 0.3877 | 0.1004 | 0.5389 |
| 147 | 52.62 | 0.09 | 0.0254 | 9.9999 | 0.0145 | 9.9999 | 0.5725 | 0.7159 | 0.0714 | 0.3853 | 0.0998 | 0.5382 |
| 148 | 52.78 | 0.08 | 0.0264 | 9.9999 | 0.0167 | 9.9999 | 0.5676 | 0.7306 | 0.0738 | 0.3966 | 0.1010 | 0.5428 |
| 149 | 52.95 | 0.09 | 0.0323 | 9.9999 | 0.0182 | 9.9999 | 0.5614 | 0.7451 | 0.0765 | 0.4081 | 0.1027 | 0.5477 |
| 150 | 53.14 | 0.09 | 0.0240 | 9.9999 | 0.0163 | 9.9999 | 0.6266 | 0.7345 | 0.0751 | 0.3995 | 0.1022 | 0.5436 |
| 151 | 53.30 | 0.09 | 0.0308 | 9.9999 | 0.0172 | 9.9999 | 0.5595 | 0.7363 | 0.0754 | 0.4016 | 0.1024 | 0.5454 |
| 152 | 53.47 | 0.08 | 0.0362 | 9.9999 | 0.0177 | 9.9999 | 0.5363 | 0.7424 | 0.0750 | 0.4069 | 0.1010 | 0.5480 |
| 153 | 53.62 | 0.09 | 0.0350 | 9.9999 | 0.0204 | 9.9999 | 0.5241 | 0.7415 | 0.0767 | 0.4057 | 0.1035 | 0.5471 |
| 154 | 53.79 | 0.10 | 0.0371 | 9.9999 | 0.0213 | 9.9999 | 0.5729 | 0.7357 | 0.0775 | 0.4058 | 0.1053 | 0.5516 |
| 155 | 53.95 | 0.10 | 0.0351 | 9.9999 | 0.0203 | 9.9999 | 0.5231 | 0.7241 | 0.0775 | 0.4004 | 0.1070 | 0.5530 |
| 156 | 54.13 | 0.09 | 0.0441 | 9.9999 | 0.0241 | 9.9999 | 0.5436 | 0.7101 | 0.0629 | 0.3870 | 0.0878 | 0.5405 |
| 157 | 54.28 | 0.05 | 0.0373 | 9.9999 | 0.0202 | 9.9999 | 0.5419 | 0.7093 | 0.0565 | 0.3813 | 0.0796 | 0.5376 |
| 158 | 54.43 | 0.05 | 0.0380 | 9.9999 | 0.0195 | 9.9999 | 0.5248 | 0.7217 | 0.0566 | 0.3866 | 0.0787 | 0.5385 |
| 159 | 54.60 | 0.09 | 0.0267 | 9.9999 | 0.0158 | 9.9999 | 0.5495 | 0.7393 | 0.0558 | 0.3945 | 0.0755 | 0.5437 |
| 160 | 54.75 | 0.08 | 0.0356 | 9.9999 | 0.0186 | 9.9999 | 0.5249 | 0.7202 | 0.0528 | 0.3853 | 0.0733 | 0.5345 |
| 161 | 54.92 | 0.08 | 0.0325 | 9.9999 | 0.0192 | 9.9999 | 0.5697 | 0.7011 | 0.0455 | 0.3771 | 0.0650 | 0.5375 |
| 162 | 55.08 | 0.09 | 0.0365 | 9.9999 | 0.0210 | 9.9999 | 0.5251 | 0.7035 | 0.0477 | 0.3777 | 0.0678 | 0.5366 |
| 163 | 55.20 | 0.08 | 0.0352 | 9.9999 | 0.0205 | 9.9999 | 0.5319 | 0.7223 | 0.0455 | 0.3868 | 0.0685 | 0.5356 |
| 164 | 55.38 | 0.08 | 0.0351 | 9.9999 | 0.0185 | 9.9999 | 0.5372 | 0.7209 | 0.0487 | 0.3880 | 0.0668 | 0.5323 |
| 165 | 55.56 | 0.10 | 0.0351 | 9.9999 | 0.0185 | 9.9999 | 0.5372 | 0.7267 | 0.0479 | 0.3887 | 0.0660 | 0.5349 |
| 166 | 55.69 | 0.08 | 0.0410 | 9.9999 | 0.0214 | 9.9999 | 0.5217 | 0.7114 | 0.0468 | 0.3812 | 0.0658 | 0.5356 |
| 167 | 55.80 | 0.05 | 0.0322 | 9.9999 | 0.0174 | 9.9999 | 0.5407 | 0.7314 | 0.0470 | 0.3917 | 0.0643 | 0.5358 |
| 168 | 56.05 | 0.05 | 0.0264 | 9.9999 | 0.0145 | 9.9999 | 0.5499 | 0.7443 | 0.0520 | 0.3974 | 0.0698 | 0.5335 |
| 169 | 56.22 | 0.05 | 0.0293 | 9.9999 | 0.0151 | 9.9999 | 0.5166 | 0.7471 | 0.0495 | 0.3988 | 0.0662 | 0.5338 |
| 170 | 56.37 | 0.08 | 0.0414 | 9.9999 | 0.0221 | 9.9999 | 0.5246 | 0.7401 | 0.0520 | 0.3955 | 0.0702 | 0.5345 |
| 171 | 56.52 | 0.05 | 0.0317 | 9.9999 | 0.0161 | 9.9999 | 0.5070 | 0.7406 | 0.0479 | 0.3987 | 0.0640 | 0.5325 |
| 172 | 56.67 | 0.07 | 0.0304 | 9.9999 | 0.0167 | 9.9999 | 0.5501 | 0.7340 | 0.0460 | 0.3934 | 0.0626 | 0.5355 |
| 173 | 56.83 | 0.05 | 0.0288 | 9.9999 | 0.0162 | 9.9999 | 0.5660 | 0.7548 | 0.0562 | 0.4018 | 0.0745 | 0.5323 |
| 174 | 56.97 | 0.06 | 0.0335 | 9.9999 | 0.0181 | 9.9999 | 0.5325 | 0.7375 | 0.0470 | 0.3949 | 0.0637 | 0.5355 |
| 175 | 57.12 | 0.06 | 0.0305 | 9.9999 | 0.0162 | 9.9999 | 0.5312 | 0.7441 | 0.0438 | 0.3981 | 0.0588 | 0.5350 |
| 176 | 57.26 | 0.05 | 0.0363 | 9.9999 | 0.0189 | 9.9999 | 0.5060 | 0.7051 | 0.0456 | 0.4080 | 0.0597 | 0.5332 |
| 177 | 57.41 | 0.07 | 0.0318 | 9.9999 | 0.0168 | 9.9999 | 0.5251 | 0.7641 | 0.0450 | 0.4069 | 0.0589 | 0.5325 |
| 178 | 57.55 | 0.06 | 0.0350 | 9.9999 | 0.0187 | 9.9999 | 0.5329 | 0.7367 | 0.0424 | 0.3968 | 0.0574 | 0.5371 |
| 179 | 57.71 | 0.06 | 0.0355 | 9.9999 | 0.0205 | 9.9999 | 0.5199 | 0.7560 | 0.0439 | 0.4053 | 0.0539 | 0.5347 |
| 180 | 57.87 | 0.06 | 0.0281 | 9.9999 | 0.0168 | 9.9999 | 0.5284 | 0.7594 | 0.0420 | 0.4062 | 0.0553 | 0.5345 |
| 181 | 57.99 | 0.06 | 0.0283 | 9.9999 | 0.0137 | 9.9999 | 0.5206 | 0.7667 | 0.0419 | 0.4100 | 0.0547 | 0.5347 |
| 182 | 57.99 | 0.04 | 0.0218 | 9.9999 | 0.0118 | 9.9999 | 0.5408 | 0.7708 | 0.0417 | 0.4108 | 0.0541 | 0.5330 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

TEST 1 PART 123 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF B1B0F34 C.G. 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.23 | -0.03 | -2.6385 | 12.7962 | 0.0521 | -0.3208 | 0.0158 | 2.0333 | 0.3126 | 1.7207 | -4.8498 |
| 2 | 5.23 | -0.01 | -2.6541 | 12.7716 | 0.1084 | -0.4852 | 0.0330 | 2.0298 | 0.3093 | 1.7205 | -4.8143 |
| 3 | 5.23 | -0.01 | -2.6773 | 12.8585 | 0.0752 | -0.3868 | -0.0335 | 2.0360 | 0.3130 | 1.7250 | -4.8028 |
| 4 | 5.50 | -0.02 | -2.6466 | 12.7856 | -0.0196 | -0.3553 | -0.0100 | 2.0260 | 0.3063 | 1.7198 | -4.8414 |
| 5 | 5.66 | -0.01 | -2.5816 | 12.6277 | -0.0281 | -0.2903 | 0.0028 | 2.0055 | 0.3030 | 1.7026 | -4.8925 |
| 6 | 5.66 | -0.01 | -2.6156 | 12.7666 | 0.1467 | -0.4144 | 0.0032 | 2.0168 | 0.3060 | 1.7109 | -4.8805 |
| 7 | 6.09 | -0.01 | -2.5810 | 12.6766 | 0.0483 | -0.3836 | -0.0227 | 1.9994 | 0.3043 | 1.6952 | -4.9122 |
| 8 | 6.27 | -0.01 | -2.5765 | 12.7373 | 0.1215 | -0.3732 | -0.0397 | 1.9997 | 0.2997 | 1.7001 | -4.9428 |
| 9 | 6.48 | -0.02 | -2.5423 | 12.6466 | -0.0245 | -0.1010 | -0.0101 | 1.9695 | 0.2989 | 1.6907 | -4.9758 |
| 10 | 6.68 | -0.00 | -2.4821 | 12.5681 | 0.1164 | -0.3915 | -0.0159 | 1.9736 | 0.3014 | 1.6743 | -5.0393 |
| 11 | 6.89 | -0.00 | -2.4755 | 12.5340 | 0.1512 | -0.4201 | -0.0353 | 1.9737 | 0.2981 | 1.6757 | -5.0632 |
| 12 | 7.09 | -0.00 | -2.4704 | 12.5017 | 0.1171 | -0.3812 | -0.0075 | 1.9637 | 0.2946 | 1.6692 | -5.0606 |
| 13 | 7.27 | -0.01 | -2.4341 | 12.4111 | -0.0034 | -0.3357 | -0.0096 | 1.9476 | 0.2986 | 1.6491 | -5.0969 |
| 14 | 7.48 | -0.01 | -2.4077 | 12.4071 | 0.0001 | -0.3444 | -0.0223 | 1.9474 | 0.2990 | 1.6485 | -5.1530 |
| 15 | 7.65 | -0.01 | -2.3741 | 12.2672 | 0.0945 | -0.4564 | -0.0221 | 1.9306 | 0.2969 | 1.6337 | -5.1755 |
| 16 | 7.84 | -0.02 | -2.3765 | 12.3681 | 0.0214 | -0.3814 | -0.0352 | 1.9368 | 0.3011 | 1.6377 | -5.1618 |
| 17 | 8.03 | -0.01 | -2.3450 | 12.2216 | 0.0301 | -0.2546 | -0.0353 | 1.9174 | 0.2970 | 1.6204 | -5.2117 |
| 18 | 8.20 | -0.00 | -2.2941 | 12.1563 | 0.1437 | -0.4051 | -0.0349 | 1.9094 | 0.2978 | 1.6116 | -5.2964 |
| 19 | 8.38 | -0.01 | -2.2651 | 12.1163 | 0.0504 | -0.3632 | -0.0479 | 1.9032 | 0.2962 | 1.6070 | -5.3397 |
| 20 | 8.59 | -0.01 | -2.2645 | 12.1269 | -0.0186 | -0.1033 | -0.0352 | 1.8944 | 0.2945 | 1.5999 | -5.3562 |
| 21 | 8.73 | -0.01 | -2.2059 | 11.9751 | 0.0377 | -0.3506 | -0.0606 | 1.8781 | 0.2925 | 1.5856 | -5.4286 |
| 22 | 8.91 | -0.02 | -2.1866 | 11.9146 | -0.0504 | -0.1903 | -0.0344 | 1.8638 | 0.2916 | 1.5722 | -5.4956 |
| 23 | 9.09 | -0.02 | -2.1535 | 11.9825 | 0.0531 | -0.2666 | -0.0349 | 1.8705 | 0.2886 | 1.5818 | -5.5631 |
| 24 | 9.28 | -0.01 | -2.1330 | 11.8078 | 0.0554 | -0.4520 | -0.0262 | 1.8469 | 0.2861 | 1.5627 | -5.5733 |
| 25 | 9.43 | -0.01 | -2.1062 | 11.8536 | 0.0374 | -0.3516 | -0.0347 | 1.8448 | 0.2824 | 1.5623 | -5.6226 |
| 26 | 9.61 | -0.01 | -2.0884 | 11.7447 | 0.0492 | -0.3624 | -0.0346 | 1.8302 | 0.2824 | 1.5478 | -5.6238 |
| 27 | 9.81 | -0.01 | -2.0553 | 11.7225 | 0.1018 | -0.3595 | -0.0474 | 1.8204 | 0.2778 | 1.5426 | -5.6932 |
| 28 | 9.98 | -0.01 | -2.0134 | 11.6554 | -0.0454 | -0.1007 | -0.0342 | 1.8060 | 0.2766 | 1.5314 | -5.7908 |
| 29 | 10.16 | -0.01 | -1.9906 | 11.5750 | 0.0357 | -0.3835 | -0.0539 | 1.7948 | 0.2733 | 1.5215 | -5.8162 |
| 30 | 10.34 | -0.02 | -1.9567 | 11.6951 | -0.0482 | -0.1805 | -0.0478 | 1.8052 | 0.2720 | 1.5332 | -5.8975 |
| 31 | 10.51 | -0.01 | -2.0072 | 11.7862 | -0.0085 | -0.2290 | -0.0475 | 1.8074 | 0.2717 | 1.5357 | -5.8688 |
| 32 | 10.67 | -0.01 | -1.9864 | 11.6053 | 0.0352 | -0.2147 | -0.0345 | 1.8102 | 0.2691 | 1.5471 | -5.9570 |
| 33 | 10.86 | -0.02 | -1.9603 | 11.6721 | -0.0174 | -0.1531 | -0.0603 | 1.8130 | 0.2696 | 1.5434 | -5.9950 |
| 34 | 11.04 | -0.03 | -1.9666 | 11.6778 | -0.0567 | -0.2220 | -0.0731 | 1.8065 | 0.2692 | 1.5373 | -6.0397 |
| 35 | 11.21 | -0.03 | -1.9752 | 11.5365 | -0.0465 | -0.2005 | -0.0991 | 1.8086 | 0.2663 | 1.5423 | -6.0309 |
| 36 | 11.36 | -0.01 | -2.0127 | 12.2063 | 0.0672 | -0.2750 | -0.0016 | 1.8188 | 0.2608 | 1.5578 | -6.0055 |
| 37 | 11.54 | -0.02 | -1.9844 | 12.0755 | -0.0535 | -0.2670 | -0.0175 | 1.8026 | 0.2599 | 1.5431 | -6.1473 |
| 38 | 11.71 | -0.02 | -1.9761 | 12.1662 | -0.0259 | -0.2700 | -0.0278 | 1.8062 | 0.2575 | 1.5487 | -6.1566 |
| 39 | 11.89 | -0.02 | -1.9265 | 12.0645 | 0.0011 | -0.3312 | -0.0380 | 1.7916 | 0.2537 | 1.5379 | -6.2811 |
| 40 | 12.05 | -0.02 | -1.8887 | 12.0157 | 0.0565 | -0.3418 | -0.0143 | 1.7941 | 0.2508 | 1.5333 | -6.3041 |
| 41 | 12.22 | -0.03 | -1.8538 | 11.9308 | -0.0485 | -0.2035 | -0.0210 | 1.7883 | 0.2491 | 1.5192 | -6.4360 |
| 42 | 12.39 | -0.03 | -1.8173 | 11.8551 | -0.0256 | -0.2734 | -0.0206 | 1.7804 | 0.2474 | 1.5130 | -6.5236 |
| 43 | 12.57 | -0.03 | -1.7857 | 11.7408 | -0.0032 | -0.2128 | -0.0209 | 1.7378 | 0.2449 | 1.4929 | -6.6343 |
| 44 | 12.73 | -0.02 | -1.7648 | 11.8964 | 0.0148 | -0.2652 | -0.0207 | 1.7235 | 0.2433 | 1.4802 | -6.7241 |
| 45 | 12.89 | -0.02 | -1.7590 | 11.6915 | 0.0152 | -0.2753 | -0.0207 | 1.7126 | 0.2415 | 1.4711 | -6.7984 |
| 46 | 13.08 | -0.02 | -1.6181 | 11.5743 | 0.0111 | -0.3170 | -0.0141 | 1.6959 | 0.2407 | 1.4552 | -7.0293 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART PACH RATIO PHI CONF T DEL1 DEL2 DEL3 DEL4 TRANSITION
1 123 0.90 1.7 0.0 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 13.28 | -0.01 | -1.5749 | 11.2001 | 0.0275 | -0.2990 | -0.0142 | 1.0697 | 0.2391 | 1.4305 | -7.1115 |
| 48 | 13.41 | -0.02 | -1.5491 | 11.1844 | -0.0564 | -0.3216 | -0.0142 | 1.0723 | 0.2374 | 1.4348 | -7.2070 |
| 49 | 13.58 | -0.01 | -1.4920 | 10.9946 | 0.0426 | -0.2796 | -0.0076 | 1.0648 | 0.2345 | 1.4102 | -7.3693 |
| 50 | 13.70 | -0.02 | -1.4443 | 10.8755 | 0.0304 | -0.3433 | -0.0140 | 1.0382 | 0.2344 | 1.4038 | -7.5327 |
| 51 | 13.91 | -0.02 | -1.4217 | 10.7953 | -0.0137 | -0.2949 | -0.0112 | 1.0196 | 0.2319 | 1.3877 | -7.5958 |
| 52 | 14.10 | -0.04 | -1.3903 | 10.8160 | 0.0514 | -0.3715 | -0.0120 | 1.0915 | 0.2298 | 1.3617 | -7.6034 |
| 53 | 14.25 | -0.03 | -1.3819 | 10.8758 | -0.0231 | -0.2691 | -0.0076 | 1.0928 | 0.2289 | 1.3659 | -7.6387 |
| 54 | 14.41 | -0.03 | -1.3248 | 10.6326 | -0.0199 | -0.3372 | -0.0333 | 1.0607 | 0.2281 | 1.3606 | -8.0259 |
| 55 | 14.59 | -0.02 | -1.2701 | 10.5758 | 0.0151 | -0.2843 | -0.0137 | 1.0716 | 0.2219 | 1.3497 | -8.3268 |
| 56 | 14.70 | -0.02 | -1.2462 | 10.5269 | 0.0194 | -0.2843 | -0.0137 | 1.0623 | 0.2207 | 1.3416 | -8.4457 |
| 57 | 14.93 | -0.03 | -1.2468 | 10.4971 | -0.0397 | -0.2583 | -0.0074 | 1.0514 | 0.2182 | 1.3332 | -8.4054 |
| 58 | 15.11 | -0.03 | -1.1957 | 10.4287 | 0.0473 | -0.2135 | -0.0137 | 1.0303 | 0.2152 | 1.3151 | -8.6926 |
| 59 | 15.28 | -0.03 | -1.1664 | 10.4162 | 0.0014 | -0.2631 | -0.0072 | 1.0260 | 0.2137 | 1.3123 | -8.7813 |
| 60 | 15.44 | -0.03 | -1.1226 | 10.3214 | -0.0266 | -0.2760 | 0.0058 | 1.0009 | 0.2132 | 1.2957 | -9.1941 |
| 61 | 15.61 | -0.05 | -1.1057 | 10.2586 | -0.0082 | -0.1650 | 0.0058 | 1.0995 | 0.2126 | 1.2867 | -9.3157 |
| 62 | 15.79 | -0.04 | -1.0651 | 10.1663 | -0.0373 | -0.1408 | 0.0187 | 1.0830 | 0.2123 | 1.2713 | -9.7092 |
| 63 | 15.95 | -0.03 | -1.0436 | 10.1526 | -0.0529 | -0.0882 | -0.0307 | 1.0851 | 0.2123 | 1.2728 | -9.7283 |
| 64 | 16.12 | -0.03 | -1.0062 | 10.0762 | -0.0501 | -0.2275 | 0.0060 | 1.0709 | 0.2116 | 1.2591 | -10.0139 |
| 65 | 16.28 | -0.04 | -0.9758 | 9.9974 | -0.1260 | -0.1103 | -0.0072 | 1.0435 | 0.2118 | 1.2317 | -10.5785 |
| 66 | 16.44 | -0.03 | -0.9191 | 9.9174 | -0.0459 | -0.1654 | 0.0060 | 1.0393 | 0.2106 | 1.2287 | -10.7403 |
| 67 | 16.61 | -0.03 | -0.8852 | 9.8823 | -0.0194 | -0.1655 | 0.0060 | 1.0151 | 0.2106 | 1.2045 | -11.2978 |
| 68 | 16.78 | -0.03 | -0.8535 | 9.8562 | 0.0003 | -0.2130 | 0.0126 | 1.0894 | 0.2106 | 1.1788 | -12.0116 |
| 69 | 16.94 | -0.04 | -0.7812 | 9.8005 | -0.0831 | -0.1070 | 0.0253 | 1.0804 | 0.2102 | 1.1702 | -12.3502 |
| 70 | 17.12 | -0.03 | -0.7603 | 9.8926 | -0.0836 | -0.2498 | 0.0064 | 1.0865 | 0.2085 | 1.1940 | -13.2693 |
| 71 | 17.28 | -0.03 | -0.7290 | 9.8112 | -0.0404 | -0.0905 | 0.0191 | 1.0353 | 0.2106 | 1.1247 | -14.4846 |
| 72 | 17.45 | -0.04 | -0.6783 | 9.7941 | -0.1271 | 0.0000 | 0.0378 | 1.0112 | 0.2098 | 1.1014 | -15.5432 |
| 73 | 17.62 | -0.03 | -0.6456 | 9.8725 | -0.0665 | -0.0784 | 0.0514 | 1.0801 | 0.2089 | 1.0712 | -17.7079 |
| 74 | 17.78 | -0.04 | -0.6412 | 9.8728 | -0.1192 | -0.0178 | 0.0513 | 1.0829 | 0.2089 | 1.0539 | -19.4288 |
| 75 | 17.94 | -0.03 | -0.5777 | 9.8885 | -0.0552 | -0.1121 | 0.0449 | 1.0336 | 0.2102 | 1.0234 | -21.9449 |
| 76 | 18.11 | -0.04 | -0.5460 | 9.8878 | -0.0501 | -0.0852 | 0.0513 | 1.0104 | 0.2105 | 1.0059 | -23.8076 |
| 77 | 18.27 | -0.04 | -0.5257 | 9.9721 | -0.0838 | -0.1082 | 0.0514 | 1.1957 | 0.2114 | 0.9843 | -28.5112 |
| 78 | 18.45 | -0.04 | -0.4760 | 9.9955 | -0.1075 | -0.0749 | 0.0515 | 1.1881 | 0.2118 | 0.9563 | -43.4258 |
| 79 | 18.61 | -0.03 | -0.4466 | 9.8205 | -0.0852 | -0.0990 | 0.0580 | 1.1507 | 0.2126 | 0.9361 | -51.5925 |
| 80 | 18.78 | -0.04 | -0.4179 | 9.8036 | -0.1083 | -0.0871 | 0.0839 | 1.1330 | 0.2126 | 0.9204 | -77.0721 |
| 81 | 18.95 | -0.03 | 0.0052 | 9.8693 | -0.0960 | -0.0823 | 0.0645 | 1.0992 | 0.2135 | 0.8857 | 1361.8258 |
| 82 | 19.11 | -0.04 | 0.1020 | 9.9403 | -0.1156 | -0.0541 | 0.0639 | 1.0717 | 0.2148 | 0.8568 | 66.0740 |
| 83 | 19.25 | -0.03 | 0.1550 | 9.8881 | -0.0578 | -0.1507 | 0.0517 | 1.0496 | 0.2151 | 0.8345 | 42.6569 |
| 84 | 19.40 | -0.03 | 0.2071 | 9.8963 | -0.0675 | -0.1299 | 0.1037 | 1.0339 | 0.2164 | 0.8175 | 32.0527 |
| 85 | 19.57 | -0.04 | 0.2461 | 9.9436 | -0.1191 | -0.0414 | 0.0191 | 1.0185 | 0.2189 | 0.7996 | 26.3602 |
| 86 | 19.73 | -0.04 | 0.2957 | 9.9960 | -0.1234 | -0.0470 | 0.1164 | 0.9812 | 0.2189 | 0.7643 | 17.2261 |
| 87 | 19.89 | -0.03 | 0.3435 | 9.8695 | -0.0560 | -0.0933 | 0.0705 | 0.9639 | 0.2169 | 0.7470 | 15.0390 |
| 88 | 20.04 | -0.04 | 0.3961 | 9.8883 | -0.1542 | -0.0604 | 0.1424 | 0.9301 | 0.2165 | 0.7136 | 11.5752 |
| 89 | 20.19 | -0.04 | 0.4363 | 9.9717 | -0.1711 | -0.0074 | 0.1034 | 0.9132 | 0.2186 | 0.6946 | 9.6014 |
| 90 | 20.35 | -0.04 | 0.4834 | 9.9954 | -0.1411 | -0.1262 | 0.0713 | 0.8812 | 0.2194 | 0.6617 | 8.1384 |
| 91 | 20.49 | -0.04 | 0.5273 | 9.9375 | -0.0467 | -0.0116 | 0.1164 | 0.8623 | 0.2191 | 0.6432 | 7.6489 |
| 92 | 20.66 | -0.05 | 0.5753 | 9.9857 | -0.0855 | -0.0036 | 0.0708 | 0.8405 | 0.2198 | 0.6207 | 6.8846 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 MACH 0.90 REYN-E 1.7 PHI 0.0 CONF 34 L C.G 0.0 DELT 0 DELZ -30 DELS 0 DELS -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 20.80 | -0.05 | 0.7ECS | 4.9018 | -0.0525 | -0.0802 | 0.0776 | 0.8281 | 0.2207 | 0.6074 | 6.2769 |
| 94 | 20.90 | -0.05 | 0.8491 | 4.8150 | -0.0664 | 0.0023 | 0.1425 | 0.8056 | 0.2207 | 0.5851 | 5.8771 |
| 95 | 21.13 | -0.05 | 0.9169 | 4.8223 | -0.1221 | -0.0877 | 0.1102 | 0.7934 | 0.2211 | 0.5723 | 5.0414 |
| 96 | 21.28 | -0.05 | 0.9870 | 4.8355 | -0.0545 | -0.1160 | 0.0844 | 0.7732 | 0.2223 | 0.5509 | 4.5186 |
| 97 | 21.44 | -0.05 | 1.0712 | 4.2365 | -0.0656 | -0.0399 | 0.1168 | 0.7376 | 0.2236 | 0.5140 | 3.9550 |
| 98 | 21.60 | -0.05 | 1.1245 | 4.0563 | -0.1156 | 0.0039 | 0.2009 | 0.7246 | 0.2234 | 0.4986 | 3.6511 |
| 99 | 21.75 | -0.06 | 1.1655 | 3.9142 | -0.0856 | -0.0394 | 0.0974 | 0.7034 | 0.2249 | 0.4784 | 3.3006 |
| 100 | 21.91 | -0.05 | 1.2165 | 3.8458 | -0.0626 | -0.0444 | 0.1426 | 0.6876 | 0.2249 | 0.4626 | 3.1739 |
| 101 | 22.06 | -0.05 | 1.2936 | 3.8282 | -0.0523 | -0.0855 | 0.1039 | 0.6664 | 0.2250 | 0.4414 | 2.7833 |
| 102 | 22.22 | -0.06 | 1.3637 | 3.8457 | -0.1054 | -0.0536 | 0.2266 | 0.6491 | 0.2275 | 0.4216 | 2.4931 |
| 103 | 22.37 | -0.05 | 1.4219 | 3.8332 | -0.0987 | 0.0246 | 0.1166 | 0.6357 | 0.2279 | 0.4078 | 2.3441 |
| 104 | 22.52 | -0.05 | 1.4942 | 3.8077 | -0.1018 | -0.0060 | 0.1169 | 0.6057 | 0.2266 | 0.3791 | 2.1200 |
| 105 | 22.67 | -0.06 | 1.5572 | 3.8055 | -0.2068 | 0.0675 | 0.1814 | 0.5920 | 0.2300 | 0.3620 | 1.9303 |
| 106 | 22.81 | -0.05 | 1.6017 | 3.8058 | -0.1287 | -0.0162 | 0.1429 | 0.5838 | 0.2296 | 0.3540 | 1.8078 |
| 107 | 22.95 | -0.06 | 1.6613 | 3.7812 | -0.1765 | 0.0831 | 0.2006 | 0.5577 | 0.2297 | 0.3280 | 1.6440 |
| 108 | 23.10 | -0.05 | 1.7526 | 3.8419 | -0.1303 | 0.0710 | 0.0975 | 0.5512 | 0.2301 | 0.3011 | 1.4508 |
| 109 | 23.24 | -0.04 | 1.7979 | 3.8457 | -0.0078 | -0.0248 | 0.0719 | 0.5194 | 0.2318 | 0.2675 | 1.3603 |
| 110 | 23.40 | -0.05 | 1.8814 | 3.8746 | -0.0726 | 0.0542 | 0.0912 | 0.5035 | 0.2314 | 0.2720 | 1.2762 |
| 111 | 23.54 | -0.06 | 1.9253 | 3.8419 | -0.0541 | -0.0327 | 0.0784 | 0.4952 | 0.2314 | 0.2637 | 1.2420 |
| 112 | 23.56 | -0.06 | 1.9356 | 3.8744 | -0.0412 | -0.0606 | 0.0333 | 0.4845 | 0.2303 | 0.2541 | 1.1973 |
| 113 | 23.56 | -0.06 | 1.9297 | 3.8562 | -0.0573 | 0.0072 | 0.1425 | 0.4806 | 0.2319 | 0.2487 | 1.1391 |
| 114 | 23.59 | -0.05 | 1.9502 | 3.8563 | -0.0452 | -0.0540 | 0.0719 | 0.4703 | 0.2303 | 0.2400 | 1.1262 |
| 115 | 23.59 | -0.05 | 1.9447 | 3.8722 | -0.0265 | -0.1567 | 0.0142 | 0.4737 | 0.2299 | 0.2438 | 1.1172 |
| 116 | 23.58 | -0.07 | 1.9466 | 3.8047 | -0.1878 | 0.0957 | 0.1047 | 0.4703 | 0.2296 | 0.2467 | 1.1443 |
| 117 | 23.58 | -0.06 | 1.9580 | 3.8754 | -0.1000 | -0.0232 | 0.2319 | 0.4856 | 0.2312 | 0.2543 | 1.1110 |
| 118 | 23.58 | -0.07 | 1.9467 | 3.8305 | -0.1435 | 0.1562 | 0.1355 | 0.4846 | 0.2296 | 0.2549 | 1.1610 |
| 119 | 23.58 | -0.06 | 1.9455 | 3.8600 | -0.0120 | -0.1099 | 0.0526 | 0.4783 | 0.2300 | 0.2483 | 1.1205 |
| 120 | 23.58 | -0.05 | 1.9477 | 3.8254 | 0.0000 | -0.1963 | 0.0400 | 0.4812 | 0.2296 | 0.2516 | 1.1426 |
| 121 | 23.58 | -0.06 | 1.9774 | 3.8028 | -0.0838 | 0.0217 | 0.1230 | 0.4783 | 0.2313 | 0.2450 | 1.0957 |
| 122 | 23.58 | -0.06 | 1.9515 | 3.8113 | -0.0356 | -0.0467 | 0.1421 | 0.4766 | 0.2306 | 0.2482 | 1.1331 |
| 123 | 23.58 | -0.05 | 1.9328 | 3.8456 | 0.0304 | -0.1278 | 0.0590 | 0.4823 | 0.2310 | 0.2512 | 1.1614 |
| 124 | 23.58 | -0.06 | 1.9802 | 3.8251 | -0.0054 | -0.1123 | 0.0527 | 0.4808 | 0.2309 | 0.2499 | 1.1351 |
| 125 | 23.57 | -0.06 | 1.9848 | 3.8178 | -0.0305 | 0.0117 | 0.1357 | 0.4823 | 0.2297 | 0.2525 | 1.1284 |
| 126 | 23.58 | -0.07 | 1.9451 | 3.8038 | -0.0511 | -0.0852 | 0.0333 | 0.4754 | 0.2285 | 0.2469 | 1.1638 |
| 127 | 23.57 | -0.06 | 1.9108 | 3.8854 | -0.0565 | 0.0332 | 0.1290 | 0.4833 | 0.2294 | 0.2538 | 1.1962 |
| 128 | 23.58 | -0.06 | 1.9364 | 3.8063 | -0.0644 | -0.0842 | 0.1037 | 0.4899 | 0.2306 | 0.2592 | 1.1704 |
| 129 | 23.57 | -0.06 | 1.9359 | 3.8067 | -0.0165 | -0.0183 | 0.1100 | 0.4850 | 0.2289 | 0.2560 | 1.1709 |
| 130 | 23.57 | -0.05 | 1.9503 | 3.8017 | -0.0314 | -0.0515 | 0.1548 | 0.4848 | 0.2302 | 0.2545 | 1.1342 |
| 131 | 23.57 | -0.06 | 1.9838 | 3.8152 | -0.0570 | -0.0256 | 0.0973 | 0.4720 | 0.2306 | 0.2414 | 1.0852 |
| 132 | 23.58 | -0.06 | 1.9853 | 3.8154 | -0.0252 | 0.0594 | 0.1548 | 0.4717 | 0.2293 | 0.2424 | 1.0696 |
| 133 | 23.57 | -0.06 | 1.9302 | 3.8113 | -0.0145 | -0.1981 | 0.0853 | 0.4851 | 0.2290 | 0.2560 | 1.1456 |
| 134 | 23.57 | -0.06 | 1.9475 | 3.8146 | -0.0147 | 0.0716 | 0.1928 | 0.4797 | 0.2306 | 0.2491 | 1.1012 |
| 135 | 23.58 | -0.06 | 1.9257 | 3.8083 | -0.0102 | -0.1342 | 0.0396 | 0.4884 | 0.2306 | 0.2577 | 1.1292 |
| 136 | 23.57 | -0.07 | 1.9367 | 3.8055 | -0.1000 | -0.0629 | 0.1037 | 0.4901 | 0.2294 | 0.2606 | 1.1840 |
| 137 | 23.57 | -0.06 | 1.9840 | 3.8438 | -0.0556 | -0.0055 | 0.1292 | 0.4800 | 0.2285 | 0.2515 | 1.1423 |
| 138 | 23.57 | -0.07 | 1.9345 | 3.8063 | -0.0421 | -0.0066 | 0.1104 | 0.4834 | 0.2294 | 0.2539 | 1.1561 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RAIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 123 0.950 1.97 0.0 0.1800F34 0.0 0 -30 0 -30 UNKNOWN

| FLINT | ALPHA | BETA | CN | CLP | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 23.57 | -0.07 | 1.9530 | 2.2052 | -0.1215 | 0.0231 | 0.1290 | 0.4831 | 0.2302 | 0.2599 | 1.1404 |
| 140 | 23.57 | -0.06 | 1.9382 | 2.2337 | -0.0805 | 0.0200 | 0.1410 | 0.4817 | 0.2294 | 0.2522 | 1.1536 |
| 141 | 23.57 | -0.06 | 1.9560 | 2.1504 | -0.0194 | -0.0712 | 0.0780 | 0.4751 | 0.2289 | 0.2462 | 1.0927 |
| 142 | 23.57 | -0.06 | 1.9537 | 2.1461 | -0.0315 | -0.0480 | 0.0779 | 0.4752 | 0.2293 | 0.2459 | 1.0985 |
| 143 | 23.57 | -0.07 | 1.9514 | 2.1705 | -0.1068 | 0.0391 | 0.2164 | 0.4846 | 0.2306 | 0.2539 | 1.1125 |
| 144 | 23.57 | -0.05 | 1.9587 | 2.1800 | 0.0027 | -0.0502 | 0.1165 | 0.4799 | 0.2293 | 0.2506 | 1.1163 |
| 145 | 23.57 | -0.06 | 1.9410 | 2.2521 | -0.0195 | -0.0743 | 0.1611 | 0.4912 | 0.2293 | 0.2618 | 1.1785 |
| 146 | 23.56 | -0.06 | 1.9614 | 2.1962 | -0.0556 | -0.0058 | 0.1356 | 0.4820 | 0.2290 | 0.2525 | 1.1210 |
| 147 | 23.57 | -0.06 | 1.9555 | 2.2072 | -0.0654 | -0.1256 | 0.0974 | 0.4818 | 0.2294 | 0.2523 | 1.1712 |
| 148 | 23.57 | -0.06 | 1.9722 | 2.1725 | -0.0643 | -0.0532 | 0.1165 | 0.4750 | 0.2285 | 0.2465 | 1.1033 |
| 149 | 23.57 | -0.06 | 1.9354 | 2.2773 | -0.0072 | -0.0901 | 0.1421 | 0.4848 | 0.2293 | 0.2554 | 1.1742 |
| 150 | 23.56 | -0.06 | 1.9548 | 2.1771 | 0.0047 | -0.1471 | 0.0590 | 0.4735 | 0.2286 | 0.2449 | 1.1137 |
| 151 | 23.57 | -0.06 | 1.9153 | 2.2825 | -0.0301 | -0.0200 | 0.0524 | 0.4821 | 0.2293 | 0.2527 | 1.1896 |
| 152 | 23.57 | -0.06 | 1.9240 | 2.2156 | -0.0519 | 0.0021 | 0.1290 | 0.4835 | 0.2282 | 0.2552 | 1.1824 |
| 153 | 23.57 | -0.05 | 1.9019 | 2.2671 | 0.0544 | -0.1582 | 0.0207 | 0.4819 | 0.2281 | 0.2557 | 1.1920 |
| 154 | 23.57 | -0.06 | 1.9527 | 2.1965 | -0.0403 | -0.0701 | 0.1291 | 0.4751 | 0.2277 | 0.2474 | 1.1334 |
| 155 | 23.57 | -0.06 | 1.9425 | 2.2050 | 0.0042 | -0.1297 | 0.1551 | 0.4823 | 0.2281 | 0.2541 | 1.1660 |
| 156 | 23.57 | -0.07 | 1.9722 | 2.1357 | -0.1336 | 0.0344 | 0.1100 | 0.4727 | 0.2297 | 0.2430 | 1.0826 |
| 157 | 23.57 | -0.06 | 1.9500 | 2.2264 | -0.0173 | -0.0378 | 0.0269 | 0.4811 | 0.2293 | 0.2518 | 1.1504 |
| 158 | 23.57 | -0.06 | 1.9455 | 2.2424 | -0.0450 | -0.1208 | 0.0340 | 0.4762 | 0.2281 | 0.2481 | 1.1421 |
| 159 | 23.57 | -0.06 | 1.9578 | 2.2074 | -0.1015 | -0.0062 | 0.1420 | 0.4858 | 0.2281 | 0.2576 | 1.1391 |
| 160 | 23.57 | -0.06 | 1.9564 | 2.1864 | -0.0872 | 0.0390 | 0.0907 | 0.4845 | 0.2293 | 0.2549 | 1.1243 |
| 161 | 23.57 | -0.05 | 1.9211 | 2.2557 | 0.0003 | -0.0955 | 0.0781 | 0.4792 | 0.2281 | 0.2511 | 1.1659 |
| 162 | 23.57 | -0.06 | 1.9718 | 2.1872 | -0.1163 | 0.0401 | 0.1035 | 0.4661 | 0.2294 | 0.2387 | 1.0840 |
| 163 | 23.57 | -0.06 | 1.9445 | 2.1914 | -0.0542 | 0.0332 | 0.0587 | 0.4746 | 0.2281 | 0.2465 | 1.1271 |
| 164 | 23.56 | -0.06 | 1.9525 | 2.2106 | -0.0534 | 0.0415 | 0.1404 | 0.4762 | 0.2294 | 0.2468 | 1.1419 |
| 165 | 23.57 | -0.06 | 1.9553 | 2.2377 | -0.0838 | -0.0014 | 0.1357 | 0.4810 | 0.2294 | 0.2516 | 1.1539 |
| 166 | 23.56 | -0.05 | 1.9456 | 2.2017 | -0.0422 | -0.1362 | 0.0910 | 0.4794 | 0.2272 | 0.2522 | 1.1849 |
| 167 | 23.57 | -0.05 | 1.9570 | 2.1988 | 0.0582 | -0.1432 | 0.0335 | 0.4697 | 0.2294 | 0.2403 | 1.1235 |
| 168 | 23.57 | -0.06 | 1.9453 | 2.2596 | -0.1053 | 0.0872 | 0.0267 | 0.4765 | 0.2289 | 0.2476 | 1.1513 |
| 169 | 23.57 | -0.05 | 1.9555 | 2.1788 | -0.0322 | -0.0590 | 0.0716 | 0.4723 | 0.2291 | 0.2432 | 1.1128 |
| 170 | 23.57 | -0.05 | 1.9545 | 2.1825 | -0.0773 | 0.0012 | 0.0714 | 0.4723 | 0.2278 | 0.2445 | 1.1064 |
| 171 | 23.57 | -0.06 | 1.9579 | 2.2728 | -0.0714 | -0.0347 | 0.1036 | 0.4860 | 0.2306 | 0.2553 | 1.1976 |
| 172 | 23.56 | -0.06 | 1.9148 | 2.3054 | -0.0557 | -0.0650 | 0.1165 | 0.4878 | 0.2281 | 0.2596 | 1.2040 |
| 173 | 23.56 | -0.06 | 1.9525 | 2.2408 | -0.0015 | -0.1057 | 0.0653 | 0.4863 | 0.2282 | 0.2580 | 1.1661 |
| 174 | 23.57 | -0.05 | 1.9533 | 2.2164 | -0.0372 | -0.1325 | 0.0589 | 0.4750 | 0.2281 | 0.2449 | 1.1464 |
| 175 | 23.56 | -0.05 | 1.9188 | 2.2448 | 0.0183 | -0.1163 | 0.0334 | 0.4847 | 0.2282 | 0.2564 | 1.1699 |
| 176 | 23.56 | -0.06 | 1.9505 | 2.1718 | -0.0729 | -0.0543 | 0.0852 | 0.4748 | 0.2281 | 0.2467 | 1.1250 |
| 177 | 23.56 | -0.05 | 1.9240 | 2.2859 | -0.0287 | -0.0063 | 0.0717 | 0.4813 | 0.2281 | 0.2532 | 1.1878 |
| 178 | 23.57 | -0.06 | 1.9532 | 2.2159 | -0.0325 | -0.0694 | 0.0653 | 0.4746 | 0.2281 | 0.2465 | 1.1465 |
| 179 | 23.56 | -0.05 | 1.9333 | 2.1334 | -0.0575 | -0.0478 | 0.0973 | 0.4713 | 0.2281 | 0.2432 | 1.1294 |
| 180 | 23.56 | -0.05 | 1.9541 | 2.2148 | -0.0260 | -0.0924 | 0.0781 | 0.4763 | 0.2286 | 0.2477 | 1.1451 |
| 181 | 23.56 | -0.05 | 1.9313 | 2.2031 | -0.0494 | -0.0358 | 0.0524 | 0.4746 | 0.2286 | 0.2462 | 1.1407 |
| 182 | 23.56 | -0.06 | 1.8845 | 2.2361 | -0.1492 | -0.0008 | 0.1354 | 0.4795 | 0.2286 | 0.2509 | 1.1938 |
| 183 | 23.56 | -0.06 | 1.9346 | 2.2140 | -0.0814 | 0.0200 | 0.0307 | 0.4711 | 0.2294 | 0.2417 | 1.1444 |
| 184 | 23.57 | -0.06 | 1.9500 | 2.1941 | -0.1106 | 0.0625 | 0.0780 | 0.4750 | 0.2285 | 0.2445 | 1.1190 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 5 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 23.56 | -0.05 | 1.9311 | 2.2034 | -0.0477 | 0.0030 | 0.0523 | 0.4732 | 0.2282 | 0.2450 | 1.1410 |
| 186 | 23.56 | -0.06 | 1.9263 | 2.2375 | -0.0597 | -0.0151 | 0.0972 | 0.4731 | 0.2282 | 0.2449 | 1.1636 |
| 187 | 23.57 | -0.05 | 1.9203 | 2.1931 | -0.0557 | 0.0233 | 0.1099 | 0.4660 | 0.2274 | 0.2406 | 1.1421 |
| 188 | 23.56 | -0.05 | 1.9226 | 2.1969 | -0.0748 | 0.0049 | 0.0948 | 0.4673 | 0.2298 | 0.2375 | 1.1435 |
| 189 | 23.57 | -0.05 | 1.9236 | 2.2027 | -0.0642 | -0.0371 | 0.0396 | 0.4707 | 0.2281 | 0.2426 | 1.1763 |
| 190 | 23.56 | -0.05 | 1.9164 | 2.2356 | -0.0681 | 0.0482 | 0.0843 | 0.4739 | 0.2281 | 0.2458 | 1.1723 |
| 191 | 25.21 | -0.05 | 2.0545 | 1.8005 | 0.0764 | -0.0691 | 0.0798 | 0.2791 | 0.2385 | 0.0406 | 0.3937 |
| 192 | 27.05 | 0.01 | 3.7178 | -0.3427 | 0.9355 | -2.3417 | -0.0620 | 0.0512 | 0.2459 | -0.1947 | -0.0922 |
| 193 | 30.13 | 0.02 | 4.8421 | -1.5163 | 1.0611 | -2.7264 | 0.1915 | -0.1918 | 0.2539 | -0.4425 | -0.3132 |
| 194 | 32.68 | 0.00 | 6.1987 | -2.3804 | 1.2032 | -3.0831 | 0.3302 | -0.4120 | 0.2692 | -0.6813 | -0.3840 |
| 195 | 35.25 | -0.05 | 7.4922 | -3.5615 | 0.0040 | 0.0224 | 0.0216 | -0.7810 | 0.2214 | -1.0024 | -0.4754 |
| 196 | 39.02 | -0.01 | 9.0550 | -4.1763 | 0.3631 | -0.3974 | 0.3367 | -0.8981 | 0.2451 | -1.1432 | -0.4612 |
| 197 | 44.34 | -0.01 | 11.0655 | -5.0175 | 0.3353 | -0.6504 | 0.2807 | -1.2124 | 0.2417 | -1.4542 | -0.5284 |
| 198 | 47.00 | 0.04 | 12.2646 | -5.2660 | 0.3568 | 0.4179 | -0.2220 | -1.2961 | 0.2646 | -1.5827 | -0.5480 |
| 199 | 51.20 | 0.07 | 14.1204 | -5.8355 | 1.0396 | 2.2083 | 0.1043 | -1.2196 | 0.4602 | -1.6857 | -0.6826 |
| 200 | 49.21 | -0.04 | 12.3441 | -3.1551 | -0.3151 | 0.4698 | -0.0018 | -1.3418 | 0.3238 | -1.6656 | -0.5796 |
| 201 | 47.13 | 0.01 | 11.4058 | -2.3575 | 0.6267 | 0.0695 | 0.1472 | -1.2812 | 0.2643 | -1.5655 | -0.5574 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 PACK 6.5E RX1C-6 1.7 PHI 0.0 CONF 0 INCH 34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLOT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.23 | -0.03 | 0.0265 | 0.0026 | 0.0155 | 0.1371 | 0.7749 | -0.7501 | -0.0288 | -0.3707 | 0.0384 | 0.4942 |
| 2 | 5.23 | -0.01 | 0.0160 | 0.0021 | 0.0151 | 0.1117 | 0.8136 | -0.7396 | -0.0288 | -0.3651 | 0.0385 | 0.4936 |
| 3 | 5.23 | -0.01 | 0.0153 | 0.0021 | 0.0136 | 0.1361 | 0.9027 | -0.7406 | -0.0289 | -0.3653 | 0.0390 | 0.4932 |
| 4 | 5.30 | -0.02 | 0.0154 | 0.0021 | 0.0138 | 0.1307 | 0.8073 | -0.7307 | -0.0296 | -0.3638 | 0.0402 | 0.4935 |
| 5 | 5.00 | -0.01 | 0.0136 | 0.0025 | 0.0135 | 0.1654 | 0.9752 | -0.7336 | -0.0309 | -0.3629 | 0.0421 | 0.4946 |
| 6 | 5.00 | -0.01 | 0.0063 | 0.0016 | 0.0105 | 0.2787 | 1.6520 | -0.7349 | -0.0314 | -0.3627 | 0.0427 | 0.4935 |
| 7 | 6.05 | -0.01 | 0.0078 | 0.0023 | 0.0115 | 0.3014 | 1.4897 | -0.7276 | -0.0324 | -0.3584 | 0.0446 | 0.4926 |
| 8 | 6.27 | -0.01 | 0.0052 | 0.0021 | 0.0106 | 0.4030 | 2.0334 | -0.7320 | -0.0329 | -0.3598 | 0.0448 | 0.4911 |
| 9 | 6.48 | -0.02 | -0.0020 | 0.0021 | 0.0075 | -1.0526 | -3.9909 | -0.7326 | -0.0332 | -0.3597 | 0.0453 | 0.4905 |
| 10 | 6.68 | -0.01 | 0.0040 | 0.0024 | 0.0106 | 0.5227 | 2.3583 | -0.7265 | -0.0336 | -0.3559 | 0.0462 | 0.4895 |
| 11 | 6.89 | -0.00 | 0.0072 | 0.0025 | 0.0127 | 0.4058 | 1.7041 | -0.7216 | -0.0338 | -0.3526 | 0.0468 | 0.4887 |
| 12 | 7.05 | -0.01 | 0.0038 | 0.0031 | 0.0113 | 0.5106 | 2.9392 | -0.7246 | -0.0339 | -0.3534 | 0.0468 | 0.4878 |
| 13 | 7.27 | -0.01 | -0.0023 | 0.0031 | 0.0089 | -1.3636 | -3.5302 | -0.7196 | -0.0354 | -0.3501 | 0.0491 | 0.4867 |
| 14 | 7.46 | -0.01 | 0.0027 | 0.0033 | 0.0111 | 4.5714 | 15.2509 | -0.7077 | -0.0351 | -0.3450 | 0.0497 | 0.4875 |
| 15 | 7.65 | -0.01 | 0.0054 | 0.0036 | 0.0130 | 0.7115 | 2.3984 | -0.7027 | -0.0358 | -0.3424 | 0.0505 | 0.4873 |
| 16 | 7.84 | -0.02 | -0.0041 | 0.0035 | 0.0091 | -0.8718 | -2.2513 | -0.6983 | -0.0362 | -0.3397 | 0.0518 | 0.4865 |
| 17 | 8.03 | -0.01 | -0.0101 | 0.0033 | 0.0084 | -0.3299 | -0.6377 | -0.6916 | -0.0365 | -0.3366 | 0.0528 | 0.4867 |
| 18 | 8.20 | -0.01 | -0.0015 | 0.0042 | 0.0114 | -2.6571 | -7.0255 | -0.6872 | -0.0367 | -0.3343 | 0.0534 | 0.4866 |
| 19 | 8.38 | -0.01 | -0.0029 | 0.0045 | 0.0104 | -1.5545 | -4.0351 | -0.6817 | -0.0373 | -0.3301 | 0.0548 | 0.4863 |
| 20 | 8.58 | -0.01 | -0.0059 | 0.0038 | 0.0089 | -0.6491 | -1.4003 | -0.6830 | -0.0378 | -0.3289 | 0.0551 | 0.4816 |
| 21 | 8.75 | -0.01 | -0.0062 | 0.0038 | 0.0072 | -0.4684 | -0.8714 | -0.6807 | -0.0375 | -0.3280 | 0.0551 | 0.4815 |
| 22 | 8.91 | -0.02 | -0.0071 | 0.0042 | 0.0088 | -0.5862 | -0.9084 | -0.6785 | -0.0378 | -0.3285 | 0.0558 | 0.4811 |
| 23 | 9.09 | -0.02 | -0.0121 | 0.0043 | 0.0057 | -0.3534 | -0.4731 | -0.6776 | -0.0372 | -0.3252 | 0.0549 | 0.4800 |
| 24 | 9.28 | -0.01 | -0.0084 | 0.0047 | 0.0075 | -0.5550 | -0.8009 | -0.6737 | -0.0366 | -0.3245 | 0.0543 | 0.4816 |
| 25 | 9.45 | -0.01 | -0.0093 | 0.0046 | 0.0076 | -0.4549 | -0.7311 | -0.6690 | -0.0351 | -0.3216 | 0.0525 | 0.4807 |
| 26 | 9.61 | -0.01 | -0.0103 | 0.0046 | 0.0068 | -0.4444 | -0.6651 | -0.6651 | -0.0349 | -0.3201 | 0.0525 | 0.4813 |
| 27 | 9.81 | -0.01 | -0.0086 | 0.0051 | 0.0077 | -0.6364 | -0.9589 | -0.6591 | -0.0349 | -0.3173 | 0.0530 | 0.4815 |
| 28 | 9.98 | -0.01 | -0.0160 | 0.0044 | 0.0047 | -0.2727 | -0.2915 | -0.6518 | -0.0359 | -0.3128 | 0.0550 | 0.4798 |
| 29 | 10.16 | -0.01 | -0.0056 | 0.0055 | 0.0093 | -0.9464 | -1.6035 | -0.6426 | -0.0343 | -0.3093 | 0.0534 | 0.4814 |
| 30 | 10.34 | -0.02 | -0.0103 | 0.0053 | 0.0075 | -0.5149 | -0.6915 | -0.6566 | -0.0320 | -0.3183 | 0.0488 | 0.4852 |
| 31 | 10.51 | -0.01 | -0.0071 | 0.0055 | 0.0081 | -0.7794 | -1.1444 | -0.6537 | -0.0323 | -0.3171 | 0.0495 | 0.4851 |
| 32 | 10.67 | -0.01 | -0.0101 | 0.0056 | 0.0073 | -0.5773 | -0.7200 | -0.6646 | -0.0332 | -0.3235 | 0.0499 | 0.4667 |
| 33 | 10.86 | -0.02 | -0.0084 | 0.0053 | 0.0075 | -0.6256 | -0.8869 | -0.6468 | -0.0335 | -0.3147 | 0.0518 | 0.4866 |
| 34 | 11.04 | -0.02 | -0.0045 | 0.0057 | 0.0103 | -1.0170 | -2.9051 | -0.6434 | -0.0339 | -0.3134 | 0.0526 | 0.4867 |
| 35 | 11.21 | -0.03 | 0.0050 | 0.0060 | 0.0137 | 1.2263 | 2.7457 | -0.6410 | -0.0349 | -0.3118 | 0.0545 | 0.4869 |
| 36 | 11.38 | -0.01 | -0.0044 | 0.0062 | 0.0092 | -1.0429 | -2.1142 | -0.6836 | -0.0365 | -0.3358 | 0.0563 | 0.4912 |
| 37 | 11.54 | -0.02 | -0.0040 | 0.0077 | 0.0093 | -1.9474 | -2.3630 | -0.6847 | -0.0385 | -0.3369 | 0.0562 | 0.4921 |
| 38 | 11.71 | -0.02 | -0.0041 | 0.0074 | 0.0104 | -3.5500 | -4.9006 | -0.6758 | -0.0383 | -0.3324 | 0.0566 | 0.4918 |
| 39 | 11.89 | -0.02 | 0.0040 | 0.0081 | 0.0130 | 2.0526 | 3.2820 | -0.6723 | -0.0386 | -0.3319 | 0.0574 | 0.4936 |
| 40 | 12.05 | -0.02 | -0.0016 | 0.0078 | 0.0121 | 5.0000 | 7.7824 | -0.6640 | -0.0390 | -0.3273 | 0.0587 | 0.4925 |
| 41 | 12.22 | -0.03 | -0.0034 | 0.0085 | 0.0096 | -1.9657 | -2.6116 | -0.6623 | -0.0385 | -0.3271 | 0.0581 | 0.4936 |
| 42 | 12.39 | -0.03 | -0.0041 | 0.0077 | 0.0103 | -3.4500 | -4.9367 | -0.6544 | -0.0389 | -0.3236 | 0.0594 | 0.4944 |
| 43 | 12.57 | -0.03 | -0.0029 | 0.0071 | 0.0095 | -2.9565 | -3.9909 | -0.6487 | -0.0388 | -0.3193 | 0.0600 | 0.4937 |
| 44 | 12.73 | -0.02 | 0.0015 | 0.0071 | 0.0107 | 5.2857 | 7.3404 | -0.6405 | -0.0392 | -0.3167 | 0.0612 | 0.4945 |
| 45 | 12.89 | -0.02 | -0.0024 | 0.0065 | 0.0096 | -2.8696 | -4.0343 | -0.6311 | -0.0387 | -0.3121 | 0.0613 | 0.4946 |
| 46 | 13.06 | -0.02 | 0.0126 | 0.0060 | 0.0151 | 0.7414 | 1.4006 | -0.6254 | -0.0390 | -0.3094 | 0.0623 | 0.4948 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 MACH 0.90 RNIO-E 1.7 PHI 0.0 CONF 34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 13.26 | -0.01 | 0.0081 | 0.0078 | 0.0125 | 1.2712 | 2.0969 | -0.6143 | -0.0390 | -0.3039 | 0.0635 | 0.4548 |
| 48 | 13.41 | -0.02 | 0.0071 | 0.0078 | 0.0133 | 1.1024 | 1.8781 | -0.6153 | -0.0392 | -0.3048 | 0.0637 | 0.4553 |
| 49 | 13.58 | -0.01 | 0.0 | 0.0068 | 0.0108 | 0.0108 | 0.0108 | -0.6075 | -0.0384 | -0.3010 | 0.0649 | 0.4555 |
| 50 | 13.78 | -0.02 | 0.0071 | 0.0075 | 0.0135 | 1.0508 | 1.4074 | -0.6002 | -0.0395 | -0.2975 | 0.0658 | 0.4557 |
| 51 | 13.91 | -0.02 | 0.0092 | 0.0075 | 0.0124 | 1.4466 | 2.3945 | -0.5963 | -0.0400 | -0.2948 | 0.0671 | 0.4544 |
| 52 | 14.10 | -0.02 | 0.0112 | 0.0081 | 0.0155 | 0.7150 | 1.5765 | -0.5885 | -0.0399 | -0.2915 | 0.0678 | 0.4553 |
| 53 | 14.25 | -0.03 | 0.0095 | 0.0071 | 0.0116 | 1.5814 | 2.5587 | -0.5883 | -0.0411 | -0.2917 | 0.0695 | 0.4555 |
| 54 | 14.41 | -0.03 | 0.0100 | 0.0071 | 0.0145 | 0.7083 | 1.4550 | -0.5806 | -0.0407 | -0.2874 | 0.0700 | 0.4548 |
| 55 | 14.59 | -0.02 | 0.0087 | 0.0061 | 0.0106 | 1.6875 | 2.3835 | -0.5816 | -0.0415 | -0.2898 | 0.0713 | 0.4583 |
| 56 | 14.78 | -0.02 | 0.0072 | 0.0065 | 0.0134 | 0.9505 | 1.8304 | -0.5776 | -0.0416 | -0.2877 | 0.0720 | 0.4579 |
| 57 | 14.93 | -0.03 | 0.0085 | 0.0068 | 0.0142 | 0.7527 | 1.6669 | -0.5726 | -0.0417 | -0.2864 | 0.0728 | 0.5002 |
| 58 | 15.11 | -0.03 | 0.0073 | 0.0071 | 0.0126 | 0.9714 | 1.7291 | -0.5668 | -0.0425 | -0.2852 | 0.0750 | 0.5032 |
| 59 | 15.28 | -0.03 | 0.0100 | 0.0065 | 0.0140 | 0.6875 | 1.4854 | -0.5656 | -0.0427 | -0.2846 | 0.0756 | 0.5031 |
| 60 | 15.44 | -0.03 | 0.0153 | 0.0060 | 0.0184 | 0.4140 | 0.9444 | -0.5609 | -0.0434 | -0.2836 | 0.0773 | 0.5056 |
| 61 | 15.61 | -0.05 | 0.0095 | 0.0065 | 0.0143 | 0.7253 | 1.5130 | -0.5553 | -0.0435 | -0.2812 | 0.0783 | 0.5064 |
| 62 | 15.79 | -0.04 | 0.0081 | 0.0061 | 0.0136 | 0.9842 | 0.9289 | -0.5507 | -0.0435 | -0.2803 | 0.0789 | 0.5085 |
| 63 | 15.95 | -0.05 | 0.0084 | 0.0060 | 0.0126 | 0.9355 | 1.9472 | -0.5448 | -0.0434 | -0.2798 | 0.0796 | 0.5135 |
| 64 | 16.12 | -0.03 | 0.0081 | 0.0079 | 0.0147 | 0.5568 | 0.8900 | -0.5396 | -0.0440 | -0.2776 | 0.0815 | 0.5144 |
| 65 | 16.28 | -0.04 | 0.0128 | 0.0071 | 0.0164 | 0.4408 | 1.0371 | -0.5336 | -0.0437 | -0.2746 | 0.0818 | 0.5146 |
| 66 | 16.44 | -0.03 | 0.0068 | 0.0055 | 0.0134 | 0.8769 | 1.9601 | -0.5274 | -0.0436 | -0.2723 | 0.0826 | 0.5164 |
| 67 | 16.61 | -0.03 | 0.0110 | 0.0062 | 0.0145 | 0.5660 | 1.3554 | -0.5145 | -0.0434 | -0.2672 | 0.0843 | 0.5154 |
| 68 | 16.78 | -0.03 | 0.0164 | 0.0063 | 0.0181 | 0.3601 | 1.0988 | -0.5038 | -0.0436 | -0.2631 | 0.0865 | 0.5222 |
| 69 | 16.94 | -0.04 | 0.0265 | 0.0064 | 0.0211 | 0.3176 | 0.7943 | -0.4999 | -0.0433 | -0.2612 | 0.0865 | 0.5225 |
| 70 | 17.12 | -0.03 | 0.0168 | 0.0047 | 0.0161 | 0.4327 | 1.4370 | -0.4926 | -0.0429 | -0.2586 | 0.0872 | 0.5256 |
| 71 | 17.28 | -0.03 | 0.0136 | 0.0055 | 0.0166 | 0.3985 | 1.2003 | -0.4853 | -0.0433 | -0.2544 | 0.0851 | 0.5241 |
| 72 | 17.45 | -0.04 | 0.0267 | 0.0078 | 0.0228 | 0.2717 | 0.7953 | -0.4705 | -0.0450 | -0.2539 | 0.0944 | 0.5329 |
| 73 | 17.62 | -0.03 | 0.0278 | 0.0077 | 0.0226 | 0.2772 | 0.8148 | -0.4524 | -0.0443 | -0.2431 | 0.0979 | 0.5373 |
| 74 | 17.78 | -0.04 | 0.0164 | 0.0062 | 0.0185 | 0.3390 | 1.0259 | -0.4492 | -0.0445 | -0.2408 | 0.0986 | 0.5360 |
| 75 | 17.94 | -0.03 | 0.0307 | 0.0077 | 0.0235 | 0.2508 | 0.7677 | -0.4342 | -0.0441 | -0.2326 | 0.1015 | 0.5357 |
| 76 | 18.11 | -0.04 | 0.0244 | 0.0060 | 0.0217 | 0.2681 | 0.8873 | -0.4282 | -0.0441 | -0.2271 | 0.1034 | 0.5328 |
| 77 | 18.27 | -0.04 | 0.0252 | 0.0068 | 0.0238 | 0.2313 | 0.8131 | -0.4162 | -0.0440 | -0.2220 | 0.1057 | 0.5334 |
| 78 | 18.45 | -0.04 | 0.0344 | 0.0074 | 0.0258 | 0.2083 | 0.7506 | -0.4040 | -0.0439 | -0.2147 | 0.1086 | 0.5315 |
| 79 | 18.61 | -0.03 | 0.0226 | 0.0051 | 0.0214 | 0.2758 | 0.9471 | -0.3951 | -0.0437 | -0.2102 | 0.1105 | 0.5315 |
| 80 | 18.78 | -0.04 | 0.0350 | 0.0075 | 0.0257 | 0.1890 | 0.7409 | -0.3840 | -0.0442 | -0.2031 | 0.1149 | 0.5281 |
| 81 | 18.93 | -0.03 | 0.0344 | 0.0066 | 0.0261 | 0.1903 | 0.7566 | -0.3681 | -0.0433 | -0.1948 | 0.1175 | 0.5293 |
| 82 | 19.11 | -0.04 | 0.0302 | 0.0063 | 0.0243 | 0.2103 | 0.8051 | -0.3581 | -0.0433 | -0.1892 | 0.1208 | 0.5284 |
| 83 | 19.25 | -0.03 | 0.0267 | 0.0055 | 0.0241 | 0.1926 | 0.8367 | -0.3494 | -0.0424 | -0.1824 | 0.1228 | 0.5280 |
| 84 | 19.40 | -0.03 | 0.0436 | 0.0069 | 0.0325 | 0.1575 | 0.7548 | -0.3382 | -0.0426 | -0.1775 | 0.1267 | 0.5248 |
| 85 | 19.57 | -0.04 | 0.0180 | 0.0043 | 0.0172 | 0.2370 | 0.9574 | -0.3171 | -0.0411 | -0.1681 | 0.1295 | 0.5295 |
| 86 | 19.73 | -0.04 | 0.0407 | 0.0068 | 0.0345 | 0.1448 | 0.7400 | -0.3144 | -0.0417 | -0.1666 | 0.1326 | 0.5295 |
| 87 | 19.89 | -0.03 | 0.0434 | 0.0057 | 0.0316 | 0.1315 | 0.7297 | -0.3012 | -0.0404 | -0.1595 | 0.1343 | 0.5307 |
| 88 | 20.04 | -0.04 | 0.0460 | 0.0065 | 0.0353 | 0.1429 | 0.7343 | -0.2856 | -0.0402 | -0.1524 | 0.1409 | 0.5335 |
| 89 | 20.19 | -0.04 | 0.0276 | 0.0045 | 0.0245 | 0.1623 | 0.8885 | -0.2724 | -0.0386 | -0.1463 | 0.1416 | 0.5369 |
| 90 | 20.35 | -0.04 | 0.0562 | 0.0078 | 0.0380 | 0.1380 | 0.6750 | -0.2614 | -0.0384 | -0.1395 | 0.1468 | 0.5338 |
| 91 | 20.49 | -0.04 | 0.0476 | 0.0068 | 0.0350 | 0.1419 | 0.7341 | -0.2503 | -0.0383 | -0.1343 | 0.1529 | 0.5368 |
| 92 | 20.66 | -0.05 | 0.0367 | 0.0043 | 0.0246 | 0.1390 | 0.8083 | -0.2382 | -0.0364 | -0.1292 | 0.1528 | 0.5422 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 123 | PACF 0.50 | RX1C-6 1.7 | PHI 0.0 | CONF BINOF34 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 20.80 | -0.05 | 0.0540 | 0.0028 | 0.0376 | 0.1252 | 0.6363 | -0.2361 | -0.0305 | -0.1268 | 0.1546 | 0.5365 |
| 94 | 20.90 | -0.05 | 0.0536 | 0.0026 | 0.0367 | 0.1257 | 0.7391 | -0.2239 | -0.0357 | -0.1212 | 0.1563 | 0.5413 |
| 95 | 21.13 | -0.05 | 0.0474 | 0.0045 | 0.0304 | 0.1031 | 0.7660 | -0.2173 | -0.0347 | -0.1182 | 0.1558 | 0.5437 |
| 96 | 21.26 | -0.05 | 0.0309 | 0.0031 | 0.0280 | 0.1010 | 0.5070 | -0.2014 | -0.0329 | -0.1104 | 0.1631 | 0.5481 |
| 97 | 21.44 | -0.05 | 0.0200 | 0.0031 | 0.0220 | 0.1563 | 1.1016 | -0.1842 | -0.0319 | -0.1021 | 0.1733 | 0.5546 |
| 98 | 21.80 | -0.05 | 0.0019 | 0.0066 | 0.0405 | 0.1092 | 0.7512 | -0.1866 | -0.0324 | -0.1014 | 0.1738 | 0.5431 |
| 99 | 21.75 | -0.06 | 0.0005 | 0.0072 | 0.0456 | 0.1273 | 0.8327 | -0.1751 | -0.0307 | -0.0960 | 0.1752 | 0.5486 |
| 100 | 21.91 | -0.05 | 0.0097 | 0.0048 | 0.0395 | 0.1062 | 0.7953 | -0.1701 | -0.0306 | -0.0941 | 0.1767 | 0.5531 |
| 101 | 22.06 | -0.05 | 0.0256 | 0.0021 | 0.0268 | 0.0815 | 1.0383 | -0.1430 | -0.0271 | -0.0818 | 0.1858 | 0.5725 |
| 102 | 22.22 | -0.06 | 0.0306 | 0.0046 | 0.0426 | 0.0960 | 0.8386 | -0.1446 | -0.0273 | -0.0820 | 0.1851 | 0.5666 |
| 103 | 22.37 | -0.05 | 0.0363 | 0.0031 | 0.0311 | 0.0866 | 0.8576 | -0.1273 | -0.0246 | -0.0737 | 0.1936 | 0.5787 |
| 104 | 22.52 | -0.05 | 0.0356 | 0.0037 | 0.0353 | 0.0736 | 0.7733 | -0.1212 | -0.0241 | -0.0706 | 0.1990 | 0.5827 |
| 105 | 22.67 | -0.06 | 0.0269 | 0.0012 | 0.0272 | 0.0472 | 1.0449 | -0.1075 | -0.0219 | -0.0647 | 0.2041 | 0.6021 |
| 106 | 22.81 | -0.05 | 0.0493 | 0.0035 | 0.0351 | 0.0717 | 0.7435 | -0.1066 | -0.0214 | -0.0632 | 0.2010 | 0.5928 |
| 107 | 22.95 | -0.06 | 0.0381 | 0.0022 | 0.0305 | 0.0519 | 0.9541 | -0.0912 | -0.0188 | -0.0562 | 0.2084 | 0.6168 |
| 108 | 23.10 | -0.05 | 0.0426 | 0.0037 | 0.0345 | 0.0878 | 0.8103 | -0.0769 | -0.0175 | -0.0492 | 0.2270 | 0.6391 |
| 109 | 23.24 | -0.04 | 0.0300 | 0.0018 | 0.0257 | 0.0568 | 0.8562 | -0.0678 | -0.0154 | -0.0450 | 0.2270 | 0.6641 |
| 110 | 23.40 | -0.05 | 0.0179 | 0.0015 | 0.0178 | 0.1047 | 0.9977 | -0.0508 | -0.0138 | -0.0398 | 0.2436 | 0.7017 |
| 111 | 23.54 | -0.06 | 0.0114 | 0.0016 | 0.0150 | 0.0909 | 1.3152 | -0.0507 | -0.0126 | -0.0376 | 0.2520 | 0.7461 |
| 112 | 23.58 | -0.06 | 0.0179 | 0.0006 | 0.0161 | 0.0349 | 1.0093 | -0.0506 | -0.0124 | -0.0372 | 0.2444 | 0.7355 |
| 113 | 23.58 | -0.06 | 0.0241 | 0.0014 | 0.0265 | 0.0560 | 1.0579 | -0.0437 | -0.0110 | -0.0337 | 0.2524 | 0.7720 |
| 114 | 23.59 | -0.05 | 0.0254 | 0.0014 | 0.0253 | 0.0459 | 0.8002 | -0.0420 | -0.0105 | -0.0328 | 0.2556 | 0.7804 |
| 115 | 23.59 | -0.05 | 0.0057 | 0.0005 | 0.0092 | 0.0509 | 1.0145 | -0.0356 | -0.0091 | -0.0300 | 0.2573 | 0.8431 |
| 116 | 23.58 | -0.07 | 0.0334 | 0.0016 | 0.0237 | 0.0417 | 0.9007 | -0.0527 | -0.0126 | -0.0376 | 0.2387 | 0.7124 |
| 117 | 23.58 | -0.06 | 0.0241 | 0.0045 | 0.0335 | 0.0532 | 0.7597 | -0.0691 | -0.0137 | -0.0450 | 0.1985 | 0.6511 |
| 118 | 23.58 | -0.07 | 0.0208 | 0.0038 | 0.0201 | 0.1434 | 0.9745 | -0.0489 | -0.0122 | -0.0370 | 0.2489 | 0.7578 |
| 119 | 23.58 | -0.06 | 0.0073 | 0.0014 | 0.0116 | 0.1857 | 1.5108 | -0.0397 | -0.0103 | -0.0321 | 0.2592 | 0.8071 |
| 120 | 23.58 | -0.05 | 0.0217 | 0.0012 | 0.0206 | 0.0574 | 0.9500 | -0.0442 | -0.0106 | -0.0340 | 0.2400 | 0.7700 |
| 121 | 23.58 | -0.06 | 0.0425 | 0.0017 | 0.0342 | 0.0351 | 0.8050 | -0.0475 | -0.0111 | -0.0345 | 0.2341 | 0.7276 |
| 122 | 23.58 | -0.06 | 0.0234 | 0.0012 | 0.0242 | 0.0533 | 1.0352 | -0.0447 | -0.0105 | -0.0337 | 0.2349 | 0.7541 |
| 123 | 23.58 | -0.05 | 0.0185 | 0.0002 | 0.0154 | 0.0112 | 1.0482 | -0.0474 | -0.0105 | -0.0358 | 0.2215 | 0.7545 |
| 124 | 23.58 | -0.06 | 0.0103 | 0.0007 | 0.0124 | 0.0693 | 1.1953 | -0.0403 | -0.0098 | -0.0323 | 0.2423 | 0.7997 |
| 125 | 23.57 | -0.06 | 0.0302 | 0.0023 | 0.0276 | 0.0759 | 0.9152 | -0.0491 | -0.0108 | -0.0337 | 0.2453 | 0.7648 |
| 126 | 23.58 | -0.07 | 0.0278 | 0.0015 | 0.0239 | 0.0675 | 0.8859 | -0.0477 | -0.0112 | -0.0360 | 0.2353 | 0.7543 |
| 127 | 23.57 | -0.06 | 0.0304 | 0.0019 | 0.0276 | 0.0612 | 0.9095 | -0.0527 | -0.0117 | -0.0361 | 0.2225 | 0.7222 |
| 128 | 23.58 | -0.06 | 0.0293 | 0.0015 | 0.0270 | 0.0319 | 0.9199 | -0.0505 | -0.0113 | -0.0395 | 0.2041 | 0.7115 |
| 129 | 23.57 | -0.06 | 0.0185 | 0.0007 | 0.0228 | 0.0393 | 1.2331 | -0.0483 | -0.0106 | -0.0363 | 0.2194 | 0.7510 |
| 130 | 23.57 | -0.05 | 0.0345 | 0.0016 | 0.0263 | 0.0452 | 0.9346 | -0.0536 | -0.0115 | -0.0367 | 0.2147 | 0.7198 |
| 131 | 23.57 | -0.06 | 0.0282 | 0.0020 | 0.0250 | 0.0701 | 0.8873 | -0.0420 | -0.0097 | -0.0323 | 0.2362 | 0.7680 |
| 132 | 23.58 | -0.06 | 0.0315 | 0.0017 | 0.0300 | 0.0520 | 0.9516 | -0.0474 | -0.0106 | -0.0349 | 0.2281 | 0.7352 |
| 133 | 23.57 | -0.06 | 0.0182 | 0.0005 | 0.0203 | 0.0514 | 1.1174 | -0.0473 | -0.0107 | -0.0355 | 0.2264 | 0.7495 |
| 134 | 23.57 | -0.06 | 0.0331 | 0.0015 | 0.0324 | 0.0440 | 0.9726 | -0.0474 | -0.0106 | -0.0349 | 0.2237 | 0.7352 |
| 135 | 23.58 | -0.06 | 0.0184 | 0.0005 | 0.0193 | 0.0316 | 1.1745 | -0.0473 | -0.0105 | -0.0357 | 0.2220 | 0.7543 |
| 136 | 23.57 | -0.07 | 0.0062 | 0.0007 | 0.0145 | 0.0800 | 1.2186 | -0.0463 | -0.0110 | -0.0364 | 0.2280 | 0.7531 |
| 137 | 23.57 | -0.06 | 0.0279 | 0.0016 | 0.0263 | 0.0560 | 0.9456 | -0.0474 | -0.0106 | -0.0348 | 0.2281 | 0.7330 |
| 138 | 23.57 | -0.07 | 0.0367 | 0.0015 | 0.0322 | 0.0357 | 0.8762 | -0.0527 | -0.0116 | -0.0361 | 0.2209 | 0.7222 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 MACH 0.90 RNIG-6 1.7 PHI 0.0 CONF 0134 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 23.57 | -0.07 | 0.0246 | 0.0007 | 0.0245 | 0.0293 | 0.9769 | -0.0464 | -0.0104 | -0.0343 | 0.2242 | 0.7465 |
| 140 | 23.57 | -0.06 | 0.0478 | 0.0022 | 0.0386 | 0.0457 | 0.8112 | -0.0512 | -0.0110 | -0.0366 | 0.2154 | 0.7158 |
| 141 | 23.57 | -0.06 | 0.0387 | 0.0015 | 0.0324 | 0.0484 | 0.8368 | -0.0474 | -0.0105 | -0.0348 | 0.2215 | 0.7330 |
| 142 | 23.57 | -0.06 | 0.0127 | 0.0006 | 0.0177 | 0.0492 | 1.3964 | -0.0420 | -0.0095 | -0.0318 | 0.2351 | 0.7582 |
| 143 | 23.57 | -0.07 | 0.0550 | 0.0026 | 0.0447 | 0.0359 | 0.8129 | -0.0620 | -0.0124 | -0.0418 | 0.1997 | 0.6746 |
| 144 | 23.57 | -0.05 | 0.0265 | 0.0018 | 0.0206 | 0.0256 | 0.9065 | -0.0485 | -0.0111 | -0.0354 | 0.2296 | 0.7361 |
| 145 | 23.57 | -0.06 | 0.0531 | 0.0026 | 0.0446 | 0.0372 | 0.8279 | -0.0647 | -0.0127 | -0.0433 | 0.1961 | 0.6685 |
| 146 | 23.56 | -0.06 | 0.0433 | 0.0016 | 0.0365 | 0.0246 | 0.8538 | -0.0599 | -0.0116 | -0.0412 | 0.1944 | 0.6877 |
| 147 | 23.57 | -0.06 | 0.0224 | 0.0008 | 0.0241 | 0.0372 | 1.0766 | -0.0528 | -0.0108 | -0.0374 | 0.2047 | 0.7050 |
| 148 | 23.57 | -0.06 | 0.0315 | 0.0018 | 0.0295 | 0.0301 | 0.9463 | -0.0490 | -0.0107 | -0.0359 | 0.2187 | 0.7325 |
| 149 | 23.57 | -0.06 | 0.0484 | 0.0025 | 0.0382 | 0.0538 | 0.8232 | -0.0567 | -0.0119 | -0.0408 | 0.2018 | 0.6940 |
| 150 | 23.56 | -0.06 | 0.0281 | 0.0018 | 0.0252 | 0.0398 | 0.9054 | -0.0469 | -0.0103 | -0.0349 | 0.2195 | 0.7433 |
| 151 | 23.57 | -0.06 | 0.0178 | 0.0006 | 0.0175 | 0.0488 | 1.0094 | -0.0457 | -0.0107 | -0.0335 | 0.2341 | 0.7324 |
| 152 | 23.57 | -0.06 | 0.0417 | 0.0026 | 0.0363 | 0.0474 | 0.8706 | -0.0566 | -0.0121 | -0.0396 | 0.2132 | 0.6856 |
| 153 | 23.57 | -0.05 | 0.0075 | 0.0011 | 0.0121 | 0.1528 | 1.6074 | -0.0526 | -0.0122 | -0.0381 | 0.2312 | 0.7236 |
| 154 | 23.57 | -0.06 | 0.0455 | 0.0023 | 0.0405 | 0.0458 | 0.8107 | -0.0604 | -0.0127 | -0.0406 | 0.2100 | 0.6714 |
| 155 | 23.57 | -0.06 | 0.0321 | 0.0018 | 0.0301 | 0.0485 | 0.9364 | -0.0560 | -0.0125 | -0.0385 | 0.2226 | 0.6941 |
| 156 | 23.57 | -0.07 | 0.0318 | 0.0015 | 0.0280 | 0.0470 | 0.9241 | -0.0491 | -0.0112 | -0.0356 | 0.2288 | 0.7250 |
| 157 | 23.57 | -0.06 | 0.0105 | 0.0010 | 0.0125 | 0.0552 | 1.1763 | -0.0476 | -0.0106 | -0.0339 | 0.2227 | 0.7123 |
| 158 | 23.57 | -0.06 | 0.0132 | 0.0014 | 0.0150 | 0.1024 | 1.1784 | -0.0483 | -0.0102 | -0.0313 | 0.2526 | 0.7766 |
| 159 | 23.57 | -0.06 | 0.0425 | 0.0022 | 0.0376 | 0.0513 | 0.8831 | -0.0539 | -0.0115 | -0.0363 | 0.2201 | 0.7107 |
| 160 | 23.57 | -0.06 | 0.0350 | 0.0021 | 0.0306 | 0.0593 | 0.8734 | -0.0533 | -0.0115 | -0.0388 | 0.2164 | 0.7274 |
| 161 | 23.57 | -0.05 | 0.0335 | 0.0012 | 0.0292 | 0.0373 | 0.8707 | -0.0545 | -0.0120 | -0.0382 | 0.2195 | 0.7067 |
| 162 | 23.57 | -0.06 | 0.0485 | 0.0021 | 0.0365 | 0.0429 | 0.7943 | -0.0606 | -0.0110 | -0.0346 | 0.2270 | 0.7157 |
| 163 | 23.57 | -0.06 | 0.0177 | 0.0012 | 0.0201 | 0.0760 | 1.1386 | -0.0404 | -0.0097 | -0.0317 | 0.2351 | 0.7648 |
| 164 | 23.56 | -0.06 | 0.0247 | 0.0008 | 0.0270 | 0.0330 | 1.0899 | -0.0457 | -0.0107 | -0.0344 | 0.2341 | 0.7528 |
| 165 | 23.57 | -0.06 | 0.0264 | 0.0017 | 0.0283 | 0.0586 | 0.9977 | -0.0501 | -0.0111 | -0.0366 | 0.2220 | 0.7307 |
| 166 | 23.56 | -0.05 | 0.0193 | 0.0007 | 0.0221 | 0.0376 | 1.1372 | -0.0500 | -0.0117 | -0.0367 | 0.2349 | 0.7343 |
| 167 | 23.57 | -0.05 | 0.0175 | 0.0008 | 0.0175 | 0.0349 | 1.0035 | -0.0410 | -0.0102 | -0.0311 | 0.2487 | 0.7557 |
| 168 | 23.57 | -0.06 | 0.0208 | 0.0007 | 0.0217 | 0.1111 | 1.7096 | -0.0441 | -0.0108 | -0.0335 | 0.2453 | 0.7695 |
| 169 | 23.57 | -0.05 | 0.0242 | 0.0005 | 0.0230 | 0.0386 | 0.9506 | -0.0479 | -0.0111 | -0.0345 | 0.2321 | 0.7207 |
| 170 | 23.57 | -0.05 | 0.0263 | 0.0012 | 0.0221 | 0.0615 | 1.0898 | -0.0473 | -0.0110 | -0.0351 | 0.2336 | 0.7412 |
| 171 | 23.57 | -0.06 | 0.0247 | 0.0005 | 0.0245 | 0.0378 | 1.0061 | -0.0528 | -0.0114 | -0.0380 | 0.2165 | 0.7188 |
| 172 | 23.56 | -0.06 | 0.0252 | 0.0006 | 0.0246 | 0.0265 | 1.0119 | -0.0604 | -0.0126 | -0.0417 | 0.2083 | 0.6903 |
| 173 | 23.56 | -0.06 | 0.0154 | 0.0005 | 0.0154 | 0.0338 | 1.2606 | -0.0533 | -0.0115 | -0.0385 | 0.2164 | 0.7216 |
| 174 | 23.57 | -0.05 | 0.0185 | 0.0008 | 0.0196 | 0.0363 | 1.1483 | -0.0442 | -0.0105 | -0.0332 | 0.2376 | 0.7512 |
| 175 | 23.56 | -0.05 | 0.0103 | 0.0002 | 0.0152 | 0.0202 | 1.4815 | -0.0442 | -0.0102 | -0.0334 | 0.2306 | 0.7559 |
| 176 | 23.56 | -0.06 | 0.0232 | 0.0011 | 0.0247 | 0.0493 | 1.0048 | -0.0496 | -0.0109 | -0.0362 | 0.2201 | 0.7366 |
| 177 | 23.56 | -0.05 | 0.0141 | 0.0006 | 0.0182 | 0.0441 | 1.2838 | -0.0539 | -0.0117 | -0.0388 | 0.2181 | 0.7264 |
| 178 | 23.57 | -0.05 | 0.0202 | 0.0011 | 0.0203 | 0.0278 | 1.0080 | -0.0437 | -0.0104 | -0.0352 | 0.2381 | 0.7662 |
| 179 | 23.56 | -0.05 | 0.0054 | 0.0006 | 0.0138 | 0.1154 | 2.5919 | -0.0436 | -0.0106 | -0.0335 | 0.2436 | 0.7691 |
| 180 | 23.56 | -0.05 | 0.0252 | 0.0011 | 0.0277 | 0.0391 | 0.9460 | -0.0506 | -0.0112 | -0.0371 | 0.2218 | 0.7334 |
| 181 | 23.56 | -0.05 | 0.0204 | 0.0007 | 0.0215 | 0.0357 | 1.0741 | -0.0529 | -0.0114 | -0.0371 | 0.2161 | 0.7217 |
| 182 | 23.56 | -0.06 | 0.0151 | 0.0005 | 0.0204 | 0.0345 | 1.3255 | -0.0474 | -0.0111 | -0.0349 | 0.2346 | 0.7352 |
| 183 | 23.56 | -0.06 | 0.0175 | 0.0015 | 0.0191 | 0.0633 | 1.0927 | -0.0420 | -0.0102 | -0.0328 | 0.2428 | 0.7804 |
| 184 | 23.57 | -0.06 | 0.0140 | 0.0012 | 0.0166 | 0.0889 | 1.1625 | -0.0409 | -0.0105 | -0.0316 | 0.2570 | 0.7743 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 123 | 0.90 | 1.7 | | C.C | 81.0F34 | C.C | 0 | -30 | 0 | -30 | UNKNOWN |

| FLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 23.56 | -0.05 | 0.0021 | 0.0016 | 0.0105 | 0.8500 | 0.0365 | -0.0365 | -0.0100 | -0.0302 | 0.2735 | 0.8272 |
| 186 | 23.56 | -0.04 | 0.0220 | 0.0019 | 0.0204 | 0.0854 | 0.9369 | -0.0565 | -0.0122 | -0.0369 | 0.2407 | 0.7308 |
| 187 | 23.57 | -0.05 | 0.0287 | 0.0017 | 0.0274 | 0.0560 | 0.9543 | -0.0463 | -0.0113 | -0.0342 | 0.2445 | 0.7399 |
| 188 | 23.56 | -0.05 | 0.0165 | 0.0028 | 0.0208 | 0.1064 | 1.0232 | -0.0307 | -0.0097 | -0.0295 | 0.2635 | 0.8027 |
| 189 | 23.57 | -0.05 | 0.0220 | 0.0018 | 0.0135 | 0.2268 | 1.0645 | -0.0376 | -0.0106 | -0.0303 | 0.2873 | 0.8048 |
| 190 | 23.56 | -0.05 | 0.0069 | 0.0029 | 0.0138 | 0.2074 | 1.0430 | -0.0419 | -0.0112 | -0.0330 | 0.2680 | 0.7873 |
| 191 | 25.21 | -0.05 | 0.0378 | 0.0056 | 0.0245 | 0.1551 | 0.8523 | 0.0616 | 0.0254 | 0.0165 | 0.4122 | 0.2747 |
| 192 | 27.05 | 0.01 | 0.1566 | 0.0363 | 0.0343 | 0.2293 | 0.2484 | 0.2352 | 0.0481 | 0.1047 | 0.2047 | 0.4456 |
| 193 | 30.13 | 0.02 | 0.3083 | 0.0435 | 0.1245 | 0.1423 | 0.4051 | 0.3177 | 0.0610 | 0.1565 | 0.1921 | 0.4927 |
| 194 | 32.68 | 0.08 | 0.3818 | 0.0443 | 0.1543 | 0.1224 | 0.4263 | 0.4305 | 0.0735 | 0.2283 | 0.1677 | 0.5207 |
| 195 | 35.25 | -0.05 | -0.0162 | -0.0016 | 0.0122 | 0.0649 | -0.7045 | 0.5136 | 0.0790 | 0.2770 | 0.1535 | 0.5365 |
| 196 | 39.02 | -0.01 | 0.1750 | 0.0167 | 0.1035 | 0.0957 | 0.5940 | 0.5917 | 0.0656 | 0.3025 | 0.1109 | 0.5112 |
| 197 | 44.34 | -0.01 | 0.1255 | 0.0165 | 0.0701 | 0.1505 | 0.5569 | 0.7024 | 0.0524 | 0.3649 | 0.0746 | 0.5155 |
| 198 | 47.60 | 0.04 | -0.2249 | -0.0272 | -0.0758 | 0.1077 | 0.2991 | 0.7465 | 0.0582 | 0.3869 | 0.0780 | 0.5210 |
| 199 | 51.20 | 0.07 | 0.0666 | -0.0065 | 0.0585 | -0.1340 | 0.8470 | 0.7901 | 0.0466 | 0.3992 | 0.0556 | 0.5052 |
| 200 | 44.21 | -0.04 | -0.1061 | -0.0076 | -0.0165 | 0.0735 | 0.1555 | 0.7294 | 0.0541 | 0.3760 | 0.0741 | 0.5156 |
| 201 | 47.13 | 0.01 | 0.0437 | 0.0104 | 0.0396 | 0.2381 | 0.9075 | 0.7090 | 0.0539 | 0.3644 | 0.0760 | 0.5140 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

FACE 3 OF 3
SHEET 1 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 0.0 E-04 0.0 DELI 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5.23 | -0.03 | 0.0255 | 0.0000 | 0.0213 | 0.5000 | 0.8214 | -0.7140 | -0.0322 | -0.3840 | 0.0451 | 0.5379 |
| 2 | 5.23 | -0.04 | 0.0215 | 0.0000 | 0.0156 | 0.5000 | 0.9149 | -0.7139 | -0.0324 | -0.3834 | 0.0454 | 0.5371 |
| 3 | 5.23 | -0.01 | 0.0212 | 0.0000 | 0.0201 | 0.5000 | 0.9488 | -0.7113 | -0.0326 | -0.3826 | 0.0459 | 0.5375 |
| 4 | 5.50 | -0.02 | 0.0239 | 0.0000 | 0.0204 | 0.5000 | 0.8775 | -0.7025 | -0.0332 | -0.3782 | 0.0472 | 0.5384 |
| 5 | 5.00 | -0.01 | 0.0228 | 0.0000 | 0.0204 | 0.5000 | 0.8975 | -0.6997 | -0.0330 | -0.3762 | 0.0483 | 0.5376 |
| 6 | 5.00 | -0.04 | 0.0197 | 0.0000 | 0.0175 | 0.5000 | 1.1107 | -0.7044 | -0.0342 | -0.3777 | 0.0486 | 0.5362 |
| 7 | 6.05 | -0.01 | 0.0158 | 0.0000 | 0.0153 | 0.5000 | 0.9767 | -0.7063 | -0.0354 | -0.3764 | 0.0501 | 0.5358 |
| 8 | 6.27 | -0.01 | 0.0182 | 0.0000 | 0.0196 | 0.5000 | 1.0033 | -0.7022 | -0.0355 | -0.3759 | 0.0511 | 0.5353 |
| 9 | 6.48 | -0.02 | 0.0125 | 0.0000 | 0.0165 | 0.5000 | 1.3552 | -0.6983 | -0.0365 | -0.3736 | 0.0523 | 0.5350 |
| 10 | 6.68 | -0.00 | 0.0217 | 0.0000 | 0.0208 | 0.5000 | 0.9500 | -0.6964 | -0.0369 | -0.3666 | 0.0536 | 0.5354 |
| 11 | 6.89 | -0.00 | 0.0258 | 0.0000 | 0.0219 | 0.5000 | 0.8489 | -0.6870 | -0.0375 | -0.3677 | 0.0546 | 0.5353 |
| 12 | 7.09 | -0.00 | 0.0242 | 0.0000 | 0.0223 | 0.5000 | 0.9208 | -0.6840 | -0.0383 | -0.3648 | 0.0559 | 0.5334 |
| 13 | 7.27 | -0.01 | 0.0232 | 0.0000 | 0.0220 | 0.5000 | 0.9485 | -0.6753 | -0.0387 | -0.3606 | 0.0573 | 0.5340 |
| 14 | 7.48 | -0.01 | 0.0247 | 0.0000 | 0.0226 | 0.5000 | 0.9067 | -0.6667 | -0.0387 | -0.3636 | 0.0588 | 0.5332 |
| 15 | 7.69 | -0.01 | 0.0228 | 0.0000 | 0.0245 | 0.5000 | 0.8500 | -0.6726 | -0.0390 | -0.3582 | 0.0580 | 0.5326 |
| 16 | 7.89 | -0.02 | 0.0202 | 0.0000 | 0.0204 | 0.5000 | 1.0131 | -0.6747 | -0.0396 | -0.3583 | 0.0587 | 0.5311 |
| 17 | 8.08 | -0.01 | 0.0177 | 0.0000 | 0.0196 | 0.5000 | 1.0740 | -0.6746 | -0.0397 | -0.3577 | 0.0589 | 0.5302 |
| 18 | 8.28 | -0.00 | 0.0264 | 0.0000 | 0.0238 | 0.5000 | 0.8909 | -0.6666 | -0.0405 | -0.3523 | 0.0608 | 0.5283 |
| 19 | 8.38 | -0.01 | 0.0265 | 0.0000 | 0.0237 | 0.5000 | 0.8983 | -0.6690 | -0.0409 | -0.3516 | 0.0611 | 0.5295 |
| 20 | 8.56 | -0.01 | 0.0237 | 0.0000 | 0.0220 | 0.5000 | 0.9277 | -0.6646 | -0.0410 | -0.3485 | 0.0625 | 0.5212 |
| 21 | 8.73 | -0.01 | 0.0288 | 0.0000 | 0.0247 | 0.5000 | 0.8572 | -0.6691 | -0.0414 | -0.3468 | 0.0618 | 0.5183 |
| 22 | 8.91 | -0.02 | 0.0268 | 0.0000 | 0.0227 | 0.5000 | 0.9009 | -0.6641 | -0.0416 | -0.3421 | 0.0626 | 0.5152 |
| 23 | 9.09 | -0.02 | 0.0217 | 0.0000 | 0.0207 | 0.5000 | 0.9546 | -0.6608 | -0.0427 | -0.3378 | 0.0647 | 0.5112 |
| 24 | 9.26 | -0.01 | 0.0246 | 0.0000 | 0.0221 | 0.5000 | 0.8892 | -0.6613 | -0.0426 | -0.3379 | 0.0648 | 0.5105 |
| 25 | 9.43 | -0.01 | 0.0187 | 0.0000 | 0.0194 | 0.5000 | 1.0385 | -0.6614 | -0.0426 | -0.3368 | 0.0645 | 0.5093 |
| 26 | 9.61 | -0.01 | 0.0203 | 0.0000 | 0.0201 | 0.5000 | 0.9920 | -0.6550 | -0.0422 | -0.3334 | 0.0644 | 0.5086 |
| 27 | 9.81 | -0.01 | 0.0237 | 0.0000 | 0.0217 | 0.5000 | 0.9146 | -0.6542 | -0.0418 | -0.3332 | 0.0635 | 0.5093 |
| 28 | 9.98 | -0.01 | 0.0172 | 0.0000 | 0.0192 | 0.5000 | 1.1107 | -0.6504 | -0.0401 | -0.3352 | 0.0611 | 0.5108 |
| 29 | 10.16 | -0.01 | 0.0250 | 0.0000 | 0.0214 | 0.5000 | 0.8564 | -0.6540 | -0.0411 | -0.3339 | 0.0628 | 0.5108 |
| 30 | 10.34 | -0.02 | 0.0182 | 0.0000 | 0.0178 | 0.5000 | 1.1000 | -0.6534 | -0.0382 | -0.3370 | 0.0584 | 0.5159 |
| 31 | 10.51 | -0.01 | 0.0148 | 0.0000 | 0.0162 | 0.5000 | 1.0961 | -0.6563 | -0.0376 | -0.3410 | 0.0574 | 0.5198 |
| 32 | 10.67 | -0.01 | 0.0156 | 0.0000 | 0.0165 | 0.5000 | 1.0895 | -0.6540 | -0.0373 | -0.3408 | 0.0571 | 0.5211 |
| 33 | 10.86 | -0.02 | 0.0137 | 0.0000 | 0.0164 | 0.5000 | 1.1942 | -0.6663 | -0.0372 | -0.3479 | 0.0555 | 0.5222 |
| 34 | 11.04 | -0.03 | 0.0174 | 0.0000 | 0.0175 | 0.5000 | 1.0997 | -0.6717 | -0.0384 | -0.3517 | 0.0571 | 0.5238 |
| 35 | 11.21 | -0.03 | 0.0175 | 0.0000 | 0.0178 | 0.5000 | 0.9861 | -0.6821 | -0.0416 | -0.3573 | 0.0610 | 0.5238 |
| 36 | 11.38 | -0.01 | 0.0215 | 0.0000 | 0.0196 | 0.5000 | 0.9032 | -0.6808 | -0.0434 | -0.3458 | 0.0612 | 0.5233 |
| 37 | 11.54 | -0.02 | 0.0270 | 0.0000 | 0.0222 | 0.5000 | 0.8212 | -0.6866 | -0.0401 | -0.3389 | 0.0621 | 0.5243 |
| 38 | 11.71 | -0.02 | 0.0235 | 0.0000 | 0.0210 | 0.5000 | 0.8703 | -0.6814 | -0.0416 | -0.3481 | 0.0632 | 0.5264 |
| 39 | 11.89 | -0.02 | 0.0224 | 0.0000 | 0.0210 | 0.5000 | 0.9374 | -0.6574 | -0.0423 | -0.3466 | 0.0644 | 0.5272 |
| 40 | 12.05 | -0.02 | 0.0248 | 0.0000 | 0.0218 | 0.5000 | 0.8767 | -0.6516 | -0.0420 | -0.3441 | 0.0645 | 0.5281 |
| 41 | 12.22 | -0.03 | 0.0178 | 0.0000 | 0.0187 | 0.5000 | 1.0502 | -0.6483 | -0.0425 | -0.3426 | 0.0656 | 0.5285 |
| 42 | 12.39 | -0.03 | 0.0182 | 0.0000 | 0.0185 | 0.5000 | 1.0718 | -0.6416 | -0.0425 | -0.3399 | 0.0663 | 0.5298 |
| 43 | 12.57 | -0.03 | 0.0177 | 0.0000 | 0.0192 | 0.5000 | 1.0858 | -0.6375 | -0.0435 | -0.3387 | 0.0682 | 0.5313 |
| 44 | 12.73 | -0.02 | 0.0217 | 0.0000 | 0.0214 | 0.5000 | 0.9034 | -0.6269 | -0.0429 | -0.3330 | 0.0685 | 0.5312 |
| 45 | 12.89 | -0.02 | 0.0188 | 0.0000 | 0.0191 | 0.5000 | 1.1474 | -0.6220 | -0.0430 | -0.3313 | 0.0692 | 0.5327 |
| 46 | 13.08 | -0.02 | 0.0254 | 0.0000 | 0.0226 | 0.5000 | 0.9037 | -0.6178 | -0.0437 | -0.3298 | 0.0707 | 0.5338 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 MACH 0.90 REYNO-E 1.7 PHI 0.0 CONF 61 BOF 34 C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 13.26 | -0.01 | 0.0167 | 9.9999 | 0.0168 | 9.9999 | 1.1217 | -0.6073 | -0.0431 | -0.3244 | 0.0710 | 0.5337 |
| 48 | 13.41 | -0.02 | 0.0225 | 9.9999 | 0.0214 | 9.9999 | 0.9342 | -0.6005 | -0.0437 | -0.3265 | 0.0727 | 0.5340 |
| 49 | 13.58 | -0.01 | 0.0250 | 9.9999 | 0.0219 | 9.9999 | 0.8772 | -0.5906 | -0.0436 | -0.3158 | 0.0738 | 0.5347 |
| 50 | 13.76 | -0.02 | 0.0256 | 9.9999 | 0.0220 | 9.9999 | 0.8813 | -0.5800 | -0.0439 | -0.3147 | 0.0745 | 0.5347 |
| 51 | 13.91 | -0.02 | 0.0263 | 9.9999 | 0.0203 | 9.9999 | 0.9339 | -0.5775 | -0.0435 | -0.3099 | 0.0753 | 0.5368 |
| 52 | 14.10 | -0.02 | 0.0225 | 9.9999 | 0.0202 | 9.9999 | 0.9007 | -0.5800 | -0.0437 | -0.3046 | 0.0768 | 0.5360 |
| 53 | 14.25 | -0.03 | 0.0225 | 9.9999 | 0.0207 | 9.9999 | 0.9070 | -0.5707 | -0.0443 | -0.3072 | 0.0776 | 0.5382 |
| 54 | 14.41 | -0.03 | 0.0265 | 9.9999 | 0.0220 | 9.9999 | 0.8695 | -0.5708 | -0.0443 | -0.3065 | 0.0776 | 0.5405 |
| 55 | 14.55 | -0.02 | 0.0204 | 9.9999 | 0.0185 | 9.9999 | 0.9265 | -0.5666 | -0.0446 | -0.3072 | 0.0787 | 0.5426 |
| 56 | 14.70 | -0.02 | 0.0213 | 9.9999 | 0.0202 | 9.9999 | 0.9491 | -0.5620 | -0.0446 | -0.3053 | 0.0794 | 0.5433 |
| 57 | 14.93 | -0.03 | 0.0195 | 9.9999 | 0.0190 | 9.9999 | 0.9555 | -0.5593 | -0.0451 | -0.3050 | 0.0807 | 0.5453 |
| 58 | 15.11 | -0.03 | 0.0178 | 9.9999 | 0.0184 | 9.9999 | 1.0327 | -0.5501 | -0.0454 | -0.3042 | 0.0817 | 0.5470 |
| 59 | 15.28 | -0.03 | 0.0162 | 9.9999 | 0.0171 | 9.9999 | 1.0162 | -0.5531 | -0.0454 | -0.3046 | 0.0821 | 0.5506 |
| 60 | 15.44 | -0.03 | 0.0205 | 9.9999 | 0.0185 | 9.9999 | 0.9332 | -0.5461 | -0.0459 | -0.3033 | 0.0836 | 0.5534 |
| 61 | 15.61 | -0.05 | 0.0176 | 9.9999 | 0.0175 | 9.9999 | 0.9977 | -0.5420 | -0.0460 | -0.3017 | 0.0848 | 0.5566 |
| 62 | 15.79 | -0.04 | 0.0163 | 9.9999 | 0.0152 | 9.9999 | 1.0429 | -0.5301 | -0.0455 | -0.2995 | 0.0855 | 0.5587 |
| 63 | 15.95 | -0.03 | 0.0119 | 9.9999 | 0.0136 | 9.9999 | 1.1040 | -0.5358 | -0.0464 | -0.2996 | 0.0869 | 0.5612 |
| 64 | 16.12 | -0.03 | 0.0154 | 9.9999 | 0.0161 | 9.9999 | 1.0449 | -0.5280 | -0.0460 | -0.2987 | 0.0865 | 0.5650 |
| 65 | 16.28 | -0.04 | 0.0135 | 9.9999 | 0.0145 | 9.9999 | 1.0722 | -0.5207 | -0.0461 | -0.2961 | 0.0865 | 0.5688 |
| 66 | 16.44 | -0.03 | 0.0164 | 9.9999 | 0.0141 | 9.9999 | 1.1403 | -0.5112 | -0.0466 | -0.2912 | 0.0911 | 0.5696 |
| 67 | 16.61 | -0.03 | 0.0173 | 9.9999 | 0.0121 | 9.9999 | 1.0676 | -0.5014 | -0.0470 | -0.2871 | 0.0937 | 0.5727 |
| 68 | 16.78 | -0.03 | 0.0135 | 9.9999 | 0.0145 | 9.9999 | 1.0424 | -0.4963 | -0.0475 | -0.2855 | 0.0957 | 0.5753 |
| 69 | 16.94 | -0.04 | 0.0083 | 9.9999 | 0.0117 | 9.9999 | 1.4393 | -0.4869 | -0.0472 | -0.2825 | 0.0982 | 0.5874 |
| 70 | 17.12 | -0.03 | 0.0165 | 9.9999 | 0.0152 | 9.9999 | 0.9224 | -0.4781 | -0.0491 | -0.2817 | 0.1033 | 0.5931 |
| 71 | 17.28 | -0.03 | 0.0127 | 9.9999 | 0.0155 | 9.9999 | 0.8259 | -0.4824 | -0.0489 | -0.2750 | 0.1057 | 0.5948 |
| 72 | 17.45 | -0.04 | 0.0110 | 9.9999 | 0.0117 | 9.9999 | 1.0036 | -0.4537 | -0.0490 | -0.2692 | 0.1079 | 0.5933 |
| 73 | 17.62 | -0.03 | 0.0051 | 9.9999 | 0.0054 | 9.9999 | 1.0317 | -0.4375 | -0.0485 | -0.2567 | 0.1107 | 0.5935 |
| 74 | 17.78 | -0.04 | 0.0155 | 9.9999 | 0.0115 | 9.9999 | 0.7230 | -0.4306 | -0.0486 | -0.2543 | 0.1133 | 0.5905 |
| 75 | 17.94 | -0.03 | 0.0160 | 9.9999 | 0.0110 | 9.9999 | 0.6887 | -0.4100 | -0.0475 | -0.2440 | 0.1159 | 0.5951 |
| 76 | 18.11 | -0.04 | 0.0201 | 9.9999 | 0.0128 | 9.9999 | 0.6359 | -0.4041 | -0.0480 | -0.2368 | 0.1185 | 0.5905 |
| 77 | 18.27 | -0.04 | 0.0237 | 9.9999 | 0.0145 | 9.9999 | 0.6126 | -0.3897 | -0.0477 | -0.2305 | 0.1225 | 0.5915 |
| 78 | 18.45 | -0.04 | 0.0201 | 9.9999 | 0.0147 | 9.9999 | 0.6307 | -0.3861 | -0.0474 | -0.2246 | 0.1247 | 0.5908 |
| 79 | 18.61 | -0.03 | 0.0253 | 9.9999 | 0.0148 | 9.9999 | 0.5871 | -0.3721 | -0.0471 | -0.2195 | 0.1265 | 0.5927 |
| 80 | 18.78 | -0.04 | 0.0221 | 9.9999 | 0.0136 | 9.9999 | 0.6136 | -0.3645 | -0.0466 | -0.2157 | 0.1284 | 0.5916 |
| 81 | 18.93 | -0.03 | 0.0165 | 9.9999 | 0.0107 | 9.9999 | 0.6463 | -0.3401 | -0.0457 | -0.2047 | 0.1322 | 0.5913 |
| 82 | 19.11 | -0.04 | 0.0197 | 9.9999 | 0.0121 | 9.9999 | 0.6176 | -0.3347 | -0.0453 | -0.1980 | 0.1354 | 0.5917 |
| 83 | 19.25 | -0.03 | 0.0238 | 9.9999 | 0.0135 | 9.9999 | 0.5664 | -0.3264 | -0.0449 | -0.1935 | 0.1378 | 0.5928 |
| 84 | 19.40 | -0.03 | 0.0223 | 9.9999 | 0.0136 | 9.9999 | 0.5820 | -0.3146 | -0.0440 | -0.1868 | 0.1398 | 0.5932 |
| 85 | 19.57 | -0.04 | 0.0202 | 9.9999 | 0.0116 | 9.9999 | 0.5760 | -0.3051 | -0.0437 | -0.1806 | 0.1431 | 0.5920 |
| 86 | 19.73 | -0.04 | 0.0187 | 9.9999 | 0.0108 | 9.9999 | 0.5765 | -0.2892 | -0.0420 | -0.1698 | 0.1478 | 0.5976 |
| 87 | 19.89 | -0.03 | 0.0227 | 9.9999 | 0.0135 | 9.9999 | 0.5950 | -0.2764 | -0.0419 | -0.1655 | 0.1516 | 0.5987 |
| 88 | 20.04 | -0.04 | 0.0196 | 9.9999 | 0.0151 | 9.9999 | 0.6271 | -0.2619 | -0.0402 | -0.1562 | 0.1536 | 0.5965 |
| 89 | 20.19 | -0.04 | 0.0136 | 9.9999 | 0.0096 | 9.9999 | 0.6186 | -0.2516 | -0.0396 | -0.1493 | 0.1573 | 0.5928 |
| 90 | 20.35 | -0.04 | 0.0187 | 9.9999 | 0.0108 | 9.9999 | 0.5765 | -0.2430 | -0.0382 | -0.1464 | 0.1566 | 0.6008 |
| 91 | 20.49 | -0.04 | 0.0146 | 9.9999 | 0.0087 | 9.9999 | 0.5966 | -0.2266 | -0.0377 | -0.1363 | 0.1664 | 0.6011 |
| 92 | 20.66 | -0.05 | 0.0162 | 9.9999 | 0.0085 | 9.9999 | 0.5244 | -0.2227 | -0.0373 | -0.1334 | 0.1676 | 0.5990 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RXIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 123 0.90 1.7 0.0 BLKF34 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 20.80 | -0.05 | 0.0188 | 0.9999 | 0.0095 | 0.9999 | 0.5237 | -0.2068 | -0.0355 | -0.1264 | 0.1714 | 0.6110 |
| 94 | 20.96 | -0.05 | 0.0197 | 0.9999 | 0.0102 | 0.9999 | 0.5590 | -0.1961 | -0.0346 | -0.1261 | 0.1782 | 0.6126 |
| 95 | 21.13 | -0.05 | 0.0225 | 0.9999 | 0.0107 | 0.9999 | 0.4758 | -0.1892 | -0.0341 | -0.1163 | 0.1862 | 0.6145 |
| 96 | 21.28 | -0.05 | 0.0238 | 0.9999 | 0.0118 | 0.9999 | 0.4624 | -0.1835 | -0.0334 | -0.1134 | 0.1819 | 0.6179 |
| 97 | 21.44 | -0.05 | 0.0260 | 0.9999 | 0.0090 | 0.9999 | 0.4521 | -0.1712 | -0.0324 | -0.1056 | 0.1894 | 0.6167 |
| 98 | 21.60 | -0.05 | 0.0263 | 0.9999 | 0.0098 | 0.9999 | 0.4466 | -0.1515 | -0.0302 | -0.0906 | 0.1993 | 0.6384 |
| 99 | 21.75 | -0.06 | 0.0185 | 0.9999 | 0.0082 | 0.9999 | 0.4550 | -0.1352 | -0.0274 | -0.0877 | 0.2031 | 0.6485 |
| 100 | 21.91 | -0.05 | 0.0230 | 0.9999 | 0.0104 | 0.9999 | 0.4215 | -0.1302 | -0.0265 | -0.0848 | 0.2037 | 0.6511 |
| 101 | 22.06 | -0.05 | 0.0252 | 0.9999 | 0.0103 | 0.9999 | 0.4382 | -0.1326 | -0.0270 | -0.0840 | 0.2035 | 0.6338 |
| 102 | 22.22 | -0.06 | 0.0215 | 0.9999 | 0.0096 | 0.9999 | 0.4492 | -0.1116 | -0.0235 | -0.0747 | 0.2106 | 0.6655 |
| 103 | 22.37 | -0.05 | 0.0215 | 0.9999 | 0.0088 | 0.9999 | 0.4097 | -0.1094 | -0.0230 | -0.0735 | 0.2101 | 0.6724 |
| 104 | 22.52 | -0.05 | 0.0205 | 0.9999 | 0.0083 | 0.9999 | 0.4052 | -0.0898 | -0.0208 | -0.0624 | 0.2342 | 0.7033 |
| 105 | 22.67 | -0.06 | 0.0241 | 0.9999 | 0.0101 | 0.9999 | 0.4172 | -0.0916 | -0.0211 | -0.0632 | 0.2304 | 0.6897 |
| 106 | 22.81 | -0.05 | 0.0220 | 0.9999 | 0.0085 | 0.9999 | 0.4047 | -0.0780 | -0.0185 | -0.0538 | 0.2514 | 0.7314 |
| 107 | 22.95 | -0.06 | 0.0251 | 0.9999 | 0.0102 | 0.9999 | 0.4056 | -0.0669 | -0.0175 | -0.0504 | 0.2613 | 0.7541 |
| 108 | 23.10 | -0.05 | 0.0175 | 0.9999 | 0.0085 | 0.9999 | 0.3741 | -0.0532 | -0.0156 | -0.0438 | 0.2930 | 0.8184 |
| 109 | 23.24 | -0.06 | 0.0150 | 0.9999 | 0.0077 | 0.9999 | 0.3707 | -0.0549 | -0.0148 | -0.0420 | 0.2689 | 0.7653 |
| 110 | 23.40 | -0.05 | 0.0150 | 0.9999 | 0.0068 | 0.9999 | 0.3187 | -0.0505 | -0.0137 | -0.0365 | 0.2716 | 0.7822 |
| 111 | 23.54 | -0.06 | 0.0253 | 0.9999 | 0.0106 | 0.9999 | 0.3609 | -0.0477 | -0.0133 | -0.0380 | 0.2789 | 0.7956 |
| 112 | 23.58 | -0.06 | 0.0260 | 0.9999 | 0.0138 | 0.9999 | 0.3744 | -0.0371 | -0.0115 | -0.0336 | 0.3106 | 0.9055 |
| 113 | 23.58 | -0.06 | 0.0268 | 0.9999 | 0.0100 | 0.9999 | 0.3741 | -0.0349 | -0.0111 | -0.0326 | 0.3185 | 0.9324 |
| 114 | 23.59 | -0.05 | 0.0296 | 0.9999 | 0.0110 | 0.9999 | 0.3711 | -0.0389 | -0.0126 | -0.0343 | 0.3235 | 0.8830 |
| 115 | 23.59 | -0.05 | 0.0395 | 0.9999 | 0.0147 | 0.9999 | 0.3609 | -0.0450 | -0.0123 | -0.0365 | 0.2725 | 0.8111 |
| 116 | 23.58 | -0.07 | 0.0261 | 0.9999 | 0.0102 | 0.9999 | 0.3621 | -0.0343 | -0.0105 | -0.0314 | 0.3182 | 0.9161 |
| 117 | 23.58 | -0.06 | 0.0271 | 0.9999 | 0.0095 | 0.9999 | 0.3517 | -0.0256 | -0.0085 | -0.0300 | 0.3333 | 1.1721 |
| 118 | 23.58 | -0.07 | 0.0180 | 0.9999 | 0.0055 | 0.9999 | 0.3657 | -0.0369 | -0.0106 | -0.0323 | 0.2673 | 0.8741 |
| 119 | 23.58 | -0.06 | 0.0328 | 0.9999 | 0.0112 | 0.9999 | 0.3621 | -0.0430 | -0.0113 | -0.0348 | 0.2633 | 0.8073 |
| 120 | 23.58 | -0.05 | 0.0344 | 0.9999 | 0.0115 | 0.9999 | 0.3506 | -0.0365 | -0.0108 | -0.0328 | 0.2811 | 0.8521 |
| 121 | 23.58 | -0.06 | 0.0276 | 0.9999 | 0.0101 | 0.9999 | 0.3552 | -0.0316 | -0.0100 | -0.0306 | 0.3137 | 0.9615 |
| 122 | 23.58 | -0.06 | 0.0272 | 0.9999 | 0.0136 | 0.9999 | 0.3651 | -0.0367 | -0.0105 | -0.0334 | 0.2715 | 0.8636 |
| 123 | 23.58 | -0.05 | 0.0358 | 0.9999 | 0.0126 | 0.9999 | 0.3509 | -0.0366 | -0.0107 | -0.0328 | 0.2910 | 0.8956 |
| 124 | 23.58 | -0.06 | 0.0366 | 0.9999 | 0.0136 | 0.9999 | 0.3504 | -0.0430 | -0.0112 | -0.0351 | 0.2609 | 0.8146 |
| 125 | 23.57 | -0.06 | 0.0265 | 0.9999 | 0.0068 | 0.9999 | 0.3241 | -0.0432 | -0.0109 | -0.0339 | 0.2713 | 0.8430 |
| 126 | 23.58 | -0.07 | 0.0312 | 0.9999 | 0.0105 | 0.9999 | 0.3359 | -0.0349 | -0.0103 | -0.0310 | 0.2982 | 0.9586 |
| 127 | 23.57 | -0.06 | 0.0251 | 0.9999 | 0.0098 | 0.9999 | 0.3316 | -0.0385 | -0.0106 | -0.0330 | 0.2757 | 0.8575 |
| 128 | 23.58 | -0.06 | 0.0293 | 0.9999 | 0.0136 | 0.9999 | 0.3456 | -0.0347 | -0.0106 | -0.0341 | 0.2670 | 0.8593 |
| 129 | 23.57 | -0.06 | 0.0328 | 0.9999 | 0.0105 | 0.9999 | 0.3326 | -0.0417 | -0.0114 | -0.0349 | 0.2743 | 0.8360 |
| 130 | 23.57 | -0.05 | 0.0337 | 0.9999 | 0.0116 | 0.9999 | 0.3446 | -0.0362 | -0.0105 | -0.0326 | 0.2902 | 0.9002 |
| 131 | 23.57 | -0.06 | 0.0302 | 0.9999 | 0.0104 | 0.9999 | 0.3440 | -0.0387 | -0.0104 | -0.0337 | 0.2688 | 0.8717 |
| 132 | 23.58 | -0.06 | 0.0266 | 0.9999 | 0.0084 | 0.9999 | 0.3197 | -0.0341 | -0.0100 | -0.0315 | 0.2927 | 0.9247 |
| 133 | 23.57 | -0.06 | 0.0373 | 0.9999 | 0.0126 | 0.9999 | 0.3363 | -0.0405 | -0.0113 | -0.0345 | 0.2795 | 0.8515 |
| 134 | 23.57 | -0.06 | 0.0256 | 0.9999 | 0.0095 | 0.9999 | 0.3221 | -0.0342 | -0.0096 | -0.0307 | 0.2857 | 0.8576 |
| 135 | 23.58 | -0.06 | 0.0368 | 0.9999 | 0.0117 | 0.9999 | 0.3185 | -0.0395 | -0.0110 | -0.0338 | 0.2789 | 0.8599 |
| 136 | 23.57 | -0.07 | 0.0415 | 0.9999 | 0.0142 | 0.9999 | 0.3392 | -0.0446 | -0.0115 | -0.0358 | 0.2587 | 0.8024 |
| 137 | 23.57 | -0.06 | 0.0328 | 0.9999 | 0.0105 | 0.9999 | 0.3199 | -0.0362 | -0.0104 | -0.0317 | 0.2874 | 0.8773 |
| 138 | 23.57 | -0.07 | 0.0252 | 0.9999 | 0.0085 | 0.9999 | 0.3054 | -0.0340 | -0.0102 | -0.0307 | 0.2957 | 0.9031 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&3 MACH 0.96 RX10-6 1.7 PHI 0.0 CONF 34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 23.57 | -0.07 | 0.0373 | 9.9999 | 0.0126 | 9.9999 | 0.3383 | -0.0372 | -0.0110 | -0.0333 | 0.2961 | 0.8546 |
| 140 | 23.57 | -0.06 | 0.0369 | 9.9999 | 0.0091 | 9.9999 | 0.3145 | -0.0316 | -0.0102 | -0.0309 | 0.3224 | 0.9786 |
| 141 | 23.57 | -0.06 | 0.0362 | 9.9999 | 0.0096 | 9.9999 | 0.3200 | -0.0329 | -0.0101 | -0.0307 | 0.3070 | 0.9346 |
| 142 | 23.57 | -0.06 | 0.0364 | 9.9999 | 0.0127 | 9.9999 | 0.3249 | -0.0324 | -0.0104 | -0.0326 | 0.2807 | 0.8457 |
| 143 | 23.57 | -0.07 | 0.0363 | 9.9999 | 0.0093 | 9.9999 | 0.3066 | -0.0276 | -0.0089 | -0.0292 | 0.3245 | 1.0580 |
| 144 | 23.57 | -0.05 | 0.0297 | 9.9999 | 0.0089 | 9.9999 | 0.3000 | -0.0318 | -0.0098 | -0.0296 | 0.3072 | 0.9358 |
| 145 | 23.57 | -0.06 | 0.0354 | 9.9999 | 0.0111 | 9.9999 | 0.3140 | -0.0332 | -0.0106 | -0.0317 | 0.3197 | 0.9571 |
| 146 | 23.56 | -0.06 | 0.0364 | 9.9999 | 0.0126 | 9.9999 | 0.3136 | -0.0317 | -0.0100 | -0.0308 | 0.3148 | 0.9716 |
| 147 | 23.57 | -0.06 | 0.0343 | 9.9999 | 0.0107 | 9.9999 | 0.3114 | -0.0305 | -0.0113 | -0.0342 | 0.2755 | 0.8442 |
| 148 | 23.57 | -0.06 | 0.0343 | 9.9999 | 0.0103 | 9.9999 | 0.2993 | -0.0303 | -0.0104 | -0.0322 | 0.2885 | 0.8862 |
| 149 | 23.57 | -0.06 | 0.0323 | 9.9999 | 0.0096 | 9.9999 | 0.3016 | -0.0309 | -0.0093 | -0.0297 | 0.2997 | 0.9208 |
| 150 | 23.56 | -0.06 | 0.0329 | 9.9999 | 0.0093 | 9.9999 | 0.2842 | -0.0275 | -0.0103 | -0.0328 | 0.2742 | 0.8734 |
| 151 | 23.57 | -0.06 | 0.0334 | 9.9999 | 0.0100 | 9.9999 | 0.2984 | -0.0295 | -0.0121 | -0.0383 | 0.2648 | 0.7973 |
| 152 | 23.57 | -0.06 | 0.0348 | 9.9999 | 0.0111 | 9.9999 | 0.3187 | -0.0336 | -0.0105 | -0.0315 | 0.3108 | 0.9333 |
| 153 | 23.57 | -0.05 | 0.0385 | 9.9999 | 0.0117 | 9.9999 | 0.3047 | -0.0301 | -0.0121 | -0.0380 | 0.2815 | 0.7815 |
| 154 | 23.57 | -0.06 | 0.0369 | 9.9999 | 0.0099 | 9.9999 | 0.2999 | -0.0297 | -0.0091 | -0.0286 | 0.3077 | 0.9628 |
| 155 | 23.57 | -0.06 | 0.0436 | 9.9999 | 0.0138 | 9.9999 | 0.3119 | -0.0325 | -0.0107 | -0.0311 | 0.3251 | 0.9563 |
| 156 | 23.57 | -0.07 | 0.0339 | 9.9999 | 0.0101 | 9.9999 | 0.3015 | -0.0309 | -0.0104 | -0.0308 | 0.3067 | 0.9090 |
| 157 | 23.57 | -0.06 | 0.0351 | 9.9999 | 0.0101 | 9.9999 | 0.3127 | -0.0307 | -0.0113 | -0.0345 | 0.2788 | 0.8457 |
| 158 | 23.57 | -0.06 | 0.0370 | 9.9999 | 0.0105 | 9.9999 | 0.2943 | -0.0291 | -0.0101 | -0.0345 | 0.2795 | 0.8006 |
| 159 | 23.57 | -0.06 | 0.0319 | 9.9999 | 0.0092 | 9.9999 | 0.2892 | -0.0302 | -0.0102 | -0.0310 | 0.2891 | 0.8806 |
| 160 | 23.57 | -0.06 | 0.0284 | 9.9999 | 0.0073 | 9.9999 | 0.2956 | -0.0305 | -0.0103 | -0.0316 | 0.2789 | 0.8572 |
| 161 | 23.57 | -0.05 | 0.0365 | 9.9999 | 0.0115 | 9.9999 | 0.3015 | -0.0310 | -0.0113 | -0.0334 | 0.3062 | 0.9024 |
| 162 | 23.57 | -0.06 | 0.0299 | 9.9999 | 0.0085 | 9.9999 | 0.2851 | -0.0291 | -0.0089 | -0.0279 | 0.3185 | 0.9940 |
| 163 | 23.57 | -0.06 | 0.0354 | 9.9999 | 0.0111 | 9.9999 | 0.3140 | -0.0305 | -0.0111 | -0.0329 | 0.2816 | 0.8323 |
| 164 | 23.56 | -0.06 | 0.0344 | 9.9999 | 0.0100 | 9.9999 | 0.2894 | -0.0421 | -0.0117 | -0.0342 | 0.2790 | 0.8130 |
| 165 | 23.57 | -0.06 | 0.0375 | 9.9999 | 0.0107 | 9.9999 | 0.2847 | -0.0375 | -0.0105 | -0.0330 | 0.2798 | 0.8785 |
| 166 | 23.56 | -0.05 | 0.0416 | 9.9999 | 0.0126 | 9.9999 | 0.3018 | -0.0393 | -0.0114 | -0.0351 | 0.2910 | 0.8420 |
| 167 | 23.57 | -0.05 | 0.0405 | 9.9999 | 0.0123 | 9.9999 | 0.3044 | -0.0426 | -0.0120 | -0.0346 | 0.2805 | 0.8152 |
| 168 | 23.57 | -0.06 | 0.0381 | 9.9999 | 0.0107 | 9.9999 | 0.2808 | -0.0422 | -0.0115 | -0.0342 | 0.2734 | 0.8110 |
| 169 | 23.57 | -0.05 | 0.0381 | 9.9999 | 0.0107 | 9.9999 | 0.2868 | -0.0394 | -0.0111 | -0.0329 | 0.2823 | 0.8345 |
| 170 | 23.57 | -0.05 | 0.0330 | 9.9999 | 0.0091 | 9.9999 | 0.2770 | -0.0372 | -0.0107 | -0.0321 | 0.2877 | 0.8612 |
| 171 | 23.57 | -0.06 | 0.0351 | 9.9999 | 0.0114 | 9.9999 | 0.2919 | -0.0396 | -0.0105 | -0.0333 | 0.2756 | 0.8426 |
| 172 | 23.56 | -0.06 | 0.0356 | 9.9999 | 0.0115 | 9.9999 | 0.2907 | -0.0385 | -0.0108 | -0.0327 | 0.2811 | 0.8454 |
| 173 | 23.56 | -0.06 | 0.0351 | 9.9999 | 0.0112 | 9.9999 | 0.2866 | -0.0405 | -0.0114 | -0.0339 | 0.2821 | 0.8366 |
| 174 | 23.57 | -0.05 | 0.0388 | 9.9999 | 0.0113 | 9.9999 | 0.2931 | -0.0449 | -0.0122 | -0.0362 | 0.2708 | 0.8060 |
| 175 | 23.56 | -0.05 | 0.0431 | 9.9999 | 0.0132 | 9.9999 | 0.3053 | -0.0433 | -0.0120 | -0.0344 | 0.2764 | 0.7963 |
| 176 | 23.56 | -0.06 | 0.0355 | 9.9999 | 0.0103 | 9.9999 | 0.2897 | -0.0383 | -0.0112 | -0.0334 | 0.2935 | 0.8730 |
| 177 | 23.56 | -0.05 | 0.0365 | 9.9999 | 0.0104 | 9.9999 | 0.2943 | -0.0445 | -0.0117 | -0.0356 | 0.2840 | 0.7998 |
| 178 | 23.57 | -0.05 | 0.0381 | 9.9999 | 0.0087 | 9.9999 | 0.2853 | -0.0404 | -0.0115 | -0.0352 | 0.2853 | 0.8267 |
| 179 | 23.56 | -0.05 | 0.0371 | 9.9999 | 0.0104 | 9.9999 | 0.2795 | -0.0440 | -0.0116 | -0.0343 | 0.2648 | 0.7807 |
| 180 | 23.56 | -0.05 | 0.0345 | 9.9999 | 0.0092 | 9.9999 | 0.2875 | -0.0340 | -0.0101 | -0.0306 | 0.2913 | 0.8839 |
| 181 | 23.56 | -0.05 | 0.0356 | 9.9999 | 0.0095 | 9.9999 | 0.2884 | -0.0360 | -0.0110 | -0.0315 | 0.3064 | 0.8766 |
| 182 | 23.56 | -0.06 | 0.0452 | 9.9999 | 0.0133 | 9.9999 | 0.2938 | -0.0416 | -0.0116 | -0.0343 | 0.2800 | 0.8256 |
| 183 | 23.58 | -0.06 | 0.0366 | 9.9999 | 0.0108 | 9.9999 | 0.2797 | -0.0419 | -0.0112 | -0.0348 | 0.2680 | 0.8294 |
| 184 | 23.57 | -0.06 | 0.0348 | 9.9999 | 0.0085 | 9.9999 | 0.2877 | -0.0364 | -0.0110 | -0.0324 | 0.2873 | 0.8436 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 123 MACH 0.90 REXIS-C 1.7 PHI C.C BLOCF36 0.0 CONF DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 23.56 | -0.05 | 0.0320 | 9.9999 | 0.0001 | 9.9999 | 0.2527 | -0.0483 | -0.0124 | -0.0366 | 0.2559 | 0.7574 |
| 186 | 23.56 | -0.06 | 0.0386 | 9.9999 | 0.0101 | 9.9999 | 0.2749 | -0.0365 | -0.0100 | -0.0316 | 0.2735 | 0.8670 |
| 187 | 23.57 | -0.05 | 0.0350 | 9.9999 | 0.0093 | 9.9999 | 0.2505 | -0.0356 | -0.0106 | -0.0310 | 0.2582 | 0.8723 |
| 188 | 23.56 | -0.05 | 0.0295 | 9.9999 | 0.0088 | 9.9999 | 0.2319 | -0.0419 | -0.0112 | -0.0338 | 0.2680 | 0.8071 |
| 189 | 23.57 | -0.05 | 0.0285 | 9.9999 | 0.0087 | 9.9999 | 0.2367 | -0.0425 | -0.0122 | -0.0332 | 0.2861 | 0.7866 |
| 190 | 23.56 | -0.05 | 0.0225 | 9.9999 | 0.0090 | 9.9999 | 0.1801 | -0.0447 | -0.0115 | -0.0343 | 0.2581 | 0.7680 |
| 191 | 25.21 | -0.05 | 0.0370 | 9.9999 | 0.0104 | 9.9999 | 0.2756 | 0.0005 | 0.0217 | 0.0187 | 0.3591 | 0.3086 |
| 192 | 27.05 | 0.01 | 0.0737 | 9.9999 | 0.0255 | 9.9999 | 0.5462 | 0.0081 | 0.0461 | 0.0401 | 0.5230 | 0.4559 |
| 193 | 30.13 | 0.02 | 0.0777 | 9.9999 | 0.0288 | 9.9999 | 0.5838 | 0.2036 | 0.0690 | 0.1017 | 0.5442 | 0.5065 |
| 194 | 32.08 | 0.00 | 0.0874 | 9.9999 | 0.0356 | 9.9999 | 0.6353 | 0.2980 | 0.0841 | 0.1622 | 0.2817 | 0.5433 |
| 195 | 35.25 | -0.05 | 0.0523 | 9.9999 | 0.0181 | 9.9999 | 0.3451 | 0.4990 | 0.0786 | 0.2848 | 0.1575 | 0.5767 |
| 196 | 35.02 | -0.01 | 0.0351 | 9.9999 | 0.0100 | 9.9999 | 0.2634 | 0.5072 | 0.0651 | 0.3027 | 0.1148 | 0.5337 |
| 197 | 44.34 | -0.02 | 0.0418 | 9.9999 | 0.0142 | 9.9999 | 0.3400 | 0.6705 | 0.0622 | 0.3651 | 0.0927 | 0.5444 |
| 198 | 47.60 | 0.04 | 0.0300 | 9.9999 | 0.0102 | 9.9999 | 0.3303 | 0.7445 | 0.0487 | 0.3954 | 0.0654 | 0.5312 |
| 199 | 51.20 | 0.07 | 0.0525 | 9.9999 | 0.0205 | 9.9999 | 0.3971 | 0.7106 | 0.0679 | 0.4043 | 0.0956 | 0.5689 |
| 200 | 49.21 | -0.04 | 0.0135 | 9.9999 | 0.0048 | 9.9999 | 0.3060 | 0.7423 | 0.0521 | 0.4016 | 0.0702 | 0.5410 |
| 201 | 47.13 | 0.01 | 0.0315 | 9.9999 | 0.0114 | 9.9999 | 0.3622 | 0.7036 | 0.0528 | 0.3814 | 0.0754 | 0.5443 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 124 MACH 1.60 REYNOLDS/FT 1.7 PHI 0.0 CONFIG 34 C.G. 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.91 | -0.04 | -0.8761 | 10.1748 | C.0425 | -C.3450 | 0.0368 | 1.6130 | 0.3510 | 1.4621 | -11.6144 |
| 2 | 15.91 | -0.04 | -0.8933 | 10.1864 | C.0002 | -0.2290 | 0.0250 | 1.6183 | 0.3571 | 1.4615 | -11.3745 |
| 3 | 15.91 | -0.04 | -0.8861 | 10.0955 | C.0452 | -C.2292 | 0.0135 | 1.6081 | 0.3546 | 1.4534 | -11.3582 |
| 4 | 15.91 | -0.05 | -0.9245 | 10.2405 | -0.0012 | -0.1083 | 0.0300 | 1.6240 | 0.3560 | 1.4680 | -11.0727 |
| 5 | 15.93 | -0.05 | -0.8555 | 9.8288 | -0.0731 | -C.2103 | 0.0311 | 1.7625 | 0.3563 | 1.4266 | -14.0407 |
| 6 | 17.04 | -0.05 | -0.9243 | 9.8375 | 0.0057 | -0.3087 | 0.0369 | 1.8021 | 0.3211 | 1.1810 | -317.1405 |
| 7 | 19.78 | -0.03 | 0.8164 | 5.8353 | C.0424 | -C.1663 | 0.0377 | 1.1913 | 0.3070 | 0.8844 | 6.5024 |
| 8 | 22.00 | -0.04 | 1.8463 | 3.5154 | -C.0325 | -0.0033 | -0.0594 | 0.8416 | 0.2677 | 0.5541 | 1.5041 |
| 9 | 24.32 | -0.03 | 2.5243 | 2.1342 | C.0585 | -C.1697 | -0.0826 | 0.5987 | 0.2666 | 0.3121 | 0.7298 |
| 10 | 26.87 | 0.03 | 4.1264 | C.4861 | 1.0174 | -2.4686 | -0.2857 | 0.3181 | 0.2564 | 0.0217 | 0.1178 |
| 11 | 29.10 | 0.04 | 5.1687 | -C.4803 | 1.0704 | -2.2642 | -0.0015 | 0.0647 | 0.2904 | -0.2256 | -0.0526 |
| 12 | 31.00 | 0.04 | 6.0138 | -1.5126 | 1.0026 | -1.8511 | -0.0393 | -0.1993 | 0.2701 | -0.4694 | -0.2891 |
| 13 | 35.07 | 0.04 | 8.3556 | -3.0558 | 1.1258 | -2.7262 | 0.0357 | -0.5757 | 0.2550 | -0.8307 | -0.4353 |
| 14 | 40.63 | 0.00 | 11.1887 | -4.4140 | C.5356 | -1.7111 | 0.0540 | -1.1130 | 0.1942 | -1.3072 | -0.5734 |
| 15 | 43.71 | -0.01 | 11.5720 | -4.1146 | C.4023 | -1.2592 | 0.0969 | -1.1796 | 0.1761 | -1.3579 | -0.5283 |
| 16 | 41.72 | -0.03 | 11.0438 | -4.3517 | C.3124 | -C.6412 | -0.1278 | -1.1231 | 0.1962 | -1.3193 | -0.5751 |
| 17 | 39.60 | -0.00 | 9.9329 | -5.2668 | C.3613 | -1.0870 | -0.1137 | -0.9407 | 0.2092 | -1.1455 | -0.5325 |
| 18 | 37.49 | 0.01 | 8.9369 | -4.2653 | C.7100 | -1.8089 | 0.0102 | -0.7345 | 0.2427 | -0.9772 | -0.4771 |
| 19 | 35.29 | -0.00 | 7.8077 | -3.0577 | C.6328 | -1.4666 | 0.0848 | -0.5010 | 0.2527 | -0.7537 | -0.3916 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 124 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF 81&0F34 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.91 | -0.04 | 0.0011 | 0.0041 | 0.022E | 3.5454 | 19.9545 | -0.5977 | -0.0054 | -0.3232 | 0.0090 | 0.5468 |
| 2 | 15.91 | -0.04 | 0.0018 | 0.0049 | 0.0223 | 2.4708 | 12.0183 | -0.5846 | -0.0048 | -0.3174 | 0.0082 | 0.5436 |
| 3 | 15.91 | -0.04 | -0.0038 | 0.0035 | 0.0185 | -0.9189 | -4.9077 | -0.5798 | -0.0052 | -0.3142 | 0.0050 | 0.5420 |
| 4 | 15.91 | -0.05 | -0.0078 | 0.0034 | 0.0172 | -2.4521 | -2.2000 | -0.5978 | -0.0051 | -0.3239 | 0.0065 | 0.5425 |
| 5 | 15.93 | -0.05 | 0.0038 | 0.0031 | 0.0229 | 1.3243 | 5.9594 | -0.5899 | -0.0052 | -0.3082 | 0.0091 | 0.5468 |
| 6 | 17.64 | -0.03 | -0.0016 | 0.0037 | 0.0259 | -3.8000 | -22.9476 | -0.4259 | -0.0066 | -0.2346 | 0.0155 | 0.5538 |
| 7 | 19.76 | -0.03 | -0.0134 | 0.0026 | 0.0184 | -0.1938 | -1.2220 | -0.2714 | -0.0048 | -0.1557 | 0.0176 | 0.5738 |
| 8 | 22.00 | -0.04 | -0.0307 | -0.0011 | 0.0076 | 0.0373 | -0.2200 | -0.1051 | 0.0045 | -0.0733 | -0.0425 | 0.6977 |
| 9 | 24.32 | -0.03 | -0.0330 | -0.0006 | -0.0020 | 0.0252 | 0.0596 | 0.0056 | 0.0175 | -0.0156 | 3.1111 | -2.8084 |
| 10 | 26.07 | 0.03 | 0.0345 | 0.0313 | -0.0135 | 0.9701 | -0.2532 | 0.2101 | 0.0230 | 0.0836 | 0.0556 | 0.3976 |
| 11 | 29.10 | 0.04 | 0.2032 | 0.0391 | 0.0583 | 0.1924 | 0.2870 | 0.3248 | 0.0273 | 0.1506 | 0.0842 | 0.4637 |
| 12 | 31.00 | 0.04 | 0.0566 | 0.0167 | 0.0204 | 0.3125 | 0.4740 | 0.3977 | 0.0329 | 0.2005 | 0.0826 | 0.5042 |
| 13 | 35.07 | 0.04 | 0.1935 | 0.0361 | 0.0662 | 0.1987 | 0.3420 | 0.5761 | 0.0365 | 0.3106 | 0.0638 | 0.5373 |
| 14 | 40.03 | 0.04 | 0.1464 | 0.0221 | 0.0566 | 0.1799 | 0.4938 | 0.7585 | 0.0532 | 0.4104 | 0.0702 | 0.5456 |
| 15 | 43.71 | -0.01 | 0.0040 | 0.0122 | -0.0016 | 3.0789 | -0.3938 | 0.7459 | 0.0624 | 0.4081 | 0.0836 | 0.5471 |
| 16 | 41.72 | -0.03 | 0.0460 | 0.0215 | 0.0036 | 0.5481 | 0.6907 | 0.7595 | 0.0504 | 0.4104 | 0.0864 | 0.5482 |
| 17 | 39.80 | -0.02 | 0.0817 | 0.0226 | 0.0225 | 0.2519 | 0.2755 | 0.6936 | 0.0457 | 0.3753 | 0.0660 | 0.5468 |
| 18 | 37.49 | 0.01 | 0.1617 | 0.0363 | 0.0504 | 0.1604 | 0.3490 | 0.6157 | 0.0394 | 0.3327 | 0.0640 | 0.5463 |
| 19 | 35.29 | -0.00 | 0.1340 | 0.0278 | 0.0463 | 0.2056 | 0.3452 | 0.4788 | 0.0366 | 0.2534 | 0.0606 | 0.5253 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 124 PART 1.00 MACH 1.7 RATIO-E PHI 0.0 CONF B1B0F34 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.91 | -0.04 | 0.0288 | 0.9999 | 0.0168 | 0.9999 | 0.2919 | -0.5652 | -0.0108 | -0.3289 | 0.0151 | 0.5820 |
| 2 | 15.91 | -0.04 | 0.0288 | 0.9999 | 0.0115 | 0.9999 | 0.2920 | -0.5668 | -0.0105 | -0.3294 | 0.0165 | 0.5811 |
| 3 | 15.91 | -0.04 | 0.0288 | 0.9999 | 0.0114 | 0.9999 | 0.2944 | -0.5704 | -0.0107 | -0.3304 | 0.0188 | 0.5792 |
| 4 | 15.91 | -0.05 | 0.0287 | 0.9999 | 0.0117 | 0.9999 | 0.2931 | -0.5700 | -0.0105 | -0.3303 | 0.0184 | 0.5795 |
| 5 | 15.93 | -0.05 | 0.0242 | 0.9999 | 0.0142 | 0.9999 | 0.2280 | -0.5426 | -0.0107 | -0.3166 | 0.0157 | 0.5835 |
| 6 | 17.04 | -0.03 | 0.0285 | 0.9999 | 0.0151 | 0.9999 | 0.2279 | -0.4049 | -0.0102 | -0.2360 | 0.0252 | 0.5829 |
| 7 | 19.76 | -0.03 | 0.0329 | 0.9999 | 0.0113 | 0.9999 | 0.2137 | -0.2715 | -0.0068 | -0.1566 | 0.0245 | 0.5770 |
| 8 | 22.30 | -0.04 | 0.0262 | 0.9999 | 0.0149 | 0.9999 | 0.2981 | -0.1372 | 0.0005 | -0.0807 | -0.0038 | 0.5881 |
| 9 | 24.32 | -0.03 | 0.0228 | 0.9999 | 0.0214 | 0.9999 | 0.2945 | -0.0271 | 0.0130 | -0.0173 | -0.4785 | 0.6384 |
| 10 | 26.07 | 0.03 | 0.0332 | 0.9999 | 0.0312 | 0.9999 | 0.3352 | 0.0177 | 0.0207 | 0.0107 | 1.1706 | 0.6045 |
| 11 | 29.10 | 0.04 | 0.0307 | 0.9999 | 0.0293 | 0.9999 | 0.3227 | 0.1211 | 0.0357 | 0.0734 | 0.2544 | 0.6063 |
| 12 | 31.60 | 0.04 | 0.0257 | 0.9999 | 0.0238 | 0.9999 | 0.2979 | 0.2413 | 0.0369 | 0.1733 | 0.1246 | 0.5950 |
| 13 | 35.07 | 0.04 | 0.0210 | 0.9999 | 0.0252 | 0.9999 | 0.3112 | 0.4054 | 0.0540 | 0.2552 | 0.1331 | 0.6295 |
| 14 | 40.03 | 0.06 | 0.0466 | 0.9999 | 0.0104 | 0.9999 | 0.2227 | 0.6208 | 0.0633 | 0.3819 | 0.1042 | 0.6053 |
| 15 | 43.71 | -0.01 | 0.0436 | 0.9999 | 0.0055 | 0.9999 | 0.2180 | 0.6365 | 0.0701 | 0.3844 | 0.1101 | 0.6046 |
| 16 | 41.72 | -0.03 | 0.0291 | 0.9999 | 0.0128 | 0.9999 | 0.0962 | 0.6081 | 0.0618 | 0.3739 | 0.1016 | 0.6148 |
| 17 | 39.60 | -0.00 | 0.0341 | 0.9999 | 0.0055 | 0.9999 | 0.1612 | 0.5287 | 0.0574 | 0.3310 | 0.1082 | 0.6261 |
| 18 | 37.49 | 0.01 | 0.0394 | 0.9999 | 0.0171 | 0.9999 | 0.2003 | 0.4447 | 0.0538 | 0.2813 | 0.1205 | 0.6326 |
| 19 | 35.25 | -0.00 | 0.0323 | 0.9999 | 0.0230 | 0.9999 | 0.3167 | 0.3825 | 0.0459 | 0.2409 | 0.1199 | 0.6257 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 125 1.10 1.7 0.0 BIBOF34 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.93 | -0.02 | -0.7277 | 5.0557 | 0.0368 | -0.3135 | 0.0189 | 1.7980 | 0.3657 | 1.4123 | -13.3296 |
| 2 | 15.93 | -0.02 | -0.7265 | 5.0670 | 0.0744 | -0.4634 | 0.0190 | 1.8170 | 0.3695 | 1.4475 | -12.7946 |
| 3 | 15.93 | -0.03 | -0.7468 | 5.7254 | -0.0230 | -0.3406 | 0.0081 | 1.7961 | 0.3619 | 1.4162 | -12.5535 |
| 4 | 15.93 | -0.02 | -0.7553 | 5.7500 | 0.0693 | -0.3723 | 0.0189 | 1.8001 | 0.3654 | 1.4207 | -12.8409 |
| 5 | 16.15 | -0.04 | -0.8502 | 5.4545 | -0.0024 | -0.2225 | 0.0401 | 1.7083 | 0.3623 | 1.3860 | -14.0016 |
| 6 | 16.14 | -0.02 | -0.8254 | 5.3014 | 0.1355 | -0.3697 | 0.0190 | 1.7906 | 0.3779 | 1.3627 | -15.0077 |
| 7 | 16.43 | -0.04 | -0.8545 | 5.2503 | 0.0690 | -0.4055 | 0.0191 | 1.7222 | 0.3751 | 1.3471 | -16.6849 |
| 8 | 16.63 | -0.04 | -0.9177 | 5.1530 | -0.0036 | -0.2740 | 0.0083 | 1.7200 | 0.3782 | 1.3424 | -17.6812 |
| 9 | 16.80 | -0.04 | -0.9166 | 5.0941 | -0.0350 | -0.1515 | 0.0295 | 1.0626 | 0.3692 | 1.2934 | -21.2463 |
| 10 | 16.94 | -0.04 | -0.9756 | 5.0007 | 0.0238 | -0.3499 | 0.0192 | 1.6581 | 0.3671 | 1.2910 | -23.1617 |
| 11 | 17.13 | -0.04 | -0.9823 | 4.7241 | -0.0763 | -0.1440 | 0.0082 | 1.6441 | 0.3686 | 1.2756 | -25.4883 |
| 12 | 17.30 | -0.05 | -0.9826 | 4.5385 | -0.0566 | -0.1007 | 0.0109 | 1.6240 | 0.3633 | 1.2608 | -32.5124 |
| 13 | 17.46 | -0.03 | -0.9855 | 4.3262 | 0.0259 | -0.2633 | 0.0138 | 1.5813 | 0.3621 | 1.2192 | -39.7414 |
| 14 | 17.63 | -0.03 | -0.1594 | 4.2250 | 0.0234 | -0.1922 | 0.0245 | 1.5817 | 0.3610 | 1.2207 | -41.7497 |
| 15 | 17.79 | -0.03 | -0.1263 | 4.1694 | 0.0385 | -0.3009 | 0.0355 | 1.5700 | 0.3623 | 1.2077 | -44.8588 |
| 16 | 17.97 | -0.05 | -0.0455 | 3.9506 | -0.1015 | -0.0109 | 0.0506 | 1.5595 | 0.3590 | 1.1805 | -100.6030 |
| 17 | 18.13 | -0.04 | 0.0020 | 3.7275 | -0.0122 | -0.2100 | 0.0355 | 1.5088 | 0.3638 | 1.1448 | 124.5750 |
| 18 | 18.29 | -0.04 | 0.0468 | 3.7265 | 0.0250 | -0.2594 | 0.0088 | 1.5050 | 0.3645 | 1.1405 | 165.0620 |
| 19 | 18.47 | -0.04 | 0.1553 | 3.4752 | 0.0531 | -0.2682 | 0.0412 | 1.4740 | 0.3628 | 1.1112 | 38.2752 |
| 20 | 18.63 | -0.05 | 0.2468 | 3.4063 | -0.0318 | -0.1691 | 0.0195 | 1.4516 | 0.3659 | 1.0858 | 29.2019 |
| 21 | 18.79 | -0.04 | 0.2981 | 3.2743 | 0.0537 | -0.2585 | 0.0197 | 1.4346 | 0.3625 | 1.0722 | 25.3165 |
| 22 | 18.96 | -0.04 | 0.3815 | 3.0015 | -0.0047 | -0.2789 | 0.0199 | 1.4052 | 0.3584 | 1.0468 | 18.3527 |
| 23 | 19.13 | -0.06 | 0.3825 | 2.9355 | -0.0387 | -0.2486 | -0.0018 | 1.3923 | 0.3595 | 1.0328 | 19.1341 |
| 24 | 19.27 | -0.05 | 0.4564 | 2.7716 | -0.0332 | -0.1902 | 0.0144 | 1.3849 | 0.3523 | 1.0126 | 14.8348 |
| 25 | 19.42 | -0.04 | 0.5448 | 2.5155 | 0.0614 | -0.3233 | 0.0307 | 1.3101 | 0.3498 | 0.9603 | 11.5671 |
| 26 | 19.60 | -0.05 | 0.6440 | 2.3011 | 0.0468 | -0.3303 | -0.0013 | 1.3027 | 0.3566 | 0.9467 | 9.7838 |
| 27 | 19.75 | -0.07 | 0.6755 | 2.2564 | -0.0387 | -0.0575 | 0.0199 | 1.2946 | 0.3595 | 0.9351 | 9.2595 |
| 28 | 19.91 | -0.07 | 0.6943 | 2.1784 | -0.0440 | -0.0041 | 0.0359 | 1.2873 | 0.3593 | 0.9280 | 8.8992 |
| 29 | 20.06 | -0.05 | 0.7763 | 2.0871 | 0.0078 | -0.1042 | 0.0256 | 1.2813 | 0.3630 | 0.9183 | 7.8109 |
| 30 | 20.21 | -0.06 | 0.8174 | 2.0332 | -0.0807 | -0.0001 | 0.0029 | 1.2806 | 0.3666 | 0.8941 | 7.2584 |
| 31 | 20.37 | -0.06 | 0.8562 | 1.9751 | -0.0257 | -0.2610 | 0.0416 | 1.2567 | 0.3636 | 0.8692 | 6.4299 |
| 32 | 20.52 | -0.04 | 0.9265 | 1.8164 | 0.0636 | -0.0364 | -0.0007 | 1.2392 | 0.3673 | 0.8720 | 5.6817 |
| 33 | 20.68 | -0.06 | 1.0734 | 1.6453 | -0.0024 | -0.1329 | 0.0473 | 1.1914 | 0.3653 | 0.8261 | 5.0918 |
| 34 | 20.80 | -0.04 | 1.1642 | 1.5060 | 0.1220 | -0.4543 | -0.0056 | 1.1734 | 0.3656 | 0.8078 | 4.5576 |
| 35 | 20.91 | -0.04 | 1.1533 | 1.2452 | 0.1003 | -0.2842 | -0.0057 | 1.1618 | 0.3681 | 0.7937 | 4.3955 |
| 36 | 21.07 | -0.04 | 1.2570 | 1.1045 | 0.0699 | -0.3081 | 0.0051 | 1.1495 | 0.3649 | 0.7846 | 4.1084 |
| 37 | 21.22 | -0.05 | 1.3554 | 0.9827 | 0.1115 | -0.4626 | -0.0320 | 1.1256 | 0.3649 | 0.7607 | 3.8654 |
| 38 | 21.37 | -0.05 | 1.4263 | 0.8355 | 0.1014 | -0.4336 | -0.0352 | 1.1099 | 0.3622 | 0.7477 | 3.3885 |
| 39 | 21.55 | -0.05 | 1.5228 | 0.7301 | 0.1883 | -0.5136 | -0.1012 | 1.0924 | 0.3657 | 0.7267 | 3.1062 |
| 40 | 21.69 | -0.07 | 1.5717 | 0.5743 | -0.0171 | -0.3502 | -0.0747 | 1.0652 | 0.3629 | 0.7024 | 2.5104 |
| 41 | 21.86 | -0.06 | 1.6720 | 0.4815 | 0.0452 | -0.0681 | -0.0527 | 1.0455 | 0.3650 | 0.6806 | 2.6806 |
| 42 | 22.02 | -0.06 | 1.7673 | 0.4738 | 0.1302 | -0.4304 | -0.1486 | 1.0332 | 0.3698 | 0.6635 | 2.5314 |
| 43 | 22.17 | -0.03 | 1.8388 | 0.2785 | 0.2647 | -0.3426 | -0.0305 | 1.0131 | 0.3636 | 0.6495 | 2.3268 |
| 44 | 22.33 | -0.06 | 1.9153 | 0.2241 | 0.1674 | -0.5550 | -0.1054 | 1.0149 | 0.3668 | 0.6481 | 2.2077 |
| 45 | 22.48 | -0.05 | 1.9690 | 0.1453 | 0.1804 | -0.3559 | -0.0356 | 1.0008 | 0.3675 | 0.6329 | 2.0840 |
| 46 | 22.63 | -0.07 | 2.0061 | 0.0823 | -0.0647 | -0.1255 | -0.0650 | 0.9926 | 0.3654 | 0.6272 | 2.0349 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 125 MACH 1.10 REX10-6 1.7 PHI 0.0 CONF 3A CL 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 22.77 | -0.06 | 2.0603 | 3.0855 | 0.0605 | -0.3177 | -0.0841 | 0.9661 | 0.3061 | 0.6600 | 1.8859 |
| 48 | 22.86 | -0.04 | 2.1531 | 3.2215 | 0.1167 | -0.2340 | 0.0177 | 0.9523 | 0.3065 | 0.5858 | 1.7750 |
| 49 | 22.59 | -0.08 | 2.2632 | 3.7525 | -0.1571 | -0.2160 | -0.0625 | 0.9340 | 0.3623 | 0.5717 | 1.6582 |
| 50 | 23.09 | -0.06 | 2.4055 | 3.5131 | -0.0185 | -0.1702 | -0.0514 | 0.9013 | 0.3001 | 0.5352 | 1.4578 |
| 51 | 23.24 | -0.06 | 2.4164 | 3.5616 | -0.0633 | 0.1053 | 0.0230 | 0.8900 | 0.3654 | 0.5246 | 1.4740 |
| 52 | 23.40 | -0.03 | 2.4354 | 3.4426 | 0.2817 | -0.3224 | -0.0349 | 0.9034 | 0.3646 | 0.5388 | 1.4113 |
| 53 | 23.44 | -0.08 | 2.4567 | 3.4635 | -0.0741 | -0.6809 | -0.0570 | 0.8585 | 0.3601 | 0.4585 | 1.4030 |
| 54 | 23.46 | -0.04 | 2.4555 | 3.4064 | 0.1324 | 0.0008 | -0.0091 | 0.6763 | 0.3577 | 0.5186 | 1.4052 |
| 55 | 23.46 | -0.06 | 2.4845 | 3.4465 | -0.0635 | -0.3096 | 0.0023 | 0.6823 | 0.3673 | 0.5150 | 1.3872 |
| 56 | 23.46 | -0.04 | 2.4325 | 3.4654 | 0.1622 | -0.1413 | -0.0676 | 0.8909 | 0.3606 | 0.5301 | 1.4247 |
| 57 | 23.47 | -0.05 | 2.5233 | 3.3936 | 0.1207 | -0.3212 | -0.0456 | 0.8952 | 0.3694 | 0.5258 | 1.3446 |
| 58 | 23.46 | -0.06 | 2.4474 | 3.4857 | 0.0716 | -0.2836 | -0.0191 | 0.8948 | 0.3695 | 0.5253 | 1.4242 |
| 59 | 23.47 | -0.07 | 2.4240 | 3.5047 | 0.1382 | -0.3363 | -0.0351 | 0.9027 | 0.3633 | 0.5394 | 1.4455 |
| 60 | 23.45 | -0.05 | 2.4641 | 3.3348 | 0.1454 | 0.0253 | 0.0226 | 0.8946 | 0.3576 | 0.5677 | 1.3871 |
| 61 | 23.46 | -0.06 | 2.4355 | 3.4328 | -0.1072 | 0.1075 | 0.0284 | 0.8825 | 0.3577 | 0.5248 | 1.4054 |
| 62 | 23.90 | -0.04 | 2.5055 | 2.5106 | 0.0083 | -0.3645 | -0.0561 | 0.8142 | 0.3736 | 0.4406 | 1.0002 |
| 63 | 25.95 | -0.04 | 3.7485 | 1.7815 | 0.3875 | -1.5503 | -0.1916 | 0.6502 | 0.3675 | 0.2703 | 0.4695 |
| 64 | 28.10 | -0.05 | 4.8043 | 0.8544 | 0.5772 | -2.0316 | -0.0362 | 0.4917 | 0.3967 | 0.0525 | 0.1656 |
| 65 | 30.65 | 0.03 | 6.2574 | -1.3757 | 1.1588 | -2.5587 | 0.1262 | 0.2353 | 0.4137 | -0.1784 | -0.2185 |
| 66 | 32.61 | -0.02 | 7.3124 | -2.6675 | 0.4777 | -2.8451 | 0.2157 | 0.0110 | 0.4143 | -0.4033 | -0.3550 |
| 67 | 35.94 | 0.04 | 8.7364 | -5.0610 | 1.1730 | -2.4325 | 0.3426 | -0.2667 | 0.4123 | -0.6791 | -0.5753 |
| 68 | 39.98 | -0.07 | 10.6758 | -6.1671 | 0.1522 | -0.5800 | -0.0376 | -0.0444 | 0.3977 | -1.0421 | -0.7507 |
| 69 | 36.75 | -0.05 | 9.6762 | -6.2036 | 0.3111 | -1.6332 | 0.1230 | -0.4938 | 0.4130 | -0.5068 | -0.6818 |
| 70 | 30.63 | -0.01 | 6.7776 | -3.1752 | 0.6564 | -1.2655 | 0.1046 | -0.3075 | 0.4330 | -0.7405 | -0.5900 |
| 71 | 34.35 | -0.03 | 7.6021 | -3.3065 | 0.4165 | -1.2960 | 0.2756 | -0.1129 | 0.4024 | -0.5213 | -0.4352 |
| 72 | 31.96 | -0.01 | 6.3666 | -1.4724 | 0.6542 | -1.7623 | 0.1166 | 0.1731 | 0.3992 | -0.2261 | -0.2313 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 129 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF 81&CF34 L 0.0 DELI 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CBI | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.93 | -0.02 | 0.0045 | 0.0063 | 0.0252 | 1.4166 | 5.5915 | -0.5320 | -0.0026 | -0.2864 | 0.0049 | 0.5383 |
| 2 | 15.93 | -0.02 | 0.0035 | 0.0058 | 0.0254 | 1.6471 | 7.1395 | -0.5431 | -0.0019 | -0.2924 | 0.0039 | 0.5385 |
| 3 | 15.93 | -0.03 | -0.0006 | 0.0061 | 0.0216 | -5.0007 | -34.5876 | -0.5305 | -0.0024 | -0.2895 | 0.0044 | 0.5377 |
| 4 | 15.93 | -0.02 | 0.0016 | 0.0059 | 0.0233 | 9.0000 | 22.0403 | -0.5300 | -0.0020 | -0.2895 | 0.0037 | 0.5356 |
| 5 | 16.15 | -0.04 | 0.0044 | 0.0063 | 0.0253 | 1.4524 | 5.7903 | -0.5160 | -0.0025 | -0.2797 | 0.0048 | 0.5355 |
| 6 | 16.24 | -0.02 | 0.0004 | 0.0057 | 0.0242 | 13.7500 | 56.1175 | -0.5047 | -0.0022 | -0.2760 | 0.0043 | 0.5416 |
| 7 | 16.43 | -0.04 | 0.0055 | 0.0060 | 0.0263 | 1.1250 | 4.5254 | -0.5001 | -0.0023 | -0.2714 | 0.0046 | 0.5428 |
| 8 | 16.63 | -0.04 | -0.0057 | 0.0041 | 0.0184 | -1.4154 | -1.9565 | -0.4927 | -0.0015 | -0.2695 | 0.0030 | 0.5478 |
| 9 | 16.80 | -0.04 | 0.0075 | 0.0071 | 0.0267 | 0.9444 | 3.5613 | -0.4757 | -0.0026 | -0.2595 | 0.0055 | 0.5456 |
| 10 | 16.94 | -0.04 | 0.0066 | 0.0058 | 0.0256 | 1.0741 | 8.9336 | -0.4662 | -0.0020 | -0.2573 | 0.0042 | 0.5465 |
| 11 | 17.13 | -0.04 | -0.0078 | 0.0044 | 0.0224 | -0.5753 | -2.6425 | -0.4619 | -0.0022 | -0.2543 | 0.0047 | 0.5505 |
| 12 | 17.34 | -0.05 | -0.0064 | 0.0045 | 0.0216 | -0.6435 | -3.2508 | -0.4517 | -0.0021 | -0.2491 | 0.0046 | 0.5515 |
| 13 | 17.48 | -0.03 | -0.0164 | 0.0028 | 0.0151 | -0.1705 | -0.9219 | -0.4343 | -0.0018 | -0.2398 | 0.0041 | 0.5522 |
| 14 | 17.63 | -0.03 | -0.0111 | 0.0042 | 0.0177 | -0.3758 | -1.5945 | -0.4338 | -0.0019 | -0.2392 | 0.0043 | 0.5515 |
| 15 | 17.79 | -0.03 | 0.0051 | 0.0055 | 0.0278 | 1.0815 | 5.4564 | -0.4265 | -0.0016 | -0.2352 | 0.0037 | 0.5514 |
| 16 | 17.97 | -0.05 | 0.0017 | 0.0058 | 0.0240 | 3.5000 | 14.7700 | -0.4138 | -0.0017 | -0.2305 | 0.0040 | 0.5544 |
| 17 | 18.13 | -0.04 | 0.0003 | 0.0051 | 0.0256 | 18.3333 | 80.1505 | -0.3975 | -0.0012 | -0.2205 | 0.0031 | 0.5548 |
| 18 | 18.24 | -0.04 | -0.0065 | 0.0040 | 0.0193 | -0.4034 | -2.4031 | -0.3947 | -0.0008 | -0.2195 | 0.0021 | 0.5562 |
| 19 | 18.47 | -0.04 | 0.0023 | 0.0047 | 0.0259 | 2.0454 | 11.3378 | -0.3738 | -0.0006 | -0.2070 | 0.0017 | 0.5537 |
| 20 | 18.63 | -0.05 | -0.0102 | 0.0042 | 0.0172 | -0.4062 | -1.6900 | -0.3563 | 0.0001 | -0.1987 | -0.0003 | 0.5575 |
| 21 | 18.74 | -0.04 | -0.0068 | 0.0037 | 0.0198 | -0.4337 | -2.2900 | -0.3603 | 0.0004 | -0.2008 | -0.0012 | 0.5575 |
| 22 | 18.90 | -0.04 | -0.0005 | 0.0052 | 0.0252 | -9.0000 | -28.9300 | -0.3402 | 0.0009 | -0.1886 | -0.0028 | 0.5544 |
| 23 | 19.13 | -0.06 | -0.0125 | 0.0036 | 0.0183 | -0.2917 | -1.3354 | -0.3350 | 0.0010 | -0.1870 | -0.0031 | 0.5583 |
| 24 | 19.27 | -0.05 | -0.0105 | 0.0030 | 0.0165 | -0.2871 | -1.7979 | -0.3168 | 0.0022 | -0.1762 | -0.0065 | 0.5594 |
| 25 | 19.42 | -0.04 | 0.0018 | 0.0041 | 0.0203 | 2.2941 | 14.9372 | -0.3150 | 0.0019 | -0.1752 | -0.0059 | 0.5562 |
| 26 | 19.60 | -0.05 | -0.0023 | 0.0040 | 0.0233 | -2.0000 | -10.2040 | -0.2995 | 0.0030 | -0.1666 | -0.0104 | 0.5667 |
| 27 | 19.75 | -0.07 | 0.0020 | 0.0045 | 0.0270 | 2.2852 | 15.6531 | -0.2952 | 0.0029 | -0.1656 | -0.0095 | 0.5605 |
| 28 | 19.91 | -0.07 | -0.0003 | 0.0040 | 0.0241 | -14.0007 | -77.1374 | -0.2821 | 0.0033 | -0.1607 | -0.0118 | 0.5667 |
| 29 | 20.06 | -0.05 | -0.0051 | 0.0045 | 0.0228 | -0.8776 | -4.4389 | -0.2702 | 0.0045 | -0.1549 | -0.0165 | 0.5731 |
| 30 | 20.21 | -0.06 | -0.0095 | 0.0033 | 0.0231 | -0.5516 | -2.4340 | -0.2692 | 0.0040 | -0.1539 | -0.0170 | 0.5715 |
| 31 | 20.37 | -0.06 | 0.0042 | 0.0043 | 0.0275 | 0.8513 | 5.0345 | -0.2561 | 0.0054 | -0.1479 | -0.0211 | 0.5777 |
| 32 | 20.52 | -0.04 | -0.0035 | 0.0022 | 0.0124 | -0.6929 | -0.5240 | -0.2432 | 0.0068 | -0.1427 | -0.0278 | 0.5806 |
| 33 | 20.68 | -0.06 | -0.0071 | 0.0026 | 0.0240 | -0.3676 | -3.3693 | -0.2257 | 0.0072 | -0.1321 | -0.0318 | 0.5856 |
| 34 | 20.80 | -0.04 | -0.0114 | 0.0029 | 0.0183 | -0.2593 | -1.0444 | -0.2193 | 0.0075 | -0.1297 | -0.0341 | 0.5913 |
| 35 | 20.91 | -0.04 | -0.0064 | 0.0020 | 0.0226 | -0.2346 | -2.6352 | -0.2079 | 0.0065 | -0.1236 | -0.0410 | 0.5941 |
| 36 | 21.07 | -0.04 | -0.0009 | 0.0016 | 0.0235 | -0.1515 | -3.4789 | -0.2059 | 0.0064 | -0.1214 | -0.0411 | 0.5920 |
| 37 | 21.22 | -0.05 | -0.0172 | -0.0002 | 0.0156 | 0.0121 | -0.9191 | -0.1946 | 0.0106 | -0.1117 | -0.0575 | 0.6054 |
| 38 | 21.37 | -0.05 | -0.0303 | -0.0007 | 0.0064 | 0.0241 | -0.2126 | -0.1708 | 0.0111 | -0.1046 | -0.0651 | 0.6121 |
| 39 | 21.55 | -0.05 | -0.0366 | -0.0003 | 0.0055 | 0.0104 | -0.1330 | -0.1630 | 0.0113 | -0.1003 | -0.0695 | 0.6153 |
| 40 | 21.69 | -0.07 | -0.0243 | -0.0006 | 0.0103 | 0.0230 | -0.4221 | -0.1537 | 0.0123 | -0.0945 | -0.0798 | 0.6156 |
| 41 | 21.86 | -0.06 | -0.0169 | 0.0 | 0.0150 | 0.0 | -0.6075 | -0.1513 | 0.0121 | -0.0937 | -0.0797 | 0.6152 |
| 42 | 22.04 | -0.08 | -0.0446 | 0.0024 | -0.0095 | -0.0534 | 0.2130 | -0.1305 | 0.0125 | -0.0832 | -0.0956 | 0.6376 |
| 43 | 22.17 | -0.03 | -0.0349 | 0.0002 | 0.0027 | -0.0080 | -0.3772 | -0.1251 | 0.0137 | -0.0802 | -0.1057 | 0.6411 |
| 44 | 22.33 | -0.06 | -0.0265 | -0.0002 | -0.0033 | 0.0153 | 0.0654 | -0.1205 | 0.0134 | -0.0774 | -0.1156 | 0.6465 |
| 45 | 22.48 | -0.05 | -0.0316 | -0.0003 | 0.0080 | 0.0101 | -0.1342 | -0.1178 | 0.0141 | -0.0755 | -0.1200 | 0.6411 |
| 46 | 22.63 | -0.07 | -0.0331 | 0.0012 | 0.0005 | -0.0377 | -0.0157 | -0.1113 | 0.0143 | -0.0729 | -0.1256 | 0.6555 |

TEST 7 PART 125 MACH 1.10 RX10-6 1.7 PHI C.C CONF 61 CUF 34 C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 22.77 | -C.06 | -C.0373 | C.CCC4 | -C.CC2E | -C.C111 | C.0750 | -C.0923 | C.0160 | -C.0629 | -C.1734 | C.6669 |
| 48 | 22.80 | -C.04 | -C.0156 | C.CCCC | C.CC25 | -C.0328 | -C.0761 | -C.0936 | C.0154 | -C.0634 | -C.1644 | C.6773 |
| 49 | 22.84 | -C.08 | -C.0341 | C.CC1E | -C.CCC2 | -C.0516 | C.0039 | -C.0868 | C.0159 | -C.0595 | -C.1832 | C.6859 |
| 50 | 23.09 | -C.06 | -C.0251 | -C.CCC3 | C.CC84 | C.0513 | -C.3506 | -C.0756 | C.0174 | -C.0535 | -C.2297 | C.7082 |
| 51 | 23.24 | -C.06 | -C.0262 | -C.CC34 | C.CC98 | C.1310 | -C.5662 | -C.0816 | C.0173 | -C.0571 | -C.2115 | C.6556 |
| 52 | 23.40 | -C.03 | -C.0261 | -C.CCC3 | C.CC1C | C.1275 | -C.4293 | -C.0777 | C.0178 | -C.0538 | -C.2289 | C.6632 |
| 53 | 23.44 | -C.08 | -C.0325 | -C.CCCC | C.CC23 | C.0126 | -C.0701 | -C.0736 | C.0182 | -C.0519 | -C.2472 | C.7046 |
| 54 | 23.46 | -C.04 | -C.0233 | -C.CCC2 | C.CC93 | C.0C59 | -C.4009 | -C.0709 | C.0179 | -C.0508 | -C.2522 | C.7168 |
| 55 | 23.46 | -C.08 | -C.0211 | -C.0023 | C.CC33 | C.1C84 | -C.6291 | -C.0760 | C.0178 | -C.0502 | -C.2541 | C.7175 |
| 56 | 23.46 | -C.04 | -C.0310 | C.CCC2 | -C.CC34 | -C.1C40 | C.1105 | -C.0648 | C.0172 | -C.0463 | -C.2648 | C.7463 |
| 57 | 23.47 | -C.05 | -C.0321 | C.CCC7 | -C.CC32 | -C.C227 | C.1001 | -C.0664 | C.0165 | -C.0485 | -C.2786 | C.7367 |
| 58 | 23.46 | -C.06 | -C.0246 | -C.CCC4 | C.CCBC | C.C1C9 | -C.3442 | -C.0675 | C.0172 | -C.0499 | -C.2542 | C.7395 |
| 59 | 23.47 | -C.07 | -C.0230 | C.CCCC | C.CC4C | C.0757 | -C.1227 | -C.0814 | C.0177 | -C.0565 | -C.2171 | C.6545 |
| 60 | 23.45 | -C.03 | -C.0213 | C.CCC5 | C.CC77 | -C.1306 | -C.3002 | -C.0614 | C.0172 | -C.0469 | -C.2792 | C.7563 |
| 61 | 23.46 | -C.06 | -C.0215 | -C.CCC3 | C.CC4E | C.1C43 | -C.6762 | -C.0718 | C.0175 | -C.0516 | -C.2489 | C.7205 |
| 62 | 23.50 | -C.04 | -C.0214 | C.CCC2 | C.CC34 | -C.1214 | -C.1598 | -C.0106 | C.0220 | -C.0159 | -2.C784 | 1.8781 |
| 63 | 25.55 | -C.04 | C.C282 | C.0255 | -C.CC77 | C.9041 | -C.2724 | C.0969 | C.0260 | C.0578 | C.2629 | C.3815 |
| 64 | 28.16 | -C.05 | C.1175 | C.0478 | C.0383 | C.2319 | C.3258 | C.1659 | C.0312 | C.0803 | C.1660 | C.4835 |
| 65 | 30.65 | C.03 | C.1540 | C.0168 | C.0721 | C.1222 | C.4362 | C.2642 | C.0363 | C.1537 | C.1271 | C.5416 |
| 66 | 32.81 | -C.02 | C.0968 | C.0062 | C.0366 | C.0852 | C.5455 | C.3713 | C.0357 | C.2067 | C.0961 | C.5568 |
| 67 | 35.94 | C.04 | C.2462 | C.0294 | C.1175 | C.1155 | C.4791 | C.5026 | C.0288 | C.2759 | C.0573 | C.5565 |
| 68 | 39.58 | -C.07 | C.0485 | C.0178 | C.0202 | C.3670 | C.5417 | C.6736 | C.0296 | C.3756 | C.0446 | C.5579 |
| 69 | 36.79 | -C.05 | C.0853 | C.0177 | C.0442 | C.2073 | C.5163 | C.6053 | C.0282 | C.3371 | C.0465 | C.5570 |
| 70 | 30.03 | -C.01 | C.1052 | C.0113 | C.0539 | C.1C3C | C.4941 | C.5138 | C.0315 | C.2844 | C.0613 | C.5536 |
| 71 | 34.35 | -C.03 | C.2256 | C.0155 | C.1044 | C.0862 | C.4625 | C.3915 | C.0335 | C.2171 | C.0859 | C.5546 |
| 72 | 31.96 | -C.01 | C.1C66 | C.0146 | C.0519 | C.1338 | C.4769 | C.2690 | C.0307 | C.1464 | C.1438 | C.5515 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASRDCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 125 MACH 1.10 RNIG=6 PHI 0.0 CONF 81800F34 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15.93 | -0.02 | 0.0020 | 9.9999 | 0.0140 | 9.9999 | 0.2260 | -0.5162 | -0.0066 | -0.3014 | 0.0127 | 0.5838 |
| 2 | 15.93 | -0.02 | 0.0000 | 9.9999 | 0.0102 | 9.9999 | 0.2428 | -0.5226 | -0.0069 | -0.3053 | 0.0131 | 0.5842 |
| 3 | 15.93 | -0.02 | 0.0091 | 9.9999 | 0.0129 | 9.9999 | 0.2108 | -0.5101 | -0.0067 | -0.3006 | 0.0125 | 0.5825 |
| 4 | 15.93 | -0.02 | 0.0095 | 9.9999 | 0.0133 | 9.9999 | 0.2252 | -0.5167 | -0.0067 | -0.3033 | 0.0128 | 0.5848 |
| 5 | 16.15 | -0.04 | 0.0057 | 9.9999 | 0.0114 | 9.9999 | 0.2046 | -0.4991 | -0.0061 | -0.2922 | 0.0123 | 0.5855 |
| 6 | 16.25 | -0.02 | 0.0101 | 9.9999 | 0.0133 | 9.9999 | 0.2213 | -0.4994 | -0.0063 | -0.2890 | 0.0128 | 0.5846 |
| 7 | 16.43 | -0.04 | 0.0076 | 9.9999 | 0.0126 | 9.9999 | 0.2036 | -0.4826 | -0.0066 | -0.2826 | 0.0136 | 0.5855 |
| 8 | 16.63 | -0.04 | 0.0092 | 9.9999 | 0.0135 | 9.9999 | 0.2171 | -0.4806 | -0.0068 | -0.2798 | 0.0136 | 0.5822 |
| 9 | 16.80 | -0.04 | 0.0087 | 9.9999 | 0.0130 | 9.9999 | 0.2207 | -0.4599 | -0.0056 | -0.2682 | 0.0122 | 0.5831 |
| 10 | 16.94 | -0.04 | 0.0092 | 9.9999 | 0.0137 | 9.9999 | 0.2103 | -0.4582 | -0.0058 | -0.2670 | 0.0127 | 0.5827 |
| 11 | 17.13 | -0.04 | 0.0052 | 9.9999 | 0.0143 | 9.9999 | 0.2265 | -0.4555 | -0.0060 | -0.2642 | 0.0132 | 0.5801 |
| 12 | 17.30 | -0.03 | 0.0054 | 9.9999 | 0.0131 | 9.9999 | 0.2202 | -0.4400 | -0.0055 | -0.2545 | 0.0125 | 0.5783 |
| 13 | 17.46 | -0.03 | 0.0060 | 9.9999 | 0.0124 | 9.9999 | 0.2123 | -0.4397 | -0.0058 | -0.2524 | 0.0132 | 0.5746 |
| 14 | 17.63 | -0.03 | 0.0099 | 9.9999 | 0.0133 | 9.9999 | 0.2233 | -0.4213 | -0.0050 | -0.2423 | 0.0118 | 0.5752 |
| 15 | 17.79 | -0.03 | 0.0101 | 9.9999 | 0.0135 | 9.9999 | 0.2301 | -0.4109 | -0.0048 | -0.2378 | 0.0116 | 0.5786 |
| 16 | 17.97 | -0.05 | 0.0099 | 9.9999 | 0.0106 | 9.9999 | 0.1743 | -0.4002 | -0.0037 | -0.2303 | 0.0094 | 0.5755 |
| 17 | 18.13 | -0.04 | 0.0104 | 9.9999 | 0.0132 | 9.9999 | 0.2181 | -0.3909 | -0.0040 | -0.2243 | 0.0101 | 0.5737 |
| 18 | 18.29 | -0.04 | 0.0104 | 9.9999 | 0.0132 | 9.9999 | 0.2161 | -0.3920 | -0.0038 | -0.2243 | 0.0098 | 0.5722 |
| 19 | 18.47 | -0.04 | 0.0125 | 9.9999 | 0.0143 | 9.9999 | 0.2276 | -0.3730 | -0.0030 | -0.2138 | 0.0081 | 0.5733 |
| 20 | 18.63 | -0.05 | 0.0119 | 9.9999 | 0.0102 | 9.9999 | 0.1959 | -0.3604 | -0.0028 | -0.2079 | 0.0077 | 0.5674 |
| 21 | 18.79 | -0.04 | 0.0106 | 9.9999 | 0.0102 | 9.9999 | 0.2428 | -0.3585 | -0.0028 | -0.2035 | 0.0078 | 0.5677 |
| 22 | 18.96 | -0.04 | 0.0096 | 9.9999 | 0.0101 | 9.9999 | 0.2092 | -0.3504 | -0.0019 | -0.1914 | 0.0056 | 0.5696 |
| 23 | 19.13 | -0.06 | 0.0126 | 9.9999 | 0.0141 | 9.9999 | 0.2254 | -0.3432 | -0.0018 | -0.1938 | 0.0051 | 0.5646 |
| 24 | 19.27 | -0.05 | 0.0098 | 9.9999 | 0.0144 | 9.9999 | 0.2259 | -0.3204 | -0.0001 | -0.1811 | 0.0003 | 0.5652 |
| 25 | 19.42 | -0.04 | 0.0103 | 9.9999 | 0.0102 | 9.9999 | 0.2440 | -0.3094 | 0.0003 | -0.1735 | -0.0010 | 0.5615 |
| 26 | 19.60 | -0.05 | 0.0112 | 9.9999 | 0.0135 | 9.9999 | 0.2270 | -0.2976 | 0.0008 | -0.1670 | -0.0028 | 0.5613 |
| 27 | 19.75 | -0.07 | 0.0100 | 9.9999 | 0.0155 | 9.9999 | 0.2404 | -0.2877 | 0.0016 | -0.1620 | -0.0054 | 0.5632 |
| 28 | 19.91 | -0.07 | 0.0053 | 9.9999 | 0.0113 | 9.9999 | 0.2044 | -0.2912 | 0.0015 | -0.1629 | -0.0050 | 0.5592 |
| 29 | 20.06 | -0.05 | 0.0071 | 9.9999 | 0.0115 | 9.9999 | 0.2017 | -0.2804 | 0.0022 | -0.1570 | -0.0078 | 0.5597 |
| 30 | 20.21 | -0.06 | 0.0067 | 9.9999 | 0.0123 | 9.9999 | 0.2101 | -0.2730 | 0.0019 | -0.1530 | -0.0069 | 0.5604 |
| 31 | 20.37 | -0.06 | 0.0078 | 9.9999 | 0.0121 | 9.9999 | 0.2100 | -0.2633 | 0.0029 | -0.1475 | -0.0111 | 0.5603 |
| 32 | 20.52 | -0.04 | 0.0065 | 9.9999 | 0.0127 | 9.9999 | 0.2077 | -0.2665 | 0.0024 | -0.1493 | -0.0090 | 0.5593 |
| 33 | 20.68 | -0.06 | 0.0087 | 9.9999 | 0.0136 | 9.9999 | 0.2238 | -0.2579 | 0.0040 | -0.1539 | -0.0166 | 0.5630 |
| 34 | 20.80 | -0.04 | 0.0096 | 9.9999 | 0.0126 | 9.9999 | 0.2107 | -0.2591 | 0.0035 | -0.1538 | -0.0148 | 0.5596 |
| 35 | 20.91 | -0.04 | 0.0072 | 9.9999 | 0.0155 | 9.9999 | 0.2363 | -0.2480 | 0.0045 | -0.1472 | -0.0196 | 0.5578 |
| 36 | 21.07 | -0.04 | 0.0071 | 9.9999 | 0.0163 | 9.9999 | 0.2429 | -0.2215 | 0.0050 | -0.1325 | -0.0225 | 0.5532 |
| 37 | 21.22 | -0.05 | 0.0113 | 9.9999 | 0.0182 | 9.9999 | 0.2545 | -0.2155 | 0.0053 | -0.1189 | -0.0246 | 0.5516 |
| 38 | 21.37 | -0.05 | 0.0115 | 9.9999 | 0.0182 | 9.9999 | 0.2545 | -0.2138 | 0.0056 | -0.1178 | -0.0263 | 0.5513 |
| 39 | 21.55 | -0.05 | 0.0152 | 9.9999 | 0.0153 | 9.9999 | 0.2567 | -0.2056 | 0.0064 | -0.1125 | -0.0314 | 0.5471 |
| 40 | 21.69 | -0.07 | 0.0104 | 9.9999 | 0.0182 | 9.9999 | 0.2579 | -0.1875 | 0.0068 | -0.1022 | -0.0349 | 0.5451 |
| 41 | 21.86 | -0.06 | 0.0029 | 9.9999 | 0.0135 | 9.9999 | 0.2210 | -0.1887 | 0.0071 | -0.1022 | -0.0375 | 0.5415 |
| 42 | 22.02 | -0.06 | 0.0113 | 9.9999 | 0.0178 | 9.9999 | 0.2502 | -0.1893 | 0.0076 | -0.1011 | -0.0401 | 0.5342 |
| 43 | 22.17 | -0.05 | 0.0044 | 9.9999 | 0.0155 | 9.9999 | 0.2402 | -0.1727 | 0.0078 | -0.0932 | -0.0452 | 0.5394 |
| 44 | 22.33 | -0.06 | 0.0151 | 9.9999 | 0.0154 | 9.9999 | 0.2504 | -0.1665 | 0.0083 | -0.0904 | -0.0500 | 0.5428 |
| 45 | 22.48 | -0.05 | 0.0053 | 9.9999 | 0.0150 | 9.9999 | 0.2304 | -0.1550 | 0.0096 | -0.0842 | -0.0617 | 0.5434 |
| 46 | 22.63 | -0.07 | 0.0104 | 9.9999 | 0.0136 | 9.9999 | 0.2219 | -0.1519 | 0.0098 | -0.0811 | -0.0636 | 0.5340 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 125 | MACH 1.10 1.7 | PHI 0.0 | CONF 81&F34 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CAF3 | CM3 | CB3 | XCPF3 | YCPF3 | CAF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 22.77 | -0.00 | 0.0555 | 9.9999 | 0.0105 | 9.9999 | 0.1947 | -0.1442 | 0.0102 | -0.0764 | -0.0707 | 0.5294 |
| 48 | 22.88 | -0.04 | 0.0513 | 9.9999 | 0.0096 | 9.9999 | 0.1701 | -0.1357 | 0.0114 | -0.0719 | -0.0628 | 0.5298 |
| 49 | 22.99 | -0.08 | 0.0543 | 9.9999 | 0.0101 | 9.9999 | 0.1854 | -0.1372 | 0.0105 | -0.0720 | -0.0765 | 0.5246 |
| 50 | 23.09 | -0.06 | 0.0564 | 9.9999 | 0.0136 | 9.9999 | 0.2219 | -0.1119 | 0.0117 | -0.0586 | -0.1050 | 0.5235 |
| 51 | 23.24 | -0.06 | 0.0543 | 9.9999 | 0.0110 | 9.9999 | 0.2026 | -0.1005 | 0.0119 | -0.0530 | -0.1179 | 0.5272 |
| 52 | 23.40 | -0.03 | 0.0566 | 9.9999 | 0.0213 | 9.9999 | 0.2775 | -0.0978 | 0.0116 | -0.0512 | -0.1150 | 0.5238 |
| 53 | 23.44 | -0.08 | 0.0704 | 9.9999 | 0.0175 | 9.9999 | 0.2550 | -0.1076 | 0.0112 | -0.0544 | -0.1043 | 0.5051 |
| 54 | 23.46 | -0.04 | 0.0556 | 9.9999 | 0.0131 | 9.9999 | 0.2194 | -0.1062 | 0.0120 | -0.0551 | -0.1105 | 0.5089 |
| 55 | 23.46 | -0.08 | 0.0625 | 9.9999 | 0.0144 | 9.9999 | 0.2308 | -0.0937 | 0.0130 | -0.0473 | -0.1367 | 0.5050 |
| 56 | 23.46 | -0.04 | 0.0553 | 9.9999 | 0.0112 | 9.9999 | 0.2029 | -0.1161 | 0.0116 | -0.0598 | -0.0986 | 0.5059 |
| 57 | 23.47 | -0.05 | 0.0654 | 9.9999 | 0.0183 | 9.9999 | 0.2490 | -0.1100 | 0.0123 | -0.0560 | -0.1115 | 0.5092 |
| 58 | 23.46 | -0.08 | 0.0465 | 9.9999 | 0.0100 | 9.9999 | 0.1902 | -0.1015 | 0.0133 | -0.0513 | -0.1306 | 0.5040 |
| 59 | 23.47 | -0.07 | 0.0671 | 9.9999 | 0.0187 | 9.9999 | 0.2490 | -0.1028 | 0.0114 | -0.0523 | -0.1112 | 0.5084 |
| 60 | 23.45 | -0.03 | 0.0466 | 9.9999 | 0.0124 | 9.9999 | 0.1974 | -0.1069 | 0.0124 | -0.0537 | -0.1158 | 0.5027 |
| 61 | 23.46 | -0.06 | 0.0548 | 9.9999 | 0.0114 | 9.9999 | 0.2083 | -0.1021 | 0.0115 | -0.0513 | -0.1161 | 0.5029 |
| 62 | 23.50 | -0.04 | 0.0578 | 9.9999 | 0.0146 | 9.9999 | 0.2171 | -0.0994 | 0.0100 | -0.0458 | -0.3035 | 0.4661 |
| 63 | 25.65 | -0.04 | 0.0528 | 9.9999 | 0.0295 | 9.9999 | 0.3100 | -0.0179 | 0.0227 | 0.0015 | -1.2674 | -0.0812 |
| 64 | 28.10 | -0.05 | 0.0524 | 9.9999 | 0.0305 | 9.9999 | 0.3344 | 0.0544 | 0.0335 | 0.0435 | 0.6233 | 0.8076 |
| 65 | 30.05 | 0.03 | 0.1038 | 9.9999 | 0.0352 | 9.9999 | 0.3436 | 0.2195 | 0.0419 | 0.1411 | 0.1909 | 0.6428 |
| 66 | 32.61 | -0.02 | 0.0667 | 9.9999 | 0.0194 | 9.9999 | 0.2823 | 0.3447 | 0.0376 | 0.2222 | 0.1052 | 0.6447 |
| 67 | 35.94 | 0.04 | 0.0674 | 9.9999 | 0.0273 | 9.9999 | 0.3120 | 0.4336 | 0.0405 | 0.2775 | 0.0542 | 0.6400 |
| 68 | 39.98 | -0.07 | 0.0421 | 9.9999 | 0.0263 | 9.9999 | 0.1952 | 0.5830 | 0.0391 | 0.3608 | 0.0671 | 0.6189 |
| 69 | 38.79 | -0.05 | 0.0423 | 9.9999 | 0.0182 | 9.9999 | 0.2231 | 0.5200 | 0.0351 | 0.3248 | 0.0752 | 0.6246 |
| 70 | 36.83 | -0.01 | 0.0701 | 9.9999 | 0.0190 | 9.9999 | 0.2709 | 0.4511 | 0.0368 | 0.2838 | 0.0860 | 0.6291 |
| 71 | 34.35 | -0.03 | 0.0633 | 9.9999 | 0.0277 | 9.9999 | 0.3326 | 0.3508 | 0.0405 | 0.2256 | 0.1156 | 0.6544 |
| 72 | 31.96 | -0.04 | 0.0865 | 9.9999 | 0.0256 | 9.9999 | 0.3326 | 0.2045 | 0.0430 | 0.1367 | 0.2105 | 0.6782 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&6 MACH 0.60 REYNO 1.7 PHI C.0 CONF 8 1&0F23 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.08 | 0.00 | -0.8019 | 2.2654 | C.C105 | -0.0214 | -0.0062 | 0.7129 | 0.3536 | 0.3591 | -2.8299 |
| 2 | -5.08 | 0.00 | -0.8015 | 2.2665 | -C.0201 | -0.0296 | -0.0062 | 0.7167 | 0.3557 | 0.3610 | -2.8308 |
| 3 | -5.08 | 0.00 | -0.8152 | 2.2970 | -C.0345 | -0.0027 | -0.0063 | 0.7202 | 0.3579 | 0.3623 | -2.8176 |
| 4 | -5.08 | 0.00 | -0.8163 | 2.2865 | -C.0214 | -0.0279 | -0.0063 | 0.7186 | 0.3538 | 0.3628 | -2.7937 |
| 5 | -5.08 | 0.00 | -0.8022 | 2.2562 | -C.0185 | -0.0063 | -0.0062 | 0.7217 | 0.3578 | 0.3639 | -2.8548 |
| 6 | -4.90 | 0.00 | -0.7717 | 2.2066 | -0.0774 | 0.0241 | -0.0062 | 0.7234 | 0.3572 | 0.3667 | -2.9364 |
| 7 | -3.56 | 0.01 | -0.6855 | 2.2561 | C.C107 | -0.0210 | -0.0056 | 0.7104 | 0.3474 | 0.3630 | -3.3458 |
| 8 | -1.73 | 0.01 | -0.5464 | 2.2553 | C.0106 | -0.0209 | -0.0050 | 0.6753 | 0.3258 | 0.3495 | -4.1277 |
| 9 | 0.13 | 0.00 | -0.5305 | 2.2895 | C.0245 | -0.0336 | -0.0043 | 0.6412 | 0.2636 | 0.3776 | -5.0718 |
| 10 | 1.90 | 0.0 | -0.4950 | 2.3337 | -C.0025 | 0.0174 | -0.0037 | 0.6214 | 0.2337 | 0.3877 | -6.5101 |
| 11 | 3.66 | 0.00 | -0.3634 | 3.1073 | -C.0015 | 0.0422 | -0.0031 | 0.6023 | 0.2189 | 0.3834 | -8.5505 |
| 12 | 5.64 | -0.00 | -0.2424 | 3.1178 | -0.0327 | 0.0210 | -0.0024 | 0.5953 | 0.2102 | 0.3751 | -12.6610 |
| 13 | 7.48 | -0.00 | -0.1220 | 3.1413 | -0.0613 | 0.0480 | -0.0018 | 0.5598 | 0.2061 | 0.3537 | -25.7560 |
| 14 | 9.30 | 0.00 | 0.0493 | 3.0517 | C.0054 | -0.0186 | -0.0081 | 0.5319 | 0.2079 | 0.3240 | 81.8677 |
| 15 | 11.09 | -0.00 | 0.2212 | 2.9723 | -C.0481 | 0.0235 | -0.0075 | 0.4953 | 0.2066 | 0.2886 | 13.4408 |
| 16 | 12.92 | -0.00 | 0.4336 | 2.8652 | -0.0495 | 0.0604 | 0.0005 | 0.4627 | 0.2084 | 0.2545 | 8.5245 |
| 17 | 14.73 | -0.00 | 0.6646 | 2.8158 | -0.0297 | 0.0546 | 0.0011 | 0.4255 | 0.2098 | 0.2157 | 5.8157 |
| 18 | 16.60 | -0.01 | 0.9133 | 2.8238 | -0.0676 | 0.1360 | 0.0086 | 0.3712 | 0.2112 | 0.1600 | 2.5442 |
| 19 | 18.49 | -0.02 | 1.2136 | 1.9578 | -0.2807 | 0.5900 | 0.0153 | 0.3169 | 0.2136 | 0.1053 | 1.6132 |
| 20 | 20.29 | -0.02 | 1.4746 | 1.8613 | -0.3608 | 0.6936 | 0.0152 | 0.2765 | 0.2206 | 0.0561 | 1.1402 |
| 21 | 22.15 | -0.03 | 1.7757 | 1.9161 | -0.5450 | 1.4717 | 0.0143 | 0.2395 | 0.2347 | 0.0048 | 0.7956 |
| 22 | 24.01 | -0.04 | 2.0665 | 1.1543 | -C.6547 | 1.8756 | 0.0141 | 0.1970 | 0.2406 | -0.0436 | 0.5543 |
| 23 | 25.82 | -0.03 | 2.4044 | 1.0019 | -0.4564 | 1.3211 | 0.0100 | 0.1456 | 0.2415 | -0.0957 | 0.4167 |
| 24 | 27.69 | 0.01 | 2.7660 | 0.5903 | 0.2070 | -0.2542 | 0.0518 | 0.0839 | 0.2425 | -0.1506 | 0.3560 |
| 25 | 28.75 | 0.01 | 2.9560 | 1.0034 | 0.1485 | 0.0417 | 0.0444 | 0.0498 | 0.2420 | -0.1922 | 0.3467 |
| 26 | 26.66 | -0.04 | 2.9159 | 1.0246 | 0.0013 | 0.4226 | 0.0219 | 0.0435 | 0.2402 | -0.1967 | 0.3514 |
| 27 | 29.01 | 0.00 | 2.9681 | 1.0045 | 0.0404 | 0.4184 | 0.0292 | 0.0418 | 0.2425 | -0.2007 | 0.3362 |
| 28 | 29.28 | 0.02 | 3.0735 | 0.9214 | 0.2764 | -0.0915 | 0.0007 | 0.0308 | 0.2452 | -0.2144 | 0.2998 |
| 29 | 29.81 | 0.02 | 3.0922 | 0.9687 | 0.2837 | -0.0791 | 0.0526 | 0.0262 | 0.2448 | -0.2186 | 0.3133 |
| 30 | 29.88 | 0.02 | 3.1965 | 0.9353 | 0.2746 | 0.1440 | 0.0521 | 0.0212 | 0.2499 | -0.2287 | 0.2938 |
| 31 | 30.15 | 0.03 | 3.2371 | 0.8926 | 0.3859 | -0.0661 | 0.0671 | 0.0196 | 0.2485 | -0.2379 | 0.2758 |
| 32 | 30.43 | 0.03 | 3.2546 | 0.8832 | 0.2917 | 0.2014 | 0.0593 | -0.0017 | 0.2509 | -0.2526 | 0.2681 |
| 33 | 30.69 | 0.02 | 3.4044 | 0.8466 | 0.2102 | 0.4776 | 0.0517 | -0.0083 | 0.2541 | -0.2624 | 0.2469 |
| 34 | 30.97 | 0.02 | 3.4588 | 0.7825 | 0.2696 | 0.4344 | 0.0519 | -0.0118 | 0.2564 | -0.2682 | 0.2262 |
| 35 | 31.24 | 0.02 | 3.5155 | 0.7366 | 0.2145 | 0.7746 | 0.0509 | -0.0165 | 0.2620 | -0.2805 | 0.2102 |
| 36 | 31.52 | 0.04 | 3.6034 | 0.7063 | 0.3346 | 0.7127 | 0.0514 | -0.0273 | 0.2624 | -0.2918 | 0.1960 |
| 37 | 31.77 | 0.01 | 3.6404 | 0.6265 | -0.0561 | 1.7065 | 0.0124 | -0.0317 | 0.2684 | -0.3002 | 0.1722 |
| 38 | 32.05 | 0.01 | 3.7011 | 0.5530 | 0.0306 | 1.6286 | 0.0127 | -0.0367 | 0.2736 | -0.3096 | 0.1496 |
| 39 | 32.31 | 0.02 | 3.7536 | 0.5685 | 0.0666 | 1.7358 | 0.0196 | -0.0524 | 0.2746 | -0.3271 | 0.1500 |
| 40 | 32.56 | 0.04 | 3.8249 | 0.4954 | 0.1445 | 1.4708 | 0.0137 | -0.0549 | 0.2765 | -0.3319 | 0.1662 |
| 41 | 32.83 | 0.03 | 3.9126 | 0.4016 | 0.1756 | 1.3658 | 0.0208 | -0.0652 | 0.2741 | -0.3356 | 0.1538 |
| 42 | 33.08 | 0.04 | 3.9822 | 0.3961 | 0.1346 | 1.3731 | 0.0211 | -0.0677 | 0.2737 | -0.3415 | 0.1489 |
| 43 | 33.32 | 0.04 | 4.0762 | 0.2646 | 0.3655 | 1.0435 | 0.0163 | -0.0915 | 0.2704 | -0.3620 | 0.1875 |
| 44 | 33.56 | 0.03 | 4.1564 | 0.2651 | 0.3652 | 1.0103 | 0.0239 | -0.0968 | 0.2726 | -0.3597 | 0.1947 |
| 45 | 33.82 | 0.04 | 4.2517 | 0.2747 | 0.3655 | 1.0076 | 0.0243 | -0.0961 | 0.2760 | -0.3722 | 0.1805 |
| 46 | 34.07 | 0.05 | 4.3646 | 0.2312 | 0.4062 | 1.2679 | 0.0257 | -0.0952 | 0.2863 | -0.3796 | 0.1904 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST / 126 PART 6.00 MACH 0.7 RATIO-E 0.7 PHI 0.0 CONF 81&CF23 L 60.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.33 | 0.05 | 4.6549 | 0.6322 | 0.3977 | 1.3431 | 0.0237 | -0.1032 | 0.2911 | -0.3942 | 0.1868 |
| 48 | 34.58 | 0.06 | 4.6314 | 0.6616 | 0.4681 | 1.2258 | 0.0244 | -0.1054 | 0.2925 | -0.3978 | 0.1902 |
| 49 | 34.80 | 0.06 | 4.6215 | 0.7723 | 0.4415 | 1.6111 | 0.0160 | -0.1017 | 0.3125 | -0.4141 | 0.1678 |
| 50 | 35.06 | 0.06 | 4.7565 | 0.5716 | 0.4199 | 2.0540 | 0.0147 | -0.0861 | 0.3269 | -0.4130 | 0.1153 |
| 51 | 35.31 | 0.07 | 4.6215 | 0.5660 | 0.4705 | 1.6714 | 0.0233 | -0.0957 | 0.3350 | -0.4307 | 0.1154 |
| 52 | 35.53 | 0.07 | 4.6111 | 0.7377 | 0.6133 | 1.3646 | 0.0179 | -0.1157 | 0.3215 | -0.4371 | 0.1502 |
| 53 | 35.77 | 0.06 | 4.6455 | 0.5162 | 0.5437 | 0.2685 | 0.0367 | -0.1495 | 0.2892 | -0.4387 | 0.1689 |
| 54 | 35.59 | 0.06 | 4.6752 | 0.5145 | 0.6553 | -0.1167 | 0.0361 | -0.1593 | 0.2943 | -0.4535 | 0.1875 |
| 55 | 36.22 | 0.07 | 4.6843 | 0.6674 | 0.6523 | -0.1750 | 0.0481 | -0.1609 | 0.2942 | -0.4550 | 0.1780 |
| 56 | 36.46 | 0.07 | 4.6661 | 0.6657 | 0.7180 | 0.0003 | 0.0259 | -0.1464 | 0.3155 | -0.4638 | 0.1748 |
| 57 | 36.70 | 0.07 | 4.6354 | 0.6511 | 0.6751 | -0.2390 | 0.0325 | -0.1556 | 0.3098 | -0.4653 | 0.1656 |
| 58 | 36.93 | 0.07 | 4.6051 | 0.6433 | 0.7275 | -0.1315 | 0.0251 | -0.1485 | 0.3212 | -0.4696 | 0.1619 |
| 59 | 37.17 | 0.08 | 4.5348 | 0.6506 | 0.6721 | 0.5577 | -0.0062 | -0.1285 | 0.3368 | -0.4652 | 0.1555 |
| 60 | 37.40 | 0.08 | 4.5576 | 0.6054 | 0.6724 | 0.6242 | -0.0133 | -0.1334 | 0.3420 | -0.4758 | 0.1685 |
| 61 | 37.63 | 0.08 | 4.5281 | 0.7351 | 0.5577 | 1.5651 | -0.0383 | -0.1176 | 0.3585 | -0.4760 | 0.1350 |
| 62 | 37.86 | 0.07 | 4.5269 | 0.8665 | 0.6056 | 1.3820 | -0.0375 | -0.1306 | 0.3549 | -0.4855 | 0.1610 |
| 63 | 38.10 | 0.08 | 4.6265 | 0.7103 | 0.5505 | 2.1355 | -0.0617 | -0.1255 | 0.3658 | -0.4913 | 0.1248 |
| 64 | 38.33 | 0.07 | 4.7038 | 0.6700 | 0.4323 | 2.8459 | -0.0659 | -0.1365 | 0.3764 | -0.5094 | 0.1162 |
| 65 | 38.57 | 0.07 | 4.8871 | 0.6823 | 0.4273 | 2.7467 | -0.0850 | -0.1380 | 0.3736 | -0.5118 | 0.1159 |
| 66 | 38.77 | 0.06 | 4.9122 | 0.6927 | 0.4456 | 2.6147 | -0.0853 | -0.1340 | 0.3750 | -0.5096 | 0.1172 |
| 67 | 39.00 | 0.07 | 4.9784 | 0.5990 | 0.3342 | 3.3508 | -0.1013 | -0.1539 | 0.3745 | -0.5284 | 0.0986 |
| 68 | 39.20 | 0.07 | 5.0123 | 0.5300 | 0.3024 | 3.2842 | -0.1011 | -0.1476 | 0.3741 | -0.5217 | 0.0869 |
| 69 | 39.43 | 0.07 | 5.0436 | 0.4403 | 0.3475 | 3.5930 | -0.1089 | -0.1565 | 0.3691 | -0.5276 | 0.0694 |
| 70 | 39.63 | 0.07 | 5.0512 | 0.5411 | 0.2000 | 3.6908 | -0.1104 | -0.1630 | 0.3689 | -0.5319 | 0.0847 |
| 71 | 39.85 | 0.08 | 5.0544 | 0.3844 | 0.3256 | 3.8675 | -0.1109 | -0.1554 | 0.3746 | -0.5300 | 0.0560 |
| 72 | 40.06 | 0.07 | 5.0514 | 0.4567 | 0.3696 | 3.4103 | -0.1003 | -0.1670 | 0.3708 | -0.5378 | 0.0979 |
| 73 | 40.23 | 0.07 | 5.0550 | 0.6087 | 0.3213 | 3.3771 | -0.1001 | -0.1691 | 0.3774 | -0.5465 | 0.0537 |
| 74 | 40.45 | 0.06 | 5.0567 | 0.4393 | 0.4777 | 3.6569 | -0.0940 | -0.1694 | 0.3763 | -0.5457 | 0.0660 |
| 75 | 40.66 | 0.08 | 5.0764 | 0.5808 | 0.4586 | 3.3212 | -0.0867 | -0.1603 | 0.3673 | -0.5476 | 0.0866 |
| 76 | 40.85 | 0.08 | 5.0522 | 0.6456 | 0.5111 | 3.1270 | -0.0841 | -0.1596 | 0.3978 | -0.5568 | 0.0971 |
| 77 | 41.07 | 0.08 | 5.0552 | 0.6535 | 0.6455 | 2.3977 | -0.0736 | -0.1669 | 0.4034 | -0.5703 | 0.1324 |
| 78 | 41.27 | 0.08 | 5.0565 | 0.6926 | 0.6164 | 2.7505 | -0.0676 | -0.1583 | 0.4066 | -0.5651 | 0.1314 |
| 79 | 41.46 | 0.08 | 5.0244 | 0.5685 | 0.6466 | 2.7322 | -0.0670 | -0.1720 | 0.4115 | -0.5835 | 0.1399 |
| 80 | 41.64 | 0.08 | 5.0156 | 1.0953 | 0.6015 | 2.4342 | -0.0659 | -0.1721 | 0.4082 | -0.5803 | 0.1165 |
| 81 | 41.86 | 0.08 | 5.1031 | 0.8875 | 0.6436 | 2.5584 | -0.0746 | -0.1679 | 0.4215 | -0.5894 | 0.1221 |
| 82 | 42.06 | 0.08 | 5.1021 | 0.6405 | 0.5082 | 3.3021 | -0.0831 | -0.1653 | 0.4096 | -0.5949 | 0.1174 |
| 83 | 42.24 | 0.08 | 5.1518 | 0.5540 | 0.6282 | 2.9599 | -0.0742 | -0.1778 | 0.4172 | -0.5950 | 0.1390 |
| 84 | 42.42 | 0.08 | 5.2052 | 0.5151 | 0.6660 | 2.9098 | -0.0813 | -0.1818 | 0.4176 | -0.5994 | 0.1261 |
| 85 | 42.61 | 0.08 | 5.2810 | 0.8505 | 0.6431 | 3.2754 | -0.0822 | -0.1879 | 0.4143 | -0.6022 | 0.1155 |
| 86 | 42.78 | 0.07 | 5.3751 | 0.6961 | 0.5906 | 3.1276 | -0.0815 | -0.1820 | 0.4196 | -0.6016 | 0.1215 |
| 87 | 42.96 | 0.09 | 5.4702 | 0.5116 | 0.6426 | 3.2491 | -0.0815 | -0.1783 | 0.4277 | -0.6060 | 0.1220 |
| 88 | 43.15 | 0.09 | 5.5910 | 0.6230 | 0.6507 | 3.2887 | -0.0814 | -0.1763 | 0.4216 | -0.5959 | 0.1084 |
| 89 | 43.34 | 0.10 | 5.7512 | 0.7288 | 0.7254 | 3.4348 | -0.0887 | -0.1864 | 0.4226 | -0.6050 | 0.0939 |
| 90 | 43.53 | 0.09 | 5.9066 | 0.5972 | 0.7471 | 3.4500 | -0.0884 | -0.1829 | 0.4245 | -0.6074 | 0.0755 |
| 91 | 43.69 | 0.10 | 5.9661 | 0.6258 | 0.7775 | 3.4862 | -0.0878 | -0.1765 | 0.4270 | -0.6035 | 0.0788 |
| 92 | 43.88 | 0.10 | 6.1425 | 0.5033 | 0.8624 | 3.6574 | -0.0956 | -0.1791 | 0.4278 | -0.6069 | 0.0621 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 126 | MACH 0.60 | REIC-6 1.7 | PHI 0.0 | CONF 61&62F23 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.07 | 0.09 | 6.1156 | C.5812 | C.8003 | 3.6505 | -0.0880 | -0.1865 | 0.4298 | -0.6163 | 0.0718 |
| 94 | 44.24 | 0.10 | 6.1777 | C.5422 | C.8554 | 3.5360 | -0.0873 | -0.1706 | 0.4289 | -0.6075 | 0.0663 |
| 95 | 44.43 | 0.10 | 6.2465 | C.4717 | C.8587 | 3.4715 | -0.0942 | -0.1753 | 0.4346 | -0.6099 | 0.0572 |
| 96 | 44.63 | 0.09 | 6.3718 | C.4658 | C.8697 | 3.3545 | -0.0865 | -0.1714 | 0.4417 | -0.6131 | 0.0556 |
| 97 | 44.81 | 0.10 | 6.4565 | C.3854 | C.9007 | 3.5346 | -0.0862 | -0.1767 | 0.4416 | -0.6205 | 0.0456 |
| 98 | 44.97 | 0.11 | 6.5065 | C.3550 | 1.0084 | 3.5250 | -0.0786 | -0.1749 | 0.4423 | -0.6152 | 0.0414 |
| 99 | 45.15 | 0.10 | 6.5276 | C.3651 | C.9722 | 3.4512 | -0.0853 | -0.1852 | 0.4386 | -0.6238 | 0.0667 |
| 100 | 45.35 | 0.09 | 6.6660 | C.3435 | C.9133 | 3.4550 | -0.0776 | -0.1817 | 0.4481 | -0.6258 | 0.0453 |
| 101 | 45.51 | 0.09 | 6.6656 | C.4467 | C.8756 | 3.3897 | -0.0696 | -0.1771 | 0.4466 | -0.6237 | 0.0518 |
| 102 | 45.68 | 0.09 | 6.7267 | C.4358 | C.9050 | 3.3760 | -0.0707 | -0.1842 | 0.4490 | -0.6332 | 0.0504 |
| 103 | 45.86 | 0.09 | 6.8766 | C.3406 | C.8540 | 3.5524 | -0.0624 | -0.1877 | 0.4514 | -0.6351 | 0.0384 |
| 104 | 46.04 | 0.08 | 6.9634 | C.3337 | C.7636 | 3.3165 | -0.0607 | -0.1795 | 0.4500 | -0.6361 | 0.0371 |
| 105 | 46.23 | 0.09 | 7.0428 | C.3255 | C.8756 | 3.4206 | -0.0537 | -0.1799 | 0.4605 | -0.6403 | 0.0360 |
| 106 | 46.39 | 0.09 | 7.1065 | C.3211 | C.8576 | 3.4166 | -0.0535 | -0.1858 | 0.4596 | -0.6454 | 0.0353 |
| 107 | 46.56 | 0.09 | 7.1677 | C.2556 | C.8741 | 3.4142 | -0.0530 | -0.1837 | 0.4615 | -0.6452 | 0.0278 |
| 108 | 46.73 | 0.09 | 7.2441 | C.2665 | C.8709 | 3.3655 | -0.0596 | -0.1944 | 0.4605 | -0.6554 | 0.0270 |
| 109 | 46.92 | 0.09 | 7.3009 | C.1962 | C.9091 | 3.5418 | -0.0526 | -0.2034 | 0.4576 | -0.6612 | 0.0211 |
| 110 | 47.08 | 0.09 | 7.4033 | C.1761 | C.9057 | 3.5214 | -0.0525 | -0.2029 | 0.4644 | -0.6673 | 0.0186 |
| 111 | 47.24 | 0.09 | 7.4625 | C.1630 | C.9032 | 3.4051 | -0.0518 | -0.2019 | 0.4629 | -0.6648 | 0.0152 |
| 112 | 47.45 | 0.09 | 7.5211 | C.0565 | C.9194 | 3.0573 | -0.0451 | -0.1927 | 0.4747 | -0.6674 | 0.0377 |
| 113 | 47.61 | 0.09 | 7.5526 | C.0242 | C.9121 | 3.0062 | -0.0519 | -0.2049 | 0.4742 | -0.6792 | 0.0444 |
| 114 | 47.78 | 0.09 | 7.5553 | C.0113 | C.9101 | 3.5714 | -0.0449 | -0.1912 | 0.4814 | -0.6725 | 0.0535 |
| 115 | 47.94 | 0.08 | 7.5576 | C.0546 | C.8566 | 3.4455 | -0.0436 | -0.2104 | 0.4736 | -0.6843 | 0.0685 |
| 116 | 48.11 | 0.08 | 7.5445 | C.0749 | C.8527 | 3.3855 | -0.0435 | -0.2190 | 0.4729 | -0.6920 | 0.0791 |
| 117 | 48.27 | 0.07 | 7.5433 | C.0926 | C.8357 | 3.4103 | -0.0434 | -0.2313 | 0.4617 | -0.6931 | 0.0831 |
| 118 | 48.44 | 0.08 | 7.5547 | C.0415 | C.7306 | 3.3771 | -0.0500 | -0.2284 | 0.4576 | -0.6861 | 0.0881 |
| 119 | 48.59 | 0.05 | 7.5275 | C.0582 | C.5560 | 3.1929 | -0.0418 | -0.2543 | 0.4404 | -0.6948 | 0.1037 |
| 120 | 48.76 | 0.04 | 7.4651 | 1.0566 | C.5455 | 3.0605 | -0.0474 | -0.2704 | 0.4441 | -0.7146 | 0.1325 |
| 121 | 48.94 | 0.05 | 7.5517 | 1.1181 | C.6265 | 3.1886 | -0.0479 | -0.2631 | 0.4376 | -0.7008 | 0.1171 |
| 122 | 49.11 | 0.04 | 7.5716 | 1.0626 | C.5751 | 3.0332 | -0.0470 | -0.2699 | 0.4255 | -0.7154 | 0.1319 |
| 123 | 49.27 | 0.03 | 7.4241 | 1.0316 | C.4516 | 2.8869 | -0.0384 | -0.3139 | 0.4106 | -0.7245 | 0.1838 |
| 124 | 49.45 | 0.01 | 7.3651 | 2.0551 | C.3154 | 2.4844 | -0.0446 | -0.3275 | 0.3911 | -0.7186 | 0.2203 |
| 125 | 49.61 | 0.01 | 7.2574 | 2.0432 | C.3636 | 2.1525 | -0.0382 | -0.3612 | 0.3688 | -0.7300 | 0.2661 |
| 126 | 49.77 | 0.00 | 7.2219 | 2.0566 | 0.2010 | 2.0553 | -0.0383 | -0.3692 | 0.3715 | -0.7407 | 0.2773 |
| 127 | 49.95 | 0.02 | 7.4445 | 2.0315 | C.4215 | 2.3558 | -0.0438 | -0.3604 | 0.3906 | -0.7510 | 0.2437 |
| 129 | 50.30 | 0.01 | 7.0555 | 1.7743 | C.3266 | 2.0501 | -0.0440 | -0.3524 | 0.4153 | -0.7417 | 0.1829 |
| 130 | 50.47 | 0.01 | 7.0255 | 1.8726 | C.4002 | 2.2586 | -0.0356 | -0.3336 | 0.4110 | -0.7446 | 0.1935 |
| 131 | 50.64 | 0.02 | 7.0462 | 1.9216 | C.5296 | 2.4331 | -0.0360 | -0.3317 | 0.4190 | -0.7507 | 0.1545 |
| 132 | 50.80 | 0.02 | 7.0566 | 1.9817 | C.4386 | 2.4414 | -0.0358 | -0.3328 | 0.4214 | -0.7542 | 0.1396 |
| 133 | 50.98 | 0.03 | 10.0699 | 1.2229 | C.4674 | 2.0670 | -0.0370 | -0.3109 | 0.4269 | -0.7378 | 0.1222 |
| 134 | 51.15 | 0.03 | 10.2871 | 1.0950 | C.5856 | 2.5406 | -0.0369 | -0.3311 | 0.4466 | -0.7771 | 0.1064 |
| 135 | 51.31 | 0.03 | 10.3205 | C.9293 | C.4572 | 3.4088 | -0.0364 | -0.2883 | 0.4816 | -0.7699 | 0.0560 |
| 136 | 51.51 | 0.05 | 10.6436 | C.5872 | C.5414 | 3.8703 | -0.0249 | -0.2791 | 0.5064 | -0.7855 | 0.0552 |
| 137 | 51.68 | 0.04 | 10.6451 | C.4975 | C.4976 | 3.5113 | -0.0250 | -0.2783 | 0.5241 | -0.8024 | 0.0467 |
| 138 | 51.86 | 0.05 | 10.8275 | C.3565 | C.6285 | 4.3810 | -0.0338 | -0.2860 | 0.5353 | -0.8213 | 0.0330 |
| 139 | 52.01 | 0.06 | 10.9005 | C.3884 | 0.7283 | 4.4155 | -0.0412 | -0.2920 | 0.5332 | -0.8251 | 0.0356 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 146 MACH 0.60 REYNO-6 1.7 PHI 0.0 CONF 81B0F29 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 140 | 52.19 | 0.07 | 11.0774 | 0.2327 | 0.8271 | 4.6280 | -0.0417 | -0.3066 | 0.5300 | -0.8365 | 0.0210 |
| 141 | 52.35 | 0.06 | 10.9652 | 0.2358 | 0.7535 | 4.3765 | -0.0411 | -0.3004 | 0.5352 | -0.8433 | 0.0215 |
| 142 | 52.51 | 0.07 | 11.1004 | 0.1339 | 0.7896 | 4.4508 | -0.0411 | -0.3192 | 0.5395 | -0.8566 | 0.0120 |
| 143 | 52.67 | 0.07 | 11.0667 | 0.2872 | 0.8005 | 4.5628 | -0.0409 | -0.3220 | 0.5381 | -0.8600 | 0.0260 |
| 144 | 52.85 | 0.06 | 11.1352 | 0.1603 | 0.8382 | 4.3345 | -0.0410 | -0.3224 | 0.5194 | -0.8417 | 0.0144 |
| 145 | 53.00 | 0.08 | 11.0219 | -0.0223 | 0.8352 | 4.2569 | -0.0403 | -0.3252 | 0.5246 | -0.8487 | -0.0020 |
| 146 | 53.18 | 0.10 | 11.4030 | -0.1867 | 1.2651 | 3.6815 | -0.0241 | -0.3487 | 0.4972 | -0.8458 | -0.0164 |
| 147 | 53.32 | 0.08 | 11.3123 | -0.1325 | 1.0361 | 4.1102 | -0.0403 | -0.3407 | 0.5054 | -0.8460 | -0.0117 |
| 148 | 53.50 | 0.09 | 11.3595 | -0.1455 | 1.1081 | 3.8746 | -0.0395 | -0.3613 | 0.4982 | -0.8594 | -0.0132 |
| 149 | 53.64 | 0.10 | 11.5666 | -0.3969 | 1.3004 | 3.0382 | -0.0238 | -0.3008 | 0.5069 | -0.8735 | -0.0344 |
| 150 | 53.81 | 0.10 | 11.6139 | -0.4304 | 1.4277 | 3.0537 | 0.0065 | -0.3433 | 0.5175 | -0.8807 | -0.0364 |
| 151 | 53.99 | 0.10 | 11.8654 | -0.4832 | 1.4247 | 2.9775 | 0.0017 | -0.3481 | 0.5217 | -0.8898 | -0.0407 |
| 152 | 54.13 | 0.11 | 11.9002 | -0.5832 | 1.4856 | 2.8501 | -0.0129 | -0.3424 | 0.5439 | -0.8863 | -0.0473 |
| 153 | 54.32 | 0.11 | 12.2361 | -0.6073 | 1.5732 | 2.7675 | 0.0180 | -0.3340 | 0.5563 | -0.8903 | -0.0660 |
| 154 | 54.47 | 0.11 | 12.2449 | -0.6144 | 1.5578 | 2.3216 | 0.0420 | -0.3511 | 0.5486 | -0.8957 | -0.0502 |
| 155 | 54.61 | 0.09 | 12.1585 | -0.6160 | 1.5666 | 2.4937 | 0.0414 | -0.3497 | 0.5439 | -0.8936 | -0.0507 |
| 156 | 54.77 | 0.10 | 12.2581 | -0.6364 | 1.3814 | 2.5510 | 0.0417 | -0.3510 | 0.5564 | -0.9074 | -0.0521 |
| 157 | 54.93 | 0.10 | 12.3256 | -0.6351 | 1.3471 | 2.8374 | 0.0400 | -0.3414 | 0.5652 | -0.9066 | -0.0518 |
| 158 | 55.10 | 0.09 | 12.2273 | -0.6322 | 1.1852 | 2.7614 | 0.0424 | -0.3478 | 0.5731 | -0.9205 | -0.0659 |
| 159 | 55.23 | 0.08 | 12.3438 | -0.6295 | 1.0596 | 3.0225 | 0.0411 | -0.3408 | 0.5736 | -0.9144 | -0.0508 |
| 160 | 55.37 | 0.08 | 12.3666 | -0.6573 | 1.1215 | 2.7122 | 0.0421 | -0.3509 | 0.5775 | -0.9284 | -0.0531 |
| 161 | 55.55 | 0.08 | 12.5012 | -0.7012 | 1.0620 | 2.5568 | 0.0418 | -0.3543 | 0.5842 | -0.9385 | -0.0558 |
| 162 | 55.72 | 0.09 | 12.7763 | -0.8505 | 1.1895 | 3.0233 | 0.0421 | -0.3505 | 0.5587 | -0.9452 | -0.0666 |
| 163 | 55.88 | 0.07 | 12.5744 | -0.5965 | 1.0415 | 2.9091 | 0.0423 | -0.3472 | 0.5914 | -0.9391 | -0.0476 |
| 164 | 56.05 | 0.08 | 12.6712 | -0.5825 | 1.2327 | 2.9299 | 0.0423 | -0.3515 | 0.5855 | -0.9474 | -0.0460 |
| 165 | 56.21 | 0.09 | 12.7303 | -0.6051 | 1.2628 | 2.9154 | 0.0425 | -0.3550 | 0.5992 | -0.9542 | -0.0478 |
| 166 | 56.38 | 0.08 | 12.7635 | -0.7553 | 1.2145 | 2.8533 | 0.0427 | -0.3540 | 0.6021 | -0.9561 | -0.0555 |
| 167 | 56.53 | 0.06 | 12.6624 | -0.6363 | 0.9715 | 2.7753 | 0.0300 | -0.3521 | 0.6049 | -0.9610 | -0.0502 |
| 168 | 56.70 | 0.08 | 12.8623 | -0.6143 | 1.1561 | 2.8312 | 0.0435 | -0.3608 | 0.6053 | -0.9701 | -0.0478 |
| 169 | 56.85 | 0.06 | 12.8566 | -0.5504 | 0.9573 | 2.9645 | 0.0434 | -0.3553 | 0.6161 | -0.9714 | -0.0459 |
| 170 | 57.02 | 0.07 | 12.9761 | -0.7356 | 1.0826 | 3.0843 | 0.0430 | -0.3773 | 0.6266 | -1.0041 | -0.0567 |
| 171 | 57.19 | 0.08 | 13.0943 | -0.6565 | 1.1272 | 3.0292 | 0.0436 | -0.3531 | 0.6253 | -0.9784 | -0.0465 |
| 172 | 57.33 | 0.07 | 13.1202 | -0.7357 | 1.0452 | 3.0050 | 0.0440 | -0.3716 | 0.6227 | -0.9943 | -0.0561 |
| 173 | 57.47 | 0.06 | 13.0369 | -0.6626 | 1.1736 | 2.7455 | 0.0445 | -0.3760 | 0.6237 | -1.0017 | -0.0510 |
| 174 | 57.62 | 0.05 | 12.9738 | -0.3444 | 0.9577 | 2.8350 | 0.0372 | -0.3643 | 0.6236 | -0.9879 | -0.0265 |
| 175 | 57.79 | 0.07 | 13.0259 | -0.7777 | 1.0631 | 3.0066 | 0.0441 | -0.3440 | 0.6369 | -0.9809 | -0.0588 |
| 176 | 57.92 | 0.05 | 13.1781 | -0.5010 | 0.9561 | 2.9551 | 0.0314 | -0.3595 | 0.6275 | -0.9870 | -0.0380 |
| 177 | 58.08 | 0.05 | 13.1141 | -0.4485 | 0.9144 | 2.8621 | 0.0459 | -0.3603 | 0.6395 | -0.9998 | -0.0342 |
| 178 | 58.16 | 0.05 | 13.2655 | -0.5250 | 0.9199 | 2.9588 | 0.0324 | -0.3649 | 0.6401 | -1.0050 | -0.0399 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 120 | MACH 0.80 | RNC=6 1.7 | PHI 0.0 | CONF 81&CP23 | C 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.08 | 0.00 | -0.0049 | -0.0022 | 0.0268 | 0.0342 | -0.4131 | -0.7448 | -0.0353 | -0.3865 | 0.0474 | 0.5190 |
| 2 | -5.08 | 0.00 | -0.0041 | 0.0017 | 0.0332 | -0.0321 | -0.0132 | -0.7382 | -0.0353 | -0.3800 | 0.0478 | 0.5225 |
| 3 | -5.08 | 0.00 | -0.0569 | 0.0026 | 0.0317 | -0.0458 | -0.5576 | -0.7447 | -0.0356 | -0.3875 | 0.0478 | 0.5209 |
| 4 | -5.08 | 0.00 | -0.0569 | 0.0026 | 0.0268 | -0.0462 | -0.4957 | -0.7415 | -0.0353 | -0.3863 | 0.0476 | 0.5216 |
| 5 | -5.08 | 0.00 | -0.0540 | 0.0031 | 0.0305 | -0.0571 | -0.5714 | -0.7436 | -0.0354 | -0.3871 | 0.0477 | 0.5216 |
| 6 | -4.90 | 0.00 | -0.0623 | 0.0017 | 0.0274 | -0.0279 | -0.4396 | -0.7366 | -0.0354 | -0.3840 | 0.0481 | 0.5214 |
| 7 | -3.58 | 0.01 | -0.0569 | 0.0022 | 0.0317 | -0.0390 | -0.5576 | -0.7000 | -0.0343 | -0.3726 | 0.0451 | 0.5323 |
| 8 | -1.75 | 0.01 | -0.0538 | 0.0017 | 0.0306 | -0.0323 | -0.5717 | -0.6619 | -0.0321 | -0.3506 | 0.0465 | 0.5388 |
| 9 | 0.13 | 0.00 | -0.0552 | 0.0017 | 0.0311 | -0.0443 | -0.7931 | -0.7681 | -0.0337 | -0.3771 | 0.0438 | 0.4905 |
| 10 | 1.96 | 0.00 | -0.0443 | 0.0044 | 0.0254 | -0.0305 | -0.5730 | -0.8150 | -0.0343 | -0.3842 | 0.0420 | 0.4714 |
| 11 | 3.80 | 0.00 | -0.0442 | 0.00 | 0.0253 | 0.00 | -0.5721 | -0.8188 | -0.0365 | -0.3731 | 0.0446 | 0.4558 |
| 12 | 5.64 | -0.00 | -0.0414 | -0.0014 | 0.0206 | 0.0326 | -0.6960 | -0.7867 | -0.0436 | -0.3490 | 0.0554 | 0.4436 |
| 13 | 7.48 | -0.00 | -0.0549 | -0.0022 | 0.0195 | 0.1195 | -0.3820 | -0.7401 | -0.0521 | -0.3282 | 0.0704 | 0.4435 |
| 14 | 9.30 | 0.00 | -0.0726 | -0.0116 | 0.0306 | 0.1526 | -0.2300 | -0.7003 | -0.0545 | -0.3038 | 0.0776 | 0.4335 |
| 15 | 11.09 | -0.00 | -0.0730 | -0.0053 | 0.0241 | 0.1268 | -0.3303 | -0.6361 | -0.0536 | -0.2882 | 0.0846 | 0.4531 |
| 16 | 12.92 | -0.00 | -0.0581 | -0.0057 | 0.0287 | 0.1015 | -0.5112 | -0.5719 | -0.0526 | -0.2752 | 0.0920 | 0.4812 |
| 17 | 14.73 | -0.00 | -0.0530 | -0.0052 | 0.0277 | 0.1166 | -0.5226 | -0.4820 | -0.0482 | -0.2376 | 0.1001 | 0.4935 |
| 18 | 16.60 | -0.01 | -0.0474 | -0.0066 | 0.0307 | 0.1305 | -0.6477 | -0.3647 | -0.0403 | -0.1969 | 0.1106 | 0.5233 |
| 19 | 18.49 | -0.02 | -0.0536 | -0.0127 | 0.0355 | 0.2374 | -0.6691 | -0.2543 | -0.0284 | -0.1405 | 0.1108 | 0.5524 |
| 20 | 20.29 | -0.02 | -0.0630 | -0.0228 | 0.0442 | 0.3783 | -0.7014 | -0.1956 | -0.0173 | -0.0983 | 0.0882 | 0.5032 |
| 21 | 22.15 | -0.03 | -0.1312 | -0.0366 | 0.0256 | 0.2767 | -0.2272 | -0.1392 | -0.0061 | -0.0730 | 0.0437 | 0.5246 |
| 22 | 24.01 | -0.04 | -0.1752 | -0.0575 | 0.0650 | 0.2164 | -0.0286 | -0.0570 | 0.0049 | -0.0351 | -0.1725 | 0.6047 |
| 23 | 25.82 | -0.03 | -0.1724 | -0.0278 | -0.0215 | 0.1812 | 0.1248 | 0.0305 | 0.0305 | -0.0012 | 0.2272 | -0.0314 |
| 24 | 27.69 | 0.01 | 0.1064 | 0.0124 | 0.1116 | 0.1160 | 1.0420 | 0.1503 | 0.0522 | 0.0408 | 0.3472 | 0.2715 |
| 25 | 28.75 | 0.01 | 0.1066 | 0.0128 | 0.1112 | 0.1204 | 1.0425 | 0.1788 | 0.0594 | 0.0550 | 0.3324 | 0.3078 |
| 26 | 28.00 | -0.00 | -0.0010 | 0.0 | 0.0503 | 0.0 | -58.3000 | 0.1598 | 0.0502 | 0.0495 | 0.3514 | 0.3098 |
| 27 | 29.01 | 0.00 | 0.0785 | 0.0106 | 0.0580 | 0.1345 | 1.2420 | 0.1815 | 0.0614 | 0.0643 | 0.3381 | 0.3541 |
| 28 | 29.28 | 0.02 | 0.1281 | 0.0191 | 0.1274 | 0.1175 | 0.9540 | 0.2005 | 0.0645 | 0.0710 | 0.3219 | 0.3542 |
| 29 | 29.61 | 0.02 | 0.0955 | 0.0111 | 0.1101 | 0.1164 | 1.1549 | 0.2009 | 0.0646 | 0.0712 | 0.3218 | 0.3545 |
| 30 | 29.88 | 0.02 | 0.0812 | 0.0097 | 0.1047 | 0.1200 | 1.2866 | 0.2134 | 0.0674 | 0.0774 | 0.3183 | 0.3626 |
| 31 | 30.15 | 0.03 | 0.1344 | 0.0164 | 0.1255 | 0.1220 | 0.9366 | 0.2262 | 0.0695 | 0.0811 | 0.3072 | 0.3588 |
| 32 | 30.43 | 0.03 | 0.1293 | 0.0191 | 0.1202 | 0.1164 | 0.9294 | 0.2324 | 0.0704 | 0.0855 | 0.3036 | 0.3678 |
| 33 | 30.69 | 0.02 | 0.0792 | 0.0111 | 0.0585 | 0.1401 | 1.2436 | 0.2353 | 0.0719 | 0.0875 | 0.3004 | 0.3657 |
| 34 | 30.97 | 0.02 | 0.1120 | 0.0151 | 0.1124 | 0.1334 | 0.9900 | 0.2553 | 0.0731 | 0.0927 | 0.2865 | 0.3632 |
| 35 | 31.24 | 0.02 | 0.0175 | 0.0045 | 0.0735 | 0.2818 | 4.2320 | 0.2519 | 0.0738 | 0.0938 | 0.2930 | 0.3723 |
| 36 | 31.52 | 0.04 | -0.0496 | -0.0065 | 0.0588 | 0.0096 | -0.7913 | 0.2408 | 0.0745 | 0.0896 | 0.2993 | 0.3602 |
| 37 | 31.77 | 0.01 | -0.2417 | -0.0222 | -0.0460 | 0.0918 | 0.1324 | 0.2424 | 0.0745 | 0.0865 | 0.3073 | 0.3571 |
| 38 | 32.05 | 0.01 | -0.1776 | -0.0142 | -0.0156 | 0.0798 | 0.1114 | 0.2653 | 0.0769 | 0.0939 | 0.2858 | 0.3538 |
| 39 | 32.31 | 0.02 | -0.1696 | -0.0138 | -0.0177 | 0.0816 | 0.1045 | 0.2782 | 0.0779 | 0.0988 | 0.2795 | 0.3552 |
| 40 | 32.58 | 0.02 | -0.1938 | -0.0142 | -0.0329 | 0.0732 | 0.1097 | 0.2973 | 0.0791 | 0.1094 | 0.2661 | 0.3681 |
| 41 | 32.85 | 0.03 | -0.1575 | -0.0120 | -0.0102 | 0.0760 | 0.1029 | 0.3102 | 0.0798 | 0.1118 | 0.2572 | 0.3605 |
| 42 | 33.08 | 0.02 | -0.1575 | -0.0111 | -0.0107 | 0.0765 | 0.1189 | 0.3172 | 0.0806 | 0.1152 | 0.2540 | 0.3632 |
| 43 | 33.32 | 0.04 | -0.1179 | -0.0067 | -0.0041 | 0.0565 | 0.0552 | 0.3496 | 0.0812 | 0.1269 | 0.2325 | 0.3632 |
| 44 | 33.58 | 0.03 | -0.1266 | -0.0053 | -0.0065 | 0.0440 | 0.0508 | 0.3558 | 0.0819 | 0.1288 | 0.2302 | 0.3620 |
| 45 | 33.82 | 0.04 | -0.1104 | -0.0036 | 0.0058 | 0.0323 | -0.0524 | 0.3685 | 0.0836 | 0.1378 | 0.2268 | 0.3734 |
| 46 | 34.07 | 0.05 | -0.1352 | -0.0060 | -0.0014 | 0.0375 | 0.0097 | 0.3660 | 0.0834 | 0.1376 | 0.2278 | 0.3760 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART Leo | PACK 0.00 | RXID-6 1.7 | PHI 0.0 | CONF BLNDF23 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.33 | 0.05 | -0.1166 | -0.0049 | -0.0015 | 0.0415 | 0.0130 | 0.3756 | 0.0834 | 0.1436 | 0.2219 | 0.3822 |
| 48 | 34.58 | 0.06 | -0.0821 | 0.0017 | 0.0142 | -0.0214 | -0.1727 | 0.3919 | 0.0827 | 0.1462 | 0.2110 | 0.3736 |
| 49 | 34.80 | 0.06 | -0.1644 | -0.0058 | -0.0143 | 0.0599 | 0.0869 | 0.3819 | 0.0837 | 0.1493 | 0.2190 | 0.3905 |
| 50 | 35.06 | 0.06 | -0.2048 | -0.0196 | -0.0256 | 0.0956 | 0.1003 | 0.3750 | 0.0840 | 0.1552 | 0.2241 | 0.4137 |
| 51 | 35.31 | 0.07 | -0.1580 | -0.0075 | 0.0074 | 0.1105 | -0.0470 | 0.3921 | 0.0841 | 0.1581 | 0.2146 | 0.4033 |
| 52 | 35.53 | 0.07 | -0.1343 | -0.0076 | 0.0042 | 0.0566 | -0.0516 | 0.4003 | 0.0838 | 0.1647 | 0.2053 | 0.4034 |
| 53 | 35.77 | 0.06 | -0.0033 | 0.0139 | 0.0463 | -4.2353 | -14.1176 | 0.4671 | 0.0810 | 0.1825 | 0.1733 | 0.3966 |
| 54 | 35.99 | 0.06 | 0.0051 | 0.0202 | 0.0734 | 0.3600 | 1.3600 | 0.4820 | 0.0806 | 0.1868 | 0.1671 | 0.3875 |
| 55 | 36.22 | 0.07 | 0.0363 | 0.0156 | 0.0638 | 0.5452 | 1.7580 | 0.4918 | 0.0806 | 0.1885 | 0.1638 | 0.3841 |
| 56 | 36.46 | 0.07 | -0.0173 | 0.0135 | 0.0567 | -0.7821 | -2.2402 | 0.4961 | 0.0806 | 0.1883 | 0.1628 | 0.3796 |
| 57 | 36.70 | 0.07 | 0.0618 | 0.0238 | 0.0746 | 0.3853 | 1.2059 | 0.5156 | 0.0808 | 0.1977 | 0.1566 | 0.3834 |
| 58 | 36.93 | 0.07 | -0.0035 | 0.0153 | 0.0481 | -4.4167 | -13.8333 | 0.5102 | 0.0810 | 0.1924 | 0.1587 | 0.3771 |
| 59 | 37.17 | 0.08 | -0.0971 | 0.0027 | 0.0068 | -0.0278 | -0.0676 | 0.5102 | 0.0812 | 0.1924 | 0.1592 | 0.3771 |
| 60 | 37.40 | 0.08 | -0.1660 | -0.0095 | -0.0240 | 0.0350 | 0.1405 | 0.5102 | 0.0812 | 0.1924 | 0.1592 | 0.3771 |
| 61 | 37.65 | 0.08 | -0.2677 | -0.0320 | -0.0673 | 0.1113 | 0.2337 | 0.5069 | 0.0815 | 0.1909 | 0.1608 | 0.3765 |
| 62 | 37.88 | 0.07 | -0.3024 | -0.0316 | -0.0765 | 0.1031 | 0.2530 | 0.5060 | 0.0814 | 0.1912 | 0.1603 | 0.3764 |
| 63 | 38.10 | 0.08 | -0.3767 | -0.0483 | -0.1022 | 0.1283 | 0.2713 | 0.5178 | 0.0814 | 0.1947 | 0.1573 | 0.3786 |
| 64 | 38.33 | 0.07 | -0.4326 | -0.0548 | -0.1151 | 0.1262 | 0.3072 | 0.5469 | 0.0805 | 0.2005 | 0.1488 | 0.3707 |
| 65 | 38.57 | 0.07 | -0.4822 | -0.0600 | -0.1277 | 0.1299 | 0.2979 | 0.5493 | 0.0805 | 0.2008 | 0.1478 | 0.3689 |
| 66 | 38.77 | 0.06 | -0.4744 | -0.0590 | -0.1421 | 0.1383 | 0.2996 | 0.5453 | 0.0806 | 0.2012 | 0.1477 | 0.3685 |
| 67 | 39.00 | 0.07 | -0.5068 | -0.0715 | -0.1552 | 0.1405 | 0.3049 | 0.5652 | 0.0796 | 0.2066 | 0.1408 | 0.3658 |
| 68 | 39.20 | 0.07 | -0.5066 | -0.0761 | -0.1677 | 0.1574 | 0.3100 | 0.5753 | 0.0789 | 0.2063 | 0.1372 | 0.3586 |
| 69 | 39.43 | 0.07 | -0.5209 | -0.0707 | -0.1631 | 0.1358 | 0.3130 | 0.5596 | 0.0742 | 0.2137 | 0.1237 | 0.3563 |
| 70 | 39.63 | 0.07 | -0.5162 | -0.0704 | -0.1614 | 0.1364 | 0.3127 | 0.6046 | 0.0697 | 0.2130 | 0.1152 | 0.3523 |
| 71 | 39.85 | 0.08 | -0.5035 | -0.0676 | -0.1651 | 0.1342 | 0.3277 | 0.6026 | 0.0558 | 0.2085 | 0.0926 | 0.3460 |
| 72 | 40.06 | 0.07 | -0.4920 | -0.0676 | -0.1506 | 0.1373 | 0.3170 | 0.6093 | 0.0552 | 0.2091 | 0.0906 | 0.3432 |
| 73 | 40.23 | 0.07 | -0.4564 | -0.0622 | -0.1418 | 0.1358 | 0.3094 | 0.6093 | 0.0548 | 0.2091 | 0.0899 | 0.3432 |
| 74 | 40.45 | 0.09 | -0.4534 | -0.0655 | -0.1306 | 0.1443 | 0.3010 | 0.6114 | 0.0483 | 0.2015 | 0.0791 | 0.3295 |
| 75 | 40.66 | 0.06 | -0.4061 | -0.0605 | -0.1148 | 0.1482 | 0.2809 | 0.6144 | 0.0507 | 0.2071 | 0.0824 | 0.3376 |
| 76 | 40.83 | 0.06 | -0.3745 | -0.0556 | -0.1025 | 0.1542 | 0.2701 | 0.6176 | 0.0526 | 0.2073 | 0.0851 | 0.3357 |
| 77 | 41.07 | 0.08 | -0.3340 | -0.0495 | -0.0812 | 0.1375 | 0.2432 | 0.6552 | 0.0787 | 0.2244 | 0.1202 | 0.3423 |
| 78 | 41.27 | 0.08 | -0.3454 | -0.0514 | -0.0854 | 0.1469 | 0.2472 | 0.6174 | 0.0546 | 0.2074 | 0.0885 | 0.3360 |
| 79 | 41.48 | 0.08 | -0.3550 | -0.0510 | -0.0878 | 0.1458 | 0.2473 | 0.6190 | 0.0521 | 0.2078 | 0.0842 | 0.3356 |
| 80 | 41.64 | 0.06 | -0.3551 | -0.0525 | -0.0866 | 0.1478 | 0.2440 | 0.6192 | 0.0491 | 0.2077 | 0.0793 | 0.3355 |
| 81 | 41.86 | 0.06 | -0.3751 | -0.0584 | -0.0944 | 0.1556 | 0.2515 | 0.6360 | 0.0481 | 0.2065 | 0.0755 | 0.3246 |
| 82 | 42.06 | 0.06 | -0.4057 | -0.0625 | -0.1066 | 0.1538 | 0.2652 | 0.6329 | 0.0464 | 0.2048 | 0.0733 | 0.3237 |
| 83 | 42.24 | 0.08 | -0.3923 | -0.0589 | -0.1027 | 0.1500 | 0.2617 | 0.6396 | 0.0461 | 0.2054 | 0.0721 | 0.3212 |
| 84 | 42.42 | 0.06 | -0.4054 | -0.0625 | -0.1114 | 0.1527 | 0.2715 | 0.6402 | 0.0461 | 0.2066 | 0.0714 | 0.3228 |
| 85 | 42.61 | 0.08 | -0.4151 | -0.0625 | -0.1143 | 0.1506 | 0.2755 | 0.6497 | 0.0441 | 0.2075 | 0.0679 | 0.3194 |
| 86 | 42.79 | 0.07 | -0.3961 | -0.0610 | -0.1046 | 0.1540 | 0.2632 | 0.6530 | 0.0441 | 0.2091 | 0.0675 | 0.3202 |
| 87 | 42.98 | 0.05 | -0.3982 | -0.0618 | -0.1034 | 0.1546 | 0.2598 | 0.6598 | 0.0445 | 0.2071 | 0.0674 | 0.3138 |
| 88 | 43.15 | 0.05 | -0.4066 | -0.0613 | -0.1081 | 0.1514 | 0.2662 | 0.6617 | 0.0437 | 0.2109 | 0.0661 | 0.3188 |
| 89 | 43.34 | 0.10 | -0.4095 | -0.0638 | -0.1072 | 0.1559 | 0.2621 | 0.6853 | 0.0427 | 0.2083 | 0.0642 | 0.3134 |
| 90 | 43.53 | 0.05 | -0.4063 | -0.0620 | -0.1038 | 0.1504 | 0.2509 | 0.6718 | 0.0427 | 0.2117 | 0.0636 | 0.3151 |
| 91 | 43.69 | 0.10 | -0.4116 | -0.0622 | -0.1047 | 0.1512 | 0.2543 | 0.6740 | 0.0426 | 0.2102 | 0.0633 | 0.3126 |
| 92 | 43.88 | 0.10 | -0.4085 | -0.0632 | -0.1044 | 0.1547 | 0.2553 | 0.6806 | 0.0426 | 0.2121 | 0.0617 | 0.3116 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 126 | MACH 0.60 | RX10-6 1.0 | PHI 0.0 | CONF BLOCKED | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.07 | 0.09 | -0.4026 | -0.0814 | -0.1037 | 0.1524 | 0.2576 | 0.6773 | 0.0420 | 0.2092 | 0.0620 | 0.3088 |
| 94 | 44.24 | 0.10 | -0.3879 | -0.0594 | -0.0994 | 0.1532 | 0.2490 | 0.6859 | 0.0419 | 0.2135 | 0.0610 | 0.3113 |
| 95 | 44.43 | 0.10 | -0.3881 | -0.0603 | -0.0925 | 0.1554 | 0.2394 | 0.6893 | 0.0418 | 0.2126 | 0.0603 | 0.3084 |
| 96 | 44.03 | 0.09 | -0.3750 | -0.0604 | -0.0882 | 0.1509 | 0.2523 | 0.6965 | 0.0422 | 0.2141 | 0.0605 | 0.3092 |
| 97 | 44.81 | 0.10 | -0.3814 | -0.0585 | -0.0863 | 0.1546 | 0.1908 | 0.7011 | 0.0411 | 0.2184 | 0.0566 | 0.3116 |
| 98 | 44.97 | 0.11 | -0.2946 | -0.0538 | -0.0439 | 0.1491 | 0.1493 | 0.7070 | 0.0411 | 0.2109 | 0.0581 | 0.3058 |
| 99 | 45.15 | 0.10 | -0.3865 | -0.0581C | -0.0926 | 0.1570 | 0.2396 | 0.6999 | 0.0411 | 0.2126 | 0.0587 | 0.3041 |
| 100 | 45.35 | 0.09 | -0.3665 | -0.0551 | -0.0854 | 0.1503 | 0.2001 | 0.7129 | 0.0411 | 0.2191 | 0.0577 | 0.3073 |
| 101 | 45.51 | 0.09 | -0.3208 | -0.0536 | -0.0ECE | 0.1472 | 0.1395 | 0.7118 | 0.0410 | 0.2161 | 0.0576 | 0.3036 |
| 102 | 45.66 | 0.09 | -0.3233 | -0.0516 | -0.0606 | 0.1503 | 0.2041 | 0.7183 | 0.0410 | 0.2167 | 0.0571 | 0.3017 |
| 103 | 45.80 | 0.09 | -0.2643 | -0.0501 | -0.0413 | 0.1761 | 0.1452 | 0.7298 | 0.0406 | 0.2211 | 0.0566 | 0.3051 |
| 104 | 46.04 | 0.08 | -0.2531 | -0.0442 | -0.0287 | 0.1746 | 0.1132 | 0.7315 | 0.0406 | 0.2204 | 0.0555 | 0.3013 |
| 105 | 46.23 | 0.09 | -0.2560 | -0.0436 | -0.0336 | 0.1696 | 0.1279 | 0.7366 | 0.0405 | 0.2232 | 0.0555 | 0.3036 |
| 106 | 46.39 | 0.09 | -0.2577 | -0.0436 | -0.0316 | 0.1692 | 0.1228 | 0.7352 | 0.0405 | 0.2219 | 0.0551 | 0.3012 |
| 107 | 46.56 | 0.09 | -0.2519 | -0.0405 | -0.0305 | 0.1624 | 0.1226 | 0.7352 | 0.0406 | 0.2227 | 0.0555 | 0.3025 |
| 108 | 46.75 | 0.09 | -0.2543 | -0.0426 | -0.0350 | 0.1677 | 0.1377 | 0.7403 | 0.0408 | 0.2209 | 0.0545 | 0.3025 |
| 109 | 46.92 | 0.09 | -0.2435 | -0.0417 | -0.0277 | 0.1695 | 0.1120 | 0.7501 | 0.0407 | 0.2275 | 0.0543 | 0.3033 |
| 110 | 47.08 | 0.09 | -0.2362 | -0.0395 | -0.0414 | 0.1559 | 0.1010 | 0.7408 | 0.0401 | 0.2272 | 0.0537 | 0.3043 |
| 111 | 47.24 | 0.09 | -0.2559 | -0.0395 | -0.0435 | 0.1561 | 0.1716 | 0.7534 | 0.0404 | 0.2292 | 0.0537 | 0.3042 |
| 112 | 47.45 | 0.09 | -0.2552 | -0.0382 | -0.0402 | 0.1509 | 0.1811 | 0.7566 | 0.0407 | 0.2266 | 0.0537 | 0.2988 |
| 113 | 47.61 | 0.09 | -0.2495 | -0.0396 | -0.0431 | 0.1562 | 0.1726 | 0.7649 | 0.0407 | 0.2311 | 0.0532 | 0.3021 |
| 114 | 47.76 | 0.09 | -0.2405 | -0.0376 | -0.0405 | 0.1496 | 0.1698 | 0.7566 | 0.0407 | 0.2266 | 0.0537 | 0.2988 |
| 115 | 47.94 | 0.08 | -0.2600 | -0.0360 | -0.0517 | 0.1462 | 0.1969 | 0.7572 | 0.0399 | 0.2263 | 0.0528 | 0.2988 |
| 116 | 48.11 | 0.08 | -0.2486 | -0.0384 | -0.0400 | 0.1544 | 0.1662 | 0.7669 | 0.0399 | 0.2305 | 0.0521 | 0.3011 |
| 117 | 48.27 | 0.07 | -0.2681 | -0.0393 | -0.0578 | 0.1469 | 0.2155 | 0.7735 | 0.0387 | 0.2315 | 0.0500 | 0.2992 |
| 118 | 48.44 | 0.08 | -0.2704 | -0.0379 | -0.0604 | 0.1403 | 0.2234 | 0.7754 | 0.0386 | 0.2313 | 0.0498 | 0.2983 |
| 119 | 48.59 | 0.05 | -0.2817 | -0.0353 | -0.0643 | 0.1394 | 0.2281 | 0.7754 | 0.0382 | 0.2325 | 0.0493 | 0.2995 |
| 120 | 48.78 | 0.04 | -0.2960 | -0.0405 | -0.0701 | 0.1300 | 0.2554 | 0.7819 | 0.0372 | 0.2331 | 0.0476 | 0.2981 |
| 121 | 48.94 | 0.05 | -0.3035 | -0.0432 | -0.0755 | 0.1424 | 0.2620 | 0.7852 | 0.0367 | 0.2347 | 0.0467 | 0.2988 |
| 122 | 49.11 | 0.04 | -0.2811 | -0.0357 | -0.0653 | 0.1411 | 0.2405 | 0.7851 | 0.0372 | 0.2359 | 0.0474 | 0.3005 |
| 123 | 49.27 | 0.03 | -0.2980 | -0.0410 | -0.0762 | 0.1378 | 0.2557 | 0.7885 | 0.0360 | 0.2348 | 0.0456 | 0.2978 |
| 124 | 49.45 | 0.01 | -0.3141 | -0.0441 | -0.0895 | 0.1404 | 0.2851 | 0.7931 | 0.0353 | 0.2380 | 0.0444 | 0.2954 |
| 125 | 49.61 | 0.01 | -0.2805 | -0.0353 | -0.0742 | 0.1400 | 0.2645 | 0.7884 | 0.0355 | 0.2367 | 0.0448 | 0.3028 |
| 126 | 49.77 | 0.00 | -0.2851 | -0.0357 | -0.0848 | 0.1391 | 0.2975 | 0.7880 | 0.0343 | 0.2361 | 0.0436 | 0.2954 |
| 127 | 49.95 | 0.02 | -0.2848 | -0.0405 | -0.0874 | 0.1423 | 0.3089 | 0.7982 | 0.0346 | 0.2408 | 0.0434 | 0.3017 |
| 129 | 50.30 | 0.01 | -0.3040 | -0.0451 | -0.0980 | 0.1482 | 0.3243 | 0.8075 | 0.0341 | 0.2455 | 0.0422 | 0.3038 |
| 130 | 50.47 | 0.01 | -0.2814 | -0.0383 | -0.0846 | 0.1465 | 0.3245 | 0.8016 | 0.0341 | 0.2398 | 0.0425 | 0.2991 |
| 131 | 50.64 | 0.02 | -0.2996 | -0.0371 | -0.0847 | 0.1404 | 0.3394 | 0.8015 | 0.0343 | 0.2411 | 0.0425 | 0.3008 |
| 132 | 50.80 | 0.02 | -0.2918 | -0.0386 | -0.0775 | 0.1514 | 0.3207 | 0.8080 | 0.0343 | 0.2442 | 0.0425 | 0.3022 |
| 133 | 50.98 | 0.03 | -0.2814 | -0.0343 | -0.0648 | 0.1405 | 0.2802 | 0.8014 | 0.0340 | 0.2411 | 0.0449 | 0.3009 |
| 134 | 51.15 | 0.03 | -0.2205 | -0.0335 | -0.0624 | 0.1520 | 0.2334 | 0.7998 | 0.0361 | 0.2413 | 0.0451 | 0.3017 |
| 135 | 51.31 | 0.03 | -0.2256 | -0.0344 | -0.0585 | 0.1500 | 0.2540 | 0.8030 | 0.0387 | 0.2378 | 0.0482 | 0.2962 |
| 136 | 51.51 | 0.05 | -0.2019 | -0.0353 | -0.0403 | 0.1749 | 0.1997 | 0.8125 | 0.0406 | 0.2426 | 0.0500 | 0.2985 |
| 137 | 51.66 | 0.04 | -0.2307 | -0.0371 | -0.0466 | 0.1666 | 0.2106 | 0.8126 | 0.0402 | 0.2412 | 0.0495 | 0.2968 |
| 138 | 51.86 | 0.05 | -0.2422 | -0.0425 | -0.0502 | 0.1753 | 0.2072 | 0.8225 | 0.0395 | 0.2421 | 0.0486 | 0.2943 |
| 139 | 52.01 | 0.06 | -0.2062 | -0.0426 | -0.0573 | 0.1639 | 0.2202 | 0.8308 | 0.0388 | 0.2492 | 0.0462 | 0.2971 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 12e MACH 4X10-6 1.7 PHI 0.0 CONF 81B0F23 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 140 | 52.19 | 0.07 | -0.2026 | -0.0426 | -0.0699 | 0.1509 | 0.2472 | 0.8518 | 0.0375 | 0.2555 | 0.0461 | 0.3000 |
| 141 | 52.33 | 0.06 | -0.2783 | -0.0463 | -0.0592 | 0.1518 | 0.2128 | 0.8470 | 0.0362 | 0.2563 | 0.0451 | 0.2955 |
| 142 | 52.51 | 0.07 | -0.2613 | -0.0427 | -0.0606 | 0.1520 | 0.2348 | 0.8616 | 0.0367 | 0.2556 | 0.0425 | 0.2968 |
| 143 | 52.67 | 0.07 | -0.2542 | -0.0416 | -0.0674 | 0.1493 | 0.2374 | 0.8554 | 0.0370 | 0.2526 | 0.0432 | 0.2953 |
| 144 | 52.85 | 0.08 | -0.2555 | -0.0425 | -0.0653 | 0.1418 | 0.2313 | 0.8637 | 0.0358 | 0.2549 | 0.0414 | 0.2952 |
| 145 | 53.00 | 0.06 | -0.2568 | -0.0426 | -0.0665 | 0.1443 | 0.2240 | 0.8735 | 0.0351 | 0.2563 | 0.0402 | 0.2957 |
| 146 | 53.18 | 0.10 | -0.2313 | -0.0331 | -0.0474 | 0.1431 | 0.2048 | 0.8739 | 0.0340 | 0.2565 | 0.0389 | 0.2935 |
| 147 | 53.32 | 0.06 | -0.2611 | -0.0422 | -0.0705 | 0.1400 | 0.2355 | 0.8822 | 0.0343 | 0.2575 | 0.0389 | 0.2919 |
| 148 | 53.50 | 0.09 | -0.2578 | -0.0323 | -0.0618 | 0.1256 | 0.2395 | 0.8773 | 0.0337 | 0.2574 | 0.0384 | 0.2934 |
| 149 | 53.69 | 0.10 | -0.1989 | -0.0278 | -0.0368 | 0.1400 | 0.1551 | 0.8725 | 0.0328 | 0.2547 | 0.0376 | 0.2919 |
| 150 | 53.81 | 0.10 | -0.1164 | -0.0127 | -0.0145 | 0.1095 | 0.1244 | 0.8777 | 0.0329 | 0.2525 | 0.0375 | 0.2881 |
| 151 | 53.99 | 0.16 | -0.1112 | -0.0096 | -0.0086 | 0.0859 | 0.0773 | 0.8878 | 0.0335 | 0.2468 | 0.0386 | 0.2844 |
| 152 | 54.13 | 0.11 | -0.1479 | -0.0142 | -0.0322 | 0.0959 | 0.2179 | 0.8862 | 0.0329 | 0.2553 | 0.0371 | 0.2881 |
| 153 | 54.36 | 0.14 | -0.1176 | -0.0087 | -0.0079 | 0.0736 | 0.0673 | 0.8896 | 0.0336 | 0.2486 | 0.0386 | 0.2859 |
| 154 | 54.47 | 0.11 | -0.0575 | -0.0005 | 0.0250 | 0.0083 | -0.4317 | 0.8496 | 0.0340 | 0.2430 | 0.0400 | 0.2866 |
| 155 | 54.61 | 0.09 | -0.1018 | -0.0037 | 0.0116 | 0.0300 | -0.1081 | 0.8581 | 0.0336 | 0.2488 | 0.0392 | 0.2907 |
| 156 | 54.77 | 0.10 | -0.0565 | 0.0006 | 0.0498 | -0.1023 | -1.3508 | 0.8279 | 0.0340 | 0.2368 | 0.0410 | 0.2885 |
| 157 | 54.93 | 0.11 | -0.0760 | 0.0028 | 0.0414 | -0.0350 | -0.5204 | 0.8196 | 0.0347 | 0.2359 | 0.0424 | 0.2878 |
| 158 | 55.13 | 0.09 | -0.0674 | 0.0023 | 0.0492 | -0.0343 | -0.7296 | 0.8346 | 0.0344 | 0.2402 | 0.0413 | 0.2877 |
| 159 | 55.23 | 0.06 | -0.0523 | 0.0023 | 0.0517 | -0.0291 | -0.5501 | 0.8145 | 0.0351 | 0.2318 | 0.0431 | 0.2845 |
| 160 | 55.37 | 0.08 | -0.0861 | 0.0018 | 0.0510 | -0.0213 | -0.5930 | 0.8345 | 0.0346 | 0.2414 | 0.0417 | 0.2853 |
| 161 | 55.55 | 0.06 | -0.1054 | 0.0033 | 0.0540 | -0.0311 | -0.5183 | 0.8111 | 0.0360 | 0.2321 | 0.0444 | 0.2862 |
| 162 | 55.72 | 0.05 | -0.0957 | 0.0037 | 0.0558 | -0.0391 | -0.6385 | 0.8177 | 0.0353 | 0.2368 | 0.0432 | 0.2894 |
| 163 | 55.88 | 0.07 | -0.1057 | 0.0031 | 0.0574 | -0.0347 | -0.5416 | 0.8177 | 0.0353 | 0.2368 | 0.0432 | 0.2894 |
| 164 | 56.05 | 0.08 | -0.1114 | 0.0037 | 0.0540 | -0.0329 | -0.4848 | 0.8177 | 0.0353 | 0.2354 | 0.0432 | 0.2879 |
| 165 | 56.21 | 0.05 | -0.1051 | 0.0037 | 0.0615 | -0.0355 | -0.5959 | 0.8447 | 0.0349 | 0.2347 | 0.0424 | 0.2845 |
| 166 | 56.38 | 0.08 | -0.1202 | 0.0 | 0.0515 | 0.0 | -0.4286 | 0.8581 | 0.0343 | 0.2508 | 0.0399 | 0.2923 |
| 167 | 56.53 | 0.06 | -0.1174 | 0.0005 | 0.0552 | 0.0041 | -0.4528 | 0.8496 | 0.0346 | 0.2457 | 0.0410 | 0.2905 |
| 168 | 56.70 | 0.08 | -0.1031 | 0.0037 | 0.0615 | -0.0355 | -0.5959 | 0.8515 | 0.0346 | 0.2435 | 0.0407 | 0.2860 |
| 169 | 56.85 | 0.06 | -0.1037 | 0.0021 | 0.0607 | -0.0353 | -0.6428 | 0.8479 | 0.0349 | 0.2455 | 0.0412 | 0.2901 |
| 170 | 57.02 | 0.07 | -0.1425 | 0.0 | 0.0556 | 0.0 | -0.3919 | 0.8279 | 0.0353 | 0.2389 | 0.0427 | 0.2886 |
| 171 | 57.19 | 0.08 | -0.1164 | 0.0023 | 0.0611 | -0.0196 | -0.5159 | 0.8510 | 0.0353 | 0.2432 | 0.0425 | 0.2927 |
| 172 | 57.33 | 0.07 | -0.1162 | 0.0018 | 0.0605 | -0.0155 | -0.5151 | 0.8563 | 0.0345 | 0.2432 | 0.0413 | 0.2909 |
| 173 | 57.47 | 0.08 | -0.1127 | 0.0025 | 0.0645 | -0.0016 | -0.5719 | 0.8303 | 0.0345 | 0.2406 | 0.0413 | 0.2877 |
| 174 | 57.62 | 0.05 | -0.1712 | -0.0023 | 0.0432 | 0.0135 | -0.2525 | 0.8295 | 0.0352 | 0.2401 | 0.0425 | 0.2894 |
| 175 | 57.79 | 0.07 | -0.1552 | 0.0 | 0.0491 | 0.0 | -0.3205 | 0.8412 | 0.0348 | 0.2460 | 0.0414 | 0.2925 |
| 176 | 57.92 | 0.05 | -0.1203 | 0.0028 | 0.0585 | -0.0233 | -0.4899 | 0.8529 | 0.0344 | 0.2493 | 0.0404 | 0.2923 |
| 177 | 58.08 | 0.05 | -0.1261 | 0.0 | 0.0500 | 0.0 | -0.3201 | 0.8428 | 0.0350 | 0.2462 | 0.0426 | 0.2919 |
| 178 | 58.16 | 0.05 | -0.1265 | -0.0032 | 0.0395 | 0.0191 | -0.2364 | 0.8496 | 0.0341 | 0.2490 | 0.0401 | 0.2931 |

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART Lee 0.60 1.7 | MACH RX10-6 | PRI C.C | CONF 3 INCH 25 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.08 | 0.00 | 0.0324 | 9.9999 | 0.0065 | 9.9999 | 0.2312 | -0.0094 | -0.0170 | -0.3227 | 0.0210 | 0.3587 |
| 2 | -5.08 | 0.00 | 0.0253 | 9.9999 | 0.0067 | 9.9999 | 0.2760 | -0.0166 | -0.0170 | -0.3207 | 0.0208 | 0.3636 |
| 3 | -5.08 | 0.00 | 0.0323 | 9.9999 | 0.0100 | 9.9999 | 0.2620 | -0.0163 | -0.0163 | -0.3265 | 0.0200 | 0.4005 |
| 4 | -5.08 | 0.00 | 0.0314 | 9.9999 | 0.0091 | 9.9999 | 0.2191 | -0.0162 | -0.0163 | -0.3207 | 0.0200 | 0.3930 |
| 5 | -5.08 | 0.00 | 0.0324 | 9.9999 | 0.0100 | 9.9999 | 0.2013 | -0.0111 | -0.0170 | -0.3233 | 0.0209 | 0.3986 |
| 6 | -4.90 | 0.00 | 0.0324 | 9.9999 | 0.0096 | 9.9999 | 0.2946 | -0.0076 | -0.0170 | -0.3206 | 0.0210 | 0.3965 |
| 7 | -3.56 | 0.01 | 0.0262 | 9.9999 | 0.0125 | 9.9999 | 0.4779 | -0.7761 | -0.0177 | -0.3068 | 0.0227 | 0.3953 |
| 8 | -1.73 | 0.01 | 0.0323 | 9.9999 | 0.0167 | 9.9999 | 0.3913 | -0.7359 | -0.0196 | -0.2994 | 0.0266 | 0.4015 |
| 9 | 0.13 | 0.00 | 0.0325 | 9.9999 | 0.0172 | 9.9999 | 0.2226 | -0.0345 | -0.0228 | -0.3238 | 0.0273 | 0.3886 |
| 10 | 1.96 | 0.00 | 0.0327 | 9.9999 | 0.0146 | 9.9999 | 1.7857 | -0.0091 | -0.0240 | -0.3345 | 0.0276 | 0.3849 |
| 11 | 3.86 | 0.00 | 0.0328 | 9.9999 | 0.0128 | 9.9999 | 0.4833 | -0.0711 | -0.0282 | -0.3277 | 0.0323 | 0.3762 |
| 12 | 5.84 | -0.00 | 0.0327 | 9.9999 | 0.0146 | 9.9999 | 1.7857 | -0.0361 | -0.0343 | -0.3010 | 0.0416 | 0.3601 |
| 13 | 7.48 | -0.00 | 0.0328 | 9.9999 | 0.0178 | 9.9999 | 0.8376 | -0.7661 | -0.0431 | -0.2866 | 0.0545 | 0.3646 |
| 14 | 9.30 | 0.00 | 0.0263 | 9.9999 | 0.0134 | 9.9999 | 0.6524 | -0.7265 | -0.0489 | -0.2635 | 0.0673 | 0.3627 |
| 15 | 11.09 | -0.00 | 0.0323 | 9.9999 | 0.0185 | 9.9999 | 0.2317 | -0.0005 | -0.0495 | -0.2407 | 0.0748 | 0.3612 |
| 16 | 12.92 | -0.00 | 0.0253 | 9.9999 | 0.0166 | 9.9999 | 0.1706 | -0.0103 | -0.0506 | -0.2306 | 0.0828 | 0.3779 |
| 17 | 14.73 | -0.00 | 0.0445 | 9.9999 | 0.0238 | 9.9999 | 0.0303 | -0.4980 | -0.0456 | -0.1946 | 0.0916 | 0.3908 |
| 18 | 16.60 | -0.01 | 0.0445 | 9.9999 | 0.0238 | 9.9999 | 0.0303 | -0.3707 | -0.0380 | -0.1381 | 0.1026 | 0.3725 |
| 19 | 18.49 | -0.02 | 0.0395 | 9.9999 | 0.0240 | 9.9999 | 0.1114 | -0.2224 | -0.0227 | -0.0762 | 0.1026 | 0.3514 |
| 20 | 20.29 | -0.02 | 0.0261 | 9.9999 | 0.0221 | 9.9999 | 0.0794 | -0.1010 | -0.0054 | -0.0258 | 0.0535 | 0.2359 |
| 21 | 22.15 | -0.03 | 0.0151 | 9.9999 | -0.0023 | 9.9999 | -0.1536 | 0.0015 | 0.0211 | 0.0141 | 13.6875 | 0.1250 |
| 22 | 24.01 | -0.04 | 0.0063 | 9.9999 | -0.0085 | 9.9999 | -1.0306 | 0.0802 | 0.0460 | 0.0439 | 0.4647 | 0.5095 |
| 23 | 25.82 | -0.05 | 0.0265 | 9.9999 | -0.0025 | 9.9999 | -0.0932 | 0.1388 | 0.0547 | 0.0711 | 0.3940 | 0.5122 |
| 24 | 27.69 | 0.01 | 0.0362 | 9.9999 | 0.0102 | 9.9999 | 0.1021 | 0.1406 | 0.0620 | 0.0816 | 0.4413 | 0.5806 |
| 25 | 28.75 | 0.02 | 0.0534 | 9.9999 | 0.0205 | 9.9999 | 0.1664 | 0.1768 | 0.0696 | 0.0575 | 0.3851 | 0.5458 |
| 26 | 28.88 | -0.04 | 0.0462 | 9.9999 | 0.0054 | 9.9999 | 0.1323 | 0.1822 | 0.0699 | 0.1039 | 0.3835 | 0.5704 |
| 27 | 29.01 | 0.00 | 0.0476 | 9.9999 | 0.0045 | 9.9999 | 0.1034 | 0.1884 | 0.0715 | 0.1070 | 0.3794 | 0.5678 |
| 28 | 29.26 | 0.02 | 0.0535 | 9.9999 | 0.0054 | 9.9999 | 0.1021 | 0.2011 | 0.0744 | 0.1156 | 0.3700 | 0.5745 |
| 29 | 29.01 | 0.02 | 0.0625 | 9.9999 | 0.0072 | 9.9999 | 0.1157 | 0.2144 | 0.0761 | 0.1218 | 0.3551 | 0.5680 |
| 30 | 29.88 | 0.02 | 0.0526 | 9.9999 | 0.0062 | 9.9999 | 0.0143 | 0.2468 | 0.0797 | 0.1343 | 0.3229 | 0.5442 |
| 31 | 30.13 | 0.03 | 0.0656 | 9.9999 | 0.0052 | 9.9999 | 0.0794 | 0.2534 | 0.0805 | 0.1398 | 0.3168 | 0.5518 |
| 32 | 30.43 | 0.03 | 0.0636 | 9.9999 | 0.0054 | 9.9999 | 0.0794 | 0.2829 | 0.0822 | 0.1532 | 0.2906 | 0.5416 |
| 33 | 30.69 | 0.02 | 0.0626 | 9.9999 | 0.0026 | 9.9999 | 0.0415 | 0.3133 | 0.0831 | 0.1632 | 0.2652 | 0.5208 |
| 34 | 30.97 | 0.02 | 0.0569 | 9.9999 | 0.0011 | 9.9999 | 0.0106 | 0.3151 | 0.0837 | 0.1620 | 0.2672 | 0.5174 |
| 35 | 31.24 | 0.02 | 0.0566 | 9.9999 | 0.0022 | 9.9999 | 0.0390 | 0.3495 | 0.0853 | 0.1833 | 0.2441 | 0.5246 |
| 36 | 31.52 | 0.04 | 0.0514 | 9.9999 | -0.0005 | 9.9999 | -0.1036 | 0.3729 | 0.0865 | 0.1937 | 0.2287 | 0.5195 |
| 37 | 31.77 | 0.01 | 0.0456 | 9.9999 | -0.0053 | 9.9999 | -0.2038 | 0.4192 | 0.0889 | 0.2121 | 0.2074 | 0.5059 |
| 38 | 32.05 | 0.01 | 0.0454 | 9.9999 | -0.0061 | 9.9999 | -0.1783 | 0.4367 | 0.0871 | 0.2174 | 0.1995 | 0.4978 |
| 39 | 32.31 | 0.02 | 0.0513 | 9.9999 | -0.0053 | 9.9999 | -0.1034 | 0.4534 | 0.0874 | 0.2248 | 0.1928 | 0.4958 |
| 40 | 32.56 | 0.02 | 0.0435 | 9.9999 | -0.0093 | 9.9999 | -0.2034 | 0.4408 | 0.0871 | 0.2231 | 0.1950 | 0.4992 |
| 41 | 32.83 | 0.03 | 0.0572 | 9.9999 | -0.0037 | 9.9999 | -0.0841 | 0.4601 | 0.0871 | 0.2278 | 0.1893 | 0.4951 |
| 42 | 33.08 | 0.02 | 0.0488 | 9.9999 | -0.0062 | 9.9999 | -0.2103 | 0.4611 | 0.0872 | 0.2295 | 0.1892 | 0.4978 |
| 43 | 33.32 | 0.04 | 0.0752 | 9.9999 | 0.0013 | 9.9999 | 0.0167 | 0.4545 | 0.0872 | 0.2278 | 0.1919 | 0.5013 |
| 44 | 33.58 | 0.03 | 0.0633 | 9.9999 | -0.0020 | 9.9999 | -0.0520 | 0.4646 | 0.0872 | 0.2348 | 0.1877 | 0.5053 |
| 45 | 33.82 | 0.04 | 0.0814 | 9.9999 | 0.0017 | 9.9999 | 0.0214 | 0.5015 | 0.0866 | 0.2460 | 0.1728 | 0.4968 |
| 46 | 34.07 | 0.05 | 0.0755 | 9.9999 | -0.0011 | 9.9999 | -0.0141 | 0.5161 | 0.0862 | 0.2500 | 0.1669 | 0.4844 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 426 MACH 0.60 RALC=6 1.7 PHI 0.0 CONF 81BOF23 L C.G 0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CBJ | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.33 | C.05 | C.0574 | 5.9999 | -C.0025 | 5.9999 | -0.0437 | 0.5027 | C.0865 | 0.2490 | 0.1720 | 0.4954 |
| 48 | 34.58 | C.06 | C.0564 | 5.9999 | -C.0026 | 5.9999 | -0.0387 | 0.5026 | C.0862 | 0.2490 | 0.1714 | C.4953 |
| 49 | 34.80 | C.06 | C.0574 | 5.9999 | -C.0025 | 5.9999 | -0.0437 | 0.5164 | C.0855 | 0.2549 | 0.1655 | C.4936 |
| 50 | 35.06 | C.06 | C.0575 | 5.9999 | -C.0027 | 5.9999 | -0.0438 | 0.5307 | C.0846 | 0.2601 | 0.1596 | C.4847 |
| 51 | 35.31 | C.07 | C.0636 | 5.9999 | -C.0020 | 5.9999 | -0.0319 | 0.5445 | C.0847 | 0.2623 | 0.1556 | C.4818 |
| 52 | 35.53 | C.07 | C.0755 | 5.9999 | C.0024 | 5.9999 | C.0320 | 0.5578 | C.0850 | 0.2644 | C.1581 | C.4916 |
| 53 | 35.77 | C.06 | C.0695 | 5.9999 | C.0001 | 5.9999 | C.0111 | C.5179 | C.0836 | 0.2578 | C.1617 | C.4578 |
| 54 | 35.99 | C.06 | C.0647 | 5.9999 | C.0025 | 5.9999 | C.0049 | C.5106 | C.0846 | 0.2573 | C.1627 | C.4581 |
| 55 | 36.22 | C.07 | C.0757 | 5.9999 | C.0025 | 5.9999 | C.0331 | C.5233 | C.0844 | C.2617 | C.1613 | C.5000 |
| 56 | 36.46 | C.07 | C.0647 | 5.9999 | C.0075 | 5.9999 | C.0934 | C.5102 | C.0731 | C.2527 | C.1433 | C.4953 |
| 57 | 36.70 | C.07 | C.0647 | 5.9999 | C.0075 | 5.9999 | C.0934 | C.4795 | C.0611 | C.2419 | C.1274 | C.5044 |
| 58 | 36.93 | C.07 | C.0647 | 5.9999 | C.0125 | 5.9999 | C.1217 | C.4713 | C.0572 | C.2376 | C.1214 | C.5042 |
| 59 | 37.17 | C.08 | C.0752 | 5.9999 | C.0125 | 5.9999 | C.0785 | C.4619 | C.0543 | C.2304 | C.1178 | C.4985 |
| 60 | 37.40 | C.08 | C.0767 | 5.9999 | C.0125 | 5.9999 | C.1250 | C.4490 | C.0517 | C.2293 | C.1152 | C.5105 |
| 61 | 37.63 | C.08 | C.0757 | 5.9999 | C.0084 | 5.9999 | C.1106 | C.4623 | C.0527 | C.2291 | C.1146 | C.4955 |
| 62 | 37.86 | C.07 | C.0754 | 5.9999 | C.0074 | 5.9999 | C.0953 | C.4500 | C.0516 | C.2297 | C.1151 | C.5105 |
| 63 | 38.10 | C.06 | C.0641 | 5.9999 | C.0015 | 5.9999 | C.0241 | C.4567 | C.0516 | C.2290 | C.1135 | C.5014 |
| 64 | 38.33 | C.07 | C.0561 | 5.9999 | -C.0025 | 5.9999 | -C.0432 | C.4634 | C.0516 | C.2282 | C.1118 | C.4924 |
| 65 | 38.57 | C.07 | C.0520 | 5.9999 | -C.0035 | 5.9999 | -C.0575 | C.4667 | C.0525 | C.2323 | C.1125 | C.4976 |
| 66 | 38.77 | C.08 | C.0521 | 5.9999 | -C.0034 | 5.9999 | -C.0574 | C.4643 | C.0526 | C.2300 | C.1133 | C.4954 |
| 67 | 39.00 | C.07 | C.0463 | 5.9999 | -C.0012 | 5.9999 | -C.1771 | C.4643 | C.0515 | C.2262 | C.1116 | C.4871 |
| 68 | 39.20 | C.07 | C.0533 | 5.9999 | -C.0046 | 5.9999 | -C.0716 | C.4643 | C.0514 | C.2262 | C.1118 | C.4871 |
| 69 | 39.43 | C.07 | C.0524 | 5.9999 | -C.0054 | 5.9999 | -C.1031 | C.4654 | C.0513 | C.2253 | C.1103 | C.4841 |
| 70 | 39.63 | C.07 | C.0525 | 5.9999 | -C.0054 | 5.9999 | -C.1029 | C.4663 | C.0514 | C.2245 | C.1103 | C.4815 |
| 71 | 39.85 | C.08 | C.0524 | 5.9999 | -C.0036 | 5.9999 | -C.0571 | C.4662 | C.0521 | C.2270 | C.1118 | C.4876 |
| 72 | 40.06 | C.07 | C.0644 | 5.9999 | C.0027 | 5.9999 | C.0420 | C.4704 | C.0521 | C.2278 | C.1094 | C.4782 |
| 73 | 40.23 | C.07 | C.0553 | 5.9999 | C.0004 | 5.9999 | C.0140 | C.4798 | C.0521 | C.2306 | C.1086 | C.4808 |
| 74 | 40.43 | C.09 | C.0462 | 5.9999 | -C.0014 | 5.9999 | -C.0251 | C.4670 | C.0526 | C.2225 | C.1126 | C.4764 |
| 75 | 40.66 | C.08 | C.0565 | 5.9999 | -C.0002 | 5.9999 | -C.0033 | C.4606 | C.0532 | C.2337 | C.1106 | C.4862 |
| 76 | 40.85 | C.08 | C.0643 | 5.9999 | C.0073 | 5.9999 | C.1171 | C.4701 | C.0542 | C.2292 | C.1154 | C.4875 |
| 77 | 41.07 | C.08 | C.0703 | 5.9999 | C.0103 | 5.9999 | C.1408 | C.4837 | C.0549 | C.2378 | C.1135 | C.4917 |
| 78 | 41.27 | C.08 | C.0643 | 5.9999 | C.0073 | 5.9999 | C.1171 | C.4803 | C.0549 | C.2389 | C.1143 | C.4974 |
| 79 | 41.46 | C.08 | C.0733 | 5.9999 | C.0142 | 5.9999 | C.1934 | C.4883 | C.0546 | C.2424 | C.1118 | C.4963 |
| 80 | 41.64 | C.08 | C.0582 | 5.9999 | C.0043 | 5.9999 | C.1045 | C.4816 | C.0543 | C.2406 | C.1128 | C.4997 |
| 81 | 41.86 | C.08 | C.0643 | 5.9999 | C.0099 | 5.9999 | C.1547 | C.4812 | C.0560 | C.2446 | C.1163 | C.5083 |
| 82 | 42.08 | C.08 | C.0624 | 5.9999 | C.0086 | 5.9999 | C.1259 | C.4813 | C.0557 | C.2432 | C.1157 | C.5054 |
| 83 | 42.24 | C.08 | C.0671 | 5.9999 | C.0101 | 5.9999 | C.2403 | C.4848 | C.0563 | C.2448 | C.1161 | C.5052 |
| 84 | 42.42 | C.08 | C.0700 | 5.9999 | C.0101 | 5.9999 | C.2072 | C.4846 | C.0563 | C.2474 | C.1161 | C.5106 |
| 85 | 42.61 | C.08 | C.0526 | 5.9999 | C.0085 | 5.9999 | C.1707 | C.4710 | C.0557 | C.2460 | C.1182 | C.5099 |
| 86 | 42.78 | C.07 | C.0640 | 5.9999 | C.0156 | 5.9999 | C.2474 | C.4708 | C.0566 | C.2426 | C.1203 | C.5153 |
| 87 | 42.96 | C.09 | C.0581 | 5.9999 | C.0116 | 5.9999 | C.2027 | C.4671 | C.0576 | C.2411 | C.1233 | C.5162 |
| 88 | 43.15 | C.09 | C.0577 | 5.9999 | C.0109 | 5.9999 | C.2300 | C.4767 | C.0564 | C.2426 | C.1178 | C.5088 |
| 89 | 43.34 | C.10 | C.0629 | 5.9999 | C.0171 | 5.9999 | C.2574 | C.4662 | C.0572 | C.2381 | C.1227 | C.5108 |
| 90 | 43.53 | C.09 | C.0638 | 5.9999 | C.0162 | 5.9999 | C.2659 | C.4558 | C.0575 | C.2335 | C.1262 | C.5123 |
| 91 | 43.69 | C.10 | C.0627 | 5.9999 | C.0155 | 5.9999 | C.2560 | C.4516 | C.0574 | C.2341 | C.1271 | C.5184 |
| 92 | 43.88 | C.10 | C.0576 | 5.9999 | C.0159 | 5.9999 | C.2663 | C.4445 | C.0581 | C.2298 | C.1307 | C.5170 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 126 | MACH 0.60 | REYNOLDS 1.7 | PHI 0.0 | CONF 81866F23 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.07 | 0.00 | 0.0576 | 0.0000 | 0.0165 | 0.0000 | 0.2064 | 0.4515 | 0.0581 | 0.2342 | 0.1287 | 0.5187 |
| 94 | 44.24 | 0.10 | 0.0635 | 0.0000 | 0.0193 | 0.0000 | 0.3040 | 0.4402 | 0.0560 | 0.2292 | 0.1331 | 0.5266 |
| 95 | 44.43 | 0.10 | 0.0694 | 0.0000 | 0.0233 | 0.0000 | 0.3366 | 0.4467 | 0.0592 | 0.2310 | 0.1326 | 0.5171 |
| 96 | 44.63 | 0.00 | 0.0453 | 0.0000 | 0.0155 | 0.0000 | 0.3433 | 0.4436 | 0.0566 | 0.2307 | 0.1320 | 0.5261 |
| 97 | 44.81 | 0.10 | 0.0572 | 0.0000 | 0.0200 | 0.0000 | 0.3491 | 0.4356 | 0.0594 | 0.2261 | 0.1364 | 0.5185 |
| 98 | 44.97 | 0.11 | 0.0634 | 0.0000 | 0.0222 | 0.0000 | 0.3199 | 0.4425 | 0.0594 | 0.2303 | 0.1343 | 0.5205 |
| 99 | 45.15 | 0.10 | 0.0572 | 0.0000 | 0.0184 | 0.0000 | 0.2867 | 0.4518 | 0.0590 | 0.2331 | 0.1307 | 0.5159 |
| 100 | 45.45 | 0.09 | 0.0636 | 0.0000 | 0.0240 | 0.0000 | 0.3815 | 0.4414 | 0.0600 | 0.2267 | 0.1360 | 0.5186 |
| 101 | 45.51 | 0.09 | 0.0510 | 0.0000 | 0.0171 | 0.0000 | 0.3348 | 0.4408 | 0.0592 | 0.2307 | 0.1344 | 0.5233 |
| 102 | 45.68 | 0.09 | 0.0600 | 0.0000 | 0.0231 | 0.0000 | 0.3494 | 0.4406 | 0.0602 | 0.2321 | 0.1367 | 0.5267 |
| 103 | 45.86 | 0.09 | 0.0450 | 0.0000 | 0.0154 | 0.0000 | 0.3433 | 0.4407 | 0.0599 | 0.2308 | 0.1360 | 0.5238 |
| 104 | 46.04 | 0.08 | 0.0505 | 0.0000 | 0.0184 | 0.0000 | 0.3560 | 0.4541 | 0.0602 | 0.2355 | 0.1326 | 0.5187 |
| 105 | 46.23 | 0.09 | 0.0567 | 0.0000 | 0.0234 | 0.0000 | 0.4133 | 0.4498 | 0.0601 | 0.2336 | 0.1336 | 0.5193 |
| 106 | 46.39 | 0.09 | 0.0567 | 0.0000 | 0.0216 | 0.0000 | 0.3707 | 0.4592 | 0.0600 | 0.2364 | 0.1307 | 0.5148 |
| 107 | 46.56 | 0.09 | 0.0538 | 0.0000 | 0.0220 | 0.0000 | 0.4101 | 0.4659 | 0.0600 | 0.2406 | 0.1288 | 0.5165 |
| 108 | 46.75 | 0.09 | 0.0596 | 0.0000 | 0.0236 | 0.0000 | 0.3964 | 0.4663 | 0.0613 | 0.2416 | 0.1325 | 0.5231 |
| 109 | 46.92 | 0.09 | 0.0565 | 0.0000 | 0.0233 | 0.0000 | 0.4130 | 0.4718 | 0.0602 | 0.2458 | 0.1276 | 0.5209 |
| 110 | 47.08 | 0.09 | 0.0624 | 0.0000 | 0.0201 | 0.0000 | 0.4109 | 0.4619 | 0.0605 | 0.2515 | 0.1256 | 0.5226 |
| 111 | 47.24 | 0.09 | 0.0505 | 0.0000 | 0.0225 | 0.0000 | 0.4532 | 0.4920 | 0.0605 | 0.2547 | 0.1230 | 0.5177 |
| 112 | 47.45 | 0.09 | 0.0563 | 0.0000 | 0.0205 | 0.0000 | 0.4054 | 0.4911 | 0.0604 | 0.2568 | 0.1230 | 0.5228 |
| 113 | 47.61 | 0.09 | 0.0474 | 0.0000 | 0.0214 | 0.0000 | 0.4521 | 0.4976 | 0.0608 | 0.2623 | 0.1221 | 0.5268 |
| 114 | 47.76 | 0.09 | 0.0446 | 0.0000 | 0.0177 | 0.0000 | 0.3901 | 0.4978 | 0.0611 | 0.2648 | 0.1227 | 0.5319 |
| 115 | 47.94 | 0.08 | 0.0493 | 0.0000 | 0.0223 | 0.0000 | 0.5033 | 0.5138 | 0.0606 | 0.2717 | 0.1179 | 0.5288 |
| 116 | 48.11 | 0.08 | 0.0444 | 0.0000 | 0.0206 | 0.0000 | 0.4500 | 0.5238 | 0.0610 | 0.2762 | 0.1164 | 0.5274 |
| 117 | 48.27 | 0.07 | 0.0385 | 0.0000 | 0.0172 | 0.0000 | 0.4461 | 0.5340 | 0.0606 | 0.2819 | 0.1135 | 0.5280 |
| 118 | 48.44 | 0.08 | 0.0383 | 0.0000 | 0.0195 | 0.0000 | 0.5088 | 0.5297 | 0.0605 | 0.2816 | 0.1142 | 0.5308 |
| 119 | 48.59 | 0.05 | 0.0254 | 0.0000 | 0.0152 | 0.0000 | 0.5160 | 0.5432 | 0.0599 | 0.2846 | 0.1103 | 0.5240 |
| 120 | 48.76 | 0.04 | 0.0353 | 0.0000 | 0.0180 | 0.0000 | 0.5106 | 0.5369 | 0.0586 | 0.2860 | 0.1052 | 0.5172 |
| 121 | 48.94 | 0.05 | 0.0324 | 0.0000 | 0.0166 | 0.0000 | 0.5119 | 0.5508 | 0.0592 | 0.2893 | 0.1064 | 0.5155 |
| 122 | 49.11 | 0.04 | 0.0264 | 0.0000 | 0.0138 | 0.0000 | 0.5219 | 0.5602 | 0.0590 | 0.2907 | 0.1052 | 0.5189 |
| 123 | 49.27 | 0.03 | 0.0284 | 0.0000 | 0.0138 | 0.0000 | 0.5219 | 0.5704 | 0.0583 | 0.2914 | 0.1022 | 0.5108 |
| 124 | 49.45 | 0.04 | 0.0264 | 0.0000 | 0.0136 | 0.0000 | 0.5219 | 0.5771 | 0.0583 | 0.2944 | 0.1010 | 0.5101 |
| 125 | 49.61 | 0.01 | 0.0234 | 0.0000 | 0.0148 | 0.0000 | 0.6296 | 0.5741 | 0.0586 | 0.2903 | 0.0987 | 0.5057 |
| 126 | 49.77 | 0.00 | 0.0116 | 0.0000 | 0.0092 | 0.0000 | 0.7917 | 0.5843 | 0.0580 | 0.2935 | 0.0958 | 0.5023 |
| 127 | 49.95 | 0.02 | 0.0322 | 0.0000 | 0.0150 | 0.0000 | 0.5856 | 0.5908 | 0.0589 | 0.2952 | 0.0964 | 0.4998 |
| 128 | 50.10 | 0.01 | 0.0145 | 0.0000 | 0.0126 | 0.0000 | 0.8007 | 0.5905 | 0.0583 | 0.2951 | 0.0987 | 0.5065 |
| 129 | 50.27 | 0.01 | 0.0323 | 0.0000 | 0.0175 | 0.0000 | 0.5522 | 0.5838 | 0.0583 | 0.2974 | 0.0958 | 0.5093 |
| 130 | 50.47 | 0.01 | 0.0321 | 0.0000 | 0.0225 | 0.0000 | 0.6997 | 0.5842 | 0.0589 | 0.2958 | 0.0974 | 0.5131 |
| 131 | 50.64 | 0.02 | 0.0241 | 0.0000 | 0.0208 | 0.0000 | 0.7970 | 0.5772 | 0.0583 | 0.2981 | 0.1010 | 0.5165 |
| 132 | 50.80 | 0.02 | 0.0241 | 0.0000 | 0.0208 | 0.0000 | 0.7970 | 0.5772 | 0.0583 | 0.2981 | 0.1010 | 0.5165 |
| 133 | 50.96 | 0.03 | 0.0144 | 0.0000 | 0.0152 | 0.0000 | 1.0604 | 0.5604 | 0.0583 | 0.2920 | 0.1040 | 0.5216 |
| 134 | 51.15 | 0.03 | 0.0233 | 0.0000 | 0.0155 | 0.0000 | 0.8362 | 0.5582 | 0.0584 | 0.2923 | 0.1046 | 0.5236 |
| 135 | 51.31 | 0.03 | 0.0321 | 0.0000 | 0.0207 | 0.0000 | 0.7387 | 0.5513 | 0.0593 | 0.2944 | 0.1076 | 0.5346 |
| 136 | 51.51 | 0.05 | 0.0251 | 0.0000 | 0.0223 | 0.0000 | 0.7649 | 0.5508 | 0.0610 | 0.2907 | 0.1107 | 0.5278 |
| 137 | 51.66 | 0.04 | 0.0263 | 0.0000 | 0.0185 | 0.0000 | 0.7033 | 0.5577 | 0.0610 | 0.2962 | 0.1053 | 0.5311 |
| 138 | 51.86 | 0.05 | 0.0263 | 0.0000 | 0.0192 | 0.0000 | 0.9476 | 0.5578 | 0.0603 | 0.2961 | 0.1081 | 0.5369 |
| 139 | 52.01 | 0.06 | 0.0261 | 0.0000 | 0.0230 | 0.0000 | 0.8930 | 0.5670 | 0.0596 | 0.2990 | 0.1052 | 0.5274 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 166 | MACH 0.60 | RXIC-6 1.7 | PHI 0.0 | CONF 61=UF25 | L 6.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 140 | 52.19 | 0.07 | 0.0222 | 0.0000 | 0.0221 | 0.0000 | 0.8419 | 0.5839 | 0.0596 | 0.3077 | 0.1021 | 0.5265 |
| 141 | 52.35 | 0.08 | 0.0233 | 0.0000 | 0.0227 | 0.0000 | 0.8384 | 0.5715 | 0.0597 | 0.3023 | 0.1045 | 0.5256 |
| 142 | 52.51 | 0.07 | 0.0214 | 0.0000 | 0.0210 | 0.0000 | 0.7956 | 0.5762 | 0.0591 | 0.3044 | 0.1026 | 0.5283 |
| 143 | 52.67 | 0.07 | 0.0243 | 0.0000 | 0.0225 | 0.0000 | 0.7664 | 0.5702 | 0.0585 | 0.3019 | 0.1021 | 0.5235 |
| 144 | 52.85 | 0.08 | 0.0234 | 0.0000 | 0.0227 | 0.0000 | 0.8560 | 0.5912 | 0.0583 | 0.3110 | 0.0986 | 0.5260 |
| 145 | 53.00 | 0.08 | 0.0224 | 0.0000 | 0.0230 | 0.0000 | 0.7381 | 0.5644 | 0.0580 | 0.3076 | 0.0992 | 0.5268 |
| 146 | 53.18 | 0.10 | 0.0416 | 0.0000 | 0.0271 | 0.0000 | 0.6520 | 0.6004 | 0.0575 | 0.3101 | 0.0958 | 0.5165 |
| 147 | 53.32 | 0.08 | 0.0235 | 0.0000 | 0.0222 | 0.0000 | 0.9426 | 0.5681 | 0.0573 | 0.3084 | 0.0975 | 0.5244 |
| 148 | 53.50 | 0.09 | 0.0226 | 0.0000 | 0.0212 | 0.0000 | 0.7571 | 0.5926 | 0.0574 | 0.3105 | 0.0965 | 0.5235 |
| 149 | 53.64 | 0.10 | 0.0267 | 0.0000 | 0.0283 | 0.0000 | 0.7307 | 0.5904 | 0.0575 | 0.3096 | 0.0974 | 0.5244 |
| 150 | 53.81 | 0.10 | 0.0415 | 0.0000 | 0.0286 | 0.0000 | 0.6820 | 0.6122 | 0.0577 | 0.3181 | 0.0942 | 0.5156 |
| 151 | 53.99 | 0.10 | 0.0419 | 0.0000 | 0.0326 | 0.0000 | 0.6815 | 0.6157 | 0.0577 | 0.3197 | 0.0937 | 0.5152 |
| 152 | 54.13 | 0.11 | 0.0358 | 0.0000 | 0.0265 | 0.0000 | 0.7520 | 0.6306 | 0.0571 | 0.3251 | 0.0905 | 0.5153 |
| 153 | 54.32 | 0.11 | 0.0438 | 0.0000 | 0.0223 | 0.0000 | 0.9429 | 0.6447 | 0.0568 | 0.3325 | 0.0881 | 0.5157 |
| 154 | 54.47 | 0.11 | 0.0369 | 0.0000 | 0.0284 | 0.0000 | 0.7295 | 0.6518 | 0.0564 | 0.3355 | 0.0866 | 0.5147 |
| 155 | 54.61 | 0.09 | 0.0345 | 0.0000 | 0.0242 | 0.0000 | 0.7361 | 0.6516 | 0.0568 | 0.3330 | 0.0872 | 0.5110 |
| 156 | 54.77 | 0.10 | 0.0361 | 0.0000 | 0.0284 | 0.0000 | 0.7277 | 0.6601 | 0.0556 | 0.3360 | 0.0842 | 0.5061 |
| 157 | 54.93 | 0.10 | 0.0267 | 0.0000 | 0.0202 | 0.0000 | 0.9319 | 0.6510 | 0.0561 | 0.3327 | 0.0861 | 0.5110 |
| 158 | 55.10 | 0.09 | 0.0360 | 0.0000 | 0.0283 | 0.0000 | 0.7855 | 0.6524 | 0.0555 | 0.3308 | 0.0850 | 0.5065 |
| 159 | 55.23 | 0.08 | 0.0268 | 0.0000 | 0.0235 | 0.0000 | 0.8921 | 0.6506 | 0.0555 | 0.3272 | 0.0865 | 0.5123 |
| 160 | 55.37 | 0.08 | 0.0329 | 0.0000 | 0.0280 | 0.0000 | 0.8095 | 0.6524 | 0.0551 | 0.3255 | 0.0844 | 0.5050 |
| 161 | 55.55 | 0.08 | 0.0177 | 0.0000 | 0.0221 | 0.0000 | 1.2514 | 0.6483 | 0.0550 | 0.3290 | 0.0848 | 0.5075 |
| 162 | 55.72 | 0.09 | 0.0265 | 0.0000 | 0.0252 | 0.0000 | 0.9355 | 0.6517 | 0.0557 | 0.3332 | 0.0854 | 0.5113 |
| 163 | 55.88 | 0.07 | 0.0208 | 0.0000 | 0.0211 | 0.0000 | 1.0139 | 0.6493 | 0.0547 | 0.3295 | 0.0817 | 0.5073 |
| 164 | 56.05 | 0.08 | 0.0225 | 0.0000 | 0.0226 | 0.0000 | 0.9435 | 0.6558 | 0.0550 | 0.3342 | 0.0826 | 0.5056 |
| 165 | 56.21 | 0.09 | 0.0276 | 0.0000 | 0.0246 | 0.0000 | 0.8893 | 0.6553 | 0.0550 | 0.3346 | 0.0835 | 0.5100 |
| 166 | 56.38 | 0.08 | 0.0268 | 0.0000 | 0.0264 | 0.0000 | 0.9056 | 0.6519 | 0.0550 | 0.3331 | 0.0846 | 0.5110 |
| 167 | 56.53 | 0.08 | 0.0265 | 0.0000 | 0.0252 | 0.0000 | 0.9355 | 0.6523 | 0.0550 | 0.3377 | 0.0830 | 0.5095 |
| 168 | 56.70 | 0.08 | 0.0270 | 0.0000 | 0.0228 | 0.0000 | 0.8429 | 0.6590 | 0.0543 | 0.3362 | 0.0824 | 0.5101 |
| 169 | 56.85 | 0.08 | 0.0235 | 0.0000 | 0.0226 | 0.0000 | 0.9435 | 0.6484 | 0.0550 | 0.3315 | 0.0848 | 0.5113 |
| 170 | 57.02 | 0.07 | 0.0208 | 0.0000 | 0.0211 | 0.0000 | 1.0139 | 0.6553 | 0.0550 | 0.3346 | 0.0835 | 0.5100 |
| 171 | 57.19 | 0.08 | 0.0301 | 0.0000 | 0.0231 | 0.0000 | 0.7666 | 0.6554 | 0.0547 | 0.3360 | 0.0835 | 0.5126 |
| 172 | 57.33 | 0.07 | 0.0265 | 0.0000 | 0.0235 | 0.0000 | 0.8885 | 0.6543 | 0.0542 | 0.3353 | 0.0825 | 0.5125 |
| 173 | 57.47 | 0.08 | 0.0196 | 0.0000 | 0.0208 | 0.0000 | 1.4106 | 0.6752 | 0.0536 | 0.3419 | 0.0793 | 0.5063 |
| 174 | 57.62 | 0.05 | 0.0239 | 0.0000 | 0.0213 | 0.0000 | 0.8911 | 0.6402 | 0.0546 | 0.3279 | 0.0853 | 0.5121 |
| 175 | 57.79 | 0.07 | 0.0207 | 0.0000 | 0.0210 | 0.0000 | 1.0139 | 0.6666 | 0.0548 | 0.3365 | 0.0822 | 0.5093 |
| 176 | 57.92 | 0.05 | 0.0265 | 0.0000 | 0.0214 | 0.0000 | 0.7957 | 0.6519 | 0.0547 | 0.3339 | 0.0840 | 0.5126 |
| 177 | 58.06 | 0.05 | 0.0207 | 0.0000 | 0.0209 | 0.0000 | 1.0093 | 0.6517 | 0.0546 | 0.3335 | 0.0829 | 0.5124 |
| 178 | 58.16 | 0.05 | 0.0330 | 0.0000 | 0.0243 | 0.0000 | 0.7368 | 0.6517 | 0.0540 | 0.3327 | 0.0829 | 0.5103 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&7 MACH 0.90 RN/C=E 1.7 PHI 0.0 CONF BIBOF2S L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.38 | 0.00 | -0.5185 | 2.3571 | 0.0076 | -0.0494 | -0.0117 | 0.7964 | 0.3588 | 0.4376 | -2.7841 |
| 2 | -5.37 | 0.00 | -0.5252 | 2.3385 | -0.0176 | -0.0149 | -0.0117 | 0.7961 | 0.3586 | 0.4375 | -2.8437 |
| 3 | -5.37 | 0.01 | -0.5776 | 2.5405 | -0.0086 | -0.0478 | -0.0115 | 0.8011 | 0.3596 | 0.4415 | -2.8949 |
| 4 | -5.37 | 0.00 | -0.5697 | 2.5474 | -0.0255 | 0.0075 | -0.0116 | 0.8005 | 0.3595 | 0.4410 | -2.8633 |
| 5 | -5.38 | 0.01 | -0.5713 | 2.5372 | 0.0074 | -0.0385 | -0.0109 | 0.7968 | 0.3513 | 0.4455 | -3.3327 |
| 6 | -2.03 | 0.01 | -0.6254 | 2.5661 | 0.0577 | -0.0566 | -0.0102 | 0.7666 | 0.3275 | 0.4391 | -4.1086 |
| 7 | -0.17 | 0.02 | -0.5757 | 2.6653 | 0.0167 | -0.1395 | -0.0158 | 0.7410 | 0.2630 | 0.4579 | -4.5771 |
| 8 | 1.67 | 0.01 | -0.5595 | 3.3782 | -0.0046 | -0.0043 | -0.0153 | 0.7213 | 0.2436 | 0.4776 | -6.0337 |
| 9 | 3.60 | 0.01 | -0.4242 | 3.5454 | 0.0054 | -0.0057 | -0.0147 | 0.6905 | 0.2313 | 0.4595 | -7.8861 |
| 10 | 5.37 | 0.01 | -0.3370 | 3.4474 | -0.0171 | 0.0081 | -0.0076 | 0.6793 | 0.2273 | 0.4519 | -10.2305 |
| 11 | 7.24 | 0.01 | -0.1645 | 3.4071 | -0.0255 | 0.0203 | -0.0071 | 0.6502 | 0.2145 | 0.4357 | -20.7139 |
| 12 | 9.04 | 0.01 | -0.0161 | 3.2485 | -0.0555 | 0.0340 | -0.0193 | 0.6191 | 0.2067 | 0.4014 | -201.6670 |
| 13 | 10.90 | 0.00 | 0.1556 | 3.0081 | -0.1333 | 0.0953 | -0.0124 | 0.5740 | 0.2075 | 0.3665 | 15.3709 |
| 14 | 12.74 | 0.01 | 0.4331 | 2.7823 | -0.0426 | 0.0430 | -0.0116 | 0.5188 | 0.2054 | 0.3134 | 6.4242 |
| 15 | 14.61 | 0.02 | 0.6661 | 2.5858 | 0.0346 | -0.0292 | -0.0342 | 0.4826 | 0.2067 | 0.2740 | 3.7749 |
| 16 | 16.53 | 0.01 | 0.9151 | 2.2775 | -0.0024 | 0.1667 | 0.0022 | 0.4361 | 0.2095 | 0.2266 | 2.4893 |
| 17 | 18.44 | 0.00 | 1.2576 | 2.0163 | -0.2042 | 0.5809 | 0.0020 | 0.3808 | 0.2144 | 0.1664 | 1.6033 |
| 18 | 20.32 | -0.01 | 1.5491 | 1.7857 | -0.3027 | 0.7873 | 0.0023 | 0.3346 | 0.2243 | 0.1105 | 1.1547 |
| 19 | 22.21 | -0.02 | 1.8150 | 1.5177 | -0.3586 | 1.4826 | 0.0073 | 0.2875 | 0.2325 | 0.0550 | 0.8362 |
| 20 | 24.11 | -0.03 | 2.0320 | 1.3718 | -0.0342 | 1.0058 | 0.0079 | 0.2266 | 0.2358 | -0.0092 | 0.6434 |
| 21 | 25.95 | -0.02 | 2.2750 | 1.4383 | -0.3628 | 1.4747 | -0.0027 | 0.1636 | 0.2346 | -0.0710 | 0.5811 |
| 22 | 27.92 | 0.04 | 2.0257 | 1.4835 | 0.3347 | -0.4333 | 0.0497 | 0.0984 | 0.2305 | -0.1342 | 0.4898 |
| 23 | 28.26 | 0.02 | 2.0777 | 1.5511 | 0.0819 | -0.1172 | 0.0296 | 0.1058 | 0.2304 | -0.1207 | 0.5525 |
| 24 | 28.21 | 0.03 | 2.0556 | 1.4616 | 0.2396 | -0.2836 | 0.0492 | 0.0833 | 0.2306 | -0.1475 | 0.5006 |
| 25 | 28.49 | 0.04 | 3.0414 | 1.4551 | 0.3894 | -0.4069 | 0.0501 | 0.0978 | 0.2299 | -0.1322 | 0.4929 |
| 26 | 28.76 | 0.05 | 3.0764 | 1.4564 | 0.4234 | -0.5273 | 0.0437 | 0.0891 | 0.2315 | -0.1514 | 0.4741 |
| 27 | 29.10 | 0.04 | 3.1546 | 1.3564 | 0.3676 | -0.3749 | 0.0629 | 0.0856 | 0.2324 | -0.1468 | 0.4306 |
| 28 | 29.40 | 0.04 | 3.2101 | 1.4264 | 0.3236 | -0.1743 | 0.0371 | 0.0758 | 0.2307 | -0.1549 | 0.4443 |
| 29 | 29.69 | 0.04 | 3.3062 | 1.2734 | 0.2655 | -0.0511 | 0.0432 | 0.0644 | 0.2340 | -0.1696 | 0.3849 |
| 30 | 29.97 | 0.04 | 3.4469 | 1.2171 | 0.3075 | 0.0457 | 0.0433 | 0.0419 | 0.2341 | -0.1922 | 0.3537 |
| 31 | 30.26 | 0.07 | 3.5532 | 1.2052 | 0.5773 | -0.2427 | 0.0328 | 0.0430 | 0.2423 | -0.1993 | 0.3354 |
| 32 | 30.53 | 0.06 | 3.7675 | 1.1474 | 0.4356 | 0.2542 | 0.0625 | 0.0228 | 0.2423 | -0.2195 | 0.3046 |
| 33 | 30.80 | 0.05 | 3.7674 | 1.2116 | 0.4123 | 0.2491 | 0.0563 | 0.0235 | 0.2460 | -0.2225 | 0.3218 |
| 34 | 31.08 | 0.05 | 3.8963 | 1.2414 | 0.3752 | 0.3557 | 0.0530 | 0.0077 | 0.2466 | -0.2391 | 0.3185 |
| 35 | 31.35 | 0.05 | 3.9916 | 1.3016 | 0.3553 | 0.5231 | 0.0690 | 0.0228 | 0.2513 | -0.2285 | 0.3301 |
| 36 | 31.64 | 0.07 | 4.1031 | 1.3395 | 0.6278 | 0.2244 | 0.0702 | -0.0003 | 0.2514 | -0.2577 | 0.3266 |
| 37 | 31.89 | 0.05 | 4.0568 | 1.5635 | 0.3543 | 0.1476 | 0.0776 | -0.0044 | 0.2461 | -0.2505 | 0.3815 |
| 38 | 32.17 | 0.05 | 4.2149 | 1.4279 | 0.3665 | 0.6755 | 0.0632 | -0.0011 | 0.2514 | -0.2525 | 0.3389 |
| 39 | 32.43 | 0.05 | 4.2859 | 1.5437 | 0.4094 | 0.4296 | 0.0645 | -0.0096 | 0.2481 | -0.2577 | 0.3602 |
| 40 | 32.69 | 0.07 | 4.4600 | 1.5717 | 0.6455 | 0.0792 | 0.0790 | -0.0219 | 0.2543 | -0.2762 | 0.3524 |
| 41 | 32.97 | 0.06 | 4.5567 | 1.3261 | 0.6563 | -0.7114 | 0.0955 | -0.0462 | 0.2481 | -0.2544 | 0.3973 |
| 42 | 33.24 | 0.05 | 4.7040 | 1.1721 | 0.5203 | -0.6263 | 0.1061 | -0.0280 | 0.2477 | -0.2757 | 0.3767 |
| 43 | 33.47 | 0.07 | 4.7157 | 2.0485 | 0.8047 | -1.0191 | 0.0839 | -0.0373 | 0.2431 | -0.2804 | 0.4340 |
| 44 | 33.74 | 0.06 | 4.9271 | 2.0028 | 0.7375 | -0.8220 | 0.0976 | -0.0717 | 0.2369 | -0.3087 | 0.4471 |
| 45 | 33.97 | 0.06 | 4.9024 | 2.1160 | 0.7044 | -0.7123 | 0.0343 | -0.0669 | 0.2378 | -0.3048 | 0.4316 |
| 46 | 34.21 | 0.06 | 4.9060 | 2.3778 | 0.7614 | -0.7654 | 0.0350 | -0.0781 | 0.2336 | -0.3118 | 0.4768 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.90 RNIU-6 1.7 PHI 0.0 CONF 81b0F23 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 5.0571 | 2.8675 | 0.4268 | -0.3696 | 0.0721 | -0.0760 | 0.2336 | -0.3097 | 0.5275 |
| 48 | 34.72 | 0.04 | 5.1311 | 2.7663 | 0.4326 | -0.4070 | 0.0727 | -0.0859 | 0.2290 | -0.3150 | 0.5422 |
| 49 | 34.95 | 0.02 | 5.1532 | 2.8058 | 0.3662 | -0.4384 | 0.0666 | -0.0856 | 0.2315 | -0.3172 | 0.5410 |
| 50 | 35.20 | 0.03 | 5.2643 | 2.9736 | 0.3725 | -0.4220 | 0.0608 | -0.1004 | 0.2249 | -0.3253 | 0.5627 |
| 51 | 35.45 | -0.00 | 5.3412 | 3.0405 | 0.1880 | -0.4866 | 0.0545 | -0.1117 | 0.2261 | -0.3378 | 0.5652 |
| 52 | 35.67 | 0.01 | 5.4263 | 3.1364 | 0.2068 | -0.4904 | 0.0357 | -0.1128 | 0.2232 | -0.3360 | 0.5772 |
| 53 | 35.91 | 0.00 | 5.4828 | 3.1757 | 0.1899 | -0.3725 | 0.0467 | -0.1195 | 0.2232 | -0.3427 | 0.5821 |
| 54 | 36.15 | -0.01 | 5.5625 | 3.2532 | 0.0355 | -0.0240 | 0.0185 | -0.1288 | 0.2235 | -0.3523 | 0.5920 |
| 55 | 36.38 | -0.02 | 5.6254 | 3.3056 | -0.1572 | 0.1454 | 0.0036 | -0.1282 | 0.2232 | -0.3514 | 0.5872 |
| 56 | 36.61 | -0.02 | 5.6596 | 3.3775 | -0.2490 | 0.2026 | -0.0006 | -0.1347 | 0.2240 | -0.3587 | 0.5926 |
| 57 | 36.85 | -0.01 | 5.7666 | 3.4965 | -0.0665 | 0.0859 | -0.0019 | -0.1409 | 0.2207 | -0.3616 | 0.6046 |
| 58 | 37.09 | -0.01 | 5.8631 | 3.4655 | -0.0832 | 0.0852 | -0.0023 | -0.1540 | 0.2156 | -0.3738 | 0.5925 |
| 59 | 37.31 | 0.00 | 5.9505 | 3.5407 | 0.0724 | 0.1369 | 0.0176 | -0.1522 | 0.2194 | -0.3716 | 0.5950 |
| 60 | 37.55 | -0.00 | 5.9565 | 3.5461 | 0.0015 | 0.3042 | 0.0188 | -0.1475 | 0.2206 | -0.3681 | 0.5967 |
| 61 | 37.78 | -0.01 | 6.0159 | 3.6037 | -0.0574 | 0.2593 | 0.0048 | -0.1649 | 0.2215 | -0.3864 | 0.5950 |
| 62 | 38.02 | 0.01 | 6.1038 | 3.6828 | 0.1247 | 0.1111 | 0.0314 | -0.1812 | 0.2206 | -0.4018 | 0.5963 |
| 63 | 38.26 | 0.02 | 6.2454 | 3.7200 | 0.1821 | 0.4252 | 0.0304 | -0.1714 | 0.2246 | -0.3962 | 0.5956 |
| 64 | 38.48 | 0.00 | 6.2956 | 3.8250 | 0.0361 | 0.5046 | 0.0305 | -0.1675 | 0.2252 | -0.3927 | 0.5763 |
| 65 | 38.71 | -0.01 | 6.3455 | 3.8236 | -0.0503 | 0.7051 | 0.0303 | -0.1736 | 0.2285 | -0.4021 | 0.5867 |
| 66 | 38.92 | 0.03 | 6.4363 | 3.8833 | 0.3381 | 0.5335 | 0.0305 | -0.2017 | 0.2269 | -0.4286 | 0.5940 |
| 67 | 39.15 | 0.01 | 6.5053 | 3.9014 | 0.1348 | 0.8396 | 0.0298 | -0.1897 | 0.2302 | -0.4195 | 0.5928 |
| 68 | 39.38 | -0.01 | 6.5867 | 3.9502 | -0.1846 | 1.1329 | 0.0039 | -0.2001 | 0.2240 | -0.4241 | 0.5862 |
| 69 | 39.59 | 0.01 | 6.6352 | 3.9538 | -0.0066 | 1.2835 | 0.0224 | -0.1952 | 0.2219 | -0.4371 | 0.5963 |
| 70 | 39.81 | 0.01 | 6.6776 | 3.9779 | 0.0014 | 1.1819 | -0.0025 | -0.2074 | 0.2277 | -0.4351 | 0.5908 |
| 71 | 40.03 | -0.02 | 6.7673 | 3.9157 | -0.2728 | 1.4082 | -0.0389 | -0.2028 | 0.2281 | -0.4309 | 0.5775 |
| 72 | 40.25 | -0.01 | 6.8357 | 3.9354 | -0.2054 | 1.5021 | 0.0035 | -0.2130 | 0.2293 | -0.4431 | 0.5811 |
| 73 | 40.43 | -0.00 | 6.8125 | 3.8871 | -0.1685 | 1.5731 | 0.0032 | -0.2173 | 0.2274 | -0.4447 | 0.5705 |
| 74 | 40.64 | 0.00 | 6.8512 | 3.8554 | -0.1068 | 1.4132 | 0.0040 | -0.2150 | 0.2303 | -0.4453 | 0.5660 |
| 75 | 40.86 | -0.02 | 7.0012 | 3.9015 | -0.3711 | 1.8138 | -0.0022 | -0.2299 | 0.2294 | -0.4593 | 0.5573 |
| 76 | 41.06 | 0.00 | 7.0616 | 3.9561 | -0.1405 | 1.3289 | 0.0052 | -0.2470 | 0.2257 | -0.4727 | 0.5655 |
| 77 | 41.28 | 0.01 | 7.1225 | 3.9475 | -0.0625 | 1.5222 | 0.0044 | -0.2373 | 0.2301 | -0.4734 | 0.5542 |
| 78 | 41.47 | -0.00 | 7.1956 | 3.9365 | -0.2150 | 1.4567 | -0.0014 | -0.2459 | 0.2327 | -0.4586 | 0.5502 |
| 79 | 41.67 | -0.00 | 7.2572 | 4.0073 | -0.1555 | 1.0219 | 0.0008 | -0.2474 | 0.2252 | -0.4726 | 0.5522 |
| 80 | 41.88 | -0.01 | 7.3320 | 4.0154 | -0.2666 | 1.6520 | -0.0004 | -0.2352 | 0.2292 | -0.4634 | 0.5476 |
| 81 | 42.08 | 0.01 | 7.4136 | 4.0338 | -0.0622 | 1.1304 | -0.0050 | -0.2021 | 0.2223 | -0.4645 | 0.5491 |
| 82 | 42.28 | -0.00 | 7.4506 | 3.9653 | -0.2329 | 1.0931 | -0.0067 | -0.2497 | 0.2299 | -0.4796 | 0.5354 |
| 83 | 42.48 | 0.00 | 7.4543 | 4.0131 | -0.0643 | 0.8367 | 0.0074 | -0.2708 | 0.2186 | -0.4895 | 0.5343 |
| 84 | 42.69 | -0.02 | 7.5536 | 4.0134 | -0.3215 | 0.9521 | 0.0033 | -0.2716 | 0.2182 | -0.4899 | 0.5578 |
| 85 | 42.82 | -0.01 | 7.5563 | 4.0703 | -0.3321 | 1.3481 | 0.0018 | -0.2658 | 0.2215 | -0.4874 | 0.5387 |
| 86 | 43.01 | -0.00 | 7.6626 | 4.1143 | -0.0453 | 0.7787 | 0.0105 | -0.2661 | 0.2215 | -0.4877 | 0.5355 |
| 87 | 43.19 | -0.00 | 7.7423 | 4.2266 | -0.0166 | 0.5446 | 0.0116 | -0.2838 | 0.2152 | -0.4991 | 0.5459 |
| 88 | 43.38 | 0.01 | 7.7356 | 4.0457 | 0.1038 | 0.2235 | 0.0125 | -0.2892 | 0.2115 | -0.5008 | 0.5225 |
| 89 | 43.57 | 0.01 | 7.9451 | 3.9852 | -0.0951 | 1.7139 | -0.0051 | -0.2736 | 0.2294 | -0.5031 | 0.5013 |
| 90 | 43.76 | 0.00 | 8.0571 | 3.9567 | -0.0443 | 1.0695 | 0.0106 | -0.2848 | 0.2245 | -0.5143 | 0.4963 |
| 91 | 43.92 | -0.01 | 8.0481 | 4.1501 | -0.1626 | 0.9010 | 0.0116 | -0.3003 | 0.2161 | -0.5164 | 0.5157 |
| 92 | 44.12 | -0.01 | 8.1266 | 4.1352 | 0.0203 | 0.1869 | 0.0273 | -0.3168 | 0.2199 | -0.5367 | 0.5093 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.90 RXIC-6 1.7 PHI 0.0 CONF BlackFin L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.31 | 0.01 | 0.2157 | 0.0054 | 0.1933 | 0.6475 | 0.0125 | -0.3133 | 0.2230 | -0.5339 | 0.4875 |
| 94 | 44.49 | 0.00 | 0.2454 | 0.0150 | 0.1768 | -0.0815 | 0.0347 | -0.3162 | 0.2184 | -0.5344 | 0.4851 |
| 95 | 44.69 | 0.00 | 0.2765 | 0.0172 | 0.0775 | 0.8019 | 0.0124 | -0.2956 | 0.2232 | -0.5220 | 0.4805 |
| 96 | 44.87 | 0.01 | 0.3041 | 0.0137 | 0.0478 | -0.3356 | 0.0295 | -0.3161 | 0.2283 | -0.5384 | 0.4912 |
| 97 | 45.06 | -0.00 | 0.3175 | 0.0172 | 0.0471 | 0.4503 | 0.0209 | -0.3278 | 0.2170 | -0.5448 | 0.4879 |
| 98 | 45.22 | -0.02 | 0.3349 | 0.0175 | -0.0548 | 0.0043 | 0.0137 | -0.3006 | 0.2184 | -0.5250 | 0.4820 |
| 99 | 45.42 | 0.00 | 0.3553 | 0.0135 | 0.0753 | 0.5475 | 0.0236 | -0.3218 | 0.2196 | -0.5416 | 0.4856 |
| 100 | 45.62 | -0.02 | 0.3715 | 0.0140 | -0.0208 | -0.0009 | 0.0299 | -0.3104 | 0.2202 | -0.5306 | 0.4788 |
| 101 | 45.75 | 0.01 | 0.3810 | 0.0066 | 0.1095 | 0.5944 | 0.0364 | -0.3307 | 0.2240 | -0.5547 | 0.4631 |
| 102 | 45.94 | -0.01 | 0.3931 | 0.0044 | 0.1103 | 0.0002 | 0.0249 | -0.3213 | 0.2196 | -0.5411 | 0.4690 |
| 103 | 46.14 | -0.02 | 0.4085 | 0.0065 | -0.0755 | 0.4392 | 0.0160 | -0.3274 | 0.2223 | -0.5497 | 0.4706 |
| 104 | 46.33 | -0.01 | 0.4245 | 0.0026 | -0.0541 | 1.1592 | -0.0124 | -0.3330 | 0.2256 | -0.5586 | 0.4557 |
| 105 | 46.50 | -0.01 | 0.4249 | 0.0166 | 0.0664 | 0.5816 | 0.0091 | -0.3315 | 0.2302 | -0.5617 | 0.4667 |
| 106 | 46.67 | 0.01 | 0.4350 | 0.0152 | 0.1036 | 0.0018 | 0.0018 | -0.3344 | 0.2235 | -0.5579 | 0.4509 |
| 107 | 46.85 | -0.01 | 0.4474 | 0.0147 | 0.1384 | 0.3313 | 0.0295 | -0.3022 | 0.2139 | -0.5761 | 0.4567 |
| 108 | 47.04 | -0.03 | 0.4644 | 0.0121 | -0.0535 | 0.0277 | 0.0105 | -0.3041 | 0.2194 | -0.5695 | 0.4545 |
| 109 | 47.20 | -0.02 | 0.4803 | 0.0165 | 0.1038 | 0.5058 | 0.0184 | -0.3552 | 0.2219 | -0.5771 | 0.4540 |
| 110 | 47.38 | -0.03 | 0.4965 | 0.0057 | 0.0377 | 0.2527 | 0.0312 | -0.3374 | 0.2189 | -0.5763 | 0.4409 |
| 111 | 47.55 | -0.03 | 0.5072 | 0.0088 | 0.0404 | 0.5624 | 0.0239 | -0.3738 | 0.2266 | -0.5944 | 0.4398 |
| 112 | 47.74 | -0.02 | 0.5282 | 0.0178 | 0.0074 | 0.0917 | 0.0163 | -0.3749 | 0.2342 | -0.6011 | 0.4410 |
| 113 | 47.91 | -0.01 | 0.5410 | 0.0141 | 0.1010 | 1.3515 | 0.0018 | -0.3413 | 0.2423 | -0.5836 | 0.4285 |
| 114 | 48.07 | -0.03 | 0.5446 | 0.0085 | 0.0081 | 1.1383 | 0.0157 | -0.3700 | 0.2310 | -0.6010 | 0.4326 |
| 115 | 48.25 | -0.01 | 0.5128 | 0.0150 | 0.2047 | 1.3920 | 0.0018 | -0.3439 | 0.2436 | -0.5875 | 0.4288 |
| 116 | 48.42 | 0.02 | 0.5221 | 0.0256 | 0.4823 | 1.7330 | -0.0126 | -0.3265 | 0.2486 | -0.5751 | 0.4181 |
| 117 | 48.60 | -0.00 | 0.7554 | 3.9855 | 0.2431 | 1.6103 | 0.0017 | -0.3514 | 0.2455 | -0.6009 | 0.4085 |
| 118 | 48.78 | -0.00 | 0.7696 | 3.9470 | 0.1797 | 2.0055 | 0.0003 | -0.3300 | 0.2739 | -0.6005 | 0.4042 |
| 119 | 48.92 | -0.01 | 0.8528 | 3.8855 | 0.1304 | 1.8206 | -0.0115 | -0.3175 | 0.2695 | -0.5870 | 0.3924 |
| 120 | 49.10 | 0.01 | 0.8611 | 3.8523 | 0.2361 | 2.0137 | -0.0123 | -0.3161 | 0.2729 | -0.5910 | 0.3939 |
| 121 | 49.28 | 0.00 | 10.0111 | 3.5726 | 0.2285 | 1.8698 | 0.0014 | -0.3031 | 0.3124 | -0.6154 | 0.3569 |
| 122 | 49.44 | 0.01 | 10.0360 | 3.2535 | 0.3453 | 2.0149 | -0.0056 | -0.2573 | 0.3186 | -0.5755 | 0.3235 |
| 123 | 49.64 | 0.02 | 10.3604 | 2.9722 | 0.4316 | 1.8180 | -0.0044 | -0.2768 | 0.3651 | -0.6419 | 0.2869 |
| 124 | 49.83 | 0.04 | 10.6518 | 2.6337 | 0.6456 | 2.5436 | -0.0136 | -0.2496 | 0.3547 | -0.5963 | 0.1909 |
| 125 | 50.03 | 0.01 | 11.0543 | 2.9047 | 0.1383 | 3.3663 | -0.0280 | -0.1633 | 0.3802 | -0.5635 | 0.0815 |
| 126 | 50.20 | 0.00 | 11.2644 | 2.7596 | 0.2160 | 3.0602 | -0.0265 | -0.1793 | 0.3840 | -0.5633 | 0.0674 |
| 127 | 50.37 | 0.01 | 11.1554 | 1.2865 | 0.3553 | 2.5615 | -0.0250 | -0.2347 | 0.3640 | -0.5987 | 0.1153 |
| 128 | 50.55 | 0.02 | 11.3618 | 1.2595 | 0.5874 | 2.1846 | -0.0038 | -0.2275 | 0.3665 | -0.5944 | 0.1233 |
| 129 | 50.71 | 0.03 | 11.3041 | 1.2865 | 0.6073 | 2.3051 | -0.0109 | -0.2539 | 0.3685 | -0.6004 | 0.1121 |
| 130 | 50.88 | 0.02 | 11.4316 | 1.3166 | 0.6336 | 2.0021 | 0.0095 | -0.2218 | 0.3686 | -0.5904 | 0.1166 |
| 131 | 51.05 | 0.06 | 11.4163 | 1.1934 | 0.8738 | 1.8680 | 0.0166 | -0.2414 | 0.3882 | -0.6296 | 0.1045 |
| 132 | 51.21 | 0.05 | 11.4670 | 1.1425 | 0.9168 | 1.5549 | 0.0245 | -0.2126 | 0.3840 | -0.5966 | 0.0996 |
| 133 | 51.40 | 0.05 | 11.0647 | 0.5482 | 0.5425 | 1.6287 | 0.0305 | -0.1717 | 0.4147 | -0.5864 | 0.0470 |
| 134 | 51.56 | 0.05 | 11.7942 | 0.1953 | 0.0514 | 1.8811 | 0.0110 | -0.1497 | 0.4222 | -0.5719 | 0.0169 |
| 135 | 51.75 | 0.05 | 12.1584 | -0.2115 | 0.0516 | 1.9666 | 0.0115 | -0.1643 | 0.4258 | -0.5541 | -0.0174 |
| 136 | 51.94 | 0.04 | 12.4665 | -0.5932 | 0.0378 | 2.0528 | 0.0186 | -0.1665 | 0.4405 | -0.6050 | -0.0475 |
| 137 | 52.10 | 0.03 | 12.4656 | -0.5432 | 0.4813 | 2.2630 | 0.0185 | -0.1505 | 0.4452 | -0.6357 | -0.0435 |
| 138 | 52.26 | 0.05 | 12.2810 | -0.3823 | 0.7002 | 1.5970 | 0.0251 | -0.1658 | 0.4416 | -0.6276 | -0.0311 |

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 0 LABOF23 C.G 0.0 DELI 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.43 | 0.05 | 12.4412 | -0.3574 | 0.8728 | 2.1343 | 0.0182 | -0.1898 | 0.4356 | -0.6254 | -0.0319 |
| 140 | 52.68 | 0.04 | 12.4615 | -0.4258 | 0.7416 | 1.9200 | 0.0258 | -0.1791 | 0.4411 | -0.6202 | -0.0505 |
| 141 | 52.78 | 0.02 | 12.4176 | -0.6748 | 0.8472 | 2.1510 | 0.0180 | -0.2055 | 0.4380 | -0.6435 | -0.0535 |
| 142 | 52.95 | 0.04 | 12.4435 | -0.4240 | 0.5921 | 2.2747 | 0.0185 | -0.2170 | 0.4380 | -0.6550 | -0.0335 |
| 143 | 53.10 | 0.06 | 12.4147 | -0.2305 | 1.0917 | 2.0837 | 0.0316 | -0.1843 | 0.4426 | -0.6269 | -0.0183 |
| 144 | 53.25 | 0.07 | 12.4155 | -0.4400 | 0.9335 | 2.2209 | 0.0255 | -0.2049 | 0.4435 | -0.6484 | -0.0345 |
| 145 | 53.44 | 0.08 | 12.4885 | -0.2538 | 0.5746 | 2.2937 | 0.0249 | -0.1988 | 0.4339 | -0.6377 | -0.0200 |
| 146 | 53.62 | 0.07 | 12.4783 | -0.2455 | 0.6806 | 2.0216 | 0.0331 | -0.2042 | 0.4423 | -0.6465 | -0.0231 |
| 147 | 53.76 | 0.05 | 12.4953 | -0.2220 | 0.7057 | 2.1893 | 0.0260 | -0.2124 | 0.4444 | -0.6568 | -0.0175 |
| 148 | 53.93 | 0.05 | 12.4957 | -0.4306 | 0.6832 | 1.9363 | 0.0339 | -0.2000 | 0.4550 | -0.6550 | -0.0335 |
| 149 | 54.08 | 0.06 | 12.8354 | -0.5994 | 0.8520 | 2.0243 | 0.0330 | -0.2144 | 0.4622 | -0.6767 | -0.0467 |
| 150 | 54.24 | 0.07 | 12.8458 | -0.4453 | 0.8744 | 1.9480 | 0.0330 | -0.1009 | 0.4684 | -0.6553 | -0.0347 |
| 151 | 54.40 | 0.06 | 12.8288 | -0.3755 | 0.7068 | 1.8095 | 0.0353 | -0.1820 | 0.4751 | -0.6571 | -0.0296 |
| 152 | 54.56 | 0.05 | 12.9391 | -0.5457 | 0.8026 | 1.4506 | 0.0423 | -0.1749 | 0.4855 | -0.6641 | -0.0422 |
| 153 | 54.72 | 0.05 | 13.0154 | -0.6027 | 0.8682 | 1.2840 | 0.0432 | -0.1722 | 0.4914 | -0.6635 | -0.0463 |
| 154 | 54.86 | 0.05 | 12.9848 | -0.3728 | 0.8206 | 1.1671 | 0.0503 | -0.1837 | 0.4969 | -0.6826 | -0.0287 |
| 155 | 55.03 | 0.03 | 13.1017 | -0.5405 | 0.6787 | 1.3432 | 0.0437 | -0.1971 | 0.4976 | -0.6947 | -0.0413 |
| 156 | 55.19 | 0.05 | 13.0827 | -0.6655 | 0.6779 | 1.5014 | 0.0494 | -0.2102 | 0.5144 | -0.7246 | -0.0727 |
| 157 | 55.33 | 0.04 | 13.0540 | -0.4355 | 0.7365 | 1.4069 | 0.0499 | -0.2070 | 0.5126 | -0.7196 | -0.0336 |
| 158 | 55.51 | 0.04 | 13.1935 | -0.5615 | 0.7512 | 1.1132 | 0.0512 | -0.1914 | 0.5105 | -0.7023 | -0.0426 |
| 159 | 55.65 | 0.02 | 13.1333 | -0.4184 | 0.4575 | 1.2707 | 0.0511 | -0.2055 | 0.5172 | -0.7227 | -0.0319 |
| 160 | 55.81 | 0.04 | 13.0960 | -0.1521 | 0.7035 | 1.2566 | 0.0443 | -0.1752 | 0.5222 | -0.6974 | -0.0116 |
| 161 | 55.96 | 0.04 | 13.0534 | -0.1528 | 0.6658 | 1.4630 | 0.0435 | -0.1655 | 0.5246 | -0.7101 | -0.0117 |
| 162 | 56.12 | 0.04 | 13.1258 | -0.2656 | 0.7310 | 1.3367 | 0.0441 | -0.1679 | 0.5208 | -0.7147 | -0.0206 |
| 163 | 56.29 | 0.04 | 13.1955 | -0.2316 | 0.7405 | 1.2267 | 0.0384 | -0.1903 | 0.5361 | -0.7204 | -0.0175 |
| 164 | 56.42 | 0.05 | 13.1264 | -0.2532 | 0.7637 | 1.4240 | 0.0501 | -0.1961 | 0.5297 | -0.7258 | -0.0193 |
| 165 | 56.58 | 0.01 | 13.1750 | -0.1664 | 0.3565 | 1.1844 | 0.0393 | -0.1870 | 0.5351 | -0.7221 | -0.0128 |
| 166 | 56.74 | 0.03 | 13.1956 | -0.1666 | 0.7212 | 1.4146 | 0.0378 | -0.1765 | 0.5372 | -0.7157 | -0.0126 |
| 167 | 56.88 | 0.01 | 13.1907 | -0.2184 | 0.4532 | 1.4936 | 0.0379 | -0.2062 | 0.5435 | -0.7497 | -0.0168 |
| 168 | 57.04 | -0.02 | 13.2425 | -0.2726 | 0.6695 | 1.5789 | 0.0449 | -0.2071 | 0.5392 | -0.7463 | -0.0206 |
| 169 | 57.21 | 0.02 | 13.3225 | -0.3371 | 0.4635 | 1.7329 | 0.0438 | -0.2007 | 0.5455 | -0.7462 | -0.0253 |
| 170 | 57.36 | 0.02 | 13.3219 | -0.3826 | 0.5946 | 1.6017 | 0.0376 | -0.2033 | 0.5513 | -0.7546 | -0.0287 |
| 171 | 57.48 | 0.02 | 13.1619 | -0.1755 | 0.5107 | 1.4435 | 0.0315 | -0.1986 | 0.5534 | -0.7520 | -0.0133 |
| 172 | 57.63 | -0.00 | 13.2365 | -0.0647 | 0.2614 | 1.4703 | 0.0260 | -0.1665 | 0.5631 | -0.7296 | 0.0002 |
| 173 | 57.78 | 0.03 | 13.2583 | -0.1701 | 0.5378 | 1.3080 | 0.0260 | -0.2085 | 0.5488 | -0.7573 | -0.0128 |
| 174 | 57.94 | -0.00 | 13.2402 | -0.3366 | 0.4496 | 1.1147 | 0.0281 | -0.2517 | 0.5431 | -0.7948 | -0.0250 |
| 175 | 58.08 | -0.05 | 13.3512 | 0.3331 | -0.1380 | -0.1232 | 0.0394 | -0.2780 | 0.5319 | -0.8093 | 0.0249 |
| 176 | 58.23 | -0.10 | 13.2858 | 0.4546 | -0.0514 | -0.4522 | 0.0324 | -0.2662 | 0.5396 | -0.8018 | 0.0345 |
| 177 | 58.37 | -0.13 | 13.4168 | -0.0767 | -0.6715 | -0.9642 | 0.0203 | -0.2192 | 0.5556 | -0.7746 | -0.0059 |
| 178 | 58.44 | -0.10 | 13.5307 | -1.0351 | -0.3782 | -1.0839 | 0.0267 | -0.2482 | 0.5445 | -0.7927 | -0.0768 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASROC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.90 REYNO-6 1.7 PHI 0.0 CONF 61 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.38 | 0.00 | -0.0266 | -0.0015 | 0.0246 | 0.0254 | -0.4075 | -0.6946 | -0.0330 | -0.4200 | 0.0475 | 0.6047 |
| 2 | -5.37 | 0.00 | -0.0267 | -0.0015 | 0.0246 | 0.0254 | -0.3946 | -0.6918 | -0.0330 | -0.4210 | 0.0477 | 0.6087 |
| 3 | -5.37 | 0.01 | -0.0265 | -0.0015 | 0.0232 | 0.0253 | -0.3514 | -0.6946 | -0.0327 | -0.4200 | 0.0471 | 0.6047 |
| 4 | -5.37 | 0.00 | -0.0262 | -0.0024 | 0.0217 | 0.0254 | -0.3102 | -0.6907 | -0.0327 | -0.4192 | 0.0474 | 0.6066 |
| 5 | -3.68 | 0.01 | -0.0499 | -0.0004 | 0.0215 | 0.0277 | -0.4313 | -0.6567 | -0.0321 | -0.4026 | 0.0489 | 0.6131 |
| 6 | -2.03 | 0.01 | -0.0463 | 0.0059 | 0.0277 | -0.1218 | -0.5729 | -0.6339 | -0.0289 | -0.3972 | 0.0457 | 0.6206 |
| 7 | -0.17 | 0.02 | -0.0455 | 0.0055 | 0.0265 | -0.1252 | -0.5911 | -0.7085 | -0.0289 | -0.4069 | 0.0408 | 0.5746 |
| 8 | 1.67 | 0.01 | -0.0479 | 0.0055 | 0.0249 | -0.1149 | -0.5101 | -0.6152 | -0.0269 | -0.4318 | 0.0355 | 0.5296 |
| 9 | 3.60 | 0.01 | -0.0404 | 0.0047 | 0.0265 | -0.1169 | -0.7041 | -0.7858 | -0.0341 | -0.4051 | 0.0433 | 0.5155 |
| 10 | 5.37 | 0.01 | -0.0460 | 0.0068 | 0.0237 | -0.1189 | -0.8251 | -0.7774 | -0.0435 | -0.3841 | 0.0560 | 0.4941 |
| 11 | 7.24 | 0.01 | -0.0567 | -0.0015 | 0.0363 | 0.0340 | -0.8395 | -0.7479 | -0.0540 | -0.3774 | 0.0722 | 0.5046 |
| 12 | 9.04 | 0.01 | -0.0636 | -0.0035 | 0.0486 | 0.0863 | -0.4492 | -0.6037 | -0.0495 | -0.3200 | 0.0746 | 0.4622 |
| 13 | 10.90 | 0.00 | -0.0358 | -0.0012 | 0.0481 | 0.0291 | -1.2062 | -0.5867 | -0.0489 | -0.2920 | 0.0834 | 0.4976 |
| 14 | 12.79 | 0.01 | -0.0460 | -0.0032 | 0.0353 | 0.0852 | -0.7352 | -0.4036 | -0.0496 | -0.2628 | 0.1030 | 0.5435 |
| 15 | 14.61 | 0.02 | -0.0634 | -0.0083 | 0.0285 | 0.1309 | -0.4490 | -0.4037 | -0.0486 | -0.2356 | 0.1205 | 0.5837 |
| 16 | 16.53 | 0.01 | -0.0491 | -0.0074 | 0.0490 | 0.1913 | -0.8153 | -0.2758 | -0.0457 | -0.1650 | 0.1658 | 0.6707 |
| 17 | 18.49 | 0.00 | -0.0771 | -0.0189 | 0.0373 | 0.2453 | -0.4344 | -0.1745 | -0.0335 | -0.1317 | 0.1918 | 0.7546 |
| 18 | 20.32 | -0.01 | -0.0575 | -0.0252 | 0.0347 | 0.2582 | -0.3501 | -0.0780 | -0.0189 | -0.0971 | 0.2408 | 1.2359 |
| 19 | 22.21 | -0.02 | -0.1088 | -0.0373 | 0.0054 | 0.2238 | -0.0324 | -0.0174 | -0.0012 | -0.0664 | 0.0667 | 3.8222 |
| 20 | 24.11 | -0.03 | -0.1003 | -0.0346 | -0.0078 | 0.2035 | 0.0439 | 0.0005 | 0.0169 | -0.0206 | 0.2791 | -0.3413 |
| 21 | 25.99 | -0.02 | -0.1714 | -0.0236 | -0.0080 | 0.1492 | 0.1554 | 0.1475 | 0.0405 | 0.0044 | 0.2773 | 0.0301 |
| 22 | 27.92 | 0.00 | 0.2058 | 0.0244 | 0.1452 | 0.1164 | 0.6950 | 0.2972 | 0.0642 | 0.0712 | 0.2159 | 0.2396 |
| 23 | 28.23 | 0.02 | 0.1304 | 0.0157 | 0.1100 | 0.1206 | 0.6452 | 0.2715 | 0.0621 | 0.0621 | 0.2289 | 0.2289 |
| 24 | 28.21 | 0.03 | 0.1552 | 0.0221 | 0.1374 | 0.1132 | 0.7034 | 0.2914 | 0.0636 | 0.0707 | 0.2182 | 0.2427 |
| 25 | 28.49 | 0.04 | 0.2350 | 0.0288 | 0.1557 | 0.1227 | 0.6626 | 0.3056 | 0.0680 | 0.0812 | 0.2226 | 0.2655 |
| 26 | 28.78 | 0.05 | 0.2506 | 0.0252 | 0.1574 | 0.1107 | 0.6280 | 0.3198 | 0.0692 | 0.0870 | 0.2164 | 0.2722 |
| 27 | 29.10 | 0.04 | 0.2473 | 0.0340 | 0.1676 | 0.1142 | 0.6510 | 0.3173 | 0.0699 | 0.0869 | 0.2201 | 0.2735 |
| 28 | 29.40 | 0.04 | 0.0712 | 0.0115 | 0.0624 | 0.1007 | 1.1572 | 0.3145 | 0.0722 | 0.0834 | 0.2295 | 0.2651 |
| 29 | 29.69 | 0.04 | 0.1250 | 0.0190 | 0.1144 | 0.1521 | 0.9156 | 0.3200 | 0.0736 | 0.0895 | 0.2301 | 0.2799 |
| 30 | 29.97 | 0.04 | 0.1264 | 0.0150 | 0.1064 | 0.1579 | 0.8998 | 0.3482 | 0.0767 | 0.1046 | 0.2263 | 0.3004 |
| 31 | 30.26 | 0.07 | 0.2814 | 0.0375 | 0.1673 | 0.1334 | 0.6656 | 0.3453 | 0.0762 | 0.1043 | 0.2207 | 0.3026 |
| 32 | 30.53 | 0.06 | 0.1642 | 0.0230 | 0.1151 | 0.1849 | 0.9588 | 0.3505 | 0.0795 | 0.1067 | 0.2225 | 0.3050 |
| 33 | 30.80 | 0.05 | 0.1047 | 0.0206 | 0.1066 | 0.1983 | 1.0203 | 0.3506 | 0.0796 | 0.1106 | 0.2270 | 0.3154 |
| 34 | 31.08 | 0.05 | 0.1450 | 0.0254 | 0.1227 | 0.1750 | 0.8463 | 0.3625 | 0.0804 | 0.1166 | 0.2217 | 0.3271 |
| 35 | 31.35 | 0.05 | 0.1545 | 0.0265 | 0.1275 | 0.1869 | 0.8231 | 0.3623 | 0.0812 | 0.1209 | 0.2242 | 0.3337 |
| 36 | 31.64 | 0.07 | 0.1421 | 0.0265 | 0.1214 | 0.2003 | 0.8546 | 0.3816 | 0.0828 | 0.1328 | 0.2169 | 0.3479 |
| 37 | 31.89 | 0.05 | 0.1777 | 0.0277 | 0.1336 | 0.1558 | 0.7461 | 0.4019 | 0.0828 | 0.1356 | 0.2060 | 0.3373 |
| 38 | 32.17 | 0.05 | 0.0803 | 0.0156 | 0.0873 | 0.2449 | 1.0814 | 0.3959 | 0.0831 | 0.1374 | 0.2098 | 0.3471 |
| 39 | 32.43 | 0.05 | 0.1612 | 0.0277 | 0.1167 | 0.1718 | 0.7235 | 0.4273 | 0.0834 | 0.1503 | 0.1951 | 0.3518 |
| 40 | 32.69 | 0.07 | 0.1986 | 0.0333 | 0.1335 | 0.1674 | 0.6715 | 0.4306 | 0.0841 | 0.1543 | 0.1953 | 0.3581 |
| 41 | 32.97 | 0.06 | 0.3301 | 0.0444 | 0.1757 | 0.1345 | 0.5443 | 0.4766 | 0.0844 | 0.1685 | 0.1771 | 0.3533 |
| 42 | 33.22 | 0.04 | 0.3545 | 0.0460 | 0.1815 | 0.1351 | 0.5347 | 0.4824 | 0.0850 | 0.1724 | 0.1762 | 0.3574 |
| 43 | 33.47 | 0.07 | 0.3733 | 0.0499 | 0.1914 | 0.1336 | 0.5128 | 0.5113 | 0.0850 | 0.1805 | 0.1663 | 0.3531 |
| 44 | 33.74 | 0.06 | 0.3360 | 0.0478 | 0.1832 | 0.1407 | 0.5421 | 0.5007 | 0.0851 | 0.1764 | 0.1700 | 0.3523 |
| 45 | 33.97 | 0.06 | 0.3562 | 0.0456 | 0.1834 | 0.1382 | 0.5555 | 0.5064 | 0.0851 | 0.1792 | 0.1681 | 0.3538 |
| 46 | 34.21 | 0.06 | 0.3103 | 0.0446 | 0.1733 | 0.1418 | 0.5585 | 0.5094 | 0.0851 | 0.1763 | 0.1671 | 0.3501 |

TEST 1 PART 127 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF DIBOF23 C 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.00 | 0.2900 | 0.0373 | 0.1451 | 0.1556 | 0.6047 | 0.5123 | 0.0851 | 0.1774 | 0.1661 | 0.3463 |
| 48 | 34.72 | 0.00 | 0.2978 | 0.0388 | 0.1491 | 0.1564 | 0.6021 | 0.5180 | 0.0851 | 0.1801 | 0.1643 | 0.3477 |
| 49 | 34.95 | 0.02 | 0.2960 | 0.0384 | 0.1493 | 0.1548 | 0.6019 | 0.5248 | 0.0844 | 0.1821 | 0.1609 | 0.3465 |
| 50 | 35.20 | 0.03 | 0.1831 | 0.0266 | 0.1183 | 0.1454 | 0.6459 | 0.5303 | 0.0841 | 0.1865 | 0.1589 | 0.3478 |
| 51 | 35.45 | -0.00 | 0.1567 | 0.0223 | 0.1030 | 0.1404 | 0.6486 | 0.5537 | 0.0836 | 0.1903 | 0.1509 | 0.3436 |
| 52 | 35.67 | 0.01 | 0.1671 | 0.0214 | 0.1064 | 0.1686 | 0.6325 | 0.5083 | 0.0833 | 0.1926 | 0.1465 | 0.3389 |
| 53 | 35.91 | 0.00 | 0.1956 | 0.0262 | 0.1167 | 0.1315 | 0.5846 | 0.5635 | 0.0837 | 0.1902 | 0.1485 | 0.3375 |
| 54 | 36.15 | -0.01 | 0.0062 | 0.0071 | 0.0174 | 0.0706 | 2.0941 | 0.5005 | 0.0837 | 0.1893 | 0.1477 | 0.3342 |
| 55 | 36.38 | -0.02 | -0.0375 | 0.0020 | -0.0163 | -0.0534 | 0.4300 | 0.5637 | 0.0831 | 0.1976 | 0.1423 | 0.3365 |
| 56 | 36.61 | -0.02 | -0.0052 | -0.0012 | -0.0307 | 0.0178 | 0.4704 | 0.5781 | 0.0834 | 0.1925 | 0.1442 | 0.3330 |
| 57 | 36.85 | -0.01 | -0.0425 | -0.0004 | -0.0161 | 0.0090 | 0.4225 | 0.5665 | 0.0837 | 0.1893 | 0.1477 | 0.3342 |
| 58 | 37.09 | -0.01 | -0.0722 | -0.0038 | -0.0384 | 0.0495 | 0.5321 | 0.5926 | 0.0831 | 0.1961 | 0.1402 | 0.3308 |
| 59 | 37.31 | 0.00 | -0.0453 | -0.0026 | -0.0207 | 0.0443 | 0.4584 | 0.5851 | 0.0832 | 0.1899 | 0.1421 | 0.3245 |
| 60 | 37.55 | -0.00 | -0.0353 | -0.0026 | -0.0151 | 0.0574 | 0.4290 | 0.5791 | 0.0838 | 0.1894 | 0.1446 | 0.3271 |
| 61 | 37.78 | -0.01 | -0.0585 | -0.0004 | -0.0435 | 0.0008 | 0.7442 | 0.6170 | 0.0835 | 0.2018 | 0.1310 | 0.3276 |
| 62 | 38.02 | 0.01 | 0.0044 | 0.0044 | 0.0063 | 0.4565 | 1.4130 | 0.6025 | 0.0814 | 0.1971 | 0.1352 | 0.3272 |
| 63 | 38.26 | 0.02 | -0.0005 | -0.0004 | 0.0044 | 0.8030 | -9.2300 | 0.5823 | 0.0814 | 0.1896 | 0.1399 | 0.3256 |
| 64 | 38.49 | 0.00 | -0.0022 | -0.0012 | -0.0043 | 0.0508 | 0.4068 | 0.5949 | 0.0814 | 0.1929 | 0.1371 | 0.3248 |
| 65 | 38.71 | -0.01 | -0.0482 | -0.0008 | -0.0132 | 0.1350 | 0.2672 | 0.5881 | 0.0813 | 0.1925 | 0.1388 | 0.3284 |
| 66 | 38.92 | 0.03 | -0.0004 | -0.0004 | -0.0005 | 0.1437 | 0.2250 | 0.5975 | 0.0816 | 0.1992 | 0.1366 | 0.3334 |
| 67 | 39.15 | 0.01 | -0.0540 | -0.0012 | -0.0130 | 0.1339 | 0.2411 | 0.6063 | 0.0816 | 0.2011 | 0.1346 | 0.3316 |
| 68 | 39.38 | -0.01 | -0.1511 | -0.0188 | -0.0644 | 0.1245 | 0.4498 | 0.6150 | 0.0810 | 0.2053 | 0.1318 | 0.3339 |
| 69 | 39.59 | 0.01 | -0.0464 | -0.0076 | -0.0095 | 0.1642 | 0.2141 | 0.5976 | 0.0822 | 0.1969 | 0.1376 | 0.3295 |
| 70 | 39.81 | 0.01 | -0.1036 | -0.0216 | -0.0699 | 0.1321 | 0.4269 | 0.6237 | 0.0810 | 0.2072 | 0.1299 | 0.3321 |
| 71 | 40.03 | -0.02 | -0.1907 | -0.0276 | -0.0886 | 0.1403 | 0.4095 | 0.6145 | 0.0816 | 0.2053 | 0.1327 | 0.3335 |
| 72 | 40.25 | -0.01 | -0.1341 | -0.0211 | -0.0605 | 0.1371 | 0.3951 | 0.6093 | 0.0816 | 0.2062 | 0.1340 | 0.3266 |
| 73 | 40.43 | -0.00 | -0.1538 | -0.0204 | -0.0618 | 0.1324 | 0.4021 | 0.6316 | 0.0804 | 0.2088 | 0.1273 | 0.3306 |
| 74 | 40.64 | 0.00 | -0.1369 | -0.0183 | -0.0536 | 0.1195 | 0.3863 | 0.6258 | 0.0795 | 0.2082 | 0.1270 | 0.3321 |
| 75 | 40.86 | -0.02 | -0.1508 | -0.0187 | -0.0648 | 0.1241 | 0.4295 | 0.6317 | 0.0792 | 0.2087 | 0.1254 | 0.3304 |
| 76 | 41.08 | 0.00 | -0.1416 | -0.0167 | -0.0581 | 0.1326 | 0.4120 | 0.6406 | 0.0781 | 0.2083 | 0.1219 | 0.3252 |
| 77 | 41.28 | 0.01 | -0.1438 | -0.0176 | -0.0595 | 0.1221 | 0.4141 | 0.6387 | 0.0787 | 0.2073 | 0.1233 | 0.3245 |
| 78 | 41.47 | -0.00 | -0.1413 | -0.0163 | -0.0582 | 0.1290 | 0.4119 | 0.6304 | 0.0782 | 0.2105 | 0.1202 | 0.3237 |
| 79 | 41.67 | -0.00 | -0.1252 | -0.0175 | -0.0588 | 0.1433 | 0.4692 | 0.6679 | 0.0770 | 0.2166 | 0.1153 | 0.3243 |
| 80 | 41.88 | -0.01 | -0.1260 | -0.0164 | -0.0604 | 0.1283 | 0.4294 | 0.6304 | 0.0782 | 0.2105 | 0.1202 | 0.3237 |
| 81 | 42.08 | 0.01 | -0.1167 | -0.0155 | -0.0645 | 0.1332 | 0.5525 | 0.6911 | 0.0770 | 0.2243 | 0.1114 | 0.3248 |
| 82 | 42.28 | -0.00 | -0.1660 | -0.0211 | -0.0795 | 0.1275 | 0.4430 | 0.6504 | 0.0776 | 0.2087 | 0.1182 | 0.3175 |
| 83 | 42.48 | 0.00 | -0.0749 | -0.0112 | -0.0371 | 0.1495 | 0.4948 | 0.6826 | 0.0764 | 0.2166 | 0.1119 | 0.3173 |
| 84 | 42.64 | -0.02 | -0.0830 | -0.0116 | -0.0416 | 0.1362 | 0.4164 | 0.7030 | 0.0753 | 0.2241 | 0.1071 | 0.3188 |
| 85 | 42.82 | -0.01 | -0.1407 | -0.0152 | -0.0627 | 0.1369 | 0.4458 | 0.6798 | 0.0770 | 0.2153 | 0.1133 | 0.3167 |
| 86 | 43.01 | -0.00 | -0.0857 | -0.0108 | -0.0360 | 0.1531 | 0.5235 | 0.7116 | 0.0753 | 0.2260 | 0.1057 | 0.3175 |
| 87 | 43.19 | -0.00 | 0.0247 | 0.0016 | -0.0064 | 0.0664 | -0.2576 | 0.7319 | 0.0750 | 0.2358 | 0.1024 | 0.3222 |
| 88 | 43.38 | 0.01 | 0.0346 | 0.0024 | -0.0025 | 0.0603 | -0.0831 | 0.7435 | 0.0738 | 0.2413 | 0.0993 | 0.3246 |
| 89 | 43.57 | 0.01 | -0.0935 | -0.0140 | -0.0351 | 0.1490 | 0.5865 | 0.7148 | 0.0761 | 0.2274 | 0.1065 | 0.3183 |
| 90 | 43.76 | 0.00 | -0.1074 | -0.0148 | -0.0533 | 0.1375 | 0.4980 | 0.7064 | 0.0767 | 0.2223 | 0.1082 | 0.3136 |
| 91 | 43.92 | -0.01 | -0.0552 | -0.0108 | -0.0343 | 0.1824 | 0.5762 | 0.7206 | 0.0753 | 0.2256 | 0.1044 | 0.3131 |
| 92 | 44.12 | -0.01 | 0.1164 | 0.0136 | 0.0344 | 0.1210 | 0.3004 | 0.7610 | 0.0741 | 0.2452 | 0.0974 | 0.3222 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

FACE 2 OF 3
SHEET 3 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 121 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 81AUF23 L 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.31 | 0.01 | -0.0426 | -0.0068 | -0.0413 | 0.1564 | 0.9663 | 0.7321 | 0.0753 | 0.2312 | 0.1028 | 0.3158 |
| 94 | 44.44 | 0.00 | 0.0265 | 0.0016 | 0.0220 | 0.0967 | 0.0730 | 0.7554 | 0.0736 | 0.2401 | 0.0977 | 0.3178 |
| 95 | 44.69 | 0.00 | -0.0036 | -0.0128 | -0.0042 | 0.1700 | 0.6707 | 0.7408 | 0.0753 | 0.2331 | 0.1016 | 0.3147 |
| 96 | 44.87 | 0.01 | 0.0451 | 0.0096 | -0.0005 | 0.1242 | -0.0107 | 0.7701 | 0.0735 | 0.2424 | 0.0955 | 0.3147 |
| 97 | 45.06 | -0.00 | 0.0572 | 0.0052 | 0.0056 | 0.0941 | 0.1720 | 0.7672 | 0.0729 | 0.2422 | 0.0951 | 0.3157 |
| 98 | 45.22 | -0.02 | -0.0125 | -0.0049 | -0.0128 | 0.1923 | 2.2000 | 0.7666 | 0.0730 | 0.2374 | 0.0958 | 0.3112 |
| 99 | 45.42 | 0.00 | 0.0583 | 0.0072 | 0.0016 | 0.1242 | 0.0166 | 0.7713 | 0.0725 | 0.2404 | 0.0935 | 0.3117 |
| 100 | 45.62 | -0.02 | 0.0026 | 0.0056 | 0.0023 | 0.1115 | 0.0462 | 0.7712 | 0.0730 | 0.2416 | 0.0947 | 0.3133 |
| 101 | 45.75 | 0.01 | -0.0937 | -0.0132 | -0.0586 | 0.1411 | 0.6251 | 0.7742 | 0.0733 | 0.2407 | 0.0947 | 0.3105 |
| 102 | 45.94 | -0.01 | 0.0230 | 0.0026 | -0.0056 | 0.1274 | -0.3681 | 0.7691 | 0.0719 | 0.2414 | 0.0918 | 0.3083 |
| 103 | 46.14 | -0.02 | -0.0435 | -0.0069 | -0.0313 | 0.1500 | 0.7121 | 0.7650 | 0.0719 | 0.2437 | 0.0918 | 0.3113 |
| 104 | 46.33 | -0.01 | -0.0595 | -0.0096 | -0.0524 | 0.1810 | 0.6744 | 0.7602 | 0.0719 | 0.2400 | 0.0921 | 0.3076 |
| 105 | 46.50 | -0.01 | -0.0405 | -0.0065 | -0.0377 | 0.1690 | 0.9310 | 0.7676 | 0.0714 | 0.2386 | 0.0907 | 0.3030 |
| 106 | 46.67 | 0.01 | -0.0495 | -0.0058 | -0.0377 | 0.1671 | 1.2013 | 0.7934 | 0.0765 | 0.2414 | 0.0889 | 0.3043 |
| 107 | 46.85 | -0.01 | 0.0734 | 0.0088 | 0.0064 | 0.1196 | 0.1143 | 0.7935 | 0.0752 | 0.2413 | 0.0885 | 0.3041 |
| 108 | 47.04 | -0.03 | 0.0041 | -0.0006 | -0.0122 | -0.1000 | -0.9302 | 0.7993 | 0.0700 | 0.2441 | 0.0875 | 0.3054 |
| 109 | 47.20 | -0.02 | -0.0031 | -0.0036 | -0.0177 | 1.1563 | 5.7186 | 0.7933 | 0.0702 | 0.2436 | 0.0885 | 0.3071 |
| 110 | 47.38 | -0.03 | 0.0049 | -0.0016 | -0.0178 | -0.2353 | -3.0378 | 0.7993 | 0.0700 | 0.2441 | 0.0875 | 0.3054 |
| 111 | 47.55 | -0.03 | -0.0234 | -0.0048 | -0.0258 | 0.2056 | 1.0905 | 0.7933 | 0.0702 | 0.2436 | 0.0885 | 0.3071 |
| 112 | 47.74 | -0.02 | 0.0405 | 0.0040 | -0.0050 | 0.1190 | -0.1381 | 0.8082 | 0.0691 | 0.2437 | 0.0855 | 0.3016 |
| 113 | 47.91 | -0.01 | -0.1273 | -0.0197 | -0.0672 | 0.1547 | 0.5277 | 0.8023 | 0.0711 | 0.2409 | 0.0886 | 0.3003 |
| 114 | 48.07 | -0.03 | -0.0464 | -0.0056 | -0.0376 | 0.1592 | 0.7769 | 0.7857 | 0.0599 | 0.2340 | 0.0756 | 0.2985 |
| 115 | 48.25 | -0.01 | -0.1170 | -0.0201 | -0.0627 | 0.1715 | 0.5359 | 0.8081 | 0.0711 | 0.2437 | 0.0886 | 0.3016 |
| 116 | 48.42 | 0.02 | -0.1746 | -0.0292 | -0.0911 | 0.1674 | 0.5215 | 0.8033 | 0.0589 | 0.2384 | 0.0733 | 0.2968 |
| 117 | 48.60 | -0.00 | -0.1546 | -0.0277 | -0.0805 | 0.1792 | 0.5231 | 0.8092 | 0.0537 | 0.2411 | 0.0668 | 0.2986 |
| 118 | 48.78 | -0.00 | -0.0596 | -0.0186 | -0.0504 | 0.1823 | 0.5897 | 0.7896 | 0.0469 | 0.2322 | 0.0594 | 0.2941 |
| 119 | 48.92 | -0.01 | -0.1752 | -0.0315 | -0.0858 | 0.1784 | 0.4884 | 0.8043 | 0.0463 | 0.2335 | 0.0576 | 0.2903 |
| 120 | 49.10 | 0.01 | -0.1030 | -0.0337 | -0.0590 | 0.1821 | 0.5128 | 0.8230 | 0.0450 | 0.2400 | 0.0557 | 0.2916 |
| 121 | 49.28 | 0.00 | -0.1500 | -0.0265 | -0.0746 | 0.2060 | 0.5451 | 0.8262 | 0.0441 | 0.2350 | 0.0534 | 0.2893 |
| 122 | 49.44 | 0.01 | -0.1451 | -0.0277 | -0.0720 | 0.2145 | 0.5920 | 0.8439 | 0.0432 | 0.2416 | 0.0512 | 0.2863 |
| 123 | 49.64 | 0.02 | -0.0903 | -0.0197 | -0.0594 | 0.2044 | 0.6172 | 0.8555 | 0.0444 | 0.2437 | 0.0519 | 0.2845 |
| 124 | 49.83 | 0.04 | -0.1511 | -0.0238 | -0.0665 | 0.1564 | 0.4559 | 0.8575 | 0.0507 | 0.2431 | 0.0484 | 0.2836 |
| 125 | 50.03 | 0.01 | -0.1515 | -0.0271 | -0.0646 | 0.1826 | 0.4266 | 0.8543 | 0.0607 | 0.2464 | 0.0710 | 0.2885 |
| 126 | 50.20 | 0.00 | -0.1091 | -0.0346 | -0.0601 | 0.1897 | 0.4350 | 0.8779 | 0.0596 | 0.2466 | 0.0681 | 0.2863 |
| 127 | 50.37 | 0.01 | -0.1605 | -0.0301 | -0.0756 | 0.1876 | 0.4561 | 0.8861 | 0.0615 | 0.2402 | 0.0679 | 0.2773 |
| 128 | 50.55 | 0.02 | -0.0835 | -0.0213 | -0.0546 | 0.2555 | 0.6366 | 0.8607 | 0.0512 | 0.2449 | 0.0468 | 0.2780 |
| 129 | 50.71 | 0.03 | -0.0765 | -0.0205 | -0.0486 | 0.2653 | 0.6161 | 0.8748 | 0.0536 | 0.2432 | 0.0464 | 0.2786 |
| 130 | 50.88 | 0.02 | -0.0665 | -0.0197 | -0.0415 | 0.2561 | 0.6241 | 0.8806 | 0.0490 | 0.2437 | 0.0455 | 0.2767 |
| 131 | 51.05 | 0.00 | -0.0333 | -0.0145 | -0.0256 | 0.4346 | 0.8899 | 0.8863 | 0.0505 | 0.2465 | 0.0462 | 0.2781 |
| 132 | 51.21 | 0.00 | 0.0264 | -0.0053 | -0.0099 | -0.4550 | -0.9002 | 0.8837 | 0.0392 | 0.2428 | 0.0443 | 0.2743 |
| 133 | 51.40 | 0.03 | 0.0205 | -0.0072 | -0.0105 | -0.3538 | -0.5330 | 0.8865 | 0.0395 | 0.2441 | 0.0445 | 0.2754 |
| 134 | 51.56 | 0.05 | -0.0050 | -0.0160 | -0.0200 | 1.0400 | 2.7000 | 0.8954 | 0.0392 | 0.2460 | 0.0437 | 0.2748 |
| 135 | 51.75 | 0.05 | -0.0222 | -0.0124 | -0.0329 | 0.5009 | 1.4826 | 0.8982 | 0.0395 | 0.2497 | 0.0435 | 0.2780 |
| 136 | 51.94 | 0.04 | -0.0225 | -0.0172 | -0.0306 | 0.2841 | 1.2000 | 0.8940 | 0.0396 | 0.2415 | 0.0443 | 0.2762 |
| 137 | 52.10 | 0.03 | -0.0069 | -0.0052 | -0.0079 | 0.7606 | 1.1549 | 0.8967 | 0.0401 | 0.2453 | 0.0448 | 0.2735 |
| 138 | 52.26 | 0.05 | -0.0033 | -0.0065 | -0.0140 | 2.0882 | 4.4412 | 0.9114 | 0.0396 | 0.2488 | 0.0434 | 0.2736 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&7 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 2 DINCF2= 0.0 L 0.0 DELI 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CO1 | XCPF1 | YCPF1 | CNF2 | CM2 | CO2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.43 | 0.05 | 0.0135 | -0.0048 | 0.0011 | -0.3571 | 0.0786 | 0.9068 | 0.0400 | 0.2493 | 0.0462 | 0.2750 |
| 140 | 52.66 | 0.04 | 0.0044 | -0.0032 | 0.0006 | -0.6000 | 1.2400 | 0.8805 | 0.0400 | 0.2406 | 0.0452 | 0.2714 |
| 141 | 52.78 | 0.06 | -0.0157 | -0.0056 | 0.0011 | 0.3558 | 0.0013 | 0.8907 | 0.0413 | 0.2412 | 0.0464 | 0.2706 |
| 142 | 52.65 | 0.04 | -0.0064 | -0.0036 | 0.0013 | 0.0788 | -1.6214 | 0.8849 | 0.0410 | 0.2304 | 0.0463 | 0.2694 |
| 143 | 53.10 | 0.06 | 0.0026 | 0.0 | 0.0231 | 0.0 | 0.8518 | 0.8672 | 0.0433 | 0.2312 | 0.0500 | 0.2686 |
| 144 | 53.29 | 0.07 | -0.0021 | -0.0041 | 0.0024 | 0.2019 | -0.0202 | 0.8769 | 0.0425 | 0.2308 | 0.0483 | 0.2694 |
| 145 | 53.49 | 0.08 | -0.0256 | -0.0052 | 0.0140 | 0.2038 | -0.5472 | 0.8805 | 0.0416 | 0.2343 | 0.0474 | 0.2661 |
| 146 | 53.62 | 0.07 | -0.0003 | 0.0016 | 0.0240 | -0.0007 | -0.0000 | 0.8859 | 0.0424 | 0.2296 | 0.0489 | 0.2652 |
| 147 | 53.76 | 0.05 | -0.0250 | -0.0020 | 0.0158 | 0.0698 | -0.6746 | 0.8761 | 0.0417 | 0.2337 | 0.0476 | 0.2667 |
| 148 | 53.93 | 0.05 | -0.0039 | 0.0 | 0.0315 | 0.0 | -0.1506 | 0.8733 | 0.0417 | 0.2299 | 0.0477 | 0.2633 |
| 149 | 54.06 | 0.06 | -0.0243 | 0.0 | 0.0247 | 0.0 | -1.0159 | 0.8776 | 0.0413 | 0.2300 | 0.0471 | 0.2621 |
| 150 | 54.24 | 0.07 | -0.0042 | -0.0044 | 0.0216 | 0.0196 | -0.5000 | 0.8777 | 0.0416 | 0.2269 | 0.0474 | 0.2607 |
| 151 | 54.40 | 0.04 | -0.0123 | 0.0028 | 0.0342 | -0.2283 | -2.7874 | 0.8894 | 0.0404 | 0.2333 | 0.0455 | 0.2623 |
| 152 | 54.56 | 0.05 | -0.0125 | 0.0024 | 0.0303 | -0.1923 | -2.8923 | 0.8950 | 0.0387 | 0.2374 | 0.0432 | 0.2650 |
| 153 | 54.72 | 0.05 | -0.0226 | 0.0016 | 0.0366 | -0.0796 | -1.7793 | 0.9009 | 0.0381 | 0.2381 | 0.0420 | 0.2628 |
| 154 | 54.80 | 0.05 | -0.0137 | 0.0004 | 0.0445 | -0.4048 | -3.2405 | 0.8835 | 0.0375 | 0.2359 | 0.0425 | 0.2647 |
| 155 | 55.03 | 0.03 | -0.0190 | 0.0021 | 0.0445 | -0.3147 | -2.3604 | 0.8958 | 0.0374 | 0.2353 | 0.0420 | 0.2642 |
| 156 | 55.19 | 0.05 | -0.0156 | 0.0004 | 0.0424 | -0.4200 | -2.4729 | 0.8936 | 0.0374 | 0.2345 | 0.0419 | 0.2623 |
| 157 | 55.35 | 0.04 | -0.0277 | 0.0006 | 0.0497 | -0.2100 | -1.7944 | 0.8969 | 0.0375 | 0.2371 | 0.0419 | 0.2645 |
| 158 | 55.51 | 0.04 | -0.0240 | 0.0006 | 0.0488 | -0.2431 | -1.8941 | 0.9242 | 0.0381 | 0.2404 | 0.0430 | 0.2667 |
| 159 | 55.65 | 0.02 | -0.0437 | 0.0072 | 0.0503 | -0.1656 | -1.1501 | 0.8934 | 0.0374 | 0.2367 | 0.0419 | 0.2645 |
| 160 | 55.81 | 0.04 | -0.0236 | 0.0006 | 0.0413 | -0.0537 | -0.6405 | 0.8847 | 0.0374 | 0.2337 | 0.0423 | 0.2642 |
| 161 | 55.96 | 0.04 | -0.0715 | 0.0071 | 0.0416 | -0.0593 | -0.5765 | 0.8775 | 0.0374 | 0.2293 | 0.0427 | 0.2614 |
| 162 | 56.12 | 0.04 | -0.0756 | 0.0048 | 0.0469 | -0.0806 | -0.5091 | 0.8881 | 0.0371 | 0.2335 | 0.0419 | 0.2635 |
| 163 | 56.29 | 0.04 | -0.0743 | 0.0024 | 0.0435 | -0.0852 | -0.5819 | 0.8817 | 0.0369 | 0.2322 | 0.0418 | 0.2634 |
| 164 | 56.42 | 0.05 | -0.0655 | 0.0048 | 0.0424 | -0.0503 | -0.4416 | 0.8769 | 0.0363 | 0.2296 | 0.0413 | 0.2613 |
| 165 | 56.58 | 0.01 | -0.1088 | 0.0040 | 0.0396 | -0.0363 | -0.3652 | 0.8843 | 0.0371 | 0.2250 | 0.0430 | 0.2603 |
| 166 | 56.74 | 0.05 | -0.1110 | 0.0048 | 0.0381 | -0.0435 | -0.3252 | 0.8886 | 0.0371 | 0.2274 | 0.0428 | 0.2618 |
| 167 | 56.88 | 0.01 | -0.1313 | 0.0016 | 0.0363 | -0.0125 | -0.2307 | 0.8887 | 0.0371 | 0.2251 | 0.0428 | 0.2591 |
| 168 | 57.04 | -0.02 | -0.1426 | 0.0060 | 0.0265 | -0.0054 | -0.1772 | 0.8701 | 0.0366 | 0.2261 | 0.0422 | 0.2558 |
| 169 | 57.21 | 0.02 | -0.1443 | 0.0012 | 0.0350 | -0.0080 | -0.2379 | 0.8700 | 0.0368 | 0.2295 | 0.0423 | 0.2638 |
| 170 | 57.38 | 0.02 | -0.1344 | 0.0020 | 0.0334 | -0.0151 | -0.2484 | 0.8772 | 0.0363 | 0.2303 | 0.0414 | 0.2626 |
| 171 | 57.48 | 0.02 | -0.1475 | 0.0004 | 0.0330 | -0.0026 | -0.2237 | 0.8715 | 0.0369 | 0.2265 | 0.0423 | 0.2595 |
| 172 | 57.03 | -0.00 | -0.1523 | 0.0004 | 0.0303 | -0.0025 | -0.1900 | 0.8915 | 0.0363 | 0.2314 | 0.0407 | 0.2662 |
| 173 | 57.76 | 0.03 | -0.1536 | 0.0004 | 0.0256 | -0.0024 | -0.1880 | 0.8785 | 0.0368 | 0.2302 | 0.0418 | 0.2621 |
| 174 | 57.94 | -0.00 | -0.1654 | 0.0 | 0.0288 | 0.0 | -0.1739 | 0.8847 | 0.0364 | 0.2404 | 0.0381 | 0.2658 |
| 175 | 58.06 | -0.05 | -0.1427 | 0.0028 | 0.0391 | -0.0192 | -0.2682 | 0.9321 | 0.0364 | 0.2487 | 0.0370 | 0.2665 |
| 176 | 58.23 | -0.01 | -0.1435 | 0.0043 | 0.0432 | -0.0303 | -0.3053 | 0.9304 | 0.0342 | 0.2506 | 0.0367 | 0.2693 |
| 177 | 58.37 | -0.13 | -0.1423 | 0.0018 | 0.0358 | -0.0054 | -0.2515 | 0.9305 | 0.0339 | 0.2483 | 0.0364 | 0.2668 |
| 178 | 58.44 | -0.10 | -0.1446 | 0.0020 | 0.0423 | -0.0103 | -0.3395 | 0.9169 | 0.0335 | 0.2473 | 0.0362 | 0.2691 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.90 RX10-6 4.7 PHI 0.0 CONF 61B0F23 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLNT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.36 | 0.00 | 0.0566 | 9.9999 | 0.0428 | 9.9999 | 0.7564 | -0.8431 | -0.0063 | -0.3666 | 0.0074 | 0.4588 |
| 2 | -5.37 | 0.00 | 0.0466 | 9.9999 | 0.0443 | 9.9999 | 0.9107 | -0.8402 | -0.0054 | -0.3859 | 0.0064 | 0.4561 |
| 3 | -5.37 | 0.01 | 0.0466 | 9.9999 | 0.0433 | 9.9999 | 0.8909 | -0.8401 | -0.0060 | -0.3870 | 0.0071 | 0.4574 |
| 4 | -5.37 | 0.00 | 0.0536 | 9.9999 | 0.0436 | 9.9999 | 0.8100 | -0.8329 | -0.0066 | -0.3812 | 0.0079 | 0.4577 |
| 5 | -5.38 | 0.01 | 0.0549 | 9.9999 | 0.0454 | 9.9999 | 1.4144 | -0.7938 | -0.0063 | -0.3642 | 0.0105 | 0.4585 |
| 6 | -5.63 | 0.01 | 0.0481 | 9.9999 | 0.0396 | 9.9999 | 1.1305 | -0.7815 | -0.0057 | -0.3580 | 0.0125 | 0.4580 |
| 7 | -0.17 | 0.02 | 0.0561 | 9.9999 | 0.0564 | 9.9999 | 0.9638 | -0.8372 | -0.0116 | -0.3732 | 0.0141 | 0.4456 |
| 8 | 1.07 | 0.01 | 0.0027 | 9.9999 | 0.0551 | 9.9999 | 20.3929 | -0.9492 | -0.0140 | -0.4124 | 0.0147 | 0.4344 |
| 9 | 3.60 | 0.01 | 0.0108 | 9.9999 | 0.0567 | 9.9999 | 5.3455 | -0.9016 | -0.0203 | -0.3814 | 0.0225 | 0.4231 |
| 10 | 5.37 | 0.01 | -0.0048 | 9.9999 | 0.0492 | 9.9999 | -9.3000 | -0.9013 | -0.0317 | -0.3660 | 0.0352 | 0.4083 |
| 11 | 7.24 | 0.01 | 0.0060 | 9.9999 | 0.0555 | 9.9999 | 8.9277 | -0.8250 | -0.0468 | -0.3401 | 0.0495 | 0.4123 |
| 12 | 9.04 | 0.01 | 0.0295 | 9.9999 | 0.0483 | 9.9999 | 1.3040 | -0.7529 | -0.0452 | -0.3188 | 0.0660 | 0.4234 |
| 13 | 10.90 | 0.00 | 0.0217 | 9.9999 | 0.0475 | 9.9999 | 0.7666 | -0.6781 | -0.0477 | -0.2850 | 0.0703 | 0.4203 |
| 14 | 12.74 | 0.01 | 0.0246 | 9.9999 | 0.0384 | 9.9999 | 0.7107 | -0.5645 | -0.0514 | -0.2540 | 0.0910 | 0.4495 |
| 15 | 14.61 | 0.02 | 0.0275 | 9.9999 | 0.0353 | 9.9999 | 0.5229 | -0.4528 | -0.0511 | -0.2227 | 0.1125 | 0.4518 |
| 16 | 16.59 | 0.01 | 0.0438 | 9.9999 | 0.0364 | 9.9999 | 0.6938 | -0.3131 | -0.0414 | -0.1657 | 0.1322 | 0.5251 |
| 17 | 18.44 | 0.00 | 0.0437 | 9.9999 | 0.0324 | 9.9999 | 0.7417 | -0.1992 | -0.0220 | -0.1053 | 0.1104 | 0.5263 |
| 18 | 20.32 | -0.01 | 0.0016 | 9.9999 | 0.0316 | 9.9999 | 20.9167 | -0.0922 | -0.0003 | -0.0572 | 0.0031 | 0.6203 |
| 19 | 22.21 | -0.02 | -0.0010 | 9.9999 | 0.0196 | 9.9999 | -20.3000 | 0.0244 | 0.0191 | -0.0043 | 0.7626 | -0.1779 |
| 20 | 24.11 | -0.03 | 0.0094 | 9.9999 | 0.0208 | 9.9999 | 2.8454 | 0.1410 | 0.0377 | 0.0397 | 0.2676 | 0.2813 |
| 21 | 25.99 | -0.02 | 0.0121 | 9.9999 | 0.0258 | 9.9999 | 2.1360 | 0.2222 | 0.0554 | 0.0668 | 0.2452 | 0.3005 |
| 22 | 27.92 | 0.04 | 0.0591 | 9.9999 | 0.0481 | 9.9999 | 0.7796 | 0.2188 | 0.0704 | 0.0711 | 0.3219 | 0.3256 |
| 23 | 29.20 | 0.02 | 0.0564 | 9.9999 | 0.0455 | 9.9999 | 0.8137 | 0.2076 | 0.0687 | 0.0746 | 0.3309 | 0.3592 |
| 24 | 29.21 | 0.03 | 0.0644 | 9.9999 | 0.0488 | 9.9999 | 0.7556 | 0.2187 | 0.0718 | 0.0811 | 0.3282 | 0.3710 |
| 25 | 29.49 | 0.04 | 0.0657 | 9.9999 | 0.0512 | 9.9999 | 0.7355 | 0.2187 | 0.0733 | 0.0838 | 0.3352 | 0.3820 |
| 26 | 29.78 | 0.05 | 0.0750 | 9.9999 | 0.0518 | 9.9999 | 0.6885 | 0.2089 | 0.0736 | 0.0827 | 0.3559 | 0.3997 |
| 27 | 29.10 | 0.04 | 0.0645 | 9.9999 | 0.0491 | 9.9999 | 0.7725 | 0.2188 | 0.0749 | 0.0893 | 0.3422 | 0.4083 |
| 28 | 29.40 | 0.04 | 0.0487 | 9.9999 | 0.0433 | 9.9999 | 0.8091 | 0.2000 | 0.0709 | 0.1079 | 0.2957 | 0.4148 |
| 29 | 29.69 | 0.04 | 0.0615 | 9.9999 | 0.0465 | 9.9999 | 0.7508 | 0.3098 | 0.0804 | 0.1305 | 0.2594 | 0.4214 |
| 30 | 29.97 | 0.04 | 0.0566 | 9.9999 | 0.0461 | 9.9999 | 0.8143 | 0.3276 | 0.0812 | 0.1430 | 0.2480 | 0.4305 |
| 31 | 30.26 | 0.07 | 0.0615 | 9.9999 | 0.0476 | 9.9999 | 0.7879 | 0.3546 | 0.0804 | 0.1526 | 0.2267 | 0.4305 |
| 32 | 30.53 | 0.06 | 0.0562 | 9.9999 | 0.0463 | 9.9999 | 0.7818 | 0.4079 | 0.0815 | 0.1775 | 0.1999 | 0.4353 |
| 33 | 30.80 | 0.05 | 0.0593 | 9.9999 | 0.0442 | 9.9999 | 0.7447 | 0.4082 | 0.0807 | 0.1808 | 0.1976 | 0.4425 |
| 34 | 31.08 | 0.05 | 0.0755 | 9.9999 | 0.0508 | 9.9999 | 0.6744 | 0.4414 | 0.0822 | 0.1980 | 0.1862 | 0.4485 |
| 35 | 31.35 | 0.05 | 0.0556 | 9.9999 | 0.0423 | 9.9999 | 0.7087 | 0.4355 | 0.0816 | 0.1964 | 0.1874 | 0.4508 |
| 36 | 31.64 | 0.07 | 0.0647 | 9.9999 | 0.0447 | 9.9999 | 0.6900 | 0.4737 | 0.0821 | 0.2166 | 0.1734 | 0.4573 |
| 37 | 31.85 | 0.05 | 0.0647 | 9.9999 | 0.0447 | 9.9999 | 0.6900 | 0.4194 | 0.0844 | 0.1936 | 0.2013 | 0.4661 |
| 38 | 32.17 | 0.05 | 0.0491 | 9.9999 | 0.0351 | 9.9999 | 0.7151 | 0.4015 | 0.0833 | 0.2136 | 0.1804 | 0.4629 |
| 39 | 32.45 | 0.05 | 0.0645 | 9.9999 | 0.0405 | 9.9999 | 0.6241 | 0.4459 | 0.0862 | 0.2054 | 0.1932 | 0.4696 |
| 40 | 32.69 | 0.07 | 0.0665 | 9.9999 | 0.0460 | 9.9999 | 0.6052 | 0.4799 | 0.0845 | 0.2242 | 0.1761 | 0.4672 |
| 41 | 32.97 | 0.06 | 0.0513 | 9.9999 | 0.0520 | 9.9999 | 0.5698 | 0.4190 | 0.0852 | 0.2002 | 0.2128 | 0.4778 |
| 42 | 33.22 | 0.05 | 0.0763 | 9.9999 | 0.0448 | 9.9999 | 0.5721 | 0.4436 | 0.0868 | 0.2046 | 0.1958 | 0.4725 |
| 43 | 33.47 | 0.07 | 0.0540 | 9.9999 | 0.0522 | 9.9999 | 0.5554 | 0.3946 | 0.0909 | 0.1854 | 0.2303 | 0.4657 |
| 44 | 33.74 | 0.06 | 0.0516 | 9.9999 | 0.0490 | 9.9999 | 0.5353 | 0.4436 | 0.0898 | 0.2050 | 0.2025 | 0.4712 |
| 45 | 33.97 | 0.06 | 0.0650 | 9.9999 | 0.0478 | 9.9999 | 0.5369 | 0.4555 | 0.0895 | 0.2105 | 0.1966 | 0.4636 |
| 46 | 34.21 | 0.06 | 0.0554 | 9.9999 | 0.0537 | 9.9999 | 0.5408 | 0.4266 | 0.0858 | 0.2043 | 0.2096 | 0.4721 |

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.90 REIC-6 1.7 PHI 0.0 CONF 16OF23 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | Cm3 | Cd3 | XCPF3 | YCPF3 | CNF4 | Cm4 | Cd4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 0.0757 | 9.9999 | 0.0426 | 9.9999 | 0.5616 | 0.4316 | 0.0895 | 0.2037 | 0.2075 | 0.4719 |
| 48 | 34.72 | 0.04 | 0.0852 | 9.9999 | 0.0386 | 9.9999 | 0.5917 | 0.4346 | 0.0895 | 0.2028 | 0.2060 | 0.4667 |
| 49 | 34.55 | 0.02 | 0.0736 | 9.9999 | 0.0382 | 9.9999 | 0.5204 | 0.4382 | 0.0897 | 0.2022 | 0.2048 | 0.4615 |
| 50 | 35.20 | 0.03 | 0.0755 | 9.9999 | 0.0426 | 9.9999 | 0.5604 | 0.4262 | 0.0900 | 0.1947 | 0.2112 | 0.4565 |
| 51 | 35.45 | -0.00 | 0.0755 | 9.9999 | 0.0416 | 9.9999 | 0.5478 | 0.4172 | 0.0900 | 0.1930 | 0.2156 | 0.4625 |
| 52 | 35.07 | 0.01 | 0.0734 | 9.9999 | 0.0382 | 9.9999 | 0.5204 | 0.4142 | 0.0897 | 0.1894 | 0.2166 | 0.4573 |
| 53 | 35.91 | 0.00 | 0.0857 | 9.9999 | 0.0345 | 9.9999 | 0.5257 | 0.4391 | 0.0891 | 0.2003 | 0.2026 | 0.4562 |
| 54 | 36.15 | -0.01 | 0.0855 | 9.9999 | 0.0358 | 9.9999 | 0.5240 | 0.4418 | 0.0902 | 0.2017 | 0.2042 | 0.4564 |
| 55 | 36.38 | -0.02 | 0.0851 | 9.9999 | 0.0295 | 9.9999 | 0.5359 | 0.4386 | 0.0902 | 0.1970 | 0.2056 | 0.4490 |
| 56 | 36.01 | -0.02 | 0.0765 | 9.9999 | 0.0371 | 9.9999 | 0.5224 | 0.4509 | 0.0896 | 0.2012 | 0.1988 | 0.4462 |
| 57 | 36.85 | -0.01 | 0.0783 | 9.9999 | 0.0374 | 9.9999 | 0.4905 | 0.4691 | 0.0885 | 0.2085 | 0.1886 | 0.4416 |
| 58 | 37.09 | -0.01 | 0.0765 | 9.9999 | 0.0455 | 9.9999 | 0.4944 | 0.4802 | 0.0885 | 0.2051 | 0.1922 | 0.4457 |
| 59 | 37.31 | 0.00 | 0.0711 | 9.9999 | 0.0350 | 9.9999 | 0.4925 | 0.4781 | 0.0880 | 0.2076 | 0.1848 | 0.4362 |
| 60 | 37.55 | -0.00 | 0.0804 | 9.9999 | 0.0300 | 9.9999 | 0.4952 | 0.4850 | 0.0877 | 0.2094 | 0.1808 | 0.4317 |
| 61 | 37.78 | -0.01 | 0.0858 | 9.9999 | 0.0345 | 9.9999 | 0.5249 | 0.4700 | 0.0892 | 0.2140 | 0.1897 | 0.4553 |
| 62 | 38.02 | 0.01 | 0.0738 | 9.9999 | 0.0363 | 9.9999 | 0.4915 | 0.5062 | 0.0880 | 0.2254 | 0.1738 | 0.4453 |
| 63 | 38.26 | 0.02 | 0.0735 | 9.9999 | 0.0342 | 9.9999 | 0.4621 | 0.5184 | 0.0866 | 0.2262 | 0.1675 | 0.4363 |
| 64 | 38.48 | 0.00 | 0.0784 | 9.9999 | 0.0358 | 9.9999 | 0.5233 | 0.5183 | 0.0879 | 0.2285 | 0.1687 | 0.4408 |
| 65 | 38.71 | -0.01 | 0.0554 | 9.9999 | 0.0286 | 9.9999 | 0.5157 | 0.5063 | 0.0830 | 0.2221 | 0.1632 | 0.4376 |
| 66 | 38.92 | 0.03 | 0.0888 | 9.9999 | 0.0358 | 9.9999 | 0.4923 | 0.5343 | 0.0873 | 0.2377 | 0.1634 | 0.4449 |
| 67 | 39.15 | 0.01 | 0.0881 | 9.9999 | 0.0325 | 9.9999 | 0.4927 | 0.5437 | 0.0882 | 0.2417 | 0.1585 | 0.4445 |
| 68 | 39.38 | -0.01 | 0.0801 | 9.9999 | 0.0281 | 9.9999 | 0.5202 | 0.5435 | 0.0876 | 0.2435 | 0.1601 | 0.4488 |
| 69 | 39.59 | 0.01 | 0.0845 | 9.9999 | 0.0225 | 9.9999 | 0.5011 | 0.5340 | 0.0866 | 0.2424 | 0.1436 | 0.4353 |
| 70 | 39.81 | 0.01 | 0.0855 | 9.9999 | 0.0220 | 9.9999 | 0.5275 | 0.5436 | 0.0870 | 0.2465 | 0.1601 | 0.4570 |
| 71 | 40.03 | -0.02 | 0.0825 | 9.9999 | 0.0267 | 9.9999 | 0.5028 | 0.5567 | 0.0870 | 0.2551 | 0.1558 | 0.4566 |
| 72 | 40.25 | -0.01 | 0.0802 | 9.9999 | 0.0256 | 9.9999 | 0.4981 | 0.5668 | 0.0853 | 0.2545 | 0.1502 | 0.4481 |
| 73 | 40.43 | -0.00 | 0.0828 | 9.9999 | 0.0191 | 9.9999 | 0.6044 | 0.5641 | 0.0860 | 0.2573 | 0.1524 | 0.4562 |
| 74 | 40.64 | 0.00 | 0.0854 | 9.9999 | 0.0231 | 9.9999 | 0.5058 | 0.5705 | 0.0839 | 0.2566 | 0.1471 | 0.4497 |
| 75 | 40.86 | -0.02 | 0.0853 | 9.9999 | 0.0252 | 9.9999 | 0.6413 | 0.5732 | 0.0851 | 0.2591 | 0.1485 | 0.4519 |
| 76 | 41.06 | 0.00 | 0.0872 | 9.9999 | 0.0275 | 9.9999 | 0.5916 | 0.5703 | 0.0851 | 0.2622 | 0.1492 | 0.4597 |
| 77 | 41.28 | 0.01 | 0.0873 | 9.9999 | 0.0285 | 9.9999 | 0.6122 | 0.5805 | 0.0847 | 0.2654 | 0.1495 | 0.4573 |
| 78 | 41.47 | -0.00 | 0.0853 | 9.9999 | 0.0284 | 9.9999 | 0.6003 | 0.5802 | 0.0831 | 0.2636 | 0.1359 | 0.4527 |
| 79 | 41.67 | -0.00 | 0.0853 | 9.9999 | 0.0325 | 9.9999 | 0.6492 | 0.5744 | 0.0853 | 0.2662 | 0.1485 | 0.4635 |
| 80 | 41.88 | -0.01 | 0.0815 | 9.9999 | 0.0245 | 9.9999 | 0.7040 | 0.5694 | 0.0859 | 0.2716 | 0.1457 | 0.4613 |
| 81 | 42.08 | 0.01 | 0.0873 | 9.9999 | 0.0285 | 9.9999 | 0.6122 | 0.5852 | 0.0862 | 0.2667 | 0.1524 | 0.4718 |
| 82 | 42.28 | -0.00 | 0.0844 | 9.9999 | 0.0268 | 9.9999 | 0.6050 | 0.5954 | 0.0853 | 0.2756 | 0.1433 | 0.4628 |
| 83 | 42.46 | 0.00 | 0.0878 | 9.9999 | 0.0340 | 9.9999 | 0.5878 | 0.5747 | 0.0844 | 0.2708 | 0.1485 | 0.4716 |
| 84 | 42.69 | -0.00 | 0.0848 | 9.9999 | 0.0323 | 9.9999 | 0.6492 | 0.5854 | 0.0859 | 0.2701 | 0.1515 | 0.4776 |
| 85 | 42.82 | -0.01 | 0.0833 | 9.9999 | 0.0229 | 9.9999 | 0.9834 | 0.5895 | 0.0853 | 0.2773 | 0.1447 | 0.4704 |
| 86 | 43.01 | -0.00 | 0.0852 | 9.9999 | 0.0253 | 9.9999 | 0.7408 | 0.5744 | 0.0859 | 0.2752 | 0.1495 | 0.4791 |
| 87 | 43.15 | -0.00 | 0.0870 | 9.9999 | 0.0342 | 9.9999 | 0.7269 | 0.5864 | 0.0859 | 0.2765 | 0.1543 | 0.4862 |
| 88 | 43.36 | 0.01 | 0.0870 | 9.9999 | 0.0342 | 9.9999 | 0.7269 | 0.5869 | 0.0859 | 0.2765 | 0.1543 | 0.4862 |
| 89 | 43.57 | 0.01 | 0.0852 | 9.9999 | 0.0293 | 9.9999 | 0.7488 | 0.5857 | 0.0850 | 0.2817 | 0.1491 | 0.4777 |
| 90 | 43.78 | 0.00 | 0.0817 | 9.9999 | 0.0316 | 9.9999 | 0.7593 | 0.5904 | 0.0865 | 0.2859 | 0.1445 | 0.4777 |
| 91 | 43.92 | -0.01 | 0.0870 | 9.9999 | 0.0342 | 9.9999 | 0.7269 | 0.5895 | 0.0856 | 0.2818 | 0.1452 | 0.4781 |
| 92 | 44.12 | -0.01 | 0.0874 | 9.9999 | 0.0424 | 9.9999 | 0.7378 | 0.5828 | 0.0853 | 0.2732 | 0.1516 | 0.4855 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.50 RAIG=6 1.7 PHI 0.0 CONF 23 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.31 | 0.01 | 0.0425 | 5.9999 | 0.0363 | 5.9999 | 0.7737 | 0.5606 | 0.0662 | 0.2839 | 0.1469 | 0.4846 |
| 94 | 44.46 | 0.00 | 0.0444 | 5.9999 | 0.0367 | 5.9999 | 0.8027 | 0.5637 | 0.0650 | 0.2836 | 0.1456 | 0.4858 |
| 95 | 44.69 | 0.00 | 0.0418 | 5.9999 | 0.0338 | 5.9999 | 0.8121 | 0.5927 | 0.0653 | 0.2876 | 0.1435 | 0.4853 |
| 96 | 44.87 | 0.01 | 0.0453 | 5.9999 | 0.0416 | 5.9999 | 0.8474 | 0.5748 | 0.0650 | 0.2807 | 0.1479 | 0.4883 |
| 97 | 45.06 | -0.00 | 0.0454 | 5.9999 | 0.0357 | 5.9999 | 0.8027 | 0.5837 | 0.0653 | 0.2836 | 0.1461 | 0.4856 |
| 98 | 45.22 | -0.02 | 0.0455 | 5.9999 | 0.0367 | 5.9999 | 0.8012 | 0.5876 | 0.0645 | 0.2853 | 0.1438 | 0.4854 |
| 99 | 45.42 | 0.00 | 0.0456 | 5.9999 | 0.0336 | 5.9999 | 0.8614 | 0.5878 | 0.0648 | 0.2875 | 0.1443 | 0.4892 |
| 100 | 45.62 | -0.02 | 0.0446 | 5.9999 | 0.0423 | 5.9999 | 0.7711 | 0.5847 | 0.0651 | 0.2851 | 0.1455 | 0.4876 |
| 101 | 45.79 | 0.01 | 0.0449 | 5.9999 | 0.0341 | 5.9999 | 0.7674 | 0.5937 | 0.0654 | 0.2892 | 0.1436 | 0.4871 |
| 102 | 45.94 | -0.01 | 0.0456 | 5.9999 | 0.0346 | 5.9999 | 0.8888 | 0.5939 | 0.0642 | 0.2879 | 0.1418 | 0.4848 |
| 103 | 46.14 | -0.02 | 0.0456 | 5.9999 | 0.0367 | 5.9999 | 0.7802 | 0.5998 | 0.0651 | 0.2918 | 0.1419 | 0.4865 |
| 104 | 46.33 | -0.01 | 0.0454 | 5.9999 | 0.0423 | 5.9999 | 0.7711 | 0.5879 | 0.0645 | 0.2867 | 0.1438 | 0.4911 |
| 105 | 46.50 | -0.01 | 0.0457 | 5.9999 | 0.0376 | 5.9999 | 0.7573 | 0.5981 | 0.0638 | 0.2920 | 0.1402 | 0.4881 |
| 106 | 46.67 | 0.01 | 0.0444 | 5.9999 | 0.0362 | 5.9999 | 0.8152 | 0.6014 | 0.0630 | 0.2922 | 0.1380 | 0.4858 |
| 107 | 46.85 | -0.01 | 0.0456 | 5.9999 | 0.0402 | 5.9999 | 0.7316 | 0.5982 | 0.0636 | 0.2920 | 0.1357 | 0.4881 |
| 108 | 47.04 | -0.03 | 0.0457 | 5.9999 | 0.0376 | 5.9999 | 0.7573 | 0.6046 | 0.0620 | 0.2924 | 0.1357 | 0.4836 |
| 109 | 47.20 | -0.02 | 0.0472 | 5.9999 | 0.0343 | 5.9999 | 0.7260 | 0.6014 | 0.0630 | 0.2955 | 0.1360 | 0.4914 |
| 110 | 47.36 | -0.03 | 0.0456 | 5.9999 | 0.0356 | 5.9999 | 0.8016 | 0.6077 | 0.0617 | 0.2936 | 0.1345 | 0.4832 |
| 111 | 47.55 | -0.03 | 0.0451 | 5.9999 | 0.0337 | 5.9999 | 0.8617 | 0.6198 | 0.0614 | 0.2979 | 0.1314 | 0.4865 |
| 112 | 47.74 | -0.02 | 0.0456 | 5.9999 | 0.0347 | 5.9999 | 0.8911 | 0.6138 | 0.0617 | 0.2985 | 0.1332 | 0.4864 |
| 113 | 47.91 | -0.01 | 0.0264 | 5.9999 | 0.0256 | 5.9999 | 1.0442 | 0.6201 | 0.0606 | 0.3011 | 0.1299 | 0.4856 |
| 114 | 48.07 | -0.03 | 0.0447 | 5.9999 | 0.0366 | 5.9999 | 0.8034 | 0.6173 | 0.0797 | 0.3020 | 0.1291 | 0.4892 |
| 115 | 48.25 | -0.01 | 0.0364 | 5.9999 | 0.0335 | 5.9999 | 0.9204 | 0.6234 | 0.0797 | 0.3047 | 0.1278 | 0.4888 |
| 116 | 48.42 | 0.02 | 0.0364 | 5.9999 | 0.0335 | 5.9999 | 0.9204 | 0.6140 | 0.0809 | 0.3019 | 0.1317 | 0.4917 |
| 117 | 48.60 | -0.00 | 0.0236 | 5.9999 | 0.0252 | 5.9999 | 1.2731 | 0.6062 | 0.0806 | 0.3014 | 0.1325 | 0.4956 |
| 118 | 48.78 | -0.00 | 0.0364 | 5.9999 | 0.0335 | 5.9999 | 0.9204 | 0.6148 | 0.0780 | 0.3028 | 0.1268 | 0.4925 |
| 119 | 48.92 | -0.01 | 0.0363 | 5.9999 | 0.0345 | 5.9999 | 0.9521 | 0.6035 | 0.0791 | 0.3035 | 0.1300 | 0.4988 |
| 120 | 49.10 | 0.01 | 0.0281 | 5.9999 | 0.0292 | 5.9999 | 1.2078 | 0.6094 | 0.0799 | 0.3074 | 0.1311 | 0.5044 |
| 121 | 49.28 | 0.00 | 0.0337 | 5.9999 | 0.0333 | 5.9999 | 0.9865 | 0.6036 | 0.0786 | 0.3056 | 0.1303 | 0.5066 |
| 122 | 49.49 | 0.01 | 0.0337 | 5.9999 | 0.0343 | 5.9999 | 1.0201 | 0.5937 | 0.0762 | 0.3010 | 0.1183 | 0.5071 |
| 123 | 49.64 | 0.02 | 0.0350 | 5.9999 | 0.0365 | 5.9999 | 0.9455 | 0.5516 | 0.0591 | 0.3037 | 0.1017 | 0.5222 |
| 124 | 49.83 | 0.04 | 0.0351 | 5.9999 | 0.0347 | 5.9999 | 0.9889 | 0.5605 | 0.0711 | 0.2976 | 0.1209 | 0.5305 |
| 125 | 50.03 | 0.01 | 0.0336 | 5.9999 | 0.0354 | 5.9999 | 1.0546 | 0.5346 | 0.0665 | 0.2930 | 0.1243 | 0.5481 |
| 126 | 50.20 | 0.00 | 0.0470 | 5.9999 | 0.0386 | 5.9999 | 0.8214 | 0.5146 | 0.0625 | 0.2857 | 0.1211 | 0.5552 |
| 127 | 50.37 | 0.01 | 0.0456 | 5.9999 | 0.0441 | 5.9999 | 0.8891 | 0.5458 | 0.0613 | 0.2983 | 0.1122 | 0.5466 |
| 128 | 50.55 | 0.02 | 0.0470 | 5.9999 | 0.0447 | 5.9999 | 0.8005 | 0.5487 | 0.0618 | 0.2997 | 0.1127 | 0.5462 |
| 129 | 50.71 | 0.03 | 0.0350 | 5.9999 | 0.0446 | 5.9999 | 0.8105 | 0.5489 | 0.0616 | 0.3031 | 0.1121 | 0.5521 |
| 130 | 50.88 | 0.02 | 0.0444 | 5.9999 | 0.0395 | 5.9999 | 0.8891 | 0.5490 | 0.0613 | 0.3031 | 0.1116 | 0.5520 |
| 131 | 51.05 | 0.00 | 0.0463 | 5.9999 | 0.0471 | 5.9999 | 0.7808 | 0.5604 | 0.0633 | 0.3051 | 0.1129 | 0.5444 |
| 132 | 51.21 | 0.03 | 0.0430 | 5.9999 | 0.0473 | 5.9999 | 0.7504 | 0.5550 | 0.0613 | 0.3079 | 0.1104 | 0.5548 |
| 133 | 51.40 | 0.05 | 0.0350 | 5.9999 | 0.0445 | 5.9999 | 0.8088 | 0.5459 | 0.0613 | 0.3062 | 0.1122 | 0.5606 |
| 134 | 51.56 | 0.03 | 0.0455 | 5.9999 | 0.0441 | 5.9999 | 0.8908 | 0.5518 | 0.0618 | 0.3077 | 0.1121 | 0.5576 |
| 135 | 51.75 | 0.05 | 0.0470 | 5.9999 | 0.0407 | 5.9999 | 0.8665 | 0.5366 | 0.0624 | 0.3033 | 0.1163 | 0.5652 |
| 136 | 51.94 | 0.04 | 0.0350 | 5.9999 | 0.0446 | 5.9999 | 0.8105 | 0.5437 | 0.0614 | 0.3063 | 0.1129 | 0.5634 |
| 137 | 52.10 | 0.03 | 0.0457 | 5.9999 | 0.0421 | 5.9999 | 0.8466 | 0.5344 | 0.0622 | 0.3026 | 0.1164 | 0.5658 |
| 138 | 52.28 | 0.05 | 0.0350 | 5.9999 | 0.0351 | 5.9999 | 1.0025 | 0.5436 | 0.0622 | 0.3087 | 0.1145 | 0.5678 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 127 MACH 0.50 RXIC-6 1.7 PHI 0.0 CONF 0 ALPHA 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.43 | 0.05 | 0.0452 | 5.5555 | 0.0420 | 5.5599 | 0.8463 | 0.5429 | 0.0637 | 0.3058 | 0.1118 | 0.5632 |
| 140 | 52.66 | 0.04 | 0.0452 | 5.5555 | 0.0426 | 5.5555 | 0.8463 | 0.5308 | 0.0613 | 0.3054 | 0.1141 | 0.5665 |
| 141 | 52.78 | 0.06 | 0.0454 | 5.5555 | 0.0480 | 5.5599 | 0.7620 | 0.5378 | 0.0605 | 0.3035 | 0.1125 | 0.5644 |
| 142 | 52.65 | 0.04 | 0.0430 | 5.5555 | 0.0465 | 5.5555 | 0.7672 | 0.5379 | 0.0599 | 0.3035 | 0.1114 | 0.5643 |
| 143 | 53.10 | 0.06 | 0.0456 | 5.5555 | 0.0452 | 5.5599 | 0.9105 | 0.5320 | 0.0590 | 0.2997 | 0.1110 | 0.5633 |
| 144 | 53.29 | 0.07 | 0.0451 | 5.5555 | 0.0421 | 5.5555 | 0.8406 | 0.5320 | 0.0593 | 0.2997 | 0.1115 | 0.5633 |
| 145 | 53.49 | 0.06 | 0.0470 | 5.5555 | 0.0407 | 5.5555 | 0.8665 | 0.5312 | 0.0590 | 0.3003 | 0.1110 | 0.5653 |
| 146 | 53.62 | 0.07 | 0.0454 | 5.5555 | 0.0414 | 5.5599 | 0.7906 | 0.5344 | 0.0584 | 0.3038 | 0.1092 | 0.5685 |
| 147 | 53.76 | 0.05 | 0.0441 | 5.5555 | 0.0415 | 5.5599 | 0.9409 | 0.5424 | 0.0585 | 0.3040 | 0.1085 | 0.5606 |
| 148 | 53.53 | 0.03 | 0.0404 | 5.5555 | 0.0435 | 5.5555 | 0.7526 | 0.5335 | 0.0583 | 0.3010 | 0.1092 | 0.5643 |
| 149 | 54.08 | 0.04 | 0.0367 | 5.5555 | 0.0410 | 5.5555 | 1.0598 | 0.5414 | 0.0588 | 0.3012 | 0.1085 | 0.5564 |
| 150 | 54.29 | 0.07 | 0.0441 | 5.5555 | 0.0414 | 5.5555 | 0.9367 | 0.5474 | 0.0590 | 0.3073 | 0.1075 | 0.5614 |
| 151 | 54.40 | 0.04 | 0.0453 | 5.5555 | 0.0450 | 5.5599 | 0.9119 | 0.5534 | 0.0593 | 0.3089 | 0.1072 | 0.5582 |
| 152 | 54.56 | 0.05 | 0.0361 | 5.5555 | 0.0385 | 5.5555 | 1.0025 | 0.5623 | 0.0587 | 0.3083 | 0.1043 | 0.5482 |
| 153 | 54.72 | 0.05 | 0.0454 | 5.5555 | 0.0428 | 5.5599 | 0.8672 | 0.5591 | 0.0552 | 0.3061 | 0.1060 | 0.5510 |
| 154 | 54.88 | 0.05 | 0.0335 | 5.5555 | 0.0353 | 5.5555 | 1.0547 | 0.5802 | 0.0592 | 0.3152 | 0.1021 | 0.5433 |
| 155 | 55.03 | 0.03 | 0.0451 | 5.5555 | 0.0455 | 5.5599 | 0.9352 | 0.5764 | 0.0583 | 0.3133 | 0.1011 | 0.5435 |
| 156 | 55.19 | 0.05 | 0.0360 | 5.5555 | 0.0367 | 5.5555 | 1.1015 | 0.6004 | 0.0580 | 0.3164 | 0.0966 | 0.5303 |
| 157 | 55.33 | 0.04 | 0.0440 | 5.5555 | 0.0414 | 5.5555 | 0.9606 | 0.5834 | 0.0581 | 0.3142 | 0.0956 | 0.5385 |
| 158 | 55.51 | 0.04 | 0.0413 | 5.5555 | 0.0412 | 5.5555 | 0.9977 | 0.5953 | 0.0584 | 0.3173 | 0.0981 | 0.5331 |
| 159 | 55.65 | 0.02 | 0.0333 | 5.5555 | 0.0364 | 5.5555 | 1.1536 | 0.6003 | 0.0580 | 0.3172 | 0.0966 | 0.5283 |
| 160 | 55.81 | 0.04 | 0.0367 | 5.5555 | 0.0361 | 5.5599 | 1.1761 | 0.5862 | 0.0586 | 0.3136 | 0.0946 | 0.5322 |
| 161 | 55.96 | 0.04 | 0.0306 | 5.5555 | 0.0371 | 5.5555 | 1.2114 | 0.5995 | 0.0573 | 0.3166 | 0.0956 | 0.5281 |
| 162 | 56.12 | 0.04 | 0.0360 | 5.5555 | 0.0367 | 5.5599 | 1.0025 | 0.5962 | 0.0582 | 0.3131 | 0.0976 | 0.5252 |
| 163 | 56.29 | 0.04 | 0.0413 | 5.5555 | 0.0400 | 5.5599 | 0.9696 | 0.6064 | 0.0571 | 0.3175 | 0.0942 | 0.5236 |
| 164 | 56.42 | 0.05 | 0.0266 | 5.5555 | 0.0365 | 5.5599 | 1.3172 | 0.6002 | 0.0574 | 0.3148 | 0.0956 | 0.5245 |
| 165 | 56.56 | 0.01 | 0.0233 | 5.5555 | 0.0383 | 5.5599 | 1.1507 | 0.5942 | 0.0574 | 0.3077 | 0.0968 | 0.5175 |
| 166 | 56.74 | 0.05 | 0.0367 | 5.5555 | 0.0376 | 5.5555 | 0.9726 | 0.6021 | 0.0575 | 0.3123 | 0.0962 | 0.5187 |
| 167 | 56.88 | 0.01 | 0.0306 | 5.5555 | 0.0371 | 5.5599 | 1.2114 | 0.5932 | 0.0573 | 0.3096 | 0.0966 | 0.5218 |
| 168 | 57.04 | -0.02 | 0.0335 | 5.5555 | 0.0362 | 5.5555 | 1.0870 | 0.5983 | 0.0566 | 0.3092 | 0.0947 | 0.5169 |
| 169 | 57.21 | 0.02 | 0.0306 | 5.5555 | 0.0376 | 5.5599 | 1.2082 | 0.6074 | 0.0563 | 0.3155 | 0.0928 | 0.5155 |
| 170 | 57.30 | 0.02 | 0.0261 | 5.5555 | 0.0347 | 5.5599 | 1.2414 | 0.5932 | 0.0567 | 0.3062 | 0.0956 | 0.5155 |
| 171 | 57.48 | 0.02 | 0.0228 | 5.5555 | 0.0353 | 5.5599 | 1.2641 | 0.5811 | 0.0570 | 0.3040 | 0.0981 | 0.5232 |
| 172 | 57.63 | -0.00 | 0.0233 | 5.5555 | 0.0362 | 5.5599 | 1.0870 | 0.5872 | 0.0567 | 0.3066 | 0.0966 | 0.5222 |
| 173 | 57.78 | 0.03 | 0.0275 | 5.5555 | 0.0357 | 5.5599 | 1.2803 | 0.5923 | 0.0561 | 0.3085 | 0.0946 | 0.5175 |
| 174 | 57.94 | -0.00 | 0.0267 | 5.5555 | 0.0332 | 5.5599 | 1.4038 | 0.6105 | 0.0555 | 0.3145 | 0.0909 | 0.5151 |
| 175 | 58.08 | -0.05 | 0.0227 | 5.5555 | 0.0343 | 5.5599 | 1.3106 | 0.6306 | 0.0564 | 0.3277 | 0.0838 | 0.5036 |
| 176 | 58.23 | -0.16 | 0.0200 | 5.5555 | 0.0315 | 5.5555 | 1.5990 | 0.6467 | 0.0537 | 0.3256 | 0.0831 | 0.5036 |
| 177 | 58.37 | -0.13 | 0.0227 | 5.5555 | 0.0332 | 5.5599 | 1.4038 | 0.6012 | 0.0561 | 0.3105 | 0.0932 | 0.5169 |
| 178 | 58.49 | -0.11 | 0.0226 | 5.5555 | 0.0311 | 5.5599 | 1.3044 | 0.5800 | 0.0566 | 0.3001 | 0.0977 | 0.5174 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

MARTIN PASSILE TAILS EFFECTS DATA

TEST 7 | PART 128 | MACH 1.00 | RATIO-E 1.7 | PHI 0.0 | CONF BIRDF23 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLP | CY | CLN | CLL | LA | LAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.39 | 0.02 | -0.9733 | 2.9501 | 0.0406 | -0.0882 | -0.0103 | 0.8871 | 0.3586 | 0.5263 | -3.0311 |
| 2 | -5.40 | 0.01 | -0.9721 | 2.9636 | -0.0075 | -0.0852 | -0.0103 | 0.8964 | 0.3619 | 0.5345 | -3.0486 |
| 3 | -5.40 | 0.00 | -0.9705 | 2.9722 | 0.0415 | -0.0785 | -0.0102 | 0.8977 | 0.3646 | 0.5329 | -3.0563 |
| 4 | -5.39 | 0.00 | -0.9716 | 2.9783 | 0.0170 | -0.0858 | -0.0103 | 0.8965 | 0.3627 | 0.5338 | -3.0653 |
| 5 | -5.38 | -0.01 | -0.9458 | 2.9726 | -0.0057 | 0.0222 | -0.0105 | 0.9011 | 0.3551 | 0.5460 | -3.1429 |
| 6 | -5.40 | 0.01 | -0.8812 | 3.0426 | 0.0033 | -0.0373 | 0.0208 | 0.9090 | 0.3337 | 0.5693 | -3.8619 |
| 7 | -1.65 | 0.00 | -0.9556 | 4.2226 | -0.0202 | -0.0252 | -0.0086 | 0.9145 | 0.2952 | 0.6193 | -4.4235 |
| 8 | 0.21 | 0.01 | -0.8837 | 4.1004 | 0.0167 | -0.0038 | -0.0197 | 0.8807 | 0.2755 | 0.6131 | -5.1039 |
| 9 | 2.07 | 0.00 | -0.8641 | 4.0253 | 0.0193 | -0.0246 | -0.0152 | 0.8616 | 0.2632 | 0.5984 | -6.2174 |
| 10 | 3.96 | 0.00 | -0.9177 | 4.0347 | 0.0065 | -0.0231 | -0.0127 | 0.8459 | 0.2483 | 0.5776 | -7.7939 |
| 11 | 5.81 | 0.01 | -0.8251 | 3.8020 | 0.0335 | 0.0042 | -0.0125 | 0.7838 | 0.2385 | 0.5449 | -11.5538 |
| 12 | 7.73 | 0.01 | -0.9402 | 3.8568 | 0.0305 | -0.0286 | -0.0057 | 0.7372 | 0.2351 | 0.5021 | -25.8741 |
| 13 | 9.55 | -0.00 | 0.0507 | 3.4531 | -0.0298 | 0.0217 | -0.0110 | 0.7085 | 0.2317 | 0.4767 | 68.0734 |
| 14 | 11.46 | 0.00 | 0.2756 | 3.2815 | -0.0500 | 0.1035 | -0.0045 | 0.6718 | 0.2343 | 0.4375 | 11.7975 |
| 15 | 13.31 | -0.00 | 0.5335 | 2.9731 | -0.0480 | 0.1446 | -0.0039 | 0.6226 | 0.2285 | 0.3941 | 5.5730 |
| 16 | 15.22 | 0.00 | 0.8011 | 2.6938 | -0.0256 | 0.1695 | -0.0032 | 0.5616 | 0.2179 | 0.3437 | 3.3623 |
| 17 | 17.19 | -0.00 | 1.1210 | 2.4345 | -0.1293 | 0.3061 | 0.0034 | 0.5006 | 0.2152 | 0.2853 | 2.1706 |
| 18 | 19.12 | -0.01 | 1.4362 | 2.3116 | -0.1465 | 0.4292 | -0.0078 | 0.4409 | 0.2175 | 0.2234 | 1.6051 |
| 19 | 21.04 | -0.01 | 1.7550 | 2.0651 | -0.2184 | 0.5290 | -0.0128 | 0.3761 | 0.2125 | 0.1632 | 1.1540 |
| 20 | 22.98 | -0.01 | 2.2716 | 2.1081 | -0.1715 | 0.4437 | -0.0225 | 0.3105 | 0.2086 | 0.1045 | 0.9280 |
| 21 | 24.94 | 0.00 | 2.8221 | 2.3701 | -0.0091 | 0.1522 | 0.0136 | 0.2492 | 0.1978 | 0.0514 | 0.8398 |
| 22 | 26.93 | 0.05 | 3.4564 | 2.7017 | 0.5346 | -1.2268 | 0.0815 | 0.1909 | 0.2013 | -0.0104 | 0.7816 |
| 23 | 28.32 | 0.05 | 3.8828 | 2.8226 | 0.6815 | -1.3238 | 0.0947 | 0.1481 | 0.1985 | -0.0528 | 0.7659 |
| 24 | 28.32 | 0.05 | 3.7405 | 2.8056 | 0.6149 | -1.1994 | 0.1009 | 0.1375 | 0.2004 | -0.0629 | 0.7592 |
| 25 | 28.41 | 0.05 | 3.7337 | 2.9618 | 0.6515 | -1.2019 | 0.0890 | 0.1403 | 0.1978 | -0.0573 | 0.7533 |
| 26 | 28.60 | 0.06 | 3.6673 | 2.8451 | 0.7201 | -1.3401 | 0.1019 | 0.1138 | 0.1983 | -0.0845 | 0.7448 |
| 27 | 29.11 | 0.06 | 3.5527 | 2.9824 | 0.7303 | -1.2242 | 0.0931 | 0.1167 | 0.1988 | -0.0801 | 0.7455 |
| 28 | 29.36 | 0.05 | 4.0613 | 3.0561 | 0.5526 | -0.6695 | 0.0716 | 0.0936 | 0.1910 | -0.0574 | 0.7628 |
| 29 | 29.71 | 0.04 | 4.1505 | 3.1166 | 0.5426 | -0.7963 | 0.0783 | 0.0864 | 0.1909 | -0.1025 | 0.7510 |
| 30 | 30.00 | 0.04 | 4.1965 | 3.1555 | 0.4604 | -0.6426 | 0.0785 | 0.0782 | 0.1907 | -0.1125 | 0.7517 |
| 31 | 30.28 | 0.05 | 4.3256 | 3.1253 | 0.6506 | -1.0306 | 0.0916 | 0.0826 | 0.1980 | -0.1154 | 0.7234 |
| 32 | 30.53 | 0.06 | 4.4144 | 3.3361 | 0.6934 | -1.0639 | 0.0742 | 0.0843 | 0.1915 | -0.1272 | 0.7562 |
| 33 | 30.62 | 0.06 | 4.4866 | 3.3057 | 0.7016 | -1.1246 | 0.0926 | 0.0839 | 0.1922 | -0.1233 | 0.7374 |
| 34 | 31.11 | 0.07 | 4.5646 | 3.4454 | 0.9010 | -1.5522 | 0.0999 | 0.0872 | 0.1935 | -0.1261 | 0.7437 |
| 35 | 31.36 | 0.05 | 4.6153 | 3.4145 | 0.5554 | -1.1017 | 0.0931 | 0.0869 | 0.1822 | -0.1453 | 0.7392 |
| 36 | 31.64 | 0.06 | 4.6622 | 3.4914 | 0.6166 | -1.4962 | 0.1004 | 0.0865 | 0.1950 | -0.1385 | 0.7349 |
| 37 | 31.92 | 0.06 | 4.6255 | 3.4964 | 0.7238 | -1.3558 | 0.0947 | 0.0847 | 0.1939 | -0.1592 | 0.7225 |
| 38 | 32.18 | 0.04 | 4.6616 | 3.7157 | 0.9726 | -0.9717 | 0.0703 | 0.0642 | 0.1741 | -0.1649 | 0.7643 |
| 39 | 32.45 | 0.05 | 4.5566 | 3.6652 | 0.8102 | -1.1425 | 0.0591 | 0.0803 | 0.1804 | -0.1801 | 0.7340 |
| 40 | 32.71 | 0.03 | 4.6554 | 3.7271 | 0.3538 | -0.5969 | 0.0345 | -0.0103 | 0.1681 | -0.1784 | 0.7372 |
| 41 | 32.98 | 0.04 | 4.1322 | 3.6955 | 0.5330 | -0.9766 | 0.0714 | -0.0193 | 0.1689 | -0.1882 | 0.7201 |
| 42 | 33.23 | 0.05 | 4.1256 | 3.6066 | 0.5384 | -0.9686 | 0.0714 | -0.0162 | 0.1627 | -0.1809 | 0.7430 |
| 43 | 33.48 | 0.03 | 4.2353 | 3.8455 | 0.3661 | -0.6091 | 0.0594 | -0.0302 | 0.1638 | -0.1946 | 0.7348 |
| 44 | 33.73 | 0.02 | 4.3667 | 3.8549 | 0.2326 | -0.3361 | 0.0534 | -0.0454 | 0.1616 | -0.2070 | 0.7183 |
| 45 | 33.97 | 0.02 | 4.3666 | 3.9116 | 0.1651 | 0.0368 | 0.0265 | -0.0532 | 0.1559 | -0.2091 | 0.7262 |
| 46 | 34.23 | 0.04 | 4.2471 | 3.8755 | 0.3308 | -0.3291 | 0.0601 | -0.0355 | 0.1614 | -0.2169 | 0.7012 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1&6 | MACH 1.00 | RNIC=6 1.7 | PHI 0.0 | CONF 81&DF23 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.48 | 0.02 | 5.8311 | 3.9125 | 0.2492 | -0.2784 | 0.0605 | -0.0632 | 0.1621 | -0.2253 | 0.6949 |
| 48 | 34.73 | 0.04 | 5.7746 | 3.8405 | 0.4845 | -0.0155 | 0.0016 | -0.0809 | 0.1713 | -0.2522 | 0.6651 |
| 49 | 34.98 | 0.05 | 5.8258 | 3.7405 | 0.4478 | -0.4226 | 0.0614 | -0.0765 | 0.1616 | -0.2381 | 0.6417 |
| 50 | 35.24 | 0.06 | 6.0163 | 3.8553 | 0.6335 | -0.5037 | 0.0673 | -0.0633 | 0.1700 | -0.2333 | 0.6408 |
| 51 | 35.48 | 0.05 | 6.0725 | 3.8772 | 0.5787 | -0.5360 | 0.0754 | -0.0692 | 0.1799 | -0.2491 | 0.6385 |
| 52 | 35.70 | 0.04 | 6.1505 | 3.9209 | 0.3556 | -0.5358 | 0.0751 | -0.0684 | 0.1670 | -0.2354 | 0.6375 |
| 53 | 35.97 | 0.04 | 6.2602 | 3.9434 | 0.4678 | -0.6626 | 0.0757 | -0.0734 | 0.1645 | -0.2379 | 0.6299 |
| 54 | 36.21 | 0.04 | 6.4214 | 4.0371 | 0.5441 | -0.8711 | 0.0700 | -0.0839 | 0.1637 | -0.2476 | 0.6288 |
| 55 | 36.43 | 0.05 | 6.5152 | 3.9710 | 0.5756 | -0.8526 | 0.0770 | -0.0850 | 0.1691 | -0.2541 | 0.6054 |
| 56 | 36.66 | 0.05 | 6.5842 | 3.8601 | 0.6466 | -1.0404 | 0.0694 | -0.0855 | 0.1680 | -0.2535 | 0.5863 |
| 57 | 36.91 | 0.06 | 6.6256 | 3.9857 | 0.6554 | -1.0804 | 0.1019 | -0.0945 | 0.1622 | -0.2567 | 0.6012 |
| 58 | 37.15 | 0.04 | 6.6757 | 3.9805 | 0.5951 | -0.7503 | 0.0775 | -0.1152 | 0.1494 | -0.2625 | 0.5960 |
| 59 | 37.40 | 0.04 | 6.7557 | 4.0555 | 0.5048 | -0.8360 | 0.0846 | -0.1203 | 0.1534 | -0.2736 | 0.6033 |
| 60 | 37.63 | 0.05 | 6.9378 | 3.9018 | 0.6244 | -0.9881 | 0.1034 | -0.1144 | 0.1553 | -0.2696 | 0.5624 |
| 61 | 37.85 | 0.04 | 7.0819 | 3.9241 | 0.4915 | -0.8214 | 0.0855 | -0.1436 | 0.1466 | -0.2902 | 0.5541 |
| 62 | 38.10 | 0.04 | 7.1052 | 4.0721 | 0.5125 | -0.8813 | 0.0878 | -0.1495 | 0.1490 | -0.2985 | 0.5731 |
| 63 | 38.31 | 0.02 | 7.0253 | 4.0287 | 0.2853 | -0.4585 | 0.0548 | -0.1453 | 0.1425 | -0.2875 | 0.5805 |
| 64 | 38.56 | 0.03 | 7.3146 | 3.9507 | 0.3941 | -0.7304 | 0.0625 | -0.1452 | 0.1447 | -0.2899 | 0.5405 |
| 65 | 38.80 | 0.05 | 7.4203 | 3.9856 | 0.5832 | -0.8874 | 0.0929 | -0.1368 | 0.1532 | -0.2879 | 0.5377 |
| 66 | 39.02 | 0.04 | 7.4742 | 4.0371 | 0.4495 | -0.8524 | 0.0870 | -0.1398 | 0.1462 | -0.2799 | 0.5401 |
| 67 | 39.23 | 0.04 | 7.5566 | 3.9801 | 0.4526 | -0.7995 | 0.0812 | -0.1618 | 0.1546 | -0.2962 | 0.5241 |
| 68 | 39.46 | 0.05 | 7.6671 | 4.0037 | 0.6561 | -1.1527 | 0.0823 | -0.1556 | 0.1571 | -0.2927 | 0.5208 |
| 69 | 39.68 | 0.04 | 7.7374 | 4.0235 | 0.5273 | -0.8553 | 0.0940 | -0.1532 | 0.1409 | -0.2941 | 0.5201 |
| 70 | 39.87 | 0.04 | 7.7674 | 4.0310 | 0.5210 | -0.9081 | 0.0704 | -0.1553 | 0.1349 | -0.2881 | 0.5178 |
| 71 | 40.10 | 0.03 | 7.9153 | 3.8761 | 0.4023 | -0.7754 | 0.0586 | -0.1602 | 0.1400 | -0.3002 | 0.4897 |
| 72 | 40.31 | 0.03 | 7.9665 | 4.0716 | 0.3776 | -0.7726 | 0.0550 | -0.1663 | 0.1290 | -0.2953 | 0.5168 |
| 73 | 40.50 | 0.04 | 7.9825 | 4.0064 | 0.4326 | -0.8595 | 0.0708 | -0.1636 | 0.1296 | -0.2932 | 0.5122 |
| 74 | 40.71 | 0.02 | 8.1404 | 3.9965 | 0.3965 | -0.8895 | 0.0554 | -0.1715 | 0.1274 | -0.2969 | 0.4910 |
| 75 | 40.91 | 0.02 | 8.1435 | 4.0565 | 0.3757 | -0.7795 | 0.0477 | -0.1811 | 0.1356 | -0.3165 | 0.5031 |
| 76 | 41.15 | 0.04 | 8.3771 | 3.9765 | 0.4547 | -0.1747 | 0.0626 | -0.1760 | 0.1454 | -0.3174 | 0.4654 |
| 77 | 41.33 | 0.04 | 8.2761 | 3.9756 | 0.4666 | -0.2573 | 0.0826 | -0.1751 | 0.1303 | -0.3054 | 0.4808 |
| 78 | 41.53 | 0.02 | 8.3952 | 4.1066 | 0.3434 | -0.2209 | 0.0542 | -0.1929 | 0.1352 | -0.3281 | 0.4892 |
| 79 | 41.75 | 0.03 | 8.4552 | 4.0667 | 0.4665 | -0.5553 | 0.0666 | -0.2060 | 0.1237 | -0.3297 | 0.4811 |
| 80 | 41.94 | 0.00 | 8.4410 | 4.0044 | 0.2372 | -0.5765 | 0.0491 | -0.2067 | 0.1260 | -0.3347 | 0.4634 |
| 81 | 42.13 | 0.01 | 8.5902 | 4.0745 | 0.3404 | -0.7354 | 0.0433 | -0.2154 | 0.1253 | -0.3407 | 0.4743 |
| 82 | 42.32 | 0.01 | 8.6725 | 4.0527 | 0.3163 | -0.6943 | 0.0436 | -0.2159 | 0.1253 | -0.3412 | 0.4673 |
| 83 | 42.51 | 0.02 | 8.6214 | 4.0757 | 0.3318 | -0.3435 | 0.0609 | -0.2216 | 0.1179 | -0.3395 | 0.4964 |
| 84 | 42.70 | 0.02 | 8.6911 | 4.0668 | 0.3555 | -0.3295 | 0.0670 | -0.2135 | 0.1284 | -0.3419 | 0.4678 |
| 85 | 42.89 | 0.01 | 8.9362 | 3.9456 | 0.1877 | -0.0136 | 0.0609 | -0.2165 | 0.1320 | -0.3485 | 0.4415 |
| 86 | 43.06 | 0.02 | 8.9319 | 4.0125 | 0.4532 | -0.9562 | 0.0451 | -0.2207 | 0.1232 | -0.3519 | 0.4617 |
| 87 | 43.23 | 0.02 | 8.9278 | 4.0681 | 0.2746 | -0.2301 | 0.0659 | -0.2138 | 0.1301 | -0.3439 | 0.4557 |
| 88 | 43.43 | 0.03 | 9.1312 | 4.0426 | 0.2752 | -0.2507 | 0.0606 | -0.2224 | 0.1305 | -0.3529 | 0.4646 |
| 89 | 43.62 | 0.01 | 9.1054 | 4.1505 | 0.1675 | -0.1174 | 0.0614 | -0.2255 | 0.1232 | -0.3487 | 0.4601 |
| 90 | 43.78 | 0.01 | 9.0879 | 4.2075 | 0.2681 | -0.1678 | 0.0504 | -0.2302 | 0.1218 | -0.3520 | 0.4707 |
| 91 | 43.96 | 0.01 | 9.2064 | 4.2332 | 0.2801 | -0.7110 | 0.0456 | -0.2420 | 0.1184 | -0.3604 | 0.4598 |
| 92 | 44.15 | 0.01 | 9.2676 | 4.2255 | 0.1776 | -0.0555 | 0.0505 | -0.2132 | 0.1265 | -0.3397 | 0.4564 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNLG-E | PHA | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 126 | 1.00 | 1.7 | 0.0 | 01B0F23 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| PCINT | ALPHA | BETA | CN | CLP | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.31 | 0.01 | 9.1983 | 4.4165 | 0.2336 | -0.3132 | 0.0514 | -0.2366 | 0.1126 | -0.3512 | 0.4801 |
| 94 | 44.52 | 0.00 | 9.2477 | 4.4041 | 0.3061 | -0.0855 | 0.0469 | -0.2332 | 0.1290 | -0.3642 | 0.4270 |
| 95 | 44.69 | 0.01 | 9.4424 | 4.5263 | 0.4203 | -1.0534 | 0.0415 | -0.2369 | 0.1267 | -0.3636 | 0.4562 |
| 96 | 44.88 | -0.00 | 9.0103 | 4.1563 | 0.2138 | -0.3887 | 0.0470 | -0.2362 | 0.1271 | -0.3633 | 0.4368 |
| 97 | 45.05 | 0.00 | 9.5342 | 4.2734 | 0.3057 | -0.5462 | 0.0471 | -0.2339 | 0.1279 | -0.3613 | 0.4482 |
| 98 | 45.24 | 0.00 | 9.0745 | 4.2547 | 0.2747 | -0.2790 | 0.0472 | -0.2470 | 0.1265 | -0.3755 | 0.4400 |
| 99 | 45.41 | 0.00 | 9.5761 | 4.2218 | 0.2560 | -0.1557 | 0.0524 | -0.2423 | 0.1290 | -0.3713 | 0.4470 |
| 100 | 45.55 | 0.00 | 9.0527 | 4.0625 | 0.2464 | -0.1039 | 0.0527 | -0.2515 | 0.1295 | -0.3810 | 0.4460 |
| 101 | 45.77 | -0.00 | 9.7660 | 4.3010 | 0.2665 | -0.4576 | 0.0480 | -0.2424 | 0.1336 | -0.3760 | 0.4465 |
| 102 | 45.94 | 0.01 | 9.7571 | 4.4955 | 0.3556 | -0.3665 | 0.0479 | -0.2408 | 0.1305 | -0.3773 | 0.4560 |
| 103 | 46.11 | -0.00 | 9.8347 | 4.4301 | 0.1058 | 0.6272 | 0.0507 | -0.2435 | 0.1347 | -0.3782 | 0.4505 |
| 104 | 46.31 | 0.01 | 9.9654 | 4.4825 | 0.2465 | 0.1933 | 0.0548 | -0.2459 | 0.1369 | -0.3828 | 0.4488 |
| 105 | 46.47 | 0.01 | 9.9858 | 4.5318 | 0.2621 | 0.2228 | 0.0527 | -0.2489 | 0.1591 | -0.3680 | 0.4547 |
| 106 | 46.62 | -0.00 | 9.8445 | 4.4756 | 0.2721 | 0.0245 | 0.0514 | -0.1983 | 0.1687 | -0.3626 | 0.4550 |
| 107 | 46.83 | -0.01 | 10.1454 | 4.2747 | 0.2164 | 0.1138 | 0.0477 | -0.2537 | 0.1775 | -0.4112 | 0.4212 |
| 108 | 47.00 | -0.00 | 10.2463 | 3.9363 | 0.2473 | 0.1529 | 0.0474 | -0.2159 | 0.1910 | -0.4069 | 0.3838 |
| 109 | 47.15 | 0.02 | 10.1753 | 3.8283 | 0.5125 | 0.2164 | 0.0525 | -0.1988 | 0.2280 | -0.4248 | 0.3564 |
| 110 | 47.33 | 0.02 | 10.3737 | 3.1156 | 0.4812 | 0.1103 | 0.0472 | -0.1750 | 0.2402 | -0.4160 | 0.3007 |
| 111 | 47.53 | 0.01 | 10.5870 | 2.4773 | 0.3106 | 0.7163 | 0.0336 | -0.1326 | 0.2903 | -0.4228 | 0.2340 |
| 112 | 47.70 | 0.01 | 10.6045 | 2.0373 | 0.3568 | 0.3752 | 0.0470 | -0.1723 | 0.2843 | -0.4566 | 0.2676 |
| 113 | 47.86 | 0.02 | 10.6788 | 2.4184 | 0.3751 | 1.0062 | 0.0206 | -0.1306 | 0.2952 | -0.4257 | 0.2265 |
| 114 | 48.02 | 0.02 | 10.7847 | 2.1018 | 0.4528 | 1.3438 | 0.0375 | -0.0980 | 0.3055 | -0.4054 | 0.1549 |
| 115 | 48.23 | 0.03 | 11.0411 | 1.6556 | 0.3235 | 1.5512 | -0.0001 | -0.1255 | 0.2909 | -0.4163 | 0.1539 |
| 116 | 48.40 | 0.04 | 11.1665 | 1.5671 | 0.4543 | 1.6477 | 0.0007 | -0.1071 | 0.3047 | -0.4117 | 0.1419 |
| 117 | 48.57 | 0.03 | 11.2671 | 1.4863 | 0.4015 | 2.0525 | 0.0 | -0.1022 | 0.3127 | -0.4148 | 0.1329 |
| 118 | 48.74 | 0.03 | 11.4155 | 1.3473 | 0.3791 | 1.8428 | 0.0375 | -0.0938 | 0.3104 | -0.4042 | 0.1180 |
| 119 | 48.91 | 0.03 | 11.4652 | 1.2224 | 0.3647 | 1.5654 | 0.0373 | -0.1054 | 0.3012 | -0.4065 | 0.1325 |
| 120 | 49.09 | 0.04 | 11.4757 | 1.4086 | 0.4478 | 1.9742 | 0.0313 | -0.1052 | 0.3050 | -0.4101 | 0.1225 |
| 121 | 49.26 | 0.02 | 11.5377 | 1.5454 | 0.3485 | 2.0041 | 0.0376 | -0.1404 | 0.2877 | -0.4281 | 0.1343 |
| 122 | 49.44 | 0.03 | 11.6346 | 1.3026 | 0.3366 | 2.0192 | 0.0138 | -0.1249 | 0.2834 | -0.4068 | 0.1171 |
| 123 | 49.63 | 0.02 | 11.7711 | 1.2025 | 0.3335 | 1.9647 | 0.0084 | -0.1557 | 0.2679 | -0.4236 | 0.1022 |
| 124 | 49.82 | 0.02 | 11.8071 | 1.1430 | 0.2660 | 2.0293 | 0.0204 | -0.1419 | 0.2801 | -0.4226 | 0.0563 |
| 125 | 49.98 | 0.02 | 11.8834 | 1.1175 | 0.2685 | 1.9261 | 0.0259 | -0.1576 | 0.2754 | -0.4326 | 0.0541 |
| 126 | 50.15 | 0.02 | 12.1411 | 0.8511 | 0.3600 | 1.8626 | 0.0219 | -0.1348 | 0.2843 | -0.4191 | 0.0570 |
| 127 | 50.33 | 0.03 | 12.1317 | 0.6582 | 0.3726 | 1.7756 | 0.0278 | -0.1347 | 0.2935 | -0.4261 | 0.0575 |
| 128 | 50.53 | 0.02 | 12.3731 | 0.2271 | 0.2435 | 1.6700 | 0.0266 | -0.1419 | 0.2939 | -0.4357 | 0.0184 |
| 129 | 50.70 | 0.03 | 12.6263 | -0.2648 | 0.4522 | 1.3818 | 0.0479 | -0.1285 | 0.3056 | -0.4340 | -0.0210 |
| 130 | 50.86 | 0.01 | 12.6044 | 0.1542 | 0.1650 | 1.5048 | 0.0353 | -0.1433 | 0.2965 | -0.4357 | 0.0157 |
| 131 | 51.03 | 0.02 | 12.5916 | -0.2035 | 0.3771 | 1.1523 | 0.0431 | -0.1066 | 0.3026 | -0.4111 | -0.0162 |
| 132 | 51.20 | 0.01 | 12.8176 | 0.3544 | 0.2657 | 1.1525 | 0.0427 | -0.1409 | 0.2786 | -0.4250 | 0.0288 |
| 133 | 51.39 | 0.03 | 12.7172 | -0.4356 | 0.5058 | 1.0084 | 0.0436 | -0.1170 | 0.3041 | -0.4210 | -0.0348 |
| 134 | 51.57 | 0.01 | 12.7046 | -0.0554 | 0.2553 | 1.0769 | 0.0380 | -0.1220 | 0.2960 | -0.4195 | -0.0280 |
| 135 | 51.69 | -0.00 | 12.9156 | 1.1434 | 0.2275 | 0.8526 | 0.0372 | -0.1482 | 0.2737 | -0.4219 | 0.0960 |
| 136 | 51.89 | 0.01 | 12.8849 | 0.1565 | 0.3377 | 0.8014 | 0.0434 | -0.1207 | 0.2778 | -0.3965 | 0.0159 |
| 137 | 52.03 | -0.00 | 12.1565 | 0.6834 | 0.2580 | 0.7703 | 0.0383 | -0.1401 | 0.2664 | -0.4265 | 0.0560 |
| 138 | 52.23 | 0.01 | 12.9416 | 0.2666 | 0.3071 | 0.6595 | 0.0369 | -0.1255 | 0.2896 | -0.4150 | 0.0216 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 128 | MACH 1.60 | RX10-6 1.7 | PHI 0.0 | CONF 61 | L 0.0 | DELT 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.40 | 0.00 | 12.5785 | 0.0052 | 0.2571 | 0.7859 | 0.0391 | -0.1070 | 0.2911 | -0.3980 | 0.0004 |
| 140 | 52.58 | 0.01 | 12.6568 | -0.1025 | 0.2415 | 0.9332 | 0.0446 | -0.1167 | 0.3035 | -0.4161 | -0.0081 |
| 141 | 52.72 | -0.01 | 12.5364 | 0.1247 | 0.2052 | 0.7635 | 0.0335 | -0.1128 | 0.2840 | -0.3968 | 0.0055 |
| 142 | 52.87 | -0.01 | 12.5765 | 0.4456 | 0.1371 | 0.6213 | 0.0309 | -0.1073 | 0.2810 | -0.3883 | 0.0363 |
| 143 | 53.05 | -0.00 | 12.3845 | 0.4450 | 0.2700 | 0.6284 | 0.0336 | -0.1116 | 0.2731 | -0.3847 | 0.0359 |
| 144 | 53.21 | -0.01 | 12.5139 | 0.5075 | 0.1675 | 0.6774 | 0.0335 | -0.1210 | 0.2802 | -0.4012 | 0.0477 |
| 145 | 53.36 | 0.00 | 12.3005 | 0.0055 | 0.3165 | 0.6858 | 0.0273 | -0.1263 | 0.2689 | -0.3972 | 0.0496 |
| 146 | 53.54 | -0.03 | 12.3458 | 0.5056 | 0.0205 | 0.7134 | 0.0338 | -0.1166 | 0.2810 | -0.3976 | 0.0478 |
| 147 | 53.71 | -0.01 | 12.5261 | 0.2627 | 0.1865 | 0.5502 | 0.0286 | -0.1301 | 0.2733 | -0.4034 | 0.0210 |
| 148 | 53.87 | -0.01 | 12.5910 | 0.1278 | 0.2239 | 0.5035 | 0.0286 | -0.1071 | 0.2995 | -0.4065 | 0.0102 |
| 149 | 54.02 | -0.02 | 12.7000 | -0.0976 | 0.1151 | 0.6251 | 0.0289 | -0.1002 | 0.2965 | -0.3966 | -0.0077 |
| 150 | 54.16 | -0.02 | 12.5110 | 0.0345 | 0.1274 | 0.0432 | 0.0340 | -0.1140 | 0.2657 | -0.3797 | 0.0515 |
| 151 | 54.35 | -0.02 | 12.4347 | 0.4231 | 0.1372 | 0.5632 | 0.0343 | -0.1392 | 0.2713 | -0.4105 | 0.0346 |
| 152 | 54.52 | -0.01 | 12.6515 | 0.0345 | 0.1082 | 0.6029 | 0.0284 | -0.1378 | 0.2902 | -0.4279 | 0.0028 |
| 153 | 54.71 | -0.01 | 12.6446 | -0.3177 | 0.1562 | 0.7416 | 0.0285 | -0.1378 | 0.3058 | -0.4435 | -0.0247 |
| 154 | 54.85 | -0.02 | 12.5089 | 0.2433 | 0.1158 | 0.6278 | 0.0280 | -0.1393 | 0.2836 | -0.4229 | 0.0154 |
| 155 | 55.02 | 0.00 | 12.7383 | -0.1713 | 0.3486 | 0.5848 | 0.0287 | -0.1151 | 0.3095 | -0.4245 | -0.0134 |
| 156 | 55.18 | -0.02 | 12.7112 | -0.1031 | 0.0356 | 0.5928 | 0.0292 | -0.1284 | 0.3137 | -0.4420 | -0.0061 |
| 157 | 55.35 | -0.01 | 12.6678 | -0.4059 | 0.2548 | 0.4321 | 0.0297 | -0.1223 | 0.3176 | -0.4396 | -0.0315 |
| 158 | 55.48 | -0.01 | 12.6361 | 0.0554 | 0.0535 | 0.6091 | 0.0227 | -0.1296 | 0.3096 | -0.4391 | 0.0044 |
| 159 | 55.62 | -0.01 | 12.6526 | 0.0856 | 0.2335 | 0.5053 | 0.0291 | -0.1125 | 0.3180 | -0.4304 | 0.0068 |
| 160 | 55.79 | -0.02 | 12.8917 | -0.4831 | 0.0365 | 0.5534 | 0.0239 | -0.1220 | 0.3200 | -0.4485 | -0.0375 |
| 161 | 55.97 | -0.03 | 12.9535 | -0.6178 | -0.0385 | 0.5803 | 0.0242 | -0.1227 | 0.3336 | -0.4562 | -0.0475 |
| 162 | 56.11 | -0.00 | 12.6107 | -0.2755 | 0.2626 | 0.4705 | 0.0294 | -0.1419 | 0.3275 | -0.4693 | -0.0215 |
| 163 | 56.32 | -0.04 | 13.2229 | -1.2056 | -0.0099 | 0.3649 | 0.0313 | -0.1200 | 0.3532 | -0.4731 | -0.0911 |
| 164 | 56.43 | -0.03 | 12.8262 | -0.5803 | -0.0186 | 0.4304 | 0.0185 | -0.1302 | 0.3513 | -0.4814 | -0.0256 |
| 165 | 56.63 | -0.03 | 13.2340 | -1.2055 | 0.0311 | 0.4303 | 0.0252 | -0.1074 | 0.3470 | -0.4543 | -0.0911 |
| 166 | 56.80 | -0.04 | 13.3694 | -1.3745 | -0.0168 | 0.2130 | 0.0321 | -0.1163 | 0.3126 | -0.5209 | -0.1028 |
| 167 | 56.92 | -0.08 | 13.0344 | -0.6572 | -0.4154 | -0.0103 | 0.0316 | -0.2273 | 0.3032 | -0.5305 | -0.0504 |
| 168 | 57.13 | -0.02 | 13.6666 | -2.3863 | 0.2414 | -0.4135 | 0.0403 | -0.2403 | 0.3140 | -0.5603 | -0.1718 |
| 169 | 57.29 | -0.06 | 13.6965 | -2.0106 | -0.2004 | -0.7026 | 0.0341 | -0.2045 | 0.3073 | -0.5118 | -0.1468 |
| 170 | 57.44 | -0.06 | 13.6766 | -2.0465 | -0.1940 | -0.2387 | 0.0357 | -0.1677 | 0.3394 | -0.5071 | -0.1497 |
| 171 | 57.59 | -0.10 | 13.8950 | -2.4406 | -0.4546 | -0.4030 | 0.0339 | -0.1739 | 0.3437 | -0.5176 | -0.1762 |
| 172 | 57.65 | -0.06 | 13.1042 | -1.0701 | -0.2184 | -0.0514 | 0.0323 | -0.1572 | 0.3420 | -0.4992 | -0.0817 |
| 173 | 57.87 | -0.10 | 13.6455 | -2.1152 | -0.3454 | -0.1695 | 0.0271 | -0.2141 | 0.3258 | -0.5399 | -0.1550 |
| 174 | 58.02 | -0.06 | 13.7479 | -2.5128 | -0.1424 | 0.1520 | 0.0391 | -0.1666 | 0.3311 | -0.5197 | -0.1828 |
| 175 | 58.19 | -0.10 | 14.0511 | -3.1550 | -0.4301 | -0.0568 | 0.0395 | -0.1977 | 0.3439 | -0.5416 | -0.2277 |
| 176 | 58.31 | -0.12 | 13.8357 | -2.6926 | -0.7051 | -0.2000 | 0.0210 | -0.2104 | 0.3070 | -0.5174 | -0.1755 |
| 177 | 58.49 | -0.07 | 14.0448 | -3.1753 | -0.3453 | 0.0305 | 0.0336 | -0.2534 | 0.3198 | -0.5732 | -0.2261 |
| 178 | 58.60 | -0.04 | 13.9354 | -2.9302 | 0.0455 | -0.0148 | 0.0455 | -0.2353 | 0.3447 | -0.5800 | -0.2103 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 120 | MACH 1.60 | RX10-6 1.7 | PHI 0.0 | CONF 18OF23 | L C.C | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.39 | 0.02 | -0.1053 | -0.0048 | 0.0407 | 0.0458 | -0.3866 | -0.8323 | -0.0193 | -0.4676 | 0.0232 | 0.5618 |
| 2 | -5.40 | 0.01 | -0.0913 | -0.0036 | 0.0454 | 0.0326 | -0.4779 | -0.8265 | -0.0187 | -0.4745 | 0.0226 | 0.5672 |
| 3 | -5.40 | 0.00 | -0.1075 | -0.0044 | 0.0405 | 0.0411 | -0.3757 | -0.8390 | -0.0187 | -0.4686 | 0.0223 | 0.5586 |
| 4 | -5.39 | 0.00 | -0.1068 | -0.0040 | 0.0448 | 0.0293 | -0.5043 | -0.8406 | -0.0177 | -0.4726 | 0.0216 | 0.5622 |
| 5 | -5.38 | -0.01 | -0.1069 | -0.0033 | 0.0436 | 0.0333 | -0.4431 | -0.8323 | -0.0187 | -0.4751 | 0.0225 | 0.5706 |
| 6 | -5.40 | 0.01 | -0.1039 | -0.0011 | 0.0455 | 0.0120 | -0.5406 | -1.0384 | -0.0110 | -0.5497 | 0.0106 | 0.5294 |
| 7 | -1.65 | 0.00 | -0.0881 | -0.0004 | 0.0421 | 0.0045 | -0.4886 | -1.1047 | -0.0107 | -0.5840 | 0.0097 | 0.5287 |
| 8 | 0.21 | 0.01 | -0.0838 | 0.0 | 0.0393 | 0.0 | -0.4716 | -1.0871 | -0.0100 | -0.5840 | 0.0156 | 0.5285 |
| 9 | 2.07 | 0.00 | -0.0853 | 0.0037 | 0.0341 | -0.0430 | -0.3995 | -1.0483 | -0.0241 | -0.5478 | 0.0230 | 0.5225 |
| 10 | 3.98 | 0.00 | -0.0834 | 0.0041 | 0.0374 | -0.0400 | -0.4491 | -0.9958 | -0.0335 | -0.5261 | 0.0336 | 0.5283 |
| 11 | 5.81 | 0.01 | -0.1062 | -0.0034 | 0.0406 | 0.0036 | -0.3773 | -0.9078 | -0.0375 | -0.4815 | 0.0413 | 0.5303 |
| 12 | 7.73 | 0.01 | -0.1032 | -0.0011 | 0.0413 | 0.0103 | -0.4000 | -0.8231 | -0.0402 | -0.4265 | 0.0485 | 0.5181 |
| 13 | 9.55 | -0.00 | -0.0845 | 0.0014 | 0.0377 | -0.0171 | -0.5039 | -0.7428 | -0.0407 | -0.4005 | 0.0548 | 0.5352 |
| 14 | 11.48 | 0.00 | -0.0895 | 0.0 | 0.0491 | 0.0 | -0.5465 | -0.8197 | -0.0348 | -0.3876 | 0.0562 | 0.5932 |
| 15 | 13.31 | -0.00 | -0.1138 | -0.0033 | 0.0484 | 0.0288 | -0.4300 | -0.4982 | -0.0288 | -0.3214 | 0.0538 | 0.6452 |
| 16 | 15.22 | 0.00 | -0.1063 | -0.0035 | 0.0480 | 0.0317 | -0.4916 | -0.3697 | -0.0199 | -0.2760 | 0.0538 | 0.7483 |
| 17 | 17.19 | -0.00 | -0.1225 | -0.0038 | 0.0426 | 0.1110 | -0.3472 | -0.2316 | -0.0096 | -0.2213 | 0.0417 | 0.9558 |
| 18 | 19.12 | -0.01 | -0.1733 | -0.0235 | 0.0188 | 0.1361 | -0.1075 | -0.1073 | 0.0011 | -0.1605 | -0.0099 | 1.4655 |
| 19 | 21.04 | -0.01 | -0.1961 | -0.0284 | 0.0055 | 0.1447 | -0.0281 | 0.0014 | 0.0062 | -0.1054 | 4.5714 | -77.9555 |
| 20 | 22.96 | -0.01 | -0.2228 | -0.0358 | -0.0016 | 0.1716 | 0.0970 | 0.0909 | 0.0131 | -0.0517 | 0.1444 | -0.5656 |
| 21 | 24.96 | 0.00 | -0.0874 | 0.0066 | 0.0404 | -0.0114 | -0.7182 | 0.1838 | 0.0229 | -0.0118 | 0.1244 | -0.0640 |
| 22 | 26.93 | 0.00 | 0.0083 | 0.0461 | 0.0203 | 0.1511 | 0.7411 | 0.3005 | 0.0357 | 0.0467 | 0.1157 | 0.1326 |
| 23 | 28.32 | 0.05 | 0.3750 | 0.0532 | 0.2572 | 0.1418 | 0.6859 | 0.3838 | 0.0422 | 0.0723 | 0.1155 | 0.1987 |
| 24 | 28.32 | 0.05 | 0.3665 | 0.0549 | 0.2476 | 0.1405 | 0.6912 | 0.3508 | 0.0422 | 0.0667 | 0.1175 | 0.1914 |
| 25 | 28.41 | 0.05 | 0.3588 | 0.0521 | 0.2513 | 0.1547 | 0.7459 | 0.3585 | 0.0422 | 0.0752 | 0.1176 | 0.2098 |
| 26 | 28.80 | 0.08 | 0.3273 | 0.0504 | 0.2536 | 0.1534 | 0.7746 | 0.3604 | 0.0450 | 0.0825 | 0.1162 | 0.2165 |
| 27 | 29.11 | 0.06 | 0.3275 | 0.0500 | 0.2525 | 0.1526 | 0.7711 | 0.3909 | 0.0466 | 0.0888 | 0.1197 | 0.2271 |
| 28 | 29.38 | 0.05 | 0.2325 | 0.0385 | 0.2498 | 0.1630 | 0.8804 | 0.3604 | 0.0466 | 0.0814 | 0.1225 | 0.2141 |
| 29 | 29.71 | 0.04 | 0.2455 | 0.0365 | 0.2166 | 0.1565 | 0.8815 | 0.3956 | 0.0493 | 0.0989 | 0.1246 | 0.2499 |
| 30 | 30.00 | 0.04 | 0.2491 | 0.0396 | 0.2180 | 0.1613 | 0.8974 | 0.4103 | 0.0499 | 0.1024 | 0.1216 | 0.2495 |
| 31 | 30.28 | 0.05 | 0.2181 | 0.0336 | 0.2097 | 0.1513 | 0.9015 | 0.4236 | 0.0515 | 0.1089 | 0.1216 | 0.2572 |
| 32 | 30.53 | 0.06 | 0.2039 | 0.0418 | 0.2102 | 0.1576 | 0.8194 | 0.4450 | 0.0520 | 0.1172 | 0.1182 | 0.2634 |
| 33 | 30.82 | 0.06 | 0.3159 | 0.0436 | 0.2433 | 0.1370 | 0.7606 | 0.4395 | 0.0525 | 0.1167 | 0.1203 | 0.2656 |
| 34 | 31.11 | 0.07 | 0.3526 | 0.0482 | 0.2577 | 0.1300 | 0.7510 | 0.4502 | 0.0532 | 0.1220 | 0.1181 | 0.2706 |
| 35 | 31.36 | 0.05 | 0.3158 | 0.0475 | 0.2447 | 0.1466 | 0.7657 | 0.4662 | 0.0542 | 0.1287 | 0.1163 | 0.2761 |
| 36 | 31.64 | 0.06 | 0.3766 | 0.0503 | 0.2645 | 0.1334 | 0.7147 | 0.4704 | 0.0552 | 0.1285 | 0.1154 | 0.2695 |
| 37 | 31.92 | 0.06 | 0.3377 | 0.0487 | 0.2451 | 0.1443 | 0.7257 | 0.4943 | 0.0565 | 0.1378 | 0.1144 | 0.2787 |
| 38 | 32.18 | 0.04 | 0.2413 | 0.0345 | 0.2029 | 0.1619 | 0.8409 | 0.4968 | 0.0571 | 0.1423 | 0.1150 | 0.2865 |
| 39 | 32.45 | 0.05 | 0.2328 | 0.0405 | 0.1543 | 0.1742 | 0.8353 | 0.4941 | 0.0574 | 0.1411 | 0.1162 | 0.2855 |
| 40 | 32.71 | 0.03 | 0.0868 | 0.0304 | 0.1183 | 0.3453 | 1.3355 | 0.5219 | 0.0590 | 0.1479 | 0.1131 | 0.2834 |
| 41 | 32.96 | 0.04 | 0.2272 | 0.0402 | 0.1802 | 0.1771 | 0.7932 | 0.5163 | 0.0593 | 0.1496 | 0.1149 | 0.2857 |
| 42 | 33.23 | 0.03 | 0.2036 | 0.0356 | 0.1525 | 0.1515 | 0.7316 | 0.5218 | 0.0601 | 0.1479 | 0.1152 | 0.2835 |
| 43 | 33.48 | 0.03 | 0.1858 | 0.0316 | 0.1561 | 0.1667 | 0.8401 | 0.5242 | 0.0615 | 0.1524 | 0.1172 | 0.2908 |
| 44 | 33.73 | 0.02 | 0.0221 | 0.0112 | 0.0603 | 0.5005 | 3.0332 | 0.5267 | 0.0637 | 0.1549 | 0.1209 | 0.2940 |
| 45 | 33.97 | 0.02 | 0.2278 | 0.0382 | 0.0755 | 0.2951 | 2.7166 | 0.5383 | 0.0638 | 0.1593 | 0.1185 | 0.2955 |
| 46 | 34.23 | 0.04 | 0.0966 | 0.0078 | 0.1118 | 0.0863 | 1.2343 | 0.5382 | 0.0645 | 0.1604 | 0.1195 | 0.2980 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1.8 1.00 1.7 PHI 0.0 CONF 0 1.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.48 | 0.02 | 0.1885 | 0.0142 | 0.1393 | 0.0852 | 0.8306 | 0.5330 | 0.0649 | 0.1556 | 0.1207 | 0.2920 |
| 48 | 34.73 | 0.04 | 0.1838 | 0.0088 | 0.1451 | 0.0487 | 0.7895 | 0.5382 | 0.0649 | 0.1542 | 0.1211 | 0.2965 |
| 49 | 34.98 | 0.05 | 0.1847 | 0.0050 | 0.1375 | 0.0545 | 0.8371 | 0.5469 | 0.0649 | 0.1645 | 0.1187 | 0.3008 |
| 50 | 35.24 | 0.06 | 0.2548 | 0.0165 | 0.1757 | 0.0647 | 0.6595 | 0.5503 | 0.0650 | 0.1662 | 0.1192 | 0.3056 |
| 51 | 35.48 | 0.05 | 0.2641 | 0.0150 | 0.1756 | 0.0566 | 0.6799 | 0.5497 | 0.0655 | 0.1660 | 0.1192 | 0.3056 |
| 52 | 35.70 | 0.04 | 0.2671 | 0.0074 | 0.1542 | 0.0359 | 0.7009 | 0.5493 | 0.0663 | 0.1713 | 0.1206 | 0.3117 |
| 53 | 35.97 | 0.04 | 0.1479 | 0.0060 | 0.1320 | 0.0404 | 0.8963 | 0.5704 | 0.0665 | 0.1804 | 0.1165 | 0.3163 |
| 54 | 36.21 | 0.04 | 0.2766 | 0.0150 | 0.1616 | 0.0542 | 0.0387 | 0.5759 | 0.0662 | 0.1809 | 0.1149 | 0.3141 |
| 55 | 36.43 | 0.05 | 0.2781 | 0.0100 | 0.1588 | 0.0464 | 0.7346 | 0.6067 | 0.0663 | 0.1939 | 0.1053 | 0.3157 |
| 56 | 36.66 | 0.03 | 0.3197 | 0.0179 | 0.2036 | 0.0546 | 0.6351 | 0.6065 | 0.0674 | 0.1961 | 0.1107 | 0.3233 |
| 57 | 36.91 | 0.06 | 0.2485 | 0.0145 | 0.1763 | 0.0598 | 0.7092 | 0.6011 | 0.0691 | 0.1913 | 0.1149 | 0.3183 |
| 58 | 37.13 | 0.04 | 0.2446 | 0.0149 | 0.1693 | 0.0604 | 0.6939 | 0.6005 | 0.0698 | 0.1959 | 0.1152 | 0.3235 |
| 59 | 37.40 | 0.04 | 0.2352 | 0.0112 | 0.1618 | 0.0476 | 0.6879 | 0.6028 | 0.0706 | 0.1948 | 0.1175 | 0.3225 |
| 60 | 37.63 | 0.05 | 0.2440 | 0.0112 | 0.1712 | 0.0459 | 0.7015 | 0.6216 | 0.0705 | 0.2016 | 0.1135 | 0.3243 |
| 61 | 37.85 | 0.04 | 0.2510 | 0.0070 | 0.1735 | 0.0281 | 0.6913 | 0.5827 | 0.0727 | 0.1916 | 0.1247 | 0.3289 |
| 62 | 38.10 | 0.04 | 0.2016 | 0.0078 | 0.1464 | 0.0376 | 0.8761 | 0.6197 | 0.0726 | 0.2032 | 0.1171 | 0.3275 |
| 63 | 38.31 | 0.02 | 0.1940 | 0.0085 | 0.1273 | 0.0457 | 0.6559 | 0.6028 | 0.0725 | 0.1951 | 0.1210 | 0.3237 |
| 64 | 38.56 | 0.03 | 0.1963 | 0.0121 | 0.1256 | 0.0505 | 0.6392 | 0.6050 | 0.0725 | 0.2019 | 0.1192 | 0.3322 |
| 65 | 38.80 | 0.05 | 0.2568 | 0.0123 | 0.1617 | 0.0474 | 0.6249 | 0.5845 | 0.0719 | 0.1898 | 0.1272 | 0.3366 |
| 66 | 39.02 | 0.04 | 0.2441 | 0.0111 | 0.1576 | 0.0455 | 0.6402 | 0.5896 | 0.0731 | 0.1879 | 0.1284 | 0.3298 |
| 67 | 39.23 | 0.04 | 0.1982 | 0.0058 | 0.1307 | 0.0487 | 0.6557 | 0.5800 | 0.0745 | 0.1952 | 0.1284 | 0.3365 |
| 68 | 39.48 | 0.05 | 0.2505 | 0.0154 | 0.1462 | 0.0691 | 0.6342 | 0.5854 | 0.0739 | 0.1978 | 0.1263 | 0.3379 |
| 69 | 39.68 | 0.04 | 0.2467 | 0.0155 | 0.1552 | 0.0630 | 0.6293 | 0.5800 | 0.0746 | 0.1952 | 0.1269 | 0.3385 |
| 70 | 39.87 | 0.04 | 0.1974 | 0.0166 | 0.1321 | 0.0891 | 0.6691 | 0.6059 | 0.0762 | 0.2025 | 0.1258 | 0.3342 |
| 71 | 40.10 | 0.03 | 0.1885 | 0.0178 | 0.1208 | 0.0940 | 0.6394 | 0.6306 | 0.0757 | 0.2142 | 0.1202 | 0.3400 |
| 72 | 40.31 | 0.03 | 0.1837 | 0.0177 | 0.1212 | 0.0961 | 0.6297 | 0.6346 | 0.0761 | 0.2133 | 0.1200 | 0.3362 |
| 73 | 40.50 | 0.04 | 0.2070 | 0.0159 | 0.1286 | 0.0960 | 0.6224 | 0.6202 | 0.0774 | 0.2087 | 0.1248 | 0.3365 |
| 74 | 40.71 | 0.02 | 0.1716 | 0.0177 | 0.1107 | 0.1029 | 0.6796 | 0.6408 | 0.0769 | 0.2227 | 0.1189 | 0.3443 |
| 75 | 40.91 | 0.02 | 0.1457 | 0.0166 | 0.0984 | 0.1105 | 0.6441 | 0.6442 | 0.0763 | 0.2213 | 0.1185 | 0.3436 |
| 76 | 41.15 | 0.04 | 0.1736 | 0.0154 | 0.1215 | 0.0809 | 0.7021 | 0.6199 | 0.0790 | 0.2130 | 0.1275 | 0.3437 |
| 77 | 41.33 | 0.04 | 0.1853 | 0.0154 | 0.1317 | 0.0815 | 0.6557 | 0.5925 | 0.0800 | 0.1978 | 0.1350 | 0.3338 |
| 78 | 41.53 | 0.02 | 0.1264 | 0.0158 | 0.0844 | 0.1252 | 0.6679 | 0.6459 | 0.0770 | 0.2235 | 0.1152 | 0.3460 |
| 79 | 41.75 | 0.03 | 0.1295 | 0.0147 | 0.0962 | 0.1125 | 0.7407 | 0.6539 | 0.0773 | 0.2241 | 0.1182 | 0.3428 |
| 80 | 41.94 | 0.00 | 0.1246 | 0.0151 | 0.0841 | 0.1214 | 0.6786 | 0.6500 | 0.0775 | 0.2243 | 0.1177 | 0.3417 |
| 81 | 42.13 | 0.01 | 0.1213 | 0.0140 | 0.0866 | 0.1154 | 0.7160 | 0.6566 | 0.0770 | 0.2243 | 0.1173 | 0.3417 |
| 82 | 42.32 | 0.01 | 0.1083 | 0.0148 | 0.0716 | 0.1426 | 0.6915 | 0.6573 | 0.0774 | 0.2267 | 0.1177 | 0.3456 |
| 83 | 42.51 | 0.02 | 0.1008 | 0.0136 | 0.0731 | 0.1349 | 0.7254 | 0.6192 | 0.0770 | 0.2105 | 0.1244 | 0.3400 |
| 84 | 42.70 | 0.02 | 0.1137 | 0.0156 | 0.0811 | 0.1240 | 0.6814 | 0.6011 | 0.0784 | 0.2018 | 0.1305 | 0.3356 |
| 85 | 42.89 | 0.01 | 0.0985 | 0.0125 | 0.0740 | 0.1273 | 0.7512 | 0.6337 | 0.0780 | 0.2175 | 0.1230 | 0.3432 |
| 86 | 43.08 | 0.02 | 0.0929 | 0.0122 | 0.0706 | 0.1293 | 0.6241 | 0.6656 | 0.0769 | 0.2299 | 0.1156 | 0.3435 |
| 87 | 43.23 | 0.02 | 0.0558 | 0.0037 | 0.0058 | 0.0057 | 1.1799 | 0.5728 | 0.0780 | 0.1878 | 0.1362 | 0.3275 |
| 88 | 43.43 | 0.03 | 0.0632 | 0.0037 | 0.0045 | 0.0057 | 1.0183 | 0.5913 | 0.0775 | 0.1958 | 0.1310 | 0.3311 |
| 89 | 43.62 | 0.01 | 0.0563 | 0.0022 | 0.0055 | 0.0381 | 1.1308 | 0.5620 | 0.0775 | 0.1826 | 0.1379 | 0.3256 |
| 90 | 43.78 | 0.01 | 0.0572 | 0.0054 | 0.0058 | 0.1024 | 0.9359 | 0.6242 | 0.0764 | 0.2072 | 0.1224 | 0.3319 |
| 91 | 43.96 | 0.01 | 0.0718 | 0.0085 | 0.0542 | 0.1163 | 0.7556 | 0.6269 | 0.0764 | 0.2073 | 0.1219 | 0.3308 |
| 92 | 44.15 | 0.01 | 0.0571 | 0.0062 | 0.0554 | 0.0456 | 0.9096 | 0.5839 | 0.0775 | 0.1921 | 0.1327 | 0.3290 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSCO) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RXIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 128 1.00 1.7 C.C BINDER 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | Cm1 | Co1 | XCPF1 | YCPF1 | CNF2 | Cm2 | Co2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.40 | 0.00 | 0.0114 | 0.0025 | 0.0044 | 0.2203 | 0.3898 | 0.6772 | 0.0472 | 0.1829 | 0.0697 | 0.2761 |
| 140 | 52.58 | 0.01 | 0.0066 | 0.0025 | 0.0038 | 0.4200 | 0.4429 | 0.7016 | 0.0475 | 0.1945 | 0.0677 | 0.2773 |
| 141 | 52.72 | -0.01 | 0.0114 | 0.0025 | 0.0045 | 0.2542 | 0.3983 | 0.6978 | 0.0480 | 0.1951 | 0.0687 | 0.2796 |
| 142 | 52.87 | -0.01 | 0.0062 | 0.0025 | 0.0034 | 0.3158 | 0.3474 | 0.6823 | 0.0477 | 0.1864 | 0.0695 | 0.2732 |
| 143 | 53.05 | -0.00 | 0.0026 | 0.0037 | 0.0041 | 0.5568 | 0.6176 | 0.6824 | 0.0481 | 0.1864 | 0.0676 | 0.2732 |
| 144 | 53.21 | -0.01 | 0.0067 | 0.0025 | 0.0041 | 0.3708 | 0.5942 | 0.6928 | 0.0480 | 0.1864 | 0.0692 | 0.2726 |
| 145 | 53.36 | 0.00 | 0.0067 | 0.0025 | 0.0040 | 0.3708 | 0.5942 | 0.7120 | 0.0472 | 0.1964 | 0.0663 | 0.2759 |
| 146 | 53.54 | -0.03 | 0.0060 | 0.0025 | 0.0050 | 0.3824 | 0.7047 | 0.6944 | 0.0462 | 0.1858 | 0.0666 | 0.2733 |
| 147 | 53.71 | -0.01 | 0.0015 | 0.0022 | 0.0005 | 1.4375 | 4.1875 | 0.6743 | 0.0447 | 0.1768 | 0.0662 | 0.2651 |
| 148 | 53.87 | -0.01 | -0.0015 | 0.0025 | 0.0033 | -0.0000 | -0.8000 | 0.7163 | 0.0452 | 0.1970 | 0.0630 | 0.2751 |
| 149 | 54.02 | -0.02 | -0.0079 | 0.0025 | 0.0045 | -0.3655 | -0.5732 | 0.6954 | 0.0444 | 0.1885 | 0.0638 | 0.2717 |
| 150 | 54.16 | -0.02 | -0.0056 | 0.0022 | 0.0038 | -0.3900 | -1.0345 | 0.7058 | 0.0454 | 0.1940 | 0.0644 | 0.2746 |
| 151 | 54.35 | -0.02 | -0.0033 | 0.0025 | 0.0060 | -0.7647 | -1.3235 | 0.7120 | 0.0445 | 0.1947 | 0.0625 | 0.2735 |
| 152 | 54.52 | -0.01 | -0.0013 | 0.0029 | 0.0054 | -2.3077 | -7.4015 | 0.6952 | 0.0435 | 0.1861 | 0.0626 | 0.2677 |
| 153 | 54.71 | -0.01 | -0.0107 | 0.0025 | 0.0073 | -0.2342 | -0.6647 | 0.6984 | 0.0453 | 0.1858 | 0.0649 | 0.2718 |
| 154 | 54.85 | -0.02 | -0.0130 | 0.0025 | 0.0081 | -0.1926 | -0.4907 | 0.6961 | 0.0427 | 0.1863 | 0.0614 | 0.2677 |
| 155 | 55.02 | 0.00 | -0.0175 | 0.0022 | 0.0088 | -0.1243 | -0.3676 | 0.6916 | 0.0421 | 0.1856 | 0.0608 | 0.2684 |
| 156 | 55.18 | -0.02 | -0.0183 | 0.0029 | 0.0096 | -0.1579 | -0.3263 | 0.6891 | 0.0421 | 0.1823 | 0.0616 | 0.2645 |
| 157 | 55.35 | -0.01 | -0.0181 | 0.0022 | 0.0088 | -0.1223 | -0.2734 | 0.6942 | 0.0429 | 0.1859 | 0.0618 | 0.2678 |
| 158 | 55.48 | -0.01 | -0.0236 | 0.0029 | 0.0096 | -0.0961 | -0.3049 | 0.6811 | 0.0410 | 0.1837 | 0.0602 | 0.2697 |
| 159 | 55.62 | -0.01 | -0.0304 | 0.0025 | 0.0094 | -0.0852 | -0.3379 | 0.6820 | 0.0405 | 0.1818 | 0.0594 | 0.2666 |
| 160 | 55.79 | -0.02 | -0.0348 | 0.0022 | 0.0095 | -0.0657 | -0.1662 | 0.6953 | 0.0406 | 0.1850 | 0.0587 | 0.2666 |
| 161 | 55.97 | -0.03 | -0.0329 | 0.0022 | 0.0101 | -0.0674 | -0.3079 | 0.7031 | 0.0406 | 0.1899 | 0.0570 | 0.2701 |
| 162 | 56.11 | -0.00 | -0.0264 | 0.0025 | 0.0127 | -0.0804 | -0.4990 | 0.6821 | 0.0395 | 0.1818 | 0.0579 | 0.2665 |
| 163 | 56.32 | -0.04 | -0.0355 | 0.0022 | 0.0115 | -0.0625 | -0.3342 | 0.6808 | 0.0407 | 0.1847 | 0.0598 | 0.2713 |
| 164 | 56.43 | -0.03 | -0.0355 | 0.0025 | 0.0115 | -0.0707 | -0.3342 | 0.7022 | 0.0395 | 0.1896 | 0.0554 | 0.2700 |
| 165 | 56.63 | -0.03 | -0.0405 | 0.0029 | 0.0134 | -0.0714 | -0.3310 | 0.6898 | 0.0396 | 0.1861 | 0.0574 | 0.2698 |
| 166 | 56.80 | -0.04 | -0.0428 | 0.0022 | 0.0131 | -0.0518 | -0.3063 | 0.6840 | 0.0376 | 0.1833 | 0.0546 | 0.2680 |
| 167 | 56.92 | -0.06 | -0.0406 | 0.0029 | 0.0145 | -0.0713 | -0.3563 | 0.6787 | 0.0367 | 0.1828 | 0.0540 | 0.2654 |
| 168 | 57.13 | -0.02 | -0.0356 | 0.0014 | 0.0062 | -0.0245 | -0.1389 | 0.7094 | 0.0371 | 0.1915 | 0.0524 | 0.2700 |
| 169 | 57.29 | -0.06 | -0.0453 | 0.0022 | 0.0135 | -0.0490 | -0.3370 | 0.7199 | 0.0371 | 0.1945 | 0.0516 | 0.2702 |
| 170 | 57.44 | -0.06 | -0.0459 | 0.0022 | 0.0124 | -0.0445 | -0.2976 | 0.6776 | 0.0379 | 0.1837 | 0.0506 | 0.2711 |
| 171 | 57.59 | -0.10 | -0.0406 | 0.0022 | 0.0155 | -0.0546 | -0.3777 | 0.7122 | 0.0361 | 0.1908 | 0.0507 | 0.2678 |
| 172 | 57.69 | -0.06 | -0.0541 | 0.0014 | 0.0068 | -0.0267 | -0.1522 | 0.6663 | 0.0366 | 0.1772 | 0.0545 | 0.2660 |
| 173 | 57.87 | -0.10 | -0.0458 | 0.0021 | 0.0124 | -0.0428 | -0.2481 | 0.7292 | 0.0371 | 0.2015 | 0.0508 | 0.2763 |
| 174 | 58.02 | -0.06 | -0.0458 | 0.0018 | 0.0123 | -0.0366 | -0.2401 | 0.7075 | 0.0363 | 0.1932 | 0.0513 | 0.2730 |
| 175 | 58.19 | -0.10 | -0.0505 | 0.0018 | 0.0155 | -0.0324 | -0.1572 | 0.7247 | 0.0365 | 0.2018 | 0.0503 | 0.2784 |
| 176 | 58.31 | -0.16 | -0.0542 | 0.0018 | 0.0097 | -0.0330 | -0.1797 | 0.7406 | 0.0346 | 0.2051 | 0.0488 | 0.2770 |
| 177 | 58.45 | -0.07 | -0.0445 | 0.0021 | 0.0118 | -0.0473 | -0.2624 | 0.7537 | 0.0348 | 0.2114 | 0.0466 | 0.2805 |
| 178 | 58.60 | -0.04 | -0.0426 | 0.0018 | 0.0136 | -0.0430 | -0.3054 | 0.7450 | 0.0344 | 0.2068 | 0.0462 | 0.2776 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REIC-6 PHI CONF L DELI DEL2 DEL3 DEL4 TRANSITION
7 128 1.00 1.7 0.0 BlbuF23 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | Cm3 | Cd3 | XCPF3 | YCPF3 | CNF4 | Cm4 | Cd4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.35 | 0.02 | 0.1336 | 9.9999 | 0.0145 | 9.9999 | 0.1083 | -1.0064 | 0.0029 | -0.4131 | -0.0029 | 0.4104 |
| 2 | -5.40 | 0.01 | 0.1412 | 9.9999 | 0.0151 | 9.9999 | 0.1066 | -1.0177 | 0.0038 | -0.4200 | -0.0037 | 0.4127 |
| 3 | -5.40 | 0.00 | 0.1335 | 9.9999 | 0.0135 | 9.9999 | 0.1065 | -1.0137 | 0.0038 | -0.4191 | -0.0037 | 0.4135 |
| 4 | -5.39 | 0.00 | 0.1411 | 9.9999 | 0.0176 | 9.9999 | 0.1204 | -1.0210 | 0.0042 | -0.4223 | -0.0042 | 0.4136 |
| 5 | -5.38 | -0.01 | 0.1335 | 9.9999 | 0.0153 | 9.9999 | 0.1445 | -1.0012 | 0.0027 | -0.4149 | -0.0027 | 0.4144 |
| 6 | -3.40 | 0.01 | 0.1408 | 9.9999 | 0.0182 | 9.9999 | 0.1035 | -0.9956 | 0.0027 | -0.4051 | -0.0027 | 0.4078 |
| 7 | -1.85 | 0.00 | 0.1361 | 9.9999 | 0.0186 | 9.9999 | 0.1219 | -1.3068 | 0.0075 | -0.5185 | -0.0056 | 0.3971 |
| 8 | 0.21 | 0.01 | 0.1367 | 9.9999 | 0.0158 | 9.9999 | 0.1141 | -1.2990 | -0.0008 | -0.5088 | 0.0006 | 0.3917 |
| 9 | 2.07 | 0.00 | 0.1437 | 9.9999 | 0.0152 | 9.9999 | 0.1061 | -1.2643 | -0.0142 | -0.4564 | 0.0110 | 0.3865 |
| 10 | 3.90 | 0.00 | 0.1414 | 9.9999 | 0.0122 | 9.9999 | 0.0859 | -1.2147 | -0.0217 | -0.4606 | 0.0179 | 0.3792 |
| 11 | 5.81 | 0.01 | 0.1442 | 9.9999 | 0.0085 | 9.9999 | 0.0585 | -1.1157 | -0.0276 | -0.4055 | 0.0247 | 0.3635 |
| 12 | 7.73 | 0.01 | 0.1467 | 9.9999 | 0.0077 | 9.9999 | 0.0526 | -1.0218 | -0.0361 | -0.3634 | 0.0353 | 0.3556 |
| 13 | 9.55 | -0.00 | 0.1440 | 9.9999 | 0.0124 | 9.9999 | 0.0856 | -0.9531 | -0.0350 | -0.3511 | 0.0367 | 0.3684 |
| 14 | 11.46 | 0.00 | 0.1468 | 9.9999 | 0.0162 | 9.9999 | 0.0987 | -0.8292 | -0.0318 | -0.3079 | 0.0384 | 0.3713 |
| 15 | 13.31 | -0.00 | 0.1515 | 9.9999 | 0.0265 | 9.9999 | 0.0699 | -0.6528 | -0.0285 | -0.2504 | 0.0383 | 0.3614 |
| 16 | 15.22 | 0.00 | 0.1468 | 9.9999 | 0.0118 | 9.9999 | 0.0790 | -0.5306 | -0.0184 | -0.1987 | 0.0347 | 0.3744 |
| 17 | 17.19 | -0.00 | 0.1565 | 9.9999 | 0.0115 | 9.9999 | 0.0734 | -0.3810 | -0.0056 | -0.1291 | 0.0147 | 0.3388 |
| 18 | 19.12 | -0.01 | 0.1395 | 9.9999 | 0.0123 | 9.9999 | 0.0166 | -0.2692 | 0.0027 | -0.0760 | -0.0100 | 0.2824 |
| 19 | 21.04 | -0.01 | 0.1516 | 9.9999 | 0.0100 | 9.9999 | 0.0682 | -0.1711 | 0.0110 | -0.0208 | -0.0643 | 0.1218 |
| 20 | 22.98 | -0.01 | 0.1467 | 9.9999 | 0.0067 | 9.9999 | 0.0592 | -0.0849 | 0.0190 | 0.0207 | -0.2121 | -0.2314 |
| 21 | 24.94 | 0.00 | 0.1470 | 9.9999 | 0.0058 | 9.9999 | 0.0394 | -0.0067 | 0.0311 | 0.0577 | -4.6667 | -8.6667 |
| 22 | 26.93 | 0.05 | 0.1663 | 9.9999 | 0.0196 | 9.9999 | 0.1051 | 0.0436 | 0.0416 | 0.0816 | 0.9535 | 1.8761 |
| 23 | 28.32 | 0.05 | 0.1913 | 9.9999 | 0.0150 | 9.9999 | 0.0993 | 0.0838 | 0.0475 | 0.0996 | 0.5669 | 1.1885 |
| 24 | 28.32 | 0.05 | 0.1941 | 9.9999 | 0.0183 | 9.9999 | 0.0944 | 0.1004 | 0.0463 | 0.1072 | 0.4813 | 1.0672 |
| 25 | 28.41 | 0.05 | 0.1667 | 9.9999 | 0.0157 | 9.9999 | 0.0842 | 0.0842 | 0.0461 | 0.0997 | 0.5475 | 1.1833 |
| 26 | 28.80 | 0.06 | 0.1821 | 9.9999 | 0.0145 | 9.9999 | 0.0795 | 0.1263 | 0.0466 | 0.1176 | 0.3789 | 0.9165 |
| 27 | 29.11 | 0.06 | 0.1754 | 9.9999 | 0.0181 | 9.9999 | 0.1011 | 0.1304 | 0.0510 | 0.1191 | 0.3913 | 0.9127 |
| 28 | 29.38 | 0.05 | 0.1670 | 9.9999 | 0.0151 | 9.9999 | 0.0907 | 0.1556 | 0.0510 | 0.1302 | 0.3280 | 0.8363 |
| 29 | 29.71 | 0.04 | 0.1744 | 9.9999 | 0.0176 | 9.9999 | 0.1016 | 0.1773 | 0.0535 | 0.1423 | 0.3014 | 0.8025 |
| 30 | 30.00 | 0.04 | 0.1625 | 9.9999 | 0.0125 | 9.9999 | 0.0796 | 0.1832 | 0.0541 | 0.1442 | 0.2954 | 0.7867 |
| 31 | 30.28 | 0.05 | 0.1625 | 9.9999 | 0.0135 | 9.9999 | 0.0855 | 0.2105 | 0.0565 | 0.1556 | 0.2686 | 0.7352 |
| 32 | 30.53 | 0.06 | 0.1722 | 9.9999 | 0.0145 | 9.9999 | 0.1132 | 0.1909 | 0.0574 | 0.1491 | 0.3006 | 0.7811 |
| 33 | 30.82 | 0.06 | 0.1724 | 9.9999 | 0.0166 | 9.9999 | 0.0963 | 0.2046 | 0.0586 | 0.1575 | 0.2673 | 0.7698 |
| 34 | 31.11 | 0.07 | 0.1797 | 9.9999 | 0.0210 | 9.9999 | 0.1171 | 0.1876 | 0.0566 | 0.1542 | 0.3189 | 0.8226 |
| 35 | 31.36 | 0.05 | 0.1823 | 9.9999 | 0.0203 | 9.9999 | 0.1112 | 0.2262 | 0.0615 | 0.1675 | 0.2718 | 0.7406 |
| 36 | 31.64 | 0.06 | 0.1828 | 9.9999 | 0.0184 | 9.9999 | 0.1008 | 0.2154 | 0.0627 | 0.1672 | 0.2912 | 0.7764 |
| 37 | 31.92 | 0.06 | 0.1826 | 9.9999 | 0.0184 | 9.9999 | 0.1008 | 0.2374 | 0.0648 | 0.1754 | 0.2732 | 0.7557 |
| 38 | 32.18 | 0.04 | 0.1783 | 9.9999 | 0.0166 | 9.9999 | 0.0956 | 0.2542 | 0.0641 | 0.1816 | 0.2520 | 0.7142 |
| 39 | 32.45 | 0.05 | 0.1827 | 9.9999 | 0.0154 | 9.9999 | 0.1061 | 0.2652 | 0.0648 | 0.1866 | 0.2445 | 0.7035 |
| 40 | 32.71 | 0.03 | 0.1834 | 9.9999 | 0.0072 | 9.9999 | 0.0472 | 0.2716 | 0.0639 | 0.1924 | 0.2352 | 0.7083 |
| 41 | 32.98 | 0.04 | 0.1882 | 9.9999 | 0.0133 | 9.9999 | 0.0752 | 0.2879 | 0.0657 | 0.1979 | 0.2262 | 0.6873 |
| 42 | 33.23 | 0.05 | 0.1882 | 9.9999 | 0.0183 | 9.9999 | 0.0792 | 0.2877 | 0.0666 | 0.2000 | 0.2314 | 0.6952 |
| 43 | 33.48 | 0.03 | 0.1832 | 9.9999 | 0.0102 | 9.9999 | 0.0668 | 0.3129 | 0.0671 | 0.2133 | 0.2143 | 0.6818 |
| 44 | 33.73 | 0.02 | 0.1935 | 9.9999 | 0.0096 | 9.9999 | 0.0249 | 0.3324 | 0.0676 | 0.2211 | 0.2035 | 0.6650 |
| 45 | 33.97 | 0.02 | 0.1867 | 9.9999 | 0.0082 | 9.9999 | 0.0083 | 0.3358 | 0.0677 | 0.2237 | 0.2017 | 0.6661 |
| 46 | 34.23 | 0.04 | 0.1965 | 9.9999 | 0.0078 | 9.9999 | 0.0526 | 0.3008 | 0.0691 | 0.2350 | 0.1915 | 0.6515 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 128 MACH 1.60 RX10-6 4.1 PHI 0.0 BLNOF23 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.48 | 0.02 | 0.1421 | 0.0000 | 0.0087 | 0.9999 | 0.0456 | 0.3497 | 0.0680 | 0.2279 | 0.1965 | 0.6518 |
| 48 | 34.73 | 0.04 | 0.1384 | 0.0000 | 0.0087 | 0.9999 | 0.0547 | 0.3500 | 0.0692 | 0.2323 | 0.1977 | 0.6639 |
| 49 | 34.98 | 0.05 | 0.1462 | 0.0000 | 0.0087 | 0.9999 | 0.0455 | 0.3500 | 0.0689 | 0.2323 | 0.1965 | 0.6639 |
| 50 | 35.24 | 0.06 | 0.1488 | 0.0000 | 0.0153 | 0.9999 | 0.0909 | 0.3504 | 0.0717 | 0.2429 | 0.2000 | 0.6775 |
| 51 | 35.48 | 0.05 | 0.1710 | 0.0000 | 0.0184 | 0.9999 | 0.1078 | 0.3581 | 0.0716 | 0.2447 | 0.1995 | 0.6834 |
| 52 | 35.76 | 0.04 | 0.1562 | 0.0000 | 0.0095 | 0.9999 | 0.0000 | 0.3004 | 0.0725 | 0.2506 | 0.1978 | 0.6846 |
| 53 | 35.97 | 0.04 | 0.1482 | 0.0000 | 0.0078 | 0.9999 | 0.0526 | 0.3601 | 0.0731 | 0.2479 | 0.2031 | 0.6884 |
| 54 | 36.21 | 0.04 | 0.1664 | 0.0000 | 0.0153 | 0.9999 | 0.0911 | 0.3769 | 0.0737 | 0.2564 | 0.1956 | 0.6802 |
| 55 | 36.43 | 0.05 | 0.1481 | 0.0000 | 0.0107 | 0.9999 | 0.0724 | 0.3757 | 0.0743 | 0.2568 | 0.1977 | 0.6836 |
| 56 | 36.68 | 0.03 | 0.1605 | 0.0000 | 0.0137 | 0.9999 | 0.0854 | 0.3922 | 0.0750 | 0.2665 | 0.1929 | 0.6795 |
| 57 | 36.91 | 0.06 | 0.1555 | 0.0000 | 0.0114 | 0.9999 | 0.0732 | 0.3866 | 0.0756 | 0.2640 | 0.1957 | 0.6828 |
| 58 | 37.13 | 0.04 | 0.1553 | 0.0000 | 0.0124 | 0.9999 | 0.0795 | 0.3970 | 0.0767 | 0.2697 | 0.1932 | 0.6792 |
| 59 | 37.40 | 0.04 | 0.1430 | 0.0000 | 0.0074 | 0.9999 | 0.0520 | 0.3942 | 0.0767 | 0.2684 | 0.1946 | 0.6805 |
| 60 | 37.63 | 0.05 | 0.1460 | 0.0000 | 0.0078 | 0.9999 | 0.0528 | 0.4301 | 0.0783 | 0.2837 | 0.1819 | 0.6595 |
| 61 | 37.85 | 0.04 | 0.1451 | 0.0000 | 0.0096 | 0.9999 | 0.0658 | 0.4406 | 0.0787 | 0.2871 | 0.1787 | 0.6518 |
| 62 | 38.10 | 0.04 | 0.1423 | 0.0000 | 0.0044 | 0.9999 | 0.0657 | 0.4004 | 0.0806 | 0.2657 | 0.2017 | 0.6735 |
| 63 | 38.31 | 0.02 | 0.1397 | 0.0000 | 0.0101 | 0.9999 | 0.0725 | 0.4054 | 0.0807 | 0.2728 | 0.1956 | 0.6728 |
| 64 | 38.58 | 0.03 | 0.1373 | 0.0000 | 0.0099 | 0.9999 | 0.0724 | 0.4108 | 0.0811 | 0.2732 | 0.1975 | 0.6649 |
| 65 | 38.80 | 0.05 | 0.1521 | 0.0000 | 0.0150 | 0.9999 | 0.0984 | 0.4580 | 0.0790 | 0.2908 | 0.1733 | 0.6377 |
| 66 | 39.02 | 0.04 | 0.1465 | 0.0000 | 0.0117 | 0.9999 | 0.0794 | 0.4300 | 0.0806 | 0.2856 | 0.1873 | 0.6641 |
| 67 | 39.23 | 0.04 | 0.1443 | 0.0000 | 0.0144 | 0.9999 | 0.0998 | 0.4127 | 0.0827 | 0.2752 | 0.2004 | 0.6668 |
| 68 | 39.48 | 0.05 | 0.1468 | 0.0000 | 0.0155 | 0.9999 | 0.1054 | 0.4136 | 0.0821 | 0.2754 | 0.1976 | 0.6626 |
| 69 | 39.68 | 0.04 | 0.1466 | 0.0000 | 0.0165 | 0.9999 | 0.1124 | 0.4295 | 0.0821 | 0.2815 | 0.1912 | 0.6556 |
| 70 | 39.87 | 0.04 | 0.1417 | 0.0000 | 0.0132 | 0.9999 | 0.0933 | 0.4068 | 0.0834 | 0.2713 | 0.2052 | 0.6678 |
| 71 | 40.10 | 0.03 | 0.1387 | 0.0000 | 0.0127 | 0.9999 | 0.0932 | 0.4200 | 0.0841 | 0.2765 | 0.2003 | 0.6584 |
| 72 | 40.31 | 0.03 | 0.1390 | 0.0000 | 0.0135 | 0.9999 | 0.1006 | 0.4026 | 0.0849 | 0.2720 | 0.2109 | 0.6755 |
| 73 | 40.50 | 0.04 | 0.1362 | 0.0000 | 0.0147 | 0.9999 | 0.1076 | 0.4241 | 0.0856 | 0.2773 | 0.2018 | 0.6535 |
| 74 | 40.71 | 0.02 | 0.1336 | 0.0000 | 0.0135 | 0.9999 | 0.1005 | 0.4072 | 0.0864 | 0.2700 | 0.2121 | 0.6636 |
| 75 | 40.91 | 0.02 | 0.1327 | 0.0000 | 0.0154 | 0.9999 | 0.1154 | 0.4128 | 0.0859 | 0.2694 | 0.2080 | 0.6526 |
| 76 | 41.15 | 0.04 | 0.1166 | 0.0000 | 0.0102 | 0.9999 | 0.0877 | 0.4572 | 0.0881 | 0.2841 | 0.1883 | 0.6323 |
| 77 | 41.33 | 0.04 | 0.1262 | 0.0000 | 0.0135 | 0.9999 | 0.1101 | 0.4813 | 0.0883 | 0.2987 | 0.1792 | 0.6207 |
| 78 | 41.53 | 0.02 | 0.1216 | 0.0000 | 0.0135 | 0.9999 | 0.1115 | 0.4224 | 0.0887 | 0.2689 | 0.2099 | 0.6366 |
| 79 | 41.75 | 0.03 | 0.1213 | 0.0000 | 0.0116 | 0.9999 | 0.0955 | 0.4447 | 0.0884 | 0.2797 | 0.1987 | 0.6250 |
| 80 | 41.94 | 0.00 | 0.1258 | 0.0000 | 0.0156 | 0.9999 | 0.1205 | 0.4389 | 0.0894 | 0.2763 | 0.2031 | 0.6298 |
| 81 | 42.13 | 0.01 | 0.1333 | 0.0000 | 0.0153 | 0.9999 | 0.1447 | 0.4528 | 0.0890 | 0.2804 | 0.1965 | 0.6192 |
| 82 | 42.32 | 0.01 | 0.1261 | 0.0000 | 0.0178 | 0.9999 | 0.1498 | 0.4504 | 0.0895 | 0.2774 | 0.1982 | 0.6159 |
| 83 | 42.51 | 0.02 | 0.1112 | 0.0000 | 0.0196 | 0.9999 | 0.1311 | 0.4498 | 0.0886 | 0.2739 | 0.1965 | 0.6056 |
| 84 | 42.70 | 0.02 | 0.1211 | 0.0000 | 0.0183 | 0.9999 | 0.1514 | 0.4893 | 0.0885 | 0.2925 | 0.1808 | 0.5871 |
| 85 | 42.89 | 0.01 | 0.1113 | 0.0000 | 0.0166 | 0.9999 | 0.1490 | 0.4702 | 0.0891 | 0.2832 | 0.1894 | 0.6023 |
| 86 | 43.08 | 0.02 | 0.1260 | 0.0000 | 0.0216 | 0.9999 | 0.1715 | 0.4951 | 0.0895 | 0.2710 | 0.2007 | 0.6085 |
| 87 | 43.23 | 0.02 | 0.1040 | 0.0000 | 0.0141 | 0.9999 | 0.1354 | 0.5177 | 0.0877 | 0.3030 | 0.1694 | 0.5852 |
| 88 | 43.43 | 0.03 | 0.1065 | 0.0000 | 0.0134 | 0.9999 | 0.1417 | 0.4899 | 0.0899 | 0.2801 | 0.1914 | 0.5961 |
| 89 | 43.62 | 0.01 | 0.1015 | 0.0000 | 0.0135 | 0.9999 | 0.1369 | 0.4896 | 0.0893 | 0.2908 | 0.1825 | 0.5940 |
| 90 | 43.78 | 0.01 | 0.1041 | 0.0000 | 0.0141 | 0.9999 | 0.1353 | 0.4851 | 0.0892 | 0.2779 | 0.1917 | 0.5975 |
| 91 | 43.96 | 0.01 | 0.1112 | 0.0000 | 0.0205 | 0.9999 | 0.1839 | 0.4511 | 0.0894 | 0.2697 | 0.1983 | 0.5975 |
| 92 | 44.15 | 0.01 | 0.1064 | 0.0000 | 0.0161 | 0.9999 | 0.1704 | 0.4845 | 0.0894 | 0.2855 | 0.1846 | 0.5893 |

PARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART MACH 1.7 RNIO-6 12e 4.00 PHI 0.0 CONF BINOF23 L C.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.31 | 0.01 | 0.1205 | 9.9999 | 0.0285 | 9.9999 | 0.2394 | 0.4538 | 0.0694 | 0.2678 | 0.1971 | 0.5903 |
| 94 | 44.52 | 0.00 | 0.1136 | 9.9999 | 0.0256 | 9.9999 | 0.2246 | 0.4576 | 0.0696 | 0.2718 | 0.1955 | 0.5939 |
| 95 | 44.65 | 0.01 | 0.1235 | 9.9999 | 0.0321 | 9.9999 | 0.2602 | 0.4520 | 0.0696 | 0.2662 | 0.1963 | 0.5885 |
| 96 | 44.80 | -0.00 | 0.1035 | 9.9999 | 0.0225 | 9.9999 | 0.2201 | 0.4519 | 0.0699 | 0.2662 | 0.1956 | 0.5896 |
| 97 | 45.05 | 0.00 | 0.1014 | 9.9999 | 0.0236 | 9.9999 | 0.2331 | 0.4608 | 0.0696 | 0.2757 | 0.1912 | 0.5886 |
| 98 | 45.24 | 0.00 | 0.1060 | 9.9999 | 0.0271 | 9.9999 | 0.2491 | 0.4609 | 0.0697 | 0.2712 | 0.1947 | 0.5884 |
| 99 | 45.41 | 0.00 | 0.0985 | 9.9999 | 0.0224 | 9.9999 | 0.2263 | 0.4911 | 0.0869 | 0.2843 | 0.1805 | 0.5795 |
| 100 | 45.55 | 0.00 | 0.0916 | 9.9999 | 0.0175 | 9.9999 | 0.1956 | 0.4692 | 0.0697 | 0.2769 | 0.1912 | 0.5902 |
| 101 | 45.77 | -0.00 | 0.1040 | 9.9999 | 0.0246 | 9.9999 | 0.2364 | 0.4726 | 0.0693 | 0.2754 | 0.1885 | 0.5827 |
| 102 | 45.94 | 0.01 | 0.1045 | 9.9999 | 0.0267 | 9.9999 | 0.2572 | 0.4810 | 0.0891 | 0.2770 | 0.1852 | 0.5756 |
| 103 | 46.11 | -0.00 | 0.0944 | 9.9999 | 0.0154 | 9.9999 | 0.1829 | 0.4753 | 0.0895 | 0.2766 | 0.1884 | 0.5826 |
| 104 | 46.31 | 0.01 | 0.0917 | 9.9999 | 0.0185 | 9.9999 | 0.2063 | 0.4802 | 0.0892 | 0.2766 | 0.1857 | 0.5760 |
| 105 | 46.47 | 0.01 | 0.0915 | 9.9999 | 0.0206 | 9.9999 | 0.2276 | 0.5134 | 0.0888 | 0.3014 | 0.1729 | 0.5671 |
| 106 | 46.62 | -0.00 | 0.0844 | 9.9999 | 0.0155 | 9.9999 | 0.2257 | 0.5001 | 0.0867 | 0.3252 | 0.1527 | 0.5724 |
| 107 | 46.83 | -0.01 | 0.0862 | 9.9999 | 0.0224 | 9.9999 | 0.2596 | 0.4843 | 0.0866 | 0.2863 | 0.1625 | 0.5912 |
| 108 | 47.00 | -0.00 | 0.0912 | 9.9999 | 0.0218 | 9.9999 | 0.2392 | 0.5514 | 0.0865 | 0.3157 | 0.1568 | 0.5725 |
| 109 | 47.15 | 0.02 | 0.0838 | 9.9999 | 0.0175 | 9.9999 | 0.2062 | 0.6320 | 0.0623 | 0.3465 | 0.1302 | 0.5482 |
| 110 | 47.33 | 0.02 | 0.0983 | 9.9999 | 0.0207 | 9.9999 | 0.2305 | 0.5746 | 0.0785 | 0.3164 | 0.1367 | 0.5506 |
| 111 | 47.53 | 0.01 | 0.1002 | 9.9999 | 0.0292 | 9.9999 | 0.2905 | 0.5957 | 0.0708 | 0.3111 | 0.1185 | 0.5222 |
| 112 | 47.70 | 0.01 | 0.1006 | 9.9999 | 0.0296 | 9.9999 | 0.2905 | 0.6104 | 0.0804 | 0.3361 | 0.1300 | 0.5467 |
| 113 | 47.86 | 0.02 | 0.0963 | 9.9999 | 0.0261 | 9.9999 | 0.2659 | 0.5343 | 0.0732 | 0.3026 | 0.1371 | 0.5663 |
| 114 | 48.02 | 0.02 | 0.0984 | 9.9999 | 0.0286 | 9.9999 | 0.2807 | 0.4447 | 0.0685 | 0.2682 | 0.1546 | 0.6032 |
| 115 | 48.23 | 0.03 | 0.0955 | 9.9999 | 0.0259 | 9.9999 | 0.2616 | 0.4036 | 0.0655 | 0.2496 | 0.1622 | 0.6182 |
| 116 | 48.40 | 0.04 | 0.0949 | 9.9999 | 0.0235 | 9.9999 | 0.2559 | 0.3931 | 0.0642 | 0.2446 | 0.1632 | 0.6222 |
| 117 | 48.57 | 0.03 | 0.0918 | 9.9999 | 0.0217 | 9.9999 | 0.2382 | 0.3952 | 0.0646 | 0.2485 | 0.1636 | 0.6285 |
| 118 | 48.74 | 0.03 | 0.0918 | 9.9999 | 0.0246 | 9.9999 | 0.2704 | 0.4127 | 0.0631 | 0.2562 | 0.1529 | 0.6208 |
| 119 | 48.91 | 0.03 | 0.0934 | 9.9999 | 0.0259 | 9.9999 | 0.2756 | 0.4095 | 0.0647 | 0.2550 | 0.1581 | 0.6228 |
| 120 | 49.05 | 0.04 | 0.1036 | 9.9999 | 0.0294 | 9.9999 | 0.2958 | 0.4113 | 0.0645 | 0.2578 | 0.1565 | 0.6263 |
| 121 | 49.20 | 0.02 | 0.0956 | 9.9999 | 0.0265 | 9.9999 | 0.2815 | 0.4138 | 0.0656 | 0.2610 | 0.1585 | 0.6307 |
| 122 | 49.44 | 0.03 | 0.0851 | 9.9999 | 0.0222 | 9.9999 | 0.2590 | 0.4208 | 0.0649 | 0.2664 | 0.1522 | 0.6256 |
| 123 | 49.63 | 0.02 | 0.0927 | 9.9999 | 0.0256 | 9.9999 | 0.2758 | 0.4356 | 0.0700 | 0.2771 | 0.1605 | 0.6364 |
| 124 | 49.82 | 0.02 | 0.0854 | 9.9999 | 0.0231 | 9.9999 | 0.2704 | 0.4331 | 0.0679 | 0.2737 | 0.1568 | 0.6320 |
| 125 | 49.98 | 0.02 | 0.0900 | 9.9999 | 0.0263 | 9.9999 | 0.2928 | 0.4325 | 0.0681 | 0.2733 | 0.1575 | 0.6321 |
| 126 | 50.15 | 0.02 | 0.0852 | 9.9999 | 0.0240 | 9.9999 | 0.2820 | 0.4568 | 0.0702 | 0.2865 | 0.1538 | 0.6272 |
| 127 | 50.33 | 0.03 | 0.0878 | 9.9999 | 0.0252 | 9.9999 | 0.2874 | 0.4543 | 0.0692 | 0.2831 | 0.1523 | 0.6232 |
| 128 | 50.53 | 0.04 | 0.0874 | 9.9999 | 0.0276 | 9.9999 | 0.3091 | 0.4562 | 0.0695 | 0.2870 | 0.1531 | 0.6252 |
| 129 | 50.70 | 0.03 | 0.0849 | 9.9999 | 0.0278 | 9.9999 | 0.3273 | 0.4607 | 0.0705 | 0.2991 | 0.1475 | 0.6222 |
| 130 | 50.86 | 0.01 | 0.0846 | 9.9999 | 0.0278 | 9.9999 | 0.3276 | 0.4624 | 0.0719 | 0.2986 | 0.1490 | 0.6176 |
| 131 | 51.03 | 0.02 | 0.0778 | 9.9999 | 0.0265 | 9.9999 | 0.2637 | 0.4668 | 0.0714 | 0.3016 | 0.1467 | 0.6198 |
| 132 | 51.20 | 0.01 | 0.0749 | 9.9999 | 0.0214 | 9.9999 | 0.2705 | 0.4605 | 0.0717 | 0.2943 | 0.1482 | 0.6082 |
| 133 | 51.39 | 0.03 | 0.0758 | 9.9999 | 0.0234 | 9.9999 | 0.2936 | 0.5134 | 0.0705 | 0.3052 | 0.1374 | 0.5946 |
| 134 | 51.57 | 0.01 | 0.0822 | 9.9999 | 0.0246 | 9.9999 | 0.2993 | 0.5105 | 0.0702 | 0.3055 | 0.1354 | 0.5887 |
| 135 | 51.69 | -0.00 | 0.0795 | 9.9999 | 0.0238 | 9.9999 | 0.3554 | 0.4855 | 0.0695 | 0.2886 | 0.1439 | 0.5944 |
| 136 | 51.89 | 0.01 | 0.0722 | 9.9999 | 0.0257 | 9.9999 | 0.3356 | 0.4926 | 0.0697 | 0.2887 | 0.1336 | 0.5868 |
| 137 | 52.03 | -0.00 | 0.0851 | 9.9999 | 0.0223 | 9.9999 | 0.3422 | 0.4809 | 0.0684 | 0.2843 | 0.1423 | 0.5913 |
| 138 | 52.23 | 0.01 | 0.0819 | 9.9999 | 0.0253 | 9.9999 | 0.3501 | 0.4952 | 0.0698 | 0.2882 | 0.1329 | 0.5820 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 128 MACH 1.00 RXIO-6 1.7 PHI 0.0 CONF 23 L 0.4 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CO3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.49 | 0.00 | 0.0695 | 5.9995 | 0.0246 | 5.9995 | 0.3522 | 0.4550 | 0.0620 | 0.2657 | 0.1363 | 0.5846 |
| 140 | 52.95 | 0.01 | 0.0663 | 5.9999 | 0.0216 | 5.9999 | 0.3692 | 0.4692 | 0.0624 | 0.2732 | 0.1330 | 0.5822 |
| 141 | 52.72 | -0.01 | 0.0673 | 5.9995 | 0.0254 | 5.9999 | 0.3768 | 0.4550 | 0.0616 | 0.2656 | 0.1353 | 0.5838 |
| 142 | 52.87 | -0.01 | 0.0656 | 5.9995 | 0.0265 | 5.9999 | 0.3804 | 0.4412 | 0.0620 | 0.2576 | 0.1406 | 0.5839 |
| 143 | 53.05 | -0.00 | 0.0645 | 5.9995 | 0.0261 | 5.9999 | 0.4027 | 0.4092 | 0.0594 | 0.2449 | 0.1452 | 0.5984 |
| 144 | 53.21 | -0.01 | 0.0577 | 5.9999 | 0.0236 | 5.9999 | 0.4097 | 0.4439 | 0.0620 | 0.2566 | 0.1358 | 0.5784 |
| 145 | 53.36 | 0.00 | 0.0696 | 5.9995 | 0.0281 | 5.9999 | 0.4330 | 0.4341 | 0.0597 | 0.2520 | 0.1376 | 0.5806 |
| 146 | 53.54 | -0.03 | 0.0553 | 5.9995 | 0.0244 | 5.9999 | 0.4415 | 0.4237 | 0.0595 | 0.2475 | 0.1405 | 0.5841 |
| 147 | 53.71 | -0.01 | 0.0674 | 5.9995 | 0.0252 | 5.9999 | 0.4335 | 0.4075 | 0.0593 | 0.2414 | 0.1455 | 0.5914 |
| 148 | 53.87 | -0.01 | 0.0554 | 5.9995 | 0.0243 | 5.9999 | 0.4425 | 0.4352 | 0.0591 | 0.2495 | 0.1359 | 0.5734 |
| 149 | 54.02 | -0.02 | 0.0553 | 5.9995 | 0.0254 | 5.9999 | 0.4590 | 0.4216 | 0.0583 | 0.2434 | 0.1382 | 0.5773 |
| 150 | 54.18 | -0.02 | 0.0578 | 5.9995 | 0.0263 | 5.9999 | 0.4641 | 0.4245 | 0.0575 | 0.2435 | 0.1355 | 0.5736 |
| 151 | 54.35 | -0.02 | 0.0661 | 5.9995 | 0.0256 | 5.9999 | 0.4926 | 0.4574 | 0.0591 | 0.2524 | 0.1253 | 0.5518 |
| 152 | 54.52 | -0.01 | 0.0651 | 5.9995 | 0.0301 | 5.9999 | 0.4822 | 0.4478 | 0.0580 | 0.2460 | 0.1265 | 0.5536 |
| 153 | 54.71 | -0.01 | 0.0435 | 5.9995 | 0.0227 | 5.9999 | 0.5234 | 0.4315 | 0.0593 | 0.2410 | 0.1375 | 0.5586 |
| 154 | 54.85 | -0.02 | 0.0591 | 5.9995 | 0.0264 | 5.9999 | 0.4945 | 0.4427 | 0.0585 | 0.2438 | 0.1316 | 0.5508 |
| 155 | 55.02 | 0.00 | 0.0432 | 5.9995 | 0.0228 | 5.9999 | 0.5223 | 0.4307 | 0.0576 | 0.2373 | 0.1337 | 0.5505 |
| 156 | 55.18 | -0.02 | 0.0525 | 5.9995 | 0.0262 | 5.9999 | 0.5326 | 0.4250 | 0.0582 | 0.2315 | 0.1365 | 0.5455 |
| 157 | 55.35 | -0.01 | 0.0578 | 5.9995 | 0.0304 | 5.9999 | 0.5276 | 0.4250 | 0.0582 | 0.2319 | 0.1365 | 0.5455 |
| 158 | 55.48 | -0.01 | 0.0576 | 5.9995 | 0.0304 | 5.9999 | 0.5276 | 0.4360 | 0.0576 | 0.2326 | 0.1321 | 0.5335 |
| 159 | 55.62 | -0.01 | 0.0525 | 5.9995 | 0.0282 | 5.9999 | 0.5328 | 0.4254 | 0.0580 | 0.2260 | 0.1363 | 0.5312 |
| 160 | 55.79 | -0.02 | 0.0525 | 5.9995 | 0.0251 | 5.9999 | 0.5511 | 0.4261 | 0.0580 | 0.2271 | 0.1355 | 0.5305 |
| 161 | 55.97 | -0.03 | 0.0431 | 5.9995 | 0.0264 | 5.9999 | 0.6130 | 0.4363 | 0.0580 | 0.2278 | 0.1329 | 0.5221 |
| 162 | 56.11 | -0.00 | 0.0431 | 5.9995 | 0.0264 | 5.9999 | 0.6130 | 0.4199 | 0.0577 | 0.2194 | 0.1374 | 0.5225 |
| 163 | 56.32 | -0.04 | 0.0504 | 5.9995 | 0.0275 | 5.9999 | 0.5536 | 0.4218 | 0.0584 | 0.2204 | 0.1384 | 0.5225 |
| 164 | 56.43 | -0.03 | 0.0527 | 5.9995 | 0.0315 | 5.9999 | 0.6002 | 0.4354 | 0.0565 | 0.2233 | 0.1257 | 0.5122 |
| 165 | 56.63 | -0.03 | 0.0646 | 5.9995 | 0.0338 | 5.9999 | 0.5224 | 0.4344 | 0.0580 | 0.2208 | 0.1335 | 0.5082 |
| 166 | 56.80 | -0.04 | 0.0453 | 5.9995 | 0.0284 | 5.9999 | 0.6269 | 0.4591 | 0.0553 | 0.2272 | 0.1204 | 0.4950 |
| 167 | 56.92 | -0.08 | 0.0356 | 5.9995 | 0.0248 | 5.9999 | 0.6965 | 0.4512 | 0.0542 | 0.2225 | 0.1202 | 0.4932 |
| 168 | 57.13 | -0.02 | 0.0427 | 5.9995 | 0.0291 | 5.9999 | 0.6817 | 0.5047 | 0.0555 | 0.2445 | 0.1055 | 0.4844 |
| 169 | 57.29 | -0.05 | 0.0355 | 5.9995 | 0.0257 | 5.9999 | 0.7226 | 0.4856 | 0.0535 | 0.2360 | 0.1142 | 0.4860 |
| 170 | 57.44 | -0.06 | 0.0463 | 5.9995 | 0.0270 | 5.9999 | 0.6895 | 0.4691 | 0.0560 | 0.2306 | 0.1193 | 0.4920 |
| 171 | 57.59 | -0.10 | 0.0358 | 5.9995 | 0.0247 | 5.9999 | 0.6938 | 0.4718 | 0.0563 | 0.2310 | 0.1192 | 0.4896 |
| 172 | 57.69 | -0.06 | 0.0355 | 5.9995 | 0.0247 | 5.9999 | 0.6957 | 0.4332 | 0.0551 | 0.2157 | 0.1272 | 0.4980 |
| 173 | 57.87 | -0.10 | 0.0427 | 5.9995 | 0.0272 | 5.9999 | 0.6366 | 0.4822 | 0.0551 | 0.2324 | 0.1142 | 0.4826 |
| 174 | 58.04 | -0.06 | 0.0367 | 5.9995 | 0.0264 | 5.9999 | 0.7296 | 0.4790 | 0.0551 | 0.2329 | 0.1150 | 0.4863 |
| 175 | 58.19 | -0.10 | 0.0421 | 5.9995 | 0.0273 | 5.9999 | 0.6066 | 0.5025 | 0.0581 | 0.2415 | 0.1116 | 0.4806 |
| 176 | 58.31 | -0.14 | 0.0462 | 5.9995 | 0.0280 | 5.9999 | 0.6951 | 0.4812 | 0.0545 | 0.2318 | 0.1133 | 0.4817 |
| 177 | 58.49 | -0.07 | 0.0403 | 5.9995 | 0.0250 | 5.9999 | 0.6196 | 0.5029 | 0.0545 | 0.2406 | 0.1084 | 0.4781 |
| 178 | 58.60 | -0.04 | 0.0336 | 5.9995 | 0.0218 | 5.9999 | 0.6125 | 0.5012 | 0.0546 | 0.2367 | 0.1090 | 0.4723 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&9 1.1v 1.7 MACH 0.C AXIC-G 0.C PHI 0.C CONF 0&OF23 L 0.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CA | CLP | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.40 | 0.00 | -1.2743 | 4.1904 | -0.0253 | -0.0152 | -0.0085 | 1.0441 | 0.3425 | 0.7017 | -3.2885 |
| 2 | -5.41 | 0.00 | -1.2e4e | 4.1854 | -0.0374 | 0.0701 | -0.0087 | 1.0478 | 0.3405 | 0.7014 | -3.3098 |
| 3 | -5.40 | -0.00 | -1.2843 | 4.1853 | -0.0510 | 0.0703 | -0.0087 | 1.0451 | 0.3438 | 0.7014 | -3.3105 |
| 4 | -4.82 | 0.01 | -1.2045 | 4.3553 | -0.0472 | 0.0575 | -0.0134 | 1.0553 | 0.3305 | 0.7249 | -3.6146 |
| 5 | -2.71 | 0.01 | -1.1462 | 4.5642 | 0.0266 | -0.0210 | -0.0126 | 1.0411 | 0.3216 | 0.7196 | -4.0617 |
| 6 | -0.00 | 0.00 | -0.5ec0 | 4.5765 | -0.0513 | -0.0028 | -0.0173 | 1.0312 | 0.3165 | 0.7148 | -4.6344 |
| 7 | 1.03 | 0.00 | -0.6125 | 4.4465 | -0.0665 | 0.0875 | -0.0115 | 1.0222 | 0.3216 | 0.7007 | -5.4656 |
| 8 | 2.75 | 0.01 | -0.6323 | 4.2265 | -0.0150 | 0.0468 | -0.0102 | 0.9625 | 0.3230 | 0.6595 | -8.6752 |
| 9 | 4.80 | 0.01 | -0.4554 | 4.0663 | 0.0756 | -0.0011 | -0.0152 | 0.9506 | 0.3350 | 0.6556 | -8.6541 |
| 10 | 6.71 | 0.01 | -0.3011 | 3.9365 | 0.0146 | -0.0183 | -0.0147 | 0.9617 | 0.3411 | 0.6206 | -13.6836 |
| 11 | 8.81 | 0.00 | -0.0ee3 | 3.7078 | -0.0252 | 0.0751 | -0.0090 | 0.9305 | 0.3492 | 0.5813 | -56.2555 |
| 12 | 10.48 | 0.01 | 0.1032 | 3.4455 | -0.0576 | 0.1901 | -0.0036 | 0.9006 | 0.3527 | 0.5481 | 33.4060 |
| 13 | 12.41 | 0.01 | 0.3372 | 3.0606 | -0.0675 | 0.1709 | 0.0027 | 0.8370 | 0.3632 | 0.4738 | 7.0005 |
| 14 | 14.33 | 0.01 | 0.7ee6 | 2.6001 | -0.0647 | 0.1706 | -0.0069 | 0.7952 | 0.3581 | 0.4371 | 3.4088 |
| 15 | 16.33 | 0.00 | 1.1056 | 2.3472 | -0.1337 | 0.3844 | -0.0013 | 0.7332 | 0.3663 | 0.3669 | 2.1231 |
| 16 | 18.32 | 0.00 | 1.4e0e | 2.0505 | -0.1752 | 0.0491 | -0.0013 | 0.6783 | 0.3635 | 0.3150 | 1.4713 |
| 17 | 20.26 | 0.01 | 1.7944 | 1.6054 | -0.1324 | 0.5996 | -0.0209 | 0.6193 | 0.3613 | 0.2580 | 1.0616 |
| 18 | 22.27 | 0.02 | 2.2e76 | 2.1036 | 0.0217 | 0.1074 | -0.0117 | 0.5506 | 0.3477 | 0.2069 | 0.5198 |
| 19 | 24.31 | -0.01 | 2.5526 | 2.2068 | -0.2870 | 0.8321 | -0.0461 | 0.5020 | 0.3416 | 0.1604 | 0.7525 |
| 20 | 26.32 | 0.01 | 3.5eeC | 2.1500 | -0.0537 | 0.1511 | -0.0012 | 0.4535 | 0.3417 | 0.1119 | 0.6017 |
| 21 | 26.35 | 0.05 | 4.1544 | 2.2372 | 0.5151 | -0.5e52 | 0.0290 | 0.4128 | 0.3383 | 0.0745 | 0.3536 |
| 22 | 28.44 | 0.03 | 4.2e5e | 2.3000 | 0.1275 | -0.0096 | 0.0230 | 0.4090 | 0.3374 | 0.0716 | 0.5412 |
| 23 | 26.81 | 0.03 | 4.3509 | 2.2656 | 0.1336 | -0.1095 | 0.0290 | 0.4129 | 0.3377 | 0.0752 | 0.5217 |
| 24 | 29.00 | 0.05 | 4.4044 | 2.2251 | 0.2656 | -0.1655 | 0.0238 | 0.3692 | 0.3388 | 0.0504 | 0.4971 |
| 25 | 29.38 | 0.02 | 4.5361 | 2.2845 | 0.0774 | 0.1034 | 0.0237 | 0.3998 | 0.3353 | 0.0645 | 0.5064 |
| 26 | 29.71 | 0.03 | 4.6576 | 2.2605 | 0.1505 | 0.0060 | 0.0401 | 0.4043 | 0.3416 | 0.0625 | 0.4646 |
| 27 | 29.99 | 0.05 | 4.7e31 | 2.2911 | 0.2716 | -0.0125 | 0.0295 | 0.3749 | 0.3381 | 0.0366 | 0.4810 |
| 28 | 30.28 | 0.03 | 4.8e31 | 2.2364 | 0.1617 | -0.0233 | 0.0216 | 0.3767 | 0.3416 | 0.0351 | 0.4580 |
| 29 | 30.57 | 0.05 | 5.0152 | 2.0922 | 0.3237 | -0.3069 | 0.0528 | 0.3697 | 0.3484 | 0.0213 | 0.4172 |
| 30 | 30.84 | 0.06 | 5.1426 | 2.0743 | 0.3467 | -0.2923 | 0.0845 | 0.3737 | 0.3516 | 0.0221 | 0.4057 |
| 31 | 31.11 | 0.05 | 5.1655 | 2.0278 | 0.2735 | -0.1857 | 0.0634 | 0.3701 | 0.3530 | 0.0171 | 0.3922 |
| 32 | 31.39 | 0.07 | 5.3ee4 | 1.ee37 | 0.3577 | -0.1326 | 0.0529 | 0.3667 | 0.3533 | 0.0154 | 0.3550 |
| 33 | 31.69 | 0.04 | 5.4556 | 1.7926 | 0.2314 | -0.0560 | 0.0634 | 0.3702 | 0.3605 | 0.0097 | 0.3256 |
| 34 | 31.99 | 0.06 | 5.5014 | 1.8556 | 0.4034 | -0.1299 | 0.0640 | 0.3611 | 0.3520 | 0.0091 | 0.3373 |
| 35 | 32.23 | 0.03 | 5.6e53 | 1.8155 | 0.1186 | 0.2607 | 0.0426 | 0.3532 | 0.3577 | -0.0045 | 0.3212 |
| 36 | 32.51 | 0.04 | 5.7e15 | 1.6031 | 0.1641 | 0.2078 | 0.0747 | 0.3415 | 0.3582 | -0.0167 | 0.3130 |
| 37 | 32.77 | 0.02 | 5.8EC7 | 1.7755 | -0.0574 | 0.7356 | 0.0263 | 0.3519 | 0.3562 | -0.0063 | 0.3020 |
| 38 | 33.04 | 0.02 | 6.0267 | 1.6832 | -0.1058 | 0.7931 | 0.0267 | 0.3445 | 0.3569 | -0.0124 | 0.2794 |
| 39 | 33.29 | 0.03 | 5.9552 | 1.8556 | -0.0745 | 0.8537 | 0.0263 | 0.3530 | 0.3637 | -0.0107 | 0.2760 |
| 40 | 33.57 | 0.02 | 6.0716 | 1.4366 | -0.1471 | 1.1642 | 0.0103 | 0.3400 | 0.3603 | -0.0203 | 0.2291 |
| 41 | 33.80 | 0.01 | 6.3171 | 1.3855 | -0.2802 | 1.1384 | 0.0265 | 0.3427 | 0.3717 | -0.0290 | 0.2193 |
| 42 | 34.06 | 0.03 | 6.3240 | 1.3955 | -0.0421 | 1.0349 | 0.0421 | 0.3305 | 0.3677 | -0.0372 | 0.2214 |
| 43 | 34.33 | 0.01 | 6.5324 | 1.3404 | -0.1650 | 1.2254 | 0.0267 | 0.3133 | 0.3745 | -0.0612 | 0.2052 |
| 44 | 34.58 | 0.00 | 6.6039 | 1.2740 | -0.2450 | 1.1611 | 0.0326 | 0.3089 | 0.3759 | -0.0370 | 0.1929 |
| 45 | 34.83 | 0.02 | 6.7383 | 1.0928 | -0.0537 | 1.0152 | 0.0643 | 0.3197 | 0.3806 | -0.0605 | 0.1622 |
| 46 | 35.08 | 0.02 | 6.8321 | 1.0483 | -0.0956 | 1.0506 | 0.0333 | 0.3131 | 0.3789 | -0.0658 | 0.1534 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REYNOLDS PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
F 129 1.10 1.7 0.0 BINOMIALS 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.33 | 0.03 | 7.0589 | 0.7561 | -0.0351 | 1.1725 | 0.0836 | 0.3331 | 0.3930 | -0.0599 | 0.1074 |
| 48 | 35.57 | 0.02 | 7.0566 | 1.0418 | -0.0280 | 0.8701 | 0.0554 | 0.2940 | 0.3793 | -0.0853 | 0.1476 |
| 49 | 35.83 | 0.01 | 7.2664 | 0.8725 | -0.1467 | 1.1381 | 0.0560 | 0.2945 | 0.3843 | -0.0896 | 0.1201 |
| 50 | 36.06 | 0.02 | 7.2747 | 0.8710 | -0.0636 | 0.9298 | 0.0306 | 0.2854 | 0.3776 | -0.0921 | 0.1167 |
| 51 | 36.31 | 0.00 | 7.5095 | 0.6621 | -0.1152 | 1.1085 | 0.0568 | 0.2895 | 0.3833 | -0.0938 | 0.0882 |
| 52 | 36.52 | 0.01 | 7.4054 | 0.5045 | -0.0579 | 1.1576 | 0.0501 | 0.2810 | 0.3754 | -0.0744 | 0.0762 |
| 53 | 36.78 | 0.01 | 7.6253 | 0.5184 | -0.0734 | 1.2825 | 0.0512 | 0.2890 | 0.3914 | -0.1024 | 0.0680 |
| 54 | 37.00 | 0.02 | 7.6535 | 0.4657 | 0.0272 | 1.0953 | 0.0466 | 0.2984 | 0.3974 | -0.0991 | 0.0635 |
| 55 | 37.26 | 0.01 | 7.8760 | 0.3581 | -0.1500 | 1.0657 | 0.0530 | 0.2762 | 0.3874 | -0.1112 | 0.0505 |
| 56 | 37.50 | 0.01 | 7.8738 | 0.3081 | -0.0796 | 1.1474 | 0.0473 | 0.2742 | 0.3846 | -0.1104 | 0.0468 |
| 57 | 37.73 | -0.00 | 7.9756 | 0.4431 | -0.1673 | 0.9330 | 0.0436 | 0.2619 | 0.3856 | -0.1237 | 0.0556 |
| 58 | 37.97 | 0.02 | 8.1514 | 0.2177 | 0.0155 | 0.8628 | 0.0492 | 0.2693 | 0.3866 | -0.1173 | 0.0267 |
| 59 | 38.20 | -0.01 | 8.1138 | 0.2244 | -0.2613 | 1.0295 | 0.0594 | 0.2660 | 0.3873 | -0.1213 | 0.0277 |
| 60 | 38.42 | -0.01 | 8.1365 | 0.1172 | -0.1596 | 1.0920 | 0.0590 | 0.2911 | 0.3896 | -0.0986 | 0.0144 |
| 61 | 38.66 | -0.02 | 8.3112 | 0.0476 | -0.2245 | 1.0979 | 0.0544 | 0.2479 | 0.3843 | -0.1364 | 0.0057 |
| 62 | 38.90 | -0.00 | 8.3521 | 0.0431 | -0.0731 | 0.8541 | 0.0449 | 0.2496 | 0.3726 | -0.1234 | 0.0052 |
| 63 | 39.12 | -0.01 | 8.4408 | 0.0771 | -0.1522 | 0.8731 | 0.0402 | 0.2462 | 0.3652 | -0.1190 | 0.0091 |
| 64 | 39.34 | -0.02 | 8.5307 | 0.1355 | -0.2550 | 0.7097 | 0.0362 | 0.2182 | 0.3642 | -0.1460 | 0.0159 |
| 65 | 39.57 | -0.01 | 8.6305 | -0.0167 | -0.1601 | 0.6298 | 0.0305 | 0.1984 | 0.3515 | -0.1531 | -0.0019 |
| 66 | 39.81 | -0.00 | 8.6873 | -0.1555 | -0.0606 | 0.6394 | 0.0371 | 0.2119 | 0.3579 | -0.1460 | -0.0175 |
| 67 | 40.02 | -0.00 | 8.9200 | -0.1428 | -0.0674 | 0.2634 | 0.0367 | 0.1919 | 0.3496 | -0.1579 | -0.0160 |
| 68 | 40.24 | -0.01 | 9.0698 | -0.2744 | -0.1340 | 0.7177 | 0.0374 | 0.2002 | 0.3645 | -0.1643 | -0.0304 |
| 69 | 40.44 | -0.01 | 9.0365 | -0.2541 | -0.0577 | 0.4786 | 0.0363 | 0.1765 | 0.3501 | -0.1716 | -0.0281 |
| 70 | 40.64 | -0.01 | 9.0259 | -0.2715 | -0.0618 | 0.0547 | 0.0346 | 0.1672 | 0.3565 | -0.1697 | -0.0300 |
| 71 | 40.85 | 0.00 | 9.2355 | -0.5102 | -0.0095 | 0.3403 | 0.0392 | 0.1664 | 0.3545 | -0.1881 | -0.0552 |
| 72 | 41.07 | -0.00 | 9.4035 | -0.6924 | -0.0842 | 0.0285 | 0.0327 | 0.1736 | 0.3569 | -0.1833 | -0.0736 |
| 73 | 41.29 | -0.02 | 9.4555 | -0.8322 | -0.1385 | 0.6105 | 0.0339 | 0.1509 | 0.3582 | -0.2073 | -0.0868 |
| 74 | 41.46 | -0.02 | 9.5234 | -0.8055 | -0.1044 | 0.5418 | 0.0292 | 0.1531 | 0.3555 | -0.2026 | -0.0846 |
| 75 | 41.70 | -0.02 | 9.5554 | -0.8547 | -0.1621 | 0.3630 | 0.0301 | 0.1391 | 0.3613 | -0.2222 | -0.0850 |
| 76 | 41.90 | -0.02 | 9.6116 | -0.8259 | -0.0496 | 0.4153 | 0.0298 | 0.1503 | 0.3489 | -0.1986 | -0.0859 |
| 77 | 42.10 | -0.04 | 9.7516 | -0.8643 | -0.2585 | 0.9369 | 0.0183 | 0.1477 | 0.3650 | -0.2173 | -0.0907 |
| 78 | 42.30 | -0.02 | 9.9160 | -1.0565 | -0.3567 | 1.0142 | 0.0007 | 0.1471 | 0.3623 | -0.2152 | -0.1099 |
| 79 | 42.50 | -0.01 | 9.9078 | -1.1353 | -0.2458 | 1.4773 | -0.0063 | 0.1384 | 0.3545 | -0.2161 | -0.1150 |
| 80 | 42.69 | -0.03 | 9.9128 | -0.9745 | -0.3395 | 0.7904 | 0.0144 | 0.1021 | 0.3421 | -0.2400 | -0.0983 |
| 81 | 42.88 | -0.01 | 10.1058 | -1.1934 | -0.2540 | 1.4839 | -0.0036 | 0.1199 | 0.3481 | -0.2282 | -0.1180 |
| 82 | 43.07 | -0.03 | 10.2373 | -1.2652 | -0.3458 | 1.3275 | -0.0025 | 0.1136 | 0.3495 | -0.2359 | -0.1236 |
| 83 | 43.26 | -0.03 | 10.3264 | -1.2214 | -0.3635 | 1.4010 | -0.0076 | 0.0909 | 0.3427 | -0.2517 | -0.1183 |
| 84 | 43.46 | -0.03 | 10.4537 | -1.3565 | -0.3475 | 1.2523 | -0.0022 | 0.1010 | 0.3354 | -0.2338 | -0.1318 |
| 85 | 43.60 | -0.01 | 10.3518 | -1.1228 | -0.2553 | 1.2252 | -0.0121 | 0.0594 | 0.3223 | -0.2628 | -0.1089 |
| 86 | 43.79 | -0.01 | 10.4556 | -1.2360 | -0.1438 | 0.7292 | 0.0004 | 0.0454 | 0.3020 | -0.2585 | -0.1177 |
| 87 | 43.98 | -0.01 | 10.4930 | -1.2365 | -0.1530 | 0.7574 | 0.0003 | 0.0604 | 0.3093 | -0.2488 | -0.1179 |
| 88 | 44.17 | -0.02 | 10.6965 | -1.3063 | -0.2655 | 0.9474 | -0.0101 | 0.0513 | 0.3050 | -0.2536 | -0.1256 |
| 89 | 44.33 | -0.01 | 10.6532 | -1.3131 | -0.1414 | 0.5800 | 0.0067 | 0.0357 | 0.2895 | -0.2537 | -0.1233 |
| 90 | 44.51 | -0.02 | 10.6962 | -1.3072 | -0.2666 | 0.7860 | 0.0010 | 0.0358 | 0.2886 | -0.2488 | -0.1222 |
| 91 | 44.71 | -0.02 | 10.7266 | -1.3175 | -0.2335 | 0.9178 | -0.0098 | 0.0446 | 0.2877 | -0.2431 | -0.1228 |
| 92 | 44.88 | -0.02 | 10.7557 | -1.1871 | -0.2254 | 1.1207 | -0.0208 | 0.0328 | 0.2863 | -0.2535 | -0.1104 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 125 | MACH 1.10 | RX10-6 1.7 | PHI 0.0 | CONF BIaDF23 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CA | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 45.07 | 0.00 | 10.8953 | -1.3346 | 0.0543 | -0.2628 | 0.0462 | 0.0140 | 0.2768 | -0.2628 | -0.1229 |
| 94 | 45.27 | -0.03 | 11.0387 | -1.3469 | -0.2114 | 0.7014 | -0.0060 | 0.0091 | 0.2720 | -0.2649 | -0.1267 |
| 95 | 45.44 | -0.03 | 10.9885 | -1.3961 | -0.1978 | 0.7043 | -0.0065 | 0.0143 | 0.2695 | -0.2552 | -0.1270 |
| 96 | 45.01 | -0.03 | 11.1218 | -1.2579 | -0.1903 | 0.6917 | 0.0028 | 0.0031 | 0.2688 | -0.2657 | -0.1131 |
| 97 | 45.79 | -0.02 | 11.1068 | -1.3541 | -0.0515 | 0.3556 | 0.0141 | -0.0119 | 0.2601 | -0.2720 | -0.1220 |
| 98 | 45.98 | -0.03 | 11.1074 | -1.1260 | -0.1936 | 0.5202 | 0.0000 | -0.0021 | 0.2606 | -0.2627 | -0.1003 |
| 99 | 46.15 | -0.02 | 11.2652 | -1.3521 | -0.0700 | 0.2643 | -0.0074 | 0.0082 | 0.2606 | -0.2524 | -0.1200 |
| 100 | 46.31 | -0.03 | 11.3872 | -1.3563 | -0.1996 | 0.7301 | -0.0122 | -0.0055 | 0.2568 | -0.2623 | -0.1191 |
| 101 | 46.46 | -0.01 | 11.3454 | -1.2725 | 0.0085 | 0.4592 | 0.0041 | 0.0023 | 0.2613 | -0.2550 | -0.1122 |
| 102 | 46.06 | -0.03 | 11.4135 | -1.2226 | -0.1586 | 0.6633 | -0.0065 | 0.0015 | 0.2541 | -0.2526 | -0.1071 |
| 103 | 46.66 | -0.02 | 11.7413 | -2.0847 | -0.1063 | 0.7845 | -0.0171 | 0.0057 | 0.2727 | -0.2670 | -0.1777 |
| 104 | 47.02 | -0.02 | 11.8753 | -1.9062 | -0.0516 | 0.6004 | -0.0112 | -0.0050 | 0.2603 | -0.2653 | -0.1285 |
| 105 | 47.19 | -0.03 | 11.8575 | -1.9858 | -0.2665 | 0.7165 | -0.0056 | -0.0138 | 0.2489 | -0.2627 | -0.1356 |
| 106 | 47.37 | -0.03 | 11.8674 | -1.9624 | -0.1206 | 0.7097 | -0.0115 | -0.0054 | 0.2643 | -0.2657 | -0.1062 |
| 107 | 47.54 | -0.03 | 11.8277 | -1.9511 | -0.1265 | 0.6441 | -0.0057 | -0.0022 | 0.2732 | -0.2754 | -0.1650 |
| 108 | 47.70 | -0.03 | 11.8868 | -1.9243 | -0.1098 | 0.5436 | -0.0021 | 0.0060 | 0.2773 | -0.2663 | -0.1622 |
| 109 | 47.89 | -0.03 | 12.0468 | -2.1577 | -0.0356 | 0.4657 | -0.0096 | 0.0163 | 0.2915 | -0.2731 | -0.1791 |
| 110 | 48.06 | -0.02 | 12.0817 | -2.0991 | -0.1260 | 0.5208 | 0.0069 | 0.0096 | 0.3121 | -0.3025 | -0.1737 |
| 111 | 48.24 | -0.02 | 12.1744 | -2.2530 | 0.0135 | 0.1175 | 0.0182 | 0.0282 | 0.3214 | -0.2932 | -0.1851 |
| 112 | 48.42 | -0.01 | 12.3958 | -2.5413 | 0.1347 | -0.1292 | 0.0564 | 0.0456 | 0.3319 | -0.2662 | -0.2050 |
| 113 | 48.59 | -0.01 | 12.4038 | -2.5936 | 0.0601 | 0.1569 | 0.0556 | 0.0447 | 0.3272 | -0.2624 | -0.1930 |
| 114 | 48.78 | -0.00 | 12.5455 | -2.6944 | 0.1116 | 0.2970 | 0.0500 | 0.0472 | 0.3313 | -0.2640 | -0.2108 |
| 115 | 48.93 | -0.01 | 12.5857 | -2.6326 | 0.0521 | 0.2209 | 0.0557 | 0.0439 | 0.3241 | -0.2601 | -0.2055 |
| 116 | 49.11 | -0.00 | 12.5137 | -2.5146 | 0.1015 | 0.3249 | 0.0499 | 0.0346 | 0.3242 | -0.2896 | -0.2010 |
| 117 | 49.27 | -0.01 | 12.5753 | -2.5878 | 0.0481 | 0.3466 | 0.0440 | 0.0350 | 0.3231 | -0.2880 | -0.2058 |
| 118 | 49.44 | 0.01 | 12.6763 | -2.6876 | 0.1575 | 0.3547 | 0.0440 | 0.0251 | 0.3201 | -0.2970 | -0.2121 |
| 119 | 49.63 | -0.03 | 12.7666 | -2.8624 | 0.1051 | 0.0143 | 0.0389 | 0.0406 | 0.3265 | -0.2858 | -0.2258 |
| 120 | 49.80 | -0.02 | 12.8364 | -2.9316 | 0.0674 | 0.7527 | 0.0491 | 0.0275 | 0.3209 | -0.2994 | -0.2285 |
| 121 | 49.97 | -0.01 | 12.8460 | -2.9766 | 0.0647 | 0.5251 | 0.0379 | 0.0411 | 0.3299 | -0.2887 | -0.2312 |
| 122 | 50.16 | 0.01 | 13.0362 | -3.3171 | 0.1756 | 1.1507 | 0.0319 | 0.0393 | 0.3381 | -0.2988 | -0.2546 |
| 123 | 50.32 | -0.00 | 12.9556 | -3.1488 | 0.1164 | 1.0655 | 0.0323 | 0.0373 | 0.3363 | -0.3010 | -0.2430 |
| 124 | 50.50 | 0.00 | 13.1918 | -3.5368 | 0.0945 | 1.0765 | 0.0433 | 0.0336 | 0.3369 | -0.3027 | -0.2681 |
| 125 | 50.66 | 0.01 | 13.2713 | -3.6523 | 0.2015 | 0.9557 | 0.0364 | 0.0256 | 0.3327 | -0.3071 | -0.2782 |
| 126 | 50.86 | 0.02 | 13.3526 | -3.8181 | 0.2476 | 1.0174 | 0.0384 | 0.0323 | 0.3340 | -0.3017 | -0.2860 |
| 127 | 51.03 | 0.01 | 13.4535 | -4.0546 | 0.1496 | 1.0614 | 0.0387 | 0.0206 | 0.3329 | -0.3121 | -0.3005 |
| 128 | 51.21 | 0.01 | 13.6151 | -4.2455 | 0.2005 | 0.9665 | 0.0343 | 0.0204 | 0.3343 | -0.3079 | -0.3121 |
| 129 | 51.38 | 0.02 | 13.5620 | -4.1434 | 0.3166 | 0.8484 | 0.0354 | 0.0319 | 0.3308 | -0.2989 | -0.3055 |
| 130 | 51.53 | 0.01 | 13.5107 | -4.0126 | 0.2255 | 1.0184 | 0.0369 | 0.0181 | 0.3204 | -0.3023 | -0.2970 |
| 131 | 51.72 | -0.00 | 13.6715 | -4.2891 | 0.1165 | 1.1098 | 0.0286 | 0.0185 | 0.3162 | -0.2977 | -0.3137 |
| 132 | 51.90 | 0.00 | 13.6252 | -4.7365 | 0.1713 | 1.0516 | 0.0292 | 0.0214 | 0.3256 | -0.3044 | -0.3401 |
| 133 | 52.06 | 0.01 | 13.8542 | -4.5517 | 0.2328 | 0.9375 | 0.0295 | 0.0152 | 0.3127 | -0.2975 | -0.3285 |
| 134 | 52.22 | 0.01 | 13.8021 | -4.4076 | 0.2442 | 0.9458 | 0.0241 | 0.0238 | 0.3096 | -0.2857 | -0.3193 |
| 135 | 52.39 | 0.01 | 13.8508 | -4.4853 | 0.2208 | 0.9216 | 0.0191 | 0.0190 | 0.3160 | -0.2970 | -0.3241 |
| 136 | 52.56 | 0.02 | 13.8603 | -4.4647 | 0.3271 | 0.8136 | 0.0141 | 0.0462 | 0.3217 | -0.2754 | -0.3221 |
| 137 | 52.73 | -0.00 | 13.9801 | -4.6431 | 0.1351 | 0.9935 | 0.0192 | 0.0147 | 0.3138 | -0.2991 | -0.3326 |
| 138 | 52.89 | 0.01 | 13.9571 | -4.6352 | 0.2395 | 0.8575 | 0.0143 | 0.0312 | 0.3251 | -0.2935 | -0.3324 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 4 OF 6

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REXIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 145 1.10 1.7 0.0 BlmGFs3 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 53.05 | 0.01 | 13.9244 | -4.9068 | 0.2920 | 0.7806 | 0.0093 | 0.0426 | 0.3306 | -0.2879 | -0.3275 |
| 140 | 53.24 | 0.01 | 14.0541 | -4.9669 | 0.2162 | 0.8328 | 0.0095 | 0.0456 | 0.3245 | -0.2842 | -0.3416 |
| 141 | 53.40 | 0.02 | 13.8753 | -4.4453 | 0.2453 | 0.8207 | 0.0091 | 0.0268 | 0.3275 | -0.2987 | -0.3203 |
| 142 | 53.57 | -0.00 | 13.9560 | -4.9761 | 0.1524 | 0.8535 | -0.0013 | 0.0463 | 0.3356 | -0.2915 | -0.3279 |
| 143 | 53.72 | 0.00 | 13.8550 | -4.4451 | 0.1827 | 0.8275 | 0.0053 | 0.0329 | 0.3322 | -0.2993 | -0.3202 |
| 144 | 53.92 | 0.00 | 14.1240 | -4.9951 | 0.1554 | 0.8532 | 0.0096 | 0.0344 | 0.3472 | -0.3128 | -0.3430 |
| 145 | 54.05 | -0.01 | 13.9360 | -4.4966 | 0.0563 | 0.8861 | 0.0037 | 0.0330 | 0.3413 | -0.3083 | -0.3205 |
| 146 | 54.24 | 0.01 | 14.0879 | -4.9765 | 0.2257 | 0.7891 | 0.0044 | 0.0397 | 0.3516 | -0.3119 | -0.3356 |
| 147 | 54.38 | -0.02 | 14.1572 | -4.8913 | -0.0205 | 1.0109 | 0.0095 | 0.0262 | 0.3598 | -0.3336 | -0.3455 |
| 148 | 54.55 | -0.02 | 14.1234 | -4.9246 | -0.0695 | 1.0056 | 0.0096 | 0.0297 | 0.3565 | -0.3268 | -0.3416 |
| 149 | 54.70 | -0.01 | 14.1444 | -4.8360 | 0.0765 | 0.9476 | 0.0201 | 0.0219 | 0.3515 | -0.3256 | -0.3419 |
| 150 | 54.86 | -0.02 | 14.0376 | -4.8251 | -0.0441 | 0.9565 | 0.0094 | 0.0257 | 0.3526 | -0.3269 | -0.3298 |
| 151 | 55.02 | -0.02 | 14.1240 | -4.7513 | 0.0037 | 0.8294 | 0.0101 | 0.0008 | 0.3527 | -0.3515 | -0.3364 |
| 152 | 55.19 | -0.02 | 14.1841 | -4.8436 | 0.0537 | 0.7671 | 0.0106 | 0.0106 | 0.3557 | -0.3449 | -0.3414 |
| 153 | 55.35 | -0.01 | 14.2631 | -5.0066 | 0.0743 | 0.6684 | 0.0102 | 0.0087 | 0.3622 | -0.3535 | -0.3510 |
| 154 | 55.50 | -0.01 | 14.1557 | -4.8767 | 0.1272 | 0.5997 | 0.0216 | 0.0149 | 0.3709 | -0.3560 | -0.3436 |
| 155 | 55.65 | -0.02 | 14.1435 | -4.7953 | 0.0845 | 0.6488 | 0.0160 | 0.0151 | 0.3668 | -0.3537 | -0.3393 |
| 156 | 55.81 | -0.02 | 14.1401 | -4.8135 | 0.1355 | 0.5263 | 0.0209 | 0.0016 | 0.3662 | -0.3646 | -0.3404 |
| 157 | 55.95 | -0.05 | 14.1847 | -4.8541 | -0.1632 | 0.5052 | 0.0103 | 0.0086 | 0.3728 | -0.3642 | -0.3455 |
| 158 | 56.15 | -0.03 | 14.2362 | -5.1167 | -0.0207 | 0.3008 | 0.0107 | 0.0152 | 0.3703 | -0.3551 | -0.3594 |
| 159 | 56.31 | -0.04 | 14.2642 | -5.1456 | -0.1422 | 0.3327 | 0.0106 | -0.0042 | 0.3714 | -0.3756 | -0.3645 |
| 160 | 56.47 | -0.03 | 14.2624 | -5.2383 | -0.0254 | 0.0120 | 0.0216 | -0.0347 | 0.3733 | -0.4082 | -0.3668 |
| 161 | 56.61 | -0.04 | 14.2238 | -5.0878 | -0.0758 | 0.0056 | 0.0117 | -0.0065 | 0.3749 | -0.3814 | -0.3577 |
| 162 | 56.78 | -0.04 | 14.2167 | -5.1214 | -0.0752 | 0.0913 | 0.0113 | 0.0104 | 0.3707 | -0.3663 | -0.3602 |
| 163 | 56.95 | -0.03 | 14.2755 | -5.1457 | -0.0187 | 0.3547 | 0.0234 | 0.0001 | 0.3857 | -0.3856 | -0.3944 |
| 164 | 57.10 | 0.02 | 14.4467 | -5.4797 | 0.4592 | 0.0405 | 0.0342 | -0.0068 | 0.3851 | -0.3919 | -0.3793 |
| 165 | 57.26 | -0.03 | 14.6191 | -5.7511 | 0.1164 | -0.0747 | 0.0357 | -0.0440 | 0.3834 | -0.4274 | -0.3934 |
| 166 | 57.41 | -0.08 | 14.6601 | -5.8201 | -0.3256 | -0.0508 | 0.0249 | -0.0057 | 0.3859 | -0.3956 | -0.3970 |
| 167 | 57.58 | -0.05 | 14.8278 | -6.0813 | -0.0346 | -0.1194 | 0.0306 | -0.0476 | 0.4048 | -0.4524 | -0.4169 |
| 168 | 57.69 | -0.07 | 14.5939 | -5.3770 | -0.2565 | -0.2332 | 0.0139 | -0.0187 | 0.4131 | -0.4318 | -0.3736 |
| 169 | 57.86 | -0.05 | 14.5757 | -5.8979 | -0.0047 | -0.1749 | 0.0252 | -0.0035 | 0.4269 | -0.4304 | -0.3905 |
| 170 | 58.00 | -0.03 | 14.6428 | -5.8382 | 0.0469 | -0.0837 | 0.0147 | -0.0255 | 0.4231 | -0.4486 | -0.3987 |
| 171 | 58.13 | -0.05 | 14.5445 | -5.8055 | -0.0235 | 0.0569 | 0.0246 | -0.0395 | 0.4357 | -0.4752 | -0.3992 |
| 172 | 58.29 | 0.01 | 14.5879 | -5.8081 | 0.4258 | 0.2632 | 0.0163 | -0.0305 | 0.4271 | -0.4576 | -0.4023 |
| 173 | 58.42 | -0.09 | 14.5767 | -5.8283 | -0.4112 | -0.3137 | 0.0036 | -0.0583 | 0.4331 | -0.4915 | -0.3958 |
| 174 | 58.59 | -0.05 | 14.6077 | -5.8636 | -0.1530 | 0.1602 | 0.0034 | -0.0376 | 0.4256 | -0.4672 | -0.4134 |
| 175 | 58.72 | -0.02 | 14.6693 | -5.9504 | 0.2535 | -0.0218 | 0.0140 | -0.0322 | 0.4433 | -0.4755 | -0.4146 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 125 | MACH 1.10 1.7 | RATIO-E | PHI 0.0 | CONF 0 0 0F23 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.49 | 0.00 | -0.0257 | 0.0016 | 0.0388 | -0.0165 | -0.4323 | -1.1562 | -0.0024 | -0.6358 | 0.0021 | 0.5455 |
| 2 | -5.41 | 0.00 | -0.0542 | 0.0016 | 0.0393 | -0.0174 | -0.4170 | -1.1644 | -0.0014 | -0.6359 | 0.0012 | 0.5462 |
| 3 | -5.43 | -0.00 | -0.0500 | 0.0023 | 0.0407 | -0.0257 | -0.4523 | -1.1548 | -0.0016 | -0.6333 | 0.0014 | 0.5484 |
| 4 | -4.06 | 0.01 | -0.0560 | 0.0016 | 0.0363 | -0.0171 | -0.3779 | -1.1613 | -0.0042 | -0.6481 | 0.0037 | 0.5581 |
| 5 | -2.71 | 0.01 | -0.0653 | 0.0040 | 0.0367 | -0.0464 | -0.4299 | -1.1343 | -0.0057 | -0.6573 | 0.0050 | 0.5794 |
| 6 | -0.68 | 0.00 | -0.0636 | 0.0045 | 0.0381 | -0.0750 | -0.5300 | -1.0912 | -0.0071 | -0.6458 | 0.0065 | 0.5955 |
| 7 | 1.03 | 0.00 | -0.0755 | 0.0026 | 0.0264 | -0.0345 | -0.3760 | -1.0510 | -0.0119 | -0.6239 | 0.0113 | 0.5936 |
| 8 | 2.93 | 0.01 | -0.0696 | 0.0033 | 0.0250 | -0.0476 | -0.4210 | -0.9675 | -0.0152 | -0.5835 | 0.0158 | 0.6031 |
| 9 | 4.80 | 0.01 | -0.0761 | 0.0026 | 0.0391 | -0.0371 | -0.5571 | -0.9252 | -0.0201 | -0.5405 | 0.0203 | 0.5842 |
| 10 | 6.71 | 0.01 | -0.0975 | -0.0016 | 0.0359 | 0.0167 | -0.3665 | -0.8779 | -0.0234 | -0.5233 | 0.0289 | 0.5961 |
| 11 | 8.61 | 0.00 | -0.1065 | -0.0029 | 0.0420 | 0.0264 | -0.3333 | -0.7625 | -0.0214 | -0.4710 | 0.0281 | 0.6177 |
| 12 | 10.48 | 0.01 | -0.1209 | -0.0036 | 0.0472 | 0.0295 | -0.3503 | -0.6561 | -0.0182 | -0.4211 | 0.0278 | 0.6418 |
| 13 | 12.41 | 0.01 | -0.1179 | -0.0045 | 0.0585 | 0.0385 | -0.4959 | -0.5011 | -0.0151 | -0.3438 | 0.0302 | 0.6861 |
| 14 | 14.33 | 0.01 | -0.1490 | -0.0101 | 0.0529 | 0.0677 | -0.3535 | -0.3503 | -0.0088 | -0.2794 | 0.0251 | 0.7990 |
| 15 | 16.33 | 0.00 | -0.1695 | -0.0147 | 0.0435 | 0.0884 | -0.2624 | -0.2005 | 0.0 | -0.2086 | 0.0 | 1.0414 |
| 16 | 18.32 | 0.00 | -0.1957 | -0.0281 | 0.0450 | 0.1493 | -0.2298 | -0.1118 | 0.0006 | -0.1509 | -0.0535 | 1.3494 |
| 17 | 20.28 | 0.01 | -0.2215 | -0.0175 | 0.0076 | 0.0605 | -0.0343 | 0.0193 | 0.0145 | -0.0838 | 0.7500 | -4.3066 |
| 18 | 22.27 | 0.02 | -0.1674 | -0.0110 | 0.0174 | 0.0158 | -0.1037 | 0.1151 | 0.0239 | -0.0418 | 0.2056 | -0.3695 |
| 19 | 24.31 | -0.01 | -0.3265 | -0.0108 | -0.0022 | 0.0331 | 0.1704 | 0.1593 | 0.0330 | -0.0159 | 0.2071 | -0.0555 |
| 20 | 26.32 | 0.01 | -0.1460 | 0.0 | 0.0411 | 0.0 | -0.3483 | 0.2788 | 0.0436 | 0.0313 | 0.1571 | 0.1121 |
| 21 | 28.35 | 0.05 | 0.0538 | 0.0134 | 0.1358 | 0.1430 | 1.4475 | 0.3398 | 0.0464 | 0.0590 | 0.1366 | 0.1738 |
| 22 | 26.44 | 0.03 | 0.0111 | 0.0068 | 0.1026 | 0.7913 | 9.6455 | 0.3152 | 0.0464 | 0.0544 | 0.1458 | 0.1716 |
| 23 | 26.81 | 0.03 | -0.0115 | 0.0052 | 0.0521 | -0.4350 | -0.0976 | 0.3204 | 0.0471 | 0.0574 | 0.1465 | 0.1792 |
| 24 | 29.06 | 0.03 | -0.0215 | 0.0043 | 0.0459 | -0.2106 | -0.9910 | 0.3201 | 0.0481 | 0.0621 | 0.1501 | 0.1941 |
| 25 | 29.30 | 0.02 | -0.0055 | 0.0040 | 0.0545 | -0.4184 | -0.9898 | 0.3296 | 0.0483 | 0.0658 | 0.1467 | 0.1956 |
| 26 | 29.71 | 0.03 | 0.0472 | 0.0095 | 0.1262 | 0.1043 | 2.7178 | 0.3295 | 0.0481 | 0.0676 | 0.1458 | 0.2053 |
| 27 | 29.99 | 0.05 | -0.0437 | 0.0013 | 0.0735 | -0.0287 | -1.6939 | 0.3313 | 0.0485 | 0.0744 | 0.1465 | 0.2245 |
| 28 | 30.28 | 0.03 | 0.0747 | 0.0049 | 0.1336 | 0.0659 | 1.7920 | 0.3428 | 0.0481 | 0.0857 | 0.1402 | 0.2499 |
| 29 | 30.57 | 0.05 | 0.0024 | 0.0036 | 0.1038 | 1.4800 | 43.0400 | 0.3588 | 0.0484 | 0.0564 | 0.1350 | 0.2686 |
| 30 | 30.84 | 0.06 | 0.1570 | 0.0074 | 0.1502 | 0.0376 | 0.9524 | 0.3515 | 0.0468 | 0.0975 | 0.1331 | 0.2775 |
| 31 | 31.11 | 0.05 | 0.0645 | 0.0055 | 0.1281 | 0.0652 | 1.9537 | 0.3651 | 0.0484 | 0.1043 | 0.1327 | 0.2857 |
| 32 | 31.39 | 0.07 | 0.0613 | 0.0043 | 0.1092 | 0.0368 | 0.1422 | 0.3697 | 0.0491 | 0.1076 | 0.1328 | 0.2916 |
| 33 | 31.69 | 0.04 | 0.0722 | -0.0013 | 0.1353 | -0.0159 | 1.7160 | 0.3834 | 0.0500 | 0.1134 | 0.1303 | 0.2957 |
| 34 | 31.95 | 0.06 | 0.0064 | -0.0015 | 0.1051 | -0.0636 | 17.1364 | 0.3904 | 0.0508 | 0.1187 | 0.1300 | 0.3040 |
| 35 | 32.23 | 0.03 | -0.0574 | -0.0055 | 0.0853 | 0.0556 | -1.1378 | 0.4021 | 0.0514 | 0.1244 | 0.1279 | 0.3093 |
| 36 | 32.51 | 0.04 | 0.0537 | -0.0026 | 0.1276 | -0.0405 | 2.3768 | 0.4006 | 0.0511 | 0.1256 | 0.1251 | 0.3171 |
| 37 | 32.77 | 0.02 | -0.0548 | -0.0058 | 0.0531 | 0.0611 | -0.5601 | 0.4181 | 0.0521 | 0.1322 | 0.1246 | 0.3162 |
| 38 | 33.04 | 0.02 | -0.1616 | -0.0059 | 0.0106 | 0.0579 | -0.1116 | 0.4246 | 0.0536 | 0.1356 | 0.1247 | 0.3192 |
| 39 | 33.29 | 0.03 | -0.0749 | -0.0062 | 0.0675 | 0.0825 | -0.9372 | 0.4176 | 0.0521 | 0.1340 | 0.1248 | 0.3205 |
| 40 | 33.57 | 0.02 | -0.1556 | -0.0064 | 0.0179 | 0.0507 | -0.1152 | 0.4242 | 0.0513 | 0.1391 | 0.1210 | 0.3280 |
| 41 | 33.80 | 0.01 | -0.0946 | -0.0068 | 0.0529 | 0.0612 | -0.5592 | 0.4355 | 0.0499 | 0.1465 | 0.1145 | 0.3363 |
| 42 | 34.06 | 0.03 | -0.0721 | -0.0055 | 0.0635 | 0.0703 | -0.8309 | 0.4376 | 0.0496 | 0.1475 | 0.1133 | 0.3372 |
| 43 | 34.33 | 0.01 | -0.1200 | -0.0052 | 0.0328 | 0.0434 | -0.2733 | 0.4655 | 0.0481 | 0.1457 | 0.1034 | 0.3559 |
| 44 | 34.58 | 0.00 | -0.0640 | -0.0010 | 0.0665 | 0.0458 | -1.0392 | 0.4726 | 0.0472 | 0.1472 | 0.0958 | 0.3538 |
| 45 | 34.83 | 0.02 | -0.0058 | 0.0 | 0.0567 | 0.0 | -10.0294 | 0.4681 | 0.0472 | 0.1720 | 0.0967 | 0.3524 |
| 46 | 35.08 | 0.02 | -0.0371 | 0.0 | 0.0756 | 0.0 | -2.0364 | 0.4973 | 0.0474 | 0.1764 | 0.0953 | 0.3587 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 129 PACF 1.10 RX1C-6 1.7 PHI 0.0 CLNF 81 LCF23 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.33 | 0.03 | -0.0013 | 0.0013 | 0.0588 | -1.0000 | -78.7692 | 0.5044 | 0.0479 | 0.1762 | 0.0949 | 0.3493 |
| 48 | 35.57 | 0.02 | -0.0078 | -0.0025 | 0.0434 | 0.6296 | -0.4447 | 0.5161 | 0.0467 | 0.1522 | 0.0901 | 0.3705 |
| 49 | 35.83 | 0.01 | -0.0216 | 0.0003 | 0.0846 | -0.0138 | -0.0229 | 0.5177 | 0.0461 | 0.1521 | 0.0891 | 0.3710 |
| 50 | 36.06 | 0.02 | -0.0078 | -0.0007 | 0.0595 | 0.0100 | -0.8840 | 0.5248 | 0.0454 | 0.1504 | 0.0866 | 0.3741 |
| 51 | 36.31 | 0.00 | 0.0008 | 0.0032 | 0.1025 | 0.4714 | 15.1714 | 0.5155 | 0.0426 | 0.1546 | 0.0831 | 0.3775 |
| 52 | 36.52 | 0.01 | -0.0029 | 0.0018 | 0.0853 | -0.0303 | -0.7950 | 0.4970 | 0.0436 | 0.1537 | 0.0877 | 0.3696 |
| 53 | 36.78 | 0.01 | -0.0035 | -0.0003 | 0.0817 | 0.0039 | -0.8211 | 0.5105 | 0.0417 | 0.1540 | 0.0818 | 0.3801 |
| 54 | 37.00 | 0.02 | -0.0038 | -0.0013 | 0.0419 | 0.0121 | -0.4033 | 0.5502 | 0.0410 | 0.1113 | 0.0745 | 0.3841 |
| 55 | 37.26 | 0.01 | -0.0354 | 0.0016 | 0.0763 | -0.0417 | -1.9387 | 0.5267 | 0.0391 | 0.2066 | 0.0735 | 0.3507 |
| 56 | 37.50 | 0.01 | -0.0010 | 0.0 | 0.0501 | 0.0 | -0.0851 | 0.5421 | 0.0391 | 0.1150 | 0.0721 | 0.3530 |
| 57 | 37.73 | -0.00 | -0.0034 | 0.0007 | 0.0826 | -0.0107 | -0.9878 | 0.5397 | 0.0381 | 0.2147 | 0.0706 | 0.3576 |
| 58 | 37.97 | 0.02 | -0.0014 | 0.0010 | 0.0835 | -0.0267 | -1.0409 | 0.5565 | 0.0365 | 0.2218 | 0.0653 | 0.3572 |
| 59 | 38.20 | -0.01 | -0.0314 | 0.0028 | 0.0810 | -0.0831 | -2.5754 | 0.5700 | 0.0387 | 0.2266 | 0.0643 | 0.3574 |
| 60 | 38.42 | -0.01 | -0.0457 | 0.0026 | 0.0756 | -0.0570 | -1.6540 | 0.5502 | 0.0385 | 0.2170 | 0.0656 | 0.3901 |
| 61 | 38.66 | -0.02 | -0.0432 | 0.0032 | 0.0723 | -0.0737 | -1.6719 | 0.5979 | 0.0353 | 0.2415 | 0.0591 | 0.4045 |
| 62 | 38.90 | -0.00 | -0.0596 | 0.0015 | 0.0666 | -0.0324 | -1.1197 | 0.5747 | 0.0360 | 0.2306 | 0.0626 | 0.4013 |
| 63 | 39.12 | -0.01 | -0.0560 | 0.0015 | 0.0706 | -0.0333 | -1.2160 | 0.5980 | 0.0355 | 0.2361 | 0.0594 | 0.3982 |
| 64 | 39.34 | -0.02 | -0.0591 | 0.0026 | 0.0823 | -0.0440 | -1.4038 | 0.6305 | 0.0348 | 0.2539 | 0.0552 | 0.4026 |
| 65 | 39.57 | -0.01 | -0.0574 | 0.0028 | 0.0862 | -0.0454 | -1.1529 | 0.6352 | 0.0360 | 0.2543 | 0.0567 | 0.4004 |
| 66 | 39.81 | -0.00 | -0.0641 | 0.0013 | 0.0808 | -0.0034 | -0.6755 | 0.6330 | 0.0376 | 0.2565 | 0.0581 | 0.4034 |
| 67 | 40.02 | -0.00 | -0.0361 | 0.0042 | 0.0647 | -0.1208 | -1.6987 | 0.7036 | 0.0372 | 0.2770 | 0.0529 | 0.3937 |
| 68 | 40.24 | -0.01 | -0.0462 | 0.0036 | 0.0814 | -0.0774 | -1.3236 | 0.6606 | 0.0376 | 0.2676 | 0.0555 | 0.4014 |
| 69 | 40.44 | -0.01 | -0.0584 | 0.0020 | 0.0554 | -0.0446 | -0.9455 | 0.6668 | 0.0372 | 0.2629 | 0.0555 | 0.3943 |
| 70 | 40.64 | -0.01 | -0.0294 | 0.0068 | 0.0631 | -0.2295 | -2.1443 | 0.7062 | 0.0331 | 0.2784 | 0.0538 | 0.3931 |
| 71 | 40.85 | 0.00 | -0.0634 | 0.0022 | 0.0437 | -0.0411 | -0.6395 | 0.7198 | 0.0386 | 0.2841 | 0.0536 | 0.3946 |
| 72 | 41.07 | -0.00 | -0.0656 | 0.0003 | 0.0347 | -0.0034 | -0.4049 | 0.7058 | 0.0384 | 0.2791 | 0.0544 | 0.3955 |
| 73 | 41.29 | -0.02 | -0.1035 | -0.0010 | 0.0255 | 0.0093 | -0.2451 | 0.7292 | 0.0389 | 0.2867 | 0.0533 | 0.3931 |
| 74 | 41.48 | -0.02 | -0.0911 | -0.0016 | 0.0295 | 0.0106 | -0.2639 | 0.7430 | 0.0393 | 0.2934 | 0.0529 | 0.3946 |
| 75 | 41.70 | -0.02 | -0.0975 | -0.0010 | 0.0261 | 0.0099 | -0.2583 | 0.7613 | 0.0391 | 0.2967 | 0.0513 | 0.3897 |
| 76 | 41.90 | -0.02 | -0.0938 | 0.0032 | 0.0338 | -0.0595 | -0.8306 | 0.7601 | 0.0369 | 0.3002 | 0.0512 | 0.3848 |
| 77 | 42.10 | -0.04 | -0.1958 | -0.0020 | -0.0025 | 0.0514 | 0.0161 | 0.7613 | 0.0402 | 0.2949 | 0.0529 | 0.3873 |
| 78 | 42.30 | -0.03 | -0.1975 | -0.0157 | -0.0275 | 0.0790 | 0.1592 | 0.7776 | 0.0409 | 0.3000 | 0.0526 | 0.3858 |
| 79 | 42.50 | -0.01 | -0.2672 | -0.0232 | -0.0528 | 0.0867 | 0.1975 | 0.7665 | 0.0407 | 0.2974 | 0.0531 | 0.3880 |
| 80 | 42.69 | -0.03 | -0.1965 | -0.0051 | 0.0115 | 0.0472 | -0.1094 | 0.7945 | 0.0440 | 0.3035 | 0.0554 | 0.3820 |
| 81 | 42.88 | -0.01 | -0.1988 | -0.0132 | -0.0215 | 0.0783 | 0.1275 | 0.8006 | 0.0443 | 0.3063 | 0.0553 | 0.3827 |
| 82 | 43.07 | -0.03 | -0.2051 | -0.0284 | -0.0538 | 0.1070 | 0.2031 | 0.8006 | 0.0433 | 0.3044 | 0.0541 | 0.3802 |
| 83 | 43.26 | -0.03 | -0.2383 | -0.0242 | -0.0481 | 0.1016 | 0.1935 | 0.8148 | 0.0434 | 0.3075 | 0.0558 | 0.3775 |
| 84 | 43.42 | -0.03 | -0.2031 | -0.0204 | -0.0307 | 0.1002 | 0.1805 | 0.8140 | 0.0407 | 0.3048 | 0.0573 | 0.3742 |
| 85 | 43.60 | -0.01 | -0.1641 | -0.0154 | -0.0231 | 0.0941 | 0.1405 | 0.8240 | 0.0401 | 0.3065 | 0.0583 | 0.3720 |
| 86 | 43.79 | -0.01 | -0.1913 | -0.0145 | -0.0234 | 0.0927 | 0.1550 | 0.8334 | 0.0495 | 0.3073 | 0.0594 | 0.3688 |
| 87 | 43.98 | -0.01 | -0.1926 | -0.0213 | -0.0350 | 0.1107 | 0.1849 | 0.8317 | 0.0490 | 0.3084 | 0.0589 | 0.3684 |
| 88 | 44.17 | -0.02 | -0.2418 | -0.0268 | -0.0555 | 0.1109 | 0.2310 | 0.8469 | 0.0496 | 0.3147 | 0.0586 | 0.3708 |
| 89 | 44.33 | -0.01 | -0.1302 | -0.0120 | -0.0193 | 0.0918 | 0.1677 | 0.8830 | 0.0503 | 0.3177 | 0.0583 | 0.3682 |
| 90 | 44.51 | -0.02 | -0.0773 | -0.0042 | -0.0062 | 0.0545 | 0.0025 | 0.8678 | 0.0505 | 0.3172 | 0.0581 | 0.3658 |
| 91 | 44.71 | -0.02 | -0.0828 | -0.0048 | -0.0082 | 0.0583 | 0.0091 | 0.8703 | 0.0506 | 0.3138 | 0.0583 | 0.3605 |
| 92 | 44.88 | -0.02 | -0.2279 | -0.0252 | -0.0645 | 0.1105 | 0.2028 | 0.8444 | 0.0529 | 0.3051 | 0.0626 | 0.3613 |

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 12 HALF 1.10 RATIO=C 1.7 PHI 0.0 CONF B1B0F23 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 45.07 | 0.00 | 0.0013 | 0.0071 | C.0400 | 5.6923 | 31.9231 | 0.8686 | 0.0514 | 0.3110 | 0.0592 | 0.3580 |
| 94 | 45.27 | -0.03 | -0.1012 | -0.0163 | -0.0411 | 0.1630 | 0.2500 | 0.8640 | 0.0519 | 0.3066 | C.C601 | 0.3551 |
| 95 | 45.44 | -0.03 | -0.1533 | -0.0236 | -0.0534 | 0.1168 | 0.2781 | 0.8656 | 0.0525 | 0.3074 | 0.0606 | 0.3551 |
| 96 | 45.61 | -0.03 | -0.0047 | -0.0066 | -0.0113 | 0.6797 | 0.1333 | 0.8611 | 0.0520 | 0.3014 | C.C604 | 0.3560 |
| 97 | 45.79 | -0.02 | -0.0367 | 0.0033 | C.0106 | -0.3778 | -1.9333 | 0.8355 | 0.0523 | 0.2871 | 0.0626 | 0.3437 |
| 98 | 45.98 | -0.03 | -0.1051 | -0.0167 | -0.0404 | 0.1619 | 0.1919 | 0.8430 | 0.0531 | 0.2926 | 0.0630 | 0.3471 |
| 99 | 46.15 | -0.02 | -0.1516 | -0.0191 | -0.0432 | 0.1255 | 0.2846 | 0.8674 | 0.0524 | 0.3034 | 0.0604 | 0.3457 |
| 100 | 46.31 | -0.03 | -0.1449 | -0.0179 | -0.0476 | 0.1232 | 0.3242 | 0.8535 | 0.0526 | 0.2937 | 0.0616 | 0.3441 |
| 101 | 46.46 | -0.01 | -0.0474 | -0.0023 | -C.0006 | 0.0489 | 0.0122 | 0.8515 | 0.0514 | 0.2879 | 0.0604 | 0.3381 |
| 102 | 46.66 | -0.03 | -0.1041 | -0.0143 | -0.0277 | 0.1372 | 0.2060 | 0.8597 | 0.0529 | 0.2814 | 0.0630 | 0.3351 |
| 103 | 46.86 | -0.02 | -0.1205 | -0.0165 | -0.0343 | 0.1401 | 0.2842 | 0.8541 | 0.0505 | 0.2825 | 0.0596 | 0.3368 |
| 104 | 47.02 | -0.02 | -0.1178 | -0.0179 | -0.0335 | 0.1659 | 0.3148 | 0.8746 | 0.0512 | 0.2867 | 0.0588 | 0.3293 |
| 105 | 47.19 | -0.05 | -0.1266 | -0.0188 | -0.0315 | 0.1537 | 0.2956 | 0.8594 | 0.0514 | 0.2849 | 0.0598 | 0.3315 |
| 106 | 47.37 | -0.03 | -0.1161 | -0.0178 | -0.0320 | 0.1625 | 0.2984 | 0.8658 | 0.0523 | 0.2859 | 0.0604 | 0.3302 |
| 107 | 47.54 | -0.03 | -0.0768 | -0.0166 | -0.0235 | 0.2165 | 0.2962 | 0.8804 | 0.0494 | 0.2833 | 0.0561 | 0.3218 |
| 108 | 47.70 | -0.04 | -0.0465 | -0.0135 | -0.0147 | 0.3042 | 0.3545 | 0.9276 | 0.0485 | 0.3023 | 0.0523 | 0.3259 |
| 109 | 47.89 | -0.03 | -0.0427 | -0.0178 | -0.0165 | 0.4168 | 0.3350 | 0.9411 | 0.0481 | 0.3055 | 0.0512 | 0.3285 |
| 110 | 48.06 | -0.02 | -0.0067 | -0.0168 | 0.0027 | -1.6232 | 0.4058 | 0.9139 | 0.0480 | 0.2895 | 0.0525 | 0.3167 |
| 111 | 48.24 | -0.02 | 0.0052 | -0.0023 | 0.0361 | -0.0286 | 0.4048 | 0.9439 | 0.0469 | 0.3022 | 0.0457 | 0.3201 |
| 112 | 48.42 | -0.01 | 0.0172 | 0.0118 | C.0085 | 0.0734 | 0.4097 | 0.8811 | 0.0498 | 0.2856 | 0.0463 | 0.3015 |
| 113 | 48.59 | -0.01 | 0.1254 | 0.0150 | C.0563 | C.1156 | 0.4355 | 0.8524 | 0.0482 | 0.2558 | 0.0542 | 0.3001 |
| 114 | 48.76 | -0.00 | 0.0033 | C.0141 | 0.0297 | 0.1753 | 0.4595 | 0.8100 | 0.0477 | 0.2402 | 0.0584 | 0.3039 |
| 115 | 48.93 | -0.01 | 0.0794 | 0.0124 | 0.0358 | C.1555 | 0.5006 | 0.8355 | C.0479 | 0.2554 | 0.0573 | 0.3057 |
| 116 | 49.11 | -0.00 | 0.0203 | 0.0104 | 0.0335 | C.1002 | 0.5140 | 0.8166 | 0.0469 | 0.2510 | 0.0574 | 0.3073 |
| 117 | 49.27 | -0.01 | 0.0216 | 0.0078 | 0.0140 | 0.3564 | 0.6416 | 0.8021 | 0.0477 | 0.2507 | 0.0594 | 0.3125 |
| 118 | 49.44 | 0.01 | -0.0068 | C.0000 | 0.0041 | -0.5000 | -5.2500 | 0.7879 | 0.0464 | 0.2406 | 0.0585 | 0.3136 |
| 119 | 49.63 | -0.03 | 0.0261 | 0.0057 | C.0157 | 0.3471 | 0.5601 | 0.8194 | 0.0467 | 0.2569 | 0.0570 | 0.3136 |
| 120 | 49.80 | -0.02 | -0.0028 | 0.0035 | 0.0025 | -2.1034 | -1.0345 | 0.8125 | 0.0444 | 0.2516 | 0.0546 | 0.3057 |
| 121 | 49.97 | -0.01 | -0.0051 | 0.0022 | C.0004 | -0.7234 | -0.0426 | 0.8077 | 0.0455 | 0.2503 | 0.0564 | 0.3055 |
| 122 | 50.16 | 0.01 | -0.0067 | C.0049 | -0.0004 | -C.7351 | 0.0580 | 0.8173 | 0.0436 | 0.2520 | 0.0534 | 0.3083 |
| 123 | 50.32 | -0.02 | -0.0028 | 0.0052 | 0.0015 | -2.0000 | -0.7407 | 0.8275 | 0.0444 | 0.2549 | 0.0536 | 0.3081 |
| 124 | 50.50 | 0.00 | -0.0062 | C.0033 | C.0037 | -1.1724 | -1.3103 | 0.7902 | 0.0401 | 0.2327 | 0.0508 | 0.2945 |
| 125 | 50.68 | 0.01 | -0.0105 | 0.0040 | -0.0005 | -0.3628 | 0.0796 | 0.8154 | 0.0420 | 0.2452 | 0.0515 | 0.3007 |
| 126 | 50.80 | 0.02 | 0.0014 | 0.0033 | C.0050 | 2.2667 | 3.4667 | 0.8225 | 0.0420 | 0.2465 | 0.0510 | 0.3022 |
| 127 | 51.03 | 0.01 | 0.0035 | C.0022 | 0.0061 | 0.7500 | 1.7500 | 0.8111 | 0.0398 | 0.2372 | 0.0491 | 0.2924 |
| 128 | 51.21 | 0.01 | 0.0013 | C.0022 | 0.0066 | 2.0769 | 5.3846 | 0.8134 | 0.0392 | 0.2343 | 0.0482 | 0.2942 |
| 129 | 51.38 | 0.02 | 0.0014 | C.0023 | 0.0055 | 1.7143 | 4.3571 | 0.8135 | 0.0397 | 0.2374 | 0.0487 | 0.2918 |
| 130 | 51.53 | 0.01 | 0.0011 | C.0023 | 0.0066 | 2.1818 | 4.0909 | 0.7805 | C.0392 | 0.2233 | 0.0502 | 0.2661 |
| 131 | 51.72 | -0.00 | 0.0010 | C.0022 | C.0086 | 2.7000 | 6.9500 | 0.8110 | 0.0400 | 0.2391 | 0.0494 | 0.2548 |
| 132 | 51.90 | 0.00 | 0.0009 | 0.0019 | C.0104 | 2.2222 | 12.0000 | 0.8142 | 0.0398 | 0.2367 | 0.0489 | 0.2567 |
| 133 | 52.06 | 0.01 | -0.0014 | C.0015 | 0.0111 | -1.3333 | -7.6667 | 0.8046 | 0.0406 | 0.2321 | 0.0505 | 0.2884 |
| 134 | 52.22 | 0.01 | -0.0034 | C.0026 | 0.0091 | -0.7714 | -2.0857 | 0.7716 | 0.0398 | 0.2198 | 0.0516 | 0.2849 |
| 135 | 52.39 | 0.01 | 0.0004 | C.0015 | 0.0141 | 5.0000 | 36.5000 | 0.7768 | 0.0401 | 0.2223 | 0.0517 | 0.2862 |
| 136 | 52.56 | 0.02 | 0.0042 | 0.0019 | 0.0174 | 0.6970 | 1.0970 | 0.7869 | 0.0411 | 0.2252 | 0.0522 | 0.2862 |
| 137 | 52.73 | -0.00 | -0.0035 | C.0028 | 0.0127 | -0.0750 | -3.3000 | 0.7750 | 0.0414 | 0.2223 | 0.0534 | 0.2865 |
| 138 | 52.89 | 0.01 | -0.0123 | 0.0033 | 0.0100 | -0.2077 | -0.8185 | 0.7916 | 0.0406 | 0.2293 | 0.0513 | 0.2897 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 4

PANTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 129 | NACP 1.40 | REIC-6 1.7 | PHI 0.0 | CONF BLNDF2S | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 53.05 | 0.01 | -0.0023 | 0.0033 | 0.0133 | -0.3953 | -1.0346 | 0.7916 | 0.0416 | 0.2275 | 0.0525 | 0.2874 |
| 140 | 53.24 | 0.01 | -0.0165 | 0.0033 | 0.0134 | -0.3119 | -1.0305 | 0.8010 | 0.0416 | 0.2336 | 0.0519 | 0.2906 |
| 141 | 53.43 | 0.02 | -0.0167 | 0.0036 | 0.0135 | -0.2139 | -0.6301 | 0.7823 | 0.0430 | 0.2230 | 0.0550 | 0.2851 |
| 142 | 53.57 | -0.00 | -0.0166 | 0.0036 | 0.0136 | -0.2364 | -0.9814 | 0.7726 | 0.0426 | 0.2168 | 0.0545 | 0.2795 |
| 143 | 53.72 | 0.00 | -0.0196 | 0.0038 | 0.0113 | -0.1876 | -0.5939 | 0.7866 | 0.0426 | 0.2144 | 0.0554 | 0.2765 |
| 144 | 53.92 | 0.00 | -0.0252 | 0.0040 | 0.0096 | -0.1700 | -0.3075 | 0.7867 | 0.0426 | 0.2228 | 0.0542 | 0.2832 |
| 145 | 54.05 | -0.01 | -0.0188 | 0.0023 | 0.0095 | -0.1744 | -0.5026 | 0.7844 | 0.0429 | 0.2158 | 0.0547 | 0.2802 |
| 146 | 54.24 | 0.01 | -0.0252 | 0.0042 | 0.0096 | -0.1633 | -0.3075 | 0.7773 | 0.0422 | 0.2163 | 0.0542 | 0.2783 |
| 147 | 54.36 | -0.02 | -0.0316 | 0.0040 | 0.0093 | -0.1254 | -0.1986 | 0.7750 | 0.0417 | 0.2152 | 0.0538 | 0.2776 |
| 148 | 54.55 | -0.02 | -0.0326 | 0.0042 | 0.0095 | -0.1166 | -0.1575 | 0.7512 | 0.0417 | 0.2065 | 0.0555 | 0.2749 |
| 149 | 54.70 | -0.01 | -0.0360 | 0.0040 | 0.0068 | -0.1099 | -0.1877 | 0.7470 | 0.0403 | 0.2091 | 0.0540 | 0.2795 |
| 150 | 54.88 | -0.02 | -0.0310 | 0.0040 | 0.0063 | -0.1254 | -0.1986 | 0.7571 | 0.0413 | 0.2120 | 0.0545 | 0.2800 |
| 151 | 55.02 | -0.02 | -0.0317 | 0.0033 | 0.0071 | -0.1033 | -0.2245 | 0.7484 | 0.0410 | 0.2056 | 0.0556 | 0.2800 |
| 152 | 55.19 | -0.02 | -0.0316 | 0.0033 | 0.0062 | -0.1037 | -0.1951 | 0.7539 | 0.0419 | 0.2101 | 0.0555 | 0.2788 |
| 153 | 55.35 | -0.01 | -0.0376 | 0.0037 | 0.0068 | -0.0965 | -0.0740 | 0.7538 | 0.0409 | 0.2125 | 0.0543 | 0.2825 |
| 154 | 55.50 | -0.01 | -0.0315 | 0.0037 | 0.0044 | -0.1166 | -0.1411 | 0.7443 | 0.0404 | 0.2053 | 0.0543 | 0.2812 |
| 155 | 55.65 | -0.02 | -0.0315 | 0.0033 | 0.0053 | -0.1043 | -0.1667 | 0.7579 | 0.0411 | 0.2141 | 0.0542 | 0.2825 |
| 156 | 55.81 | -0.02 | -0.0355 | 0.0036 | 0.0054 | -0.0944 | -0.0642 | 0.7478 | 0.0408 | 0.2112 | 0.0546 | 0.2825 |
| 157 | 55.95 | -0.03 | -0.0333 | 0.0033 | 0.0023 | -0.0986 | -0.0596 | 0.7694 | 0.0401 | 0.2168 | 0.0522 | 0.2818 |
| 158 | 56.15 | -0.03 | -0.0314 | 0.0033 | 0.0043 | -0.1040 | -0.1305 | 0.7643 | 0.0398 | 0.2178 | 0.0518 | 0.2831 |
| 159 | 56.31 | -0.04 | -0.0376 | 0.0033 | 0.0018 | -0.0872 | -0.0467 | 0.7431 | 0.0403 | 0.2071 | 0.0543 | 0.2786 |
| 160 | 56.47 | -0.03 | -0.0356 | 0.0033 | 0.0030 | -0.0921 | -0.0840 | 0.7622 | 0.0395 | 0.2153 | 0.0518 | 0.2824 |
| 161 | 56.61 | -0.04 | -0.0358 | 0.0030 | 0.0030 | -0.0869 | -0.0840 | 0.7733 | 0.0395 | 0.2165 | 0.0510 | 0.2800 |
| 162 | 56.76 | -0.04 | -0.0358 | 0.0033 | 0.0030 | -0.0921 | -0.0840 | 0.7590 | 0.0390 | 0.2143 | 0.0514 | 0.2824 |
| 163 | 56.95 | -0.03 | -0.0337 | 0.0033 | 0.0051 | -0.0974 | -0.1519 | 0.7685 | 0.0390 | 0.2189 | 0.0507 | 0.2845 |
| 164 | 57.10 | 0.02 | -0.0462 | 0.0037 | 0.0049 | -0.0911 | -0.1183 | 0.7497 | 0.0380 | 0.2093 | 0.0523 | 0.2810 |
| 165 | 57.26 | -0.03 | -0.0193 | 0.0020 | 0.0131 | -0.1550 | -0.6800 | 0.7605 | 0.0380 | 0.2226 | 0.0487 | 0.2854 |
| 166 | 57.41 | -0.00 | -0.0360 | 0.0020 | 0.0110 | -0.0869 | -0.3000 | 0.7567 | 0.0380 | 0.2122 | 0.0502 | 0.2804 |
| 167 | 57.58 | -0.05 | -0.0448 | 0.0033 | 0.0058 | -0.0733 | -0.1293 | 0.7590 | 0.0375 | 0.2171 | 0.0495 | 0.2860 |
| 168 | 57.69 | -0.07 | -0.0451 | 0.0033 | 0.0065 | -0.0726 | -0.1004 | 0.7493 | 0.0375 | 0.2154 | 0.0501 | 0.2874 |
| 169 | 57.88 | -0.05 | -0.0515 | 0.0037 | 0.0069 | -0.0712 | -0.1348 | 0.7781 | 0.0367 | 0.2254 | 0.0471 | 0.2857 |
| 170 | 58.04 | -0.03 | -0.0497 | 0.0037 | 0.0055 | -0.0736 | -0.2000 | 0.7877 | 0.0362 | 0.2281 | 0.0459 | 0.2896 |
| 171 | 58.13 | -0.05 | -0.0519 | 0.0033 | 0.0057 | -0.0632 | -0.1877 | 0.8220 | 0.0350 | 0.2455 | 0.0426 | 0.2988 |
| 172 | 58.29 | 0.01 | -0.0513 | 0.0033 | 0.0081 | -0.0503 | -0.1591 | 0.8291 | 0.0352 | 0.2480 | 0.0425 | 0.2991 |
| 173 | 58.42 | -0.05 | -0.0544 | 0.0033 | 0.0123 | -0.0803 | -0.2252 | 0.8054 | 0.0345 | 0.2364 | 0.0429 | 0.2935 |
| 174 | 58.59 | -0.05 | -0.0607 | 0.0036 | 0.0106 | -0.0925 | -0.1749 | 0.8401 | 0.0338 | 0.2513 | 0.0394 | 0.2970 |
| 175 | 58.72 | -0.02 | -0.0572 | 0.0026 | 0.0050 | -0.0388 | -0.1338 | 0.8707 | 0.0329 | 0.2601 | 0.0378 | 0.2988 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 129 PACH 1.10 RX1C=6 1.7 PHI 0.0 CONF 0 DIHEDRAL 0.0 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.60 | 0.00 | 0.0962 | 9.9999 | 0.0241 | 9.9999 | 0.2456 | -1.4277 | 0.0270 | -0.5567 | -0.0189 | 0.3899 |
| 2 | -5.41 | 0.00 | 0.1041 | 9.9999 | 0.0248 | 9.9999 | 0.2315 | -1.4361 | 0.0265 | -0.5587 | -0.0185 | 0.3890 |
| 3 | -5.40 | -0.00 | 0.0963 | 9.9999 | 0.0233 | 9.9999 | 0.2305 | -1.4314 | 0.0270 | -0.5592 | -0.0185 | 0.3907 |
| 4 | -4.62 | 0.01 | 0.0853 | 9.9999 | 0.0228 | 9.9999 | 0.2522 | -1.4497 | 0.0247 | -0.5732 | -0.0171 | 0.3965 |
| 5 | -2.71 | 0.01 | 0.0825 | 9.9999 | 0.0225 | 9.9999 | 0.2759 | -1.4458 | 0.0239 | -0.5642 | -0.0166 | 0.4041 |
| 6 | -0.80 | 0.00 | 0.0917 | 9.9999 | 0.0253 | 9.9999 | 0.2756 | -1.4339 | 0.0156 | -0.5866 | -0.0109 | 0.4053 |
| 7 | 1.03 | 0.00 | 0.0875 | 9.9999 | 0.0181 | 9.9999 | 0.2073 | -1.3493 | 0.0119 | -0.5535 | -0.0088 | 0.4103 |
| 8 | 2.95 | 0.01 | 0.1029 | 9.9999 | 0.0202 | 9.9999 | 0.1901 | -1.2816 | 0.0014 | -0.5085 | -0.0011 | 0.4030 |
| 9 | 4.80 | 0.01 | 0.1182 | 9.9999 | 0.0223 | 9.9999 | 0.1586 | -1.1943 | -0.0116 | -0.4736 | 0.0097 | 0.3965 |
| 10 | 6.71 | 0.01 | 0.1427 | 9.9999 | 0.0192 | 9.9999 | 0.1564 | -1.1251 | -0.0135 | -0.4523 | 0.0120 | 0.4026 |
| 11 | 8.61 | 0.00 | 0.1166 | 9.9999 | 0.0137 | 9.9999 | 0.1155 | -1.0078 | -0.0107 | -0.4052 | 0.0108 | 0.4021 |
| 12 | 10.48 | 0.01 | 0.1359 | 9.9999 | 0.0163 | 9.9999 | 0.1363 | -0.8791 | -0.0111 | -0.3519 | 0.0126 | 0.4003 |
| 13 | 12.41 | 0.01 | 0.1205 | 9.9999 | 0.0096 | 9.9999 | 0.0790 | -0.7147 | -0.0095 | -0.2788 | 0.0139 | 0.3966 |
| 14 | 14.33 | 0.01 | 0.1497 | 9.9999 | 0.0103 | 9.9999 | 0.0796 | -0.5101 | -0.0050 | -0.2234 | 0.0098 | 0.4379 |
| 15 | 16.33 | 0.00 | 0.1126 | 9.9999 | 0.0058 | 9.9999 | 0.0495 | -0.3746 | 0.0041 | -0.1355 | -0.0108 | 0.3617 |
| 16 | 18.36 | 0.00 | 0.1167 | 9.9999 | 0.0067 | 9.9999 | 0.0571 | -0.2351 | 0.0104 | -0.0672 | -0.0447 | 0.2881 |
| 17 | 20.28 | 0.01 | 0.1231 | 9.9999 | 0.0085 | 9.9999 | 0.0721 | -0.1477 | 0.0147 | -0.0178 | -0.0993 | 0.1202 |
| 18 | 22.27 | 0.02 | 0.1360 | 9.9999 | 0.0155 | 9.9999 | 0.1170 | -0.1066 | 0.0277 | 0.0091 | -0.2597 | -0.0851 |
| 19 | 24.31 | -0.01 | 0.1257 | 9.9999 | 0.0103 | 9.9999 | 0.0796 | -0.0205 | 0.0367 | 0.0480 | -1.7924 | -2.3443 |
| 20 | 26.32 | 0.01 | 0.1493 | 9.9999 | 0.0126 | 9.9999 | 0.0924 | 0.0315 | 0.0459 | 0.0788 | 1.4601 | 2.5061 |
| 21 | 28.35 | 0.05 | 0.1465 | 9.9999 | 0.0221 | 9.9999 | 0.1484 | 0.0620 | 0.0516 | 0.0588 | 0.8320 | 1.5925 |
| 22 | 29.44 | 0.03 | 0.1552 | 9.9999 | 0.0243 | 9.9999 | 0.1566 | 0.0778 | 0.0478 | 0.1105 | 0.6141 | 1.4206 |
| 23 | 28.81 | 0.03 | 0.1423 | 9.9999 | 0.0181 | 9.9999 | 0.1275 | 0.0902 | 0.0476 | 0.1195 | 0.5273 | 1.3251 |
| 24 | 29.06 | 0.05 | 0.1556 | 9.9999 | 0.0240 | 9.9999 | 0.1542 | 0.1120 | 0.0489 | 0.1321 | 0.4367 | 1.1792 |
| 25 | 29.38 | 0.02 | 0.1423 | 9.9999 | 0.0173 | 9.9999 | 0.1214 | 0.1142 | 0.0499 | 0.1351 | 0.4367 | 1.1824 |
| 26 | 29.71 | 0.03 | 0.1553 | 9.9999 | 0.0226 | 9.9999 | 0.1453 | 0.1387 | 0.0502 | 0.1469 | 0.3616 | 1.0591 |
| 27 | 29.99 | 0.05 | 0.1638 | 9.9999 | 0.0250 | 9.9999 | 0.1525 | 0.1654 | 0.0512 | 0.1607 | 0.3058 | 0.9714 |
| 28 | 30.20 | 0.03 | 0.1467 | 9.9999 | 0.0195 | 9.9999 | 0.1311 | 0.1871 | 0.0530 | 0.1733 | 0.2831 | 0.9263 |
| 29 | 30.57 | 0.05 | 0.1421 | 9.9999 | 0.0189 | 9.9999 | 0.1154 | 0.1948 | 0.0519 | 0.1791 | 0.2667 | 0.9202 |
| 30 | 30.84 | 0.06 | 0.1566 | 9.9999 | 0.0205 | 9.9999 | 0.1358 | 0.2138 | 0.0526 | 0.1885 | 0.2459 | 0.8818 |
| 31 | 31.11 | 0.05 | 0.1418 | 9.9999 | 0.0181 | 9.9999 | 0.1272 | 0.2211 | 0.0528 | 0.1935 | 0.2388 | 0.8752 |
| 32 | 31.39 | 0.07 | 0.1548 | 9.9999 | 0.0233 | 9.9999 | 0.1509 | 0.2505 | 0.0526 | 0.2092 | 0.2095 | 0.8351 |
| 33 | 31.69 | 0.04 | 0.1502 | 9.9999 | 0.0238 | 9.9999 | 0.1586 | 0.3069 | 0.0508 | 0.2312 | 0.1657 | 0.7532 |
| 34 | 31.99 | 0.06 | 0.1565 | 9.9999 | 0.0262 | 9.9999 | 0.1651 | 0.2671 | 0.0516 | 0.2271 | 0.1804 | 0.7910 |
| 35 | 32.23 | 0.03 | 0.1417 | 9.9999 | 0.0189 | 9.9999 | 0.1334 | 0.2920 | 0.0523 | 0.2311 | 0.1751 | 0.7915 |
| 36 | 32.51 | 0.04 | 0.1467 | 9.9999 | 0.0196 | 9.9999 | 0.1357 | 0.3015 | 0.0523 | 0.2334 | 0.1734 | 0.7741 |
| 37 | 32.77 | 0.02 | 0.1288 | 9.9999 | 0.0153 | 9.9999 | 0.1193 | 0.3191 | 0.0504 | 0.2418 | 0.1578 | 0.7578 |
| 38 | 33.04 | 0.02 | 0.1465 | 9.9999 | 0.0153 | 9.9999 | 0.1194 | 0.3309 | 0.0508 | 0.2444 | 0.1537 | 0.7387 |
| 39 | 33.29 | 0.03 | 0.1458 | 9.9999 | 0.0225 | 9.9999 | 0.1566 | 0.3603 | 0.0504 | 0.2573 | 0.1398 | 0.7142 |
| 40 | 33.57 | 0.02 | 0.1433 | 9.9999 | 0.0241 | 9.9999 | 0.1663 | 0.3792 | 0.0506 | 0.2602 | 0.1333 | 0.6863 |
| 41 | 33.80 | 0.01 | 0.1281 | 9.9999 | 0.0188 | 9.9999 | 0.1453 | 0.3743 | 0.0503 | 0.2633 | 0.1343 | 0.7035 |
| 42 | 34.06 | 0.03 | 0.1366 | 9.9999 | 0.0210 | 9.9999 | 0.1540 | 0.3983 | 0.0500 | 0.2711 | 0.1255 | 0.6807 |
| 43 | 34.33 | 0.01 | 0.1195 | 9.9999 | 0.0122 | 9.9999 | 0.1073 | 0.3837 | 0.0502 | 0.2675 | 0.1308 | 0.6976 |
| 44 | 34.56 | 0.00 | 0.1238 | 9.9999 | 0.0166 | 9.9999 | 0.1341 | 0.4010 | 0.0493 | 0.2749 | 0.1230 | 0.6855 |
| 45 | 34.83 | 0.02 | 0.1277 | 9.9999 | 0.0155 | 9.9999 | 0.1526 | 0.4275 | 0.0488 | 0.2861 | 0.1095 | 0.6691 |
| 46 | 35.08 | 0.04 | 0.1456 | 9.9999 | 0.0184 | 9.9999 | 0.1467 | 0.4303 | 0.0454 | 0.2869 | 0.1056 | 0.6713 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 2 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 129 | MACH 1.10 | RX10-6 1.7 | PHI 0.0 | CONF BIBOFES | D 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNB3 | CM3 | CB3 | XCPF3 | YCPF3 | CNB4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.33 | 0.03 | 0.1192 | 5.5955 | 0.0122 | 5.9997 | 0.1360 | 0.4068 | 0.0450 | 0.3006 | 0.0963 | 0.6439 |
| 48 | 35.57 | 0.02 | 0.1213 | 5.5555 | 0.0123 | 5.5555 | 0.1424 | 0.4277 | 0.0463 | 0.2906 | 0.1083 | 0.6794 |
| 49 | 35.83 | 0.01 | 0.1188 | 5.5555 | 0.0165 | 5.9999 | 0.1445 | 0.4614 | 0.0456 | 0.2991 | 0.0993 | 0.6483 |
| 50 | 36.08 | 0.02 | 0.1275 | 5.5555 | 0.0236 | 5.5599 | 0.1855 | 0.4040 | 0.0453 | 0.3020 | 0.0977 | 0.6505 |
| 51 | 36.31 | 0.00 | 0.1275 | 5.5555 | 0.0238 | 5.9999 | 0.1355 | 0.5007 | 0.0440 | 0.3145 | 0.0879 | 0.6281 |
| 52 | 36.52 | 0.01 | 0.1331 | 5.5555 | 0.0333 | 5.9999 | 0.2174 | 0.5199 | 0.0445 | 0.3176 | 0.0856 | 0.6110 |
| 53 | 36.78 | 0.01 | 0.1422 | 5.5555 | 0.0313 | 5.5599 | 0.2101 | 0.5296 | 0.0430 | 0.3234 | 0.0813 | 0.6107 |
| 54 | 37.00 | 0.02 | 0.1315 | 5.5555 | 0.0206 | 5.9999 | 0.1565 | 0.4079 | 0.0452 | 0.3086 | 0.0925 | 0.6312 |
| 55 | 37.26 | 0.01 | 0.1337 | 5.5555 | 0.0241 | 5.5555 | 0.1836 | 0.5268 | 0.0430 | 0.3239 | 0.0817 | 0.6148 |
| 56 | 37.50 | 0.01 | 0.1315 | 5.5555 | 0.0223 | 5.9999 | 0.1695 | 0.5338 | 0.0420 | 0.3267 | 0.0786 | 0.6121 |
| 57 | 37.73 | -0.00 | 0.1273 | 5.5555 | 0.0203 | 5.5559 | 0.1592 | 0.5167 | 0.0425 | 0.3210 | 0.0822 | 0.6213 |
| 58 | 37.97 | 0.02 | 0.1316 | 5.5555 | 0.0206 | 5.9995 | 0.1562 | 0.5264 | 0.0423 | 0.3235 | 0.0803 | 0.6146 |
| 59 | 38.20 | -0.01 | 0.1145 | 5.5555 | 0.0142 | 5.5555 | 0.1236 | 0.5142 | 0.0429 | 0.3200 | 0.0835 | 0.6223 |
| 60 | 38.42 | -0.01 | 0.1360 | 5.5555 | 0.0236 | 5.9999 | 0.1713 | 0.5727 | 0.0406 | 0.3364 | 0.0709 | 0.5968 |
| 61 | 38.66 | -0.02 | 0.1205 | 5.5555 | 0.0172 | 5.9999 | 0.1421 | 0.5236 | 0.0436 | 0.3234 | 0.0833 | 0.6177 |
| 62 | 38.90 | -0.00 | 0.1401 | 5.5555 | 0.0246 | 5.9999 | 0.1756 | 0.5722 | 0.0429 | 0.3404 | 0.0750 | 0.5949 |
| 63 | 39.12 | -0.01 | 0.1145 | 5.5555 | 0.0142 | 5.5599 | 0.1236 | 0.5502 | 0.0441 | 0.3343 | 0.0801 | 0.6077 |
| 64 | 39.34 | -0.02 | 0.1205 | 5.5555 | 0.0172 | 5.9999 | 0.1421 | 0.5131 | 0.0472 | 0.3202 | 0.0920 | 0.6241 |
| 65 | 39.57 | -0.01 | 0.1126 | 5.5555 | 0.0097 | 5.5555 | 0.0865 | 0.5473 | 0.0456 | 0.3325 | 0.0835 | 0.6075 |
| 66 | 39.81 | -0.00 | 0.1146 | 5.5555 | 0.0106 | 5.9995 | 0.0941 | 0.5092 | 0.0451 | 0.3464 | 0.0765 | 0.5913 |
| 67 | 40.02 | -0.00 | 0.1041 | 5.5555 | 0.0074 | 5.5599 | 0.0714 | 0.5225 | 0.0435 | 0.3269 | 0.0947 | 0.6252 |
| 68 | 40.24 | -0.01 | 0.1145 | 5.5555 | 0.0106 | 5.9999 | 0.0940 | 0.5594 | 0.0458 | 0.3381 | 0.0890 | 0.6007 |
| 69 | 40.44 | -0.01 | 0.1233 | 5.5555 | 0.0162 | 5.9999 | 0.1479 | 0.5643 | 0.0501 | 0.3352 | 0.0887 | 0.6011 |
| 70 | 40.64 | -0.01 | 0.1241 | 5.5555 | 0.0155 | 5.5595 | 0.1263 | 0.5369 | 0.0509 | 0.3307 | 0.0945 | 0.6158 |
| 71 | 40.85 | 0.00 | 0.1055 | 5.5555 | 0.0135 | 5.5595 | 0.1275 | 0.5757 | 0.0507 | 0.3434 | 0.0880 | 0.5964 |
| 72 | 41.07 | -0.00 | 0.1103 | 5.5555 | 0.0155 | 5.5595 | 0.1409 | 0.6196 | 0.0493 | 0.3502 | 0.0796 | 0.5786 |
| 73 | 41.29 | -0.02 | 0.1100 | 5.5555 | 0.0206 | 5.5599 | 0.1668 | 0.6122 | 0.0500 | 0.3558 | 0.0816 | 0.5812 |
| 74 | 41.49 | -0.02 | 0.1100 | 5.5555 | 0.0206 | 5.9999 | 0.1666 | 0.6291 | 0.0503 | 0.3616 | 0.0799 | 0.5748 |
| 75 | 41.70 | -0.02 | 0.0971 | 5.5555 | 0.0161 | 5.5555 | 0.1660 | 0.6311 | 0.0500 | 0.3624 | 0.0792 | 0.5742 |
| 76 | 41.90 | -0.02 | 0.1034 | 5.5555 | 0.0192 | 5.5555 | 0.1656 | 0.6135 | 0.0525 | 0.3541 | 0.0856 | 0.5772 |
| 77 | 42.10 | -0.04 | 0.0992 | 5.5555 | 0.0180 | 5.9999 | 0.1819 | 0.6499 | 0.0518 | 0.3675 | 0.0797 | 0.5655 |
| 78 | 42.30 | -0.03 | 0.0965 | 5.5555 | 0.0165 | 5.5599 | 0.1823 | 0.6665 | 0.0528 | 0.3679 | 0.0792 | 0.5526 |
| 79 | 42.50 | -0.01 | 0.0945 | 5.5555 | 0.0229 | 5.5555 | 0.2361 | 0.6937 | 0.0523 | 0.3800 | 0.0754 | 0.5477 |
| 80 | 42.69 | -0.03 | 0.0965 | 5.5555 | 0.0181 | 5.5599 | 0.2004 | 0.6492 | 0.0503 | 0.3627 | 0.0868 | 0.5587 |
| 81 | 42.88 | -0.01 | 0.0950 | 5.5555 | 0.0185 | 5.5555 | 0.1945 | 0.6671 | 0.0506 | 0.3655 | 0.0852 | 0.5479 |
| 82 | 43.07 | -0.03 | 0.0956 | 5.5555 | 0.0223 | 5.5599 | 0.2247 | 0.6964 | 0.0502 | 0.3766 | 0.0806 | 0.5407 |
| 83 | 43.26 | -0.03 | 0.0928 | 5.5555 | 0.0201 | 5.5555 | 0.2162 | 0.6819 | 0.0501 | 0.3738 | 0.0852 | 0.5485 |
| 84 | 43.42 | -0.03 | 0.0885 | 5.5555 | 0.0165 | 5.5599 | 0.2157 | 0.6812 | 0.0508 | 0.3694 | 0.0863 | 0.5422 |
| 85 | 43.60 | -0.01 | 0.1013 | 5.5555 | 0.0250 | 5.5599 | 0.2467 | 0.6660 | 0.0514 | 0.3648 | 0.0921 | 0.5478 |
| 86 | 43.79 | -0.01 | 0.0970 | 5.5555 | 0.0238 | 5.5599 | 0.2456 | 0.6755 | 0.0518 | 0.3665 | 0.0914 | 0.5425 |
| 87 | 43.98 | -0.01 | 0.1055 | 5.5555 | 0.0304 | 5.5599 | 0.2382 | 0.6907 | 0.0516 | 0.3714 | 0.0891 | 0.5377 |
| 88 | 44.17 | -0.02 | 0.0970 | 5.5555 | 0.0272 | 5.5599 | 0.2306 | 0.6739 | 0.0533 | 0.3569 | 0.0939 | 0.5326 |
| 89 | 44.33 | -0.01 | 0.0966 | 5.5555 | 0.0266 | 5.5555 | 0.2331 | 0.6909 | 0.0531 | 0.3683 | 0.0913 | 0.5330 |
| 90 | 44.51 | -0.02 | 0.0942 | 5.5555 | 0.0194 | 5.5599 | 0.2302 | 0.6861 | 0.0533 | 0.3685 | 0.0923 | 0.5376 |
| 91 | 44.71 | -0.02 | 0.0842 | 5.5555 | 0.0156 | 5.5599 | 0.2302 | 0.6809 | 0.0545 | 0.3640 | 0.0947 | 0.5346 |
| 92 | 44.88 | -0.02 | 0.0758 | 5.5555 | 0.0175 | 5.5595 | 0.2360 | 0.6891 | 0.0557 | 0.3422 | 0.1028 | 0.5355 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&3 1&2 1&3 MACH 1.61-6 PHI 0.0 CONF BINDERS L 0.0 DEC1 0 DEC2 -30 DEC3 0 DEC4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNFS | CM3 | CB3 | ACPFS | YCPFS | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 45.07 | 0.00 | 0.0757 | 0.0000 | 0.0171 | 0.0000 | 0.2255 | 0.6738 | 0.0659 | 0.3630 | 0.0978 | 0.5387 |
| 94 | 45.27 | -0.03 | 0.0764 | 0.0000 | 0.0236 | 0.0000 | 0.2059 | 0.6562 | 0.0672 | 0.3456 | 0.1023 | 0.5267 |
| 95 | 45.44 | -0.03 | 0.0801 | 0.0000 | 0.0206 | 0.0000 | 0.2602 | 0.6235 | 0.0661 | 0.3301 | 0.1080 | 0.5294 |
| 96 | 45.61 | -0.03 | 0.0824 | 0.0000 | 0.0216 | 0.0000 | 0.2053 | 0.6225 | 0.0674 | 0.3449 | 0.1034 | 0.5286 |
| 97 | 45.79 | -0.02 | 0.0822 | 0.0000 | 0.0210 | 0.0000 | 0.2559 | 0.6450 | 0.0682 | 0.3436 | 0.1058 | 0.5327 |
| 98 | 45.98 | -0.03 | 0.0755 | 0.0000 | 0.0171 | 0.0000 | 0.2249 | 0.6069 | 0.0661 | 0.3209 | 0.1089 | 0.5288 |
| 99 | 46.15 | -0.02 | 0.0755 | 0.0000 | 0.0175 | 0.0000 | 0.2363 | 0.6002 | 0.0660 | 0.3163 | 0.1095 | 0.5265 |
| 100 | 46.31 | -0.03 | 0.0755 | 0.0000 | 0.0175 | 0.0000 | 0.2363 | 0.6025 | 0.0667 | 0.3155 | 0.1107 | 0.5237 |
| 101 | 46.48 | -0.01 | 0.0758 | 0.0000 | 0.0157 | 0.0000 | 0.2595 | 0.6389 | 0.0681 | 0.3364 | 0.1066 | 0.5266 |
| 102 | 46.66 | -0.03 | 0.0802 | 0.0000 | 0.0217 | 0.0000 | 0.2706 | 0.5779 | 0.0672 | 0.3030 | 0.1162 | 0.5243 |
| 103 | 46.86 | -0.02 | 0.0822 | 0.0000 | 0.0244 | 0.0000 | 0.2969 | 0.5561 | 0.0672 | 0.3013 | 0.1208 | 0.5419 |
| 104 | 47.02 | -0.02 | 0.0758 | 0.0000 | 0.0157 | 0.0000 | 0.2545 | 0.5412 | 0.0678 | 0.2940 | 0.1253 | 0.5432 |
| 105 | 47.19 | -0.05 | 0.0755 | 0.0000 | 0.0157 | 0.0000 | 0.2592 | 0.5564 | 0.0672 | 0.3007 | 0.1207 | 0.5403 |
| 106 | 47.37 | -0.03 | 0.0673 | 0.0000 | 0.0175 | 0.0000 | 0.2504 | 0.5355 | 0.0673 | 0.2951 | 0.1258 | 0.5516 |
| 107 | 47.54 | -0.03 | 0.0744 | 0.0000 | 0.0258 | 0.0000 | 0.3022 | 0.5477 | 0.0678 | 0.2979 | 0.1235 | 0.5439 |
| 108 | 47.70 | -0.03 | 0.0760 | 0.0000 | 0.0206 | 0.0000 | 0.2703 | 0.5722 | 0.0673 | 0.3060 | 0.1177 | 0.5347 |
| 109 | 47.89 | -0.03 | 0.0826 | 0.0000 | 0.0245 | 0.0000 | 0.2967 | 0.5926 | 0.0689 | 0.3153 | 0.1162 | 0.5321 |
| 110 | 48.06 | -0.02 | 0.0716 | 0.0000 | 0.0226 | 0.0000 | 0.3065 | 0.5733 | 0.0687 | 0.3023 | 0.1198 | 0.5273 |
| 111 | 48.24 | -0.02 | 0.0697 | 0.0000 | 0.0192 | 0.0000 | 0.2756 | 0.6048 | 0.0694 | 0.3217 | 0.1147 | 0.5319 |
| 112 | 48.42 | -0.01 | 0.0717 | 0.0000 | 0.0225 | 0.0000 | 0.3190 | 0.6218 | 0.0696 | 0.3239 | 0.1119 | 0.5269 |
| 113 | 48.59 | -0.01 | 0.0738 | 0.0000 | 0.0238 | 0.0000 | 0.3229 | 0.6315 | 0.0700 | 0.3282 | 0.1105 | 0.5198 |
| 114 | 48.78 | -0.00 | 0.0810 | 0.0000 | 0.0235 | 0.0000 | 0.2926 | 0.6315 | 0.0699 | 0.3282 | 0.1106 | 0.5156 |
| 115 | 48.93 | -0.01 | 0.0673 | 0.0000 | 0.0195 | 0.0000 | 0.2651 | 0.6268 | 0.0694 | 0.3260 | 0.1107 | 0.5262 |
| 116 | 49.11 | -0.00 | 0.0755 | 0.0000 | 0.0245 | 0.0000 | 0.3276 | 0.6171 | 0.0681 | 0.3198 | 0.1104 | 0.5181 |
| 117 | 49.27 | -0.01 | 0.0656 | 0.0000 | 0.0201 | 0.0000 | 0.2885 | 0.6003 | 0.0683 | 0.3075 | 0.1104 | 0.5122 |
| 118 | 49.44 | 0.01 | 0.0803 | 0.0000 | 0.0265 | 0.0000 | 0.3303 | 0.6029 | 0.0683 | 0.3095 | 0.1100 | 0.5134 |
| 119 | 49.63 | -0.03 | 0.0782 | 0.0000 | 0.0260 | 0.0000 | 0.3321 | 0.6324 | 0.0675 | 0.3193 | 0.1068 | 0.5045 |
| 120 | 49.80 | -0.02 | 0.0830 | 0.0000 | 0.0205 | 0.0000 | 0.3247 | 0.6231 | 0.0653 | 0.3156 | 0.1048 | 0.5065 |
| 121 | 49.97 | -0.01 | 0.0673 | 0.0000 | 0.0225 | 0.0000 | 0.3336 | 0.6230 | 0.0656 | 0.3157 | 0.1056 | 0.5067 |
| 122 | 50.16 | 0.01 | 0.0739 | 0.0000 | 0.0238 | 0.0000 | 0.3225 | 0.6306 | 0.0646 | 0.3152 | 0.1025 | 0.4998 |
| 123 | 50.32 | -0.00 | 0.0781 | 0.0000 | 0.0233 | 0.0000 | 0.3054 | 0.6332 | 0.0664 | 0.3154 | 0.1048 | 0.5043 |
| 124 | 50.50 | 0.00 | 0.0851 | 0.0000 | 0.0232 | 0.0000 | 0.3520 | 0.6143 | 0.0626 | 0.3040 | 0.1019 | 0.4949 |
| 125 | 50.68 | 0.01 | 0.0760 | 0.0000 | 0.0258 | 0.0000 | 0.3386 | 0.6426 | 0.0645 | 0.3185 | 0.1010 | 0.4961 |
| 126 | 50.86 | 0.02 | 0.0755 | 0.0000 | 0.0260 | 0.0000 | 0.3507 | 0.6263 | 0.0637 | 0.3095 | 0.1014 | 0.4926 |
| 127 | 51.03 | 0.01 | 0.0541 | 0.0000 | 0.0206 | 0.0000 | 0.3797 | 0.5947 | 0.0631 | 0.2913 | 0.1011 | 0.4898 |
| 128 | 51.21 | 0.01 | 0.0755 | 0.0000 | 0.0260 | 0.0000 | 0.3507 | 0.6190 | 0.0614 | 0.3023 | 0.0991 | 0.4864 |
| 129 | 51.38 | 0.02 | 0.0758 | 0.0000 | 0.0251 | 0.0000 | 0.3342 | 0.6115 | 0.0616 | 0.2972 | 0.1007 | 0.4860 |
| 130 | 51.53 | 0.01 | 0.0737 | 0.0000 | 0.0273 | 0.0000 | 0.3704 | 0.5982 | 0.0594 | 0.2767 | 0.1061 | 0.4956 |
| 131 | 51.72 | -0.00 | 0.0827 | 0.0000 | 0.0264 | 0.0000 | 0.4215 | 0.5810 | 0.0578 | 0.2795 | 0.1030 | 0.4983 |
| 132 | 51.90 | 0.00 | 0.0715 | 0.0000 | 0.0260 | 0.0000 | 0.3914 | 0.5989 | 0.0592 | 0.2882 | 0.1059 | 0.4978 |
| 133 | 52.06 | 0.01 | 0.0752 | 0.0000 | 0.0300 | 0.0000 | 0.3957 | 0.5916 | 0.0588 | 0.2868 | 0.1105 | 0.5018 |
| 134 | 52.22 | 0.01 | 0.0540 | 0.0000 | 0.0240 | 0.0000 | 0.4440 | 0.4860 | 0.0550 | 0.2522 | 0.1132 | 0.5190 |
| 135 | 52.39 | 0.01 | 0.0752 | 0.0000 | 0.0317 | 0.0000 | 0.4186 | 0.4539 | 0.0571 | 0.2375 | 0.1258 | 0.5232 |
| 136 | 52.56 | 0.02 | 0.0810 | 0.0000 | 0.0260 | 0.0000 | 0.4016 | 0.4101 | 0.0522 | 0.2235 | 0.1254 | 0.5370 |
| 137 | 52.73 | -0.00 | 0.0810 | 0.0000 | 0.0260 | 0.0000 | 0.4616 | 0.4302 | 0.0548 | 0.2293 | 0.1274 | 0.5329 |
| 138 | 52.89 | 0.01 | 0.0715 | 0.0000 | 0.0315 | 0.0000 | 0.4399 | 0.4503 | 0.0536 | 0.2406 | 0.1191 | 0.5344 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RNIO-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 129 1.10 1.7 0.0 81bCF23 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 53.05 | 0.01 | 0.0628 | 9.9999 | 0.0273 | 9.9999 | 0.4347 | 0.4165 | 0.0508 | 0.2270 | 0.1221 | 0.5451 |
| 140 | 53.24 | 0.01 | 0.0594 | 9.9999 | 0.0268 | 9.9999 | 0.4429 | 0.4239 | 0.0512 | 0.2313 | 0.1205 | 0.5456 |
| 141 | 53.40 | 0.02 | 0.0652 | 9.9999 | 0.0321 | 9.9999 | 0.4644 | 0.4114 | 0.0517 | 0.2258 | 0.1257 | 0.5488 |
| 142 | 53.57 | -0.00 | 0.0624 | 9.9999 | 0.0296 | 9.9999 | 0.4624 | 0.4089 | 0.0518 | 0.2275 | 0.1273 | 0.5592 |
| 143 | 53.72 | 0.00 | 0.0627 | 9.9999 | 0.0308 | 9.9999 | 0.4938 | 0.4097 | 0.0508 | 0.2313 | 0.1241 | 0.5645 |
| 144 | 53.92 | 0.00 | 0.0645 | 9.9999 | 0.0327 | 9.9999 | 0.5037 | 0.4324 | 0.0516 | 0.2352 | 0.1194 | 0.5441 |
| 145 | 54.05 | -0.01 | 0.0457 | 9.9999 | 0.0272 | 9.9999 | 0.5476 | 0.4002 | 0.0524 | 0.2256 | 0.1309 | 0.5636 |
| 146 | 54.24 | 0.01 | 0.0672 | 9.9999 | 0.0338 | 9.9999 | 0.5029 | 0.4101 | 0.0524 | 0.2281 | 0.1278 | 0.5562 |
| 147 | 54.38 | -0.02 | 0.0457 | 9.9999 | 0.0281 | 9.9999 | 0.5650 | 0.4370 | 0.0531 | 0.2384 | 0.1214 | 0.5456 |
| 148 | 54.55 | -0.00 | 0.0584 | 9.9999 | 0.0322 | 9.9999 | 0.5521 | 0.4420 | 0.0529 | 0.2415 | 0.1196 | 0.5464 |
| 149 | 54.70 | -0.01 | 0.0470 | 9.9999 | 0.0271 | 9.9999 | 0.5700 | 0.4346 | 0.0536 | 0.2376 | 0.1234 | 0.5464 |
| 150 | 54.88 | -0.02 | 0.0498 | 9.9999 | 0.0281 | 9.9999 | 0.5640 | 0.4226 | 0.0541 | 0.2322 | 0.1281 | 0.5495 |
| 151 | 55.02 | -0.02 | 0.0583 | 9.9999 | 0.0321 | 9.9999 | 0.5714 | 0.4279 | 0.0542 | 0.2311 | 0.1267 | 0.5400 |
| 152 | 55.19 | -0.02 | 0.0563 | 9.9999 | 0.0313 | 9.9999 | 0.5548 | 0.4380 | 0.0549 | 0.2349 | 0.1254 | 0.5318 |
| 153 | 55.35 | -0.01 | 0.0454 | 9.9999 | 0.0278 | 9.9999 | 0.6115 | 0.4360 | 0.0549 | 0.2329 | 0.1254 | 0.5318 |
| 154 | 55.50 | -0.01 | 0.0496 | 9.9999 | 0.0295 | 9.9999 | 0.6006 | 0.4527 | 0.0549 | 0.2349 | 0.1213 | 0.5196 |
| 155 | 55.65 | -0.02 | 0.0515 | 9.9999 | 0.0305 | 9.9999 | 0.5948 | 0.4326 | 0.0551 | 0.2278 | 0.1274 | 0.5267 |
| 156 | 55.81 | -0.02 | 0.0405 | 9.9999 | 0.0274 | 9.9999 | 0.6656 | 0.4422 | 0.0549 | 0.2320 | 0.1242 | 0.5245 |
| 157 | 55.95 | -0.05 | 0.0343 | 9.9999 | 0.0281 | 9.9999 | 0.7584 | 0.4496 | 0.0546 | 0.2334 | 0.1215 | 0.5191 |
| 158 | 56.15 | -0.03 | 0.0388 | 9.9999 | 0.0284 | 9.9999 | 0.7177 | 0.4521 | 0.0544 | 0.2336 | 0.1204 | 0.5166 |
| 159 | 56.31 | -0.04 | 0.0388 | 9.9999 | 0.0285 | 9.9999 | 0.6702 | 0.4670 | 0.0535 | 0.2374 | 0.1155 | 0.5083 |
| 160 | 56.47 | -0.03 | 0.0363 | 9.9999 | 0.0348 | 9.9999 | 0.5977 | 0.4594 | 0.0545 | 0.2342 | 0.1195 | 0.5058 |
| 161 | 56.61 | -0.04 | 0.0503 | 9.9999 | 0.0330 | 9.9999 | 0.5856 | 0.4578 | 0.0550 | 0.2335 | 0.1201 | 0.5100 |
| 162 | 56.78 | -0.04 | 0.0493 | 9.9999 | 0.0313 | 9.9999 | 0.6908 | 0.4679 | 0.0540 | 0.2342 | 0.1155 | 0.5065 |
| 163 | 56.95 | -0.03 | 0.0322 | 9.9999 | 0.0251 | 9.9999 | 0.7784 | 0.4979 | 0.0531 | 0.2483 | 0.1066 | 0.4988 |
| 164 | 57.10 | 0.02 | 0.0453 | 9.9999 | 0.0295 | 9.9999 | 0.6011 | 0.4728 | 0.0542 | 0.2382 | 0.1147 | 0.5039 |
| 165 | 57.26 | -0.03 | 0.0405 | 9.9999 | 0.0284 | 9.9999 | 0.6934 | 0.5029 | 0.0531 | 0.2495 | 0.1055 | 0.4962 |
| 166 | 57.41 | -0.08 | 0.0434 | 9.9999 | 0.0279 | 9.9999 | 0.6136 | 0.4955 | 0.0531 | 0.2481 | 0.1071 | 0.5007 |
| 167 | 57.58 | -0.05 | 0.0457 | 9.9999 | 0.0308 | 9.9999 | 0.6194 | 0.5005 | 0.0528 | 0.2502 | 0.1055 | 0.4995 |
| 168 | 57.69 | -0.07 | 0.0541 | 9.9999 | 0.0314 | 9.9999 | 0.5758 | 0.4831 | 0.0531 | 0.2434 | 0.1098 | 0.5039 |
| 169 | 57.86 | -0.05 | 0.0453 | 9.9999 | 0.0295 | 9.9999 | 0.6511 | 0.4957 | 0.0526 | 0.2508 | 0.1061 | 0.5039 |
| 170 | 58.00 | -0.03 | 0.0453 | 9.9999 | 0.0295 | 9.9999 | 0.6011 | 0.4931 | 0.0526 | 0.2487 | 0.1066 | 0.5044 |
| 171 | 58.13 | -0.05 | 0.0410 | 9.9999 | 0.0275 | 9.9999 | 0.6706 | 0.5025 | 0.0569 | 0.2518 | 0.1133 | 0.5012 |
| 172 | 58.29 | 0.01 | 0.0563 | 9.9999 | 0.0331 | 9.9999 | 0.5673 | 0.5201 | 0.0564 | 0.2595 | 0.1085 | 0.4991 |
| 173 | 58.42 | -0.05 | 0.0410 | 9.9999 | 0.0275 | 9.9999 | 0.6706 | 0.5127 | 0.0560 | 0.2571 | 0.1091 | 0.5015 |
| 174 | 58.59 | -0.05 | 0.0453 | 9.9999 | 0.0296 | 9.9999 | 0.6332 | 0.5204 | 0.0553 | 0.2595 | 0.1062 | 0.4966 |
| 175 | 58.72 | -0.02 | 0.0410 | 9.9999 | 0.0282 | 9.9999 | 0.7129 | 0.5282 | 0.0556 | 0.2649 | 0.1052 | 0.5019 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXIG-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 130 | 0.60 | 1.7 | 0.0 | BLOCKAGE | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | ACP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | -1.4726 | 5.0371 | 0.0432 | 0.0010 | 0.0020 | 1.0377 | 0.3721 | 0.6656 | -3.4248 |
| 2 | -5.72 | -0.00 | -1.4720 | 5.0265 | -0.0155 | 0.0061 | 0.0019 | 1.0360 | 0.3724 | 0.6636 | -3.4379 |
| 3 | -5.71 | -0.01 | -1.4687 | 5.0594 | -0.0642 | 0.0121 | 0.0020 | 1.0435 | 0.3743 | 0.6692 | -3.3586 |
| 4 | -5.71 | 0.00 | -1.4565 | 5.0360 | 0.0245 | -0.0401 | 0.0022 | 1.0434 | 0.3729 | 0.6705 | -3.4520 |
| 5 | -5.71 | 0.00 | -1.4712 | 5.0363 | 0.0207 | -0.0224 | 0.0021 | 1.0377 | 0.3706 | 0.6665 | -3.4247 |
| 6 | -5.71 | 0.00 | -1.4716 | 5.0382 | -0.0014 | 0.0295 | 0.0020 | 1.0395 | 0.3722 | 0.6673 | -3.4246 |
| 7 | -5.70 | -0.00 | -1.4700 | 5.0350 | -0.0458 | 0.0587 | 0.0019 | 1.0359 | 0.3685 | 0.6674 | -3.4365 |
| 8 | -5.71 | 0.00 | -1.4545 | 5.0002 | 0.0272 | -0.0099 | 0.0021 | 1.0376 | 0.3715 | 0.6661 | -3.4378 |
| 9 | -5.71 | -0.00 | -1.4680 | 5.0350 | -0.0461 | 0.0462 | -0.0054 | 1.0325 | 0.3705 | 0.6616 | -3.3838 |
| 10 | -5.71 | 0.00 | -1.4434 | 4.9815 | 0.0134 | 0.0286 | 0.0020 | 1.0323 | 0.3689 | 0.6634 | -3.4514 |
| 11 | -5.71 | 0.00 | -1.4653 | 5.0674 | 0.0528 | -0.0716 | 0.0022 | 1.0433 | 0.3755 | 0.6678 | -3.4118 |
| 12 | -5.71 | 0.01 | -1.4761 | 5.0554 | 0.0713 | -0.0914 | 0.0022 | 1.0379 | 0.3704 | 0.6675 | -3.4389 |
| 13 | -5.71 | 0.00 | -1.4673 | 5.0534 | 0.0451 | 0.0381 | 0.0018 | 1.0359 | 0.3709 | 0.6650 | -3.3843 |
| 14 | -5.72 | -0.00 | -1.4555 | 4.9773 | -0.0167 | 0.0313 | 0.0020 | 1.0306 | 0.3681 | 0.6625 | -3.4095 |
| 15 | -5.73 | 0.01 | -1.4765 | 5.0154 | 0.0452 | 0.0381 | 0.0018 | 1.0367 | 0.3707 | 0.6660 | -3.3969 |
| 16 | -5.65 | -0.00 | -1.4304 | 4.9578 | -0.0460 | 0.0223 | 0.0021 | 1.0444 | 0.3693 | 0.6752 | -3.4939 |
| 17 | -5.44 | 0.00 | -1.4244 | 5.0220 | -0.0380 | 0.0575 | 0.0021 | 1.0412 | 0.3643 | 0.6770 | -3.5242 |
| 18 | -3.67 | 0.01 | -1.2668 | 4.8950 | 0.0158 | 0.0800 | 0.0025 | 1.0034 | 0.3450 | 0.6584 | -3.8581 |
| 19 | -1.87 | 0.01 | -1.1644 | 4.9873 | -0.0010 | 0.0428 | 0.0033 | 0.9884 | 0.3136 | 0.6546 | -4.2642 |
| 20 | -0.02 | 0.01 | -1.1060 | 5.2200 | 0.0005 | 0.0800 | -0.0107 | 0.9581 | 0.2687 | 0.6673 | -4.7709 |
| 21 | 1.79 | 0.00 | -1.1061 | 5.3758 | -0.0025 | 0.0578 | -0.0025 | 0.9622 | 0.2659 | 0.6963 | -5.2219 |
| 22 | 3.61 | 0.01 | -1.0571 | 5.0556 | -0.0004 | -0.0140 | 0.0035 | 0.9471 | 0.2393 | 0.7118 | -5.7699 |
| 23 | 5.41 | 0.01 | -0.8756 | 5.0010 | -0.0051 | -0.0166 | 0.0060 | 0.9044 | 0.2245 | 0.6759 | -6.6255 |
| 24 | 7.20 | 0.00 | -0.5994 | 5.2021 | -0.0346 | 0.0166 | 0.0065 | 0.8200 | 0.2170 | 0.6052 | -8.7787 |
| 25 | 9.06 | 0.01 | -0.3653 | 4.8536 | 0.0658 | -0.0357 | 0.0142 | 0.7403 | 0.2025 | 0.5438 | -13.2865 |
| 26 | 10.89 | 0.01 | -0.1457 | 4.9656 | -0.0021 | 0.0305 | 0.0219 | 0.6802 | 0.1926 | 0.4874 | -34.6253 |
| 27 | 12.68 | 0.01 | 0.1385 | 5.0708 | -0.0102 | 0.0573 | 0.0379 | 0.6131 | 0.1969 | 0.4162 | 28.6759 |
| 28 | 14.51 | 0.00 | 0.4781 | 5.3614 | -0.0453 | 0.0847 | 0.0014 | 0.5416 | 0.2021 | 0.3395 | 7.0300 |
| 29 | 16.40 | 0.00 | 0.8167 | 2.7766 | -0.0577 | 0.2881 | 0.0231 | 0.4717 | 0.2084 | 0.2653 | 3.3938 |
| 30 | 18.25 | -0.00 | 1.1164 | 2.2066 | -0.1625 | 0.4503 | 0.0435 | 0.4053 | 0.2096 | 0.1957 | 2.0428 |
| 31 | 20.09 | -0.01 | 1.4153 | 1.8756 | -0.3434 | 0.6872 | 0.0501 | 0.3501 | 0.2153 | 0.1348 | 1.3215 |
| 32 | 21.93 | -0.02 | 1.7411 | 1.5446 | -0.4916 | 1.0107 | 0.0296 | 0.2974 | 0.2269 | 0.0704 | 0.8873 |
| 33 | 23.77 | -0.03 | 2.0153 | 1.3016 | -0.6390 | 1.2273 | 0.0292 | 0.2469 | 0.2335 | 0.0134 | 0.6446 |
| 34 | 25.60 | -0.02 | 2.3747 | 1.1066 | -0.5336 | 1.5037 | 0.0028 | 0.2093 | 0.2312 | -0.0219 | 0.4666 |
| 35 | 27.47 | 0.02 | 2.5337 | 0.9672 | -0.2519 | -0.3360 | 0.0080 | 0.1360 | 0.2251 | -0.0891 | 0.3365 |
| 36 | 27.80 | 0.03 | 2.7935 | 1.0950 | 0.3013 | -0.5050 | 0.0078 | 0.1268 | 0.2233 | -0.0966 | 0.3534 |
| 37 | 28.11 | 0.02 | 2.8338 | 1.0706 | 0.2303 | -0.2275 | 0.0603 | 0.1263 | 0.2265 | -0.1003 | 0.3778 |
| 38 | 28.37 | 0.00 | 2.9322 | 0.9539 | 0.4722 | -0.5021 | 0.0906 | 0.1079 | 0.2256 | -0.1178 | 0.3248 |
| 39 | 28.71 | 0.03 | 3.0135 | 0.9400 | 0.2957 | -0.3902 | 0.0757 | 0.0941 | 0.2281 | -0.1320 | 0.3119 |
| 40 | 29.03 | 0.03 | 3.1141 | 0.8641 | 0.3194 | -0.3696 | 0.0886 | 0.0786 | 0.2294 | -0.1526 | 0.2775 |
| 41 | 29.31 | 0.04 | 3.1775 | 0.8645 | 0.4735 | -0.7355 | 0.0986 | 0.0709 | 0.2284 | -0.1575 | 0.2784 |
| 42 | 29.58 | 0.05 | 3.2642 | 0.8188 | 0.4830 | -0.6174 | 0.0969 | 0.0564 | 0.2285 | -0.1701 | 0.2509 |
| 43 | 29.88 | 0.05 | 3.3620 | 0.8731 | 0.5593 | -0.8516 | 0.1137 | 0.0467 | 0.2322 | -0.1835 | 0.2002 |
| 44 | 30.14 | 0.05 | 3.4375 | 0.8878 | 0.4735 | -0.3605 | 0.0987 | 0.0310 | 0.2345 | -0.2035 | 0.1716 |
| 45 | 30.40 | 0.05 | 3.4815 | 0.5911 | 0.4723 | -0.3254 | 0.0990 | 0.0262 | 0.2364 | -0.2102 | 0.1698 |
| 46 | 30.66 | 0.05 | 3.5067 | 0.4925 | 0.3712 | 0.4072 | 0.0818 | 0.0207 | 0.2430 | -0.2223 | 0.1236 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REIC-6 PHI CONF D DEL1 DEL2 DEL3 DEL4 TRANSITION
7 130 0.80 1.7 C.C BLNCFIL C.C 0 -30 0 -30 UNKNOWN

| FCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 30.56 | 0.04 | 3.2446 | C.2658 | C.1C34 | 1.2463 | 0.0282 | 0.0119 | 0.2510 | -0.2391 | 0.0795 |
| 48 | 31.22 | C.C3 | 3.0854 | C.2553 | C.1C5a | 1.2850 | 0.0282 | 0.0070 | 0.2515 | -0.2445 | C.C704 |
| 49 | 31.49 | 0.04 | 3.7574 | C.3356 | C.1165 | 1.1575 | 0.0289 | -0.0088 | 0.2496 | -0.2586 | C.C893 |
| 50 | 31.76 | C.03 | 3.8056 | C.2203 | C.0501 | 1.4163 | 0.0283 | -0.0139 | 0.2534 | -0.2673 | 0.C592 |
| 51 | 32.03 | 0.05 | 3.9354 | C.2525 | C.3317 | C.8649 | 0.0450 | -0.0244 | 0.2524 | -0.2768 | 0.C643 |
| 52 | 32.28 | C.06 | 4.0845 | C.3265 | C.3601 | C.5239 | 0.0667 | -0.0324 | 0.2567 | -0.2891 | 0.0659 |
| 53 | 32.55 | C.06 | 4.2111 | C.2957 | C.5547 | C.2276 | 0.0848 | -0.0429 | 0.2596 | -0.3026 | 0.C702 |
| 54 | 32.80 | C.C9 | 4.2535 | C.5125 | C.6435 | -C.3721 | 0.1019 | -0.0472 | 0.2563 | -0.3036 | 0.1206 |
| 55 | 33.05 | C.08 | 4.4140 | C.3341 | C.7316 | C.1774 | 0.0929 | -0.0553 | 0.2677 | -0.3231 | 0.C757 |
| 56 | 33.30 | C.08 | 4.4273 | C.3435 | C.7753 | C.1231 | 0.1005 | -0.0635 | 0.2653 | -0.3309 | 0.C776 |
| 57 | 33.55 | C.08 | 4.5414 | C.2EC5 | C.6752 | C.5726 | 0.0921 | -0.0642 | 0.2776 | -0.3419 | 0.0618 |
| 58 | 33.78 | 0.08 | 4.6378 | C.3455 | C.6721 | 0.5101 | 0.0926 | -0.0734 | 0.2785 | -0.3520 | 0.C754 |
| 59 | 34.05 | C.08 | 4.7155 | C.1767 | C.7167 | C.7821 | 0.0793 | -0.0693 | 0.2661 | -0.3555 | C.C379 |
| 60 | 34.30 | C.09 | 4.7699 | C.1651 | C.6C1e | C.6114 | 0.0926 | -0.0829 | 0.2657 | -0.3687 | 0.C228 |
| 61 | 34.52 | C.0E | 4.8301 | C.0433 | C.7204 | C.8574 | 0.0915 | -0.0847 | 0.2976 | -0.3823 | 0.C050 |
| 62 | 34.78 | C.10 | 5.1136 | -C.44Ce | C.6206 | 1.4621 | 0.1197 | -0.0997 | 0.3139 | -0.4135 | -0.C862 |
| 63 | 35.01 | 0.10 | 5.0514 | -C.1873 | C.8575 | 1.0856 | 0.0991 | -0.0993 | 0.3134 | -0.4126 | -0.0368 |
| 64 | 35.24 | C.09 | 5.1234 | -C.1C17 | C.7593 | C.8520 | 0.1004 | -0.1101 | 0.3096 | -0.4196 | -0.C199 |
| 65 | 35.48 | C.08 | 5.1446 | C.3521 | C.8546 | -C.2353 | 0.1052 | -0.1238 | 0.2925 | -0.4162 | 0.C686 |
| 66 | 35.71 | C.09 | 5.1456 | C.3946 | 1.C451 | -1.2267 | 0.1000 | -0.1462 | 0.2831 | -0.4256 | 0.C758 |
| 67 | 35.94 | C.08 | 5.2226 | C.4C85 | 1.C552 | -1.4021 | 0.1093 | -0.1501 | 0.2816 | -0.4317 | 0.C782 |
| 68 | 36.16 | C.0E | 5.3762 | C.1446 | C.9553 | -1.1245 | 0.1017 | -0.1636 | 0.2970 | -0.4605 | 0.C269 |
| 69 | 36.42 | C.08 | 5.4856 | C.0465 | 1.0117 | -C.5472 | 0.1019 | -0.1676 | 0.3025 | -0.4700 | 0.C056 |
| 70 | 36.65 | 0.07 | 5.4655 | C.3C53 | C.9376 | -1.0963 | 0.0949 | -0.1765 | 0.2928 | -0.4692 | 0.C557 |
| 71 | 36.85 | C.07 | 5.5176 | C.3356 | 1.0023 | -1.6732 | 0.0959 | -0.1890 | 0.2889 | -0.4779 | C.0609 |
| 72 | 37.11 | 0.07 | 5.5741 | C.3126 | 1.0032 | -1.0544 | 0.0879 | -0.1913 | 0.2914 | -0.4827 | 0.C561 |
| 73 | 37.34 | C.07 | 5.7257 | C.0242 | C.9E4E | -C.3597 | 0.0785 | -0.1902 | 0.3136 | -0.5038 | C.C042 |
| 74 | 37.57 | C.08 | 5.9245 | -C.3C5J | C.8123 | C.5E77 | 0.0516 | -0.1796 | 0.3346 | -0.5142 | -0.C651 |
| 75 | 37.81 | C.08 | 6.0862 | -C.5834 | C.8351 | 1.4428 | 0.0354 | -0.1987 | 0.3423 | -0.5410 | -0.C939 |
| 76 | 38.03 | C.08 | 6.1736 | -C.6865 | C.7324 | 1.8505 | 0.0267 | -0.1927 | C.3523 | -0.5450 | -0.1112 |
| 77 | 38.27 | C.08 | 6.2646 | -C.7397 | C.6922 | 2.3442 | 0.0253 | -0.1964 | 0.3538 | -0.5522 | -0.1181 |
| 78 | 38.48 | C.08 | 6.3772 | -C.8276 | C.6274 | 2.5708 | 0.0175 | -0.2078 | 0.3572 | -0.5650 | -0.1298 |
| 79 | 38.71 | C.0e | 6.5615 | -C.9346 | C.6731 | 2.8525 | 0.0021 | -0.2192 | 0.3620 | -0.5812 | -0.1426 |
| 80 | 38.93 | C.09 | 6.7274 | -1.0CE7 | C.6536 | 3.0565 | 0.0166 | -0.2165 | 0.3658 | -0.5843 | -0.1609 |
| 81 | 39.15 | C.09 | 6.8132 | -1.2C19 | C.6237 | 3.4304 | -0.0067 | -0.2314 | 0.3654 | -0.5968 | -0.1764 |
| 82 | 39.39 | C.09 | 6.8342 | -1.0252 | C.7456 | 2.7126 | 0.0184 | -0.2340 | 0.3695 | -0.6035 | -0.1500 |
| 83 | 39.56 | C.09 | 6.9719 | -1.0548 | C.7847 | 2.9420 | 0.0344 | -0.2447 | 0.3685 | -0.6132 | -0.1570 |
| 84 | 39.78 | C.10 | 7.1532 | -1.3CCC | C.7856 | 3.1531 | 0.0173 | -0.2501 | C.3736 | -0.6239 | -0.1864 |
| 85 | 39.96 | C.09 | 7.2354 | -1.4439 | C.8C9E | 3.0375 | 0.0256 | -0.2546 | 0.3786 | -0.6330 | -0.1998 |
| 86 | 40.17 | C.09 | 7.2446 | -1.3251 | C.971e | 2.1797 | 0.0510 | -0.2666 | 0.3766 | -0.6452 | -0.1839 |
| 87 | 40.38 | C.09 | 7.3437 | -1.3784 | C.9216 | 2.4399 | 0.0432 | -0.2638 | 0.3825 | -0.6463 | -0.1877 |
| 88 | 40.57 | C.07 | 7.2734 | -1.1C1C | C.8647 | 1.9350 | 0.0376 | -0.2802 | 0.3772 | -0.6634 | -0.1514 |
| 89 | 40.79 | C.08 | 7.3657 | -1.13EE | C.9221 | 2.1340 | 0.0373 | -0.2782 | 0.3815 | -0.6597 | -0.1543 |
| 90 | 41.00 | C.07 | 7.4783 | -1.0776 | C.8253 | 2.0919 | 0.0381 | -0.2920 | 0.3815 | -0.6734 | -0.1440 |
| 91 | 41.19 | C.08 | 7.5321 | -C.9263 | C.9C34 | 2.1081 | 0.0382 | -0.2840 | 0.3827 | -0.6667 | -0.1283 |
| 92 | 41.38 | C.07 | 7.6056 | -1.0393 | C.8627 | 2.2372 | 0.0360 | -0.2904 | 0.3870 | -0.6774 | -0.1366 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 130 | 0.80 | 1.7 | 0.0 | 81&0F11 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 41.58 | 0.08 | 7.7152 | -1.2495 | 0.8844 | 2.3832 | 0.0376 | -0.3078 | 0.3697 | -0.6975 | -0.1612 |
| 94 | 41.78 | 0.08 | 7.6215 | -1.2612 | 0.9332 | 2.4005 | 0.0417 | -0.3088 | 0.3910 | -0.6998 | -0.1739 |
| 95 | 41.97 | 0.08 | 7.5866 | -1.2645 | 0.9246 | 2.3574 | 0.0376 | -0.3184 | 0.3949 | -0.7133 | -0.1884 |
| 96 | 42.16 | 0.08 | 8.0645 | -1.4915 | 0.9652 | 2.4627 | 0.0457 | -0.3204 | 0.3956 | -0.7163 | -0.1850 |
| 97 | 42.33 | 0.07 | 8.0353 | -1.5382 | 0.8478 | 2.2568 | 0.0245 | -0.3333 | 0.3963 | -0.7296 | -0.1665 |
| 98 | 42.52 | 0.08 | 8.2732 | -1.6428 | 1.0104 | 2.4178 | 0.0340 | -0.3373 | 0.4034 | -0.7377 | -0.1986 |
| 99 | 42.70 | 0.09 | 8.3527 | -1.7537 | 1.0791 | 2.5381 | 0.0367 | -0.3414 | 0.3970 | -0.7384 | -0.2090 |
| 100 | 42.87 | 0.10 | 8.3004 | -1.7625 | 1.0398 | 2.4818 | 0.0472 | -0.3400 | 0.4063 | -0.7463 | -0.2097 |
| 101 | 43.08 | 0.09 | 8.6225 | -1.8135 | 1.1212 | 2.4780 | 0.0397 | -0.3393 | 0.4020 | -0.7413 | -0.2103 |
| 102 | 43.26 | 0.09 | 8.6611 | -1.8953 | 1.1537 | 2.5442 | 0.0401 | -0.3507 | 0.4062 | -0.7469 | -0.2188 |
| 103 | 43.42 | 0.09 | 8.7056 | -1.8228 | 1.1377 | 2.1881 | 0.0412 | -0.3484 | 0.4072 | -0.7556 | -0.2053 |
| 104 | 43.61 | 0.10 | 8.8164 | -1.9542 | 1.2502 | 2.1000 | 0.0415 | -0.3190 | 0.4124 | -0.7319 | -0.2218 |
| 105 | 43.80 | 0.10 | 8.8312 | -1.8081 | 1.2827 | 1.9579 | 0.0350 | -0.3282 | 0.4149 | -0.7431 | -0.2045 |
| 106 | 43.97 | 0.09 | 8.9041 | -1.8345 | 1.3203 | 1.8070 | 0.0313 | -0.3237 | 0.4193 | -0.7430 | -0.2060 |
| 107 | 44.17 | 0.10 | 9.0225 | -1.9250 | 1.4256 | 1.5106 | 0.0445 | -0.3167 | 0.4276 | -0.7445 | -0.2134 |
| 108 | 44.35 | 0.10 | 9.1116 | -1.9741 | 1.4636 | 1.3200 | 0.0328 | -0.3206 | 0.4278 | -0.7484 | -0.2167 |
| 109 | 44.53 | 0.10 | 9.1834 | -2.0077 | 1.4646 | 1.2535 | 0.0400 | -0.3166 | 0.4331 | -0.7517 | -0.2208 |
| 110 | 44.70 | 0.08 | 9.0961 | -1.7726 | 1.3301 | 1.4413 | 0.0300 | -0.3472 | 0.4280 | -0.7752 | -0.1948 |
| 111 | 44.89 | 0.11 | 9.3223 | -2.0026 | 1.4064 | 1.4154 | 0.0456 | -0.3314 | 0.4336 | -0.7650 | -0.2148 |
| 112 | 45.07 | 0.10 | 9.2754 | -1.9650 | 1.4724 | 1.4784 | 0.0435 | -0.3498 | 0.4384 | -0.7802 | -0.2058 |
| 113 | 45.24 | 0.11 | 9.4533 | -2.0577 | 1.6378 | 1.4225 | 0.0460 | -0.3249 | 0.4405 | -0.7654 | -0.2177 |
| 114 | 45.42 | 0.10 | 9.4715 | -2.0041 | 1.4595 | 1.5306 | 0.0367 | -0.3343 | 0.4423 | -0.7766 | -0.2116 |
| 115 | 45.58 | 0.10 | 9.5339 | -1.9757 | 1.4420 | 1.4544 | 0.0408 | -0.3208 | 0.4513 | -0.7721 | -0.2076 |
| 116 | 45.78 | 0.11 | 9.7756 | -2.1362 | 1.6759 | 1.1836 | 0.0261 | -0.3117 | 0.4605 | -0.7726 | -0.2179 |
| 117 | 45.95 | 0.10 | 9.7560 | -2.0156 | 1.5245 | 1.2725 | 0.0453 | -0.3260 | 0.4619 | -0.7879 | -0.2062 |
| 118 | 46.11 | 0.11 | 9.8321 | -2.1540 | 1.6108 | 1.4417 | 0.0326 | -0.3185 | 0.4676 | -0.7861 | -0.2191 |
| 119 | 46.29 | 0.09 | 9.8754 | -2.0802 | 1.4396 | 1.4458 | 0.0261 | -0.3234 | 0.4661 | -0.7895 | -0.2106 |
| 120 | 46.47 | 0.09 | 9.9379 | -2.0504 | 1.4355 | 1.4562 | 0.0203 | -0.3304 | 0.4699 | -0.8054 | -0.2059 |
| 121 | 46.65 | 0.10 | 10.0434 | -2.1285 | 1.4436 | 1.8624 | 0.0170 | -0.3321 | 0.4672 | -0.7993 | -0.2119 |
| 122 | 46.79 | 0.09 | 10.0149 | -2.0147 | 1.2699 | 1.9217 | 0.0251 | -0.3439 | 0.4643 | -0.8062 | -0.2012 |
| 123 | 46.97 | 0.08 | 10.0691 | -1.9257 | 1.1596 | 1.9805 | 0.0189 | -0.3397 | 0.4652 | -0.8045 | -0.1913 |
| 124 | 47.16 | 0.09 | 10.1228 | -1.9506 | 1.2201 | 2.0308 | 0.0188 | -0.3438 | 0.4643 | -0.8101 | -0.1966 |
| 125 | 47.32 | 0.08 | 10.0567 | -1.8664 | 1.0884 | 2.8715 | 0.0308 | -0.3511 | 0.4605 | -0.8116 | -0.1848 |
| 126 | 47.49 | 0.08 | 10.0424 | -2.0352 | 1.1744 | 2.0008 | 0.0089 | -0.3385 | 0.4724 | -0.8309 | -0.1972 |
| 127 | 47.66 | 0.08 | 10.0328 | -2.0727 | 1.1056 | 2.9265 | 0.0010 | -0.3603 | 0.4750 | -0.8393 | -0.1987 |
| 128 | 47.83 | 0.05 | 10.2356 | -1.7654 | 0.8074 | 3.4508 | -0.0017 | -0.3608 | 0.4709 | -0.8397 | -0.1729 |
| 129 | 48.01 | 0.08 | 10.0574 | -1.9402 | 0.9841 | 3.1295 | -0.0136 | -0.3683 | 0.4747 | -0.8430 | -0.1848 |
| 130 | 48.19 | 0.08 | 10.0495 | -1.9505 | 0.8196 | 3.3578 | -0.0193 | -0.3601 | 0.4765 | -0.8446 | -0.1944 |
| 131 | 48.34 | 0.07 | 10.0154 | -2.0150 | 0.8524 | 3.3617 | -0.0141 | -0.3642 | 0.4639 | -0.8480 | -0.1901 |
| 132 | 48.49 | 0.05 | 10.0070 | -1.8664 | 0.6702 | 3.5424 | -0.0000 | -0.3562 | 0.4668 | -0.8429 | -0.1620 |
| 133 | 48.66 | 0.04 | 10.2862 | -1.3140 | 0.6670 | 3.3682 | -0.1250 | -0.3726 | 0.4767 | -0.8493 | -0.1278 |
| 134 | 48.83 | 0.05 | 10.0061 | -2.0053 | 0.7416 | 3.5592 | -0.0307 | -0.3613 | 0.4925 | -0.8537 | -0.1881 |
| 135 | 49.02 | 0.03 | 10.0038 | -1.8899 | 0.6007 | 3.6140 | -0.0353 | -0.3623 | 0.4832 | -0.8514 | -0.1554 |
| 136 | 49.20 | 0.04 | 10.0527 | -1.8702 | 0.6214 | 3.7255 | -0.0365 | -0.3743 | 0.4863 | -0.8655 | -0.1756 |
| 137 | 49.36 | 0.03 | 10.0305 | -1.2967 | 0.5024 | 3.4341 | -0.0348 | -0.3975 | 0.4805 | -0.8781 | -0.1226 |
| 138 | 49.53 | 0.03 | 10.0173 | -1.8262 | 0.6236 | 3.4674 | -0.0350 | -0.3824 | 0.4821 | -0.8644 | -0.1532 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSONIC 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PRI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 150 0.60 1.7 0.0 BIBOFIL 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 49.68 | 0.02 | 10.4938 | -1.1827 | 0.4361 | 3.1178 | -0.1082 | -0.3995 | 0.4686 | -0.8682 | -0.1127 |
| 140 | 49.80 | 0.01 | 10.4938 | -1.7054 | 0.4366 | 3.0043 | -0.1077 | -0.4212 | 0.4494 | -0.8707 | -0.0739 |
| 141 | 50.02 | 0.02 | 10.4830 | -1.5917 | 0.4620 | 3.0136 | -0.0854 | -0.4245 | 0.4652 | -0.8898 | -0.0546 |
| 142 | 50.20 | 0.02 | 10.5345 | -1.6078 | 0.4159 | 2.9871 | -0.0702 | -0.3800 | 0.4428 | -0.8516 | -0.0843 |
| 143 | 50.35 | 0.00 | 10.3907 | -1.6168 | 0.3878 | 2.7423 | -0.0769 | -0.4363 | 0.4401 | -0.8845 | -0.0588 |
| 144 | 50.51 | 0.00 | 10.4812 | -1.6431 | 0.3275 | 2.8171 | -0.0992 | -0.4301 | 0.4528 | -0.8830 | -0.0613 |
| 145 | 50.71 | 0.02 | 10.8605 | -1.5188 | 0.4644 | 3.3615 | -0.0582 | -0.3669 | 0.4967 | -0.8575 | -0.1398 |
| 146 | 50.88 | 0.03 | 11.0693 | -1.7540 | 0.4284 | 3.4742 | -0.0491 | -0.3838 | 0.4988 | -0.8826 | -0.1585 |
| 147 | 51.04 | 0.04 | 11.2188 | -1.8876 | 0.4329 | 3.6007 | -0.0491 | -0.3793 | 0.5060 | -0.8853 | -0.1683 |
| 148 | 51.21 | 0.04 | 11.1880 | -1.8683 | 0.4056 | 3.6358 | -0.0495 | -0.3693 | 0.5070 | -0.8763 | -0.1616 |
| 149 | 51.38 | 0.05 | 11.3722 | -1.9335 | 0.3562 | 3.8635 | -0.0503 | -0.3852 | 0.5076 | -0.8922 | -0.1700 |
| 150 | 51.55 | 0.04 | 11.3103 | -1.8101 | 0.4153 | 3.8027 | -0.0487 | -0.3805 | 0.5104 | -0.8909 | -0.1600 |
| 151 | 51.72 | 0.05 | 11.4128 | -1.9058 | 0.3467 | 3.8736 | -0.0554 | -0.3989 | 0.5086 | -0.9069 | -0.1670 |
| 152 | 51.88 | 0.06 | 11.4459 | -1.8705 | 0.4285 | 4.0477 | -0.0508 | -0.3906 | 0.5177 | -0.9143 | -0.1641 |
| 153 | 52.05 | 0.06 | 11.5333 | -1.9437 | 0.3916 | 4.0422 | -0.0503 | -0.3982 | 0.5181 | -0.9163 | -0.1685 |
| 154 | 52.22 | 0.06 | 11.5830 | -2.0007 | 0.3489 | 4.1477 | -0.0506 | -0.4222 | 0.5172 | -0.9394 | -0.1819 |
| 155 | 52.39 | 0.07 | 11.7703 | -2.2508 | 0.3709 | 4.3179 | -0.0500 | -0.4301 | 0.5154 | -0.9455 | -0.1946 |
| 156 | 52.56 | 0.07 | 11.7404 | -2.1536 | 0.3979 | 4.2322 | -0.1019 | -0.4430 | 0.5140 | -0.9570 | -0.1868 |
| 157 | 52.73 | 0.07 | 11.8479 | -2.2557 | 0.3552 | 4.1342 | -0.1313 | -0.4505 | 0.5005 | -0.9514 | -0.1938 |
| 158 | 52.89 | 0.08 | 11.8076 | -2.2055 | 1.2033 | 4.1271 | -0.1316 | -0.4504 | 0.5024 | -0.9691 | -0.2069 |
| 159 | 53.04 | 0.08 | 11.5705 | -2.4742 | 1.1555 | 3.9710 | -0.1163 | -0.4589 | 0.5026 | -0.9615 | -0.2068 |
| 160 | 53.24 | 0.10 | 12.0978 | -2.7255 | 1.4020 | 3.8800 | -0.0757 | -0.4343 | 0.5065 | -0.9608 | -0.2202 |
| 161 | 53.36 | 0.10 | 12.1218 | -2.8155 | 1.3553 | 3.9294 | -0.0996 | -0.4610 | 0.5050 | -0.9660 | -0.2161 |
| 162 | 53.54 | 0.09 | 12.4078 | -2.9585 | 1.3166 | 3.9491 | -0.0834 | -0.4615 | 0.5101 | -0.9796 | -0.2369 |
| 163 | 53.71 | 0.09 | 12.4777 | -2.8037 | 1.3864 | 3.9632 | -0.0877 | -0.4662 | 0.5138 | -0.9800 | -0.2247 |
| 164 | 53.87 | 0.10 | 12.6276 | -2.8711 | 1.5112 | 3.2813 | -0.0372 | -0.4412 | 0.5295 | -0.9711 | -0.2274 |
| 165 | 54.05 | 0.10 | 12.9378 | -3.0950 | 1.6380 | 2.9732 | 0.0097 | -0.4256 | 0.5449 | -0.9735 | -0.2392 |
| 166 | 54.19 | 0.10 | 12.9679 | -3.0250 | 1.5564 | 2.8703 | 0.0400 | -0.4146 | 0.5476 | -0.9622 | -0.2336 |
| 167 | 54.35 | 0.10 | 13.1503 | -3.0823 | 1.5716 | 2.7976 | 0.0414 | -0.4313 | 0.5575 | -0.9888 | -0.2344 |
| 168 | 54.54 | 0.09 | 13.0477 | -3.0725 | 1.5452 | 2.5931 | 0.0570 | -0.4136 | 0.5633 | -0.9763 | -0.2355 |
| 169 | 54.69 | 0.10 | 13.2306 | -3.0145 | 1.5596 | 2.8755 | 0.0641 | -0.4194 | 0.5656 | -0.9852 | -0.2279 |
| 170 | 54.82 | 0.10 | 13.2933 | -3.0250 | 1.6285 | 2.8025 | 0.0573 | -0.4244 | 0.5707 | -0.9951 | -0.2426 |
| 171 | 54.98 | 0.08 | 13.3370 | -3.2386 | 1.3555 | 2.5459 | 0.0645 | -0.3980 | 0.5755 | -0.9715 | -0.2428 |
| 172 | 55.15 | 0.07 | 13.3010 | -3.1060 | 1.3286 | 2.7105 | 0.0578 | -0.4235 | 0.5770 | -1.0065 | -0.2397 |
| 173 | 55.31 | 0.09 | 13.2703 | -3.1084 | 1.5213 | 2.7505 | 0.0497 | -0.4269 | 0.5750 | -1.0019 | -0.2342 |
| 174 | 55.48 | 0.07 | 13.2924 | -3.0470 | 1.2653 | 2.7426 | 0.0560 | -0.4144 | 0.5676 | -0.9820 | -0.2277 |
| 175 | 55.63 | 0.07 | 13.3606 | -3.0528 | 1.3267 | 2.7368 | 0.0582 | -0.4076 | 0.5833 | -0.9709 | -0.2195 |
| 176 | 55.79 | 0.09 | 13.4355 | -3.0694 | 1.5604 | 2.7555 | 0.0579 | -0.4071 | 0.5643 | -0.9714 | -0.2240 |
| 177 | 55.95 | 0.09 | 13.4886 | -3.1568 | 1.5508 | 2.7419 | 0.0581 | -0.4232 | 0.5775 | -1.0007 | -0.2341 |
| 178 | 56.10 | 0.07 | 13.3549 | -2.9610 | 1.3254 | 2.7427 | 0.0432 | -0.4262 | 0.5752 | -1.0034 | -0.2217 |
| 179 | 56.25 | 0.07 | 13.4268 | -3.0068 | 1.3125 | 2.7314 | 0.0435 | -0.4399 | 0.5728 | -1.0127 | -0.2181 |
| 180 | 56.42 | 0.07 | 13.4585 | -3.2122 | 1.4977 | 2.7456 | 0.0441 | -0.4522 | 0.5694 | -1.0416 | -0.2352 |
| 181 | 56.57 | 0.08 | 13.5850 | -2.9152 | 1.3660 | 2.8661 | 0.0521 | -0.4346 | 0.5853 | -1.0199 | -0.2149 |
| 182 | 56.72 | 0.08 | 13.6564 | -2.9676 | 1.4274 | 2.7443 | 0.0596 | -0.4157 | 0.5967 | -1.0064 | -0.2173 |
| 183 | 56.87 | 0.07 | 13.7228 | -3.1448 | 1.3111 | 2.7382 | 0.0595 | -0.4548 | 0.5932 | -1.0480 | -0.2252 |
| 184 | 57.00 | 0.07 | 13.6785 | -2.9978 | 1.3491 | 2.5408 | 0.0526 | -0.4530 | 0.5956 | -1.0482 | -0.2152 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10=6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 130 0.60 1.7 0.0 BIBOPIL 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.15 | 0.07 | 13.6821 | -2.9092 | 1.3593 | 2.7330 | 0.0596 | -0.4250 | 0.6015 | -1.0265 | -0.2126 |
| 186 | 57.31 | 0.07 | 13.6363 | -3.0157 | 1.3237 | 2.6726 | 0.0604 | -0.4408 | 0.6106 | -1.0514 | -0.2160 |
| 187 | 57.43 | 0.05 | 13.6437 | -2.8170 | 1.1956 | 2.4131 | 0.0535 | -0.4306 | 0.5951 | -1.0377 | -0.2065 |
| 188 | 57.60 | 0.05 | 13.6052 | -2.7184 | 1.1489 | 2.3753 | 0.0605 | -0.4304 | 0.6053 | -1.0357 | -0.1986 |
| 189 | 57.75 | 0.06 | 13.5463 | -2.6522 | 1.2235 | 2.6114 | 0.0609 | -0.4331 | 0.6126 | -1.0457 | -0.2132 |
| 190 | 57.81 | 0.04 | 13.5126 | -3.1091 | 0.9661 | 2.4296 | 0.0622 | -0.4295 | 0.6105 | -1.0400 | -0.2235 |
| 191 | 57.80 | 0.06 | 13.7236 | -2.7817 | 1.1240 | 2.5445 | 0.0610 | -0.4319 | 0.6130 | -1.0449 | -0.2027 |
| 192 | 57.82 | 0.07 | 13.9718 | -3.0133 | 1.3707 | 2.4547 | 0.0539 | -0.4420 | 0.6201 | -1.0661 | -0.2157 |
| 193 | 57.81 | 0.05 | 13.8125 | -2.5748 | 1.0397 | 2.4826 | 0.0615 | -0.4595 | 0.6187 | -1.0763 | -0.2154 |
| 194 | 57.82 | 0.05 | 13.6533 | -2.8455 | 1.1156 | 2.7319 | 0.0601 | -0.4369 | 0.6186 | -1.0555 | -0.2093 |
| 195 | 57.82 | 0.05 | 13.6337 | -2.8456 | 1.1821 | 2.1617 | 0.0627 | -0.4406 | 0.6186 | -1.0572 | -0.2096 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 150 PACH 0.80 RNIC=6 1.7 PHI 0.0 CONF 1 BUFFLE 0.0 L 0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ALPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | -0.0185 | 0.0321 | 0.0085 | -0.1147 | -0.4363 | -0.7797 | -0.0526 | -0.4175 | 0.0674 | 0.5355 |
| 2 | -5.72 | -0.00 | -0.0193 | 0.0252 | 0.0152 | -0.1568 | -0.6013 | -0.7746 | -0.0529 | -0.4151 | 0.0683 | 0.5356 |
| 3 | -5.71 | -0.01 | -0.0139 | 0.0227 | 0.0101 | -0.1542 | -0.7206 | -0.7801 | -0.0531 | -0.4156 | 0.0674 | 0.5324 |
| 4 | -5.71 | 0.00 | -0.0162 | 0.0214 | 0.0082 | -0.0765 | -0.4305 | -0.7801 | -0.0531 | -0.4189 | 0.0674 | 0.5315 |
| 5 | -5.71 | 0.00 | -0.0163 | 0.0214 | 0.0086 | -0.0765 | -0.4305 | -0.7806 | -0.0529 | -0.4195 | 0.0672 | 0.5333 |
| 6 | -5.71 | 0.00 | -0.0163 | 0.0221 | 0.0089 | -0.1147 | -0.4603 | -0.7798 | -0.0527 | -0.4182 | 0.0676 | 0.5363 |
| 7 | -5.70 | 0.00 | -0.0211 | 0.0305 | 0.0171 | -0.2379 | -0.3365 | -0.7865 | -0.0530 | -0.4202 | 0.0674 | 0.5343 |
| 8 | -5.71 | 0.00 | -0.0138 | 0.0225 | 0.0101 | -0.2101 | -0.7319 | -0.7784 | -0.0525 | -0.4148 | 0.0674 | 0.5329 |
| 9 | -5.71 | -0.00 | -0.0161 | 0.0213 | 0.0075 | -0.0718 | -0.4144 | -0.7731 | -0.0529 | -0.4157 | 0.0684 | 0.5377 |
| 10 | -5.71 | 0.00 | -0.0225 | 0.0302 | 0.0302 | -0.0089 | -0.2756 | -0.7816 | -0.0530 | -0.4178 | 0.0676 | 0.5345 |
| 11 | -5.71 | 0.00 | -0.0122 | 0.0227 | 0.0156 | -0.2215 | -0.7869 | -0.7884 | -0.0528 | -0.4210 | 0.0670 | 0.5346 |
| 12 | -5.71 | 0.01 | -0.0167 | 0.0218 | 0.0103 | -0.1078 | -0.4976 | -0.7807 | -0.0532 | -0.4196 | 0.0676 | 0.5334 |
| 13 | -5.71 | 0.00 | -0.0161 | 0.0213 | 0.0075 | -0.0718 | -0.4144 | -0.7783 | -0.0528 | -0.4161 | 0.0678 | 0.5346 |
| 14 | -5.71 | -0.00 | -0.0164 | 0.0211 | 0.0082 | -0.0811 | -0.3776 | -0.7766 | -0.0530 | -0.4140 | 0.0682 | 0.5331 |
| 15 | -5.73 | 0.01 | -0.0161 | 0.0214 | 0.0085 | -0.0773 | -0.3812 | -0.7731 | -0.0531 | -0.4144 | 0.0687 | 0.5360 |
| 16 | -5.69 | -0.00 | -0.0152 | 0.0222 | 0.0080 | -0.1447 | -0.5058 | -0.7731 | -0.0531 | -0.4144 | 0.0687 | 0.5360 |
| 17 | -5.44 | 0.00 | -0.0151 | 0.0215 | 0.0075 | -0.1258 | -0.5232 | -0.7598 | -0.0535 | -0.4086 | 0.0704 | 0.5378 |
| 18 | -3.67 | 0.01 | -0.0150 | 0.0221 | 0.0072 | -0.1430 | -0.4800 | -0.7363 | -0.0540 | -0.3945 | 0.0733 | 0.5358 |
| 19 | -1.87 | 0.01 | -0.0120 | 0.0230 | 0.0078 | -0.2495 | -0.8333 | -0.7263 | -0.0532 | -0.3896 | 0.0732 | 0.5364 |
| 20 | -0.02 | 0.01 | -0.0140 | 0.0214 | 0.0145 | -0.0555 | -0.3082 | -0.7519 | -0.0543 | -0.3952 | 0.0722 | 0.5256 |
| 21 | 1.79 | 0.00 | -0.0122 | 0.0240 | 0.0060 | -1.4282 | -2.8571 | -0.8160 | -0.0543 | -0.4188 | 0.0665 | 0.5132 |
| 22 | 3.61 | 0.01 | -0.0067 | 0.0227 | 0.0061 | -0.3103 | -0.8697 | -0.8653 | -0.0846 | -0.4383 | 0.0577 | 0.5065 |
| 23 | 5.41 | 0.01 | -0.0122 | 0.0224 | 0.0095 | -0.1567 | -0.7787 | -0.8105 | -0.0850 | -0.4144 | 0.1097 | 0.5110 |
| 24 | 7.20 | 0.00 | -0.0127 | 0.0230 | 0.0135 | -0.2302 | -1.0030 | -0.7087 | -0.0840 | -0.3740 | 0.1185 | 0.5277 |
| 25 | 9.06 | 0.01 | -0.0126 | 0.0224 | 0.0134 | -0.1504 | -1.0035 | -0.6113 | -0.0839 | -0.3274 | 0.1372 | 0.5356 |
| 26 | 10.89 | 0.01 | -0.0085 | 0.0241 | 0.0167 | -0.4822 | -1.9047 | -0.5349 | -0.0822 | -0.2902 | 0.1536 | 0.5425 |
| 27 | 12.68 | 0.01 | -0.0216 | 0.0217 | 0.0111 | -0.0787 | -0.5139 | -0.4440 | -0.0731 | -0.2385 | 0.1646 | 0.5372 |
| 28 | 14.51 | 0.00 | -0.0369 | 0.0 | 0.0086 | 0.0 | -0.2820 | -0.3333 | -0.0592 | -0.1816 | 0.1776 | 0.5446 |
| 29 | 16.40 | 0.00 | -0.0254 | 0.0217 | 0.0172 | -0.0669 | -0.6772 | -0.2504 | -0.0462 | -0.1403 | 0.1845 | 0.5603 |
| 30 | 18.25 | -0.01 | -0.0260 | 0.0214 | 0.0257 | -0.0700 | -1.1650 | -0.1876 | -0.0327 | -0.0951 | 0.1743 | 0.5065 |
| 31 | 20.09 | -0.01 | -0.0176 | 0.0205 | 0.0295 | -0.0454 | -1.6989 | -0.1217 | -0.0185 | -0.0761 | 0.1520 | 0.5760 |
| 32 | 21.93 | -0.02 | -0.0360 | -0.0017 | 0.0256 | 0.0447 | -0.5474 | -0.0698 | -0.0036 | -0.0383 | 0.0516 | 0.5467 |
| 33 | 23.77 | -0.03 | -0.0201 | -0.0062 | 0.0011 | 0.1148 | -0.0137 | -0.0293 | 0.0117 | -0.0242 | -0.3552 | 0.8259 |
| 34 | 25.60 | -0.02 | -0.0120 | -0.0062 | -0.0110 | 0.0854 | 0.1515 | 0.0341 | 0.0346 | 0.0005 | 0.5568 | 0.0264 |
| 35 | 27.47 | 0.02 | 0.1234 | 0.0204 | 0.0544 | 0.2135 | 0.7850 | 0.1171 | 0.0633 | 0.0326 | 0.5404 | 0.2784 |
| 36 | 27.60 | 0.03 | 0.1762 | 0.0330 | 0.1152 | 0.1872 | 0.6272 | 0.1236 | 0.0642 | 0.0359 | 0.5184 | 0.2900 |
| 37 | 28.11 | 0.02 | 0.0879 | 0.0205 | 0.0702 | 0.2332 | 0.7986 | 0.1170 | 0.0651 | 0.0327 | 0.5563 | 0.2795 |
| 38 | 28.37 | 0.06 | 0.2134 | 0.0345 | 0.1396 | 0.1899 | 0.6520 | 0.1502 | 0.0688 | 0.0484 | 0.4579 | 0.3228 |
| 39 | 28.71 | 0.03 | 0.1630 | 0.0330 | 0.1127 | 0.2024 | 0.6914 | 0.1471 | 0.0696 | 0.0462 | 0.4730 | 0.3141 |
| 40 | 29.03 | 0.03 | 0.1193 | 0.0279 | 0.0916 | 0.2338 | 0.7926 | 0.1406 | 0.0714 | 0.0476 | 0.4862 | 0.3243 |
| 41 | 29.31 | 0.04 | 0.1965 | 0.0357 | 0.1330 | 0.1995 | 0.6587 | 0.1720 | 0.0733 | 0.0573 | 0.4260 | 0.3331 |
| 42 | 29.58 | 0.05 | 0.1936 | 0.0404 | 0.1305 | 0.2093 | 0.6762 | 0.1735 | 0.0745 | 0.0595 | 0.4293 | 0.3429 |
| 43 | 29.86 | 0.05 | 0.2540 | 0.0557 | 0.1577 | 0.2192 | 0.6209 | 0.1901 | 0.0766 | 0.0677 | 0.4035 | 0.3561 |
| 44 | 30.14 | 0.05 | 0.1932 | 0.0403 | 0.1265 | 0.2586 | 0.8081 | 0.1835 | 0.0760 | 0.0666 | 0.4282 | 0.3629 |
| 45 | 30.40 | 0.05 | 0.1716 | 0.0435 | 0.1144 | 0.2657 | 0.8067 | 0.1900 | 0.0830 | 0.0720 | 0.4205 | 0.3785 |
| 46 | 30.68 | 0.05 | 0.0315 | 0.0285 | 0.0454 | 0.5645 | 1.4913 | 0.1765 | 0.0812 | 0.0628 | 0.4599 | 0.3558 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 150 MACH 0.80 RXIG-6 1.7 PHI C.C BIMOF 11 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 30.96 | 0.04 | -0.0463 | 0.0174 | -0.0004 | -0.3757 | 0.0386 | 0.1729 | 0.0828 | 0.0612 | 0.4788 | 0.3540 |
| 48 | 31.42 | 0.03 | -0.0387 | 0.0165 | -0.0006 | -0.3399 | 0.0355 | 0.1830 | 0.0833 | 0.0661 | 0.4551 | 0.3612 |
| 49 | 31.49 | 0.04 | -0.0380 | 0.0152 | -0.0103 | -0.2714 | 0.1339 | 0.1935 | 0.0833 | 0.0712 | 0.4304 | 0.3680 |
| 50 | 31.76 | 0.03 | -0.0341 | 0.0240 | -0.0015 | -0.7715 | 0.0482 | 0.2020 | 0.0832 | 0.0746 | 0.4118 | 0.3693 |
| 51 | 32.03 | 0.05 | 0.0173 | 0.0287 | 0.0221 | 1.8535 | 1.2775 | 0.2222 | 0.0844 | 0.0838 | 0.3797 | 0.3771 |
| 52 | 32.40 | 0.06 | 0.0694 | 0.0366 | 0.0505 | 0.5306 | 0.7277 | 0.2305 | 0.0852 | 0.0866 | 0.3695 | 0.3844 |
| 53 | 32.55 | 0.06 | 0.1000 | 0.0458 | 0.0655 | 0.4575 | 0.6590 | 0.2460 | 0.0871 | 0.0909 | 0.3540 | 0.3935 |
| 54 | 32.80 | 0.05 | 0.1065 | 0.0501 | 0.1132 | 0.2843 | 0.5749 | 0.2578 | 0.0873 | 0.1033 | 0.3385 | 0.4007 |
| 55 | 33.05 | 0.06 | 0.1362 | 0.0544 | 0.0853 | 0.3993 | 0.6203 | 0.2579 | 0.0866 | 0.1040 | 0.3385 | 0.4033 |
| 56 | 33.30 | 0.06 | 0.1545 | 0.0565 | 0.0554 | 0.3533 | 0.5960 | 0.2681 | 0.0869 | 0.1062 | 0.3240 | 0.3961 |
| 57 | 33.55 | 0.08 | 0.1670 | 0.0542 | 0.0652 | 0.3251 | 0.6467 | 0.2687 | 0.0882 | 0.1044 | 0.3282 | 0.3885 |
| 58 | 33.78 | 0.06 | 0.1676 | 0.0533 | 0.0603 | 0.4552 | 0.6164 | 0.2719 | 0.0893 | 0.1081 | 0.3283 | 0.3976 |
| 59 | 34.05 | 0.06 | 0.1551 | 0.0576 | 0.0634 | 0.6055 | 0.6567 | 0.2736 | 0.0899 | 0.1063 | 0.3285 | 0.3885 |
| 60 | 34.30 | 0.05 | 0.1313 | 0.0558 | 0.0757 | 0.4245 | 0.5705 | 0.2965 | 0.0906 | 0.1138 | 0.3116 | 0.3917 |
| 61 | 34.52 | 0.06 | 0.1044 | 0.0581 | 0.0636 | 0.5564 | 0.6111 | 0.2854 | 0.0913 | 0.1114 | 0.3198 | 0.3903 |
| 62 | 34.78 | 0.10 | 0.1110 | 0.0656 | 0.0781 | 0.5000 | 0.6766 | 0.3013 | 0.0926 | 0.1157 | 0.3073 | 0.3846 |
| 63 | 35.01 | 0.10 | 0.1065 | 0.0655 | 0.0886 | 0.5958 | 0.6242 | 0.3029 | 0.0934 | 0.1165 | 0.3083 | 0.3846 |
| 64 | 35.24 | 0.05 | 0.1045 | 0.0622 | 0.0823 | 0.5551 | 0.5962 | 0.3104 | 0.0941 | 0.1138 | 0.2973 | 0.3913 |
| 65 | 35.48 | 0.08 | 0.1583 | 0.0592 | 0.0578 | 0.3619 | 0.4982 | 0.3505 | 0.0936 | 0.1356 | 0.2670 | 0.3983 |
| 66 | 35.71 | 0.05 | 0.2222 | 0.0610 | 0.1195 | 0.2442 | 0.4730 | 0.3784 | 0.0935 | 0.1565 | 0.2470 | 0.4136 |
| 67 | 35.94 | 0.08 | 0.2666 | 0.0642 | 0.1253 | 0.2407 | 0.4850 | 0.3866 | 0.0936 | 0.1574 | 0.2412 | 0.4048 |
| 68 | 36.18 | 0.08 | 0.2260 | 0.0685 | 0.1111 | 0.3604 | 0.4873 | 0.3944 | 0.0934 | 0.1616 | 0.2418 | 0.4097 |
| 69 | 36.42 | 0.08 | 0.1871 | 0.0654 | 0.0858 | 0.3495 | 0.4800 | 0.3935 | 0.0961 | 0.1605 | 0.2442 | 0.4075 |
| 70 | 36.65 | 0.07 | 0.1953 | 0.0566 | 0.0516 | 0.2697 | 0.4700 | 0.4073 | 0.0964 | 0.1651 | 0.2366 | 0.4054 |
| 71 | 36.85 | 0.07 | 0.2536 | 0.0582 | 0.1196 | 0.2294 | 0.4692 | 0.4278 | 0.0960 | 0.1743 | 0.2243 | 0.4074 |
| 72 | 37.11 | 0.07 | 0.2027 | 0.0582 | 0.0924 | 0.2870 | 0.4730 | 0.4174 | 0.0972 | 0.1707 | 0.2328 | 0.4050 |
| 73 | 37.34 | 0.07 | 0.1185 | 0.0572 | 0.0550 | 0.4009 | 0.4982 | 0.4181 | 0.0989 | 0.1712 | 0.2365 | 0.4095 |
| 74 | 37.57 | 0.08 | -0.0078 | 0.0426 | 0.0010 | -5.4601 | -0.2051 | 0.4026 | 0.1007 | 0.1610 | 0.2501 | 0.3955 |
| 75 | 37.81 | 0.08 | -0.0408 | 0.0385 | -0.0126 | -0.5086 | 0.3103 | 0.4145 | 0.1019 | 0.1662 | 0.2458 | 0.4010 |
| 76 | 38.03 | 0.08 | -0.1085 | 0.0226 | -0.0422 | -0.2475 | 0.3675 | 0.4111 | 0.1021 | 0.1645 | 0.2483 | 0.4001 |
| 77 | 38.27 | 0.08 | -0.1282 | 0.0148 | -0.0484 | -0.1154 | 0.3775 | 0.4109 | 0.1026 | 0.1666 | 0.2456 | 0.4055 |
| 78 | 38.48 | 0.08 | -0.1468 | 0.0121 | -0.0494 | -0.0954 | 0.3896 | 0.4226 | 0.1040 | 0.1737 | 0.2459 | 0.4108 |
| 79 | 38.71 | 0.08 | -0.1653 | -0.0029 | -0.0652 | 0.0175 | 0.3544 | 0.4332 | 0.1045 | 0.1746 | 0.2412 | 0.4036 |
| 80 | 38.93 | 0.09 | -0.1265 | 0.0010 | -0.0424 | -0.0079 | 0.3341 | 0.4470 | 0.1046 | 0.1815 | 0.2339 | 0.4056 |
| 81 | 39.15 | 0.09 | -0.1268 | -0.0115 | -0.0022 | 0.0714 | 0.3733 | 0.4572 | 0.1054 | 0.1863 | 0.2305 | 0.4075 |
| 82 | 39.39 | 0.09 | -0.1315 | -0.0016 | -0.0453 | 0.0122 | 0.3445 | 0.4703 | 0.1063 | 0.1856 | 0.2260 | 0.4036 |
| 83 | 39.56 | 0.09 | -0.0225 | 0.0115 | -0.0231 | -0.1442 | 0.2800 | 0.4858 | 0.1072 | 0.1960 | 0.2206 | 0.4039 |
| 84 | 39.78 | 0.10 | -0.0961 | 0.0063 | -0.0263 | -0.0864 | 0.2948 | 0.4961 | 0.1079 | 0.2010 | 0.2174 | 0.4052 |
| 85 | 39.96 | 0.09 | -0.0558 | 0.0038 | -0.0175 | -0.0443 | 0.2940 | 0.5117 | 0.1082 | 0.2058 | 0.2114 | 0.4022 |
| 86 | 40.17 | 0.09 | -0.0159 | 0.0080 | 0.0101 | -1.8108 | -0.0352 | 0.5164 | 0.1079 | 0.2052 | 0.2119 | 0.4035 |
| 87 | 40.38 | 0.09 | -0.0206 | 0.0267 | -0.0108 | -1.2958 | -0.5243 | 0.5306 | 0.1106 | 0.2151 | 0.2085 | 0.4055 |
| 88 | 40.57 | 0.07 | -0.0162 | 0.0312 | 0.0110 | -1.5254 | -0.0790 | 0.5304 | 0.1111 | 0.2137 | 0.2094 | 0.4025 |
| 89 | 40.79 | 0.08 | -0.0220 | 0.0251 | 0.0075 | -1.3224 | -0.3409 | 0.5373 | 0.1113 | 0.2171 | 0.2071 | 0.4041 |
| 90 | 41.00 | 0.07 | -0.0165 | 0.0280 | -0.0059 | -0.4934 | 0.1752 | 0.5357 | 0.1125 | 0.2168 | 0.2107 | 0.4062 |
| 91 | 41.19 | 0.08 | -0.0052 | 0.0222 | -0.0114 | -0.3399 | 0.1746 | 0.5395 | 0.1124 | 0.2197 | 0.2083 | 0.4072 |
| 92 | 41.38 | 0.07 | -0.0176 | 0.0251 | -0.0016 | -0.3272 | 0.0378 | 0.5405 | 0.1128 | 0.2203 | 0.2063 | 0.4031 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RAIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 130 0.60 1.7 C.C BINOFIL 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 41.58 | 0.00 | -0.0516 | 0.0162 | -0.0624 | -0.3218 | 0.0465 | 0.5659 | 0.1135 | 0.2313 | 0.2002 | 0.4087 |
| 94 | 41.78 | 0.00 | -0.0459 | 0.0159 | -0.0635 | -0.1959 | 0.0707 | 0.5631 | 0.1137 | 0.2383 | 0.1949 | 0.4087 |
| 95 | 41.97 | 0.00 | -0.0219 | 0.0150 | 0.0148 | -0.0847 | -0.6758 | 0.5908 | 0.1147 | 0.2443 | 0.1921 | 0.4053 |
| 96 | 42.18 | 0.00 | -0.0352 | 0.0158 | 0.0087 | -0.4487 | -0.1903 | 0.5967 | 0.1152 | 0.2436 | 0.1930 | 0.4082 |
| 97 | 42.33 | 0.00 | -0.0000 | 0.0132 | -0.0104 | -0.2199 | 0.1733 | 0.5966 | 0.1154 | 0.2450 | 0.1934 | 0.4107 |
| 98 | 42.52 | 0.00 | -0.0146 | 0.0143 | 0.0104 | -1.0214 | -1.1571 | 0.6230 | 0.1156 | 0.2537 | 0.1856 | 0.4072 |
| 99 | 42.70 | 0.00 | 0.0019 | 0.0111 | 0.0303 | 5.8405 | 15.9474 | 0.6350 | 0.1161 | 0.2596 | 0.1828 | 0.4088 |
| 100 | 42.89 | 0.00 | 0.0403 | 0.0154 | 0.0488 | 0.4813 | 1.2109 | 0.6488 | 0.1166 | 0.2642 | 0.1797 | 0.4072 |
| 101 | 43.08 | 0.00 | 0.0361 | 0.0154 | 0.0458 | 0.4265 | 1.2867 | 0.6628 | 0.1175 | 0.2705 | 0.1772 | 0.4081 |
| 102 | 43.28 | 0.00 | 0.0634 | 0.0210 | 0.0566 | 0.3417 | 0.8544 | 0.6746 | 0.1177 | 0.2763 | 0.1744 | 0.4095 |
| 103 | 43.42 | 0.00 | 0.1004 | 0.0294 | 0.0669 | 0.2928 | 0.6863 | 0.6850 | 0.1185 | 0.2813 | 0.1725 | 0.4107 |
| 104 | 43.61 | 0.00 | 0.1266 | 0.0316 | 0.0697 | 0.2507 | 0.6660 | 0.7005 | 0.1185 | 0.2861 | 0.1691 | 0.4084 |
| 105 | 43.80 | 0.00 | 0.0554 | 0.0257 | 0.0704 | 0.3112 | 0.7379 | 0.6867 | 0.1185 | 0.2821 | 0.1725 | 0.4108 |
| 106 | 43.97 | 0.00 | 0.1436 | 0.0381 | 0.0551 | 0.2649 | 0.6013 | 0.6941 | 0.1186 | 0.2869 | 0.1687 | 0.4104 |
| 107 | 44.17 | 0.00 | 0.1557 | 0.0428 | 0.0562 | 0.2746 | 0.6537 | 0.7195 | 0.1191 | 0.2955 | 0.1655 | 0.4107 |
| 108 | 44.35 | 0.00 | 0.2065 | 0.0496 | 0.0426 | 0.2486 | 0.5932 | 0.7305 | 0.1199 | 0.3036 | 0.1626 | 0.4125 |
| 109 | 44.53 | 0.00 | 0.2033 | 0.0522 | 0.0369 | 0.2357 | 0.5756 | 0.7401 | 0.1197 | 0.3034 | 0.1617 | 0.4095 |
| 110 | 44.70 | 0.00 | 0.1991 | 0.0493 | 0.0431 | 0.2352 | 0.5652 | 0.7318 | 0.1192 | 0.3002 | 0.1628 | 0.4102 |
| 111 | 44.85 | 0.00 | 0.1933 | 0.0483 | 0.0457 | 0.2342 | 0.5678 | 0.7437 | 0.1206 | 0.3048 | 0.1621 | 0.4096 |
| 112 | 45.07 | 0.00 | 0.1881 | 0.0481 | 0.0494 | 0.2088 | 0.5040 | 0.7319 | 0.1192 | 0.2974 | 0.1628 | 0.4083 |
| 113 | 45.24 | 0.00 | 0.2078 | 0.0547 | 0.0434 | 0.2052 | 0.5936 | 0.7578 | 0.1195 | 0.3115 | 0.1582 | 0.4112 |
| 114 | 45.42 | 0.00 | 0.1833 | 0.0490 | 0.0447 | 0.2705 | 0.6099 | 0.7626 | 0.1202 | 0.3138 | 0.1576 | 0.4115 |
| 115 | 45.58 | 0.00 | 0.1714 | 0.0471 | 0.0468 | 0.2747 | 0.6231 | 0.7627 | 0.1197 | 0.3124 | 0.1565 | 0.4096 |
| 116 | 45.76 | 0.00 | 0.2038 | 0.0567 | 0.0427 | 0.2746 | 0.5623 | 0.7950 | 0.1213 | 0.3275 | 0.1525 | 0.4119 |
| 117 | 45.95 | 0.00 | 0.2328 | 0.0635 | 0.0372 | 0.2744 | 0.5893 | 0.7848 | 0.1213 | 0.3218 | 0.1545 | 0.4100 |
| 118 | 46.11 | 0.00 | 0.2067 | 0.0567 | 0.0351 | 0.2952 | 0.5834 | 0.7906 | 0.1218 | 0.3276 | 0.1529 | 0.4112 |
| 119 | 46.29 | 0.00 | 0.2096 | 0.0623 | 0.0212 | 0.2972 | 0.5782 | 0.8001 | 0.1216 | 0.3293 | 0.1519 | 0.4116 |
| 120 | 46.47 | 0.00 | 0.2016 | 0.0606 | 0.0224 | 0.2972 | 0.6051 | 0.8038 | 0.1206 | 0.3309 | 0.1500 | 0.4118 |
| 121 | 46.65 | 0.00 | 0.1753 | 0.0541 | 0.0305 | 0.3085 | 0.6375 | 0.7968 | 0.1195 | 0.3265 | 0.1496 | 0.4087 |
| 122 | 46.79 | 0.00 | 0.1868 | 0.0542 | 0.0305 | 0.3210 | 0.6428 | 0.7954 | 0.1198 | 0.3235 | 0.1506 | 0.4067 |
| 123 | 46.97 | 0.00 | 0.1823 | 0.0531 | 0.0271 | 0.3201 | 0.6579 | 0.7985 | 0.1197 | 0.3238 | 0.1498 | 0.4053 |
| 124 | 47.16 | 0.00 | 0.1363 | 0.0442 | 0.0397 | 0.3491 | 0.6780 | 0.8007 | 0.1185 | 0.3267 | 0.1480 | 0.4080 |
| 125 | 47.32 | 0.00 | 0.0740 | 0.0343 | 0.0724 | 0.4034 | 0.9764 | 0.7791 | 0.1130 | 0.3142 | 0.1450 | 0.4033 |
| 126 | 47.49 | 0.00 | 0.1243 | 0.0472 | 0.0525 | 0.3790 | 0.7442 | 0.8007 | 0.1184 | 0.3251 | 0.1478 | 0.4060 |
| 127 | 47.68 | 0.00 | 0.0657 | 0.0345 | 0.0687 | 0.5006 | 0.9857 | 0.8042 | 0.1178 | 0.3268 | 0.1464 | 0.4064 |
| 128 | 47.83 | 0.00 | -0.0154 | -0.0054 | -0.0065 | 0.1157 | 0.3901 | 0.7579 | 0.1037 | 0.3045 | 0.1368 | 0.4018 |
| 129 | 48.01 | 0.00 | 0.0129 | 0.0212 | 0.0417 | 1.7092 | 5.3029 | 0.7977 | 0.1145 | 0.3234 | 0.1435 | 0.4054 |
| 130 | 48.19 | 0.00 | 0.0034 | 0.0156 | 0.0393 | 3.7032 | 11.5266 | 0.7912 | 0.1110 | 0.3213 | 0.1403 | 0.4061 |
| 131 | 48.34 | 0.00 | 0.0134 | 0.0215 | 0.0467 | 1.0339 | 3.4851 | 0.7980 | 0.1115 | 0.3238 | 0.1397 | 0.4058 |
| 132 | 48.49 | 0.00 | -0.0030 | 0.0006 | -0.0019 | -0.0127 | 0.0302 | 0.8034 | 0.1089 | 0.3209 | 0.1355 | 0.4069 |
| 133 | 48.68 | 0.00 | -0.2071 | -0.0418 | -0.0528 | 0.2018 | 0.4481 | 0.8006 | 0.1018 | 0.3264 | 0.1271 | 0.4077 |
| 134 | 48.85 | 0.00 | -0.0051 | -0.0057 | -0.0116 | 0.0870 | 0.1303 | 0.8087 | 0.1070 | 0.3293 | 0.1323 | 0.4072 |
| 135 | 49.02 | 0.00 | -0.1424 | -0.0201 | -0.0548 | 0.1354 | 0.3693 | 0.7871 | 0.1036 | 0.3190 | 0.1278 | 0.4053 |
| 136 | 49.20 | 0.00 | -0.1469 | -0.0178 | -0.0515 | 0.1185 | 0.3406 | 0.7974 | 0.1005 | 0.3226 | 0.1260 | 0.4046 |
| 137 | 49.36 | 0.00 | -0.1764 | -0.0252 | -0.0757 | 0.1706 | 0.4629 | 0.7892 | 0.0965 | 0.3202 | 0.1222 | 0.4057 |
| 138 | 49.53 | 0.00 | -0.1675 | -0.0261 | -0.0662 | 0.1558 | 0.3952 | 0.7961 | 0.0959 | 0.3249 | 0.1204 | 0.4081 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 130 MACH 0.60 REYNOLDS 1.7 PHI 0.0 CONFIG 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 49.68 | 0.02 | -0.1740 | -0.0406 | -0.0507 | 0.2325 | 0.5195 | 0.8118 | 0.0933 | 0.3305 | 0.1145 | 0.4078 |
| 140 | 49.80 | 0.01 | -0.1559 | -0.0426 | -0.0531 | 0.2143 | 0.5150 | 0.8000 | 0.0914 | 0.3264 | 0.1142 | 0.4080 |
| 141 | 50.02 | 0.02 | -0.1656 | -0.0429 | -0.0536 | 0.2311 | 0.5562 | 0.7866 | 0.0864 | 0.3230 | 0.1098 | 0.4106 |
| 142 | 50.20 | 0.02 | -0.1678 | -0.0351 | -0.0501 | 0.2094 | 0.5131 | 0.7959 | 0.0853 | 0.3016 | 0.1116 | 0.4043 |
| 143 | 50.35 | 0.00 | -0.1684 | -0.0277 | -0.0466 | 0.1644 | 0.5154 | 0.7184 | 0.0822 | 0.2867 | 0.1144 | 0.4015 |
| 144 | 50.51 | 0.00 | -0.1537 | -0.0364 | -0.0482 | 0.1992 | 0.5580 | 0.7303 | 0.0819 | 0.2987 | 0.1121 | 0.4090 |
| 145 | 50.71 | 0.02 | -0.0724 | -0.0135 | -0.0367 | 0.1004 | 0.5069 | 0.7127 | 0.0847 | 0.2925 | 0.1188 | 0.4104 |
| 146 | 50.88 | 0.03 | -0.1178 | -0.0179 | -0.0459 | 0.1907 | 0.5923 | 0.7298 | 0.0859 | 0.3002 | 0.1177 | 0.4113 |
| 147 | 51.04 | 0.04 | -0.1253 | -0.0202 | -0.0545 | 0.1612 | 0.4350 | 0.7468 | 0.0878 | 0.3066 | 0.1175 | 0.4132 |
| 148 | 51.21 | 0.04 | -0.0879 | -0.0151 | -0.0360 | 0.1717 | 0.4360 | 0.7361 | 0.0884 | 0.3051 | 0.1197 | 0.4134 |
| 149 | 51.38 | 0.05 | -0.1025 | -0.0206 | -0.0475 | 0.2009 | 0.4034 | 0.7619 | 0.0859 | 0.3155 | 0.1180 | 0.4148 |
| 150 | 51.55 | 0.04 | -0.0850 | -0.0152 | -0.0330 | 0.1775 | 0.3855 | 0.7549 | 0.0859 | 0.3147 | 0.1191 | 0.4169 |
| 151 | 51.72 | 0.05 | -0.1015 | -0.0209 | -0.0427 | 0.2059 | 0.4207 | 0.7620 | 0.0887 | 0.3159 | 0.1164 | 0.4148 |
| 152 | 51.88 | 0.06 | -0.1293 | -0.0297 | -0.0586 | 0.2296 | 0.4486 | 0.7790 | 0.0911 | 0.3236 | 0.1169 | 0.4154 |
| 153 | 52.05 | 0.06 | -0.1541 | -0.0328 | -0.0745 | 0.2126 | 0.4835 | 0.7947 | 0.0897 | 0.3250 | 0.1126 | 0.4140 |
| 154 | 52.22 | 0.06 | -0.1631 | -0.0413 | -0.0853 | 0.2501 | 0.5045 | 0.8170 | 0.0904 | 0.3359 | 0.1106 | 0.4160 |
| 155 | 52.39 | 0.07 | -0.1465 | -0.0368 | -0.0715 | 0.2511 | 0.4861 | 0.8155 | 0.0885 | 0.3389 | 0.1090 | 0.4156 |
| 156 | 52.56 | 0.07 | -0.1759 | -0.0427 | -0.0884 | 0.2427 | 0.5146 | 0.8327 | 0.0896 | 0.3454 | 0.1078 | 0.4154 |
| 157 | 52.73 | 0.07 | -0.1541 | -0.0445 | -0.0585 | 0.2313 | 0.5075 | 0.8431 | 0.0886 | 0.3494 | 0.1053 | 0.4144 |
| 158 | 52.89 | 0.06 | -0.2014 | -0.0529 | -0.1136 | 0.2066 | 0.5011 | 0.8543 | 0.0859 | 0.3527 | 0.0984 | 0.4138 |
| 159 | 53.04 | 0.08 | -0.1487 | -0.0445 | -0.0836 | 0.3019 | 0.5635 | 0.8543 | 0.0832 | 0.3505 | 0.0974 | 0.4103 |
| 160 | 53.24 | 0.10 | -0.1042 | -0.0477 | -0.0794 | 0.4577 | 0.7020 | 0.8120 | 0.0745 | 0.3257 | 0.0917 | 0.4011 |
| 161 | 53.36 | 0.10 | -0.1256 | -0.0477 | -0.0861 | 0.3697 | 0.6674 | 0.8568 | 0.0772 | 0.3477 | 0.0901 | 0.4058 |
| 162 | 53.54 | 0.09 | -0.1424 | -0.0526 | -0.0926 | 0.3506 | 0.6503 | 0.8309 | 0.0746 | 0.3378 | 0.0900 | 0.4065 |
| 163 | 53.71 | 0.09 | -0.1356 | -0.0510 | -0.0896 | 0.3695 | 0.6375 | 0.8309 | 0.0739 | 0.3405 | 0.0885 | 0.4098 |
| 164 | 53.87 | 0.10 | -0.0696 | -0.0415 | -0.0555 | 0.6484 | 0.8202 | 0.7033 | 0.0716 | 0.3074 | 0.0938 | 0.4027 |
| 165 | 54.05 | 0.10 | -0.0636 | -0.0531 | -0.0628 | 0.8356 | 0.7512 | 0.7197 | 0.0721 | 0.2851 | 0.1002 | 0.4017 |
| 166 | 54.19 | 0.10 | -0.0178 | -0.0254 | -0.0227 | 1.0512 | 1.2753 | 0.7142 | 0.0717 | 0.2891 | 0.1004 | 0.4048 |
| 167 | 54.35 | 0.10 | -0.0156 | -0.0256 | -0.0196 | 1.4965 | 0.9899 | 0.7209 | 0.0712 | 0.2922 | 0.0987 | 0.4053 |
| 168 | 54.50 | 0.09 | 0.0114 | -0.0152 | 0.0026 | -1.1089 | 0.1001 | 0.7086 | 0.0716 | 0.2877 | 0.1013 | 0.4060 |
| 169 | 54.66 | 0.10 | -0.0123 | -0.0212 | -0.0069 | 1.7231 | 0.5610 | 0.7085 | 0.0719 | 0.2891 | 0.1015 | 0.4080 |
| 170 | 54.82 | 0.10 | 0.0056 | -0.0086 | 0.0036 | -0.8936 | 0.5833 | 0.7225 | 0.0716 | 0.2966 | 0.0987 | 0.4105 |
| 171 | 54.98 | 0.08 | -0.0063 | -0.0055 | 0.0045 | 1.5710 | -0.7143 | 0.7084 | 0.0718 | 0.2912 | 0.1013 | 0.4111 |
| 172 | 55.15 | 0.07 | 0.0113 | -0.0038 | 0.0152 | -0.5183 | 1.3451 | 0.7255 | 0.0711 | 0.2999 | 0.0974 | 0.4111 |
| 173 | 55.31 | 0.09 | -0.0326 | -0.0129 | -0.0034 | 0.3556 | 0.1043 | 0.7154 | 0.0719 | 0.2939 | 0.1005 | 0.4108 |
| 174 | 55.46 | 0.07 | -0.0067 | -0.0064 | 0.0054 | 0.7554 | -1.0805 | 0.7141 | 0.0716 | 0.2919 | 0.1002 | 0.4088 |
| 175 | 55.63 | 0.07 | -0.0069 | -0.0061 | 0.0075 | 0.8838 | -1.0870 | 0.7280 | 0.0716 | 0.2994 | 0.0983 | 0.4113 |
| 176 | 55.79 | 0.09 | -0.0234 | -0.0122 | 0.0036 | 0.4002 | -0.1417 | 0.7201 | 0.0706 | 0.2966 | 0.0965 | 0.4101 |
| 177 | 55.95 | 0.09 | -0.0184 | -0.0081 | 0.0091 | 0.3314 | -0.4966 | 0.7298 | 0.0713 | 0.2995 | 0.0977 | 0.4104 |
| 178 | 56.10 | 0.07 | -0.0274 | -0.0096 | 0.0050 | 0.3503 | -0.1025 | 0.7487 | 0.0715 | 0.3086 | 0.0952 | 0.4122 |
| 179 | 56.25 | 0.07 | -0.0275 | -0.0096 | 0.0064 | 0.3490 | -0.2327 | 0.7500 | 0.0711 | 0.3043 | 0.0961 | 0.4112 |
| 180 | 56.42 | 0.07 | -0.0144 | -0.0065 | 0.0103 | 0.4913 | -1.1319 | 0.7574 | 0.0717 | 0.3126 | 0.0946 | 0.4130 |
| 181 | 56.57 | 0.06 | -0.0313 | -0.0111 | 0.0121 | 0.3543 | -0.3834 | 0.7420 | 0.0706 | 0.3061 | 0.0951 | 0.4125 |
| 182 | 56.72 | 0.06 | -0.0437 | -0.0119 | 0.0068 | 0.2604 | -0.1966 | 0.7455 | 0.0710 | 0.3078 | 0.0952 | 0.4129 |
| 183 | 56.87 | 0.07 | -0.0301 | -0.0101 | 0.0149 | 0.3355 | -0.4950 | 0.7560 | 0.0708 | 0.3122 | 0.0936 | 0.4130 |
| 184 | 57.00 | 0.07 | -0.0445 | -0.0095 | 0.0140 | 0.1002 | -0.3252 | 0.7366 | 0.0712 | 0.3030 | 0.0964 | 0.4102 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 150 PACK 0.80 MACH 1.7 RNJO-6 0.0 PHI 0.0 CONF 11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.15 | 0.07 | -0.0372 | -0.0068 | 0.0188 | 0.1827 | -0.5030 | 0.7454 | 0.0713 | 0.3085 | 0.0956 | 0.4134 |
| 186 | 57.31 | 0.07 | -0.0445 | -0.0064 | 0.0210 | 0.1662 | -0.4341 | 0.7420 | 0.0711 | 0.3068 | 0.0958 | 0.4135 |
| 187 | 57.43 | 0.05 | -0.0351 | -0.0066 | 0.0205 | 0.1658 | -0.5243 | 0.7525 | 0.0704 | 0.3111 | 0.0935 | 0.4134 |
| 188 | 57.59 | 0.05 | -0.0269 | -0.0035 | 0.0342 | -0.1220 | -1.2000 | 0.7335 | 0.0713 | 0.3026 | 0.0972 | 0.4128 |
| 189 | 57.75 | 0.06 | -0.0471 | -0.0038 | 0.0285 | -0.0607 | -0.8136 | 0.7247 | 0.0719 | 0.2993 | 0.0992 | 0.4130 |
| 190 | 57.81 | 0.04 | -0.0329 | -0.0036 | 0.0311 | 0.0423 | -0.9369 | 0.7545 | 0.0705 | 0.3115 | 0.0934 | 0.4129 |
| 191 | 57.80 | 0.06 | -0.0404 | -0.0038 | 0.0305 | 0.0691 | -0.7649 | 0.7509 | 0.0712 | 0.3113 | 0.0948 | 0.4146 |
| 192 | 57.82 | 0.07 | -0.0350 | -0.0033 | 0.0252 | 0.0341 | -0.9316 | 0.7438 | 0.0721 | 0.3079 | 0.0969 | 0.4140 |
| 193 | 57.81 | 0.05 | -0.0486 | -0.0026 | 0.0305 | 0.0165 | -0.6356 | 0.7546 | 0.0710 | 0.3132 | 0.0941 | 0.4151 |
| 194 | 57.82 | 0.05 | -0.0501 | 0.0013 | 0.0289 | -0.0259 | -0.5768 | 0.7536 | 0.0722 | 0.3049 | 0.0984 | 0.4151 |
| 195 | 57.82 | 0.05 | -0.0461 | 0.0035 | 0.0344 | -0.0846 | -0.7462 | 0.7458 | 0.0725 | 0.3050 | 0.0972 | 0.4143 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 130 MACH 0.80 RN/C 4.7 PHI 0.0 CONF 61 DOF 11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | ALPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | 0.0104 | 9.9999 | 0.0137 | 9.9999 | 1.3173 | -0.8381 | -0.0513 | -0.4046 | 0.0612 | 0.4828 |
| 2 | -5.72 | -0.00 | 0.0115 | 9.9999 | 0.0138 | 9.9999 | 1.1597 | -0.8329 | -0.0510 | -0.4016 | 0.0612 | 0.4822 |
| 3 | -5.71 | -0.01 | 0.0107 | 9.9999 | 0.0148 | 9.9999 | 0.8802 | -0.8382 | -0.0511 | -0.4047 | 0.0605 | 0.4828 |
| 4 | -5.71 | 0.00 | 0.0126 | 9.9999 | 0.0136 | 9.9999 | 1.1500 | -0.8361 | -0.0515 | -0.4040 | 0.0614 | 0.4820 |
| 5 | -5.71 | 0.00 | 0.0150 | 9.9999 | 0.0153 | 9.9999 | 1.0200 | -0.8331 | -0.0510 | -0.4023 | 0.0612 | 0.4829 |
| 6 | -5.71 | 0.00 | 0.0115 | 9.9999 | 0.0136 | 9.9999 | 1.1597 | -0.8365 | -0.0514 | -0.4033 | 0.0614 | 0.4821 |
| 7 | -5.70 | -0.00 | 0.0115 | 9.9999 | 0.0136 | 9.9999 | 1.1597 | -0.8348 | -0.0510 | -0.4025 | 0.0611 | 0.4822 |
| 8 | -5.71 | 0.00 | 0.0091 | 9.9999 | 0.0155 | 9.9999 | 0.8304 | -0.8316 | -0.0507 | -0.3996 | 0.0610 | 0.4805 |
| 9 | -5.71 | -0.00 | 0.0073 | 9.9999 | 0.0126 | 9.9999 | 1.7534 | -0.8366 | -0.0514 | -0.4027 | 0.0614 | 0.4814 |
| 10 | -5.71 | 0.00 | 0.0120 | 9.9999 | 0.0138 | 9.9999 | 1.1500 | -0.8297 | -0.0511 | -0.3995 | 0.0616 | 0.4815 |
| 11 | -5.71 | 0.00 | 0.0213 | 9.9999 | 0.0170 | 9.9999 | 0.7981 | -0.8297 | -0.0511 | -0.4002 | 0.0616 | 0.4823 |
| 12 | -5.71 | 0.01 | 0.0151 | 9.9999 | 0.0147 | 9.9999 | 0.9735 | -0.8333 | -0.0509 | -0.4017 | 0.0611 | 0.4821 |
| 13 | -5.71 | 0.00 | 0.0120 | 9.9999 | 0.0128 | 9.9999 | 1.0500 | -0.8297 | -0.0512 | -0.4009 | 0.0617 | 0.4832 |
| 14 | -5.71 | -0.00 | 0.0120 | 9.9999 | 0.0132 | 9.9999 | 1.1000 | -0.8290 | -0.0513 | -0.4015 | 0.0618 | 0.4840 |
| 15 | -5.73 | 0.01 | 0.0105 | 9.9999 | 0.0115 | 9.9999 | 1.1333 | -0.8277 | -0.0516 | -0.4002 | 0.0623 | 0.4835 |
| 16 | -5.65 | -0.00 | 0.0065 | 9.9999 | 0.0116 | 9.9999 | 1.3258 | -0.8363 | -0.0516 | -0.4035 | 0.0615 | 0.4813 |
| 17 | -5.44 | 0.00 | 0.0058 | 9.9999 | 0.0115 | 9.9999 | 1.9026 | -0.8267 | -0.0516 | -0.3925 | 0.0631 | 0.4782 |
| 18 | -3.67 | 0.01 | 0.0042 | 9.9999 | 0.0114 | 9.9999 | 2.7143 | -0.7866 | -0.0531 | -0.3792 | 0.0675 | 0.4820 |
| 19 | -1.67 | 0.01 | 0.0057 | 9.9999 | 0.0121 | 9.9999 | 2.1226 | -0.7930 | -0.0551 | -0.3772 | 0.0695 | 0.4757 |
| 20 | -0.02 | 0.01 | -0.0035 | 9.9999 | 0.0116 | 9.9999 | -2.2209 | -0.8368 | -0.0536 | -0.3948 | 0.0664 | 0.4718 |
| 21 | 1.79 | 0.00 | 0.0035 | 9.9999 | 0.0162 | 9.9999 | 4.1538 | -0.8814 | -0.0581 | -0.4120 | 0.0659 | 0.4674 |
| 22 | 3.81 | 0.01 | 0.0070 | 9.9999 | 0.0177 | 9.9999 | 2.5208 | -0.9073 | -0.0861 | -0.4316 | 0.0971 | 0.4759 |
| 23 | 5.41 | 0.01 | 0.0054 | 9.9999 | 0.0154 | 9.9999 | 3.5926 | -0.8481 | -0.0911 | -0.4031 | 0.1074 | 0.4753 |
| 24 | 7.28 | 0.00 | 0.0037 | 9.9999 | 0.0217 | 9.9999 | 5.0049 | -0.7473 | -0.0845 | -0.3567 | 0.1130 | 0.4773 |
| 25 | 9.06 | 0.01 | -0.0026 | 9.9999 | 0.0206 | 9.9999 | -7.9231 | -0.6451 | -0.0666 | -0.3156 | 0.1346 | 0.4907 |
| 26 | 10.69 | 0.01 | -0.0040 | 9.9999 | 0.0186 | 9.9999 | -4.6500 | -0.5000 | -0.0829 | -0.2734 | 0.1464 | 0.4830 |
| 27 | 12.68 | 0.01 | -0.0026 | 9.9999 | 0.0224 | 9.9999 | -8.6154 | -0.4743 | -0.0752 | -0.2243 | 0.1585 | 0.4725 |
| 28 | 14.51 | 0.00 | 0.0052 | 9.9999 | 0.0218 | 9.9999 | 4.1923 | -0.3709 | -0.0610 | -0.1657 | 0.1644 | 0.4575 |
| 29 | 16.40 | 0.00 | 0.0211 | 9.9999 | 0.0181 | 9.9999 | 0.8578 | -0.2609 | -0.0446 | -0.1166 | 0.1717 | 0.4477 |
| 30 | 18.25 | -0.00 | 0.0212 | 9.9999 | 0.0178 | 9.9999 | 0.8582 | -0.1491 | -0.0273 | -0.0711 | 0.1830 | 0.4769 |
| 31 | 20.09 | -0.01 | 0.0121 | 9.9999 | 0.0107 | 9.9999 | 0.8843 | -0.0576 | -0.0100 | -0.0307 | 0.1736 | 0.5330 |
| 32 | 21.93 | -0.02 | 0.0106 | 9.9999 | 0.0082 | 9.9999 | 0.7736 | 0.0101 | 0.0125 | -0.0012 | 0.7762 | -0.0745 |
| 33 | 23.77 | -0.03 | 0.0045 | 9.9999 | 0.0240 | 9.9999 | 0.8889 | 0.0704 | 0.0354 | 0.0203 | 0.5027 | 0.2884 |
| 34 | 25.60 | -0.02 | 0.0137 | 9.9999 | 0.0184 | 9.9999 | 0.8131 | 0.0787 | 0.0506 | 0.0260 | 0.6453 | 0.3304 |
| 35 | 27.47 | 0.02 | 0.0276 | 9.9999 | 0.0157 | 9.9999 | 0.5088 | 0.0851 | 0.0624 | 0.0258 | 0.7331 | 0.3502 |
| 36 | 27.80 | 0.03 | 0.0365 | 9.9999 | 0.0154 | 9.9999 | 0.5257 | 0.0740 | 0.0620 | 0.0290 | 0.6287 | 0.3877 |
| 37 | 28.11 | 0.02 | 0.0337 | 9.9999 | 0.0186 | 9.9999 | 0.5519 | 0.1048 | 0.0660 | 0.0395 | 0.6256 | 0.3765 |
| 38 | 28.37 | 0.01 | 0.0429 | 9.9999 | 0.0248 | 9.9999 | 0.5781 | 0.0941 | 0.0665 | 0.0361 | 0.7065 | 0.3836 |
| 39 | 28.71 | 0.03 | 0.0384 | 9.9999 | 0.0214 | 9.9999 | 0.5573 | 0.1146 | 0.0688 | 0.0458 | 0.6002 | 0.3557 |
| 40 | 29.03 | 0.03 | 0.0462 | 9.9999 | 0.0245 | 9.9999 | 0.5503 | 0.1536 | 0.0723 | 0.0594 | 0.4706 | 0.3867 |
| 41 | 29.31 | 0.04 | 0.0481 | 9.9999 | 0.0251 | 9.9999 | 0.5445 | 0.1347 | 0.0716 | 0.0554 | 0.5314 | 0.4113 |
| 42 | 29.56 | 0.03 | 0.0496 | 9.9999 | 0.0249 | 9.9999 | 0.5471 | 0.1550 | 0.0735 | 0.0616 | 0.4741 | 0.3974 |
| 43 | 29.88 | 0.05 | 0.0415 | 9.9999 | 0.0225 | 9.9999 | 0.5518 | 0.1668 | 0.0746 | 0.0665 | 0.4471 | 0.3987 |
| 44 | 30.14 | 0.05 | 0.0491 | 9.9999 | 0.0243 | 9.9999 | 0.5036 | 0.1948 | 0.0769 | 0.0804 | 0.3848 | 0.4024 |
| 45 | 30.40 | 0.05 | 0.0365 | 9.9999 | 0.0208 | 9.9999 | 0.5637 | 0.2067 | 0.0776 | 0.0849 | 0.3753 | 0.4107 |
| 46 | 30.66 | 0.05 | 0.0261 | 9.9999 | 0.0196 | 9.9999 | 0.5977 | 0.2404 | 0.0795 | 0.1024 | 0.3226 | 0.4156 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 2 OF 5

PARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 1st 0.60 4.7 0.0 BLKOFF11 0.0 0 -30 0 -30 UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 30.96 | 0.04 | 0.0353 | 0.9999 | 0.0212 | 0.9999 | 0.6006 | 0.2863 | 0.0810 | 0.1185 | 0.2828 | 0.4139 |
| 48 | 31.22 | 0.03 | 0.0213 | 0.9999 | 0.0164 | 0.9999 | 0.7700 | 0.2864 | 0.0805 | 0.1211 | 0.2824 | 0.4228 |
| 49 | 31.49 | 0.04 | 0.0214 | 0.9999 | 0.0155 | 0.9999 | 0.7430 | 0.2869 | 0.0817 | 0.1240 | 0.2847 | 0.4322 |
| 50 | 31.76 | 0.03 | 0.0183 | 0.9999 | 0.0130 | 0.9999 | 0.8197 | 0.2977 | 0.0811 | 0.1300 | 0.2743 | 0.4367 |
| 51 | 32.03 | 0.05 | 0.0322 | 0.9999 | 0.0223 | 0.9999 | 0.6925 | 0.3006 | 0.0828 | 0.1343 | 0.2756 | 0.4468 |
| 52 | 32.28 | 0.06 | 0.0430 | 0.9999 | 0.0286 | 0.9999 | 0.6512 | 0.3049 | 0.0834 | 0.1379 | 0.2743 | 0.4536 |
| 53 | 32.55 | 0.06 | 0.0482 | 0.9999 | 0.0256 | 0.9999 | 0.6277 | 0.3132 | 0.0843 | 0.1428 | 0.2691 | 0.4555 |
| 54 | 32.80 | 0.05 | 0.0490 | 0.9999 | 0.0255 | 0.9999 | 0.6253 | 0.3201 | 0.0830 | 0.1278 | 0.2962 | 0.4563 |
| 55 | 33.05 | 0.06 | 0.0453 | 0.9999 | 0.0317 | 0.9999 | 0.6430 | 0.3162 | 0.0852 | 0.1472 | 0.2677 | 0.4626 |
| 56 | 33.30 | 0.06 | 0.0466 | 0.9999 | 0.0266 | 0.9999 | 0.6056 | 0.3129 | 0.0853 | 0.1468 | 0.2725 | 0.4692 |
| 57 | 33.55 | 0.08 | 0.0370 | 0.9999 | 0.0246 | 0.9999 | 0.6049 | 0.3398 | 0.0864 | 0.1603 | 0.2542 | 0.4717 |
| 58 | 33.78 | 0.06 | 0.0401 | 0.9999 | 0.0281 | 0.9999 | 0.6509 | 0.3343 | 0.0870 | 0.1567 | 0.2602 | 0.4747 |
| 59 | 34.05 | 0.08 | 0.0355 | 0.9999 | 0.0232 | 0.9999 | 0.6535 | 0.3555 | 0.0874 | 0.1714 | 0.2456 | 0.4821 |
| 60 | 34.30 | 0.09 | 0.0463 | 0.9999 | 0.0250 | 0.9999 | 0.6203 | 0.3473 | 0.0857 | 0.1680 | 0.2467 | 0.4837 |
| 61 | 34.54 | 0.08 | 0.0402 | 0.9999 | 0.0236 | 0.9999 | 0.5871 | 0.3680 | 0.0874 | 0.1769 | 0.2374 | 0.4861 |
| 62 | 34.78 | 0.10 | 0.0386 | 0.9999 | 0.0225 | 0.9999 | 0.5902 | 0.4070 | 0.0851 | 0.2002 | 0.2050 | 0.4919 |
| 63 | 35.01 | 0.10 | 0.0436 | 0.9999 | 0.0265 | 0.9999 | 0.5869 | 0.3975 | 0.0869 | 0.1971 | 0.2166 | 0.4958 |
| 64 | 35.24 | 0.09 | 0.0427 | 0.9999 | 0.0261 | 0.9999 | 0.6091 | 0.4007 | 0.0880 | 0.1994 | 0.2156 | 0.4978 |
| 65 | 35.48 | 0.08 | 0.0512 | 0.9999 | 0.0295 | 0.9999 | 0.5762 | 0.3902 | 0.0880 | 0.1707 | 0.2566 | 0.5018 |
| 66 | 35.71 | 0.09 | 0.0715 | 0.9999 | 0.0411 | 0.9999 | 0.5748 | 0.3347 | 0.0908 | 0.1702 | 0.2712 | 0.5085 |
| 67 | 35.94 | 0.08 | 0.0637 | 0.9999 | 0.0375 | 0.9999 | 0.5656 | 0.3276 | 0.0908 | 0.1677 | 0.2771 | 0.5115 |
| 68 | 36.18 | 0.08 | 0.0638 | 0.9999 | 0.0374 | 0.9999 | 0.5862 | 0.3655 | 0.0914 | 0.1654 | 0.2506 | 0.5072 |
| 69 | 36.42 | 0.08 | 0.0515 | 0.9999 | 0.0303 | 0.9999 | 0.5883 | 0.3772 | 0.0912 | 0.1518 | 0.2417 | 0.5085 |
| 70 | 36.65 | 0.07 | 0.0638 | 0.9999 | 0.0400 | 0.9999 | 0.6270 | 0.3693 | 0.0930 | 0.1888 | 0.2516 | 0.5112 |
| 71 | 36.85 | 0.07 | 0.0670 | 0.9999 | 0.0402 | 0.9999 | 0.6000 | 0.3563 | 0.0940 | 0.1835 | 0.2623 | 0.5121 |
| 72 | 37.11 | 0.07 | 0.0530 | 0.9999 | 0.0325 | 0.9999 | 0.6208 | 0.3763 | 0.0936 | 0.1940 | 0.2487 | 0.5155 |
| 73 | 37.34 | 0.07 | 0.0500 | 0.9999 | 0.0308 | 0.9999 | 0.6160 | 0.4274 | 0.0935 | 0.2186 | 0.2187 | 0.5115 |
| 74 | 37.57 | 0.08 | 0.0515 | 0.9999 | 0.0328 | 0.9999 | 0.6309 | 0.4720 | 0.0928 | 0.2397 | 0.1963 | 0.5073 |
| 75 | 37.81 | 0.08 | 0.0500 | 0.9999 | 0.0296 | 0.9999 | 0.5920 | 0.4996 | 0.0922 | 0.2522 | 0.1845 | 0.5048 |
| 76 | 38.03 | 0.08 | 0.0469 | 0.9999 | 0.0278 | 0.9999 | 0.6015 | 0.5104 | 0.0922 | 0.2596 | 0.1866 | 0.5086 |
| 77 | 38.27 | 0.08 | 0.0465 | 0.9999 | 0.0276 | 0.9999 | 0.6067 | 0.5143 | 0.0915 | 0.2638 | 0.1775 | 0.5125 |
| 78 | 38.48 | 0.08 | 0.0456 | 0.9999 | 0.0292 | 0.9999 | 0.6067 | 0.5339 | 0.0929 | 0.2730 | 0.1740 | 0.5113 |
| 79 | 38.71 | 0.08 | 0.0374 | 0.9999 | 0.0274 | 0.9999 | 0.7326 | 0.5394 | 0.0928 | 0.2767 | 0.1720 | 0.5130 |
| 80 | 38.93 | 0.05 | 0.0454 | 0.9999 | 0.0287 | 0.9999 | 0.6362 | 0.5362 | 0.0918 | 0.2763 | 0.1712 | 0.5153 |
| 81 | 39.15 | 0.05 | 0.0423 | 0.9999 | 0.0272 | 0.9999 | 0.6430 | 0.5447 | 0.0930 | 0.2804 | 0.1707 | 0.5148 |
| 82 | 39.34 | 0.04 | 0.0407 | 0.9999 | 0.0271 | 0.9999 | 0.6056 | 0.5459 | 0.0933 | 0.2824 | 0.1705 | 0.5173 |
| 83 | 39.56 | 0.05 | 0.0516 | 0.9999 | 0.0324 | 0.9999 | 0.6255 | 0.5512 | 0.0936 | 0.2848 | 0.1658 | 0.5167 |
| 84 | 39.78 | 0.10 | 0.0516 | 0.9999 | 0.0324 | 0.9999 | 0.6255 | 0.5595 | 0.0955 | 0.2889 | 0.1706 | 0.5164 |
| 85 | 39.96 | 0.05 | 0.0435 | 0.9999 | 0.0293 | 0.9999 | 0.6674 | 0.5559 | 0.0955 | 0.2887 | 0.1717 | 0.5193 |
| 86 | 40.17 | 0.05 | 0.0466 | 0.9999 | 0.0315 | 0.9999 | 0.6401 | 0.5596 | 0.0952 | 0.2896 | 0.1701 | 0.5175 |
| 87 | 40.38 | 0.05 | 0.0566 | 0.9999 | 0.0347 | 0.9999 | 0.6131 | 0.5718 | 0.0956 | 0.2973 | 0.1685 | 0.5195 |
| 88 | 40.57 | 0.07 | 0.0615 | 0.9999 | 0.0378 | 0.9999 | 0.6134 | 0.5771 | 0.0960 | 0.2977 | 0.1673 | 0.5159 |
| 89 | 40.79 | 0.08 | 0.0560 | 0.9999 | 0.0373 | 0.9999 | 0.6431 | 0.5770 | 0.0971 | 0.2998 | 0.1682 | 0.5196 |
| 90 | 41.00 | 0.07 | 0.0557 | 0.9999 | 0.0355 | 0.9999 | 0.6240 | 0.5778 | 0.0993 | 0.3095 | 0.1661 | 0.5177 |
| 91 | 41.19 | 0.06 | 0.0615 | 0.9999 | 0.0405 | 0.9999 | 0.6000 | 0.5986 | 0.0992 | 0.3116 | 0.1662 | 0.5223 |
| 92 | 41.36 | 0.07 | 0.0502 | 0.9999 | 0.0297 | 0.9999 | 0.5916 | 0.5803 | 0.0981 | 0.3081 | 0.1673 | 0.5255 |

TEST PART MACH REYNOLDS PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 130 0.60 1.7 0.0 BLADE 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 41.58 | 0.00 | 0.0379 | 9.9999 | 0.0359 | 9.9999 | 0.6230 | 0.5954 | 0.0994 | 0.3157 | 0.1665 | 0.5362 |
| 94 | 41.78 | 0.00 | 0.0512 | 9.9999 | 0.0324 | 9.9999 | 0.6090 | 0.5952 | 0.1002 | 0.3164 | 0.1683 | 0.5316 |
| 95 | 41.97 | 0.00 | 0.0644 | 9.9999 | 0.0362 | 9.9999 | 0.5925 | 0.5970 | 0.1000 | 0.3172 | 0.1675 | 0.5313 |
| 96 | 42.16 | 0.00 | 0.0501 | 9.9999 | 0.0305 | 9.9999 | 0.6106 | 0.6100 | 0.1020 | 0.3248 | 0.1655 | 0.5273 |
| 97 | 42.33 | 0.00 | 0.0652 | 9.9999 | 0.0340 | 9.9999 | 0.5927 | 0.6199 | 0.1013 | 0.3277 | 0.1634 | 0.52EE |
| 98 | 42.52 | 0.00 | 0.0814 | 9.9999 | 0.0301 | 9.9999 | 0.5918 | 0.6165 | 0.1015 | 0.3264 | 0.1641 | 0.5277 |
| 99 | 42.70 | 0.00 | 0.0563 | 9.9999 | 0.0338 | 9.9999 | 0.6004 | 0.5980 | 0.0988 | 0.3173 | 0.1652 | 0.53CE |
| 100 | 42.89 | 0.10 | 0.0615 | 9.9999 | 0.0373 | 9.9999 | 0.6125 | 0.5933 | 0.0969 | 0.3147 | 0.1633 | 0.5304 |
| 101 | 43.08 | 0.00 | 0.0655 | 9.9999 | 0.0355 | 9.9999 | 0.6031 | 0.5856 | 0.0952 | 0.3106 | 0.1625 | 0.53C7 |
| 102 | 43.20 | 0.00 | 0.0654 | 9.9999 | 0.0407 | 9.9999 | 0.6223 | 0.5802 | 0.0888 | 0.3014 | 0.1546 | 0.536C |
| 103 | 43.42 | 0.00 | 0.0748 | 9.9999 | 0.0465 | 9.9999 | 0.6217 | 0.5546 | 0.0837 | 0.2905 | 0.1565 | 0.5434 |
| 104 | 43.61 | 0.10 | 0.0761 | 9.9999 | 0.0430 | 9.9999 | 0.6134 | 0.5166 | 0.0793 | 0.2841 | 0.1535 | 0.5466 |
| 105 | 43.80 | 0.10 | 0.0665 | 9.9999 | 0.0435 | 9.9999 | 0.6350 | 0.5321 | 0.0761 | 0.2921 | 0.1436 | 0.5456 |
| 106 | 43.97 | 0.00 | 0.0746 | 9.9999 | 0.0471 | 9.9999 | 0.6300 | 0.5245 | 0.0792 | 0.2888 | 0.1510 | 0.55C0 |
| 107 | 44.17 | 0.10 | 0.0731 | 9.9999 | 0.0483 | 9.9999 | 0.6334 | 0.5196 | 0.0781 | 0.2863 | 0.1503 | 0.5516 |
| 108 | 44.33 | 0.10 | 0.0717 | 9.9999 | 0.0491 | 9.9999 | 0.6319 | 0.4728 | 0.0746 | 0.2673 | 0.1577 | 0.5654 |
| 109 | 44.53 | 0.10 | 0.0629 | 9.9999 | 0.0514 | 9.9999 | 0.6236 | 0.5079 | 0.0761 | 0.2819 | 0.1498 | 0.5550 |
| 110 | 44.70 | 0.00 | 0.0663 | 9.9999 | 0.0427 | 9.9999 | 0.6252 | 0.5104 | 0.0761 | 0.2830 | 0.1491 | 0.5545 |
| 111 | 44.85 | 0.11 | 0.0666 | 9.9999 | 0.0438 | 9.9999 | 0.6377 | 0.5203 | 0.0784 | 0.2892 | 0.1506 | 0.5558 |
| 112 | 45.07 | 0.10 | 0.0667 | 9.9999 | 0.0432 | 9.9999 | 0.6477 | 0.5330 | 0.0776 | 0.2947 | 0.1456 | 0.5525 |
| 113 | 45.24 | 0.11 | 0.0681 | 9.9999 | 0.0445 | 9.9999 | 0.6535 | 0.4906 | 0.0742 | 0.2756 | 0.1512 | 0.5618 |
| 114 | 45.42 | 0.10 | 0.0662 | 9.9999 | 0.0446 | 9.9999 | 0.6340 | 0.5016 | 0.0764 | 0.2817 | 0.1519 | 0.5616 |
| 115 | 45.59 | 0.10 | 0.0651 | 9.9999 | 0.0431 | 9.9999 | 0.6621 | 0.5144 | 0.0751 | 0.2865 | 0.1460 | 0.557C |
| 116 | 45.78 | 0.11 | 0.0636 | 9.9999 | 0.0433 | 9.9999 | 0.6360 | 0.4474 | 0.0736 | 0.2563 | 0.1645 | 0.5773 |
| 117 | 45.95 | 0.10 | 0.0662 | 9.9999 | 0.0439 | 9.9999 | 0.6437 | 0.4789 | 0.0751 | 0.2727 | 0.1568 | 0.5694 |
| 118 | 46.11 | 0.11 | 0.0729 | 9.9999 | 0.0474 | 9.9999 | 0.6502 | 0.4662 | 0.0751 | 0.2666 | 0.1604 | 0.5737 |
| 119 | 46.25 | 0.00 | 0.0775 | 9.9999 | 0.0503 | 9.9999 | 0.6490 | 0.4753 | 0.0754 | 0.2724 | 0.1586 | 0.5731 |
| 120 | 46.47 | 0.00 | 0.0744 | 9.9999 | 0.0468 | 9.9999 | 0.6359 | 0.4843 | 0.0751 | 0.2777 | 0.1550 | 0.5734 |
| 121 | 46.65 | 0.10 | 0.0681 | 9.9999 | 0.0445 | 9.9999 | 0.6335 | 0.4969 | 0.0762 | 0.2824 | 0.1527 | 0.5666 |
| 122 | 46.79 | 0.00 | 0.0666 | 9.9999 | 0.0425 | 9.9999 | 0.6381 | 0.5108 | 0.0775 | 0.2887 | 0.1517 | 0.5652 |
| 123 | 46.97 | 0.00 | 0.0775 | 9.9999 | 0.0477 | 9.9999 | 0.6155 | 0.5088 | 0.0783 | 0.2880 | 0.1538 | 0.5666 |
| 124 | 47.10 | 0.00 | 0.0615 | 9.9999 | 0.0403 | 9.9999 | 0.6310 | 0.5122 | 0.0785 | 0.2882 | 0.1532 | 0.5627 |
| 125 | 47.32 | 0.00 | 0.0620 | 9.9999 | 0.0410 | 9.9999 | 0.6613 | 0.5435 | 0.0790 | 0.3045 | 0.1453 | 0.5610 |
| 126 | 47.49 | 0.00 | 0.0624 | 9.9999 | 0.0404 | 9.9999 | 0.6310 | 0.5292 | 0.0790 | 0.2986 | 0.1482 | 0.5642 |
| 127 | 47.68 | 0.00 | 0.0622 | 9.9999 | 0.0442 | 9.9999 | 0.6540 | 0.5372 | 0.0810 | 0.3029 | 0.1502 | 0.5618 |
| 128 | 47.83 | 0.00 | 0.0527 | 9.9999 | 0.0353 | 9.9999 | 0.6096 | 0.5691 | 0.0818 | 0.3151 | 0.1437 | 0.5537 |
| 129 | 48.01 | 0.00 | 0.0565 | 9.9999 | 0.0382 | 9.9999 | 0.6466 | 0.5477 | 0.0822 | 0.3083 | 0.1500 | 0.5625 |
| 130 | 48.19 | 0.00 | 0.0575 | 9.9999 | 0.0381 | 9.9999 | 0.6049 | 0.5514 | 0.0816 | 0.3091 | 0.1475 | 0.560E |
| 131 | 48.34 | 0.00 | 0.0555 | 9.9999 | 0.0374 | 9.9999 | 0.6891 | 0.5513 | 0.0805 | 0.3102 | 0.1460 | 0.5627 |
| 132 | 48.49 | 0.00 | 0.0528 | 9.9999 | 0.0366 | 9.9999 | 0.6818 | 0.5524 | 0.0824 | 0.3105 | 0.1451 | 0.5621 |
| 133 | 48.66 | 0.00 | 0.0528 | 9.9999 | 0.0360 | 9.9999 | 0.6818 | 0.5584 | 0.0852 | 0.3126 | 0.1525 | 0.5556 |
| 134 | 48.85 | 0.00 | 0.0555 | 9.9999 | 0.0368 | 9.9999 | 0.6583 | 0.5773 | 0.0825 | 0.3196 | 0.1429 | 0.5536 |
| 135 | 49.02 | 0.00 | 0.0543 | 9.9999 | 0.0367 | 9.9999 | 0.6759 | 0.5686 | 0.0816 | 0.3156 | 0.1438 | 0.5550 |
| 136 | 49.20 | 0.00 | 0.0574 | 9.9999 | 0.0388 | 9.9999 | 0.6760 | 0.5832 | 0.0810 | 0.3218 | 0.1385 | 0.5518 |
| 137 | 49.36 | 0.00 | 0.0434 | 9.9999 | 0.0315 | 9.9999 | 0.7258 | 0.5744 | 0.0838 | 0.3168 | 0.1455 | 0.5515 |
| 138 | 49.53 | 0.00 | 0.0497 | 9.9999 | 0.0345 | 9.9999 | 0.6942 | 0.5900 | 0.0803 | 0.3228 | 0.1361 | 0.5471 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDCI) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART HALF RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 1SC C.EC 1.7 C.C DIRECT C.C 0 -30 0 -30 UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 49.68 | 0.02 | 0.0456 | 9.9999 | 0.0323 | 9.9999 | 0.7178 | 0.5781 | 0.0837 | 0.3204 | 0.1447 | 0.5542 |
| 140 | 49.80 | 0.01 | 0.0435 | 9.9999 | 0.0303 | 9.9999 | 0.6966 | 0.5608 | 0.0835 | 0.3232 | 0.1413 | 0.5472 |
| 141 | 50.02 | 0.02 | 0.0434 | 9.9999 | 0.0315 | 9.9999 | 0.7256 | 0.5963 | 0.0827 | 0.3262 | 0.1387 | 0.5476 |
| 142 | 50.20 | 0.02 | 0.0426 | 9.9999 | 0.0280 | 9.9999 | 0.7216 | 0.5864 | 0.0804 | 0.3206 | 0.1371 | 0.5467 |
| 143 | 50.35 | 0.00 | 0.0365 | 9.9999 | 0.0287 | 9.9999 | 0.7378 | 0.5902 | 0.0805 | 0.3247 | 0.1352 | 0.5428 |
| 144 | 50.51 | 0.00 | 0.0420 | 9.9999 | 0.0296 | 9.9999 | 0.7346 | 0.6087 | 0.0818 | 0.3296 | 0.1343 | 0.5415 |
| 145 | 50.71 | 0.02 | 0.0452 | 9.9999 | 0.0311 | 9.9999 | 0.6881 | 0.5562 | 0.0782 | 0.3054 | 0.1406 | 0.5451 |
| 146 | 50.88 | 0.03 | 0.0463 | 9.9999 | 0.0332 | 9.9999 | 0.6874 | 0.5630 | 0.0785 | 0.3160 | 0.1346 | 0.5455 |
| 147 | 51.04 | 0.04 | 0.0467 | 9.9999 | 0.0331 | 9.9999 | 0.7088 | 0.5861 | 0.0799 | 0.3204 | 0.1363 | 0.5467 |
| 148 | 51.21 | 0.04 | 0.0530 | 9.9999 | 0.0361 | 9.9999 | 0.6811 | 0.5809 | 0.0794 | 0.3180 | 0.1366 | 0.5474 |
| 149 | 51.38 | 0.05 | 0.0515 | 9.9999 | 0.0346 | 9.9999 | 0.6757 | 0.5820 | 0.0799 | 0.3187 | 0.1372 | 0.5476 |
| 150 | 51.55 | 0.04 | 0.0421 | 9.9999 | 0.0257 | 9.9999 | 0.7055 | 0.5766 | 0.0799 | 0.3169 | 0.1385 | 0.5498 |
| 151 | 51.72 | 0.05 | 0.0436 | 9.9999 | 0.0317 | 9.9999 | 0.7271 | 0.5819 | 0.0803 | 0.3194 | 0.1380 | 0.5489 |
| 152 | 51.88 | 0.06 | 0.0455 | 9.9999 | 0.0347 | 9.9999 | 0.6954 | 0.5854 | 0.0805 | 0.3210 | 0.1375 | 0.5483 |
| 153 | 52.05 | 0.06 | 0.0531 | 9.9999 | 0.0362 | 9.9999 | 0.6817 | 0.5979 | 0.0808 | 0.3252 | 0.1351 | 0.5435 |
| 154 | 52.22 | 0.06 | 0.0452 | 9.9999 | 0.0316 | 9.9999 | 0.7035 | 0.5998 | 0.0805 | 0.3293 | 0.1342 | 0.5490 |
| 155 | 52.39 | 0.07 | 0.0364 | 9.9999 | 0.0378 | 9.9999 | 0.6702 | 0.6045 | 0.0812 | 0.3303 | 0.1343 | 0.5464 |
| 156 | 52.56 | 0.07 | 0.0465 | 9.9999 | 0.0327 | 9.9999 | 0.6742 | 0.6047 | 0.0807 | 0.3303 | 0.1334 | 0.5462 |
| 157 | 52.73 | 0.07 | 0.0356 | 9.9999 | 0.0393 | 9.9999 | 0.6596 | 0.6064 | 0.0793 | 0.3308 | 0.1307 | 0.5455 |
| 158 | 52.89 | 0.08 | 0.0316 | 9.9999 | 0.0345 | 9.9999 | 0.6737 | 0.6065 | 0.0785 | 0.3315 | 0.1290 | 0.5448 |
| 159 | 53.04 | 0.08 | 0.0399 | 9.9999 | 0.0395 | 9.9999 | 0.6594 | 0.6144 | 0.0796 | 0.3346 | 0.1292 | 0.5446 |
| 160 | 53.24 | 0.11 | 0.0365 | 9.9999 | 0.0365 | 9.9999 | 0.6822 | 0.6156 | 0.0812 | 0.3382 | 0.1315 | 0.5454 |
| 161 | 53.38 | 0.10 | 0.0367 | 9.9999 | 0.0380 | 9.9999 | 0.6702 | 0.6122 | 0.0807 | 0.3366 | 0.1318 | 0.5458 |
| 162 | 53.54 | 0.09 | 0.0415 | 9.9999 | 0.0403 | 9.9999 | 0.6553 | 0.6193 | 0.0809 | 0.3398 | 0.1306 | 0.5487 |
| 163 | 53.71 | 0.09 | 0.0364 | 9.9999 | 0.0381 | 9.9999 | 0.6567 | 0.6321 | 0.0807 | 0.3454 | 0.1278 | 0.5464 |
| 164 | 53.87 | 0.10 | 0.0336 | 9.9999 | 0.0365 | 9.9999 | 0.6610 | 0.6261 | 0.0809 | 0.3429 | 0.1292 | 0.5477 |
| 165 | 54.05 | 0.10 | 0.0337 | 9.9999 | 0.0355 | 9.9999 | 0.6574 | 0.6670 | 0.0833 | 0.3629 | 0.1249 | 0.5491 |
| 166 | 54.19 | 0.10 | 0.0361 | 9.9999 | 0.0403 | 9.9999 | 0.6705 | 0.6707 | 0.0822 | 0.3637 | 0.1225 | 0.5423 |
| 167 | 54.35 | 0.10 | 0.0339 | 9.9999 | 0.0367 | 9.9999 | 0.6809 | 0.6648 | 0.0823 | 0.3619 | 0.1238 | 0.5464 |
| 168 | 54.50 | 0.09 | 0.0334 | 9.9999 | 0.0415 | 9.9999 | 0.6809 | 0.6770 | 0.0822 | 0.3675 | 0.1213 | 0.5424 |
| 169 | 54.68 | 0.10 | 0.0323 | 9.9999 | 0.0347 | 9.9999 | 0.6835 | 0.6846 | 0.0829 | 0.3708 | 0.1211 | 0.5418 |
| 170 | 54.82 | 0.10 | 0.0323 | 9.9999 | 0.0355 | 9.9999 | 0.6864 | 0.6741 | 0.0817 | 0.3672 | 0.1242 | 0.5447 |
| 171 | 54.98 | 0.08 | 0.0371 | 9.9999 | 0.0370 | 9.9999 | 0.6680 | 0.6706 | 0.0813 | 0.3642 | 0.1212 | 0.5431 |
| 172 | 55.15 | 0.07 | 0.0371 | 9.9999 | 0.0382 | 9.9999 | 0.6690 | 0.6710 | 0.0802 | 0.3641 | 0.1195 | 0.5426 |
| 173 | 55.31 | 0.05 | 0.0451 | 9.9999 | 0.0331 | 9.9999 | 0.6741 | 0.6706 | 0.0807 | 0.3648 | 0.1203 | 0.5438 |
| 174 | 55.48 | 0.07 | 0.0490 | 9.9999 | 0.0337 | 9.9999 | 0.6876 | 0.6852 | 0.0796 | 0.3669 | 0.1218 | 0.5447 |
| 175 | 55.63 | 0.07 | 0.0537 | 9.9999 | 0.0375 | 9.9999 | 0.7058 | 0.6699 | 0.0803 | 0.3625 | 0.1206 | 0.5444 |
| 176 | 55.79 | 0.05 | 0.0537 | 9.9999 | 0.0375 | 9.9999 | 0.7056 | 0.6654 | 0.0794 | 0.3582 | 0.1211 | 0.5465 |
| 177 | 55.95 | 0.09 | 0.0553 | 9.9999 | 0.0380 | 9.9999 | 0.6872 | 0.6694 | 0.0808 | 0.3662 | 0.1207 | 0.5471 |
| 178 | 56.10 | 0.07 | 0.0526 | 9.9999 | 0.0362 | 9.9999 | 0.7063 | 0.6635 | 0.0806 | 0.3636 | 0.1217 | 0.5480 |
| 179 | 56.25 | 0.07 | 0.0588 | 9.9999 | 0.0403 | 9.9999 | 0.6877 | 0.6634 | 0.0810 | 0.3610 | 0.1221 | 0.5442 |
| 180 | 56.42 | 0.07 | 0.0451 | 9.9999 | 0.0364 | 9.9999 | 0.6864 | 0.6635 | 0.0810 | 0.3623 | 0.1220 | 0.5460 |
| 181 | 56.57 | 0.06 | 0.0537 | 9.9999 | 0.0375 | 9.9999 | 0.7058 | 0.6533 | 0.0801 | 0.3588 | 0.1226 | 0.5492 |
| 182 | 56.72 | 0.06 | 0.0506 | 9.9999 | 0.0358 | 9.9999 | 0.6880 | 0.6533 | 0.0803 | 0.3602 | 0.1229 | 0.5514 |
| 183 | 56.87 | 0.07 | 0.0538 | 9.9999 | 0.0354 | 9.9999 | 0.6580 | 0.6694 | 0.0809 | 0.3662 | 0.1208 | 0.5471 |
| 184 | 57.00 | 0.07 | 0.0601 | 9.9999 | 0.0397 | 9.9999 | 0.6896 | 0.6626 | 0.0797 | 0.3649 | 0.1203 | 0.5507 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 130 0.80 1.7 0.0 BLOUFIL 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.15 | 0.07 | 0.0566 | 9.9999 | 0.0351 | 9.9999 | 0.6937 | 0.6666 | 0.0606 | 0.3672 | 0.1210 | 0.5514 |
| 186 | 57.31 | 0.07 | 0.0561 | 9.9999 | 0.0365 | 9.9999 | 0.7006 | 0.6622 | 0.0608 | 0.3636 | 0.1226 | 0.5491 |
| 187 | 57.43 | 0.05 | 0.0566 | 9.9999 | 0.0351 | 9.9999 | 0.6937 | 0.6532 | 0.0606 | 0.3616 | 0.1234 | 0.5536 |
| 188 | 57.60 | 0.05 | 0.0566 | 9.9999 | 0.0372 | 9.9999 | 0.6940 | 0.6454 | 0.0782 | 0.3561 | 0.1211 | 0.5518 |
| 189 | 57.75 | 0.06 | 0.0473 | 9.9999 | 0.0335 | 9.9999 | 0.7062 | 0.6760 | 0.0791 | 0.3695 | 0.1170 | 0.5472 |
| 190 | 57.81 | 0.04 | 0.0536 | 9.9999 | 0.0351 | 9.9999 | 0.7308 | 0.6809 | 0.0605 | 0.3642 | 0.1218 | 0.5511 |
| 191 | 57.66 | 0.06 | 0.0526 | 9.9999 | 0.0356 | 9.9999 | 0.6835 | 0.6616 | 0.0803 | 0.3622 | 0.1214 | 0.5486 |
| 192 | 57.62 | 0.07 | 0.0504 | 9.9999 | 0.0363 | 9.9999 | 0.7202 | 0.6660 | 0.0811 | 0.3666 | 0.1214 | 0.5491 |
| 193 | 57.61 | 0.05 | 0.0515 | 9.9999 | 0.0376 | 9.9999 | 0.7245 | 0.6705 | 0.0804 | 0.3683 | 0.1199 | 0.5453 |
| 194 | 57.62 | 0.05 | 0.0535 | 9.9999 | 0.0377 | 9.9999 | 0.7047 | 0.6750 | 0.0813 | 0.3708 | 0.1203 | 0.5488 |
| 195 | 57.62 | 0.05 | 0.0515 | 9.9999 | 0.0370 | 9.9999 | 0.7125 | 0.6744 | 0.0795 | 0.3695 | 0.1179 | 0.5485 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST / 131 PART 0.90 MACH 1.7 REX10-6 PHI 0.0 CONF 61 BUFFIL C.G 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.02 | -1.5930 | 5.5420 | 0.0364 | -0.0518 | 0.0024 | 1.1097 | 0.3666 | 0.7431 | -3.4789 |
| 2 | -5.74 | -0.01 | -1.5766 | 5.5905 | -0.0057 | -0.0155 | -0.0040 | 1.1116 | 0.3670 | 0.7446 | -3.5133 |
| 3 | -5.74 | -0.00 | -1.5776 | 5.5814 | 0.0755 | -0.0564 | -0.0039 | 1.1147 | 0.3678 | 0.7469 | -3.5252 |
| 4 | -5.74 | -0.00 | -1.5919 | 5.5567 | 0.0316 | -0.0715 | 0.0025 | 1.1146 | 0.3666 | 0.7462 | -3.4906 |
| 5 | -5.26 | 0.01 | -1.4703 | 5.4446 | 0.1275 | -0.0525 | 0.0029 | 1.1053 | 0.3603 | 0.7450 | -3.7032 |
| 6 | -3.33 | 0.01 | -1.0056 | 5.4535 | 0.1435 | -0.0624 | 0.0032 | 1.0756 | 0.3411 | 0.7345 | -3.6937 |
| 7 | -1.56 | -0.01 | -0.7621 | 5.4577 | 0.0152 | -0.0478 | -0.0026 | 1.0535 | 0.3222 | 0.7314 | -4.3562 |
| 8 | 0.31 | 0.01 | -0.4963 | 5.7825 | 0.1602 | -0.0872 | -0.0210 | 1.0400 | 0.3039 | 0.7362 | -4.8339 |
| 9 | 2.15 | -0.00 | -0.1564 | 6.1746 | 0.0255 | -0.0605 | -0.0140 | 1.0268 | 0.2713 | 0.7555 | -5.3357 |
| 10 | 3.93 | 0.00 | -0.2468 | 6.0562 | 0.0580 | -0.0725 | 0.0058 | 0.9956 | 0.2554 | 0.7402 | -5.9094 |
| 11 | 5.80 | 0.01 | -0.7337 | 5.4235 | 0.0555 | -0.1416 | -0.0001 | 0.9165 | 0.2445 | 0.6719 | -7.3522 |
| 12 | 7.68 | 0.00 | -0.4516 | 4.9014 | 0.0315 | -0.0622 | 0.0066 | 0.8424 | 0.2337 | 0.6087 | -9.5711 |
| 13 | 9.46 | 0.00 | -0.2242 | 4.5802 | -0.0065 | 0.2179 | -0.0130 | 0.7660 | 0.2157 | 0.5503 | -20.4544 |
| 14 | 11.38 | -0.01 | -0.0224 | 4.3763 | -0.0716 | 0.0252 | 0.0077 | 0.6956 | 0.1932 | 0.5024 | -195.0030 |
| 15 | 13.15 | 0.00 | 0.2738 | 3.9066 | 0.0009 | 0.1184 | 0.0080 | 0.6265 | 0.1552 | 0.4313 | 14.2734 |
| 16 | 15.08 | 0.01 | 0.5718 | 3.3076 | -0.0012 | 0.0504 | 0.0069 | 0.5612 | 0.1490 | 0.3622 | 5.7835 |
| 17 | 17.03 | 0.00 | 0.9653 | 2.6775 | -0.0466 | 0.2315 | 0.0027 | 0.4718 | 0.2036 | 0.2682 | 2.7741 |
| 18 | 18.93 | -0.01 | 1.3100 | 2.1746 | -0.2005 | 0.7306 | 0.0213 | 0.4008 | 0.2075 | 0.2013 | 1.6602 |
| 19 | 20.84 | -0.01 | 1.6709 | 1.7264 | -0.3472 | 1.0421 | 0.0212 | 0.3405 | 0.2154 | 0.1311 | 1.0344 |
| 20 | 22.74 | -0.01 | 1.9761 | 1.5266 | -0.3646 | 1.2663 | 0.0215 | 0.2906 | 0.2213 | 0.0754 | 0.7733 |
| 21 | 24.61 | -0.02 | 2.2595 | 1.3702 | -0.4745 | 1.2562 | 0.0230 | 0.2427 | 0.2246 | 0.0181 | 0.5958 |
| 22 | 26.54 | 0.01 | 2.5220 | 1.5534 | 0.0445 | 0.1580 | 0.0284 | 0.1948 | 0.2188 | -0.0240 | 0.5584 |
| 23 | 27.68 | 0.03 | 2.9263 | 1.5462 | 0.2517 | -0.3116 | 0.0369 | 0.1137 | 0.2153 | -0.1017 | 0.5219 |
| 24 | 27.98 | 0.04 | 3.0333 | 1.4554 | 0.4241 | -0.6323 | 0.0441 | 0.1012 | 0.2153 | -0.1142 | 0.4930 |
| 25 | 28.36 | 0.02 | 3.2266 | 1.2463 | 0.7166 | -1.3602 | 0.1041 | 0.1346 | 0.2166 | -0.1121 | 0.3860 |
| 26 | 28.67 | 0.04 | 3.2960 | 1.2477 | 0.5291 | -0.9136 | 0.0711 | 0.0546 | 0.2173 | -0.1427 | 0.3851 |
| 27 | 28.95 | 0.04 | 3.3586 | 1.2252 | 0.4746 | -0.5228 | 0.0860 | 0.0886 | 0.2178 | -0.1292 | 0.3311 |
| 28 | 29.26 | 0.04 | 3.4436 | 1.0466 | 0.3323 | -0.3056 | 0.0644 | 0.0817 | 0.2186 | -0.1343 | 0.3039 |
| 29 | 29.56 | 0.06 | 3.5475 | 1.0327 | 0.2652 | -0.1627 | 0.1119 | 0.0545 | 0.2206 | -0.1661 | 0.2831 |
| 30 | 29.84 | 0.07 | 3.7328 | 1.1272 | 0.0510 | -0.0206 | 0.0792 | 0.0557 | 0.2196 | -0.1661 | 0.3020 |
| 31 | 30.11 | 0.06 | 3.7722 | 0.9514 | 0.0575 | -0.0885 | 0.1165 | 0.0486 | 0.2253 | -0.1767 | 0.2364 |
| 32 | 30.37 | 0.06 | 3.9276 | 1.1156 | 0.0463 | -0.1708 | 0.1326 | 0.0426 | 0.2256 | -0.1828 | 0.2841 |
| 33 | 30.68 | 0.07 | 4.0328 | 1.2717 | 0.7794 | -1.1499 | 0.1269 | 0.0431 | 0.2273 | -0.1842 | 0.3153 |
| 34 | 30.94 | 0.06 | 4.1773 | 1.3481 | 0.5003 | -1.3074 | 0.1344 | 0.0508 | 0.2274 | -0.1966 | 0.3227 |
| 35 | 31.21 | 0.07 | 4.1616 | 1.3020 | 0.6528 | -0.8068 | 0.1075 | 0.0251 | 0.2302 | -0.2051 | 0.3114 |
| 36 | 31.49 | 0.06 | 4.2656 | 1.2826 | 0.4586 | -0.1108 | 0.0805 | 0.0308 | 0.2301 | -0.2053 | 0.2989 |
| 37 | 31.76 | 0.07 | 4.4635 | 1.1617 | 0.6477 | 0.1135 | 0.0728 | 0.0193 | 0.2465 | -0.2272 | 0.2603 |
| 38 | 32.03 | 0.06 | 4.4554 | 1.1794 | 0.5339 | 0.0091 | 0.0796 | 0.0170 | 0.2406 | -0.2296 | 0.2623 |
| 39 | 32.30 | 0.09 | 4.6178 | 1.2333 | 0.7975 | -0.1435 | 0.0938 | -0.0022 | 0.2495 | -0.2517 | 0.2642 |
| 40 | 32.56 | 0.06 | 4.6376 | 1.0861 | 0.5050 | 0.0382 | 0.0809 | -0.0010 | 0.2492 | -0.2502 | 0.2346 |
| 41 | 32.83 | 0.10 | 4.9521 | 1.0478 | 1.1171 | -1.1483 | 0.1309 | -0.0316 | 0.2556 | -0.2666 | 0.2924 |
| 42 | 33.08 | 0.10 | 5.0184 | 1.0426 | 1.1345 | -1.2705 | 0.1376 | -0.0288 | 0.2492 | -0.2780 | 0.2847 |
| 43 | 33.33 | 0.11 | 5.0401 | 1.0984 | 1.2007 | -1.1586 | 0.1248 | -0.0244 | 0.2492 | -0.2736 | 0.2773 |
| 44 | 33.57 | 0.10 | 5.1057 | 1.0679 | 1.1347 | -1.4594 | 0.1300 | -0.0377 | 0.2441 | -0.2816 | 0.3071 |
| 45 | 33.83 | 0.09 | 5.2462 | 1.8509 | 1.0007 | -1.6076 | 0.1397 | -0.0639 | 0.2382 | -0.3022 | 0.2526 |
| 46 | 34.08 | 0.08 | 5.2711 | 1.9397 | 0.8636 | -1.3514 | 0.1265 | -0.0720 | 0.2349 | -0.3070 | 0.3680 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 131 MACH 0.90 RXIO-6 1.7 PHI 0.0 CONF BINOFIL ALPHA 0.0 CEL1 0 CEL2 -30 CEL3 0 CEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.32 | 0.00 | 5.3615 | 2.0551 | 0.7843 | -1.2778 | 0.1399 | -0.0836 | 0.2424 | -0.3061 | 0.3841 |
| 48 | 34.57 | 0.00 | 5.4366 | 2.1926 | 0.8275 | -1.2943 | 0.1474 | -0.0849 | 0.2378 | -0.3248 | 0.4062 |
| 49 | 34.82 | 0.00 | 5.5247 | 2.2825 | 0.5788 | -1.2202 | 0.1275 | -0.0916 | 0.2369 | -0.3286 | 0.4131 |
| 50 | 35.05 | 0.00 | 5.5740 | 2.2796 | 0.0450 | -1.0766 | 0.0683 | -0.1046 | 0.2350 | -0.3404 | 0.4050 |
| 51 | 35.29 | 0.00 | 5.6752 | 2.4066 | 0.3526 | -0.4936 | 0.0303 | -0.1116 | 0.2335 | -0.3451 | 0.4378 |
| 52 | 35.54 | 0.00 | 5.7322 | 2.5367 | 0.3456 | -0.7032 | 0.0493 | -0.1105 | 0.2352 | -0.3457 | 0.4425 |
| 53 | 35.78 | 0.00 | 5.7772 | 2.6245 | 0.4047 | -0.7305 | 0.0506 | -0.1271 | 0.2361 | -0.3632 | 0.4157 |
| 54 | 35.58 | 0.00 | 5.8371 | 2.5068 | 0.0501 | -0.0492 | -0.0092 | -0.1327 | 0.2352 | -0.3709 | 0.4435 |
| 55 | 36.23 | 0.01 | 5.9040 | 2.5857 | 0.1344 | -0.0235 | -0.0222 | -0.1380 | 0.2360 | -0.3740 | 0.4386 |
| 56 | 36.48 | 0.01 | 5.9205 | 2.6017 | 0.0840 | 0.2174 | -0.0350 | -0.1402 | 0.2364 | -0.3826 | 0.4346 |
| 57 | 36.69 | 0.02 | 6.1151 | 2.8100 | 0.4088 | -0.3057 | 0.0312 | -0.1705 | 0.2365 | -0.4070 | 0.4268 |
| 58 | 36.94 | 0.02 | 6.2217 | 2.9433 | 0.1955 | -0.1036 | 0.0105 | -0.1737 | 0.2385 | -0.4122 | 0.4168 |
| 59 | 37.17 | 0.01 | 6.2469 | 2.8038 | 0.2421 | -0.0759 | 0.0377 | -0.1720 | 0.2372 | -0.4092 | 0.4166 |
| 60 | 37.39 | 0.00 | 6.3516 | 2.8375 | 0.1527 | -0.2543 | 0.0256 | -0.1801 | 0.2356 | -0.4217 | 0.4166 |
| 61 | 37.64 | 0.01 | 6.4417 | 2.8502 | 0.2746 | -0.3507 | 0.0458 | -0.1737 | 0.2354 | -0.4191 | 0.4083 |
| 62 | 37.88 | 0.01 | 6.5665 | 2.9960 | 0.3017 | -0.4403 | 0.0593 | -0.2050 | 0.2428 | -0.4478 | 0.3803 |
| 63 | 38.10 | 0.02 | 6.6045 | 2.8438 | 0.4445 | -0.4448 | 0.0752 | -0.2048 | 0.2406 | -0.4454 | 0.4002 |
| 64 | 38.33 | 0.02 | 6.6666 | 2.8714 | 0.4591 | -0.4406 | 0.0805 | -0.1997 | 0.2427 | -0.4424 | 0.4006 |
| 65 | 38.56 | 0.01 | 6.7563 | 2.8044 | 0.2234 | -0.1783 | 0.0532 | -0.2067 | 0.2465 | -0.4552 | 0.3854 |
| 66 | 38.78 | 0.01 | 6.7613 | 2.8362 | 0.3421 | -0.0150 | 0.0829 | -0.1953 | 0.2424 | -0.4477 | 0.3743 |
| 67 | 38.99 | 0.03 | 6.8427 | 2.9272 | 0.4445 | -0.1035 | 0.0848 | -0.2104 | 0.2579 | -0.4683 | 0.3547 |
| 68 | 39.21 | 0.03 | 6.9740 | 2.9152 | 0.4706 | 0.3365 | 0.0514 | -0.2268 | 0.2549 | -0.4812 | 0.3607 |
| 69 | 39.41 | 0.01 | 7.0352 | 2.9281 | 0.2224 | 0.6293 | 0.0445 | -0.2253 | 0.2554 | -0.4807 | 0.3552 |
| 70 | 39.64 | 0.03 | 7.0966 | 2.9029 | 0.4001 | 0.7023 | 0.0441 | -0.2409 | 0.2530 | -0.4941 | 0.3611 |
| 71 | 39.85 | -0.01 | 7.1451 | 2.9885 | 0.0325 | 0.9835 | 0.0309 | -0.2419 | 0.2545 | -0.4965 | 0.3621 |
| 72 | 40.04 | 0.02 | 7.2961 | 2.9939 | 0.3049 | 1.1712 | 0.0431 | -0.2550 | 0.2621 | -0.4972 | 0.3362 |
| 73 | 40.25 | 0.00 | 7.3509 | 2.9972 | 0.1238 | 0.6625 | 0.0450 | -0.2550 | 0.2571 | -0.5122 | 0.3357 |
| 74 | 40.48 | 0.01 | 7.4288 | 2.9212 | 0.2222 | 0.8984 | 0.0448 | -0.2645 | 0.2566 | -0.5212 | 0.3259 |
| 75 | 40.68 | -0.00 | 7.4157 | 2.9477 | 0.1440 | 0.8346 | 0.0469 | -0.2648 | 0.2511 | -0.5360 | 0.3436 |
| 76 | 40.89 | 0.01 | 7.4941 | 2.9863 | 0.2079 | 0.8003 | 0.0403 | -0.2920 | 0.2488 | -0.5414 | 0.3317 |
| 77 | 41.10 | 0.01 | 7.5455 | 2.9455 | 0.2228 | 0.9008 | 0.0457 | -0.3007 | 0.2532 | -0.5599 | 0.3199 |
| 78 | 41.30 | 0.02 | 7.6161 | 2.9659 | 0.3230 | 0.9030 | 0.0450 | -0.2937 | 0.2541 | -0.5478 | 0.3165 |
| 79 | 41.49 | 0.01 | 7.7018 | 2.9878 | 0.1888 | 0.7695 | 0.0485 | -0.3056 | 0.2537 | -0.5593 | 0.3100 |
| 80 | 41.68 | 0.00 | 7.7466 | 2.9334 | 0.1396 | 0.8105 | 0.0474 | -0.3024 | 0.2528 | -0.5552 | 0.3149 |
| 81 | 41.89 | 0.02 | 7.8865 | 2.9060 | 0.4331 | 0.3764 | 0.0416 | -0.3202 | 0.2477 | -0.5679 | 0.3058 |
| 82 | 42.12 | -0.01 | 7.9474 | 2.9529 | 0.0303 | 0.9305 | 0.0408 | -0.3241 | 0.2549 | -0.5770 | 0.3011 |
| 83 | 42.32 | 0.01 | 8.0642 | 2.9726 | 0.3127 | 0.4661 | 0.0422 | -0.3264 | 0.2477 | -0.5741 | 0.2817 |
| 84 | 42.49 | -0.01 | 8.1073 | 2.9696 | 0.1116 | 0.3271 | 0.0366 | -0.3506 | 0.2472 | -0.5978 | 0.2923 |
| 85 | 42.67 | 0.00 | 8.1576 | 2.9184 | 0.2281 | 0.1591 | 0.0374 | -0.3476 | 0.2465 | -0.5941 | 0.2860 |
| 86 | 42.84 | 0.00 | 8.1991 | 2.9114 | 0.1522 | 0.5560 | 0.0358 | -0.3397 | 0.2544 | -0.5851 | 0.2714 |
| 87 | 43.04 | -0.02 | 8.2636 | 2.9106 | -0.0145 | 1.4284 | 0.0277 | -0.3408 | 0.2579 | -0.5965 | 0.2524 |
| 88 | 43.23 | -0.01 | 8.4021 | 2.9405 | 0.0755 | 1.0036 | 0.0361 | -0.3524 | 0.2511 | -0.6035 | 0.2659 |
| 89 | 43.41 | -0.01 | 8.4357 | 2.9023 | 0.1501 | -0.0160 | 0.0466 | -0.3734 | 0.2460 | -0.6194 | 0.2729 |
| 90 | 43.59 | -0.00 | 8.4214 | 2.9553 | 0.1073 | 0.6120 | 0.0441 | -0.3636 | 0.2494 | -0.6130 | 0.2726 |
| 91 | 43.78 | -0.03 | 8.6055 | 2.1377 | 0.0701 | -0.5865 | 0.0546 | -0.3840 | 0.2484 | -0.6304 | 0.2484 |
| 92 | 43.97 | -0.01 | 8.7451 | 2.1833 | 0.0647 | 0.7804 | 0.0513 | -0.3696 | 0.2490 | -0.6306 | 0.2495 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 131 0.90 1.7 0.0 BLANKET 0.0 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.14 | -0.01 | 8.8546 | 2.1325 | 0.1737 | 0.4552 | 0.0454 | -0.4002 | 0.2489 | -0.6491 | 0.2464 |
| 94 | 44.34 | -0.00 | 8.8616 | 2.0965 | 0.1364 | 0.3233 | 0.0396 | -0.3900 | 0.2473 | -0.6459 | 0.2380 |
| 95 | 44.54 | 0.01 | 8.7803 | 2.2454 | 0.3800 | -0.5905 | 0.0558 | -0.3978 | 0.2477 | -0.6455 | 0.2557 |
| 96 | 44.72 | 0.01 | 8.8853 | 2.1361 | 0.3606 | -0.2667 | 0.0000 | -0.4164 | 0.2493 | -0.6657 | 0.2400 |
| 97 | 44.89 | 0.02 | 8.9401 | 2.1207 | 0.3547 | 0.4135 | 0.0352 | -0.3983 | 0.2527 | -0.6570 | 0.2372 |
| 98 | 45.07 | 0.02 | 8.9334 | 2.0977 | 0.3787 | -0.3711 | 0.0556 | -0.4252 | 0.2485 | -0.6736 | 0.2348 |
| 99 | 45.26 | 0.00 | 9.0525 | 1.9788 | 0.3804 | -0.4670 | 0.0565 | -0.4263 | 0.2506 | -0.6770 | 0.2174 |
| 100 | 45.43 | 0.00 | 9.1794 | 2.0383 | 0.2656 | -0.2299 | 0.0565 | -0.4506 | 0.2466 | -0.6975 | 0.2221 |
| 101 | 45.61 | 0.01 | 9.2686 | 1.9898 | 0.3515 | 0.0892 | 0.0423 | -0.4443 | 0.2485 | -0.6929 | 0.2137 |
| 102 | 45.78 | 0.02 | 9.2676 | 2.0165 | 0.4104 | 0.1641 | 0.0353 | -0.4410 | 0.2518 | -0.6929 | 0.2173 |
| 103 | 45.96 | -0.03 | 9.3521 | 1.9417 | -0.1006 | -0.0247 | 0.0568 | -0.4562 | 0.2561 | -0.7124 | 0.2067 |
| 104 | 46.16 | -0.02 | 9.5212 | 1.9844 | -0.1406 | 0.8941 | 0.0145 | -0.4533 | 0.2489 | -0.7023 | 0.2084 |
| 105 | 46.31 | -0.01 | 9.4530 | 2.0566 | 0.1106 | 0.2532 | 0.0297 | -0.4527 | 0.2485 | -0.7013 | 0.2167 |
| 106 | 46.49 | 0.00 | 9.4756 | 2.1001 | 0.2161 | 0.2152 | 0.0429 | -0.4561 | 0.2493 | -0.7075 | 0.2215 |
| 107 | 46.68 | 0.00 | 9.6250 | 2.0330 | 0.2452 | -0.0025 | 0.0574 | -0.4763 | 0.2468 | -0.7232 | 0.2111 |
| 108 | 46.84 | 0.01 | 9.7224 | 2.0363 | 0.2444 | 0.4016 | 0.0296 | -0.4677 | 0.2514 | -0.7391 | 0.2093 |
| 109 | 47.01 | -0.02 | 9.7060 | 2.0866 | 0.0396 | 0.5476 | 0.0168 | -0.4636 | 0.2527 | -0.7334 | 0.2139 |
| 110 | 47.19 | -0.01 | 9.7564 | 1.9201 | 0.1087 | 0.6015 | 0.0447 | -0.4976 | 0.2455 | -0.7431 | 0.2027 |
| 111 | 47.37 | 0.02 | 9.8467 | 2.0875 | 0.5462 | 0.1060 | 0.0507 | -0.4766 | 0.2506 | -0.7273 | 0.2120 |
| 112 | 47.53 | -0.02 | 9.9506 | 1.9044 | -0.0353 | 1.1580 | 0.0084 | -0.4726 | 0.2595 | -0.7322 | 0.1972 |
| 113 | 47.70 | 0.00 | 10.0150 | 1.8817 | 0.2022 | 1.8430 | -0.0338 | -0.4567 | 0.2693 | -0.7261 | 0.1859 |
| 114 | 47.88 | 0.00 | 10.0495 | 1.9567 | 0.3443 | 0.5108 | 0.0369 | -0.4980 | 0.2565 | -0.7545 | 0.1965 |
| 115 | 48.05 | 0.01 | 10.1213 | 1.8643 | 0.4351 | 0.3760 | 0.0491 | -0.4927 | 0.2550 | -0.7517 | 0.1842 |
| 116 | 48.23 | -0.00 | 10.2499 | 1.8531 | 0.1525 | 1.4075 | -0.0114 | -0.4820 | 0.2706 | -0.7327 | 0.1789 |
| 117 | 48.39 | -0.02 | 10.2563 | 1.8538 | -0.1724 | 2.1477 | -0.0336 | -0.4835 | 0.2936 | -0.7770 | 0.1953 |
| 118 | 48.55 | 0.00 | 10.3309 | 1.7033 | 0.1506 | 1.7508 | -0.0192 | -0.4798 | 0.2791 | -0.7590 | 0.1649 |
| 119 | 48.75 | -0.01 | 10.5109 | 1.6855 | -0.0972 | 2.5250 | -0.0803 | -0.4818 | 0.3021 | -0.7839 | 0.1358 |
| 120 | 48.90 | -0.01 | 10.3601 | 1.8574 | -0.0306 | 2.1952 | -0.0002 | -0.4402 | 0.2952 | -0.7354 | 0.1500 |
| 121 | 49.09 | -0.00 | 10.6359 | 1.3703 | -0.0331 | 2.6879 | -0.0937 | -0.4480 | 0.3314 | -0.7774 | 0.1288 |
| 122 | 49.28 | -0.00 | 10.6822 | 1.2161 | 0.1506 | 2.3340 | -0.0795 | -0.4493 | 0.3335 | -0.7828 | 0.1133 |
| 123 | 49.46 | 0.01 | 10.9614 | 0.9017 | 0.2327 | 2.4375 | -0.1063 | -0.4344 | 0.3637 | -0.7981 | 0.0093 |
| 124 | 49.64 | 0.04 | 11.1764 | 0.6574 | 0.3742 | 2.2972 | -0.0795 | -0.4435 | 0.3953 | -0.8388 | 0.0051 |
| 125 | 49.78 | 0.01 | 10.9500 | 0.4138 | 0.3255 | 2.3430 | -0.0928 | -0.4169 | 0.3876 | -0.8045 | 0.0378 |
| 126 | 50.01 | 0.01 | 11.1766 | -1.2376 | 0.1216 | 3.9501 | -0.0360 | -0.2695 | 0.4034 | -0.7643 | -0.1055 |
| 127 | 50.21 | 0.04 | 12.0355 | -1.3339 | 0.4030 | 3.9084 | -0.0762 | -0.2975 | 0.4890 | -0.7864 | -0.1108 |
| 128 | 50.39 | 0.03 | 12.0250 | -1.0015 | 0.1886 | 4.0656 | -0.0581 | -0.2802 | 0.5038 | -0.7960 | -0.1307 |
| 129 | 50.55 | 0.01 | 12.3385 | -1.0550 | 0.1049 | 4.3552 | -0.0700 | -0.2800 | 0.5078 | -0.7736 | -0.1377 |
| 130 | 50.72 | 0.07 | 12.3714 | -1.0206 | 0.0625 | 3.9112 | -0.0625 | -0.2805 | 0.4974 | -0.7779 | -0.1471 |
| 131 | 50.92 | 0.04 | 12.7630 | -2.2165 | 0.3655 | 4.2711 | -0.0386 | -0.3124 | 0.5153 | -0.8278 | -0.1737 |
| 132 | 51.06 | 0.07 | 12.8841 | -2.1535 | 0.7434 | 3.1720 | -0.1421 | -0.3463 | 0.4815 | -0.8277 | -0.1700 |
| 133 | 51.23 | 0.07 | 12.7654 | -2.2767 | 0.5016 | 2.4350 | -0.0857 | -0.4326 | 0.4452 | -0.8779 | -0.1783 |
| 134 | 51.40 | 0.05 | 12.5264 | -2.0851 | 0.6622 | 2.5301 | -0.1030 | -0.3878 | 0.4474 | -0.8350 | -0.1819 |
| 135 | 51.58 | 0.05 | 12.5537 | -2.1496 | 0.8337 | 1.9536 | -0.0880 | -0.3637 | 0.4436 | -0.8273 | -0.1712 |
| 136 | 51.75 | 0.06 | 13.0527 | -2.0875 | 0.8346 | 2.5271 | -0.0366 | -0.3435 | 0.4581 | -0.8016 | -0.2167 |
| 137 | 51.94 | 0.05 | 13.0564 | -2.0643 | 0.8504 | 2.3298 | -0.0482 | -0.3151 | 0.4603 | -0.7754 | -0.1959 |
| 138 | 52.08 | 0.04 | 13.0641 | -2.0536 | 0.7438 | 2.3884 | -0.0746 | -0.3051 | 0.4623 | -0.8274 | -0.2166 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 131 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.27 | 0.06 | 13.1062 | -2.6866 | 1.0306 | 2.3349 | -0.0268 | -0.3243 | 0.4687 | -0.7930 | -0.2051 |
| 140 | 52.44 | 0.04 | 13.1254 | -2.6926 | 0.8072 | 2.5801 | -0.0352 | -0.3330 | 0.4703 | -0.8033 | -0.2170 |
| 141 | 52.57 | 0.07 | 13.1366 | -2.5437 | 1.0732 | 2.3234 | -0.0155 | -0.3178 | 0.4685 | -0.7867 | -0.1936 |
| 142 | 52.70 | 0.06 | 13.1038 | -2.5607 | 1.2016 | 2.4304 | -0.0093 | -0.3022 | 0.4719 | -0.7741 | -0.1942 |
| 143 | 52.44 | 0.06 | 13.2460 | -2.6254 | 0.6945 | 2.1694 | -0.0273 | -0.3174 | 0.4664 | -0.7838 | -0.1855 |
| 144 | 53.09 | 0.06 | 13.3352 | -2.6263 | 0.5120 | 2.1880 | -0.0204 | -0.3113 | 0.4689 | -0.7802 | -0.1969 |
| 145 | 53.26 | 0.07 | 13.2600 | -2.4816 | 1.0431 | 2.0710 | -0.0371 | -0.3085 | 0.4703 | -0.7786 | -0.1869 |
| 146 | 53.43 | 0.06 | 13.3179 | -2.5246 | 1.1546 | 2.0719 | 0.0061 | -0.2927 | 0.4750 | -0.7677 | -0.1743 |
| 147 | 53.60 | 0.08 | 13.4162 | -2.5554 | 1.1702 | 1.8878 | -0.0360 | -0.2900 | 0.4752 | -0.7692 | -0.1850 |
| 148 | 53.75 | 0.04 | 13.3096 | -2.5737 | 0.8705 | 1.8690 | 0.0211 | -0.2696 | 0.4805 | -0.7502 | -0.1905 |
| 149 | 53.93 | 0.07 | 13.4817 | -2.6005 | 1.0580 | 1.5155 | 0.0154 | -0.2947 | 0.4842 | -0.7788 | -0.1929 |
| 150 | 54.08 | 0.07 | 13.5266 | -2.5058 | 1.2631 | 1.5310 | 0.0219 | -0.2804 | 0.4923 | -0.7727 | -0.1891 |
| 151 | 54.23 | 0.07 | 13.7353 | -2.6551 | 1.1960 | 1.5701 | 0.0353 | -0.3062 | 0.5086 | -0.8127 | -0.2082 |
| 152 | 54.39 | 0.07 | 13.6960 | -2.6065 | 1.1518 | 1.2165 | 0.0235 | -0.3005 | 0.5026 | -0.8112 | -0.2109 |
| 153 | 54.55 | 0.06 | 13.8242 | -2.7471 | 1.1101 | 1.2726 | 0.0501 | -0.3101 | 0.5096 | -0.8196 | -0.2008 |
| 154 | 54.69 | 0.06 | 13.6835 | -2.6501 | 1.0575 | 1.0539 | 0.0572 | -0.2852 | 0.5163 | -0.8015 | -0.1937 |
| 155 | 54.84 | 0.02 | 13.7371 | -2.6905 | 0.7189 | 1.1656 | 0.0361 | -0.2937 | 0.5156 | -0.8066 | -0.1959 |
| 156 | 55.00 | 0.05 | 13.7263 | -2.7256 | 1.0498 | 1.1772 | 0.0308 | -0.2984 | 0.5179 | -0.8162 | -0.1988 |
| 157 | 55.16 | 0.06 | 13.7645 | -2.8525 | 1.1147 | 1.0925 | 0.0371 | -0.3077 | 0.5247 | -0.8323 | -0.2069 |
| 158 | 55.31 | 0.01 | 13.8122 | -2.8516 | 0.5936 | 1.1534 | 0.0040 | -0.3015 | 0.5280 | -0.8298 | -0.1919 |
| 159 | 55.46 | 0.06 | 13.9630 | -2.8173 | 1.1965 | 1.0738 | 0.0042 | -0.3252 | 0.5272 | -0.8523 | -0.2018 |
| 160 | 55.63 | 0.03 | 13.8131 | -2.8166 | 0.8546 | 1.1016 | 0.0360 | -0.2803 | 0.5322 | -0.8125 | -0.1894 |
| 161 | 55.80 | 0.04 | 13.8127 | -2.8646 | 0.8033 | 1.3168 | 0.0537 | -0.2945 | 0.5416 | -0.8366 | -0.1871 |
| 162 | 55.96 | 0.05 | 13.8563 | -2.8616 | 0.9837 | 1.2700 | 0.0039 | -0.3031 | 0.5380 | -0.8410 | -0.1871 |
| 163 | 56.08 | 0.04 | 13.7978 | -2.6442 | 0.8237 | 1.3536 | 0.0037 | -0.3065 | 0.5426 | -0.8510 | -0.1771 |
| 164 | 56.26 | 0.03 | 13.8761 | -2.8516 | 0.7644 | 1.2647 | 0.0040 | -0.3104 | 0.5465 | -0.8568 | -0.1721 |
| 165 | 56.40 | 0.05 | 13.8857 | -2.8711 | 0.5407 | 1.2089 | 0.0042 | -0.3066 | 0.5469 | -0.8534 | -0.1717 |
| 166 | 56.55 | 0.01 | 13.8665 | -2.8077 | 0.8070 | 1.0521 | 0.0057 | -0.3141 | 0.5549 | -0.8696 | -0.1778 |
| 167 | 56.70 | 0.02 | 13.8305 | -2.8133 | 0.8417 | 1.1538 | 0.0561 | -0.2720 | 0.5641 | -0.8361 | -0.1745 |
| 168 | 56.87 | 0.03 | 13.8729 | -2.8366 | 0.6716 | 1.0575 | 0.0523 | -0.2989 | 0.5616 | -0.8604 | -0.1828 |
| 169 | 57.01 | 0.02 | 13.8051 | -2.8341 | 0.5894 | 1.1051 | 0.0586 | -0.2957 | 0.5629 | -0.8585 | -0.1763 |
| 170 | 57.16 | 0.03 | 13.9224 | -2.8366 | 0.6566 | 1.0381 | 0.0045 | -0.3058 | 0.5624 | -0.8682 | -0.1746 |
| 171 | 57.30 | 0.00 | 13.9304 | -2.8116 | 0.4551 | 1.1621 | 0.0593 | -0.3298 | 0.5535 | -0.8837 | -0.1588 |
| 172 | 57.43 | -0.01 | 13.9116 | -2.8563 | 0.4742 | 1.1337 | 0.0532 | -0.3370 | 0.5624 | -0.8954 | -0.1646 |
| 173 | 57.61 | -0.02 | 13.9427 | -1.5496 | 0.2036 | 0.2583 | 0.0509 | -0.4272 | 0.5122 | -0.9394 | -0.1112 |
| 174 | 57.74 | -0.04 | 13.8295 | -1.4976 | 0.1172 | -0.1017 | 0.0521 | -0.4567 | 0.5089 | -0.9656 | -0.1054 |
| 175 | 57.89 | -0.04 | 13.9205 | -1.4335 | 0.1536 | -0.4579 | 0.0464 | -0.4710 | 0.5089 | -0.9795 | -0.1030 |
| 176 | 58.04 | -0.06 | 14.0454 | -2.0366 | -0.2747 | -1.3558 | 0.0275 | -0.3704 | 0.5733 | -0.9517 | -0.1450 |
| 177 | 58.15 | -0.06 | 13.9662 | -2.1548 | -0.2540 | -1.2242 | 0.0207 | -0.3156 | 0.5635 | -0.8997 | -0.1569 |
| 178 | 58.15 | -0.08 | 14.0005 | -2.0063 | -0.1593 | -1.2826 | 0.0270 | -0.3556 | 0.5660 | -0.9236 | -0.1429 |
| 179 | 58.14 | -0.11 | 13.9159 | -2.1067 | -0.4710 | -1.3549 | 0.0140 | -0.3413 | 0.5770 | -0.9183 | -0.1514 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART RACE RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
/ 131 0.50 1.7 0.0 BIBOFIL 0.0 0 -30 0 -30 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | Col | XCPF1 | YCPF1 | CNF2 | CM2 | Cd2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.002 | -0.0049 | 0.0007 | 0.0055 | -0.1428 | -1.1224 | -0.8143 | -0.0486 | -0.4455 | 0.0597 | 0.5471 |
| 2 | -5.74 | -0.03 | -0.0161 | -0.0026 | 0.0036 | 0.0594 | -0.3504 | -0.8204 | -0.0491 | -0.4466 | 0.0598 | 0.5444 |
| 3 | -5.74 | -0.00 | -0.0062 | 0.0007 | 0.0047 | -0.1129 | -0.7581 | -0.8129 | -0.0481 | -0.4435 | 0.0592 | 0.5456 |
| 4 | -5.74 | -0.00 | -0.0079 | 0.0004 | 0.0046 | -0.0533 | -0.6133 | -0.8204 | -0.0487 | -0.4460 | 0.0593 | 0.5436 |
| 5 | -5.26 | 0.01 | -0.0073 | 0.0001 | 0.0034 | -0.0137 | -0.4658 | -0.7871 | -0.0478 | -0.4348 | 0.0633 | 0.5524 |
| 6 | -3.33 | 0.01 | -0.0060 | 0.0005 | 0.0036 | -0.1500 | -0.6000 | -0.7751 | -0.0502 | -0.4278 | 0.0647 | 0.5519 |
| 7 | -1.58 | -0.01 | -0.0065 | 0.0001 | 0.0015 | -0.0118 | -0.1765 | -0.7571 | -0.0520 | -0.4167 | 0.0687 | 0.5504 |
| 8 | 0.31 | 0.01 | -0.0029 | 0.0013 | 0.0004 | -0.0982 | -0.1379 | -0.7032 | -0.0527 | -0.4153 | 0.0685 | 0.5401 |
| 9 | 2.15 | -0.00 | 0.0012 | 0.0007 | 0.0014 | 0.5832 | 1.1667 | -0.8131 | -0.0536 | -0.4342 | 0.0659 | 0.5340 |
| 10 | 3.95 | 0.00 | -0.0018 | -0.0003 | -0.0006 | 0.2307 | 0.0154 | -0.8157 | -0.0676 | -0.4328 | 0.1074 | 0.5306 |
| 11 | 5.80 | 0.01 | 0.0025 | 0.0020 | 0.0122 | 0.7598 | 4.8800 | -0.7016 | -0.0875 | -0.3854 | 0.1247 | 0.5493 |
| 12 | 7.00 | 0.00 | -0.0007 | 0.0001 | 0.0053 | -0.1499 | -1.3001 | -0.5992 | -0.0825 | -0.3420 | 0.1376 | 0.5706 |
| 13 | 9.46 | 0.00 | -0.0029 | 0.0013 | 0.0116 | -0.4432 | -4.0000 | -0.5088 | -0.0706 | -0.2946 | 0.1505 | 0.5796 |
| 14 | 11.96 | -0.01 | -0.0116 | -0.0018 | 0.0031 | 0.1379 | -0.4397 | -0.4851 | -0.0834 | -0.2729 | 0.1726 | 0.5645 |
| 15 | 13.19 | 0.00 | -0.0314 | -0.0045 | -0.0003 | 0.1433 | 0.0056 | -0.3913 | -0.0765 | -0.2242 | 0.1956 | 0.5736 |
| 16 | 15.08 | 0.01 | -0.0263 | -0.0037 | 0.0027 | 0.1400 | -0.1027 | -0.3017 | -0.0617 | -0.1801 | 0.2045 | 0.5965 |
| 17 | 17.03 | 0.00 | -0.0313 | -0.0046 | -0.0015 | 0.1533 | 0.0479 | -0.1958 | -0.0459 | -0.1268 | 0.2346 | 0.6476 |
| 18 | 18.93 | -0.01 | -0.0416 | -0.0062 | -0.0033 | 0.1901 | 0.0837 | -0.1241 | -0.0283 | -0.0924 | 0.2280 | 0.7446 |
| 19 | 20.54 | -0.01 | -0.0423 | -0.0068 | 0.0011 | 0.2080 | -0.0260 | -0.0603 | -0.0114 | -0.0532 | 0.1850 | 0.9852 |
| 20 | 22.74 | -0.01 | -0.0735 | -0.0119 | -0.0116 | 0.1091 | 0.1576 | -0.0186 | 0.0035 | -0.0361 | -0.1881 | 1.9405 |
| 21 | 24.61 | -0.02 | -0.0735 | -0.0125 | -0.0132 | 0.1760 | 0.1796 | 0.0465 | 0.0260 | -0.0100 | 0.3550 | -0.2151 |
| 22 | 26.54 | 0.01 | 0.0056 | 0.0001 | 0.0059 | 0.0102 | 1.0102 | 0.1400 | 0.0517 | 0.0270 | 0.3540 | 0.1846 |
| 23 | 27.88 | 0.02 | 0.0273 | 0.0115 | 0.0095 | 0.1317 | 0.5716 | 0.1830 | 0.0594 | 0.0442 | 0.3150 | 0.2415 |
| 24 | 27.98 | 0.04 | 0.1452 | 0.0157 | 0.0004 | 0.1350 | 0.5537 | 0.2144 | 0.0644 | 0.0563 | 0.3031 | 0.2745 |
| 25 | 28.36 | 0.06 | 0.2022 | 0.0249 | 0.1555 | 0.1671 | 0.5789 | 0.2243 | 0.0646 | 0.0647 | 0.2879 | 0.2885 |
| 26 | 28.87 | 0.04 | 0.1450 | 0.0230 | 0.1262 | 0.1621 | 0.5570 | 0.2184 | 0.0644 | 0.0631 | 0.3039 | 0.2885 |
| 27 | 28.55 | 0.04 | 0.1765 | 0.0287 | 0.1178 | 0.2167 | 0.6599 | 0.2001 | 0.0686 | 0.0569 | 0.3427 | 0.2866 |
| 28 | 29.26 | 0.04 | 0.1372 | 0.0203 | 0.0870 | 0.2062 | 0.6341 | 0.2118 | 0.0708 | 0.0628 | 0.3342 | 0.2965 |
| 29 | 29.56 | 0.06 | 0.2750 | 0.0548 | 0.1634 | 0.1564 | 0.5657 | 0.2422 | 0.0719 | 0.0769 | 0.2968 | 0.3175 |
| 30 | 29.89 | 0.07 | 0.1515 | 0.0349 | 0.0935 | 0.2303 | 0.6172 | 0.2240 | 0.0737 | 0.0678 | 0.3285 | 0.3018 |
| 31 | 30.11 | 0.06 | 0.2516 | 0.0568 | 0.1483 | 0.2257 | 0.5894 | 0.2450 | 0.0743 | 0.0766 | 0.3032 | 0.3127 |
| 32 | 30.37 | 0.08 | 0.3164 | 0.0678 | 0.1789 | 0.2163 | 0.5727 | 0.2626 | 0.0763 | 0.0854 | 0.2903 | 0.3250 |
| 33 | 30.68 | 0.07 | 0.2907 | 0.0628 | 0.1666 | 0.2166 | 0.5710 | 0.2658 | 0.0772 | 0.0845 | 0.2904 | 0.3179 |
| 34 | 30.94 | 0.06 | 0.2905 | 0.0632 | 0.1637 | 0.2172 | 0.5627 | 0.2732 | 0.0787 | 0.0876 | 0.2886 | 0.3206 |
| 35 | 31.21 | 0.07 | 0.2950 | 0.0523 | 0.1365 | 0.2134 | 0.5571 | 0.2774 | 0.0810 | 0.0904 | 0.2919 | 0.3259 |
| 36 | 31.49 | 0.06 | 0.1788 | 0.0450 | 0.1002 | 0.2773 | 0.5604 | 0.2807 | 0.0822 | 0.0866 | 0.3081 | 0.3247 |
| 37 | 31.76 | 0.07 | 0.1132 | 0.0488 | 0.1252 | 0.4252 | 0.6148 | 0.2665 | 0.0832 | 0.0855 | 0.3156 | 0.3208 |
| 38 | 32.03 | 0.06 | 0.1506 | 0.0567 | 0.0607 | 0.3704 | 0.5757 | 0.2795 | 0.0836 | 0.0915 | 0.3069 | 0.3267 |
| 39 | 32.30 | 0.05 | 0.1476 | 0.0562 | 0.0545 | 0.3472 | 0.5603 | 0.2914 | 0.0872 | 0.0986 | 0.2992 | 0.3319 |
| 40 | 32.56 | 0.06 | 0.1604 | 0.0603 | 0.0696 | 0.3433 | 0.5569 | 0.2913 | 0.0862 | 0.0972 | 0.3027 | 0.3337 |
| 41 | 32.83 | 0.10 | 0.3055 | 0.0811 | 0.1566 | 0.2650 | 0.5119 | 0.3249 | 0.0887 | 0.1104 | 0.2725 | 0.3358 |
| 42 | 33.08 | 0.10 | 0.3167 | 0.0750 | 0.1624 | 0.2300 | 0.5126 | 0.3338 | 0.0885 | 0.1172 | 0.2663 | 0.3511 |
| 43 | 33.33 | 0.11 | 0.2614 | 0.0769 | 0.1372 | 0.2926 | 0.5249 | 0.3279 | 0.0908 | 0.1133 | 0.2772 | 0.3527 |
| 44 | 33.57 | 0.10 | 0.3561 | 0.0778 | 0.1798 | 0.2164 | 0.5049 | 0.3502 | 0.0895 | 0.1240 | 0.2566 | 0.3541 |
| 45 | 33.83 | 0.09 | 0.3677 | 0.0781 | 0.1854 | 0.1587 | 0.5151 | 0.3517 | 0.0901 | 0.1248 | 0.2561 | 0.3548 |
| 46 | 34.08 | 0.08 | 0.3552 | 0.0759 | 0.1831 | 0.2112 | 0.5097 | 0.3537 | 0.0936 | 0.1269 | 0.2561 | 0.3588 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1ST 0.050 1.07 | MACH 0.70 | RX10-6 0.70 | PHI 0.00 | CONF BLOWFAIL | L C.G | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CD1 | XCPF1 | YCPF1 | CNF2 | CH2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.32 | 0.06 | 0.3419 | 0.0043 | 0.1755 | 0.1663 | 0.5152 | 0.3580 | 0.0913 | 0.1303 | 0.2550 | 0.3646 |
| 48 | 34.57 | 0.06 | 0.3182 | 0.0066 | 0.1649 | 0.1778 | 0.5167 | 0.3561 | 0.0911 | 0.1303 | 0.2543 | 0.3635 |
| 49 | 34.82 | 0.05 | 0.3363 | 0.0065 | 0.1747 | 0.1733 | 0.5195 | 0.3701 | 0.0913 | 0.1356 | 0.2468 | 0.3664 |
| 50 | 35.05 | 0.05 | 0.2891 | 0.0033 | 0.1481 | 0.1504 | 0.5143 | 0.3776 | 0.0916 | 0.1392 | 0.2430 | 0.3668 |
| 51 | 35.29 | 0.05 | 0.3548 | 0.0066 | 0.1838 | 0.1649 | 0.5093 | 0.3750 | 0.0928 | 0.1371 | 0.2487 | 0.3676 |
| 52 | 35.54 | 0.03 | 0.1469 | 0.0136 | 0.0511 | 0.1111 | 0.4173 | 0.3795 | 0.0933 | 0.1426 | 0.2458 | 0.3756 |
| 53 | 35.78 | 0.04 | 0.1810 | 0.0201 | 0.0736 | 0.1248 | 0.4571 | 0.3916 | 0.0935 | 0.1455 | 0.2387 | 0.3716 |
| 54 | 35.98 | 0.00 | 0.1581 | -0.0064 | -0.0075 | -0.0210 | -0.3947 | 0.3793 | 0.0946 | 0.1427 | 0.2495 | 0.3762 |
| 55 | 36.23 | 0.01 | -0.0242 | -0.0050 | -0.0367 | 0.3718 | 1.5165 | 0.3930 | 0.0951 | 0.1451 | 0.2419 | 0.3692 |
| 56 | 36.46 | 0.01 | -0.0451 | -0.0057 | -0.0414 | 0.3332 | 1.4227 | 0.4006 | 0.0950 | 0.1487 | 0.2371 | 0.3712 |
| 57 | 36.69 | 0.03 | 0.0285 | 0.0013 | 0.0020 | 0.0450 | 0.0692 | 0.4036 | 0.0940 | 0.1513 | 0.2328 | 0.3745 |
| 58 | 36.94 | 0.02 | 0.0169 | -0.0033 | -0.0142 | -0.3707 | -1.5935 | 0.4100 | 0.0948 | 0.1587 | 0.2264 | 0.3791 |
| 59 | 37.17 | 0.01 | 0.0361 | 0.0031 | 0.0025 | 0.1030 | 0.0963 | 0.4142 | 0.0943 | 0.1541 | 0.2288 | 0.3720 |
| 60 | 37.39 | 0.01 | 0.0542 | 0.0136 | 0.0315 | 0.1380 | 0.3344 | 0.4234 | 0.0939 | 0.1584 | 0.2217 | 0.3741 |
| 61 | 37.64 | 0.01 | 0.1467 | 0.0240 | 0.0562 | 0.1614 | 0.4054 | 0.4247 | 0.0950 | 0.1598 | 0.2236 | 0.3763 |
| 62 | 37.88 | 0.01 | 0.1479 | 0.0238 | 0.0673 | 0.1555 | 0.4550 | 0.4380 | 0.0959 | 0.1634 | 0.2199 | 0.3748 |
| 63 | 38.10 | 0.02 | 0.1556 | 0.0245 | 0.0772 | 0.1606 | 0.4981 | 0.4300 | 0.0966 | 0.1622 | 0.2220 | 0.3726 |
| 64 | 38.33 | 0.02 | 0.1559 | 0.0173 | 0.0515 | 0.1574 | 0.4086 | 0.4412 | 0.0971 | 0.1629 | 0.2200 | 0.3692 |
| 65 | 38.56 | 0.01 | 0.1623 | 0.0182 | 0.0498 | 0.1775 | 0.4379 | 0.4503 | 0.0978 | 0.1661 | 0.2171 | 0.3685 |
| 66 | 38.78 | 0.01 | 0.1653 | 0.0196 | 0.0523 | 0.1601 | 0.4017 | 0.4502 | 0.0985 | 0.1696 | 0.2159 | 0.3718 |
| 67 | 38.99 | 0.03 | 0.0563 | 0.0069 | 0.0153 | 0.2034 | 0.4502 | 0.4503 | 0.0965 | 0.1684 | 0.2158 | 0.3691 |
| 68 | 39.21 | 0.03 | 0.0424 | 0.0106 | 0.0139 | 0.2546 | 0.3137 | 0.4637 | 0.0978 | 0.1715 | 0.2152 | 0.3695 |
| 69 | 39.41 | 0.01 | 0.0156 | 0.0088 | -0.0001 | 0.4630 | -0.0053 | 0.4655 | 0.1011 | 0.1726 | 0.2169 | 0.3692 |
| 70 | 39.64 | 0.03 | 0.0344 | 0.0116 | 0.0050 | 0.3371 | 0.2791 | 0.4659 | 0.1009 | 0.1732 | 0.2165 | 0.3718 |
| 71 | 39.85 | -0.01 | -0.0140 | 0.0022 | -0.0192 | -0.1506 | 1.3151 | 0.4704 | 0.1015 | 0.1748 | 0.2157 | 0.3716 |
| 72 | 40.09 | 0.02 | -0.0056 | 0.0118 | -0.0112 | -2.3594 | 2.2400 | 0.4658 | 0.1027 | 0.1702 | 0.2204 | 0.3654 |
| 73 | 40.25 | 0.00 | 0.0141 | 0.0055 | -0.0035 | 0.4183 | -0.2786 | 0.4992 | 0.1018 | 0.1864 | 0.2039 | 0.3734 |
| 74 | 40.48 | 0.01 | 0.0042 | 0.0116 | -0.0067 | 2.7612 | -1.5952 | 0.4835 | 0.1038 | 0.1792 | 0.2133 | 0.3691 |
| 75 | 40.68 | -0.00 | 0.0575 | 0.0024 | 0.0093 | 0.0417 | 0.1617 | 0.5387 | 0.1015 | 0.2036 | 0.1884 | 0.3775 |
| 76 | 40.89 | 0.01 | 0.0269 | 0.0033 | -0.0020 | 0.2031 | -0.0957 | 0.5174 | 0.1027 | 0.1940 | 0.1984 | 0.3750 |
| 77 | 41.10 | 0.01 | 0.0028 | 0.0068 | -0.0065 | 1.0230 | -0.7550 | 0.5045 | 0.1039 | 0.1871 | 0.2059 | 0.3709 |
| 78 | 41.30 | 0.02 | 0.0270 | 0.0063 | -0.0016 | 0.3608 | -0.0362 | 0.5213 | 0.1033 | 0.1952 | 0.1981 | 0.3744 |
| 79 | 41.49 | 0.01 | 0.0276 | 0.0051 | -0.0005 | 0.3256 | -0.0326 | 0.5262 | 0.1039 | 0.1960 | 0.1967 | 0.3711 |
| 80 | 41.68 | 0.00 | 0.0023 | 0.0052 | -0.0106 | 2.2603 | -1.6067 | 0.5342 | 0.1043 | 0.2002 | 0.1952 | 0.3748 |
| 81 | 41.89 | 0.02 | -0.0106 | 0.0035 | -0.0196 | -0.5565 | 1.6991 | 0.5340 | 0.1058 | 0.2015 | 0.1981 | 0.3773 |
| 82 | 42.12 | -0.01 | 0.0184 | 0.0073 | -0.0057 | 0.3900 | -0.3098 | 0.5447 | 0.1052 | 0.2054 | 0.1951 | 0.3771 |
| 83 | 42.32 | 0.01 | 0.0037 | 0.0065 | -0.0105 | 1.7563 | -1.2459 | 0.5478 | 0.1060 | 0.2045 | 0.1934 | 0.3733 |
| 84 | 42.49 | -0.01 | 0.0164 | 0.0026 | -0.0110 | 0.1612 | -0.8071 | 0.5630 | 0.1054 | 0.2130 | 0.1872 | 0.3783 |
| 85 | 42.67 | 0.00 | 0.0209 | -0.0004 | -0.0058 | -0.0191 | -0.4089 | 0.5766 | 0.1058 | 0.2191 | 0.1834 | 0.3800 |
| 86 | 42.89 | 0.00 | 0.0154 | 0.0001 | -0.0115 | 0.0085 | -0.7408 | 0.5867 | 0.1065 | 0.2244 | 0.1805 | 0.3812 |
| 87 | 43.04 | -0.02 | -0.0752 | -0.0035 | -0.0490 | 0.0518 | 0.6516 | 0.5521 | 0.1083 | 0.2055 | 0.1961 | 0.3722 |
| 88 | 43.23 | -0.01 | -0.0434 | 0.0004 | -0.0356 | -0.0092 | 0.8203 | 0.5628 | 0.1063 | 0.2095 | 0.1924 | 0.3722 |
| 89 | 43.41 | -0.01 | 0.0456 | 0.0045 | 0.0053 | 0.0591 | 0.1167 | 0.5978 | 0.1073 | 0.2276 | 0.1794 | 0.3807 |
| 90 | 43.58 | -0.00 | -0.0012 | 0.0040 | -0.0158 | -3.3344 | 13.1667 | 0.5735 | 0.1077 | 0.2146 | 0.1877 | 0.3742 |
| 91 | 43.76 | -0.03 | 0.1073 | 0.0120 | 0.0305 | 0.1118 | 0.3402 | 0.0232 | 0.1079 | 0.2361 | 0.1731 | 0.3789 |
| 92 | 43.97 | -0.01 | 0.0365 | 0.0075 | 0.0001 | 0.1527 | 0.0026 | 0.6019 | 0.1087 | 0.2246 | 0.1805 | 0.3732 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 151 MACH 0.90 RNIC-6 1.7 PHI 0.0 CONF 0 LOUPIT C.G L 0 CEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.14 | -0.01 | 0.0512 | 0.0065 | 0.0016 | 0.1736 | 0.0313 | 0.6171 | 0.1085 | 0.2308 | 0.1758 | 0.3746 |
| 94 | 44.34 | -0.01 | -0.0157 | 0.0015 | -0.0279 | -0.0549 | 1.5706 | 0.6019 | 0.1089 | 0.2234 | 0.1809 | 0.3712 |
| 95 | 44.54 | 0.01 | 0.0554 | 0.0124 | 0.0042 | 0.2067 | 0.2391 | 0.6163 | 0.1095 | 0.2317 | 0.1771 | 0.3745 |
| 96 | 44.72 | 0.01 | 0.0731 | 0.0145 | 0.0047 | 0.2067 | 0.3379 | 0.6165 | 0.1094 | 0.2252 | 0.1774 | 0.3716 |
| 97 | 44.89 | 0.02 | 0.0556 | 0.0077 | 0.0015 | 0.1385 | 0.0342 | 0.6485 | 0.1103 | 0.2435 | 0.1700 | 0.3755 |
| 98 | 45.07 | 0.02 | 0.0615 | 0.0065 | 0.0110 | 0.1302 | 0.1784 | 0.6469 | 0.1110 | 0.2428 | 0.1715 | 0.3753 |
| 99 | 45.26 | 0.00 | 0.1017 | 0.0150 | 0.0243 | 0.1475 | 0.2369 | 0.6656 | 0.1114 | 0.2527 | 0.1663 | 0.3773 |
| 100 | 45.43 | 0.00 | 0.0735 | 0.0120 | 0.0144 | 0.1652 | 0.1935 | 0.6666 | 0.1115 | 0.2495 | 0.1667 | 0.3777 |
| 101 | 45.61 | 0.01 | 0.0555 | 0.0153 | 0.0171 | 0.1602 | 0.1751 | 0.6726 | 0.1114 | 0.2554 | 0.1655 | 0.3798 |
| 102 | 45.78 | 0.02 | 0.0768 | 0.0144 | 0.0040 | 0.1573 | 0.0869 | 0.6656 | 0.1126 | 0.2527 | 0.1681 | 0.3774 |
| 103 | 45.96 | -0.03 | 0.0675 | 0.0124 | 0.0168 | 0.1837 | 0.2469 | 0.6654 | 0.1120 | 0.2515 | 0.1655 | 0.3814 |
| 104 | 46.16 | -0.02 | -0.0057 | 0.0042 | -0.0346 | -0.2103 | 0.0702 | 0.6594 | 0.1116 | 0.2471 | 0.1708 | 0.3776 |
| 105 | 46.31 | -0.01 | 0.0560 | 0.0091 | -0.0021 | 0.1625 | -0.0375 | 0.6712 | 0.1124 | 0.2540 | 0.1674 | 0.3784 |
| 106 | 46.49 | 0.00 | 0.0162 | 0.0045 | -0.0132 | 0.2472 | -0.7253 | 0.6667 | 0.1116 | 0.2512 | 0.1673 | 0.3768 |
| 107 | 46.68 | 0.00 | 0.1032 | 0.0165 | 0.0223 | 0.1637 | 0.2161 | 0.6879 | 0.1122 | 0.2628 | 0.1631 | 0.3826 |
| 108 | 46.84 | 0.01 | 0.0565 | 0.0051 | 0.0022 | 0.1549 | 0.0387 | 0.6816 | 0.1122 | 0.2598 | 0.1645 | 0.3810 |
| 109 | 47.01 | -0.02 | -0.0151 | -0.0056 | -0.0361 | 0.2531 | 1.6500 | 0.6714 | 0.1127 | 0.2550 | 0.1678 | 0.3758 |
| 110 | 47.19 | -0.01 | 0.0235 | 0.0022 | -0.0126 | 0.0920 | -0.5356 | 0.6866 | 0.1116 | 0.2611 | 0.1627 | 0.3802 |
| 111 | 47.37 | 0.02 | -0.0411 | -0.0034 | -0.0353 | 0.2043 | 0.9582 | 0.6656 | 0.1104 | 0.2507 | 0.1658 | 0.3767 |
| 112 | 47.53 | -0.02 | -0.0138 | -0.0038 | -0.0347 | 0.2302 | 2.4964 | 0.6816 | 0.1116 | 0.2591 | 0.1636 | 0.3800 |
| 113 | 47.70 | 0.00 | -0.1053 | -0.0205 | -0.0056 | 0.1912 | 0.7632 | 0.6667 | 0.1057 | 0.2525 | 0.1645 | 0.3793 |
| 114 | 47.88 | 0.00 | -0.0433 | -0.0097 | -0.0036 | 0.2240 | 1.0139 | 0.6762 | 0.1064 | 0.2554 | 0.1573 | 0.3777 |
| 115 | 48.05 | 0.01 | -0.0226 | -0.0066 | -0.0307 | 0.3008 | 1.3564 | 0.6862 | 0.1064 | 0.2614 | 0.1575 | 0.3798 |
| 116 | 48.23 | -0.00 | -0.1047 | -0.0367 | -0.1156 | 0.2095 | 0.8270 | 0.7150 | 0.1136 | 0.2773 | 0.1568 | 0.3878 |
| 117 | 48.39 | -0.02 | -0.1137 | -0.0158 | -0.0842 | 0.1723 | 0.7458 | 0.6924 | 0.1117 | 0.2649 | 0.1613 | 0.3826 |
| 118 | 48.55 | 0.00 | -0.0635 | -0.0114 | -0.0594 | 0.1627 | 0.9296 | 0.6914 | 0.1067 | 0.2634 | 0.1543 | 0.3816 |
| 119 | 48.75 | -0.01 | -0.1535 | -0.0451 | -0.1288 | 0.2325 | 0.8643 | 0.7297 | 0.1177 | 0.2860 | 0.1613 | 0.3915 |
| 120 | 48.90 | -0.01 | -0.0841 | -0.0447 | -0.1304 | 0.2103 | 0.8370 | 0.7457 | 0.1170 | 0.2929 | 0.1573 | 0.3938 |
| 121 | 49.09 | -0.00 | -0.1925 | -0.0651 | -0.1261 | 0.2550 | 0.6551 | 0.7873 | 0.1215 | 0.3033 | 0.1583 | 0.3953 |
| 122 | 49.26 | -0.00 | -0.1066 | -0.0436 | -0.1128 | 0.2635 | 0.7024 | 0.7967 | 0.1164 | 0.3134 | 0.1486 | 0.3959 |
| 123 | 49.46 | 0.01 | -0.1657 | -0.0357 | -0.1221 | 0.2339 | 0.7195 | 0.8225 | 0.1191 | 0.3202 | 0.1466 | 0.3988 |
| 124 | 49.64 | 0.00 | -0.1357 | -0.0353 | -0.1156 | 0.2601 | 0.7782 | 0.8177 | 0.1188 | 0.3249 | 0.1452 | 0.3973 |
| 125 | 49.78 | 0.01 | -0.1570 | -0.0407 | -0.1126 | 0.2592 | 0.7172 | 0.8156 | 0.1172 | 0.3220 | 0.1430 | 0.3929 |
| 126 | 50.01 | 0.01 | -0.1017 | -0.0235 | -0.0853 | 0.2316 | 0.6421 | 0.7177 | 0.1138 | 0.2774 | 0.1585 | 0.3865 |
| 127 | 50.21 | 0.04 | -0.1155 | -0.0277 | -0.0745 | 0.2316 | 0.6247 | 0.7873 | 0.1222 | 0.2584 | 0.1592 | 0.3885 |
| 128 | 50.39 | 0.03 | -0.1012 | -0.0253 | -0.0604 | 0.2894 | 0.6361 | 0.7735 | 0.1203 | 0.3031 | 0.1555 | 0.3919 |
| 129 | 50.55 | 0.01 | -0.1002 | -0.0246 | -0.0623 | 0.2380 | 0.6161 | 0.7818 | 0.1247 | 0.3080 | 0.1595 | 0.3940 |
| 130 | 50.72 | 0.07 | -0.1093 | -0.0245 | -0.0606 | 0.2267 | 0.6266 | 0.8273 | 0.1266 | 0.3273 | 0.1554 | 0.3956 |
| 131 | 50.92 | 0.04 | -0.0965 | -0.0259 | -0.0640 | 0.2568 | 0.6471 | 0.8446 | 0.1247 | 0.3343 | 0.1476 | 0.3958 |
| 132 | 51.06 | 0.07 | -0.0716 | -0.0122 | -0.0667 | 0.5403 | 0.9394 | 0.9251 | 0.1262 | 0.3715 | 0.1364 | 0.4016 |
| 133 | 51.23 | 0.07 | -0.0553 | -0.0108 | -0.0695 | 0.6878 | 1.1686 | 0.9010 | 0.1121 | 0.3505 | 0.1244 | 0.3850 |
| 134 | 51.40 | 0.05 | -0.0515 | -0.0367 | -0.0520 | 0.7009 | 1.1940 | 0.9052 | 0.1180 | 0.3560 | 0.1306 | 0.3942 |
| 135 | 51.56 | 0.05 | -0.0178 | -0.0383 | -0.0543 | 2.1756 | 3.0852 | 0.9250 | 0.1148 | 0.3619 | 0.1239 | 0.3912 |
| 136 | 51.73 | 0.06 | -0.0427 | -0.0464 | -0.0602 | 0.9439 | 1.5503 | 0.9160 | 0.1120 | 0.3623 | 0.1222 | 0.3955 |
| 137 | 51.94 | 0.05 | 0.0135 | -0.0268 | -0.0374 | -2.1328 | -2.7704 | 0.8459 | 0.0982 | 0.3273 | 0.1161 | 0.3865 |
| 138 | 52.08 | 0.04 | -0.1165 | -0.0349 | -0.0526 | 2.6313 | 4.2080 | 0.8624 | 0.0984 | 0.3352 | 0.1141 | 0.3887 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 151 MACH 0.90 RNIC-6 1.7 PHI 0.0 CONF 11 ALPHA 6.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CB1 | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.27 | 0.08 | 0.0016 | -0.0262 | -0.0354 | -14.5517 | -19.8667 | 0.8365 | 0.0987 | 0.3240 | 0.1180 | 0.3873 |
| 140 | 52.49 | 0.09 | 0.0265 | -0.0266 | -0.0234 | -0.8140 | -0.9249 | 0.8100 | 0.0932 | 0.3164 | 0.1138 | 0.3862 |
| 141 | 52.57 | 0.07 | 0.0162 | -0.0163 | -0.0235 | -1.0052 | -1.3132 | 0.7928 | 0.0915 | 0.3046 | 0.1155 | 0.3842 |
| 142 | 52.76 | 0.08 | 0.0006 | -0.0156 | -0.0260 | -32.6575 | -46.0000 | 0.8065 | 0.0932 | 0.3103 | 0.1155 | 0.3847 |
| 143 | 52.94 | 0.08 | 0.0025 | -0.0207 | -0.0306 | -0.5578 | -13.3043 | 0.7855 | 0.0895 | 0.3017 | 0.1144 | 0.3841 |
| 144 | 53.09 | 0.08 | 0.0179 | -0.0167 | -0.0215 | -1.0444 | -1.2011 | 0.7804 | 0.0911 | 0.3038 | 0.1155 | 0.3853 |
| 145 | 53.28 | 0.07 | 0.0095 | -0.0184 | -0.0224 | -1.5363 | -2.3579 | 0.7720 | 0.0892 | 0.2965 | 0.1155 | 0.3841 |
| 146 | 53.43 | 0.08 | 0.0195 | -0.0167 | -0.0193 | -0.6511 | -0.7546 | 0.7859 | 0.0890 | 0.2953 | 0.1162 | 0.3856 |
| 147 | 53.60 | 0.08 | 0.0274 | -0.0125 | -0.0115 | -0.4707 | -0.4197 | 0.7801 | 0.0888 | 0.2944 | 0.1155 | 0.3843 |
| 148 | 53.75 | 0.04 | 0.0130 | -0.0178 | -0.0165 | -1.3604 | -1.2692 | 0.7497 | 0.0804 | 0.2874 | 0.1152 | 0.3834 |
| 149 | 53.90 | 0.07 | 0.0302 | -0.0137 | -0.0107 | -0.4535 | -0.3543 | 0.7585 | 0.0857 | 0.2921 | 0.1130 | 0.3851 |
| 150 | 54.06 | 0.07 | 0.0296 | -0.0152 | -0.0077 | -0.5403 | -0.3184 | 0.7676 | 0.0869 | 0.2974 | 0.1132 | 0.3874 |
| 151 | 54.23 | 0.07 | 0.0270 | -0.0141 | -0.0075 | -0.5221 | -0.2778 | 0.7662 | 0.0860 | 0.2954 | 0.1122 | 0.3855 |
| 152 | 54.39 | 0.07 | 0.0257 | -0.0146 | -0.0091 | -0.4536 | -0.2152 | 0.7603 | 0.0843 | 0.2930 | 0.1108 | 0.3854 |
| 153 | 54.55 | 0.08 | 0.0256 | -0.0097 | 0.0011 | -0.3788 | 0.0430 | 0.7409 | 0.0840 | 0.2843 | 0.1133 | 0.3837 |
| 154 | 54.69 | 0.08 | 0.0358 | -0.0062 | 0.0073 | -0.1731 | 0.2039 | 0.7425 | 0.0836 | 0.2863 | 0.1126 | 0.3857 |
| 155 | 54.84 | 0.02 | 0.0092 | -0.0077 | -0.0026 | -0.8307 | -0.3045 | 0.7313 | 0.0846 | 0.2815 | 0.1157 | 0.3845 |
| 156 | 55.00 | 0.05 | 0.0234 | -0.0065 | 0.0076 | -0.3548 | 0.2941 | 0.7435 | 0.0825 | 0.2857 | 0.1105 | 0.3841 |
| 157 | 55.16 | 0.06 | 0.0244 | -0.0043 | 0.0087 | -0.1762 | 0.3566 | 0.7496 | 0.0835 | 0.2899 | 0.1113 | 0.3866 |
| 158 | 55.31 | 0.01 | 0.0035 | -0.0051 | 0.0172 | -0.1685 | 0.4791 | 0.7524 | 0.0835 | 0.2910 | 0.1105 | 0.3876 |
| 159 | 55.48 | 0.06 | 0.0276 | -0.0046 | 0.0167 | -0.1666 | 0.4851 | 0.7511 | 0.0837 | 0.2911 | 0.1114 | 0.3876 |
| 160 | 55.63 | 0.03 | 0.0136 | -0.0032 | 0.0076 | -0.2424 | 0.5756 | 0.7340 | 0.0823 | 0.2870 | 0.1113 | 0.3884 |
| 161 | 55.80 | 0.04 | 0.0097 | 0.0 | 0.0117 | 0.0 | 1.2062 | 0.7300 | 0.0827 | 0.2815 | 0.1133 | 0.3858 |
| 162 | 55.96 | 0.05 | 0.0174 | 0.0016 | 0.0102 | 0.0515 | 0.9035 | 0.7287 | 0.0827 | 0.2816 | 0.1135 | 0.3864 |
| 163 | 56.06 | 0.04 | 0.0020 | 0.0015 | 0.0123 | 0.7306 | 4.7306 | 0.7193 | 0.0816 | 0.2781 | 0.1137 | 0.3866 |
| 164 | 56.20 | 0.03 | 0.0115 | 0.0036 | 0.0167 | 0.2608 | 1.8201 | 0.7177 | 0.0819 | 0.2779 | 0.1141 | 0.3872 |
| 165 | 56.40 | 0.05 | -0.0071 | 0.0024 | 0.0108 | -0.3379 | -1.5211 | 0.7178 | 0.0815 | 0.2779 | 0.1135 | 0.3872 |
| 166 | 56.55 | 0.01 | -0.0033 | 0.0025 | 0.0142 | -0.0788 | -4.3330 | 0.7207 | 0.0816 | 0.2812 | 0.1132 | 0.3862 |
| 167 | 56.70 | 0.03 | -0.0070 | 0.0003 | 0.0117 | -0.0428 | -1.6714 | 0.7266 | 0.0811 | 0.2851 | 0.1113 | 0.3913 |
| 168 | 56.87 | 0.03 | -0.0156 | 0.0015 | 0.0112 | -0.0969 | -0.5714 | 0.7316 | 0.0815 | 0.2860 | 0.1114 | 0.3905 |
| 169 | 57.01 | 0.02 | -0.0356 | 0.0013 | 0.0042 | -0.0328 | -0.1061 | 0.7046 | 0.0797 | 0.2727 | 0.1131 | 0.3876 |
| 170 | 57.16 | 0.03 | -0.0365 | 0.0001 | 0.0098 | -0.0797 | -0.2519 | 0.7213 | 0.0805 | 0.2825 | 0.1116 | 0.3922 |
| 171 | 57.30 | 0.00 | -0.0350 | 0.0047 | 0.0094 | -0.1205 | -0.2410 | 0.7243 | 0.0807 | 0.2837 | 0.1114 | 0.3917 |
| 172 | 57.45 | -0.01 | -0.0496 | 0.0030 | 0.0105 | -0.0802 | -0.1588 | 0.7224 | 0.0804 | 0.2827 | 0.1113 | 0.3913 |
| 173 | 57.61 | -0.02 | -0.0360 | -0.0006 | 0.0105 | 0.0167 | -0.3026 | 0.7843 | 0.0806 | 0.3116 | 0.1030 | 0.3973 |
| 174 | 57.74 | -0.04 | -0.0359 | -0.0024 | 0.0107 | 0.0008 | -0.2980 | 0.8054 | 0.0810 | 0.3225 | 0.1005 | 0.4004 |
| 175 | 57.89 | -0.04 | -0.0168 | 0.0005 | 0.0214 | -0.0542 | -1.2592 | 0.8307 | 0.0808 | 0.3346 | 0.0972 | 0.4028 |
| 176 | 58.04 | -0.05 | -0.0268 | -0.0043 | 0.0160 | 0.1004 | -0.6289 | 0.7844 | 0.0794 | 0.3091 | 0.1012 | 0.3941 |
| 177 | 58.15 | -0.05 | -0.0283 | -0.0025 | 0.0174 | 0.1024 | -0.6148 | 0.7783 | 0.0802 | 0.3062 | 0.1030 | 0.3934 |
| 178 | 58.15 | -0.06 | -0.0267 | -0.0021 | 0.0204 | 0.0697 | -0.7106 | 0.7859 | 0.0795 | 0.3099 | 0.1011 | 0.3943 |
| 179 | 58.14 | -0.11 | -0.0360 | -0.0061 | 0.0135 | 0.1894 | -0.3001 | 0.7860 | 0.0797 | 0.3101 | 0.1014 | 0.3945 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1st MACH 0.90 REYIC=6 1.7 PHI 0.0 CONF 11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CBS | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.02 | 0.0470 | 9.9999 | 0.0163 | 9.9999 | 0.3466 | -0.8875 | -0.0484 | -0.4369 | 0.0545 | 0.4923 |
| 2 | -5.74 | -0.04 | 0.0413 | 9.9999 | 0.0137 | 9.9999 | 0.3301 | -0.8955 | -0.0481 | -0.4403 | 0.0537 | 0.4917 |
| 3 | -5.74 | -0.00 | 0.0470 | 9.9999 | 0.0163 | 9.9999 | 0.3468 | -0.8939 | -0.0481 | -0.4396 | 0.0538 | 0.4918 |
| 4 | -5.74 | -0.00 | 0.0470 | 9.9999 | 0.0162 | 9.9999 | 0.3234 | -0.8908 | -0.0482 | -0.4394 | 0.0541 | 0.4933 |
| 5 | -5.26 | 0.01 | 0.0373 | 9.9999 | 0.0126 | 9.9999 | 0.3432 | -0.8698 | -0.0495 | -0.4270 | 0.0569 | 0.4905 |
| 6 | -3.33 | 0.01 | 0.0415 | 9.9999 | 0.0137 | 9.9999 | 0.3301 | -0.8454 | -0.0519 | -0.4151 | 0.0614 | 0.4916 |
| 7 | -1.56 | -0.01 | 0.0382 | 9.9999 | 0.0135 | 9.9999 | 0.4603 | -0.8402 | -0.0540 | -0.4115 | 0.0638 | 0.4886 |
| 8 | 0.31 | 0.01 | 0.0274 | 9.9999 | 0.0136 | 9.9999 | 0.4963 | -0.9061 | -0.0571 | -0.4346 | 0.0630 | 0.4796 |
| 9 | 2.15 | -0.00 | 0.0325 | 9.9999 | 0.0168 | 9.9999 | 0.5106 | -0.9334 | -0.0632 | -0.4414 | 0.0677 | 0.4729 |
| 10 | 3.65 | 0.00 | 0.0328 | 9.9999 | 0.0164 | 9.9999 | 0.5010 | -0.8875 | -0.0934 | -0.4314 | 0.1018 | 0.4861 |
| 11 | 5.60 | 0.01 | 0.0410 | 9.9999 | 0.0223 | 9.9999 | 0.5439 | -0.7612 | -0.0935 | -0.3866 | 0.1158 | 0.4945 |
| 12 | 7.68 | 0.00 | 0.0263 | 9.9999 | 0.0240 | 9.9999 | 0.6401 | -0.6740 | -0.0859 | -0.3308 | 0.1274 | 0.4997 |
| 13 | 9.46 | 0.00 | 0.0105 | 9.9999 | 0.0150 | 9.9999 | 1.4286 | -0.6655 | -0.0913 | -0.3223 | 0.1372 | 0.4843 |
| 14 | 11.36 | -0.01 | 0.0283 | 9.9999 | 0.0225 | 9.9999 | 0.8092 | -0.5558 | -0.0886 | -0.2668 | 0.1583 | 0.4838 |
| 15 | 13.19 | 0.00 | 0.0166 | 9.9999 | 0.0205 | 9.9999 | 1.1021 | -0.4587 | -0.0797 | -0.2128 | 0.1737 | 0.4635 |
| 16 | 15.08 | 0.01 | 0.0323 | 9.9999 | 0.0271 | 9.9999 | 0.8390 | -0.3326 | -0.0626 | -0.1611 | 0.1862 | 0.4844 |
| 17 | 17.03 | 0.00 | 0.0425 | 9.9999 | 0.0403 | 9.9999 | 0.4776 | -0.2284 | -0.0450 | -0.1116 | 0.1970 | 0.4886 |
| 18 | 18.93 | -0.01 | 0.0385 | 9.9999 | 0.0345 | 9.9999 | 0.5766 | -0.1109 | -0.0295 | -0.0681 | 0.2059 | 0.4841 |
| 19 | 20.84 | -0.01 | 0.0373 | 9.9999 | 0.0100 | 9.9999 | 0.2681 | -0.0244 | -0.0110 | -0.0331 | 0.4507 | 1.3566 |
| 20 | 22.74 | -0.01 | 0.0387 | 9.9999 | 0.0101 | 9.9999 | 0.2610 | 0.0363 | 0.0101 | -0.0043 | 0.2782 | -0.1185 |
| 21 | 24.61 | -0.02 | 0.0443 | 9.9999 | 0.0111 | 9.9999 | 0.2506 | 0.0951 | 0.0364 | 0.0199 | 0.3827 | 0.2093 |
| 22 | 26.54 | 0.01 | 0.0441 | 9.9999 | 0.0231 | 9.9999 | 0.3576 | 0.1207 | 0.0515 | 0.0334 | 0.4206 | 0.2767 |
| 23 | 27.88 | 0.03 | 0.0704 | 9.9999 | 0.0252 | 9.9999 | 0.3580 | 0.1298 | 0.0571 | 0.0359 | 0.4358 | 0.3074 |
| 24 | 27.96 | 0.04 | 0.0788 | 9.9999 | 0.0281 | 9.9999 | 0.3575 | 0.1410 | 0.0604 | 0.0452 | 0.4283 | 0.3206 |
| 25 | 28.36 | 0.06 | 0.0788 | 9.9999 | 0.0291 | 9.9999 | 0.3702 | 0.1442 | 0.0613 | 0.0364 | 0.5366 | 0.3187 |
| 26 | 28.67 | 0.04 | 0.0746 | 9.9999 | 0.0272 | 9.9999 | 0.3696 | 0.1475 | 0.0614 | 0.0384 | 0.5224 | 0.3268 |
| 27 | 28.95 | 0.04 | 0.0825 | 9.9999 | 0.0301 | 9.9999 | 0.3631 | 0.1616 | 0.0648 | 0.0565 | 0.4009 | 0.3496 |
| 28 | 29.26 | 0.04 | 0.0719 | 9.9999 | 0.0248 | 9.9999 | 0.3449 | 0.1611 | 0.0661 | 0.0566 | 0.4162 | 0.3513 |
| 29 | 29.56 | 0.05 | 0.0845 | 9.9999 | 0.0326 | 9.9999 | 0.3843 | 0.1576 | 0.0681 | 0.0567 | 0.4320 | 0.3598 |
| 30 | 29.84 | 0.07 | 0.0781 | 9.9999 | 0.0275 | 9.9999 | 0.3666 | 0.1671 | 0.0688 | 0.0688 | 0.3676 | 0.3677 |
| 31 | 30.11 | 0.08 | 0.0801 | 9.9999 | 0.0321 | 9.9999 | 0.4007 | 0.1805 | 0.0699 | 0.0679 | 0.3872 | 0.3762 |
| 32 | 30.37 | 0.08 | 0.0858 | 9.9999 | 0.0301 | 9.9999 | 0.4020 | 0.1764 | 0.0725 | 0.0685 | 0.4105 | 0.3883 |
| 33 | 30.66 | 0.07 | 0.0912 | 9.9999 | 0.0357 | 9.9999 | 0.3916 | 0.1805 | 0.0741 | 0.0713 | 0.4104 | 0.3950 |
| 34 | 30.94 | 0.06 | 0.0870 | 9.9999 | 0.0343 | 9.9999 | 0.3943 | 0.1877 | 0.0759 | 0.0755 | 0.4043 | 0.4022 |
| 35 | 31.21 | 0.07 | 0.0802 | 9.9999 | 0.0310 | 9.9999 | 0.3865 | 0.1980 | 0.0777 | 0.0817 | 0.3923 | 0.4126 |
| 36 | 31.49 | 0.06 | 0.0715 | 9.9999 | 0.0281 | 9.9999 | 0.3906 | 0.2265 | 0.0771 | 0.0941 | 0.3403 | 0.4155 |
| 37 | 31.76 | 0.07 | 0.0774 | 9.9999 | 0.0297 | 9.9999 | 0.3837 | 0.2711 | 0.0793 | 0.1139 | 0.2924 | 0.4201 |
| 38 | 32.03 | 0.06 | 0.0773 | 9.9999 | 0.0296 | 9.9999 | 0.3629 | 0.2700 | 0.0795 | 0.1144 | 0.2937 | 0.4228 |
| 39 | 32.30 | 0.09 | 0.0772 | 9.9999 | 0.0313 | 9.9999 | 0.4054 | 0.2731 | 0.0816 | 0.1183 | 0.2987 | 0.4332 |
| 40 | 32.58 | 0.06 | 0.0654 | 9.9999 | 0.0257 | 9.9999 | 0.4186 | 0.2921 | 0.0805 | 0.1265 | 0.2769 | 0.4331 |
| 41 | 32.83 | 0.10 | 0.0554 | 9.9999 | 0.0218 | 9.9999 | 0.4205 | 0.2637 | 0.0831 | 0.1175 | 0.3150 | 0.4471 |
| 42 | 33.08 | 0.11 | 0.0594 | 9.9999 | 0.0213 | 9.9999 | 0.4155 | 0.2568 | 0.0847 | 0.1170 | 0.3247 | 0.4556 |
| 43 | 33.33 | 0.11 | 0.0522 | 9.9999 | 0.0215 | 9.9999 | 0.4061 | 0.2897 | 0.0851 | 0.1334 | 0.2937 | 0.4603 |
| 44 | 33.57 | 0.10 | 0.0535 | 9.9999 | 0.0232 | 9.9999 | 0.4174 | 0.2502 | 0.0858 | 0.1175 | 0.3428 | 0.4686 |
| 45 | 33.83 | 0.09 | 0.0582 | 9.9999 | 0.0257 | 9.9999 | 0.4303 | 0.2490 | 0.0853 | 0.1193 | 0.3585 | 0.4791 |
| 46 | 34.08 | 0.08 | 0.0623 | 9.9999 | 0.0237 | 9.9999 | 0.4272 | 0.2553 | 0.0904 | 0.1241 | 0.3540 | 0.4861 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1st | MACH 0.90 | REYNO E 1.7 | PHI 0.0 | CONF 81+CF11 | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CD3 | ACPF3 | XCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.32 | 0.00 | 0.0665 | 5.9999 | 0.0381 | 5.9999 | 0.4079 | 0.2408 | 0.0913 | 0.1185 | 0.3751 | 0.4921 |
| 48 | 34.57 | 0.00 | 0.0556 | 5.9999 | 0.0362 | 5.9999 | 0.4096 | 0.2361 | 0.0927 | 0.1208 | 0.3815 | 0.4951 |
| 49 | 34.82 | 0.05 | 0.0831 | 5.9999 | 0.0324 | 5.9999 | 0.3899 | 0.2480 | 0.0932 | 0.1228 | 0.3757 | 0.4952 |
| 50 | 35.05 | 0.05 | 0.0556 | 5.9999 | 0.0413 | 5.9999 | 0.4147 | 0.2601 | 0.0946 | 0.1308 | 0.3836 | 0.5025 |
| 51 | 35.29 | 0.03 | 0.0671 | 5.9999 | 0.0334 | 5.9999 | 0.4064 | 0.2728 | 0.0946 | 0.1355 | 0.3467 | 0.5128 |
| 52 | 35.54 | 0.03 | 0.0695 | 5.9999 | 0.0346 | 5.9999 | 0.4051 | 0.2716 | 0.0948 | 0.1394 | 0.3489 | 0.5133 |
| 53 | 35.76 | 0.04 | 0.0665 | 5.9999 | 0.0305 | 5.9999 | 0.3789 | 0.2793 | 0.0952 | 0.1425 | 0.3402 | 0.5116 |
| 54 | 35.98 | 0.00 | 0.0751 | 5.9999 | 0.0293 | 5.9999 | 0.3704 | 0.2903 | 0.0959 | 0.1530 | 0.3234 | 0.5160 |
| 55 | 36.23 | 0.01 | 0.0736 | 5.9999 | 0.0267 | 5.9999 | 0.3628 | 0.2966 | 0.0957 | 0.1530 | 0.3226 | 0.5156 |
| 56 | 36.46 | 0.01 | 0.0781 | 5.9999 | 0.0304 | 5.9999 | 0.3843 | 0.3005 | 0.0967 | 0.1557 | 0.3213 | 0.5174 |
| 57 | 36.69 | 0.03 | 0.0831 | 5.9999 | 0.0335 | 5.9999 | 0.4031 | 0.3164 | 0.0973 | 0.1645 | 0.3074 | 0.5199 |
| 58 | 36.94 | 0.02 | 0.0750 | 5.9999 | 0.0274 | 5.9999 | 0.3853 | 0.3162 | 0.0980 | 0.1658 | 0.3058 | 0.5244 |
| 59 | 37.17 | 0.01 | 0.0750 | 5.9999 | 0.0274 | 5.9999 | 0.3853 | 0.3300 | 0.0990 | 0.1715 | 0.2955 | 0.5157 |
| 60 | 37.39 | 0.00 | 0.0831 | 5.9999 | 0.0335 | 5.9999 | 0.4031 | 0.3283 | 0.0995 | 0.1715 | 0.3030 | 0.5224 |
| 61 | 37.64 | 0.01 | 0.0873 | 5.9999 | 0.0355 | 5.9999 | 0.4066 | 0.3437 | 0.1002 | 0.1791 | 0.2915 | 0.5211 |
| 62 | 37.88 | 0.01 | 0.0881 | 5.9999 | 0.0345 | 5.9999 | 0.4053 | 0.3508 | 0.1000 | 0.1828 | 0.2850 | 0.5211 |
| 63 | 38.10 | 0.02 | 0.0847 | 5.9999 | 0.0331 | 5.9999 | 0.3908 | 0.3569 | 0.1008 | 0.1866 | 0.2824 | 0.5284 |
| 64 | 38.33 | 0.02 | 0.0754 | 5.9999 | 0.0254 | 5.9999 | 0.3703 | 0.3591 | 0.1006 | 0.1884 | 0.2801 | 0.5260 |
| 65 | 38.58 | 0.01 | 0.0826 | 5.9999 | 0.0325 | 5.9999 | 0.4007 | 0.3793 | 0.1016 | 0.1993 | 0.2678 | 0.5254 |
| 66 | 38.78 | 0.01 | 0.0826 | 5.9999 | 0.0334 | 5.9999 | 0.4144 | 0.3868 | 0.1016 | 0.2035 | 0.2612 | 0.5234 |
| 67 | 38.99 | 0.03 | 0.0834 | 5.9999 | 0.0331 | 5.9999 | 0.3969 | 0.3965 | 0.1020 | 0.2082 | 0.2572 | 0.5251 |
| 68 | 39.21 | 0.03 | 0.0836 | 5.9999 | 0.0259 | 5.9999 | 0.3721 | 0.4044 | 0.1020 | 0.2117 | 0.2522 | 0.5235 |
| 69 | 39.41 | 0.01 | 0.0752 | 5.9999 | 0.0308 | 5.9999 | 0.4096 | 0.4205 | 0.1032 | 0.2197 | 0.2454 | 0.5225 |
| 70 | 39.64 | 0.03 | 0.0753 | 5.9999 | 0.0260 | 5.9999 | 0.3718 | 0.4208 | 0.1034 | 0.2232 | 0.2422 | 0.5230 |
| 71 | 39.85 | -0.01 | 0.0858 | 5.9999 | 0.0240 | 5.9999 | 0.3659 | 0.4390 | 0.1047 | 0.2300 | 0.2384 | 0.5235 |
| 72 | 40.09 | 0.02 | 0.0711 | 5.9999 | 0.0200 | 5.9999 | 0.3741 | 0.4351 | 0.1051 | 0.2376 | 0.2315 | 0.5244 |
| 73 | 40.25 | 0.00 | 0.0588 | 5.9999 | 0.0207 | 5.9999 | 0.3532 | 0.4406 | 0.1048 | 0.2331 | 0.2378 | 0.5291 |
| 74 | 40.48 | 0.01 | 0.0781 | 5.9999 | 0.0245 | 5.9999 | 0.3828 | 0.4004 | 0.1067 | 0.2459 | 0.2277 | 0.5250 |
| 75 | 40.68 | -0.00 | 0.0711 | 5.9999 | 0.0266 | 5.9999 | 0.3741 | 0.4138 | 0.1046 | 0.2218 | 0.2527 | 0.5360 |
| 76 | 40.85 | 0.01 | 0.0670 | 5.9999 | 0.0248 | 5.9999 | 0.3672 | 0.4514 | 0.1057 | 0.2345 | 0.2341 | 0.5315 |
| 77 | 41.10 | 0.01 | 0.0754 | 5.9999 | 0.0288 | 5.9999 | 0.3793 | 0.4692 | 0.1069 | 0.2469 | 0.2278 | 0.5262 |
| 78 | 41.30 | 0.02 | 0.0722 | 5.9999 | 0.0264 | 5.9999 | 0.3912 | 0.4630 | 0.1065 | 0.2447 | 0.2300 | 0.5285 |
| 79 | 41.49 | 0.01 | 0.0741 | 5.9999 | 0.0266 | 5.9999 | 0.3860 | 0.4729 | 0.1075 | 0.2467 | 0.2273 | 0.5255 |
| 80 | 41.68 | 0.00 | 0.0802 | 5.9999 | 0.0214 | 5.9999 | 0.3955 | 0.4747 | 0.1070 | 0.2512 | 0.2253 | 0.5292 |
| 81 | 41.85 | 0.02 | 0.0672 | 5.9999 | 0.0292 | 5.9999 | 0.3601 | 0.4930 | 0.1050 | 0.2592 | 0.2210 | 0.5258 |
| 82 | 42.12 | -0.01 | 0.0721 | 5.9999 | 0.0274 | 5.9999 | 0.3789 | 0.4867 | 0.1069 | 0.2575 | 0.2237 | 0.5291 |
| 83 | 42.32 | 0.01 | 0.0752 | 5.9999 | 0.0256 | 5.9999 | 0.3709 | 0.4990 | 0.1099 | 0.2639 | 0.2202 | 0.5285 |
| 84 | 42.49 | -0.01 | 0.0714 | 5.9999 | 0.0267 | 5.9999 | 0.3739 | 0.4849 | 0.1096 | 0.2603 | 0.2260 | 0.5286 |
| 85 | 42.67 | 0.00 | 0.0741 | 5.9999 | 0.0291 | 5.9999 | 0.3927 | 0.4833 | 0.1095 | 0.2568 | 0.2265 | 0.5313 |
| 86 | 42.84 | 0.00 | 0.0700 | 5.9999 | 0.0260 | 5.9999 | 0.3714 | 0.4883 | 0.1089 | 0.2577 | 0.2230 | 0.5277 |
| 87 | 43.04 | -0.02 | 0.0672 | 5.9999 | 0.0236 | 5.9999 | 0.3512 | 0.5397 | 0.1116 | 0.2825 | 0.2067 | 0.5242 |
| 88 | 43.23 | -0.01 | 0.0681 | 5.9999 | 0.0196 | 5.9999 | 0.3209 | 0.5270 | 0.1117 | 0.2775 | 0.2119 | 0.5273 |
| 89 | 43.41 | -0.01 | 0.0785 | 5.9999 | 0.0299 | 5.9999 | 0.3868 | 0.4938 | 0.1106 | 0.2639 | 0.2217 | 0.5291 |
| 90 | 43.58 | -0.00 | 0.0688 | 5.9999 | 0.0243 | 5.9999 | 0.3942 | 0.5230 | 0.1098 | 0.2779 | 0.2095 | 0.5314 |
| 91 | 43.76 | -0.03 | 0.0812 | 5.9999 | 0.0315 | 5.9999 | 0.3929 | 0.4962 | 0.1116 | 0.2685 | 0.2248 | 0.5415 |
| 92 | 43.97 | -0.01 | 0.0743 | 5.9999 | 0.0275 | 5.9999 | 0.3701 | 0.5261 | 0.1119 | 0.2821 | 0.2139 | 0.5393 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASHDC1) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 151 MACH 0.60 RNIC-6 1.7 PHI 0.0 CONF BIBOF11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.14 | -0.01 | 0.0072 | 9.9999 | 0.0253 | 9.9999 | 0.3765 | 0.5125 | 0.1104 | 0.2758 | 0.2154 | 0.5381 |
| 94 | 44.34 | -0.06 | 0.0072 | 9.9999 | 0.0253 | 9.9999 | 0.3765 | 0.5125 | 0.1112 | 0.2762 | 0.2049 | 0.5386 |
| 95 | 44.54 | 0.01 | 0.0073 | 9.9999 | 0.0231 | 9.9999 | 0.4071 | 0.5267 | 0.1124 | 0.2862 | 0.2125 | 0.5451 |
| 96 | 44.72 | 0.01 | 0.0075 | 9.9999 | 0.0268 | 9.9999 | 0.3799 | 0.5443 | 0.1129 | 0.2935 | 0.2074 | 0.5392 |
| 97 | 44.89 | 0.02 | 0.0757 | 9.9999 | 0.0293 | 9.9999 | 0.3871 | 0.5271 | 0.1125 | 0.2887 | 0.2134 | 0.5477 |
| 98 | 45.07 | 0.02 | 0.0771 | 9.9999 | 0.0306 | 9.9999 | 0.3909 | 0.5268 | 0.1119 | 0.2887 | 0.2116 | 0.5460 |
| 99 | 45.26 | 0.01 | 0.0725 | 9.9999 | 0.0281 | 9.9999 | 0.3841 | 0.5297 | 0.1139 | 0.2902 | 0.2150 | 0.5479 |
| 100 | 45.43 | 0.00 | 0.0687 | 9.9999 | 0.0266 | 9.9999 | 0.3872 | 0.5344 | 0.1135 | 0.2956 | 0.2104 | 0.5480 |
| 101 | 45.61 | 0.01 | 0.0695 | 9.9999 | 0.0258 | 9.9999 | 0.3915 | 0.5351 | 0.1144 | 0.2945 | 0.2121 | 0.5463 |
| 102 | 45.78 | 0.02 | 0.0728 | 9.9999 | 0.0306 | 9.9999 | 0.4231 | 0.5407 | 0.1144 | 0.2946 | 0.2115 | 0.5448 |
| 103 | 45.96 | -0.03 | 0.0771 | 9.9999 | 0.0308 | 9.9999 | 0.3969 | 0.5467 | 0.1154 | 0.2981 | 0.2110 | 0.5453 |
| 104 | 46.16 | -0.02 | 0.0673 | 9.9999 | 0.0264 | 9.9999 | 0.3923 | 0.5723 | 0.1151 | 0.3105 | 0.2011 | 0.5425 |
| 105 | 46.31 | -0.01 | 0.0743 | 9.9999 | 0.0292 | 9.9999 | 0.3930 | 0.5626 | 0.1154 | 0.3069 | 0.2051 | 0.5455 |
| 106 | 46.49 | 0.00 | 0.0693 | 9.9999 | 0.0251 | 9.9999 | 0.3891 | 0.5725 | 0.1156 | 0.3113 | 0.1998 | 0.5469 |
| 107 | 46.66 | 0.00 | 0.0673 | 9.9999 | 0.0270 | 9.9999 | 0.4012 | 0.5622 | 0.1164 | 0.3058 | 0.2070 | 0.5439 |
| 108 | 46.84 | 0.01 | 0.0674 | 9.9999 | 0.0248 | 9.9999 | 0.3980 | 0.5701 | 0.1167 | 0.3094 | 0.2046 | 0.5427 |
| 109 | 47.01 | -0.02 | 0.0852 | 9.9999 | 0.0378 | 9.9999 | 0.4437 | 0.5832 | 0.1169 | 0.3146 | 0.2004 | 0.5394 |
| 110 | 47.19 | -0.01 | 0.0676 | 9.9999 | 0.0252 | 9.9999 | 0.4358 | 0.5743 | 0.1153 | 0.3109 | 0.2007 | 0.5414 |
| 111 | 47.37 | 0.02 | 0.0754 | 9.9999 | 0.0331 | 9.9999 | 0.4390 | 0.5990 | 0.1173 | 0.3229 | 0.1958 | 0.5351 |
| 112 | 47.53 | -0.04 | 0.0695 | 9.9999 | 0.0316 | 9.9999 | 0.4521 | 0.5963 | 0.1185 | 0.3241 | 0.1987 | 0.5402 |
| 113 | 47.70 | 0.00 | 0.0658 | 9.9999 | 0.0260 | 9.9999 | 0.4255 | 0.6168 | 0.1181 | 0.3331 | 0.1908 | 0.5383 |
| 114 | 47.86 | 0.00 | 0.0693 | 9.9999 | 0.0284 | 9.9999 | 0.4417 | 0.6124 | 0.1180 | 0.3303 | 0.1926 | 0.5394 |
| 115 | 48.05 | 0.01 | 0.0713 | 9.9999 | 0.0323 | 9.9999 | 0.4530 | 0.6080 | 0.1181 | 0.3274 | 0.1948 | 0.5403 |
| 116 | 48.23 | -0.04 | 0.0660 | 9.9999 | 0.0235 | 9.9999 | 0.4208 | 0.6157 | 0.1221 | 0.3327 | 0.1983 | 0.5404 |
| 117 | 48.39 | -0.02 | 0.0673 | 9.9999 | 0.0262 | 9.9999 | 0.4572 | 0.6260 | 0.1203 | 0.3386 | 0.1921 | 0.5405 |
| 118 | 48.55 | 0.00 | 0.0643 | 9.9999 | 0.0256 | 9.9999 | 0.4510 | 0.6281 | 0.1188 | 0.3347 | 0.1891 | 0.5408 |
| 119 | 48.75 | -0.01 | 0.0674 | 9.9999 | 0.0240 | 9.9999 | 0.4181 | 0.6060 | 0.1215 | 0.3303 | 0.1998 | 0.5433 |
| 120 | 48.90 | -0.01 | 0.0630 | 9.9999 | 0.0236 | 9.9999 | 0.4453 | 0.6156 | 0.1195 | 0.3343 | 0.1941 | 0.5430 |
| 121 | 49.09 | -0.00 | 0.0642 | 9.9999 | 0.0301 | 9.9999 | 0.4688 | 0.5952 | 0.1174 | 0.3259 | 0.1969 | 0.5479 |
| 122 | 49.26 | -0.01 | 0.0650 | 9.9999 | 0.0235 | 9.9999 | 0.4206 | 0.6006 | 0.1195 | 0.3325 | 0.1963 | 0.5463 |
| 123 | 49.46 | 0.01 | 0.0604 | 9.9999 | 0.0218 | 9.9999 | 0.4325 | 0.6315 | 0.1180 | 0.3445 | 0.1868 | 0.5459 |
| 124 | 49.64 | 0.00 | 0.0672 | 9.9999 | 0.0305 | 9.9999 | 0.4598 | 0.6203 | 0.1168 | 0.3405 | 0.1882 | 0.5405 |
| 125 | 49.78 | 0.01 | 0.0630 | 9.9999 | 0.0285 | 9.9999 | 0.4587 | 0.6091 | 0.1125 | 0.3344 | 0.1846 | 0.5450 |
| 126 | 50.01 | 0.01 | 0.0695 | 9.9999 | 0.0305 | 9.9999 | 0.4363 | 0.5473 | 0.1051 | 0.3121 | 0.1920 | 0.5703 |
| 127 | 50.21 | 0.04 | 0.0740 | 9.9999 | 0.0347 | 9.9999 | 0.4689 | 0.5470 | 0.1061 | 0.3157 | 0.1939 | 0.5771 |
| 128 | 50.39 | 0.03 | 0.0697 | 9.9999 | 0.0358 | 9.9999 | 0.4505 | 0.5412 | 0.1045 | 0.3128 | 0.1930 | 0.5780 |
| 129 | 50.55 | 0.01 | 0.0700 | 9.9999 | 0.0317 | 9.9999 | 0.4529 | 0.5479 | 0.1061 | 0.3180 | 0.1936 | 0.5804 |
| 130 | 50.72 | 0.07 | 0.0756 | 9.9999 | 0.0336 | 9.9999 | 0.4471 | 0.5558 | 0.1062 | 0.3203 | 0.1910 | 0.5763 |
| 131 | 50.92 | 0.04 | 0.0756 | 9.9999 | 0.0374 | 9.9999 | 0.4698 | 0.5511 | 0.1032 | 0.3174 | 0.1872 | 0.5759 |
| 132 | 51.08 | 0.01 | 0.0757 | 9.9999 | 0.0365 | 9.9999 | 0.4630 | 0.5545 | 0.1052 | 0.3200 | 0.1897 | 0.5782 |
| 133 | 51.25 | 0.07 | 0.0741 | 9.9999 | 0.0346 | 9.9999 | 0.4696 | 0.5534 | 0.0994 | 0.3169 | 0.1796 | 0.5726 |
| 134 | 51.40 | 0.03 | 0.0712 | 9.9999 | 0.0334 | 9.9999 | 0.4691 | 0.5519 | 0.1009 | 0.3177 | 0.1828 | 0.5756 |
| 135 | 51.58 | 0.05 | 0.0695 | 9.9999 | 0.0327 | 9.9999 | 0.4685 | 0.5528 | 0.0982 | 0.3163 | 0.1776 | 0.5722 |
| 136 | 51.75 | 0.06 | 0.0666 | 9.9999 | 0.0356 | 9.9999 | 0.4573 | 0.5541 | 0.0965 | 0.3185 | 0.1761 | 0.5697 |
| 137 | 51.94 | 0.05 | 0.0720 | 9.9999 | 0.0372 | 9.9999 | 0.4769 | 0.5521 | 0.0974 | 0.3157 | 0.1764 | 0.5718 |
| 138 | 52.08 | 0.04 | 0.0754 | 9.9999 | 0.0343 | 9.9999 | 0.4549 | 0.5595 | 0.0971 | 0.3189 | 0.1735 | 0.5700 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1st MACH 0.90 RATIO-E 1.7 PHI 0.0 CONF B1B0DF11 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.27 | 0.00 | 0.0725 | 9.9999 | 0.0325 | 9.9999 | 0.4538 | 0.5567 | 0.0984 | 0.3177 | 0.1725 | 0.5686 |
| 140 | 52.44 | 0.04 | 0.0726 | 9.9999 | 0.0306 | 9.9999 | 0.4692 | 0.5462 | 0.0948 | 0.3138 | 0.1729 | 0.5724 |
| 141 | 52.57 | 0.07 | 0.0754 | 9.9999 | 0.0337 | 9.9999 | 0.4665 | 0.5540 | 0.0946 | 0.3170 | 0.1707 | 0.5722 |
| 142 | 52.78 | 0.00 | 0.0808 | 9.9999 | 0.0386 | 9.9999 | 0.4703 | 0.5605 | 0.0956 | 0.3212 | 0.1705 | 0.5731 |
| 143 | 52.99 | 0.00 | 0.0849 | 9.9999 | 0.0418 | 9.9999 | 0.4900 | 0.5701 | 0.0996 | 0.3298 | 0.1677 | 0.5736 |
| 144 | 53.09 | 0.00 | 0.0808 | 9.9999 | 0.0374 | 9.9999 | 0.4827 | 0.5440 | 0.0913 | 0.3114 | 0.1676 | 0.5718 |
| 145 | 53.28 | 0.07 | 0.0751 | 9.9999 | 0.0352 | 9.9999 | 0.4687 | 0.5440 | 0.0903 | 0.3096 | 0.1655 | 0.5691 |
| 146 | 53.43 | 0.00 | 0.0765 | 9.9999 | 0.0322 | 9.9999 | 0.4842 | 0.5408 | 0.0912 | 0.3128 | 0.1667 | 0.5721 |
| 147 | 53.60 | 0.08 | 0.0751 | 9.9999 | 0.0301 | 9.9999 | 0.4864 | 0.5506 | 0.0912 | 0.3144 | 0.1656 | 0.5716 |
| 148 | 53.75 | 0.09 | 0.0763 | 9.9999 | 0.0317 | 9.9999 | 0.4385 | 0.5725 | 0.0921 | 0.3257 | 0.1609 | 0.5656 |
| 149 | 53.90 | 0.07 | 0.0724 | 9.9999 | 0.0317 | 9.9999 | 0.4378 | 0.5644 | 0.0905 | 0.3216 | 0.1603 | 0.5698 |
| 150 | 54.08 | 0.07 | 0.0750 | 9.9999 | 0.0330 | 9.9999 | 0.4900 | 0.5655 | 0.0890 | 0.3198 | 0.1573 | 0.5659 |
| 151 | 54.23 | 0.07 | 0.0805 | 9.9999 | 0.0378 | 9.9999 | 0.4896 | 0.5775 | 0.0906 | 0.3262 | 0.1568 | 0.5648 |
| 152 | 54.39 | 0.07 | 0.0853 | 9.9999 | 0.0378 | 9.9999 | 0.4890 | 0.5870 | 0.0900 | 0.3310 | 0.1543 | 0.5639 |
| 153 | 54.55 | 0.08 | 0.0762 | 9.9999 | 0.0347 | 9.9999 | 0.4854 | 0.6045 | 0.0917 | 0.3383 | 0.1517 | 0.5598 |
| 154 | 54.69 | 0.08 | 0.0803 | 9.9999 | 0.0381 | 9.9999 | 0.4926 | 0.6100 | 0.0921 | 0.3412 | 0.1506 | 0.5588 |
| 155 | 54.84 | 0.02 | 0.0832 | 9.9999 | 0.0391 | 9.9999 | 0.4700 | 0.6151 | 0.0910 | 0.3418 | 0.1479 | 0.5557 |
| 156 | 55.00 | 0.05 | 0.0778 | 9.9999 | 0.0359 | 9.9999 | 0.4826 | 0.6017 | 0.0903 | 0.3379 | 0.1500 | 0.5616 |
| 157 | 55.16 | 0.06 | 0.0778 | 9.9999 | 0.0348 | 9.9999 | 0.4865 | 0.6144 | 0.0900 | 0.3411 | 0.1484 | 0.5552 |
| 158 | 55.31 | 0.01 | 0.0745 | 9.9999 | 0.0341 | 9.9999 | 0.4853 | 0.6153 | 0.0902 | 0.3434 | 0.1466 | 0.5581 |
| 159 | 55.48 | 0.08 | 0.0767 | 9.9999 | 0.0315 | 9.9999 | 0.4855 | 0.6222 | 0.0900 | 0.3463 | 0.1446 | 0.5568 |
| 160 | 55.63 | 0.03 | 0.0745 | 9.9999 | 0.0325 | 9.9999 | 0.4853 | 0.6178 | 0.0892 | 0.3453 | 0.1443 | 0.5589 |
| 161 | 55.80 | 0.04 | 0.0745 | 9.9999 | 0.0325 | 9.9999 | 0.4893 | 0.6119 | 0.0879 | 0.3406 | 0.1436 | 0.5566 |
| 162 | 55.96 | 0.02 | 0.0692 | 9.9999 | 0.0313 | 9.9999 | 0.4923 | 0.6212 | 0.0898 | 0.3474 | 0.1445 | 0.5592 |
| 163 | 56.08 | 0.04 | 0.0838 | 9.9999 | 0.0376 | 9.9999 | 0.4826 | 0.6319 | 0.0890 | 0.3521 | 0.1408 | 0.5572 |
| 164 | 56.26 | 0.03 | 0.0693 | 9.9999 | 0.0297 | 9.9999 | 0.4906 | 0.6147 | 0.0885 | 0.3432 | 0.1439 | 0.5583 |
| 165 | 56.40 | 0.05 | 0.0693 | 9.9999 | 0.0314 | 9.9999 | 0.4531 | 0.6274 | 0.0883 | 0.3499 | 0.1407 | 0.5577 |
| 166 | 56.55 | 0.01 | 0.0741 | 9.9999 | 0.0306 | 9.9999 | 0.4706 | 0.6335 | 0.0889 | 0.3522 | 0.1403 | 0.5560 |
| 167 | 56.70 | 0.03 | 0.0664 | 9.9999 | 0.0300 | 9.9999 | 0.4516 | 0.6220 | 0.0872 | 0.3466 | 0.1402 | 0.5572 |
| 168 | 56.87 | 0.03 | 0.0718 | 9.9999 | 0.0337 | 9.9999 | 0.4694 | 0.6350 | 0.0872 | 0.3520 | 0.1377 | 0.5561 |
| 169 | 57.01 | 0.02 | 0.0718 | 9.9999 | 0.0343 | 9.9999 | 0.4777 | 0.6519 | 0.0872 | 0.3592 | 0.1337 | 0.5516 |
| 170 | 57.16 | 0.03 | 0.0664 | 9.9999 | 0.0340 | 9.9999 | 0.4935 | 0.6358 | 0.0850 | 0.3515 | 0.1337 | 0.5528 |
| 171 | 57.30 | 0.00 | 0.0731 | 9.9999 | 0.0343 | 9.9999 | 0.4892 | 0.6545 | 0.0853 | 0.3610 | 0.1303 | 0.5516 |
| 172 | 57.43 | -0.01 | 0.0662 | 9.9999 | 0.0291 | 9.9999 | 0.4878 | 0.6465 | 0.0843 | 0.3561 | 0.1304 | 0.5508 |
| 173 | 57.61 | -0.02 | 0.0596 | 9.9999 | 0.0255 | 9.9999 | 0.4293 | 0.6623 | 0.0853 | 0.3650 | 0.1288 | 0.5511 |
| 174 | 57.74 | -0.04 | 0.0673 | 9.9999 | 0.0273 | 9.9999 | 0.4498 | 0.6765 | 0.0849 | 0.3695 | 0.1255 | 0.5462 |
| 175 | 57.89 | -0.04 | 0.0650 | 9.9999 | 0.0293 | 9.9999 | 0.4508 | 0.6824 | 0.0847 | 0.3721 | 0.1241 | 0.5453 |
| 176 | 58.04 | -0.06 | 0.0552 | 9.9999 | 0.0241 | 9.9999 | 0.4300 | 0.6122 | 0.0843 | 0.3385 | 0.1377 | 0.5529 |
| 177 | 58.15 | -0.05 | 0.0524 | 9.9999 | 0.0244 | 9.9999 | 0.4656 | 0.5823 | 0.0844 | 0.3241 | 0.1449 | 0.5566 |
| 178 | 58.15 | -0.06 | 0.0497 | 9.9999 | 0.0220 | 9.9999 | 0.4927 | 0.6195 | 0.0856 | 0.3433 | 0.1385 | 0.5542 |
| 179 | 58.14 | -0.11 | 0.0510 | 9.9999 | 0.0232 | 9.9999 | 0.4569 | 0.5968 | 0.0848 | 0.3317 | 0.1421 | 0.5556 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REYIC-E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 ±52 1.00 1.7 0.0 BIBOFIL C.C 0 -30 0 -30 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAO | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | -1.7826 | 6.5604 | 0.0643 | -0.0666 | -0.0029 | 1.1792 | 0.3740 | 0.8052 | -3.6862 |
| 2 | -5.75 | -0.00 | -1.7954 | 6.5765 | -0.0288 | 0.0334 | -0.0092 | 1.1795 | 0.3737 | 0.8058 | -3.6568 |
| 3 | -5.75 | 0.01 | -1.7933 | 6.5575 | 0.0500 | -0.0697 | -0.0028 | 1.1853 | 0.3729 | 0.8124 | -3.6791 |
| 4 | -5.76 | -0.00 | -1.8174 | 6.6163 | 0.0003 | -0.0896 | -0.0031 | 1.1826 | 0.3771 | 0.8055 | -3.6405 |
| 5 | -5.68 | 0.01 | -1.7854 | 6.7073 | -0.0070 | -0.0065 | -0.0088 | 1.1977 | 0.3733 | 0.8244 | -3.7562 |
| 6 | -3.83 | 0.00 | -1.7713 | 7.2464 | -0.0482 | 0.1696 | -0.0383 | 1.2198 | 0.3646 | 0.8550 | -4.0689 |
| 7 | -2.08 | 0.01 | -1.8284 | 8.0336 | 0.0245 | -0.0502 | 0.0108 | 1.2373 | 0.3149 | 0.9225 | -4.3936 |
| 8 | -0.28 | 0.01 | -1.8813 | 7.8853 | -0.0003 | -0.0809 | -0.0007 | 1.2053 | 0.2937 | 0.9117 | -4.6924 |
| 9 | 1.54 | 0.01 | -1.4552 | 7.3950 | -0.0102 | -0.0466 | -0.0004 | 1.1363 | 0.2740 | 0.8622 | -5.0816 |
| 10 | 3.46 | 0.01 | -1.1208 | 6.9270 | 0.0406 | -0.0552 | -0.0001 | 1.0427 | 0.2636 | 0.7791 | -5.7349 |
| 11 | 5.24 | 0.01 | -0.7925 | 5.5063 | 0.0312 | -0.0027 | -0.0059 | 0.9583 | 0.2736 | 0.6827 | -7.0237 |
| 12 | 7.14 | 0.01 | -0.5228 | 5.0620 | 0.0256 | -0.0332 | -0.0054 | 0.8874 | 0.2574 | 0.6099 | -9.5023 |
| 13 | 8.98 | 0.01 | -0.3588 | 4.9425 | -0.0038 | 0.0511 | -0.0050 | 0.7992 | 0.2256 | 0.5742 | -14.5853 |
| 14 | 10.89 | 0.01 | -0.0563 | 4.9371 | 0.0006 | -0.0013 | -0.0042 | 0.7204 | 0.2096 | 0.5108 | -78.7712 |
| 15 | 12.69 | 0.01 | 0.2422 | 3.5515 | 0.0172 | -0.0322 | -0.0035 | 0.6548 | 0.2056 | 0.4488 | 16.4786 |
| 16 | 14.58 | 0.01 | 0.5848 | 3.4365 | -0.0165 | 0.0412 | 0.0031 | 0.5891 | 0.2014 | 0.3877 | 5.6768 |
| 17 | 16.54 | -0.00 | 0.9649 | 2.9079 | -0.1067 | 0.2558 | -0.0026 | 0.5033 | 0.1986 | 0.3047 | 3.0137 |
| 18 | 18.49 | 0.00 | 1.3304 | 2.3065 | -0.1416 | 0.3077 | -0.0019 | 0.4154 | 0.1946 | 0.2206 | 1.7813 |
| 19 | 20.41 | 0.01 | 1.7321 | 1.9453 | -0.1586 | 0.6252 | -0.0020 | 0.3486 | 0.1996 | 0.1490 | 1.1254 |
| 20 | 22.34 | 0.01 | 2.2209 | 1.8062 | -0.0748 | 0.3747 | -0.0234 | 0.2904 | 0.1991 | 0.0912 | 0.8181 |
| 21 | 24.31 | 0.00 | 2.8591 | 1.5606 | -0.1645 | 0.5585 | -0.0330 | 0.2312 | 0.1964 | 0.0348 | 0.6857 |
| 22 | 26.29 | 0.05 | 3.4569 | 2.1137 | 0.5061 | -1.2903 | 0.0750 | 0.1726 | 0.1965 | -0.0209 | 0.6122 |
| 23 | 27.59 | 0.02 | 3.8787 | 2.1256 | 0.5150 | -2.2155 | 0.1499 | 0.1141 | 0.2092 | -0.0951 | 0.5480 |
| 24 | 27.99 | 0.02 | 3.9154 | 2.1066 | 0.5022 | -2.0921 | 0.1500 | 0.1202 | 0.2111 | -0.0909 | 0.5528 |
| 25 | 28.34 | 0.02 | 4.0417 | 2.1022 | 0.2086 | -1.9728 | 0.1502 | 0.0918 | 0.2107 | -0.1165 | 0.5201 |
| 26 | 28.59 | 0.05 | 4.0526 | 2.1055 | 1.0474 | -2.3395 | 0.1030 | 0.1059 | 0.2131 | -0.1073 | 0.5144 |
| 27 | 28.92 | 0.07 | 4.2671 | 2.3237 | 0.7517 | -1.4436 | 0.1146 | 0.0579 | 0.2134 | -0.1525 | 0.5446 |
| 28 | 29.25 | 0.07 | 4.3166 | 2.3856 | 0.8243 | -1.8501 | 0.1512 | 0.0613 | 0.2047 | -0.1434 | 0.5533 |
| 29 | 29.52 | 0.07 | 4.3832 | 2.2855 | 0.7785 | -1.5933 | 0.1272 | 0.0573 | 0.2077 | -0.1504 | 0.5213 |
| 30 | 29.81 | 0.06 | 4.4404 | 2.3457 | 0.8006 | -1.7905 | 0.1519 | 0.0498 | 0.2066 | -0.1566 | 0.5224 |
| 31 | 30.09 | 0.07 | 4.5564 | 2.4727 | 0.8750 | -1.2342 | 0.1157 | 0.0432 | 0.2073 | -0.1641 | 0.5427 |
| 32 | 30.37 | 0.07 | 4.6712 | 2.4761 | 0.7474 | -1.4502 | 0.1165 | 0.0406 | 0.2116 | -0.1710 | 0.5289 |
| 33 | 30.64 | 0.10 | 4.8444 | 2.5852 | 1.1358 | -2.4911 | 0.1539 | 0.0383 | 0.2151 | -0.1768 | 0.4882 |
| 34 | 30.92 | 0.09 | 4.8415 | 2.6026 | 0.9006 | -2.2267 | 0.1539 | 0.0242 | 0.2067 | -0.1825 | 0.5375 |
| 35 | 31.20 | 0.08 | 4.9653 | 2.7992 | 0.8225 | -1.8614 | 0.1183 | -0.0062 | 0.2013 | -0.2075 | 0.5637 |
| 36 | 31.47 | 0.11 | 4.9613 | 2.8044 | 1.1663 | -2.8396 | 0.1647 | 0.0216 | 0.2041 | -0.1625 | 0.5233 |
| 37 | 31.73 | 0.09 | 5.0538 | 2.7660 | 0.9264 | -1.9588 | 0.1307 | 0.0008 | 0.2052 | -0.2044 | 0.5473 |
| 38 | 32.01 | 0.07 | 5.1460 | 2.9261 | 0.8376 | -1.9533 | 0.0865 | -0.0279 | 0.1929 | -0.2208 | 0.5689 |
| 39 | 32.27 | 0.05 | 5.2174 | 2.9691 | 0.3082 | -0.4570 | 0.0101 | -0.0365 | 0.1687 | -0.2252 | 0.5691 |
| 40 | 32.53 | 0.06 | 5.4066 | 2.9630 | 0.5079 | -1.0616 | 0.0415 | -0.0320 | 0.1926 | -0.2252 | 0.5524 |
| 41 | 32.80 | 0.04 | 5.4824 | 3.0418 | 0.2125 | -0.5504 | 0.0292 | -0.0478 | 0.1865 | -0.2343 | 0.5548 |
| 42 | 33.06 | 0.05 | 5.5500 | 3.1415 | 0.3446 | -0.8301 | 0.0297 | -0.0543 | 0.1855 | -0.2358 | 0.5618 |
| 43 | 33.30 | 0.03 | 5.6357 | 3.1376 | 0.1566 | -0.2619 | 0.0239 | -0.0679 | 0.1657 | -0.2332 | 0.5567 |
| 44 | 33.57 | 0.04 | 5.7041 | 2.9811 | 0.2546 | -0.2425 | 0.0235 | -0.0548 | 0.1699 | -0.2447 | 0.5172 |
| 45 | 33.81 | 0.06 | 5.7262 | 3.2260 | 0.4718 | -0.5845 | 0.0960 | -0.0628 | 0.1801 | -0.2629 | 0.5637 |
| 46 | 34.07 | 0.05 | 6.0570 | 2.7664 | 0.4410 | -0.8824 | 0.0850 | -0.0679 | 0.1951 | -0.2636 | 0.4570 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNID-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 13Z | 1.00 | 1.7 | 0.0 | BIBOFIL | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.34 | 0.07 | 0.1677 | 2.8364 | 0.6272 | -1.1081 | 0.0057 | -0.0674 | 0.1907 | -0.2581 | 0.4602 |
| 48 | 34.50 | 0.05 | 0.1629 | 2.8336 | 0.5172 | -1.0243 | 0.0057 | -0.0717 | 0.1869 | -0.2586 | 0.4549 |
| 49 | 34.62 | 0.05 | 0.4017 | 2.7958 | 0.5043 | -2.0001 | 0.1409 | -0.0678 | 0.1984 | -0.2862 | 0.4374 |
| 50 | 35.07 | 0.05 | 0.4030 | 2.7661 | 0.5252 | -1.0272 | 0.1405 | -0.0732 | 0.1988 | -0.2766 | 0.4216 |
| 51 | 35.32 | 0.07 | 0.3834 | 2.8722 | 0.6963 | -1.5217 | 0.1169 | -0.0949 | 0.1951 | -0.2901 | 0.4416 |
| 52 | 35.33 | 0.06 | 0.3815 | 2.8250 | 0.6192 | -1.7610 | 0.1236 | -0.1025 | 0.1916 | -0.2941 | 0.4445 |
| 53 | 35.79 | 0.05 | 0.3452 | 2.8275 | 0.6501 | -1.4895 | 0.1176 | -0.1058 | 0.1907 | -0.3005 | 0.4403 |
| 54 | 36.03 | 0.06 | 0.7061 | 2.7422 | 0.6822 | -1.5712 | 0.1122 | -0.0965 | 0.2021 | -0.2986 | 0.4011 |
| 55 | 36.26 | 0.07 | 0.8304 | 2.6805 | 0.8005 | -1.6822 | 0.1127 | -0.1083 | 0.1983 | -0.3066 | 0.4188 |
| 56 | 36.50 | 0.06 | 0.8286 | 2.7530 | 0.8096 | -1.5362 | 0.1071 | -0.1302 | 0.1980 | -0.3282 | 0.3918 |
| 57 | 36.76 | 0.06 | 0.1260 | 2.7563 | 0.6989 | -1.0080 | 0.1024 | -0.1429 | 0.1913 | -0.3342 | 0.3847 |
| 58 | 36.99 | 0.06 | 0.1715 | 2.6963 | 0.7203 | -1.0365 | 0.1142 | -0.1205 | 0.1947 | -0.3212 | 0.3760 |
| 59 | 37.23 | 0.06 | 0.2522 | 2.7855 | 0.7174 | -1.5505 | 0.1144 | -0.1375 | 0.1922 | -0.3301 | 0.3814 |
| 60 | 37.46 | 0.06 | 0.2760 | 2.8184 | 0.7026 | -1.0342 | 0.1147 | -0.1269 | 0.1891 | -0.3180 | 0.3872 |
| 61 | 37.70 | 0.06 | 0.2638 | 2.8367 | 0.6970 | -2.0448 | 0.1030 | -0.1552 | 0.1872 | -0.3464 | 0.3507 |
| 62 | 37.93 | 0.06 | 0.0021 | 2.7416 | 0.7416 | -1.5021 | 0.1215 | -0.1577 | 0.1885 | -0.3462 | 0.3606 |
| 63 | 38.17 | 0.06 | 0.0366 | 2.7656 | 0.6247 | -0.7356 | 0.0986 | -0.1724 | 0.1786 | -0.3510 | 0.3651 |
| 64 | 38.39 | 0.04 | 0.2267 | 2.8067 | 0.6602 | -1.0441 | 0.0906 | -0.1740 | 0.1799 | -0.3535 | 0.3454 |
| 65 | 38.62 | 0.04 | 0.0963 | 2.8662 | 0.6744 | -1.2466 | 0.0829 | -0.1752 | 0.1814 | -0.3566 | 0.3298 |
| 66 | 38.84 | 0.04 | 0.0430 | 2.7147 | 0.6715 | -1.2848 | 0.0976 | -0.1907 | 0.1750 | -0.3657 | 0.3418 |
| 67 | 39.08 | 0.04 | 0.0372 | 2.8426 | 0.6962 | -1.2975 | 0.0837 | -0.2023 | 0.1769 | -0.3792 | 0.3288 |
| 68 | 39.27 | 0.05 | 0.0361 | 2.8542 | 0.7943 | -1.7026 | 0.1056 | -0.1773 | 0.1801 | -0.3654 | 0.3353 |
| 69 | 39.48 | 0.02 | 0.1328 | 2.8545 | 0.6237 | -1.2714 | 0.0541 | -0.2218 | 0.1684 | -0.3902 | 0.3313 |
| 70 | 39.69 | 0.03 | 0.1039 | 2.8257 | 0.5856 | -1.3346 | 0.0584 | -0.2158 | 0.1717 | -0.3935 | 0.3094 |
| 71 | 39.89 | 0.03 | 0.2278 | 2.8475 | 0.5791 | -1.3878 | 0.0764 | -0.2226 | 0.1723 | -0.3949 | 0.3056 |
| 72 | 40.11 | 0.03 | 0.3716 | 2.8166 | 0.5905 | -1.2655 | 0.0827 | -0.2219 | 0.1749 | -0.3968 | 0.3008 |
| 73 | 40.29 | 0.01 | 0.3581 | 2.8771 | 0.6083 | -1.1332 | 0.0296 | -0.2289 | 0.1727 | -0.4016 | 0.3083 |
| 74 | 40.51 | 0.01 | 0.5146 | 2.8552 | 0.3554 | -1.1417 | 0.0361 | -0.2413 | 0.1696 | -0.4109 | 0.3116 |
| 75 | 40.73 | 0.03 | 0.5135 | 2.8755 | 0.5505 | -1.2127 | 0.0425 | -0.2442 | 0.1693 | -0.4135 | 0.2879 |
| 76 | 40.92 | 0.03 | 0.5572 | 2.8943 | 0.5836 | -1.1448 | 0.0721 | -0.2502 | 0.1738 | -0.4240 | 0.2989 |
| 77 | 41.14 | 0.01 | 0.7074 | 2.8224 | 0.4412 | -1.0105 | 0.0602 | -0.2523 | 0.1693 | -0.4216 | 0.3012 |
| 78 | 41.35 | 0.03 | 0.7940 | 2.8558 | 0.5651 | -1.0451 | 0.0540 | -0.2694 | 0.1621 | -0.4315 | 0.3020 |
| 79 | 41.54 | 0.00 | 0.9007 | 2.9288 | 0.3661 | -1.2051 | 0.0025 | -0.2558 | 0.1715 | -0.4273 | 0.2764 |
| 80 | 41.73 | 0.02 | 0.9961 | 2.9412 | 0.5086 | -0.9515 | 0.0612 | -0.2638 | 0.1693 | -0.4331 | 0.2825 |
| 81 | 41.93 | 0.02 | 0.0134 | 2.8425 | 0.5456 | -1.1291 | 0.0616 | -0.2627 | 0.1651 | -0.4278 | 0.2932 |
| 82 | 42.13 | 0.03 | 0.1529 | 2.9012 | 0.5441 | -0.8665 | 0.1064 | -0.2679 | 0.1654 | -0.4353 | 0.2689 |
| 83 | 42.30 | 0.02 | 0.0913 | 2.8584 | 0.5001 | -1.2498 | 0.0501 | -0.2903 | 0.1616 | -0.4518 | 0.2812 |
| 84 | 42.49 | 0.02 | 0.2010 | 2.7866 | 0.4484 | -0.7696 | 0.0679 | -0.2701 | 0.1584 | -0.4365 | 0.3008 |
| 85 | 42.68 | 0.01 | 0.3661 | 2.8826 | 0.3577 | -0.7558 | 0.0859 | -0.2813 | 0.1633 | -0.4446 | 0.2757 |
| 86 | 42.86 | 0.02 | 0.3616 | 2.8868 | 0.4653 | -0.7058 | 0.0864 | -0.2933 | 0.1576 | -0.4508 | 0.2864 |
| 87 | 43.04 | -0.00 | 0.5601 | 2.9204 | 0.2831 | -0.2884 | 0.0800 | -0.2898 | 0.1649 | -0.4546 | 0.2636 |
| 88 | 43.22 | -0.00 | 0.4476 | 2.7763 | 0.3386 | -0.7004 | 0.0865 | -0.2926 | 0.1503 | -0.4426 | 0.2932 |
| 89 | 43.41 | -0.01 | 0.6469 | 2.8750 | 0.2550 | -0.7795 | 0.0357 | -0.3015 | 0.1576 | -0.4590 | 0.2462 |
| 90 | 43.60 | -0.00 | 0.7620 | 2.8956 | 0.3159 | -0.8407 | 0.0578 | -0.2942 | 0.1629 | -0.4570 | 0.2457 |
| 91 | 43.76 | 0.00 | 0.7839 | 2.9615 | 0.3073 | -0.2593 | 0.0748 | -0.3010 | 0.1568 | -0.4577 | 0.2639 |
| 92 | 43.99 | -0.00 | 0.8006 | 2.9454 | 0.3446 | -0.4406 | 0.0752 | -0.3043 | 0.1614 | -0.4656 | 0.2550 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 132 MACH 1.00 RX10-6 1.7 PHI 0.0 CONF Black11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.12 | -0.00 | 9.8269 | 2.7302 | 0.3461 | -0.5531 | 0.0757 | -0.3248 | 0.1584 | -0.4832 | 0.2785 |
| 94 | 44.32 | -0.00 | 10.0365 | 2.8038 | 0.2794 | -0.4687 | 0.0644 | -0.3174 | 0.1534 | -0.4707 | 0.4494 |
| 95 | 44.50 | 0.00 | 9.8548 | 2.9065 | 0.3058 | -0.0894 | 0.0807 | -0.3193 | 0.1487 | -0.4679 | 0.2940 |
| 96 | 44.69 | -0.00 | 10.0905 | 2.9465 | 0.3435 | -0.9904 | 0.0543 | -0.3169 | 0.1566 | -0.4734 | 0.4425 |
| 97 | 44.88 | 0.00 | 10.2154 | 2.8335 | 0.3553 | -1.0530 | 0.0423 | -0.3199 | 0.1627 | -0.4826 | 0.2284 |
| 98 | 45.03 | 0.01 | 10.0265 | 2.8532 | 0.4103 | -0.5135 | 0.0898 | -0.3225 | 0.1623 | -0.4848 | 0.2566 |
| 99 | 45.23 | 0.00 | 10.2576 | 2.9715 | 0.3205 | -0.2720 | 0.0708 | -0.3271 | 0.1625 | -0.4896 | 0.2400 |
| 100 | 45.39 | 0.00 | 10.1162 | 2.8965 | 0.2648 | 0.1100 | 0.0809 | -0.3330 | 0.1550 | -0.4880 | 0.2808 |
| 101 | 45.59 | 0.01 | 10.4064 | 2.8452 | 0.3201 | -0.1720 | 0.0828 | -0.3416 | 0.1565 | -0.4985 | 0.2542 |
| 102 | 45.75 | 0.00 | 10.5577 | 2.9024 | 0.3621 | -0.3404 | 0.0801 | -0.3349 | 0.1591 | -0.4990 | 0.2181 |
| 103 | 45.91 | 0.00 | 10.3354 | 2.7427 | 0.3675 | -0.3366 | 0.0857 | -0.3460 | 0.1581 | -0.5041 | 0.2653 |
| 104 | 46.09 | 0.00 | 10.4731 | 2.8942 | 0.3486 | -0.2343 | 0.0858 | -0.3432 | 0.1595 | -0.5027 | 0.2572 |
| 105 | 46.27 | 0.01 | 10.4366 | 2.7764 | 0.5106 | -0.2387 | 0.0596 | -0.3469 | 0.1707 | -0.5176 | 0.2662 |
| 106 | 46.43 | -0.00 | 10.4611 | 2.8135 | 0.3385 | 0.0494 | 0.0709 | -0.3360 | 0.1770 | -0.5130 | 0.2780 |
| 107 | 46.60 | -0.00 | 10.5365 | 3.0293 | 0.3614 | 0.0071 | 0.0655 | -0.3295 | 0.2044 | -0.5339 | 0.2875 |
| 108 | 46.80 | 0.00 | 10.6154 | 2.9142 | 0.3717 | 0.2266 | 0.0592 | -0.3134 | 0.2354 | -0.5488 | 0.2232 |
| 109 | 46.97 | 0.02 | 10.8841 | 1.7928 | 0.5223 | 0.0329 | 0.0595 | -0.2775 | 0.2927 | -0.5702 | 0.1647 |
| 110 | 47.15 | 0.01 | 11.1361 | 1.2056 | 0.4884 | 0.4105 | 0.0505 | -0.2929 | 0.2972 | -0.5900 | 0.1086 |
| 111 | 47.31 | 0.00 | 11.0218 | 1.4788 | 0.3433 | 0.4509 | 0.0584 | -0.2653 | 0.2964 | -0.5817 | 0.1346 |
| 112 | 47.50 | 0.02 | 11.2245 | 1.4767 | 0.3447 | 1.4575 | 0.0193 | -0.2840 | 0.3044 | -0.5884 | 0.0416 |
| 113 | 47.69 | 0.03 | 11.4558 | 0.1958 | 0.3836 | 1.6106 | -0.0042 | -0.2454 | 0.3286 | -0.5740 | 0.0174 |
| 114 | 47.86 | 0.02 | 11.6367 | -0.0161 | 0.4247 | 1.3669 | -0.0260 | -0.1934 | 0.3436 | -0.5390 | -0.0016 |
| 115 | 48.03 | 0.03 | 11.8137 | 0.2413 | 0.4467 | 1.3545 | -0.0363 | -0.2126 | 0.3380 | -0.5506 | 0.0208 |
| 116 | 48.23 | 0.04 | 11.9375 | -0.0504 | 0.3614 | 1.6053 | -0.0204 | -0.1884 | 0.3519 | -0.5203 | -0.0444 |
| 117 | 48.37 | 0.03 | 11.7532 | -0.2151 | 0.4670 | 1.7391 | -0.0154 | -0.2047 | 0.3319 | -0.5366 | -0.0183 |
| 118 | 48.56 | 0.03 | 11.9417 | -0.5745 | 0.4125 | 1.8041 | -0.0213 | -0.1857 | 0.3443 | -0.5300 | -0.0480 |
| 119 | 48.73 | 0.04 | 12.0464 | -0.5024 | 0.3902 | 1.9390 | -0.0153 | -0.2028 | 0.3428 | -0.5456 | -0.0417 |
| 120 | 48.92 | 0.03 | 12.2069 | -0.7606 | 0.4355 | 1.8511 | -0.0143 | -0.1994 | 0.3586 | -0.5560 | -0.0640 |
| 121 | 49.07 | 0.03 | 12.0509 | -0.4653 | 0.4196 | 2.0302 | -0.0155 | -0.2254 | 0.3295 | -0.5553 | -0.0389 |
| 122 | 49.26 | 0.03 | 12.2612 | -0.7057 | 0.4125 | 1.8511 | -0.0062 | -0.2100 | 0.3303 | -0.5403 | -0.0574 |
| 123 | 49.43 | 0.03 | 12.2858 | -0.3256 | 0.4405 | 1.7184 | -0.0075 | -0.2473 | 0.3231 | -0.5704 | -0.0265 |
| 124 | 49.63 | 0.03 | 12.5026 | -0.6214 | 0.3568 | 1.8269 | -0.0014 | -0.2323 | 0.3220 | -0.5543 | -0.0457 |
| 125 | 49.80 | 0.03 | 12.4521 | -0.3618 | 0.4357 | 1.6342 | 0.0108 | -0.2303 | 0.3297 | -0.5600 | -0.0451 |
| 126 | 49.98 | 0.03 | 12.6463 | -0.6547 | 0.4527 | 1.4833 | 0.0176 | -0.2162 | 0.3362 | -0.5524 | -0.0518 |
| 127 | 50.13 | 0.02 | 12.5804 | -0.4178 | 0.3613 | 1.6215 | -0.0004 | -0.2454 | 0.3317 | -0.5771 | -0.0645 |
| 128 | 50.33 | 0.03 | 12.7914 | -0.6454 | 0.4718 | 1.5715 | 0.0302 | -0.2275 | 0.3309 | -0.5644 | -0.0664 |
| 129 | 50.48 | -0.00 | 12.6188 | -0.3876 | 0.3117 | 1.1293 | 0.0367 | -0.2426 | 0.3245 | -0.5671 | -0.0640 |
| 130 | 50.64 | -0.01 | 12.8809 | -0.5418 | 0.2356 | 1.0735 | 0.0364 | -0.2847 | 0.3117 | -0.5964 | -0.0276 |
| 131 | 50.80 | -0.02 | 12.4238 | -0.4153 | 0.2260 | 0.8763 | 0.0491 | -0.2461 | 0.3090 | -0.5551 | -0.0337 |
| 132 | 50.98 | -0.01 | 12.6566 | -0.6563 | 0.2759 | 0.8916 | 0.0496 | -0.2362 | 0.3316 | -0.5698 | -0.0520 |
| 133 | 51.13 | -0.00 | 12.3350 | 0.0320 | 0.3813 | 0.7823 | 0.0609 | -0.2331 | 0.3166 | -0.5497 | 0.0026 |
| 134 | 51.32 | -0.01 | 12.5269 | -0.0226 | 0.3006 | 0.8594 | 0.0615 | -0.1805 | 0.3548 | -0.5353 | -0.0018 |
| 135 | 51.47 | 0.00 | 12.4521 | 0.1667 | 0.4175 | 0.7792 | 0.0615 | -0.1831 | 0.3469 | -0.5300 | 0.0135 |
| 136 | 51.66 | -0.00 | 12.6626 | -0.1621 | 0.4151 | 0.7492 | 0.0621 | -0.1737 | 0.3409 | -0.5146 | -0.0128 |
| 137 | 51.79 | -0.01 | 12.3602 | 0.3005 | 0.3197 | 0.7865 | 0.0614 | -0.2085 | 0.3517 | -0.5562 | 0.0243 |
| 138 | 51.98 | -0.01 | 12.6036 | 0.2410 | 0.3154 | 0.7871 | 0.0616 | -0.1693 | 0.3468 | -0.5161 | 0.0194 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 152 | MACH 1.00 | RX10-6 1.7 | PHI 0.0 | CONF 81B0F11 | L 6.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.16 | -0.02 | 12.5901 | 0.2517 | 0.2011 | 0.8776 | 0.0622 | -0.1469 | 0.3430 | -0.4969 | 0.0200 |
| 140 | 52.29 | -0.01 | 12.6056 | 0.4266 | 0.2167 | 0.7364 | 0.0502 | -0.1823 | 0.3582 | -0.5205 | 0.0342 |
| 141 | 52.48 | -0.01 | 12.6359 | 0.2760 | 0.2762 | 0.7525 | 0.0567 | -0.1673 | 0.3536 | -0.5209 | 0.0220 |
| 142 | 52.04 | -0.02 | 12.6056 | 0.2115 | 0.1531 | 0.7193 | 0.0513 | -0.1528 | 0.3617 | -0.5145 | 0.0168 |
| 143 | 52.80 | -0.02 | 12.5287 | 0.3577 | 0.1665 | 0.8029 | 0.0509 | -0.1479 | 0.3549 | -0.5028 | 0.0286 |
| 144 | 52.98 | -0.04 | 12.6066 | 0.2018 | 0.1137 | 0.8478 | 0.0513 | -0.1503 | 0.3644 | -0.5147 | 0.0223 |
| 145 | 53.14 | -0.02 | 12.5816 | 0.5254 | 0.1655 | 0.7326 | 0.0567 | -0.1502 | 0.3719 | -0.5221 | 0.0428 |
| 146 | 53.34 | -0.03 | 12.6316 | 0.3376 | 0.0714 | 0.7519 | 0.0516 | -0.1500 | 0.3632 | -0.4952 | 0.0268 |
| 147 | 53.47 | -0.02 | 12.5815 | 0.5827 | 0.1416 | 0.6857 | 0.0509 | -0.1741 | 0.3577 | -0.5118 | 0.0474 |
| 148 | 53.67 | -0.03 | 12.7011 | 0.1567 | 0.1054 | 0.8749 | 0.0463 | -0.1558 | 0.3516 | -0.5074 | 0.0123 |
| 149 | 53.84 | -0.02 | 12.7628 | 0.1487 | 0.1663 | 0.8651 | 0.0523 | -0.1466 | 0.3708 | -0.5174 | 0.0117 |
| 150 | 53.99 | -0.01 | 12.6651 | 0.0137 | 0.2040 | 0.9547 | 0.0470 | -0.1462 | 0.3636 | -0.5088 | 0.0011 |
| 151 | 54.15 | -0.03 | 12.8711 | -0.0162 | 0.0555 | 0.6751 | 0.0469 | -0.1670 | 0.3512 | -0.5182 | -0.0013 |
| 152 | 54.32 | -0.02 | 12.8816 | 0.2085 | 0.1447 | 0.8771 | 0.0525 | -0.1714 | 0.3616 | -0.5324 | 0.0214 |
| 153 | 54.51 | -0.03 | 12.8284 | 0.0035 | 0.1007 | 0.9616 | 0.0529 | -0.1694 | 0.3562 | -0.5256 | 0.0003 |
| 154 | 54.69 | -0.02 | 12.7711 | 0.0273 | 0.1624 | 0.8647 | 0.0529 | -0.1777 | 0.3795 | -0.5576 | 0.0021 |
| 155 | 54.81 | -0.02 | 12.8246 | 0.0355 | 0.1566 | 0.8783 | 0.0516 | -0.1574 | 0.3698 | -0.5272 | 0.0028 |
| 156 | 54.95 | -0.03 | 12.7764 | -0.0515 | 0.0081 | 0.9253 | 0.0417 | -0.1663 | 0.3739 | -0.5422 | -0.0040 |
| 157 | 55.11 | -0.02 | 13.0508 | -0.3355 | 0.1592 | 0.5284 | 0.0477 | -0.1560 | 0.3670 | -0.5530 | -0.0260 |
| 158 | 55.28 | -0.04 | 13.0860 | -0.3244 | 0.0782 | 0.5453 | 0.0432 | -0.1455 | 0.3670 | -0.5425 | -0.0193 |
| 159 | 55.46 | -0.02 | 12.7524 | 0.0507 | 0.1110 | 0.8824 | 0.0422 | -0.1701 | 0.3786 | -0.5549 | 0.0076 |
| 160 | 55.56 | 0.00 | 12.8466 | -0.0661 | 0.3404 | 0.3112 | 0.0419 | -0.1672 | 0.3607 | -0.5479 | -0.0067 |
| 161 | 55.72 | 0.00 | 12.8803 | -0.0464 | 0.3850 | 0.5834 | 0.0408 | -0.1814 | 0.3667 | -0.5481 | -0.0036 |
| 162 | 55.90 | 0.01 | 13.0117 | -0.3024 | 0.4711 | 0.3191 | 0.0426 | -0.1660 | 0.3880 | -0.5540 | -0.0232 |
| 163 | 56.08 | -0.03 | 13.0514 | -0.2555 | 0.1713 | 0.2657 | 0.0431 | -0.1536 | 0.4032 | -0.5568 | -0.0199 |
| 164 | 56.26 | -0.02 | 13.2757 | -0.3024 | 0.2417 | 0.1891 | 0.0436 | -0.1747 | 0.4037 | -0.5744 | -0.0376 |
| 165 | 56.43 | -0.09 | 13.3817 | 0.2417 | -0.4554 | 0.1002 | 0.0451 | -0.2761 | 0.3576 | -0.6357 | 0.0181 |
| 166 | 56.57 | -0.05 | 13.1674 | 0.0466 | -0.0287 | -0.0245 | 0.0335 | -0.2119 | 0.3651 | -0.5770 | 0.0031 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 132 | MACH 1.60 | RNLG=6 1.7 | PHI 0.0 | CONF BINOFIL | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | -0.0185 | -0.0001 | 0.0051 | 0.0054 | -0.2757 | -0.9597 | -0.0435 | -0.5068 | 0.0453 | 0.5281 |
| 2 | -5.75 | -0.00 | -0.0221 | -0.0018 | 0.0041 | 0.0382 | -0.1655 | -0.9419 | -0.0425 | -0.4975 | 0.0451 | 0.5282 |
| 3 | -5.75 | 0.01 | -0.0180 | 0.0003 | 0.0054 | -0.0167 | -0.3575 | -0.9625 | -0.0433 | -0.5075 | 0.0450 | 0.5273 |
| 4 | -5.76 | -0.00 | -0.0138 | 0.0010 | 0.0063 | -0.0735 | -0.4032 | -0.9682 | -0.0429 | -0.5080 | 0.0443 | 0.5247 |
| 5 | -5.68 | 0.01 | -0.0136 | 0.0012 | 0.0063 | -0.0862 | -0.4032 | -0.9638 | -0.0445 | -0.5083 | 0.0462 | 0.5274 |
| 6 | -5.63 | 0.00 | -0.0140 | 0.0016 | 0.0056 | -0.1061 | -0.3704 | -0.9579 | -0.0472 | -0.5267 | 0.0473 | 0.5278 |
| 7 | -2.08 | 0.01 | -0.0116 | 0.0004 | 0.0145 | -0.0376 | -0.4537 | -1.1660 | -0.0576 | -0.6073 | 0.0493 | 0.5155 |
| 8 | -0.26 | 0.01 | -0.0070 | 0.0004 | 0.0047 | -0.0571 | -0.6714 | -1.1235 | -0.0626 | -0.6061 | 0.0735 | 0.5341 |
| 9 | 1.56 | 0.01 | -0.0066 | 0.0001 | 0.0031 | -0.0147 | -0.4559 | -1.0328 | -0.0792 | -0.5548 | 0.0767 | 0.5372 |
| 10 | 3.46 | 0.01 | -0.0068 | 0.0008 | 0.0045 | -1.3330 | -0.1667 | -0.0575 | -0.0636 | -0.4616 | 0.0575 | 0.5383 |
| 11 | 5.24 | 0.01 | -0.0120 | -0.0010 | 0.0051 | 0.0833 | -0.4250 | -0.7205 | -0.0642 | -0.4015 | 0.1188 | 0.5573 |
| 12 | 7.14 | 0.01 | -0.0166 | -0.0014 | 0.0099 | 0.1111 | -0.7057 | -0.6214 | -0.0642 | -0.3522 | 0.1355 | 0.5670 |
| 13 | 8.96 | 0.01 | -0.0179 | -0.0004 | 0.0111 | 0.0223 | -0.6201 | -0.5002 | -0.0631 | -0.3248 | 0.1467 | 0.5738 |
| 14 | 10.64 | 0.01 | -0.0153 | -0.0003 | 0.0106 | 0.0196 | -0.7059 | -0.4844 | -0.0702 | -0.2784 | 0.1573 | 0.5741 |
| 15 | 12.69 | 0.01 | -0.0247 | -0.0021 | 0.0042 | 0.0850 | -0.1743 | -0.4146 | -0.0614 | -0.2338 | 0.1481 | 0.5635 |
| 16 | 14.56 | 0.01 | -0.0181 | -0.0016 | 0.0028 | 0.0556 | -0.1547 | -0.3376 | -0.0477 | -0.1960 | 0.1412 | 0.5802 |
| 17 | 16.54 | -0.00 | -0.0314 | -0.0058 | -0.0012 | 0.1847 | 0.0382 | -0.2295 | -0.0354 | -0.1432 | 0.1539 | 0.6225 |
| 18 | 18.49 | 0.00 | -0.0419 | -0.0084 | -0.0075 | 0.2004 | 0.1790 | -0.1510 | -0.0254 | -0.0960 | 0.1682 | 0.6556 |
| 19 | 20.41 | 0.01 | -0.0595 | -0.0110 | -0.0194 | 0.1848 | 0.3260 | -0.0584 | -0.0052 | -0.0641 | 0.1575 | 1.0578 |
| 20 | 22.34 | 0.01 | -0.0983 | -0.0158 | -0.0316 | 0.3412 | 0.0825 | 0.0034 | 0.0003 | -0.0338 | 2.4405 | -9.9412 |
| 21 | 24.31 | 0.00 | -0.0965 | -0.0188 | -0.0656 | 0.1506 | 0.6457 | 0.0416 | 0.0272 | -0.0143 | 0.6537 | -0.3438 |
| 22 | 26.29 | 0.00 | 0.2625 | 0.0274 | 0.1205 | 0.1044 | 0.4590 | 0.1566 | 0.0416 | 0.0359 | 0.2656 | 0.2292 |
| 23 | 27.99 | 0.00 | 0.4845 | 0.0018 | 0.2243 | 0.1276 | 0.4031 | 0.2282 | 0.0484 | 0.0688 | 0.2033 | 0.3015 |
| 24 | 27.59 | 0.00 | 0.4462 | 0.0578 | 0.2096 | 0.1262 | 0.4671 | 0.2280 | 0.0474 | 0.0716 | 0.2078 | 0.3140 |
| 25 | 28.34 | 0.00 | 0.4587 | 0.0542 | 0.2153 | 0.1290 | 0.4694 | 0.2459 | 0.0486 | 0.0798 | 0.1984 | 0.3245 |
| 26 | 28.59 | 0.00 | 0.4715 | 0.0616 | 0.2208 | 0.1305 | 0.4679 | 0.2540 | 0.0498 | 0.0850 | 0.1960 | 0.3346 |
| 27 | 28.92 | 0.01 | 0.3321 | 0.0425 | 0.1501 | 0.1279 | 0.4520 | 0.2492 | 0.0552 | 0.0854 | 0.2214 | 0.3427 |
| 28 | 29.25 | 0.01 | 0.4383 | 0.0583 | 0.2096 | 0.1334 | 0.4708 | 0.2599 | 0.0550 | 0.0566 | 0.2116 | 0.3466 |
| 29 | 29.52 | 0.01 | 0.3828 | 0.0500 | 0.1782 | 0.1306 | 0.4603 | 0.2610 | 0.0578 | 0.0514 | 0.2214 | 0.3502 |
| 30 | 29.81 | 0.00 | 0.3635 | 0.0460 | 0.1636 | 0.1220 | 0.4772 | 0.2622 | 0.0595 | 0.0937 | 0.2266 | 0.3574 |
| 31 | 30.09 | 0.01 | 0.2927 | 0.0368 | 0.1367 | 0.1253 | 0.4742 | 0.2589 | 0.0637 | 0.0942 | 0.2460 | 0.3638 |
| 32 | 30.37 | 0.01 | 0.3535 | 0.0457 | 0.1606 | 0.1223 | 0.4543 | 0.2713 | 0.0643 | 0.0951 | 0.2369 | 0.3653 |
| 33 | 30.64 | 0.01 | 0.3550 | 0.0467 | 0.2553 | 0.1066 | 0.4639 | 0.3015 | 0.0623 | 0.1126 | 0.2066 | 0.3735 |
| 34 | 30.92 | 0.01 | 0.4316 | 0.0415 | 0.2030 | 0.0961 | 0.4715 | 0.2983 | 0.0661 | 0.1165 | 0.2215 | 0.3771 |
| 35 | 31.20 | 0.00 | 0.3517 | 0.0368 | 0.1786 | 0.0939 | 0.4565 | 0.3160 | 0.0694 | 0.1202 | 0.2156 | 0.3804 |
| 36 | 31.47 | 0.01 | 0.3951 | 0.0477 | 0.2048 | 0.1039 | 0.4770 | 0.3199 | 0.0669 | 0.1219 | 0.2091 | 0.3811 |
| 37 | 31.73 | 0.00 | 0.4251 | 0.0421 | 0.1989 | 0.0981 | 0.4635 | 0.3192 | 0.0713 | 0.1223 | 0.2281 | 0.3886 |
| 38 | 32.01 | 0.01 | 0.2718 | 0.0255 | 0.1167 | 0.0958 | 0.4367 | 0.3097 | 0.0716 | 0.1185 | 0.2311 | 0.3826 |
| 39 | 32.27 | 0.05 | 0.1237 | 0.0045 | 0.0268 | 0.0558 | 0.2167 | 0.3051 | 0.0757 | 0.1172 | 0.2486 | 0.3841 |
| 40 | 32.53 | 0.06 | 0.0991 | 0.0016 | 0.0221 | 0.0162 | 0.2230 | 0.2924 | 0.0783 | 0.1112 | 0.2677 | 0.3803 |
| 41 | 32.80 | 0.04 | -0.0317 | -0.0112 | -0.0365 | 0.3532 | 1.1514 | 0.2915 | 0.0823 | 0.1134 | 0.2823 | 0.3896 |
| 42 | 33.06 | 0.05 | 0.1225 | 0.0053 | 0.0346 | 0.0435 | 0.2624 | 0.3076 | 0.0821 | 0.1165 | 0.2667 | 0.3850 |
| 43 | 33.30 | 0.03 | 0.0163 | -0.0047 | -0.0126 | -0.2508 | -0.6885 | 0.3031 | 0.0839 | 0.1148 | 0.2767 | 0.3788 |
| 44 | 33.57 | 0.04 | 0.0557 | 0.0003 | 0.0113 | 0.0054 | 0.2029 | 0.3170 | 0.0824 | 0.1208 | 0.2599 | 0.3811 |
| 45 | 33.81 | 0.06 | 0.2280 | 0.0211 | 0.0845 | 0.0525 | 0.4583 | 0.3343 | 0.0838 | 0.1296 | 0.2506 | 0.3871 |
| 46 | 34.07 | 0.05 | 0.2442 | 0.0175 | 0.1160 | 0.0716 | 0.4750 | 0.3520 | 0.0810 | 0.1356 | 0.2301 | 0.3852 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 132 | MACH 1.7 | RX10=6 | PHI 0.0 | CONF BLANKETS | L 0.0 | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.34 | 0.07 | 0.2455 | 0.0147 | 0.1115 | 0.0598 | 0.4534 | 0.3418 | 0.0630 | 0.1303 | 0.2428 | 0.3812 |
| 48 | 34.58 | 0.06 | 0.2552 | 0.0163 | 0.1141 | 0.0603 | 0.4471 | 0.3577 | 0.0636 | 0.1361 | 0.2537 | 0.3861 |
| 49 | 34.82 | 0.09 | 0.2521 | 0.0117 | 0.1135 | 0.0606 | 0.4650 | 0.3781 | 0.0646 | 0.1464 | 0.2237 | 0.3872 |
| 50 | 35.07 | 0.09 | 0.2427 | 0.0155 | 0.1065 | 0.0600 | 0.4743 | 0.3745 | 0.0631 | 0.1538 | 0.2157 | 0.3899 |
| 51 | 35.32 | 0.07 | 0.2405 | 0.0241 | 0.1015 | 0.0708 | 0.4755 | 0.3883 | 0.0666 | 0.1505 | 0.2230 | 0.3876 |
| 52 | 35.55 | 0.08 | 0.2562 | 0.0256 | 0.1070 | 0.0719 | 0.4800 | 0.3888 | 0.0666 | 0.1488 | 0.2295 | 0.3897 |
| 53 | 35.79 | 0.05 | 0.2782 | 0.0177 | 0.1312 | 0.0836 | 0.4716 | 0.3884 | 0.0902 | 0.1457 | 0.2322 | 0.3854 |
| 54 | 36.03 | 0.06 | 0.2552 | 0.0256 | 0.1136 | 0.0769 | 0.4578 | 0.4119 | 0.0891 | 0.1592 | 0.2163 | 0.3865 |
| 55 | 36.26 | 0.07 | 0.2407 | 0.0254 | 0.1028 | 0.0760 | 0.4778 | 0.4116 | 0.0936 | 0.1577 | 0.2200 | 0.3830 |
| 56 | 36.50 | 0.06 | 0.2956 | 0.0226 | 0.1366 | 0.0899 | 0.4500 | 0.4301 | 0.0921 | 0.1666 | 0.2141 | 0.3878 |
| 57 | 36.76 | 0.06 | 0.3078 | 0.0367 | 0.1701 | 0.0996 | 0.4341 | 0.4377 | 0.0924 | 0.1765 | 0.2116 | 0.3895 |
| 58 | 36.99 | 0.06 | 0.3426 | 0.0274 | 0.1695 | 0.0801 | 0.4622 | 0.4323 | 0.0921 | 0.1679 | 0.2130 | 0.3884 |
| 59 | 37.23 | 0.06 | 0.3026 | 0.0233 | 0.1452 | 0.0770 | 0.4796 | 0.4357 | 0.0936 | 0.1675 | 0.2148 | 0.3844 |
| 60 | 37.46 | 0.06 | 0.3742 | 0.0365 | 0.1736 | 0.0994 | 0.4577 | 0.4370 | 0.0940 | 0.1682 | 0.2150 | 0.3845 |
| 61 | 37.70 | 0.06 | 0.4563 | 0.0558 | 0.2186 | 0.1179 | 0.4791 | 0.4451 | 0.0952 | 0.1722 | 0.2138 | 0.3865 |
| 62 | 37.93 | 0.06 | 0.3313 | 0.0255 | 0.1661 | 0.0902 | 0.4629 | 0.4361 | 0.0973 | 0.1676 | 0.2291 | 0.3825 |
| 63 | 38.17 | 0.02 | 0.0928 | 0.0017 | 0.0121 | 0.0184 | 0.1307 | 0.4413 | 0.0969 | 0.1718 | 0.2241 | 0.3853 |
| 64 | 38.39 | 0.04 | 0.1576 | 0.0134 | 0.0773 | 0.0667 | 0.3908 | 0.4467 | 0.1003 | 0.1756 | 0.2235 | 0.3900 |
| 65 | 38.62 | 0.04 | 0.1918 | 0.0125 | 0.0771 | 0.0852 | 0.4024 | 0.4566 | 0.1018 | 0.1807 | 0.2229 | 0.3958 |
| 66 | 38.84 | 0.04 | 0.2113 | 0.0163 | 0.0956 | 0.0936 | 0.4136 | 0.4594 | 0.1018 | 0.1787 | 0.2215 | 0.3896 |
| 67 | 39.08 | 0.04 | 0.1492 | 0.0105 | 0.0475 | 0.0462 | 0.3184 | 0.4676 | 0.1022 | 0.1816 | 0.2185 | 0.3884 |
| 68 | 39.27 | 0.05 | 0.3180 | 0.0366 | 0.1457 | 0.1155 | 0.4579 | 0.4652 | 0.1030 | 0.1838 | 0.2214 | 0.3851 |
| 69 | 39.48 | 0.02 | 0.2116 | 0.0173 | 0.0877 | 0.0817 | 0.4145 | 0.4704 | 0.1047 | 0.1884 | 0.2225 | 0.3863 |
| 70 | 39.69 | 0.03 | 0.1886 | 0.0151 | 0.0781 | 0.0834 | 0.4044 | 0.4632 | 0.1054 | 0.1915 | 0.2181 | 0.3963 |
| 71 | 39.89 | 0.03 | 0.1745 | 0.0164 | 0.0645 | 0.0940 | 0.3896 | 0.4618 | 0.1055 | 0.1909 | 0.2189 | 0.3962 |
| 72 | 40.11 | 0.03 | 0.2520 | 0.0290 | 0.1143 | 0.1179 | 0.4336 | 0.4680 | 0.1043 | 0.1920 | 0.2137 | 0.3934 |
| 73 | 40.29 | 0.01 | 0.1803 | 0.0182 | 0.0588 | 0.1005 | 0.3150 | 0.4980 | 0.1052 | 0.1987 | 0.2112 | 0.3956 |
| 74 | 40.51 | 0.01 | 0.1898 | 0.0156 | 0.0760 | 0.1032 | 0.3730 | 0.4939 | 0.1053 | 0.1956 | 0.2131 | 0.3960 |
| 75 | 40.73 | 0.03 | 0.1522 | 0.0151 | 0.0561 | 0.0954 | 0.3420 | 0.5116 | 0.1052 | 0.2031 | 0.2056 | 0.3976 |
| 76 | 40.92 | 0.03 | 0.1860 | 0.0171 | 0.0852 | 0.0947 | 0.3810 | 0.5062 | 0.1050 | 0.2016 | 0.2074 | 0.3983 |
| 77 | 41.14 | 0.01 | 0.2018 | 0.0254 | 0.0828 | 0.1258 | 0.4103 | 0.4845 | 0.1044 | 0.1910 | 0.2154 | 0.3942 |
| 78 | 41.35 | 0.02 | 0.1823 | 0.0207 | 0.0744 | 0.1256 | 0.4001 | 0.5129 | 0.1065 | 0.2038 | 0.2076 | 0.3973 |
| 79 | 41.54 | 0.00 | 0.1535 | 0.0144 | 0.0428 | 0.0939 | 0.2792 | 0.5116 | 0.1061 | 0.2021 | 0.2073 | 0.3956 |
| 80 | 41.73 | 0.02 | 0.1858 | 0.0216 | 0.0726 | 0.1131 | 0.3912 | 0.4952 | 0.1054 | 0.1941 | 0.2128 | 0.3920 |
| 81 | 41.93 | 0.02 | 0.1872 | 0.0175 | 0.0807 | 0.1046 | 0.3830 | 0.5101 | 0.1052 | 0.1997 | 0.2081 | 0.3915 |
| 82 | 42.13 | 0.03 | 0.2009 | 0.0272 | 0.0882 | 0.1324 | 0.4390 | 0.4943 | 0.1035 | 0.1888 | 0.2178 | 0.3898 |
| 83 | 42.30 | 0.02 | 0.1807 | 0.0184 | 0.0720 | 0.1145 | 0.3236 | 0.5087 | 0.1062 | 0.2002 | 0.2087 | 0.3938 |
| 84 | 42.49 | 0.02 | 0.1815 | 0.0195 | 0.0835 | 0.1188 | 0.3805 | 0.4855 | 0.1060 | 0.1884 | 0.2152 | 0.3897 |
| 85 | 42.68 | 0.01 | 0.1592 | 0.0152 | 0.0654 | 0.1208 | 0.4106 | 0.4808 | 0.1060 | 0.1860 | 0.2204 | 0.3865 |
| 86 | 42.86 | 0.02 | 0.1451 | 0.0135 | 0.0455 | 0.0930 | 0.3439 | 0.5025 | 0.1069 | 0.1966 | 0.2127 | 0.3912 |
| 87 | 43.04 | -0.00 | 0.1426 | 0.0126 | 0.0531 | 0.1165 | 0.3739 | 0.4766 | 0.1064 | 0.1851 | 0.2232 | 0.3884 |
| 88 | 43.22 | -0.00 | 0.1363 | 0.0121 | 0.0392 | 0.0826 | 0.2676 | 0.5127 | 0.1079 | 0.2027 | 0.2094 | 0.3954 |
| 89 | 43.41 | -0.01 | 0.1213 | 0.0096 | 0.0282 | 0.0791 | 0.2325 | 0.5159 | 0.1079 | 0.2044 | 0.2091 | 0.3962 |
| 90 | 43.60 | -0.00 | 0.1442 | 0.0133 | 0.0495 | 0.0922 | 0.3044 | 0.5104 | 0.1069 | 0.2018 | 0.2133 | 0.3954 |
| 91 | 43.78 | 0.00 | 0.1266 | 0.0104 | 0.0336 | 0.0862 | 0.2786 | 0.5078 | 0.1080 | 0.2005 | 0.2126 | 0.3948 |
| 92 | 43.94 | -0.00 | 0.1326 | 0.0136 | 0.0469 | 0.1025 | 0.3537 | 0.4997 | 0.1078 | 0.1965 | 0.2157 | 0.3932 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(RANDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 132 MACH 1.00 RX10-6 1.7 PHI 0.0 CONF 81x0F11 L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.12 | -0.00 | 0.1415 | 0.0140 | 0.0452 | 0.0989 | 0.3194 | 0.4983 | 0.1080 | 0.1959 | 0.2167 | 0.3931 |
| 94 | 44.32 | -0.00 | 0.1322 | 0.0122 | 0.0398 | 0.0953 | 0.3011 | 0.5146 | 0.1083 | 0.2027 | 0.2194 | 0.3939 |
| 95 | 44.50 | 0.00 | 0.1111 | 0.0139 | 0.0383 | 0.1251 | 0.3447 | 0.4648 | 0.1093 | 0.1796 | 0.2344 | 0.3864 |
| 96 | 44.69 | -0.00 | 0.1374 | 0.0124 | 0.0464 | 0.0902 | 0.2940 | 0.5164 | 0.1090 | 0.2047 | 0.2110 | 0.3964 |
| 97 | 44.88 | 0.00 | 0.1217 | 0.0085 | 0.0286 | 0.0731 | 0.2186 | 0.5381 | 0.1105 | 0.2136 | 0.2053 | 0.3976 |
| 98 | 45.03 | 0.01 | 0.1128 | 0.0130 | 0.0352 | 0.1152 | 0.3121 | 0.5056 | 0.1097 | 0.1962 | 0.2169 | 0.3881 |
| 99 | 45.23 | 0.00 | 0.1114 | 0.0055 | 0.0256 | 0.0656 | 0.2639 | 0.5306 | 0.1103 | 0.2083 | 0.2078 | 0.3926 |
| 100 | 45.35 | 0.00 | 0.0658 | 0.0069 | 0.0229 | 0.1107 | 0.2669 | 0.4842 | 0.1103 | 0.1902 | 0.2277 | 0.3928 |
| 101 | 45.55 | 0.01 | 0.1203 | 0.0124 | 0.0375 | 0.1030 | 0.3117 | 0.5034 | 0.1097 | 0.1972 | 0.2179 | 0.3917 |
| 102 | 45.75 | 0.00 | 0.1271 | 0.0115 | 0.0326 | 0.0936 | 0.2889 | 0.5174 | 0.1108 | 0.2065 | 0.2061 | 0.3917 |
| 103 | 45.91 | 0.00 | 0.1133 | 0.0115 | 0.0341 | 0.1015 | 0.3010 | 0.5025 | 0.1096 | 0.2001 | 0.2181 | 0.3982 |
| 104 | 46.09 | 0.00 | 0.0978 | 0.0103 | 0.0253 | 0.1002 | 0.2808 | 0.5056 | 0.1114 | 0.2006 | 0.2203 | 0.3968 |
| 105 | 46.27 | 0.01 | 0.0950 | 0.0085 | 0.0223 | 0.0937 | 0.2547 | 0.5129 | 0.1120 | 0.2052 | 0.2183 | 0.4001 |
| 106 | 46.43 | -0.00 | 0.1040 | 0.0110 | 0.0257 | 0.1128 | 0.2957 | 0.5056 | 0.1130 | 0.2115 | 0.2165 | 0.4024 |
| 107 | 46.60 | -0.00 | 0.0977 | 0.0084 | 0.0220 | 0.0860 | 0.2252 | 0.5174 | 0.1131 | 0.2066 | 0.2185 | 0.4032 |
| 108 | 46.80 | 0.00 | 0.0966 | 0.0110 | 0.0302 | 0.1208 | 0.2788 | 0.5037 | 0.1157 | 0.2011 | 0.2045 | 0.4065 |
| 109 | 46.97 | 0.02 | 0.0784 | 0.0191 | 0.0305 | 0.2436 | 0.3825 | 0.5902 | 0.1156 | 0.2420 | 0.1958 | 0.4106 |
| 110 | 47.15 | 0.01 | 0.0569 | 0.0176 | -0.0023 | 0.3127 | -0.0404 | 0.6201 | 0.1148 | 0.2581 | 0.1851 | 0.4162 |
| 111 | 47.31 | 0.00 | 0.0750 | 0.0154 | 0.0104 | 0.2455 | 0.1316 | 0.6105 | 0.1144 | 0.2514 | 0.1873 | 0.4118 |
| 112 | 47.50 | 0.02 | -0.0595 | -0.0045 | -0.0787 | 0.0492 | 0.7709 | 0.5782 | 0.1106 | 0.2382 | 0.1916 | 0.4126 |
| 113 | 47.69 | 0.03 | -0.0882 | -0.0062 | -0.1255 | 0.0773 | 0.8866 | 0.5622 | 0.1111 | 0.2418 | 0.1908 | 0.4153 |
| 114 | 47.86 | 0.02 | -0.0273 | -0.0063 | -0.0496 | 0.3039 | 1.7949 | 0.5964 | 0.1134 | 0.2497 | 0.1844 | 0.4173 |
| 115 | 48.03 | 0.03 | -0.0151 | -0.0067 | -0.0475 | 0.4436 | 3.1457 | 0.5944 | 0.1131 | 0.2461 | 0.1852 | 0.4146 |
| 116 | 48.23 | 0.04 | 0.0249 | -0.0065 | -0.0253 | -0.3413 | -1.0161 | 0.6041 | 0.1072 | 0.2485 | 0.1774 | 0.4114 |
| 117 | 48.37 | 0.03 | 0.0118 | -0.0125 | -0.0288 | -1.0845 | -2.4407 | 0.6021 | 0.1131 | 0.2474 | 0.1878 | 0.4109 |
| 118 | 48.56 | 0.03 | 0.0249 | -0.0115 | -0.0275 | -0.9222 | -2.1316 | 0.6186 | 0.1114 | 0.2536 | 0.1800 | 0.4100 |
| 119 | 48.73 | 0.04 | 0.0126 | -0.0122 | -0.0250 | -1.0156 | -1.9841 | 0.6140 | 0.1104 | 0.2518 | 0.1798 | 0.4101 |
| 120 | 48.92 | 0.03 | 0.0103 | -0.0137 | -0.0236 | -0.8403 | -1.4478 | 0.6306 | 0.1110 | 0.2610 | 0.1745 | 0.4104 |
| 121 | 49.07 | 0.03 | 0.0066 | -0.0141 | -0.0262 | -2.1358 | -3.9597 | 0.6210 | 0.1068 | 0.2523 | 0.1715 | 0.4063 |
| 122 | 49.26 | 0.03 | 0.0162 | -0.0110 | -0.0206 | -0.8372 | -1.6969 | 0.6243 | 0.1024 | 0.2508 | 0.1640 | 0.4017 |
| 123 | 49.43 | 0.03 | 0.0253 | -0.0143 | -0.0158 | -0.5651 | -0.8245 | 0.6277 | 0.1118 | 0.2555 | 0.1781 | 0.4076 |
| 124 | 49.63 | 0.03 | 0.0253 | -0.0122 | -0.0167 | -0.5636 | -0.8001 | 0.6136 | 0.0997 | 0.2448 | 0.1615 | 0.3977 |
| 125 | 49.80 | 0.03 | 0.0415 | -0.0112 | -0.0079 | -0.2698 | -0.1904 | 0.6329 | 0.1053 | 0.2559 | 0.1663 | 0.4043 |
| 126 | 49.98 | 0.03 | 0.0247 | -0.0078 | 0.0034 | -0.1205 | 0.0526 | 0.6486 | 0.1083 | 0.2660 | 0.1665 | 0.4101 |
| 127 | 50.13 | 0.02 | 0.0256 | -0.0056 | 0.0053 | -0.1375 | 0.0761 | 0.6683 | 0.1135 | 0.2754 | 0.1698 | 0.4121 |
| 128 | 50.33 | 0.03 | 0.0252 | -0.0036 | 0.0075 | -0.0744 | 0.1051 | 0.6760 | 0.1018 | 0.2611 | 0.1621 | 0.3998 |
| 129 | 50.48 | -0.00 | 0.0256 | -0.0026 | 0.0122 | -0.0893 | 0.1422 | 0.6329 | 0.0972 | 0.2542 | 0.1533 | 0.4016 |
| 130 | 50.64 | -0.01 | 0.0219 | -0.0004 | 0.0157 | -0.1108 | 0.0793 | 0.6063 | 0.0986 | 0.2595 | 0.1464 | 0.3950 |
| 131 | 50.80 | -0.02 | 0.0029 | -0.0005 | 0.0162 | -0.0096 | -0.1725 | 0.6110 | 0.0834 | 0.2438 | 0.1446 | 0.3990 |
| 132 | 50.96 | -0.01 | 0.0114 | -0.0001 | 0.0105 | -0.0014 | 0.0410 | 0.5895 | 0.0878 | 0.2326 | 0.1485 | 0.3949 |
| 133 | 51.13 | -0.00 | 0.0273 | 0.0006 | -0.0006 | 0.0105 | -0.0140 | 0.5658 | 0.0816 | 0.2241 | 0.1442 | 0.3961 |
| 134 | 51.32 | -0.01 | 0.0245 | -0.0008 | 0.0056 | -0.0196 | -0.2200 | 0.5365 | 0.0778 | 0.2123 | 0.1450 | 0.3957 |
| 135 | 51.47 | 0.00 | 0.0229 | -0.0014 | -0.0124 | -0.0413 | -0.3058 | 0.5177 | 0.0782 | 0.2053 | 0.1471 | 0.3988 |
| 136 | 51.66 | 0.00 | 0.0218 | -0.0026 | -0.0145 | -0.0736 | -0.4086 | 0.5143 | 0.0782 | 0.2048 | 0.1481 | 0.3982 |
| 137 | 51.79 | -0.01 | 0.0444 | -0.0006 | -0.0070 | -0.0113 | -0.1577 | 0.5248 | 0.0767 | 0.2127 | 0.1461 | 0.4053 |
| 138 | 51.96 | -0.01 | 0.0395 | -0.0018 | -0.0168 | -0.0451 | -0.2707 | 0.5141 | 0.0782 | 0.2091 | 0.1482 | 0.4067 |

TEST 7 PART 132 PACK 1.000 MACH 1.61 CONF 0.0 CONFIG-6 CONFIGURATION PHI 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.16 | -0.02 | 0.0272 | -0.0041 | -0.0171 | -0.1507 | -0.6287 | 0.4818 | 0.0742 | 0.1976 | 0.1540 | 0.4161 |
| 140 | 52.29 | -0.01 | 0.0355 | -0.0018 | -0.0108 | -0.0451 | -0.2707 | 0.5112 | 0.0760 | 0.2121 | 0.1496 | 0.4145 |
| 141 | 52.48 | -0.01 | 0.0329 | -0.0023 | -0.0137 | -0.0699 | -0.4164 | 0.4516 | 0.0752 | 0.2041 | 0.1529 | 0.4152 |
| 142 | 52.64 | -0.02 | 0.0305 | -0.0031 | -0.0145 | -0.1016 | -0.4754 | 0.4963 | 0.0749 | 0.2085 | 0.1509 | 0.4201 |
| 143 | 52.80 | -0.02 | 0.0335 | -0.0036 | -0.0136 | -0.1091 | -0.4182 | 0.4794 | 0.0744 | 0.1997 | 0.1552 | 0.4166 |
| 144 | 52.98 | -0.02 | 0.0307 | -0.0020 | -0.0135 | -0.0708 | -0.3787 | 0.4999 | 0.0755 | 0.2115 | 0.1510 | 0.4235 |
| 145 | 53.14 | -0.02 | 0.0325 | -0.0036 | -0.0115 | -0.0586 | -0.3260 | 0.4865 | 0.0746 | 0.2059 | 0.1537 | 0.4232 |
| 146 | 53.34 | -0.03 | 0.0273 | -0.0038 | -0.0170 | -0.1342 | -0.4447 | 0.4796 | 0.0754 | 0.2043 | 0.1572 | 0.4260 |
| 147 | 53.47 | -0.02 | 0.0341 | -0.0026 | -0.0126 | -0.0821 | -0.3695 | 0.4985 | 0.0756 | 0.2124 | 0.1516 | 0.4261 |
| 148 | 53.67 | -0.03 | 0.0304 | -0.0018 | -0.0117 | -0.0494 | -0.3214 | 0.5124 | 0.0767 | 0.2192 | 0.1496 | 0.4278 |
| 149 | 53.84 | -0.02 | 0.0295 | -0.0027 | -0.0152 | -0.0915 | -0.5153 | 0.5021 | 0.0765 | 0.2163 | 0.1523 | 0.4308 |
| 150 | 53.99 | -0.01 | 0.0262 | -0.0037 | -0.0145 | -0.1312 | -0.5284 | 0.4954 | 0.0761 | 0.2136 | 0.1536 | 0.4312 |
| 151 | 54.15 | -0.03 | 0.0270 | -0.0033 | -0.0155 | -0.1222 | -0.5741 | 0.5102 | 0.0771 | 0.2197 | 0.1511 | 0.4306 |
| 152 | 54.32 | -0.02 | 0.0253 | -0.0031 | -0.0137 | -0.1058 | -0.4876 | 0.4967 | 0.0760 | 0.2148 | 0.1530 | 0.4325 |
| 153 | 54.51 | -0.03 | 0.0224 | -0.0032 | -0.0162 | -0.1428 | -0.8125 | 0.5053 | 0.0770 | 0.2184 | 0.1523 | 0.4322 |
| 154 | 54.64 | -0.02 | 0.0252 | -0.0030 | -0.0126 | -0.1027 | -0.4315 | 0.5032 | 0.0769 | 0.2173 | 0.1528 | 0.4318 |
| 155 | 54.81 | -0.02 | 0.0157 | -0.0036 | -0.0163 | -0.1522 | -0.8274 | 0.5073 | 0.0767 | 0.2198 | 0.1512 | 0.4333 |
| 156 | 54.99 | -0.03 | 0.0243 | -0.0026 | -0.0131 | -0.1076 | -0.5391 | 0.5059 | 0.0770 | 0.2192 | 0.1522 | 0.4333 |
| 157 | 55.11 | -0.02 | 0.0173 | -0.0035 | -0.0166 | -0.2023 | -0.9595 | 0.5038 | 0.0764 | 0.2181 | 0.1516 | 0.4325 |
| 158 | 55.26 | -0.04 | 0.0155 | -0.0027 | -0.0147 | -0.1304 | -0.7536 | 0.5260 | 0.0782 | 0.2311 | 0.1481 | 0.4377 |
| 159 | 55.40 | -0.02 | 0.0228 | -0.0021 | -0.0094 | -0.0729 | -0.3264 | 0.5105 | 0.0770 | 0.2225 | 0.1508 | 0.4358 |
| 160 | 55.56 | 0.00 | 0.0163 | -0.0028 | -0.0154 | -0.1530 | -0.8415 | 0.5170 | 0.0784 | 0.2291 | 0.1516 | 0.4431 |
| 161 | 55.72 | 0.00 | 0.0154 | -0.0022 | -0.0142 | -0.1340 | -0.7320 | 0.5252 | 0.0782 | 0.2314 | 0.1489 | 0.4408 |
| 162 | 55.90 | 0.01 | 0.0263 | -0.0015 | -0.0097 | -0.0722 | -0.3008 | 0.5319 | 0.0782 | 0.2347 | 0.1470 | 0.4412 |
| 163 | 56.08 | -0.03 | 0.0216 | -0.0022 | -0.0113 | -0.1296 | -0.5231 | 0.5163 | 0.0784 | 0.2266 | 0.1518 | 0.4385 |
| 164 | 56.26 | -0.02 | 0.0154 | -0.0024 | -0.0126 | -0.1458 | -0.6503 | 0.5379 | 0.0791 | 0.2360 | 0.1470 | 0.4387 |
| 165 | 56.43 | -0.05 | 0.0226 | -0.0026 | -0.0218 | -0.9283 | -7.7857 | 0.5462 | 0.0783 | 0.2389 | 0.1433 | 0.4374 |
| 166 | 56.57 | -0.05 | 0.0226 | -0.0028 | -0.0213 | -0.9697 | -7.6071 | 0.5401 | 0.0791 | 0.2389 | 0.1448 | 0.4375 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 1sc MACH 1.00 REX10-6 1.7 PHI 0.0 CONF CLEAN L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.01 | 0.0328 | 9.9999 | 0.0 | 9.9999 | 0.0 | -1.0043 | -0.0439 | -0.4874 | 0.0407 | 0.4853 |
| 2 | -5.75 | -0.00 | 0.0735 | 9.9999 | -0.0004 | 9.9999 | -0.0008 | -1.0059 | -0.0413 | -0.4900 | 0.0405 | 0.4858 |
| 3 | -5.75 | 0.01 | 0.0751 | 9.9999 | -0.0016 | 9.9999 | -0.0213 | -1.0201 | -0.0410 | -0.4945 | 0.0402 | 0.4868 |
| 4 | -5.76 | -0.00 | 0.0853 | 9.9999 | 0.0007 | 9.9999 | 0.0082 | -1.0071 | -0.0411 | -0.4887 | 0.0408 | 0.4853 |
| 5 | -5.68 | 0.01 | 0.0776 | 9.9999 | -0.0004 | 9.9999 | -0.0052 | -1.0207 | -0.0432 | -0.4921 | 0.0423 | 0.4821 |
| 6 | -3.83 | 0.00 | 0.0578 | 9.9999 | -0.0001 | 9.9999 | -0.1049 | -1.1313 | -0.0476 | -0.5375 | 0.0422 | 0.4751 |
| 7 | -2.08 | 0.01 | 0.0633 | 9.9999 | -0.0015 | 9.9999 | 0.0237 | -1.2030 | -0.0563 | -0.5663 | 0.0468 | 0.4724 |
| 8 | -0.28 | 0.01 | 0.0626 | 9.9999 | 0.0014 | 9.9999 | 0.0226 | -1.1928 | -0.0841 | -0.5756 | 0.0705 | 0.4826 |
| 9 | 1.54 | 0.01 | 0.0554 | 9.9999 | 0.0017 | 9.9999 | 0.0286 | -1.1077 | -0.0803 | -0.5336 | 0.0725 | 0.4815 |
| 10 | 3.46 | 0.01 | 0.0542 | 9.9999 | 0.0003 | 9.9999 | 0.0009 | -0.9609 | -0.0826 | -0.4577 | 0.0861 | 0.4763 |
| 11 | 5.24 | 0.01 | 0.0465 | 9.9999 | 0.0044 | 9.9999 | 0.0900 | -0.8160 | -0.0848 | -0.3908 | 0.1039 | 0.4789 |
| 12 | 7.14 | 0.01 | 0.0477 | 9.9999 | 0.0033 | 9.9999 | 0.0892 | -0.7100 | -0.0854 | -0.3437 | 0.1201 | 0.4837 |
| 13 | 8.96 | 0.01 | 0.0476 | 9.9999 | 0.0043 | 9.9999 | 0.0903 | -0.6077 | -0.0843 | -0.3212 | 0.1262 | 0.4811 |
| 14 | 10.84 | 0.01 | 0.0527 | 9.9999 | 0.0026 | 9.9999 | 0.1176 | -0.5707 | -0.0772 | -0.2879 | 0.1352 | 0.4694 |
| 15 | 12.69 | 0.01 | 0.0552 | 9.9999 | 0.0005 | 9.9999 | 0.1012 | -0.4861 | -0.0660 | -0.2142 | 0.1352 | 0.4388 |
| 16 | 14.56 | 0.01 | 0.0562 | 9.9999 | 0.0004 | 9.9999 | 0.1232 | -0.3640 | -0.0491 | -0.1664 | 0.1278 | 0.4385 |
| 17 | 16.54 | -0.00 | 0.0672 | 9.9999 | 0.0012 | 9.9999 | 0.0266 | -0.2766 | -0.0376 | -0.1193 | 0.1349 | 0.4282 |
| 18 | 18.49 | 0.00 | 0.0745 | 9.9999 | 0.0034 | 9.9999 | 0.0454 | -0.1708 | -0.0254 | -0.0796 | 0.1487 | 0.4625 |
| 19 | 20.41 | 0.01 | 0.0758 | 9.9999 | 0.0018 | 9.9999 | 0.0244 | -0.0779 | -0.0085 | -0.0447 | 0.1051 | 0.5738 |
| 20 | 22.34 | 0.01 | 0.0762 | 9.9999 | 0.0004 | 9.9999 | 0.0756 | -0.0307 | 0.0065 | -0.0224 | -0.1e75 | 0.5788 |
| 21 | 24.31 | 0.00 | 0.0751 | 9.9999 | 0.0029 | 9.9999 | 0.0386 | 0.0238 | 0.0286 | 0.0051 | 1.2014 | 0.2143 |
| 22 | 26.29 | 0.00 | 0.0541 | 9.9999 | 0.0130 | 9.9999 | 0.1982 | 0.0163 | 0.0416 | 0.0109 | 2.5515 | 0.6687 |
| 23 | 27.99 | 0.00 | 0.1004 | 9.9999 | 0.0180 | 9.9999 | 0.1795 | 0.0485 | 0.0509 | 0.0262 | 1.0406 | 0.5358 |
| 24 | 27.99 | 0.00 | 0.0951 | 9.9999 | 0.0165 | 9.9999 | 0.1765 | 0.0442 | 0.0525 | 0.0344 | 0.8175 | 0.5358 |
| 25 | 28.34 | 0.00 | 0.0953 | 9.9999 | 0.0151 | 9.9999 | 0.1584 | 0.0779 | 0.0547 | 0.0427 | 0.7026 | 0.5481 |
| 26 | 28.59 | 0.00 | 0.1025 | 9.9999 | 0.0198 | 9.9999 | 0.1924 | 0.0793 | 0.0550 | 0.0433 | 0.6934 | 0.5460 |
| 27 | 28.92 | 0.00 | 0.0953 | 9.9999 | 0.0151 | 9.9999 | 0.1584 | 0.1167 | 0.0595 | 0.0616 | 0.5057 | 0.5278 |
| 28 | 29.25 | 0.00 | 0.1048 | 9.9999 | 0.0203 | 9.9999 | 0.1952 | 0.1115 | 0.0610 | 0.0566 | 0.5469 | 0.5256 |
| 29 | 29.52 | 0.00 | 0.0977 | 9.9999 | 0.0188 | 9.9999 | 0.1720 | 0.1299 | 0.0621 | 0.0665 | 0.4779 | 0.5115 |
| 30 | 29.81 | 0.00 | 0.0961 | 9.9999 | 0.0187 | 9.9999 | 0.1610 | 0.1264 | 0.0638 | 0.0654 | 0.5046 | 0.5174 |
| 31 | 30.09 | 0.00 | 0.0927 | 9.9999 | 0.0175 | 9.9999 | 0.1392 | 0.1567 | 0.0638 | 0.0778 | 0.4076 | 0.4965 |
| 32 | 30.37 | 0.00 | 0.1077 | 9.9999 | 0.0232 | 9.9999 | 0.2154 | 0.1570 | 0.0670 | 0.0808 | 0.4266 | 0.5146 |
| 33 | 30.64 | 0.10 | 0.0999 | 9.9999 | 0.0205 | 9.9999 | 0.2052 | 0.1085 | 0.0688 | 0.0603 | 0.6339 | 0.5558 |
| 34 | 30.92 | 0.00 | 0.1000 | 9.9999 | 0.0195 | 9.9999 | 0.1950 | 0.1416 | 0.0720 | 0.0744 | 0.5076 | 0.5247 |
| 35 | 31.20 | 0.00 | 0.1037 | 9.9999 | 0.0233 | 9.9999 | 0.2247 | 0.1562 | 0.0722 | 0.0813 | 0.4621 | 0.5205 |
| 36 | 31.47 | 0.01 | 0.1035 | 9.9999 | 0.0230 | 9.9999 | 0.2251 | 0.1368 | 0.0734 | 0.0725 | 0.5364 | 0.5300 |
| 37 | 31.73 | 0.00 | 0.1010 | 9.9999 | 0.0221 | 9.9999 | 0.2188 | 0.1485 | 0.0729 | 0.0775 | 0.4908 | 0.5219 |
| 38 | 32.01 | 0.00 | 0.0947 | 9.9999 | 0.0191 | 9.9999 | 0.2017 | 0.1914 | 0.0736 | 0.0957 | 0.3844 | 0.5000 |
| 39 | 32.27 | 0.05 | 0.0846 | 9.9999 | 0.0142 | 9.9999 | 0.1678 | 0.2115 | 0.0736 | 0.1036 | 0.3479 | 0.4858 |
| 40 | 32.53 | 0.00 | 0.0924 | 9.9999 | 0.0215 | 9.9999 | 0.2226 | 0.2102 | 0.0733 | 0.1050 | 0.3486 | 0.4995 |
| 41 | 32.80 | 0.00 | 0.0844 | 9.9999 | 0.0162 | 9.9999 | 0.1919 | 0.2389 | 0.0765 | 0.1186 | 0.3201 | 0.4964 |
| 42 | 33.06 | 0.00 | 0.0781 | 9.9999 | 0.0117 | 9.9999 | 0.1498 | 0.2175 | 0.0791 | 0.1108 | 0.3036 | 0.5054 |
| 43 | 33.30 | 0.03 | 0.0792 | 9.9999 | 0.0133 | 9.9999 | 0.1579 | 0.2938 | 0.0813 | 0.1263 | 0.3209 | 0.4986 |
| 44 | 33.57 | 0.04 | 0.0804 | 9.9999 | 0.0134 | 9.9999 | 0.1667 | 0.2515 | 0.0794 | 0.1260 | 0.3156 | 0.5010 |
| 45 | 33.81 | 0.06 | 0.0740 | 9.9999 | 0.0124 | 9.9999 | 0.1676 | 0.2304 | 0.0852 | 0.1176 | 0.3697 | 0.5104 |
| 46 | 34.07 | 0.03 | 0.0802 | 9.9999 | 0.0143 | 9.9999 | 0.1783 | 0.2406 | 0.0824 | 0.1247 | 0.3338 | 0.5053 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 132 PACK RXIC-E 1.7 PHI C.C BLOCK 11 C.C L C.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.34 | 0.07 | 0.0514 | 9.9999 | 0.0202 | 9.9999 | 0.2210 | 0.2404 | 0.0834 | 0.1231 | 0.3468 | 0.5121 |
| 48 | 34.58 | 0.05 | 0.0512 | 9.9999 | 0.0194 | 9.9999 | 0.1997 | 0.2453 | 0.0847 | 0.1267 | 0.3452 | 0.5165 |
| 49 | 34.82 | 0.05 | 0.0517 | 9.9999 | 0.0243 | 9.9999 | 0.2462 | 0.2413 | 0.0877 | 0.1257 | 0.3434 | 0.5205 |
| 50 | 35.07 | 0.06 | 0.0512 | 9.9999 | 0.0202 | 9.9999 | 0.2215 | 0.2401 | 0.0873 | 0.1250 | 0.3435 | 0.5206 |
| 51 | 35.32 | 0.07 | 0.0515 | 9.9999 | 0.0200 | 9.9999 | 0.2227 | 0.2521 | 0.0883 | 0.1312 | 0.3502 | 0.5204 |
| 52 | 35.55 | 0.08 | 0.0535 | 9.9999 | 0.0228 | 9.9999 | 0.2436 | 0.2516 | 0.0896 | 0.1297 | 0.3508 | 0.5155 |
| 53 | 35.79 | 0.05 | 0.0545 | 9.9999 | 0.0177 | 9.9999 | 0.2065 | 0.2656 | 0.0906 | 0.1379 | 0.3415 | 0.5188 |
| 54 | 36.03 | 0.06 | 0.0555 | 9.9999 | 0.0211 | 9.9999 | 0.2347 | 0.2714 | 0.0914 | 0.1393 | 0.3352 | 0.5133 |
| 55 | 36.26 | 0.07 | 0.0568 | 9.9999 | 0.0252 | 9.9999 | 0.2556 | 0.2754 | 0.0917 | 0.1418 | 0.3325 | 0.5145 |
| 56 | 36.50 | 0.06 | 0.0583 | 9.9999 | 0.0264 | 9.9999 | 0.2305 | 0.2878 | 0.0954 | 0.1472 | 0.3314 | 0.5115 |
| 57 | 36.76 | 0.06 | 0.1033 | 9.9999 | 0.0285 | 9.9999 | 0.2759 | 0.2658 | 0.0960 | 0.1470 | 0.3358 | 0.5143 |
| 58 | 36.99 | 0.06 | 0.0533 | 9.9999 | 0.0238 | 9.9999 | 0.2551 | 0.2860 | 0.0955 | 0.1465 | 0.3338 | 0.5122 |
| 59 | 37.23 | 0.06 | 0.0557 | 9.9999 | 0.0212 | 9.9999 | 0.2474 | 0.2921 | 0.0972 | 0.1506 | 0.3327 | 0.5156 |
| 60 | 37.46 | 0.06 | 0.0532 | 9.9999 | 0.0238 | 9.9999 | 0.2554 | 0.2965 | 0.0968 | 0.1525 | 0.3264 | 0.5143 |
| 61 | 37.70 | 0.06 | 0.0534 | 9.9999 | 0.0230 | 9.9999 | 0.2573 | 0.2958 | 0.0967 | 0.1526 | 0.3336 | 0.5155 |
| 62 | 37.93 | 0.06 | 0.0693 | 9.9999 | 0.0225 | 9.9999 | 0.2509 | 0.2919 | 0.1001 | 0.1508 | 0.3428 | 0.5166 |
| 63 | 38.17 | 0.04 | 0.0542 | 9.9999 | 0.0225 | 9.9999 | 0.2672 | 0.3030 | 0.1010 | 0.1564 | 0.3332 | 0.5162 |
| 64 | 38.39 | 0.04 | 0.0505 | 9.9999 | 0.0187 | 9.9999 | 0.2323 | 0.3000 | 0.1016 | 0.1604 | 0.3298 | 0.5208 |
| 65 | 38.62 | 0.04 | 0.0504 | 9.9999 | 0.0197 | 9.9999 | 0.2450 | 0.3155 | 0.1040 | 0.1633 | 0.3295 | 0.5176 |
| 66 | 38.84 | 0.04 | 0.0517 | 9.9999 | 0.0198 | 9.9999 | 0.2423 | 0.3014 | 0.1038 | 0.1575 | 0.3443 | 0.5226 |
| 67 | 39.06 | 0.04 | 0.0525 | 9.9999 | 0.0205 | 9.9999 | 0.2521 | 0.3069 | 0.1044 | 0.1611 | 0.3401 | 0.5245 |
| 68 | 39.27 | 0.05 | 0.0535 | 9.9999 | 0.0221 | 9.9999 | 0.2585 | 0.3213 | 0.1050 | 0.1666 | 0.3267 | 0.5185 |
| 69 | 39.48 | 0.02 | 0.0505 | 9.9999 | 0.0207 | 9.9999 | 0.2571 | 0.3179 | 0.1066 | 0.1665 | 0.3352 | 0.5237 |
| 70 | 39.69 | 0.03 | 0.0505 | 9.9999 | 0.0214 | 9.9999 | 0.2634 | 0.3309 | 0.1069 | 0.1735 | 0.3230 | 0.5243 |
| 71 | 39.89 | 0.03 | 0.0530 | 9.9999 | 0.0224 | 9.9999 | 0.2699 | 0.3294 | 0.1073 | 0.1729 | 0.3257 | 0.5249 |
| 72 | 40.11 | 0.02 | 0.0507 | 9.9999 | 0.0203 | 9.9999 | 0.2515 | 0.3490 | 0.1082 | 0.1820 | 0.3128 | 0.5215 |
| 73 | 40.29 | 0.01 | 0.0505 | 9.9999 | 0.0207 | 9.9999 | 0.2571 | 0.3395 | 0.1093 | 0.1780 | 0.3215 | 0.5237 |
| 74 | 40.51 | 0.01 | 0.0530 | 9.9999 | 0.0219 | 9.9999 | 0.2639 | 0.3534 | 0.1110 | 0.1845 | 0.3140 | 0.5221 |
| 75 | 40.73 | 0.03 | 0.0505 | 9.9999 | 0.0207 | 9.9999 | 0.2571 | 0.3603 | 0.1115 | 0.1882 | 0.3094 | 0.5223 |
| 76 | 40.92 | 0.03 | 0.0734 | 9.9999 | 0.0184 | 9.9999 | 0.2493 | 0.3561 | 0.1113 | 0.1842 | 0.3125 | 0.5173 |
| 77 | 41.14 | 0.01 | 0.0752 | 9.9999 | 0.0221 | 9.9999 | 0.2790 | 0.3774 | 0.1115 | 0.1963 | 0.2954 | 0.5201 |
| 78 | 41.35 | 0.02 | 0.0752 | 9.9999 | 0.0211 | 9.9999 | 0.2669 | 0.3647 | 0.1113 | 0.1901 | 0.3051 | 0.5212 |
| 79 | 41.54 | 0.00 | 0.0830 | 9.9999 | 0.0224 | 9.9999 | 0.2699 | 0.3801 | 0.1119 | 0.1976 | 0.2963 | 0.5199 |
| 80 | 41.73 | 0.02 | 0.0605 | 9.9999 | 0.0212 | 9.9999 | 0.2634 | 0.3937 | 0.1132 | 0.2039 | 0.2875 | 0.5179 |
| 81 | 41.93 | 0.02 | 0.0625 | 9.9999 | 0.0235 | 9.9999 | 0.2883 | 0.3854 | 0.1126 | 0.2011 | 0.2921 | 0.5218 |
| 82 | 42.13 | 0.03 | 0.0775 | 9.9999 | 0.0220 | 9.9999 | 0.2724 | 0.4076 | 0.1137 | 0.2103 | 0.2789 | 0.5159 |
| 83 | 42.30 | 0.02 | 0.0505 | 9.9999 | 0.0217 | 9.9999 | 0.2696 | 0.3909 | 0.1130 | 0.2032 | 0.2850 | 0.5198 |
| 84 | 42.49 | 0.02 | 0.0530 | 9.9999 | 0.0235 | 9.9999 | 0.2880 | 0.4024 | 0.1140 | 0.2090 | 0.2832 | 0.5194 |
| 85 | 42.68 | 0.01 | 0.0515 | 9.9999 | 0.0233 | 9.9999 | 0.2848 | 0.4148 | 0.1151 | 0.2143 | 0.2774 | 0.5166 |
| 86 | 42.86 | 0.02 | 0.0753 | 9.9999 | 0.0217 | 9.9999 | 0.2736 | 0.3980 | 0.1149 | 0.2067 | 0.2874 | 0.5193 |
| 87 | 43.04 | -0.00 | 0.0753 | 9.9999 | 0.0212 | 9.9999 | 0.2673 | 0.4272 | 0.1162 | 0.2227 | 0.2719 | 0.5213 |
| 88 | 43.22 | -0.00 | 0.0717 | 9.9999 | 0.0186 | 9.9999 | 0.2594 | 0.3946 | 0.1146 | 0.2078 | 0.2903 | 0.5266 |
| 89 | 43.41 | -0.01 | 0.0704 | 9.9999 | 0.0170 | 9.9999 | 0.2415 | 0.4061 | 0.1151 | 0.2160 | 0.2820 | 0.5293 |
| 90 | 43.60 | -0.00 | 0.0603 | 9.9999 | 0.0227 | 9.9999 | 0.2827 | 0.4034 | 0.1161 | 0.2152 | 0.2877 | 0.5335 |
| 91 | 43.78 | 0.00 | 0.0718 | 9.9999 | 0.0175 | 9.9999 | 0.2446 | 0.4147 | 0.1164 | 0.2203 | 0.2806 | 0.5312 |
| 92 | 43.94 | -0.00 | 0.0776 | 9.9999 | 0.0210 | 9.9999 | 0.2699 | 0.4216 | 0.1168 | 0.2245 | 0.2770 | 0.5325 |

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SHEET 3 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 132 MACH 1.60 RA10-6 1.7 PRT CONF 0.6 BLOCKED 0.6 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | C83 | XCPF3 | YCPF3 | CNF4 | CM4 | C84 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.12 | -0.00 | 0.0716 | 0.0000 | 0.0195 | 0.0000 | 0.2723 | 0.3980 | 0.1156 | 0.2148 | 0.2904 | 0.5397 |
| 94 | 44.32 | -0.00 | 0.0716 | 0.0000 | 0.0225 | 0.0000 | 0.2892 | 0.4187 | 0.1171 | 0.2249 | 0.2756 | 0.5371 |
| 95 | 44.50 | 0.00 | 0.0842 | 0.0000 | 0.0150 | 0.0000 | 0.2336 | 0.4291 | 0.1173 | 0.2311 | 0.2733 | 0.5386 |
| 96 | 44.69 | -0.00 | 0.0716 | 0.0000 | 0.0195 | 0.0000 | 0.2723 | 0.4106 | 0.1167 | 0.2254 | 0.2800 | 0.5410 |
| 97 | 44.88 | 0.00 | 0.0728 | 0.0000 | 0.0211 | 0.0000 | 0.2896 | 0.4164 | 0.1173 | 0.2265 | 0.2818 | 0.5439 |
| 98 | 45.05 | 0.00 | 0.0630 | 0.0000 | 0.0164 | 0.0000 | 0.2266 | 0.4306 | 0.1173 | 0.2328 | 0.2723 | 0.5406 |
| 99 | 45.23 | 0.00 | 0.0827 | 0.0000 | 0.0172 | 0.0000 | 0.2579 | 0.4335 | 0.1164 | 0.2349 | 0.2731 | 0.5415 |
| 100 | 45.39 | 0.00 | 0.0653 | 0.0000 | 0.0174 | 0.0000 | 0.2501 | 0.4335 | 0.1184 | 0.2349 | 0.2731 | 0.5419 |
| 101 | 45.59 | 0.00 | 0.0717 | 0.0000 | 0.0201 | 0.0000 | 0.2803 | 0.4504 | 0.1191 | 0.2441 | 0.2644 | 0.5420 |
| 102 | 45.75 | 0.00 | 0.0730 | 0.0000 | 0.0192 | 0.0000 | 0.2696 | 0.4403 | 0.1193 | 0.2386 | 0.2709 | 0.5374 |
| 103 | 45.91 | 0.00 | 0.0653 | 0.0000 | 0.0179 | 0.0000 | 0.2583 | 0.4319 | 0.1186 | 0.2353 | 0.2704 | 0.5448 |
| 104 | 46.05 | 0.00 | 0.0756 | 0.0000 | 0.0214 | 0.0000 | 0.2981 | 0.4553 | 0.1203 | 0.2456 | 0.2642 | 0.5394 |
| 105 | 46.27 | 0.01 | 0.0707 | 0.0000 | 0.0195 | 0.0000 | 0.2756 | 0.4544 | 0.1204 | 0.2458 | 0.2649 | 0.5405 |
| 106 | 46.43 | -0.00 | 0.0720 | 0.0000 | 0.0196 | 0.0000 | 0.2724 | 0.4572 | 0.1222 | 0.2496 | 0.2672 | 0.5459 |
| 107 | 46.60 | -0.00 | 0.0670 | 0.0000 | 0.0178 | 0.0000 | 0.2657 | 0.4576 | 0.1211 | 0.2505 | 0.2646 | 0.5474 |
| 108 | 46.80 | 0.00 | 0.0632 | 0.0000 | 0.0156 | 0.0000 | 0.2516 | 0.4502 | 0.1236 | 0.2651 | 0.2525 | 0.5468 |
| 109 | 46.97 | 0.02 | 0.0775 | 0.0000 | 0.0245 | 0.0000 | 0.3145 | 0.5491 | 0.1224 | 0.2508 | 0.2229 | 0.5296 |
| 110 | 47.15 | 0.01 | 0.0636 | 0.0000 | 0.0164 | 0.0000 | 0.2603 | 0.5961 | 0.1221 | 0.3111 | 0.2048 | 0.5215 |
| 111 | 47.31 | 0.00 | 0.0653 | 0.0000 | 0.0175 | 0.0000 | 0.2660 | 0.5643 | 0.1234 | 0.2998 | 0.2186 | 0.5313 |
| 112 | 47.50 | 0.02 | 0.0679 | 0.0000 | 0.0177 | 0.0000 | 0.2607 | 0.5751 | 0.1174 | 0.3078 | 0.2041 | 0.5352 |
| 113 | 47.69 | 0.03 | 0.0665 | 0.0000 | 0.0186 | 0.0000 | 0.2797 | 0.5583 | 0.1186 | 0.3028 | 0.2092 | 0.5424 |
| 114 | 47.86 | 0.02 | 0.0725 | 0.0000 | 0.0230 | 0.0000 | 0.3172 | 0.4718 | 0.0965 | 0.2582 | 0.2062 | 0.5473 |
| 115 | 48.03 | 0.03 | 0.0677 | 0.0000 | 0.0182 | 0.0000 | 0.2686 | 0.4902 | 0.1059 | 0.2687 | 0.2160 | 0.5481 |
| 116 | 48.23 | 0.04 | 0.0724 | 0.0000 | 0.0205 | 0.0000 | 0.2831 | 0.4191 | 0.0886 | 0.2327 | 0.2113 | 0.5552 |
| 117 | 48.37 | 0.03 | 0.0634 | 0.0000 | 0.0206 | 0.0000 | 0.3453 | 0.4162 | 0.0851 | 0.2337 | 0.2044 | 0.5615 |
| 118 | 48.56 | 0.03 | 0.0757 | 0.0000 | 0.0275 | 0.0000 | 0.3450 | 0.4288 | 0.0855 | 0.2404 | 0.1953 | 0.5606 |
| 119 | 48.73 | 0.04 | 0.0650 | 0.0000 | 0.0185 | 0.0000 | 0.2846 | 0.4225 | 0.0884 | 0.2374 | 0.2092 | 0.5615 |
| 120 | 48.92 | 0.03 | 0.0666 | 0.0000 | 0.0203 | 0.0000 | 0.3017 | 0.4421 | 0.0870 | 0.2451 | 0.1967 | 0.5544 |
| 121 | 49.07 | 0.03 | 0.0722 | 0.0000 | 0.0235 | 0.0000 | 0.3510 | 0.4387 | 0.0874 | 0.2447 | 0.1992 | 0.5578 |
| 122 | 49.26 | 0.03 | 0.0666 | 0.0000 | 0.0202 | 0.0000 | 0.2945 | 0.4385 | 0.0856 | 0.2438 | 0.1961 | 0.5585 |
| 123 | 49.43 | 0.03 | 0.0771 | 0.0000 | 0.0253 | 0.0000 | 0.3261 | 0.4399 | 0.0859 | 0.2474 | 0.2043 | 0.5624 |
| 124 | 49.63 | 0.03 | 0.0697 | 0.0000 | 0.0217 | 0.0000 | 0.3119 | 0.4408 | 0.0875 | 0.2483 | 0.1984 | 0.5633 |
| 125 | 49.80 | 0.03 | 0.0659 | 0.0000 | 0.0194 | 0.0000 | 0.2944 | 0.4496 | 0.0853 | 0.2514 | 0.1987 | 0.5594 |
| 126 | 49.98 | 0.03 | 0.0716 | 0.0000 | 0.0223 | 0.0000 | 0.3150 | 0.4624 | 0.0920 | 0.2579 | 0.1989 | 0.5577 |
| 127 | 50.13 | 0.02 | 0.0657 | 0.0000 | 0.0170 | 0.0000 | 0.2648 | 0.4561 | 0.0920 | 0.2555 | 0.2008 | 0.5577 |
| 128 | 50.33 | 0.03 | 0.0653 | 0.0000 | 0.0197 | 0.0000 | 0.3112 | 0.4525 | 0.0917 | 0.2542 | 0.2013 | 0.5581 |
| 129 | 50.48 | -0.00 | 0.0596 | 0.0000 | 0.0175 | 0.0000 | 0.3003 | 0.4588 | 0.0922 | 0.2553 | 0.2009 | 0.5569 |
| 130 | 50.69 | -0.01 | 0.0624 | 0.0000 | 0.0180 | 0.0000 | 0.2995 | 0.4552 | 0.0920 | 0.2536 | 0.2021 | 0.5571 |
| 131 | 50.80 | -0.02 | 0.0597 | 0.0000 | 0.0181 | 0.0000 | 0.3015 | 0.4802 | 0.0942 | 0.2653 | 0.1961 | 0.5525 |
| 132 | 50.96 | -0.01 | 0.0597 | 0.0000 | 0.0180 | 0.0000 | 0.3015 | 0.4663 | 0.0930 | 0.2672 | 0.1912 | 0.5495 |
| 133 | 51.13 | -0.00 | 0.0622 | 0.0000 | 0.0192 | 0.0000 | 0.3087 | 0.5024 | 0.0949 | 0.2738 | 0.1888 | 0.5450 |
| 134 | 51.32 | -0.01 | 0.0623 | 0.0000 | 0.0194 | 0.0000 | 0.2753 | 0.4916 | 0.0891 | 0.2651 | 0.1811 | 0.5396 |
| 135 | 51.47 | 0.00 | 0.0522 | 0.0000 | 0.0191 | 0.0000 | 0.2631 | 0.4809 | 0.0882 | 0.2600 | 0.1834 | 0.5407 |
| 136 | 51.66 | 0.00 | 0.0621 | 0.0000 | 0.0162 | 0.0000 | 0.2931 | 0.4981 | 0.0890 | 0.2668 | 0.1786 | 0.5356 |
| 137 | 51.79 | -0.01 | 0.0572 | 0.0000 | 0.0156 | 0.0000 | 0.2762 | 0.4813 | 0.0850 | 0.2603 | 0.1849 | 0.5408 |
| 138 | 51.98 | -0.01 | 0.0623 | 0.0000 | 0.0167 | 0.0000 | 0.2530 | 0.4739 | 0.0862 | 0.2553 | 0.1818 | 0.5387 |

MARTIN PASSALE TAILS EFFECTS DATA

TEST 7 PART 132 MACH 1.00 REIC-6 1.7 PHI 0.0 CONF 61BOF11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.16 | -0.02 | 0.0572 | 9.9999 | 0.0156 | 9.9999 | 0.2762 | 0.4660 | 0.0846 | 0.2488 | 0.1615 | 0.5339 |
| 140 | 52.29 | -0.01 | 0.0554 | 9.9999 | 0.0172 | 9.9999 | 0.3077 | 0.4577 | 0.0844 | 0.2477 | 0.1644 | 0.5412 |
| 141 | 52.48 | -0.01 | 0.0547 | 9.9999 | 0.0166 | 9.9999 | 0.3035 | 0.4446 | 0.0834 | 0.2406 | 0.1675 | 0.5412 |
| 142 | 52.69 | -0.02 | 0.0546 | 9.9999 | 0.0161 | 9.9999 | 0.2949 | 0.4470 | 0.0827 | 0.2419 | 0.1650 | 0.5412 |
| 143 | 52.80 | -0.02 | 0.0572 | 9.9999 | 0.0175 | 9.9999 | 0.3024 | 0.4418 | 0.0828 | 0.2392 | 0.1674 | 0.5414 |
| 144 | 52.98 | -0.02 | 0.0534 | 9.9999 | 0.0146 | 9.9999 | 0.2724 | 0.4507 | 0.0832 | 0.2443 | 0.1648 | 0.5426 |
| 145 | 53.14 | -0.02 | 0.0537 | 9.9999 | 0.0131 | 9.9999 | 0.2439 | 0.4478 | 0.0834 | 0.2446 | 0.1662 | 0.5462 |
| 146 | 53.34 | -0.02 | 0.0495 | 9.9999 | 0.0123 | 9.9999 | 0.2465 | 0.4453 | 0.0826 | 0.2417 | 0.1654 | 0.5428 |
| 147 | 53.47 | -0.02 | 0.0538 | 9.9999 | 0.0142 | 9.9999 | 0.2724 | 0.4535 | 0.0821 | 0.2445 | 0.1606 | 0.5355 |
| 148 | 53.67 | -0.03 | 0.0536 | 9.9999 | 0.0151 | 9.9999 | 0.2817 | 0.4514 | 0.0826 | 0.2424 | 0.1629 | 0.5376 |
| 149 | 53.84 | -0.02 | 0.0575 | 9.9999 | 0.0145 | 9.9999 | 0.2591 | 0.4586 | 0.0836 | 0.2469 | 0.1622 | 0.5384 |
| 150 | 53.99 | -0.01 | 0.0555 | 9.9999 | 0.0160 | 9.9999 | 0.2771 | 0.4518 | 0.0831 | 0.2432 | 0.1635 | 0.5383 |
| 151 | 54.15 | -0.03 | 0.0478 | 9.9999 | 0.0107 | 9.9999 | 0.2246 | 0.4644 | 0.0832 | 0.2494 | 0.1751 | 0.5370 |
| 152 | 54.32 | -0.04 | 0.0558 | 9.9999 | 0.0185 | 9.9999 | 0.3094 | 0.4634 | 0.0820 | 0.2476 | 0.1765 | 0.5343 |
| 153 | 54.51 | -0.03 | 0.0478 | 9.9999 | 0.0112 | 9.9999 | 0.2353 | 0.4693 | 0.0828 | 0.2494 | 0.1764 | 0.5314 |
| 154 | 54.64 | -0.02 | 0.0513 | 9.9999 | 0.0135 | 9.9999 | 0.2710 | 0.4644 | 0.0822 | 0.2481 | 0.1770 | 0.5342 |
| 155 | 54.81 | -0.02 | 0.0495 | 9.9999 | 0.0134 | 9.9999 | 0.3297 | 0.4702 | 0.0815 | 0.2496 | 0.1741 | 0.5308 |
| 156 | 54.99 | -0.03 | 0.0503 | 9.9999 | 0.0103 | 9.9999 | 0.2095 | 0.4718 | 0.0814 | 0.2512 | 0.1725 | 0.5324 |
| 157 | 55.11 | -0.02 | 0.0512 | 9.9999 | 0.0125 | 9.9999 | 0.2570 | 0.4694 | 0.0818 | 0.2492 | 0.1742 | 0.5305 |
| 158 | 55.28 | -0.04 | 0.0551 | 9.9999 | 0.0164 | 9.9999 | 0.2940 | 0.4701 | 0.0828 | 0.2524 | 0.1735 | 0.5301 |
| 159 | 55.40 | -0.02 | 0.0538 | 9.9999 | 0.0161 | 9.9999 | 0.2993 | 0.4660 | 0.0796 | 0.2467 | 0.1768 | 0.5337 |
| 160 | 55.56 | 0.00 | 0.0575 | 9.9999 | 0.0179 | 9.9999 | 0.3113 | 0.4794 | 0.0815 | 0.2551 | 0.1706 | 0.5321 |
| 161 | 55.72 | 0.00 | 0.0550 | 9.9999 | 0.0167 | 9.9999 | 0.3036 | 0.4751 | 0.0817 | 0.2528 | 0.1719 | 0.5321 |
| 162 | 55.90 | 0.01 | 0.0575 | 9.9999 | 0.0164 | 9.9999 | 0.3287 | 0.4819 | 0.0824 | 0.2554 | 0.1705 | 0.5300 |
| 163 | 56.06 | -0.03 | 0.0562 | 9.9999 | 0.0163 | 9.9999 | 0.3256 | 0.4785 | 0.0806 | 0.2499 | 0.1713 | 0.5311 |
| 164 | 56.26 | -0.02 | 0.0566 | 9.9999 | 0.0154 | 9.9999 | 0.3311 | 0.5006 | 0.0827 | 0.2623 | 0.1651 | 0.5238 |
| 165 | 56.43 | -0.05 | 0.0450 | 9.9999 | 0.0125 | 9.9999 | 0.2807 | 0.5236 | 0.0823 | 0.2744 | 0.1571 | 0.5241 |
| 166 | 56.57 | -0.05 | 0.0558 | 9.9999 | 0.0210 | 9.9999 | 0.3512 | 0.5221 | 0.0823 | 0.2722 | 0.1576 | 0.5214 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | AXIS | PHI | CONF | L | CEL1 | CEL2 | CEL3 | CEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 133 | 1.10 | 1.7 | 0.0 | BLOCK11 | 0.0 | 0 | -30 | 0 | -30 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.85 | 0.02 | -2.4608 | 5.4076 | -0.0176 | 0.0052 | -0.0065 | 1.5234 | 0.3500 | 1.1734 | -3.8230 |
| 2 | -5.86 | 0.00 | -2.4915 | 5.4250 | -0.0311 | -0.0206 | -0.0065 | 1.5210 | 0.3491 | 1.1719 | -3.7834 |
| 3 | -5.86 | 0.00 | -2.4723 | 5.3805 | -0.0270 | 0.0324 | -0.0066 | 1.5183 | 0.3495 | 1.1688 | -3.7848 |
| 4 | -5.86 | 0.00 | -2.4577 | 5.4119 | -0.0276 | -0.0370 | -0.0064 | 1.5250 | 0.3483 | 1.1767 | -3.8296 |
| 5 | -5.19 | 0.01 | -2.3256 | 5.2148 | 0.0437 | -0.0798 | -0.0059 | 1.5065 | 0.3382 | 1.1683 | -3.5709 |
| 6 | -3.34 | 0.00 | -2.2210 | 5.1356 | -0.0165 | -0.0118 | -0.0057 | 1.4753 | 0.3194 | 1.1559 | -3.1322 |
| 7 | -1.62 | 0.01 | -1.5936 | 3.7478 | 0.0351 | -0.1492 | -0.0051 | 1.4229 | 0.3111 | 1.1119 | -4.3679 |
| 8 | 0.24 | -0.00 | -1.7226 | 3.1663 | -0.0033 | 0.0297 | -0.0049 | 1.3720 | 0.3304 | 1.0416 | -4.7407 |
| 9 | 2.07 | 0.01 | -1.4835 | 3.6483 | 0.0337 | -0.0619 | -0.0043 | 1.3293 | 0.3461 | 0.9832 | -5.1556 |
| 10 | 3.88 | 0.01 | -1.2182 | 3.0214 | 0.0065 | -0.0751 | -0.0035 | 1.2818 | 0.3573 | 0.9245 | -5.7636 |
| 11 | 5.74 | 0.00 | -0.9225 | 2.3550 | -0.0257 | 0.0676 | -0.0037 | 1.2278 | 0.3644 | 0.8634 | -6.5324 |
| 12 | 7.64 | 0.01 | -0.6051 | 1.7541 | -0.0052 | 0.0292 | -0.0030 | 1.1517 | 0.3686 | 0.7829 | -9.5374 |
| 13 | 9.44 | 0.00 | -0.3512 | 1.1458 | -0.0588 | 0.0604 | -0.0027 | 1.0875 | 0.3722 | 0.7153 | -14.6641 |
| 14 | 11.35 | 0.01 | 0.0261 | 0.3483 | -0.0457 | 0.1041 | -0.0022 | 0.9980 | 0.3749 | 0.6237 | 74.8031 |
| 15 | 13.27 | -0.00 | 0.4267 | -0.2036 | -0.1051 | 0.2533 | 0.0033 | 0.9207 | 0.3750 | 0.5457 | 6.5454 |
| 16 | 15.23 | 0.01 | 0.8466 | -0.8257 | -0.1685 | 0.2190 | -0.0016 | 0.8311 | 0.3735 | 0.4578 | 3.5848 |
| 17 | 17.23 | -0.00 | 1.2093 | -2.4750 | -0.1910 | 0.4183 | -0.0007 | 0.7623 | 0.3751 | 0.3872 | 2.0466 |
| 18 | 19.17 | -0.01 | 1.5878 | -2.1466 | -0.2506 | 0.6716 | -0.0003 | 0.6988 | 0.3774 | 0.3214 | 1.3519 |
| 19 | 21.16 | -0.00 | 2.1255 | -1.5107 | -0.1295 | 0.4088 | -0.0291 | 0.6376 | 0.3730 | 0.2646 | 0.8973 |
| 20 | 23.20 | -0.00 | 2.6663 | -1.0351 | -0.1046 | 0.5927 | -0.0365 | 0.5818 | 0.3717 | 0.2101 | 0.6532 |
| 21 | 25.17 | -0.01 | 3.3655 | -0.7515 | -0.2005 | 0.7401 | -0.0567 | 0.5479 | 0.3782 | 0.1697 | 0.5164 |
| 22 | 27.24 | 0.04 | 4.1192 | 1.4066 | 0.4891 | -1.4913 | 0.1020 | 0.5084 | 0.3803 | 0.1281 | 0.3546 |
| 23 | 28.36 | 0.19 | 4.4256 | 1.5515 | 0.3955 | -0.8535 | 0.0981 | 0.4772 | 0.3800 | 0.0973 | 0.3503 |
| 24 | 28.22 | 0.04 | 4.3962 | 1.3472 | 0.4025 | -1.0725 | 0.1005 | 0.4994 | 0.3831 | 0.1163 | 0.3065 |
| 25 | 28.60 | 0.04 | 4.5414 | 1.4370 | 0.3777 | -0.7817 | 0.0930 | 0.4820 | 0.3801 | 0.1015 | 0.3164 |
| 26 | 28.93 | 0.03 | 4.7356 | 1.4143 | 0.2225 | -0.2005 | 0.0503 | 0.4686 | 0.3797 | 0.0889 | 0.2984 |
| 27 | 29.21 | 0.01 | 4.8560 | 1.2577 | 0.1082 | -0.3081 | 0.0775 | 0.4476 | 0.3841 | 0.0635 | 0.2672 |
| 28 | 29.52 | 0.05 | 4.8766 | 1.2542 | 0.4882 | -0.8112 | 0.0838 | 0.4488 | 0.3801 | 0.0687 | 0.2777 |
| 29 | 29.81 | 0.03 | 5.0215 | 1.1525 | 0.2362 | -0.4006 | 0.0783 | 0.4414 | 0.3828 | 0.0586 | 0.2376 |
| 30 | 30.10 | 0.06 | 5.1567 | 1.2126 | 0.5715 | -0.7010 | 0.0647 | 0.4357 | 0.3882 | 0.0475 | 0.2351 |
| 31 | 30.38 | 0.01 | 5.2823 | 1.0672 | -0.0300 | 0.3884 | 0.0718 | 0.4371 | 0.3957 | 0.0414 | 0.2020 |
| 32 | 30.65 | 0.04 | 5.4066 | 1.0865 | 0.3541 | -0.3465 | 0.0648 | 0.4260 | 0.4017 | 0.0243 | 0.1813 |
| 33 | 30.94 | 0.06 | 5.5075 | 0.9137 | 0.2450 | -0.0938 | 0.0529 | 0.4155 | 0.4049 | 0.0106 | 0.1659 |
| 34 | 31.19 | 0.06 | 5.5425 | 0.9231 | 0.4879 | -0.0044 | 0.0403 | 0.4170 | 0.4073 | 0.0097 | 0.1666 |
| 35 | 31.49 | 0.02 | 5.7375 | 0.7585 | 0.0206 | 0.4109 | 0.0312 | 0.3951 | 0.4076 | -0.0125 | 0.1322 |
| 36 | 31.77 | 0.01 | 5.8718 | 0.7557 | -0.0095 | 0.5757 | 0.0311 | 0.3904 | 0.4040 | -0.0136 | 0.1287 |
| 37 | 32.03 | 0.03 | 5.9273 | 0.5855 | 0.2028 | 0.1696 | 0.0637 | 0.3878 | 0.4090 | -0.0212 | 0.0589 |
| 38 | 32.31 | 0.00 | 6.0764 | 0.5933 | -0.0568 | 0.7321 | 0.0200 | 0.3800 | 0.4104 | -0.0244 | 0.0576 |
| 39 | 32.58 | 0.01 | 6.2210 | 0.5481 | -0.0362 | 0.7031 | 0.0318 | 0.3707 | 0.4080 | -0.0373 | 0.0878 |
| 40 | 32.85 | -0.01 | 6.3321 | 0.4440 | -0.2226 | 0.9521 | 0.0366 | 0.3767 | 0.4081 | -0.0314 | 0.0701 |
| 41 | 33.10 | -0.01 | 6.3956 | 0.3037 | -0.2065 | 1.0134 | 0.0366 | 0.3667 | 0.4071 | -0.0404 | 0.0475 |
| 42 | 33.37 | 0.01 | 6.5067 | 0.2850 | 0.0776 | 0.5475 | 0.0756 | 0.3537 | 0.4091 | -0.0554 | 0.0434 |
| 43 | 33.61 | 0.02 | 6.6197 | 0.1868 | 0.1455 | 0.3531 | 0.0810 | 0.3599 | 0.4074 | -0.0475 | 0.0282 |
| 44 | 33.88 | 0.01 | 6.7557 | 0.0953 | -0.0595 | 0.8454 | 0.0539 | 0.3586 | 0.4091 | -0.0705 | 0.0140 |
| 45 | 34.13 | 0.01 | 6.8883 | -0.0751 | -0.0240 | 0.7181 | 0.0859 | 0.3251 | 0.4100 | -0.0849 | -0.0115 |
| 46 | 34.39 | 0.01 | 7.0165 | -0.1665 | 0.0186 | 0.6804 | 0.0604 | 0.3235 | 0.4134 | -0.0899 | -0.0239 |

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MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 133 PACK 1.10 RX10-6 1.7 PHI 0.0 CONF 11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.62 | 0.02 | 7.1022 | -0.2532 | 0.1250 | 0.3902 | 0.1066 | 0.3231 | 0.4117 | -0.0886 | -0.0409 |
| 48 | 34.87 | 0.01 | 7.[illegible]17 | -0.[illegible]15 | 0.1186 | 0.4722 | 0.0876 | 0.3145 | 0.4113 | -0.0965 | -0.0447 |
| 49 | 35.13 | 0.02 | 7.3059 | -0.2625 | 0.1327 | 0.3765 | 0.1097 | 0.3237 | 0.4079 | -0.0852 | -0.0360 |
| 50 | 35.38 | 0.00 | 7.3628 | -0.[illegible]34 | -0.[illegible]92 | 0.5524 | 0.0800 | 0.3043 | 0.4106 | -0.1064 | -0.0484 |
| 51 | 35.63 | 0.02 | 7.[illegible]74 | -0.[illegible]53 | 0.0775 | 0.5294 | 0.0892 | 0.2695 | 0.4126 | -0.1232 | -0.0778 |
| 52 | 35.88 | 0.03 | 7.[illegible]38 | -0.[illegible]55 | 0.2672 | 0.1345 | 0.1530 | 0.2631 | 0.4210 | -0.1379 | -0.0983 |
| 53 | 36.09 | 0.02 | 7.7617 | -0.[illegible]67 | 0.1874 | 0.2544 | 0.1213 | 0.2761 | 0.4157 | -0.1416 | -0.1003 |
| 54 | 36.31 | 0.00 | 7.[illegible]58 | -0.[illegible]36 | 0.0131 | 0.5709 | 0.0894 | 0.2780 | 0.4180 | -0.1394 | -0.1064 |
| 55 | 36.57 | -0.00 | 8.00062 | -0.[illegible]64 | 0.0471 | 0.3686 | 0.1016 | 0.2673 | 0.4167 | -0.1514 | -0.1070 |
| 56 | 36.80 | -0.00 | 7.[illegible]04 | -0.[illegible]41 | 0.[illegible]61 | 0.3704 | 0.0801 | 0.2673 | 0.4157 | -0.1484 | -0.1069 |
| 57 | 37.03 | -0.03 | 6.1760 | -1.[illegible]16 | -0.2041 | 0.6613 | 0.0607 | 0.2614 | 0.4165 | -0.1551 | -0.1225 |
| 58 | 37.29 | 0.00 | 6.3134 | -1.1330 | 0.1000 | 0.3315 | 0.0869 | 0.2628 | 0.4167 | -0.1539 | -0.1364 |
| 59 | 37.51 | -0.00 | 6.3240 | -1.1426 | 0.1163 | 0.2660 | 0.0812 | 0.2549 | 0.4131 | -0.1591 | -0.1372 |
| 60 | 37.74 | -0.02 | 6.4658 | -1.2756 | -0.0505 | 0.4893 | 0.0872 | 0.2654 | 0.4114 | -0.1606 | -0.1508 |
| 61 | 37.99 | -0.02 | 6.5165 | -1.[illegible]75 | -0.[illegible]45 | 0.5103 | 0.1080 | 0.2349 | 0.4151 | -0.1811 | -0.1652 |
| 62 | 38.22 | -0.01 | 6.[illegible]54 | -1.[illegible]12 | -0.[illegible]31 | 0.4822 | 0.0773 | 0.2134 | 0.4031 | -0.1857 | -0.1775 |
| 63 | 38.45 | -0.01 | 6.7[illegible]0 | -1.[illegible]8[illegible] | 0.[illegible]62 | 0.6033 | 0.1033 | 0.2043 | 0.4017 | -0.1974 | -0.1752 |
| 64 | 38.69 | -0.02 | 6.[illegible]58 | -1.[illegible]7[illegible] | 0.[illegible]33 | 0.5003 | 0.1090 | 0.1859 | 0.4021 | -0.2122 | -0.1884 |
| 65 | 38.92 | -0.00 | 6.9445 | -1.7057 | 0.1030 | 0.1879 | 0.0890 | 0.1889 | 0.3939 | -0.2050 | -0.1911 |
| 66 | 39.12 | -0.03 | 9.[illegible]05 | -1.[illegible]45 | -0.[illegible]05 | 0.5163 | 0.0941 | 0.1824 | 0.3889 | -0.2265 | -0.1891 |
| 67 | 39.36 | -0.00 | 9.1533 | -1.[illegible]85 | 0.0525 | 0.2439 | 0.0797 | 0.1560 | 0.3917 | -0.2357 | -0.1976 |
| 68 | 39.57 | -0.02 | 9.[illegible]5[illegible] | -1.[illegible]46 | 0.[illegible]84 | 0.3703 | 0.0956 | 0.1642 | 0.3876 | -0.2434 | -0.2084 |
| 69 | 39.78 | -0.02 | 9.2563 | -2.[illegible]7[illegible] | 0.0244 | 0.5678 | 0.1205 | 0.1566 | 0.3856 | -0.2290 | -0.2250 |
| 70 | 39.99 | -0.02 | 9.4025 | -2.0754 | 0.0100 | 0.[illegible]05 | 0.0499 | 0.1490 | 0.3840 | -0.2356 | -0.2207 |
| 71 | 40.21 | -0.02 | 9.[illegible]35 | -2.[illegible]03 | 0.1366 | 0.1472 | 0.0707 | 0.1371 | 0.3863 | -0.2492 | -0.2343 |
| 72 | 40.41 | -0.02 | 9.[illegible]0[illegible] | -2.[illegible]3[illegible] | 0.[illegible]5[illegible] | 0.1103 | 0.0659 | 0.1280 | 0.3828 | -0.2568 | -0.2356 |
| 73 | 40.62 | -0.01 | 9.7764 | -2.[illegible]54 | -0.[illegible]32 | 0.4556 | 0.0756 | 0.1060 | 0.3803 | -0.2723 | -0.2491 |
| 74 | 40.82 | -0.01 | 9.7261 | -2.4025 | 0.1781 | -0.1347 | 0.0512 | 0.0886 | 0.3726 | -0.2841 | -0.2471 |
| 75 | 41.05 | -0.03 | 9.[illegible]31 | -2.[illegible]63 | -0.[illegible]06 | 0.7343 | 0.0802 | 0.1168 | 0.3[illegible]0 | -0.2722 | -0.2783 |
| 76 | 41.25 | -0.04 | 10.[illegible]45 | -2.[illegible]47 | 0.2332 | 0.0511 | 0.0651 | 0.3728 | -0.2876 | -0.2659 |
| 77 | 41.47 | -0.03 | 10.1703 | -2.[illegible]43 | 0.[illegible]56 | 0.6222 | 0.0655 | 0.0716 | 0.3735 | -0.3017 | -0.2787 |
| 78 | 41.69 | -0.01 | 10.[illegible]3[illegible] | -2.[illegible]6[illegible] | 0.[illegible]2[illegible] | 0.6331 | 0.[illegible]65[illegible] | 0.0671 | 0.3764 | -0.3093 | -0.2734 |
| 79 | 41.87 | -0.02 | 10.[illegible]67 | -2.[illegible]5[illegible] | -0.[illegible]6[illegible] | 1.[illegible]01 | 0.0594 | 0.0474 | 0.3735 | -0.3261 | -0.2810 |
| 80 | 42.09 | -0.04 | 10.4334 | -2.[illegible]13 | -0.[illegible]32 | 0.6285 | 0.0510 | 0.0376 | 0.3759 | -0.3381 | -0.2877 |
| 81 | 42.28 | -0.03 | 10.[illegible]7[illegible] | -2.[illegible]2[illegible] | -0.[illegible]93 | 0.4165 | 0.0517 | 0.0467 | 0.3654 | -0.3167 | -0.2711 |
| 82 | 42.45 | -0.02 | 10.[illegible]47 | -2.[illegible]75 | -0.[illegible]07 | 0.7404 | 0.0503 | 0.0335 | 0.3505 | -0.3148 | -0.2804 |
| 83 | 42.65 | -0.03 | 10.[illegible]44 | -3.[illegible]3[illegible] | -0.[illegible]35 | 1.3135 | 0.0385 | 0.0139 | 0.3726 | -0.3569 | -0.3030 |
| 84 | 42.83 | -0.04 | 10.[illegible]7[illegible] | -3.[illegible]2[illegible] | -0.[illegible][illegible]7 | 0.[illegible]91 | 0.[illegible]39[illegible] | 0.[illegible]60 | 0.[illegible]712 | -0.[illegible]332 | -0.2953 |
| 85 | 43.02 | -0.04 | 10.[illegible]18 | -3.[illegible]17 | -0.[illegible]03[illegible] | 1.1166 | 0.0345 | -0.0048 | 0.3609 | -0.3657 | -0.3020 |
| 86 | 43.20 | -0.03 | 10.[illegible]60 | -3.[illegible]04[illegible] | -0.[illegible]91 | 0.5306 | 0.0212 | -0.0244 | 0.3542 | -0.3786 | -0.3017 |
| 87 | 43.36 | -0.04 | 10.[illegible]49 | -3.[illegible]73 | -0.[illegible]04 | 0.[illegible]69[illegible] | 0.0246 | -0.0146 | 0.3541 | -0.3685 | -0.3089 |
| 88 | 43.59 | -0.03 | 11.[illegible]7[illegible] | -3.[illegible]4[illegible] | -0.[illegible]82[illegible] | 1.1165 | 0.[illegible]090 | -0.[illegible]21[illegible] | 0.[illegible]477 | -0.[illegible]691 | -0.3200 |
| 89 | 43.76 | -0.03 | 11.[illegible]3[illegible] | -3.[illegible]65[illegible] | -0.[illegible]61[illegible] | 1.[illegible]786 | 0.[illegible]091 | -0.[illegible]16[illegible] | 0.[illegible]467 | -0.[illegible]653 | -0.3139 |
| 90 | 43.92 | -0.04 | 11.[illegible]20[illegible] | -3.[illegible]73[illegible] | -0.[illegible]42[illegible] | 0.[illegible]788 | 0.[illegible]001 | -0.[illegible]46[illegible] | 0.[illegible]334 | -0.[illegible]820 | -0.3033 |
| 91 | 44.11 | -0.04 | 11.[illegible]54[illegible] | -3.[illegible]51[illegible] | -0.[illegible]42[illegible] | 0.[illegible]886 | 0.0 | -0.[illegible]438 | 0.[illegible]351 | -0.[illegible]789 | -0.3149 |
| 92 | 44.30 | -0.05 | 11.[illegible]92[illegible] | -3.[illegible]75[illegible] | -0.[illegible]26[illegible] | 1.[illegible]77[illegible] | -0.[illegible]06[illegible] | -0.[illegible]555 | 0.3290 | -0.3845 | -0.3082 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 133 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF alacrit 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.48 | -0.04 | 11.2901 | -3.3779 | -0.2418 | 1.2509 | -0.0117 | -0.0481 | 0.3296 | -0.3777 | -0.3169 |
| 94 | 44.66 | -0.04 | 11.4266 | -3.4031 | -0.0702 | 0.0903 | 0.0295 | -0.0703 | 0.3264 | -0.4047 | -0.2980 |
| 95 | 44.85 | -0.03 | 11.4244 | -3.3164 | 0.0034 | 0.3615 | 0.0130 | -0.0838 | 0.3206 | -0.4044 | -0.2903 |
| 96 | 45.03 | -0.03 | 11.4748 | -3.4236 | -0.0421 | 0.3284 | 0.0293 | -0.0878 | 0.3169 | -0.4047 | -0.2829 |
| 97 | 45.21 | -0.04 | 11.5563 | -3.3611 | -0.1855 | 0.5965 | 0.0025 | -0.0955 | 0.3137 | -0.4092 | -0.2858 |
| 98 | 45.39 | -0.02 | 11.5211 | -3.2735 | 0.0233 | 0.0009 | 0.0303 | -0.1121 | 0.3059 | -0.4176 | -0.2842 |
| 99 | 45.59 | -0.06 | 11.7300 | -3.3736 | -0.2823 | 1.1244 | -0.0307 | -0.0968 | 0.3140 | -0.4127 | -0.2876 |
| 100 | 45.78 | -0.02 | 11.6296 | -3.3900 | -0.0367 | 0.4300 | 0.0035 | -0.1159 | 0.3075 | -0.4273 | -0.2873 |
| 101 | 45.93 | -0.04 | 11.7556 | -3.3887 | -0.2191 | 1.0459 | -0.0251 | -0.0936 | 0.3085 | -0.4070 | -0.2865 |
| 102 | 46.06 | -0.03 | 11.7515 | -3.1178 | -0.0516 | 0.0901 | 0.0026 | -0.1100 | 0.3017 | -0.4116 | -0.2653 |
| 103 | 46.25 | -0.05 | 11.9687 | -3.1826 | -0.2585 | 1.0259 | -0.0186 | -0.1109 | 0.2985 | -0.4053 | -0.2656 |
| 104 | 46.46 | -0.03 | 11.9578 | -3.2106 | -0.1223 | 0.7370 | -0.0160 | -0.1300 | 0.2939 | -0.4256 | -0.2685 |
| 105 | 46.61 | -0.03 | 12.0052 | -2.9502 | -0.1576 | 0.9335 | -0.0289 | -0.0993 | 0.3023 | -0.4020 | -0.2491 |
| 106 | 46.80 | -0.02 | 12.0174 | -3.1149 | -0.0575 | 0.6870 | -0.0071 | -0.1170 | 0.3081 | -0.4256 | -0.2592 |
| 107 | 46.98 | -0.03 | 12.1172 | -3.1711 | -0.1867 | 0.9446 | -0.0235 | -0.1006 | 0.3132 | -0.4131 | -0.2617 |
| 108 | 47.13 | -0.03 | 11.9612 | -2.8781 | -0.1420 | 0.6292 | -0.0257 | -0.1149 | 0.2987 | -0.4115 | -0.2402 |
| 109 | 47.32 | -0.03 | 12.2057 | -3.0654 | -0.1205 | 0.7867 | -0.0226 | -0.1169 | 0.3041 | -0.4209 | -0.2528 |
| 110 | 47.50 | -0.03 | 12.3088 | -3.2145 | -0.1070 | 0.8030 | -0.0270 | -0.1262 | 0.3062 | -0.4323 | -0.2612 |
| 111 | 47.69 | -0.03 | 12.4857 | -3.3765 | -0.0846 | 0.9623 | -0.0159 | -0.1423 | 0.3054 | -0.4476 | -0.2709 |
| 112 | 47.86 | -0.02 | 12.5080 | -3.0178 | 0.0074 | 0.4106 | -0.0191 | -0.1480 | 0.3060 | -0.4547 | -0.2633 |
| 113 | 48.01 | -0.03 | 12.3877 | -3.0538 | -0.1158 | 0.4759 | -0.0046 | -0.1383 | 0.3185 | -0.4547 | -0.2903 |
| 114 | 48.20 | -0.02 | 12.6715 | -3.1066 | 0.0164 | 0.1909 | 0.0018 | -0.1376 | 0.3240 | -0.4615 | -0.2925 |
| 115 | 48.37 | -0.01 | 12.8381 | -3.2187 | 0.1006 | -0.1627 | 0.0354 | -0.1482 | 0.3233 | -0.4714 | -0.2973 |
| 116 | 48.55 | -0.01 | 12.7643 | -3.0868 | 0.1178 | -0.0857 | 0.0457 | -0.1339 | 0.3222 | -0.4506 | -0.2874 |
| 117 | 48.71 | -0.02 | 12.7986 | -3.0136 | 0.0883 | -0.0010 | 0.0364 | -0.1410 | 0.3252 | -0.4661 | -0.2745 |
| 118 | 48.86 | -0.02 | 12.8760 | -2.8863 | -0.0656 | 0.5553 | 0.0495 | -0.0759 | 0.3300 | -0.4325 | -0.2121 |
| 119 | 49.05 | -0.00 | 12.8938 | -2.9713 | 0.1568 | 0.4807 | 0.0389 | -0.0853 | 0.3435 | -0.4288 | -0.2028 |
| 120 | 49.20 | -0.01 | 12.8371 | -2.8456 | -0.0165 | 0.6073 | 0.0433 | -0.0747 | 0.3602 | -0.4349 | -0.1856 |
| 121 | 49.38 | 0.00 | 12.8848 | -2.8227 | 0.0648 | 0.8917 | 0.0376 | -0.0821 | 0.3581 | -0.4202 | -0.1673 |
| 122 | 49.55 | 0.02 | 12.7665 | -2.8456 | 0.1251 | 0.9012 | 0.0485 | -0.0820 | 0.3625 | -0.4245 | -0.1606 |
| 123 | 49.73 | 0.01 | 12.7057 | -2.8223 | 0.2137 | 0.9357 | 0.0428 | -0.0823 | 0.3671 | -0.4294 | -0.1670 |
| 124 | 49.91 | 0.01 | 12.8330 | -2.8260 | 0.2318 | 0.8924 | 0.0381 | -0.0795 | 0.3650 | -0.4405 | -0.1760 |
| 125 | 50.05 | 0.01 | 12.8003 | -2.8525 | 0.2218 | 1.0804 | 0.0587 | -0.0734 | 0.3609 | -0.4343 | -0.1603 |
| 126 | 50.24 | -0.00 | 12.9711 | -2.8514 | 0.1967 | 1.0208 | 0.0594 | -0.0679 | 0.3641 | -0.4320 | -0.1767 |
| 127 | 50.44 | 0.01 | 13.0760 | -2.8744 | 0.2652 | 1.2611 | 0.0696 | -0.0663 | 0.3658 | -0.4321 | -0.1617 |
| 128 | 50.60 | 0.02 | 13.1366 | -2.8943 | 0.2446 | 1.2803 | 0.0598 | -0.0688 | 0.3644 | -0.4332 | -0.1897 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1ss 1.1w | MACH 1.7 | RN/10=6 | PHI G.G | CONF B1W0F11 | L G.G | DEL1 0 | DEL2 -30 | DEL3 0 | DEL4 -30 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN1 | CM1 | C01 | XCPF1 | YCPF1 | CNF2 | CM2 | C02 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.65 | G.02 | -G.GGG1 | G.GGG8 | G.GG37 | -G.1341 | -G.6GGG | -1.3762 | -G.G429 | -G.7167 | G.G312 | G.52G8 |
| 2 | -5.66 | G.GG | -G.GGG4 | G.GG62 | G.GG39 | -G.G238 | -G.4G43 | -1.3705 | -G.G42G | -G.71G8 | G.G3G6 | G.5186 |
| 3 | -5.66 | G.GG | -G.GG53 | G.GGG1 | G.GG28 | -G.GG137 | -G.3G11 | -1.3705 | -G.G422 | -G.7G56 | G.G3G8 | G.5179 |
| 4 | -5.66 | G.GG | -G.GGG3 | G.GG63 | G.GG3G | -G.G3G1 | -G.3G14 | -1.3755 | -G.G424 | -G.7122 | G.G3G8 | G.5179 |
| 5 | -5.65 | G.G1 | -G.GG61 | -G.GG65 | G.GG2G | G.G617 | -G.2469 | -1.3416 | -G.G465 | -G.7G13 | G.G361 | G.5227 |
| 6 | -5.64 | G.GG | -G.GG65 | G.GG1G | G.GG34 | -1.5995 | -7.6GGG | -1.3G96 | -G.G499 | -G.6989 | G.G381 | G.5337 |
| 7 | -1.6G | G.G1 | -G.GGG2 | -G.GG62 | G.GG14 | G.5597 | -7.GGGG | -1.2386 | -G.G51G | -G.67ZG | G.G412 | G.5425 |
| 8 | G.24 | -G.GG | G.GGG1 | -G.GGG5 | -G.GG64 | -G.4166 | -G.3333 | -1.1453 | -G.G5G3 | -G.6278 | G.G5G5 | G.5482 |
| 9 | 2.G7 | G.G1 | G.GG1E | G.GG68 | G.GG15 | G.G9G9 | G.1735 | -1.G56G | -G.G569 | -G.5746 | G.G557 | G.5431 |
| 10 | 3.GG | G.G2 | G.GGG5 | -G.GGG3 | -G.GGG6 | -G.G857 | -G.1714 | -G.9595 | -G.G549 | -G.5215 | G.G624 | G.5435 |
| 11 | 5.74 | G.GG | -G.GG5E | -G.GG15 | G.GGG7 | G.3392 | -G.1250 | -G.8239 | -G.G584 | -G.4457 | G.G7G9 | G.545E |
| 12 | 7.G4 | G.G1 | -G.GG14 | -G.GG43 | -G.GGG2 | G.2471 | G.1839 | -G.7G83 | -G.G559 | -G.3939 | G.G789 | G.5561 |
| 13 | 9.44 | G.GG | -G.GG22 | -G.GG31 | G.GG14 | G.1534 | -G.G595 | -G.6173 | -G.G524 | -G.3446 | G.G845 | G.5582 |
| 14 | 11.39 | G.GG | -G.GG2G | G.GG41 | G.GG53 | -G.G724 | -G.1826 | -G.4807 | -G.G421 | -G.2754 | G.G876 | G.5729 |
| 15 | 13.27 | -G.GG | -G.GG2E6 | G.GGG9 | G.GG33 | -G.G315 | -G.1154 | -G.3637 | -G.G359 | -G.2236 | G.G987 | G.6148 |
| 16 | 15.23 | G.G1 | -G.GGG6 | G.GG61 | G.GG17 | -G.GG23 | -G.G695 | -G.2635 | -G.G284 | -G.1709 | G.1078 | G.6486 |
| 17 | 17.23 | -G.GG | -G.GG527 | -G.GG7G | G.GG23 | G.1326 | -G.G43G | -G.1466 | -G.G191 | -G.1161 | G.1308 | G.7952 |
| 18 | 19.17 | -G.G1 | -G.GG5E | -G.GG65 | -G.GG54 | G.1303 | G.G826 | -G.G8G5 | -G.GG55 | -G.G822 | G.G683 | 1.G211 |
| 19 | 21.16 | -G.GG | -G.GG57 | -G.GG3E | -G.GG28 | G.G657 | G.3945 | -G.GG5G | G.GG73 | -G.G47G | -1.4556 | 9.4GGG |
| 20 | 23.2G | -G.GG | -G.G149 | -G.G136 | -G.GG9G | G.1167 | G.5153 | G.G235 | G.G241 | -G.G263 | 1.G253 | -1.2G43 |
| 21 | 25.17 | -G.G1 | -G.G136 | -G.G171 | -G.GG65 | G.1232 | G.5GG7 | G.G665 | G.G412 | -G.GG15 | G.6154 | -G.G226 |
| 22 | 27.24 | G.G4 | G.G23G | G.G25G | G.G155 | G.G79G | G.5247 | G.1G22 | G.G487 | G.G361 | G.3GG2 | G.2226 |
| 23 | 28.36 | G.19 | G.1541 | G.G156 | G.1134 | G.G8G3 | G.5542 | G.1530 | G.G536 | G.G331 | G.3502 | G.2163 |
| 24 | 2G.42 | G.G4 | G.2GG2 | G.G235 | G.1G42 | G.G621 | G.5737 | G.1623 | G.G551 | G.G432 | G.3344 | G.2GG2 |
| 25 | 28.6G | G.G4 | G.15EE | G.G137 | G.1218 | G.1G9G | G.6133 | G.1582 | G.G534 | G.G415 | G.3691 | G.2623 |
| 26 | 2G.93 | G.G3 | G.147G | G.G124 | G.GE48 | G.G911 | G.5769 | G.1592 | G.G611 | G.G412 | G.3837 | G.2586 |
| 27 | 29.21 | G.GI | G.16G8 | G.G116 | G.G541 | G.G722 | G.5859 | G.1708 | G.G646 | G.G516 | G.3781 | G.3021 |
| 28 | 29.52 | G.G5 | G.15G4 | G.G135 | G.1154 | G.G6G1 | G.5GG5 | G.1627 | G.G644 | G.G565 | G.3524 | G.3224 |
| 29 | 29.81 | G.G3 | G.14E1 | G.G112 | G.GG35 | G.G766 | G.5743 | G.1624 | G.G678 | G.G58G | G.3716 | G.3186 |
| 3G | 3G.1G | G.G6 | G.1548 | G.G16G | G.GG67 | G.5724 | G.1G92 | G.G7G9 | G.GG65 | G.3746 | G.3515 |
| 31 | 3G.38 | G.G1 | G.1128 | G.G124 | G.G724 | G.1G83 | G.6436 | G.1772 | G.G715 | G.G567 | G.4G34 | G.32GG |
| 32 | 3G.65 | G.G4 | G.147E | G.G155 | G.G53E | G.1G46 | G.6333 | G.1962 | G.G754 | G.G72G | G.38G3 | G.3643 |
| 33 | 3G.94 | G.G4 | G.1258 | G.G126 | G.G732 | G.1GG1 | G.5819 | G.2G97 | G.G786 | G.G8G6 | G.3757 | G.3844 |
| 34 | 31.19 | G.G6 | G.1548 | G.G15A | G.1215 | G.G775 | G.6227 | G.2135 | G.G777 | G.G828 | G.3638 | G.3676 |
| 35 | 31.49 | G.G2 | G.G135 | G.GGG6 | G.G172 | G.G446 | 1.2741 | G.2310 | G.G828 | G.G9G8 | G.3583 | G.3531 |
| 36 | 31.77 | G.G1 | -G.G5E1 | -G.GG32 | -G.GG72 | G.G84G | G.1G9G | G.2459 | G.G842 | G.G894 | G.3726 | G.3557 |
| 37 | 32.03 | G.G3 | G.1489 | G.G127 | G.GG37 | G.G853 | G.6293 | G.2349 | G.G824 | G.G594 | G.3913 | G.4GEE |
| 38 | 32.31 | G.GG | -G.G344 | -G.GG66 | -G.G1G5 | G.G252 | G.3169 | G.2376 | G.G859 | G.G962 | G.3614 | G.4045 |
| 39 | 32.56 | G.G1 | -G.G571 | -G.GG31 | -G.G155 | G.GG43 | G.2785 | G.2351 | G.G868 | G.G991 | G.3691 | G.4G49 |
| 4G | 32.85 | -G.G1 | G.G249 | G.GG2G | G.G23G | G.1G49 | G.4956 | G.2493 | G.G865 | G.1G5G | G.3485 | G.4212 |
| 41 | 33.1G | -G.G1 | G.G452 | G.GG7G | G.G383 | G.1548 | G.8473 | G.2542 | G.G864 | G.1G63 | G.3398 | G.4182 |
| 42 | 33.37 | G.G1 | G.G141 | G.GG33 | G.GG24 | G.2340 | 2.G651 | G.2493 | G.G869 | G.1G4G | G.3485 | G.4172 |
| 43 | 33.61 | G.G2 | G.121G | G.G114 | G.GG34 | G.G942 | G.6893 | G.2710 | G.G67G | G.1165 | G.3209 | G.4295 |
| 44 | 33.8G | G.G1 | G.G552 | G.GG75 | G.G47G | G.1398 | G.8514 | G.2642 | G.G687 | G.1225 | G.3126 | G.4316 |
| 45 | 34.13 | G.G2 | G.G56G | G.GG6E | G.G552 | G.1201 | G.9753 | G.2905 | G.G693 | G.1251 | G.3073 | G.4306 |
| 46 | 34.39 | G.G1 | G.G5EG | G.GG75 | G.G446 | G.1500 | G.8923 | G.3146 | G.G915 | G.1350 | G.2908 | G.4291 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 3

MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 133 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF BIaCFIL CG 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | ACPF1 | XCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.02 | 0.02 | 0.1564 | 0.0176 | 0.1047 | 0.1111 | 0.6010 | 0.3063 | 0.0898 | 0.1306 | 0.2931 | 0.4276 |
| 48 | 34.87 | 0.01 | 0.1623 | 0.0181 | 0.0831 | 0.1115 | 0.7007 | 0.3119 | 0.0916 | 0.1356 | 0.2845 | 0.4212 |
| 49 | 35.13 | 0.02 | 0.0721 | 0.0087 | 0.0847 | 0.1200 | 0.6974 | 0.3367 | 0.0935 | 0.1357 | 0.2667 | 0.4145 |
| 50 | 35.38 | 0.00 | 0.1771 | 0.0116 | 0.0765 | 0.1007 | 0.6772 | 0.3320 | 0.0896 | 0.1304 | 0.2698 | 0.4106 |
| 51 | 35.60 | 0.02 | 0.1169 | 0.0141 | 0.0827 | 0.1176 | 0.6897 | 0.3391 | 0.0905 | 0.1415 | 0.2668 | 0.4185 |
| 52 | 35.88 | 0.03 | 0.1221 | 0.0205 | 0.1201 | 0.1141 | 0.6759 | 0.3442 | 0.0885 | 0.1422 | 0.2570 | 0.4131 |
| 53 | 36.09 | 0.02 | 0.1167 | 0.0142 | 0.0835 | 0.1196 | 0.7035 | 0.3502 | 0.0898 | 0.1423 | 0.2564 | 0.4052 |
| 54 | 36.31 | 0.01 | 0.1166 | 0.0143 | 0.0781 | 0.1250 | 0.6886 | 0.3606 | 0.0914 | 0.1500 | 0.2486 | 0.4069 |
| 55 | 36.57 | -0.00 | 0.0612 | 0.0123 | 0.0802 | 0.1514 | 0.7414 | 0.3727 | 0.0903 | 0.1508 | 0.2422 | 0.4046 |
| 56 | 36.80 | -0.00 | 0.0926 | 0.0140 | 0.0833 | 0.1304 | 0.6880 | 0.3800 | 0.0905 | 0.1529 | 0.2381 | 0.4024 |
| 57 | 37.03 | -0.03 | 0.0923 | 0.0135 | 0.0596 | 0.1500 | 0.6957 | 0.3918 | 0.0919 | 0.1568 | 0.2345 | 0.4002 |
| 58 | 37.29 | 0.00 | 0.0893 | 0.0102 | 0.0456 | 0.1562 | 0.6891 | 0.4001 | 0.0934 | 0.1638 | 0.2295 | 0.4053 |
| 59 | 37.51 | -0.00 | 0.0953 | 0.0074 | 0.0385 | 0.1358 | 0.6800 | 0.4155 | 0.0940 | 0.1670 | 0.2262 | 0.4019 |
| 60 | 37.74 | -0.02 | 0.0751 | 0.0113 | 0.0499 | 0.1428 | 0.6908 | 0.4250 | 0.0953 | 0.1717 | 0.2242 | 0.4046 |
| 61 | 37.99 | -0.02 | 0.1113 | 0.0155 | 0.0670 | 0.1392 | 0.6920 | 0.4261 | 0.0964 | 0.1718 | 0.2262 | 0.4032 |
| 62 | 38.22 | -0.01 | 0.0704 | 0.0057 | 0.0356 | 0.1377 | 0.5653 | 0.4494 | 0.0905 | 0.1815 | 0.2197 | 0.4034 |
| 63 | 38.45 | -0.01 | 0.0740 | 0.0136 | 0.0455 | 0.1657 | 0.6203 | 0.4403 | 0.0972 | 0.1748 | 0.2267 | 0.3976 |
| 64 | 38.69 | -0.02 | 0.0561 | 0.0171 | 0.0566 | 0.1743 | 0.5790 | 0.4406 | 0.0987 | 0.1794 | 0.2200 | 0.3999 |
| 65 | 38.92 | -0.00 | 0.1124 | 0.0173 | 0.0585 | 0.1535 | 0.5240 | 0.4562 | 0.0995 | 0.1822 | 0.2180 | 0.3978 |
| 66 | 39.12 | -0.03 | 0.0752 | 0.0123 | 0.0576 | 0.1635 | 0.5047 | 0.4809 | 0.1001 | 0.1921 | 0.2081 | 0.3955 |
| 67 | 39.36 | -0.00 | 0.0524 | 0.0128 | 0.0435 | 0.1365 | 0.4706 | 0.4931 | 0.1002 | 0.1961 | 0.2031 | 0.3977 |
| 68 | 39.57 | -0.02 | 0.1057 | 0.0164 | 0.0515 | 0.1551 | 0.4872 | 0.4893 | 0.1021 | 0.1939 | 0.2086 | 0.3963 |
| 69 | 39.76 | -0.02 | 0.1082 | 0.0224 | 0.0552 | 0.2170 | 0.5102 | 0.4844 | 0.1017 | 0.1925 | 0.2099 | 0.3974 |
| 70 | 39.99 | -0.02 | 0.0692 | 0.0053 | 0.0175 | 0.0706 | 0.2567 | 0.5566 | 0.0991 | 0.2247 | 0.1774 | 0.4023 |
| 71 | 40.21 | -0.02 | 0.0708 | 0.0098 | 0.0268 | 0.1276 | 0.3490 | 0.5383 | 0.1031 | 0.2137 | 0.1922 | 0.3985 |
| 72 | 40.41 | -0.02 | 0.0728 | 0.0098 | 0.0208 | 0.1270 | 0.3490 | 0.5484 | 0.1007 | 0.2179 | 0.1836 | 0.3973 |
| 73 | 40.62 | -0.01 | 0.0620 | 0.0123 | 0.0163 | 0.1963 | 0.2952 | 0.5562 | 0.1030 | 0.2221 | 0.1791 | 0.3979 |
| 74 | 40.82 | -0.01 | 0.0708 | 0.0121 | 0.0147 | 0.1709 | 0.2784 | 0.5739 | 0.1009 | 0.2268 | 0.1758 | 0.3987 |
| 75 | 41.05 | -0.03 | 0.0648 | 0.0116 | 0.0122 | 0.2569 | 0.2723 | 0.5886 | 0.1014 | 0.2245 | 0.1808 | 0.4003 |
| 76 | 41.25 | -0.04 | 0.0519 | 0.0075 | 0.0115 | 0.1445 | 0.2216 | 0.5926 | 0.1032 | 0.2378 | 0.1690 | 0.4013 |
| 77 | 41.47 | -0.03 | 0.0526 | 0.0080 | 0.0015 | 0.1946 | 0.0487 | 0.5878 | 0.1035 | 0.2340 | 0.1709 | 0.3981 |
| 78 | 41.69 | -0.01 | 0.0256 | 0.0044 | -0.0020 | 0.1804 | -0.1186 | 0.5903 | 0.0996 | 0.2347 | 0.1687 | 0.3976 |
| 79 | 41.87 | -0.02 | 0.0173 | 0.0041 | -0.0059 | 0.2369 | -0.3410 | 0.6033 | 0.0986 | 0.2393 | 0.1637 | 0.3967 |
| 80 | 42.09 | -0.04 | 0.0126 | 0.0015 | -0.0065 | 0.0606 | -0.3495 | 0.6029 | 0.0984 | 0.2540 | 0.1555 | 0.4016 |
| 81 | 42.28 | -0.03 | 0.0316 | 0.0026 | -0.0045 | 0.0880 | -0.1415 | 0.6252 | 0.0984 | 0.2499 | 0.1573 | 0.3997 |
| 82 | 42.45 | -0.04 | -0.0221 | -0.0050 | -0.0262 | 0.2202 | 1.2760 | 0.6350 | 0.0981 | 0.2541 | 0.1549 | 0.4014 |
| 83 | 42.65 | -0.03 | -0.0283 | -0.0055 | -0.0328 | 0.1593 | 1.1590 | 0.6411 | 0.0980 | 0.2560 | 0.1528 | 0.3993 |
| 84 | 42.83 | -0.04 | -0.0262 | -0.0065 | -0.0312 | 0.2486 | 1.1908 | 0.6483 | 0.0983 | 0.2610 | 0.1516 | 0.4026 |
| 85 | 43.02 | -0.04 | -0.0250 | -0.0045 | -0.0328 | 0.1830 | 1.3120 | 0.6570 | 0.0976 | 0.2632 | 0.1482 | 0.4006 |
| 86 | 43.20 | -0.03 | 0.0137 | -0.0041 | -0.0164 | -0.1932 | -1.5796 | 0.6574 | 0.0943 | 0.2840 | 0.1352 | 0.4072 |
| 87 | 43.38 | -0.04 | -0.0330 | -0.0026 | -0.0364 | 0.2199 | 1.2133 | 0.6693 | 0.0969 | 0.2681 | 0.1447 | 0.4006 |
| 88 | 43.59 | -0.03 | -0.0504 | -0.0167 | -0.0664 | 0.1857 | 0.7305 | 0.6803 | 0.0967 | 0.2759 | 0.1409 | 0.4020 |
| 89 | 43.76 | -0.03 | -0.0587 | -0.0162 | -0.0645 | 0.1666 | 0.7439 | 0.6828 | 0.0962 | 0.2736 | 0.1409 | 0.4007 |
| 90 | 43.92 | -0.04 | -0.0441 | -0.0164 | -0.0483 | 0.2338 | 1.0952 | 0.6920 | 0.0952 | 0.2788 | 0.1374 | 0.4025 |
| 91 | 44.11 | -0.04 | -0.0359 | -0.0059 | -0.0435 | 0.2461 | 1.1403 | 0.7000 | 0.0953 | 0.2853 | 0.1349 | 0.4041 |
| 92 | 44.30 | -0.05 | -0.0274 | -0.0143 | -0.0379 | 0.2121 | 0.8291 | 0.6975 | 0.0937 | 0.2802 | 0.1372 | 0.4017 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&3 MACH 1.10 1.7 RADIUS 6 PHI 0.0 DEGREES CONF 1 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.48 | -0.04 | -0.1226 | -0.0212 | -0.0238 | 0.1729 | 0.6835 | 0.0967 | 0.0970 | 0.2798 | 0.1392 | 0.4018 |
| 94 | 44.68 | -0.04 | 0.0536 | 0.0136 | 0.0031 | 0.2560 | 0.0578 | 0.7402 | 0.0933 | 0.2952 | 0.1481 | 0.4054 |
| 95 | 44.85 | -0.03 | -0.0415 | -0.0057 | -0.0400 | 0.2314 | 0.9547 | 0.7121 | 0.0956 | 0.2870 | 0.1342 | 0.4030 |
| 96 | 45.03 | -0.03 | -0.0021 | -0.0050 | -0.0171 | 2.3803 | 0.1429 | 0.7203 | 0.0949 | 0.2909 | 0.1317 | 0.4039 |
| 97 | 45.21 | -0.04 | -0.0455 | -0.0132 | -0.0471 | 0.2645 | 0.9439 | 0.7171 | 0.0967 | 0.2879 | 0.1348 | 0.4015 |
| 98 | 45.39 | -0.02 | -0.0445 | -0.0131 | -0.0422 | 0.2917 | 0.9399 | 0.7153 | 0.0971 | 0.2876 | 0.1361 | 0.4032 |
| 99 | 45.59 | -0.06 | -0.0563 | -0.0242 | -0.0727 | 0.2461 | 0.7356 | 0.7243 | 0.0963 | 0.2935 | 0.1357 | 0.4058 |
| 100 | 45.78 | -0.02 | -0.0459 | -0.0145 | -0.0435 | 0.3158 | 0.9477 | 0.7306 | 0.0975 | 0.2959 | 0.1334 | 0.4050 |
| 101 | 45.93 | -0.04 | -0.0775 | -0.0234 | -0.0642 | 0.3003 | 0.8241 | 0.7269 | 0.0977 | 0.2932 | 0.1346 | 0.4034 |
| 102 | 46.09 | -0.03 | -0.0577 | -0.0165 | -0.0462 | 0.3375 | 0.8007 | 0.7218 | 0.0993 | 0.2918 | 0.1375 | 0.4043 |
| 103 | 46.29 | -0.05 | -0.0525 | -0.0150 | -0.0475 | 0.3228 | 0.7309 | 0.7119 | 0.1004 | 0.2871 | 0.1410 | 0.4033 |
| 104 | 46.46 | -0.03 | -0.0661 | -0.0250 | -0.0578 | 0.3781 | 0.8744 | 0.7206 | 0.0993 | 0.2912 | 0.1378 | 0.4041 |
| 105 | 46.61 | -0.03 | -0.0760 | -0.0228 | -0.0557 | 0.3256 | 0.7957 | 0.7160 | 0.1026 | 0.2901 | 0.1420 | 0.4041 |
| 106 | 46.80 | -0.02 | 0.0038 | -0.0028 | -0.0187 | -0.7776 | -0.1744 | 0.7481 | 0.0999 | 0.2948 | 0.1372 | 0.4045 |
| 107 | 46.96 | -0.03 | -0.0518 | -0.0238 | -0.0471 | 0.4593 | 0.9093 | 0.7313 | 0.1012 | 0.2944 | 0.1383 | 0.4026 |
| 108 | 47.13 | -0.03 | -0.0656 | -0.0240 | -0.0583 | 0.3457 | 0.8352 | 0.7218 | 0.1025 | 0.2923 | 0.1420 | 0.4050 |
| 109 | 47.32 | -0.03 | -0.0265 | -0.0258 | -0.0594 | 0.9753 | 1.4866 | 0.7546 | 0.1004 | 0.3085 | 0.1330 | 0.4088 |
| 110 | 47.50 | -0.03 | -0.0234 | -0.0263 | -0.0362 | 1.1236 | 1.5470 | 0.7621 | 0.0997 | 0.3116 | 0.1308 | 0.4089 |
| 111 | 47.69 | -0.03 | -0.0051 | -0.0264 | -0.0275 | 5.1751 | 5.3922 | 0.7645 | 0.1007 | 0.3108 | 0.1317 | 0.4065 |
| 112 | 47.86 | -0.02 | 0.0032 | -0.0310 | 0.0036 | -0.4504 | 0.0475 | 0.8317 | 0.0934 | 0.3458 | 0.1123 | 0.4158 |
| 113 | 48.01 | -0.03 | 0.0042 | -0.0302 | 0.0087 | -0.3586 | 0.1033 | 0.8327 | 0.0937 | 0.3443 | 0.1125 | 0.4135 |
| 114 | 48.20 | -0.02 | 0.0026 | -0.0295 | -0.0032 | -0.4068 | -0.0503 | 0.8077 | 0.0986 | 0.3329 | 0.1196 | 0.4122 |
| 115 | 48.37 | -0.01 | 0.1007 | -0.0227 | 0.0453 | -0.0168 | 0.3068 | 0.7849 | 0.0982 | 0.3237 | 0.1225 | 0.4124 |
| 116 | 48.55 | -0.01 | 0.1761 | -0.0165 | 0.0513 | -0.0641 | 0.3016 | 0.8209 | 0.0939 | 0.3420 | 0.1144 | 0.4166 |
| 117 | 48.71 | -0.02 | 0.1342 | 0.0076 | 0.0383 | 0.0566 | 0.2854 | 0.7477 | 0.0967 | 0.3088 | 0.1320 | 0.4130 |
| 118 | 48.88 | -0.02 | 0.0027 | 0.0088 | 0.0078 | 0.1052 | 0.1244 | 0.0872 | 0.1024 | 0.2817 | 0.1490 | 0.4099 |
| 119 | 49.05 | -0.00 | 0.0220 | 0.0061 | -0.0150 | 0.2772 | -0.0818 | 0.6759 | 0.1031 | 0.2783 | 0.1525 | 0.4117 |
| 120 | 49.20 | -0.01 | 0.0135 | 0.0025 | -0.0124 | 0.1758 | -0.0921 | 0.0835 | 0.1026 | 0.2748 | 0.1546 | 0.4142 |
| 121 | 49.38 | 0.00 | 0.0014 | -0.0002 | -0.0208 | -0.1428 | -14.8571 | 0.0438 | 0.1035 | 0.2676 | 0.1561 | 0.4157 |
| 122 | 49.55 | 0.02 | 0.0160 | 0.0062 | -0.0135 | 0.0105 | -1.2870 | 0.0377 | 0.0969 | 0.2664 | 0.1550 | 0.4178 |
| 123 | 49.73 | 0.01 | 0.0111 | 0.0004 | -0.0155 | 0.0360 | -1.4324 | 0.0353 | 0.0968 | 0.2652 | 0.1553 | 0.4174 |
| 124 | 49.91 | 0.01 | 0.0077 | 0.0006 | -0.0162 | 0.0779 | -2.1039 | 0.0312 | 0.1005 | 0.2731 | 0.1543 | 0.4194 |
| 125 | 50.05 | 0.01 | 0.0217 | 0.0004 | -0.0085 | 0.0164 | -0.4101 | 0.0182 | 0.0945 | 0.2596 | 0.1528 | 0.4195 |
| 126 | 50.24 | -0.01 | 0.0260 | -0.0024 | -0.0093 | -0.1154 | -0.4471 | 0.0202 | 0.0940 | 0.2615 | 0.1515 | 0.4216 |
| 127 | 50.44 | 0.01 | 0.0004 | -0.0004 | -0.0187 | -15.5557 | -66.7500 | 0.0049 | 0.0891 | 0.2343 | 0.1577 | 0.4148 |
| 128 | 50.60 | 0.02 | 0.0131 | -0.0033 | -0.0110 | -0.2518 | -0.0055 | 0.0017 | 0.0919 | 0.2564 | 0.1527 | 0.4261 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK 0) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&3 MACH 1.6 1.7 RATIO=6 PHI 0.0 CONF 3160F11 L 0.0 DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CH3 | CB3 | ALPF3 | XCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.85 | 0.02 | 0.0003 | 0.0000 | 0.0023 | 0.0000 | 0.0337 | -1.4501 | -0.0408 | -0.6990 | 0.0281 | 0.4820 |
| 2 | -5.80 | 0.00 | 0.0005 | 0.0000 | 0.0023 | 0.0000 | 0.0331 | -1.4448 | -0.0404 | -0.6971 | 0.0280 | 0.4832 |
| 3 | -5.86 | 0.00 | 0.0006 | 0.0000 | 0.0022 | 0.0000 | 0.0394 | -1.4500 | -0.0403 | -0.6944 | 0.0280 | 0.4828 |
| 4 | -5.80 | 0.00 | 0.0006 | 0.0000 | 0.0021 | 0.0000 | 0.0316 | -1.4503 | -0.0408 | -0.7009 | 0.0281 | 0.4833 |
| 5 | -5.19 | 0.01 | 0.0037 | 0.0000 | 0.0015 | 0.0000 | 0.0296 | -1.4196 | -0.0493 | -0.6818 | 0.0347 | 0.4805 |
| 6 | -3.34 | 0.00 | 0.0037 | 0.0000 | 0.0037 | 0.0000 | 0.0301 | -1.3942 | -0.0514 | -0.6803 | 0.0369 | 0.4887 |
| 7 | -1.82 | 0.01 | 0.0045 | 0.0000 | 0.0038 | 0.0000 | 0.0308 | -1.3200 | -0.0539 | -0.6401 | 0.0408 | 0.4895 |
| 8 | 0.24 | -0.00 | 0.0045 | 0.0000 | 0.0034 | 0.0000 | 0.0324 | -1.2903 | -0.0591 | -0.6018 | 0.0476 | 0.4852 |
| 9 | 2.07 | 0.01 | 0.0061 | 0.0000 | 0.0012 | 0.0000 | 0.0162 | -1.1518 | -0.0603 | -0.5522 | 0.0523 | 0.4794 |
| 10 | 3.88 | 0.01 | 0.0062 | 0.0000 | -0.0005 | 0.0000 | -0.0076 | -1.0522 | -0.0606 | -0.4950 | 0.0578 | 0.4704 |
| 11 | 5.74 | 0.00 | 0.0041 | 0.0000 | -0.0025 | 0.0000 | -0.0390 | -0.9232 | -0.0597 | -0.4297 | 0.0646 | 0.4654 |
| 12 | 7.64 | 0.01 | 0.0064 | 0.0000 | -0.0027 | 0.0000 | -0.0407 | -0.7901 | -0.0572 | -0.3740 | 0.0717 | 0.4666 |
| 13 | 9.44 | 0.00 | 0.0043 | 0.0000 | -0.0051 | 0.0000 | -0.0793 | -0.6835 | -0.0536 | -0.3251 | 0.0787 | 0.4756 |
| 14 | 11.39 | 0.00 | 0.0000 | 0.0000 | 0.0014 | 0.0000 | 0.0175 | -0.5438 | -0.0454 | -0.2468 | 0.0835 | 0.4577 |
| 15 | 13.27 | -0.00 | 0.0021 | 0.0000 | -0.0018 | 0.0000 | -0.0250 | -0.4326 | -0.0378 | -0.1925 | 0.0876 | 0.4450 |
| 16 | 15.23 | -0.01 | 0.0026 | 0.0000 | -0.0009 | 0.0000 | -0.0114 | -0.3229 | -0.0313 | -0.1571 | 0.0965 | 0.4246 |
| 17 | 17.23 | -0.00 | 0.0042 | 0.0000 | -0.0051 | 0.0000 | -0.0794 | -0.2002 | -0.0190 | -0.0894 | 0.0945 | 0.4466 |
| 18 | 19.17 | -0.01 | 0.0020 | 0.0000 | -0.0014 | 0.0000 | -0.0194 | -0.1210 | -0.0065 | -0.0520 | 0.0521 | 0.4298 |
| 19 | 21.16 | -0.00 | 0.0052 | 0.0000 | 0.0037 | 0.0000 | 0.0492 | -0.0865 | 0.0091 | -0.0318 | -0.1028 | 0.3553 |
| 20 | 23.20 | -0.00 | 0.0036 | 0.0000 | 0.0120 | 0.0000 | 0.1432 | -0.0469 | 0.0200 | -0.0141 | -0.6202 | 0.1419 |
| 21 | 25.17 | -0.01 | 0.0750 | 0.0000 | 0.0048 | 0.0000 | 0.0613 | 0.0203 | 0.0412 | 0.0190 | 2.0250 | 0.9360 |
| 22 | 27.24 | 0.00 | 0.1015 | 0.0000 | 0.0134 | 0.0000 | 0.1315 | 0.0134 | 0.0598 | 0.0198 | 4.4615 | 1.4776 |
| 23 | 28.36 | 0.15 | 0.0520 | 0.0000 | 0.0091 | 0.0000 | 0.0978 | 0.0485 | 0.0606 | 0.0347 | 1.2533 | 0.7155 |
| 24 | 28.42 | 0.04 | 0.1074 | 0.0000 | 0.0106 | 0.0000 | 0.1490 | 0.0567 | 0.0655 | 0.0382 | 1.1619 | 0.6737 |
| 25 | 28.60 | 0.04 | 0.1051 | 0.0000 | 0.0150 | 0.0000 | 0.1427 | 0.0722 | 0.0652 | 0.0454 | 0.9028 | 0.6268 |
| 26 | 28.93 | 0.03 | 0.0995 | 0.0000 | 0.0128 | 0.0000 | 0.1260 | 0.0679 | 0.0674 | 0.0538 | 0.7666 | 0.6121 |
| 27 | 29.21 | 0.01 | 0.1018 | 0.0000 | 0.0134 | 0.0000 | 0.1316 | 0.0907 | 0.0730 | 0.0576 | 0.7716 | 0.6351 |
| 28 | 29.52 | 0.05 | 0.1074 | 0.0000 | 0.0143 | 0.0000 | 0.1391 | 0.1073 | 0.0724 | 0.0657 | 0.6752 | 0.6123 |
| 29 | 29.81 | 0.03 | 0.0952 | 0.0000 | 0.0086 | 0.0000 | 0.0840 | 0.1243 | 0.0750 | 0.0747 | 0.6032 | 0.6016 |
| 30 | 30.10 | 0.06 | 0.1175 | 0.0000 | 0.0195 | 0.0000 | 0.1696 | 0.1377 | 0.0765 | 0.0815 | 0.5554 | 0.5919 |
| 31 | 30.38 | 0.01 | 0.1018 | 0.0000 | 0.0120 | 0.0000 | 0.1179 | 0.1676 | 0.0781 | 0.1032 | 0.4158 | 0.5455 |
| 32 | 30.65 | 0.04 | 0.1083 | 0.0000 | 0.0170 | 0.0000 | 0.1570 | 0.1768 | 0.0805 | 0.0990 | 0.4657 | 0.5729 |
| 33 | 30.94 | 0.04 | 0.0970 | 0.0000 | 0.0134 | 0.0000 | 0.1381 | 0.1608 | 0.0824 | 0.1026 | 0.4556 | 0.5675 |
| 34 | 31.19 | 0.06 | 0.1122 | 0.0000 | 0.0200 | 0.0000 | 0.1776 | 0.1781 | 0.0825 | 0.1006 | 0.4648 | 0.5645 |
| 35 | 31.49 | 0.02 | 0.0870 | 0.0000 | 0.0085 | 0.0000 | 0.0793 | 0.2215 | 0.0846 | 0.1184 | 0.3818 | 0.5345 |
| 36 | 31.77 | 0.04 | 0.0926 | 0.0000 | 0.0104 | 0.0000 | 0.1123 | 0.2369 | 0.0854 | 0.1254 | 0.3574 | 0.5245 |
| 37 | 32.03 | 0.03 | 0.1080 | 0.0000 | 0.0187 | 0.0000 | 0.1731 | 0.2548 | 0.0869 | 0.1328 | 0.3410 | 0.5212 |
| 38 | 32.31 | 0.06 | 0.0961 | 0.0000 | 0.0120 | 0.0000 | 0.1332 | 0.2691 | 0.0884 | 0.1359 | 0.3346 | 0.5146 |
| 39 | 32.58 | 0.01 | 0.0888 | 0.0000 | 0.0113 | 0.0000 | 0.1302 | 0.2829 | 0.0887 | 0.1439 | 0.3135 | 0.5087 |
| 40 | 32.85 | -0.01 | 0.0756 | 0.0000 | 0.0078 | 0.0000 | 0.1032 | 0.2873 | 0.0900 | 0.1457 | 0.3132 | 0.5071 |
| 41 | 33.10 | -0.01 | 0.0888 | 0.0000 | 0.0135 | 0.0000 | 0.1559 | 0.3129 | 0.0889 | 0.1563 | 0.2840 | 0.4995 |
| 42 | 33.37 | 0.01 | 0.0965 | 0.0000 | 0.0195 | 0.0000 | 0.2021 | 0.3123 | 0.0904 | 0.1560 | 0.2894 | 0.4955 |
| 43 | 33.61 | 0.02 | 0.0832 | 0.0000 | 0.0141 | 0.0000 | 0.1695 | 0.3090 | 0.0920 | 0.1555 | 0.2956 | 0.5032 |
| 44 | 33.88 | 0.01 | 0.0826 | 0.0000 | 0.0144 | 0.0000 | 0.1756 | 0.3211 | 0.0941 | 0.1617 | 0.2930 | 0.5036 |
| 45 | 34.13 | 0.01 | 0.0764 | 0.0000 | 0.0153 | 0.0000 | 0.2003 | 0.3345 | 0.0930 | 0.1664 | 0.2780 | 0.4975 |
| 46 | 34.39 | 0.01 | 0.0857 | 0.0000 | 0.0217 | 0.0000 | 0.2419 | 0.3580 | 0.0946 | 0.1777 | 0.2636 | 0.4964 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST / 193 PART 1.1b MACH 4.7 RX10-6 PHI 0.0 CONF 81 L C.G DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.82 | 0.02 | 0.0515 | 5.5555 | 0.0227 | 5.5555 | 0.2470 | 0.3773 | 0.0934 | 0.1851 | 0.2475 | 0.4908 |
| 48 | 34.87 | 0.01 | 0.0530 | 5.5555 | 0.0229 | 5.5555 | 0.2505 | 0.3781 | 0.0929 | 0.1816 | 0.2459 | 0.4907 |
| 49 | 35.13 | 0.02 | 0.0552 | 5.5555 | 0.0226 | 5.5555 | 0.2453 | 0.3713 | 0.0925 | 0.1822 | 0.2491 | 0.4907 |
| 50 | 35.36 | 0.0 | 0.0575 | 5.5555 | 0.0235 | 5.5555 | 0.1750 | 0.3753 | 0.0921 | 0.1824 | 0.2453 | 0.4860 |
| 51 | 35.60 | 0.02 | 0.0575 | 5.5555 | 0.0215 | 5.5555 | 0.2457 | 0.4056 | 0.0921 | 0.1963 | 0.2270 | 0.4846 |
| 52 | 35.86 | 0.03 | 0.0620 | 5.5555 | 0.0182 | 5.5555 | 0.1976 | 0.4109 | 0.0947 | 0.1989 | 0.2304 | 0.4841 |
| 53 | 36.09 | 0.02 | 0.0515 | 5.5555 | 0.0227 | 5.5555 | 0.2470 | 0.4166 | 0.0926 | 0.2001 | 0.2215 | 0.4787 |
| 54 | 36.31 | 0.00 | 0.0604 | 5.5555 | 0.0196 | 5.5555 | 0.2222 | 0.4278 | 0.0932 | 0.2045 | 0.2179 | 0.4783 |
| 55 | 36.57 | -0.00 | 0.0674 | 5.5555 | 0.0197 | 5.5555 | 0.2254 | 0.4391 | 0.0920 | 0.2107 | 0.2055 | 0.4798 |
| 56 | 36.80 | -0.00 | 0.0752 | 5.5555 | 0.0195 | 5.5555 | 0.1848 | 0.4196 | 0.0935 | 0.2024 | 0.2228 | 0.4824 |
| 57 | 37.03 | -0.03 | 0.0763 | 5.5555 | 0.0144 | 5.5555 | 0.1887 | 0.4442 | 0.0941 | 0.2112 | 0.2118 | 0.4755 |
| 58 | 37.29 | 0.00 | 0.0856 | 5.5555 | 0.0207 | 5.5555 | 0.2310 | 0.4500 | 0.0955 | 0.2151 | 0.2122 | 0.4780 |
| 59 | 37.51 | -0.00 | 0.0918 | 5.5555 | 0.0205 | 5.5555 | 0.2277 | 0.4394 | 0.0944 | 0.2109 | 0.2262 | 0.4800 |
| 60 | 37.74 | -0.02 | 0.0784 | 5.5555 | 0.0163 | 5.5555 | 0.2079 | 0.4542 | 0.0968 | 0.2173 | 0.2131 | 0.4784 |
| 61 | 37.99 | -0.02 | 0.0755 | 5.5555 | 0.0165 | 5.5555 | 0.2126 | 0.4724 | 0.0952 | 0.2245 | 0.2015 | 0.4752 |
| 62 | 38.22 | -0.01 | 0.0867 | 5.5555 | 0.0170 | 5.5555 | 0.2107 | 0.4737 | 0.0960 | 0.2240 | 0.2043 | 0.4725 |
| 63 | 38.45 | -0.01 | 0.0764 | 5.5555 | 0.0135 | 5.5555 | 0.1767 | 0.4795 | 0.0940 | 0.2271 | 0.1971 | 0.4732 |
| 64 | 38.69 | -0.02 | 0.0826 | 5.5555 | 0.0185 | 5.5555 | 0.2229 | 0.5053 | 0.0944 | 0.2393 | 0.1868 | 0.4736 |
| 65 | 38.92 | -0.00 | 0.0918 | 5.5555 | 0.0227 | 5.5555 | 0.2473 | 0.5011 | 0.0953 | 0.2381 | 0.1901 | 0.4752 |
| 66 | 39.14 | -0.03 | 0.0834 | 5.5555 | 0.0196 | 5.5555 | 0.1908 | 0.4978 | 0.0968 | 0.2365 | 0.1944 | 0.4751 |
| 67 | 39.38 | -0.00 | 0.0785 | 5.5555 | 0.0149 | 5.5555 | 0.1946 | 0.4983 | 0.0987 | 0.2373 | 0.1980 | 0.4762 |
| 68 | 39.57 | -0.02 | 0.0805 | 5.5555 | 0.0176 | 5.5555 | 0.2101 | 0.5272 | 0.0959 | 0.2508 | 0.1819 | 0.4757 |
| 69 | 39.76 | -0.02 | 0.0878 | 5.5555 | 0.0111 | 5.5555 | 0.1642 | 0.5005 | 0.0915 | 0.2658 | 0.1632 | 0.4742 |
| 70 | 39.99 | -0.02 | 0.0766 | 5.5555 | 0.0113 | 5.5555 | 0.1614 | 0.4915 | 0.1028 | 0.2353 | 0.2091 | 0.4787 |
| 71 | 40.21 | -0.02 | 0.0910 | 5.5555 | 0.0231 | 5.5555 | 0.2536 | 0.5337 | 0.0964 | 0.2543 | 0.1843 | 0.4765 |
| 72 | 40.41 | -0.02 | 0.0816 | 5.5555 | 0.0180 | 5.5555 | 0.2049 | 0.5263 | 0.0982 | 0.2594 | 0.1810 | 0.4783 |
| 73 | 40.62 | -0.01 | 0.0844 | 5.5555 | 0.0182 | 5.5555 | 0.1935 | 0.5250 | 0.0955 | 0.2750 | 0.1657 | 0.4783 |
| 74 | 40.82 | -0.01 | 0.0732 | 5.5555 | 0.0133 | 5.5555 | 0.1817 | 0.5248 | 0.0960 | 0.2751 | 0.1670 | 0.4766 |
| 75 | 41.05 | -0.03 | 0.0855 | 5.5555 | 0.0181 | 5.5555 | 0.1542 | 0.6213 | 0.0915 | 0.2564 | 0.1472 | 0.4771 |
| 76 | 41.25 | -0.04 | 0.0722 | 5.5555 | 0.0136 | 5.5555 | 0.1628 | 0.5932 | 0.0955 | 0.2836 | 0.1609 | 0.4781 |
| 77 | 41.47 | -0.03 | 0.0722 | 5.5555 | 0.0124 | 5.5555 | 0.1717 | 0.6198 | 0.0921 | 0.2555 | 0.1486 | 0.4774 |
| 78 | 41.65 | -0.01 | 0.0555 | 5.5555 | 0.0074 | 5.5555 | 0.1235 | 0.6172 | 0.0924 | 0.2558 | 0.1457 | 0.4793 |
| 79 | 41.87 | -0.02 | 0.0543 | 5.5555 | 0.0065 | 5.5555 | 0.1197 | 0.6256 | 0.0922 | 0.2590 | 0.1473 | 0.4775 |
| 80 | 42.09 | -0.04 | 0.0611 | 5.5555 | 0.0084 | 5.5555 | 0.1375 | 0.6222 | 0.0939 | 0.2992 | 0.1455 | 0.4776 |
| 81 | 42.28 | -0.03 | 0.0760 | 5.5555 | 0.0171 | 5.5555 | 0.2232 | 0.6147 | 0.0940 | 0.2937 | 0.1525 | 0.4778 |
| 82 | 42.45 | -0.02 | 0.0816 | 5.5555 | 0.0181 | 5.5555 | 0.1907 | 0.6441 | 0.0917 | 0.3084 | 0.1423 | 0.4786 |
| 83 | 42.65 | -0.03 | 0.0623 | 5.5555 | 0.0103 | 5.5555 | 0.1653 | 0.6525 | 0.0914 | 0.3117 | 0.1400 | 0.4776 |
| 84 | 42.83 | -0.04 | 0.0723 | 5.5555 | 0.0150 | 5.5555 | 0.2075 | 0.6551 | 0.0913 | 0.3148 | 0.1393 | 0.4775 |
| 85 | 43.02 | -0.04 | 0.0660 | 5.5555 | 0.0092 | 5.5555 | 0.1533 | 0.6547 | 0.0926 | 0.3124 | 0.1414 | 0.4772 |
| 86 | 43.20 | -0.03 | 0.0760 | 5.5555 | 0.0144 | 5.5555 | 0.2007 | 0.6422 | 0.0953 | 0.3067 | 0.1484 | 0.4776 |
| 87 | 43.38 | -0.04 | 0.0675 | 5.5555 | 0.0125 | 5.5555 | 0.1841 | 0.6520 | 0.0928 | 0.3113 | 0.1423 | 0.4775 |
| 88 | 43.59 | -0.03 | 0.0511 | 5.5555 | 0.0058 | 5.5555 | 0.1135 | 0.6834 | 0.0908 | 0.3284 | 0.1328 | 0.4805 |
| 89 | 43.76 | -0.03 | 0.0656 | 5.5555 | 0.0114 | 5.5555 | 0.1738 | 0.6758 | 0.0905 | 0.3232 | 0.1339 | 0.4786 |
| 90 | 43.92 | -0.04 | 0.0760 | 5.5555 | 0.0145 | 5.5555 | 0.2129 | 0.6578 | 0.0944 | 0.3102 | 0.1435 | 0.4807 |
| 91 | 44.11 | -0.04 | 0.0655 | 5.5555 | 0.0136 | 5.5555 | 0.2076 | 0.6670 | 0.0939 | 0.3210 | 0.1407 | 0.4813 |
| 92 | 44.30 | -0.05 | 0.0761 | 5.5555 | 0.0140 | 5.5555 | 0.1997 | 0.6604 | 0.0944 | 0.3173 | 0.1429 | 0.4805 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASHDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 133 PACF 1.1C RX10-6 1.7 PHI 0.0 CONF BIBUFIA L 0.C DEL1 0 DEL2 -30 DEL3 0 DEL4 -30 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CAF3 | CM3 | CB3 | XCPF3 | YCPF3 | CAF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.48 | -0.04 | 0.0046 | 5.5555 | 0.0122 | 5.5599 | 0.1869 | 0.6791 | 0.0935 | 0.3268 | 0.1376 | 0.4812 |
| 94 | 44.66 | -0.04 | 0.0481 | 5.5555 | 0.0135 | 5.5599 | 0.2044 | 0.6391 | 0.0956 | 0.3078 | 0.1558 | 0.4816 |
| 95 | 44.85 | -0.03 | 0.0457 | 5.5555 | 0.0146 | 5.5599 | 0.2222 | 0.6530 | 0.0967 | 0.3155 | 0.1486 | 0.4832 |
| 96 | 45.03 | -0.03 | 0.0451 | 5.5555 | 0.0105 | 5.5599 | 0.1777 | 0.6412 | 0.0945 | 0.3106 | 0.1551 | 0.4844 |
| 97 | 45.21 | -0.04 | 0.0565 | 5.5555 | 0.0103 | 5.5599 | 0.1810 | 0.6571 | 0.0956 | 0.3181 | 0.1512 | 0.4841 |
| 98 | 45.39 | -0.02 | 0.0565 | 5.5555 | 0.0085 | 5.5599 | 0.1494 | 0.6454 | 0.1003 | 0.3154 | 0.1554 | 0.4887 |
| 99 | 45.59 | -0.06 | 0.0693 | 5.5555 | 0.0171 | 5.5599 | 0.2908 | 0.6672 | 0.0959 | 0.3236 | 0.1457 | 0.4856 |
| 100 | 45.78 | -0.02 | 0.0655 | 5.5555 | 0.0135 | 5.5599 | 0.2352 | 0.6592 | 0.1009 | 0.3199 | 0.1530 | 0.4853 |
| 101 | 45.93 | -0.04 | 0.0648 | 5.5555 | 0.0145 | 5.5599 | 0.2238 | 0.6542 | 0.1004 | 0.3180 | 0.1534 | 0.4861 |
| 102 | 46.09 | -0.03 | 0.0592 | 5.5555 | 0.0114 | 5.5599 | 0.1926 | 0.6268 | 0.1055 | 0.3071 | 0.1683 | 0.4895 |
| 103 | 46.29 | -0.05 | 0.0457 | 5.5555 | 0.0055 | 5.5599 | 0.1291 | 0.6092 | 0.1030 | 0.3000 | 0.1772 | 0.4924 |
| 104 | 46.46 | -0.03 | 0.0565 | 5.5555 | 0.0112 | 5.5599 | 0.1908 | 0.6215 | 0.1059 | 0.3068 | 0.1703 | 0.4936 |
| 105 | 46.61 | -0.03 | 0.0555 | 5.5555 | 0.0111 | 5.5555 | 0.1986 | 0.5940 | 0.1106 | 0.2940 | 0.1865 | 0.4949 |
| 106 | 46.80 | -0.02 | 0.0615 | 5.5555 | 0.0143 | 5.5599 | 0.2325 | 0.6039 | 0.1058 | 0.3166 | 0.1638 | 0.4902 |
| 107 | 46.98 | -0.03 | 0.0525 | 5.5555 | 0.0100 | 5.5555 | 0.1905 | 0.5890 | 0.1126 | 0.2931 | 0.1911 | 0.4976 |
| 108 | 47.13 | -0.03 | 0.0492 | 5.5555 | 0.0084 | 5.5599 | 0.1707 | 0.6030 | 0.1107 | 0.2998 | 0.1835 | 0.4972 |
| 109 | 47.32 | -0.03 | 0.0528 | 5.5555 | 0.0105 | 5.5599 | 0.2072 | 0.5990 | 0.1124 | 0.2975 | 0.1876 | 0.4967 |
| 110 | 47.50 | -0.03 | 0.0718 | 5.5555 | 0.0205 | 5.5599 | 0.2855 | 0.6109 | 0.1117 | 0.3031 | 0.1828 | 0.4962 |
| 111 | 47.69 | -0.03 | 0.0555 | 5.5555 | 0.0134 | 5.5555 | 0.2397 | 0.5897 | 0.1132 | 0.2946 | 0.1915 | 0.4998 |
| 112 | 47.88 | -0.02 | 0.0413 | 5.5555 | 0.0064 | 5.5599 | 0.1556 | 0.6150 | 0.1111 | 0.3067 | 0.1806 | 0.4987 |
| 113 | 48.01 | -0.03 | 0.0413 | 5.5555 | 0.0064 | 5.5599 | 0.1550 | 0.6078 | 0.1117 | 0.3032 | 0.1837 | 0.4988 |
| 114 | 48.20 | -0.02 | 0.0553 | 5.5555 | 0.0108 | 5.5599 | 0.2033 | 0.6152 | 0.1126 | 0.3057 | 0.1830 | 0.4965 |
| 115 | 48.37 | -0.01 | 0.0618 | 5.5555 | 0.0138 | 5.5555 | 0.3032 | 0.6152 | 0.1139 | 0.3051 | 0.1851 | 0.4959 |
| 116 | 48.55 | -0.01 | 0.0452 | 5.5555 | 0.0111 | 5.5555 | 0.2256 | 0.6105 | 0.1127 | 0.3056 | 0.1846 | 0.5006 |
| 117 | 48.71 | -0.02 | 0.0545 | 5.5555 | 0.0147 | 5.5599 | 0.2678 | 0.6239 | 0.1146 | 0.3101 | 0.1840 | 0.4970 |
| 118 | 48.88 | -0.02 | 0.0482 | 5.5555 | 0.0110 | 5.5599 | 0.2282 | 0.6029 | 0.1172 | 0.3010 | 0.1943 | 0.4993 |
| 119 | 49.05 | -0.00 | 0.0549 | 5.5555 | 0.0156 | 5.5599 | 0.2842 | 0.6107 | 0.1171 | 0.3049 | 0.1917 | 0.4993 |
| 120 | 49.20 | -0.01 | 0.0527 | 5.5555 | 0.0145 | 5.5599 | 0.2751 | 0.6091 | 0.1178 | 0.3056 | 0.1933 | 0.5021 |
| 121 | 49.38 | 0.00 | 0.0549 | 5.5555 | 0.0150 | 5.5599 | 0.2842 | 0.6134 | 0.1167 | 0.3079 | 0.1902 | 0.5020 |
| 122 | 49.55 | 0.02 | 0.0505 | 5.5555 | 0.0135 | 5.5599 | 0.2673 | 0.6111 | 0.1161 | 0.3072 | 0.1855 | 0.5027 |
| 123 | 49.73 | 0.01 | 0.0527 | 5.5555 | 0.0155 | 5.5599 | 0.3017 | 0.6100 | 0.1155 | 0.3075 | 0.1853 | 0.5041 |
| 124 | 49.91 | 0.01 | 0.0504 | 5.5555 | 0.0150 | 5.5599 | 0.3180 | 0.6199 | 0.1168 | 0.3113 | 0.1884 | 0.5022 |
| 125 | 50.05 | 0.01 | 0.0616 | 5.5555 | 0.0207 | 5.5599 | 0.3350 | 0.6154 | 0.1149 | 0.3093 | 0.1867 | 0.5026 |
| 126 | 50.24 | -0.00 | 0.0618 | 5.5555 | 0.0221 | 5.5599 | 0.3576 | 0.6218 | 0.1140 | 0.3128 | 0.1833 | 0.5031 |
| 127 | 50.44 | 0.01 | 0.0582 | 5.5555 | 0.0171 | 5.5599 | 0.3043 | 0.6297 | 0.1135 | 0.3167 | 0.1802 | 0.5029 |
| 128 | 50.60 | 0.02 | 0.0530 | 5.5555 | 0.0175 | 5.5599 | 0.3162 | 0.6296 | 0.1140 | 0.3172 | 0.1810 | 0.5038 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 155 | MACH 0.60 | RALC-6 1.7 | PHI 0.0 | CONF 6150F11 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | 0.01 | -1.4654 | 4.7132 | -0.0022 | 0.0051 | 0.0010 | 0.7023 | 0.2674 | 0.4346 | -3.3441 |
| 2 | -5.70 | -0.01 | -1.4665 | 4.7464 | -0.0021 | -0.0410 | 0.0011 | 0.7045 | 0.2670 | 0.4374 | -3.3745 |
| 3 | -5.70 | -0.01 | -1.4655 | 4.7453 | 0.0000 | -0.1060 | 0.0005 | 0.7042 | 0.2679 | 0.4362 | -3.3752 |
| 4 | -5.71 | -0.01 | -1.4623 | 4.7585 | 0.0232 | -0.0852 | 0.0011 | 0.7064 | 0.2680 | 0.4383 | -3.3462 |
| 5 | -5.70 | -0.01 | -1.4656 | 4.7464 | 0.0224 | -0.0953 | 0.0012 | 0.7044 | 0.2675 | 0.4368 | -3.3743 |
| 6 | -5.70 | -0.01 | -1.3935 | 4.7156 | -0.0007 | 0.0304 | -0.0138 | 0.7044 | 0.2689 | 0.4354 | -3.3865 |
| 7 | -5.75 | -0.00 | -1.4070 | 4.7465 | 0.0408 | -0.0609 | 0.0012 | 0.7095 | 0.2670 | 0.4424 | -3.3737 |
| 8 | -5.82 | -0.01 | -1.4052 | 4.7052 | -0.0072 | -0.0078 | 0.0085 | 0.7117 | 0.2646 | 0.4470 | -3.3855 |
| 9 | -5.68 | -0.01 | -1.4144 | 4.6552 | 0.0240 | -0.0712 | 0.0067 | 0.7169 | 0.2598 | 0.4570 | -3.4354 |
| 10 | -4.18 | -0.00 | -1.3026 | 5.0643 | 0.0424 | -0.0305 | 0.0018 | 0.6926 | 0.2332 | 0.4593 | -3.7313 |
| 11 | -2.44 | 0.00 | -1.3437 | 5.5124 | 0.0235 | -0.0710 | 0.0245 | 0.6666 | 0.1870 | 0.4796 | -4.1024 |
| 12 | -0.65 | -0.00 | -1.2463 | 5.9761 | -0.0025 | 0.0004 | 0.0269 | 0.6240 | 0.1536 | 0.4754 | -4.4883 |
| 13 | 1.00 | -0.00 | -1.3678 | 6.4235 | -0.0182 | 0.0078 | 0.0031 | 0.5754 | 0.1464 | 0.4270 | -4.8825 |
| 14 | 2.80 | 0.01 | -1.2756 | 6.2478 | 0.0436 | -0.0765 | 0.0036 | 0.5194 | 0.1467 | 0.3792 | -5.7989 |
| 15 | 4.56 | 0.01 | -0.4886 | 3.7262 | -0.0009 | -0.0653 | -0.0033 | 0.4756 | 0.1326 | 0.3431 | -7.6148 |
| 16 | 6.34 | 0.00 | -0.4270 | 3.1948 | -0.0239 | -0.0654 | -0.0026 | 0.4270 | 0.1321 | 0.2956 | -13.8438 |
| 17 | 8.10 | 0.01 | 0.0043 | 2.0255 | 0.0002 | -0.0534 | -0.0023 | 0.3858 | 0.1378 | 0.2460 | 610.2739 |
| 18 | 9.79 | 0.01 | 0.3056 | 2.0332 | 0.0203 | -0.0536 | -0.0016 | 0.3440 | 0.1421 | 0.2019 | 6.5638 |
| 19 | 11.55 | 0.01 | 0.5728 | 1.5046 | 0.0116 | -0.0496 | -0.0011 | 0.3073 | 0.1473 | 0.1600 | 2.7315 |
| 20 | 13.30 | 0.00 | 0.6255 | 1.1941 | -0.0330 | 0.0209 | -0.0077 | 0.2826 | 0.1544 | 0.1285 | 1.4464 |
| 21 | 15.06 | 0.01 | 1.0551 | 0.5651 | -0.0047 | 0.0071 | -0.0069 | 0.2554 | 0.1646 | 0.0914 | 0.5336 |
| 22 | 16.87 | 0.00 | 1.3242 | 0.0037 | -0.0384 | 0.1019 | 0.0002 | 0.2330 | 0.1721 | 0.0609 | 0.4952 |
| 23 | 18.65 | -0.00 | 1.6204 | 0.2700 | -0.1595 | 0.4051 | 0.0229 | 0.1969 | 0.1835 | 0.0114 | 0.1666 |
| 24 | 20.41 | -0.02 | 1.9736 | -0.2317 | -0.4063 | 1.0141 | 0.0442 | 0.1503 | 0.1954 | -0.0451 | -0.1174 |
| 25 | 22.17 | -0.02 | 2.3035 | -0.7660 | -0.4564 | 1.4014 | 0.0437 | 0.1078 | 0.2035 | -0.0957 | -0.3333 |
| 26 | 23.95 | -0.03 | 2.6524 | -1.2642 | -0.7903 | 2.0234 | 0.0345 | 0.0772 | 0.2184 | -0.1412 | -0.4766 |
| 27 | 25.72 | -0.02 | 3.0378 | -1.8748 | -0.4502 | 1.6135 | 0.0390 | 0.0229 | 0.2188 | -0.1959 | -0.5511 |
| 28 | 27.53 | 0.01 | 3.5253 | -1.9523 | 0.0288 | 0.0387 | 0.0096 | -0.0354 | 0.2187 | -0.2521 | -0.5538 |
| 29 | 27.87 | 0.01 | 3.6259 | -1.9405 | -0.0091 | 0.2471 | 0.0363 | -0.0353 | 0.2154 | -0.2487 | -0.5670 |
| 30 | 28.18 | 0.02 | 3.5351 | -1.9577 | 0.2656 | -0.4442 | 0.0681 | -0.0571 | 0.2163 | -0.2734 | -0.5532 |
| 31 | 28.45 | 0.02 | 3.5811 | -1.9654 | 0.2501 | -0.5442 | 0.0584 | -0.0619 | 0.2178 | -0.2797 | -0.5554 |
| 32 | 28.77 | 0.02 | 3.6527 | -2.0413 | 0.2547 | -0.3813 | 0.0536 | -0.0744 | 0.2158 | -0.2903 | -0.5588 |
| 33 | 29.07 | 0.03 | 3.7305 | -2.0475 | 0.3504 | -0.4505 | 0.0764 | -0.0734 | 0.2172 | -0.2907 | -0.5450 |
| 34 | 29.34 | 0.03 | 3.8052 | -2.0118 | 0.4274 | -0.6484 | 0.0492 | -0.0735 | 0.2244 | -0.2980 | -0.5613 |
| 35 | 29.62 | 0.03 | 3.8729 | -2.3151 | 0.3132 | -0.2416 | 0.0765 | -0.0767 | 0.2263 | -0.3031 | -0.5977 |
| 36 | 29.92 | 0.03 | 3.9603 | -2.4761 | 0.2560 | -0.0621 | 0.0833 | -0.0864 | 0.2287 | -0.3172 | -0.6208 |
| 37 | 30.17 | 0.04 | 4.0259 | -2.4865 | 0.3583 | -0.1227 | 0.0837 | -0.0879 | 0.2344 | -0.3224 | -0.6128 |
| 38 | 30.43 | 0.03 | 4.0786 | -2.5777 | 0.3814 | -0.1408 | 0.0839 | -0.0947 | 0.2364 | -0.3312 | -0.6320 |
| 39 | 30.71 | 0.02 | 4.2035 | -2.6178 | 0.0618 | 1.0185 | 0.0208 | -0.1020 | 0.2455 | -0.3475 | -0.6703 |
| 40 | 30.98 | 0.02 | 4.2739 | -2.6507 | -0.0652 | 1.3377 | 0.0051 | -0.1053 | 0.2512 | -0.3565 | -0.6861 |
| 41 | 31.26 | 0.02 | 4.3420 | -3.0313 | 0.0340 | 1.0573 | 0.0283 | -0.1068 | 0.2551 | -0.3619 | -0.6980 |
| 42 | 31.52 | 0.02 | 4.4016 | -3.0574 | 0.0423 | 1.2695 | 0.0129 | -0.1114 | 0.2589 | -0.3708 | -0.6946 |
| 43 | 31.78 | 0.02 | 4.3554 | -2.9573 | -0.0058 | 1.5283 | -0.0322 | -0.1169 | 0.2526 | -0.3695 | -0.6813 |
| 44 | 32.05 | 0.02 | 4.3566 | -3.1147 | 0.0056 | 1.4703 | -0.0100 | -0.1274 | 0.2594 | -0.3668 | -0.6845 |
| 45 | 32.29 | 0.04 | 4.3369 | -3.2363 | 0.2013 | 1.3260 | 0.0207 | -0.1245 | 0.2681 | -0.3926 | -0.6581 |
| 46 | 32.57 | 0.03 | 4.7256 | -3.0654 | 0.2127 | 1.2561 | 0.0141 | -0.1462 | 0.2637 | -0.4099 | -0.6495 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIA MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 135 | 0.60 | 1.7 | 0.0 | B1W0F11 | C.C | 0 | -20 | 0 | -20 | UNKNOWN |

| PLNT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.62 | 0.04 | 4.8252 | -3.1455 | C.2782 | 1.2563 | 0.0292 | -0.1435 | 0.2714 | -0.4154 | -C.6519 |
| 48 | 33.06 | 0.04 | 4.9556 | -3.1341 | 0.4624 | 0.9006 | 0.0236 | -0.1627 | 0.2714 | -0.4341 | -0.6269 |
| 49 | 33.33 | 0.05 | 5.0387 | -3.2367 | C.4138 | 1.1502 | 0.0301 | -0.1489 | 0.2762 | -0.4251 | -0.6424 |
| 50 | 33.57 | 0.05 | 5.1215 | -3.1552 | C.4465 | 1.1791 | 0.0224 | -0.1643 | 0.2810 | -0.4453 | -C.6161 |
| 51 | 33.81 | 0.06 | 5.2527 | -3.3481 | 0.5204 | 1.3796 | 0.0300 | -0.1521 | 0.2913 | -0.4433 | -0.6416 |
| 52 | 34.07 | 0.05 | 5.2163 | -3.2346 | 0.4961 | 1.3809 | 0.0228 | -0.1604 | 0.2886 | -0.4492 | -C.6105 |
| 53 | 34.32 | 0.06 | 5.4153 | -3.3752 | C.6251 | 1.2404 | 0.0309 | -0.1535 | 0.3010 | -0.4544 | -0.6240 |
| 54 | 34.55 | 0.07 | 5.5797 | -3.4671 | 0.7026 | 1.1841 | 0.0465 | -0.1673 | 0.3102 | -0.4774 | -0.6250 |
| 55 | 34.80 | 0.07 | 5.6660 | -3.5730 | C.7089 | 1.3118 | 0.0463 | -0.1545 | 0.3190 | -0.4734 | -0.6304 |
| 56 | 35.04 | 0.07 | 5.7942 | -3.5966 | C.8197 | 1.3194 | 0.0540 | -0.1570 | 0.3257 | -0.4827 | -C.6211 |
| 57 | 35.27 | 0.08 | 5.7583 | -3.4533 | C.8222 | 1.0451 | 0.0552 | -0.1737 | 0.3132 | -0.4869 | -C.5556 |
| 58 | 35.51 | 0.07 | 5.8629 | -3.5385 | C.8566 | 1.0703 | 0.0481 | -0.1644 | 0.3133 | -0.4776 | -0.5691 |
| 59 | 35.74 | 0.07 | 5.9145 | -3.2055 | C.7859 | 0.9231 | 0.0417 | -0.1810 | 0.3103 | -0.4913 | -0.5427 |
| 60 | 35.97 | 0.05 | 5.9526 | -2.9563 | 0.8018 | -0.0078 | 0.0684 | -0.2128 | 0.2935 | -0.5063 | -0.5050 |
| 61 | 36.20 | 0.05 | 5.9484 | -2.9325 | C.8377 | -C.0254 | 0.1008 | -0.2105 | 0.2956 | -0.5011 | -0.4930 |
| 62 | 36.44 | 0.06 | 5.9969 | -2.9835 | C.9588 | -C.7595 | 0.1090 | -0.2260 | 0.2838 | -0.5059 | -C.4947 |
| 63 | 36.67 | 0.05 | 6.1167 | -2.9100 | C.8543 | -1.0230 | 0.1027 | -0.2396 | 0.2824 | -0.5219 | -0.4757 |
| 64 | 36.89 | 0.06 | 6.1760 | -2.9359 | C.9026 | -C.6515 | 0.0792 | -0.2429 | 0.2826 | -0.5258 | -0.4754 |
| 65 | 37.13 | 0.05 | 6.1523 | -2.8564 | C.8608 | -C.4415 | 0.0788 | -0.2465 | 0.2824 | -0.5310 | -0.4612 |
| 66 | 37.36 | 0.05 | 6.2950 | -2.9550 | C.8185 | -C.0010 | 0.0476 | -0.2274 | 0.3019 | -0.5293 | -0.4748 |
| 67 | 37.60 | 0.06 | 6.4607 | -3.1735 | C.8240 | C.9015 | -0.0083 | -0.1978 | 0.3463 | -0.5381 | -0.4913 |
| 68 | 37.83 | 0.06 | 6.5147 | -3.2264 | C.7525 | 1.1150 | -0.0254 | -0.1791 | 0.3619 | -0.5410 | -0.4956 |
| 69 | 38.05 | 0.06 | 6.6252 | -3.1892 | C.7356 | 1.4511 | -0.0474 | -0.1788 | 0.3736 | -0.5524 | -C.4811 |
| 70 | 38.29 | 0.06 | 6.6013 | -3.2078 | 0.6057 | 2.0715 | -0.0714 | -0.1807 | 0.3804 | -0.5611 | -C.4805 |
| 71 | 38.51 | 0.07 | 6.6853 | -3.3503 | C.7865 | 2.0725 | -0.0716 | -0.1742 | 0.3905 | -0.5617 | -0.4863 |
| 72 | 38.72 | 0.06 | 6.6829 | -3.3472 | 0.6816 | 2.3595 | -0.1024 | -0.1701 | 0.3933 | -0.5714 | -0.4793 |
| 73 | 38.96 | 0.07 | 7.0760 | -3.3821 | C.6572 | 2.2246 | -0.0788 | -0.1679 | 0.4002 | -0.5681 | -0.4780 |
| 74 | 39.17 | 0.07 | 7.0653 | -3.0165 | C.6767 | 2.9374 | -0.1111 | -0.1775 | 0.4041 | -0.5816 | -0.4950 |
| 75 | 39.36 | 0.07 | 7.3594 | -3.7029 | C.6059 | 2.5826 | -0.1116 | -0.1905 | 0.4047 | -0.5952 | -0.5031 |
| 76 | 39.58 | 0.07 | 7.4555 | -3.6837 | C.7056 | 2.7125 | -0.1027 | -0.1859 | 0.4062 | -0.5901 | -0.4941 |
| 77 | 39.78 | 0.07 | 7.4550 | -3.6064 | C.6993 | 2.5057 | -0.1018 | -0.1944 | 0.4057 | -0.6001 | -0.4838 |
| 78 | 39.98 | 0.08 | 7.5922 | -3.7269 | C.7569 | 2.5668 | -0.1020 | -0.1976 | 0.4050 | -0.6066 | -0.4909 |
| 79 | 40.18 | 0.08 | 7.5542 | -3.4730 | C.8816 | 1.9474 | -0.0692 | -0.1579 | 0.4061 | -0.6040 | -0.4597 |
| 80 | 40.40 | 0.09 | 7.7254 | -3.6066 | 1.0487 | 1.7755 | -0.0379 | -0.2007 | 0.4105 | -0.6172 | -0.4669 |
| 81 | 40.58 | 0.07 | 7.6506 | -3.3570 | C.8662 | 1.6622 | -0.0372 | -0.2064 | 0.4105 | -0.6169 | -0.4440 |
| 82 | 40.80 | 0.06 | 7.7157 | -3.3252 | 0.9518 | 1.2465 | -0.0204 | -0.2156 | 0.4105 | -0.6259 | -0.4315 |
| 83 | 40.99 | 0.06 | 7.7663 | -3.2203 | C.9712 | 1.1606 | -0.0196 | -0.2190 | 0.4182 | -0.6282 | -0.4145 |
| 84 | 41.19 | 0.06 | 7.7960 | -3.2041 | C.9005 | 1.3499 | -0.0353 | -0.2243 | 0.4187 | -0.6430 | -0.4109 |
| 85 | 41.38 | 0.07 | 7.9260 | -3.2254 | 1.0795 | 1.0728 | -0.0188 | -0.1920 | 0.4280 | -0.6200 | -0.4074 |
| 86 | 41.58 | 0.06 | 7.9214 | -3.2231 | 0.9913 | 1.2375 | -0.0345 | -0.2023 | 0.4310 | -0.6333 | -0.4069 |
| 87 | 41.79 | 0.07 | 8.1158 | -3.2643 | 1.1201 | 1.2386 | -0.0186 | -0.2091 | 0.4310 | -0.6361 | -0.4022 |
| 88 | 41.96 | 0.07 | 8.2355 | -3.3420 | 1.1050 | 1.2533 | -0.0336 | -0.2091 | 0.4423 | -0.6514 | -0.4119 |
| 89 | 42.15 | 0.06 | 8.2262 | -3.1863 | 0.9611 | 1.3157 | -0.0332 | -0.1949 | 0.4453 | -0.6402 | -0.3873 |
| 90 | 42.34 | 0.07 | 8.3010 | -3.3526 | 1.1096 | 1.3516 | -0.0332 | -0.2086 | 0.4456 | -0.6546 | -0.4010 |
| 91 | 42.52 | 0.07 | 8.4568 | -3.3527 | 1.1621 | 1.2799 | -0.0327 | -0.1993 | 0.4552 | -0.6545 | -0.3964 |
| 92 | 42.68 | 0.06 | 8.5052 | -3.3152 | 1.1562 | 1.3230 | -0.0325 | -0.2086 | 0.4557 | -0.6643 | -0.3898 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 135 | MACH 0.60 | RX10-6 1.7 | PHI 0.0 | CONF 61 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 42.68 | 0.00 | 8.7631 | -3.8155 | 1.2492 | 1.6586 | -0.0485 | -0.2112 | 0.4558 | -0.6670 | -0.4126 |
| 94 | 43.07 | 0.00 | 8.8458 | -3.8454 | 1.1700 | 1.4439 | -0.0396 | -0.2259 | 0.4503 | -0.6823 | -0.3997 |
| 95 | 43.26 | 0.00 | 8.8824 | -3.8153 | 1.1624 | 1.6864 | -0.0552 | -0.2149 | 0.4631 | -0.6781 | -0.4075 |
| 96 | 43.41 | 0.00 | 8.9271 | -3.8551 | 1.1656 | 1.7545 | -0.0477 | -0.2201 | 0.4615 | -0.6877 | -0.4128 |
| 97 | 43.61 | 0.00 | 9.0130 | -3.7254 | 1.2146 | 1.7401 | -0.0549 | -0.2185 | 0.4625 | -0.6811 | -0.4133 |
| 98 | 43.75 | 0.00 | 9.1116 | -3.8663 | 1.2481 | 1.8107 | -0.0624 | -0.2242 | 0.4641 | -0.6884 | -0.4259 |
| 99 | 43.97 | 0.00 | 9.2527 | -3.9154 | 1.1848 | 1.8226 | -0.0617 | -0.2316 | 0.4616 | -0.6933 | -0.4232 |
| 100 | 44.16 | 0.00 | 9.1756 | -3.5247 | 1.1341 | 1.7631 | -0.0615 | -0.2230 | 0.4664 | -0.6921 | -0.3841 |
| 101 | 44.34 | 0.00 | 9.2805 | -3.6235 | 1.2362 | 1.5863 | -0.0454 | -0.2143 | 0.4766 | -0.6930 | -0.3904 |
| 102 | 44.53 | 0.00 | 9.3519 | -3.7884 | 1.2201 | 1.6572 | -0.0579 | -0.2268 | 0.4724 | -0.7013 | -0.4048 |
| 103 | 44.69 | 0.00 | 9.4051 | -3.7501 | 1.1444 | 1.7415 | -0.0452 | -0.2317 | 0.4752 | -0.7150 | -0.3987 |
| 104 | 44.88 | 0.00 | 9.5366 | -3.8606 | 1.2917 | 1.5705 | -0.0295 | -0.2338 | 0.4801 | -0.7146 | -0.4048 |
| 105 | 45.07 | 0.00 | 9.5752 | -3.9128 | 1.2355 | 1.7760 | -0.0447 | -0.2356 | 0.4621 | -0.7177 | -0.4086 |
| 106 | 45.25 | 0.00 | 9.7267 | -4.0142 | 1.2456 | 1.9560 | -0.0375 | -0.2468 | 0.4635 | -0.7305 | -0.4126 |
| 107 | 45.41 | 0.00 | 9.7112 | -3.9018 | 1.2514 | 1.7625 | -0.0367 | -0.2349 | 0.4650 | -0.7199 | -0.4080 |
| 108 | 45.59 | 0.00 | 9.8015 | -3.9558 | 1.2424 | 1.8844 | -0.0262 | -0.2492 | 0.4673 | -0.7315 | -0.4075 |
| 109 | 45.76 | 0.00 | 9.8119 | -3.9532 | 1.2261 | 1.9960 | -0.0280 | -0.2508 | 0.4688 | -0.7376 | -0.4029 |
| 110 | 45.95 | 0.00 | 10.0385 | -4.1035 | 1.3384 | 1.8613 | -0.0276 | -0.2454 | 0.4916 | -0.7570 | -0.4150 |
| 111 | 46.11 | 0.00 | 10.1322 | -4.1050 | 1.2886 | 1.8150 | -0.0197 | -0.2370 | 0.4983 | -0.7353 | -0.4111 |
| 112 | 46.28 | 0.00 | 10.2467 | -4.0435 | 1.3017 | 1.8888 | -0.0353 | -0.2560 | 0.5003 | -0.7583 | -0.4239 |
| 113 | 46.46 | 0.00 | 10.2501 | -4.1716 | 1.2695 | 1.9890 | -0.0279 | -0.2573 | 0.4964 | -0.7537 | -0.4070 |
| 114 | 46.65 | 0.00 | 10.4592 | -4.3084 | 1.3734 | 2.1141 | -0.0504 | -0.2669 | 0.4983 | -0.7672 | -0.4196 |
| 115 | 46.80 | 0.00 | 10.4350 | -4.3571 | 1.3056 | 2.1408 | -0.0502 | -0.2620 | 0.4977 | -0.7597 | -0.4175 |
| 116 | 46.99 | 0.00 | 10.5549 | -4.4485 | 1.3627 | 2.3004 | -0.0579 | -0.2752 | 0.4977 | -0.7729 | -0.4215 |
| 117 | 47.17 | 0.00 | 10.6005 | -4.4303 | 1.2551 | 2.5890 | -0.0661 | -0.2857 | 0.4956 | -0.7653 | -0.4179 |
| 118 | 47.33 | 0.00 | 10.5004 | -4.2346 | 1.1515 | 2.7133 | -0.0885 | -0.2556 | 0.5102 | -0.7650 | -0.4009 |
| 119 | 47.49 | 0.00 | 10.5562 | -4.1453 | 0.9528 | 2.8542 | -0.1032 | -0.2635 | 0.5073 | -0.7708 | -0.3927 |
| 120 | 47.67 | 0.00 | 10.7030 | -4.2918 | 1.1014 | 3.0051 | -0.1037 | -0.2714 | 0.5053 | -0.7767 | -0.4047 |
| 121 | 47.84 | 0.00 | 10.8453 | -4.2231 | 0.9752 | 2.9967 | -0.1160 | -0.2739 | 0.5119 | -0.7658 | -0.3966 |
| 122 | 48.01 | 0.00 | 10.8709 | -4.0760 | 0.8011 | 3.0934 | -0.1253 | -0.2713 | 0.5105 | -0.7618 | -0.3820 |
| 123 | 48.18 | 0.00 | 10.7355 | -4.0185 | 0.9105 | 3.2558 | -0.1331 | -0.2641 | 0.5171 | -0.8012 | -0.3743 |
| 124 | 48.33 | 0.00 | 10.6956 | -4.0054 | 0.8455 | 3.2015 | -0.1328 | -0.2776 | 0.5123 | -0.7895 | -0.3743 |
| 125 | 48.51 | 0.00 | 10.7752 | -4.0055 | 0.9047 | 3.1505 | -0.1399 | -0.2900 | 0.5161 | -0.8066 | -0.3721 |
| 126 | 48.68 | 0.00 | 10.8035 | -4.0105 | 0.7397 | 3.2980 | -0.1320 | -0.2937 | 0.5147 | -0.8083 | -0.3713 |
| 127 | 48.84 | 0.00 | 10.7255 | -3.8881 | 0.7585 | 3.2295 | -0.1325 | -0.3155 | 0.4971 | -0.8125 | -0.3431 |
| 128 | 49.01 | 0.00 | 10.7048 | -3.8816 | 0.7606 | 3.0550 | -0.1391 | -0.3262 | 0.4921 | -0.8212 | -0.3419 |
| 129 | 49.20 | 0.00 | 10.6469 | -3.8514 | 0.8045 | 2.7729 | -0.1447 | -0.3526 | 0.4812 | -0.8338 | -0.3148 |
| 130 | 49.36 | 0.00 | 10.5645 | -3.8567 | 0.8105 | 2.4535 | -0.1360 | -0.3719 | 0.4607 | -0.8326 | -0.2888 |
| 131 | 49.51 | 0.00 | 10.5764 | -3.8235 | 0.8021 | 2.3057 | -0.1260 | -0.3532 | 0.4484 | -0.8416 | -0.2858 |
| 132 | 49.68 | 0.00 | 10.5115 | -2.7353 | 0.8362 | 2.1493 | -0.1271 | -0.4052 | 0.4408 | -0.8460 | -0.2602 |
| 133 | 49.87 | 0.00 | 10.7659 | -2.9284 | 0.9073 | 2.5501 | -0.1261 | -0.3955 | 0.4588 | -0.8547 | -0.2776 |
| 134 | 50.04 | 0.00 | 10.8357 | -2.8545 | 0.8175 | 2.6404 | -0.1280 | -0.3769 | 0.4731 | -0.8500 | -0.2633 |
| 135 | 50.20 | 0.00 | 10.7810 | -2.7543 | 0.8234 | 2.4640 | -0.1275 | -0.3874 | 0.4521 | -0.8395 | -0.2560 |
| 136 | 50.37 | 0.00 | 10.9311 | -3.0001 | 0.8701 | 2.5715 | -0.1055 | -0.3721 | 0.4668 | -0.8409 | -0.2805 |
| 137 | 50.56 | 0.00 | 11.3085 | -3.0867 | 0.9796 | 3.2101 | -0.1074 | -0.3335 | 0.5013 | -0.8367 | -0.3260 |
| 138 | 50.74 | 0.00 | 11.4654 | -3.0958 | 0.9025 | 3.5455 | -0.1008 | -0.3408 | 0.5104 | -0.8509 | -0.3352 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK 0001) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNIG-E | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 135 | 0.60 | 1.7 | 0.0 | 0 1&0F 11 | C.C | 0 | -20 | 0 | -20 | UNANOWN |

| PCINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 50.89 | 0.05 | 11.5775 | -4.0103 | 0.6234 | 3.4400 | -0.1006 | -0.3519 | 0.5161 | -0.8680 | -0.3464 |
| 140 | 51.06 | 0.05 | 11.6215 | -4.0257 | C.6311 | 3.5411 | -0.1010 | -0.3495 | 0.5114 | -0.8608 | -0.3464 |
| 141 | 51.24 | 0.05 | 11.6662 | -4.1957 | C.6661 | 3.6641 | -0.1067 | -0.3551 | 0.5147 | -0.8658 | -0.3594 |
| 142 | 51.39 | 0.05 | 11.6027 | -4.1916 | 0.6316 | 3.5591 | -0.0856 | -0.3501 | 0.5215 | -0.8746 | -0.3551 |
| 143 | 51.58 | 0.05 | 11.5205 | -4.3173 | 0.6150 | 3.6786 | -0.0940 | -0.3596 | 0.5220 | -0.8818 | -0.3622 |
| 144 | 51.73 | 0.06 | 11.5631 | -4.2036 | 0.6777 | 3.8736 | -0.1016 | -0.3742 | 0.5220 | -0.8962 | -0.3599 |
| 145 | 51.91 | 0.06 | 11.5773 | -4.3221 | 0.6565 | 3.9347 | -0.1016 | -0.3700 | 0.5191 | -0.8891 | -0.3609 |
| 146 | 52.07 | 0.06 | 12.0466 | -4.4457 | C.7272 | 3.9190 | -0.1015 | -0.3919 | 0.5124 | -0.9043 | -0.3691 |
| 147 | 52.23 | 0.06 | 12.0578 | -4.3362 | C.7074 | 4.1459 | -0.1096 | -0.3842 | 0.5211 | -0.9053 | -0.3556 |
| 148 | 52.41 | 0.07 | 12.1656 | -4.3425 | C.7516 | 4.2523 | -0.1175 | -0.3898 | 0.5168 | -0.9000 | -0.3728 |
| 149 | 52.58 | 0.07 | 12.3566 | -4.7062 | 0.8125 | 4.1224 | -0.1319 | -0.4054 | 0.5081 | -0.9135 | -0.3804 |
| 150 | 52.75 | 0.09 | 12.5427 | -4.8100 | 1.1574 | 3.9712 | -0.1089 | -0.4104 | 0.4928 | -0.9032 | -0.3835 |
| 151 | 52.91 | 0.09 | 12.3812 | -4.7167 | 1.1228 | 3.9246 | -0.1106 | -0.4117 | 0.4913 | -0.9030 | -0.3810 |
| 152 | 53.08 | 0.09 | 12.4662 | -4.8753 | 1.2256 | 3.7442 | -0.1010 | -0.4021 | 0.4938 | -0.8959 | -0.3748 |
| 153 | 53.26 | 0.10 | 12.6508 | -4.8237 | 1.2005 | 3.5678 | -0.0774 | -0.4056 | 0.4894 | -0.8942 | -0.3613 |
| 154 | 53.35 | 0.10 | 12.6269 | -4.8719 | 1.3279 | 3.5625 | -0.0686 | -0.4100 | 0.4861 | -0.8981 | -0.3609 |
| 155 | 53.55 | 0.10 | 12.7765 | -4.8647 | 1.3746 | 3.2118 | -0.0524 | -0.4145 | 0.4900 | -0.9045 | -0.3668 |
| 156 | 53.71 | 0.09 | 12.6573 | -4.8139 | 1.2275 | 3.3987 | -0.0001 | -0.3955 | 0.4905 | -0.8860 | -0.3634 |
| 157 | 53.87 | 0.08 | 12.8612 | -4.9553 | 1.1752 | 3.3136 | -0.0370 | -0.3974 | 0.4959 | -0.8933 | -0.3545 |
| 158 | 54.03 | 0.09 | 12.8351 | -4.9445 | 1.3426 | 2.8297 | -0.0057 | -0.3858 | 0.4906 | -0.8764 | -0.3541 |
| 159 | 54.18 | 0.08 | 12.9723 | -4.8651 | 1.1573 | 3.2443 | -0.0066 | -0.4152 | 0.4965 | -0.9121 | -0.3753 |
| 160 | 54.34 | 0.09 | 12.9656 | -4.7053 | 1.1775 | 2.9788 | 0.0094 | -0.4050 | 0.4848 | -0.8898 | -0.3622 |
| 161 | 54.50 | 0.09 | 13.1456 | -4.8736 | 1.1785 | 2.9585 | 0.0249 | -0.3932 | 0.4941 | -0.8873 | -0.3706 |
| 162 | 54.66 | 0.07 | 13.2842 | -4.8962 | 1.0161 | 2.8838 | 0.0261 | -0.4115 | 0.4959 | -0.9114 | -0.3681 |
| 163 | 54.81 | 0.09 | 13.3548 | -4.9468 | 1.2404 | 2.8814 | 0.0336 | -0.3801 | 0.5073 | -0.8874 | -0.3689 |
| 164 | 54.98 | 0.08 | 13.4462 | -4.8156 | 1.0543 | 2.9886 | 0.0414 | -0.3881 | 0.5103 | -0.8904 | -0.3581 |
| 165 | 55.11 | 0.07 | 13.3489 | -4.9076 | 0.9821 | 3.0293 | 0.0410 | -0.3722 | 0.5059 | -0.8781 | -0.3676 |
| 166 | 55.33 | 0.06 | 13.6068 | -5.1616 | 0.9050 | 3.1765 | 0.0413 | -0.3815 | 0.5089 | -0.8904 | -0.3793 |
| 167 | 55.50 | 0.07 | 13.7364 | -5.0662 | 1.0624 | 3.0782 | 0.0345 | -0.3774 | 0.5133 | -0.8907 | -0.3688 |
| 168 | 55.66 | 0.07 | 13.6745 | -5.1007 | 1.1484 | 2.8756 | 0.0423 | -0.3864 | 0.5138 | -0.9002 | -0.3789 |
| 169 | 55.81 | 0.05 | 13.7850 | -5.1565 | 0.8383 | 3.0659 | 0.0349 | -0.3962 | 0.5129 | -0.8991 | -0.3747 |
| 170 | 55.96 | 0.06 | 13.8046 | -5.0626 | 1.0074 | 2.9078 | 0.0426 | -0.3928 | 0.5145 | -0.9065 | -0.3699 |
| 171 | 56.13 | 0.08 | 13.9034 | -5.2335 | 1.2111 | 3.1226 | 0.0421 | -0.3956 | 0.5218 | -0.9172 | -0.3764 |
| 172 | 56.29 | 0.07 | 14.0491 | -5.2041 | 1.1168 | 2.9634 | 0.0434 | -0.4090 | 0.5135 | -0.9225 | -0.3763 |
| 173 | 56.44 | 0.07 | 14.0451 | -5.3583 | 1.2373 | 3.0032 | 0.0429 | -0.4198 | 0.5176 | -0.9368 | -0.3842 |
| 174 | 56.59 | 0.05 | 13.9573 | -5.0140 | 1.0103 | 3.2846 | 0.0348 | -0.3838 | 0.5184 | -0.8827 | -0.3558 |
| 175 | 56.75 | 0.06 | 14.0345 | -5.2165 | 1.1826 | 2.8787 | 0.0437 | -0.3822 | 0.5278 | -0.9100 | -0.3717 |
| 176 | 56.90 | 0.05 | 14.0286 | -5.2264 | 0.9922 | 2.9219 | 0.0439 | -0.4036 | 0.5219 | -0.9255 | -0.3726 |
| 177 | 57.06 | 0.05 | 14.1972 | -5.3966 | 1.0293 | 3.0222 | 0.0515 | -0.3943 | 0.5259 | -0.9202 | -0.3800 |
| 178 | 57.18 | 0.04 | 13.9815 | -5.2077 | 1.0431 | 2.8574 | 0.0447 | -0.4143 | 0.5219 | -0.9362 | -0.3723 |
| 179 | 57.33 | 0.04 | 14.1601 | -5.2576 | 0.9195 | 3.0517 | 0.0517 | -0.3902 | 0.5343 | -0.9245 | -0.3713 |
| 180 | 57.49 | 0.05 | 14.3129 | -5.3733 | 1.0934 | 2.8564 | 0.0457 | -0.4158 | 0.5298 | -0.9356 | -0.3754 |
| 181 | 57.62 | 0.04 | 14.1264 | -5.1338 | 1.0331 | 2.7419 | 0.0526 | -0.4085 | 0.5433 | -0.9318 | -0.3634 |
| 182 | 57.77 | 0.05 | 14.1265 | -5.3164 | 1.1145 | 2.7607 | 0.0446 | -0.4211 | 0.5428 | -0.9039 | -0.3763 |
| 183 | 57.89 | 0.05 | 14.4194 | -5.3555 | 1.1421 | 2.6670 | 0.0460 | -0.4204 | 0.5433 | -0.9637 | -0.3717 |
| 184 | 57.87 | 0.04 | 14.2033 | -5.1167 | 1.0466 | 2.8800 | 0.0531 | -0.4240 | 0.5374 | -0.9014 | -0.3602 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RAIG-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 135 0.60 1.7 0.0 BLEOFIA 0.0 0 -20 0 -20 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 165 | 57.83 | 0.04 | 14.3152 | -5.3538 | 1.0299 | 2.6772 | 0.0458 | -0.4241 | 0.5443 | -0.9684 | -0.3739 |
| 166 | 57.87 | 0.04 | 14.1542 | -5.4062 | 1.0135 | 2.7117 | 0.0451 | -0.4139 | 0.5441 | -0.9580 | -0.3813 |
| 167 | 57.88 | 0.04 | 14.1573 | -5.2637 | 0.9445 | 2.6477 | 0.0457 | -0.4125 | 0.5430 | -0.9575 | -0.3708 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASHOCI) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 135 MACH 1.7 RX10-6 0.C PHI 0.C CONF BIBOPII L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | 0.01 | -0.0278 | -0.0005 | 0.0084 | 0.0180 | -0.3022 | -0.6958 | -0.0565 | -0.3456 | 0.0812 | 0.4567 |
| 2 | -5.70 | -0.01 | -0.0175 | 0.0024 | 0.0132 | -0.1371 | -0.7545 | -0.7043 | -0.0565 | -0.3458 | 0.0802 | 0.4567 |
| 3 | -5.70 | -0.01 | -0.0249 | 0.0005 | 0.0102 | -0.0201 | -0.4096 | -0.7128 | -0.0569 | -0.3532 | 0.0798 | 0.4555 |
| 4 | -5.71 | -0.01 | -0.0234 | 0.0011 | 0.0104 | -0.0476 | -0.4444 | -0.7043 | -0.0566 | -0.3484 | 0.0806 | 0.4547 |
| 5 | -5.70 | -0.01 | -0.0156 | 0.0021 | 0.0125 | -0.1105 | -0.6474 | -0.6976 | -0.0565 | -0.3444 | 0.0810 | 0.4537 |
| 6 | -5.70 | -0.01 | -0.0262 | 0.0002 | 0.0081 | -0.0076 | -0.3053 | -0.6804 | -0.0565 | -0.3382 | 0.0830 | 0.4571 |
| 7 | -5.75 | -0.00 | -0.0220 | 0.0011 | 0.0112 | -0.0500 | -0.5091 | -0.7043 | -0.0565 | -0.3491 | 0.0802 | 0.4557 |
| 8 | -5.82 | -0.01 | -0.0156 | 0.0015 | 0.0123 | -0.1000 | -0.6074 | -0.7094 | -0.0565 | -0.3516 | 0.0796 | 0.4556 |
| 9 | -5.88 | -0.01 | -0.0218 | 0.0011 | 0.0095 | -0.0504 | -0.4541 | -0.7095 | -0.0560 | -0.3515 | 0.0789 | 0.4554 |
| 10 | -4.16 | -0.00 | -0.0179 | 0.0004 | 0.0115 | -0.1542 | -0.6800 | -0.7234 | -0.0528 | -0.3564 | 0.0730 | 0.4568 |
| 11 | -2.44 | 0.00 | -0.0217 | 0.0018 | 0.0088 | -0.0829 | -0.3963 | -0.8320 | -0.0624 | -0.4066 | 0.0750 | 0.4887 |
| 12 | -0.69 | -0.00 | -0.0187 | 0.0024 | 0.0097 | -0.1283 | -0.5187 | -0.7027 | -0.0641 | -0.3839 | 0.1102 | 0.5033 |
| 13 | 1.06 | -0.00 | -0.0140 | 0.0037 | 0.0090 | -0.2642 | -0.6429 | -0.6399 | -0.0802 | -0.3316 | 0.1253 | 0.5182 |
| 14 | 2.88 | 0.01 | -0.0154 | 0.0026 | 0.0087 | -0.1888 | -0.5049 | -0.5162 | -0.0603 | -0.2884 | 0.1555 | 0.5587 |
| 15 | 4.58 | 0.01 | -0.0052 | 0.0024 | 0.0094 | -0.2648 | -1.0217 | -0.4283 | -0.0769 | -0.2362 | 0.1803 | 0.5588 |
| 16 | 6.34 | 0.00 | -0.0040 | 0.0026 | 0.0105 | -0.5651 | -2.2420 | -0.3303 | -0.0662 | -0.1859 | 0.2004 | 0.5628 |
| 17 | 8.10 | 0.01 | -0.0056 | 0.0018 | 0.0135 | -0.1874 | -1.3654 | -0.2343 | -0.0520 | -0.1417 | 0.2219 | 0.6048 |
| 18 | 9.79 | 0.01 | -0.0113 | 0.0024 | 0.0138 | -0.2143 | -1.2212 | -0.1493 | -0.0353 | -0.0921 | 0.2364 | 0.6169 |
| 19 | 11.59 | 0.01 | -0.0054 | 0.0035 | 0.0154 | -0.4257 | -2.8518 | -0.0756 | -0.0207 | -0.0565 | 0.2737 | 0.7474 |
| 20 | 13.30 | 0.00 | -0.0154 | 0.0023 | 0.0087 | -0.1493 | -0.5849 | -0.0124 | -0.0032 | -0.0279 | 0.2560 | 2.2500 |
| 21 | 15.06 | 0.01 | -0.0152 | 0.0011 | 0.0075 | -0.0723 | -0.5197 | 0.0316 | 0.0166 | -0.0056 | 0.5252 | -0.1772 |
| 22 | 16.87 | 0.00 | -0.0076 | 0.0031 | 0.0170 | -0.4427 | -2.4266 | 0.0657 | 0.0359 | 0.0116 | 0.5634 | 0.1821 |
| 23 | 18.65 | -0.00 | -0.0050 | 0.0021 | 0.0272 | -0.4199 | -5.4430 | 0.1097 | 0.0529 | 0.0367 | 0.4621 | 0.3345 |
| 24 | 20.41 | -0.02 | -0.0251 | 0.0005 | 0.0335 | -0.0216 | -1.4075 | 0.1442 | 0.0663 | 0.0545 | 0.4597 | 0.3776 |
| 25 | 22.17 | -0.02 | -0.0507 | -0.0037 | 0.0171 | 0.0730 | -0.3373 | 0.2041 | 0.0750 | 0.0869 | 0.3870 | 0.4356 |
| 26 | 23.95 | -0.03 | -0.1321 | -0.0133 | -0.0120 | 0.0503 | 0.0869 | 0.2100 | 0.0654 | 0.1066 | 0.3942 | 0.4522 |
| 27 | 25.72 | -0.02 | -0.1516 | -0.0133 | -0.0325 | 0.0877 | 0.2170 | 0.3161 | 0.0669 | 0.1510 | 0.2731 | 0.4747 |
| 28 | 27.53 | 0.01 | 0.1175 | 0.0295 | 0.0566 | 0.2516 | 0.8247 | 0.4446 | 0.0921 | 0.2623 | 0.2071 | 0.4550 |
| 29 | 27.87 | 0.01 | 0.1035 | 0.0274 | 0.0631 | 0.2647 | 0.8029 | 0.4515 | 0.0919 | 0.2650 | 0.2035 | 0.4546 |
| 30 | 28.18 | 0.02 | 0.1551 | 0.0337 | 0.1136 | 0.2172 | 0.7324 | 0.4705 | 0.0948 | 0.2136 | 0.1926 | 0.4483 |
| 31 | 28.43 | 0.02 | 0.1638 | 0.0350 | 0.1154 | 0.2136 | 0.7269 | 0.4902 | 0.0923 | 0.2202 | 0.1882 | 0.4492 |
| 32 | 28.77 | 0.02 | 0.1540 | 0.0327 | 0.1152 | 0.2440 | 0.7851 | 0.4935 | 0.0934 | 0.2227 | 0.1824 | 0.4494 |
| 33 | 29.07 | 0.03 | 0.1422 | 0.0353 | 0.1136 | 0.2482 | 0.8303 | 0.4956 | 0.0836 | 0.2213 | 0.1807 | 0.4465 |
| 34 | 29.34 | 0.03 | 0.2075 | 0.0458 | 0.1403 | 0.2207 | 0.7147 | 0.5060 | 0.0814 | 0.2203 | 0.1608 | 0.4512 |
| 35 | 29.62 | 0.03 | 0.1367 | 0.0388 | 0.1076 | 0.2638 | 0.7871 | 0.5032 | 0.0745 | 0.2278 | 0.1480 | 0.4527 |
| 36 | 29.92 | 0.03 | 0.1355 | 0.0448 | 0.1072 | 0.3211 | 0.7685 | 0.5101 | 0.0743 | 0.2305 | 0.1456 | 0.4519 |
| 37 | 30.17 | 0.04 | 0.1721 | 0.0525 | 0.1252 | 0.3073 | 0.7275 | 0.5133 | 0.0697 | 0.2330 | 0.1358 | 0.4535 |
| 38 | 30.43 | 0.03 | 0.1695 | 0.0455 | 0.1003 | 0.3513 | 0.7745 | 0.5234 | 0.0706 | 0.2387 | 0.1352 | 0.4561 |
| 39 | 30.71 | 0.02 | -0.0047 | 0.0308 | 0.0218 | -0.5514 | -4.5957 | 0.5252 | 0.0734 | 0.2395 | 0.1340 | 0.4566 |
| 40 | 30.98 | 0.02 | -0.0558 | 0.0248 | -0.0113 | -0.4423 | 0.0234 | 0.5215 | 0.0730 | 0.2379 | 0.1395 | 0.4562 |
| 41 | 31.26 | 0.02 | -0.0517 | 0.0262 | 0.0042 | -0.5453 | -0.0812 | 0.5354 | 0.0702 | 0.2473 | 0.1311 | 0.4615 |
| 42 | 31.52 | 0.02 | -0.0728 | 0.0240 | -0.0072 | -0.3319 | 0.0996 | 0.5424 | 0.0702 | 0.2492 | 0.1254 | 0.4594 |
| 43 | 31.78 | 0.02 | -0.1224 | 0.0308 | -0.0350 | -0.1372 | 0.2908 | 0.5420 | 0.0727 | 0.2514 | 0.1341 | 0.4638 |
| 44 | 32.05 | 0.02 | -0.1514 | 0.0101 | -0.0345 | -0.0667 | 0.3626 | 0.5594 | 0.0718 | 0.2590 | 0.1283 | 0.4630 |
| 45 | 32.29 | 0.04 | -0.0888 | 0.0348 | -0.0062 | -0.5208 | 0.0928 | 0.5593 | 0.0719 | 0.2590 | 0.1285 | 0.4631 |
| 46 | 32.57 | 0.03 | -0.0514 | 0.0250 | -0.0031 | -0.5069 | 0.0047 | 0.5767 | 0.0708 | 0.2666 | 0.1227 | 0.4623 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&3 MACH 1.7 RXIC-6 PHI 0.0 CONF BINOFIL L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.82 | 0.04 | -0.0422 | 0.0325 | 0.0018 | -0.7699 | -0.0379 | 0.5813 | 0.0710 | 0.2668 | 0.1221 | 0.4590 |
| 48 | 33.08 | 0.04 | -0.0435 | 0.0337 | 0.0001 | -1.0057 | -0.2418 | 0.5883 | 0.0700 | 0.2714 | 0.1190 | 0.4613 |
| 49 | 33.33 | 0.05 | -0.0444 | 0.0348 | 0.0035 | -0.8286 | -0.0878 | 0.5938 | 0.0687 | 0.2732 | 0.1157 | 0.4602 |
| 50 | 33.57 | 0.05 | -0.0454 | 0.0358 | 0.0001 | -0.8702 | -0.0019 | 0.5993 | 0.0699 | 0.2754 | 0.1174 | 0.4593 |
| 51 | 33.81 | 0.06 | -0.0475 | 0.0444 | 0.0118 | -0.5345 | -0.2484 | 0.6049 | 0.0710 | 0.2782 | 0.1173 | 0.4595 |
| 52 | 34.07 | 0.05 | -0.0469 | 0.0352 | -0.0016 | -0.8542 | 0.0287 | 0.6008 | 0.0697 | 0.2803 | 0.1146 | 0.4615 |
| 53 | 34.32 | 0.06 | -0.0353 | 0.0486 | 0.0146 | -1.3594 | -0.4193 | 0.6136 | 0.0697 | 0.2851 | 0.1136 | 0.4646 |
| 54 | 34.55 | 0.07 | 0.0135 | 0.0578 | 0.0414 | 4.2655 | 3.0007 | 0.6218 | 0.0693 | 0.2876 | 0.1114 | 0.4625 |
| 55 | 34.80 | 0.07 | 0.0265 | 0.0611 | 0.0545 | 1.9768 | 1.7037 | 0.6352 | 0.0727 | 0.2965 | 0.1144 | 0.4668 |
| 56 | 35.04 | 0.07 | 0.0295 | 0.0602 | 0.0536 | 2.0401 | 1.8109 | 0.6396 | 0.0736 | 0.2980 | 0.1108 | 0.4632 |
| 57 | 35.27 | 0.06 | 0.0255 | 0.0575 | 0.0482 | 2.2706 | 1.8902 | 0.6355 | 0.0698 | 0.2964 | 0.1098 | 0.4664 |
| 58 | 35.51 | 0.07 | 0.0267 | 0.0594 | 0.0481 | 2.0691 | 1.8706 | 0.6436 | 0.0704 | 0.3010 | 0.1094 | 0.4677 |
| 59 | 35.74 | 0.07 | 0.0256 | 0.0530 | 0.0375 | 2.0696 | 1.4646 | 0.6476 | 0.0668 | 0.3012 | 0.1031 | 0.4651 |
| 60 | 35.97 | 0.05 | 0.0253 | 0.0532 | 0.0367 | 0.6905 | 0.8536 | 0.6421 | 0.0639 | 0.2997 | 0.0955 | 0.4667 |
| 61 | 36.20 | 0.05 | 0.1522 | 0.0641 | 0.0883 | 0.4216 | 0.5309 | 0.2461 | 0.0605 | 0.2552 | 0.0936 | 0.4631 |
| 62 | 36.44 | 0.06 | 0.1352 | 0.0628 | 0.0816 | 0.4044 | 0.0035 | 0.0480 | 0.0605 | 0.2949 | 0.0936 | 0.4642 |
| 63 | 36.67 | 0.05 | 0.1900 | 0.0603 | 0.0582 | 0.3173 | 0.5166 | 0.6647 | 0.0606 | 0.3090 | 0.0911 | 0.4645 |
| 64 | 36.89 | 0.06 | 0.1452 | 0.0583 | 0.0773 | 0.3960 | 0.5161 | 0.6767 | 0.0628 | 0.3145 | 0.0928 | 0.4653 |
| 65 | 37.13 | 0.05 | 0.1127 | 0.0547 | 0.0621 | 0.4852 | 0.5510 | 0.6749 | 0.0629 | 0.3141 | 0.0932 | 0.4654 |
| 66 | 37.36 | 0.05 | 0.0910 | 0.0457 | 0.0521 | 1.2115 | 0.7029 | 0.6706 | 0.0634 | 0.3150 | 0.0937 | 0.4656 |
| 67 | 37.60 | 0.06 | -0.0552 | 0.0267 | -0.0324 | -0.2691 | 0.3266 | 0.6795 | 0.0687 | 0.3162 | 0.1011 | 0.4683 |
| 68 | 37.83 | 0.06 | -0.1449 | 0.0134 | -0.0407 | -0.1073 | 0.3259 | 0.6964 | 0.0702 | 0.3265 | 0.1008 | 0.4668 |
| 69 | 38.05 | 0.06 | -0.1591 | 0.0065 | -0.0606 | -0.0408 | 0.3321 | 0.6929 | 0.0692 | 0.3262 | 0.0998 | 0.4708 |
| 70* | 38.29 | 0.06 | -0.1771 | -0.0063 | -0.0647 | 0.0350 | 0.3653 | 0.7000 | 0.0716 | 0.3330 | 0.1013 | 0.4713 |
| 71 | 38.51 | 0.07 | -0.2043 | -0.0235 | -0.0736 | 0.1150 | 0.3603 | 0.7219 | 0.0739 | 0.3317 | 0.1023 | 0.4678 |
| 72 | 38.72 | 0.06 | -0.2101 | -0.0263 | -0.0781 | 0.1394 | 0.3622 | 0.7287 | 0.0751 | 0.3426 | 0.1030 | 0.4702 |
| 73 | 38.94 | 0.07 | -0.1830 | -0.0256 | -0.0596 | 0.1628 | 0.3257 | 0.7426 | 0.0758 | 0.3494 | 0.1020 | 0.4705 |
| 74 | 39.17 | 0.07 | -0.1540 | -0.0332 | -0.0607 | 0.1706 | 0.3530 | 0.7506 | 0.0755 | 0.3533 | 0.0957 | 0.4668 |
| 75 | 39.36 | 0.07 | -0.2028 | -0.0413 | -0.0706 | 0.2036 | 0.3461 | 0.7775 | 0.0766 | 0.3596 | 0.0985 | 0.4628 |
| 76 | 39.58 | 0.07 | -0.1866 | -0.0343 | -0.0654 | 0.1844 | 0.3516 | 0.7811 | 0.0760 | 0.3622 | 0.0973 | 0.4637 |
| 77 | 39.78 | 0.07 | -0.1716 | -0.0301 | -0.0538 | 0.1754 | 0.3089 | 0.7810 | 0.0769 | 0.3608 | 0.0984 | 0.4620 |
| 78 | 39.98 | 0.08 | -0.1626 | -0.0347 | -0.0526 | 0.2141 | 0.3247 | 0.7900 | 0.0757 | 0.3685 | 0.0948 | 0.4614 |
| 79 | 40.18 | 0.08 | -0.1311 | -0.0143 | -0.0368 | 0.1090 | 0.2807 | 0.7936 | 0.0739 | 0.3645 | 0.0931 | 0.4553 |
| 80 | 40.40 | 0.09 | -0.0866 | 0.0125 | 0.0133 | -0.3414 | -0.3634 | 0.7937 | 0.0742 | 0.3610 | 0.0935 | 0.4548 |
| 81 | 40.58 | 0.07 | -0.0824 | -0.0003 | -0.0075 | 0.0037 | 0.0850 | 0.8007 | 0.0734 | 0.3672 | 0.0916 | 0.4582 |
| 82 | 40.80 | 0.08 | -0.0584 | 0.0155 | 0.0031 | -0.2722 | -0.0531 | 0.7886 | 0.0721 | 0.3568 | 0.0914 | 0.4524 |
| 83 | 40.99 | 0.08 | -0.0477 | 0.0169 | 0.0078 | -0.3542 | -0.1635 | 0.7850 | 0.0723 | 0.3551 | 0.0921 | 0.4524 |
| 84 | 41.19 | 0.08 | -0.0516 | 0.0122 | -0.0106 | -0.1316 | 0.1034 | 0.7814 | 0.0733 | 0.3520 | 0.0938 | 0.4505 |
| 85 | 41.38 | 0.07 | -0.0505 | 0.0087 | 0.0087 | -0.1722 | -0.1723 | 0.8009 | 0.0725 | 0.3614 | 0.0905 | 0.4512 |
| 86 | 41.58 | 0.08 | -0.0444 | 0.0092 | 0.0122 | -0.2072 | -0.2746 | 0.8132 | 0.0736 | 0.3653 | 0.0907 | 0.4492 |
| 87 | 41.79 | 0.07 | -0.0171 | 0.0122 | 0.0272 | -0.7133 | -1.5906 | 0.8255 | 0.0738 | 0.3720 | 0.0894 | 0.4506 |
| 88 | 41.96 | 0.07 | -0.0302 | 0.0045 | 0.0181 | -0.1490 | -0.5993 | 0.8378 | 0.0750 | 0.3759 | 0.0895 | 0.4487 |
| 89 | 42.15 | 0.06 | -0.0544 | 0.0018 | 0.0033 | -0.0331 | -0.1011 | 0.8291 | 0.0738 | 0.3709 | 0.0890 | 0.4474 |
| 90 | 42.34 | 0.07 | -0.0424 | 0.0016 | 0.0150 | -0.0263 | -0.3538 | 0.8449 | 0.0742 | 0.3787 | 0.0878 | 0.4482 |
| 91 | 42.52 | 0.07 | -0.0421 | 0.0023 | 0.0117 | -0.0546 | -0.2779 | 0.8414 | 0.0751 | 0.3742 | 0.0852 | 0.4467 |
| 92 | 42.68 | 0.08 | -0.0351 | 0.0017 | 0.0123 | -0.0478 | -0.3445 | 0.8520 | 0.0744 | 0.3800 | 0.0873 | 0.4466 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 5

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 135 | MACH 0.80 | REYNO-E 1.7 | PHI 0.0 | CONF BIBOFIN | L 6.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CAF1 | CM1 | CB1 | XCPF1 | YCPF1 | CAF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 42.88 | 0.08 | -0.0325 | -0.0035 | 0.0162 | 0.1077 | -0.4985 | 0.8678 | 0.0738 | 0.3884 | 0.0850 | 0.4478 |
| 94 | 43.07 | 0.08 | -0.0572 | -0.0051 | 0.0089 | 0.0891 | -0.1486 | 0.8865 | 0.0736 | 0.3905 | 0.0853 | 0.4458 |
| 95 | 43.26 | 0.08 | -0.0417 | -0.0050 | 0.0136 | 0.1199 | -0.3201 | 0.8870 | 0.0746 | 0.3936 | 0.0841 | 0.4437 |
| 96 | 43.41 | 0.08 | -0.0282 | -0.0040 | 0.0213 | 0.1416 | -0.7555 | 0.8941 | 0.0741 | 0.3970 | 0.0825 | 0.4440 |
| 97 | 43.64 | 0.08 | -0.0507 | -0.0101 | 0.0114 | 0.1592 | -0.2249 | 0.8924 | 0.0726 | 0.3947 | 0.0813 | 0.4423 |
| 98 | 43.79 | 0.09 | -0.0413 | -0.0079 | 0.0147 | 0.1733 | -0.3342 | 0.9027 | 0.0728 | 0.3999 | 0.0806 | 0.4436 |
| 99 | 43.97 | 0.08 | -0.0256 | -0.0058 | 0.0216 | 0.1959 | -0.7297 | 0.9149 | 0.0734 | 0.4044 | 0.0802 | 0.4426 |
| 100 | 44.16 | 0.08 | -0.0043 | -0.0122 | 0.0063 | 0.1897 | -0.0780 | 0.8974 | 0.0736 | 0.3973 | 0.0820 | 0.4427 |
| 101 | 44.34 | 0.08 | -0.0256 | -0.0036 | 0.0271 | 0.1172 | -1.0586 | 0.9079 | 0.0733 | 0.4017 | 0.0807 | 0.4424 |
| 102 | 44.53 | 0.08 | -0.0410 | -0.0067 | 0.0204 | 0.0333 | -1.3524 | 0.9077 | 0.0733 | 0.4018 | 0.0807 | 0.4427 |
| 103 | 44.69 | 0.07 | -0.0554 | -0.0085 | 0.0057 | 0.1458 | -0.3960 | 0.9005 | 0.0728 | 0.3949 | 0.0808 | 0.4383 |
| 104 | 44.88 | 0.07 | 0.0055 | 0.0057 | 0.0472 | 0.5750 | 4.7677 | 0.9200 | 0.0721 | 0.4049 | 0.0783 | 0.4401 |
| 105 | 45.07 | 0.07 | -0.0273 | -0.0018 | 0.0282 | 0.0855 | -1.0549 | 0.9078 | 0.0706 | 0.3996 | 0.0777 | 0.4402 |
| 106 | 45.29 | 0.07 | -0.0333 | -0.0065 | 0.0201 | 0.0751 | -0.7836 | 0.9282 | 0.0725 | 0.4111 | 0.0781 | 0.4425 |
| 107 | 45.41 | 0.07 | -0.0255 | -0.0003 | 0.0298 | 0.0116 | -1.1506 | 0.9160 | 0.0717 | 0.4047 | 0.0781 | 0.4408 |
| 108 | 45.55 | 0.07 | 0.0256 | 0.0133 | 0.0571 | 0.5194 | 2.2539 | 0.9206 | 0.0699 | 0.4097 | 0.0753 | 0.4412 |
| 109 | 45.76 | 0.07 | 0.0005 | 0.0077 | 0.0442 | 15.3559 | 80.4000 | 0.9266 | 0.0707 | 0.4068 | 0.0763 | 0.4390 |
| 110 | 45.95 | 0.08 | 0.0255 | 0.0155 | 0.0547 | 0.5183 | 1.9900 | 0.9371 | 0.0693 | 0.4111 | 0.0735 | 0.4387 |
| 111 | 46.11 | 0.07 | 0.0456 | 0.0211 | 0.0726 | 0.4626 | 1.5789 | 0.9354 | 0.0690 | 0.4102 | 0.0737 | 0.4385 |
| 112 | 46.28 | 0.07 | 0.0651 | 0.0255 | 0.0914 | 1.0437 | 5.6483 | 0.9511 | 0.0681 | 0.4163 | 0.0716 | 0.4377 |
| 113 | 46.48 | 0.07 | 0.0055 | 0.0101 | 0.0504 | 1.7114 | 8.5424 | 0.9424 | 0.0679 | 0.4108 | 0.0720 | 0.4355 |
| 114 | 46.65 | 0.06 | -0.0176 | 0.0051 | 0.0356 | -0.2004 | -2.2022 | 0.9561 | 0.0679 | 0.4195 | 0.0710 | 0.4388 |
| 115 | 46.80 | 0.08 | -0.0233 | 0.0003 | 0.0347 | -0.0129 | -1.4093 | 0.9543 | 0.0688 | 0.4166 | 0.0700 | 0.4365 |
| 116 | 46.95 | 0.08 | -0.0711 | -0.0070 | 0.0147 | 0.0984 | -0.2006 | 0.9610 | 0.0679 | 0.4192 | 0.0706 | 0.4362 |
| 117 | 47.17 | 0.08 | -0.0867 | -0.0148 | 0.0041 | 0.1707 | -0.0473 | 0.9611 | 0.0673 | 0.4199 | 0.0700 | 0.4365 |
| 118 | 47.33 | 0.07 | -0.1466 | -0.0251 | -0.0291 | 0.1669 | 0.1956 | 0.9528 | 0.0672 | 0.4157 | 0.0705 | 0.4343 |
| 119 | 47.49 | 0.06 | -0.1768 | -0.0333 | -0.0473 | 0.1662 | 0.2845 | 0.9525 | 0.0665 | 0.4144 | 0.0658 | 0.4351 |
| 120 | 47.67 | 0.08 | -0.1876 | -0.0365 | -0.0512 | 0.1945 | 0.2729 | 0.9578 | 0.0660 | 0.4155 | 0.0689 | 0.4338 |
| 121 | 47.84 | 0.06 | -0.2118 | -0.0442 | -0.0653 | 0.2066 | 0.3083 | 0.9592 | 0.0655 | 0.4156 | 0.0683 | 0.4333 |
| 122 | 48.04 | 0.05 | -0.2173 | -0.0461 | -0.0708 | 0.2116 | 0.3258 | 0.9507 | 0.0652 | 0.4121 | 0.0686 | 0.4335 |
| 123 | 48.18 | 0.06 | -0.2571 | -0.0551 | -0.0894 | 0.2143 | 0.3477 | 0.9576 | 0.0652 | 0.4148 | 0.0681 | 0.4332 |
| 124 | 48.33 | 0.05 | -0.2541 | -0.0574 | -0.0904 | 0.2276 | 0.3586 | 0.9714 | 0.0649 | 0.4180 | 0.0668 | 0.4303 |
| 125 | 48.51 | 0.05 | -0.2460 | -0.0574 | -0.0864 | 0.2333 | 0.3593 | 0.9747 | 0.0645 | 0.4224 | 0.0666 | 0.4334 |
| 126 | 48.68 | 0.04 | -0.2564 | -0.0603 | -0.0919 | 0.2351 | 0.3584 | 0.9850 | 0.0653 | 0.4267 | 0.0663 | 0.4332 |
| 127 | 48.84 | 0.05 | -0.2720 | -0.0601 | -0.1035 | 0.2425 | 0.3805 | 0.9818 | 0.0635 | 0.4243 | 0.0647 | 0.4322 |
| 128 | 49.01 | 0.04 | -0.2717 | -0.0666 | -0.1062 | 0.2451 | 0.3909 | 0.9867 | 0.0634 | 0.4262 | 0.0641 | 0.4311 |
| 129 | 49.20 | 0.03 | -0.2842 | -0.0713 | -0.1078 | 0.2698 | 0.4060 | 0.9970 | 0.0622 | 0.4302 | 0.0624 | 0.4315 |
| 130 | 49.36 | 0.01 | -0.2852 | -0.0702 | -0.1047 | 0.2756 | 0.4103 | 1.0003 | 0.0626 | 0.4333 | 0.0626 | 0.4332 |
| 131 | 49.51 | 0.01 | -0.2808 | -0.0647 | -0.0924 | 0.2529 | 0.4185 | 1.0073 | 0.0620 | 0.4325 | 0.0615 | 0.4296 |
| 132 | 49.68 | 0.01 | -0.1787 | -0.0468 | -0.0770 | 0.3502 | 0.4309 | 1.0245 | 0.0610 | 0.4407 | 0.0595 | 0.4302 |
| 133 | 49.87 | 0.01 | -0.2453 | -0.0676 | -0.1031 | 0.2711 | 0.4136 | 1.0106 | 0.0629 | 0.4355 | 0.0622 | 0.4305 |
| 134 | 50.04 | 0.01 | -0.2345 | -0.0668 | -0.0973 | 0.3018 | 0.4149 | 0.9940 | 0.0607 | 0.4258 | 0.0611 | 0.4284 |
| 135 | 50.20 | 0.01 | -0.2251 | -0.0706 | -0.0970 | 0.3136 | 0.4309 | 1.0163 | 0.0602 | 0.4366 | 0.0592 | 0.4296 |
| 136 | 50.37 | 0.01 | -0.2076 | -0.0645 | -0.0856 | 0.3010 | 0.4316 | 0.9957 | 0.0604 | 0.4280 | 0.0606 | 0.4298 |
| 137 | 50.56 | 0.03 | -0.2427 | -0.0544 | -0.0511 | 0.2241 | 0.3754 | 0.9493 | 0.0628 | 0.4057 | 0.0661 | 0.4274 |
| 138 | 50.74 | 0.03 | -0.1715 | -0.0416 | -0.0508 | 0.2419 | 0.3304 | 0.9048 | 0.0656 | 0.4259 | 0.0666 | 0.4325 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 13b MACH 0.80 RATIO-E 1.0 PHI 0.0 CONF BINOFIL Q 0.6 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CBL | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 50.89 | 0.05 | -0.2016 | -0.0484 | -0.0121 | 0.2400 | 0.3576 | 0.9801 | 0.0643 | 0.4199 | 0.0656 | 0.4284 |
| 140 | 51.08 | 0.05 | -0.1776 | -0.0455 | -0.0114 | 0.2558 | 0.3442 | 1.0075 | 0.0646 | 0.4226 | 0.0643 | 0.4294 |
| 141 | 51.24 | 0.05 | -0.1557 | -0.0453 | -0.0045 | 0.2405 | 0.3511 | 1.0127 | 0.0639 | 0.4350 | 0.0631 | 0.4295 |
| 142 | 51.34 | 0.05 | -0.1643 | -0.0361 | -0.0090 | 0.2318 | 0.2982 | 1.0198 | 0.0647 | 0.4370 | 0.0634 | 0.4285 |
| 143 | 51.58 | 0.05 | -0.1577 | -0.0416 | -0.0103 | 0.2599 | 0.3126 | 1.0403 | 0.0654 | 0.4470 | 0.0628 | 0.4257 |
| 144 | 51.75 | 0.06 | -0.1534 | -0.0441 | -0.0097 | 0.2467 | 0.3259 | 1.0368 | 0.0646 | 0.4448 | 0.0622 | 0.4282 |
| 145 | 51.91 | 0.06 | -0.1659 | -0.0413 | -0.0033 | 0.2430 | 0.3137 | 1.0367 | 0.0642 | 0.4461 | 0.0618 | 0.4295 |
| 146 | 52.07 | 0.06 | -0.1962 | -0.0455 | -0.0086 | 0.2392 | 0.3470 | 1.0577 | 0.0634 | 0.4553 | 0.0597 | 0.4305 |
| 147 | 52.23 | 0.06 | -0.1725 | -0.0435 | -0.0066 | 0.2515 | 0.3274 | 1.0529 | 0.0642 | 0.4515 | 0.0616 | 0.4288 |
| 148 | 52.41 | 0.07 | -0.2066 | -0.0502 | -0.0105 | 0.2526 | 0.3509 | 1.0737 | 0.0626 | 0.4607 | 0.0583 | 0.4291 |
| 149 | 52.58 | 0.07 | -0.1982 | -0.0615 | -0.0761 | 0.3122 | 0.3840 | 1.0797 | 0.0552 | 0.4611 | 0.0548 | 0.4271 |
| 150 | 52.75 | 0.05 | -0.1923 | -0.0554 | -0.0735 | 0.3068 | 0.3843 | 1.0679 | 0.0564 | 0.4552 | 0.0533 | 0.4263 |
| 151 | 52.91 | 0.09 | -0.1711 | -0.0563 | -0.0695 | 0.3406 | 0.3626 | 1.0627 | 0.0563 | 0.4534 | 0.0530 | 0.4266 |
| 152 | 53.08 | 0.05 | -0.1666 | -0.0536 | -0.0595 | 0.3312 | 0.3606 | 1.0683 | 0.0560 | 0.4566 | 0.0524 | 0.4274 |
| 153 | 53.26 | 0.10 | -0.1666 | -0.0504 | -0.0456 | 0.3980 | 0.3618 | 1.0358 | 0.0538 | 0.4379 | 0.0515 | 0.4228 |
| 154 | 53.39 | 0.10 | -0.0666 | -0.0375 | -0.0302 | 0.4306 | 0.3432 | 1.0186 | 0.0542 | 0.4362 | 0.0532 | 0.4223 |
| 155 | 53.55 | 0.10 | -0.0659 | -0.0346 | -0.0167 | 0.5249 | 0.2534 | 1.0256 | 0.0530 | 0.4356 | 0.0517 | 0.4266 |
| 156 | 53.71 | 0.05 | -0.0766 | -0.0351 | -0.0254 | 0.4573 | 0.3740 | 1.0295 | 0.0525 | 0.4373 | 0.0510 | 0.4248 |
| 157 | 53.87 | 0.08 | -0.0835 | -0.0385 | -0.0303 | 0.4570 | 0.3629 | 0.9964 | 0.0517 | 0.4235 | 0.0516 | 0.4242 |
| 158 | 54.03 | 0.05 | -0.0267 | -0.0100 | 0.0077 | 0.8017 | -0.3720 | 0.9917 | 0.0526 | 0.4174 | 0.0532 | 0.4205 |
| 159 | 54.18 | 0.08 | -0.0208 | -0.0170 | 0.0090 | 0.8171 | -0.4527 | 0.9934 | 0.0523 | 0.4196 | 0.0526 | 0.4224 |
| 160 | 54.34 | 0.09 | -0.0062 | -0.0056 | 0.0186 | 1.9460 | -2.7097 | 0.9762 | 0.0528 | 0.4146 | 0.0541 | 0.4227 |
| 161 | 54.50 | 0.05 | -0.0096 | -0.0076 | 0.0167 | 0.7915 | -1.7396 | 0.9746 | 0.0515 | 0.4116 | 0.0528 | 0.4222 |
| 162 | 54.66 | 0.07 | 0.0181 | 0.0015 | 0.0304 | 0.0829 | 2.0110 | 0.9784 | 0.0524 | 0.4133 | 0.0535 | 0.4224 |
| 163 | 54.81 | 0.05 | -0.0004 | 0.0015 | 0.0265 | -3.7690 | -72.2500 | 0.9626 | 0.0524 | 0.4078 | 0.0544 | 0.4238 |
| 164 | 54.98 | 0.06 | -0.0054 | 0.0015 | 0.0305 | -0.2777 | -5.0481 | 0.9468 | 0.0528 | 0.3995 | 0.0558 | 0.4219 |
| 165 | 55.11 | 0.07 | -0.0057 | -0.0002 | 0.0265 | 0.0206 | -2.7320 | 0.9680 | 0.0522 | 0.4117 | 0.0535 | 0.4253 |
| 166 | 55.33 | 0.06 | -0.0155 | 0.0053 | 0.0312 | -0.3418 | -2.0129 | 0.9556 | 0.0525 | 0.4065 | 0.0549 | 0.4254 |
| 167 | 55.50 | 0.07 | -0.0236 | -0.0027 | 0.0227 | 0.1144 | -0.9619 | 0.9594 | 0.0521 | 0.4081 | 0.0543 | 0.4256 |
| 168 | 55.66 | 0.07 | -0.0273 | -0.0036 | 0.0204 | 0.1099 | -0.9870 | 0.9734 | 0.0521 | 0.4142 | 0.0535 | 0.4255 |
| 169 | 55.81 | 0.05 | -0.0236 | 0.0018 | 0.0288 | -0.0782 | -1.2522 | 0.9735 | 0.0518 | 0.4135 | 0.0532 | 0.4248 |
| 170 | 55.96 | 0.06 | -0.0304 | -0.0027 | 0.0246 | 0.0800 | -0.8158 | 0.9649 | 0.0521 | 0.4052 | 0.0540 | 0.4241 |
| 171 | 56.13 | 0.06 | -0.0281 | 0.0030 | 0.0291 | -0.1067 | -1.0356 | 0.9648 | 0.0527 | 0.4107 | 0.0546 | 0.4257 |
| 172 | 56.29 | 0.07 | -0.0146 | 0.0072 | 0.0365 | -0.4534 | -2.3906 | 0.9788 | 0.0518 | 0.4189 | 0.0529 | 0.4280 |
| 173 | 56.44 | 0.07 | -0.0262 | 0.0022 | 0.0278 | -0.0839 | -1.0011 | 0.9773 | 0.0512 | 0.4152 | 0.0524 | 0.4248 |
| 174 | 56.59 | 0.05 | -0.0317 | 0.0062 | 0.0263 | -0.1644 | -0.8978 | 0.9543 | 0.0524 | 0.4034 | 0.0545 | 0.4227 |
| 175 | 56.75 | 0.06 | -0.0339 | 0.0026 | 0.0242 | -0.0590 | -0.7139 | 0.9789 | 0.0520 | 0.4179 | 0.0531 | 0.4263 |
| 176 | 56.90 | 0.05 | -0.0175 | 0.0056 | 0.0326 | -0.3392 | -1.8344 | 0.9825 | 0.0510 | 0.4191 | 0.0519 | 0.4266 |
| 177 | 57.04 | 0.05 | -0.0327 | 0.0057 | 0.0254 | -0.1743 | -0.7768 | 0.9668 | 0.0511 | 0.4087 | 0.0528 | 0.4227 |
| 178 | 57.18 | 0.04 | -0.0177 | 0.0072 | 0.0346 | -0.4607 | -1.9881 | 0.9790 | 0.0507 | 0.4174 | 0.0518 | 0.4264 |
| 179 | 57.33 | 0.04 | -0.0416 | 0.0005 | 0.0226 | -0.0120 | -0.5407 | 0.9881 | 0.0512 | 0.4203 | 0.0518 | 0.4256 |
| 180 | 57.49 | 0.05 | -0.0253 | 0.0058 | 0.0311 | -0.2492 | -1.2292 | 0.9805 | 0.0507 | 0.4147 | 0.0517 | 0.4279 |
| 181 | 57.62 | 0.04 | -0.0231 | 0.0042 | 0.0295 | -0.1269 | -0.8912 | 0.9810 | 0.0501 | 0.4156 | 0.0511 | 0.4277 |
| 182 | 57.77 | 0.05 | -0.0337 | 0.0013 | 0.0240 | -0.3386 | -0.7124 | 0.9934 | 0.0501 | 0.4242 | 0.0504 | 0.4270 |
| 183 | 57.63 | 0.05 | -0.0286 | 0.0045 | 0.0295 | -0.1651 | -1.1090 | 1.0147 | 0.0491 | 0.4323 | 0.0486 | 0.4260 |
| 184 | 57.87 | 0.04 | -0.0237 | 0.0048 | 0.0319 | -0.2025 | -1.3460 | 0.9917 | 0.0499 | 0.4233 | 0.0503 | 0.4268 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 125 MACH 0.6C RNIC-6 1.7 PHI 0.0 CONF 11 L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.86 | 0.04 | -0.0256 | 0.0035 | 0.0302 | -0.1400 | -1.2366 | 1.0040 | 0.0504 | 0.4265 | 0.0502 | 0.4248 |
| 186 | 57.87 | 0.04 | -0.0346 | 0.0011 | 0.0245 | -0.0566 | -0.7324 | 1.0073 | 0.0455 | 0.4267 | 0.0491 | 0.4236 |
| 187 | 57.88 | 0.04 | -0.0373 | 0.0027 | 0.0253 | -0.0724 | -0.6783 | 0.9945 | 0.0501 | 0.4250 | 0.0504 | 0.4273 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 135 | MACH 0.60 | REYNOLDS 1.7 | PHI 0.0 | CONF BIBOF11 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | 0.01 | -0.0004 | 0.0000 | 0.0093 | 0.0000 | -23.2500 | -0.7469 | -0.0573 | -0.3248 | 0.0767 | 0.4369 |
| 2 | -5.70 | -0.01 | 0.0074 | 0.0000 | 0.0118 | 0.0000 | 1.5946 | -0.7466 | -0.0576 | -0.3261 | 0.0771 | 0.4367 |
| 3 | -5.70 | -0.01 | 0.0055 | 0.0000 | 0.0110 | 0.0000 | 1.8644 | -0.7414 | -0.0578 | -0.3225 | 0.0779 | 0.4356 |
| 4 | -5.71 | -0.01 | 0.0047 | 0.0000 | 0.0106 | 0.0000 | 3.5555 | -0.7592 | -0.0580 | -0.3310 | 0.0764 | 0.4360 |
| 5 | -5.70 | -0.01 | 0.0012 | 0.0000 | 0.0102 | 0.0000 | 7.3333 | -0.7593 | -0.0577 | -0.3323 | 0.0760 | 0.4378 |
| 6 | -5.70 | -0.01 | -0.0015 | 0.0000 | 0.0095 | 0.0000 | -2.8947 | -0.7646 | -0.0577 | -0.3347 | 0.0754 | 0.4377 |
| 7 | -5.75 | -0.00 | 0.0043 | 0.0000 | 0.0103 | 0.0000 | 2.3953 | -0.7505 | -0.0576 | -0.3277 | 0.0770 | 0.4368 |
| 8 | -5.82 | -0.01 | 0.0050 | 0.0000 | 0.0115 | 0.0000 | 1.8222 | -0.7416 | -0.0573 | -0.3224 | 0.0772 | 0.4347 |
| 9 | -5.68 | -0.01 | 0.0055 | 0.0000 | 0.0098 | 0.0000 | 1.6610 | -0.7505 | -0.0573 | -0.3257 | 0.0763 | 0.4340 |
| 10 | -4.18 | -0.00 | 0.0051 | 0.0000 | 0.0104 | 0.0000 | 1.1099 | -0.7887 | -0.0555 | -0.3454 | 0.0704 | 0.4379 |
| 11 | -2.44 | 0.00 | 0.0185 | 0.0000 | 0.0135 | 0.0000 | 0.7514 | -0.8100 | -0.0504 | -0.3457 | 0.0622 | 0.4268 |
| 12 | -0.69 | -0.00 | 0.0059 | 0.0000 | 0.0114 | 0.0000 | 1.0044 | -0.8369 | -0.0785 | -0.3605 | 0.0938 | 0.4312 |
| 13 | 1.06 | -0.00 | 0.0120 | 0.0000 | 0.0155 | 0.0000 | 1.3250 | -0.0993 | -0.0797 | -0.3068 | 0.1139 | 0.4387 |
| 14 | 2.88 | 0.01 | 0.0120 | 0.0000 | 0.0105 | 0.0000 | 1.3750 | -0.0861 | -0.0821 | -0.2572 | 0.1400 | 0.4388 |
| 15 | 4.58 | 0.01 | 0.0085 | 0.0000 | 0.0150 | 0.0000 | 1.6854 | -0.4939 | -0.0804 | -0.2119 | 0.1627 | 0.4290 |
| 16 | 6.34 | 0.00 | 0.0058 | 0.0000 | 0.0100 | 0.0000 | 2.0571 | -0.3867 | -0.0668 | -0.1635 | 0.1727 | 0.4228 |
| 17 | 8.10 | 0.01 | 0.0036 | 0.0000 | 0.0175 | 0.0000 | 3.1964 | -0.2921 | -0.0522 | -0.1146 | 0.1787 | 0.3923 |
| 18 | 9.79 | 0.01 | 0.0040 | 0.0000 | 0.0171 | 0.0000 | 4.2750 | -0.1948 | -0.0357 | -0.0666 | 0.1832 | 0.3522 |
| 19 | 11.59 | 0.01 | -0.0007 | 0.0000 | 0.0143 | 0.0000 | -20.4286 | -0.1082 | -0.0196 | -0.0346 | 0.1811 | 0.3158 |
| 20 | 13.30 | 0.00 | 0.0050 | 0.0000 | 0.0125 | 0.0000 | 1.3864 | -0.0474 | -0.0012 | -0.0082 | 0.0253 | 0.1730 |
| 21 | 15.06 | 0.01 | 0.0026 | 0.0000 | 0.0096 | 0.0000 | 0.3582 | 0.0036 | 0.0196 | 0.0138 | 5.4430 | 3.8333 |
| 22 | 16.87 | 0.00 | 0.0031 | 0.0000 | 0.0101 | 0.0000 | 0.3051 | 0.0058 | 0.0441 | 0.0356 | 0.6910 | 0.5580 |
| 23 | 18.65 | -0.00 | 0.0026 | 0.0000 | 0.0079 | 0.0000 | 0.2782 | 0.1532 | 0.0669 | 0.0695 | 0.4366 | 0.4563 |
| 24 | 20.41 | -0.02 | 0.0029 | 0.0000 | 0.0091 | 0.0000 | 0.1297 | 0.2474 | 0.0824 | 0.1196 | 0.3330 | 0.4834 |
| 25 | 22.17 | -0.02 | 0.0023 | 0.0000 | 0.0024 | 0.0000 | 0.1076 | 0.3182 | 0.0841 | 0.1513 | 0.2642 | 0.4755 |
| 26 | 23.95 | -0.03 | 0.0014 | 0.0000 | -0.0047 | 0.0000 | -0.4123 | 0.4167 | 0.0876 | 0.1973 | 0.2102 | 0.4735 |
| 27 | 25.72 | -0.02 | 0.0012 | 0.0000 | -0.0037 | 0.0000 | -0.2284 | 0.4365 | 0.0899 | 0.2105 | 0.2059 | 0.4822 |
| 28 | 27.53 | 0.01 | 0.0013 | 0.0000 | 0.0083 | 0.0000 | 0.2010 | 0.4355 | 0.0927 | 0.2148 | 0.2128 | 0.4932 |
| 29 | 27.87 | 0.01 | 0.0044 | 0.0000 | 0.0096 | 0.0000 | 0.2207 | 0.4342 | 0.0916 | 0.2165 | 0.2109 | 0.4986 |
| 30 | 28.18 | 0.02 | 0.0038 | 0.0000 | 0.0146 | 0.0000 | 0.2764 | 0.4385 | 0.0922 | 0.2212 | 0.2102 | 0.5044 |
| 31 | 28.43 | 0.02 | 0.0046 | 0.0000 | 0.0079 | 0.0000 | 0.1771 | 0.4364 | 0.0928 | 0.2226 | 0.2116 | 0.5078 |
| 32 | 28.77 | 0.02 | 0.0077 | 0.0000 | 0.0107 | 0.0000 | 0.2243 | 0.4455 | 0.0936 | 0.2287 | 0.1876 | 0.5134 |
| 33 | 29.07 | 0.03 | 0.0055 | 0.0000 | 0.0144 | 0.0000 | 0.2595 | 0.4434 | 0.0797 | 0.2314 | 0.1797 | 0.5215 |
| 34 | 29.34 | 0.03 | 0.0052 | 0.0000 | 0.0152 | 0.0000 | 0.2657 | 0.4508 | 0.0848 | 0.2366 | 0.1856 | 0.5186 |
| 35 | 29.62 | 0.03 | 0.0025 | 0.0000 | 0.0125 | 0.0000 | 0.2457 | 0.4755 | 0.0722 | 0.2472 | 0.1517 | 0.5154 |
| 36 | 29.92 | 0.03 | 0.0046 | 0.0000 | 0.0096 | 0.0000 | 0.2197 | 0.4865 | 0.0711 | 0.2540 | 0.1454 | 0.5195 |
| 37 | 30.17 | 0.04 | 0.0054 | 0.0000 | 0.0133 | 0.0000 | 0.2592 | 0.5010 | 0.0703 | 0.2605 | 0.1403 | 0.5200 |
| 38 | 30.43 | 0.03 | 0.0047 | 0.0000 | 0.0136 | 0.0000 | 0.2643 | 0.5158 | 0.0693 | 0.2681 | 0.1343 | 0.5198 |
| 39 | 30.71 | 0.02 | 0.0035 | 0.0000 | 0.0076 | 0.0000 | 0.2090 | 0.5451 | 0.0629 | 0.2808 | 0.1154 | 0.5151 |
| 40 | 30.98 | 0.02 | 0.0015 | 0.0000 | 0.0102 | 0.0000 | 0.2456 | 0.5619 | 0.0614 | 0.2898 | 0.1092 | 0.5197 |
| 41 | 31.26 | 0.02 | 0.0051 | 0.0000 | 0.0072 | 0.0000 | 0.2051 | 0.5707 | 0.0620 | 0.2945 | 0.1086 | 0.5160 |
| 42 | 31.52 | 0.02 | 0.0015 | 0.0000 | 0.0085 | 0.0000 | 0.2145 | 0.5827 | 0.0636 | 0.3023 | 0.1091 | 0.5188 |
| 43 | 31.78 | 0.02 | 0.0046 | 0.0000 | 0.0111 | 0.0000 | 0.2489 | 0.5960 | 0.0616 | 0.3083 | 0.1033 | 0.5173 |
| 44 | 32.05 | 0.02 | 0.0047 | 0.0000 | 0.0104 | 0.0000 | 0.2327 | 0.5998 | 0.0612 | 0.3126 | 0.1020 | 0.5212 |
| 45 | 32.29 | 0.04 | 0.0042 | 0.0000 | 0.0112 | 0.0000 | 0.2424 | 0.6108 | 0.0608 | 0.3186 | 0.0995 | 0.5216 |
| 46 | 32.57 | 0.03 | 0.0016 | 0.0000 | 0.0071 | 0.0000 | 0.1707 | 0.6135 | 0.0631 | 0.3191 | 0.1028 | 0.5201 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSDUCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 135 MACH 0.80 RX10-6 1.7 PHI 0.0 CONF BIBOP11 L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.82 | 0.04 | 0.0370 | 0.0000 | 0.0042 | 0.9999 | 0.1135 | 0.6041 | 0.0626 | 0.3162 | 0.1039 | 0.5234 |
| 48 | 33.06 | 0.04 | 0.0638 | 0.0000 | 0.0170 | 0.9999 | 0.2005 | 0.6251 | 0.0645 | 0.3273 | 0.1032 | 0.5236 |
| 49 | 33.33 | 0.05 | 0.0445 | 0.0000 | 0.0073 | 0.9999 | 0.1626 | 0.6224 | 0.0623 | 0.3282 | 0.1001 | 0.5273 |
| 50 | 33.57 | 0.05 | 0.0578 | 0.0000 | 0.0127 | 0.9999 | 0.2205 | 0.6201 | 0.0621 | 0.3324 | 0.0992 | 0.5309 |
| 51 | 33.81 | 0.06 | 0.0525 | 0.0000 | 0.0105 | 0.9999 | 0.1985 | 0.6352 | 0.0634 | 0.3361 | 0.0951 | 0.5291 |
| 52 | 34.07 | 0.05 | 0.0461 | 0.0000 | 0.0101 | 0.9999 | 0.2100 | 0.6367 | 0.0612 | 0.3390 | 0.0961 | 0.5324 |
| 53 | 34.32 | 0.06 | 0.0545 | 0.0000 | 0.0112 | 0.9999 | 0.2055 | 0.6458 | 0.0614 | 0.3450 | 0.0951 | 0.5342 |
| 54 | 34.55 | 0.07 | 0.0641 | 0.0000 | 0.0171 | 0.9999 | 0.2668 | 0.6466 | 0.0622 | 0.3484 | 0.0961 | 0.5387 |
| 55 | 34.80 | 0.07 | 0.0641 | 0.0000 | 0.0171 | 0.9999 | 0.2666 | 0.6383 | 0.0605 | 0.3470 | 0.0954 | 0.5438 |
| 56 | 35.04 | 0.07 | 0.0563 | 0.0000 | 0.0161 | 0.9999 | 0.2715 | 0.6433 | 0.0622 | 0.3495 | 0.0967 | 0.5433 |
| 57 | 35.27 | 0.06 | 0.0704 | 0.0000 | 0.0214 | 0.9999 | 0.3040 | 0.6519 | 0.0634 | 0.3536 | 0.0972 | 0.5424 |
| 58 | 35.51 | 0.07 | 0.0642 | 0.0000 | 0.0171 | 0.9999 | 0.2664 | 0.6448 | 0.0617 | 0.3515 | 0.0957 | 0.5451 |
| 59 | 35.74 | 0.07 | 0.0626 | 0.0000 | 0.0176 | 0.9999 | 0.2811 | 0.6543 | 0.0652 | 0.3560 | 0.0996 | 0.5441 |
| 60 | 35.97 | 0.05 | 0.0675 | 0.0000 | 0.0199 | 0.9999 | 0.2998 | 0.6594 | 0.0647 | 0.3569 | 0.0981 | 0.5412 |
| 61 | 36.20 | 0.05 | 0.0655 | 0.0000 | 0.0192 | 0.9999 | 0.2914 | 0.6606 | 0.0665 | 0.3565 | 0.1006 | 0.5397 |
| 62 | 36.44 | 0.06 | 0.0737 | 0.0000 | 0.0246 | 0.9999 | 0.3365 | 0.6678 | 0.0665 | 0.3597 | 0.0996 | 0.5386 |
| 63 | 36.67 | 0.05 | 0.0719 | 0.0000 | 0.0227 | 0.9999 | 0.3504 | 0.6668 | 0.0680 | 0.3597 | 0.1020 | 0.5394 |
| 64 | 36.89 | 0.06 | 0.0678 | 0.0000 | 0.0200 | 0.9999 | 0.2959 | 0.6671 | 0.0674 | 0.3603 | 0.1010 | 0.5401 |
| 65 | 37.13 | 0.05 | 0.0596 | 0.0000 | 0.0174 | 0.9999 | 0.2919 | 0.6713 | 0.0658 | 0.3632 | 0.0980 | 0.5410 |
| 66 | 37.36 | 0.05 | 0.0627 | 0.0000 | 0.0196 | 0.9999 | 0.3120 | 0.6755 | 0.0644 | 0.3646 | 0.0953 | 0.5367 |
| 67 | 37.60 | 0.06 | 0.0643 | 0.0000 | 0.0203 | 0.9999 | 0.3157 | 0.6812 | 0.0640 | 0.3636 | 0.0968 | 0.5458 |
| 68 | 37.83 | 0.06 | 0.0677 | 0.0000 | 0.0213 | 0.9999 | 0.3146 | 0.6785 | 0.0652 | 0.3641 | 0.0950 | 0.5529 |
| 69 | 38.05 | 0.06 | 0.0595 | 0.0000 | 0.0192 | 0.9999 | 0.2769 | 0.6861 | 0.0643 | 0.3646 | 0.0955 | 0.5578 |
| 70 | 38.29 | 0.06 | 0.0614 | 0.0000 | 0.0196 | 0.9999 | 0.2851 | 0.6874 | 0.0658 | 0.3614 | 0.1016 | 0.5582 |
| 71 | 38.51 | 0.07 | 0.0583 | 0.0000 | 0.0168 | 0.9999 | 0.2539 | 0.6835 | 0.0663 | 0.3556 | 0.1046 | 0.5616 |
| 72 | 38.72 | 0.06 | 0.0631 | 0.0000 | 0.0177 | 0.9999 | 0.2805 | 0.6815 | 0.0670 | 0.3569 | 0.1060 | 0.5648 |
| 73 | 38.94 | 0.07 | 0.0582 | 0.0000 | 0.0154 | 0.9999 | 0.2646 | 0.6827 | 0.0672 | 0.3542 | 0.1079 | 0.5688 |
| 74 | 39.17 | 0.07 | 0.0603 | 0.0000 | 0.0163 | 0.9999 | 0.2911 | 0.6814 | 0.0685 | 0.3584 | 0.1085 | 0.5676 |
| 75 | 39.36 | 0.07 | 0.0601 | 0.0000 | 0.0163 | 0.9999 | 0.2712 | 0.6872 | 0.0695 | 0.3520 | 0.1126 | 0.5703 |
| 76 | 39.58 | 0.07 | 0.0616 | 0.0000 | 0.0167 | 0.9999 | 0.2808 | 0.6838 | 0.0692 | 0.3606 | 0.1092 | 0.5689 |
| 77 | 39.78 | 0.07 | 0.0634 | 0.0000 | 0.0165 | 0.9999 | 0.2603 | 0.6900 | 0.0695 | 0.3570 | 0.1103 | 0.5667 |
| 78 | 39.98 | 0.08 | 0.0635 | 0.0000 | 0.0172 | 0.9999 | 0.2709 | 0.6886 | 0.0696 | 0.3525 | 0.1128 | 0.5717 |
| 79 | 40.18 | 0.08 | 0.0731 | 0.0000 | 0.0225 | 0.9999 | 0.3078 | 0.6880 | 0.0691 | 0.3663 | 0.1066 | 0.5653 |
| 80 | 40.40 | 0.09 | 0.0666 | 0.0000 | 0.0200 | 0.9999 | 0.3003 | 0.6909 | 0.0687 | 0.3630 | 0.1072 | 0.5664 |
| 81 | 40.58 | 0.07 | 0.0650 | 0.0000 | 0.0193 | 0.9999 | 0.2969 | 0.6951 | 0.0697 | 0.3683 | 0.1064 | 0.5622 |
| 82 | 40.80 | 0.08 | 0.0732 | 0.0000 | 0.0231 | 0.9999 | 0.3156 | 0.6963 | 0.0705 | 0.3784 | 0.1039 | 0.5586 |
| 83 | 40.99 | 0.08 | 0.0704 | 0.0000 | 0.0223 | 0.9999 | 0.3312 | 0.6948 | 0.0699 | 0.3758 | 0.1038 | 0.5565 |
| 84 | 41.19 | 0.08 | 0.0701 | 0.0000 | 0.0225 | 0.9999 | 0.3265 | 0.7040 | 0.0706 | 0.3696 | 0.1003 | 0.5534 |
| 85 | 41.38 | 0.07 | 0.0701 | 0.0000 | 0.0248 | 0.9999 | 0.3175 | 0.6963 | 0.0712 | 0.3759 | 0.1056 | 0.5579 |
| 86 | 41.58 | 0.08 | 0.0700 | 0.0000 | 0.0201 | 0.9999 | 0.3346 | 0.6965 | 0.0706 | 0.3745 | 0.1046 | 0.5552 |
| 87 | 41.79 | 0.07 | 0.0652 | 0.0000 | 0.0193 | 0.9999 | 0.2960 | 0.6917 | 0.0706 | 0.3702 | 0.1067 | 0.5555 |
| 88 | 41.96 | 0.07 | 0.0645 | 0.0000 | 0.0252 | 0.9999 | 0.3456 | 0.6812 | 0.0719 | 0.3703 | 0.1087 | 0.5600 |
| 89 | 42.15 | 0.08 | 0.0730 | 0.0000 | 0.0237 | 0.9999 | 0.3247 | 0.6800 | 0.0711 | 0.3694 | 0.1077 | 0.5557 |
| 90 | 42.34 | 0.07 | 0.0729 | 0.0000 | 0.0231 | 0.9999 | 0.3169 | 0.6905 | 0.0714 | 0.3687 | 0.1084 | 0.5599 |
| 91 | 42.52 | 0.07 | 0.0777 | 0.0000 | 0.0260 | 0.9999 | 0.3346 | 0.6804 | 0.0713 | 0.3682 | 0.1079 | 0.5575 |
| 92 | 42.68 | 0.08 | 0.0810 | 0.0000 | 0.0269 | 0.9999 | 0.3321 | 0.6878 | 0.0712 | 0.3728 | 0.1066 | 0.5583 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 155 PACK 0.86 RXIC=6 1.7 PHI 0.0 CONF 0 INDFIL 1 C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | dETA | CNF3 | CM3 | C03 | XCPF3 | YCPF3 | CNF4 | CM4 | C04 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 42.88 | 0.08 | 0.0EC7 | 5.9999 | 0.0287 | 5.9999 | 0.3556 | 0.8625 | 0.0717 | 0.3705 | 0.1082 | 0.5592 |
| 94 | 43.07 | 0.08 | 0.0758 | 5.9999 | 0.0258 | 5.9999 | 0.3404 | 0.8721 | 0.0714 | 0.3745 | 0.1062 | 0.5572 |
| 95 | 43.26 | 0.08 | 0.08CE | 5.9999 | 0.0280 | 5.9999 | 0.3474 | 0.8731 | 0.0717 | 0.3710 | 0.1070 | 0.5536 |
| 96 | 43.41 | 0.08 | 0.0742 | 5.9999 | 0.0244 | 5.9999 | 0.3288 | 0.8811 | 0.0714 | 0.3665 | 0.1080 | 0.5556 |
| 97 | 43.61 | 0.08 | 0.074C | 5.9999 | 0.025E | 5.9999 | 0.3459 | 0.8708 | 0.0707 | 0.3696 | 0.1054 | 0.5510 |
| 98 | 43.74 | 0.09 | 0.0803 | 5.9999 | 0.0273 | 5.9999 | 0.3400 | 0.8786 | 0.0703 | 0.3736 | 0.1036 | 0.5505 |
| 99 | 43.97 | 0.08 | 0.0EE2 | 5.9999 | 0.0324 | 5.9999 | 0.3673 | 0.8765 | 0.0702 | 0.3727 | 0.1037 | 0.5506 |
| 100 | 44.16 | 0.08 | 0.0EC3 | 5.9999 | 0.0273 | 5.9999 | 0.3406 | 0.8840 | 0.0705 | 0.3753 | 0.1030 | 0.5487 |
| 101 | 44.34 | 0.08 | 0.0E3E | 5.9999 | 0.0315 | 5.9999 | 0.3552 | 0.8676 | 0.0705 | 0.3763 | 0.1025 | 0.5473 |
| 102 | 44.53 | 0.08 | 0.0783 | 5.9999 | 0.0271 | 5.9999 | 0.3401 | 0.8844 | 0.0701 | 0.3740 | 0.1023 | 0.5461 |
| 103 | 44.65 | 0.07 | 0.072C | 5.9999 | 0.0234 | 5.9999 | 0.3250 | 0.8953 | 0.0703 | 0.3805 | 0.1005 | 0.5441 |
| 104 | 44.88 | 0.07 | 0.07C8 | 5.9999 | 0.0264 | 5.9999 | 0.3512 | 0.8837 | 0.0694 | 0.3719 | 0.1015 | 0.544C |
| 105 | 45.07 | 0.07 | 0.0E55 | 5.9999 | 0.032C | 5.9999 | 0.3725 | 0.7056 | 0.0694 | 0.3805 | 0.0963 | 0.5398 |
| 106 | 45.25 | 0.07 | 0.0783 | 5.9999 | 0.0267 | 5.9999 | 0.3701 | 0.7096 | 0.0688 | 0.3827 | 0.0966 | 0.5407 |
| 107 | 45.41 | 0.07 | 0.0811 | 5.9999 | 0.0257 | 5.9999 | 0.3662 | 0.7145 | 0.0686 | 0.3841 | 0.0955 | 0.5373 |
| 108 | 45.59 | 0.07 | 0.0E5E | 5.9999 | 0.0332 | 5.9999 | 0.3869 | 0.6900 | 0.0687 | 0.3748 | 0.0986 | 0.5379 |
| 109 | 45.78 | 0.07 | 0.0782 | 5.9999 | 0.0274 | 5.9999 | 0.3596 | 0.7011 | 0.0677 | 0.3783 | 0.0965 | 0.5356 |
| 110 | 45.95 | 0.08 | 0.0804 | 5.9999 | 0.0334 | 5.9999 | 0.3910 | 0.6953 | 0.0687 | 0.3740 | 0.0988 | 0.5379 |
| 111 | 46.11 | 0.07 | 0.0EC8 | 5.9999 | 0.0315 | 5.9999 | 0.3899 | 0.6867 | 0.0677 | 0.3695 | 0.0986 | 0.5387 |
| 112 | 46.28 | 0.07 | 0.0E46 | 5.9999 | 0.0324 | 5.9999 | 0.3857 | 0.7141 | 0.0665 | 0.3818 | 0.0931 | 0.5347 |
| 113 | 46.48 | 0.07 | 0.0E35 | 5.9999 | 0.0323 | 5.9999 | 0.3850 | 0.7120 | 0.0666 | 0.3797 | 0.0934 | 0.5328 |
| 114 | 46.65 | 0.08 | 0.077E | 5.9999 | 0.02E7 | 5.9999 | 0.3696 | 0.7165 | 0.0665 | 0.3798 | 0.0935 | 0.5331 |
| 115 | 46.80 | 0.08 | 0.0EC2 | 5.9999 | 0.0302 | 5.9999 | 0.3767 | 0.7218 | 0.0665 | 0.3837 | 0.0921 | 0.5316 |
| 116 | 46.99 | 0.08 | 0.079E | 5.9999 | 0.0291 | 5.9999 | 0.3839 | 0.7253 | 0.0667 | 0.3853 | 0.0919 | 0.5312 |
| 117 | 47.17 | 0.08 | 0.0759 | 5.9999 | 0.0275 | 5.9999 | 0.3676 | 0.7361 | 0.0665 | 0.3881 | 0.0903 | 0.5272 |
| 118 | 47.33 | 0.07 | 0.079C | 5.9999 | 0.0306 | 5.9999 | 0.3797 | 0.7321 | 0.0670 | 0.3846 | 0.0891 | 0.5247 |
| 119 | 47.49 | 0.06 | 0.0279 | 5.9999 | 0.0241 | 5.9999 | 0.3549 | 0.7453 | 0.0666 | 0.3901 | 0.0853 | 0.5234 |
| 120 | 47.67 | 0.06 | 0.0757 | 5.9999 | 0.0285 | 5.9999 | 0.3785 | 0.7406 | 0.0670 | 0.3917 | 0.0895 | 0.5231 |
| 121 | 47.84 | 0.06 | 0.07CE | 5.9999 | 0.0262 | 5.9999 | 0.3701 | 0.7506 | 0.0672 | 0.3925 | 0.0895 | 0.5229 |
| 122 | 48.01 | 0.05 | 0.0771 | 5.9999 | 0.0285 | 5.9999 | 0.3696 | 0.7501 | 0.0669 | 0.3949 | 0.0885 | 0.5223 |
| 123 | 48.18 | 0.06 | 0.0EE1 | 5.9999 | 0.0235 | 5.9999 | 0.3616 | 0.7668 | 0.0665 | 0.3983 | 0.0872 | 0.5194 |
| 124 | 48.33 | 0.05 | 0.0E46 | 5.9999 | 0.0224 | 5.9999 | 0.3496 | 0.7667 | 0.0667 | 0.4004 | 0.0867 | 0.5209 |
| 125 | 48.51 | 0.05 | 0.0724 | 5.9999 | 0.0263 | 5.9999 | 0.3633 | 0.7755 | 0.0674 | 0.4010 | 0.0865 | 0.5171 |
| 126 | 48.66 | 0.04 | 0.05EE | 5.9999 | 0.01DE | 5.9999 | 0.3310 | 0.7740 | 0.0665 | 0.4001 | 0.0859 | 0.5165 |
| 127 | 48.84 | 0.05 | 0.0599 | 5.9999 | 0.0203 | 5.9999 | 0.3389 | 0.7903 | 0.0666 | 0.4072 | 0.0835 | 0.5152 |
| 128 | 49.01 | 0.04 | 0.05E8 | 5.9999 | 0.01E2 | 5.9999 | 0.3204 | 0.7938 | 0.0661 | 0.4074 | 0.0832 | 0.5132 |
| 129 | 49.20 | 0.03 | 0.0629 | 5.9999 | 0.021E | 5.9999 | 0.3466 | 0.7924 | 0.0654 | 0.4079 | 0.0825 | 0.5148 |
| 130 | 49.36 | 0.01 | 0.05EE | 5.9999 | 0.01DE | 5.9999 | 0.3322 | 0.8008 | 0.0648 | 0.4128 | 0.0803 | 0.5117 |
| 131 | 49.51 | 0.01 | 0.0613 | 5.9999 | 0.021C | 5.9999 | 0.3426 | 0.8048 | 0.0654 | 0.4108 | 0.0812 | 0.5104 |
| 132 | 49.68 | 0.01 | 0.0535 | 5.9999 | 0.0173 | 5.9999 | 0.3234 | 0.8031 | 0.0644 | 0.4066 | 0.0808 | 0.5088 |
| 133 | 49.87 | 0.01 | 0.0551 | 5.9999 | 0.018C | 5.9999 | 0.3267 | 0.8139 | 0.0647 | 0.4140 | 0.0795 | 0.5087 |
| 134 | 50.04 | 0.01 | 0.053E | 5.9999 | 0.0179 | 5.9999 | 0.3226 | 0.8032 | 0.0643 | 0.4098 | 0.0800 | 0.5102 |
| 135 | 50.20 | 0.01 | 0.0474 | 5.9999 | 0.0131 | 5.9999 | 0.2764 | 0.8016 | 0.0636 | 0.4090 | 0.0796 | 0.5102 |
| 136 | 50.37 | 0.01 | 0.0465 | 5.9999 | 0.0151 | 5.9999 | 0.3088 | 0.8086 | 0.0641 | 0.4109 | 0.0793 | 0.5082 |
| 137 | 50.56 | 0.03 | 0.0599 | 5.9999 | 0.0191 | 5.9999 | 0.3169 | 0.8086 | 0.0645 | 0.4162 | 0.0797 | 0.5147 |
| 138 | 50.74 | 0.02 | 0.0551 | 5.9999 | 0.0193 | 5.9999 | 0.3503 | 0.7903 | 0.0679 | 0.4073 | 0.0850 | 0.5102 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 6 OF 9

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 135 | MACH 0.60 | RNIG-E 1.7 | PHI 0.0 | CONF 81 | L 6.6 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CAF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 50.69 | 0.05 | 0.0537 | 9.9999 | 0.0186 | 9.9999 | 0.3464 | 0.8022 | 0.0665 | 0.4087 | 0.0829 | 0.5065 |
| 140 | 51.00 | 0.05 | 0.0585 | 9.9999 | 0.0184 | 9.9999 | 0.3145 | 0.8059 | 0.0674 | 0.4100 | 0.0833 | 0.5065 |
| 141 | 51.24 | 0.05 | 0.0585 | 9.9999 | 0.0185 | 9.9999 | 0.3322 | 0.8092 | 0.0666 | 0.4106 | 0.0823 | 0.5074 |
| 142 | 51.39 | 0.05 | 0.0617 | 9.9999 | 0.0211 | 9.9999 | 0.3420 | 0.8247 | 0.0680 | 0.4178 | 0.0824 | 0.5066 |
| 143 | 51.56 | 0.05 | 0.0617 | 9.9999 | 0.0211 | 9.9999 | 0.3420 | 0.8351 | 0.0686 | 0.4206 | 0.0821 | 0.5037 |
| 144 | 51.73 | 0.06 | 0.0585 | 9.9999 | 0.0196 | 9.9999 | 0.3350 | 0.8394 | 0.0668 | 0.4214 | 0.0796 | 0.5020 |
| 145 | 51.91 | 0.06 | 0.0632 | 9.9999 | 0.0231 | 9.9999 | 0.3655 | 0.8394 | 0.0668 | 0.4214 | 0.0796 | 0.5026 |
| 146 | 52.07 | 0.06 | 0.0585 | 9.9999 | 0.0265 | 9.9999 | 0.3573 | 0.8573 | 0.0670 | 0.4307 | 0.0781 | 0.5024 |
| 147 | 52.23 | 0.06 | 0.0684 | 9.9999 | 0.0255 | 9.9999 | 0.3901 | 0.8517 | 0.0671 | 0.4276 | 0.0788 | 0.5013 |
| 148 | 52.41 | 0.07 | 0.0633 | 9.9999 | 0.0252 | 9.9999 | 0.3665 | 0.8702 | 0.0657 | 0.4355 | 0.0755 | 0.5005 |
| 149 | 52.58 | 0.07 | 0.0666 | 9.9999 | 0.0241 | 9.9999 | 0.3619 | 0.8506 | 0.0634 | 0.4283 | 0.0741 | 0.5006 |
| 150 | 52.75 | 0.09 | 0.0726 | 9.9999 | 0.0284 | 9.9999 | 0.3896 | 0.8694 | 0.0629 | 0.4352 | 0.0723 | 0.5006 |
| 151 | 52.91 | 0.09 | 0.0635 | 9.9999 | 0.0232 | 9.9999 | 0.3654 | 0.8586 | 0.0629 | 0.4306 | 0.0732 | 0.5013 |
| 152 | 53.08 | 0.09 | 0.0636 | 9.9999 | 0.0233 | 9.9999 | 0.3664 | 0.8659 | 0.0628 | 0.4335 | 0.0742 | 0.5006 |
| 153 | 53.26 | 0.10 | 0.0620 | 9.9999 | 0.0225 | 9.9999 | 0.3629 | 0.8335 | 0.0622 | 0.4198 | 0.0746 | 0.5037 |
| 154 | 53.39 | 0.10 | 0.0731 | 9.9999 | 0.0304 | 9.9999 | 0.4159 | 0.8587 | 0.0625 | 0.4316 | 0.0745 | 0.5027 |
| 155 | 53.55 | 0.10 | 0.0652 | 9.9999 | 0.0253 | 9.9999 | 0.3880 | 0.8514 | 0.0628 | 0.4311 | 0.0755 | 0.5065 |
| 156 | 53.71 | 0.09 | 0.0685 | 9.9999 | 0.0282 | 9.9999 | 0.4117 | 0.8585 | 0.0628 | 0.4337 | 0.0749 | 0.5053 |
| 157 | 53.87 | 0.08 | 0.0716 | 9.9999 | 0.0305 | 9.9999 | 0.4316 | 0.8695 | 0.0626 | 0.4378 | 0.0737 | 0.5036 |
| 158 | 54.03 | 0.09 | 0.0746 | 9.9999 | 0.0332 | 9.9999 | 0.4519 | 0.8867 | 0.0647 | 0.4455 | 0.0749 | 0.5085 |
| 159 | 54.18 | 0.08 | 0.0654 | 9.9999 | 0.0267 | 9.9999 | 0.4083 | 0.8548 | 0.0628 | 0.4336 | 0.0734 | 0.5073 |
| 160 | 54.34 | 0.09 | 0.0695 | 9.9999 | 0.0276 | 9.9999 | 0.4257 | 0.8631 | 0.0623 | 0.4321 | 0.0730 | 0.5065 |
| 161 | 54.50 | 0.09 | 0.0640 | 9.9999 | 0.0273 | 9.9999 | 0.4266 | 0.8731 | 0.0623 | 0.4357 | 0.0713 | 0.5082 |
| 162 | 54.66 | 0.07 | 0.0665 | 9.9999 | 0.0296 | 9.9999 | 0.4296 | 0.8906 | 0.0624 | 0.4365 | 0.0728 | 0.5056 |
| 163 | 54.81 | 0.09 | 0.0653 | 9.9999 | 0.0251 | 9.9999 | 0.4233 | 0.8673 | 0.0605 | 0.4350 | 0.0706 | 0.5074 |
| 164 | 54.98 | 0.08 | 0.0673 | 9.9999 | 0.0264 | 9.9999 | 0.4294 | 0.8735 | 0.0606 | 0.4346 | 0.0712 | 0.5054 |
| 165 | 55.11 | 0.07 | 0.0563 | 9.9999 | 0.0223 | 9.9999 | 0.3961 | 0.8683 | 0.0603 | 0.4419 | 0.0694 | 0.5089 |
| 166 | 55.33 | 0.06 | 0.0611 | 9.9999 | 0.0255 | 9.9999 | 0.4239 | 0.8867 | 0.0594 | 0.4514 | 0.0668 | 0.5079 |
| 167 | 55.50 | 0.07 | 0.0580 | 9.9999 | 0.0231 | 9.9999 | 0.3963 | 0.8812 | 0.0600 | 0.4503 | 0.0681 | 0.5110 |
| 168 | 55.66 | 0.07 | 0.0613 | 9.9999 | 0.0247 | 9.9999 | 0.4029 | 0.8779 | 0.0590 | 0.4473 | 0.0672 | 0.5095 |
| 169 | 55.81 | 0.05 | 0.0596 | 9.9999 | 0.0239 | 9.9999 | 0.4010 | 0.8873 | 0.0583 | 0.4533 | 0.0657 | 0.5105 |
| 170 | 55.96 | 0.06 | 0.0517 | 9.9999 | 0.0267 | 9.9999 | 0.4004 | 0.8722 | 0.0596 | 0.4470 | 0.0683 | 0.5125 |
| 171 | 56.13 | 0.06 | 0.0677 | 9.9999 | 0.0297 | 9.9999 | 0.4387 | 0.8927 | 0.0586 | 0.4559 | 0.0656 | 0.5107 |
| 172 | 56.29 | 0.07 | 0.0582 | 9.9999 | 0.0232 | 9.9999 | 0.3988 | 0.8984 | 0.0585 | 0.4566 | 0.0652 | 0.5096 |
| 173 | 56.44 | 0.07 | 0.0625 | 9.9999 | 0.0268 | 9.9999 | 0.4261 | 0.8857 | 0.0577 | 0.4525 | 0.0651 | 0.5109 |
| 174 | 56.59 | 0.05 | 0.0645 | 9.9999 | 0.0275 | 9.9999 | 0.4204 | 0.8894 | 0.0578 | 0.4555 | 0.0650 | 0.5121 |
| 175 | 56.75 | 0.06 | 0.0596 | 9.9999 | 0.0233 | 9.9999 | 0.3896 | 0.9094 | 0.0582 | 0.4631 | 0.0640 | 0.5092 |
| 176 | 56.90 | 0.05 | 0.0597 | 9.9999 | 0.0252 | 9.9999 | 0.4221 | 0.8873 | 0.0589 | 0.4534 | 0.0658 | 0.5110 |
| 177 | 57.04 | 0.05 | 0.0614 | 9.9999 | 0.0247 | 9.9999 | 0.4023 | 0.8877 | 0.0574 | 0.4547 | 0.0646 | 0.5122 |
| 178 | 57.18 | 0.04 | 0.0581 | 9.9999 | 0.0251 | 9.9999 | 0.4320 | 0.9060 | 0.0570 | 0.4624 | 0.0628 | 0.5098 |
| 179 | 57.33 | 0.04 | 0.0582 | 9.9999 | 0.0245 | 9.9999 | 0.4210 | 0.9024 | 0.0574 | 0.4595 | 0.0636 | 0.5096 |
| 180 | 57.49 | 0.05 | 0.0558 | 9.9999 | 0.0253 | 9.9999 | 0.4231 | 0.9171 | 0.0572 | 0.4651 | 0.0624 | 0.5071 |
| 181 | 57.62 | 0.04 | 0.0614 | 9.9999 | 0.0260 | 9.9999 | 0.4235 | 0.9192 | 0.0566 | 0.4672 | 0.0618 | 0.5083 |
| 182 | 57.77 | 0.05 | 0.0585 | 9.9999 | 0.0256 | 9.9999 | 0.4425 | 0.9141 | 0.0556 | 0.4646 | 0.0608 | 0.5083 |
| 183 | 57.89 | 0.05 | 0.0614 | 9.9999 | 0.0273 | 9.9999 | 0.4446 | 0.9176 | 0.0561 | 0.4663 | 0.0611 | 0.5082 |
| 184 | 57.87 | 0.04 | 0.0550 | 9.9999 | 0.0236 | 9.9999 | 0.4182 | 0.8993 | 0.0557 | 0.4575 | 0.0619 | 0.5087 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 135 MACH 0.60 MACH-6 1.7 PHI 0.0 CONF AIRPLANE L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.66 | 0.04 | 0.0534 | 0.0000 | 0.0222 | 0.0000 | 0.4157 | 0.3915 | 0.0571 | 0.4550 | 0.0000 | 0.5104 |
| 186 | 57.87 | 0.04 | 0.0525 | 0.0000 | 0.0221 | 0.0000 | 0.4245 | 0.3902 | 0.0562 | 0.4732 | 0.0000 | 0.5087 |
| 187 | 57.68 | 0.04 | 0.0535 | 0.0000 | 0.0224 | 0.0000 | 0.4437 | 0.3953 | 0.0561 | 0.4563 | 0.0000 | 0.5057 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PANTIA MISSILE TAILS EFFECTS DATA

| | TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 7 | 136 | 0.50 | 1.7 | 0.0 | alnoFil | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PCANT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | -0.01 | -1.4966 | 5.2064 | -0.0455 | -0.0316 | 0.0078 | 0.7895 | 0.2875 | 0.5001 | -3.4789 |
| 2 | -5.70 | -0.02 | -1.5456 | 5.2463 | -0.1104 | 0.0102 | 0.0012 | 0.7949 | 0.2919 | 0.5011 | -3.3869 |
| 3 | -5.70 | -0.01 | -1.5535 | 5.2443 | 0.0958 | -0.0750 | 0.0015 | 0.7929 | 0.2919 | 0.5011 | -3.4158 |
| 4 | -4.88 | -0.02 | -1.4164 | 5.2246 | -0.0429 | 0.0107 | -0.0045 | 0.7850 | 0.2762 | 0.5088 | -3.6822 |
| 5 | -3.01 | -0.02 | -1.3956 | 5.4214 | -0.0285 | 0.0198 | 0.0023 | 0.7405 | 0.2317 | 0.5088 | -3.5875 |
| 6 | -1.29 | -0.01 | -1.4950 | 5.7224 | 0.0101 | -0.0034 | 0.0030 | 0.6960 | 0.1747 | 0.5213 | -4.4189 |
| 7 | 0.52 | -0.01 | -1.0382 | 5.0145 | -0.0182 | 0.0078 | 0.0032 | 0.6434 | 0.1669 | 0.4765 | -4.8258 |
| 8 | 2.48 | -0.02 | -0.8310 | 4.8068 | -0.0336 | -0.0534 | 0.0036 | 0.5747 | 0.1403 | 0.4344 | -5.5435 |
| 9 | 4.02 | -0.02 | -0.5914 | 4.6977 | 0.0445 | -0.0541 | 0.0105 | 0.5276 | 0.1276 | 0.4000 | -6.9287 |
| 10 | 5.78 | -0.02 | -0.3177 | 3.4815 | -0.0594 | -0.0407 | 0.0108 | 0.4776 | 0.1261 | 0.3516 | -10.9597 |
| 11 | 7.60 | -0.00 | -0.0242 | 2.8058 | 0.1082 | -0.1545 | 0.0116 | 0.4234 | 0.1298 | 0.2937 | -116.0490 |
| 12 | 9.33 | -0.01 | 0.2841 | 2.1578 | 0.0780 | -0.1925 | 0.0122 | 0.3819 | 0.1326 | 0.2493 | 7.5940 |
| 13 | 11.14 | -0.03 | 0.5176 | 1.6576 | -0.0701 | 0.0122 | 0.0123 | 0.3532 | 0.1396 | 0.2136 | 3.2027 |
| 14 | 12.91 | -0.02 | 0.8240 | 1.2356 | -0.0293 | 0.0182 | 0.0089 | 0.3104 | 0.1402 | 0.1682 | 1.5036 |
| 15 | 14.76 | -0.01 | 1.0753 | 0.8911 | -0.0034 | 0.0047 | 0.0140 | 0.2935 | 0.1596 | 0.1339 | 0.8256 |
| 16 | 16.57 | -0.02 | 1.3549 | 0.6175 | -0.0656 | 0.3685 | 0.0201 | 0.2628 | 0.1698 | 0.0930 | 0.4430 |
| 17 | 18.41 | -0.03 | 1.6675 | 0.2744 | -0.1102 | 0.2857 | 0.0215 | 0.2256 | 0.1760 | 0.0496 | 0.1626 |
| 18 | 20.24 | -0.04 | 2.0004 | -0.0756 | -0.1269 | 0.9110 | 0.0266 | 0.1886 | 0.1932 | -0.0046 | -0.1364 |
| 19 | 22.10 | -0.04 | 2.4201 | -0.6665 | -0.3438 | 0.9796 | 0.0210 | 0.1405 | 0.2026 | -0.0621 | -0.3580 |
| 20 | 23.93 | -0.06 | 2.8062 | -1.0092 | -0.0565 | 1.9629 | 0.0169 | 0.1074 | 0.2169 | -0.1096 | -0.5017 |
| 21 | 25.83 | -0.04 | 3.3423 | -1.7523 | -0.4226 | 1.2805 | 0.0103 | 0.0445 | 0.2206 | -0.1761 | -0.5243 |
| 22 | 27.65 | 0.02 | 3.7462 | -1.8686 | 0.4283 | -0.8125 | 0.0742 | -0.0074 | 0.2143 | -0.2217 | -0.5041 |
| 23 | 27.52 | 0.01 | 3.7412 | -1.7258 | 0.4501 | -0.8598 | 0.0808 | -0.0126 | 0.2152 | -0.2278 | -0.4624 |
| 24 | 27.47 | 0.03 | 3.7265 | -1.8276 | 0.3907 | -0.8886 | 0.0939 | -0.0173 | 0.2151 | -0.2324 | -0.4648 |
| 25 | 28.38 | 0.03 | 3.8231 | -1.8456 | 0.5991 | -1.2643 | 0.1011 | -0.0196 | 0.2159 | -0.2315 | -0.4815 |
| 26 | 28.67 | 0.03 | 3.8519 | -1.9232 | 0.6001 | -1.2811 | 0.1271 | -0.0306 | 0.2184 | -0.2550 | -0.4818 |
| 27 | 28.54 | 0.03 | 4.0342 | -1.9028 | 0.5185 | -0.7403 | 0.0821 | -0.0455 | 0.2187 | -0.2642 | -0.4717 |
| 28 | 29.27 | 0.02 | 4.1515 | -2.1292 | 0.4276 | -0.2691 | 0.0750 | -0.0466 | 0.2247 | -0.2713 | -0.5153 |
| 29 | 29.56 | 0.03 | 4.1675 | -2.0754 | 0.5320 | -0.5555 | 0.0952 | -0.0514 | 0.2239 | -0.2753 | -0.4565 |
| 30 | 29.83 | 0.02 | 4.3062 | -2.0784 | 0.5472 | -0.2936 | 0.0629 | -0.0784 | 0.2227 | -0.3012 | -0.4824 |
| 31 | 30.10 | 0.03 | 4.3726 | -2.0574 | 0.5416 | -0.3942 | 0.0763 | -0.0811 | 0.2240 | -0.3052 | -0.4796 |
| 32 | 30.37 | 0.02 | 4.4236 | -2.1355 | 0.4391 | -0.4431 | 0.1024 | -0.0739 | 0.2273 | -0.3013 | -0.4827 |
| 33 | 30.66 | 0.03 | 4.6152 | -2.1616 | 0.6522 | -0.6249 | 0.1225 | -0.0821 | 0.2343 | -0.3165 | -0.4686 |
| 34 | 30.92 | 0.05 | 4.7654 | -2.2958 | 0.8624 | -0.7324 | 0.1422 | -0.0836 | 0.2386 | -0.3225 | -0.4797 |
| 35 | 31.21 | 0.05 | 4.8555 | -2.2352 | 0.7186 | -0.6532 | 0.1300 | -0.0958 | 0.2400 | -0.3359 | -0.4576 |
| 36 | 31.49 | 0.06 | 5.0071 | -2.2627 | 0.7641 | -0.4166 | 0.1230 | -0.1004 | 0.2420 | -0.3424 | -0.4395 |
| 37 | 31.75 | 0.05 | 5.1512 | -2.3001 | 0.7101 | -0.0077 | 0.1155 | -0.0950 | 0.2373 | -0.3524 | -0.4853 |
| 38 | 32.01 | 0.03 | 5.1047 | -2.2746 | 0.5755 | 0.0055 | 0.0967 | -0.1003 | 0.2486 | -0.3489 | -0.4456 |
| 39 | 32.28 | 0.05 | 5.2275 | -2.2813 | 0.6677 | 0.1011 | 0.0902 | -0.1266 | 0.2466 | -0.3752 | -0.4326 |
| 40 | 32.54 | 0.05 | 5.3342 | -2.2815 | 0.7189 | -0.0827 | 0.0976 | -0.1279 | 0.2519 | -0.3798 | -0.4277 |
| 41 | 32.80 | 0.05 | 5.4526 | -1.8918 | 0.7525 | -0.7772 | 0.1138 | -0.1421 | 0.2433 | -0.3856 | -0.3476 |
| 42 | 33.06 | 0.06 | 5.5169 | -1.8136 | 0.8757 | -1.1108 | 0.1210 | -0.1495 | 0.2379 | -0.3872 | -0.3290 |
| 43 | 33.31 | 0.03 | 5.2510 | -1.5332 | 0.6005 | -1.2194 | 0.1028 | -0.1551 | 0.2325 | -0.3876 | -0.2714 |
| 44 | 33.55 | 0.03 | 5.6355 | -1.6147 | 0.6056 | -1.0227 | 0.0896 | -0.1566 | 0.2355 | -0.3941 | -0.2863 |
| 45 | 33.81 | 0.04 | 5.7651 | -1.4547 | 0.6766 | -1.1761 | 0.1096 | -0.1590 | 0.2351 | -0.3941 | -0.2523 |
| 46 | 34.04 | 0.04 | 5.8044 | -1.4576 | 0.7036 | -1.1609 | 0.1098 | -0.1639 | 0.2359 | -0.3998 | -0.2477 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 136 | MACH 0.90 | ALPHA 1.0 | PHI 0.0 | CONF 1&CF11 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLNT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.29 | 0.03 | 5.5175 | -1.3381 | 0.5745 | -0.0932 | 0.0972 | -0.1634 | 0.2375 | -0.3579 | -0.2261 |
| 48 | 34.50 | 0.02 | 5.5625 | -1.3878 | 0.4924 | -0.0848 | 0.0978 | -0.1613 | 0.2388 | -0.4201 | -0.1959 |
| 49 | 34.79 | 0.03 | 5.0620 | -1.2359 | 0.5077 | -0.0859 | 0.1230 | -0.1733 | 0.2404 | -0.4137 | -0.1872 |
| 50 | 35.03 | 0.03 | 5.1107 | -1.0596 | 0.5465 | -0.0805 | 0.1169 | -0.1669 | 0.2371 | -0.4040 | -0.1734 |
| 51 | 35.27 | 0.03 | 5.2611 | -0.9866 | 0.5230 | -0.0846 | 0.0667 | -0.1744 | 0.2371 | -0.4115 | -0.1578 |
| 52 | 35.53 | 0.01 | 5.2475 | -0.9773 | 0.5153 | -0.0855 | 0.0857 | -0.1869 | 0.2370 | -0.4205 | -0.1544 |
| 53 | 35.75 | 0.02 | 5.4044 | -0.9362 | 0.4538 | -0.0807 | 0.0635 | -0.1923 | 0.2371 | -0.4254 | -0.1462 |
| 54 | 35.98 | 0.00 | 5.4956 | -0.8077 | 0.1736 | -0.0125 | 0.0290 | -0.2040 | 0.2362 | -0.4462 | -0.1335 |
| 55 | 36.22 | 0.01 | 5.5405 | -0.8041 | 0.1894 | -0.0802 | 0.0340 | -0.2028 | 0.2367 | -0.4365 | -0.1225 |
| 56 | 36.45 | 0.01 | 5.6866 | -0.7836 | 0.3264 | -0.0600 | 0.0171 | -0.2057 | 0.2375 | -0.4432 | -0.1145 |
| 57 | 36.69 | -0.01 | 5.7161 | -0.7661 | 0.0111 | -0.0029 | -0.0275 | -0.2148 | 0.2384 | -0.4532 | -0.1051 |
| 58 | 36.94 | -0.02 | 5.6957 | -0.6561 | -0.0518 | 0.0899 | 0.0046 | -0.2307 | 0.2375 | -0.4662 | -0.0929 |
| 59 | 37.16 | -0.01 | 5.8822 | -0.6476 | 0.0253 | 0.0535 | -0.0206 | -0.2243 | 0.2367 | -0.4610 | -0.0940 |
| 60 | 37.41 | 0.01 | 6.0033 | -0.5894 | 0.1090 | 0.2222 | 0.0169 | -0.2310 | 0.2383 | -0.4653 | -0.0844 |
| 61 | 37.66 | -0.00 | 7.0254 | -0.5650 | 0.0857 | 0.2567 | 0.0107 | -0.2403 | 0.2367 | -0.4770 | -0.0804 |
| 62 | 37.89 | -0.00 | 7.1435 | -0.4893 | 0.0554 | 0.3523 | -0.0086 | -0.2467 | 0.2384 | -0.4852 | -0.0962 |
| 63 | 38.13 | 0.01 | 7.1000 | -0.5340 | 0.1025 | 0.4496 | -0.0022 | -0.2465 | 0.2413 | -0.4879 | -0.0744 |
| 64 | 38.37 | 0.01 | 7.1957 | -0.5556 | 0.0704 | 0.5157 | 0.0108 | -0.2480 | 0.2434 | -0.4726 | -0.0772 |
| 65 | 38.59 | 0.02 | 7.3021 | -0.5321 | 0.1763 | 0.5053 | 0.0045 | -0.2493 | 0.2437 | -0.4931 | -0.0728 |
| 66 | 38.80 | -0.00 | 7.4333 | -0.4805 | -0.0074 | 0.8704 | -0.0024 | -0.2330 | 0.2532 | -0.4869 | -0.0648 |
| 67 | 39.04 | -0.01 | 7.4826 | -0.5401 | -0.1444 | 0.9155 | -0.0340 | -0.2658 | 0.2476 | -0.5137 | -0.0724 |
| 68 | 39.28 | -0.00 | 7.5975 | -0.5401 | -0.1211 | 1.1200 | -0.0216 | -0.2618 | 0.2557 | -0.5176 | -0.0711 |
| 69 | 39.45 | -0.00 | 7.6725 | -0.6445 | -0.1609 | 1.4064 | -0.0097 | -0.2433 | 0.2609 | -0.5043 | -0.0841 |
| 70 | 39.68 | -0.02 | 7.6571 | -0.5263 | -0.3092 | 1.3875 | -0.0282 | -0.2602 | 0.2597 | -0.5200 | -0.0777 |
| 71 | 39.88 | -0.00 | 7.7561 | -0.7018 | -0.1792 | 1.5646 | -0.0100 | -0.2553 | 0.2782 | -0.5336 | -0.0900 |
| 72 | 40.06 | -0.01 | 7.8401 | -0.5525 | -0.1242 | 1.6018 | -0.0209 | -0.2578 | 0.2704 | -0.5281 | -0.0704 |
| 73 | 40.29 | -0.02 | 7.9512 | -0.5703 | -0.2490 | 1.7277 | -0.0460 | -0.2615 | 0.2654 | -0.5270 | -0.0717 |
| 74 | 40.50 | -0.01 | 8.0018 | -0.6054 | -0.2185 | 1.8220 | -0.0092 | -0.2666 | 0.2662 | -0.5331 | -0.0762 |
| 75 | 40.72 | -0.03 | 8.0319 | -0.4505 | -0.4455 | 1.8556 | -0.0066 | -0.2630 | 0.2638 | -0.5439 | -0.0611 |
| 76 | 40.92 | -0.02 | 8.1165 | -0.5711 | -0.1695 | 1.8265 | -0.0262 | -0.2965 | 0.2662 | -0.5567 | -0.0703 |
| 77 | 41.14 | -0.04 | 8.1564 | -0.5531 | -0.4760 | 1.8934 | -0.0196 | -0.3039 | 0.2546 | -0.5587 | -0.0675 |
| 78 | 41.42 | -0.00 | 8.2457 | -0.5267 | -0.6305 | 1.9764 | -0.0001 | -0.3247 | 0.2507 | -0.5754 | -0.0643 |
| 79 | 41.60 | -0.01 | 8.2645 | -0.4940 | -0.6260 | 2.0296 | -0.0053 | -0.3167 | 0.2536 | -0.5703 | -0.0558 |
| 80 | 41.79 | -0.00 | 8.3256 | -0.5714 | -0.6257 | 2.0562 | -0.0054 | -0.3139 | 0.2552 | -0.5691 | -0.0666 |
| 81 | 42.00 | -0.01 | 8.4506 | -0.5130 | -0.6534 | 2.0769 | -0.0047 | -0.3222 | 0.2589 | -0.5811 | -0.0607 |
| 82 | 42.18 | 0.01 | 8.5147 | -0.5215 | 0.0908 | 0.5143 | 0.0157 | -0.3471 | 0.2455 | -0.5924 | -0.0613 |
| 83 | 42.37 | 0.01 | 8.5762 | -0.5540 | 0.0832 | 0.3852 | 0.0228 | -0.3358 | 0.2490 | -0.5848 | -0.0646 |
| 84 | 42.54 | 0.01 | 8.6219 | -0.6624 | 0.1725 | -0.0003 | 0.0306 | -0.3439 | 0.2420 | -0.5905 | -0.0768 |
| 85 | 42.73 | -0.00 | 8.7159 | -0.6652 | 0.0617 | 0.4741 | 0.0229 | -0.3480 | 0.2527 | -0.6007 | -0.0763 |
| 86 | 42.90 | 0.00 | 8.8165 | -0.6732 | 0.1255 | 0.1521 | 0.0242 | -0.3739 | 0.2427 | -0.6166 | -0.0765 |
| 87 | 43.09 | -0.01 | 8.8454 | -0.6835 | 0.1040 | -0.2346 | 0.0385 | -0.3737 | 0.2390 | -0.6127 | -0.0773 |
| 88 | 43.28 | 0.01 | 8.9098 | -0.7058 | 0.1886 | 0.3525 | 0.0366 | -0.3631 | 0.2465 | -0.6096 | -0.0843 |
| 89 | 43.45 | -0.02 | 8.9514 | -0.6550 | -0.0173 | 0.2529 | 0.0185 | -0.3771 | 0.2436 | -0.6207 | -0.0732 |
| 90 | 43.63 | 0.02 | 9.0265 | -0.7725 | 0.3465 | 0.7706 | 0.0158 | -0.3695 | 0.2452 | -0.6147 | -0.0856 |
| 91 | 43.80 | -0.02 | 9.0552 | -0.6621 | -0.0047 | 0.2161 | 0.0254 | -0.3775 | 0.2423 | -0.6198 | -0.0731 |
| 92 | 43.98 | -0.01 | 9.1503 | -0.7225 | 0.0103 | 0.4003 | 0.0039 | -0.3813 | 0.2404 | -0.6277 | -0.0787 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 136 | MACH 0.50 | RX10-6 1.7 | PHI 0.0 | CONF 0 INDEX 11 | L C.G | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.18 | -0.01 | 9.2221 | -0.7567 | 0.0588 | 0.3950 | 0.0187 | -0.3615 | 0.2444 | -0.6259 | -0.0857 |
| 94 | 44.35 | 0.01 | 9.4412 | -0.8655 | 0.0275 | -0.1626 | 0.0396 | -0.3860 | 0.2448 | -0.6314 | -0.0937 |
| 95 | 44.53 | -0.02 | 9.2963 | -0.8740 | -0.0030 | -0.0112 | 0.0338 | -0.3909 | 0.2456 | -0.6365 | -0.0726 |
| 96 | 44.72 | -0.01 | 9.3953 | -0.7464 | 0.0671 | 0.2498 | 0.0198 | -0.3818 | 0.2501 | -0.6319 | -0.0788 |
| 97 | 44.90 | -0.01 | 9.4463 | -0.7833 | 0.1180 | 0.1567 | 0.0267 | -0.3866 | 0.2485 | -0.6351 | -0.0808 |
| 98 | 45.08 | -0.02 | 9.3571 | -0.8342 | -0.1080 | 1.1345 | -0.0140 | -0.3903 | 0.2587 | -0.6490 | -0.0875 |
| 99 | 45.26 | -0.03 | 9.8645 | -0.7567 | -0.0566 | 0.2795 | 0.0349 | -0.3992 | 0.2521 | -0.6513 | -0.0781 |
| 100 | 45.45 | 0.01 | 9.8075 | -0.7520 | 0.4032 | 0.0052 | 0.0417 | -0.4378 | 0.2476 | -0.6855 | -0.0808 |
| 101 | 45.63 | -0.02 | 9.7864 | -0.8018 | 0.0704 | 0.1006 | 0.0293 | -0.4093 | 0.2464 | -0.6557 | -0.0819 |
| 102 | 45.78 | -0.02 | 9.8750 | -0.8035 | 0.0226 | -0.0374 | 0.0495 | -0.4201 | 0.2501 | -0.6763 | -0.0693 |
| 103 | 45.96 | -0.03 | 9.8612 | -0.9671 | -0.0781 | 0.9268 | -0.0054 | -0.4010 | 0.2571 | -0.6581 | -0.0579 |
| 104 | 46.15 | -0.01 | 10.0665 | -0.8750 | 0.1150 | 0.8163 | 0.0019 | -0.3813 | 0.2662 | -0.6475 | -0.0874 |
| 105 | 46.31 | -0.02 | 10.0155 | -0.9236 | 0.1004 | 0.7026 | 0.0148 | -0.4154 | 0.2497 | -0.6656 | -0.0522 |
| 106 | 46.49 | 0.00 | 10.1645 | -1.0213 | 0.1572 | 1.2787 | -0.0319 | -0.4005 | 0.2691 | -0.6777 | -0.1005 |
| 107 | 46.67 | -0.00 | 10.2753 | -0.9227 | 0.1838 | 1.0143 | -0.0111 | -0.4075 | 0.2556 | -0.6671 | -0.0898 |
| 108 | 46.84 | -0.03 | 10.3154 | -0.9111 | -0.0068 | 0.7442 | 0.0161 | -0.4383 | 0.2542 | -0.6926 | -0.0883 |
| 109 | 47.03 | -0.02 | 10.4584 | -1.0571 | -0.0514 | 1.4730 | 0.0010 | -0.4531 | 0.2699 | -0.7231 | -0.1007 |
| 110 | 47.19 | -0.02 | 10.4157 | -0.9570 | 0.1467 | 0.2667 | 0.0435 | -0.4444 | 0.2538 | -0.6983 | -0.0919 |
| 111 | 47.36 | -0.01 | 10.5470 | -1.0442 | 0.0582 | 1.4738 | -0.0372 | -0.4319 | 0.2661 | -0.6981 | -0.0950 |
| 112 | 47.53 | -0.01 | 10.5441 | -0.9570 | 0.2222 | -0.1112 | 0.0362 | -0.4525 | 0.2422 | -0.6946 | -0.0908 |
| 113 | 47.70 | 0.01 | 10.5185 | -0.9535 | 0.3772 | 0.5649 | 0.0423 | -0.4468 | 0.2567 | -0.7036 | -0.0907 |
| 114 | 47.88 | -0.00 | 10.7264 | -0.8835 | 0.1780 | 1.1734 | 0.0029 | -0.4507 | 0.2880 | -0.7388 | -0.0824 |
| 115 | 48.06 | 0.00 | 10.7832 | -1.1467 | 0.1375 | 1.5816 | -0.0576 | -0.3956 | 0.2692 | -0.6849 | -0.1067 |
| 116 | 48.23 | 0.01 | 10.8264 | -0.9468 | 0.3065 | 1.3166 | 0.0089 | -0.4375 | 0.2747 | -0.7173 | -0.0875 |
| 117 | 48.42 | 0.01 | 11.0060 | -1.0870 | 0.2636 | 1.8143 | -0.0370 | -0.4297 | 0.2975 | -0.7272 | -0.0987 |
| 118 | 48.60 | 0.02 | 11.0396 | -1.3722 | 0.3408 | 1.9821 | -0.0024 | -0.3869 | 0.3445 | -0.7314 | -0.1243 |
| 119 | 48.77 | 0.00 | 11.1275 | -1.1556 | 0.1387 | 2.5215 | -0.1157 | -0.3795 | 0.3587 | -0.7382 | -0.1429 |
| 120 | 48.93 | 0.02 | 11.0253 | -1.0014 | 0.3580 | 2.3209 | -0.1148 | -0.3368 | 0.3748 | -0.7136 | -0.1476 |
| 121 | 49.10 | 0.02 | 11.2141 | -1.4546 | 0.3336 | 2.1333 | -0.0885 | -0.3541 | 0.3776 | -0.7317 | -0.1297 |
| 122 | 49.29 | 0.03 | 11.3269 | -1.7757 | 0.5144 | 1.9443 | -0.1009 | -0.3357 | 0.4042 | -0.7399 | -0.1571 |
| 123 | 49.48 | 0.03 | 11.6476 | -2.0345 | 0.4973 | 2.4337 | -0.1018 | -0.2915 | 0.4710 | -0.7226 | -0.2176 |
| 124 | 49.63 | 0.03 | 11.5961 | -1.8256 | 0.5515 | 2.1589 | -0.0888 | -0.2819 | 0.4494 | -0.7314 | -0.1865 |
| 125 | 49.85 | 0.03 | 12.2446 | -3.0495 | 0.4307 | 2.7049 | -0.1017 | -0.3346 | 0.4490 | -0.7836 | -0.2896 |
| 126 | 50.02 | 0.04 | 12.3075 | -3.0454 | 0.4033 | 2.6898 | -0.1079 | -0.3054 | 0.4414 | -0.7468 | -0.2962 |
| 127 | 50.20 | 0.05 | 12.3325 | -3.0478 | 0.6737 | 2.4361 | -0.1308 | -0.2856 | 0.4486 | -0.7345 | -0.2796 |
| 128 | 50.36 | 0.06 | 12.2819 | -3.0415 | 0.6015 | 2.2395 | -0.0819 | -0.2733 | 0.4445 | -0.7149 | -0.2725 |
| 129 | 50.54 | 0.05 | 12.4048 | -3.2023 | 0.6878 | 2.1893 | -0.0735 | -0.2881 | 0.4473 | -0.7355 | -0.2581 |
| 130 | 50.71 | 0.05 | 12.4754 | -3.2556 | 0.7569 | 2.6222 | -0.0345 | -0.2709 | 0.4531 | -0.7241 | -0.2608 |
| 131 | 50.88 | 0.06 | 12.5342 | -3.3753 | 0.5679 | 1.8978 | -0.0342 | -0.2757 | 0.4757 | -0.7315 | -0.2693 |
| 132 | 51.05 | 0.06 | 12.5079 | -3.2105 | 0.4558 | 1.9606 | -0.0215 | -0.2403 | 0.4706 | -0.7192 | -0.2567 |
| 133 | 51.23 | 0.06 | 12.5518 | -3.0557 | 0.8386 | 2.5416 | -0.0606 | -0.2475 | 0.4930 | -0.7405 | -0.3131 |
| 134 | 51.41 | 0.06 | 13.1540 | -4.3050 | 0.6407 | 2.3849 | -0.0541 | -0.2602 | 0.5024 | -0.7626 | -0.3273 |
| 135 | 51.58 | 0.05 | 12.2640 | -4.0762 | 0.8105 | 2.8225 | -0.0682 | -0.2335 | 0.5037 | -0.7392 | -0.3446 |
| 136 | 51.77 | 0.03 | 13.5262 | -4.0575 | 0.5575 | 2.0107 | -0.0207 | -0.2415 | 0.5082 | -0.7497 | -0.3583 |
| 137 | 51.92 | 0.04 | 13.4445 | -4.0324 | 0.5980 | 2.8845 | -0.0156 | -0.2380 | 0.5048 | -0.7428 | -0.3594 |
| 138 | 52.11 | 0.06 | 13.4464 | -4.0815 | 0.5068 | 2.6303 | -0.0211 | -0.2412 | 0.5007 | -0.7419 | -0.3577 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 130 MACH 0.50 RATIO-E 1.7 PHI 0.0 CONF BINGHAM L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.26 | 0.04 | 13.4887 | -4.0965 | 0.7509 | 2.4484 | -0.0204 | -0.2320 | 0.4932 | -0.7302 | -0.3478 |
| 140 | 52.41 | 0.04 | 13.5074 | -4.0626 | 0.7826 | 2.4616 | -0.0344 | -0.2007 | 0.4867 | -0.7494 | -0.3584 |
| 141 | 52.59 | 0.02 | 13.5565 | -4.0525 | 0.5257 | 2.7106 | -0.0337 | -0.2823 | 0.4866 | -0.7669 | -0.3647 |
| 142 | 52.78 | 0.06 | 13.6117 | -4.0892 | 1.0006 | 2.4491 | -0.0479 | -0.2465 | 0.4962 | -0.7387 | -0.3532 |
| 143 | 52.92 | 0.06 | 13.5511 | -4.7240 | 1.0501 | 2.2543 | -0.0371 | -0.2410 | 0.4910 | -0.7320 | -0.3476 |
| 144 | 53.09 | 0.02 | 13.7502 | -4.0358 | 0.6285 | 2.4345 | -0.0129 | -0.2314 | 0.4976 | -0.7378 | -0.3590 |
| 145 | 53.24 | 0.07 | 13.5340 | -4.7173 | 1.0252 | 2.3285 | 0.0052 | -0.2329 | 0.4885 | -0.7214 | -0.3486 |
| 146 | 53.42 | 0.04 | 13.6606 | -4.0860 | 0.7392 | 2.4404 | -0.0063 | -0.2365 | 0.4911 | -0.7276 | -0.3545 |
| 147 | 53.58 | 0.06 | 13.8525 | -5.1060 | 1.0676 | 2.3392 | -0.0066 | -0.2610 | 0.4917 | -0.7527 | -0.3687 |
| 148 | 53.74 | 0.02 | 13.7648 | -4.0158 | 0.6753 | 2.0452 | 0.0077 | -0.2422 | 0.4980 | -0.7402 | -0.3574 |
| 149 | 53.90 | 0.02 | 13.8851 | -4.0356 | 0.6904 | 2.0764 | 0.0080 | -0.2606 | 0.4934 | -0.7540 | -0.3555 |
| 150 | 54.06 | 0.05 | 13.9640 | -5.0221 | 0.9322 | 1.8445 | 0.0151 | -0.2275 | 0.5156 | -0.7431 | -0.3546 |
| 151 | 54.22 | 0.07 | 13.9425 | -4.9143 | 1.2181 | 1.8658 | 0.0342 | -0.2370 | 0.5013 | -0.7383 | -0.3525 |
| 152 | 54.38 | 0.04 | 13.9416 | -4.9865 | 0.9307 | 1.5569 | 0.0351 | -0.2355 | 0.4987 | -0.7342 | -0.3577 |
| 153 | 54.53 | 0.04 | 13.9007 | -4.8815 | 0.9270 | 1.4752 | 0.0420 | -0.2374 | 0.5078 | -0.7452 | -0.3482 |
| 154 | 54.70 | 0.04 | 14.1446 | -4.9415 | 0.8838 | 1.4141 | 0.0429 | -0.2345 | 0.5057 | -0.7402 | -0.3494 |
| 155 | 54.84 | 0.03 | 14.0032 | -4.7937 | 0.8820 | 1.2721 | 0.0520 | -0.2475 | 0.4980 | -0.7455 | -0.3423 |
| 156 | 54.99 | 0.03 | 13.9653 | -4.8886 | 0.8534 | 1.1434 | 0.0497 | -0.2483 | 0.5001 | -0.7464 | -0.3486 |
| 157 | 55.15 | 0.02 | 14.2424 | -4.9215 | 0.8538 | 1.3054 | 0.0528 | -0.2453 | 0.5028 | -0.7481 | -0.3456 |
| 158 | 55.30 | 0.01 | 14.1062 | -4.8952 | 0.7770 | 1.1941 | 0.0506 | -0.2425 | 0.5016 | -0.7441 | -0.3441 |
| 159 | 55.46 | -0.00 | 14.3223 | -4.8818 | 0.8032 | 1.1764 | 0.0641 | -0.2563 | 0.5038 | -0.7591 | -0.3409 |
| 160 | 55.60 | 0.03 | 13.9793 | -4.8257 | 0.9198 | 1.0937 | 0.0626 | -0.2201 | 0.5024 | -0.7225 | -0.3312 |
| 161 | 55.77 | 0.07 | 14.1061 | -4.7473 | 1.2974 | 1.1766 | 0.0520 | -0.2492 | 0.5052 | -0.7544 | -0.3365 |
| 162 | 55.92 | 0.03 | 14.2376 | -4.7375 | 0.8530 | 1.1674 | 0.0636 | -0.2674 | 0.5007 | -0.7681 | -0.3327 |
| 163 | 56.08 | 0.03 | 14.1481 | -4.7722 | 0.8858 | 1.0212 | 0.0636 | -0.2587 | 0.4955 | -0.7586 | -0.3373 |
| 164 | 56.24 | 0.06 | 14.1654 | -4.8656 | 0.8215 | 1.0438 | 0.0644 | -0.2529 | 0.4963 | -0.7492 | -0.3232 |
| 165 | 56.40 | 0.02 | 14.2760 | -4.7954 | 0.8360 | 1.2545 | 0.0757 | -0.2598 | 0.5039 | -0.7637 | -0.3359 |
| 166 | 56.54 | 0.01 | 14.2142 | -4.7443 | 0.7856 | 0.9709 | 0.0644 | -0.2677 | 0.5004 | -0.7681 | -0.3337 |
| 167 | 56.70 | 0.02 | 14.3042 | -4.8225 | 0.8006 | 0.8575 | 0.0647 | -0.2664 | 0.5028 | -0.7692 | -0.3413 |
| 168 | 56.85 | -0.02 | 14.2603 | -4.7373 | 0.4544 | 0.8524 | 0.0655 | -0.2466 | 0.5044 | -0.7510 | -0.3317 |
| 169 | 56.99 | -0.00 | 14.2375 | -4.8336 | 0.5315 | 1.0850 | 0.0648 | -0.2589 | 0.5067 | -0.7596 | -0.3254 |
| 170 | 57.15 | -0.04 | 14.2635 | -4.8363 | 0.4267 | 1.2841 | 0.0645 | -0.2742 | 0.4978 | -0.7720 | -0.3246 |
| 171 | 57.29 | -0.04 | 14.3167 | -4.8962 | 0.4083 | 0.5573 | 0.0654 | -0.2605 | 0.5035 | -0.7640 | -0.3282 |
| 172 | 57.43 | -0.08 | 14.2591 | -4.0922 | -0.0161 | 0.6408 | 0.0353 | -0.3098 | 0.4884 | -0.7581 | -0.2674 |
| 173 | 57.59 | -0.06 | 14.3761 | -3.8402 | 0.0682 | 0.3484 | 0.0569 | -0.3465 | 0.4649 | -0.8134 | -0.2671 |
| 174 | 57.74 | -0.07 | 14.3332 | -3.8342 | 0.0505 | -0.2110 | 0.0649 | -0.3912 | 0.4430 | -0.8342 | -0.2534 |
| 175 | 57.88 | -0.10 | 14.3525 | -4.0147 | -0.0328 | -1.2280 | 0.0467 | -0.3602 | 0.4708 | -0.8310 | -0.2797 |
| 176 | 58.03 | -0.13 | 14.3822 | -4.0642 | -0.0450 | -1.3583 | 0.0379 | -0.2858 | 0.5200 | -0.8116 | -0.3200 |
| 177 | 58.17 | -0.11 | 14.4170 | -4.6533 | -0.2112 | -1.2762 | 0.0402 | -0.2696 | 0.5349 | -0.8045 | -0.3228 |
| 178 | 58.19 | -0.14 | 14.4676 | -4.0878 | -0.3661 | -1.4796 | 0.0341 | -0.2797 | 0.5332 | -0.8129 | -0.3227 |
| 179 | 58.20 | -0.12 | 14.4573 | -4.5834 | -0.2664 | -1.3964 | 0.0341 | -0.2695 | 0.5259 | -0.8153 | -0.3170 |
| 180 | 58.19 | -0.12 | 14.4209 | -4.5622 | -0.3211 | -1.5152 | 0.0404 | -0.2697 | 0.5324 | -0.8021 | -0.3177 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 13C MACH 0.90 RN/C=6 1.7 PHI 0.0 DCNF 2 INCF 11 L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | -0.01 | -0.0153 | 0.0028 | 0.0116 | -0.1490 | -0.6010 | -0.7186 | -0.0560 | -0.3815 | 0.0779 | 0.5307 |
| 2 | -5.70 | -0.01 | -0.0146 | 0.0026 | 0.0113 | -0.1274 | -0.5130 | -0.7179 | -0.0562 | -0.3808 | 0.0783 | 0.5305 |
| 3 | -5.70 | -0.01 | -0.0206 | 0.0028 | 0.0120 | -0.1262 | -0.5325 | -0.7148 | -0.0558 | -0.3771 | 0.0780 | 0.5276 |
| 4 | -4.66 | -0.02 | -0.0179 | 0.0035 | 0.0112 | -0.2170 | -0.8257 | -0.7051 | -0.0552 | -0.3711 | 0.0783 | 0.5263 |
| 5 | -3.61 | -0.02 | -0.0152 | 0.0046 | 0.0106 | -0.2355 | -0.5521 | -0.7065 | -0.0517 | -0.3689 | 0.0730 | 0.5207 |
| 6 | -1.23 | -0.01 | -0.0166 | 0.0045 | 0.0105 | -0.2538 | -0.6300 | -0.7594 | -0.0626 | -0.3947 | 0.1087 | 0.5263 |
| 7 | 0.52 | -0.01 | -0.0135 | 0.0040 | 0.0082 | -0.2562 | -0.6074 | -0.8404 | -0.0616 | -0.3473 | 0.1274 | 0.5423 |
| 8 | 2.28 | -0.02 | -0.0056 | 0.0046 | 0.0063 | -0.2796 | -0.9088 | -0.5349 | -0.0088 | -0.3043 | 0.1666 | 0.5782 |
| 9 | 4.02 | -0.02 | -0.0016 | 0.0043 | 0.0107 | -2.0666 | -0.6875 | -0.4498 | -0.0905 | -0.2622 | 0.2011 | 0.5825 |
| 10 | 5.78 | -0.02 | -0.0041 | 0.0021 | 0.0167 | -0.5121 | -2.0096 | -0.3418 | -0.0795 | -0.2101 | 0.2345 | 0.6147 |
| 11 | 7.60 | -0.02 | -0.0030 | 0.0021 | 0.0126 | -0.6598 | -4.0300 | -0.2412 | -0.0632 | -0.1535 | 0.2620 | 0.6381 |
| 12 | 9.33 | -0.01 | -0.0019 | 0.0032 | 0.0196 | -1.7304 | -7.3084 | -0.1477 | -0.0471 | -0.1060 | 0.3188 | 0.7177 |
| 13 | 11.14 | -0.03 | -0.0056 | 0.0032 | 0.0107 | -0.5713 | -1.9107 | -0.0710 | -0.0253 | -0.0624 | 0.3562 | 0.8530 |
| 14 | 12.91 | -0.04 | -0.0077 | 0.0045 | 0.0063 | -0.2467 | -0.8102 | -0.0039 | -0.0077 | -0.0306 | 1.9738 | 7.8461 |
| 15 | 14.70 | -0.01 | -0.0074 | 0.0067 | 0.0045 | -0.0546 | -0.6381 | 0.0496 | 0.0153 | -0.0070 | 0.3084 | -0.1411 |
| 16 | 16.57 | -0.02 | -0.0116 | -0.0067 | 0.0056 | 0.0500 | -0.7505 | 0.0696 | 0.0389 | 0.0097 | 0.4331 | 0.1080 |
| 17 | 18.41 | -0.03 | -0.0153 | -0.0035 | 0.0056 | 0.2020 | -0.2591 | 0.1402 | 0.0615 | 0.0366 | 0.4385 | 0.2568 |
| 18 | 20.24 | -0.04 | -0.0506 | -0.0074 | 0.0035 | 0.1390 | -0.3016 | 0.1690 | 0.0727 | 0.0576 | 0.3846 | 0.3048 |
| 19 | 22.10 | -0.04 | -0.0734 | -0.0085 | -0.0048 | 0.1158 | 0.0527 | 0.2595 | 0.0810 | 0.1015 | 0.3121 | 0.3911 |
| 20 | 23.95 | -0.06 | -0.1016 | -0.0108 | -0.0065 | 0.0865 | 0.2807 | 0.2719 | 0.0866 | 0.1128 | 0.3191 | 0.4146 |
| 21 | 25.83 | -0.04 | -0.0764 | -0.0035 | -0.0159 | 0.0458 | 0.2081 | 0.4075 | 0.0929 | 0.1715 | 0.2277 | 0.4204 |
| 22 | 27.69 | 0.02 | 0.1360 | 0.0237 | 0.0097 | 0.1732 | 0.0557 | 0.5027 | 0.0929 | 0.2114 | 0.1848 | 0.4205 |
| 23 | 27.92 | 0.01 | 0.1914 | 0.0317 | 0.1153 | 0.1656 | 0.0324 | 0.5074 | 0.0910 | 0.2123 | 0.1793 | 0.4184 |
| 24 | 27.97 | 0.03 | 0.2530 | 0.0467 | 0.1431 | 0.1606 | 0.5656 | 0.5273 | 0.0936 | 0.2213 | 0.1718 | 0.4197 |
| 25 | 28.38 | 0.03 | 0.2783 | 0.0429 | 0.1536 | 0.1538 | 0.5466 | 0.5434 | 0.0935 | 0.2303 | 0.1665 | 0.4238 |
| 26 | 28.87 | 0.03 | 0.3261 | 0.0576 | 0.1803 | 0.1747 | 0.5529 | 0.5551 | 0.0937 | 0.2360 | 0.1633 | 0.4251 |
| 27 | 28.94 | 0.03 | 0.2253 | 0.0342 | 0.1200 | 0.1518 | 0.5326 | 0.5557 | 0.0933 | 0.2362 | 0.1675 | 0.4286 |
| 28 | 29.27 | 0.02 | 0.1161 | 0.0306 | 0.0706 | 0.2001 | 0.6381 | 0.5443 | 0.0967 | 0.2347 | 0.1776 | 0.4312 |
| 29 | 29.56 | 0.03 | 0.2447 | 0.0515 | 0.1333 | 0.2056 | 0.5447 | 0.5652 | 0.0965 | 0.2447 | 0.1672 | 0.4325 |
| 30 | 29.83 | 0.02 | 0.1126 | 0.0255 | 0.0668 | 0.2260 | 0.5922 | 0.5695 | 0.0971 | 0.2446 | 0.1705 | 0.4295 |
| 31 | 30.10 | 0.03 | 0.1684 | 0.0353 | 0.0956 | 0.2333 | 0.5691 | 0.5827 | 0.0972 | 0.2522 | 0.1668 | 0.4328 |
| 32 | 30.37 | 0.02 | 0.1962 | 0.0436 | 0.1096 | 0.2339 | 0.5566 | 0.5857 | 0.0965 | 0.2536 | 0.1647 | 0.4330 |
| 33 | 30.66 | 0.03 | 0.2268 | 0.0586 | 0.1274 | 0.2474 | 0.5360 | 0.5945 | 0.0963 | 0.2590 | 0.1619 | 0.4357 |
| 34 | 30.92 | 0.05 | 0.2667 | 0.0767 | 0.1543 | 0.2744 | 0.5389 | 0.6077 | 0.0963 | 0.2667 | 0.1584 | 0.4385 |
| 35 | 31.21 | 0.05 | 0.2576 | 0.0647 | 0.1325 | 0.2511 | 0.5144 | 0.6181 | 0.0961 | 0.2717 | 0.1554 | 0.4396 |
| 36 | 31.49 | 0.06 | 0.2111 | 0.0677 | 0.1655 | 0.3206 | 0.5206 | 0.6104 | 0.0979 | 0.2742 | 0.1588 | 0.4416 |
| 37 | 31.75 | 0.05 | 0.2202 | 0.0640 | 0.1155 | 0.3814 | 0.5245 | 0.6293 | 0.0987 | 0.2786 | 0.1567 | 0.4426 |
| 38 | 32.01 | 0.05 | 0.1863 | 0.0562 | 0.0849 | 0.3830 | 0.5271 | 0.6265 | 0.0993 | 0.2766 | 0.1585 | 0.4415 |
| 39 | 32.28 | 0.05 | 0.1525 | 0.0520 | 0.0762 | 0.3426 | 0.4564 | 0.6384 | 0.0993 | 0.2812 | 0.1553 | 0.4409 |
| 40 | 32.54 | 0.05 | 0.1735 | 0.0567 | 0.0871 | 0.3382 | 0.5020 | 0.6516 | 0.0999 | 0.2882 | 0.1533 | 0.4423 |
| 41 | 32.80 | 0.05 | 0.2429 | 0.0822 | 0.1203 | 0.2560 | 0.4953 | 0.6621 | 0.0983 | 0.2920 | 0.1484 | 0.4410 |
| 42 | 33.06 | 0.06 | 0.3065 | 0.0811 | 0.1492 | 0.1990 | 0.4000 | 0.6676 | 0.0936 | 0.3005 | 0.1360 | 0.4369 |
| 43 | 33.31 | 0.03 | 0.2571 | 0.0432 | 0.1196 | 0.1880 | 0.4457 | 0.6951 | 0.0948 | 0.3029 | 0.1363 | 0.4358 |
| 44 | 33.55 | 0.03 | 0.2439 | 0.0399 | 0.1018 | 0.1833 | 0.4174 | 0.6972 | 0.0896 | 0.3017 | 0.1285 | 0.4327 |
| 45 | 33.81 | 0.04 | 0.2616 | 0.0473 | 0.1166 | 0.1808 | 0.4457 | 0.7018 | 0.0926 | 0.3048 | 0.1319 | 0.4343 |
| 46 | 34.04 | 0.04 | 0.2654 | 0.0492 | 0.1183 | 0.1833 | 0.4457 | 0.6668 | 0.0742 | 0.2881 | 0.1112 | 0.4321 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART RACE RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 1SC 0.5C 1.7 C.C BARDFIL C.C 0 -20 0 -20 UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.29 | 0.03 | 0.2354 | 0.0420 | 0.0595 | 0.1784 | 0.4244 | 0.6041 | 0.0773 | 0.2986 | 0.1130 | 0.4365 |
| 48 | 34.58 | 0.04 | 0.2105 | 0.0348 | 0.0545 | 0.1653 | 0.4033 | 0.6042 | 0.0782 | 0.2979 | 0.1113 | 0.4354 |
| 49 | 34.79 | 0.03 | 0.2153 | 0.0414 | 0.0557 | 0.1887 | 0.4364 | 0.6068 | 0.0723 | 0.2696 | 0.1081 | 0.4330 |
| 50 | 35.03 | 0.03 | 0.2057 | 0.0493 | 0.0554 | 0.1920 | 0.4513 | 0.6068 | 0.0724 | 0.2908 | 0.1082 | 0.4348 |
| 51 | 35.27 | 0.03 | 0.1832 | 0.0328 | 0.0746 | 0.1792 | 0.4087 | 0.6064 | 0.0753 | 0.3032 | 0.1081 | 0.4354 |
| 52 | 35.53 | 0.01 | 0.1865 | 0.0343 | 0.0780 | 0.1839 | 0.4225 | 0.6095 | 0.0723 | 0.2978 | 0.1048 | 0.4319 |
| 53 | 35.75 | 0.02 | 0.1103 | 0.0158 | 0.0353 | 0.1414 | 0.3200 | 0.7196 | 0.0746 | 0.3132 | 0.1036 | 0.4352 |
| 54 | 35.98 | 0.00 | 0.0965 | 0.0057 | 0.0293 | 0.0967 | 0.2704 | 0.7314 | 0.0752 | 0.3163 | 0.1028 | 0.4352 |
| 55 | 36.22 | 0.01 | 0.0350 | 0.0040 | -0.0095 | 0.1025 | -0.2538 | 0.7356 | 0.0756 | 0.3159 | 0.1030 | 0.4348 |
| 56 | 36.45 | 0.01 | 0.0210 | 0.0038 | -0.0067 | 0.1809 | -0.5140 | 0.7254 | 0.0760 | 0.3145 | 0.1047 | 0.4341 |
| 57 | 36.69 | -0.01 | -0.0283 | -0.0089 | -0.0421 | 0.2567 | 1.4876 | 0.7426 | 0.0791 | 0.3224 | 0.1065 | 0.4346 |
| 58 | 36.94 | -0.02 | 0.0015 | 0.0 | -0.0215 | 0.0 | -10.0461 | 0.7345 | 0.0744 | 0.3168 | 0.1013 | 0.4313 |
| 59 | 37.16 | -0.01 | -0.0432 | -0.0113 | -0.0526 | 0.2615 | 1.2176 | 0.7506 | 0.0755 | 0.3259 | 0.1003 | 0.4342 |
| 60 | 37.41 | 0.01 | -0.0063 | 0.0001 | -0.0217 | -0.0120 | 2.0145 | 0.7374 | 0.0752 | 0.3182 | 0.1020 | 0.4315 |
| 61 | 37.66 | -0.00 | -0.0194 | -0.0025 | -0.0285 | 0.1288 | 1.4897 | 0.7393 | 0.0743 | 0.3204 | 0.1005 | 0.4334 |
| 62 | 37.89 | -0.00 | -0.0544 | -0.0094 | -0.0396 | 0.1691 | 0.9301 | 0.7656 | 0.0757 | 0.3332 | 0.0985 | 0.4352 |
| 63 | 38.13 | 0.01 | -0.0255 | -0.0033 | -0.0347 | 0.1118 | 1.1763 | 0.7496 | 0.0745 | 0.3248 | 0.0994 | 0.4333 |
| 64 | 38.37 | 0.01 | -0.0175 | -0.0011 | -0.0234 | 0.0628 | 1.3371 | 0.7393 | 0.0741 | 0.3204 | 0.1002 | 0.4334 |
| 65 | 38.59 | 0.02 | -0.0555 | -0.0075 | -0.0425 | 0.1351 | 0.7658 | 0.7483 | 0.0729 | 0.3234 | 0.0974 | 0.4322 |
| 66 | 38.80 | -0.00 | -0.0760 | -0.0088 | -0.0560 | 0.1243 | 0.7302 | 0.7510 | 0.0741 | 0.3284 | 0.0986 | 0.4373 |
| 67 | 39.04 | -0.01 | -0.0712 | -0.0015 | -0.0505 | 0.0211 | 0.7093 | 0.7494 | 0.0753 | 0.3271 | 0.1005 | 0.4365 |
| 68 | 39.26 | -0.00 | -0.1083 | -0.0164 | -0.0721 | 0.1514 | 0.6057 | 0.7655 | 0.0754 | 0.3362 | 0.0985 | 0.4392 |
| 69 | 39.45 | -0.00 | -0.1005 | -0.0120 | -0.0610 | 0.1194 | 0.6070 | 0.7567 | 0.0748 | 0.3330 | 0.0988 | 0.4405 |
| 70 | 39.68 | -0.02 | -0.1061 | -0.0155 | -0.0684 | 0.1498 | 0.6447 | 0.7642 | 0.0734 | 0.3300 | 0.0960 | 0.4357 |
| 71 | 39.88 | -0.00 | -0.1006 | -0.0117 | -0.0611 | 0.1163 | 0.6074 | 0.7577 | 0.0753 | 0.3353 | 0.0994 | 0.4425 |
| 72 | 40.08 | -0.01 | -0.1416 | -0.0160 | -0.0817 | 0.1517 | 0.5786 | 0.7577 | 0.0759 | 0.3341 | 0.0996 | 0.4405 |
| 73 | 40.29 | -0.02 | -0.1519 | -0.0225 | -0.0915 | 0.1481 | 0.6050 | 0.7725 | 0.0750 | 0.3401 | 0.0971 | 0.4403 |
| 74 | 40.50 | -0.01 | -0.1016 | -0.0123 | -0.0641 | 0.1210 | 0.6309 | 0.7727 | 0.0734 | 0.3412 | 0.0950 | 0.4416 |
| 75 | 40.72 | -0.03 | -0.1118 | -0.0167 | -0.0703 | 0.0557 | 0.6288 | 0.7623 | 0.0742 | 0.3356 | 0.0973 | 0.4402 |
| 76 | 40.92 | -0.02 | -0.1157 | -0.0142 | -0.0695 | 0.1227 | 0.6041 | 0.7600 | 0.0743 | 0.3442 | 0.0952 | 0.4413 |
| 77 | 41.14 | -0.04 | -0.1001 | -0.0136 | -0.0648 | 0.1298 | 0.6454 | 0.7548 | 0.0737 | 0.3507 | 0.0927 | 0.4412 |
| 78 | 41.42 | -0.00 | -0.0774 | -0.0124 | -0.0524 | 0.1033 | 0.6770 | 0.7800 | 0.0741 | 0.3441 | 0.0942 | 0.4378 |
| 79 | 41.60 | -0.01 | -0.0423 | -0.0058 | -0.0325 | 0.2316 | 0.9102 | 0.8257 | 0.0732 | 0.3663 | 0.0886 | 0.4436 |
| 80 | 41.79 | -0.00 | -0.0837 | -0.0063 | -0.0493 | 0.0585 | 0.0797 | 0.8022 | 0.0738 | 0.3531 | 0.0926 | 0.4402 |
| 81 | 42.00 | -0.01 | -0.0224 | -0.0022 | -0.0275 | 0.0582 | 1.2277 | 0.8171 | 0.0730 | 0.3585 | 0.0853 | 0.4387 |
| 82 | 42.18 | 0.01 | -0.0561 | -0.0055 | -0.0461 | 0.0900 | 0.7148 | 0.8053 | 0.0736 | 0.3558 | 0.0902 | 0.4364 |
| 83 | 42.37 | 0.01 | 0.0036 | 0.0007 | -0.0077 | 0.1944 | -2.1389 | 0.8361 | 0.0721 | 0.3670 | 0.0862 | 0.4385 |
| 84 | 42.54 | 0.01 | -0.0265 | 0.0007 | -0.0156 | -0.0335 | 0.9091 | 0.8226 | 0.0719 | 0.3594 | 0.0874 | 0.4367 |
| 85 | 42.73 | -0.00 | 0.0713 | 0.0074 | 0.0153 | 0.1038 | 0.2146 | 0.8099 | 0.0712 | 0.3832 | 0.0818 | 0.4405 |
| 86 | 42.90 | 0.00 | 0.0261 | 0.0038 | -0.0032 | 0.1375 | -0.1226 | 0.8011 | 0.0711 | 0.3777 | 0.0825 | 0.4386 |
| 87 | 43.09 | -0.01 | 0.0827 | 0.0094 | 0.0215 | 0.1136 | 0.2648 | 0.8130 | 0.0708 | 0.3823 | 0.0811 | 0.4375 |
| 88 | 43.28 | 0.01 | 0.0042 | -0.0004 | -0.0118 | -0.0952 | -2.8095 | 0.8040 | 0.0714 | 0.3780 | 0.0826 | 0.4375 |
| 89 | 43.45 | -0.02 | 0.0385 | 0.0042 | 0.0116 | 0.1150 | 0.0219 | 0.8018 | 0.0711 | 0.3860 | 0.0806 | 0.4377 |
| 90 | 43.63 | 0.02 | -0.0132 | -0.0017 | -0.0254 | 0.1208 | 1.9242 | 0.8003 | 0.0718 | 0.3786 | 0.0827 | 0.4363 |
| 91 | 43.80 | -0.02 | 0.0442 | 0.0035 | 0.0156 | 0.0792 | 0.1267 | 0.8003 | 0.0695 | 0.3850 | 0.0788 | 0.4344 |
| 92 | 43.98 | -0.01 | -0.0552 | -0.0053 | -0.0473 | 0.1571 | 0.7490 | 0.8043 | 0.0721 | 0.3793 | 0.0824 | 0.4338 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 4 OF 3
SHEET 3 OF 4

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 150 | MACH 0.50 | RNIC-6 1.7 | PHI 0.0 | CONF BIBOFIL | C.G | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.18 | -0.01 | 0.0161 | C.0022 | -C.C163 | C.1366 | -0.6396 | 0.8908 | 0.0701 | 0.3860 | 0.0787 | 0.4333 |
| 94 | 44.35 | 0.01 | 0.0414 | C.0055 | -0.0156 | C.1425 | 0.1206 | 0.8962 | 0.0702 | 0.3856 | 0.0781 | 0.4338 |
| 95 | 44.53 | -0.02 | -0.0051 | C.0011 | -0.0154 | -C.1099 | 1.6923 | 0.8617 | 0.0703 | 0.3827 | 0.0797 | 0.4340 |
| 96 | 44.72 | -0.01 | 0.0012 | 0.0001 | 0.0157 | 0.1323 | 0.1565 | 0.9115 | 0.0698 | 0.3935 | 0.0766 | 0.4317 |
| 97 | 44.90 | -0.01 | 0.0844 | C.0105 | C.0225 | C.1244 | 0.2429 | 0.9174 | 0.0695 | 0.3975 | C.0757 | C.4333 |
| 98 | 45.08 | -0.02 | -C.0418 | -0.0051 | -0.0389 | 0.1226 | 0.8708 | 0.8936 | 0.0707 | 0.3849 | 0.0791 | 0.4307 |
| 99 | 45.26 | -0.03 | -C.0041 | C.0024 | -C.0124 | -C.5852 | 3.0244 | 0.9053 | 0.0716 | 0.3913 | C.0791 | 0.4322 |
| 100 | 45.45 | 0.01 | 0.0517 | C.0173 | 0.0243 | 0.1886 | 0.2650 | 0.9247 | 0.0701 | 0.4014 | 0.0758 | C.4339 |
| 101 | 45.63 | -0.02 | -0.0068 | -C.0086 | -C.0485 | 0.1250 | 0.7108 | 0.9065 | 0.0710 | 0.3905 | 0.0781 | 0.4303 |
| 102 | 45.78 | -0.02 | 0.0232 | 0.0076 | C.0028 | 0.2777 | 0.1111 | 0.9189 | 0.0703 | 0.3954 | 0.0765 | 0.4308 |
| 103 | 45.96 | -0.03 | -0.0468 | -C.0051 | -C.0358 | C.1089 | 0.8504 | 0.9158 | 0.0713 | 0.3945 | 0.0778 | 0.4308 |
| 104 | 46.15 | -0.01 | -0.0264 | -0.0154 | -0.0347 | C.1833 | 0.6512 | 0.9319 | 0.0743 | 0.4001 | 0.0797 | 0.4293 |
| 105 | 46.31 | -0.02 | -0.0056 | C.0041 | -0.0241 | -C.7319 | 4.3036 | 0.9307 | 0.0713 | 0.3980 | 0.0766 | 0.4276 |
| 106 | 46.45 | 0.00 | -0.1266 | -C.0203 | -0.0861 | 0.1603 | 0.0001 | 0.9246 | 0.0729 | 0.3940 | 0.0788 | C.4261 |
| 107 | 46.67 | -0.00 | -0.1113 | -C.0155 | -0.0682 | C.1392 | 0.6128 | 0.9365 | 0.0735 | 0.3986 | 0.0785 | 0.4256 |
| 108 | 46.84 | -0.03 | -0.0835 | -0.0054 | -0.0401 | 0.1480 | 0.7200 | 0.9463 | 0.0722 | 0.4043 | 0.0761 | 0.4263 |
| 109 | 47.03 | -0.02 | -0.0157 | C.0026 | -C.0225 | -C.0438 | 1.6715 | 0.9528 | 0.0724 | 0.4059 | 0.0760 | 0.4260 |
| 110 | 47.19 | -0.02 | 0.0765 | 0.0216 | 0.0226 | 0.2823 | 0.2954 | 0.9531 | 0.0706 | 0.4041 | 0.0741 | 0.4240 |
| 111 | 47.36 | -0.01 | -0.1042 | -C.0305 | -C.1111 | C.1655 | 0.6031 | 0.9496 | 0.0755 | 0.4016 | 0.0755 | 0.4229 |
| 112 | 47.53 | -0.01 | -0.0176 | -0.0014 | -0.0165 | 0.0823 | 0.9706 | 0.9532 | 0.0718 | 0.4068 | 0.0745 | 0.4243 |
| 113 | 47.70 | 0.01 | -0.1062 | -C.0154 | -0.0578 | C.1426 | 0.5352 | 0.9455 | 0.0726 | 0.3971 | 0.0770 | 0.4200 |
| 114 | 47.88 | -0.00 | -0.1494 | -0.0241 | -0.0877 | 0.1780 | 0.5465 | 0.9661 | 0.0743 | 0.4046 | 0.0769 | 0.4196 |
| 115 | 48.06 | 0.00 | -0.2470 | -C.0511 | -C.1339 | C.2068 | 0.5421 | 0.9995 | 0.0785 | 0.4237 | 0.0785 | 0.4235 |
| 116 | 48.23 | 0.01 | -0.1568 | -0.0263 | -0.0814 | 0.1744 | 0.5398 | 0.9746 | 0.0753 | 0.4090 | C.0772 | 0.4197 |
| 117 | 48.42 | 0.01 | -0.1425 | -C.0227 | -0.0814 | 0.1586 | 0.5696 | 0.9777 | 0.0751 | 0.4093 | 0.0768 | 0.4186 |
| 118 | 48.60 | 0.02 | -0.1569 | -C.0253 | -0.1109 | 0.2008 | 0.5032 | 1.0057 | 0.0757 | 0.4211 | 0.0753 | C.4187 |
| 119 | 48.77 | 0.00 | -0.2425 | -C.0614 | -C.1359 | 0.2531 | 0.5604 | 1.0408 | 0.0775 | 0.4366 | 0.0744 | 0.4155 |
| 120 | 48.93 | 0.02 | -0.1993 | -0.0548 | -C.1136 | 0.2749 | 0.5710 | 1.0358 | 0.0759 | 0.4414 | 0.0719 | 0.4181 |
| 121 | 49.10 | 0.02 | -0.1928 | -C.0456 | -C.1114 | 0.2467 | 0.5809 | 1.0441 | 0.0758 | 0.4344 | 0.0726 | 0.4161 |
| 122 | 49.29 | 0.03 | -0.1853 | -0.0544 | -0.1087 | C.2673 | 0.5742 | 1.0665 | 0.0741 | 0.4451 | 0.0695 | 0.4173 |
| 123 | 49.46 | 0.03 | -C.1995 | -0.0551 | -0.1115 | C.2781 | 0.5589 | 1.0236 | 0.0731 | 0.4265 | C.0685 | 0.4190 |
| 124 | 49.63 | 0.03 | -0.1845 | -0.0496 | -0.1065 | C.2682 | 0.5544 | 1.0209 | 0.0696 | 0.4244 | 0.0682 | 0.4157 |
| 125 | 49.85 | 0.03 | -C.1838 | -C.0501 | -C.1066 | C.3160 | 0.5811 | 1.0515 | C.0726 | 0.4401 | 0.0690 | 0.4185 |
| 126 | 50.02 | 0.02 | -0.1783 | -0.0605 | -0.1017 | 0.3431 | 0.5769 | 1.0593 | 0.0737 | 0.4424 | 0.0667 | 0.4176 |
| 127 | 50.20 | 0.05 | -C.1250 | -C.0537 | -C.0781 | C.4295 | 0.6248 | 1.0626 | 0.0680 | 0.4425 | 0.0640 | 0.4184 |
| 128 | 50.36 | 0.04 | -0.0934 | -0.0463 | -0.0624 | 0.4853 | 0.6472 | 1.0521 | 0.0675 | 0.4345 | C.0641 | 0.4130 |
| 129 | 50.54 | 0.05 | -C.0701 | -C.0389 | -C.0538 | C.5556 | 0.7686 | 1.0435 | 0.0653 | 0.4256 | 0.0626 | 0.4117 |
| 130 | 50.71 | 0.05 | -C.0001 | -0.0345 | -0.0429 | 4.5907 | 3.7541 | 1.0332 | 0.0629 | 0.4227 | C.0605 | 0.4091 |
| 131 | 50.88 | 0.06 | -C.0145 | -C.0352 | -C.0295 | 2.4269 | 2.0345 | 1.0382 | 0.0618 | 0.4259 | C.0596 | C.4116 |
| 132 | 51.03 | 0.06 | -0.0227 | -C.0367 | -C.0310 | 1.3521 | 1.3050 | 1.0280 | 0.0618 | 0.4223 | 0.0601 | 0.4106 |
| 133 | 51.23 | 0.06 | -0.0929 | -C.0455 | -C.0717 | C.5327 | 0.7718 | 1.0214 | C.0606 | 0.4174 | 0.0595 | C.4087 |
| 134 | 51.41 | 0.06 | -0.0864 | -C.0455 | -0.0644 | C.5741 | 0.7457 | 1.0332 | 0.0605 | 0.4243 | 0.0585 | C.4107 |
| 135 | 51.58 | 0.05 | -C.0665 | -C.0421 | -0.0561 | C.6329 | 0.8421 | 1.0227 | C.0608 | 0.4170 | C.0594 | 0.4077 |
| 136 | 51.77 | 0.03 | -0.0465 | -C.0354 | -C.0352 | C.6736 | 0.9679 | 1.0314 | 0.0602 | 0.4246 | C.0584 | 0.4119 |
| 137 | 51.92 | 0.04 | -0.0230 | -C.0268 | -C.0306 | 1.1562 | 1.3304 | 1.0224 | 0.0608 | 0.4187 | 0.0593 | C.4093 |
| 138 | 52.11 | 0.06 | -0.0322 | -0.0263 | -C.0324 | C.8766 | 1.0062 | 1.0342 | 0.0604 | 0.4232 | 0.0584 | C.4092 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 136 | MACH 0.60 | RN/G=6 1.7 | PHI 0.0 | CONF DIBOMB | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | Co1 | XCPF1 | YCPF1 | CNF2 | CM2 | Co2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.26 | 0.04 | -0.0197 | -0.0237 | -0.0259 | 1.2027 | 1.3147 | 1.0195 | 0.0611 | 0.4155 | 0.0599 | 0.4076 |
| 140 | 52.41 | 0.04 | -0.0215 | -0.0316 | -0.0365 | 0.9571 | 0.7033 | 1.0517 | 0.0606 | 0.4311 | 0.0570 | 0.4095 |
| 141 | 52.59 | 0.02 | -0.0251 | -0.0252 | -0.0255 | 1.0037 | 1.0159 | 1.0487 | 0.0605 | 0.4302 | 0.0577 | 0.4102 |
| 142 | 52.76 | 0.06 | -0.0274 | -0.0230 | -0.0204 | 0.8074 | 0.7506 | 1.0369 | 0.0597 | 0.4227 | 0.0576 | 0.4077 |
| 143 | 52.92 | 0.08 | -0.0338 | -0.0227 | -0.0227 | 0.6714 | 0.6716 | 1.0251 | 0.0567 | 0.4170 | 0.0582 | 0.4068 |
| 144 | 53.09 | 0.02 | -0.0251 | -0.0255 | -0.0185 | 1.3347 | 0.9666 | 1.0531 | 0.0587 | 0.4305 | 0.0557 | 0.4068 |
| 145 | 53.24 | 0.07 | -0.0355 | -0.0237 | -0.0165 | 0.8074 | 0.5324 | 1.0411 | 0.0596 | 0.4236 | 0.0572 | 0.4065 |
| 146 | 53.42 | 0.04 | -0.0256 | -0.0343 | -0.0328 | 0.4906 | 0.4985 | 1.0529 | 0.0580 | 0.4316 | 0.0551 | 0.4095 |
| 147 | 53.58 | 0.06 | -0.0584 | -0.0276 | -0.0293 | 0.4725 | 0.5017 | 1.0369 | 0.0575 | 0.4213 | 0.0554 | 0.4083 |
| 148 | 53.74 | 0.04 | -0.0166 | -0.0175 | -0.0086 | 1.7495 | 0.8000 | 1.0324 | 0.0582 | 0.4194 | 0.0543 | 0.4051 |
| 149 | 53.90 | 0.02 | -0.0288 | -0.0191 | -0.0095 | 0.6283 | 0.3299 | 1.0526 | 0.0588 | 0.4315 | 0.0556 | 0.4095 |
| 150 | 54.06 | 0.05 | -0.0254 | -0.0156 | -0.0145 | 0.7714 | 0.5709 | 1.0217 | 0.0557 | 0.4164 | 0.0545 | 0.4100 |
| 151 | 54.22 | 0.07 | -0.0281 | -0.0176 | -0.0052 | 0.6741 | 0.3525 | 1.0365 | 0.0553 | 0.4230 | 0.0533 | 0.4081 |
| 152 | 54.38 | 0.04 | -0.0157 | -0.0158 | -0.0108 | 1.0061 | 0.4331 | 1.0320 | 0.0542 | 0.4206 | 0.0525 | 0.4078 |
| 153 | 54.53 | 0.04 | -0.0223 | -0.0145 | -0.0091 | 0.8680 | 0.4061 | 1.0100 | 0.0541 | 0.4115 | 0.0536 | 0.4078 |
| 154 | 54.70 | 0.04 | 0.0 | -0.0083 | 0.0043 | -0.0083 | 0.0043 | 1.0305 | 0.0539 | 0.4218 | 0.0523 | 0.4093 |
| 155 | 54.84 | 0.05 | 0.0134 | -0.0025 | 0.0132 | -0.1865 | 0.5851 | 1.0202 | 0.0531 | 0.4151 | 0.0520 | 0.4065 |
| 156 | 54.99 | 0.03 | 0.0044 | -0.0052 | 0.0155 | -0.8180 | 2.2500 | 1.0232 | 0.0526 | 0.4165 | 0.0514 | 0.4071 |
| 157 | 55.15 | 0.02 | -0.0059 | -0.0063 | 0.0079 | 1.0675 | -1.2542 | 1.0200 | 0.0530 | 0.4196 | 0.0516 | 0.4056 |
| 158 | 55.30 | 0.01 | -0.0012 | -0.0034 | 0.0110 | 2.5592 | -9.0007 | 1.0310 | 0.0526 | 0.4224 | 0.0510 | 0.4095 |
| 159 | 55.46 | -0.00 | 0.0168 | 0.0033 | 0.0213 | 0.1755 | 1.1330 | 1.0317 | 0.0521 | 0.4224 | 0.0505 | 0.4094 |
| 160 | 55.60 | 0.03 | 0.0158 | 0.0067 | 0.0249 | 0.4239 | 1.3861 | 1.0185 | 0.0523 | 0.4160 | 0.0513 | 0.4084 |
| 161 | 55.77 | 0.07 | 0.0083 | 0.0017 | 0.0155 | 0.2048 | 2.3494 | 1.0139 | 0.0523 | 0.4132 | 0.0516 | 0.4075 |
| 162 | 55.92 | 0.03 | 0.0162 | 0.0057 | 0.0241 | 0.3567 | 2.3627 | 1.0242 | 0.0522 | 0.4187 | 0.0510 | 0.4088 |
| 163 | 56.08 | 0.03 | 0.0161 | 0.0057 | 0.0247 | 0.3642 | 2.4455 | 1.0374 | 0.0515 | 0.4239 | 0.0496 | 0.4088 |
| 164 | 56.24 | 0.06 | -0.0066 | 0.0025 | 0.0143 | -0.2960 | -1.6626 | 1.0168 | 0.0507 | 0.4154 | 0.0498 | 0.4083 |
| 165 | 56.40 | 0.02 | -0.0145 | 0.0056 | 0.0183 | -0.3699 | -1.1241 | 1.0197 | 0.0506 | 0.4165 | 0.0498 | 0.4085 |
| 166 | 56.54 | 0.01 | -0.0124 | 0.0062 | 0.0206 | -0.4559 | -1.0013 | 1.0345 | 0.0497 | 0.4224 | 0.0480 | 0.4083 |
| 167 | 56.70 | 0.02 | -0.0074 | 0.0037 | 0.0245 | -0.7701 | -3.3106 | 1.0358 | 0.0501 | 0.4243 | 0.0484 | 0.4057 |
| 168 | 56.85 | -0.04 | -0.0255 | 0.0076 | 0.0176 | -0.2550 | -0.8007 | 1.0230 | 0.0514 | 0.4175 | 0.0502 | 0.4078 |
| 169 | 56.99 | -0.00 | -0.0418 | 0.0062 | 0.0154 | -0.1571 | -0.3702 | 1.0165 | 0.0515 | 0.4150 | 0.0507 | 0.4083 |
| 170 | 57.15 | -0.04 | -0.0369 | 0.0051 | 0.0185 | -0.1830 | -0.5907 | 1.0323 | 0.0512 | 0.4245 | 0.0496 | 0.4112 |
| 171 | 57.29 | -0.04 | -0.0445 | 0.0073 | 0.0184 | -0.1640 | -0.4135 | 1.0323 | 0.0512 | 0.4228 | 0.0496 | 0.4098 |
| 172 | 57.43 | -0.06 | -0.0467 | 0.0015 | 0.0116 | -0.3360 | -0.2382 | 1.0606 | 0.0492 | 0.4472 | 0.0455 | 0.4138 |
| 173 | 57.59 | -0.06 | -0.0605 | 0.0001 | 0.0091 | -0.3017 | -0.1504 | 1.0607 | 0.0503 | 0.4455 | 0.0465 | 0.4122 |
| 174 | 57.74 | -0.07 | -0.0561 | 0.0004 | 0.0117 | -0.3009 | -0.2014 | 1.0862 | 0.0498 | 0.4488 | 0.0458 | 0.4132 |
| 175 | 57.88 | -0.10 | -0.0443 | -0.0036 | 0.0116 | 0.3612 | -0.2619 | 1.0908 | 0.0478 | 0.4515 | 0.0438 | 0.4135 |
| 176 | 58.03 | -0.13 | -0.0396 | -0.0006 | 0.0111 | 0.0171 | -0.3171 | 1.0791 | 0.0479 | 0.4452 | 0.0444 | 0.4126 |
| 177 | 58.17 | -0.11 | -0.0357 | -0.0054 | 0.0084 | 0.1360 | -0.2116 | 1.0802 | 0.0485 | 0.4459 | 0.0449 | 0.4128 |
| 178 | 58.19 | -0.14 | -0.0427 | -0.0065 | 0.0109 | 0.1522 | -0.2553 | 1.0769 | 0.0467 | 0.4440 | 0.0451 | 0.4115 |
| 179 | 58.20 | -0.12 | -0.0354 | -0.0021 | 0.0150 | 0.0593 | -0.4237 | 1.0832 | 0.0480 | 0.4479 | 0.0443 | 0.4135 |
| 180 | 58.19 | -0.14 | -0.0452 | -0.0059 | 0.0096 | 0.1106 | -0.2124 | 1.0726 | 0.0467 | 0.4435 | 0.0454 | 0.4135 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1SC | MACH 0.90 | RX10-6 4.7 | PHI C.C | CONF B1B0F11 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | ACPF3 | YCPF3 | CNF4 | CM4 | CA4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | -0.01 | -0.0052 | 9.9999 | 0.0232 | 9.9999 | -4.4015 | -0.7667 | -0.0562 | -0.3644 | 0.0733 | 0.4753 |
| 2 | -5.70 | -0.02 | -0.0038 | 9.9999 | 0.0222 | 9.9999 | -5.8421 | -0.7724 | -0.0561 | -0.3663 | 0.0726 | 0.4765 |
| 3 | -5.70 | -0.01 | -0.0038 | 9.9999 | 0.0222 | 9.9999 | -5.8421 | -0.7763 | -0.0559 | -0.3697 | 0.0720 | 0.4762 |
| 4 | -5.68 | -0.02 | -0.0037 | 9.9999 | 0.0220 | 9.9999 | -5.8376 | -0.7761 | -0.0560 | -0.3694 | 0.0720 | 0.4747 |
| 5 | -3.01 | -0.02 | -0.0036 | 9.9999 | 0.0174 | 9.9999 | -4.8333 | -0.8051 | -0.0536 | -0.3761 | 0.0663 | 0.4671 |
| 6 | -1.29 | -0.01 | 0.0004 | 9.9999 | 0.0209 | 9.9999 | 52.2500 | -0.8356 | -0.0790 | -0.3891 | 0.0940 | 0.4633 |
| 7 | 0.52 | -0.01 | -0.0010 | 9.9999 | 0.0208 | 9.9999 | -20.8000 | -0.7240 | -0.0855 | -0.3386 | 0.1181 | 0.4686 |
| 8 | 2.28 | -0.02 | 0.0044 | 9.9999 | 0.0234 | 9.9999 | 5.3102 | -0.8345 | -0.0984 | -0.3047 | 0.1538 | 0.4765 |
| 9 | 4.02 | -0.02 | 0.0058 | 9.9999 | 0.0254 | 9.9999 | 2.5916 | -0.5338 | -0.0936 | -0.2481 | 0.1753 | 0.4648 |
| 10 | 5.78 | -0.02 | 0.0043 | 9.9999 | 0.0249 | 9.9999 | 5.8744 | -0.4240 | -0.0817 | -0.1942 | 0.1926 | 0.4580 |
| 11 | 7.60 | -0.00 | 0.0129 | 9.9999 | 0.0272 | 9.9999 | 2.1935 | -0.3074 | -0.0660 | -0.1396 | 0.2146 | 0.4541 |
| 12 | 9.33 | -0.01 | -0.0002 | 9.9999 | 0.0336 | 9.9999 | -166.0000 | -0.2022 | -0.0486 | -0.0908 | 0.2403 | 0.4491 |
| 13 | 11.14 | -0.03 | -0.0055 | 9.9999 | 0.0260 | 9.9999 | -2.7388 | -0.1203 | -0.0264 | -0.0572 | 0.2194 | 0.4755 |
| 14 | 12.91 | -0.02 | -0.0026 | 9.9999 | 0.0306 | 9.9999 | -11.0000 | -0.0492 | -0.0065 | -0.0262 | 0.1438 | 0.5796 |
| 15 | 14.70 | -0.01 | 0.0100 | 9.9999 | 0.0206 | 9.9999 | 2.0600 | 0.0190 | 0.0183 | 0.0001 | 0.5625 | 0.0053 |
| 16 | 16.57 | -0.02 | 0.0158 | 9.9999 | 0.0106 | 9.9999 | 0.8081 | 0.0851 | 0.0467 | 0.0255 | 0.5618 | 0.2828 |
| 17 | 18.41 | -0.03 | 0.0226 | 9.9999 | 0.0187 | 9.9999 | 0.7030 | 0.1560 | 0.0673 | 0.0557 | 0.4258 | 0.3525 |
| 18 | 20.24 | -0.04 | 0.0254 | 9.9999 | 0.0178 | 9.9999 | 0.6054 | 0.2701 | 0.0786 | 0.1055 | 0.2917 | 0.3906 |
| 19 | 22.10 | -0.04 | 0.0155 | 9.9999 | 0.0144 | 9.9999 | 0.7236 | 0.3466 | 0.0871 | 0.1416 | 0.2512 | 0.4085 |
| 20 | 23.95 | -0.00 | 0.0108 | 9.9999 | 0.0165 | 9.9999 | 0.8356 | 0.4403 | 0.0827 | 0.1891 | 0.1853 | 0.4237 |
| 21 | 25.83 | -0.04 | 0.0267 | 9.9999 | 0.0165 | 9.9999 | 0.8180 | 0.4606 | 0.0897 | 0.1995 | 0.1947 | 0.4331 |
| 22 | 27.69 | 0.00 | 0.0253 | 9.9999 | 0.0268 | 9.9999 | 0.5302 | 0.4752 | 0.0951 | 0.2056 | 0.2005 | 0.4434 |
| 23 | 27.62 | 0.01 | 0.0178 | 9.9999 | 0.0315 | 9.9999 | 0.5538 | 0.4549 | 0.0951 | 0.2062 | 0.2050 | 0.4533 |
| 24 | 27.97 | 0.03 | 0.0456 | 9.9999 | 0.0266 | 9.9999 | 0.5645 | 0.4428 | 0.0966 | 0.2035 | 0.2181 | 0.4596 |
| 25 | 28.36 | 0.03 | 0.0590 | 9.9999 | 0.0336 | 9.9999 | 0.5095 | 0.4443 | 0.0971 | 0.2087 | 0.2185 | 0.4697 |
| 26 | 28.07 | 0.03 | 0.0671 | 9.9999 | 0.0386 | 9.9999 | 0.5003 | 0.4098 | 0.0949 | 0.2239 | 0.2105 | 0.4766 |
| 27 | 28.94 | 0.03 | 0.0605 | 9.9999 | 0.0338 | 9.9999 | 0.5587 | 0.4680 | 0.0976 | 0.2239 | 0.2085 | 0.4784 |
| 28 | 29.27 | 0.02 | 0.0539 | 9.9999 | 0.0301 | 9.9999 | 0.5504 | 0.5170 | 0.0966 | 0.2522 | 0.1868 | 0.4878 |
| 29 | 29.56 | 0.03 | 0.0575 | 9.9999 | 0.0326 | 9.9999 | 0.5527 | 0.5115 | 0.0990 | 0.2503 | 0.1935 | 0.4893 |
| 30 | 29.83 | 0.02 | 0.0565 | 9.9999 | 0.0314 | 9.9999 | 0.5646 | 0.5230 | 0.0973 | 0.2589 | 0.1860 | 0.4950 |
| 31 | 30.10 | 0.03 | 0.0552 | 9.9999 | 0.0332 | 9.9999 | 0.5608 | 0.5377 | 0.0992 | 0.2671 | 0.1844 | 0.4967 |
| 32 | 30.37 | 0.02 | 0.0537 | 9.9999 | 0.0327 | 9.9999 | 0.5589 | 0.5335 | 0.0983 | 0.2655 | 0.1842 | 0.4977 |
| 33 | 30.66 | 0.03 | 0.0545 | 9.9999 | 0.0350 | 9.9999 | 0.6047 | 0.5543 | 0.1004 | 0.2767 | 0.1811 | 0.5028 |
| 34 | 30.92 | 0.03 | 0.0550 | 9.9999 | 0.0375 | 9.9999 | 0.6356 | 0.5886 | 0.1011 | 0.2878 | 0.1779 | 0.5067 |
| 35 | 31.21 | 0.03 | 0.0455 | 9.9999 | 0.0346 | 9.9999 | 0.6990 | 0.5662 | 0.1004 | 0.2883 | 0.1767 | 0.5074 |
| 36 | 31.49 | 0.03 | 0.0563 | 9.9999 | 0.0372 | 9.9999 | 0.6607 | 0.5698 | 0.1006 | 0.3013 | 0.1705 | 0.5105 |
| 37 | 31.75 | 0.03 | 0.0578 | 9.9999 | 0.0375 | 9.9999 | 0.6530 | 0.6139 | 0.0991 | 0.3131 | 0.1615 | 0.5103 |
| 38 | 32.01 | 0.03 | 0.0585 | 9.9999 | 0.0356 | 9.9999 | 0.6723 | 0.6016 | 0.0981 | 0.3063 | 0.1630 | 0.5141 |
| 39 | 32.28 | 0.05 | 0.0617 | 9.9999 | 0.0388 | 9.9999 | 0.6288 | 0.6076 | 0.0991 | 0.3127 | 0.1631 | 0.5148 |
| 40 | 32.54 | 0.05 | 0.0550 | 9.9999 | 0.0355 | 9.9999 | 0.6955 | 0.6121 | 0.0989 | 0.3153 | 0.1615 | 0.5151 |
| 41 | 32.80 | 0.05 | 0.0711 | 9.9999 | 0.0445 | 9.9999 | 0.6315 | 0.6010 | 0.0999 | 0.3123 | 0.1662 | 0.5156 |
| 42 | 33.06 | 0.06 | 0.0671 | 9.9999 | 0.0424 | 9.9999 | 0.6319 | 0.5914 | 0.1006 | 0.3083 | 0.1704 | 0.5213 |
| 43 | 33.31 | 0.03 | 0.0643 | 9.9999 | 0.0427 | 9.9999 | 0.6641 | 0.5790 | 0.1011 | 0.3034 | 0.1746 | 0.5240 |
| 44 | 33.55 | 0.03 | 0.0590 | 9.9999 | 0.0385 | 9.9999 | 0.6525 | 0.5797 | 0.0992 | 0.3027 | 0.1711 | 0.5222 |
| 45 | 33.81 | 0.04 | 0.0642 | 9.9999 | 0.0421 | 9.9999 | 0.6558 | 0.5878 | 0.0998 | 0.3052 | 0.1697 | 0.5260 |
| 46 | 34.04 | 0.04 | 0.0615 | 9.9999 | 0.0408 | 9.9999 | 0.6634 | 0.5969 | 0.1003 | 0.3134 | 0.1680 | 0.5250 |

TEST PART RACE RXIO-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 13C 6.5C 1.7 0.0 BINOF11 C.C 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | Cm3 | Cos | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.29 | 0.03 | 0.0202 | 9.9999 | 0.0391 | 9.9999 | 0.8495 | 0.0001 | 0.0992 | 0.3186 | 0.1631 | 0.5239 |
| 48 | 34.50 | 0.02 | 0.0016 | 9.9999 | 0.0307 | 9.9999 | 0.0282 | 0.0049 | 0.0906 | 0.3175 | 0.1661 | 0.5253 |
| 49 | 34.79 | 0.03 | 0.0268 | 9.9999 | 0.0365 | 9.9999 | 0.0016 | 0.0072 | 0.0946 | 0.3193 | 0.1558 | 0.5255 |
| 50 | 35.03 | 0.03 | 0.0321 | 9.9999 | 0.0352 | 9.9999 | 0.8736 | 0.0105 | 0.0942 | 0.3212 | 0.1543 | 0.5261 |
| 51 | 35.27 | 0.03 | 0.0255 | 9.9999 | 0.0346 | 9.9999 | 0.8417 | 0.9960 | 0.0784 | 0.3173 | 0.1311 | 0.5306 |
| 52 | 35.53 | 0.01 | 0.0261 | 9.9999 | 0.0371 | 9.9999 | 0.0013 | 0.0112 | 0.0891 | 0.3235 | 0.1376 | 0.5293 |
| 53 | 35.75 | 0.02 | 0.0262 | 9.9999 | 0.0361 | 9.9999 | 0.8423 | 0.0125 | 0.0832 | 0.3250 | 0.1358 | 0.5306 |
| 54 | 35.98 | 0.00 | 0.0261 | 9.9999 | 0.0333 | 9.9999 | 0.8923 | 0.0000 | 0.0806 | 0.3227 | 0.1327 | 0.5301 |
| 55 | 36.22 | 0.01 | 0.0265 | 9.9999 | 0.0365 | 9.9999 | 0.8536 | 0.0051 | 0.0783 | 0.3221 | 0.1294 | 0.5323 |
| 56 | 36.45 | 0.01 | 0.0261 | 9.9999 | 0.0363 | 9.9999 | 0.8827 | 0.0296 | 0.0779 | 0.3236 | 0.1236 | 0.5296 |
| 57 | 36.69 | -0.01 | 0.0306 | 9.9999 | 0.0346 | 9.9999 | 0.8811 | 0.0215 | 0.0799 | 0.3286 | 0.1285 | 0.5287 |
| 58 | 36.94 | -0.02 | 0.0321 | 9.9999 | 0.0363 | 9.9999 | 0.8987 | 0.0335 | 0.0765 | 0.3337 | 0.1207 | 0.5268 |
| 59 | 37.18 | -0.01 | 0.0342 | 9.9999 | 0.0381 | 9.9999 | 0.8953 | 0.0245 | 0.0756 | 0.3307 | 0.1213 | 0.5295 |
| 60 | 37.41 | 0.01 | 0.0333 | 9.9999 | 0.0355 | 9.9999 | 0.8710 | 0.0504 | 0.0765 | 0.3429 | 0.1176 | 0.5272 |
| 61 | 37.66 | -0.00 | 0.0352 | 9.9999 | 0.0341 | 9.9999 | 0.7544 | 0.0427 | 0.0740 | 0.3388 | 0.1151 | 0.5272 |
| 62 | 37.89 | -0.01 | 0.0305 | 9.9999 | 0.0286 | 9.9999 | 0.8525 | 0.0580 | 0.0754 | 0.3456 | 0.1146 | 0.5268 |
| 63 | 38.13 | 0.01 | 0.0333 | 9.9999 | 0.0331 | 9.9999 | 0.7307 | 0.0713 | 0.0757 | 0.3524 | 0.1127 | 0.5250 |
| 64 | 38.37 | 0.01 | 0.0340 | 9.9999 | 0.0352 | 9.9999 | 0.7179 | 0.0759 | 0.0750 | 0.3556 | 0.1118 | 0.5261 |
| 65 | 38.59 | 0.02 | 0.0326 | 9.9999 | 0.0307 | 9.9999 | 0.7207 | 0.0781 | 0.0750 | 0.3550 | 0.1109 | 0.5251 |
| 66 | 38.80 | -0.01 | 0.0312 | 9.9999 | 0.0292 | 9.9999 | 0.7049 | 0.0888 | 0.0747 | 0.3621 | 0.1085 | 0.5258 |
| 67 | 39.04 | -0.01 | 0.0326 | 9.9999 | 0.0316 | 9.9999 | 0.7465 | 0.0902 | 0.0746 | 0.3633 | 0.1081 | 0.5264 |
| 68 | 39.28 | -0.00 | 0.0238 | 9.9999 | 0.0217 | 9.9999 | 0.9116 | 0.0829 | 0.0735 | 0.3601 | 0.1071 | 0.5250 |
| 69 | 39.45 | -0.00 | 0.0345 | 9.9999 | 0.0285 | 9.9999 | 0.6201 | 0.7041 | 0.0742 | 0.3700 | 0.1054 | 0.5255 |
| 70 | 39.68 | -0.02 | 0.0313 | 9.9999 | 0.0301 | 9.9999 | 0.7200 | 0.7047 | 0.0726 | 0.3710 | 0.1033 | 0.5265 |
| 71 | 39.88 | -0.00 | 0.0372 | 9.9999 | 0.0292 | 9.9999 | 0.7049 | 0.7113 | 0.0741 | 0.3721 | 0.1041 | 0.5231 |
| 72 | 40.08 | -0.01 | 0.0413 | 9.9999 | 0.0306 | 9.9999 | 0.7409 | 0.7115 | 0.0739 | 0.3744 | 0.1036 | 0.5262 |
| 73 | 40.29 | -0.02 | 0.0348 | 9.9999 | 0.0258 | 9.9999 | 0.7457 | 0.7150 | 0.0727 | 0.3762 | 0.1017 | 0.5262 |
| 74 | 40.50 | -0.01 | 0.0360 | 9.9999 | 0.0295 | 9.9999 | 0.7194 | 0.7272 | 0.0731 | 0.3828 | 0.1005 | 0.5264 |
| 75 | 40.72 | -0.03 | 0.0315 | 9.9999 | 0.0245 | 9.9999 | 0.7080 | 0.7285 | 0.0737 | 0.3818 | 0.1011 | 0.5241 |
| 76 | 40.92 | -0.02 | 0.0427 | 9.9999 | 0.0307 | 9.9999 | 0.7150 | 0.7334 | 0.0726 | 0.3845 | 0.0992 | 0.5248 |
| 77 | 41.14 | -0.04 | 0.0320 | 9.9999 | 0.0240 | 9.9999 | 0.7500 | 0.7306 | 0.0725 | 0.3851 | 0.0984 | 0.5228 |
| 78 | 41.42 | -0.00 | 0.0333 | 9.9999 | 0.0246 | 9.9999 | 0.7367 | 0.7442 | 0.0726 | 0.3886 | 0.0975 | 0.5222 |
| 79 | 41.60 | -0.01 | 0.0400 | 9.9999 | 0.0284 | 9.9999 | 0.7100 | 0.7425 | 0.0732 | 0.3891 | 0.0966 | 0.5240 |
| 80 | 41.79 | -0.00 | 0.0414 | 9.9999 | 0.0268 | 9.9999 | 0.8703 | 0.7407 | 0.0731 | 0.3912 | 0.0976 | 0.5225 |
| 81 | 42.00 | -0.01 | 0.0322 | 9.9999 | 0.0331 | 9.9999 | 0.6341 | 0.7487 | 0.0731 | 0.3918 | 0.0976 | 0.5233 |
| 82 | 42.18 | 0.01 | 0.0429 | 9.9999 | 0.0278 | 9.9999 | 0.8934 | 0.7654 | 0.0726 | 0.3997 | 0.0948 | 0.5222 |
| 83 | 42.37 | 0.01 | 0.0455 | 9.9999 | 0.0310 | 9.9999 | 0.6813 | 0.7620 | 0.0735 | 0.3990 | 0.0964 | 0.5236 |
| 84 | 42.54 | 0.01 | 0.0425 | 9.9999 | 0.0287 | 9.9999 | 0.8090 | 0.7742 | 0.0739 | 0.4045 | 0.0954 | 0.5225 |
| 85 | 42.73 | -0.00 | 0.0455 | 9.9999 | 0.0316 | 9.9999 | 0.6965 | 0.7550 | 0.0745 | 0.3951 | 0.0988 | 0.5233 |
| 86 | 42.90 | 0.01 | 0.0429 | 9.9999 | 0.0292 | 9.9999 | 0.8940 | 0.7753 | 0.0741 | 0.4045 | 0.0956 | 0.5217 |
| 87 | 43.09 | -0.01 | 0.0445 | 9.9999 | 0.0312 | 9.9999 | 0.8358 | 0.7645 | 0.0741 | 0.4003 | 0.0969 | 0.5238 |
| 88 | 43.26 | 0.01 | 0.0443 | 9.9999 | 0.0293 | 9.9999 | 0.8814 | 0.7807 | 0.0741 | 0.4108 | 0.0937 | 0.5195 |
| 89 | 43.45 | -0.02 | 0.0537 | 9.9999 | 0.0345 | 9.9999 | 0.6499 | 0.7802 | 0.0738 | 0.4104 | 0.0938 | 0.5220 |
| 90 | 43.63 | 0.02 | 0.0463 | 9.9999 | 0.0279 | 9.9999 | 0.8799 | 0.7955 | 0.0727 | 0.4137 | 0.0914 | 0.5200 |
| 91 | 43.80 | -0.02 | 0.0483 | 9.9999 | 0.0324 | 9.9999 | 0.8708 | 0.7770 | 0.0726 | 0.4072 | 0.0934 | 0.5241 |
| 92 | 43.98 | -0.01 | 0.0463 | 9.9999 | 0.0324 | 9.9999 | 0.8760 | 0.8081 | 0.0721 | 0.4203 | 0.0892 | 0.5201 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 136 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF BLOCFIL C.G 0 DEL1 -20 DEL2 0 DEL3 -20 DEL4 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XLPF3 | YCPF3 | CNF4 | CM4 | CD4 | XLPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.18 | -0.01 | 0.0457 | 9.9999 | 0.0306 | 9.9999 | 0.6565 | 0.7960 | 0.0746 | 0.4158 | 0.0932 | 0.5211 |
| 94 | 44.35 | 0.01 | 0.0443 | 9.9999 | 0.0305 | 9.9999 | 0.6885 | 0.7962 | 0.0737 | 0.4158 | 0.0923 | 0.5209 |
| 95 | 44.53 | -0.02 | 0.0457 | 9.9999 | 0.0311 | 9.9999 | 0.6805 | 0.7998 | 0.0727 | 0.4169 | 0.0905 | 0.5213 |
| 96 | 44.72 | -0.01 | 0.0424 | 9.9999 | 0.0324 | 9.9999 | 0.6694 | 0.7912 | 0.0749 | 0.4165 | 0.0946 | 0.5214 |
| 97 | 44.90 | -0.01 | 0.0444 | 9.9999 | 0.0285 | 9.9999 | 0.6509 | 0.7898 | 0.0746 | 0.4118 | 0.0944 | 0.5214 |
| 98 | 45.08 | -0.02 | 0.0464 | 9.9999 | 0.0324 | 9.9999 | 0.6694 | 0.8246 | 0.0765 | 0.4272 | 0.0879 | 0.5181 |
| 99 | 45.26 | -0.03 | 0.0444 | 9.9999 | 0.0294 | 9.9999 | 0.6622 | 0.8161 | 0.0735 | 0.4257 | 0.0898 | 0.5204 |
| 100 | 45.45 | 0.01 | 0.0430 | 9.9999 | 0.0288 | 9.9999 | 0.6696 | 0.8128 | 0.0752 | 0.4233 | 0.0925 | 0.5208 |
| 101 | 45.63 | -0.02 | 0.0512 | 9.9999 | 0.0316 | 9.9999 | 0.6172 | 0.8276 | 0.0730 | 0.4304 | 0.0882 | 0.5201 |
| 102 | 45.78 | -0.02 | 0.0458 | 9.9999 | 0.0301 | 9.9999 | 0.6572 | 0.8210 | 0.0740 | 0.4266 | 0.0901 | 0.5196 |
| 103 | 45.96 | -0.03 | 0.0457 | 9.9999 | 0.0317 | 9.9999 | 0.6937 | 0.8417 | 0.0725 | 0.4359 | 0.0881 | 0.5179 |
| 104 | 46.15 | -0.01 | 0.0376 | 9.9999 | 0.0262 | 9.9999 | 0.6968 | 0.8257 | 0.0751 | 0.4281 | 0.0911 | 0.5157 |
| 105 | 46.31 | -0.02 | 0.0457 | 9.9999 | 0.0323 | 9.9999 | 0.7068 | 0.8504 | 0.0733 | 0.4406 | 0.0862 | 0.5181 |
| 106 | 46.49 | 0.00 | 0.0404 | 9.9999 | 0.0275 | 9.9999 | 0.6807 | 0.8538 | 0.0724 | 0.4408 | 0.0848 | 0.5163 |
| 107 | 46.67 | -0.00 | 0.0431 | 9.9999 | 0.0294 | 9.9999 | 0.6821 | 0.8630 | 0.0727 | 0.4455 | 0.0842 | 0.5162 |
| 108 | 46.84 | -0.03 | 0.0376 | 9.9999 | 0.0267 | 9.9999 | 0.7101 | 0.8506 | 0.0730 | 0.4406 | 0.0858 | 0.5180 |
| 109 | 47.03 | -0.02 | 0.0428 | 9.9999 | 0.0295 | 9.9999 | 0.7425 | 0.8547 | 0.0743 | 0.4422 | 0.0865 | 0.5174 |
| 110 | 47.19 | -0.02 | 0.0464 | 9.9999 | 0.0315 | 9.9999 | 0.6991 | 0.8655 | 0.0745 | 0.4476 | 0.0861 | 0.5172 |
| 111 | 47.36 | -0.01 | 0.0404 | 9.9999 | 0.0284 | 9.9999 | 0.6935 | 0.8708 | 0.0727 | 0.4494 | 0.0835 | 0.5161 |
| 112 | 47.53 | -0.01 | 0.0436 | 9.9999 | 0.0316 | 9.9999 | 0.6930 | 0.8692 | 0.0729 | 0.4470 | 0.0838 | 0.5143 |
| 113 | 47.70 | 0.01 | 0.0464 | 9.9999 | 0.0302 | 9.9999 | 0.6240 | 0.8772 | 0.0720 | 0.4526 | 0.0821 | 0.5160 |
| 114 | 47.88 | -0.00 | 0.0411 | 9.9999 | 0.0326 | 9.9999 | 0.6360 | 0.8765 | 0.0725 | 0.4503 | 0.0828 | 0.5143 |
| 115 | 48.08 | 0.00 | 0.0295 | 9.9999 | 0.0207 | 9.9999 | 0.7017 | 0.8437 | 0.0743 | 0.4356 | 0.0780 | 0.5163 |
| 116 | 48.23 | 0.01 | 0.0463 | 9.9999 | 0.0264 | 9.9999 | 0.6551 | 0.8613 | 0.0730 | 0.4535 | 0.0828 | 0.5146 |
| 117 | 48.42 | 0.01 | 0.0375 | 9.9999 | 0.0261 | 9.9999 | 0.6960 | 0.8812 | 0.0731 | 0.4518 | 0.0829 | 0.5127 |
| 118 | 48.60 | 0.02 | 0.0464 | 9.9999 | 0.0302 | 9.9999 | 0.6240 | 0.8705 | 0.0727 | 0.4459 | 0.0835 | 0.5122 |
| 119 | 48.77 | 0.00 | 0.0430 | 9.9999 | 0.0265 | 9.9999 | 0.6163 | 0.8401 | 0.0719 | 0.4321 | 0.0856 | 0.5143 |
| 120 | 48.93 | 0.02 | 0.0464 | 9.9999 | 0.0291 | 9.9999 | 0.6014 | 0.8340 | 0.0716 | 0.4282 | 0.0858 | 0.5134 |
| 121 | 49.10 | 0.02 | 0.0375 | 9.9999 | 0.0250 | 9.9999 | 0.6667 | 0.8432 | 0.0717 | 0.4328 | 0.0850 | 0.5133 |
| 122 | 49.29 | 0.03 | 0.0538 | 9.9999 | 0.0328 | 9.9999 | 0.6047 | 0.8403 | 0.0705 | 0.4307 | 0.0839 | 0.5126 |
| 123 | 49.46 | 0.03 | 0.0470 | 9.9999 | 0.0285 | 9.9999 | 0.6064 | 0.8222 | 0.0695 | 0.4213 | 0.0845 | 0.5124 |
| 124 | 49.63 | 0.03 | 0.0444 | 9.9999 | 0.0261 | 9.9999 | 0.5878 | 0.8279 | 0.0686 | 0.4236 | 0.0831 | 0.5132 |
| 125 | 49.85 | 0.03 | 0.0415 | 9.9999 | 0.0307 | 9.9999 | 0.5929 | 0.8201 | 0.0704 | 0.4200 | 0.0858 | 0.5121 |
| 126 | 50.02 | 0.02 | 0.0540 | 9.9999 | 0.0307 | 9.9999 | 0.5865 | 0.8244 | 0.0702 | 0.4214 | 0.0851 | 0.5112 |
| 127 | 50.20 | 0.05 | 0.0725 | 9.9999 | 0.0402 | 9.9999 | 0.5557 | 0.8108 | 0.0693 | 0.4140 | 0.0854 | 0.5106 |
| 128 | 50.38 | 0.06 | 0.0575 | 9.9999 | 0.0337 | 9.9999 | 0.5826 | 0.8079 | 0.0692 | 0.4104 | 0.0856 | 0.5086 |
| 129 | 50.54 | 0.05 | 0.0765 | 9.9999 | 0.0427 | 9.9999 | 0.5553 | 0.8172 | 0.0690 | 0.4162 | 0.0844 | 0.5093 |
| 130 | 50.71 | 0.05 | 0.0545 | 9.9999 | 0.0294 | 9.9999 | 0.5800 | 0.8034 | 0.0694 | 0.4101 | 0.0864 | 0.5105 |
| 131 | 50.88 | 0.06 | 0.0642 | 9.9999 | 0.0352 | 9.9999 | 0.5449 | 0.8004 | 0.0691 | 0.4081 | 0.0863 | 0.5099 |
| 132 | 51.03 | 0.06 | 0.0616 | 9.9999 | 0.0345 | 9.9999 | 0.5647 | 0.8052 | 0.0691 | 0.4113 | 0.0858 | 0.5108 |
| 133 | 51.23 | 0.06 | 0.0525 | 9.9999 | 0.0285 | 9.9999 | 0.5505 | 0.8064 | 0.0689 | 0.4096 | 0.0854 | 0.5079 |
| 134 | 51.41 | 0.06 | 0.0575 | 9.9999 | 0.0315 | 9.9999 | 0.5440 | 0.8155 | 0.0682 | 0.4147 | 0.0836 | 0.5083 |
| 135 | 51.58 | 0.05 | 0.0579 | 9.9999 | 0.0303 | 9.9999 | 0.5233 | 0.8138 | 0.0688 | 0.4148 | 0.0843 | 0.5085 |
| 136 | 51.77 | 0.03 | 0.0612 | 9.9999 | 0.0364 | 9.9999 | 0.5417 | 0.8132 | 0.0676 | 0.4122 | 0.0831 | 0.5065 |
| 137 | 51.92 | 0.04 | 0.0605 | 9.9999 | 0.0327 | 9.9999 | 0.5405 | 0.8053 | 0.0678 | 0.4087 | 0.0842 | 0.5075 |
| 138 | 52.11 | 0.06 | 0.0605 | 9.9999 | 0.0316 | 9.9999 | 0.5263 | 0.8224 | 0.0669 | 0.4150 | 0.0813 | 0.5046 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 136 MACH 0.90 REX1C-6 1.7 PHI 0.0 CONF 8 ABOVE 11 L 0.6 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.20 | 0.04 | 0.0786 | 9.9999 | 0.0405 | 9.9999 | 0.5339 | 0.8132 | 0.0669 | 0.4165 | 0.0822 | 0.5053 |
| 140 | 52.41 | 0.04 | 0.0655 | 9.9999 | 0.0386 | 9.9999 | 0.5236 | 0.8211 | 0.0657 | 0.4130 | 0.0800 | 0.5036 |
| 141 | 52.59 | 0.02 | 0.0673 | 9.9999 | 0.0346 | 9.9999 | 0.5171 | 0.8165 | 0.0649 | 0.4114 | 0.0794 | 0.5036 |
| 142 | 52.78 | 0.06 | 0.0699 | 9.9999 | 0.0372 | 9.9999 | 0.5322 | 0.8266 | 0.0657 | 0.4157 | 0.0793 | 0.5017 |
| 143 | 52.92 | 0.06 | 0.0686 | 9.9999 | 0.0365 | 9.9999 | 0.5321 | 0.8257 | 0.0653 | 0.4143 | 0.0791 | 0.5018 |
| 144 | 53.09 | 0.04 | 0.0712 | 9.9999 | 0.0385 | 9.9999 | 0.5463 | 0.8272 | 0.0655 | 0.4144 | 0.0792 | 0.5010 |
| 145 | 53.24 | 0.07 | 0.0711 | 9.9999 | 0.0383 | 9.9999 | 0.5387 | 0.8290 | 0.0649 | 0.4145 | 0.0783 | 0.5006 |
| 146 | 53.46 | 0.04 | 0.0671 | 9.9999 | 0.0363 | 9.9999 | 0.5410 | 0.8339 | 0.0642 | 0.4159 | 0.0770 | 0.4987 |
| 147 | 53.58 | 0.08 | 0.0645 | 9.9999 | 0.0346 | 9.9999 | 0.5364 | 0.8427 | 0.0644 | 0.4199 | 0.0764 | 0.4983 |
| 148 | 53.74 | 0.06 | 0.0671 | 9.9999 | 0.0353 | 9.9999 | 0.5261 | 0.8323 | 0.0635 | 0.4174 | 0.0768 | 0.5015 |
| 149 | 53.90 | 0.02 | 0.0658 | 9.9999 | 0.0346 | 9.9999 | 0.5256 | 0.8448 | 0.0632 | 0.4210 | 0.0748 | 0.4983 |
| 150 | 54.06 | 0.05 | 0.0656 | 9.9999 | 0.0378 | 9.9999 | 0.5402 | 0.8550 | 0.0646 | 0.4254 | 0.0758 | 0.4975 |
| 151 | 54.22 | 0.07 | 0.0616 | 9.9999 | 0.0327 | 9.9999 | 0.5308 | 0.8648 | 0.0631 | 0.4293 | 0.0725 | 0.4964 |
| 152 | 54.38 | 0.04 | 0.0710 | 9.9999 | 0.0366 | 9.9999 | 0.5155 | 0.8673 | 0.0640 | 0.4318 | 0.0738 | 0.4976 |
| 153 | 54.53 | 0.04 | 0.0710 | 9.9999 | 0.0368 | 9.9999 | 0.5155 | 0.8769 | 0.0631 | 0.4365 | 0.0715 | 0.4982 |
| 154 | 54.70 | 0.04 | 0.0683 | 9.9999 | 0.0353 | 9.9999 | 0.5168 | 0.8763 | 0.0633 | 0.4364 | 0.0721 | 0.4965 |
| 155 | 54.84 | 0.03 | 0.0666 | 9.9999 | 0.0357 | 9.9999 | 0.5344 | 0.8817 | 0.0625 | 0.4377 | 0.0709 | 0.4964 |
| 156 | 54.99 | 0.03 | 0.0642 | 9.9999 | 0.0339 | 9.9999 | 0.5260 | 0.8819 | 0.0620 | 0.4368 | 0.0703 | 0.4976 |
| 157 | 55.15 | 0.02 | 0.0583 | 9.9999 | 0.0290 | 9.9999 | 0.5151 | 0.9016 | 0.0618 | 0.4469 | 0.0685 | 0.4957 |
| 158 | 55.30 | 0.01 | 0.0642 | 9.9999 | 0.0333 | 9.9999 | 0.5187 | 0.8788 | 0.0615 | 0.4373 | 0.0700 | 0.4976 |
| 159 | 55.46 | -0.00 | 0.0621 | 9.9999 | 0.0315 | 9.9999 | 0.5308 | 0.8942 | 0.0612 | 0.4440 | 0.0684 | 0.4965 |
| 160 | 55.60 | 0.03 | 0.0629 | 9.9999 | 0.0342 | 9.9999 | 0.5119 | 0.8904 | 0.0593 | 0.4425 | 0.0666 | 0.4974 |
| 161 | 55.77 | 0.07 | 0.0602 | 9.9999 | 0.0314 | 9.9999 | 0.5216 | 0.8852 | 0.0605 | 0.4405 | 0.0683 | 0.4981 |
| 162 | 55.92 | 0.03 | 0.0586 | 9.9999 | 0.0318 | 9.9999 | 0.5400 | 0.9006 | 0.0601 | 0.4465 | 0.0667 | 0.4958 |
| 163 | 56.08 | 0.03 | 0.0588 | 9.9999 | 0.0313 | 9.9999 | 0.5323 | 0.9036 | 0.0601 | 0.4479 | 0.0665 | 0.4957 |
| 164 | 56.24 | 0.00 | 0.0573 | 9.9999 | 0.0311 | 9.9999 | 0.5428 | 0.8934 | 0.0588 | 0.4441 | 0.0658 | 0.4971 |
| 165 | 56.40 | 0.02 | 0.0604 | 9.9999 | 0.0336 | 9.9999 | 0.5491 | 0.9076 | 0.0576 | 0.4512 | 0.0635 | 0.4972 |
| 166 | 56.54 | 0.01 | 0.0561 | 9.9999 | 0.0286 | 9.9999 | 0.5469 | 0.9016 | 0.0570 | 0.4484 | 0.0632 | 0.4973 |
| 167 | 56.70 | 0.02 | 0.0567 | 9.9999 | 0.0301 | 9.9999 | 0.5412 | 0.9060 | 0.0575 | 0.4516 | 0.0634 | 0.4985 |
| 168 | 56.85 | -0.02 | 0.0594 | 9.9999 | 0.0354 | 9.9999 | 0.5531 | 0.9045 | 0.0562 | 0.4517 | 0.0618 | 0.4966 |
| 169 | 56.99 | -0.01 | 0.0574 | 9.9999 | 0.0312 | 9.9999 | 0.5438 | 0.9044 | 0.0570 | 0.4497 | 0.0630 | 0.4972 |
| 170 | 57.15 | -0.04 | 0.0506 | 9.9999 | 0.0279 | 9.9999 | 0.5514 | 0.9172 | 0.0555 | 0.4566 | 0.0605 | 0.4978 |
| 171 | 57.29 | -0.04 | 0.0535 | 9.9999 | 0.0292 | 9.9999 | 0.5476 | 0.9142 | 0.0552 | 0.4546 | 0.0604 | 0.4973 |
| 172 | 57.43 | -0.06 | 0.0459 | 9.9999 | 0.0254 | 9.9999 | 0.5607 | 0.9355 | 0.0552 | 0.4641 | 0.0590 | 0.4961 |
| 173 | 57.59 | -0.06 | 0.0534 | 9.9999 | 0.0282 | 9.9999 | 0.5281 | 0.9493 | 0.0545 | 0.4701 | 0.0578 | 0.4952 |
| 174 | 57.74 | -0.07 | 0.0533 | 9.9999 | 0.0282 | 9.9999 | 0.5291 | 0.9474 | 0.0551 | 0.4782 | 0.0569 | 0.4943 |
| 175 | 57.88 | -0.10 | 0.0475 | 9.9999 | 0.0272 | 9.9999 | 0.5678 | 0.9187 | 0.0549 | 0.4571 | 0.0597 | 0.4976 |
| 176 | 58.03 | -0.13 | 0.0446 | 9.9999 | 0.0246 | 9.9999 | 0.5775 | 0.9101 | 0.0534 | 0.4535 | 0.0587 | 0.4983 |
| 177 | 58.17 | -0.11 | 0.0479 | 9.9999 | 0.0268 | 9.9999 | 0.5553 | 0.8992 | 0.0542 | 0.4488 | 0.0603 | 0.4991 |
| 178 | 58.19 | -0.14 | 0.0500 | 9.9999 | 0.0285 | 9.9999 | 0.5832 | 0.8850 | 0.0549 | 0.4427 | 0.0620 | 0.5002 |
| 179 | 58.20 | -0.12 | 0.0466 | 9.9999 | 0.0256 | 9.9999 | 0.5333 | 0.8912 | 0.0546 | 0.4456 | 0.0612 | 0.4998 |
| 180 | 58.19 | -0.14 | 0.0453 | 9.9999 | 0.0258 | 9.9999 | 0.5254 | 0.9084 | 0.0534 | 0.4532 | 0.0588 | 0.4989 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 137 | MACH 1.60 | RNIC-6 1.7 | PHI 0.0 | CONF BIBOFII | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.12 | -0.01 | -2.0358 | 7.4537 | 0.0196 | -0.0337 | 0.0139 | 0.9239 | 0.2696 | 0.6542 | -3.6617 |
| 2 | -5.13 | -0.02 | -2.0362 | 7.4556 | 0.0176 | -0.0622 | 0.0081 | 0.9344 | 0.2726 | 0.6617 | -3.6439 |
| 3 | -5.13 | -0.01 | -2.0923 | 7.7363 | 0.1128 | -0.1317 | 0.0142 | 0.9510 | 0.2700 | 0.6810 | -3.6585 |
| 4 | -5.13 | -0.02 | -2.0823 | 7.6882 | 0.0825 | -0.1256 | 0.0199 | 0.9395 | 0.2685 | 0.6709 | -3.6834 |
| 5 | -5.86 | -0.01 | -2.1210 | 7.8389 | 0.1126 | -0.1314 | 0.0142 | 0.9575 | 0.2636 | 0.6939 | -3.6556 |
| 6 | -4.54 | -0.02 | -1.6353 | 7.5223 | 0.0542 | -0.0005 | 0.0195 | 0.9319 | 0.2406 | 0.6553 | -3.8869 |
| 7 | -2.77 | -0.02 | -1.0328 | 6.8755 | 0.0567 | -0.1148 | 0.0148 | 0.8592 | 0.2312 | 0.6280 | -4.0885 |
| 8 | -0.94 | -0.01 | -1.4168 | 6.2660 | 0.0674 | -0.1280 | 0.0038 | 0.8044 | 0.1975 | 0.6069 | -4.4333 |
| 9 | 0.79 | -0.01 | -1.1550 | 5.5865 | 0.0665 | -0.1387 | 0.0156 | 0.7425 | 0.1846 | 0.5579 | -4.8385 |
| 10 | 2.60 | -0.01 | -0.8030 | 4.9235 | 0.1105 | -0.1517 | 0.0159 | 0.6836 | 0.1705 | 0.5131 | -5.5765 |
| 11 | 4.37 | -0.02 | -0.5503 | 4.2182 | 0.0810 | -0.1459 | 0.0105 | 0.6202 | 0.1606 | 0.4602 | -7.1424 |
| 12 | 6.19 | -0.01 | -0.2978 | 3.5226 | 0.1315 | -0.2124 | 0.0110 | 0.5607 | 0.1558 | 0.4129 | -11.8311 |
| 13 | 8.03 | -0.01 | 0.0269 | 2.7755 | 0.0578 | -0.1606 | 0.0173 | 0.5112 | 0.1611 | 0.3501 | 99.0893 |
| 14 | 9.80 | -0.02 | 0.3364 | 2.1661 | 0.0517 | -0.0978 | 0.0178 | 0.4685 | 0.1643 | 0.3043 | 6.4494 |
| 15 | 11.67 | -0.02 | 0.6425 | 1.5778 | 0.0516 | -0.0575 | 0.0126 | 0.4192 | 0.1629 | 0.2563 | 2.4556 |
| 16 | 13.48 | -0.02 | 0.9435 | 1.1075 | -0.0045 | -0.0136 | 0.0075 | 0.3874 | 0.1656 | 0.2218 | 1.1742 |
| 17 | 15.37 | -0.02 | 1.2532 | 0.7665 | -0.0146 | 0.0203 | 0.0084 | 0.3529 | 0.1747 | 0.1782 | 0.6275 |
| 18 | 17.30 | -0.03 | 1.5342 | 0.3419 | -0.1248 | 0.2955 | 0.0144 | 0.3058 | 0.1803 | 0.1255 | 0.2097 |
| 19 | 19.16 | -0.03 | 2.0185 | -0.1378 | -0.1555 | 0.6014 | 0.0145 | 0.2765 | 0.1957 | 0.0808 | -0.0683 |
| 20 | 21.10 | -0.02 | 2.4678 | -0.5063 | -0.0284 | 0.2405 | -0.0005 | 0.2140 | 0.1946 | 0.0194 | -0.2094 |
| 21 | 23.05 | -0.04 | 3.0036 | -0.9212 | -0.2485 | 0.7771 | -0.0351 | 0.1553 | 0.1931 | -0.0378 | -0.3067 |
| 22 | 25.00 | -0.02 | 3.7251 | -1.0536 | -0.1061 | 0.4043 | -0.0195 | 0.0900 | 0.1924 | -0.0958 | -0.2828 |
| 23 | 27.01 | 0.03 | 4.3545 | -1.0645 | 0.5460 | -1.2106 | 0.0546 | 0.0436 | 0.1947 | -0.1511 | -0.2423 |
| 24 | 28.10 | 0.05 | 4.6677 | -1.0511 | 0.8525 | -1.9435 | 0.0675 | 0.0204 | 0.2014 | -0.1810 | -0.2252 |
| 25 | 28.08 | 0.06 | 4.6590 | -1.0856 | 0.6582 | -2.0765 | 0.0991 | 0.0262 | 0.1999 | -0.1737 | -0.2374 |
| 26 | 28.05 | 0.04 | 4.6578 | -0.9682 | 0.7516 | -1.8314 | 0.0870 | 0.0193 | 0.1988 | -0.1795 | -0.2106 |
| 27 | 28.09 | 0.06 | 4.6843 | -0.9938 | 0.5512 | -1.9581 | 0.0877 | 0.0102 | 0.2003 | -0.1901 | -0.2121 |
| 28 | 28.08 | 0.05 | 4.6960 | -1.0087 | 0.8005 | -1.8723 | 0.0815 | 0.0237 | 0.2022 | -0.1785 | -0.2178 |
| 29 | 28.42 | 0.06 | 4.7175 | -1.0046 | 0.8703 | -1.9120 | 0.0877 | 0.0184 | 0.2060 | -0.1876 | -0.2128 |
| 30 | 28.08 | 0.07 | 4.6665 | -1.0165 | 0.5004 | -2.0471 | 0.0864 | 0.0071 | 0.2052 | -0.1981 | -0.2110 |
| 31 | 29.02 | 0.07 | 4.9677 | -0.9416 | 0.9364 | -1.8515 | 0.0772 | 0.0110 | 0.2052 | -0.1942 | -0.1895 |
| 32 | 29.34 | 0.06 | 5.0833 | -0.8964 | 0.9190 | -1.9268 | 0.0394 | -0.0131 | 0.2044 | -0.2175 | -0.1752 |
| 33 | 29.62 | 0.06 | 5.1776 | -0.9335 | 0.8582 | -1.8661 | 0.0761 | -0.0068 | 0.2066 | -0.2134 | -0.1803 |
| 34 | 29.89 | 0.07 | 5.1789 | -0.8827 | 0.9305 | -1.8516 | 0.0840 | -0.0212 | 0.2060 | -0.2272 | -0.1666 |
| 35 | 30.18 | 0.08 | 5.2459 | -0.9362 | 1.1093 | -2.2279 | 0.1142 | -0.0217 | 0.2040 | -0.2257 | -0.1758 |
| 36 | 30.45 | 0.06 | 5.2937 | -0.9414 | 0.8375 | -1.8666 | 0.0871 | -0.0262 | 0.2066 | -0.2322 | -0.1745 |
| 37 | 30.72 | 0.07 | 5.3316 | -0.7533 | 0.9722 | -1.8742 | 0.0798 | -0.0344 | 0.2048 | -0.2392 | -0.1362 |
| 38 | 31.01 | 0.07 | 5.3247 | -0.8037 | 0.9735 | -2.0365 | 0.1095 | -0.0489 | 0.2040 | -0.2529 | -0.1219 |
| 39 | 31.29 | 0.07 | 5.3556 | -0.7432 | 0.9515 | -1.9571 | 0.0924 | -0.0468 | 0.2060 | -0.2526 | -0.1291 |
| 40 | 31.56 | 0.06 | 5.4134 | -0.6721 | 0.8546 | -1.7408 | 0.0925 | -0.0594 | 0.2011 | -0.2605 | -0.1160 |
| 41 | 31.83 | 0.06 | 5.3741 | -0.7174 | 0.8645 | -1.8306 | 0.0692 | -0.0586 | 0.2045 | -0.2631 | -0.1221 |
| 42 | 32.12 | 0.04 | 6.0141 | -0.5754 | 0.5912 | -1.0876 | 0.0399 | -0.0778 | 0.2022 | -0.2800 | -0.0958 |
| 43 | 32.35 | 0.05 | 5.9151 | -0.5917 | 0.7397 | -1.5300 | 0.0808 | -0.0894 | 0.1868 | -0.2762 | -0.1000 |
| 44 | 32.61 | 0.03 | 6.0573 | -0.5724 | 0.4861 | -0.7396 | 0.0166 | -0.0918 | 0.1940 | -0.2804 | -0.0939 |
| 45 | 32.88 | 0.04 | 6.1710 | -0.5733 | 0.6015 | -1.1172 | 0.0290 | -0.1016 | 0.1925 | -0.2941 | -0.0929 |
| 46 | 33.15 | 0.01 | 6.3911 | -0.5564 | 0.1612 | -0.2043 | -0.0063 | -0.1146 | 0.1955 | -0.3101 | -0.0938 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1ST | MACH 1.60 | REYNO=E 1.7 | PHI 0.0 | CONF 81B0F11 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.39 | 0.02 | 6.6033 | -0.6424 | 0.3615 | -0.6584 | 0.0235 | -0.1254 | 0.1926 | -0.3162 | -0.0994 |
| 48 | 33.68 | 0.04 | 6.6166 | -0.7454 | 0.3275 | -0.6534 | 0.0304 | -0.1247 | 0.1928 | -0.3235 | -0.1126 |
| 49 | 33.90 | 0.03 | 6.7249 | -0.6775 | 0.4508 | -0.6670 | 0.0656 | -0.1324 | 0.1928 | -0.3312 | -0.1008 |
| 50 | 34.14 | 0.07 | 6.7719 | -0.7900 | 0.5602 | -1.6712 | 0.1429 | -0.1209 | 0.2142 | -0.3351 | -0.1167 |
| 51 | 34.41 | 0.04 | 6.8302 | -0.8235 | 0.6130 | -1.1399 | 0.1014 | -0.1276 | 0.1997 | -0.3273 | -0.0913 |
| 52 | 34.66 | 0.04 | 6.8211 | -0.8458 | 0.6156 | -1.2275 | 0.1169 | -0.1348 | 0.1959 | -0.3357 | -0.0800 |
| 53 | 34.88 | 0.06 | 6.9152 | -0.8458 | 0.6116 | -1.5001 | 0.1431 | -0.1457 | 0.1896 | -0.3353 | -0.0652 |
| 54 | 35.14 | 0.05 | 7.0716 | -0.7866 | 0.7022 | -1.3063 | 0.1319 | -0.1533 | 0.2015 | -0.3548 | -0.0676 |
| 55 | 35.39 | 0.06 | 7.1930 | -0.7300 | 0.8620 | -1.5084 | 0.1735 | -0.1470 | 0.2052 | -0.3522 | -0.1015 |
| 56 | 35.63 | 0.06 | 7.2918 | -0.8456 | 0.8713 | -1.5781 | 0.1506 | -0.1631 | 0.2013 | -0.3644 | -0.0863 |
| 57 | 35.86 | 0.06 | 7.3733 | -0.8638 | 0.7945 | -1.4236 | 0.1159 | -0.1697 | 0.2059 | -0.3756 | -0.0629 |
| 58 | 36.10 | 0.05 | 7.4317 | -0.8766 | 0.7202 | -1.2916 | 0.1100 | -0.1903 | 0.1934 | -0.3837 | -0.0644 |
| 59 | 36.33 | 0.06 | 7.5122 | -0.8554 | 0.6787 | -1.0456 | 0.1458 | -0.1775 | 0.2035 | -0.3814 | -0.0758 |
| 60 | 36.57 | 0.04 | 7.6918 | -0.8195 | 0.5177 | -0.7750 | 0.0752 | -0.1997 | 0.1927 | -0.3924 | -0.0805 |
| 61 | 36.81 | 0.05 | 7.8147 | -0.8252 | 0.6640 | -1.3103 | 0.1281 | -0.2017 | 0.1830 | -0.3817 | -0.0650 |
| 62 | 37.04 | 0.04 | 7.8943 | -0.8311 | 0.8204 | -1.2392 | 0.1341 | -0.2219 | 0.1733 | -0.3952 | -0.0560 |
| 63 | 37.29 | 0.04 | 7.9512 | -0.8033 | 0.8341 | -1.0501 | 0.0939 | -0.2206 | 0.1824 | -0.4056 | -0.0737 |
| 64 | 37.51 | 0.04 | 7.9818 | -0.8442 | 0.8420 | -1.1302 | 0.1175 | -0.2414 | 0.1805 | -0.4215 | -0.0566 |
| 65 | 37.74 | 0.03 | 8.0704 | -0.7255 | 0.5166 | -0.5696 | 0.1003 | -0.2397 | 0.1652 | -0.4249 | -0.0859 |
| 66 | 37.99 | 0.05 | 8.1713 | -0.7155 | 0.7037 | -1.3100 | 0.1240 | -0.2341 | 0.1679 | -0.4220 | -0.0881 |
| 67 | 38.22 | 0.05 | 8.2572 | -0.7625 | 0.7155 | -1.3292 | 0.1190 | -0.2368 | 0.1618 | -0.4182 | -0.0924 |
| 68 | 38.49 | 0.04 | 8.3211 | -0.7127 | 0.7052 | -1.2808 | 0.1251 | -0.2495 | 0.1782 | -0.4277 | -0.0856 |
| 69 | 38.67 | 0.03 | 8.3695 | -0.8456 | 0.5312 | -1.1142 | 0.0839 | -0.2607 | 0.1658 | -0.4265 | -0.1010 |
| 70 | 38.89 | 0.04 | 8.4434 | -0.7777 | 0.6350 | -1.2321 | 0.0903 | -0.2661 | 0.1737 | -0.4398 | -0.0921 |
| 71 | 39.11 | 0.05 | 8.5177 | -0.8356 | 0.7181 | -1.3123 | 0.1255 | -0.2649 | 0.1698 | -0.4347 | -0.0985 |
| 72 | 39.32 | 0.03 | 8.5446 | -0.8648 | 0.5185 | -0.9604 | 0.0766 | -0.2673 | 0.1708 | -0.4581 | -0.0778 |
| 73 | 39.54 | 0.04 | 8.6240 | -0.8456 | 0.6265 | -1.1270 | 0.1323 | -0.2643 | 0.1711 | -0.4554 | -0.0973 |
| 74 | 39.74 | 0.02 | 8.8038 | -0.8005 | 0.4955 | -1.0267 | 0.0505 | -0.2949 | 0.1649 | -0.4597 | -0.0910 |
| 75 | 39.96 | 0.04 | 8.8146 | -0.7835 | 0.6231 | -1.1035 | 0.1044 | -0.2670 | 0.1674 | -0.4544 | -0.0889 |
| 76 | 40.17 | 0.03 | 8.9146 | -0.7154 | 0.4530 | -1.0256 | 0.0516 | -0.3109 | 0.1594 | -0.4702 | -0.0862 |
| 77 | 40.35 | 0.03 | 8.9766 | -0.7345 | 0.4588 | -1.0860 | 0.0756 | -0.3004 | 0.1640 | -0.4723 | -0.0819 |
| 78 | 40.56 | 0.04 | 9.0370 | -0.8264 | 0.5307 | -0.9754 | 0.1051 | -0.2969 | 0.1704 | -0.4692 | -0.0912 |
| 79 | 40.80 | 0.03 | 9.2980 | -0.9534 | 0.4405 | -1.0116 | 0.0531 | -0.3127 | 0.1697 | -0.4824 | -0.1025 |
| 80 | 40.98 | 0.03 | 9.2379 | -0.8756 | 0.4506 | -0.8790 | 0.0823 | -0.3143 | 0.1587 | -0.4729 | -0.0735 |
| 81 | 41.20 | 0.03 | 9.3048 | -0.7567 | 0.4334 | -0.9334 | 0.0591 | -0.3136 | 0.1629 | -0.4764 | -0.0813 |
| 82 | 41.38 | 0.03 | 9.2654 | -0.7738 | 0.5552 | -0.9581 | 0.0944 | -0.2952 | 0.1636 | -0.4587 | -0.0833 |
| 83 | 41.57 | 0.05 | 9.3231 | -0.7760 | 0.6792 | -0.8901 | 0.1063 | -0.3038 | 0.1691 | -0.4726 | -0.0834 |
| 84 | 41.77 | 0.03 | 9.4096 | -0.7251 | 0.5293 | -1.0256 | 0.0716 | -0.3117 | 0.1716 | -0.4827 | -0.0771 |
| 85 | 41.98 | 0.03 | 9.5572 | -0.7056 | 0.4566 | -0.9643 | 0.0564 | -0.3241 | 0.1637 | -0.4848 | -0.0735 |
| 86 | 42.18 | 0.04 | 9.6739 | -0.8444 | 0.6526 | -0.9360 | 0.0961 | -0.3245 | 0.1655 | -0.4950 | -0.0718 |
| 87 | 42.37 | 0.02 | 9.7526 | -0.8023 | 0.4521 | -1.0853 | 0.0435 | -0.3048 | 0.1686 | -0.4735 | -0.0823 |
| 88 | 42.54 | 0.03 | 9.7916 | -0.7371 | 0.4703 | -0.8317 | 0.0699 | -0.3196 | 0.1618 | -0.4815 | -0.0757 |
| 89 | 42.73 | 0.03 | 9.8088 | -0.8664 | 0.4553 | -0.8317 | 0.0555 | -0.3311 | 0.1610 | -0.4921 | -0.0676 |
| 90 | 42.91 | 0.02 | 9.9154 | -0.7477 | 0.4375 | -0.9075 | 0.0557 | -0.3309 | 0.1565 | -0.4954 | -0.0754 |
| 91 | 43.09 | 0.04 | 9.9943 | -0.8104 | 0.4293 | -0.8071 | 0.0852 | -0.3236 | 0.1610 | -0.4846 | -0.0711 |
| 92 | 43.26 | 0.02 | 9.9566 | -0.8458 | 0.4381 | -0.8872 | 0.0620 | -0.3250 | 0.1625 | -0.4875 | -0.0838 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNIO-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 1.60 | 1.7 | 0.0 | 0 INOF11 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| FLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.48 | 0.02 | 10.1026 | -0.7367 | 0.3735 | -0.7157 | 0.0564 | -0.3572 | 0.1641 | -0.5013 | -0.0725 |
| 94 | 43.65 | 0.02 | 10.2515 | -0.7466 | 0.4586 | -0.6396 | 0.0666 | -0.3526 | 0.1588 | -0.4914 | -0.0438 |
| 95 | 43.80 | 0.01 | 10.3221 | -0.8041 | 0.3444 | -0.2573 | 0.0917 | -0.3506 | 0.1580 | -0.4886 | -0.0585 |
| 96 | 44.01 | 0.01 | 10.3083 | -0.8416 | 0.3285 | -0.3346 | 0.0807 | -0.3552 | 0.1590 | -0.4922 | -0.0611 |
| 97 | 44.17 | 0.00 | 10.3715 | -0.8536 | 0.2761 | -0.3454 | 0.0864 | -0.3414 | 0.1540 | -0.4954 | -0.0669 |
| 98 | 44.35 | 0.01 | 10.3803 | -0.8551 | 0.4116 | -0.0450 | 0.0921 | -0.3427 | 0.1491 | -0.4918 | -0.0346 |
| 99 | 44.55 | -0.00 | 10.5423 | -0.7245 | 0.2602 | -0.5550 | 0.0834 | -0.3400 | 0.1544 | -0.4944 | -0.0687 |
| 100 | 44.75 | 0.01 | 10.5564 | -0.7593 | 0.3401 | -0.6715 | 0.0839 | -0.3334 | 0.1651 | -0.4985 | -0.0716 |
| 101 | 44.93 | 0.00 | 10.6053 | -0.8483 | 0.2320 | -0.2625 | 0.0760 | -0.3321 | 0.1619 | -0.4940 | -0.0598 |
| 102 | 45.10 | -0.00 | 10.6224 | -0.7865 | 0.2329 | -0.4685 | 0.0765 | -0.3433 | 0.1508 | -0.4941 | -0.0726 |
| 103 | 45.28 | 0.00 | 10.8020 | -0.4742 | 0.3234 | -0.8585 | 0.0592 | -0.3311 | 0.1555 | -0.4866 | -0.0439 |
| 104 | 45.47 | 0.01 | 10.7940 | -0.8536 | 0.2659 | 0.4127 | 0.0733 | -0.3161 | 0.1662 | -0.4762 | -0.0328 |
| 105 | 45.65 | 0.01 | 11.0730 | -0.8350 | 0.3321 | -0.2432 | 0.0706 | -0.3248 | 0.1621 | -0.4869 | -0.0754 |
| 106 | 45.82 | 0.02 | 11.1264 | -0.4915 | 0.4346 | -0.4012 | 0.0599 | -0.3234 | 0.1539 | -0.4823 | -0.0442 |
| 107 | 46.00 | 0.01 | 11.1466 | -0.5716 | 0.2918 | -0.0494 | 0.0704 | -0.3278 | 0.1586 | -0.4862 | -0.0513 |
| 108 | 46.18 | 0.01 | 11.2946 | -0.4443 | 0.3042 | -0.0504 | 0.0710 | -0.3462 | 0.1501 | -0.5023 | -0.0393 |
| 109 | 46.35 | 0.01 | 11.1266 | -0.1536 | 0.2402 | 0.1648 | 0.0642 | -0.2976 | 0.2100 | -0.5078 | -0.0138 |
| 110 | 46.51 | -0.00 | 11.2973 | -0.4246 | 0.1486 | 0.3624 | 0.0642 | -0.2995 | 0.1957 | -0.4962 | -0.0376 |
| 111 | 46.65 | 0.01 | 11.3148 | -0.4561 | 0.2466 | 0.3131 | 0.0583 | -0.2526 | 0.2472 | -0.4995 | -0.0405 |
| 112 | 46.88 | 0.01 | 11.3437 | -0.4766 | 0.2107 | 0.5742 | 0.0573 | -0.2572 | 0.2416 | -0.4989 | -0.0423 |
| 113 | 47.04 | 0.01 | 11.4470 | -0.0721 | 0.2365 | 0.8115 | 0.0575 | -0.2564 | 0.2626 | -0.4991 | -0.0567 |
| 114 | 47.22 | 0.01 | 11.6370 | -1.1598 | 0.1542 | 0.9914 | 0.0445 | -0.2256 | 0.2686 | -0.5111 | -0.0979 |
| 115 | 47.39 | 0.03 | 11.6835 | -1.3586 | 0.2907 | 1.2208 | 0.0362 | -0.1427 | 0.3240 | -0.4866 | -0.1163 |
| 116 | 47.58 | 0.03 | 11.7479 | -1.0235 | 0.4826 | 1.1444 | -0.0136 | -0.1125 | 0.3404 | -0.4528 | -0.1382 |
| 117 | 47.75 | 0.02 | 11.8463 | -1.7706 | 0.3525 | 1.2545 | -0.0020 | -0.1164 | 0.3530 | -0.4663 | -0.1495 |
| 118 | 47.91 | 0.04 | 11.9222 | -1.9262 | 0.5526 | 1.0984 | -0.0132 | -0.1034 | 0.3604 | -0.4637 | -0.1615 |
| 119 | 48.10 | 0.04 | 12.2123 | -2.0289 | 0.4553 | 1.4016 | -0.0313 | -0.1163 | 0.3731 | -0.4896 | -0.2316 |
| 120 | 48.27 | 0.04 | 12.2947 | -2.0816 | 0.4503 | 1.3033 | -0.0247 | -0.1007 | 0.3705 | -0.4711 | -0.2181 |
| 121 | 48.44 | 0.04 | 12.3028 | -2.7154 | 0.4789 | 1.5617 | -0.0315 | -0.1241 | 0.3623 | -0.4864 | -0.2207 |
| 122 | 48.64 | 0.04 | 12.5406 | -2.5611 | 0.5163 | 1.7366 | -0.0258 | -0.1358 | 0.3536 | -0.4926 | -0.2313 |
| 123 | 48.78 | 0.05 | 12.4670 | -2.8130 | 0.4262 | 1.7248 | -0.0316 | -0.1614 | 0.3501 | -0.5115 | -0.2256 |
| 124 | 48.96 | 0.04 | 12.5690 | -2.9463 | 0.5123 | 1.7366 | -0.0257 | -0.1459 | 0.3549 | -0.4968 | -0.2346 |
| 125 | 49.14 | 0.04 | 12.6551 | -2.9256 | 0.4413 | 1.7827 | -0.0255 | -0.1740 | 0.3311 | -0.5051 | -0.2315 |
| 126 | 49.31 | 0.04 | 12.7127 | -2.7774 | 0.4576 | 1.6884 | -0.0191 | -0.1744 | 0.3280 | -0.5029 | -0.2185 |
| 127 | 49.48 | 0.04 | 12.6578 | -2.7635 | 0.4856 | 1.6896 | -0.0191 | -0.1774 | 0.3299 | -0.5073 | -0.2177 |
| 128 | 49.66 | 0.03 | 12.9967 | -3.0173 | 0.4224 | 1.4080 | -0.0112 | -0.1706 | 0.3158 | -0.4866 | -0.2323 |
| 129 | 49.83 | 0.01 | 12.8506 | -2.7443 | 0.1792 | 1.6895 | -0.0186 | -0.2307 | 0.3164 | -0.5471 | -0.2162 |
| 130 | 50.01 | 0.02 | 13.0440 | -2.9575 | 0.3563 | 1.5458 | 0.0117 | -0.1672 | 0.3440 | -0.5112 | -0.2299 |
| 131 | 50.18 | 0.01 | 13.0712 | -3.0613 | 0.2318 | 1.5088 | 0.0295 | -0.1695 | 0.3414 | -0.5109 | -0.2342 |
| 132 | 50.35 | 0.01 | 12.9105 | -2.7512 | 0.4271 | 1.4078 | 0.0295 | -0.2014 | 0.3295 | -0.5309 | -0.2131 |
| 133 | 50.53 | 0.02 | 13.1416 | -3.0265 | 0.3100 | 1.3509 | 0.0244 | -0.1863 | 0.3163 | -0.5046 | -0.2304 |
| 134 | 50.68 | 0.01 | 12.9277 | -2.9917 | 0.2916 | 0.9024 | 0.0599 | -0.1937 | 0.3224 | -0.5161 | -0.2314 |
| 135 | 50.82 | 0.00 | 12.8754 | -2.9751 | 0.1836 | 1.0384 | 0.0477 | -0.2108 | 0.3197 | -0.5305 | -0.2035 |
| 136 | 50.98 | 0.00 | 12.9466 | -2.7352 | 0.2303 | 0.9556 | 0.0351 | -0.2177 | 0.3227 | -0.5404 | -0.1406 |
| 137 | 51.16 | 0.01 | 12.7174 | -2.1662 | 0.4361 | 0.6771 | 0.0667 | -0.1822 | 0.3430 | -0.5252 | -0.1765 |
| 138 | 51.31 | -0.01 | 12.7568 | -2.1778 | 0.2814 | 0.7515 | 0.0009 | -0.1692 | 0.3555 | -0.5247 | -0.1768 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 137 | MACH 1.60 | RATIO=6 1.7 | PHI 0.0 | CONF SINGLE | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.46 | 0.01 | 12.6056 | -1.9870 | C.3907 | C.7128 | 0.0607 | -0.1542 | 0.3589 | -0.5131 | -0.1576 |
| 140 | 51.65 | -0.02 | 12.8134 | -2.1262 | C.1620 | C.6247 | 0.0556 | -0.1443 | 0.3759 | -0.5202 | -0.1655 |
| 141 | 51.80 | 0.00 | 12.7721 | -2.1103 | C.3653 | C.6032 | 0.0617 | -0.1470 | 0.3661 | -0.5131 | -0.1652 |
| 142 | 51.59 | -0.00 | 12.8754 | -1.8656 | C.3144 | C.9308 | 0.0013 | -0.1017 | 0.3747 | -0.4763 | -0.1449 |
| 143 | 52.15 | -0.00 | 12.9796 | -1.7422 | C.3057 | C.8299 | 0.0564 | -0.0676 | 0.3934 | -0.4615 | -0.1342 |
| 144 | 52.32 | -0.00 | 12.8790 | -1.8922 | C.2456 | C.8772 | 0.0560 | -0.0936 | 0.3871 | -0.4807 | -0.1275 |
| 145 | 52.55 | 0.00 | 12.8255 | -1.9970 | C.3116 | C.6295 | 0.0509 | -0.1001 | 0.4070 | -0.5071 | -0.1245 |
| 146 | 52.72 | -0.01 | 12.8946 | -1.7281 | C.2624 | C.8774 | 0.0511 | -0.0900 | 0.4063 | -0.4904 | -0.1339 |
| 147 | 52.89 | -0.02 | 13.1427 | -2.1294 | C.1316 | C.7135 | 0.0575 | -0.0894 | 0.4011 | -0.4906 | -0.1620 |
| 148 | 53.06 | -0.01 | 12.9906 | -1.7142 | C.1751 | C.8591 | 0.0568 | -0.0740 | 0.4120 | -0.4861 | -0.1320 |
| 149 | 53.22 | -0.01 | 13.0644 | -1.8825 | C.1656 | C.7500 | 0.0572 | -0.0793 | 0.4096 | -0.4850 | -0.1441 |
| 150 | 53.38 | -0.00 | 12.9149 | -1.7921 | C.2644 | C.8719 | 0.0510 | -0.1026 | 0.4025 | -0.5053 | -0.1388 |
| 151 | 53.54 | -0.01 | 13.0858 | -1.8581 | C.1992 | C.8967 | 0.0579 | -0.0973 | 0.4282 | -0.5235 | -0.1420 |
| 152 | 53.70 | 0.01 | 12.9192 | -1.8355 | C.3787 | C.9030 | 0.0515 | -0.0969 | 0.3995 | -0.4984 | -0.1424 |
| 153 | 53.88 | -0.01 | 13.3520 | -2.1956 | C.2070 | C.4917 | 0.0531 | -0.0882 | 0.4356 | -0.5239 | -0.1645 |
| 154 | 54.02 | -0.01 | 13.1068 | -2.0266 | C.1615 | C.5068 | 0.0527 | -0.1019 | 0.4187 | -0.5206 | -0.1538 |
| 155 | 54.18 | -0.01 | 13.1511 | -2.2414 | C.2329 | C.5537 | 0.0579 | -0.0959 | 0.3940 | -0.4900 | -0.1704 |
| 156 | 54.34 | -0.02 | 13.2455 | -2.2755 | C.1926 | C.4794 | 0.0527 | -0.0900 | 0.4273 | -0.5239 | -0.1723 |
| 157 | 54.50 | -0.02 | 13.0950 | -2.1365 | C.1305 | C.4837 | 0.0526 | -0.1000 | 0.4136 | -0.5166 | -0.1633 |
| 158 | 54.69 | -0.02 | 13.2945 | -2.2117 | C.1702 | C.5269 | 0.0547 | -0.0983 | 0.4136 | -0.5069 | -0.1689 |
| 159 | 54.81 | -0.04 | 13.2628 | -2.3314 | C.0359 | C.5311 | 0.0529 | -0.1056 | 0.4028 | -0.5124 | -0.1758 |
| 160 | 54.95 | -0.02 | 13.2401 | -2.2566 | C.1001 | C.4780 | 0.0571 | -0.1074 | 0.4099 | -0.5173 | -0.1764 |
| 161 | 55.14 | -0.02 | 13.4955 | -2.3267 | C.3754 | C.4805 | 0.0417 | -0.0998 | 0.4023 | -0.5021 | -0.1868 |
| 162 | 55.26 | -0.03 | 13.0325 | -1.9267 | C.1745 | C.3695 | 0.0413 | -0.1141 | 0.3813 | -0.4954 | -0.1480 |
| 163 | 55.44 | -0.03 | 13.2524 | -2.3311 | C.1280 | C.4224 | 0.0474 | -0.1075 | 0.3922 | -0.4997 | -0.1759 |
| 164 | 55.62 | -0.05 | 13.4787 | -2.0305 | C.0265 | C.3919 | 0.0426 | -0.1050 | 0.3758 | -0.4807 | -0.1952 |
| 165 | 55.75 | -0.03 | 13.1627 | -2.0764 | C.1021 | C.3696 | 0.0552 | -0.1356 | 0.3739 | -0.5075 | -0.1577 |
| 166 | 55.93 | -0.04 | 13.5156 | -2.6867 | C.1852 | C.3474 | 0.0403 | -0.1273 | 0.3739 | -0.5012 | -0.1989 |
| 167 | 56.09 | -0.04 | 13.3240 | -2.1957 | C.1031 | C.3691 | 0.0393 | -0.1407 | 0.3606 | -0.5013 | -0.1651 |
| 168 | 56.25 | -0.03 | 13.6266 | -2.6158 | C.2506 | C.1455 | 0.0552 | -0.1458 | 0.3509 | -0.4967 | -0.1920 |
| 169 | 56.42 | -0.06 | 13.6436 | -2.2253 | -0.0033 | C.2100 | 0.0496 | -0.2158 | 0.3457 | -0.5615 | -0.1634 |
| 170 | 56.61 | -0.05 | 14.0253 | -2.4978 | C.0610 | -0.0507 | 0.0634 | -0.2426 | 0.3248 | -0.5674 | -0.1781 |
| 171 | 56.75 | -0.06 | 13.8215 | -2.3575 | C.0525 | -0.2835 | 0.0573 | -0.2279 | 0.3256 | -0.5535 | -0.1706 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 137 MACH 1.60 REYNO-E 1.7 PHI 0.0 CONF 61 DOF 11 L C.G DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.01 | -0.0434 | 0.0033 | 0.0155 | -0.0760 | -0.3571 | -1.0094 | -0.0530 | -0.5348 | 0.0525 | 0.5298 |
| 2 | -5.73 | -0.02 | -0.0457 | 0.0042 | 0.0141 | -0.0509 | -0.3385 | -1.0065 | -0.0498 | -0.5268 | 0.0505 | 0.5285 |
| 3 | -5.73 | -0.01 | -0.0466 | 0.0031 | 0.0153 | -0.0675 | -0.3430 | -1.0085 | -0.0549 | -0.5545 | 0.0523 | 0.5289 |
| 4 | -5.73 | -0.02 | -0.0456 | 0.0027 | 0.0151 | -0.0569 | -0.3297 | -1.0260 | -0.0523 | -0.5411 | 0.0510 | 0.5274 |
| 5 | -5.80 | -0.01 | -0.0423 | 0.0037 | 0.0167 | -0.0874 | -0.3946 | -1.0345 | -0.0604 | -0.5498 | 0.0584 | 0.5315 |
| 6 | -4.39 | -0.02 | -0.0416 | 0.0040 | 0.0163 | -0.0573 | -0.3976 | -0.9918 | -0.0655 | -0.5399 | 0.0606 | 0.5445 |
| 7 | -2.77 | -0.02 | -0.0382 | 0.0041 | 0.0150 | -0.1044 | -0.3916 | -0.8654 | -0.0792 | -0.4675 | 0.0915 | 0.5633 |
| 8 | -0.99 | -0.01 | -0.0313 | 0.0055 | 0.0180 | -0.1757 | -0.3751 | -0.7699 | -0.0850 | -0.4461 | 0.1104 | 0.5794 |
| 9 | 0.79 | -0.01 | -0.0404 | 0.0024 | 0.0124 | -0.0594 | -0.3089 | -0.6587 | -0.0815 | -0.3918 | 0.1237 | 0.5548 |
| 10 | 2.60 | -0.01 | -0.0356 | 0.0046 | 0.0131 | -0.1123 | -0.3000 | -0.5305 | -0.0740 | -0.3444 | 0.1395 | 0.6492 |
| 11 | 4.37 | -0.02 | -0.0334 | 0.0032 | 0.0155 | -0.0958 | -0.4760 | -0.4016 | -0.0630 | -0.2714 | 0.1571 | 0.6768 |
| 12 | 6.19 | -0.01 | -0.0356 | 0.0020 | 0.0101 | -0.0535 | -0.4497 | -0.2904 | -0.0512 | -0.2107 | 0.1763 | 0.7256 |
| 13 | 8.03 | -0.01 | -0.0305 | 0.0026 | 0.0101 | -0.0506 | -0.5210 | -0.1622 | -0.0391 | -0.1554 | 0.2145 | 0.8745 |
| 14 | 9.80 | -0.02 | -0.0263 | 0.0041 | 0.0125 | -0.1496 | -0.5977 | -0.0667 | -0.0281 | -0.1120 | 0.3167 | 1.2627 |
| 15 | 11.67 | -0.02 | -0.0253 | 0.0028 | 0.0141 | -0.0955 | -0.4812 | 0.0006 | -0.0171 | -0.0688 | -26.4924 | -114.6676 |
| 16 | 13.48 | -0.02 | -0.0263 | 0.0025 | 0.0163 | -0.1757 | -0.1045 | 0.0676 | -0.0002 | -0.0360 | -0.0030 | -0.5325 |
| 17 | 15.37 | -0.02 | -0.0394 | 0.0015 | 0.0050 | -0.0482 | -0.1421 | 0.1258 | 0.0241 | -0.0055 | 0.1915 | -0.0755 |
| 18 | 17.30 | -0.03 | -0.0367 | 0.0026 | 0.0013 | -0.0136 | -0.0221 | 0.1859 | 0.0429 | 0.0201 | 0.2307 | 0.1081 |
| 19 | 19.16 | -0.03 | -0.0786 | -0.0001 | -0.0046 | 0.0013 | 0.0513 | 0.2462 | 0.0592 | 0.0512 | 0.2404 | 0.2086 |
| 20 | 21.10 | -0.02 | -0.0757 | -0.0161 | -0.0165 | 0.1334 | 0.2100 | 0.3316 | 0.0697 | 0.0889 | 0.2165 | 0.2686 |
| 21 | 23.05 | -0.04 | -0.1814 | -0.0230 | -0.0225 | 0.1266 | 0.4460 | 0.3636 | 0.0796 | 0.1202 | 0.2075 | 0.3133 |
| 22 | 25.00 | -0.02 | -0.1356 | -0.0267 | -0.0225 | 0.1489 | 0.4525 | 0.4777 | 0.0812 | 0.1659 | 0.1699 | 0.3473 |
| 23 | 27.01 | 0.03 | 0.2281 | 0.0351 | 0.1160 | 0.1552 | 0.5130 | 0.6362 | 0.0833 | 0.2452 | 0.1309 | 0.3854 |
| 24 | 28.10 | 0.05 | 0.3111 | 0.0466 | 0.1575 | 0.1496 | 0.5076 | 0.6560 | 0.0858 | 0.2542 | 0.1316 | 0.3895 |
| 25 | 28.08 | 0.06 | 0.3632 | 0.0595 | 0.1923 | 0.1552 | 0.5316 | 0.6628 | 0.0850 | 0.2605 | 0.1282 | 0.3936 |
| 26 | 28.09 | 0.04 | 0.3165 | 0.0461 | 0.1561 | 0.1447 | 0.4964 | 0.6521 | 0.0851 | 0.2531 | 0.1305 | 0.3881 |
| 27 | 28.09 | 0.06 | 0.3656 | 0.0417 | 0.1431 | 0.1456 | 0.5007 | 0.6520 | 0.0860 | 0.2531 | 0.1315 | 0.3882 |
| 28 | 28.08 | 0.05 | 0.3257 | 0.0466 | 0.1606 | 0.1456 | 0.4912 | 0.6547 | 0.0855 | 0.2560 | 0.1306 | 0.3916 |
| 29 | 28.42 | 0.06 | 0.3500 | 0.0527 | 0.1722 | 0.1505 | 0.4920 | 0.6646 | 0.0862 | 0.2633 | 0.1298 | 0.3965 |
| 30 | 28.68 | 0.07 | 0.3538 | 0.0546 | 0.1722 | 0.1544 | 0.4870 | 0.6679 | 0.0873 | 0.2653 | 0.1307 | 0.3972 |
| 31 | 29.02 | 0.07 | 0.3325 | 0.0522 | 0.1597 | 0.1508 | 0.4797 | 0.6757 | 0.0883 | 0.2735 | 0.1306 | 0.4048 |
| 32 | 29.34 | 0.06 | 0.2575 | 0.0377 | 0.1481 | 0.1265 | 0.4992 | 0.6716 | 0.0893 | 0.2705 | 0.1329 | 0.4028 |
| 33 | 29.62 | 0.06 | 0.3016 | 0.0415 | 0.1475 | 0.1377 | 0.4907 | 0.6806 | 0.0901 | 0.2773 | 0.1323 | 0.4073 |
| 34 | 29.89 | 0.07 | 0.2760 | 0.0359 | 0.1356 | 0.1262 | 0.4913 | 0.6761 | 0.0907 | 0.2760 | 0.1337 | 0.4070 |
| 35 | 30.18 | 0.08 | 0.3541 | 0.0494 | 0.1813 | 0.1395 | 0.5120 | 0.6915 | 0.0909 | 0.2836 | 0.1314 | 0.4101 |
| 36 | 30.45 | 0.06 | 0.2466 | 0.0358 | 0.1176 | 0.1478 | 0.4864 | 0.6968 | 0.0917 | 0.2852 | 0.1316 | 0.4093 |
| 37 | 30.72 | 0.07 | 0.3055 | 0.0420 | 0.1516 | 0.1373 | 0.4956 | 0.7078 | 0.0912 | 0.2915 | 0.1289 | 0.4126 |
| 38 | 31.01 | 0.07 | 0.3127 | 0.0417 | 0.1576 | 0.1353 | 0.5040 | 0.7022 | 0.0908 | 0.2910 | 0.1290 | 0.4144 |
| 39 | 31.29 | 0.07 | 0.3157 | 0.0433 | 0.1623 | 0.1371 | 0.5141 | 0.7128 | 0.0916 | 0.2973 | 0.1283 | 0.4171 |
| 40 | 31.56 | 0.08 | 0.2763 | 0.0351 | 0.1454 | 0.1465 | 0.5217 | 0.7128 | 0.0922 | 0.2952 | 0.1293 | 0.4141 |
| 41 | 31.83 | 0.06 | 0.2624 | 0.0374 | 0.1333 | 0.1425 | 0.5080 | 0.7208 | 0.0923 | 0.3057 | 0.1266 | 0.4195 |
| 42 | 32.12 | 0.09 | 0.1625 | 0.0154 | 0.0554 | 0.1498 | 0.5364 | 0.7155 | 0.0949 | 0.2988 | 0.1324 | 0.4170 |
| 43 | 32.35 | 0.05 | 0.3404 | 0.0475 | 0.1717 | 0.1395 | 0.5044 | 0.7368 | 0.0932 | 0.3091 | 0.1263 | 0.4193 |
| 44 | 32.61 | 0.03 | 0.0649 | 0.0123 | 0.0525 | 0.1895 | 0.5008 | 0.7342 | 0.0963 | 0.3105 | 0.1302 | 0.4200 |
| 45 | 32.88 | 0.04 | 0.0758 | 0.0147 | 0.0345 | 0.1946 | 0.4816 | 0.7393 | 0.0959 | 0.3105 | 0.1297 | 0.4206 |
| 46 | 33.15 | 0.01 | -0.0336 | -0.0001 | -0.0185 | 0.0036 | 0.0292 | 0.7452 | 0.0974 | 0.3114 | 0.1310 | 0.4196 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1ST 1.00 | MACH 1.07 | RNIC-6 | PHI 0.0 | CONF DIAGFIL | C 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.39 | 0.02 | 0.0334 | 0.0EEE | 0.0176 | 0.2574 | 0.5269 | 0.7634 | 0.0972 | 0.3207 | 0.1273 | 0.4201 |
| 48 | 33.60 | 0.02 | -0.0038 | 0.0020 | -0.0006 | -0.7300 | 0.1579 | 0.7661 | 0.0981 | 0.3204 | 0.1280 | 0.4182 |
| 49 | 33.90 | 0.03 | 0.1425 | 0.0155 | 0.0630 | 0.1370 | 0.6184 | 0.7746 | 0.0961 | 0.3243 | 0.1241 | 0.4188 |
| 50 | 34.19 | 0.07 | 0.3541 | 0.0535 | 0.1691 | 0.1522 | 0.5340 | 0.8056 | 0.0936 | 0.3301 | 0.1165 | 0.4157 |
| 51 | 34.41 | 0.04 | 0.2819 | 0.0447 | 0.1525 | 0.1443 | 0.5410 | 0.7965 | 0.0950 | 0.3339 | 0.1192 | 0.4192 |
| 52 | 34.68 | 0.04 | 0.2560 | 0.0364 | 0.1045 | 0.1288 | 0.5520 | 0.7844 | 0.0950 | 0.3265 | 0.1211 | 0.4188 |
| 53 | 34.80 | 0.06 | 0.3130 | 0.0462 | 0.1776 | 0.1261 | 0.5041 | 0.7818 | 0.0943 | 0.3267 | 0.1206 | 0.4175 |
| 54 | 35.14 | 0.05 | 0.2821 | 0.0346 | 0.1584 | 0.1226 | 0.5015 | 0.7537 | 0.0952 | 0.3308 | 0.1199 | 0.4168 |
| 55 | 35.39 | 0.06 | 0.3065 | 0.0423 | 0.1702 | 0.1360 | 0.5814 | 0.8152 | 0.0950 | 0.3418 | 0.1165 | 0.4193 |
| 56 | 35.63 | 0.06 | 0.3335 | 0.0464 | 0.1824 | 0.1391 | 0.5405 | 0.8134 | 0.0951 | 0.3397 | 0.1169 | 0.4176 |
| 57 | 35.86 | 0.06 | 0.2845 | 0.0322 | 0.1395 | 0.1215 | 0.5286 | 0.8108 | 0.0965 | 0.3435 | 0.1179 | 0.4196 |
| 58 | 36.10 | 0.05 | 0.2666 | 0.0316 | 0.1584 | 0.1101 | 0.5485 | 0.8220 | 0.0968 | 0.3455 | 0.1176 | 0.4200 |
| 59 | 36.33 | 0.06 | 0.3342 | 0.0415 | 0.1750 | 0.1241 | 0.5374 | 0.8349 | 0.0961 | 0.3513 | 0.1151 | 0.4208 |
| 60 | 36.57 | 0.04 | 0.2132 | 0.0257 | 0.1175 | 0.1205 | 0.5511 | 0.8454 | 0.0982 | 0.3501 | 0.1161 | 0.4212 |
| 61 | 36.81 | 0.05 | 0.2776 | 0.0328 | 0.1535 | 0.1180 | 0.5526 | 0.8258 | 0.0974 | 0.3454 | 0.1175 | 0.4183 |
| 62 | 37.04 | 0.04 | 0.2446 | 0.0279 | 0.1416 | 0.1123 | 0.5760 | 0.8305 | 0.0981 | 0.3501 | 0.1172 | 0.4185 |
| 63 | 37.29 | 0.04 | 0.1945 | 0.0155 | 0.1057 | 0.1000 | 0.5629 | 0.8347 | 0.0991 | 0.3594 | 0.1159 | 0.4205 |
| 64 | 37.51 | 0.04 | 0.2413 | 0.0257 | 0.1354 | 0.1165 | 0.5011 | 0.8366 | 0.0988 | 0.3489 | 0.1178 | 0.4160 |
| 65 | 37.74 | 0.03 | 0.1975 | 0.0223 | 0.1062 | 0.1127 | 0.5366 | 0.8753 | 0.0970 | 0.3673 | 0.1133 | 0.4206 |
| 66 | 37.99 | 0.05 | 0.2652 | 0.0292 | 0.1446 | 0.1101 | 0.5400 | 0.8814 | 0.0994 | 0.3707 | 0.1127 | 0.4206 |
| 67 | 38.22 | 0.05 | 0.2376 | 0.0242 | 0.1349 | 0.1017 | 0.5852 | 0.8844 | 0.0997 | 0.3722 | 0.1127 | 0.4208 |
| 68 | 38.45 | 0.04 | 0.2033 | 0.0180 | 0.1131 | 0.0915 | 0.5503 | 0.8845 | 0.0991 | 0.3711 | 0.1120 | 0.4196 |
| 69 | 38.67 | 0.03 | 0.1574 | 0.0122 | 0.1104 | 0.0912 | 0.5593 | 0.8954 | 0.0984 | 0.3764 | 0.1099 | 0.4204 |
| 70 | 38.89 | 0.04 | 0.2071 | 0.0224 | 0.1421 | 0.0965 | 0.5415 | 0.8902 | 0.0979 | 0.3755 | 0.1090 | 0.4181 |
| 71 | 39.11 | 0.05 | 0.2598 | 0.0415 | 0.1621 | 0.1421 | 0.5499 | 0.8904 | 0.0946 | 0.3697 | 0.1064 | 0.4152 |
| 72 | 39.32 | 0.03 | 0.1690 | 0.0146 | 0.0991 | 0.0801 | 0.5195 | 0.8927 | 0.0945 | 0.3724 | 0.1058 | 0.4172 |
| 73 | 39.54 | 0.04 | 0.2130 | 0.0265 | 0.1256 | 0.1353 | 0.5609 | 0.9013 | 0.0914 | 0.3741 | 0.1014 | 0.4151 |
| 74 | 39.74 | 0.02 | 0.1495 | 0.0017 | 0.0817 | 0.0641 | 0.4764 | 0.9184 | 0.0929 | 0.3824 | 0.1011 | 0.4164 |
| 75 | 39.96 | 0.04 | 0.1823 | 0.0252 | 0.1057 | 0.1362 | 0.5798 | 0.8962 | 0.0847 | 0.3697 | 0.0945 | 0.4125 |
| 76 | 40.17 | 0.03 | 0.1571 | 0.0175 | 0.0894 | 0.1305 | 0.5047 | 0.9202 | 0.0887 | 0.3866 | 0.0964 | 0.4136 |
| 77 | 40.35 | 0.03 | 0.1383 | 0.0155 | 0.0712 | 0.1106 | 0.5148 | 0.9105 | 0.0775 | 0.3772 | 0.0851 | 0.4143 |
| 78 | 40.56 | 0.04 | 0.1691 | 0.0252 | 0.0926 | 0.1526 | 0.5609 | 0.8868 | 0.0764 | 0.3866 | 0.0859 | 0.4149 |
| 79 | 40.80 | 0.03 | 0.1026 | 0.0136 | 0.0454 | 0.1325 | 0.4425 | 0.9263 | 0.0782 | 0.3835 | 0.0821 | 0.4131 |
| 80 | 40.98 | 0.03 | 0.1266 | 0.0176 | 0.0616 | 0.1426 | 0.5058 | 0.9026 | 0.0749 | 0.3732 | 0.0830 | 0.4135 |
| 81 | 41.20 | 0.03 | 0.1366 | 0.0205 | 0.0635 | 0.1576 | 0.4915 | 0.9014 | 0.0744 | 0.3708 | 0.0825 | 0.4114 |
| 82 | 41.38 | 0.03 | 0.1423 | 0.0233 | 0.0740 | 0.1637 | 0.5242 | 0.8935 | 0.0721 | 0.3652 | 0.0807 | 0.4087 |
| 83 | 41.57 | 0.05 | 0.1585 | 0.0371 | 0.0902 | 0.2346 | 0.5716 | 0.8702 | 0.0710 | 0.3537 | 0.0823 | 0.4069 |
| 84 | 41.77 | 0.03 | 0.1458 | 0.0206 | 0.0596 | 0.1602 | 0.4607 | 0.9062 | 0.0726 | 0.3728 | 0.0803 | 0.4114 |
| 85 | 41.98 | 0.03 | 0.1295 | 0.0195 | 0.0538 | 0.1505 | 0.4156 | 0.9223 | 0.0727 | 0.3795 | 0.0788 | 0.4115 |
| 86 | 42.18 | 0.04 | 0.1403 | 0.0257 | 0.0734 | 0.1831 | 0.5374 | 0.8963 | 0.0737 | 0.3674 | 0.0822 | 0.4095 |
| 87 | 42.37 | 0.02 | 0.0983 | 0.0141 | 0.0322 | 0.1434 | 0.3276 | 0.9240 | 0.0726 | 0.3803 | 0.0788 | 0.4116 |
| 88 | 42.54 | 0.03 | 0.1154 | 0.0215 | 0.0605 | 0.1600 | 0.5100 | 0.8990 | 0.0725 | 0.3703 | 0.0806 | 0.4115 |
| 89 | 42.73 | 0.03 | 0.0985 | 0.0152 | 0.0408 | 0.1536 | 0.4732 | 0.8886 | 0.0740 | 0.3645 | 0.0832 | 0.4101 |
| 90 | 42.91 | 0.02 | 0.1130 | 0.0177 | 0.0481 | 0.1556 | 0.4234 | 0.9094 | 0.0724 | 0.3733 | 0.0796 | 0.4105 |
| 91 | 43.09 | 0.04 | 0.0975 | 0.0164 | 0.0525 | 0.1675 | 0.5403 | 0.8645 | 0.0726 | 0.3499 | 0.0842 | 0.4047 |
| 92 | 43.26 | 0.02 | 0.1044 | 0.0161 | 0.0421 | 0.1542 | 0.4033 | 0.8944 | 0.0731 | 0.3655 | 0.0817 | 0.4087 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 137 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF 8 ELEVF11 DEL 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.46 | 0.02 | 0.0587 | 0.0166 | 0.0373 | 0.1661 | 0.3779 | 0.9134 | 0.0732 | 0.3747 | 0.0601 | 0.4102 |
| 94 | 43.65 | 0.02 | 0.0545 | 0.0143 | 0.0426 | 0.1513 | 0.4444 | 0.8903 | 0.0738 | 0.3625 | 0.0625 | 0.4072 |
| 95 | 43.80 | 0.01 | 0.0583 | 0.0163 | 0.0457 | 0.1661 | 0.5056 | 0.8859 | 0.0747 | 0.3638 | 0.0843 | 0.4107 |
| 96 | 44.01 | 0.01 | 0.0561 | 0.0162 | 0.0471 | 0.1663 | 0.4901 | 0.8877 | 0.0747 | 0.3636 | 0.0841 | 0.4085 |
| 97 | 44.17 | 0.00 | 0.0566 | 0.0122 | 0.0328 | 0.1408 | 0.3768 | 0.9032 | 0.0732 | 0.3706 | 0.0810 | 0.4103 |
| 98 | 44.35 | 0.01 | 0.0617 | 0.0152 | 0.0316 | 0.1494 | 0.3048 | 0.8885 | 0.0726 | 0.3607 | 0.0817 | 0.4060 |
| 99 | 44.55 | -0.00 | 0.0755 | 0.0134 | 0.0275 | 0.1765 | 0.3623 | 0.9005 | 0.0742 | 0.3683 | 0.0824 | 0.4090 |
| 100 | 44.75 | 0.01 | 0.0518 | 0.0162 | 0.0467 | 0.1704 | 0.4434 | 0.8948 | 0.0738 | 0.3637 | 0.0825 | 0.4065 |
| 101 | 44.93 | 0.00 | 0.0561 | 0.0137 | 0.0261 | 0.1591 | 0.3020 | 0.8951 | 0.0739 | 0.3656 | 0.0825 | 0.4084 |
| 102 | 45.10 | -0.00 | 0.0459 | 0.0135 | 0.0345 | 0.1501 | 0.3882 | 0.8951 | 0.0744 | 0.3663 | 0.0831 | 0.4092 |
| 103 | 45.28 | 0.00 | 0.0546 | 0.0160 | 0.0351 | 0.1691 | 0.3710 | 0.8805 | 0.0747 | 0.3594 | 0.0848 | 0.4082 |
| 104 | 45.47 | 0.01 | 0.0601 | 0.0122 | 0.0226 | 0.2029 | 0.3001 | 0.8654 | 0.0777 | 0.3546 | 0.0858 | 0.4098 |
| 105 | 45.65 | 0.01 | 0.0625 | 0.0156 | 0.0315 | 0.1818 | 0.3318 | 0.8914 | 0.0758 | 0.3632 | 0.0850 | 0.4074 |
| 106 | 45.82 | 0.02 | 0.0507 | 0.0114 | 0.0177 | 0.2246 | 0.3491 | 0.8562 | 0.0776 | 0.3480 | 0.0906 | 0.4064 |
| 107 | 46.00 | 0.01 | 0.0593 | 0.0105 | 0.0281 | 0.1838 | 0.4739 | 0.8444 | 0.0783 | 0.3419 | 0.0927 | 0.4045 |
| 108 | 46.18 | 0.01 | 0.0642 | 0.0116 | 0.0286 | 0.1800 | 0.4455 | 0.8440 | 0.0823 | 0.3420 | 0.0975 | 0.4052 |
| 109 | 46.35 | 0.01 | 0.0545 | 0.0107 | 0.0222 | 0.1946 | 0.4044 | 0.8560 | 0.0833 | 0.3463 | 0.0971 | 0.4036 |
| 110 | 46.51 | -0.00 | 0.0491 | 0.0058 | 0.0195 | 0.1993 | 0.4053 | 0.8607 | 0.0829 | 0.3476 | 0.0963 | 0.4039 |
| 111 | 46.69 | 0.01 | 0.0504 | 0.0118 | 0.0171 | 0.2301 | 0.3393 | 0.9201 | 0.0854 | 0.3746 | 0.0928 | 0.4071 |
| 112 | 46.88 | 0.01 | 0.0554 | 0.0262 | 0.0154 | 0.3400 | 0.3266 | 0.9356 | 0.0769 | 0.3785 | 0.0843 | 0.4043 |
| 113 | 47.04 | 0.01 | 0.0280 | 0.0265 | 0.0025 | 0.7319 | 0.0893 | 0.9189 | 0.0721 | 0.3691 | 0.0784 | 0.4017 |
| 114 | 47.22 | 0.01 | -0.0125 | 0.0128 | -0.0163 | -1.0237 | 1.5340 | 0.8859 | 0.0693 | 0.3508 | 0.0782 | 0.3960 |
| 115 | 47.39 | 0.02 | -0.0457 | 0.0058 | -0.0337 | -0.1571 | 0.6781 | 0.8274 | 0.0662 | 0.3227 | 0.0800 | 0.3900 |
| 116 | 47.56 | 0.03 | -0.0585 | -0.0060 | -0.0392 | 0.1486 | 0.0055 | 0.8236 | 0.0672 | 0.3232 | 0.0816 | 0.3924 |
| 117 | 47.75 | 0.02 | -0.0725 | -0.0114 | -0.0477 | 0.1572 | 0.8579 | 0.8357 | 0.0667 | 0.3291 | 0.0798 | 0.3938 |
| 118 | 47.91 | 0.04 | -0.0252 | -0.0115 | -0.0274 | 0.3437 | 0.9304 | 0.8435 | 0.0683 | 0.3341 | 0.0810 | 0.3981 |
| 119 | 48.10 | 0.04 | -0.0117 | -0.0137 | -0.0184 | 1.1706 | 1.5726 | 0.9043 | 0.0709 | 0.3648 | 0.0784 | 0.4034 |
| 120 | 48.27 | 0.04 | 0.0041 | -0.0068 | -0.0084 | -2.1458 | -2.0488 | 0.8904 | 0.0768 | 0.3582 | 0.0790 | 0.3956 |
| 121 | 48.44 | 0.04 | -0.0187 | -0.0141 | -0.0213 | 0.7538 | 1.1390 | 0.9029 | 0.0727 | 0.3604 | 0.0805 | 0.3992 |
| 122 | 48.64 | 0.04 | -0.0268 | -0.0170 | -0.0246 | 0.6342 | 0.9179 | 0.9136 | 0.0730 | 0.3651 | 0.0799 | 0.3996 |
| 123 | 48.78 | 0.03 | -0.0159 | -0.0150 | -0.0210 | 0.7536 | 1.0553 | 0.9137 | 0.0739 | 0.3614 | 0.0809 | 0.3955 |
| 124 | 48.96 | 0.04 | -0.0224 | -0.0150 | -0.0206 | 0.6895 | 0.9266 | 0.9126 | 0.0723 | 0.3580 | 0.0792 | 0.3923 |
| 125 | 49.14 | 0.04 | -0.0223 | -0.0173 | -0.0210 | 0.7756 | 0.9917 | 0.9260 | 0.0717 | 0.3666 | 0.0774 | 0.3959 |
| 126 | 49.31 | 0.04 | -0.0121 | -0.0151 | -0.0196 | 1.0302 | 1.1570 | 0.9314 | 0.0714 | 0.3671 | 0.0766 | 0.3941 |
| 127 | 49.48 | 0.04 | -0.0092 | -0.0161 | -0.0127 | 1.0322 | 1.2959 | 0.9367 | 0.0726 | 0.3686 | 0.0775 | 0.3935 |
| 128 | 49.66 | 0.03 | 0.0176 | -0.0112 | 0.0035 | -0.6302 | 0.2216 | 0.9422 | 0.0715 | 0.3712 | 0.0759 | 0.3940 |
| 129 | 49.83 | 0.01 | 0.0118 | -0.0224 | -0.0032 | -1.8978 | -0.2712 | 0.9803 | 0.0743 | 0.3920 | 0.0758 | 0.3995 |
| 130 | 50.01 | 0.02 | 0.0343 | -0.0116 | 0.0069 | -0.2543 | 0.2395 | 0.9402 | 0.0707 | 0.3722 | 0.0752 | 0.3956 |
| 131 | 50.18 | 0.01 | 0.0264 | -0.0117 | 0.0032 | -0.4431 | 0.1212 | 0.9099 | 0.0665 | 0.3560 | 0.0731 | 0.3913 |
| 132 | 50.35 | 0.01 | 0.0331 | -0.0087 | 0.0065 | -0.2024 | 0.1904 | 0.8939 | 0.0657 | 0.3471 | 0.0735 | 0.3883 |
| 133 | 50.53 | 0.02 | 0.0374 | -0.0052 | 0.0113 | -0.1390 | 0.3021 | 0.9018 | 0.0671 | 0.3553 | 0.0744 | 0.3941 |
| 134 | 50.69 | 0.01 | 0.0506 | 0.0015 | 0.0182 | 0.0288 | 0.3250 | 0.8895 | 0.0640 | 0.3486 | 0.0719 | 0.3919 |
| 135 | 50.82 | 0.00 | 0.0555 | -0.0005 | 0.0150 | -0.0083 | 0.3172 | 0.8967 | 0.0645 | 0.3548 | 0.0719 | 0.3954 |
| 136 | 50.96 | 0.00 | 0.0482 | 0.0012 | 0.0167 | 0.0249 | 0.2635 | 0.8838 | 0.0653 | 0.3491 | 0.0756 | 0.3926 |
| 137 | 51.16 | 0.01 | 0.0361 | 0.0005 | 0.0111 | 0.1706 | 0.2913 | 0.8236 | 0.0626 | 0.3199 | 0.0760 | 0.3884 |
| 138 | 51.31 | -0.01 | 0.0235 | 0.0052 | 0.0052 | 0.2175 | 0.2176 | 0.8235 | 0.0625 | 0.3226 | 0.0759 | 0.3917 |

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 137 MACH 1.60 RNIE-6 1.7 PHI 0.0 CONF STRUT11 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.40 | 0.01 | 0.0297 | 0.0059 | 0.0090 | 0.1818 | 0.3030 | 0.8258 | 0.0619 | 0.3252 | 0.0749 | 0.3938 |
| 140 | 51.65 | -0.002 | 0.0285 | 0.0038 | -0.0063 | 0.4234 | -0.0353 | 0.8309 | 0.0599 | 0.3275 | 0.0721 | 0.3942 |
| 141 | 51.80 | 0.00 | 0.0238 | 0.0054 | 0.0078 | 0.2288 | 0.3305 | 0.8190 | 0.0615 | 0.3230 | 0.0748 | 0.3944 |
| 142 | 51.99 | -0.00 | -0.0053 | 0.0064 | -0.0086 | -0.0169 | 1.5094 | 0.7915 | 0.0617 | 0.3115 | 0.0775 | 0.3934 |
| 143 | 52.15 | -0.00 | -0.0053 | -0.0026 | -0.0070 | 0.1509 | 1.3206 | 0.7870 | 0.0622 | 0.3076 | 0.0790 | 0.3905 |
| 144 | 52.32 | -0.00 | 0.0027 | 0.0041 | -0.0022 | 0.4073 | -0.8148 | 0.7956 | 0.0610 | 0.3135 | 0.0767 | 0.3940 |
| 145 | 52.55 | 0.00 | -0.0025 | 0.0011 | -0.0007 | -0.0345 | 2.3103 | 0.7712 | 0.0615 | 0.3046 | 0.0757 | 0.3947 |
| 146 | 52.72 | -0.01 | -0.0030 | 0.0026 | -0.0061 | -0.1999 | 2.0333 | 0.7773 | 0.0614 | 0.3076 | 0.0750 | 0.3957 |
| 147 | 52.89 | -0.02 | 0.0052 | 0.0020 | -0.0028 | 0.1154 | -0.5000 | 0.8056 | 0.0605 | 0.3242 | 0.0767 | 0.4004 |
| 148 | 53.06 | -0.01 | -0.0078 | 0.0001 | -0.0087 | -0.0132 | 1.1447 | 0.7827 | 0.0619 | 0.3102 | 0.0751 | 0.3963 |
| 149 | 53.22 | -0.01 | -0.0075 | 0.0001 | -0.0103 | -0.0133 | 1.3733 | 0.7879 | 0.0625 | 0.3139 | 0.0753 | 0.3984 |
| 150 | 53.38 | -0.00 | -0.0021 | 0.0019 | -0.0060 | -0.0515 | 1.6355 | 0.7997 | 0.0611 | 0.3162 | 0.0773 | 0.3995 |
| 151 | 53.54 | -0.01 | -0.0077 | 0.0010 | -0.0092 | -0.1258 | 1.1946 | 0.7929 | 0.0618 | 0.3151 | 0.0774 | 0.3974 |
| 152 | 53.70 | 0.01 | 0.0028 | 0.0018 | -0.0019 | 0.4736 | -0.3947 | 0.8077 | 0.0606 | 0.3254 | 0.0750 | 0.4025 |
| 153 | 53.88 | -0.01 | -0.0052 | 0.0010 | -0.0065 | -0.1923 | 1.7115 | 0.8029 | 0.0623 | 0.3223 | 0.0776 | 0.4014 |
| 154 | 54.02 | -0.01 | -0.0122 | 0.0010 | -0.0110 | -0.0410 | 0.9672 | 0.7914 | 0.0614 | 0.3167 | 0.0776 | 0.4002 |
| 155 | 54.18 | -0.01 | -0.0025 | 0.0009 | -0.0071 | -0.2088 | 2.4403 | 0.8129 | 0.0605 | 0.3271 | 0.0744 | 0.4026 |
| 156 | 54.34 | -0.02 | -0.0076 | 0.0005 | -0.0092 | -0.0838 | 1.2105 | 0.8004 | 0.0605 | 0.3259 | 0.0748 | 0.4031 |
| 157 | 54.50 | -0.02 | -0.0165 | 0.0001 | -0.0135 | -0.0059 | 0.8225 | 0.7979 | 0.0606 | 0.3199 | 0.0782 | 0.4005 |
| 158 | 54.65 | -0.02 | -0.0124 | 0.0006 | -0.0102 | -0.0404 | 0.8226 | 0.8198 | 0.0602 | 0.3316 | 0.0734 | 0.4045 |
| 159 | 54.81 | -0.04 | -0.0017 | 0.0009 | -0.0069 | -0.5253 | 4.0568 | 0.8198 | 0.0605 | 0.3308 | 0.0738 | 0.4033 |
| 160 | 54.95 | -0.02 | -0.0210 | -0.0006 | -0.0156 | 0.0276 | 0.8944 | 0.8009 | 0.0604 | 0.3225 | 0.0749 | 0.3995 |
| 161 | 55.14 | -0.00 | -0.0124 | 0.0003 | -0.0102 | -0.0403 | 0.8226 | 0.8324 | 0.0600 | 0.3367 | 0.0721 | 0.4045 |
| 162 | 55.28 | -0.03 | -0.0169 | -0.0005 | -0.0134 | 0.0296 | 0.7929 | 0.8125 | 0.0600 | 0.3277 | 0.0738 | 0.4033 |
| 163 | 55.44 | -0.03 | -0.0154 | 0.0001 | -0.0125 | -0.0052 | 0.8443 | 0.8037 | 0.0605 | 0.3268 | 0.0753 | 0.3992 |
| 164 | 55.62 | -0.03 | -0.0054 | 0.0006 | -0.0083 | -0.1111 | 1.1007 | 0.8410 | 0.0595 | 0.3421 | 0.0707 | 0.4066 |
| 165 | 55.75 | -0.03 | -0.0207 | 0.0004 | -0.0121 | -0.0193 | 0.5845 | 0.7876 | 0.0599 | 0.3152 | 0.0760 | 0.4002 |
| 166 | 55.93 | -0.04 | -0.0218 | 0.0 | -0.0116 | 0.0 | 0.5277 | 0.8410 | 0.0593 | 0.3426 | 0.0705 | 0.4074 |
| 167 | 56.09 | -0.04 | -0.0207 | -0.0003 | -0.0122 | 0.0145 | 0.5894 | 0.8064 | 0.0588 | 0.3242 | 0.0729 | 0.4026 |
| 168 | 56.25 | -0.03 | -0.0206 | -0.0003 | -0.0117 | 0.0144 | 0.5625 | 0.8047 | 0.0593 | 0.3405 | 0.0702 | 0.4031 |
| 169 | 56.42 | -0.06 | -0.0279 | -0.0003 | -0.0145 | 0.0107 | 0.5197 | 0.8593 | 0.0592 | 0.3454 | 0.0642 | 0.4066 |
| 170 | 56.61 | -0.05 | -0.0222 | 0.0 | -0.0120 | 0.0 | 0.4805 | 0.8260 | 0.0581 | 0.3504 | 0.0635 | 0.4056 |
| 171 | 56.75 | -0.06 | -0.0294 | 0.0001 | -0.0120 | -0.0034 | 0.4082 | 0.8680 | 0.0556 | 0.3505 | 0.0640 | 0.4038 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 137 MACH 1.60 RNIO-E 1.7 PHI 0.0 CONF BIBUFII ℓ 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.01 | 0.0526 | 0.9999 | 0.0145 | 0.9999 | 0.2757 | -1.1381 | -0.0513 | -0.4802 | 0.0451 | 0.4219 |
| 2 | -5.73 | -0.02 | 0.0477 | 0.9999 | 0.0117 | 0.9999 | 0.2453 | -1.1493 | -0.0514 | -0.4837 | 0.0447 | 0.4206 |
| 3 | -5.73 | -0.01 | 0.0551 | 0.9999 | 0.0152 | 0.9999 | 0.2759 | -1.1785 | -0.0529 | -0.4980 | 0.0449 | 0.4226 |
| 4 | -5.73 | -0.02 | 0.0500 | 0.9999 | 0.0143 | 0.9999 | 0.2660 | -1.1506 | -0.0510 | -0.4858 | 0.0441 | 0.4206 |
| 5 | -5.86 | -0.01 | 0.0488 | 0.9999 | 0.0132 | 0.9999 | 0.2705 | -1.2006 | -0.0626 | -0.5116 | 0.0516 | 0.4263 |
| 6 | -4.54 | -0.02 | 0.0501 | 0.9999 | 0.0133 | 0.9999 | 0.2655 | -1.1576 | -0.0578 | -0.4583 | 0.0506 | 0.4305 |
| 7 | -2.77 | -0.02 | 0.0513 | 0.9999 | 0.0145 | 0.9999 | 0.2904 | -1.0250 | -0.0786 | -0.4371 | 0.0767 | 0.4264 |
| 8 | -0.99 | -0.01 | 0.0500 | 0.9999 | 0.0146 | 0.9999 | 0.2960 | -0.9696 | -0.0907 | -0.4130 | 0.0535 | 0.4259 |
| 9 | 0.79 | -0.01 | 0.0367 | 0.9999 | 0.0115 | 0.9999 | 0.3075 | -0.8431 | -0.0859 | -0.3454 | 0.1015 | 0.4057 |
| 10 | 2.66 | -0.01 | 0.0424 | 0.9999 | 0.0137 | 0.9999 | 0.3231 | -0.7246 | -0.0781 | -0.2667 | 0.1078 | 0.3657 |
| 11 | 4.37 | -0.02 | 0.0462 | 0.9999 | 0.0145 | 0.9999 | 0.3139 | -0.6010 | -0.0650 | -0.2251 | 0.1148 | 0.3812 |
| 12 | 6.19 | -0.01 | 0.0495 | 0.9999 | 0.0153 | 0.9999 | 0.3000 | -0.4803 | -0.0556 | -0.1722 | 0.1161 | 0.3585 |
| 13 | 8.03 | -0.01 | 0.0456 | 0.9999 | 0.0168 | 0.9999 | 0.3373 | -0.3599 | -0.0415 | -0.1079 | 0.1153 | 0.2998 |
| 14 | 9.80 | -0.02 | 0.0473 | 0.9999 | 0.0156 | 0.9999 | 0.3298 | -0.2654 | -0.0254 | -0.0666 | 0.1107 | 0.2506 |
| 15 | 11.67 | -0.02 | 0.0485 | 0.9999 | 0.0161 | 0.9999 | 0.3320 | -0.1657 | -0.0171 | -0.0302 | 0.1032 | 0.1823 |
| 16 | 13.46 | -0.02 | 0.0462 | 0.9999 | 0.0151 | 0.9999 | 0.2261 | -0.0880 | 0.0017 | 0.0006 | -0.0212 | -0.0075 |
| 17 | 15.37 | -0.02 | 0.0777 | 0.9999 | 0.0125 | 0.9999 | 0.1609 | -0.0107 | 0.0265 | 0.0306 | -2.5133 | -2.8558 |
| 18 | 17.30 | -0.03 | 0.0726 | 0.9999 | 0.0102 | 0.9999 | 0.1401 | 0.0782 | 0.0487 | 0.0693 | 0.6226 | 0.8862 |
| 19 | 19.18 | -0.03 | 0.0852 | 0.9999 | 0.0148 | 0.9999 | 0.1714 | 0.1770 | 0.0829 | 0.1116 | 0.3553 | 0.6305 |
| 20 | 21.10 | -0.02 | 0.0677 | 0.9999 | 0.0133 | 0.9999 | 0.1517 | 0.2527 | 0.0709 | 0.1373 | 0.3046 | 0.5900 |
| 21 | 23.05 | -0.04 | 0.0855 | 0.9999 | 0.0102 | 0.9999 | 0.1196 | 0.3396 | 0.0789 | 0.1661 | 0.2324 | 0.5483 |
| 22 | 25.00 | -0.02 | 0.0756 | 0.9999 | 0.0092 | 0.9999 | 0.1165 | 0.3930 | 0.0827 | 0.2165 | 0.2104 | 0.5506 |
| 23 | 27.01 | 0.03 | 0.0924 | 0.9999 | 0.0156 | 0.9999 | 0.2121 | 0.3745 | 0.0873 | 0.2136 | 0.2330 | 0.5704 |
| 24 | 28.10 | 0.05 | 0.1057 | 0.9999 | 0.0205 | 0.9999 | 0.2452 | 0.3851 | 0.0891 | 0.2234 | 0.2313 | 0.5801 |
| 25 | 28.08 | 0.05 | 0.1058 | 0.9999 | 0.0255 | 0.9999 | 0.2359 | 0.3628 | 0.0894 | 0.2156 | 0.2465 | 0.5948 |
| 26 | 28.09 | 0.04 | 0.1073 | 0.9999 | 0.0242 | 0.9999 | 0.2255 | 0.3695 | 0.0887 | 0.2212 | 0.2397 | 0.5986 |
| 27 | 28.05 | 0.06 | 0.1058 | 0.9999 | 0.0245 | 0.9999 | 0.2268 | 0.3866 | 0.0892 | 0.2298 | 0.2307 | 0.5944 |
| 28 | 28.08 | 0.05 | 0.1123 | 0.9999 | 0.0271 | 0.9999 | 0.2413 | 0.3768 | 0.0892 | 0.2265 | 0.2367 | 0.6011 |
| 29 | 28.42 | 0.06 | 0.1086 | 0.9999 | 0.0243 | 0.9999 | 0.2238 | 0.3711 | 0.0894 | 0.2251 | 0.2408 | 0.6066 |
| 30 | 28.68 | 0.07 | 0.1172 | 0.9999 | 0.0299 | 0.9999 | 0.2551 | 0.3621 | 0.0903 | 0.2312 | 0.2363 | 0.6051 |
| 31 | 29.02 | 0.07 | 0.1157 | 0.9999 | 0.0306 | 0.9999 | 0.2556 | 0.3984 | 0.0919 | 0.2469 | 0.2306 | 0.6047 |
| 32 | 29.34 | 0.06 | 0.1159 | 0.9999 | 0.0253 | 0.9999 | 0.2526 | 0.4097 | 0.0918 | 0.2465 | 0.2240 | 0.6026 |
| 33 | 29.62 | 0.06 | 0.1156 | 0.9999 | 0.0316 | 0.9999 | 0.2642 | 0.4232 | 0.0935 | 0.2543 | 0.2205 | 0.6009 |
| 34 | 29.89 | 0.07 | 0.1060 | 0.9999 | 0.0201 | 0.9999 | 0.2402 | 0.4234 | 0.0929 | 0.2558 | 0.2194 | 0.6042 |
| 35 | 30.16 | 0.08 | 0.1048 | 0.9999 | 0.0255 | 0.9999 | 0.2433 | 0.4185 | 0.0937 | 0.2546 | 0.2236 | 0.6078 |
| 36 | 30.45 | 0.06 | 0.1062 | 0.9999 | 0.0263 | 0.9999 | 0.2573 | 0.4536 | 0.0950 | 0.2697 | 0.2094 | 0.5946 |
| 37 | 30.72 | 0.07 | 0.1120 | 0.9999 | 0.0314 | 0.9999 | 0.2804 | 0.4367 | 0.0950 | 0.2638 | 0.2175 | 0.6041 |
| 38 | 31.01 | 0.07 | 0.1158 | 0.9999 | 0.0327 | 0.9999 | 0.2824 | 0.4495 | 0.0946 | 0.2715 | 0.2108 | 0.6040 |
| 39 | 31.29 | 0.07 | 0.1244 | 0.9999 | 0.0378 | 0.9999 | 0.3039 | 0.4630 | 0.0965 | 0.2789 | 0.2084 | 0.6024 |
| 40 | 31.56 | 0.06 | 0.1218 | 0.9999 | 0.0351 | 0.9999 | 0.3210 | 0.4770 | 0.0965 | 0.2852 | 0.2023 | 0.5979 |
| 41 | 31.83 | 0.06 | 0.1055 | 0.9999 | 0.0317 | 0.9999 | 0.2895 | 0.4809 | 0.0974 | 0.2881 | 0.2025 | 0.5951 |
| 42 | 32.12 | 0.04 | 0.1033 | 0.9999 | 0.0268 | 0.9999 | 0.2788 | 0.5133 | 0.0974 | 0.3040 | 0.1857 | 0.5922 |
| 43 | 32.35 | 0.05 | 0.1058 | 0.9999 | 0.0300 | 0.9999 | 0.2836 | 0.4767 | 0.0974 | 0.2868 | 0.2043 | 0.6018 |
| 44 | 32.61 | 0.03 | 0.0972 | 0.9999 | 0.0244 | 0.9999 | 0.2510 | 0.5326 | 0.0983 | 0.3134 | 0.1845 | 0.5884 |
| 45 | 32.88 | 0.04 | 0.0956 | 0.9999 | 0.0270 | 0.9999 | 0.2711 | 0.5284 | 0.0985 | 0.3126 | 0.1864 | 0.5916 |
| 46 | 33.15 | 0.01 | 0.0895 | 0.9999 | 0.0213 | 0.9999 | 0.2372 | 0.5523 | 0.0985 | 0.3242 | 0.1783 | 0.5870 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&7 MACH 1.60 REYIG=6 1.7 PHI 0.0 CONF 16CF16 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCANT | ALPHA | BETA | CNF2 | Cm3 | Co3 | XCPF3 | YCPF3 | CNF4 | Cm4 | Co4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.39 | 0.02 | 0.0656 | 5.9999 | 0.0223 | 5.9999 | 0.2403 | 0.5646 | 0.0995 | 0.3304 | 0.1762 | 0.5852 |
| 48 | 33.60 | 0.02 | 0.0594 | 5.9999 | 0.0237 | 5.9999 | 0.2503 | 0.5671 | 0.0956 | 0.3414 | 0.1696 | 0.5815 |
| 49 | 33.80 | 0.03 | 0.0564 | 5.9999 | 0.0274 | 5.9999 | 0.2785 | 0.5676 | 0.1020 | 0.3428 | 0.1735 | 0.5834 |
| 50 | 34.14 | 0.07 | 0.0556 | 5.9999 | 0.0261 | 5.9999 | 0.2811 | 0.5492 | 0.1031 | 0.3250 | 0.1677 | 0.5929 |
| 51 | 34.41 | 0.04 | 0.0565 | 5.9999 | 0.0225 | 5.9999 | 0.2519 | 0.5824 | 0.1028 | 0.3356 | 0.1765 | 0.5831 |
| 52 | 34.60 | 0.04 | 0.0553 | 5.9999 | 0.0285 | 5.9999 | 0.2884 | 0.5620 | 0.1039 | 0.3402 | 0.1765 | 0.5845 |
| 53 | 34.88 | 0.06 | 0.0546 | 5.9999 | 0.0256 | 5.9999 | 0.2706 | 0.5632 | 0.1045 | 0.3414 | 0.1751 | 0.5854 |
| 54 | 35.14 | 0.05 | 0.0570 | 5.9999 | 0.0263 | 5.9999 | 0.2821 | 0.5995 | 0.1041 | 0.3465 | 0.1748 | 0.5859 |
| 55 | 35.36 | 0.06 | 0.0557 | 5.9999 | 0.0253 | 5.9999 | 0.2621 | 0.6125 | 0.1043 | 0.3575 | 0.1703 | 0.5835 |
| 56 | 35.63 | 0.06 | 0.0621 | 5.9999 | 0.0314 | 5.9999 | 0.3056 | 0.6160 | 0.1059 | 0.3594 | 0.1713 | 0.5816 |
| 57 | 35.88 | 0.06 | 0.0546 | 5.9999 | 0.0288 | 5.9999 | 0.3023 | 0.6240 | 0.1050 | 0.3613 | 0.1682 | 0.5790 |
| 58 | 36.10 | 0.05 | 0.0562 | 5.9999 | 0.0276 | 5.9999 | 0.2928 | 0.6150 | 0.1044 | 0.3592 | 0.1704 | 0.5835 |
| 59 | 36.33 | 0.06 | 0.0552 | 5.9999 | 0.0310 | 5.9999 | 0.3112 | 0.6306 | 0.1062 | 0.3656 | 0.1684 | 0.5798 |
| 60 | 36.57 | 0.04 | 0.0562 | 5.9999 | 0.0275 | 5.9999 | 0.3026 | 0.6536 | 0.1045 | 0.3771 | 0.1605 | 0.5770 |
| 61 | 36.81 | 0.05 | 0.0556 | 5.9999 | 0.0257 | 5.9999 | 0.3100 | 0.6543 | 0.1058 | 0.3676 | 0.1668 | 0.5795 |
| 62 | 37.04 | 0.04 | 0.0557 | 5.9999 | 0.0283 | 5.9999 | 0.2821 | 0.6457 | 0.1053 | 0.3725 | 0.1630 | 0.5765 |
| 63 | 37.29 | 0.04 | 0.0511 | 5.9999 | 0.0265 | 5.9999 | 0.2953 | 0.6586 | 0.1056 | 0.3795 | 0.1603 | 0.5762 |
| 64 | 37.51 | 0.04 | 0.0536 | 5.9999 | 0.0236 | 5.9999 | 0.2847 | 0.6560 | 0.1055 | 0.3774 | 0.1601 | 0.5730 |
| 65 | 37.74 | 0.03 | 0.0565 | 5.9999 | 0.0268 | 5.9999 | 0.2726 | 0.6760 | 0.1062 | 0.3854 | 0.1571 | 0.5701 |
| 66 | 37.99 | 0.05 | 0.0559 | 5.9999 | 0.0273 | 5.9999 | 0.3037 | 0.6872 | 0.1066 | 0.3930 | 0.1551 | 0.5719 |
| 67 | 38.22 | 0.05 | 0.0555 | 5.9999 | 0.0267 | 5.9999 | 0.3017 | 0.6805 | 0.1071 | 0.3886 | 0.1573 | 0.5711 |
| 68 | 38.45 | 0.04 | 0.0555 | 5.9999 | 0.0272 | 5.9999 | 0.3073 | 0.6865 | 0.1064 | 0.3921 | 0.1549 | 0.5712 |
| 69 | 38.67 | 0.03 | 0.0548 | 5.9999 | 0.0284 | 5.9999 | 0.3113 | 0.6980 | 0.1057 | 0.3985 | 0.1514 | 0.5681 |
| 70 | 38.89 | 0.04 | 0.0553 | 5.9999 | 0.0258 | 5.9999 | 0.2978 | 0.6980 | 0.1056 | 0.3970 | 0.1515 | 0.5688 |
| 71 | 39.11 | 0.05 | 0.0558 | 5.9999 | 0.0293 | 5.9999 | 0.3283 | 0.7155 | 0.1069 | 0.4057 | 0.1494 | 0.5670 |
| 72 | 39.32 | 0.03 | 0.0551 | 5.9999 | 0.0231 | 5.9999 | 0.2884 | 0.7031 | 0.1044 | 0.3970 | 0.1484 | 0.5646 |
| 73 | 39.54 | 0.04 | 0.0575 | 5.9999 | 0.0272 | 5.9999 | 0.3109 | 0.7182 | 0.1057 | 0.4061 | 0.1471 | 0.5654 |
| 74 | 39.74 | 0.02 | 0.0513 | 5.9999 | 0.0295 | 5.9999 | 0.3275 | 0.7044 | 0.1033 | 0.3994 | 0.1466 | 0.5670 |
| 75 | 39.96 | 0.04 | 0.0501 | 5.9999 | 0.0294 | 5.9999 | 0.3283 | 0.7251 | 0.1038 | 0.4083 | 0.1431 | 0.5631 |
| 76 | 40.17 | 0.02 | 0.0727 | 5.9999 | 0.0211 | 5.9999 | 0.2902 | 0.7059 | 0.1023 | 0.4010 | 0.1445 | 0.5681 |
| 77 | 40.35 | 0.03 | 0.0552 | 5.9999 | 0.0270 | 5.9999 | 0.3169 | 0.7162 | 0.1010 | 0.4042 | 0.1410 | 0.5644 |
| 78 | 40.56 | 0.04 | 0.0602 | 5.9999 | 0.0237 | 5.9999 | 0.2955 | 0.7289 | 0.1012 | 0.4109 | 0.1388 | 0.5637 |
| 79 | 40.80 | 0.03 | 0.0540 | 5.9999 | 0.0254 | 5.9999 | 0.3024 | 0.7326 | 0.0988 | 0.4115 | 0.1348 | 0.5622 |
| 80 | 40.98 | 0.03 | 0.0534 | 5.9999 | 0.0270 | 5.9999 | 0.3169 | 0.7201 | 0.0975 | 0.4052 | 0.1342 | 0.5636 |
| 81 | 41.20 | 0.03 | 0.0726 | 5.9999 | 0.0206 | 5.9999 | 0.2330 | 0.7275 | 0.0974 | 0.4093 | 0.1338 | 0.5626 |
| 82 | 41.38 | 0.03 | 0.0516 | 5.9999 | 0.0281 | 5.9999 | 0.3278 | 0.7271 | 0.0948 | 0.4100 | 0.1303 | 0.5639 |
| 83 | 41.57 | 0.03 | 0.0528 | 5.9999 | 0.0255 | 5.9999 | 0.3126 | 0.7585 | 0.0965 | 0.4239 | 0.1272 | 0.5585 |
| 84 | 41.77 | 0.03 | 0.0555 | 5.9999 | 0.0271 | 5.9999 | 0.3170 | 0.7423 | 0.0886 | 0.4081 | 0.1226 | 0.5650 |
| 85 | 41.98 | 0.03 | 0.0506 | 5.9999 | 0.0253 | 5.9999 | 0.3139 | 0.7245 | 0.0847 | 0.4077 | 0.1169 | 0.5627 |
| 86 | 42.18 | 0.04 | 0.0524 | 5.9999 | 0.0272 | 5.9999 | 0.3176 | 0.7521 | 0.0870 | 0.4260 | 0.1156 | 0.5584 |
| 87 | 42.37 | 0.02 | 0.0517 | 5.9999 | 0.0301 | 5.9999 | 0.3282 | 0.7196 | 0.0836 | 0.4058 | 0.1161 | 0.5638 |
| 88 | 42.54 | 0.03 | 0.0503 | 5.9999 | 0.0267 | 5.9999 | 0.3325 | 0.7504 | 0.0860 | 0.4225 | 0.1137 | 0.5586 |
| 89 | 42.73 | 0.03 | 0.0505 | 5.9999 | 0.0335 | 5.9999 | 0.3513 | 0.7360 | 0.0816 | 0.4119 | 0.1111 | 0.5612 |
| 90 | 42.91 | 0.04 | 0.0752 | 5.9999 | 0.0241 | 5.9999 | 0.3343 | 0.7377 | 0.0825 | 0.4124 | 0.1123 | 0.5590 |
| 91 | 43.09 | 0.04 | 0.0654 | 5.9999 | 0.0271 | 5.9999 | 0.3173 | 0.7470 | 0.0808 | 0.4165 | 0.1081 | 0.5576 |
| 92 | 43.28 | 0.02 | 0.0616 | 5.9999 | 0.0287 | 5.9999 | 0.3314 | 0.7265 | 0.0825 | 0.4083 | 0.1135 | 0.5620 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 137 | MACH 1.60 | RX1C-6 1.7 | PHI 0.0 | CONF 61NOF11 | G.G | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.46 | 0.02 | 0.0003 | 9.9999 | 0.0267 | 9.9999 | 0.3325 | 0.7387 | 0.0802 | 0.4116 | 0.1085 | 0.5572 |
| 94 | 43.65 | 0.02 | 0.0005 | 9.9999 | 0.0267 | 9.9999 | 0.3434 | 0.7412 | 0.0812 | 0.4139 | 0.1055 | 0.5578 |
| 95 | 43.80 | 0.01 | 0.0729 | 9.9999 | 0.0211 | 9.9999 | 0.2694 | 0.7595 | 0.0818 | 0.4217 | 0.1074 | 0.5552 |
| 96 | 44.01 | 0.01 | 0.0753 | 9.9999 | 0.0433 | 9.9999 | 0.3044 | 0.7569 | 0.0809 | 0.4212 | 0.1066 | 0.5550 |
| 97 | 44.17 | 0.00 | 0.0727 | 9.9999 | 0.0211 | 9.9999 | 0.2902 | 0.7358 | 0.0805 | 0.4107 | 0.1094 | 0.5582 |
| 98 | 44.35 | 0.01 | 0.0855 | 9.9999 | 0.0318 | 9.9999 | 0.3537 | 0.0901 | 0.0830 | 0.3913 | 0.1158 | 0.5624 |
| 99 | 44.55 | -0.00 | 0.0837 | 9.9999 | 0.0285 | 9.9999 | 0.3453 | 0.7471 | 0.0835 | 0.4146 | 0.1077 | 0.5545 |
| 100 | 44.75 | 0.01 | 0.0865 | 9.9999 | 0.0181 | 9.9999 | 0.2722 | 0.7505 | 0.0815 | 0.4159 | 0.1083 | 0.5542 |
| 101 | 44.93 | 0.00 | 0.0726 | 9.9999 | 0.0230 | 9.9999 | 0.3168 | 0.7171 | 0.0811 | 0.3954 | 0.1131 | 0.5576 |
| 102 | 45.10 | -0.00 | 0.0863 | 9.9999 | 0.0191 | 9.9999 | 0.2881 | 0.7454 | 0.0819 | 0.4141 | 0.1098 | 0.5529 |
| 103 | 45.28 | 0.00 | 0.0786 | 9.9999 | 0.0264 | 9.9999 | 0.3359 | 0.7334 | 0.0815 | 0.4056 | 0.1111 | 0.5536 |
| 104 | 45.47 | 0.01 | 0.0848 | 9.9999 | 0.0195 | 9.9999 | 0.3071 | 0.7409 | 0.0812 | 0.4098 | 0.1096 | 0.5531 |
| 105 | 45.65 | 0.01 | 0.0858 | 9.9999 | 0.0218 | 9.9999 | 0.3123 | 0.7492 | 0.0815 | 0.4125 | 0.1088 | 0.5506 |
| 106 | 45.82 | 0.02 | 0.0722 | 9.9999 | 0.0215 | 9.9999 | 0.3033 | 0.7343 | 0.0808 | 0.4062 | 0.1100 | 0.5532 |
| 107 | 46.00 | 0.01 | 0.0748 | 9.9999 | 0.0241 | 9.9999 | 0.3251 | 0.7389 | 0.0813 | 0.4067 | 0.1100 | 0.5504 |
| 108 | 46.18 | 0.01 | 0.0765 | 9.9999 | 0.0213 | 9.9999 | 0.3004 | 0.7152 | 0.0839 | 0.3975 | 0.1172 | 0.5556 |
| 109 | 46.35 | 0.01 | 0.0753 | 9.9999 | 0.0264 | 9.9999 | 0.3329 | 0.7347 | 0.0838 | 0.4053 | 0.1140 | 0.5517 |
| 110 | 46.51 | -0.00 | 0.0865 | 9.9999 | 0.0212 | 9.9999 | 0.3050 | 0.7403 | 0.0837 | 0.4078 | 0.1130 | 0.5505 |
| 111 | 46.69 | 0.01 | 0.0844 | 9.9999 | 0.0188 | 9.9999 | 0.2919 | 0.7334 | 0.0833 | 0.4153 | 0.1138 | 0.5478 |
| 112 | 46.86 | 0.01 | 0.0832 | 9.9999 | 0.0182 | 9.9999 | 0.2880 | 0.7600 | 0.0819 | 0.4262 | 0.1041 | 0.5418 |
| 113 | 47.04 | 0.01 | 0.0885 | 9.9999 | 0.0190 | 9.9999 | 0.2849 | 0.7658 | 0.0766 | 0.4250 | 0.0975 | 0.5408 |
| 114 | 47.22 | 0.01 | 0.0855 | 9.9999 | 0.0196 | 9.9999 | 0.2961 | 0.7706 | 0.0732 | 0.4173 | 0.0950 | 0.5415 |
| 115 | 47.39 | 0.03 | 0.0717 | 9.9999 | 0.0223 | 9.9999 | 0.3110 | 0.7511 | 0.0692 | 0.4076 | 0.0921 | 0.5427 |
| 116 | 47.56 | 0.03 | 0.0815 | 9.9999 | 0.0275 | 9.9999 | 0.3452 | 0.0003 | 0.0685 | 0.3663 | 0.1029 | 0.5506 |
| 117 | 47.75 | 0.02 | 0.0715 | 9.9999 | 0.0237 | 9.9999 | 0.3315 | 0.6794 | 0.0682 | 0.3715 | 0.1004 | 0.5474 |
| 118 | 47.91 | 0.04 | 0.0785 | 9.9999 | 0.0262 | 9.9999 | 0.3521 | 0.0200 | 0.0685 | 0.3434 | 0.1103 | 0.5533 |
| 119 | 48.10 | 0.04 | 0.0753 | 9.9999 | 0.0280 | 9.9999 | 0.3453 | 0.6278 | 0.0697 | 0.3439 | 0.1110 | 0.5510 |
| 120 | 48.27 | 0.04 | 0.0835 | 9.9999 | 0.0280 | 9.9999 | 0.3609 | 0.0180 | 0.0697 | 0.3395 | 0.1128 | 0.5494 |
| 121 | 48.44 | 0.04 | 0.0753 | 9.9999 | 0.0245 | 9.9999 | 0.3254 | 0.6234 | 0.0701 | 0.3415 | 0.1124 | 0.5478 |
| 122 | 48.64 | 0.04 | 0.0765 | 9.9999 | 0.0270 | 9.9999 | 0.3529 | 0.6595 | 0.0706 | 0.3561 | 0.1070 | 0.5460 |
| 123 | 48.78 | 0.03 | 0.0746 | 9.9999 | 0.0255 | 9.9999 | 0.3500 | 0.6388 | 0.0700 | 0.3478 | 0.1096 | 0.5445 |
| 124 | 48.96 | 0.04 | 0.0750 | 9.9999 | 0.0272 | 9.9999 | 0.3443 | 0.0514 | 0.0697 | 0.3518 | 0.1070 | 0.5401 |
| 125 | 49.14 | 0.06 | 0.0835 | 9.9999 | 0.0298 | 9.9999 | 0.3528 | 0.6795 | 0.0707 | 0.3637 | 0.1041 | 0.5356 |
| 126 | 49.31 | 0.04 | 0.0838 | 9.9999 | 0.0315 | 9.9999 | 0.3759 | 0.0052 | 0.0703 | 0.3564 | 0.1051 | 0.5358 |
| 127 | 49.48 | 0.04 | 0.0777 | 9.9999 | 0.0276 | 9.9999 | 0.3552 | 0.6663 | 0.0708 | 0.3556 | 0.1062 | 0.5337 |
| 128 | 49.66 | 0.03 | 0.0785 | 9.9999 | 0.0292 | 9.9999 | 0.3701 | 0.0751 | 0.0712 | 0.3577 | 0.1058 | 0.5314 |
| 129 | 49.83 | 0.01 | 0.0852 | 9.9999 | 0.0290 | 9.9999 | 0.3668 | 0.0782 | 0.0747 | 0.3613 | 0.1101 | 0.5327 |
| 130 | 50.01 | 0.02 | 0.0852 | 9.9999 | 0.0245 | 9.9999 | 0.3540 | 0.0640 | 0.0725 | 0.3623 | 0.1066 | 0.5297 |
| 131 | 50.13 | 0.01 | 0.0868 | 9.9999 | 0.0224 | 9.9999 | 0.3353 | 0.6901 | 0.0747 | 0.3641 | 0.1082 | 0.5276 |
| 132 | 50.35 | 0.01 | 0.0705 | 9.9999 | 0.0242 | 9.9999 | 0.3433 | 0.0995 | 0.0721 | 0.3681 | 0.1030 | 0.5262 |
| 133 | 50.53 | 0.02 | 0.0860 | 9.9999 | 0.0230 | 9.9999 | 0.3382 | 0.0953 | 0.0721 | 0.3657 | 0.1037 | 0.5260 |
| 134 | 50.68 | 0.01 | 0.0869 | 9.9999 | 0.0224 | 9.9999 | 0.3346 | 0.7392 | 0.0749 | 0.3844 | 0.0986 | 0.5200 |
| 135 | 50.82 | 0.00 | 0.0855 | 9.9999 | 0.0241 | 9.9999 | 0.3488 | 0.7411 | 0.0724 | 0.3857 | 0.0977 | 0.5204 |
| 136 | 50.96 | 0.00 | 0.0758 | 9.9999 | 0.0276 | 9.9999 | 0.3641 | 0.7150 | 0.0720 | 0.3741 | 0.1007 | 0.5232 |
| 137 | 51.16 | 0.01 | 0.0705 | 9.9999 | 0.0233 | 9.9999 | 0.3286 | 0.7223 | 0.0710 | 0.3756 | 0.0983 | 0.5200 |
| 138 | 51.31 | -0.01 | 0.0672 | 9.9999 | 0.0225 | 9.9999 | 0.3348 | 0.7361 | 0.0705 | 0.3835 | 0.0955 | 0.5196 |

TEST 7 PART 137 MACH 1.60 RXIE-6 1.7 PHI 0.0 CONF 11 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.46 | 0.01 | 0.0072 | 0.0000 | 0.0245 | 0.0000 | 0.3646 | 0.7375 | 0.0703 | 0.3617 | 0.0953 | 0.5178 |
| 140 | 51.05 | -0.02 | 0.0555 | 0.0000 | 0.0196 | 0.0000 | 0.3172 | 0.7211 | 0.0675 | 0.3737 | 0.0936 | 0.5182 |
| 141 | 51.60 | 0.00 | 0.0665 | 0.0000 | 0.0231 | 0.0000 | 0.3372 | 0.7196 | 0.0691 | 0.3724 | 0.0980 | 0.5175 |
| 142 | 51.59 | -0.00 | 0.0574 | 0.0000 | 0.0195 | 0.0000 | 0.2770 | 0.6909 | 0.0668 | 0.3591 | 0.0967 | 0.5158 |
| 143 | 52.15 | -0.00 | 0.0623 | 0.0000 | 0.0192 | 0.0000 | 0.3382 | 0.6828 | 0.0675 | 0.3546 | 0.0988 | 0.5193 |
| 144 | 52.32 | -0.00 | 0.0672 | 0.0000 | 0.0215 | 0.0000 | 0.3179 | 0.6837 | 0.0687 | 0.3547 | 0.0975 | 0.5188 |
| 145 | 52.55 | 0.00 | 0.0706 | 0.0000 | 0.0243 | 0.0000 | 0.3432 | 0.6821 | 0.0671 | 0.3552 | 0.0983 | 0.5207 |
| 146 | 52.72 | -0.01 | 0.0693 | 0.0000 | 0.0217 | 0.0000 | 0.3122 | 0.6724 | 0.0656 | 0.3464 | 0.0978 | 0.5181 |
| 147 | 52.89 | -0.02 | 0.0633 | 0.0000 | 0.0197 | 0.0000 | 0.3112 | 0.6868 | 0.0671 | 0.3570 | 0.0974 | 0.5183 |
| 148 | 53.06 | -0.01 | 0.0715 | 0.0000 | 0.0243 | 0.0000 | 0.3300 | 0.6932 | 0.0663 | 0.3567 | 0.0956 | 0.5146 |
| 149 | 53.22 | -0.01 | 0.0664 | 0.0000 | 0.0226 | 0.0000 | 0.3256 | 0.6873 | 0.0671 | 0.3543 | 0.0976 | 0.5155 |
| 150 | 53.38 | -0.00 | 0.0716 | 0.0000 | 0.0256 | 0.0000 | 0.3093 | 0.6917 | 0.0665 | 0.3540 | 0.0961 | 0.5118 |
| 151 | 53.54 | -0.01 | 0.0646 | 0.0000 | 0.0206 | 0.0000 | 0.3220 | 0.7051 | 0.0667 | 0.3611 | 0.0946 | 0.5121 |
| 152 | 53.70 | 0.01 | 0.0767 | 0.0000 | 0.0252 | 0.0000 | 0.3004 | 0.6962 | 0.0662 | 0.3509 | 0.0948 | 0.5112 |
| 153 | 53.86 | -0.01 | 0.0632 | 0.0000 | 0.0197 | 0.0000 | 0.3117 | 0.7032 | 0.0667 | 0.3586 | 0.0948 | 0.5106 |
| 154 | 54.02 | -0.01 | 0.0666 | 0.0000 | 0.0246 | 0.0000 | 0.3025 | 0.7097 | 0.0662 | 0.3613 | 0.0933 | 0.5051 |
| 155 | 54.18 | -0.01 | 0.0644 | 0.0000 | 0.0193 | 0.0000 | 0.2997 | 0.7096 | 0.0662 | 0.3598 | 0.0933 | 0.5076 |
| 156 | 54.34 | -0.02 | 0.0665 | 0.0000 | 0.0219 | 0.0000 | 0.3274 | 0.7150 | 0.0651 | 0.3624 | 0.0910 | 0.5065 |
| 157 | 54.50 | -0.02 | 0.0643 | 0.0000 | 0.0212 | 0.0000 | 0.3297 | 0.7194 | 0.0656 | 0.3639 | 0.0912 | 0.5058 |
| 158 | 54.65 | -0.02 | 0.0630 | 0.0000 | 0.0206 | 0.0000 | 0.3270 | 0.7230 | 0.0650 | 0.3653 | 0.0899 | 0.5053 |
| 159 | 54.81 | -0.04 | 0.0654 | 0.0000 | 0.0223 | 0.0000 | 0.3410 | 0.7144 | 0.0655 | 0.3606 | 0.0917 | 0.5048 |
| 160 | 54.95 | -0.02 | 0.0675 | 0.0000 | 0.0234 | 0.0000 | 0.3424 | 0.7221 | 0.0639 | 0.3625 | 0.0875 | 0.5020 |
| 161 | 55.14 | -0.00 | 0.0641 | 0.0000 | 0.0217 | 0.0000 | 0.3365 | 0.7303 | 0.0646 | 0.3690 | 0.0877 | 0.5012 |
| 162 | 55.26 | -0.03 | 0.0766 | 0.0000 | 0.0281 | 0.0000 | 0.3500 | 0.7218 | 0.0632 | 0.3642 | 0.0875 | 0.5018 |
| 163 | 55.44 | -0.03 | 0.0726 | 0.0000 | 0.0200 | 0.0000 | 0.3185 | 0.7153 | 0.0635 | 0.3584 | 0.0888 | 0.5016 |
| 164 | 55.62 | -0.05 | 0.0668 | 0.0000 | 0.0244 | 0.0000 | 0.3547 | 0.7302 | 0.0647 | 0.3653 | 0.0886 | 0.5063 |
| 165 | 55.75 | -0.03 | 0.0622 | 0.0000 | 0.0205 | 0.0000 | 0.3264 | 0.7052 | 0.0606 | 0.3537 | 0.0862 | 0.5016 |
| 166 | 55.93 | -0.04 | 0.0640 | 0.0000 | 0.0210 | 0.0000 | 0.3375 | 0.7505 | 0.0625 | 0.3737 | 0.0833 | 0.4979 |
| 167 | 56.09 | -0.04 | 0.0618 | 0.0000 | 0.0196 | 0.0000 | 0.3064 | 0.7260 | 0.0609 | 0.3625 | 0.0839 | 0.4993 |
| 168 | 56.25 | -0.03 | 0.0750 | 0.0000 | 0.0274 | 0.0000 | 0.3053 | 0.7528 | 0.0622 | 0.3742 | 0.0826 | 0.4971 |
| 169 | 56.42 | -0.06 | 0.0556 | 0.0000 | 0.0171 | 0.0000 | 0.3076 | 0.7657 | 0.0597 | 0.3798 | 0.0775 | 0.4966 |
| 170 | 56.61 | -0.05 | 0.0593 | 0.0000 | 0.0179 | 0.0000 | 0.3019 | 0.7900 | 0.0584 | 0.3913 | 0.0739 | 0.4953 |
| 171 | 56.75 | -0.06 | 0.0615 | 0.0000 | 0.0195 | 0.0000 | 0.3236 | 0.7813 | 0.0576 | 0.3872 | 0.0737 | 0.4956 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 136 | MACH 1.10 | RXIC-6 1.7 | PHI 0.0 | CONF BIBOF11 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.73 | 0.00 | -2.1826 | 7.9333 | 0.0454 | -0.1025 | 0.0026 | 1.0674 | 0.2933 | 0.7742 | -3.6281 |
| 2 | -5.74 | -0.02 | -2.1848 | 7.9271 | -0.0642 | -0.0147 | 0.0024 | 1.0697 | 0.2903 | 0.7793 | -3.6282 |
| 3 | -5.74 | -0.01 | -2.2052 | 7.9888 | -0.0075 | -0.0454 | 0.0025 | 1.0724 | 0.2918 | 0.7806 | -3.6136 |
| 4 | -5.73 | -0.01 | -2.1721 | 7.8968 | 0.0666 | -0.1310 | 0.0027 | 1.0680 | 0.2902 | 0.7778 | -3.6355 |
| 5 | -5.73 | -0.01 | -2.1522 | 7.9263 | 0.0228 | -0.0996 | 0.0025 | 1.0654 | 0.2903 | 0.7751 | -3.6139 |
| 6 | -5.74 | -0.00 | -2.1810 | 7.9291 | 0.1335 | -0.1484 | 0.0061 | 1.0680 | 0.2867 | 0.7798 | -3.6355 |
| 7 | -5.74 | -0.02 | -2.2101 | 8.0166 | 0.0038 | -0.0448 | 0.0079 | 1.0821 | 0.2942 | 0.7879 | -3.6272 |
| 8 | -5.65 | -0.00 | -2.0890 | 7.7416 | 0.1466 | -0.2105 | 0.0063 | 1.0578 | 0.2875 | 0.7703 | -3.7056 |
| 9 | -3.88 | -0.01 | -1.8835 | 7.4325 | 0.1055 | -0.1625 | 0.0034 | 1.0294 | 0.2752 | 0.7542 | -3.9453 |
| 10 | -2.14 | -0.02 | -1.6946 | 6.8815 | 0.0551 | -0.1212 | 0.0037 | 0.9910 | 0.2706 | 0.7144 | -4.1555 |
| 11 | -0.34 | -0.02 | -1.3240 | 6.0528 | -0.0213 | -0.0777 | 0.0060 | 0.9447 | 0.2797 | 0.6649 | -4.5715 |
| 12 | 1.46 | -0.01 | -1.0465 | 5.3568 | 0.0330 | -0.1020 | 0.0098 | 0.9035 | 0.2849 | 0.6185 | -5.1405 |
| 13 | 3.37 | -0.01 | -0.7375 | 4.6413 | 0.0355 | -0.0674 | 0.0102 | 0.8517 | 0.2925 | 0.5593 | -8.2935 |
| 14 | 5.12 | -0.01 | -0.4656 | 3.9758 | 0.0056 | -0.0114 | 0.0100 | 0.8227 | 0.2976 | 0.5258 | -8.6269 |
| 15 | 6.96 | -0.01 | -0.1538 | 3.2610 | -0.0382 | 0.0107 | 0.0110 | 0.7857 | 0.3134 | 0.4553 | -21.2055 |
| 16 | 8.78 | -0.01 | 0.1428 | 2.5541 | -0.0148 | 0.0255 | 0.0061 | 0.7202 | 0.3210 | 0.4052 | 18.1656 |
| 17 | 10.66 | -0.02 | 0.4944 | 1.8643 | -0.1002 | 0.1055 | 0.0120 | 0.6617 | 0.3306 | 0.3517 | 3.8117 |
| 18 | 12.52 | -0.00 | 0.8491 | 1.2014 | 0.0502 | 0.0305 | 0.0075 | 0.6449 | 0.3390 | 0.3060 | 1.4855 |
| 19 | 14.42 | 0.00 | 1.2211 | 0.7304 | 0.0534 | 0.0466 | 0.0084 | 0.6072 | 0.3475 | 0.2593 | 0.5981 |
| 20 | 16.37 | -0.04 | 1.5247 | 0.3356 | -0.0594 | 0.2420 | 0.0089 | 0.5701 | 0.3556 | 0.2143 | 0.2216 |
| 21 | 18.32 | -0.02 | 1.9245 | -0.1436 | -0.1345 | 0.3561 | 0.0043 | 0.5243 | 0.3589 | 0.1654 | -0.0746 |
| 22 | 20.27 | -0.01 | 2.4224 | -0.4375 | -0.1135 | 0.5170 | -0.0105 | 0.4756 | 0.3552 | 0.1248 | -0.1806 |
| 23 | 22.28 | -0.01 | 2.9863 | -0.6665 | -0.1070 | 0.4161 | -0.0291 | 0.4260 | 0.3461 | 0.0799 | -0.2233 |
| 24 | 24.28 | -0.01 | 3.6436 | -0.9543 | -0.0984 | 0.3611 | -0.0265 | 0.3805 | 0.3495 | 0.0310 | -0.2619 |
| 25 | 26.31 | -0.00 | 4.4458 | -1.2672 | 0.0235 | 0.1333 | -0.0317 | 0.3474 | 0.3554 | -0.0080 | -0.2850 |
| 26 | 28.17 | 0.03 | 4.9e35 | -1.4553 | 0.3548 | -0.8330 | 0.0814 | 0.3163 | 0.3586 | -0.0403 | -0.2920 |
| 27 | 28.17 | 0.03 | 4.9701 | -1.3461 | 0.3756 | -0.8456 | 0.0853 | 0.3155 | 0.3587 | -0.0432 | -0.2805 |
| 28 | 28.18 | 0.04 | 5.0420 | -1.5053 | 0.4204 | -0.8639 | 0.0922 | 0.3228 | 0.3627 | -0.0399 | -0.2986 |
| 29 | 28.43 | 0.02 | 5.1681 | -1.4646 | 0.2168 | -0.3462 | 0.0707 | 0.3159 | 0.3591 | -0.0432 | -0.2836 |
| 30 | 28.73 | 0.03 | 5.2730 | -1.5716 | 0.3272 | -0.5025 | 0.0714 | 0.3046 | 0.3604 | -0.0558 | -0.2979 |
| 31 | 29.08 | 0.02 | 5.3665 | -1.5801 | 0.1698 | -0.2395 | 0.0607 | 0.2933 | 0.3604 | -0.0671 | -0.2910 |
| 32 | 29.38 | 0.03 | 5.4320 | -1.6401 | 0.2092 | -0.2962 | 0.0557 | 0.2795 | 0.3631 | -0.0835 | -0.3019 |
| 33 | 29.66 | 0.03 | 5.5465 | -1.6828 | 0.3e39 | -0.7169 | 0.0778 | 0.2924 | 0.3653 | -0.0729 | -0.3034 |
| 34 | 29.90 | 0.03 | 5.6461 | -1.7443 | 0.3e72 | -0.8302 | 0.0807 | 0.2851 | 0.3640 | -0.0786 | -0.3093 |
| 35 | 30.25 | 0.04 | 5.7173 | -1.7258 | 0.4050 | -0.6850 | 0.0704 | 0.2815 | 0.3644 | -0.0828 | -0.3019 |
| 36 | 30.53 | 0.03 | 5.8477 | -1.8796 | 0.2763 | -0.4066 | 0.0576 | 0.2556 | 0.3675 | -0.1119 | -0.3327 |
| 37 | 30.80 | 0.04 | 6.0676 | -2.0737 | 0.4200 | -0.5469 | 0.0949 | 0.2448 | 0.3677 | -0.1229 | -0.3418 |
| 38 | 31.07 | 0.05 | 6.0966 | -2.1071 | 0.3316 | -0.6170 | 0.0847 | 0.2502 | 0.3685 | -0.1183 | -0.3456 |
| 39 | 31.36 | 0.03 | 6.3008 | -2.3427 | 0.2525 | -0.1785 | 0.0791 | 0.2349 | 0.3672 | -0.1323 | -0.3718 |
| 40 | 31.64 | 0.02 | 6.5049 | -2.4287 | 0.0765 | 0.5140 | 0.0299 | 0.2209 | 0.3672 | -0.1363 | -0.3491 |
| 41 | 31.91 | 0.03 | 6.5252 | -2.5031 | 0.2265 | -0.0320 | 0.0793 | 0.2158 | 0.3669 | -0.1511 | -0.3836 |
| 42 | 32.19 | 0.00 | 6.6966 | -2.5e46 | -0.0055 | 0.5734 | 0.0044 | 0.2195 | 0.3678 | -0.1483 | -0.3609 |
| 43 | 32.45 | 0.00 | 6.7068 | -2.5161 | -0.0094 | 0.7067 | 0.0356 | 0.2197 | 0.3680 | -0.1573 | -0.3752 |
| 44 | 32.71 | 0.00 | 6.8414 | -2.6454 | -0.1254 | 1.0030 | 0.0401 | 0.2101 | 0.3686 | -0.1585 | -0.3721 |
| 45 | 32.97 | -0.01 | 6.8702 | -2.5361 | -0.0676 | 0.5366 | 0.0370 | 0.2071 | 0.3703 | -0.1632 | -0.3694 |
| 46 | 33.24 | 0.00 | 7.0510 | -2.6433 | -0.0708 | 0.7790 | 0.0366 | 0.2004 | 0.3772 | -0.1768 | -0.3745 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1&8 | MACH 1.10 | RN/FT 1.7 | PHI 0.0 | CONF 81&0F11 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.50 | 0.01 | 7.2351 | -2.6456 | -C.0690 | 0.9294 | 0.0305 | 0.1881 | 0.3782 | -0.1901 | -0.3931 |
| 48 | 33.75 | C.00 | 7.2563 | -2.6656 | -0.0682 | 0.7417 | 0.0426 | 0.1998 | 0.3819 | -0.1823 | -0.3955 |
| 49 | 33.99 | -0.00 | 7.4265 | -3.0004 | -C.1055 | C.9836 | 0.0161 | 0.1703 | 0.3632 | -0.2129 | -0.4040 |
| 50 | 34.23 | 0.00 | 7.4341 | -3.0361 | 0.0076 | 0.4818 | 0.0058 | 0.1931 | 0.3886 | -0.1915 | -0.4114 |
| 51 | 34.51 | -0.01 | 7.3522 | -3.2056 | -0.0054 | 0.5467 | 0.0912 | 0.1837 | 0.3903 | -0.2066 | -0.4222 |
| 52 | 34.75 | 0.00 | 7.7091 | -3.3303 | -0.0316 | 0.8179 | 0.0596 | 0.1714 | 0.3930 | -0.2216 | -0.4356 |
| 53 | 34.98 | -0.00 | 7.8230 | -3.4220 | 0.0041 | 0.4386 | 0.0370 | 0.1794 | 0.3930 | -0.2136 | -0.4374 |
| 54 | 35.23 | -0.01 | 7.9461 | -3.4912 | -0.0094 | 0.5813 | 0.1081 | 0.1884 | 0.4017 | -0.2333 | -0.4331 |
| 55 | 35.49 | -0.00 | 8.0112 | -3.4124 | 0.0053 | 0.3400 | 0.0329 | 0.1657 | 0.3946 | -0.2289 | -0.4260 |
| 56 | 35.72 | -0.00 | 8.1035 | -3.6573 | 0.0731 | 0.4580 | 0.0028 | 0.1470 | 0.3981 | -0.2511 | -0.4480 |
| 57 | 35.98 | 0.01 | 8.2953 | -3.7133 | 0.0551 | 0.4557 | 0.0832 | 0.1361 | 0.3978 | -0.2617 | -0.4474 |
| 58 | 36.20 | 0.01 | 8.3155 | -3.7240 | 0.1870 | 0.3121 | 0.1047 | 0.1586 | 0.3971 | -0.2385 | -0.4482 |
| 59 | 36.44 | -0.01 | 8.4936 | -3.7713 | -0.0166 | 0.3547 | 0.0740 | 0.1462 | 0.3931 | -0.2469 | -0.4440 |
| 60 | 36.69 | -0.01 | 8.6484 | -3.8077 | 0.0457 | 0.3338 | 0.0797 | 0.1206 | 0.3961 | -0.2755 | -0.4588 |
| 61 | 36.93 | -0.02 | 8.8447 | -3.8627 | -0.0261 | 0.4674 | 0.0889 | 0.1352 | 0.3964 | -0.2612 | -0.4584 |
| 62 | 37.15 | C.00 | 8.8720 | -4.0066 | 0.0697 | 0.3407 | 0.0891 | 0.1379 | 0.3999 | -0.2620 | -0.4597 |
| 63 | 37.39 | -0.01 | 8.8187 | -4.0267 | 0.0775 | 0.3225 | 0.0855 | 0.1182 | 0.3914 | -0.2732 | -0.4559 |
| 64 | 37.64 | 0.01 | 8.9832 | -4.2456 | 0.1420 | 0.2858 | 0.0912 | 0.1124 | 0.3930 | -0.2806 | -0.4731 |
| 65 | 37.88 | 0.01 | 8.9650 | -4.3045 | 0.1574 | 0.2844 | 0.1016 | 0.1178 | 0.3914 | -0.2736 | -0.4789 |
| 66 | 38.12 | 0.02 | 9.1457 | -4.4851 | 0.2007 | 0.3461 | 0.0811 | 0.1178 | 0.4020 | -0.2848 | -0.4880 |
| 67 | 38.36 | -0.00 | 9.2516 | -4.4051 | 0.0327 | 0.3097 | 0.0767 | 0.0920 | 0.3939 | -0.3019 | -0.4741 |
| 68 | 38.58 | -0.02 | 9.3355 | -4.4357 | -0.1024 | 0.4736 | 0.0715 | 0.1006 | 0.3852 | -0.2886 | -0.4756 |
| 69 | 38.82 | -0.01 | 9.5035 | -4.5661 | 0.1256 | -0.0065 | 0.0421 | 0.0820 | 0.3875 | -0.3055 | -0.4805 |
| 70 | 39.03 | -0.01 | 9.5151 | -4.7221 | 0.0071 | 0.4633 | 0.1030 | 0.1059 | 0.4006 | -0.2948 | -0.4961 |
| 71 | 39.25 | -0.00 | 9.5551 | -4.5663 | 0.0918 | 0.1418 | 0.0729 | 0.0814 | 0.3858 | -0.3044 | -0.4886 |
| 72 | 39.47 | 0.00 | 9.6656 | -4.7744 | 0.0746 | 0.2607 | 0.0780 | 0.0844 | 0.3869 | -0.3045 | -0.4927 |
| 73 | 39.69 | 0.00 | 9.7973 | -4.7765 | 0.1256 | 0.0325 | 0.0479 | 0.0706 | 0.3845 | -0.3139 | -0.4877 |
| 74 | 39.89 | -0.01 | 9.8025 | -4.9656 | 0.0445 | 0.0931 | 0.0479 | 0.0873 | 0.3963 | -0.3290 | -0.5054 |
| 75 | 40.12 | -0.01 | 10.0624 | -5.1752 | 0.0400 | 0.4601 | 0.0687 | 0.0762 | 0.3973 | -0.3211 | -0.5143 |
| 76 | 40.33 | -0.02 | 10.1162 | -5.1367 | -0.0707 | 0.4429 | 0.0640 | 0.0814 | 0.3890 | -0.3282 | -0.5077 |
| 77 | 40.52 | -0.00 | 10.1429 | -5.0521 | 0.0512 | 0.2356 | 0.0491 | 0.0491 | 0.3835 | -0.3344 | -0.4981 |
| 78 | 40.73 | -0.01 | 10.1668 | -5.2599 | 0.0135 | 0.5881 | 0.0885 | 0.0746 | 0.3920 | -0.3174 | -0.5144 |
| 79 | 40.94 | -0.00 | 10.2957 | -5.2316 | 0.1093 | 0.2751 | 0.0336 | 0.0621 | 0.3936 | -0.3315 | -0.5082 |
| 80 | 41.16 | 0.01 | 10.4159 | -5.2671 | 0.1193 | 0.2655 | 0.0497 | 0.0442 | 0.4005 | -0.3027 | -0.5076 |
| 81 | 41.39 | -0.01 | 10.5325 | -5.3556 | 0.0153 | 0.7154 | 0.0379 | 0.0776 | 0.3903 | -0.3127 | -0.5275 |
| 82 | 41.58 | -0.01 | 10.5218 | -5.4534 | 0.0247 | 0.1295 | 0.0402 | 0.0104 | 0.3845 | -0.3661 | -0.5183 |
| 83 | 41.79 | -0.01 | 10.7217 | -5.6656 | -0.0123 | 0.5207 | 0.0286 | 0.0370 | 0.3865 | -0.3495 | -0.5303 |
| 84 | 41.99 | -0.03 | 10.7340 | -5.6168 | -0.1582 | 0.7988 | 0.0283 | 0.0349 | 0.3876 | -0.3531 | -0.5225 |
| 85 | 42.20 | -0.02 | 10.9550 | -5.7532 | -0.1627 | 1.0762 | 0.0067 | 0.0576 | 0.3931 | -0.3355 | -0.5432 |
| 86 | 42.39 | -0.02 | 10.9684 | -5.7535 | -0.1035 | 0.5884 | 0.0297 | -0.0003 | 0.3766 | -0.3831 | -0.5246 |
| 87 | 42.56 | -0.02 | 10.9564 | -5.8733 | -0.2265 | 1.1172 | 0.0067 | 0.0467 | 0.3971 | -0.3504 | -0.5360 |
| 88 | 42.78 | -0.02 | 11.1164 | -5.7805 | -0.1305 | 1.0466 | -0.0031 | 0.0039 | 0.3768 | -0.3729 | -0.5209 |
| 89 | 42.93 | -0.02 | 11.1545 | -5.8950 | -0.1837 | 0.8630 | -0.0023 | -0.0066 | 0.3840 | -0.3906 | -0.5280 |
| 90 | 43.11 | -0.01 | 11.1755 | -5.7270 | -0.0547 | 0.6738 | -0.0023 | -0.0094 | 0.3938 | -0.3692 | -0.5125 |
| 91 | 43.30 | -0.02 | 11.3283 | -5.7365 | -0.0454 | 0.8462 | 0.0329 | -0.0503 | 0.3567 | -0.4090 | -0.5066 |
| 92 | 43.48 | -0.01 | 11.3303 | -5.8418 | 0.0138 | 0.3078 | 0.0104 | -0.0416 | 0.3526 | -0.3942 | -0.5156 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 138 | 1.10 | 1.7 | 0.0 | BIWOFIL | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.88 | -0.02 | 11.4757 | -5.7850 | -0.1596 | 0.4512 | 0.0161 | -0.0642 | 0.3532 | -0.4174 | -0.5039 |
| 94 | 43.90 | -0.03 | 11.5178 | -5.8011 | -0.1540 | 0.5631 | 0.00 | -0.0535 | 0.3508 | -0.4043 | -0.5080 |
| 95 | 44.00 | -0.01 | 11.5662 | -5.8383 | -0.0145 | 0.2447 | 0.0012 | -0.0653 | 0.3379 | -0.4032 | -0.5134 |
| 96 | 44.01 | -0.02 | 11.6554 | -5.8256 | -0.0674 | 0.0327 | -0.0372 | -0.0577 | 0.3328 | -0.3905 | -0.5087 |
| 97 | 44.39 | -0.01 | 11.6814 | -5.8565 | -0.0575 | 0.4831 | -0.0044 | -0.0763 | 0.3229 | -0.3992 | -0.5016 |
| 98 | 44.57 | -0.04 | 11.6187 | -5.8246 | -0.3124 | 1.2083 | -0.0391 | -0.0470 | 0.3438 | -0.3928 | -0.5064 |
| 99 | 44.76 | -0.02 | 11.6101 | -5.8357 | -0.0168 | -0.1066 | 0.0453 | -0.0981 | 0.3208 | -0.4188 | -0.5029 |
| 100 | 44.95 | -0.02 | 11.4165 | -5.6436 | -0.1345 | 0.7371 | -0.0520 | -0.0741 | 0.3176 | -0.3911 | -0.4987 |
| 101 | 45.12 | -0.01 | 11.9320 | -5.8657 | 0.0271 | 0.1780 | 0.0026 | -0.0951 | 0.3102 | -0.4053 | -0.4536 |
| 102 | 45.30 | -0.01 | 11.9830 | -5.7665 | 0.1325 | -0.1584 | 0.0366 | -0.1134 | 0.2951 | -0.4104 | -0.4829 |
| 103 | 45.49 | -0.02 | 12.0835 | -5.8527 | -0.0267 | 0.2196 | 0.0086 | -0.1003 | 0.3022 | -0.4024 | -0.4761 |
| 104 | 45.66 | -0.00 | 11.9661 | -5.6234 | 0.1437 | -0.1672 | 0.0253 | -0.1007 | 0.2970 | -0.4056 | -0.4692 |
| 105 | 45.84 | -0.02 | 12.1560 | -5.8648 | -0.0123 | 0.2737 | -0.0262 | -0.1065 | 0.3014 | -0.4082 | -0.4669 |
| 106 | 46.01 | -0.02 | 12.1648 | -5.8533 | -0.0804 | 0.5174 | -0.0657 | -0.1009 | 0.3038 | -0.4046 | -0.4672 |
| 107 | 46.16 | -0.02 | 12.2507 | -5.7723 | -0.0650 | 0.7547 | -0.0563 | -0.1006 | 0.3089 | -0.4092 | -0.4656 |
| 108 | 46.30 | -0.01 | 12.3016 | -5.8735 | -0.0225 | 0.5209 | -0.0341 | -0.1100 | 0.2979 | -0.4106 | -0.4531 |
| 109 | 46.54 | -0.02 | 12.3628 | -5.9085 | -0.0265 | 0.6417 | -0.0821 | -0.1070 | 0.2954 | -0.4023 | -0.4424 |
| 110 | 46.70 | -0.03 | 12.3743 | -5.2710 | -0.2614 | 0.7574 | -0.0555 | -0.1218 | 0.2864 | -0.4062 | -0.4260 |
| 111 | 46.88 | -0.05 | 12.4713 | -5.4841 | -0.1564 | 0.7632 | -0.0608 | -0.1015 | 0.2929 | -0.3947 | -0.4397 |
| 112 | 47.07 | -0.03 | 12.5151 | -5.5107 | -0.0281 | 0.6259 | -0.0501 | -0.1059 | 0.2850 | -0.3949 | -0.4243 |
| 113 | 47.24 | -0.05 | 12.6574 | -5.3945 | -0.1726 | 0.6643 | -0.0486 | -0.0791 | 0.3125 | -0.3916 | -0.4262 |
| 114 | 47.38 | -0.03 | 12.5172 | -5.2672 | -0.2272 | 0.6321 | -0.0494 | -0.0899 | 0.2991 | -0.3890 | -0.4160 |
| 115 | 47.57 | -0.05 | 12.6063 | -5.0427 | -0.1751 | 0.6187 | -0.0326 | -0.0943 | 0.3142 | -0.4085 | -0.4000 |
| 116 | 47.76 | -0.04 | 12.8133 | -5.3644 | -0.1231 | 0.5406 | -0.0159 | -0.0835 | 0.3057 | -0.3932 | -0.4202 |
| 117 | 47.92 | -0.04 | 12.7356 | -5.0558 | -0.0356 | 0.4877 | -0.0160 | -0.0872 | 0.3106 | -0.3978 | -0.4004 |
| 118 | 48.09 | -0.05 | 12.8660 | -5.2074 | -0.0051 | 0.4296 | 0.0271 | -0.0654 | 0.3417 | -0.4071 | -0.4110 |
| 119 | 48.27 | -0.04 | 12.8545 | -5.3340 | -0.1146 | 0.4541 | 0.0325 | -0.0501 | 0.3496 | -0.3957 | -0.4137 |
| 120 | 48.43 | -0.04 | 12.9033 | -4.9052 | -0.0835 | 0.0625 | 0.0361 | -0.0292 | 0.3571 | -0.3863 | -0.3861 |
| 121 | 48.62 | -0.02 | 13.0201 | -5.1345 | -0.0045 | 0.8537 | 0.1169 | -0.0094 | 0.3711 | -0.3805 | -0.3944 |
| 122 | 48.79 | -0.04 | 13.0564 | -4.9441 | -0.0751 | 0.8372 | 0.1369 | -0.0152 | 0.3659 | -0.3811 | -0.3768 |
| 123 | 48.93 | -0.02 | 12.9730 | -4.9350 | 0.0232 | 0.9929 | 0.1168 | -0.0160 | 0.3579 | -0.3739 | -0.3498 |
| 124 | 49.12 | -0.02 | 13.0138 | -4.8151 | 0.0563 | 1.0304 | 0.0955 | -0.0153 | 0.3510 | -0.3663 | -0.3239 |
| 125 | 49.28 | -0.02 | 12.9872 | -4.8048 | 0.0745 | 0.8887 | 0.0907 | -0.0135 | 0.3546 | -0.3679 | -0.3238 |
| 126 | 49.46 | -0.02 | 13.1440 | -4.9300 | 0.0702 | 1.0106 | 0.0853 | -0.0038 | 0.3607 | -0.3645 | -0.3370 |
| 127 | 49.61 | -0.01 | 12.9242 | -4.8382 | 0.1225 | 1.1585 | 0.0895 | 0.0046 | 0.3617 | -0.3571 | -0.3125 |
| 128 | 49.82 | 0.00 | 13.1178 | -4.8642 | 0.0782 | 1.1921 | 0.0901 | 0.0142 | 0.3706 | -0.3566 | -0.3266 |
| 129 | 49.93 | -0.01 | 13.0565 | -3.9388 | 0.0201 | 1.2290 | 0.0846 | 0.0137 | 0.3704 | -0.3567 | -0.3013 |
| 130 | 50.13 | 0.00 | 13.0465 | -3.9389 | 0.1177 | 1.3008 | 0.0886 | 0.0357 | 0.3875 | -0.3536 | -0.2789 |
| 131 | 50.30 | -0.00 | 12.9935 | -3.9240 | 0.1380 | 1.2527 | 0.0738 | 0.0173 | 0.3779 | -0.3608 | -0.2868 |
| 132 | 50.49 | -0.00 | 13.0411 | -3.9051 | 0.1052 | 1.3438 | 0.0831 | 0.0370 | 0.3862 | -0.3492 | -0.2660 |
| 133 | 50.64 | -0.00 | 13.0816 | -3.9955 | 0.1497 | 1.2559 | 0.0582 | 0.0268 | 0.3908 | -0.3640 | -0.2676 |
| 134 | 50.82 | 0.01 | 13.1815 | -3.9461 | 0.2429 | 1.3028 | 0.0564 | 0.0422 | 0.3991 | -0.3564 | -0.2595 |
| 135 | 50.96 | -0.01 | 13.1422 | -3.9208 | 0.1932 | 1.3110 | 0.0838 | 0.0320 | 0.3958 | -0.3638 | -0.2603 |
| 136 | 51.17 | -0.00 | 13.3455 | -3.9047 | 0.2916 | 1.2575 | 0.0559 | 0.0475 | 0.4121 | -0.3646 | -0.2616 |
| 137 | 51.33 | -0.01 | 13.2958 | -3.9527 | 0.1615 | 1.2585 | 0.0595 | 0.0427 | 0.4169 | -0.3742 | -0.2651 |
| 138 | 51.50 | 0.00 | 13.4933 | -3.9203 | 0.2178 | 1.2442 | 0.0598 | 0.0338 | 0.4164 | -0.3831 | -0.2609 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 138 MACH 1.10 1.7 RNID=6 PHI 0.0 CONF 81 BODY 11 C.G 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.87 | 0.01 | 13.5621 | -3.4546 | 0.3575 | 1.0843 | 0.0497 | 0.0328 | 0.4165 | -0.3837 | -0.2576 |
| 140 | 51.84 | 0.01 | 13.5726 | -3.4556 | 0.2306 | 1.0722 | 0.0000 | 0.0254 | 0.4191 | -0.3939 | -0.2612 |
| 141 | 52.00 | 0.01 | 13.6365 | -3.7264 | 0.2934 | 1.1556 | 0.0604 | 0.0309 | 0.4208 | -0.3859 | -0.2732 |
| 142 | 52.21 | 0.01 | 13.6665 | -3.7556 | 0.2616 | 1.1290 | 0.0606 | 0.0254 | 0.4225 | -0.3971 | -0.2751 |
| 143 | 52.36 | 0.02 | 13.6960 | -3.4815 | 0.4217 | 0.9690 | 0.0504 | 0.0154 | 0.4184 | -0.4030 | -0.2551 |
| 144 | 52.50 | 0.02 | 13.8569 | -3.7617 | 0.3615 | 0.8343 | 0.0407 | 0.0095 | 0.4333 | -0.4038 | -0.2714 |
| 145 | 52.70 | 0.01 | 13.8257 | -3.8485 | 0.3746 | 0.9285 | 0.0511 | 0.0056 | 0.4270 | -0.4214 | -0.2637 |
| 146 | 52.87 | -0.01 | 13.8733 | -3.8956 | 0.2119 | 0.8704 | 0.0405 | 0.0067 | 0.4339 | -0.4272 | -0.2663 |
| 147 | 53.03 | 0.01 | 13.8670 | -3.8028 | 0.2843 | 0.9464 | 0.0513 | 0.0179 | 0.4289 | -0.4110 | -0.2610 |
| 148 | 52.95 | 0.01 | 13.8559 | -3.8548 | 0.3656 | 0.8376 | 0.0404 | 0.0024 | 0.4181 | -0.4157 | -0.2522 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 138 MACH 1.10 RN/D=E 1.7 PHI 0.0 CONF 11 L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.73 | 0.00 | -0.0365 | 0.0056 | 0.0168 | -0.1285 | -0.4319 | -1.0859 | -0.0505 | -0.5797 | 0.0520 | 0.5338 |
| 2 | -5.74 | -0.02 | -0.0426 | 0.0041 | 0.0154 | -0.0978 | -0.3007 | -1.0856 | -0.0567 | -0.5747 | 0.0522 | 0.5343 |
| 3 | -5.74 | -0.01 | -0.0441 | 0.0036 | 0.0141 | -0.0816 | -0.3197 | -1.0924 | -0.0564 | -0.5838 | 0.0516 | 0.5344 |
| 4 | -5.73 | -0.01 | -0.0382 | 0.0046 | 0.0167 | -0.1165 | -0.4304 | -1.0825 | -0.0508 | -0.5795 | 0.0525 | 0.5353 |
| 5 | -5.73 | -0.01 | -0.0440 | 0.0036 | 0.0141 | -0.0882 | -0.3205 | -1.0882 | -0.0562 | -0.5812 | 0.0517 | 0.5351 |
| 6 | -5.74 | -0.00 | -0.0376 | 0.0046 | 0.0164 | -0.1223 | -0.4304 | -1.0850 | -0.0500 | -0.5802 | 0.0522 | 0.5347 |
| 7 | -5.74 | -0.02 | -0.0430 | 0.0037 | 0.0143 | -0.0860 | -0.3326 | -1.0961 | -0.0560 | -0.5850 | 0.0511 | 0.5337 |
| 8 | -5.65 | -0.00 | -0.0418 | 0.0038 | 0.0155 | -0.0881 | -0.3325 | -1.0513 | -0.0598 | -0.5666 | 0.0569 | 0.5396 |
| 9 | -3.68 | -0.01 | -0.0310 | 0.0057 | 0.0181 | -0.1838 | -0.5839 | -0.9768 | -0.0666 | -0.5375 | 0.0682 | 0.5503 |
| 10 | -2.14 | -0.02 | -0.0260 | 0.0055 | 0.0167 | -0.2105 | -0.5422 | -0.9550 | -0.0642 | -0.4818 | 0.0751 | 0.5635 |
| 11 | -0.34 | -0.02 | -0.0254 | 0.0043 | 0.0146 | -0.1662 | -0.5036 | -0.7271 | -0.0622 | -0.4211 | 0.0855 | 0.5791 |
| 12 | 1.46 | -0.01 | -0.0324 | 0.0038 | 0.0126 | -0.1111 | -0.3704 | -0.6193 | -0.0586 | -0.3635 | 0.0946 | 0.5876 |
| 13 | 3.37 | -0.01 | -0.0275 | 0.0037 | 0.0124 | -0.1326 | -0.4444 | -0.4881 | -0.0536 | -0.2990 | 0.1058 | 0.6126 |
| 14 | 5.12 | -0.01 | -0.0419 | 0.0041 | 0.0145 | -0.0978 | -0.3226 | -0.3770 | -0.0462 | -0.2424 | 0.1225 | 0.6436 |
| 15 | 6.98 | -0.01 | -0.0474 | 0.0021 | 0.0146 | -0.0443 | -0.3060 | -0.2547 | -0.0365 | -0.1868 | 0.1433 | 0.7334 |
| 16 | 8.78 | -0.01 | -0.0520 | 0.0027 | 0.0148 | -0.0519 | -0.2908 | -0.1597 | -0.0265 | -0.1384 | 0.1659 | 0.8666 |
| 17 | 10.66 | -0.02 | -0.0485 | 0.0036 | 0.0156 | -0.0774 | -0.3398 | -0.0664 | -0.0141 | -0.0869 | 0.3038 | 1.6728 |
| 18 | 12.52 | -0.01 | -0.0352 | 0.0051 | 0.0157 | -0.1448 | -0.4460 | 0.0373 | 0.0004 | -0.0506 | 0.0107 | -1.3566 |
| 19 | 14.42 | 0.00 | -0.0358 | 0.0020 | 0.0137 | -0.0334 | -0.2291 | 0.1016 | 0.0191 | -0.0144 | 0.1675 | -0.1417 |
| 20 | 16.37 | -0.01 | -0.0362 | -0.0037 | 0.0094 | 0.0207 | -0.1366 | 0.1720 | 0.0396 | 0.0175 | 0.2302 | 0.1017 |
| 21 | 18.32 | -0.02 | -0.0321 | -0.0063 | -0.0013 | 0.1135 | 0.0178 | 0.2445 | 0.0544 | 0.0489 | 0.2224 | 0.2000 |
| 22 | 20.27 | -0.01 | -0.0154 | -0.0056 | -0.0038 | 0.0649 | 0.0236 | 0.3068 | 0.0692 | 0.0864 | 0.2240 | 0.2798 |
| 23 | 22.28 | -0.01 | -0.0161 | -0.0137 | -0.0035 | 0.0778 | 0.0636 | 0.3440 | 0.0763 | 0.1112 | 0.2217 | 0.3233 |
| 24 | 24.20 | -0.01 | -0.0120 | -0.0164 | -0.0744 | 0.0455 | 0.0063 | 0.4062 | 0.0860 | 0.1541 | 0.2117 | 0.3794 |
| 25 | 26.31 | -0.00 | -0.0274 | 0.0045 | 0.0082 | -0.1705 | -0.2993 | 0.5001 | 0.0895 | 0.1950 | 0.1789 | 0.3899 |
| 26 | 28.17 | 0.03 | 0.1675 | 0.0213 | 0.1266 | 0.1146 | 0.0443 | 0.5012 | 0.0076 | 0.2211 | 0.1564 | 0.3540 |
| 27 | 26.17 | 0.03 | 0.1670 | 0.0153 | 0.0734 | 0.1233 | 0.0809 | 0.5497 | 0.0693 | 0.2132 | 0.1624 | 0.3878 |
| 28 | 28.18 | 0.04 | 0.1259 | 0.0161 | 0.0693 | 0.1278 | 0.7109 | 0.5014 | 0.0893 | 0.2219 | 0.1590 | 0.3553 |
| 29 | 28.43 | 0.02 | 0.1253 | 0.0172 | 0.0857 | 0.1395 | 0.7275 | 0.5590 | 0.0904 | 0.2199 | 0.1617 | 0.3534 |
| 30 | 28.73 | 0.03 | 0.0866 | 0.0163 | 0.0806 | 0.1501 | 0.8034 | 0.5648 | 0.0921 | 0.2259 | 0.1630 | 0.4000 |
| 31 | 29.08 | 0.02 | 0.0505 | 0.0091 | 0.0496 | 0.1787 | 0.9027 | 0.5732 | 0.0938 | 0.2291 | 0.1636 | 0.3997 |
| 32 | 29.38 | 0.03 | 0.0855 | 0.0161 | 0.0692 | 0.1542 | 0.7511 | 0.5807 | 0.0937 | 0.2346 | 0.1597 | 0.3995 |
| 33 | 29.66 | 0.03 | 0.1600 | 0.0183 | 0.1015 | 0.1018 | 0.6344 | 0.6127 | 0.0927 | 0.2477 | 0.1513 | 0.4043 |
| 34 | 29.90 | 0.03 | 0.1284 | 0.0115 | 0.0852 | 0.0927 | 0.6036 | 0.6218 | 0.0933 | 0.2537 | 0.1500 | 0.4086 |
| 35 | 30.25 | 0.04 | 0.1156 | 0.0117 | 0.0728 | 0.0576 | 0.6077 | 0.6242 | 0.0944 | 0.2540 | 0.1512 | 0.4069 |
| 36 | 30.53 | 0.03 | 0.1316 | 0.0115 | 0.0774 | 0.0694 | 0.5861 | 0.6522 | 0.0947 | 0.2666 | 0.1452 | 0.4066 |
| 37 | 30.80 | 0.04 | 0.1340 | 0.0152 | 0.0924 | 0.1134 | 0.6896 | 0.6630 | 0.0969 | 0.2715 | 0.1454 | 0.4095 |
| 38 | 31.07 | 0.05 | 0.1114 | 0.0148 | 0.0896 | 0.1328 | 0.7594 | 0.6624 | 0.0966 | 0.2731 | 0.1451 | 0.4104 |
| 39 | 31.36 | 0.03 | 0.0637 | 0.0120 | 0.0616 | 0.1863 | 0.9670 | 0.6945 | 0.0942 | 0.2841 | 0.1398 | 0.4091 |
| 40 | 31.64 | 0.02 | -0.0565 | 0.0005 | -0.0104 | -0.0053 | 0.1221 | 0.6885 | 0.0945 | 0.2792 | 0.1372 | 0.4055 |
| 41 | 31.91 | 0.03 | 0.0806 | 0.0130 | 0.0657 | 0.1612 | 0.8648 | 0.7191 | 0.0918 | 0.2949 | 0.1276 | 0.4101 |
| 42 | 32.19 | 0.00 | -0.1015 | -0.0045 | -0.0316 | 0.0443 | 0.3133 | 0.7044 | 0.0936 | 0.2855 | 0.1331 | 0.4059 |
| 43 | 32.49 | 0.00 | 0.0003 | 0.0070 | 0.0304 | 23.3271 | 101.3330 | 0.7062 | 0.0943 | 0.2869 | 0.1335 | 0.4063 |
| 44 | 32.71 | 0.00 | -0.0213 | -0.0005 | -0.0058 | 0.0137 | 0.0713 | 0.7061 | 0.0953 | 0.2869 | 0.1349 | 0.4063 |
| 45 | 32.97 | -0.01 | -0.0130 | 0.0021 | 0.0366 | 0.6152 | 2.8154 | 0.7295 | 0.0935 | 0.2971 | 0.1281 | 0.4073 |
| 46 | 33.24 | 0.00 | -0.0576 | 0.0023 | 0.0116 | -0.0599 | -0.0313 | 0.7400 | 0.0925 | 0.3012 | 0.1250 | 0.4070 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 13a MACH 1.10 MAXIG-G 1.7 PHI 0.0 CONF 61b0F11 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.50 | 0.01 | -0.1063 | -0.0006 | -0.0196 | 0.0675 | 0.1787 | 0.7691 | 0.0920 | 0.3130 | 0.1204 | 0.4098 |
| 48 | 33.75 | 0.00 | -0.0618 | 0.0013 | 0.0003 | -0.0243 | -0.0049 | 0.7654 | 0.0922 | 0.3121 | 0.1204 | 0.4078 |
| 49 | 33.99 | -0.00 | -0.1305 | -0.0035 | -0.0367 | 0.0298 | 0.2304 | 0.7837 | 0.0915 | 0.3204 | 0.1167 | 0.4088 |
| 50 | 34.23 | 0.00 | 0.0435 | 0.0122 | 0.0393 | 0.2804 | 1.3832 | 0.7972 | 0.0904 | 0.3259 | 0.1134 | 0.4088 |
| 51 | 34.51 | -0.01 | 0.0221 | 0.0196 | 0.0710 | 0.2363 | 1.1433 | 0.7996 | 0.0906 | 0.3251 | 0.1135 | 0.4066 |
| 52 | 34.75 | 0.00 | 0.0023 | 0.0132 | 0.0357 | 0.3120 | 1.4113 | 0.8117 | 0.0909 | 0.3325 | 0.1120 | 0.4098 |
| 53 | 34.98 | -0.00 | 0.0266 | 0.0167 | 0.0521 | 0.4021 | 1.9586 | 0.8266 | 0.0902 | 0.3392 | 0.1088 | 0.4093 |
| 54 | 35.23 | -0.01 | 0.0573 | 0.0144 | 0.0643 | 0.2512 | 1.1222 | 0.8338 | 0.0893 | 0.3411 | 0.1071 | 0.4091 |
| 55 | 35.49 | -0.00 | 0.0566 | 0.0143 | 0.0628 | 0.2351 | 1.0466 | 0.8325 | 0.0899 | 0.3400 | 0.1080 | 0.4084 |
| 56 | 35.74 | -0.00 | 0.0279 | 0.0106 | 0.0456 | 0.3541 | 1.6423 | 0.8532 | 0.0893 | 0.3495 | 0.1046 | 0.4096 |
| 57 | 35.98 | 0.01 | 0.0392 | 0.0121 | 0.0483 | 0.3068 | 1.2321 | 0.8405 | 0.0891 | 0.3439 | 0.1060 | 0.4092 |
| 58 | 36.20 | 0.01 | 0.0207 | 0.0171 | 0.0736 | 0.2188 | 0.9071 | 0.8591 | 0.0901 | 0.3478 | 0.1060 | 0.4085 |
| 59 | 36.44 | -0.01 | 0.0436 | 0.0152 | 0.0657 | 0.3250 | 1.1256 | 0.8757 | 0.0883 | 0.3609 | 0.1008 | 0.4121 |
| 60 | 36.69 | -0.01 | 0.0054 | 0.0079 | 0.0265 | 0.4042 | 3.0319 | 0.8650 | 0.0881 | 0.3644 | 0.0997 | 0.4127 |
| 61 | 36.93 | -0.02 | 0.0389 | 0.0125 | 0.0418 | 0.3215 | 1.0694 | 0.8892 | 0.0873 | 0.3663 | 0.0982 | 0.4119 |
| 62 | 37.15 | 0.00 | 0.0578 | 0.0151 | 0.0526 | 0.2621 | 0.9026 | 0.8805 | 0.0893 | 0.3613 | 0.1014 | 0.4103 |
| 63 | 37.39 | -0.01 | 0.0482 | 0.0136 | 0.0475 | 0.2883 | 0.9855 | 0.8940 | 0.0881 | 0.3678 | 0.0985 | 0.4114 |
| 64 | 37.64 | 0.01 | 0.0359 | 0.0119 | 0.0513 | 0.2809 | 0.9260 | 0.9072 | 0.0891 | 0.3733 | 0.0982 | 0.4115 |
| 65 | 37.88 | 0.01 | 0.0710 | 0.0178 | 0.0603 | 0.2308 | 0.8493 | 0.9036 | 0.0889 | 0.3720 | 0.0984 | 0.4117 |
| 66 | 38.12 | 0.02 | 0.0923 | 0.0196 | 0.0696 | 0.3305 | 0.9045 | 0.9315 | 0.0880 | 0.3844 | 0.0944 | 0.4127 |
| 67 | 38.38 | -0.00 | 0.0351 | 0.0136 | 0.0455 | 0.2522 | 0.8330 | 0.9466 | 0.0870 | 0.3916 | 0.0917 | 0.4128 |
| 68 | 38.58 | -0.02 | 0.0526 | 0.0162 | 0.0595 | 0.3667 | 0.8304 | 0.9381 | 0.0882 | 0.3862 | 0.0940 | 0.4117 |
| 69 | 38.82 | -0.01 | 0.0293 | 0.0086 | 0.0224 | 0.2252 | 0.7645 | 0.9944 | 0.0832 | 0.4140 | 0.0836 | 0.4163 |
| 70 | 39.05 | -0.01 | 0.0753 | 0.0210 | 0.0602 | 0.2782 | 0.7995 | 0.9551 | 0.0882 | 0.3944 | 0.0923 | 0.4125 |
| 71 | 39.25 | -0.00 | 0.0558 | 0.0132 | 0.0410 | 0.2365 | 0.7276 | 0.9857 | 0.0854 | 0.4090 | 0.0866 | 0.4145 |
| 72 | 39.47 | 0.00 | 0.0625 | 0.0171 | 0.0479 | 0.2733 | 0.7804 | 0.9771 | 0.0870 | 0.4035 | 0.0890 | 0.4130 |
| 73 | 39.69 | 0.00 | 0.0411 | 0.0065 | 0.0253 | 0.2165 | 0.6156 | 1.0151 | 0.0827 | 0.4220 | 0.0814 | 0.4157 |
| 74 | 39.89 | -0.01 | 0.0478 | 0.0122 | 0.0336 | 0.2552 | 0.6904 | 1.0137 | 0.0852 | 0.4201 | 0.0840 | 0.4144 |
| 75 | 40.12 | -0.01 | 0.0478 | 0.0128 | 0.0372 | 0.3574 | 0.7315 | 1.0208 | 0.0859 | 0.4241 | 0.0841 | 0.4155 |
| 76 | 40.33 | -0.02 | 0.0367 | 0.0153 | 0.0312 | 0.4108 | 0.8501 | 1.0124 | 0.0855 | 0.4184 | 0.0844 | 0.4133 |
| 77 | 40.52 | -0.00 | 0.0285 | 0.0114 | 0.0245 | 0.4301 | 0.9245 | 1.0271 | 0.0846 | 0.4255 | 0.0823 | 0.4143 |
| 78 | 40.73 | -0.01 | 0.0421 | 0.0157 | 0.0323 | 0.3760 | 0.7872 | 1.0296 | 0.0840 | 0.4266 | 0.0816 | 0.4143 |
| 79 | 40.94 | -0.00 | 0.0052 | 0.0006 | 0.0066 | 1.3073 | 1.7115 | 1.0442 | 0.0836 | 0.4332 | 0.0800 | 0.4149 |
| 80 | 41.16 | 0.01 | 0.0256 | 0.0055 | 0.0215 | 0.3636 | 0.6988 | 1.0467 | 0.0830 | 0.4338 | 0.0793 | 0.4144 |
| 81 | 41.39 | -0.01 | -0.0130 | 0.0060 | 0.0021 | -0.4614 | -0.1615 | 1.0710 | 0.0816 | 0.4470 | 0.0782 | 0.4174 |
| 82 | 41.58 | -0.01 | 0.0285 | 0.0062 | 0.0191 | 0.2678 | 0.6702 | 1.0736 | 0.0806 | 0.4477 | 0.0747 | 0.4176 |
| 83 | 41.79 | -0.01 | -0.0165 | 0.0029 | -0.0010 | -0.1716 | 0.0592 | 1.0772 | 0.0813 | 0.4485 | 0.0755 | 0.4164 |
| 84 | 41.99 | -0.03 | -0.0316 | 0.0001 | -0.0082 | -0.0631 | 0.1950 | 1.0793 | 0.0805 | 0.4499 | 0.0746 | 0.4168 |
| 85 | 42.20 | -0.02 | -0.0883 | -0.0103 | -0.0253 | 0.1156 | 0.3998 | 1.0926 | 0.0806 | 0.4572 | 0.0737 | 0.4185 |
| 86 | 42.39 | -0.02 | -0.0196 | 0.0001 | -0.0020 | -0.0650 | 0.1507 | 1.0903 | 0.0799 | 0.4536 | 0.0733 | 0.4160 |
| 87 | 42.58 | -0.02 | -0.0231 | -0.0104 | -0.0314 | 0.1251 | 0.3779 | 1.0951 | 0.0804 | 0.4565 | 0.0734 | 0.4165 |
| 88 | 42.78 | -0.02 | -0.0015 | -0.0135 | -0.0335 | 0.1030 | 0.4160 | 1.0952 | 0.0795 | 0.4564 | 0.0726 | 0.4167 |
| 89 | 42.93 | -0.02 | -0.0350 | -0.0043 | -0.0139 | 0.1303 | 0.4091 | 1.1120 | 0.0780 | 0.4643 | 0.0701 | 0.4175 |
| 90 | 43.11 | -0.01 | -0.0045 | -0.0155 | -0.0305 | 0.1034 | 0.4367 | 1.1072 | 0.0780 | 0.4615 | 0.0704 | 0.4168 |
| 91 | 43.30 | -0.02 | -0.0014 | 0.0007 | 0.0018 | -0.4599 | -1.2857 | 1.1158 | 0.0743 | 0.4628 | 0.0668 | 0.4148 |
| 92 | 43.48 | -0.01 | -0.0562 | -0.0103 | -0.0256 | 0.1765 | 0.4296 | 1.1118 | 0.0777 | 0.4616 | 0.0695 | 0.4152 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

PANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&8 MACH 1.10 RNIC-E 1.7 PHI 0.0 CONF 0180F11 L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.68 | -0.02 | -0.0332 | -0.0063 | -0.0114 | 0.1897 | 0.3434 | 1.1252 | 0.0743 | 0.4672 | 0.0660 | 0.4152 |
| 94 | 43.88 | -0.03 | -0.0323 | -0.0062 | -0.0025 | 0.1977 | 0.4717 | 1.1254 | 0.0728 | 0.4657 | 0.0647 | 0.4138 |
| 95 | 44.00 | -0.01 | -0.0328 | -0.0113 | -0.0261 | 0.2138 | 0.4869 | 1.1301 | 0.0747 | 0.4686 | 0.0661 | 0.4147 |
| 96 | 44.21 | -0.02 | -0.0428 | -0.0069 | -0.0258 | 0.2169 | 0.6009 | 1.1260 | 0.0722 | 0.4654 | 0.0640 | 0.4126 |
| 97 | 44.39 | -0.01 | -0.0411 | -0.0083 | -0.0156 | 0.2015 | 0.4769 | 1.1367 | 0.0711 | 0.4700 | 0.0625 | 0.4135 |
| 98 | 44.57 | -0.04 | -0.0391 | -0.0166 | -0.0374 | 0.2027 | 0.4741 | 1.1410 | 0.0729 | 0.4726 | 0.0639 | 0.4142 |
| 99 | 44.76 | -0.02 | 0.0072 | 0.0026 | 0.0088 | 0.3845 | 1.1282 | 1.1116 | 0.0637 | 0.4531 | 0.0573 | 0.4076 |
| 100 | 44.95 | -0.02 | -0.0773 | -0.0185 | -0.0429 | 0.2444 | 0.5485 | 1.1441 | 0.0671 | 0.4731 | 0.0586 | 0.4135 |
| 101 | 45.12 | -0.01 | -0.0673 | -0.0015 | -0.0043 | 0.2054 | 0.5090 | 1.1169 | 0.0639 | 0.4561 | 0.0571 | 0.4054 |
| 102 | 45.30 | -0.01 | 0.0027 | 0.0063 | 0.0156 | 0.1111 | 2.0741 | 1.1078 | 0.0610 | 0.4524 | 0.0550 | 0.4084 |
| 103 | 45.49 | -0.02 | -0.0582 | -0.0137 | -0.0247 | 0.2437 | 0.4395 | 1.1160 | 0.0615 | 0.4558 | 0.0551 | 0.4084 |
| 104 | 45.66 | -0.00 | -0.0166 | -0.0031 | -0.0003 | 0.3522 | 0.0341 | 1.1004 | 0.0591 | 0.4465 | 0.0537 | 0.4058 |
| 105 | 45.84 | -0.02 | -0.0366 | -0.0088 | -0.0207 | 0.2404 | 0.5056 | 1.1001 | 0.0608 | 0.4485 | 0.0553 | 0.4077 |
| 106 | 46.01 | -0.02 | -0.1229 | -0.0347 | -0.0865 | 0.2825 | 0.5085 | 1.1304 | 0.0650 | 0.4640 | 0.0575 | 0.4105 |
| 107 | 46.18 | -0.02 | -0.0563 | -0.0263 | -0.0450 | 0.3244 | 0.4963 | 1.1233 | 0.0586 | 0.4585 | 0.0523 | 0.4082 |
| 108 | 46.36 | -0.01 | -0.0306 | -0.0126 | -0.0255 | 0.2529 | 0.5040 | 1.0975 | 0.0590 | 0.4464 | 0.0537 | 0.4067 |
| 109 | 46.54 | -0.02 | -0.1656 | -0.0325 | -0.0542 | 0.2565 | 0.4945 | 1.1020 | 0.0595 | 0.4460 | 0.0543 | 0.4065 |
| 110 | 46.70 | -0.03 | -0.0642 | -0.0166 | -0.0337 | 0.2616 | 0.5249 | 1.0852 | 0.0588 | 0.4256 | 0.0552 | 0.4033 |
| 111 | 46.88 | -0.05 | -0.0534 | -0.0327 | -0.0472 | 0.3500 | 0.5054 | 1.1030 | 0.0585 | 0.4473 | 0.0530 | 0.4059 |
| 112 | 47.07 | -0.03 | -0.0671 | -0.0379 | -0.0736 | 0.3236 | 0.5046 | 1.0909 | 0.0568 | 0.4413 | 0.0521 | 0.4045 |
| 113 | 47.24 | -0.05 | -0.0605 | -0.0352 | -0.0324 | 0.5778 | 0.5320 | 1.0811 | 0.0563 | 0.4370 | 0.0521 | 0.4042 |
| 114 | 47.36 | -0.03 | -0.0496 | -0.0332 | -0.0271 | 0.7442 | 0.6076 | 1.0738 | 0.0557 | 0.4329 | 0.0515 | 0.4031 |
| 115 | 47.57 | -0.05 | -0.0256 | -0.0306 | -0.0204 | 1.0335 | 0.6892 | 1.0515 | 0.0568 | 0.4222 | 0.0540 | 0.4015 |
| 116 | 47.76 | -0.04 | -0.0636 | -0.0259 | -0.0638 | 0.7574 | 1.9333 | 1.0615 | 0.0555 | 0.4264 | 0.0523 | 0.4017 |
| 117 | 47.92 | -0.04 | 0.0131 | -0.0227 | 0.0010 | -2.0376 | 0.0763 | 1.0400 | 0.0560 | 0.4165 | 0.0538 | 0.4005 |
| 118 | 48.09 | -0.03 | 0.0235 | -0.0119 | 0.0288 | -0.1874 | 0.4535 | 1.0020 | 0.0543 | 0.3963 | 0.0542 | 0.3955 |
| 119 | 48.27 | -0.04 | 0.0411 | -0.0155 | 0.0178 | -0.3868 | 0.4331 | 1.0092 | 0.0546 | 0.4033 | 0.0541 | 0.3956 |
| 120 | 48.43 | -0.04 | 0.0423 | 0.0054 | 0.0245 | 0.1270 | 0.5742 | 0.8954 | 0.0559 | 0.3496 | 0.0624 | 0.3907 |
| 121 | 48.62 | -0.02 | 0.0426 | 0.0062 | 0.0222 | 0.1455 | 0.5211 | 0.9089 | 0.0555 | 0.3567 | 0.0616 | 0.3925 |
| 122 | 48.79 | -0.04 | 0.0429 | 0.0062 | 0.0231 | 0.1430 | 0.5435 | 0.8995 | 0.0554 | 0.3501 | 0.0616 | 0.3955 |
| 123 | 48.93 | -0.02 | 0.0136 | 0.0062 | 0.0110 | 0.8306 | 0.8462 | 0.8381 | 0.0569 | 0.3285 | 0.0680 | 0.3925 |
| 124 | 49.12 | -0.02 | -0.0040 | 0.0050 | 0.0020 | -1.2497 | -0.5000 | 0.8062 | 0.0591 | 0.3166 | 0.0720 | 0.3927 |
| 125 | 49.28 | -0.02 | 0.0077 | 0.0068 | 0.0078 | 0.8829 | 1.0130 | 0.8237 | 0.0571 | 0.3245 | 0.0693 | 0.3940 |
| 126 | 49.46 | -0.02 | -0.0002 | 0.0035 | -0.0001 | -19.4996 | 0.5000 | 0.8199 | 0.0566 | 0.3246 | 0.0690 | 0.3955 |
| 127 | 49.61 | -0.01 | -0.0143 | 0.0025 | -0.0061 | -0.2027 | 0.4266 | 0.8045 | 0.0576 | 0.3199 | 0.0715 | 0.3974 |
| 128 | 49.82 | 0.00 | -0.0016 | 0.0001 | -0.0136 | -0.0032 | 0.4304 | 0.7857 | 0.0595 | 0.3123 | 0.0757 | 0.3975 |
| 129 | 49.98 | -0.01 | -0.0347 | -0.0012 | -0.0131 | 0.0346 | 0.4323 | 0.7808 | 0.0597 | 0.3099 | 0.0764 | 0.3969 |
| 130 | 50.13 | 0.00 | -0.0056 | -0.0018 | -0.0201 | 0.0351 | 0.4406 | 0.7713 | 0.0605 | 0.3053 | 0.0785 | 0.3958 |
| 131 | 50.30 | -0.00 | -0.0360 | -0.0009 | -0.0146 | 0.0250 | 0.4038 | 0.7763 | 0.0596 | 0.3097 | 0.0768 | 0.3985 |
| 132 | 50.49 | -0.00 | -0.0383 | -0.0005 | -0.0144 | 0.0131 | 0.3760 | 0.7744 | 0.0594 | 0.3131 | 0.0762 | 0.4017 |
| 133 | 50.64 | -0.00 | -0.0356 | 0.0002 | -0.0145 | -0.0202 | 0.3763 | 0.7734 | 0.0601 | 0.3096 | 0.0777 | 0.4003 |
| 134 | 50.82 | 0.01 | -0.0430 | 0.0011 | -0.0152 | -0.0250 | 0.3535 | 0.7838 | 0.0590 | 0.3171 | 0.0758 | 0.4035 |
| 135 | 50.98 | -0.01 | -0.0357 | 0.0004 | -0.0140 | -0.0101 | 0.3528 | 0.7840 | 0.0600 | 0.3152 | 0.0769 | 0.4020 |
| 136 | 51.17 | -0.00 | -0.0422 | 0.0013 | -0.0138 | -0.0300 | 0.3223 | 0.7875 | 0.0592 | 0.3162 | 0.0752 | 0.4015 |
| 137 | 51.33 | -0.01 | -0.0422 | 0.0007 | -0.0132 | -0.0166 | 0.3128 | 0.7968 | 0.0591 | 0.3214 | 0.0742 | 0.4031 |
| 138 | 51.50 | 0.00 | -0.0389 | 0.0011 | -0.0108 | -0.0290 | 0.2850 | 0.8007 | 0.0587 | 0.3225 | 0.0733 | 0.4028 |

MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 13B MACH 1.1C REXIO-6 1.7 PHI 0.0 CONF 1 mu FIL L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CA1 | XCPF1 | YCPF1 | CNF2 | CH2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.87 | 0.01 | -0.0326 | 0.0013 | -0.0177 | -0.0399 | 0.2362 | 0.7932 | 0.0582 | 0.3169 | 0.0734 | 0.4026 |
| 140 | 51.84 | 0.01 | -0.0357 | 0.0014 | -0.0181 | -0.0412 | 0.2829 | 0.8016 | 0.0582 | 0.3234 | 0.0726 | 0.4034 |
| 141 | 52.00 | 0.01 | -0.0365 | 0.0 | -0.0092 | 0.0 | 0.2656 | 0.8129 | 0.0577 | 0.3268 | 0.0716 | 0.4045 |
| 142 | 52.21 | 0.01 | -0.0315 | 0.0006 | -0.0067 | -0.0190 | 0.2127 | 0.8142 | 0.0575 | 0.3264 | 0.0706 | 0.4033 |
| 143 | 52.36 | 0.02 | -0.0254 | 0.0011 | -0.0053 | -0.0374 | 0.1671 | 0.8142 | 0.0574 | 0.3269 | 0.0705 | 0.4046 |
| 144 | 52.56 | 0.02 | -0.0267 | 0.0013 | -0.0016 | -0.0028 | 0.0773 | 0.8419 | 0.0563 | 0.3426 | 0.0665 | 0.4065 |
| 145 | 52.70 | 0.01 | -0.0238 | 0.0015 | -0.0049 | -0.0030 | 0.1807 | 0.8315 | 0.0568 | 0.3356 | 0.0683 | 0.4037 |
| 146 | 52.87 | -0.01 | -0.0273 | 0.0019 | -0.0047 | -0.0049 | 0.1722 | 0.8329 | 0.0569 | 0.3372 | 0.0683 | 0.4048 |
| 147 | 53.03 | 0.01 | -0.0216 | 0.0013 | -0.0041 | -0.0002 | 0.1898 | 0.8341 | 0.0569 | 0.3378 | 0.0682 | 0.4050 |
| 148 | 52.95 | 0.01 | -0.0218 | 0.0009 | -0.0022 | -0.0013 | 0.1009 | 0.8190 | 0.0575 | 0.3315 | 0.0702 | 0.4048 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 6

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1sd MACH 1.10 RX1C-6 1.7 PHI C.C BIBCFII 0.C CONF DELI 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.73 | 0.0C | 0.0572 | 5.9999 | 0.C146 | 5.9999 | 0.2448 | -1.2132 | -0.0561 | -0.5569 | 0.0462 | 0.4590 |
| 2 | -5.74 | -0.02 | 0.0571 | 5.9999 | 0.C14C | 5.9999 | 0.2452 | -1.2119 | -0.0569 | -0.5546 | 0.0466 | 0.4576 |
| 3 | -5.74 | -0.01 | 0.0557 | 5.9999 | 0.0141 | 5.9999 | 0.2626 | -1.2107 | -0.0565 | -0.5550 | 0.047C | 0.4584 |
| 4 | -5.73 | -0.01 | 0.0576 | 5.9999 | 0.0157 | 5.9999 | 0.2754 | -1.2100 | -0.0567 | -0.5540 | 0.0468 | 0.4576 |
| 5 | -5.73 | -0.01 | 0.0547 | 5.9999 | 0.C151 | 5.9999 | 0.2761 | -1.2053 | -0.0568 | -0.5512 | 0.0471 | 0.4573 |
| 6 | -5.74 | -0.00 | 0.0536 | 5.9999 | 0.0156 | 5.9999 | 0.2799 | -1.2131 | -0.0567 | -0.5546 | 0.0467 | 0.4572 |
| 7 | -5.74 | -0.02 | 0.0513 | 5.9999 | 0.0146 | 5.9999 | 0.2885 | -1.2184 | -0.0562 | -0.5545 | 0.0461 | 0.4551 |
| 8 | -5.65 | -0.0C | 0.0574 | 5.9999 | 0.0157 | 5.9999 | 0.2754 | -1.1751 | -0.0621 | -0.5356 | 0.0528 | 0.4592 |
| 9 | -3.88 | -0.01 | 0.0E50 | 5.9999 | 0.C155 | 5.9999 | 0.2446 | -1.1146 | -0.0702 | -0.5163 | 0.C630 | 0.4632 |
| 10 | -2.14 | -0.02 | 0.0662 | 5.9999 | 0.C16C | 5.9999 | 0.2417 | -0.9976 | -0.0693 | -0.4610 | 0.0654 | 0.4620 |
| 11 | -0.34 | -0.02 | 0.0E4C | 5.9999 | 0.C132 | 5.9999 | 0.2062 | -0.8766 | -0.0665 | -0.3959 | 0.0758 | 0.4562 |
| 12 | 1.46 | -0.01 | 0.0622 | 5.9999 | 0.C131 | 5.9999 | 0.2006 | -0.7534 | -0.0621 | -0.3394 | 0.C824 | 0.45C5 |
| 13 | 3.37 | -0.01 | 0.0EE7 | 5.9999 | 0.C1C4 | 5.9999 | 0.1514 | -0.6407 | -0.0565 | -0.2744 | 0.C882 | 0.4283 |
| 14 | 5.12 | -0.01 | 0.C665 | 5.9999 | 0.0C73 | 5.9999 | 0.1060 | -0.5262 | -0.0494 | -0.2166 | 0.C939 | 0.4116 |
| 15 | 6.96 | -0.01 | 0.073C | 5.9999 | 0.0C63 | 5.9999 | 0.0656 | -0.4015 | -0.0386 | -0.1567 | 0.0966 | 0.3963 |
| 16 | 8.78 | -0.01 | 0.08C4 | 5.9999 | 0.0C6E | 5.9999 | 0.107C | -0.3030 | -0.0283 | -0.1095 | 0.0943 | 0.3650 |
| 17 | 10.66 | -0.02 | 0.07EC | 5.9999 | 0.0C42 | 5.9999 | 0.0553 | -0.1690 | -0.0124 | -0.0605 | 0.0656 | 0.3261 |
| 18 | 12.52 | -0.00 | 0.0827 | 5.9999 | 0.C06E | 5.9999 | 0.0756 | -0.0900 | 0.0052 | -0.0155 | -0.0578 | 0.1722 |
| 19 | 14.42 | 0.00 | 0.05E4 | 5.9999 | 0.C055 | 5.9999 | 0.1027 | -0.0194 | 0.0227 | 0.0241 | -1.1698 | -1.2423 |
| 20 | 16.37 | -0.01 | 0.06E1 | 5.9999 | 0.0C6E | 5.9999 | 0.0790 | 0.0463 | 0.0430 | 0.0574 | 0.5265 | 1.2397 |
| 21 | 18.32 | -0.02 | 0.0E1E | 5.9999 | 0.0C47 | 5.9999 | 0.0576 | 0.1171 | 0.05E5 | 0.0570 | 0.4824 | 0.8284 |
| 22 | 20.27 | -0.01 | 0.0871 | 5.9999 | 0.0C87 | 5.9999 | 0.0999 | 0.1965 | 0.0686 | 0.1376 | 0.3455 | 0.6532 |
| 23 | 22.28 | -0.01 | 0.091E | 5.9999 | 0.0073 | 5.9999 | 0.0797 | 0.2546 | 0.0745 | 0.1644 | 0.2923 | 0.6452 |
| 24 | 24.23 | -0.01 | 0.0881 | 5.9999 | 0.0C75 | 5.9999 | 0.0847 | 0.3381 | 0.0813 | 0.2031 | 0.2404 | 0.6007 |
| 25 | 26.31 | -0.0C | 0.1CE4 | 5.9999 | 0.C14E | 5.9999 | 0.1365 | 0.3780 | 0.0903 | 0.2240 | 0.2388 | 0.5926 |
| 26 | 28.17 | 0.03 | 0.11E4 | 5.9999 | 0.C23E | 5.9999 | 0.1963 | 0.4064 | 0.0959 | 0.2406 | 0.2359 | 0.5925 |
| 27 | 28.17 | 0.03 | 0.113E | 5.9999 | 0.C21C | 5.9999 | 0.1849 | 0.4138 | 0.0936 | 0.2449 | 0.2278 | 0.5962 |
| 28 | 28.18 | 0.04 | 0.1113 | 5.9999 | 0.0204 | 5.9999 | 0.1833 | 0.4227 | 0.0948 | 0.2505 | 0.2242 | 0.5926 |
| 29 | 28.43 | 0.02 | 0.1076 | 5.9999 | 0.C215 | 5.9999 | 0.2035 | 0.4322 | 0.0945 | 0.2527 | 0.2186 | 0.5847 |
| 30 | 28.73 | 0.03 | 0.1169 | 5.9999 | 0.0244 | 5.9999 | 0.2200 | 0.4495 | 0.0947 | 0.2606 | 0.2104 | 0.5752 |
| 31 | 29.08 | 0.02 | 0.1CEE | 5.9999 | 0.0242 | 5.9999 | 0.2228 | 0.4702 | 0.0948 | 0.2692 | 0.2016 | 0.5725 |
| 32 | 29.38 | 0.03 | 0.1552 | 5.9999 | 0.C187 | 5.9999 | 0.1964 | 0.4711 | 0.0959 | 0.2706 | 0.2035 | 0.5746 |
| 33 | 29.66 | 0.03 | 0.1207 | 5.9999 | 0.0304 | 5.9999 | 0.2519 | 0.4932 | 0.0927 | 0.2792 | 0.1879 | 0.5661 |
| 34 | 29.96 | 0.03 | 0.1251 | 5.9999 | 0.0334 | 5.9999 | 0.2638 | 0.5031 | 0.0923 | 0.2825 | 0.1834 | 0.5615 |
| 35 | 30.25 | 0.04 | 0.1025 | 5.9999 | 0.0224 | 5.9999 | 0.2156 | 0.5170 | 0.0927 | 0.2893 | 0.1793 | 0.5596 |
| 36 | 30.53 | 0.03 | 0.1135 | 5.9999 | 0.0286 | 5.9999 | 0.2511 | 0.5358 | 0.0934 | 0.2973 | 0.1743 | 0.5546 |
| 37 | 30.80 | 0.04 | 0.1053 | 5.9999 | 0.0251 | 5.9999 | 0.2662 | 0.5591 | 0.0923 | 0.3083 | 0.1650 | 0.5514 |
| 38 | 31.07 | 0.05 | 0.1171 | 5.9999 | 0.0328 | 5.9999 | 0.2801 | 0.5818 | 0.0918 | 0.3163 | 0.1634 | 0.5523 |
| 39 | 31.36 | 0.02 | 0.0957 | 5.9999 | 0.0262 | 5.9999 | 0.2738 | 0.6076 | 0.0906 | 0.3321 | 0.1491 | 0.5466 |
| 40 | 31.64 | 0.02 | 0.0911 | 5.9999 | 0.0263 | 5.9999 | 0.2887 | 0.6193 | 0.0899 | 0.3381 | 0.1451 | 0.5459 |
| 41 | 31.91 | 0.03 | 0.0836 | 5.9999 | 0.0212 | 5.9999 | 0.2542 | 0.6205 | 0.0900 | 0.3351 | 0.1450 | 0.5465 |
| 42 | 32.19 | 0.0C | 0.0911 | 5.9999 | 0.0258 | 5.9999 | 0.2832 | 0.6463 | 0.0890 | 0.3503 | 0.1377 | 0.5426 |
| 43 | 32.49 | 0.0C | 0.0966 | 5.9999 | 0.0285 | 5.9999 | 0.2950 | 0.6664 | 0.0883 | 0.3595 | 0.1329 | 0.5395 |
| 44 | 32.71 | 0.0C | 0.0933 | 5.9999 | 0.0266 | 5.9999 | 0.2767 | 0.6874 | 0.0866 | 0.3693 | 0.1259 | 0.5372 |
| 45 | 32.97 | -0.01 | 0.0885 | 5.9999 | 0.C23C | 5.9999 | 0.2567 | 0.6806 | 0.0880 | 0.3675 | 0.1293 | 0.5400 |
| 46 | 33.24 | 0.00 | 0.0885 | 5.9999 | 0.0221 | 5.9999 | 0.2466 | 0.7018 | 0.0874 | 0.3768 | 0.1245 | 0.5369 |

TEST 7 | PART 1,2,3 | MACH 1.7 | REYNOLDS NO/FT 6.0 MILLION | PHI 0.0 | CONF 11 | L/D 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 35.50 | 0.01 | 0.0866 | 0.9999 | 0.0203 | 0.9999 | 0.2286 | 0.7235 | 0.0867 | 0.3866 | 0.1198 | 0.5343 |
| 48 | 35.75 | 0.00 | 0.0833 | 0.9999 | 0.0178 | 0.9999 | 0.2113 | 0.7116 | 0.0874 | 0.3802 | 0.1228 | 0.5341 |
| 49 | 33.99 | -0.00 | 0.0895 | 0.9999 | 0.0217 | 0.9999 | 0.2414 | 0.7338 | 0.0866 | 0.3883 | 0.1180 | 0.5293 |
| 50 | 34.23 | 0.00 | 0.0844 | 0.9999 | 0.0175 | 0.9999 | 0.2050 | 0.7440 | 0.0881 | 0.3951 | 0.1157 | 0.5310 |
| 51 | 34.51 | -0.01 | 0.0877 | 0.9999 | 0.0254 | 0.9999 | 0.2600 | 0.7671 | 0.0852 | 0.4037 | 0.1110 | 0.5263 |
| 52 | 34.75 | 0.00 | 0.0843 | 0.9999 | 0.0214 | 0.9999 | 0.2374 | 0.7605 | 0.0854 | 0.4118 | 0.1061 | 0.5243 |
| 53 | 34.98 | -0.00 | 0.0865 | 0.9999 | 0.0210 | 0.9999 | 0.2428 | 0.7795 | 0.0857 | 0.4051 | 0.1055 | 0.5197 |
| 54 | 35.25 | -0.01 | 0.0877 | 0.9999 | 0.0111 | 0.9999 | 0.1040 | 0.7796 | 0.0849 | 0.4060 | 0.1088 | 0.5206 |
| 55 | 35.49 | -0.00 | 0.0876 | 0.9999 | 0.0215 | 0.9999 | 0.2454 | 0.7902 | 0.0842 | 0.4104 | 0.1065 | 0.5194 |
| 56 | 35.72 | -0.00 | 0.0816 | 0.9999 | 0.0175 | 0.9999 | 0.2100 | 0.7998 | 0.0834 | 0.4141 | 0.1067 | 0.5178 |
| 57 | 35.98 | 0.01 | 0.0858 | 0.9999 | 0.0221 | 0.9999 | 0.2481 | 0.8020 | 0.0847 | 0.4139 | 0.1056 | 0.5161 |
| 58 | 36.20 | 0.01 | 0.0838 | 0.9999 | 0.0204 | 0.9999 | 0.2343 | 0.8052 | 0.0838 | 0.4148 | 0.1013 | 0.5148 |
| 59 | 36.44 | -0.01 | 0.0858 | 0.9999 | 0.0226 | 0.9999 | 0.2517 | 0.8311 | 0.0847 | 0.4263 | 0.1015 | 0.5129 |
| 60 | 36.69 | -0.01 | 0.0854 | 0.9999 | 0.0196 | 0.9999 | 0.2295 | 0.8309 | 0.0853 | 0.4157 | 0.1044 | 0.5138 |
| 61 | 36.93 | -0.02 | 0.0810 | 0.9999 | 0.0170 | 0.9999 | 0.2059 | 0.8320 | 0.0855 | 0.4255 | 0.1027 | 0.5114 |
| 62 | 37.15 | 0.00 | 0.0858 | 0.9999 | 0.0240 | 0.9999 | 0.2643 | 0.8441 | 0.0838 | 0.4305 | 0.0993 | 0.5105 |
| 63 | 37.39 | -0.01 | 0.0853 | 0.9999 | 0.0213 | 0.9999 | 0.2497 | 0.8411 | 0.0846 | 0.4294 | 0.1008 | 0.5105 |
| 64 | 37.64 | 0.01 | 0.0858 | 0.9999 | 0.0236 | 0.9999 | 0.2681 | 0.8680 | 0.0840 | 0.4392 | 0.0967 | 0.5060 |
| 65 | 37.86 | 0.01 | 0.0856 | 0.9999 | 0.0222 | 0.9999 | 0.2517 | 0.8657 | 0.0833 | 0.4395 | 0.0962 | 0.5081 |
| 66 | 38.12 | 0.02 | 0.0821 | 0.9999 | 0.0186 | 0.9999 | 0.2192 | 0.8713 | 0.0846 | 0.4404 | 0.0971 | 0.5055 |
| 67 | 38.36 | -0.00 | 0.0931 | 0.9999 | 0.0255 | 0.9999 | 0.2739 | 0.8708 | 0.0858 | 0.4405 | 0.0985 | 0.5056 |
| 68 | 38.58 | -0.02 | 0.0887 | 0.9999 | 0.0225 | 0.9999 | 0.2537 | 0.8836 | 0.0840 | 0.4471 | 0.0950 | 0.5060 |
| 69 | 38.82 | -0.01 | 0.0787 | 0.9999 | 0.0177 | 0.9999 | 0.2249 | 0.8613 | 0.0892 | 0.4356 | 0.1035 | 0.5060 |
| 70 | 39.03 | -0.01 | 0.0765 | 0.9999 | 0.0182 | 0.9999 | 0.2118 | 0.8643 | 0.0827 | 0.4350 | 0.0914 | 0.5032 |
| 71 | 39.25 | -0.00 | 0.0821 | 0.9999 | 0.0181 | 0.9999 | 0.2192 | 0.8828 | 0.0865 | 0.4445 | 0.0980 | 0.5036 |
| 72 | 39.47 | 0.00 | 0.0831 | 0.9999 | 0.0203 | 0.9999 | 0.2445 | 0.9006 | 0.0839 | 0.4555 | 0.0923 | 0.5012 |
| 73 | 39.69 | 0.00 | 0.0756 | 0.9999 | 0.0178 | 0.9999 | 0.2231 | 0.8819 | 0.0884 | 0.4437 | 0.1002 | 0.5031 |
| 74 | 39.89 | -0.01 | 0.0866 | 0.9999 | 0.0295 | 0.9999 | 0.2992 | 0.9134 | 0.0854 | 0.4583 | 0.0935 | 0.5018 |
| 75 | 40.12 | -0.01 | 0.0865 | 0.9999 | 0.0210 | 0.9999 | 0.2428 | 0.9446 | 0.0831 | 0.4725 | 0.0880 | 0.5002 |
| 76 | 40.33 | -0.02 | 0.0799 | 0.9999 | 0.0178 | 0.9999 | 0.2228 | 0.9303 | 0.0838 | 0.4659 | 0.0901 | 0.5008 |
| 77 | 40.52 | -0.00 | 0.0854 | 0.9999 | 0.0214 | 0.9999 | 0.2506 | 0.9274 | 0.0847 | 0.4644 | 0.0913 | 0.5008 |
| 78 | 40.73 | -0.01 | 0.0710 | 0.9999 | 0.0136 | 0.9999 | 0.1915 | 0.9305 | 0.0840 | 0.4683 | 0.0897 | 0.5001 |
| 79 | 40.94 | -0.00 | 0.0921 | 0.9999 | 0.0254 | 0.9999 | 0.2758 | 0.9376 | 0.0843 | 0.4664 | 0.0899 | 0.4998 |
| 80 | 41.18 | 0.01 | 0.0854 | 0.9999 | 0.0214 | 0.9999 | 0.2506 | 0.9325 | 0.0845 | 0.4682 | 0.0906 | 0.4995 |
| 81 | 41.38 | -0.01 | 0.0887 | 0.9999 | 0.0235 | 0.9999 | 0.2623 | 0.9589 | 0.0817 | 0.4767 | 0.0852 | 0.4971 |
| 82 | 41.58 | -0.01 | 0.0843 | 0.9999 | 0.0217 | 0.9999 | 0.2574 | 0.9502 | 0.0845 | 0.4731 | 0.0885 | 0.4979 |
| 83 | 41.79 | -0.01 | 0.0842 | 0.9999 | 0.0222 | 0.9999 | 0.2664 | 0.9716 | 0.0816 | 0.4837 | 0.0840 | 0.4978 |
| 84 | 41.99 | -0.03 | 0.0876 | 0.9999 | 0.0151 | 0.9999 | 0.2234 | 0.9670 | 0.0806 | 0.4807 | 0.0833 | 0.4968 |
| 85 | 42.20 | -0.02 | 0.0832 | 0.9999 | 0.0125 | 0.9999 | 0.1976 | 0.9605 | 0.0762 | 0.4849 | 0.0777 | 0.4945 |
| 86 | 42.39 | -0.02 | 0.0765 | 0.9999 | 0.0156 | 0.9999 | 0.2300 | 0.9636 | 0.0806 | 0.4781 | 0.0838 | 0.4962 |
| 87 | 42.58 | -0.02 | 0.0711 | 0.9999 | 0.0154 | 0.9999 | 0.2166 | 0.9716 | 0.0762 | 0.4805 | 0.0784 | 0.4945 |
| 88 | 42.78 | -0.02 | 0.0743 | 0.9999 | 0.0163 | 0.9999 | 0.2463 | 0.9629 | 0.0756 | 0.4751 | 0.0785 | 0.4934 |
| 89 | 42.93 | -0.02 | 0.0767 | 0.9999 | 0.0150 | 0.9999 | 0.2377 | 0.9759 | 0.0797 | 0.4815 | 0.0816 | 0.4934 |
| 90 | 43.11 | -0.01 | 0.0711 | 0.9999 | 0.0163 | 0.9999 | 0.2293 | 0.9523 | 0.0746 | 0.4707 | 0.0785 | 0.4943 |
| 91 | 43.30 | -0.02 | 0.0723 | 0.9999 | 0.0177 | 0.9999 | 0.2446 | 0.9702 | 0.0800 | 0.4795 | 0.0824 | 0.4942 |
| 92 | 43.48 | -0.01 | 0.0745 | 0.9999 | 0.0188 | 0.9999 | 0.2523 | 0.9827 | 0.0761 | 0.4743 | 0.0790 | 0.4927 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 138 MACH 1.10 RATIO=8 PHI 0.0 CONF BLNDFIL L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.68 | -0.02 | 0.0612 | 5.9999 | 0.0133 | 5.9999 | 0.2173 | 0.9647 | 0.0758 | 0.4746 | 0.0786 | 0.4920 |
| 94 | 43.80 | -0.03 | 0.0658 | 5.9999 | 0.0163 | 5.9999 | 0.2485 | 0.9739 | 0.0785 | 0.4804 | 0.0806 | 0.4933 |
| 95 | 44.00 | -0.01 | 0.0613 | 5.9999 | 0.0225 | 5.9999 | 0.2817 | 0.9702 | 0.0747 | 0.4768 | 0.0776 | 0.4914 |
| 96 | 44.21 | -0.02 | 0.0712 | 5.9999 | 0.0190 | 5.9999 | 0.2669 | 0.9502 | 0.0732 | 0.4677 | 0.0739 | 0.4922 |
| 97 | 44.39 | -0.01 | 0.0455 | 5.9999 | 0.0087 | 5.9999 | 0.1473 | 0.9471 | 0.0715 | 0.4656 | 0.0755 | 0.4918 |
| 98 | 44.57 | -0.04 | 0.0635 | 5.9999 | 0.0153 | 5.9999 | 0.2409 | 0.9500 | 0.0643 | 0.4592 | 0.0691 | 0.4938 |
| 99 | 44.78 | -0.02 | 0.0751 | 5.9999 | 0.0237 | 5.9999 | 0.2996 | 0.9628 | 0.0721 | 0.4735 | 0.0745 | 0.4922 |
| 100 | 44.95 | -0.02 | 0.0612 | 5.9999 | 0.0151 | 5.9999 | 0.2467 | 0.9274 | 0.0644 | 0.4581 | 0.0694 | 0.4940 |
| 101 | 45.12 | -0.01 | 0.0713 | 5.9999 | 0.0204 | 5.9999 | 0.2561 | 0.9476 | 0.0663 | 0.4671 | 0.0721 | 0.4925 |
| 102 | 45.30 | -0.01 | 0.0724 | 5.9999 | 0.0209 | 5.9999 | 0.2687 | 0.9471 | 0.0682 | 0.4678 | 0.0720 | 0.4935 |
| 103 | 45.45 | -0.02 | 0.0652 | 5.9999 | 0.0153 | 5.9999 | 0.2785 | 0.9083 | 0.0635 | 0.4500 | 0.0703 | 0.4954 |
| 104 | 45.66 | -0.00 | 0.0770 | 5.9999 | 0.0244 | 5.9999 | 0.3109 | 0.9203 | 0.0653 | 0.4597 | 0.0703 | 0.4952 |
| 105 | 45.84 | -0.02 | 0.0753 | 5.9999 | 0.0246 | 5.9999 | 0.3102 | 0.9013 | 0.0621 | 0.4474 | 0.0685 | 0.4964 |
| 106 | 46.01 | -0.02 | 0.0662 | 5.9999 | 0.0186 | 5.9999 | 0.2658 | 0.8570 | 0.0633 | 0.4286 | 0.0738 | 0.5001 |
| 107 | 46.18 | -0.02 | 0.0652 | 5.9999 | 0.0150 | 5.9999 | 0.2534 | 0.8626 | 0.0639 | 0.4313 | 0.0741 | 0.5000 |
| 108 | 46.36 | -0.01 | 0.0656 | 5.9999 | 0.0205 | 5.9999 | 0.3178 | 0.8524 | 0.0634 | 0.4448 | 0.0716 | 0.4984 |
| 109 | 46.54 | -0.02 | 0.0751 | 5.9999 | 0.0230 | 5.9999 | 0.3063 | 0.8399 | 0.0638 | 0.4222 | 0.0759 | 0.5027 |
| 110 | 46.70 | -0.03 | 0.0655 | 5.9999 | 0.0205 | 5.9999 | 0.3171 | 0.8004 | 0.0642 | 0.4304 | 0.0746 | 0.5002 |
| 111 | 46.88 | -0.05 | 0.0660 | 5.9999 | 0.0201 | 5.9999 | 0.3045 | 0.8258 | 0.0651 | 0.4176 | 0.0785 | 0.5033 |
| 112 | 47.07 | -0.03 | 0.0655 | 5.9999 | 0.0216 | 5.9999 | 0.3300 | 0.8007 | 0.0651 | 0.4083 | 0.0807 | 0.5061 |
| 113 | 47.24 | -0.05 | 0.0593 | 5.9999 | 0.0155 | 5.9999 | 0.2614 | 0.7935 | 0.0661 | 0.4031 | 0.0833 | 0.5080 |
| 114 | 47.38 | -0.03 | 0.0638 | 5.9999 | 0.0196 | 5.9999 | 0.2978 | 0.8024 | 0.0669 | 0.4067 | 0.0826 | 0.5065 |
| 115 | 47.57 | -0.05 | 0.0604 | 5.9999 | 0.0165 | 5.9999 | 0.2798 | 0.8023 | 0.0666 | 0.4072 | 0.0830 | 0.5075 |
| 116 | 47.76 | -0.04 | 0.0571 | 5.9999 | 0.0144 | 5.9999 | 0.2522 | 0.8104 | 0.0660 | 0.4120 | 0.0816 | 0.5047 |
| 117 | 47.92 | -0.04 | 0.0626 | 5.9999 | 0.0194 | 5.9999 | 0.3099 | 0.8074 | 0.0681 | 0.4070 | 0.0843 | 0.5041 |
| 118 | 48.09 | -0.03 | 0.0741 | 5.9999 | 0.0235 | 5.9999 | 0.3225 | 0.8400 | 0.0676 | 0.4250 | 0.0795 | 0.5024 |
| 119 | 48.27 | -0.04 | 0.0775 | 5.9999 | 0.0255 | 5.9999 | 0.3362 | 0.8551 | 0.0672 | 0.4275 | 0.0786 | 0.4999 |
| 120 | 48.43 | -0.04 | 0.0706 | 5.9999 | 0.0232 | 5.9999 | 0.3286 | 0.8859 | 0.0677 | 0.4354 | 0.0764 | 0.4960 |
| 121 | 48.62 | -0.02 | 0.0546 | 5.9999 | 0.0165 | 5.9999 | 0.3011 | 0.9075 | 0.0677 | 0.4471 | 0.0746 | 0.4927 |
| 122 | 48.79 | -0.04 | 0.0616 | 5.9999 | 0.0196 | 5.9999 | 0.2913 | 0.9079 | 0.0687 | 0.4461 | 0.0756 | 0.4914 |
| 123 | 48.93 | -0.02 | 0.0550 | 5.9999 | 0.0138 | 5.9999 | 0.2509 | 0.8936 | 0.0687 | 0.4393 | 0.0769 | 0.4918 |
| 124 | 49.12 | -0.02 | 0.0603 | 5.9999 | 0.0201 | 5.9999 | 0.3052 | 0.8541 | 0.0674 | 0.4224 | 0.0785 | 0.4946 |
| 125 | 49.28 | -0.02 | 0.0597 | 5.9999 | 0.0222 | 5.9999 | 0.3185 | 0.8466 | 0.0669 | 0.4196 | 0.0790 | 0.4954 |
| 126 | 49.46 | -0.02 | 0.0595 | 5.9999 | 0.0186 | 5.9999 | 0.2809 | 0.8249 | 0.0663 | 0.4055 | 0.0755 | 0.4934 |
| 127 | 49.61 | -0.01 | 0.0640 | 5.9999 | 0.0191 | 5.9999 | 0.2984 | 0.8288 | 0.0666 | 0.4104 | 0.0758 | 0.4952 |
| 128 | 49.82 | 0.00 | 0.0550 | 5.9999 | 0.0161 | 5.9999 | 0.2927 | 0.8323 | 0.0660 | 0.4101 | 0.0793 | 0.4927 |
| 129 | 49.98 | -0.01 | 0.0709 | 5.9999 | 0.0214 | 5.9999 | 0.3018 | 0.8180 | 0.0661 | 0.4033 | 0.0808 | 0.4936 |
| 130 | 50.19 | 0.00 | 0.0721 | 5.9999 | 0.0220 | 5.9999 | 0.3051 | 0.8096 | 0.0662 | 0.3977 | 0.0817 | 0.4912 |
| 131 | 50.30 | -0.00 | 0.0687 | 5.9999 | 0.0208 | 5.9999 | 0.3028 | 0.8059 | 0.0656 | 0.3954 | 0.0814 | 0.4908 |
| 132 | 50.49 | -0.00 | 0.0664 | 5.9999 | 0.0211 | 5.9999 | 0.3178 | 0.7929 | 0.0640 | 0.3892 | 0.0807 | 0.4909 |
| 133 | 50.64 | -0.00 | 0.0685 | 5.9999 | 0.0204 | 5.9999 | 0.2961 | 0.7799 | 0.0648 | 0.3823 | 0.0831 | 0.4902 |
| 134 | 50.82 | 0.01 | 0.0723 | 5.9999 | 0.0220 | 5.9999 | 0.3043 | 0.7840 | 0.0641 | 0.3830 | 0.0817 | 0.4885 |
| 135 | 50.98 | -0.01 | 0.0696 | 5.9999 | 0.0183 | 5.9999 | 0.2790 | 0.7843 | 0.0644 | 0.3833 | 0.0821 | 0.4886 |
| 136 | 51.17 | -0.00 | 0.0770 | 5.9999 | 0.0243 | 5.9999 | 0.3156 | 0.7768 | 0.0634 | 0.3796 | 0.0816 | 0.4887 |
| 137 | 51.33 | -0.01 | 0.0737 | 5.9999 | 0.0226 | 5.9999 | 0.3066 | 0.7693 | 0.0631 | 0.3858 | 0.0799 | 0.4885 |
| 138 | 51.50 | 0.00 | 0.0668 | 5.9999 | 0.0207 | 5.9999 | 0.3099 | 0.7711 | 0.0628 | 0.3760 | 0.0814 | 0.4876 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&8 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF 11 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.87 | 0.01 | 0.0736 | 5.9999 | 0.0236 | 5.9999 | 0.3207 | 0.7556 | 0.0625 | 0.3681 | 0.0827 | 0.4872 |
| 140 | 51.84 | 0.01 | 0.0745 | 5.9999 | 0.0237 | 5.9999 | 0.3164 | 0.7761 | 0.0625 | 0.3767 | 0.0805 | 0.4854 |
| 141 | 52.00 | 0.01 | 0.0800 | 5.9999 | 0.0161 | 5.9999 | 0.2883 | 0.7650 | 0.0628 | 0.3803 | 0.0800 | 0.4845 |
| 142 | 52.01 | 0.01 | 0.0833 | 5.9999 | 0.0178 | 5.9999 | 0.2803 | 0.7707 | 0.0624 | 0.3779 | 0.0801 | 0.4853 |
| 143 | 52.00 | 0.02 | 0.0835 | 5.9999 | 0.0178 | 5.9999 | 0.2803 | 0.7671 | 0.0615 | 0.3717 | 0.0807 | 0.4846 |
| 144 | 52.50 | 0.02 | 0.0762 | 5.9999 | 0.0236 | 5.9999 | 0.3163 | 0.7774 | 0.0622 | 0.3773 | 0.0800 | 0.4853 |
| 145 | 52.75 | 0.01 | 0.0764 | 5.9999 | 0.0215 | 5.9999 | 0.3054 | 0.7684 | 0.0620 | 0.3732 | 0.0807 | 0.4857 |
| 146 | 52.87 | -0.01 | 0.0765 | 5.9999 | 0.0213 | 5.9999 | 0.2922 | 0.7758 | 0.0621 | 0.3756 | 0.0800 | 0.4841 |
| 147 | 53.03 | 0.01 | 0.0800 | 5.9999 | 0.0186 | 5.9999 | 0.2727 | 0.7718 | 0.0623 | 0.3739 | 0.0807 | 0.4845 |
| 148 | 52.95 | 0.01 | 0.0854 | 5.9999 | 0.0216 | 5.9999 | 0.3026 | 0.7627 | 0.0623 | 0.3698 | 0.0817 | 0.4845 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.80 REX10-6 1.7 PHI 0.0 CONF BLOCK 14 L C.G. DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | -1.8727 | 0.5260 | 0.0112 | -0.0447 | 0.0155 | 0.7243 | 0.1936 | 0.5337 | -3.4848 |
| 2 | -5.75 | -0.01 | -1.8727 | 0.5266 | 0.0247 | -0.0695 | 0.0156 | 0.7247 | 0.1934 | 0.5313 | -3.4848 |
| 3 | -5.75 | -0.01 | -1.8763 | 0.5365 | 0.0232 | -0.0936 | 0.0156 | 0.7275 | 0.1925 | 0.5254 | -3.4850 |
| 4 | -5.75 | -0.01 | -1.8754 | 0.5556 | 0.0400 | -0.0710 | 0.0156 | 0.7280 | 0.1915 | 0.5305 | -3.4956 |
| 5 | -5.74 | -0.01 | -1.8902 | 0.5671 | 0.0043 | -0.1005 | 0.0157 | 0.7276 | 0.1924 | 0.5352 | -3.4743 |
| 6 | -5.74 | -0.01 | -1.8914 | 0.5508 | 0.0363 | -0.0622 | 0.0156 | 0.7277 | 0.1926 | 0.5349 | -3.4635 |
| 7 | -5.75 | -0.01 | -1.8778 | 0.5228 | 0.0248 | -0.0702 | 0.0156 | 0.7261 | 0.1919 | 0.5342 | -3.4740 |
| 8 | -5.79 | -0.01 | -1.8866 | 0.5242 | 0.0606 | -0.1092 | 0.0157 | 0.7288 | 0.1927 | 0.5361 | -3.4953 |
| 9 | -5.89 | -0.01 | -1.8842 | 0.4758 | 0.0520 | -0.1209 | 0.0157 | 0.7334 | 0.1923 | 0.5411 | -3.4947 |
| 10 | -5.23 | -0.01 | -1.7160 | 0.1460 | 0.0361 | -0.0839 | 0.0159 | 0.7193 | 0.1845 | 0.5348 | -3.5774 |
| 11 | -3.37 | -0.01 | -1.4152 | 0.4543 | 0.0102 | -0.0571 | 0.0163 | 0.6715 | 0.1733 | 0.4983 | -3.8540 |
| 12 | -1.82 | -0.01 | -1.1263 | 0.7933 | 0.0834 | -0.1130 | 0.0169 | 0.6028 | 0.1440 | 0.4588 | -4.2483 |
| 13 | 0.21 | -0.01 | -0.9063 | 0.9161 | 0.0541 | -0.0866 | 0.0244 | 0.5603 | 0.1299 | 0.4304 | -4.7624 |
| 14 | 1.98 | -0.01 | -0.8579 | 0.8064 | 0.0086 | -0.1002 | 0.0179 | 0.5271 | 0.1346 | 0.3923 | -5.6798 |
| 15 | 3.75 | -0.01 | -0.9259 | 0.3886 | 0.0529 | -0.0581 | 0.0184 | 0.4902 | 0.1340 | 0.3562 | -7.9553 |
| 16 | 5.54 | -0.01 | -0.9178 | 0.9178 | 0.0528 | -0.0983 | 0.0189 | 0.4464 | 0.1344 | 0.3121 | -16.2286 |
| 17 | 7.38 | -0.01 | 0.0040 | 0.4472 | 0.0086 | -0.0564 | 0.0194 | 0.4063 | 0.1375 | 0.2688 | 38.2172 |
| 18 | 9.13 | -0.01 | 0.2935 | 0.0278 | 0.0511 | -0.0508 | 0.0272 | 0.3770 | 0.1444 | 0.2326 | 6.5006 |
| 19 | 10.93 | -0.01 | 0.5517 | 1.5875 | 0.0257 | -0.0233 | 0.0349 | 0.3392 | 0.1485 | 0.1907 | 2.8775 |
| 20 | 12.70 | -0.02 | 0.7550 | 1.2010 | 0.0412 | -0.0119 | 0.0213 | 0.3138 | 0.1551 | 0.1587 | 1.5782 |
| 21 | 14.46 | -0.01 | 1.0354 | 1.0123 | 0.0404 | -0.0242 | 0.0293 | 0.2919 | 0.1620 | 0.1259 | 0.9776 |
| 22 | 16.34 | -0.01 | 1.3061 | 0.8115 | 0.0245 | 0.0372 | 0.0230 | 0.2690 | 0.1734 | 0.0956 | 0.6213 |
| 23 | 18.16 | -0.02 | 1.5528 | 0.5213 | -0.1392 | 0.3104 | 0.0374 | 0.2399 | 0.1650 | 0.0549 | 0.3357 |
| 24 | 19.98 | -0.03 | 1.8598 | 0.1817 | -0.3470 | 1.0494 | 0.0575 | 0.2004 | 0.1971 | 0.0033 | 0.0977 |
| 25 | 21.80 | -0.05 | 2.1957 | -0.2056 | -0.5035 | 1.5771 | 0.0839 | 0.1635 | 0.2109 | -0.0474 | -0.0955 |
| 26 | 23.63 | -0.08 | 2.5402 | -0.0275 | -0.8113 | 2.4041 | 0.0695 | 0.1304 | 0.2257 | -0.0953 | -0.2472 |
| 27 | 25.42 | -0.03 | 2.8474 | -0.7831 | -0.3896 | 1.4063 | 0.0379 | 0.0822 | 0.2281 | -0.1459 | -0.2750 |
| 28 | 27.20 | 0.00 | 3.2267 | -0.8220 | 0.1757 | -0.0493 | 0.0729 | 0.0321 | 0.2272 | -0.1951 | -0.2548 |
| 29 | 27.81 | 0.01 | 3.2884 | -0.7611 | 0.3833 | -0.6235 | 0.0815 | 0.0047 | 0.2272 | -0.2225 | -0.2316 |
| 30 | 28.09 | 0.01 | 3.2866 | -0.7507 | 0.3816 | -0.5285 | 0.0744 | 0.0194 | 0.2295 | -0.2101 | -0.2301 |
| 31 | 28.38 | 0.00 | 3.3784 | -0.7726 | 0.2245 | -0.0176 | 0.0603 | 0.0056 | 0.2318 | -0.2262 | -0.2288 |
| 32 | 28.70 | 0.00 | 3.4534 | -0.6371 | 0.1584 | 0.1003 | 0.0507 | -0.0052 | 0.2360 | -0.2392 | -0.2417 |
| 33 | 29.00 | 0.02 | 3.5153 | -0.5788 | 0.3855 | -0.3527 | 0.0822 | -0.0075 | 0.2375 | -0.2450 | -0.2457 |
| 34 | 29.28 | 0.01 | 3.6122 | -0.5053 | 0.2524 | 0.0271 | 0.0734 | -0.0147 | 0.2412 | -0.2559 | -0.2672 |
| 35 | 29.56 | 0.01 | 3.6566 | -0.9870 | 0.2700 | 0.2749 | 0.0506 | -0.0220 | 0.2454 | -0.2674 | -0.2677 |
| 36 | 29.85 | 0.03 | 3.7046 | -1.1140 | 0.5071 | -0.1803 | 0.0968 | -0.0242 | 0.2473 | -0.2715 | -0.2544 |
| 37 | 30.11 | 0.03 | 3.8262 | -1.1115 | 0.4797 | -0.0897 | 0.0967 | -0.0271 | 0.2501 | -0.2772 | -0.2903 |
| 38 | 30.37 | 0.02 | 3.8956 | -1.1057 | 0.4548 | 0.0240 | 0.0985 | -0.0320 | 0.2533 | -0.2853 | -0.2589 |
| 39 | 30.65 | 0.02 | 3.9578 | -1.1648 | 0.3419 | 0.2800 | 0.0609 | -0.0409 | 0.2585 | -0.2995 | -0.2964 |
| 40 | 30.92 | 0.03 | 4.0645 | -1.3551 | 0.4588 | 0.3701 | 0.0612 | -0.0535 | 0.2609 | -0.3145 | -0.3337 |
| 41 | 31.20 | 0.02 | 4.1634 | -1.3808 | 0.4618 | 0.5425 | 0.0754 | -0.0571 | 0.2692 | -0.3264 | -0.3301 |
| 42 | 31.48 | 0.03 | 4.2223 | -1.4251 | 0.4241 | 0.5405 | 0.0810 | -0.0597 | 0.2688 | -0.3280 | -0.3377 |
| 43 | 31.74 | 0.04 | 4.3721 | -1.5228 | 0.5778 | 0.6065 | 0.1029 | -0.0689 | 0.2716 | -0.3406 | -0.3490 |
| 44 | 32.00 | 0.03 | 4.4118 | -1.3073 | 0.4426 | 0.6835 | 0.0743 | -0.0764 | 0.2697 | -0.3462 | -0.2963 |
| 45 | 32.25 | 0.03 | 4.4648 | -1.1344 | 0.5545 | 0.1350 | 0.0766 | -0.0856 | 0.2631 | -0.3528 | -0.2541 |
| 46 | 32.54 | 0.05 | 4.5656 | -1.2355 | 0.7427 | -0.0263 | 0.0989 | -0.0946 | 0.2683 | -0.3630 | -0.2653 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.60 RX10-6 1.7 PHI 0.0 CONF B1B0F14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.78 | 0.04 | 4.6066 | -1.0562 | 0.6503 | -0.1631 | 0.0857 | -0.1021 | 0.2664 | -0.3685 | -0.2343 |
| 48 | 33.02 | 0.05 | 4.7034 | -1.0869 | 0.7662 | -0.1917 | 0.1010 | -0.1044 | 0.2692 | -0.3736 | -0.2282 |
| 49 | 33.28 | 0.05 | 4.8358 | -1.0573 | 0.6678 | -0.0200 | 0.0858 | -0.1216 | 0.2691 | -0.3857 | -0.2185 |
| 50 | 33.52 | 0.05 | 4.9164 | -1.0274 | 0.6675 | 0.0065 | 0.0706 | -0.1218 | 0.2683 | -0.3901 | -0.2090 |
| 51 | 33.77 | 0.05 | 5.0363 | -1.4420 | 0.7000 | 0.0226 | 0.0987 | -0.1235 | 0.2670 | -0.4105 | -0.2807 |
| 52 | 34.03 | 0.06 | 5.1505 | -1.0562 | 0.6702 | 0.7352 | 0.0984 | -0.1201 | 0.2879 | -0.4140 | -0.2716 |
| 53 | 34.27 | 0.06 | 5.2776 | -1.5852 | 0.7251 | 0.0165 | 0.1055 | -0.1359 | 0.2905 | -0.4267 | -0.3004 |
| 54 | 34.51 | 0.07 | 5.4236 | -1.7345 | 0.7819 | 1.0302 | 0.1122 | -0.1457 | 0.2979 | -0.4435 | -0.3198 |
| 55 | 34.75 | 0.07 | 5.4324 | -1.6026 | 0.6852 | 0.6675 | 0.1135 | -0.1529 | 0.2964 | -0.4492 | -0.2950 |
| 56 | 35.01 | 0.07 | 5.6129 | -1.9367 | 0.7563 | 1.1595 | 0.1205 | -0.1646 | 0.3029 | -0.4676 | -0.3450 |
| 57 | 35.23 | 0.08 | 5.5665 | -1.5434 | 1.0050 | -0.0017 | 0.1093 | -0.1602 | 0.2917 | -0.4518 | -0.2772 |
| 58 | 35.47 | 0.07 | 5.6674 | -1.6771 | 0.6474 | -0.5650 | 0.1053 | -0.1854 | 0.2856 | -0.4690 | -0.2453 |
| 59 | 35.70 | 0.07 | 5.8555 | -1.1237 | 1.0046 | -1.5786 | 0.0932 | -0.1960 | 0.2773 | -0.4753 | -0.1987 |
| 60 | 35.92 | 0.07 | 5.8696 | -1.2529 | 1.0252 | -1.1103 | 0.0926 | -0.1923 | 0.2819 | -0.4742 | -0.2202 |
| 61 | 36.16 | 0.07 | 5.8536 | -1.5910 | 1.0838 | -0.8595 | 0.1069 | -0.1910 | 0.2970 | -0.4880 | -0.2718 |
| 62 | 36.41 | 0.08 | 6.0140 | -1.7324 | 1.1320 | -0.6568 | 0.1066 | -0.2023 | 0.3031 | -0.5054 | -0.2881 |
| 63 | 36.64 | 0.09 | 6.1526 | -1.8070 | 1.0015 | -0.4138 | 0.0960 | -0.2134 | 0.3031 | -0.5165 | -0.2947 |
| 64 | 36.86 | 0.08 | 6.1370 | -1.8486 | 0.8936 | -0.4724 | 0.0741 | -0.2196 | 0.3008 | -0.5204 | -0.2886 |
| 65 | 37.11 | 0.08 | 6.2255 | -1.8564 | 0.9220 | -0.1501 | 0.0913 | -0.2335 | 0.2981 | -0.5316 | -0.2664 |
| 66 | 37.33 | 0.07 | 6.3064 | -1.8446 | 0.7572 | 0.4021 | 0.0891 | -0.2407 | 0.3019 | -0.5426 | -0.2925 |
| 67 | 37.56 | 0.08 | 6.5791 | -2.2350 | 0.7575 | 1.0138 | 0.0876 | -0.2508 | 0.3173 | -0.5681 | -0.3397 |
| 68 | 37.81 | 0.08 | 6.6066 | -2.2563 | 0.8133 | 1.0230 | 0.0805 | -0.2381 | 0.3290 | -0.5671 | -0.3415 |
| 69 | 38.04 | 0.09 | 6.7745 | -2.2588 | 0.8842 | 2.1192 | 0.0906 | -0.2136 | 0.3388 | -0.5524 | -0.3393 |
| 70 | 38.27 | 0.10 | 6.8234 | -2.1935 | 0.7904 | 2.0903 | 0.0121 | -0.1895 | 0.3041 | -0.5536 | -0.3215 |
| 71 | 38.49 | 0.09 | 6.9505 | -2.2167 | 0.7203 | 2.3409 | -0.0241 | -0.1576 | 0.3828 | -0.5404 | -0.3171 |
| 72 | 38.71 | 0.10 | 7.0661 | -2.2212 | 0.7805 | 2.3339 | -0.0239 | -0.1644 | 0.3866 | -0.5510 | -0.3143 |
| 73 | 38.93 | 0.11 | 7.2132 | -2.3267 | 0.8264 | 2.3367 | -0.0238 | -0.1572 | 0.3921 | -0.5493 | -0.3228 |
| 74 | 39.15 | 0.10 | 7.2940 | -2.2306 | 0.8452 | 2.2356 | -0.0228 | -0.1652 | 0.4024 | -0.5676 | -0.3058 |
| 75 | 39.34 | 0.11 | 7.4255 | -2.3512 | 0.9474 | 2.1007 | -0.0292 | -0.1660 | 0.4010 | -0.5670 | -0.3139 |
| 76 | 39.56 | 0.10 | 7.4703 | -2.3105 | 0.9717 | 1.9735 | -0.0214 | -0.1782 | 0.4025 | -0.5807 | -0.3053 |
| 77 | 39.77 | 0.10 | 7.4773 | -2.1374 | 0.9865 | 1.3593 | 0.0245 | -0.2153 | 0.3693 | -0.6046 | -0.2858 |
| 78 | 39.96 | 0.10 | 7.5370 | -2.1265 | 0.9647 | 1.3251 | 0.0251 | -0.2009 | 0.3693 | -0.5942 | -0.2825 |
| 79 | 40.18 | 0.10 | 7.6436 | -2.1775 | 0.9425 | 1.7275 | 0.0384 | -0.2317 | 0.3851 | -0.6168 | -0.2849 |
| 80 | 40.38 | 0.10 | 7.6432 | -2.1262 | 0.9170 | 1.5514 | 0.0405 | -0.2393 | 0.3767 | -0.6100 | -0.2786 |
| 81 | 40.57 | 0.09 | 7.6544 | -2.0884 | 0.8750 | 1.4068 | 0.0546 | -0.2690 | 0.3692 | -0.6332 | -0.2610 |
| 82 | 40.80 | 0.09 | 7.5150 | -2.1572 | 0.9754 | 1.7571 | 0.0102 | -0.2501 | 0.3900 | -0.6201 | -0.2776 |
| 83 | 41.00 | 0.10 | 7.5355 | -2.0298 | 0.9999 | 1.7168 | 0.0252 | -0.2337 | 0.3911 | -0.6248 | -0.2556 |
| 84 | 41.20 | 0.11 | 8.0575 | -2.1853 | 1.0245 | 1.8891 | -0.0102 | -0.1815 | 0.4229 | -0.6044 | -0.2699 |
| 85 | 41.39 | 0.11 | 8.1554 | -2.2447 | 1.0341 | 1.7767 | -0.0247 | -0.1855 | 0.4323 | -0.6178 | -0.2738 |
| 86 | 41.60 | 0.10 | 8.0794 | -2.1033 | 1.0722 | 1.9223 | -0.0321 | -0.1735 | 0.4350 | -0.6085 | -0.2637 |
| 87 | 41.80 | 0.11 | 8.3558 | -2.2051 | 1.1472 | 1.8646 | -0.0460 | -0.1724 | 0.4538 | -0.6262 | -0.2625 |
| 88 | 41.97 | 0.10 | 8.3666 | -1.9407 | 1.0551 | 1.8227 | -0.0015 | -0.2200 | 0.4180 | -0.6480 | -0.2320 |
| 89 | 42.17 | 0.11 | 8.5467 | -2.2214 | 1.1040 | 1.7477 | -0.0377 | -0.1687 | 0.4390 | -0.6077 | -0.2558 |
| 90 | 42.34 | 0.11 | 8.5543 | -2.0933 | 1.1562 | 1.8824 | -0.0307 | -0.1922 | 0.4442 | -0.6364 | -0.2447 |
| 91 | 42.53 | 0.11 | 8.6851 | -2.1074 | 1.2338 | 1.5412 | -0.0433 | -0.1667 | 0.4671 | -0.6338 | -0.2425 |
| 92 | 42.70 | 0.12 | 8.7721 | -2.2417 | 1.4324 | 1.5014 | -0.0560 | -0.1036 | 0.4708 | -0.6404 | -0.2555 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.80 REYIC-E 1.7 PHI C.C CONF BIBOF14 L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 42.89 | 0.12 | 8.8184 | -2.1660 | 1.4103 | 1.4276 | -0.0500 | -0.1655 | 0.4731 | -0.6386 | -0.2481 |
| 94 | 43.08 | 0.09 | 8.8885 | -2.2585 | 1.1633 | 1.0588 | -0.0200 | -0.2037 | 0.4703 | -0.6741 | -0.2541 |
| 95 | 43.26 | 0.11 | 8.9758 | -2.2503 | 1.2949 | 1.0075 | -0.0282 | -0.2018 | 0.4722 | -0.6741 | -0.2506 |
| 96 | 43.42 | 0.12 | 9.1534 | -2.3823 | 1.5063 | 1.1021 | -0.0620 | -0.1617 | 0.4930 | -0.6516 | -0.2603 |
| 97 | 43.62 | 0.12 | 9.2669 | -2.5042 | 1.5055 | 1.2458 | -0.0621 | -0.1712 | 0.4886 | -0.6597 | -0.2702 |
| 98 | 43.79 | 0.11 | 9.1765 | -2.3523 | 1.3648 | 1.1785 | -0.0538 | -0.1674 | 0.4872 | -0.6545 | -0.2602 |
| 99 | 43.97 | 0.12 | 9.3268 | -2.4854 | 1.5447 | 1.1170 | -0.0542 | -0.1747 | 0.4851 | -0.6637 | -0.2583 |
| 100 | 44.17 | 0.12 | 9.4340 | -2.6053 | 1.5118 | 1.3527 | -0.0477 | -0.1868 | 0.4909 | -0.6737 | -0.2825 |
| 101 | 44.35 | 0.10 | 9.5738 | -2.3558 | 1.2552 | 1.4246 | 0.0099 | -0.2529 | 0.4266 | -0.6796 | -0.2513 |
| 102 | 44.52 | 0.11 | 9.4491 | -2.3567 | 1.4303 | 1.2490 | -0.0326 | -0.2116 | 0.4834 | -0.6950 | -0.2699 |
| 103 | 44.69 | 0.12 | 9.5518 | -2.6124 | 1.5837 | 1.2859 | -0.0562 | -0.1863 | 0.4904 | -0.6767 | -0.2735 |
| 104 | 44.88 | 0.12 | 9.6318 | -2.7866 | 1.6126 | 1.2500 | -0.0540 | -0.2032 | 0.4909 | -0.6941 | -0.2866 |
| 105 | 45.07 | 0.13 | 9.7330 | -2.8377 | 1.6745 | 1.2517 | -0.0538 | -0.1998 | 0.4946 | -0.6944 | -0.2916 |
| 106 | 45.24 | 0.11 | 9.7328 | -2.7825 | 1.5007 | 1.3643 | -0.0612 | -0.1939 | 0.4974 | -0.6913 | -0.2859 |
| 107 | 45.39 | 0.11 | 9.8105 | -2.8155 | 1.5507 | 1.4771 | -0.0542 | -0.2102 | 0.4951 | -0.7053 | -0.2870 |
| 108 | 45.58 | 0.10 | 10.0461 | -3.2554 | 1.8524 | 1.5768 | 0.0093 | -0.2558 | 0.4880 | -0.7239 | -0.3284 |
| 109 | 45.75 | 0.10 | 10.0173 | -2.5625 | 1.5555 | 1.2940 | -0.0457 | -0.1919 | 0.5026 | -0.6545 | -0.2958 |
| 110 | 45.93 | 0.11 | 9.9872 | -2.8851 | 1.5744 | 1.2665 | -0.0305 | -0.2047 | 0.5012 | -0.7059 | -0.2889 |
| 111 | 46.09 | 0.10 | 10.1189 | -3.0013 | 1.6829 | 1.2885 | -0.0452 | -0.2149 | 0.5022 | -0.7171 | -0.2967 |
| 112 | 46.27 | 0.11 | 10.2161 | -3.1311 | 1.5751 | 1.3706 | -0.0383 | -0.2225 | 0.4984 | -0.7269 | -0.3065 |
| 113 | 46.45 | 0.10 | 10.3426 | -3.1477 | 1.5661 | 1.3447 | -0.0376 | -0.2190 | 0.5050 | -0.7240 | -0.3043 |
| 114 | 46.62 | 0.09 | 10.4938 | -3.2773 | 1.6165 | 2.0532 | -0.0113 | -0.2612 | 0.4821 | -0.7433 | -0.3231 |
| 115 | 46.78 | 0.10 | 10.5348 | -3.3360 | 1.3883 | 2.3693 | 0.0023 | -0.2679 | 0.4811 | -0.7491 | -0.3167 |
| 116 | 46.96 | 0.09 | 10.5360 | -3.2661 | 1.3654 | 2.3349 | -0.0117 | -0.2675 | 0.4826 | -0.7501 | -0.3064 |
| 117 | 47.15 | 0.09 | 10.6127 | -3.2185 | 1.2879 | 2.4512 | 0.0027 | -0.2690 | 0.4858 | -0.7548 | -0.3031 |
| 118 | 47.30 | 0.07 | 10.4526 | -3.1265 | 0.9569 | 2.7513 | -0.0275 | -0.2965 | 0.4722 | -0.7707 | -0.2980 |
| 119 | 47.48 | 0.09 | 10.7882 | -3.2365 | 1.2403 | 2.7441 | -0.0268 | -0.2744 | 0.4863 | -0.7627 | -0.3006 |
| 120 | 47.65 | 0.06 | 10.7381 | -3.1248 | 0.9455 | 2.7845 | -0.0264 | -0.2806 | 0.4835 | -0.7697 | -0.2906 |
| 121 | 47.82 | 0.08 | 10.7550 | -3.1338 | 1.0800 | 2.9339 | -0.0196 | -0.2973 | 0.4659 | -0.7672 | -0.2902 |
| 122 | 47.97 | 0.03 | 10.4772 | -2.8245 | 0.4588 | 2.9827 | -0.0412 | -0.3544 | 0.4273 | -0.8217 | -0.2457 |
| 123 | 48.14 | 0.04 | 10.6017 | -2.8025 | 0.4856 | 3.3861 | -0.0425 | -0.3687 | 0.4221 | -0.7508 | -0.2455 |
| 124 | 48.29 | 0.02 | 10.4406 | -2.8671 | 0.3862 | 3.2493 | -0.0781 | -0.4227 | 0.3977 | -0.8204 | -0.1980 |
| 125 | 48.46 | 0.00 | 10.3458 | -1.6752 | 0.1363 | 3.0710 | -0.0698 | -0.4432 | 0.3739 | -0.8171 | -0.1619 |
| 126 | 48.63 | -0.01 | 10.2758 | -1.4662 | 0.0410 | 2.7017 | -0.0335 | -0.4008 | 0.3615 | -0.8263 | -0.1362 |
| 127 | 48.79 | -0.02 | 10.2162 | -1.0837 | -0.0685 | 2.6500 | -0.0575 | -0.4731 | 0.3540 | -0.8271 | -0.1061 |
| 128 | 48.98 | -0.01 | 10.2517 | -1.2554 | 0.1221 | 3.2554 | -0.0699 | -0.4440 | 0.3706 | -0.8146 | -0.1607 |
| 129 | 49.16 | -0.02 | 10.3866 | -1.3658 | -0.0814 | 2.6839 | -0.0958 | -0.4648 | 0.3594 | -0.8242 | -0.1315 |
| 130 | 49.34 | 0.00 | 10.0622 | -1.7221 | 0.0706 | 3.3602 | -0.0636 | -0.4469 | 0.3771 | -0.8240 | -0.1612 |
| 131 | 49.48 | -0.01 | 10.5065 | -1.3334 | -0.0155 | 3.0804 | -0.0752 | -0.4738 | 0.3634 | -0.8372 | -0.1269 |
| 132 | 49.66 | 0.01 | 10.4736 | -2.3013 | 0.1427 | 3.4566 | -0.0930 | -0.4104 | 0.4126 | -0.8237 | -0.2152 |
| 133 | 49.85 | 0.00 | 10.7051 | -1.7656 | 0.1003 | 2.9567 | -0.0742 | -0.4498 | 0.3858 | -0.8356 | -0.1659 |
| 134 | 50.01 | -0.02 | 10.7441 | -1.8141 | -0.0200 | 2.8457 | -0.0735 | -0.4449 | 0.3916 | -0.8367 | -0.1502 |
| 135 | 50.20 | 0.02 | 11.2139 | -2.4984 | 0.2767 | 3.8042 | -0.0589 | -0.3720 | 0.4210 | -0.7930 | -0.2228 |
| 136 | 50.34 | 0.00 | 10.8714 | -1.8380 | 0.1423 | 2.8865 | -0.0666 | -0.4323 | 0.3968 | -0.8291 | -0.1691 |
| 137 | 50.53 | 0.03 | 11.3297 | -2.7975 | 0.4556 | 3.4391 | -0.0394 | -0.3290 | 0.4659 | -0.7949 | -0.2469 |
| 138 | 50.70 | 0.03 | 11.3696 | -2.8004 | 0.4344 | 3.5353 | -0.0398 | -0.3384 | 0.4676 | -0.8259 | -0.2547 |

MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.80 RX10-6 1.7 PHI 0.0 CONF 8180F14 L C.G DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 50.80 | 0.03 | 11.4669 | -2.9466 | 0.4430 | 3.3920 | -0.0391 | -0.3419 | 0.4931 | -0.8349 | -0.2570 |
| 140 | 51.03 | 0.05 | 11.6885 | -3.0261 | 0.7075 | 3.4308 | -0.0321 | -0.3353 | 0.5074 | -0.8426 | -0.2810 |
| 141 | 51.21 | 0.06 | 11.7917 | -3.3666 | 0.8277 | 3.6666 | -0.0465 | -0.3550 | 0.5050 | -0.8555 | -0.2857 |
| 142 | 51.37 | 0.06 | 11.8706 | -3.3414 | 0.7276 | 4.1140 | -0.0344 | -0.3467 | 0.5064 | -0.8530 | -0.2815 |
| 143 | 51.55 | 0.05 | 11.8787 | -3.3802 | 0.7062 | 3.9908 | -0.0472 | -0.3647 | 0.5060 | -0.8707 | -0.2846 |
| 144 | 51.71 | 0.06 | 12.0392 | -3.3776 | 0.8985 | 4.1436 | -0.0477 | -0.3644 | 0.5069 | -0.8713 | -0.2971 |
| 145 | 51.89 | 0.06 | 12.0754 | -3.3538 | 0.7340 | 4.2092 | -0.0022 | -0.3793 | 0.5070 | -0.8863 | -0.2943 |
| 146 | 52.04 | 0.08 | 12.1649 | -3.6243 | 0.9430 | 4.3784 | -0.0703 | -0.3846 | 0.5065 | -0.8911 | -0.2979 |
| 147 | 52.21 | 0.05 | 12.2272 | -3.6040 | 1.0585 | 4.4668 | -0.0707 | -0.3978 | 0.4961 | -0.8939 | -0.2938 |
| 148 | 52.38 | 0.09 | 12.2958 | -3.5857 | 1.1003 | 4.3851 | -0.0922 | -0.4308 | 0.4747 | -0.9056 | -0.2903 |
| 149 | 52.56 | 0.10 | 12.3592 | -3.5486 | 1.2259 | 4.4232 | -0.0704 | -0.4415 | 0.4719 | -0.9135 | -0.2871 |
| 150 | 52.72 | 0.10 | 12.4951 | -3.7065 | 1.3063 | 4.1518 | -0.0636 | -0.4407 | 0.4638 | -0.9046 | -0.3009 |
| 151 | 52.89 | 0.11 | 12.5266 | -3.7361 | 1.5137 | 3.8138 | -0.0674 | -0.4483 | 0.4500 | -0.8984 | -0.2968 |
| 152 | 53.07 | 0.12 | 12.6252 | -3.9859 | 1.5431 | 3.9590 | -0.0666 | -0.4419 | 0.4571 | -0.8991 | -0.3109 |
| 153 | 53.24 | 0.11 | 12.7556 | -3.9561 | 1.4235 | 3.8985 | -0.0742 | -0.4467 | 0.4553 | -0.9021 | -0.3093 |
| 154 | 53.38 | 0.10 | 13.0113 | -4.0677 | 1.4859 | 3.8770 | -0.0491 | -0.4186 | 0.4638 | -0.8825 | -0.3126 |
| 155 | 53.54 | 0.10 | 13.0154 | -3.9443 | 1.4681 | 4.7531 | -0.0164 | -0.4058 | 0.4647 | -0.8706 | -0.3030 |
| 156 | 53.71 | 0.11 | 13.1355 | -4.0006 | 1.5069 | 4.9003 | -0.0332 | -0.4053 | 0.4636 | -0.8692 | -0.3046 |
| 157 | 53.87 | 0.12 | 13.2175 | -4.1711 | 1.6467 | 4.8862 | -0.0260 | -0.4215 | 0.4747 | -0.8963 | -0.3156 |
| 158 | 54.14 | 0.10 | 13.4926 | -4.1455 | 1.5275 | 5.0110 | -0.0034 | -0.4062 | 0.4923 | -0.8985 | -0.3085 |
| 159 | 54.28 | 0.10 | 13.3654 | -3.9805 | 1.4134 | 2.5060 | 0.0192 | -0.3640 | 0.5054 | -0.8634 | -0.2978 |
| 160 | 54.42 | 0.10 | 13.4329 | -3.9549 | 1.3515 | 2.8289 | 0.0272 | -0.3597 | 0.5321 | -0.8918 | -0.2944 |
| 161 | 54.59 | 0.10 | 13.6854 | -4.0492 | 1.4395 | 3.1488 | 0.0413 | -0.3458 | 0.5630 | -0.9058 | -0.2963 |
| 162 | 54.77 | 0.09 | 13.7651 | -4.2478 | 1.3661 | 2.9739 | 0.0425 | -0.3781 | 0.5614 | -0.9345 | -0.3081 |
| 163 | 54.91 | 0.10 | 13.8188 | -4.2604 | 1.4426 | 2.9239 | 0.0426 | -0.3530 | 0.5705 | -0.9235 | -0.3089 |
| 164 | 55.08 | 0.10 | 14.1043 | -4.4566 | 1.4455 | 3.6475 | 0.0431 | -0.3547 | 0.5700 | -0.9283 | -0.3160 |
| 165 | 55.22 | 0.11 | 13.9282 | -4.1756 | 1.5918 | 2.5261 | 0.0502 | -0.3731 | 0.5586 | -0.9317 | -0.2998 |
| 166 | 55.39 | 0.10 | 13.8760 | -4.2313 | 1.4126 | 3.0272 | 0.0428 | -0.3483 | 0.5790 | -0.9273 | -0.3049 |
| 167 | 55.55 | 0.10 | 13.9521 | -4.3851 | 1.4102 | 2.9852 | 0.0575 | -0.3658 | 0.5715 | -0.9373 | -0.3137 |
| 168 | 55.70 | 0.09 | 14.0224 | -4.3038 | 1.3573 | 2.8573 | 0.0438 | -0.3716 | 0.5702 | -0.9478 | -0.3069 |
| 169 | 55.85 | 0.08 | 13.9553 | -4.1725 | 1.2757 | 2.7517 | 0.0444 | -0.3736 | 0.5744 | -0.9460 | -0.2981 |
| 170 | 56.01 | 0.10 | 13.9574 | -4.1366 | 1.5470 | 2.6404 | 0.0442 | -0.3657 | 0.5715 | -0.9372 | -0.2833 |
| 171 | 56.17 | 0.08 | 13.9949 | -4.0436 | 1.2403 | 2.6812 | 0.0449 | -0.3618 | 0.5735 | -0.9353 | -0.2889 |
| 172 | 56.32 | 0.09 | 14.0562 | -4.2749 | 1.3244 | 2.8672 | 0.0304 | -0.3548 | 0.5704 | -0.9252 | -0.3032 |
| 173 | 56.48 | 0.07 | 14.1823 | -4.2352 | 1.1778 | 2.7060 | 0.0456 | -0.3733 | 0.5756 | -0.9489 | -0.2986 |
| 174 | 56.64 | 0.09 | 14.1751 | -4.2316 | 1.3293 | 2.8414 | 0.0434 | -0.3745 | 0.5621 | -0.9366 | -0.2984 |
| 175 | 56.80 | 0.09 | 14.2047 | -4.0886 | 1.3071 | 2.5847 | 0.0460 | -0.3703 | 0.5741 | -0.9444 | -0.2877 |
| 176 | 56.95 | 0.09 | 14.1553 | -4.0967 | 1.3164 | 2.4201 | 0.0464 | -0.3967 | 0.5775 | -0.9740 | -0.2685 |
| 177 | 57.08 | 0.08 | 14.1680 | -4.0350 | 1.1428 | 2.0542 | 0.0457 | -0.4201 | 0.5300 | -0.9561 | -0.2848 |
| 178 | 57.23 | 0.08 | 14.3070 | -4.2463 | 1.2765 | 2.2696 | 0.0474 | -0.3863 | 0.5651 | -0.9664 | -0.2968 |
| 179 | 57.38 | 0.08 | 14.2986 | -4.0932 | 1.0533 | 2.4461 | 0.0473 | -0.3834 | 0.5621 | -0.9455 | -0.2863 |
| 180 | 57.51 | 0.08 | 14.1555 | -4.0085 | 1.2206 | 2.4183 | 0.0466 | -0.3883 | 0.5719 | -0.9562 | -0.2874 |
| 181 | 57.67 | 0.08 | 14.2716 | -3.9254 | 1.0151 | 2.5848 | 0.0514 | -0.3768 | 0.5804 | -0.9572 | -0.2753 |
| 182 | 57.81 | 0.04 | 14.2105 | -4.0345 | 0.8843 | 2.4232 | 0.0547 | -0.3930 | 0.5873 | -0.9773 | -0.2839 |
| 183 | 57.89 | 0.08 | 14.0583 | -3.9150 | 1.1262 | 2.0070 | 0.0552 | -0.3845 | 0.5911 | -0.9756 | -0.2785 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSDOC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.60 RNIC-C 1.7 PHI 0.0 CONF 0180F14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CO2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | -0.0092 | -0.0001 | 0.0127 | 0.0109 | -1.3804 | -0.9163 | -0.0037 | -0.3046 | 0.0040 | 0.3322 |
| 2 | -5.73 | -0.01 | -0.0121 | -0.0001 | 0.0117 | 0.0103 | -0.9669 | -0.9175 | -0.0039 | -0.3066 | 0.0042 | 0.3346 |
| 3 | -5.75 | -0.01 | -0.0093 | 0.0002 | 0.0134 | -0.0215 | -1.4409 | -0.9181 | -0.0037 | -0.3064 | 0.0040 | 0.3337 |
| 4 | -5.73 | -0.01 | -0.0060 | 0.0003 | 0.0149 | -0.0375 | -1.8825 | -0.9214 | -0.0041 | -0.3087 | 0.0044 | 0.3325 |
| 5 | -5.74 | -0.01 | -0.0075 | 0.0 | 0.0142 | 0.0 | -1.7575 | -0.9196 | -0.0039 | -0.3065 | 0.0042 | 0.3332 |
| 6 | -5.74 | -0.01 | -0.0076 | 0.0001 | 0.0148 | -0.0127 | -1.8734 | -0.9182 | -0.0039 | -0.3044 | 0.0042 | 0.3315 |
| 7 | -5.75 | -0.01 | -0.0095 | 0.0004 | 0.0147 | -0.0421 | -1.8474 | -0.9198 | -0.0035 | -0.3061 | 0.0038 | 0.3348 |
| 8 | -5.74 | -0.01 | -0.0060 | 0.0002 | 0.0149 | -0.0250 | -1.8825 | -0.9180 | -0.0038 | -0.3046 | 0.0042 | 0.3325 |
| 9 | -5.69 | -0.01 | -0.0080 | 0.0004 | 0.0153 | -0.0800 | -3.0500 | -0.9068 | -0.0029 | -0.3025 | 0.0032 | 0.3336 |
| 10 | -5.23 | -0.01 | -0.0054 | 0.0002 | 0.0141 | -0.0215 | -1.5000 | -0.8536 | 0.0003 | -0.2918 | -0.0004 | 0.3418 |
| 11 | -3.37 | -0.01 | -0.0092 | 0.0003 | 0.0122 | -0.0320 | -1.3261 | -0.7466 | -0.0047 | -0.2724 | -0.0003 | 0.3645 |
| 12 | -1.82 | -0.01 | -0.0051 | 0.0004 | 0.0105 | -0.0440 | -1.1978 | -0.6335 | 0.0050 | -0.2531 | -0.0079 | 0.3983 |
| 13 | 0.21 | -0.01 | -0.0028 | 0.0006 | 0.0090 | -0.0682 | -1.0227 | -0.5475 | 0.0085 | -0.2377 | -0.0155 | 0.4342 |
| 14 | 1.68 | -0.01 | -0.0056 | 0.0007 | 0.0083 | -0.1207 | -1.0034 | -0.4907 | 0.0114 | -0.2139 | -0.0239 | 0.4564 |
| 15 | 3.75 | -0.01 | -0.0097 | 0.0006 | 0.0086 | -0.0877 | -1.5068 | -0.3648 | 0.0126 | -0.1805 | -0.0327 | 0.4691 |
| 16 | 5.34 | -0.01 | -0.0040 | 0.0001 | 0.0120 | 0.0217 | -2.7391 | -0.3049 | 0.0131 | -0.1484 | -0.0430 | 0.4867 |
| 17 | 7.38 | -0.01 | -0.0064 | 0.0002 | 0.0144 | -0.0312 | -2.2500 | -0.2178 | 0.0130 | -0.1136 | -0.0557 | 0.5216 |
| 18 | 9.13 | -0.01 | 0.0007 | -0.0003 | 0.0156 | -0.0405 | 20.0000 | -0.1411 | 0.0117 | -0.0814 | -0.0629 | 0.5705 |
| 19 | 10.93 | -0.01 | 0.0000 | -0.0019 | 0.0219 | -0.3330 | 30.5000 | -0.0674 | 0.0094 | -0.0514 | -0.1396 | 0.7626 |
| 20 | 12.70 | -0.02 | -0.0054 | -0.0031 | 0.0179 | 0.0267 | -1.9342 | -0.0040 | 0.0065 | -0.0276 | -0.1247 | 6.5000 |
| 21 | 14.48 | -0.01 | -0.0155 | -0.0024 | 0.0162 | 0.1546 | -1.0039 | 0.0305 | 0.0105 | -0.0125 | 0.3442 | -0.4058 |
| 22 | 16.34 | -0.01 | -0.0303 | -0.0031 | 0.0125 | 0.1063 | -0.4125 | 0.0614 | 0.0134 | 0.0043 | 0.2182 | 0.0700 |
| 23 | 18.16 | -0.02 | -0.0290 | -0.0007 | 0.0213 | 0.3000 | -0.7345 | 0.0944 | 0.0150 | 0.0185 | 0.1589 | 0.1960 |
| 24 | 19.98 | -0.03 | -0.0516 | -0.0151 | 0.0196 | 0.2500 | -0.3343 | 0.1240 | 0.0174 | 0.0291 | 0.1403 | 0.2347 |
| 25 | 21.80 | -0.05 | -0.0573 | -0.0219 | 0.0148 | 0.2250 | -0.1501 | 0.1567 | 0.0206 | 0.0404 | 0.1310 | 0.2546 |
| 26 | 23.63 | -0.06 | -0.1010 | -0.0268 | -0.0070 | 0.1050 | 0.0470 | 0.1745 | 0.0244 | 0.0420 | 0.1395 | 0.2461 |
| 27 | 25.42 | -0.08 | -0.1314 | -0.0293 | -0.0093 | 0.0708 | 0.0708 | 0.2612 | 0.0263 | 0.0801 | 0.1007 | 0.3067 |
| 28 | 27.20 | 0.00 | 0.0515 | 0.0016 | 0.0224 | 0.0175 | 0.0033 | 0.3046 | 0.0285 | 0.1156 | 0.0782 | 0.3154 |
| 29 | 27.81 | 0.01 | 0.1235 | 0.0028 | 0.0660 | 0.0210 | 0.5327 | 0.3765 | 0.0281 | 0.1173 | 0.0746 | 0.3116 |
| 30 | 28.09 | 0.01 | 0.1160 | 0.0026 | 0.0647 | 0.0240 | 0.5549 | 0.3820 | 0.0292 | 0.1201 | 0.0764 | 0.3144 |
| 31 | 28.36 | 0.00 | 0.0515 | 0.0020 | 0.0432 | 0.0368 | 0.8388 | 0.3715 | 0.0305 | 0.1180 | 0.0832 | 0.3176 |
| 32 | 28.70 | 0.00 | 0.0175 | 0.0021 | 0.0311 | 0.1200 | 1.7771 | 0.3663 | 0.0316 | 0.1156 | 0.0868 | 0.3156 |
| 33 | 29.00 | 0.02 | 0.0011 | 0.0025 | 0.0538 | 0.0308 | 0.6535 | 0.3864 | 0.0321 | 0.1227 | 0.0831 | 0.3175 |
| 34 | 29.28 | 0.01 | 0.0171 | 0.0029 | 0.0256 | 0.2226 | 1.6914 | 0.3719 | 0.0335 | 0.1144 | 0.0901 | 0.3076 |
| 35 | 29.56 | 0.01 | 0.0530 | 0.0053 | 0.0405 | 0.1030 | 0.7717 | 0.3819 | 0.0336 | 0.1206 | 0.0880 | 0.3158 |
| 36 | 29.85 | 0.03 | 0.0825 | 0.0064 | 0.0506 | 0.0776 | 0.6150 | 0.3985 | 0.0343 | 0.1261 | 0.0861 | 0.3164 |
| 37 | 30.11 | 0.03 | 0.1078 | 0.0062 | 0.0571 | 0.0701 | 0.5297 | 0.4018 | 0.0344 | 0.1277 | 0.0858 | 0.3178 |
| 38 | 30.37 | 0.02 | 0.1002 | 0.0055 | 0.0546 | 0.0940 | 0.5449 | 0.4003 | 0.0354 | 0.1310 | 0.0867 | 0.3208 |
| 39 | 30.65 | 0.02 | 0.0998 | 0.0067 | 0.0246 | 0.8072 | 2.5102 | 0.3991 | 0.0357 | 0.1257 | 0.0894 | 0.3150 |
| 40 | 30.92 | 0.03 | 0.0941 | 0.0115 | 0.0321 | 0.2007 | 0.7279 | 0.4090 | 0.0364 | 0.1306 | 0.0885 | 0.3193 |
| 41 | 31.20 | 0.03 | 0.0937 | 0.0114 | 0.0353 | 0.2608 | 0.6078 | 0.4073 | 0.0365 | 0.1292 | 0.0858 | 0.3172 |
| 42 | 31.48 | 0.03 | -0.0157 | 0.0129 | 0.0084 | -0.0344 | -0.9284 | 0.4123 | 0.0371 | 0.1296 | 0.0900 | 0.3143 |
| 43 | 31.74 | 0.04 | 0.0157 | 0.0141 | 0.0281 | 0.7150 | 1.3269 | 0.4223 | 0.0389 | 0.1358 | 0.0874 | 0.3218 |
| 44 | 32.00 | 0.03 | 0.0224 | 0.0140 | 0.0278 | 0.5454 | 1.0273 | 0.4342 | 0.0388 | 0.1382 | 0.0847 | 0.3183 |
| 45 | 32.25 | 0.03 | 0.0428 | 0.0118 | 0.0313 | 0.2418 | 0.6414 | 0.4493 | 0.0389 | 0.1441 | 0.0821 | 0.3207 |
| 46 | 32.52 | 0.03 | 0.0753 | 0.0151 | 0.0431 | 0.1504 | 0.5435 | 0.4585 | 0.0371 | 0.1481 | 0.0809 | 0.3230 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.80 REYNO=6 1.7 PHI 0.0 CONF BINOF14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CBL | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.78 | 0.04 | 0.0959 | 0.0145 | 0.0407 | 0.1512 | 0.4870 | 0.4720 | 0.0371 | 0.1526 | 0.0786 | 0.3233 |
| 48 | 33.02 | 0.05 | 0.1024 | 0.0155 | 0.0505 | 0.1506 | 0.4947 | 0.4837 | 0.0372 | 0.1556 | 0.0769 | 0.3217 |
| 49 | 33.28 | 0.05 | 0.0750 | 0.0158 | 0.0368 | 0.2106 | 0.5173 | 0.4787 | 0.0373 | 0.1538 | 0.0779 | 0.3213 |
| 50 | 33.52 | 0.05 | 0.0747 | 0.0160 | 0.0405 | 0.2222 | 0.5275 | 0.4921 | 0.0379 | 0.1570 | 0.0770 | 0.3150 |
| 51 | 33.77 | 0.05 | 0.0463 | 0.0155 | 0.0301 | 0.4297 | 0.6501 | 0.4803 | 0.0383 | 0.1554 | 0.0787 | 0.3156 |
| 52 | 34.03 | 0.06 | 0.0445 | 0.0206 | 0.0275 | 0.4632 | 0.6125 | 0.4876 | 0.0383 | 0.1557 | 0.0782 | 0.3160 |
| 53 | 34.27 | 0.06 | 0.0205 | 0.0210 | 0.0217 | 1.0046 | 1.0383 | 0.4860 | 0.0383 | 0.1545 | 0.0785 | 0.3174 |
| 54 | 34.51 | 0.07 | 0.0132 | 0.0214 | 0.0203 | 1.6210 | 1.5379 | 0.4879 | 0.0386 | 0.1549 | 0.0791 | 0.3175 |
| 55 | 34.75 | 0.07 | 0.0520 | 0.0205 | 0.0322 | 0.4015 | 0.6192 | 0.5054 | 0.0386 | 0.1622 | 0.0768 | 0.3205 |
| 56 | 35.01 | 0.07 | 0.0462 | 0.0194 | 0.0293 | 0.4825 | 0.7289 | 0.5155 | 0.0391 | 0.1644 | 0.0758 | 0.3185 |
| 57 | 35.23 | 0.08 | 0.1060 | 0.0227 | 0.0435 | 0.2141 | 0.4104 | 0.5507 | 0.0399 | 0.1742 | 0.0724 | 0.3163 |
| 58 | 35.47 | 0.07 | 0.1330 | 0.0218 | 0.0535 | 0.1835 | 0.4023 | 0.5603 | 0.0403 | 0.1753 | 0.0719 | 0.3149 |
| 59 | 35.70 | 0.07 | 0.2077 | 0.0186 | 0.0786 | 0.0905 | 0.3784 | 0.6006 | 0.0409 | 0.1866 | 0.0681 | 0.3144 |
| 60 | 35.92 | 0.07 | 0.1704 | 0.0202 | 0.0663 | 0.1165 | 0.3691 | 0.5972 | 0.0417 | 0.1859 | 0.0698 | 0.3113 |
| 61 | 36.16 | 0.07 | 0.1157 | 0.0216 | 0.0556 | 0.1867 | 0.4806 | 0.5967 | 0.0437 | 0.1870 | 0.0732 | 0.3151 |
| 62 | 36.41 | 0.08 | 0.1235 | 0.0222 | 0.0532 | 0.1797 | 0.4470 | 0.6115 | 0.0436 | 0.1934 | 0.0736 | 0.3163 |
| 63 | 36.64 | 0.09 | 0.0826 | 0.0205 | 0.0353 | 0.3336 | 0.5639 | 0.5964 | 0.0431 | 0.1868 | 0.0756 | 0.3132 |
| 64 | 36.88 | 0.08 | 0.0861 | 0.0211 | 0.0414 | 0.2395 | 0.4699 | 0.6059 | 0.0450 | 0.1906 | 0.0738 | 0.3125 |
| 65 | 37.11 | 0.08 | 0.0588 | 0.0206 | 0.0296 | 0.3537 | 0.4932 | 0.6061 | 0.0455 | 0.1885 | 0.0751 | 0.3110 |
| 66 | 37.33 | 0.07 | -0.0202 | 0.0210 | 0.0013 | -1.0692 | -0.0042 | 0.5976 | 0.0457 | 0.1858 | 0.0765 | 0.3105 |
| 67 | 37.56 | 0.08 | -0.0691 | 0.0203 | -0.0150 | -0.2937 | 0.2171 | 0.6007 | 0.0471 | 0.1862 | 0.0764 | 0.3100 |
| 68 | 37.81 | 0.08 | -0.0515 | 0.0193 | -0.0109 | -0.1609 | 0.2109 | 0.5873 | 0.0467 | 0.1803 | 0.0795 | 0.3070 |
| 69 | 38.04 | 0.09 | -0.1055 | 0.0128 | -0.0435 | -0.0773 | 0.2653 | 0.5858 | 0.0459 | 0.1795 | 0.0783 | 0.3064 |
| 70 | 38.27 | 0.10 | -0.1041 | 0.0116 | -0.0414 | -0.0707 | 0.2543 | 0.5874 | 0.0469 | 0.1783 | 0.0798 | 0.3035 |
| 71 | 38.49 | 0.09 | -0.1933 | 0.0044 | -0.0775 | -0.0228 | 0.2476 | 0.5926 | 0.0456 | 0.1827 | 0.0769 | 0.3083 |
| 72 | 38.71 | 0.10 | -0.1978 | 0.0015 | -0.0793 | -0.0170 | 0.2414 | 0.5976 | 0.0462 | 0.1818 | 0.0773 | 0.3042 |
| 73 | 38.93 | 0.11 | -0.1851 | 0.0018 | -0.0748 | -0.0095 | 0.2369 | 0.6121 | 0.0479 | 0.1868 | 0.0762 | 0.3052 |
| 74 | 39.15 | 0.10 | -0.1978 | 0.0013 | -0.0797 | -0.0076 | 0.2313 | 0.6169 | 0.0476 | 0.1887 | 0.0769 | 0.3045 |
| 75 | 39.34 | 0.11 | -0.1415 | 0.0042 | -0.0500 | -0.0297 | 0.2120 | 0.6307 | 0.0462 | 0.1918 | 0.0764 | 0.3041 |
| 76 | 39.56 | 0.10 | -0.1385 | 0.0045 | -0.0490 | -0.0345 | 0.2157 | 0.6425 | 0.0467 | 0.1948 | 0.0756 | 0.3032 |
| 77 | 39.77 | 0.10 | -0.0501 | 0.0107 | -0.0187 | -0.1853 | 0.2075 | 0.6449 | 0.0542 | 0.1921 | 0.0840 | 0.2975 |
| 78 | 39.98 | 0.10 | -0.1002 | 0.0114 | -0.0365 | -0.1118 | 0.1866 | 0.6485 | 0.0530 | 0.1937 | 0.0817 | 0.2987 |
| 79 | 40.18 | 0.10 | -0.1036 | 0.0170 | -0.0214 | -0.1636 | 0.2062 | 0.6532 | 0.0556 | 0.1922 | 0.0848 | 0.2962 |
| 80 | 40.38 | 0.10 | -0.1124 | 0.0137 | -0.0223 | -0.1219 | 0.1984 | 0.6604 | 0.0552 | 0.1946 | 0.0836 | 0.2947 |
| 81 | 40.57 | 0.09 | -0.1025 | 0.0165 | -0.0221 | -0.1594 | 0.2135 | 0.6602 | 0.0569 | 0.1920 | 0.0862 | 0.2908 |
| 82 | 40.80 | 0.09 | -0.1060 | 0.0114 | -0.0237 | -0.1048 | 0.2176 | 0.6721 | 0.0565 | 0.1970 | 0.0841 | 0.2931 |
| 83 | 41.00 | 0.10 | -0.1295 | 0.0102 | -0.0287 | -0.0768 | 0.2216 | 0.6659 | 0.0559 | 0.1935 | 0.0839 | 0.2908 |
| 84 | 41.20 | 0.11 | -0.1169 | 0.0086 | -0.0231 | -0.0555 | 0.1945 | 0.6790 | 0.0576 | 0.1975 | 0.0851 | 0.2909 |
| 85 | 41.39 | 0.11 | -0.1260 | 0.0047 | -0.0282 | -0.0373 | 0.2079 | 0.6786 | 0.0604 | 0.1943 | 0.0850 | 0.2863 |
| 86 | 41.60 | 0.10 | -0.1152 | 0.0063 | -0.0229 | -0.0200 | 0.1988 | 0.6924 | 0.0565 | 0.2007 | 0.0845 | 0.2859 |
| 87 | 41.80 | 0.11 | -0.1302 | 0.0020 | -0.0271 | -0.0200 | 0.2081 | 0.6992 | 0.0586 | 0.2012 | 0.0838 | 0.2878 |
| 88 | 41.97 | 0.10 | -0.0961 | 0.0120 | -0.0210 | -0.1224 | 0.2143 | 0.6905 | 0.0625 | 0.1945 | 0.0905 | 0.2817 |
| 89 | 42.17 | 0.11 | -0.0981 | 0.0064 | -0.0195 | -0.0941 | 0.1986 | 0.7213 | 0.0599 | 0.2003 | 0.0830 | 0.2860 |
| 90 | 42.34 | 0.11 | -0.1191 | 0.0031 | -0.0264 | -0.0200 | 0.2217 | 0.7129 | 0.0614 | 0.2028 | 0.0861 | 0.2845 |
| 91 | 42.55 | 0.11 | -0.1013 | 0.0010 | -0.0184 | -0.0095 | 0.1816 | 0.7197 | 0.0618 | 0.2027 | 0.0855 | 0.2816 |
| 92 | 42.70 | 0.12 | -0.0953 | 0.0017 | -0.0176 | -0.0178 | 0.1647 | 0.7316 | 0.0607 | 0.2076 | 0.0830 | 0.2838 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.80 RX1C-6 1.7 PHI 0.0 BINCH14 CLNF 0.0 L 0 DELT DELZ -20 DELS 0 DELS -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 42.81 | 0.12 | -0.0883 | 0.0020 | -0.0159 | -0.0232 | 0.1842 | 0.7365 | 0.0619 | 0.2075 | 0.0840 | 0.2817 |
| 94 | 43.08 | 0.09 | -0.0895 | 0.0052 | -0.0161 | -0.0357 | 0.1780 | 0.7396 | 0.0635 | 0.2052 | 0.0858 | 0.2774 |
| 95 | 43.26 | 0.11 | -0.1035 | 0.0034 | -0.0226 | -0.0327 | 0.2154 | 0.7516 | 0.0630 | 0.2099 | 0.0838 | 0.2792 |
| 96 | 43.42 | 0.12 | -0.0929 | 0.0034 | -0.0125 | -0.0466 | 0.1667 | 0.7586 | 0.0627 | 0.2111 | 0.0826 | 0.2783 |
| 97 | 43.62 | 0.12 | -0.0773 | 0.0038 | -0.0140 | -0.0486 | 0.1811 | 0.7653 | 0.0624 | 0.2130 | 0.0815 | 0.2783 |
| 98 | 43.79 | 0.11 | -0.0965 | 0.0042 | -0.0206 | -0.0295 | 0.2105 | 0.7569 | 0.0630 | 0.2090 | 0.0832 | 0.2761 |
| 99 | 43.97 | 0.12 | -0.0854 | 0.0050 | -0.0165 | -0.0456 | 0.1113 | 0.7536 | 0.0625 | 0.2104 | 0.0824 | 0.2774 |
| 100 | 44.17 | 0.12 | -0.0867 | 0.0060 | -0.0145 | -0.0743 | 0.1797 | 0.7755 | 0.0621 | 0.2158 | 0.0801 | 0.2783 |
| 101 | 44.35 | 0.10 | -0.0720 | 0.0081 | -0.0118 | -0.1125 | 0.1835 | 0.7736 | 0.0624 | 0.2151 | 0.0806 | 0.2780 |
| 102 | 44.52 | 0.11 | -0.0852 | 0.0066 | -0.0135 | -0.0775 | 0.1819 | 0.7721 | 0.0626 | 0.2143 | 0.0813 | 0.2756 |
| 103 | 44.69 | 0.12 | -0.0827 | 0.0075 | -0.0165 | -0.0896 | 0.1971 | 0.7822 | 0.0632 | 0.2131 | 0.0808 | 0.2724 |
| 104 | 44.88 | 0.12 | -0.0865 | 0.0081 | -0.0166 | -0.0932 | 0.1841 | 0.7924 | 0.0620 | 0.2179 | 0.0782 | 0.2750 |
| 105 | 45.07 | 0.13 | -0.0735 | 0.0091 | -0.0131 | -0.1238 | 0.1782 | 0.7969 | 0.0613 | 0.2162 | 0.0776 | 0.2716 |
| 106 | 45.24 | 0.11 | -0.0823 | 0.0091 | -0.0167 | -0.1100 | 0.2029 | 0.8026 | 0.0611 | 0.2180 | 0.0761 | 0.2715 |
| 107 | 45.39 | 0.11 | -0.0955 | 0.0082 | -0.0202 | -0.0886 | 0.2106 | 0.7992 | 0.0620 | 0.2155 | 0.0783 | 0.2656 |
| 108 | 45.58 | 0.10 | -0.0955 | 0.0087 | -0.0062 | -0.0862 | 0.0959 | 0.8026 | 0.0634 | 0.2125 | 0.0790 | 0.2648 |
| 109 | 45.75 | 0.10 | -0.0832 | 0.0115 | -0.0150 | -0.1362 | 0.1803 | 0.8130 | 0.0612 | 0.2175 | 0.0753 | 0.2675 |
| 110 | 45.93 | 0.11 | -0.0878 | 0.0058 | -0.0151 | -0.1115 | 0.1724 | 0.8011 | 0.0621 | 0.2112 | 0.0775 | 0.2636 |
| 111 | 46.09 | 0.10 | -0.0892 | 0.0055 | -0.0146 | -0.1110 | 0.1637 | 0.8061 | 0.0624 | 0.2123 | 0.0774 | 0.2634 |
| 112 | 46.27 | 0.11 | -0.0952 | 0.0062 | -0.0169 | -0.1071 | 0.1733 | 0.8183 | 0.0607 | 0.2152 | 0.0742 | 0.2630 |
| 113 | 46.45 | 0.10 | -0.0821 | 0.0101 | -0.0115 | -0.1232 | 0.1451 | 0.8045 | 0.0622 | 0.2104 | 0.0773 | 0.2615 |
| 114 | 46.62 | 0.09 | -0.1049 | 0.0013 | -0.0197 | 0.0124 | 0.1402 | 0.8062 | 0.0628 | 0.2075 | 0.0779 | 0.2579 |
| 115 | 46.78 | 0.10 | -0.1021 | 0.0018 | -0.0138 | 0.0166 | 0.1277 | 0.7981 | 0.0630 | 0.2051 | 0.0751 | 0.2551 |
| 116 | 46.96 | 0.09 | -0.1213 | 0.0017 | -0.0158 | 0.0140 | 0.1032 | 0.7941 | 0.0641 | 0.2043 | 0.0767 | 0.2573 |
| 117 | 47.15 | 0.09 | -0.1288 | 0.0029 | -0.0208 | 0.0225 | 0.1815 | 0.7993 | 0.0639 | 0.2034 | 0.0799 | 0.2545 |
| 118 | 47.30 | 0.07 | -0.2121 | 0.0017 | -0.0478 | 0.0368 | 0.2255 | 0.8075 | 0.0635 | 0.2079 | 0.0784 | 0.2568 |
| 119 | 47.48 | 0.09 | -0.1885 | -0.0056 | -0.0352 | 0.0297 | 0.2101 | 0.8195 | 0.0639 | 0.2114 | 0.0780 | 0.2580 |
| 120 | 47.65 | 0.08 | -0.2076 | -0.0073 | -0.0400 | 0.0352 | 0.2245 | 0.8160 | 0.0644 | 0.2112 | 0.0769 | 0.2586 |
| 121 | 47.82 | 0.06 | -0.1855 | -0.0064 | -0.0381 | 0.0345 | 0.2054 | 0.8160 | 0.0645 | 0.2105 | 0.0790 | 0.2580 |
| 122 | 47.97 | 0.05 | -0.2063 | -0.0057 | -0.0506 | 0.0370 | 0.2247 | 0.8301 | 0.0651 | 0.2103 | 0.0779 | 0.2611 |
| 123 | 48.14 | 0.04 | -0.2736 | -0.0182 | -0.0645 | 0.0605 | 0.2356 | 0.8398 | 0.0638 | 0.2199 | 0.0760 | 0.2618 |
| 124 | 48.29 | 0.02 | -0.3159 | -0.0135 | -0.0663 | 0.0434 | 0.2698 | 0.8602 | 0.0627 | 0.2262 | 0.0729 | 0.2653 |
| 125 | 48.46 | 0.00 | -0.3335 | -0.0054 | -0.0541 | 0.0282 | 0.2822 | 0.8531 | 0.0643 | 0.2264 | 0.0756 | 0.2654 |
| 126 | 48.63 | -0.01 | -0.3062 | -0.0079 | -0.0835 | 0.0298 | 0.2792 | 0.8532 | 0.0641 | 0.2201 | 0.0751 | 0.2656 |
| 127 | 48.79 | -0.02 | -0.2905 | -0.0058 | -0.0645 | 0.0234 | 0.2919 | 0.8615 | 0.0650 | 0.2256 | 0.0754 | 0.2665 |
| 128 | 48.98 | 0.01 | -0.3333 | -0.0060 | -0.0583 | 0.0284 | 0.2949 | 0.8432 | 0.0637 | 0.2236 | 0.0755 | 0.2652 |
| 129 | 49.16 | -0.02 | -0.3297 | -0.0132 | -0.0929 | 0.0409 | 0.2849 | 0.8704 | 0.0627 | 0.2329 | 0.0720 | 0.2671 |
| 130 | 49.34 | 0.00 | -0.3015 | -0.0065 | -0.0655 | 0.0414 | 0.2845 | 0.8467 | 0.0638 | 0.2233 | 0.0753 | 0.2637 |
| 131 | 49.48 | -0.01 | -0.3367 | -0.0153 | -0.0960 | 0.0454 | 0.2851 | 0.8721 | 0.0632 | 0.2318 | 0.0725 | 0.2658 |
| 132 | 49.66 | 0.01 | -0.3265 | -0.0273 | -0.0871 | 0.0651 | 0.2651 | 0.8569 | 0.0630 | 0.2213 | 0.0733 | 0.2577 |
| 133 | 49.85 | 0.00 | -0.3032 | -0.0272 | -0.0751 | 0.0897 | 0.2609 | 0.8964 | 0.0597 | 0.2382 | 0.0668 | 0.2657 |
| 134 | 50.01 | -0.02 | -0.2767 | -0.0260 | -0.0666 | 0.0960 | 0.2542 | 0.8996 | 0.0600 | 0.2363 | 0.0674 | 0.2656 |
| 135 | 50.22 | 0.02 | -0.3186 | -0.0322 | -0.0795 | 0.1011 | 0.2508 | 0.8715 | 0.0715 | 0.1874 | 0.0927 | 0.2429 |
| 136 | 50.34 | 0.00 | -0.2946 | -0.0240 | -0.0793 | 0.0813 | 0.2621 | 0.8059 | 0.0681 | 0.2007 | 0.0845 | 0.2496 |
| 137 | 50.53 | 0.03 | -0.2564 | -0.0254 | -0.0646 | 0.0591 | 0.2519 | 0.7783 | 0.0711 | 0.1920 | 0.0913 | 0.2467 |
| 138 | 50.70 | 0.03 | -0.2625 | -0.0262 | -0.0656 | 0.0556 | 0.2495 | 0.7900 | 0.0714 | 0.1946 | 0.0904 | 0.2463 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXIO-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 140 | 0.60 | 1.7 | 0.0 | BIaDEAN | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ACEFF1 | XCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 50.80 | 0.03 | -0.2356 | -0.0238 | -0.0594 | 0.0993 | 0.2479 | 0.7950 | 0.0708 | 0.1952 | 0.0890 | 0.2455 |
| 140 | 51.03 | 0.05 | -0.2241 | -0.0223 | -0.0516 | 0.1004 | 0.2383 | 0.8102 | 0.0709 | 0.2001 | 0.0875 | 0.2470 |
| 141 | 51.21 | 0.06 | -0.2202 | -0.0270 | -0.0636 | 0.1014 | 0.2389 | 0.8357 | 0.0700 | 0.2098 | 0.0838 | 0.2516 |
| 142 | 51.37 | 0.06 | -0.2065 | -0.0316 | -0.0766 | 0.1103 | 0.2350 | 0.8358 | 0.0698 | 0.2078 | 0.0835 | 0.2488 |
| 143 | 51.55 | 0.05 | -0.2029 | -0.0264 | -0.0675 | 0.0933 | 0.2400 | 0.8358 | 0.0700 | 0.2071 | 0.0837 | 0.2478 |
| 144 | 51.71 | 0.06 | -0.2017 | -0.0323 | -0.0801 | 0.1107 | 0.2200 | 0.8329 | 0.0693 | 0.2126 | 0.0812 | 0.2493 |
| 145 | 51.89 | 0.06 | -0.2051 | -0.0354 | -0.0852 | 0.1159 | 0.2209 | 0.8363 | 0.0692 | 0.2106 | 0.0806 | 0.2454 |
| 146 | 52.04 | 0.06 | -0.1926 | -0.0364 | -0.0719 | 0.1163 | 0.2298 | 0.8045 | 0.0696 | 0.2134 | 0.0807 | 0.2473 |
| 147 | 52.21 | 0.05 | -0.1967 | -0.0352 | -0.0728 | 0.1111 | 0.2299 | 0.8892 | 0.0681 | 0.2208 | 0.0766 | 0.2483 |
| 148 | 52.38 | 0.05 | -0.2023 | -0.0347 | -0.0762 | 0.1067 | 0.2405 | 0.9085 | 0.0654 | 0.2265 | 0.0720 | 0.2456 |
| 149 | 52.56 | 0.10 | -0.1875 | -0.0325 | -0.0735 | 0.1057 | 0.2403 | 0.9109 | 0.0621 | 0.2262 | 0.0682 | 0.2483 |
| 150 | 52.72 | 0.10 | -0.1965 | -0.0341 | -0.0735 | 0.1095 | 0.2380 | 0.9266 | 0.0592 | 0.2321 | 0.0654 | 0.2504 |
| 151 | 52.89 | 0.11 | -0.1873 | -0.0333 | -0.0354 | 0.1778 | 0.1890 | 0.9226 | 0.0469 | 0.2303 | 0.0508 | 0.2496 |
| 152 | 53.07 | 0.12 | -0.2356 | -0.0351 | -0.0482 | 0.1496 | 0.2046 | 0.9367 | 0.0451 | 0.2341 | 0.0481 | 0.2495 |
| 153 | 53.24 | 0.11 | -0.2317 | -0.0375 | -0.0551 | 0.1496 | 0.2189 | 0.9552 | 0.0473 | 0.2371 | 0.0495 | 0.2482 |
| 154 | 53.38 | 0.10 | -0.2351 | -0.0397 | -0.0604 | 0.1545 | 0.2073 | 0.9232 | 0.0459 | 0.2294 | 0.0469 | 0.2485 |
| 155 | 53.54 | 0.10 | -0.0607 | -0.0282 | 0.0011 | 0.4645 | -0.0181 | 0.8886 | 0.0294 | 0.2212 | 0.0331 | 0.2465 |
| 156 | 53.71 | 0.11 | -0.0496 | -0.0287 | 0.0042 | 0.5266 | -0.0001 | 0.8929 | 0.0293 | 0.2186 | 0.0303 | 0.2446 |
| 157 | 53.87 | 0.12 | -0.0551 | -0.0291 | 0.0044 | 0.5475 | -0.0529 | 0.9212 | 0.0291 | 0.2210 | 0.0316 | 0.2475 |
| 158 | 54.12 | 0.10 | -0.0518 | -0.0274 | 0.0049 | 0.5256 | -0.0346 | 0.8934 | 0.0285 | 0.2176 | 0.0330 | 0.2434 |
| 159 | 54.28 | 0.10 | -0.0188 | -0.0185 | 0.0134 | 1.0179 | -0.6072 | 0.8601 | 0.0308 | 0.2104 | 0.0348 | 0.2391 |
| 160 | 54.42 | 0.10 | -0.0091 | -0.0181 | 0.0157 | 1.7690 | -1.7253 | 0.8843 | 0.0282 | 0.2108 | 0.0320 | 0.2385 |
| 161 | 54.59 | 0.10 | -0.0315 | -0.0181 | 0.0122 | 0.5673 | -0.3524 | 0.8554 | 0.0260 | 0.2043 | 0.0304 | 0.2388 |
| 162 | 54.77 | 0.09 | -0.0144 | -0.0137 | 0.0178 | 0.9513 | -1.2222 | 0.8820 | 0.0269 | 0.2121 | 0.0305 | 0.2403 |
| 163 | 54.91 | 0.10 | -0.0036 | -0.0151 | 0.0224 | 3.5731 | -5.8947 | 0.8932 | 0.0249 | 0.2165 | 0.0275 | 0.2428 |
| 164 | 55.08 | 0.10 | -0.0147 | -0.0140 | 0.0214 | 0.9931 | -1.4956 | 0.8965 | 0.0256 | 0.2159 | 0.0288 | 0.2408 |
| 165 | 55.22 | 0.11 | -0.0162 | -0.0120 | 0.0216 | 0.6553 | -1.1866 | 0.8727 | 0.0252 | 0.2077 | 0.0285 | 0.2386 |
| 166 | 55.39 | 0.10 | -0.0240 | -0.0161 | 0.0227 | 0.6707 | -0.9456 | 0.8898 | 0.0245 | 0.2133 | 0.0275 | 0.2397 |
| 167 | 55.55 | 0.10 | -0.0181 | -0.0135 | 0.0225 | 0.7458 | -1.2431 | 0.9081 | 0.0286 | 0.2184 | 0.0293 | 0.2405 |
| 168 | 55.70 | 0.09 | -0.0244 | -0.0126 | 0.0232 | 0.5409 | -0.9540 | 0.9133 | 0.0285 | 0.2182 | 0.0290 | 0.2385 |
| 169 | 55.85 | 0.08 | -0.0114 | -0.0082 | 0.0203 | 0.7152 | -2.3070 | 0.9163 | 0.0286 | 0.2173 | 0.0312 | 0.2371 |
| 170 | 56.01 | 0.10 | -0.0150 | -0.0094 | 0.0214 | 0.3600 | -1.0067 | 0.8927 | 0.0276 | 0.2104 | 0.0305 | 0.2357 |
| 171 | 56.17 | 0.08 | -0.0341 | -0.0094 | 0.0216 | 0.2758 | -0.6334 | 0.9011 | 0.0260 | 0.2152 | 0.0311 | 0.2388 |
| 172 | 56.32 | 0.09 | -0.0327 | -0.0108 | 0.0216 | 0.2465 | -0.6050 | 0.9060 | 0.0269 | 0.2155 | 0.0296 | 0.2373 |
| 173 | 56.48 | 0.07 | -0.0198 | -0.0044 | 0.0266 | 0.2222 | -1.3535 | 0.9350 | 0.0279 | 0.2225 | 0.0298 | 0.2386 |
| 174 | 56.64 | 0.09 | -0.0304 | -0.0038 | 0.0236 | 0.1104 | -0.7827 | 0.9077 | 0.0267 | 0.2135 | 0.0316 | 0.2352 |
| 175 | 56.80 | 0.05 | -0.0280 | -0.0038 | 0.0262 | 0.1481 | -1.0077 | 0.9229 | 0.0293 | 0.2180 | 0.0317 | 0.2346 |
| 176 | 56.93 | 0.05 | -0.0259 | -0.0041 | 0.0264 | 0.2355 | -1.6965 | 0.9299 | 0.0277 | 0.2198 | 0.0298 | 0.2364 |
| 177 | 57.08 | 0.06 | -0.0407 | -0.0026 | 0.0234 | 0.1671 | -0.5749 | 0.9134 | 0.0253 | 0.2175 | 0.0277 | 0.2381 |
| 178 | 57.23 | 0.08 | -0.0436 | -0.0013 | 0.0229 | 0.0302 | -0.5526 | 0.9152 | 0.0255 | 0.2143 | 0.0279 | 0.2342 |
| 179 | 57.38 | 0.08 | -0.0369 | -0.0026 | 0.0235 | 0.0150 | -0.5640 | 0.9218 | 0.0250 | 0.2173 | 0.0271 | 0.2357 |
| 180 | 57.51 | 0.08 | -0.0367 | -0.0013 | 0.0208 | 0.0330 | -0.6673 | 0.9222 | 0.0224 | 0.2205 | 0.0243 | 0.2391 |
| 181 | 57.67 | 0.06 | -0.0478 | -0.0006 | 0.0245 | 0.0126 | -0.5126 | 0.8989 | 0.0209 | 0.2117 | 0.0232 | 0.2355 |
| 182 | 57.81 | 0.04 | -0.0540 | -0.0011 | 0.0250 | 0.0204 | -0.4630 | 0.9093 | 0.0195 | 0.2158 | 0.0214 | 0.2373 |
| 183 | 57.97 | 0.06 | -0.0516 | 0.0035 | 0.0209 | -0.0676 | -0.5193 | 0.9054 | 0.0228 | 0.2123 | 0.0252 | 0.2345 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 4

PARTIAL PASSAGE TAILS EFFECTS DATA

| TEST | PART | MACH | RAIC-6 | PHI | CONF | L | CEL1 | CEL2 | CEL3 | CEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 140 | 0.80 | 1.7 | | 0.0 | BINOF14 | 0.0 | 0 | -20 | 0 | -20 UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | -0.0163 | 0.9999 | 0.0168 | 0.9999 | -1.0307 | -1.0306 | -0.0048 | -0.2852 | 0.0047 | 0.2767 |
| 2 | -5.75 | -0.01 | -0.0117 | 0.9999 | 0.0178 | 0.9999 | -1.0214 | -1.0277 | -0.0041 | -0.2848 | 0.0040 | 0.2771 |
| 3 | -5.75 | -0.01 | -0.0116 | 0.9999 | 0.0164 | 0.9999 | -1.0593 | -1.0346 | -0.0046 | -0.2858 | 0.0044 | 0.2762 |
| 4 | -5.75 | -0.01 | -0.0133 | 0.9999 | 0.0163 | 0.9999 | -1.0355 | -1.0317 | -0.0047 | -0.2867 | 0.0045 | 0.2762 |
| 5 | -5.74 | -0.01 | -0.0102 | 0.9999 | 0.0166 | 0.9999 | -1.0235 | -1.0377 | -0.0051 | -0.2868 | 0.0045 | 0.2764 |
| 6 | -5.74 | -0.01 | -0.0116 | 0.9999 | 0.0156 | 0.9999 | -1.0102 | -1.0345 | -0.0047 | -0.2865 | 0.0045 | 0.2766 |
| 7 | -5.75 | -0.01 | -0.0123 | 0.9999 | 0.0163 | 0.9999 | -1.0359 | -1.0376 | -0.0049 | -0.2855 | 0.0047 | 0.2751 |
| 8 | -5.74 | -0.01 | -0.0102 | 0.9999 | 0.0166 | 0.9999 | -1.0235 | -1.0319 | -0.0041 | -0.2859 | 0.0040 | 0.2771 |
| 9 | -5.89 | -0.01 | -0.0102 | 0.9999 | 0.0166 | 0.9999 | -1.0235 | -1.0265 | -0.0043 | -0.2836 | 0.0042 | 0.2763 |
| 10 | -5.63 | -0.01 | -0.0153 | 0.9999 | 0.0160 | 0.9999 | -1.0359 | -0.9744 | -0.0031 | -0.2724 | 0.0001 | 0.2756 |
| 11 | -5.57 | -0.01 | -0.0165 | 0.9999 | 0.0161 | 0.9999 | -1.0970 | -0.8711 | 0.0029 | -0.2468 | -0.0033 | 0.2833 |
| 12 | -1.02 | -0.01 | -0.0116 | 0.9999 | 0.0160 | 0.9999 | -1.0078 | -0.7014 | 0.0046 | -0.2276 | -0.0053 | 0.2989 |
| 13 | 0.21 | -0.01 | -0.0133 | 0.9999 | 0.0163 | 0.9999 | -1.3759 | -0.0623 | 0.0071 | -0.2097 | -0.0107 | 0.3168 |
| 14 | 1.98 | -0.01 | -0.0153 | 0.9999 | 0.0177 | 0.9999 | -1.3359 | -0.5014 | 0.0103 | -0.1938 | -0.0177 | 0.3333 |
| 15 | 3.73 | -0.01 | -0.0103 | 0.9999 | 0.0198 | 0.9999 | -1.9223 | -0.4612 | 0.0117 | -0.1640 | -0.0243 | 0.3468 |
| 16 | 5.54 | -0.01 | -0.0071 | 0.9999 | 0.0166 | 0.9999 | -2.0479 | -0.3968 | 0.0123 | -0.1352 | -0.0310 | 0.3467 |
| 17 | 7.36 | -0.01 | -0.0055 | 0.9999 | 0.0177 | 0.9999 | -3.2182 | -0.3047 | 0.0126 | -0.1007 | -0.0413 | 0.3305 |
| 18 | 9.13 | -0.01 | -0.0065 | 0.9999 | 0.0196 | 0.9999 | -2.0290 | -0.2128 | 0.0116 | -0.0768 | -0.0554 | 0.3609 |
| 19 | 10.93 | -0.01 | -0.0011 | 0.9999 | 0.0184 | 0.9999 | 9.4545 | -0.1284 | 0.0099 | -0.0442 | -0.0771 | 0.3442 |
| 20 | 12.73 | -0.02 | 0.0058 | 0.9999 | 0.0163 | 0.9999 | 1.4310 | -0.0776 | 0.0092 | -0.0182 | -0.1185 | 0.2345 |
| 21 | 14.48 | -0.01 | 0.0181 | 0.9999 | 0.0123 | 0.9999 | 0.6798 | -0.0211 | 0.0100 | 0.0015 | -0.1735 | -0.0711 |
| 22 | 16.34 | -0.01 | 0.0152 | 0.9999 | 0.0175 | 0.9999 | 0.5147 | 0.0277 | 0.0118 | 0.0202 | 0.4259 | 0.7292 |
| 23 | 18.16 | -0.02 | 0.0167 | 0.9999 | 0.0181 | 0.9999 | 0.4790 | 0.0574 | 0.0116 | 0.0517 | 0.1099 | 0.4814 |
| 24 | 19.98 | -0.03 | 0.0061 | 0.9999 | 0.0225 | 0.9999 | 0.4754 | 0.1757 | 0.0131 | 0.0789 | 0.0745 | 0.4491 |
| 25 | 21.80 | -0.05 | 0.0015 | 0.9999 | 0.0213 | 0.9999 | 0.8657 | 0.2618 | 0.0146 | 0.1107 | 0.0556 | 0.4228 |
| 26 | 23.63 | -0.06 | -0.0077 | 0.9999 | -0.0016 | 0.9999 | 0.2330 | 0.3519 | 0.0147 | 0.1418 | 0.0418 | 0.4036 |
| 27 | 25.42 | -0.03 | -0.0001 | 0.9999 | 0.0012 | 0.9999 | -12.0000 | 0.3479 | 0.0159 | 0.1395 | 0.0572 | 0.4016 |
| 28 | 27.20 | 0.00 | 0.0029 | 0.9999 | 0.0097 | 0.9999 | 0.4236 | 0.3335 | 0.0252 | 0.1326 | 0.0756 | 0.3976 |
| 29 | 27.61 | 0.01 | 0.0291 | 0.9999 | 0.0120 | 0.9999 | 0.4124 | 0.3213 | 0.0254 | 0.1318 | 0.0790 | 0.4102 |
| 30 | 28.07 | 0.01 | 0.0261 | 0.9999 | 0.0106 | 0.9999 | 0.3831 | 0.3147 | 0.0263 | 0.1349 | 0.0753 | 0.4067 |
| 31 | 28.30 | 0.00 | 0.0214 | 0.9999 | 0.0102 | 0.9999 | 0.4766 | 0.3576 | 0.0265 | 0.1433 | 0.0741 | 0.4007 |
| 32 | 28.79 | 0.00 | 0.0156 | 0.9999 | 0.0107 | 0.9999 | 0.5404 | 0.3603 | 0.0267 | 0.1524 | 0.0653 | 0.3955 |
| 33 | 29.00 | 0.02 | 0.0275 | 0.9999 | 0.0131 | 0.9999 | 0.4764 | 0.3777 | 0.0276 | 0.1495 | 0.0731 | 0.3958 |
| 34 | 29.20 | 0.01 | 0.0265 | 0.9999 | 0.0136 | 0.9999 | 0.5016 | 0.4202 | 0.0276 | 0.1638 | 0.0657 | 0.3858 |
| 35 | 25.56 | 0.01 | 0.0155 | 0.9999 | 0.0107 | 0.9999 | 0.5377 | 0.4132 | 0.0277 | 0.1620 | 0.0670 | 0.3921 |
| 36 | 29.85 | 0.03 | 0.0278 | 0.9999 | 0.0131 | 0.9999 | 0.4746 | 0.4300 | 0.0285 | 0.1654 | 0.0663 | 0.3847 |
| 37 | 30.11 | 0.03 | 0.0276 | 0.9999 | 0.0119 | 0.9999 | 0.4312 | 0.4300 | 0.0285 | 0.1667 | 0.0663 | 0.3877 |
| 38 | 30.31 | 0.02 | 0.0252 | 0.9999 | 0.0127 | 0.9999 | 0.4349 | 0.4434 | 0.0291 | 0.1691 | 0.0656 | 0.3814 |
| 39 | 30.65 | 0.02 | 0.0201 | 0.9999 | 0.0065 | 0.9999 | 0.3234 | 0.4742 | 0.0289 | 0.1793 | 0.0609 | 0.3781 |
| 40 | 30.92 | 0.03 | 0.0222 | 0.9999 | 0.0106 | 0.9999 | 0.4046 | 0.4926 | 0.0295 | 0.1847 | 0.0598 | 0.3747 |
| 41 | 31.20 | 0.03 | 0.0293 | 0.9999 | 0.0105 | 0.9999 | 0.3720 | 0.5078 | 0.0285 | 0.1901 | 0.0561 | 0.3745 |
| 42 | 31.46 | 0.03 | 0.0262 | 0.9999 | 0.0106 | 0.9999 | 0.4046 | 0.5259 | 0.0300 | 0.1929 | 0.0573 | 0.3682 |
| 43 | 31.74 | 0.04 | 0.0185 | 0.9999 | 0.0088 | 0.9999 | 0.4024 | 0.5277 | 0.0298 | 0.1951 | 0.0581 | 0.3697 |
| 44 | 32.00 | 0.03 | 0.0323 | 0.9999 | 0.0135 | 0.9999 | 0.4180 | 0.5265 | 0.0311 | 0.1934 | 0.0591 | 0.3673 |
| 45 | 32.25 | 0.03 | 0.0323 | 0.9999 | 0.0125 | 0.9999 | 0.3996 | 0.5118 | 0.0320 | 0.1867 | 0.0625 | 0.3648 |
| 46 | 32.52 | 0.03 | 0.0292 | 0.9999 | 0.0127 | 0.9999 | 0.4349 | 0.5377 | 0.0311 | 0.1972 | 0.0578 | 0.3667 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST PART MACH REALC-6 PHI CONF L DELI DEL2 DEL3 DEL4 TRANSITION
7 14C C.6C 1.7 0.0 0.1E0F14 0.6 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CA3 | ACPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 32.76 | 0.04 | 0.0322 | 9.9999 | 0.0153 | 9.9999 | 0.4752 | 0.5105 | 0.0324 | 0.1884 | 0.0835 | 0.3651 |
| 48 | 33.02 | 0.03 | 0.0323 | 9.9999 | 0.0135 | 9.9999 | 0.4100 | 0.5174 | 0.0325 | 0.1878 | 0.0628 | 0.3626 |
| 49 | 33.28 | 0.05 | 0.0324 | 9.9999 | 0.0152 | 9.9999 | 0.3956 | 0.5396 | 0.0328 | 0.1925 | 0.0608 | 0.3568 |
| 50 | 33.52 | 0.05 | 0.0278 | 9.9999 | 0.0132 | 9.9999 | 0.4783 | 0.5415 | 0.0328 | 0.1920 | 0.0606 | 0.3546 |
| 51 | 33.77 | 0.05 | 0.0254 | 9.9999 | 0.0156 | 9.9999 | 0.4407 | 0.5561 | 0.0337 | 0.2054 | 0.0585 | 0.3513 |
| 52 | 34.03 | 0.06 | 0.0252 | 9.9999 | 0.0133 | 9.9999 | 0.4535 | 0.5507 | 0.0329 | 0.2099 | 0.0551 | 0.3518 |
| 53 | 34.27 | 0.06 | 0.0252 | 9.9999 | 0.0133 | 9.9999 | 0.4555 | 0.6286 | 0.0322 | 0.2212 | 0.0512 | 0.3515 |
| 54 | 34.51 | 0.07 | 0.0251 | 9.9999 | 0.0151 | 9.9999 | 0.5169 | 0.6701 | 0.0317 | 0.2381 | 0.0469 | 0.3522 |
| 55 | 34.75 | 0.07 | 0.0253 | 9.9999 | 0.0162 | 9.9999 | 0.4589 | 0.6656 | 0.0326 | 0.2315 | 0.0451 | 0.3495 |
| 56 | 35.01 | 0.07 | 0.0245 | 9.9999 | 0.0125 | 9.9999 | 0.5265 | 0.6976 | 0.0315 | 0.2451 | 0.0451 | 0.3513 |
| 57 | 35.25 | 0.08 | 0.0252 | 9.9999 | 0.0160 | 9.9999 | 0.5114 | 0.6362 | 0.0339 | 0.2213 | 0.0531 | 0.3468 |
| 58 | 35.47 | 0.07 | 0.0414 | 9.9999 | 0.0210 | 9.9999 | 0.5072 | 0.6287 | 0.0345 | 0.2175 | 0.0544 | 0.3466 |
| 59 | 35.70 | 0.07 | 0.0451 | 9.9999 | 0.0246 | 9.9999 | 0.5010 | 0.5661 | 0.0360 | 0.1950 | 0.0634 | 0.3432 |
| 60 | 35.92 | 0.07 | 0.0476 | 9.9999 | 0.0233 | 9.9999 | 0.4395 | 0.6032 | 0.0357 | 0.2075 | 0.0592 | 0.3447 |
| 61 | 36.16 | 0.07 | 0.0413 | 9.9999 | 0.0222 | 9.9999 | 0.5375 | 0.6772 | 0.0345 | 0.2332 | 0.0515 | 0.3444 |
| 62 | 36.41 | 0.06 | 0.0364 | 9.9999 | 0.0200 | 9.9999 | 0.5450 | 0.6806 | 0.0349 | 0.2334 | 0.0513 | 0.3429 |
| 63 | 36.64 | 0.07 | 0.0444 | 9.9999 | 0.0243 | 9.9999 | 0.5473 | 0.7263 | 0.0349 | 0.2503 | 0.0481 | 0.3448 |
| 64 | 36.86 | 0.08 | 0.0465 | 9.9999 | 0.0225 | 9.9999 | 0.5338 | 0.6940 | 0.0357 | 0.2378 | 0.0514 | 0.3427 |
| 65 | 37.11 | 0.08 | 0.0366 | 9.9999 | 0.0200 | 9.9999 | 0.5435 | 0.7165 | 0.0356 | 0.2437 | 0.0497 | 0.3401 |
| 66 | 37.33 | 0.07 | 0.0425 | 9.9999 | 0.0173 | 9.9999 | 0.0000 | 0.7776 | 0.0355 | 0.2644 | 0.0456 | 0.3396 |
| 67 | 37.58 | 0.08 | 0.0285 | 9.9999 | 0.0187 | 9.9999 | 0.6446 | 0.6311 | 0.0366 | 0.2822 | 0.0440 | 0.3395 |
| 68 | 37.81 | 0.08 | 0.0321 | 9.9999 | 0.0203 | 9.9999 | 0.6324 | 0.6414 | 0.0362 | 0.2822 | 0.0466 | 0.3354 |
| 69 | 38.04 | 0.09 | 0.0275 | 9.9999 | 0.0175 | 9.9999 | 0.6364 | 0.7990 | 0.0415 | 0.2524 | 0.0515 | 0.3159 |
| 70 | 38.27 | 0.10 | 0.0250 | 9.9999 | 0.0100 | 9.9999 | 0.6483 | 0.7421 | 0.0381 | 0.2306 | 0.0513 | 0.3107 |
| 71 | 38.49 | 0.09 | 0.0285 | 9.9999 | 0.0200 | 9.9999 | 0.6920 | 0.6692 | 0.0328 | 0.2071 | 0.0490 | 0.3095 |
| 72 | 38.71 | 0.10 | 0.0289 | 9.9999 | 0.0200 | 9.9999 | 0.6920 | 0.6801 | 0.0322 | 0.2061 | 0.0483 | 0.3094 |
| 73 | 38.93 | 0.11 | 0.0336 | 9.9999 | 0.0223 | 9.9999 | 0.6837 | 0.6578 | 0.0315 | 0.2056 | 0.0476 | 0.3126 |
| 74 | 39.15 | 0.10 | 0.0327 | 9.9999 | 0.0211 | 9.9999 | 0.6261 | 0.6612 | 0.0314 | 0.2078 | 0.0475 | 0.3143 |
| 75 | 39.34 | 0.11 | 0.0478 | 9.9999 | 0.0285 | 9.9999 | 0.5567 | 0.6431 | 0.0322 | 0.2026 | 0.0501 | 0.3153 |
| 76 | 39.56 | 0.10 | 0.0356 | 9.9999 | 0.0246 | 9.9999 | 0.6181 | 0.6331 | 0.0316 | 0.2006 | 0.0496 | 0.3165 |
| 77 | 39.77 | 0.10 | 0.0444 | 9.9999 | 0.0274 | 9.9999 | 0.6171 | 0.7623 | 0.0392 | 0.2443 | 0.0514 | 0.3205 |
| 78 | 39.96 | 0.10 | 0.0444 | 9.9999 | 0.0274 | 9.9999 | 0.6171 | 0.6941 | 0.0343 | 0.2226 | 0.0494 | 0.3207 |
| 79 | 40.18 | 0.10 | 0.0363 | 9.9999 | 0.0233 | 9.9999 | 0.6084 | 0.7874 | 0.0408 | 0.2518 | 0.0518 | 0.3198 |
| 80 | 40.38 | 0.11 | 0.0363 | 9.9999 | 0.0226 | 9.9999 | 0.5901 | 0.7671 | 0.0400 | 0.2439 | 0.0521 | 0.3186 |
| 81 | 40.57 | 0.05 | 0.0413 | 9.9999 | 0.0241 | 9.9999 | 0.5835 | 0.7676 | 0.0407 | 0.2508 | 0.0517 | 0.3184 |
| 82 | 40.80 | 0.05 | 0.0444 | 9.9999 | 0.0245 | 9.9999 | 0.5806 | 0.7671 | 0.0382 | 0.2436 | 0.0512 | 0.3154 |
| 83 | 41.00 | 0.10 | 0.0475 | 9.9999 | 0.0257 | 9.9999 | 0.5411 | 0.6572 | 0.0356 | 0.2187 | 0.0513 | 0.3137 |
| 84 | 41.20 | 0.11 | 0.0444 | 9.9999 | 0.0249 | 9.9999 | 0.5806 | 0.6349 | 0.0313 | 0.2027 | 0.0493 | 0.3195 |
| 85 | 41.39 | 0.11 | 0.0336 | 9.9999 | 0.0221 | 9.9999 | 0.5243 | 0.6410 | 0.0317 | 0.2046 | 0.0494 | 0.3192 |
| 86 | 41.60 | 0.10 | 0.0444 | 9.9999 | 0.0245 | 9.9999 | 0.5808 | 0.6051 | 0.0309 | 0.1946 | 0.0511 | 0.3216 |
| 87 | 41.80 | 0.11 | 0.0451 | 9.9999 | 0.0253 | 9.9999 | 0.5153 | 0.6175 | 0.0306 | 0.1987 | 0.0495 | 0.3218 |
| 88 | 41.97 | 0.10 | 0.0505 | 9.9999 | 0.0286 | 9.9999 | 0.5267 | 0.7501 | 0.0424 | 0.2341 | 0.0565 | 0.3121 |
| 89 | 42.17 | 0.11 | 0.0565 | 9.9999 | 0.0307 | 9.9999 | 0.5434 | 0.5889 | 0.0345 | 0.1869 | 0.0586 | 0.3174 |
| 90 | 42.34 | 0.11 | 0.0534 | 9.9999 | 0.0280 | 9.9999 | 0.5243 | 0.6013 | 0.0355 | 0.2037 | 0.0545 | 0.3128 |
| 91 | 42.53 | 0.11 | 0.0526 | 9.9999 | 0.0323 | 9.9999 | 0.5160 | 0.5904 | 0.0333 | 0.1878 | 0.0564 | 0.3181 |
| 92 | 42.70 | 0.12 | 0.0572 | 9.9999 | 0.0334 | 9.9999 | 0.5045 | 0.5809 | 0.0334 | 0.1862 | 0.0565 | 0.3173 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.80 REYNO-E 1.7 PHI 0.0 CONF 0.0 L DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CD3 | ACPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 42.69 | 0.12 | 0.0688 | 9.9999 | 0.0341 | 9.9999 | 0.4956 | 0.5847 | 0.0339 | 0.1843 | 0.0588 | 0.3152 |
| 94 | 43.08 | 0.05 | 0.0581 | 9.9999 | 0.0285 | 9.9999 | 0.5077 | 0.6005 | 0.0357 | 0.1943 | 0.0568 | 0.3091 |
| 95 | 43.28 | 0.11 | 0.0564 | 9.9999 | 0.0282 | 9.9999 | 0.5000 | 0.6247 | 0.0344 | 0.1929 | 0.0551 | 0.3088 |
| 96 | 43.42 | 0.12 | 0.0762 | 9.9999 | 0.0347 | 9.9999 | 0.4943 | 0.5840 | 0.0333 | 0.1819 | 0.0570 | 0.3115 |
| 97 | 43.82 | 0.12 | 0.0687 | 9.9999 | 0.0334 | 9.9999 | 0.4862 | 0.5811 | 0.0325 | 0.1815 | 0.0559 | 0.3123 |
| 98 | 43.79 | 0.11 | 0.0658 | 9.9999 | 0.0325 | 9.9999 | 0.4934 | 0.5963 | 0.0314 | 0.1853 | 0.0550 | 0.3095 |
| 99 | 43.97 | 0.12 | 0.0748 | 9.9999 | 0.0357 | 9.9999 | 0.4773 | 0.5970 | 0.0320 | 0.1819 | 0.0536 | 0.3047 |
| 100 | 44.17 | 0.12 | 0.0742 | 9.9999 | 0.0347 | 9.9999 | 0.4943 | 0.6157 | 0.0303 | 0.1880 | 0.0492 | 0.3053 |
| 101 | 44.35 | 0.10 | 0.0657 | 9.9999 | 0.0313 | 9.9999 | 0.4764 | 0.6044 | 0.0317 | 0.1970 | 0.0484 | 0.3010 |
| 102 | 44.52 | 0.11 | 0.0644 | 9.9999 | 0.0295 | 9.9999 | 0.4776 | 0.6053 | 0.0276 | 0.1947 | 0.0428 | 0.3017 |
| 103 | 44.69 | 0.12 | 0.0703 | 9.9999 | 0.0323 | 9.9999 | 0.4595 | 0.5804 | 0.0245 | 0.1929 | 0.0389 | 0.3066 |
| 104 | 44.88 | 0.12 | 0.0658 | 9.9999 | 0.0285 | 9.9999 | 0.4592 | 0.6082 | 0.0251 | 0.1935 | 0.0400 | 0.3080 |
| 105 | 45.07 | 0.13 | 0.0775 | 9.9999 | 0.0355 | 9.9999 | 0.4608 | 0.6222 | 0.0240 | 0.1921 | 0.0386 | 0.3087 |
| 106 | 45.24 | 0.11 | 0.0718 | 9.9999 | 0.0330 | 9.9999 | 0.4596 | 0.6180 | 0.0225 | 0.1909 | 0.0364 | 0.3085 |
| 107 | 45.39 | 0.11 | 0.0735 | 9.9999 | 0.0332 | 9.9999 | 0.4617 | 0.6304 | 0.0207 | 0.1972 | 0.0325 | 0.3055 |
| 108 | 45.58 | 0.10 | 0.0622 | 9.9999 | 0.0281 | 9.9999 | 0.4475 | 0.7504 | 0.0375 | 0.2192 | 0.0500 | 0.2921 |
| 109 | 45.75 | 0.10 | 0.0784 | 9.9999 | 0.0324 | 9.9999 | 0.4133 | 0.8431 | 0.0204 | 0.1992 | 0.0317 | 0.3057 |
| 110 | 45.93 | 0.11 | 0.0753 | 9.9999 | 0.0322 | 9.9999 | 0.4276 | 0.8490 | 0.0196 | 0.2007 | 0.0302 | 0.3092 |
| 111 | 46.09 | 0.10 | 0.0753 | 9.9999 | 0.0322 | 9.9999 | 0.4276 | 0.8625 | 0.0202 | 0.2058 | 0.0305 | 0.3106 |
| 112 | 46.27 | 0.11 | 0.0754 | 9.9999 | 0.0292 | 9.9999 | 0.3873 | 0.8690 | 0.0206 | 0.2064 | 0.0311 | 0.3085 |
| 113 | 46.45 | 0.10 | 0.0788 | 9.9999 | 0.0313 | 9.9999 | 0.3982 | 0.8849 | 0.0240 | 0.2100 | 0.0359 | 0.3066 |
| 114 | 46.62 | 0.09 | 0.0675 | 9.9999 | 0.0282 | 9.9999 | 0.3859 | 0.7521 | 0.0416 | 0.2190 | 0.0556 | 0.2912 |
| 115 | 46.78 | 0.10 | 0.0698 | 9.9999 | 0.0295 | 9.9999 | 0.3957 | 0.7687 | 0.0404 | 0.2231 | 0.0525 | 0.2902 |
| 116 | 46.96 | 0.09 | 0.0694 | 9.9999 | 0.0285 | 9.9999 | 0.3878 | 0.7563 | 0.0430 | 0.2189 | 0.0568 | 0.2894 |
| 117 | 47.15 | 0.09 | 0.0655 | 9.9999 | 0.0251 | 9.9999 | 0.3812 | 0.7512 | 0.0425 | 0.2153 | 0.0571 | 0.2866 |
| 118 | 47.30 | 0.07 | 0.0620 | 9.9999 | 0.0214 | 9.9999 | 0.3962 | 0.7903 | 0.0394 | 0.2267 | 0.0496 | 0.2869 |
| 119 | 47.48 | 0.09 | 0.0650 | 9.9999 | 0.0235 | 9.9999 | 0.3815 | 0.7906 | 0.0388 | 0.2266 | 0.0491 | 0.2865 |
| 120 | 47.63 | 0.08 | 0.0626 | 9.9999 | 0.0206 | 9.9999 | 0.3997 | 0.7934 | 0.0349 | 0.2256 | 0.0503 | 0.2846 |
| 121 | 47.82 | 0.08 | 0.0605 | 9.9999 | 0.0195 | 9.9999 | 0.3223 | 0.7994 | 0.0390 | 0.2236 | 0.0488 | 0.2860 |
| 122 | 47.97 | 0.03 | 0.0514 | 9.9999 | 0.0164 | 9.9999 | 0.3301 | 0.8349 | 0.0334 | 0.2432 | 0.0425 | 0.2845 |
| 123 | 48.14 | 0.04 | 0.0434 | 9.9999 | 0.0145 | 9.9999 | 0.3341 | 0.8156 | 0.0499 | 0.2310 | 0.0612 | 0.2832 |
| 124 | 48.29 | 0.02 | 0.0419 | 9.9999 | 0.0137 | 9.9999 | 0.3270 | 0.8348 | 0.0509 | 0.2373 | 0.0682 | 0.2843 |
| 125 | 48.46 | 0.00 | 0.0342 | 9.9999 | 0.0101 | 9.9999 | 0.2953 | 0.8525 | 0.0613 | 0.2436 | 0.0715 | 0.2857 |
| 126 | 48.63 | -0.01 | 0.0346 | 9.9999 | 0.0113 | 9.9999 | 0.3324 | 0.8396 | 0.0696 | 0.2392 | 0.0769 | 0.2845 |
| 127 | 48.79 | -0.02 | 0.0231 | 9.9999 | 0.0092 | 9.9999 | 0.3983 | 0.8163 | 0.0678 | 0.2337 | 0.0830 | 0.2863 |
| 128 | 48.96 | 0.01 | 0.0371 | 9.9999 | 0.0105 | 9.9999 | 0.2938 | 0.8004 | 0.0581 | 0.2495 | 0.0675 | 0.2904 |
| 129 | 49.12 | -0.02 | 0.0256 | 9.9999 | 0.0096 | 9.9999 | 0.3081 | 0.8238 | 0.0674 | 0.2371 | 0.0818 | 0.2878 |
| 130 | 49.34 | 0.00 | 0.0354 | 9.9999 | 0.0096 | 9.9999 | 0.3001 | 0.8434 | 0.0595 | 0.2452 | 0.0710 | 0.2907 |
| 131 | 49.48 | -0.01 | 0.0325 | 9.9999 | 0.0087 | 9.9999 | 0.2877 | 0.8392 | 0.0695 | 0.2433 | 0.0780 | 0.2898 |
| 132 | 49.68 | 0.01 | 0.0356 | 9.9999 | 0.0089 | 9.9999 | 0.2900 | 0.8000 | 0.0598 | 0.2307 | 0.0747 | 0.2884 |
| 133 | 49.85 | 0.00 | 0.0294 | 9.9999 | 0.0078 | 9.9999 | 0.2853 | 0.7993 | 0.0631 | 0.2314 | 0.0789 | 0.2895 |
| 134 | 50.01 | -0.04 | 0.0256 | 9.9999 | 0.0065 | 9.9999 | 0.2900 | 0.7886 | 0.0665 | 0.2262 | 0.0851 | 0.2878 |
| 135 | 50.20 | 0.02 | 0.0372 | 9.9999 | 0.0091 | 9.9999 | 0.2948 | 0.7868 | 0.0661 | 0.2254 | 0.0801 | 0.2939 |
| 136 | 50.34 | 0.00 | 0.0450 | 9.9999 | 0.0097 | 9.9999 | 0.2156 | 0.7939 | 0.0566 | 0.2283 | 0.0738 | 0.2876 |
| 137 | 50.53 | 0.03 | 0.0496 | 9.9999 | 0.0137 | 9.9999 | 0.2762 | 0.7898 | 0.0379 | 0.2268 | 0.0492 | 0.2973 |
| 138 | 50.70 | 0.03 | 0.0482 | 9.9999 | 0.0118 | 9.9999 | 0.2948 | 0.7744 | 0.0360 | 0.2316 | 0.0465 | 0.2991 |

PARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 0.80 RAIO-A 1.7 PHI 0.0 CONF 8 IDENT 14 L 0.0 DELT 0 DELZ -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | Cm3 | Cb3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 50.88 | 0.03 | 0.0423 | 0.0000 | 0.0112 | 0.0000 | 0.2643 | 0.7621 | 0.0357 | 0.2291 | 0.0468 | 0.3006 |
| 140 | 51.03 | 0.03 | 0.0424 | 0.0000 | 0.0106 | 0.0000 | 0.2666 | 0.7712 | 0.0351 | 0.2319 | 0.0455 | 0.3007 |
| 141 | 51.21 | 0.00 | 0.0410 | 0.0000 | 0.0101 | 0.0000 | 0.2311 | 0.7384 | 0.0330 | 0.2382 | 0.0419 | 0.3021 |
| 142 | 51.37 | 0.00 | 0.0433 | 0.0000 | 0.0104 | 0.0000 | 0.1951 | 0.6011 | 0.0354 | 0.2366 | 0.0452 | 0.2978 |
| 143 | 51.55 | 0.00 | 0.0417 | 0.0000 | 0.0105 | 0.0000 | 0.2108 | 0.6145 | 0.0355 | 0.2435 | 0.0436 | 0.2994 |
| 144 | 51.71 | 0.00 | 0.0455 | 0.0000 | 0.0103 | 0.0000 | 0.2235 | 0.6231 | 0.0404 | 0.2444 | 0.0491 | 0.2969 |
| 145 | 51.89 | 0.00 | 0.0421 | 0.0000 | 0.0120 | 0.0000 | 0.2065 | 0.6063 | 0.0417 | 0.2393 | 0.0517 | 0.2968 |
| 146 | 52.04 | 0.00 | 0.0445 | 0.0000 | 0.0111 | 0.0000 | 0.2022 | 0.6213 | 0.0451 | 0.2418 | 0.0549 | 0.2944 |
| 147 | 52.21 | 0.00 | 0.0426 | 0.0000 | 0.0130 | 0.0000 | 0.2067 | 0.6335 | 0.0475 | 0.2442 | 0.0570 | 0.2930 |
| 148 | 52.30 | 0.00 | 0.0457 | 0.0000 | 0.0134 | 0.0000 | 0.2245 | 0.6363 | 0.0554 | 0.2424 | 0.0662 | 0.2898 |
| 149 | 52.56 | 0.10 | 0.0412 | 0.0000 | 0.0141 | 0.0000 | 0.2304 | 0.6453 | 0.0597 | 0.2434 | 0.0706 | 0.2879 |
| 150 | 52.72 | 0.10 | 0.0397 | 0.0000 | 0.0128 | 0.0000 | 0.2144 | 0.6253 | 0.0582 | 0.2383 | 0.0705 | 0.2867 |
| 151 | 52.89 | 0.11 | 0.0414 | 0.0000 | 0.0125 | 0.0000 | 0.2101 | 0.7472 | 0.0563 | 0.2187 | 0.0753 | 0.2927 |
| 152 | 53.07 | 0.12 | 0.0416 | 0.0000 | 0.0101 | 0.0000 | 0.2274 | 0.0000 | 0.0589 | 0.2330 | 0.0728 | 0.2881 |
| 153 | 53.24 | 0.11 | 0.0405 | 0.0000 | 0.0144 | 0.0000 | 0.2253 | 0.6070 | 0.0611 | 0.2294 | 0.0757 | 0.2843 |
| 154 | 53.38 | 0.10 | 0.0416 | 0.0000 | 0.0155 | 0.0000 | 0.2189 | 0.7090 | 0.0531 | 0.2073 | 0.0745 | 0.2924 |
| 155 | 53.54 | 0.10 | 0.0407 | 0.0000 | 0.0174 | 0.0000 | 0.2401 | 0.7240 | 0.0565 | 0.2058 | 0.0780 | 0.2858 |
| 156 | 53.71 | 0.11 | 0.0407 | 0.0000 | 0.0174 | 0.0000 | 0.2401 | 0.7175 | 0.0536 | 0.2067 | 0.0747 | 0.2909 |
| 157 | 53.87 | 0.12 | 0.0440 | 0.0000 | 0.0124 | 0.0000 | 0.2216 | 0.7267 | 0.0574 | 0.2104 | 0.0788 | 0.2887 |
| 158 | 54.12 | 0.10 | 0.0430 | 0.0000 | 0.0124 | 0.0000 | 0.1988 | 0.7091 | 0.0551 | 0.2104 | 0.0730 | 0.2866 |
| 159 | 54.26 | 0.10 | 0.0424 | 0.0000 | 0.0132 | 0.0000 | 0.2043 | 0.7472 | 0.0538 | 0.2155 | 0.0720 | 0.2884 |
| 160 | 54.42 | 0.10 | 0.0430 | 0.0000 | 0.0117 | 0.0000 | 0.2080 | 0.7573 | 0.0549 | 0.2188 | 0.0725 | 0.2889 |
| 161 | 54.59 | 0.10 | 0.0429 | 0.0000 | 0.0130 | 0.0000 | 0.2067 | 0.7714 | 0.0549 | 0.2231 | 0.0712 | 0.2892 |
| 162 | 54.77 | 0.09 | 0.0440 | 0.0000 | 0.0131 | 0.0000 | 0.2286 | 0.7743 | 0.0511 | 0.2257 | 0.0660 | 0.2915 |
| 163 | 54.91 | 0.10 | 0.0397 | 0.0000 | 0.0128 | 0.0000 | 0.2144 | 0.8065 | 0.0546 | 0.2323 | 0.0678 | 0.2873 |
| 164 | 55.08 | 0.10 | 0.0429 | 0.0000 | 0.0126 | 0.0000 | 0.2341 | 0.8071 | 0.0517 | 0.2349 | 0.0639 | 0.2903 |
| 165 | 55.22 | 0.11 | 0.0444 | 0.0000 | 0.0134 | 0.0000 | 0.2236 | 0.7647 | 0.0467 | 0.2313 | 0.0555 | 0.2948 |
| 166 | 55.39 | 0.10 | 0.0441 | 0.0000 | 0.0128 | 0.0000 | 0.2065 | 0.8059 | 0.0541 | 0.2316 | 0.0673 | 0.2883 |
| 167 | 55.55 | 0.10 | 0.0427 | 0.0000 | 0.0123 | 0.0000 | 0.1962 | 0.8077 | 0.0513 | 0.2336 | 0.0635 | 0.2890 |
| 168 | 55.73 | 0.09 | 0.0426 | 0.0000 | 0.0114 | 0.0000 | 0.1966 | 0.7966 | 0.0498 | 0.2303 | 0.0625 | 0.2891 |
| 169 | 55.85 | 0.08 | 0.0474 | 0.0000 | 0.0127 | 0.0000 | 0.1884 | 0.8092 | 0.0494 | 0.2344 | 0.0610 | 0.2897 |
| 170 | 56.01 | 0.10 | 0.0433 | 0.0000 | 0.0103 | 0.0000 | 0.2216 | 0.8000 | 0.0494 | 0.2347 | 0.0567 | 0.2934 |
| 171 | 56.17 | 0.08 | 0.0474 | 0.0000 | 0.0115 | 0.0000 | 0.1706 | 0.7933 | 0.0473 | 0.2314 | 0.0556 | 0.2917 |
| 172 | 56.32 | 0.09 | 0.0472 | 0.0000 | 0.0127 | 0.0000 | 0.1890 | 0.8008 | 0.0466 | 0.2321 | 0.0582 | 0.2898 |
| 173 | 56.48 | 0.07 | 0.0403 | 0.0000 | 0.0154 | 0.0000 | 0.2191 | 0.8148 | 0.0444 | 0.2385 | 0.0545 | 0.2927 |
| 174 | 56.64 | 0.09 | 0.0442 | 0.0000 | 0.0106 | 0.0000 | 0.1651 | 0.8103 | 0.0435 | 0.2386 | 0.0537 | 0.2945 |
| 175 | 56.80 | 0.09 | 0.0440 | 0.0000 | 0.0130 | 0.0000 | 0.2031 | 0.8116 | 0.0441 | 0.2372 | 0.0543 | 0.2923 |
| 176 | 56.93 | 0.09 | 0.0454 | 0.0000 | 0.0104 | 0.0000 | 0.1414 | 0.7947 | 0.0434 | 0.2326 | 0.0546 | 0.2927 |
| 177 | 57.08 | 0.08 | 0.0425 | 0.0000 | 0.0095 | 0.0000 | 0.1584 | 0.8204 | 0.0418 | 0.2359 | 0.0509 | 0.2924 |
| 178 | 57.23 | 0.08 | 0.0453 | 0.0000 | 0.0102 | 0.0000 | 0.1621 | 0.8194 | 0.0408 | 0.2403 | 0.0498 | 0.2933 |
| 179 | 57.36 | 0.08 | 0.0477 | 0.0000 | 0.0085 | 0.0000 | 0.1542 | 0.8165 | 0.0400 | 0.2395 | 0.0490 | 0.2933 |
| 180 | 57.51 | 0.08 | 0.0478 | 0.0000 | 0.0070 | 0.0000 | 0.1211 | 0.8167 | 0.0398 | 0.2401 | 0.0487 | 0.2940 |
| 181 | 57.67 | 0.08 | 0.0515 | 0.0000 | 0.0084 | 0.0000 | 0.1631 | 0.8134 | 0.0402 | 0.2389 | 0.0492 | 0.2928 |
| 182 | 57.81 | 0.09 | 0.0467 | 0.0000 | 0.0074 | 0.0000 | 0.1353 | 0.8093 | 0.0393 | 0.2435 | 0.0474 | 0.2936 |
| 183 | 57.89 | 0.08 | 0.0440 | 0.0000 | 0.0094 | 0.0000 | 0.1469 | 0.8140 | 0.0342 | 0.2432 | 0.0420 | 0.2988 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 141 MACH 0.90 RXIO-6 1.7 PHI 0.0 CONF 14 L C.G 0 DEL1 -20 DEL2 0 DEL3 -20 DEL4 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | -0.02 | -1.9982 | 0.8887 | -0.0763 | -0.0086 | 0.0075 | 0.7883 | 0.2043 | 0.5840 | -3.4474 |
| 2 | -5.77 | -0.01 | -1.9847 | 0.8941 | 0.0688 | -0.0085 | 0.0015 | 0.7885 | 0.2047 | 0.5818 | -3.4735 |
| 3 | -5.77 | -0.01 | -2.1023 | 7.0167 | 0.0483 | -0.0752 | 0.0074 | 0.7583 | 0.2010 | 0.5573 | -3.3376 |
| 4 | -4.87 | -0.01 | -1.7037 | 0.8372 | 0.0015 | -0.0773 | 0.0147 | 0.7307 | 0.1882 | 0.5505 | -3.6010 |
| 5 | -2.84 | -0.01 | -1.4385 | 5.5623 | 0.1007 | -0.1137 | 0.0087 | 0.6884 | 0.1671 | 0.5213 | -3.6666 |
| 6 | -1.82 | -0.01 | -1.1337 | 4.8726 | 0.0849 | -0.0812 | 0.0060 | 0.6156 | 0.1327 | 0.4838 | -4.2580 |
| 7 | 0.80 | -0.01 | -0.8725 | 4.3737 | 0.0488 | -0.0657 | 0.0096 | 0.5707 | 0.1257 | 0.4450 | -5.0073 |
| 8 | 2.81 | -0.01 | -0.6432 | 3.8079 | 0.0702 | -0.0693 | 0.0100 | 0.5342 | 0.1265 | 0.4077 | -6.0132 |
| 9 | 4.46 | -0.02 | -0.3852 | 3.3675 | -0.0361 | -0.0145 | 0.0104 | 0.4913 | 0.1271 | 0.3642 | -8.7434 |
| 10 | 6.30 | -0.01 | -0.1442 | 2.8714 | 0.0574 | -0.1303 | 0.0111 | 0.4522 | 0.1287 | 0.3236 | -19.9142 |
| 11 | 8.14 | -0.00 | 0.1254 | 2.3551 | 0.1130 | -0.1270 | 0.0102 | 0.4136 | 0.1336 | 0.2800 | 19.1371 |
| 12 | 9.94 | -0.01 | 0.3651 | 1.8716 | 0.1159 | -0.0842 | 0.0100 | 0.3784 | 0.1382 | 0.2402 | 4.8085 |
| 13 | 11.80 | -0.00 | 0.6426 | 1.4291 | 0.0372 | -0.0226 | 0.0092 | 0.3479 | 0.1461 | 0.2016 | 2.2238 |
| 14 | 13.65 | -0.01 | 0.9453 | 1.1206 | -0.0017 | 0.0144 | 0.0074 | 0.3241 | 0.1569 | 0.1652 | 1.1856 |
| 15 | 15.54 | -0.01 | 1.1735 | 0.9476 | 0.0015 | 0.0507 | 0.0207 | 0.3065 | 0.1704 | 0.1361 | 0.8078 |
| 16 | 17.46 | -0.01 | 1.4383 | 0.7365 | -0.1330 | 0.3773 | 0.0272 | 0.2779 | 0.1804 | 0.0976 | 0.5079 |
| 17 | 19.32 | -0.02 | 1.7921 | 0.3653 | -0.2036 | 0.8663 | 0.0393 | 0.2445 | 0.1944 | 0.0501 | 0.2038 |
| 18 | 21.22 | -0.03 | 2.1158 | 0.0597 | -0.3706 | 1.0404 | 0.0336 | 0.2014 | 0.2061 | -0.0047 | 0.0282 |
| 19 | 23.13 | -0.03 | 2.4562 | -0.1985 | -0.3855 | 1.2895 | 0.0275 | 0.1584 | 0.2135 | -0.0551 | -0.0808 |
| 20 | 25.00 | -0.03 | 2.8068 | -0.5552 | -0.5416 | 1.5845 | 0.0137 | 0.1139 | 0.2230 | -0.1092 | -0.1536 |
| 21 | 26.94 | 0.00 | 3.2591 | -0.2585 | 0.0656 | -0.1555 | 0.0319 | 0.0675 | 0.2176 | -0.1501 | -0.0754 |
| 22 | 27.89 | 0.05 | 3.4575 | -0.2365 | 0.3799 | -0.4569 | 0.0025 | 0.0404 | 0.2188 | -0.1784 | -0.0686 |
| 23 | 28.81 | 0.04 | 3.5430 | -0.3346 | 0.8055 | -0.9262 | 0.0099 | 0.0241 | 0.2201 | -0.1960 | -0.0945 |
| 24 | 28.87 | 0.05 | 3.5454 | -0.4014 | 0.7256 | -1.0301 | 0.0090 | 0.0348 | 0.2225 | -0.1877 | -0.1131 |
| 25 | 28.89 | 0.03 | 3.6200 | -0.3673 | 0.5386 | -0.9175 | 0.0767 | 0.0314 | 0.2249 | -0.1935 | -0.1070 |
| 26 | 28.97 | 0.05 | 3.7506 | -0.5051 | 0.7511 | -1.2102 | 0.0909 | 0.0180 | 0.2274 | -0.2094 | -0.1347 |
| 27 | 29.28 | 0.05 | 3.8221 | -0.4184 | 0.6525 | -0.8508 | 0.0904 | 0.0147 | 0.2287 | -0.2146 | -0.1095 |
| 28 | 29.37 | 0.06 | 3.8761 | -0.3576 | 0.7826 | -1.1715 | 0.0910 | 0.0080 | 0.2295 | -0.2215 | -0.1024 |
| 29 | 29.85 | 0.06 | 4.0311 | -0.5238 | 0.7435 | -0.9506 | 0.0960 | -0.0015 | 0.2348 | -0.2363 | -0.1299 |
| 30 | 30.13 | 0.05 | 4.1420 | -0.4031 | 0.6065 | -0.8546 | 0.0915 | -0.0105 | 0.2410 | -0.2515 | -0.1166 |
| 31 | 30.38 | 0.07 | 4.1770 | -0.5502 | 0.8206 | -0.9053 | 0.1050 | -0.0102 | 0.2403 | -0.2505 | -0.1333 |
| 32 | 30.88 | 0.06 | 4.3556 | -0.3507 | 0.7055 | -0.7516 | 0.0992 | -0.0224 | 0.2415 | -0.2639 | -0.1805 |
| 33 | 30.94 | 0.06 | 4.4478 | -0.3855 | 0.6891 | -0.8116 | 0.0992 | -0.0262 | 0.2418 | -0.2700 | -0.0877 |
| 34 | 31.23 | 0.06 | 4.6236 | -0.3154 | 0.7044 | -0.5506 | 0.1063 | -0.0293 | 0.2490 | -0.2783 | -0.0681 |
| 35 | 31.50 | 0.07 | 4.7431 | -0.3065 | 0.8617 | -0.7046 | 0.1070 | -0.0469 | 0.2490 | -0.2960 | -0.0646 |
| 36 | 31.77 | 0.06 | 4.8960 | -0.3624 | 0.7802 | -0.7816 | 0.1077 | -0.0491 | 0.2506 | -0.2996 | -0.0629 |
| 37 | 32.05 | 0.07 | 4.9816 | -0.1857 | 0.8745 | -0.6362 | 0.1075 | -0.0616 | 0.2536 | -0.3173 | -0.0381 |
| 38 | 32.49 | 0.07 | 5.0265 | -0.2568 | 0.8754 | -0.6253 | 0.1078 | -0.0523 | 0.2573 | -0.3097 | -0.0510 |
| 39 | 32.58 | 0.08 | 5.0587 | -0.1845 | 0.9520 | -0.7580 | 0.1081 | -0.0435 | 0.2565 | -0.3001 | -0.0365 |
| 40 | 32.83 | 0.08 | 5.1085 | -0.1594 | 0.9845 | -0.9113 | 0.1098 | -0.0585 | 0.2594 | -0.3180 | -0.0300 |
| 41 | 33.08 | 0.09 | 5.1631 | 0.0530 | 1.1201 | -1.4522 | 0.1109 | -0.0801 | 0.2535 | -0.3341 | 0.0095 |
| 42 | 33.33 | 0.08 | 5.2544 | 0.1264 | 1.0402 | -1.4316 | 0.1111 | -0.0564 | 0.2515 | -0.3479 | 0.0230 |
| 43 | 33.58 | 0.08 | 5.3139 | 0.2975 | 1.0190 | -1.3232 | 0.1052 | -0.0834 | 0.2473 | -0.3308 | 0.0340 |
| 44 | 33.83 | 0.08 | 5.4436 | 0.6071 | 0.8349 | -1.1629 | 0.0992 | -0.1065 | 0.2481 | -0.3486 | 0.1075 |
| 45 | 34.09 | 0.07 | 5.0661 | 0.5955 | 0.7495 | -0.8454 | 0.0986 | -0.1059 | 0.2448 | -0.3507 | 0.1048 |
| 46 | 34.34 | 0.04 | 5.7486 | 0.7870 | 0.5351 | -0.7440 | 0.0862 | -0.1018 | 0.2424 | -0.3442 | 0.1334 |

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 141 MACH 0.90 RNID-6 1.7 PHI 0.0 CONF 14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CA | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.58 | 0.04 | 5.8948 | 0.0896 | 0.6208 | -1.1659 | 0.1066 | -0.1169 | 0.2444 | -0.3633 | 0.1160 |
| 48 | 34.82 | 0.06 | 5.8547 | 0.7754 | 0.6303 | -0.9814 | 0.0999 | -0.1095 | 0.2427 | -0.3522 | 0.1391 |
| 49 | 35.07 | 0.03 | 6.0175 | 0.5437 | 0.3842 | -0.8150 | 0.0551 | -0.1439 | 0.2325 | -0.3768 | 0.1568 |
| 50 | 35.29 | 0.03 | 6.0633 | 1.0467 | 0.4629 | -0.8512 | 0.0355 | -0.1434 | 0.2325 | -0.3759 | 0.1730 |
| 51 | 35.54 | 0.02 | 6.1255 | 1.1866 | 0.2116 | -0.2584 | 0.0297 | -0.1460 | 0.2313 | -0.3773 | 0.1926 |
| 52 | 35.78 | -0.00 | 6.2038 | 1.1045 | -0.0514 | 0.0783 | 0.0039 | -0.1473 | 0.2313 | -0.3786 | 0.1909 |
| 53 | 36.01 | 0.02 | 6.3654 | 1.1954 | 0.1475 | 0.0396 | 0.0362 | -0.1714 | 0.2313 | -0.4027 | 0.1872 |
| 54 | 36.24 | 0.01 | 6.3905 | 1.2346 | 0.0703 | -0.0533 | 0.0303 | -0.1632 | 0.2313 | -0.3945 | 0.1946 |
| 55 | 36.46 | 0.05 | 6.4508 | 1.2402 | 0.4508 | -0.1306 | 0.0175 | -0.1722 | 0.2321 | -0.4043 | 0.1923 |
| 56 | 36.70 | 0.02 | 6.4723 | 1.2269 | 0.2063 | -0.0695 | 0.0113 | -0.1702 | 0.2321 | -0.4023 | 0.1896 |
| 57 | 36.96 | 0.03 | 6.5452 | 1.3102 | 0.2095 | -0.0650 | 0.0504 | -0.1679 | 0.2330 | -0.4009 | 0.2000 |
| 58 | 37.19 | 0.01 | 6.7088 | 1.2520 | 0.0264 | 0.0595 | 0.0441 | -0.1858 | 0.2317 | -0.4215 | 0.1867 |
| 59 | 37.42 | 0.01 | 6.8556 | 1.3642 | 0.1226 | -0.1748 | 0.0453 | -0.2068 | 0.2325 | -0.4413 | 0.1901 |
| 60 | 37.66 | 0.03 | 6.8674 | 1.3445 | 0.3083 | -0.2715 | 0.0304 | -0.2046 | 0.2322 | -0.4368 | 0.1953 |
| 61 | 37.90 | 0.05 | 7.0349 | 1.2555 | 0.5476 | -0.3466 | 0.0041 | -0.2130 | 0.2371 | -0.4501 | 0.1790 |
| 62 | 38.18 | 0.02 | 7.0420 | 1.2729 | 0.2691 | -0.2150 | 0.0715 | -0.2051 | 0.2306 | -0.4417 | 0.1808 |
| 63 | 38.43 | 0.02 | 7.1154 | 1.2784 | 0.2551 | -0.2651 | 0.0965 | -0.2194 | 0.2370 | -0.4564 | 0.1756 |
| 64 | 38.65 | 0.02 | 7.2664 | 1.2467 | 0.3173 | 0.2004 | 0.0706 | -0.2335 | 0.2379 | -0.4710 | 0.1682 |
| 65 | 38.87 | 0.02 | 7.2563 | 1.2520 | 0.1557 | 0.1578 | 0.0709 | -0.2344 | 0.2371 | -0.4715 | 0.1716 |
| 66 | 39.10 | 0.02 | 7.3624 | 1.2313 | 0.1266 | 0.5629 | 0.0761 | -0.2552 | 0.2396 | -0.4944 | 0.1672 |
| 67 | 39.32 | 0.01 | 7.4542 | 1.1756 | 0.0667 | 0.7102 | 0.0762 | -0.2367 | 0.2399 | -0.4766 | 0.1569 |
| 68 | 39.52 | 0.02 | 7.5171 | 1.1434 | 0.1263 | 0.6592 | 0.0625 | -0.2424 | 0.2449 | -0.4874 | 0.1521 |
| 69 | 39.75 | 0.02 | 7.6667 | 1.1678 | 0.1666 | 0.7117 | 0.0639 | -0.2645 | 0.2420 | -0.5066 | 0.1523 |
| 70 | 39.96 | 0.00 | 7.6696 | 1.2921 | 0.0563 | 0.6946 | 0.0561 | -0.2695 | 0.2371 | -0.5067 | 0.1685 |
| 71 | 40.14 | 0.00 | 7.7453 | 1.2275 | 0.0480 | 0.9945 | 0.0623 | -0.2626 | 0.2466 | -0.4995 | 0.1526 |
| 72 | 40.36 | 0.00 | 7.8077 | 1.1626 | 0.0512 | 1.0003 | 0.0761 | -0.2762 | 0.2391 | -0.5154 | 0.1503 |
| 73 | 40.55 | 0.01 | 7.8755 | 1.1033 | 0.1137 | 0.9794 | 0.0701 | -0.2719 | 0.2476 | -0.5196 | 0.1477 |
| 74 | 40.78 | 0.00 | 7.9653 | 1.1116 | 0.0706 | 0.9283 | 0.0771 | -0.2728 | 0.2481 | -0.5190 | 0.1395 |
| 75 | 40.97 | 0.03 | 8.0370 | 0.9292 | 0.3495 | 1.1315 | 0.0665 | -0.2600 | 0.2495 | -0.5096 | 0.1156 |
| 76 | 41.17 | 0.01 | 8.0867 | 1.0265 | 0.0817 | 1.0175 | 0.0804 | -0.2896 | 0.2470 | -0.5367 | 0.1263 |
| 77 | 41.38 | -0.00 | 8.1255 | 1.2169 | 0.0603 | 0.8197 | 0.0592 | -0.2726 | 0.2445 | -0.5172 | 0.1487 |
| 78 | 41.59 | 0.02 | 8.2302 | 1.0921 | 0.3297 | 0.9920 | 0.0837 | -0.2823 | 0.2511 | -0.5335 | 0.1328 |
| 79 | 41.79 | 0.02 | 8.2819 | 1.1461 | 0.2380 | 1.0441 | 0.0836 | -0.2795 | 0.2445 | -0.5241 | 0.1400 |
| 80 | 41.98 | 0.01 | 8.3034 | 1.0709 | 0.1391 | 1.0572 | 0.0839 | -0.2850 | 0.2481 | -0.5312 | 0.1290 |
| 81 | 42.18 | 0.01 | 8.5221 | 0.8216 | 0.1447 | 1.5572 | 0.0325 | -0.2983 | 0.2515 | -0.5458 | 0.0986 |
| 82 | 42.37 | 0.00 | 8.5240 | 1.0062 | 0.2061 | 0.8513 | 0.0596 | -0.3135 | 0.2445 | -0.5580 | 0.1227 |
| 83 | 42.54 | 0.02 | 8.5359 | 1.0754 | 0.4264 | 0.2322 | 0.0687 | -0.3045 | 0.2387 | -0.5432 | 0.1264 |
| 84 | 42.72 | -0.02 | 8.5656 | 1.0960 | 0.0181 | 0.4092 | 0.0696 | -0.3041 | 0.2379 | -0.5420 | 0.1279 |
| 85 | 42.90 | -0.01 | 8.7266 | 0.5474 | 0.0094 | 1.3163 | 0.0730 | -0.3168 | 0.2556 | -0.5724 | 0.1085 |
| 86 | 43.08 | -0.01 | 8.6912 | 1.0625 | 0.0683 | 0.8625 | 0.0703 | -0.3281 | 0.2428 | -0.5709 | 0.1202 |
| 87 | 43.28 | -0.01 | 8.8654 | 1.0776 | 0.2265 | 0.3036 | 0.0709 | -0.3287 | 0.2441 | -0.5728 | 0.1215 |
| 88 | 43.46 | 0.01 | 8.9726 | 1.0231 | 0.3386 | 0.0112 | 0.0699 | -0.3293 | 0.2494 | -0.5787 | 0.1140 |
| 89 | 43.62 | -0.02 | 8.9323 | 0.9508 | 0.0345 | 0.7386 | 0.0320 | -0.3330 | 0.2457 | -0.5787 | 0.1108 |
| 90 | 43.82 | -0.01 | 8.9629 | 1.0050 | 0.2022 | 0.0213 | 0.0662 | -0.3297 | 0.2465 | -0.5762 | 0.1193 |
| 91 | 43.98 | 0.00 | 9.0526 | 0.8605 | 0.1326 | 1.3530 | 0.0304 | -0.3068 | 0.2592 | -0.5660 | 0.0973 |
| 92 | 44.17 | -0.00 | 9.1220 | 1.0035 | 0.2837 | -0.2492 | 0.0742 | -0.3224 | 0.2490 | -0.5714 | 0.1155 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 141 | 0.90 | 1.7 | 0.0 | BLOCK14 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.38 | -0.02 | 5.3111 | 1.0155 | 0.0553 | 0.0537 | 0.0740 | -0.3483 | 0.2477 | -0.5960 | 0.1091 |
| 94 | 44.63 | -0.00 | 5.1141 | 0.9645 | 0.1832 | 0.7234 | 0.0832 | -0.3008 | 0.2543 | -0.5851 | 0.1059 |
| 95 | 44.73 | -0.01 | 5.2201 | 1.0411 | 0.1178 | 0.4690 | 0.0858 | -0.3357 | 0.2464 | -0.5821 | 0.1122 |
| 96 | 44.90 | 0.00 | 5.4239 | 0.9292 | 0.1450 | 0.0735 | 0.0722 | -0.3422 | 0.2514 | -0.5936 | 0.0988 |
| 97 | 45.10 | 0.03 | 5.4578 | 1.0066 | 0.3765 | 0.8075 | 0.0647 | -0.3405 | 0.2527 | -0.5932 | 0.1066 |
| 98 | 45.27 | -0.01 | 5.0999 | 0.9603 | 0.2851 | 0.0091 | 0.0806 | -0.3058 | 0.2508 | -0.5764 | 0.1003 |
| 99 | 45.43 | -0.03 | 5.3055 | 1.1228 | 0.0075 | 0.4885 | 0.0807 | -0.3884 | 0.2505 | -0.6189 | 0.1187 |
| 100 | 45.63 | -0.01 | 5.0047 | 0.9147 | 0.0481 | 0.7108 | 0.0599 | -0.3826 | 0.2493 | -0.6119 | 0.0953 |
| 101 | 45.81 | -0.01 | 5.0151 | 0.7525 | 0.0421 | 1.4333 | 0.0322 | -0.3513 | 0.2560 | -0.6093 | 0.0808 |
| 102 | 45.99 | 0.01 | 5.0005 | 0.7010 | 0.2404 | 1.3273 | 0.0320 | -0.3958 | 0.2551 | -0.6509 | 0.0777 |
| 103 | 46.17 | 0.02 | 5.0554 | 0.9407 | 0.5435 | -0.4804 | 0.0648 | -0.3412 | 0.2564 | -0.5976 | 0.0954 |
| 104 | 46.35 | -0.01 | 10.0265 | 0.9828 | 0.0987 | 0.3846 | 0.0930 | -0.3758 | 0.2526 | -0.6284 | 0.0980 |
| 105 | 46.54 | -0.01 | 10.1210 | 0.9042 | 0.0055 | 2.0411 | -0.0306 | -0.3458 | 0.2650 | -0.6108 | 0.0893 |
| 106 | 46.71 | -0.02 | 10.0240 | 0.9424 | -0.0202 | 0.1754 | 0.0513 | -0.3703 | 0.2555 | -0.6258 | 0.0935 |
| 107 | 46.87 | 0.01 | 10.0011 | 1.0055 | 0.4453 | 0.1231 | 0.0506 | -0.3613 | 0.2539 | -0.6152 | 0.0955 |
| 108 | 47.05 | -0.01 | 10.0239 | 1.0203 | 0.0307 | 1.1787 | 0.0415 | -0.3793 | 0.2617 | -0.6410 | 0.1060 |
| 109 | 47.23 | -0.00 | 10.0038 | 1.0047 | 0.1568 | 0.7833 | 0.0430 | -0.3743 | 0.2646 | -0.6389 | 0.0975 |
| 110 | 47.41 | -0.00 | 10.0257 | 0.9994 | 0.0592 | 1.4038 | 0.0278 | -0.3848 | 0.2774 | -0.6420 | 0.0968 |
| 111 | 47.58 | -0.00 | 10.0007 | 1.0734 | 0.2048 | 0.3230 | 0.0541 | -0.3523 | 0.2654 | -0.6177 | 0.1042 |
| 112 | 47.74 | -0.01 | 10.0404 | 1.1056 | 0.1624 | 0.4192 | 0.0516 | -0.3679 | 0.2642 | -0.6321 | 0.1055 |
| 113 | 47.90 | 0.01 | 10.0567 | 1.0307 | 0.4065 | 0.3210 | 0.0642 | -0.3677 | 0.2703 | -0.6330 | 0.0966 |
| 114 | 48.09 | 0.04 | 10.0203 | 1.0215 | 0.0592 | 0.3767 | 0.0639 | -0.3507 | 0.2732 | -0.6299 | 0.0967 |
| 115 | 48.27 | -0.02 | 10.0002 | 0.9283 | -0.0875 | 1.5187 | 0.0229 | -0.3644 | 0.2776 | -0.6622 | 0.0774 |
| 116 | 48.43 | -0.02 | 10.0224 | 0.9551 | -0.0725 | 1.2580 | 0.0049 | -0.3803 | 0.2810 | -0.6803 | 0.0809 |
| 117 | 48.59 | 0.01 | 10.0253 | 0.9286 | 0.1350 | 2.1781 | -0.0459 | -0.3379 | 0.3005 | -0.6383 | 0.0488 |
| 118 | 48.77 | 0.02 | 10.0361 | 0.9092 | 0.4019 | 1.5606 | 0.0347 | -0.3668 | 0.2919 | -0.6566 | 0.0711 |
| 119 | 48.95 | 0.00 | 11.1074 | 0.9306 | 0.0935 | 2.7045 | -0.0513 | -0.3445 | 0.3401 | -0.6845 | 0.0028 |
| 120 | 49.11 | -0.01 | 11.0925 | 0.9706 | 0.0653 | 2.4010 | -0.0500 | -0.3882 | 0.3264 | -0.6926 | 0.0245 |
| 121 | 49.32 | 0.05 | 11.1960 | -0.5051 | 0.6539 | 2.3022 | -0.0119 | -0.3339 | 0.3643 | -0.6982 | -0.0499 |
| 122 | 49.49 | 0.03 | 11.4630 | -0.8563 | 0.8626 | 2.2175 | -0.0242 | -0.3437 | 0.3635 | -0.7072 | -0.0741 |
| 123 | 49.67 | 0.04 | 11.8555 | -1.3134 | 0.9832 | 2.5493 | -0.0247 | -0.2603 | 0.3759 | -0.6367 | -0.1294 |
| 124 | 49.80 | 0.02 | 12.3244 | -2.0557 | 0.2215 | 3.6426 | -0.0328 | -0.2606 | 0.4163 | -0.6570 | -0.2077 |
| 125 | 50.03 | 0.03 | 12.2659 | -2.2360 | 0.4442 | 2.8598 | -0.0683 | -0.3187 | 0.3777 | -0.6564 | -0.1862 |
| 126 | 50.29 | 0.01 | 12.3229 | -2.4581 | 0.3008 | 2.3920 | -0.0728 | -0.3281 | 0.3848 | -0.7129 | -0.1963 |
| 127 | 50.39 | 0.03 | 12.4305 | -2.4436 | 0.4826 | 2.3503 | -0.0730 | -0.3014 | 0.3859 | -0.6873 | -0.1968 |
| 128 | 50.55 | 0.07 | 12.4267 | -2.4512 | 0.5921 | 2.3323 | -0.0547 | -0.3343 | 0.3851 | -0.7234 | -0.1844 |
| 129 | 50.73 | 0.02 | 12.5342 | -2.2273 | 0.4003 | 2.1030 | -0.0457 | -0.3025 | 0.3925 | -0.6950 | -0.1777 |
| 130 | 50.91 | 0.03 | 12.6345 | -2.4730 | 0.5456 | 2.3318 | -0.0531 | -0.3122 | 0.4021 | -0.7143 | -0.1957 |
| 131 | 51.05 | 0.05 | 12.5869 | -2.3941 | 0.8283 | 2.0413 | -0.0335 | -0.2927 | 0.3973 | -0.6917 | -0.1902 |
| 132 | 51.24 | 0.04 | 12.6474 | -2.0357 | 0.6544 | 2.3480 | -0.0588 | -0.3016 | 0.4139 | -0.7155 | -0.2348 |
| 133 | 51.43 | 0.03 | 13.1424 | -3.2061 | 0.8317 | 2.7096 | -0.0530 | -0.2269 | 0.4316 | -0.6585 | -0.2441 |
| 134 | 51.59 | 0.03 | 13.0217 | -3.2156 | 0.8834 | 2.5323 | -0.0527 | -0.2885 | 0.4207 | -0.6953 | -0.2461 |
| 135 | 51.77 | 0.04 | 13.0163 | -3.5282 | 0.7065 | 2.5531 | -0.0496 | -0.2452 | 0.4417 | -0.6870 | -0.2630 |
| 136 | 51.93 | 0.07 | 13.0859 | -3.4241 | 1.0285 | 2.3414 | -0.0262 | -0.2404 | 0.4471 | -0.6936 | -0.2558 |
| 137 | 52.10 | 0.06 | 13.3770 | -3.5018 | 1.0536 | 2.5676 | -0.0399 | -0.2510 | 0.4438 | -0.6995 | -0.2623 |
| 138 | 52.26 | 0.05 | 13.4444 | -3.5485 | 0.8496 | 2.5157 | -0.0200 | -0.2280 | 0.4518 | -0.6779 | -0.2635 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 141 MACH 0.90 RATIO-E 1.7 PHI 0.0 CONF 1 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.42 | 0.03 | 13.4450 | -3.5421 | 0.7153 | 2.5447 | -0.0325 | -0.2337 | 0.4536 | -0.6844 | -0.2635 |
| 140 | 52.54 | 0.01 | 13.4726 | -3.5761 | 1.0706 | 2.6073 | -0.0143 | -0.2417 | 0.4548 | -0.6906 | -0.2655 |
| 141 | 52.79 | 0.07 | 13.5855 | -3.5502 | 1.1511 | 2.1346 | -0.0186 | -0.2546 | 0.4494 | -0.7041 | -0.2643 |
| 142 | 52.93 | 0.04 | 13.6235 | -3.5861 | 0.8506 | 2.0470 | -0.0104 | -0.2537 | 0.4478 | -0.6816 | -0.2481 |
| 143 | 53.09 | 0.01 | 13.4771 | -3.5226 | 0.4426 | 2.1426 | -0.0049 | -0.2760 | 0.4438 | -0.7199 | -0.2612 |
| 144 | 53.28 | 0.02 | 13.6965 | -3.5344 | 0.6656 | 1.9563 | 0.0027 | -0.2479 | 0.4456 | -0.6938 | -0.2484 |
| 145 | 53.44 | 0.04 | 13.5314 | -3.5275 | 0.8565 | 2.0096 | -0.0047 | -0.2503 | 0.4435 | -0.6739 | -0.2607 |
| 146 | 53.60 | 0.05 | 13.6579 | -3.5547 | 0.9502 | 1.9461 | 0.0004 | -0.2263 | 0.4523 | -0.6807 | -0.2603 |
| 147 | 53.75 | 0.07 | 13.6615 | -3.6864 | 1.1345 | 2.1378 | 0.0009 | -0.2411 | 0.4516 | -0.6922 | -0.2694 |
| 148 | 53.92 | 0.06 | 13.7066 | -3.5861 | 0.9475 | 2.1149 | -0.0045 | -0.2590 | 0.4533 | -0.7124 | -0.2583 |
| 149 | 54.08 | 0.05 | 13.7658 | -3.4922 | 0.8458 | 1.7314 | 0.0059 | -0.2507 | 0.4542 | -0.7050 | -0.2541 |
| 150 | 54.22 | 0.04 | 13.6944 | -3.5367 | 0.9307 | 1.9014 | 0.0103 | -0.2449 | 0.4493 | -0.6943 | -0.2432 |
| 151 | 54.39 | 0.05 | 13.8530 | -3.5503 | 0.9199 | 1.9438 | 0.0105 | -0.2795 | 0.4522 | -0.7318 | -0.2592 |
| 152 | 54.52 | 0.07 | 13.8661 | -3.5734 | 1.0211 | 1.7345 | 0.0220 | -0.2263 | 0.4565 | -0.6829 | -0.2466 |
| 153 | 54.70 | 0.02 | 13.8925 | -3.4463 | 0.7205 | 1.8509 | 0.0374 | -0.2929 | 0.4566 | -0.7495 | -0.2483 |
| 154 | 54.85 | 0.00 | 13.8934 | -3.5294 | 0.9315 | 1.8047 | 0.0316 | -0.2470 | 0.4778 | -0.7049 | -0.2536 |
| 155 | 55.01 | 0.01 | 13.9461 | -3.5565 | 0.9043 | 1.8364 | 0.0320 | -0.2230 | 0.4697 | -0.7057 | -0.2580 |
| 156 | 55.16 | 0.04 | 14.0585 | -3.6751 | 0.8574 | 1.8434 | 0.0750 | -0.2410 | 0.5122 | -0.7552 | -0.2607 |
| 157 | 55.30 | 0.03 | 14.0175 | -3.5548 | 0.8727 | 1.4358 | 0.0589 | -0.2352 | 0.5233 | -0.7585 | -0.2564 |
| 158 | 55.47 | 0.01 | 14.1669 | -3.7247 | 0.9515 | 1.4396 | 0.0703 | -0.2077 | 0.5235 | -0.7282 | -0.2629 |
| 159 | 55.62 | 0.04 | 14.1208 | -3.6762 | 0.9174 | 1.2579 | 0.0702 | -0.2301 | 0.5192 | -0.7493 | -0.2603 |
| 160 | 55.79 | 0.07 | 14.0836 | -3.6166 | 1.0754 | 1.4408 | 0.0751 | -0.2432 | 0.5036 | -0.7408 | -0.2568 |
| 161 | 55.93 | 0.04 | 14.0595 | -3.6551 | 0.7746 | 1.3271 | 0.0760 | -0.2606 | 0.4921 | -0.7527 | -0.2600 |
| 162 | 56.08 | 0.02 | 14.0956 | -3.4814 | 0.7006 | 1.4536 | 0.0696 | -0.2067 | 0.4929 | -0.7016 | -0.2470 |
| 163 | 56.26 | 0.05 | 14.2247 | -3.5963 | 0.8679 | 1.5908 | 0.0753 | -0.2927 | 0.4938 | -0.7864 | -0.2530 |
| 164 | 56.40 | 0.01 | 14.1326 | -3.6125 | 0.9486 | 1.3569 | 0.0703 | -0.2004 | 0.5102 | -0.7706 | -0.2556 |
| 165 | 56.55 | 0.05 | 14.1126 | -3.6855 | 0.8729 | 1.4184 | 0.0630 | -0.2633 | 0.5188 | -0.7821 | -0.2615 |
| 166 | 56.69 | -0.04 | 14.0634 | -3.6796 | 0.9531 | 1.2049 | 0.0598 | -0.2074 | 0.5259 | -0.7969 | -0.2618 |
| 167 | 56.85 | 0.02 | 14.2276 | -3.7938 | 0.8626 | 1.3787 | 0.0640 | -0.2720 | 0.5282 | -0.8002 | -0.2667 |
| 168 | 57.01 | 0.01 | 14.1755 | -3.6736 | 0.9067 | 1.2179 | 0.0647 | -0.2756 | 0.5376 | -0.8134 | -0.2591 |
| 169 | 57.15 | 0.01 | 14.2641 | -3.6466 | 0.9554 | 1.3782 | 0.0520 | -0.2609 | 0.5357 | -0.8006 | -0.2554 |
| 170 | 57.29 | 0.04 | 14.2617 | -3.5121 | 0.7647 | 1.3004 | 0.0542 | -0.2710 | 0.5436 | -0.8226 | -0.2463 |
| 171 | 57.46 | 0.01 | 14.4564 | -3.5824 | 0.8780 | 1.0114 | 0.0506 | -0.2971 | 0.5464 | -0.8434 | -0.2471 |
| 172 | 57.59 | -0.04 | 14.3661 | -3.6236 | 0.8345 | 0.9571 | 0.0450 | -0.2673 | 0.5265 | -0.8367 | -0.2244 |
| 173 | 57.73 | -0.03 | 14.3722 | -2.7933 | -0.2849 | -0.1606 | 0.0529 | -0.3375 | 0.4933 | -0.8327 | -0.1944 |
| 174 | 57.87 | -0.05 | 14.1814 | -2.8634 | -0.2256 | -1.0812 | 0.0340 | -0.3202 | 0.5261 | -0.8402 | -0.2019 |
| 175 | 58.03 | -0.06 | 14.3133 | -3.3196 | -0.2570 | -1.1518 | 0.0215 | -0.3195 | 0.5328 | -0.8522 | -0.2319 |
| 176 | 58.19 | -0.10 | 14.3223 | -3.3436 | -0.3734 | -1.2571 | 0.0342 | -0.2957 | 0.5436 | -0.8412 | -0.2335 |
| 177 | 58.17 | -0.10 | 14.5050 | -3.5188 | -0.4551 | -1.2578 | 0.0219 | -0.2824 | 0.5531 | -0.8355 | -0.2425 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RN/C-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 141 0.50 1.7 0.0 Diagram 6.0 0 -20 0 -20 UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | -0.02 | -0.0021 | -0.0004 | 0.0178 | 0.1905 | -8.4702 | -0.3775 | 0.0013 | -0.3188 | -0.0015 | 0.3633 |
| 2 | -5.77 | -0.01 | -0.0019 | -0.0004 | 0.0181 | 0.2143 | -8.4737 | -0.3805 | 0.0010 | -0.3179 | -0.0010 | 0.3616 |
| 3 | -5.77 | -0.01 | -0.0032 | -0.0004 | 0.0183 | 0.1250 | -4.7813 | -0.3805 | 0.0038 | -0.3175 | -0.0005 | 0.3616 |
| 4 | -4.87 | -0.01 | -0.0026 | -0.0006 | 0.0135 | 0.0898 | -2.3465 | -0.7856 | 0.0077 | -0.2987 | -0.0098 | 0.3801 |
| 5 | -2.84 | -0.01 | -0.0016 | 0.0 | 0.0150 | 0.0 | -0.3333 | -0.8844 | 0.0114 | -0.2779 | -0.0187 | 0.4066 |
| 6 | -1.02 | -0.01 | -0.0003 | 0.0004 | 0.0134 | -0.0000 | -44.0007 | -0.9703 | 0.0120 | -0.2809 | -0.0221 | 0.4568 |
| 7 | 0.80 | -0.01 | -0.0026 | 0.0002 | 0.0157 | -0.0769 | -3.7308 | -0.4525 | 0.0142 | -0.2343 | -0.0288 | 0.4753 |
| 8 | 2.61 | -0.01 | -0.0014 | 0.0002 | 0.0153 | -0.1000 | -7.7500 | -0.4037 | 0.0164 | -0.2084 | -0.0406 | 0.5113 |
| 9 | 4.46 | -0.02 | 0.0 | -0.0002 | 0.0116 | -0.0002 | 0.0116 | -0.3229 | 0.0176 | -0.1772 | -0.0545 | 0.5488 |
| 10 | 6.30 | -0.01 | 0.0045 | -0.0005 | 0.0141 | -0.2000 | 5.6400 | -0.2381 | 0.0172 | -0.1416 | -0.0722 | 0.5947 |
| 11 | 8.14 | -0.00 | 0.0049 | -0.0016 | 0.0177 | -0.3265 | 3.8122 | -0.1501 | 0.0159 | -0.1075 | -0.1018 | 0.6387 |
| 12 | 9.99 | -0.01 | 0.0006 | -0.0015 | 0.0170 | -1.8747 | 22.2500 | -0.0796 | 0.0125 | -0.0740 | -0.1570 | 0.9298 |
| 13 | 11.80 | -0.00 | -0.0076 | -0.0022 | 0.0157 | 0.2894 | -2.5521 | 0.0014 | 0.0087 | -0.0402 | 6.2134 | -28.7143 |
| 14 | 13.65 | -0.01 | -0.0246 | -0.0041 | 0.0162 | 0.1990 | -0.7804 | 0.0502 | 0.0098 | -0.0200 | 0.1952 | -0.3584 |
| 15 | 15.54 | -0.01 | -0.0247 | -0.0000 | 0.0163 | 0.2429 | -0.7409 | 0.0746 | 0.0140 | -0.0116 | 0.1957 | -0.1555 |
| 16 | 17.46 | -0.01 | -0.0334 | -0.0044 | 0.0095 | 0.1317 | -0.2844 | 0.1169 | 0.0149 | 0.0124 | 0.1253 | 0.1043 |
| 17 | 19.32 | -0.02 | -0.0478 | -0.0145 | 0.0147 | 0.3053 | -0.3075 | 0.1484 | 0.0188 | 0.0221 | 0.1132 | 0.1485 |
| 18 | 21.22 | -0.02 | -0.0629 | -0.0117 | 0.0007 | 0.1878 | -0.1075 | 0.2091 | 0.0183 | 0.0458 | 0.0875 | 0.2196 |
| 19 | 23.13 | -0.02 | -0.1255 | -0.0141 | -0.0115 | 0.1123 | 0.0916 | 0.2336 | 0.0222 | 0.0535 | 0.0950 | 0.2256 |
| 20 | 25.00 | -0.03 | -0.2004 | -0.0096 | -0.0063 | 0.0450 | 0.2315 | 0.2704 | 0.0262 | 0.0629 | 0.0570 | 0.2348 |
| 21 | 26.94 | 0.00 | 0.0156 | 0.0023 | 0.0255 | 0.1455 | 1.6139 | 0.3617 | 0.0283 | 0.1079 | 0.0689 | 0.2827 |
| 22 | 27.89 | 0.00 | 0.1072 | 0.0017 | 0.0526 | 0.0156 | 0.4907 | 0.4001 | 0.0272 | 0.1149 | 0.0670 | 0.2829 |
| 23 | 28.81 | 0.04 | 0.1495 | 0.0022 | 0.0253 | 0.0147 | 0.4360 | 0.4209 | 0.0277 | 0.1205 | 0.0658 | 0.2872 |
| 24 | 28.87 | 0.05 | 0.2148 | 0.0036 | 0.0506 | 0.0100 | 0.4218 | 0.4327 | 0.0280 | 0.1261 | 0.0647 | 0.2914 |
| 25 | 28.89 | 0.03 | 0.2076 | 0.0037 | 0.0253 | 0.0178 | 0.4109 | 0.4332 | 0.0287 | 0.1263 | 0.0662 | 0.2916 |
| 26 | 28.97 | 0.05 | 0.2545 | 0.0058 | 0.0507 | 0.0228 | 0.3951 | 0.4426 | 0.0292 | 0.1301 | 0.0661 | 0.2943 |
| 27 | 29.28 | 0.05 | 0.1821 | 0.0047 | 0.0787 | 0.0258 | 0.4322 | 0.4359 | 0.0297 | 0.1284 | 0.0681 | 0.2948 |
| 28 | 29.57 | 0.06 | 0.2066 | 0.0043 | 0.0691 | 0.0214 | 0.4188 | 0.4509 | 0.0297 | 0.1321 | 0.0659 | 0.2930 |
| 29 | 29.85 | 0.08 | 0.2067 | 0.0040 | 0.0866 | 0.0193 | 0.4190 | 0.4567 | 0.0302 | 0.1330 | 0.0670 | 0.2951 |
| 30 | 30.13 | 0.05 | 0.1777 | 0.0045 | 0.0745 | 0.0278 | 0.4215 | 0.4551 | 0.0305 | 0.1352 | 0.0670 | 0.2971 |
| 31 | 30.38 | 0.07 | 0.2174 | 0.0054 | 0.0175 | 0.0248 | 0.4025 | 0.4641 | 0.0307 | 0.1389 | 0.0661 | 0.2953 |
| 32 | 30.80 | 0.06 | 0.1962 | 0.0077 | 0.0781 | 0.0362 | 0.3981 | 0.4671 | 0.0307 | 0.1398 | 0.0657 | 0.2953 |
| 33 | 30.94 | 0.06 | 0.1885 | 0.0081 | 0.0732 | 0.0430 | 0.3883 | 0.4716 | 0.0309 | 0.1402 | 0.0655 | 0.2973 |
| 34 | 31.23 | 0.06 | 0.2036 | 0.0124 | 0.0781 | 0.0606 | 0.3834 | 0.4775 | 0.0309 | 0.1437 | 0.0647 | 0.3005 |
| 35 | 31.50 | 0.07 | 0.1960 | 0.0111 | 0.0758 | 0.0566 | 0.3807 | 0.4821 | 0.0307 | 0.1446 | 0.0637 | 0.2995 |
| 36 | 31.77 | 0.06 | 0.2141 | 0.0115 | 0.0815 | 0.0556 | 0.3825 | 0.4948 | 0.0309 | 0.1486 | 0.0624 | 0.3003 |
| 37 | 32.05 | 0.07 | 0.1927 | 0.0125 | 0.0732 | 0.0649 | 0.3830 | 0.4959 | 0.0312 | 0.1512 | 0.0624 | 0.3025 |
| 38 | 32.29 | 0.07 | 0.1911 | 0.0135 | 0.0726 | 0.0811 | 0.3788 | 0.4963 | 0.0316 | 0.1499 | 0.0634 | 0.3008 |
| 39 | 32.56 | 0.08 | 0.1978 | 0.0161 | 0.0745 | 0.0815 | 0.3770 | 0.5058 | 0.0315 | 0.1525 | 0.0623 | 0.3035 |
| 40 | 32.83 | 0.08 | 0.2073 | 0.0163 | 0.0804 | 0.0807 | 0.3841 | 0.5268 | 0.0311 | 0.1606 | 0.0590 | 0.3049 |
| 41 | 33.08 | 0.09 | 0.2033 | 0.0155 | 0.0803 | 0.0547 | 0.3540 | 0.5455 | 0.0306 | 0.1661 | 0.0561 | 0.3045 |
| 42 | 33.33 | 0.08 | 0.2155 | 0.0135 | 0.0591 | 0.0504 | 0.3597 | 0.5438 | 0.0310 | 0.1666 | 0.0570 | 0.3064 |
| 43 | 33.58 | 0.08 | 0.2205 | 0.0143 | 0.0542 | 0.0548 | 0.3811 | 0.5463 | 0.0312 | 0.1676 | 0.0569 | 0.3057 |
| 44 | 33.83 | 0.08 | 0.2357 | 0.0154 | 0.0653 | 0.0434 | 0.3725 | 0.5414 | 0.0313 | 0.1650 | 0.0578 | 0.3048 |
| 45 | 34.09 | 0.07 | 0.2164 | 0.0165 | 0.0755 | 0.0411 | 0.3674 | 0.5306 | 0.0315 | 0.1635 | 0.0587 | 0.3045 |
| 46 | 34.34 | 0.09 | 0.1824 | 0.0174 | 0.0806 | 0.0406 | 0.3761 | 0.5443 | 0.0317 | 0.1665 | 0.0582 | 0.3055 |

TEST PART PACF RAIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 1+1 0.50 1.7 0.0 BINOFIN 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CN1 | CA1 | XCPF1 | YCPF1 | CNF2 | CN2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.58 | 0.04 | 0.2453 | 0.0063 | 0.0526 | 0.0265 | 0.3775 | 0.5562 | 0.0318 | 0.1693 | 0.0572 | 0.3044 |
| 48 | 34.66 | 0.06 | 0.2046 | 0.0096 | 0.0585 | 0.0225 | 0.3965 | 0.5502 | 0.0321 | 0.1682 | 0.0583 | 0.3057 |
| 49 | 35.07 | 0.03 | 0.1960 | 0.0024 | 0.0397 | 0.0250 | 0.4135 | 0.5613 | 0.0322 | 0.1702 | 0.0574 | 0.3032 |
| 50 | 35.29 | 0.03 | 0.1163 | 0.0018 | 0.0406 | 0.0118 | 0.4243 | 0.5553 | 0.0327 | 0.1675 | 0.0585 | 0.3024 |
| 51 | 35.54 | 0.02 | 0.0957 | 0.0026 | 0.0226 | 0.0359 | 0.4057 | 0.5647 | 0.0329 | 0.1703 | 0.0583 | 0.3018 |
| 52 | 35.78 | -0.00 | -0.0143 | 0.0036 | -0.0101 | -0.2917 | 0.7063 | 0.5662 | 0.0326 | 0.1710 | 0.0579 | 0.3020 |
| 53 | 36.01 | 0.02 | -0.0513 | 0.0047 | -0.0207 | -0.0916 | 0.4035 | 0.5541 | 0.0339 | 0.1665 | 0.0612 | 0.3005 |
| 54 | 36.24 | 0.01 | -0.0196 | 0.0031 | -0.0107 | -0.1536 | 0.5459 | 0.5654 | 0.0341 | 0.1711 | 0.0602 | 0.3023 |
| 55 | 36.46 | 0.03 | -0.0166 | 0.0032 | -0.0110 | -0.1505 | 0.6546 | 0.5657 | 0.0357 | 0.1700 | 0.0631 | 0.3005 |
| 56 | 36.70 | 0.02 | -0.0215 | 0.0041 | -0.0134 | -0.1672 | 0.7052 | 0.5665 | 0.0360 | 0.1715 | 0.0633 | 0.3017 |
| 57 | 36.96 | 0.03 | 0.0067 | 0.0021 | 0.0203 | 0.0306 | 0.3628 | 0.5537 | 0.0387 | 0.1661 | 0.0655 | 0.3000 |
| 58 | 37.19 | 0.01 | -0.0012 | 0.0027 | -0.0042 | -2.6497 | 3.5000 | 0.5741 | 0.0378 | 0.1759 | 0.0653 | 0.3037 |
| 59 | 37.42 | 0.01 | 0.0366 | 0.0038 | 0.0092 | 0.0983 | 0.2514 | 0.5848 | 0.0383 | 0.1788 | 0.0655 | 0.3057 |
| 60 | 37.68 | 0.03 | 0.0766 | 0.0064 | 0.0202 | 0.0330 | 0.3599 | 0.5800 | 0.0396 | 0.1756 | 0.0675 | 0.3055 |
| 61 | 37.90 | 0.05 | 0.1035 | 0.0087 | 0.0375 | 0.0356 | 0.3648 | 0.5901 | 0.0419 | 0.1783 | 0.0710 | 0.3022 |
| 62 | 38.18 | 0.02 | 0.0751 | 0.0047 | 0.0275 | 0.0026 | 0.3662 | 0.5914 | 0.0430 | 0.1791 | 0.0727 | 0.3028 |
| 63 | 38.43 | 0.02 | 0.0820 | 0.0045 | 0.0281 | 0.0719 | 0.2875 | 0.5969 | 0.0426 | 0.1815 | 0.0711 | 0.3031 |
| 64 | 38.65 | 0.03 | 0.0515 | 0.0034 | 0.0201 | 0.0600 | 0.3403 | 0.5842 | 0.0451 | 0.1737 | 0.0772 | 0.2973 |
| 65 | 38.87 | 0.02 | 0.0382 | 0.0036 | 0.0115 | 0.0994 | 0.3177 | 0.5977 | 0.0435 | 0.1801 | 0.0728 | 0.3013 |
| 66 | 39.10 | 0.04 | 0.0230 | 0.0024 | 0.0153 | 0.1043 | 0.4043 | 0.5795 | 0.0466 | 0.1716 | 0.0794 | 0.2961 |
| 67 | 39.32 | 0.01 | 0.0051 | 0.0031 | -0.0005 | 0.0670 | -0.0980 | 0.5736 | 0.0461 | 0.1700 | 0.0804 | 0.2964 |
| 68 | 39.52 | 0.04 | 0.0125 | 0.0041 | -0.0024 | 1.0398 | -0.9000 | 0.5883 | 0.0468 | 0.1742 | 0.0795 | 0.2961 |
| 69 | 39.75 | 0.02 | -0.0036 | 0.0045 | -0.0087 | -1.2498 | 2.4167 | 0.5971 | 0.0472 | 0.1773 | 0.0750 | 0.2965 |
| 70 | 39.96 | 0.00 | -0.0114 | 0.0050 | -0.0123 | -0.4585 | 1.0789 | 0.5943 | 0.0465 | 0.1765 | 0.0762 | 0.2970 |
| 71 | 40.14 | 0.00 | -0.0173 | 0.0050 | -0.0160 | -0.1734 | 1.0405 | 0.6088 | 0.0481 | 0.1798 | 0.0750 | 0.2950 |
| 72 | 40.36 | 0.00 | -0.0205 | 0.0057 | -0.0145 | -0.5820 | 2.5000 | 0.5905 | 0.0490 | 0.1728 | 0.0829 | 0.2924 |
| 73 | 40.55 | 0.01 | 0.0010 | 0.0057 | -0.0144 | 5.0592 | -14.4000 | 0.5967 | 0.0497 | 0.1734 | 0.0833 | 0.2908 |
| 74 | 40.76 | 0.00 | -0.0148 | 0.0056 | -0.0164 | -0.3918 | 1.2770 | 0.6012 | 0.0501 | 0.1732 | 0.0833 | 0.2881 |
| 75 | 40.97 | 0.03 | -0.0192 | 0.0110 | -0.0218 | -0.5720 | 1.1354 | 0.5905 | 0.0518 | 0.1671 | 0.0877 | 0.2830 |
| 76 | 41.17 | 0.01 | -0.0246 | 0.0066 | -0.0251 | -0.3583 | 1.0458 | 0.5964 | 0.0524 | 0.1684 | 0.0878 | 0.2832 |
| 77 | 41.38 | -0.00 | -0.0266 | 0.0057 | -0.0175 | -0.8381 | 2.5735 | 0.6262 | 0.0507 | 0.1819 | 0.0810 | 0.2905 |
| 78 | 41.59 | 0.02 | -0.0081 | 0.0062 | -0.0167 | -0.7053 | 2.3006 | 0.6156 | 0.0524 | 0.1752 | 0.0851 | 0.2846 |
| 79 | 41.79 | 0.02 | -0.0177 | 0.0077 | -0.0220 | -0.4350 | 1.1299 | 0.5961 | 0.0540 | 0.1678 | 0.0906 | 0.2815 |
| 80 | 41.98 | 0.01 | -0.0172 | 0.0070 | -0.0230 | -0.4069 | 1.3372 | 0.6139 | 0.0542 | 0.1705 | 0.0883 | 0.2777 |
| 81 | 42.18 | 0.01 | -0.0262 | 0.0066 | -0.0355 | -0.1428 | 0.8628 | 0.6056 | 0.0554 | 0.1635 | 0.0916 | 0.2765 |
| 82 | 42.37 | 0.00 | -0.0505 | 0.0053 | 0.0036 | 0.1089 | 0.0713 | 0.6528 | 0.0521 | 0.1806 | 0.0798 | 0.2858 |
| 83 | 42.54 | 0.02 | 0.0267 | 0.0066 | -0.0053 | 0.2222 | -0.1785 | 0.6436 | 0.0535 | 0.1806 | 0.0837 | 0.2806 |
| 84 | 42.72 | -0.02 | 0.0041 | 0.0052 | 0.0044 | 0.0811 | 0.0586 | 0.6796 | 0.0517 | 0.1747 | 0.0761 | 0.2865 |
| 85 | 42.90 | -0.01 | 0.0305 | 0.0066 | -0.0105 | 0.2170 | -0.3665 | 0.6655 | 0.0527 | 0.1850 | 0.0792 | 0.2840 |
| 86 | 43.08 | -0.01 | 0.0352 | 0.0062 | -0.0093 | 0.1532 | -0.1506 | 0.6574 | 0.0547 | 0.1840 | 0.0832 | 0.2799 |
| 87 | 43.28 | -0.01 | 0.0375 | 0.0067 | -0.0051 | 0.1766 | -0.1346 | 0.6694 | 0.0540 | 0.1865 | 0.0807 | 0.2816 |
| 88 | 43.46 | 0.01 | 0.0267 | 0.0064 | -0.0078 | 0.2230 | -0.2716 | 0.6634 | 0.0551 | 0.1845 | 0.0830 | 0.2781 |
| 89 | 43.62 | -0.02 | 0.0204 | 0.0078 | -0.0084 | 0.3623 | -0.4118 | 0.6513 | 0.0562 | 0.1795 | 0.0883 | 0.2758 |
| 90 | 43.82 | -0.01 | 0.0089 | 0.0075 | 0.0063 | 0.1000 | 0.1205 | 0.6643 | 0.0542 | 0.1921 | 0.0792 | 0.2807 |
| 91 | 43.98 | 0.00 | -0.0056 | 0.0062 | -0.0150 | -1.2688 | 2.0397 | 0.6401 | 0.0581 | 0.1740 | 0.0859 | 0.2693 |
| 92 | 44.17 | -0.00 | 0.0169 | 0.0065 | -0.0063 | 0.8475 | -0.0300 | 0.6491 | 0.0574 | 0.1772 | 0.0864 | 0.2730 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER (NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 4

MANTA MISSILE TAILS EFFECTS DATA

TEST PART MACH RNIC=6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 141 0.90 1.7 0.0 BLOCKED 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | dETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.38 | -0.02 | 0.0767 | 0.0115 | 0.0082 | 0.1499 | 0.1069 | 0.6693 | 0.0582 | 0.1831 | 0.0669 | 0.2734 |
| 94 | 44.53 | -0.00 | 0.0435 | 0.0053 | -0.0004 | 0.2104 | -0.0341 | 0.6869 | 0.0583 | 0.1788 | 0.0682 | 0.2705 |
| 95 | 44.73 | -0.01 | 0.0352 | 0.0103 | -0.0063 | 0.2687 | -0.2117 | 0.6774 | 0.0580 | 0.1820 | 0.0856 | 0.2667 |
| 96 | 44.90 | 0.00 | -0.0111 | 0.0105 | -0.0211 | -0.5953 | 1.9004 | 0.6577 | 0.0596 | 0.1757 | 0.0909 | 0.2671 |
| 97 | 45.10 | 0.03 | -0.0449 | 0.0100 | -0.0356 | -0.2227 | 0.7996 | 0.6619 | 0.0597 | 0.1745 | 0.0902 | 0.2638 |
| 98 | 45.27 | -0.01 | 0.0478 | 0.0115 | 0.0025 | 0.2240 | 0.0523 | 0.6900 | 0.0582 | 0.1681 | 0.0830 | 0.2703 |
| 99 | 45.43 | -0.03 | 0.0567 | 0.0056 | -0.0031 | 0.1093 | -0.0547 | 0.7021 | 0.0580 | 0.1874 | 0.0826 | 0.2665 |
| 100 | 45.63 | -0.01 | -0.0382 | 0.0074 | -0.0042 | -0.1909 | 0.7849 | 0.6793 | 0.0602 | 0.1779 | 0.0886 | 0.2619 |
| 101 | 45.81 | -0.01 | -0.0974 | 0.0068 | -0.0521 | -0.4878 | 1.5349 | 0.6823 | 0.0606 | 0.1770 | 0.0851 | 0.2554 |
| 102 | 45.99 | 0.01 | -0.0345 | 0.0075 | -0.0420 | -0.1402 | 0.7830 | 0.6898 | 0.0603 | 0.1794 | 0.0874 | 0.2601 |
| 103 | 46.17 | 0.02 | -0.0162 | 0.0063 | -0.0227 | -0.5123 | 1.4012 | 0.6973 | 0.0606 | 0.1795 | 0.0865 | 0.2574 |
| 104 | 46.35 | -0.01 | -0.0145 | 0.0079 | -0.0236 | -0.0448 | 1.7241 | 0.7049 | 0.0605 | 0.1793 | 0.0862 | 0.2554 |
| 105 | 46.54 | -0.01 | -0.2341 | 0.0026 | -0.0554 | -0.0111 | 0.4075 | 0.6658 | 0.0615 | 0.1686 | 0.0924 | 0.2532 |
| 106 | 46.71 | -0.03 | 0.0515 | 0.0096 | -0.0035 | 0.1963 | -0.1146 | 0.7199 | 0.0607 | 0.1838 | 0.0843 | 0.2593 |
| 107 | 46.87 | 0.01 | -0.0224 | 0.0075 | -0.0271 | -0.3348 | 1.2056 | 0.7033 | 0.0616 | 0.1777 | 0.0878 | 0.2527 |
| 108 | 47.05 | -0.01 | -0.0143 | 0.0102 | -0.0251 | -0.7152 | 2.0330 | 0.7049 | 0.0625 | 0.1777 | 0.0887 | 0.2521 |
| 109 | 47.23 | -0.00 | 0.0015 | 0.0093 | -0.0212 | 7.1529 | -16.3077 | 0.7065 | 0.0622 | 0.1772 | 0.0880 | 0.2508 |
| 110 | 47.41 | -0.00 | -0.0447 | 0.0086 | -0.0350 | -0.1929 | 0.7904 | 0.7050 | 0.0620 | 0.1759 | 0.0868 | 0.2495 |
| 111 | 47.56 | -0.00 | -0.0373 | 0.0084 | -0.0290 | -0.2252 | 0.7775 | 0.7004 | 0.0632 | 0.1720 | 0.0902 | 0.2456 |
| 112 | 47.74 | -0.01 | 0.0365 | 0.0136 | -0.0033 | 0.0301 | -0.0822 | 0.7243 | 0.0628 | 0.1811 | 0.0867 | 0.2500 |
| 113 | 47.90 | 0.01 | 0.0140 | 0.0119 | -0.0156 | 0.6499 | -1.1260 | 0.7140 | 0.0639 | 0.1756 | 0.0855 | 0.2457 |
| 114 | 48.09 | 0.04 | -0.0135 | 0.0111 | -0.0247 | -0.0221 | 1.0296 | 0.7154 | 0.0646 | 0.1750 | 0.0903 | 0.2446 |
| 115 | 48.27 | -0.02 | -0.1269 | 0.0037 | -0.0611 | -0.0301 | 0.4972 | 0.7262 | 0.0624 | 0.1811 | 0.0859 | 0.2494 |
| 116 | 48.43 | -0.02 | -0.0535 | 0.0077 | -0.0418 | -0.1499 | 0.7842 | 0.7290 | 0.0641 | 0.1779 | 0.0879 | 0.2440 |
| 117 | 48.59 | 0.01 | -0.2148 | -0.0105 | -0.0860 | 0.0507 | 0.4304 | 0.6904 | 0.0596 | 0.2086 | 0.0882 | 0.2606 |
| 118 | 48.77 | 0.02 | -0.0543 | 0.0061 | -0.0522 | -0.0716 | 0.5536 | 0.7260 | 0.0644 | 0.1749 | 0.0887 | 0.2382 |
| 119 | 48.95 | 0.00 | -0.2160 | -0.0109 | -0.0875 | 0.0505 | 0.4089 | 0.8006 | 0.0546 | 0.2050 | 0.0882 | 0.2561 |
| 120 | 49.11 | -0.01 | -0.1604 | -0.0110 | -0.0701 | 0.0693 | 0.4210 | 0.8274 | 0.0547 | 0.2120 | 0.0861 | 0.2562 |
| 121 | 49.31 | 0.05 | -0.1552 | 0.0001 | -0.0654 | -0.0007 | 0.4327 | 0.8646 | 0.0539 | 0.2239 | 0.0823 | 0.2556 |
| 122 | 49.49 | 0.00 | -0.1019 | -0.0004 | -0.0744 | 0.0404 | 0.4430 | 0.8003 | 0.0531 | 0.2217 | 0.0817 | 0.2577 |
| 123 | 49.67 | 0.04 | -0.2335 | -0.0025 | -0.0522 | 0.0364 | 0.3749 | 0.7910 | 0.0598 | 0.1886 | 0.0756 | 0.2377 |
| 124 | 49.80 | 0.02 | -0.0341 | -0.0025 | -0.0772 | 0.1400 | 0.3526 | 0.8143 | 0.0535 | 0.1995 | 0.0862 | 0.2451 |
| 125 | 50.05 | 0.03 | -0.2057 | -0.0287 | -0.0710 | 0.1368 | 0.3414 | 0.8671 | 0.0510 | 0.2154 | 0.0588 | 0.2484 |
| 126 | 50.24 | 0.01 | -0.1772 | -0.0325 | -0.0558 | 0.1656 | 0.3149 | 0.8984 | 0.0498 | 0.2240 | 0.0554 | 0.2493 |
| 127 | 50.39 | 0.03 | -0.1254 | -0.0311 | -0.0491 | 0.2450 | 0.3517 | 0.9058 | 0.0502 | 0.2244 | 0.0554 | 0.2477 |
| 128 | 50.59 | 0.07 | -0.1142 | -0.0252 | -0.0413 | 0.2449 | 0.3405 | 0.9101 | 0.0511 | 0.2255 | 0.0561 | 0.2478 |
| 129 | 50.73 | 0.02 | -0.0735 | -0.0276 | -0.0283 | 0.3753 | 0.3578 | 0.9075 | 0.0491 | 0.2257 | 0.0541 | 0.2487 |
| 130 | 50.91 | 0.03 | -0.1049 | -0.0311 | -0.0366 | 0.2579 | 0.3448 | 0.9133 | 0.0497 | 0.2271 | 0.0544 | 0.2487 |
| 131 | 51.05 | 0.05 | -0.0759 | -0.0285 | -0.0275 | 0.3754 | 0.3676 | 0.9119 | 0.0485 | 0.2260 | 0.0532 | 0.2478 |
| 132 | 51.24 | 0.04 | -0.0771 | -0.0310 | -0.0256 | 0.4026 | 0.3520 | 0.9228 | 0.0480 | 0.2288 | 0.0498 | 0.2475 |
| 133 | 51.43 | 0.03 | -0.0502 | -0.0310 | -0.0293 | 0.3436 | 0.3248 | 0.9319 | 0.0469 | 0.2212 | 0.0520 | 0.2453 |
| 134 | 51.59 | 0.03 | -0.0656 | -0.0355 | -0.0259 | 0.3573 | 0.2880 | 0.9249 | 0.0427 | 0.2293 | 0.0462 | 0.2475 |
| 135 | 51.77 | 0.04 | -0.0753 | -0.0326 | -0.0238 | 0.3278 | 0.2978 | 0.8987 | 0.0475 | 0.2182 | 0.0528 | 0.2466 |
| 136 | 51.93 | 0.01 | -0.0545 | -0.0247 | -0.0181 | 0.4551 | 0.2954 | 0.8854 | 0.0479 | 0.2182 | 0.0541 | 0.2474 |
| 137 | 52.13 | 0.06 | -0.0667 | -0.0278 | -0.0206 | 0.3444 | 0.2953 | 0.8865 | 0.0495 | 0.2116 | 0.0558 | 0.2387 |
| 138 | 52.28 | 0.05 | -0.0701 | -0.0236 | -0.0192 | 0.3253 | 0.2716 | 0.8714 | 0.0503 | 0.2047 | 0.0577 | 0.2349 |

PARTIAN PASSIVE TAILS EFFECTS DATA

TEST PART PACK AX10-6 PHI CONF [illegible] DEC1 DEL2 DEL3 DEL4 TRANSITION
7 191 0.50 1.7 0.0 0.1000E14 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.42 | 0.03 | -0.0092 | -0.0257 | -0.0187 | 0.3713 | 0.2413 | 0.8660 | 0.0514 | 0.2088 | 0.0580 | 0.2357 |
| 140 | 52.54 | 0.01 | -0.0446 | -0.0245 | -0.0171 | 0.5502 | 0.1570 | 0.8804 | 0.0497 | 0.2073 | 0.0564 | 0.2355 |
| 141 | 52.79 | 0.07 | -0.0437 | -0.0222 | -0.0165 | 0.5079 | 0.1575 | 0.8773 | 0.0499 | 0.2055 | 0.0565 | 0.2342 |
| 142 | 52.95 | 0.02 | -0.0360 | -0.0204 | -0.0141 | 0.6666 | 0.1307 | 0.8826 | 0.0493 | 0.2017 | 0.0571 | 0.2338 |
| 143 | 53.09 | 0.01 | -0.0545 | -0.0222 | -0.0156 | 0.4073 | 0.1084 | 0.8672 | 0.0486 | 0.2024 | 0.0560 | 0.2334 |
| 144 | 53.28 | 0.02 | -0.0278 | -0.0166 | -0.0069 | 0.8545 | -0.0327 | 0.8965 | 0.0483 | 0.1981 | 0.0503 | 0.2308 |
| 145 | 53.44 | 0.04 | -0.0519 | -0.0215 | -0.0142 | 0.4142 | 0.0925 | 0.8718 | 0.0481 | 0.2043 | 0.0552 | 0.2343 |
| 146 | 53.60 | 0.05 | -0.0330 | -0.0185 | 0.0015 | 0.5502 | -0.0455 | 0.8845 | 0.0463 | 0.2031 | 0.0535 | 0.2349 |
| 147 | 53.75 | 0.07 | -0.0470 | -0.0217 | -0.0014 | 0.4816 | 0.0256 | 0.8747 | 0.0476 | 0.2041 | 0.0544 | 0.2333 |
| 148 | 53.92 | 0.06 | -0.0365 | -0.0194 | 0.0010 | 0.4911 | -0.0259 | 0.8867 | 0.0467 | 0.2025 | 0.0538 | 0.2331 |
| 149 | 54.08 | 0.05 | -0.0282 | -0.0173 | 0.0061 | 0.6134 | -0.2165 | 0.8748 | 0.0459 | 0.2039 | 0.0525 | 0.2331 |
| 150 | 54.22 | 0.04 | -0.0432 | -0.0165 | 0.0052 | 0.5506 | -0.2241 | 0.8790 | 0.0438 | 0.1995 | 0.0510 | 0.2322 |
| 151 | 54.39 | 0.05 | -0.0064 | -0.0135 | 0.0115 | 2.0776 | -1.7969 | 0.8805 | 0.0441 | 0.2084 | 0.0496 | 0.2346 |
| 152 | 54.52 | 0.07 | -0.0231 | -0.0183 | 0.0027 | 0.5769 | -0.0769 | 0.8523 | 0.0370 | 0.2065 | 0.0456 | 0.2352 |
| 153 | 54.70 | 0.02 | -0.0199 | -0.0182 | 0.0070 | 0.6422 | -0.3516 | 0.8587 | 0.0369 | 0.2012 | 0.0430 | 0.2343 |
| 154 | 54.85 | 0.00 | 0.0302 | -0.0006 | 0.0192 | -0.0199 | 0.6356 | 0.8521 | 0.0328 | 0.2015 | 0.0385 | 0.2365 |
| 155 | 55.01 | 0.01 | 0.0225 | -0.0018 | 0.0176 | -0.0830 | 0.7322 | 0.8656 | 0.0307 | 0.2044 | 0.0355 | 0.2361 |
| 156 | 55.16 | 0.04 | 0.0275 | 0.0021 | 0.0191 | 0.0036 | 0.6945 | 0.8493 | 0.0311 | 0.1995 | 0.0366 | 0.2349 |
| 157 | 55.36 | 0.03 | 0.0255 | 0.0021 | 0.0187 | 0.0011 | 0.7220 | 0.8434 | 0.0314 | 0.1961 | 0.0372 | 0.2325 |
| 158 | 55.47 | 0.01 | 0.0340 | 0.0045 | 0.0226 | 0.1410 | 0.6350 | 0.8527 | 0.0287 | 0.2014 | 0.0337 | 0.2362 |
| 159 | 55.62 | 0.04 | 0.0293 | 0.0047 | 0.0208 | 0.1004 | 0.7095 | 0.8570 | 0.0298 | 0.2013 | 0.0348 | 0.2349 |
| 160 | 55.79 | 0.07 | 0.0268 | 0.0038 | 0.0205 | 0.1410 | 0.7799 | 0.8584 | 0.0290 | 0.2021 | 0.0338 | 0.2354 |
| 161 | 55.93 | 0.04 | 0.0163 | 0.0043 | 0.0176 | 0.2636 | 1.0797 | 0.8491 | 0.0306 | 0.1985 | 0.0363 | 0.2338 |
| 162 | 56.06 | 0.02 | 0.0007 | 0.0041 | 0.0125 | 0.8504 | 17.8571 | 0.8592 | 0.0305 | 0.1990 | 0.0357 | 0.2327 |
| 163 | 56.20 | 0.05 | -0.0046 | 0.0045 | 0.0108 | -0.9781 | -2.3478 | 0.8525 | 0.0290 | 0.1996 | 0.0340 | 0.2344 |
| 164 | 56.40 | 0.01 | 0.0054 | 0.0046 | 0.0101 | 0.7400 | 3.3518 | 0.8694 | 0.0335 | 0.2026 | 0.0365 | 0.2333 |
| 165 | 56.53 | 0.05 | -0.0012 | 0.0035 | 0.0108 | -2.9103 | -14.0000 | 0.8754 | 0.0326 | 0.2062 | 0.0372 | 0.2355 |
| 166 | 56.69 | -0.02 | -0.0052 | 0.0044 | 0.0125 | -0.6070 | -3.0577 | 0.8710 | 0.0318 | 0.2035 | 0.0365 | 0.2336 |
| 167 | 56.85 | 0.02 | -0.0105 | 0.0036 | 0.0158 | -0.3428 | -1.5068 | 0.8945 | 0.0325 | 0.2109 | 0.0363 | 0.2358 |
| 168 | 57.01 | 0.01 | -0.0147 | 0.0041 | 0.0160 | -0.2789 | -1.0884 | 0.8885 | 0.0335 | 0.2069 | 0.0377 | 0.2329 |
| 169 | 57.13 | 0.01 | -0.0199 | 0.0041 | 0.0172 | -0.2751 | -1.1544 | 0.8916 | 0.0324 | 0.2095 | 0.0363 | 0.2350 |
| 170 | 57.29 | 0.04 | -0.0230 | 0.0052 | 0.0183 | -0.2615 | -0.8810 | 0.8826 | 0.0330 | 0.2066 | 0.0374 | 0.2341 |
| 171 | 57.46 | 0.01 | -0.0285 | 0.0055 | 0.0181 | -0.1950 | -0.5645 | 0.8974 | 0.0334 | 0.2108 | 0.0372 | 0.2345 |
| 172 | 57.59 | -0.02 | -0.0339 | 0.0047 | 0.0183 | -0.1388 | -0.4007 | 0.9107 | 0.0334 | 0.2143 | 0.0367 | 0.2353 |
| 173 | 57.75 | -0.08 | -0.0441 | 0.0016 | 0.0196 | -0.0227 | -0.3311 | 0.9374 | 0.0333 | 0.2224 | 0.0355 | 0.2373 |
| 174 | 57.87 | -0.09 | -0.0410 | 0.0026 | 0.0181 | -0.0192 | -0.3670 | 0.9351 | 0.0322 | 0.2210 | 0.0345 | 0.2368 |
| 175 | 58.03 | -0.08 | -0.0402 | -0.0013 | 0.0187 | 0.0323 | -0.4652 | 0.9306 | 0.0293 | 0.2235 | 0.0315 | 0.2402 |
| 176 | 58.19 | -0.10 | -0.0367 | -0.0009 | 0.0216 | 0.0109 | -0.5000 | 0.9410 | 0.0303 | 0.2247 | 0.0322 | 0.2386 |
| 177 | 58.17 | -0.10 | -0.0446 | -0.0001 | 0.0191 | 0.0022 | -0.4283 | 0.9437 | 0.0317 | 0.2239 | 0.0336 | 0.2373 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 141 MACH 0.80 RX10-6 1.7 PHI 0.0 CONF BIRDFIN CG C.G DELT 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | -0.02 | -0.0222 | 0.0000 | 0.0280 | 0.0000 | -1.2813 | -1.0409 | 0.0017 | -0.3034 | -0.0016 | 0.2915 |
| 2 | -5.77 | -0.01 | -0.0161 | 0.0000 | 0.0270 | 0.0000 | -1.7005 | -1.0398 | 0.0022 | -0.3043 | -0.0021 | 0.2927 |
| 3 | -5.77 | -0.01 | -0.0155 | 0.0000 | 0.0273 | 0.0000 | -1.5026 | -1.0383 | 0.0023 | -0.3025 | -0.0022 | 0.2913 |
| 4 | -4.87 | -0.01 | -0.0222 | 0.0000 | 0.0280 | 0.0000 | -1.2013 | -0.9441 | 0.0083 | -0.2810 | -0.0088 | 0.2976 |
| 5 | -2.84 | -0.01 | -0.0161 | 0.0000 | 0.0255 | 0.0000 | -1.6519 | -0.8490 | 0.0111 | -0.2802 | -0.0131 | 0.3065 |
| 6 | -1.02 | -0.01 | -0.0155 | 0.0000 | 0.0243 | 0.0000 | -1.5026 | -0.7325 | 0.0120 | -0.2355 | -0.0164 | 0.3270 |
| 7 | 0.80 | -0.01 | -0.0161 | 0.0000 | 0.0305 | 0.0000 | -1.6851 | -0.6350 | 0.0135 | -0.2168 | -0.0213 | 0.3446 |
| 8 | 2.87 | -0.01 | -0.0222 | 0.0000 | 0.0291 | 0.0000 | -1.3106 | -0.5380 | 0.0158 | -0.1951 | -0.0294 | 0.3626 |
| 9 | 4.86 | -0.02 | -0.0154 | 0.0000 | 0.0312 | 0.0000 | -2.0260 | -0.4473 | 0.0173 | -0.1684 | -0.0387 | 0.3765 |
| 10 | 6.30 | -0.01 | -0.0195 | 0.0000 | 0.0305 | 0.0000 | -1.5846 | -0.3535 | 0.0166 | -0.1327 | -0.0467 | 0.3733 |
| 11 | 8.14 | -0.00 | -0.0153 | 0.0000 | 0.0290 | 0.0000 | -1.8354 | -0.2560 | 0.0155 | -0.1044 | -0.0605 | 0.4078 |
| 12 | 9.94 | -0.01 | -0.0041 | 0.0000 | 0.0278 | 0.0000 | -0.7305 | -0.1671 | 0.0124 | -0.0677 | -0.0742 | 0.4051 |
| 13 | 11.80 | -0.00 | -0.0018 | 0.0000 | 0.0207 | 0.0000 | 11.5300 | -0.0924 | 0.0097 | -0.0383 | -0.1050 | 0.4145 |
| 14 | 13.65 | -0.01 | -0.0062 | 0.0000 | 0.0196 | 0.0000 | 1.8023 | -0.0413 | 0.0098 | -0.0133 | -0.2573 | 0.3220 |
| 15 | 15.54 | -0.01 | 0.0155 | 0.0000 | 0.0205 | 0.0000 | 1.0301 | 0.0140 | 0.0122 | 0.0056 | 0.6713 | 0.4000 |
| 16 | 17.46 | -0.01 | 0.0090 | 0.0000 | 0.0242 | 0.0000 | 1.5778 | 0.0723 | 0.0149 | 0.0284 | 0.1784 | 0.3528 |
| 17 | 19.32 | -0.02 | 0.0005 | 0.0000 | 0.0105 | 0.0000 | 12.1111 | 0.1549 | 0.0119 | 0.0623 | 0.0768 | 0.4022 |
| 18 | 21.22 | -0.03 | 0.0051 | 0.0000 | 0.0137 | 0.0000 | 1.5055 | 0.2134 | 0.0144 | 0.0849 | 0.0675 | 0.3978 |
| 19 | 23.13 | -0.03 | 0.0092 | 0.0000 | 0.0121 | 0.0000 | 1.3152 | 0.2930 | 0.0154 | 0.1144 | 0.0526 | 0.3904 |
| 20 | 25.00 | -0.03 | -0.0032 | 0.0000 | 0.0064 | 0.0000 | -2.0250 | 0.3593 | 0.0175 | 0.1347 | 0.0487 | 0.3749 |
| 21 | 26.94 | 0.00 | 0.0256 | 0.0000 | 0.0177 | 0.0000 | 0.6914 | 0.3172 | 0.0242 | 0.1194 | 0.0763 | 0.3784 |
| 22 | 27.89 | 0.05 | 0.0255 | 0.0000 | 0.0195 | 0.0000 | 0.7804 | 0.3138 | 0.0253 | 0.1190 | 0.0806 | 0.3792 |
| 23 | 28.81 | 0.04 | 0.0384 | 0.0000 | 0.0251 | 0.0000 | 0.6996 | 0.3192 | 0.0264 | 0.1225 | 0.0827 | 0.3838 |
| 24 | 28.87 | 0.05 | 0.0408 | 0.0000 | 0.0314 | 0.0000 | 0.6961 | 0.3186 | 0.0271 | 0.1226 | 0.0850 | 0.3848 |
| 25 | 28.89 | 0.03 | 0.0351 | 0.0000 | 0.0264 | 0.0000 | 0.6754 | 0.3207 | 0.0274 | 0.1251 | 0.0839 | 0.3825 |
| 26 | 28.87 | 0.05 | 0.0449 | 0.0000 | 0.0281 | 0.0000 | 0.5928 | 0.3402 | 0.0279 | 0.1291 | 0.0820 | 0.3795 |
| 27 | 29.28 | 0.05 | 0.0447 | 0.0000 | 0.0274 | 0.0000 | 0.6130 | 0.3604 | 0.0279 | 0.1389 | 0.0774 | 0.3799 |
| 28 | 29.57 | 0.06 | 0.0415 | 0.0000 | 0.0260 | 0.0000 | 0.6340 | 0.3535 | 0.0283 | 0.1342 | 0.0800 | 0.3792 |
| 29 | 29.85 | 0.06 | 0.0478 | 0.0000 | 0.0277 | 0.0000 | 0.5819 | 0.3814 | 0.0284 | 0.1429 | 0.0745 | 0.3761 |
| 30 | 30.13 | 0.05 | 0.0422 | 0.0000 | 0.0245 | 0.0000 | 0.5806 | 0.3996 | 0.0269 | 0.1478 | 0.0723 | 0.3699 |
| 31 | 30.38 | 0.07 | 0.0422 | 0.0000 | 0.0235 | 0.0000 | 0.5569 | 0.3994 | 0.0292 | 0.1467 | 0.0731 | 0.3673 |
| 32 | 30.68 | 0.06 | 0.0445 | 0.0000 | 0.0250 | 0.0000 | 0.5746 | 0.4147 | 0.0295 | 0.1502 | 0.0711 | 0.3622 |
| 33 | 30.94 | 0.06 | 0.0468 | 0.0000 | 0.0233 | 0.0000 | 0.5711 | 0.4253 | 0.0298 | 0.1540 | 0.0701 | 0.3621 |
| 34 | 31.23 | 0.06 | 0.0455 | 0.0000 | 0.0222 | 0.0000 | 0.5620 | 0.4303 | 0.0296 | 0.1582 | 0.0678 | 0.3626 |
| 35 | 31.50 | 0.07 | 0.0478 | 0.0000 | 0.0277 | 0.0000 | 0.5819 | 0.4517 | 0.0298 | 0.1634 | 0.0660 | 0.3617 |
| 36 | 31.77 | 0.06 | 0.0499 | 0.0000 | 0.0304 | 0.0000 | 0.5300 | 0.4540 | 0.0295 | 0.1622 | 0.0659 | 0.3573 |
| 37 | 32.05 | 0.07 | 0.0481 | 0.0000 | 0.0275 | 0.0000 | 0.5965 | 0.4593 | 0.0300 | 0.1630 | 0.0653 | 0.3549 |
| 38 | 32.29 | 0.07 | 0.0505 | 0.0000 | 0.0332 | 0.0000 | 0.5835 | 0.4970 | 0.0294 | 0.1771 | 0.0591 | 0.3563 |
| 39 | 32.56 | 0.08 | 0.0447 | 0.0000 | 0.0268 | 0.0000 | 0.5996 | 0.5031 | 0.0296 | 0.1799 | 0.0584 | 0.3576 |
| 40 | 32.83 | 0.06 | 0.0542 | 0.0000 | 0.0314 | 0.0000 | 0.5793 | 0.4903 | 0.0299 | 0.1727 | 0.0610 | 0.3522 |
| 41 | 33.03 | 0.09 | 0.0529 | 0.0000 | 0.0328 | 0.0000 | 0.5729 | 0.4979 | 0.0307 | 0.1817 | 0.0570 | 0.3531 |
| 42 | 33.33 | 0.08 | 0.0505 | 0.0000 | 0.0320 | 0.0000 | 0.5706 | 0.4702 | 0.0308 | 0.1644 | 0.0655 | 0.3496 |
| 43 | 33.58 | 0.08 | 0.0555 | 0.0000 | 0.0320 | 0.0000 | 0.5766 | 0.4810 | 0.0308 | 0.1688 | 0.0640 | 0.3503 |
| 44 | 33.85 | 0.08 | 0.0535 | 0.0000 | 0.0298 | 0.0000 | 0.5589 | 0.4741 | 0.0315 | 0.1627 | 0.0663 | 0.3446 |
| 45 | 34.09 | 0.07 | 0.0464 | 0.0000 | 0.0255 | 0.0000 | 0.6411 | 0.4686 | 0.0317 | 0.1603 | 0.0676 | 0.3421 |
| 46 | 34.32 | 0.09 | 0.0491 | 0.0000 | 0.0252 | 0.0000 | 0.6445 | 0.4777 | 0.0318 | 0.1609 | 0.0666 | 0.3368 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART PACK RX1C-6 PHI 0.0 CONF BIWUF14 L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.58 | 0.004 | 0.0455 | 9.9999 | 0.0274 | 9.9999 | 0.5929 | 0.4714 | 0.0320 | 0.1600 | 0.0679 | 0.3394 |
| 48 | 34.82 | 0.00 | 0.0501 | 9.9999 | 0.0271 | 9.9999 | 0.5929 | 0.4821 | 0.0321 | 0.1613 | 0.0666 | 0.3346 |
| 49 | 35.07 | 0.003 | 0.0419 | 9.9999 | 0.0233 | 9.9999 | 0.5501 | 0.4885 | 0.0328 | 0.1606 | 0.0671 | 0.3288 |
| 50 | 35.29 | 0.003 | 0.0473 | 9.9999 | 0.0253 | 9.9999 | 0.5349 | 0.4916 | 0.0328 | 0.1620 | 0.0667 | 0.3295 |
| 51 | 35.54 | 0.002 | 0.0342 | 9.9999 | 0.0205 | 9.9999 | 0.6491 | 0.4904 | 0.0332 | 0.1601 | 0.0677 | 0.3265 |
| 52 | 35.78 | -0.000 | 0.0259 | 9.9999 | 0.0198 | 9.9999 | 0.7795 | 0.5018 | 0.0344 | 0.1624 | 0.0685 | 0.3240 |
| 53 | 36.01 | 0.002 | 0.0322 | 9.9999 | 0.0205 | 9.9999 | 0.6491 | 0.5201 | 0.0346 | 0.1677 | 0.0665 | 0.3224 |
| 54 | 36.24 | 0.001 | 0.0322 | 9.9999 | 0.0225 | 9.9999 | 0.6988 | 0.5167 | 0.0350 | 0.1676 | 0.0677 | 0.3244 |
| 55 | 36.48 | 0.005 | 0.0444 | 9.9999 | 0.0272 | 9.9999 | 0.6126 | 0.5375 | 0.0361 | 0.1756 | 0.0672 | 0.3267 |
| 56 | 36.70 | 0.004 | 0.0260 | 9.9999 | 0.0216 | 9.9999 | 0.7714 | 0.5201 | 0.0362 | 0.1727 | 0.0685 | 0.3270 |
| 57 | 36.96 | 0.003 | 0.0306 | 9.9999 | 0.0212 | 9.9999 | 0.6883 | 0.5438 | 0.0368 | 0.1767 | 0.0640 | 0.3251 |
| 58 | 37.19 | 0.001 | 0.0321 | 9.9999 | 0.0230 | 9.9999 | 0.7105 | 0.5446 | 0.0370 | 0.1786 | 0.0690 | 0.3276 |
| 59 | 37.42 | 0.001 | 0.0320 | 9.9999 | 0.0240 | 9.9999 | 0.7500 | 0.5521 | 0.0379 | 0.1743 | 0.0712 | 0.3276 |
| 60 | 37.66 | 0.002 | 0.0293 | 9.9999 | 0.0238 | 9.9999 | 0.8123 | 0.5417 | 0.0374 | 0.1783 | 0.0690 | 0.3291 |
| 61 | 37.90 | 0.005 | 0.0275 | 9.9999 | 0.0242 | 9.9999 | 0.8074 | 0.5577 | 0.0386 | 0.1839 | 0.0656 | 0.3297 |
| 62 | 38.18 | 0.002 | 0.0313 | 9.9999 | 0.0269 | 9.9999 | 0.7855 | 0.5729 | 0.0387 | 0.1850 | 0.0641 | 0.3299 |
| 63 | 38.43 | 0.002 | 0.0319 | 9.9999 | 0.0262 | 9.9999 | 0.8213 | 0.5769 | 0.0376 | 0.1906 | 0.0652 | 0.3304 |
| 64 | 38.65 | 0.003 | 0.0333 | 9.9999 | 0.0257 | 9.9999 | 0.7716 | 0.6163 | 0.0382 | 0.2039 | 0.0585 | 0.3298 |
| 65 | 38.87 | 0.002 | 0.0318 | 9.9999 | 0.0272 | 9.9999 | 0.8253 | 0.5926 | 0.0378 | 0.1962 | 0.0638 | 0.3311 |
| 66 | 39.16 | 0.002 | 0.0238 | 9.9999 | 0.0263 | 9.9999 | 0.9831 | 0.6434 | 0.0385 | 0.2130 | 0.0552 | 0.3311 |
| 67 | 39.42 | 0.001 | 0.0237 | 9.9999 | 0.0233 | 9.9999 | 0.9831 | 0.6536 | 0.0382 | 0.2156 | 0.0554 | 0.3299 |
| 68 | 39.62 | 0.004 | 0.0277 | 9.9999 | 0.0269 | 9.9999 | 0.9314 | 0.6575 | 0.0371 | 0.2101 | 0.0564 | 0.3287 |
| 69 | 39.75 | 0.002 | 0.0223 | 9.9999 | 0.0232 | 9.9999 | 1.0404 | 0.6630 | 0.0379 | 0.2178 | 0.0572 | 0.3285 |
| 70 | 39.90 | 0.000 | 0.0210 | 9.9999 | 0.0220 | 9.9999 | 1.0702 | 0.6743 | 0.0380 | 0.2238 | 0.0535 | 0.3295 |
| 71 | 40.14 | 0.000 | 0.0205 | 9.9999 | 0.0242 | 9.9999 | 1.1579 | 0.6571 | 0.0397 | 0.2161 | 0.0604 | 0.3285 |
| 72 | 40.38 | 0.000 | 0.0165 | 9.9999 | 0.0212 | 9.9999 | 1.2544 | 0.6738 | 0.0379 | 0.2220 | 0.0562 | 0.3304 |
| 73 | 40.55 | 0.001 | 0.0251 | 9.9999 | 0.0229 | 9.9999 | 0.9124 | 0.6636 | 0.0392 | 0.2187 | 0.0591 | 0.3256 |
| 74 | 40.78 | 0.000 | 0.0251 | 9.9999 | 0.0229 | 9.9999 | 0.9124 | 0.6672 | 0.0384 | 0.2259 | 0.0595 | 0.3287 |
| 75 | 40.97 | 0.003 | 0.0156 | 9.9999 | 0.0230 | 9.9999 | 1.1735 | 0.7164 | 0.0356 | 0.2378 | 0.0495 | 0.3310 |
| 76 | 41.17 | 0.001 | 0.0155 | 9.9999 | 0.0227 | 9.9999 | 1.4045 | 0.7204 | 0.0371 | 0.2372 | 0.0515 | 0.3293 |
| 77 | 41.38 | -0.000 | 0.0141 | 9.9999 | 0.0231 | 9.9999 | 1.6383 | 0.8063 | 0.0426 | 0.2168 | 0.0652 | 0.3303 |
| 78 | 41.59 | 0.004 | 0.0169 | 9.9999 | 0.0217 | 9.9999 | 1.2040 | 0.6784 | 0.0412 | 0.2237 | 0.0607 | 0.3295 |
| 79 | 41.79 | 0.002 | 0.0183 | 9.9999 | 0.0218 | 9.9999 | 1.1913 | 0.7036 | 0.0390 | 0.2336 | 0.0554 | 0.3320 |
| 80 | 41.99 | 0.001 | 0.0277 | 9.9999 | 0.0269 | 9.9999 | 0.9711 | 0.6959 | 0.0411 | 0.2295 | 0.0591 | 0.3298 |
| 81 | 42.18 | 0.001 | 0.0142 | 9.9999 | 0.0210 | 9.9999 | 1.4785 | 0.7412 | 0.0379 | 0.2434 | 0.0511 | 0.3284 |
| 82 | 42.37 | 0.000 | 0.0305 | 9.9999 | 0.0260 | 9.9999 | 0.8525 | 0.6572 | 0.0406 | 0.2158 | 0.0654 | 0.3284 |
| 83 | 42.54 | 0.002 | 0.0305 | 9.9999 | 0.0268 | 9.9999 | 0.8721 | 0.6665 | 0.0406 | 0.2193 | 0.0684 | 0.3290 |
| 84 | 42.72 | -0.002 | 0.0155 | 9.9999 | 0.0227 | 9.9999 | 1.4045 | 0.6275 | 0.0405 | 0.2063 | 0.0773 | 0.3288 |
| 85 | 42.90 | -0.001 | 0.0250 | 9.9999 | 0.0267 | 9.9999 | 1.0080 | 0.6576 | 0.0404 | 0.2151 | 0.0706 | 0.3271 |
| 86 | 43.06 | -0.001 | 0.0169 | 9.9999 | 0.0234 | 9.9999 | 1.3046 | 0.6858 | 0.0403 | 0.2179 | 0.0710 | 0.3273 |
| 87 | 43.26 | -0.001 | 0.0316 | 9.9999 | 0.0260 | 9.9999 | 0.8693 | 0.6569 | 0.0409 | 0.2136 | 0.0746 | 0.3252 |
| 88 | 43.40 | 0.001 | 0.0292 | 9.9999 | 0.0271 | 9.9999 | 0.9281 | 0.6811 | 0.0406 | 0.2156 | 0.0734 | 0.3258 |
| 89 | 43.62 | -0.002 | 0.0224 | 9.9999 | 0.0238 | 9.9999 | 1.0625 | 0.6942 | 0.0403 | 0.2246 | 0.0667 | 0.3238 |
| 90 | 43.82 | -0.001 | 0.0251 | 9.9999 | 0.0257 | 9.9999 | 1.0239 | 0.6901 | 0.0409 | 0.2126 | 0.0760 | 0.3246 |
| 91 | 43.93 | 0.000 | 0.0236 | 9.9999 | 0.0234 | 9.9999 | 0.9332 | 0.7147 | 0.0450 | 0.2314 | 0.0630 | 0.3236 |
| 94 | 44.17 | -0.000 | 0.0260 | 9.9999 | 0.0243 | 9.9999 | 0.8134 | 0.7054 | 0.0470 | 0.2212 | 0.0666 | 0.3221 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 141 | 0.90 | 1.7 | 0.0 | BLNCF14 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.38 | -0.02 | 0.0292 | 9.9999 | 0.0271 | 9.9999 | 0.9281 | 0.0516 | 0.0500 | 0.2153 | 0.0733 | 0.3217 |
| 94 | 44.53 | -0.00 | 0.0165 | 9.9999 | 0.0234 | 9.9999 | 1.3046 | 0.0958 | 0.0476 | 0.2245 | 0.0684 | 0.3232 |
| 95 | 44.73 | -0.01 | 0.0334 | 9.9999 | 0.0285 | 9.9999 | 0.8054 | 0.0789 | 0.0516 | 0.2166 | 0.0760 | 0.3190 |
| 96 | 44.90 | 0.00 | 0.0165 | 9.9999 | 0.0225 | 9.9999 | 1.3350 | 0.7207 | 0.0472 | 0.2307 | 0.0695 | 0.3201 |
| 97 | 45.10 | 0.03 | 0.0295 | 9.9999 | 0.0235 | 9.9999 | 0.9833 | 0.7080 | 0.0492 | 0.2253 | 0.0695 | 0.3182 |
| 98 | 45.27 | -0.01 | 0.0253 | 9.9999 | 0.0242 | 9.9999 | 0.9303 | 0.0791 | 0.0522 | 0.2196 | 0.0769 | 0.3175 |
| 99 | 45.43 | -0.02 | 0.0252 | 9.9999 | 0.0258 | 9.9999 | 1.0238 | 0.0742 | 0.0526 | 0.2141 | 0.0780 | 0.3178 |
| 100 | 45.63 | -0.01 | 0.0252 | 9.9999 | 0.0247 | 9.9999 | 0.9302 | 0.7111 | 0.0507 | 0.2244 | 0.0713 | 0.3156 |
| 101 | 45.81 | -0.01 | 0.0143 | 9.9999 | 0.0211 | 9.9999 | 1.4755 | 0.7203 | 0.0507 | 0.2257 | 0.0704 | 0.3133 |
| 102 | 45.99 | 0.01 | 0.0252 | 9.9999 | 0.0252 | 9.9999 | 1.0000 | 0.7072 | 0.0517 | 0.2204 | 0.0731 | 0.3117 |
| 103 | 46.17 | 0.02 | 0.0417 | 9.9999 | 0.0258 | 9.9999 | 0.7146 | 0.7047 | 0.0525 | 0.2205 | 0.0751 | 0.3125 |
| 104 | 46.35 | -0.01 | 0.0254 | 9.9999 | 0.0246 | 9.9999 | 0.8163 | 0.0804 | 0.0547 | 0.2144 | 0.0797 | 0.3124 |
| 105 | 46.54 | -0.01 | 0.0281 | 9.9999 | 0.0272 | 9.9999 | 0.7900 | 0.7470 | 0.0520 | 0.2291 | 0.0656 | 0.3067 |
| 106 | 46.71 | -0.02 | 0.0385 | 9.9999 | 0.0298 | 9.9999 | 0.7604 | 0.0703 | 0.0556 | 0.2100 | 0.0829 | 0.3133 |
| 107 | 46.87 | 0.01 | 0.0142 | 9.9999 | 0.0272 | 9.9999 | 0.7514 | 0.6958 | 0.0545 | 0.2173 | 0.0783 | 0.3123 |
| 108 | 47.05 | -0.01 | 0.0152 | 9.9999 | 0.0265 | 9.9999 | 1.0353 | 0.0810 | 0.0561 | 0.2106 | 0.0824 | 0.3093 |
| 109 | 47.23 | -0.00 | 0.0385 | 9.9999 | 0.0275 | 9.9999 | 0.7172 | 0.6941 | 0.0551 | 0.2146 | 0.0794 | 0.3095 |
| 110 | 47.41 | -0.00 | 0.0338 | 9.9999 | 0.0226 | 9.9999 | 0.6726 | 0.0902 | 0.0562 | 0.2136 | 0.0814 | 0.3086 |
| 111 | 47.58 | -0.00 | 0.0350 | 9.9999 | 0.0282 | 9.9999 | 0.6872 | 0.7018 | 0.0550 | 0.2171 | 0.0784 | 0.3093 |
| 112 | 47.74 | -0.01 | 0.0404 | 9.9999 | 0.0255 | 9.9999 | 0.6411 | 0.0776 | 0.0566 | 0.2105 | 0.0835 | 0.3107 |
| 113 | 47.90 | 0.01 | 0.0391 | 9.9999 | 0.0238 | 9.9999 | 0.6030 | 0.7087 | 0.0545 | 0.2189 | 0.0765 | 0.3085 |
| 114 | 48.09 | 0.04 | 0.0323 | 9.9999 | 0.0265 | 9.9999 | 0.6471 | 0.7115 | 0.0546 | 0.2186 | 0.0770 | 0.3072 |
| 115 | 48.27 | -0.02 | 0.0282 | 9.9999 | 0.0184 | 9.9999 | 0.6525 | 0.7292 | 0.0556 | 0.2190 | 0.0765 | 0.3063 |
| 116 | 48.43 | -0.02 | 0.0252 | 9.9999 | 0.0214 | 9.9999 | 0.5959 | 0.7264 | 0.0557 | 0.2193 | 0.0767 | 0.3020 |
| 117 | 48.59 | 0.01 | 0.0351 | 9.9999 | 0.0230 | 9.9999 | 0.5862 | 0.7064 | 0.0591 | 0.2078 | 0.0837 | 0.2962 |
| 118 | 48.77 | 0.02 | 0.0377 | 9.9999 | 0.0224 | 9.9999 | 0.5942 | 0.7405 | 0.0550 | 0.2252 | 0.0737 | 0.3017 |
| 119 | 48.95 | 0.00 | 0.0337 | 9.9999 | 0.0204 | 9.9999 | 0.6053 | 0.7268 | 0.0586 | 0.2125 | 0.0808 | 0.2924 |
| 120 | 49.11 | -0.01 | 0.0283 | 9.9999 | 0.0157 | 9.9999 | 0.5546 | 0.0695 | 0.0605 | 0.2040 | 0.0877 | 0.2957 |
| 121 | 49.31 | 0.05 | 0.0415 | 9.9999 | 0.0227 | 9.9999 | 0.5418 | 0.7978 | 0.0539 | 0.2366 | 0.0676 | 0.2968 |
| 122 | 49.49 | 0.00 | 0.0274 | 9.9999 | 0.0192 | 9.9999 | 0.5046 | 0.7695 | 0.0547 | 0.2279 | 0.0711 | 0.2962 |
| 123 | 49.67 | 0.04 | 0.0302 | 9.9999 | 0.0212 | 9.9999 | 0.4223 | 0.8003 | 0.0625 | 0.2358 | 0.0631 | 0.2956 |
| 124 | 49.86 | 0.02 | 0.0415 | 9.9999 | 0.0215 | 9.9999 | 0.4526 | 0.7143 | 0.0544 | 0.2066 | 0.0761 | 0.2892 |
| 125 | 50.05 | 0.03 | 0.0478 | 9.9999 | 0.0194 | 9.9999 | 0.4084 | 0.7272 | 0.0580 | 0.2110 | 0.0757 | 0.2902 |
| 126 | 50.24 | 0.01 | 0.0308 | 9.9999 | 0.0191 | 9.9999 | 0.3767 | 0.6943 | 0.0604 | 0.2014 | 0.0870 | 0.2901 |
| 127 | 50.39 | 0.03 | 0.0356 | 9.9999 | 0.0221 | 9.9999 | 0.3975 | 0.6919 | 0.0618 | 0.2002 | 0.0893 | 0.2853 |
| 128 | 50.59 | 0.07 | 0.0358 | 9.9999 | 0.0232 | 9.9999 | 0.4173 | 0.6913 | 0.0626 | 0.2009 | 0.0905 | 0.2906 |
| 129 | 50.73 | 0.02 | 0.0350 | 9.9999 | 0.0196 | 9.9999 | 0.3736 | 0.6818 | 0.0651 | 0.1968 | 0.0955 | 0.2888 |
| 130 | 50.91 | 0.03 | 0.0355 | 9.9999 | 0.0232 | 9.9999 | 0.4180 | 0.6783 | 0.0647 | 0.1967 | 0.0957 | 0.2908 |
| 131 | 51.05 | 0.05 | 0.0356 | 9.9999 | 0.0221 | 9.9999 | 0.3975 | 0.6740 | 0.0650 | 0.1939 | 0.0964 | 0.2877 |
| 132 | 51.24 | 0.04 | 0.0363 | 9.9999 | 0.0217 | 9.9999 | 0.3814 | 0.6640 | 0.0637 | 0.1921 | 0.0958 | 0.2890 |
| 133 | 51.43 | 0.03 | 0.0411 | 9.9999 | 0.0215 | 9.9999 | 0.3515 | 0.6708 | 0.0595 | 0.1927 | 0.0887 | 0.2873 |
| 134 | 51.59 | 0.03 | 0.0375 | 9.9999 | 0.0181 | 9.9999 | 0.3384 | 0.6518 | 0.0603 | 0.1881 | 0.0925 | 0.2886 |
| 135 | 51.77 | 0.04 | 0.0353 | 9.9999 | 0.0221 | 9.9999 | 0.3189 | 0.6833 | 0.0587 | 0.1888 | 0.0885 | 0.2842 |
| 136 | 51.95 | 0.07 | 0.0365 | 9.9999 | 0.0227 | 9.9999 | 0.3220 | 0.6565 | 0.0594 | 0.1844 | 0.0889 | 0.2816 |
| 137 | 52.10 | 0.08 | 0.0378 | 9.9999 | 0.0257 | 9.9999 | 0.3802 | 0.6695 | 0.0573 | 0.1885 | 0.0856 | 0.2818 |
| 138 | 52.28 | 0.05 | 0.0351 | 9.9999 | 0.0234 | 9.9999 | 0.3594 | 0.6782 | 0.0572 | 0.1964 | 0.0843 | 0.2807 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 141 0.96 1.7 0.0 SIDEFIN 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.42 | 0.03 | 0.0025 | 0.9999 | 0.0183 | 0.9999 | 0.2928 | 0.6679 | 0.0552 | 0.1695 | 0.0826 | 0.2837 |
| 140 | 52.59 | 0.07 | 0.0785 | 0.9999 | 0.0265 | 0.9999 | 0.3376 | 0.6634 | 0.0555 | 0.1662 | 0.0836 | 0.2807 |
| 141 | 52.79 | 0.07 | 0.0733 | 0.9999 | 0.0224 | 0.9999 | 0.3056 | 0.6612 | 0.0537 | 0.1852 | 0.0812 | 0.2801 |
| 142 | 52.99 | 0.02 | 0.0200 | 0.9999 | 0.0234 | 0.9999 | 0.2925 | 0.6672 | 0.0563 | 0.1855 | 0.0844 | 0.2780 |
| 143 | 53.09 | 0.01 | 0.0245 | 0.9999 | 0.0196 | 0.9999 | 0.3020 | 0.6757 | 0.0555 | 0.1886 | 0.0821 | 0.2791 |
| 144 | 53.22 | 0.02 | 0.0218 | 0.9999 | 0.0201 | 0.9999 | 0.2799 | 0.6663 | 0.0558 | 0.1851 | 0.0837 | 0.2778 |
| 145 | 53.44 | 0.04 | 0.0288 | 0.9999 | 0.0214 | 0.9999 | 0.3110 | 0.6766 | 0.0541 | 0.1886 | 0.0797 | 0.2782 |
| 146 | 53.60 | 0.05 | 0.0330 | 0.9999 | 0.0218 | 0.9999 | 0.2986 | 0.6758 | 0.0551 | 0.1862 | 0.0815 | 0.2755 |
| 147 | 53.75 | 0.07 | 0.0283 | 0.9999 | 0.0197 | 0.9999 | 0.2971 | 0.6753 | 0.0519 | 0.1882 | 0.0768 | 0.2787 |
| 148 | 53.92 | 0.06 | 0.0287 | 0.9999 | 0.0173 | 0.9999 | 0.2716 | 0.6786 | 0.0555 | 0.1871 | 0.0820 | 0.2765 |
| 149 | 54.08 | 0.05 | 0.0276 | 0.9999 | 0.0194 | 0.9999 | 0.2756 | 0.6850 | 0.0536 | 0.1896 | 0.0778 | 0.2752 |
| 150 | 54.22 | 0.04 | 0.0232 | 0.9999 | 0.0181 | 0.9999 | 0.2473 | 0.6920 | 0.0536 | 0.1893 | 0.0774 | 0.2738 |
| 151 | 54.39 | 0.05 | 0.0249 | 0.9999 | 0.0192 | 0.9999 | 0.2658 | 0.6899 | 0.0524 | 0.1905 | 0.0755 | 0.2761 |
| 152 | 54.52 | 0.07 | 0.0232 | 0.9999 | 0.0208 | 0.9999 | 0.2842 | 0.6962 | 0.0508 | 0.1932 | 0.0727 | 0.2767 |
| 153 | 54.70 | 0.02 | 0.0287 | 0.9999 | 0.0192 | 0.9999 | 0.2566 | 0.7021 | 0.0521 | 0.1930 | 0.0742 | 0.2745 |
| 154 | 54.83 | 0.00 | 0.0245 | 0.9999 | 0.0192 | 0.9999 | 0.2377 | 0.7040 | 0.0532 | 0.2073 | 0.0705 | 0.2747 |
| 155 | 55.01 | 0.01 | 0.0246 | 0.9999 | 0.0187 | 0.9999 | 0.2507 | 0.7475 | 0.0519 | 0.2055 | 0.0694 | 0.2745 |
| 156 | 55.16 | 0.04 | 0.0215 | 0.9999 | 0.0196 | 0.9999 | 0.2643 | 0.7738 | 0.0514 | 0.2124 | 0.0664 | 0.2745 |
| 157 | 55.30 | 0.03 | 0.0251 | 0.9999 | 0.0186 | 0.9999 | 0.2765 | 0.7692 | 0.0494 | 0.2105 | 0.0642 | 0.2737 |
| 158 | 55.47 | 0.01 | 0.0238 | 0.9999 | 0.0183 | 0.9999 | 0.2555 | 0.8007 | 0.0501 | 0.2152 | 0.0626 | 0.2738 |
| 159 | 55.62 | 0.04 | 0.0238 | 0.9999 | 0.0152 | 0.9999 | 0.2362 | 0.7824 | 0.0501 | 0.2145 | 0.0641 | 0.2742 |
| 160 | 55.79 | 0.07 | 0.0246 | 0.9999 | 0.0154 | 0.9999 | 0.2375 | 0.7949 | 0.0491 | 0.2174 | 0.0620 | 0.2745 |
| 161 | 55.93 | 0.04 | 0.0252 | 0.9999 | 0.0159 | 0.9999 | 0.2439 | 0.7957 | 0.0482 | 0.2174 | 0.0606 | 0.2732 |
| 162 | 56.06 | 0.02 | 0.0212 | 0.9999 | 0.0151 | 0.9999 | 0.2451 | 0.7945 | 0.0497 | 0.2185 | 0.0575 | 0.2756 |
| 163 | 56.26 | 0.05 | 0.0212 | 0.9999 | 0.0156 | 0.9999 | 0.2451 | 0.8036 | 0.0458 | 0.2203 | 0.0570 | 0.2741 |
| 164 | 56.40 | 0.01 | 0.0211 | 0.9999 | 0.0161 | 0.9999 | 0.2635 | 0.8003 | 0.0456 | 0.2212 | 0.0564 | 0.2737 |
| 165 | 56.55 | 0.05 | 0.0275 | 0.9999 | 0.0182 | 0.9999 | 0.2660 | 0.7981 | 0.0436 | 0.2187 | 0.0535 | 0.2740 |
| 166 | 56.69 | -0.02 | 0.0212 | 0.9999 | 0.0172 | 0.9999 | 0.2610 | 0.8063 | 0.0438 | 0.2197 | 0.0543 | 0.2725 |
| 167 | 56.85 | 0.02 | 0.0265 | 0.9999 | 0.0159 | 0.9999 | 0.2716 | 0.7978 | 0.0409 | 0.2185 | 0.0513 | 0.2744 |
| 168 | 57.01 | 0.01 | 0.0266 | 0.9999 | 0.0127 | 0.9999 | 0.2167 | 0.8060 | 0.0421 | 0.2187 | 0.0522 | 0.2713 |
| 169 | 57.15 | 0.01 | 0.0255 | 0.9999 | 0.0144 | 0.9999 | 0.2404 | 0.8121 | 0.0402 | 0.2221 | 0.0495 | 0.2735 |
| 170 | 57.29 | 0.04 | 0.0266 | 0.9999 | 0.0154 | 0.9999 | 0.2628 | 0.8150 | 0.0370 | 0.2255 | 0.0452 | 0.2753 |
| 171 | 57.46 | 0.01 | 0.0255 | 0.9999 | 0.0136 | 0.9999 | 0.2433 | 0.8162 | 0.0366 | 0.2252 | 0.0448 | 0.2759 |
| 172 | 57.59 | -0.02 | 0.0245 | 0.9999 | 0.0140 | 0.9999 | 0.2509 | 0.8278 | 0.0350 | 0.2298 | 0.0433 | 0.2777 |
| 173 | 57.75 | -0.06 | 0.0245 | 0.9999 | 0.0140 | 0.9999 | 0.2569 | 0.8185 | 0.0376 | 0.2256 | 0.0459 | 0.2758 |
| 174 | 57.87 | -0.04 | 0.0246 | 0.9999 | 0.0135 | 0.9999 | 0.2473 | 0.8038 | 0.0347 | 0.2229 | 0.0432 | 0.2774 |
| 175 | 58.03 | -0.08 | 0.0260 | 0.9999 | 0.0138 | 0.9999 | 0.2429 | 0.7915 | 0.0345 | 0.2214 | 0.0436 | 0.2797 |
| 176 | 58.19 | -0.16 | 0.0254 | 0.9999 | 0.0123 | 0.9999 | 0.2303 | 0.7805 | 0.0346 | 0.2181 | 0.0443 | 0.2794 |
| 177 | 58.17 | -0.10 | 0.0215 | 0.9999 | 0.0133 | 0.9999 | 0.2563 | 0.7863 | 0.0351 | 0.2197 | 0.0446 | 0.2794 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | MA10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 142 | 1.00 | 1.7 | 0.0 | BINDER4 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.82 | -0.00 | -1.9939 | 6.9861 | -0.0168 | 0.0003 | -0.0044 | 0.8303 | 0.2319 | 0.5984 | -3.5037 |
| 2 | -5.81 | 0.01 | -2.0156 | 6.9953 | 0.0033 | -0.0412 | -0.0044 | 0.8274 | 0.2341 | 0.5973 | -3.4705 |
| 3 | -5.81 | 0.02 | -2.0024 | 6.9991 | 0.0529 | -0.0857 | -0.0043 | 0.8229 | 0.2236 | 0.5943 | -3.4553 |
| 4 | -5.81 | 0.02 | -2.0146 | 7.0007 | 0.0645 | -0.0970 | -0.0043 | 0.8198 | 0.2301 | 0.5897 | -3.4765 |
| 5 | -5.20 | 0.02 | -1.8012 | 6.5260 | 0.0410 | -0.0748 | -0.0040 | 0.8050 | 0.2225 | 0.5825 | -3.6234 |
| 6 | -3.30 | 0.01 | -1.2067 | 5.0315 | 0.0059 | -0.0321 | 0.0023 | 0.7810 | 0.2091 | 0.5725 | -3.8095 |
| 7 | -1.81 | 0.02 | -1.2508 | 5.1983 | 0.0430 | -0.0406 | 0.0027 | 0.7852 | 0.1836 | 0.5216 | -4.1893 |
| 8 | 0.29 | 0.01 | -0.9711 | 4.3068 | -0.0315 | -0.0280 | 0.0050 | 0.8478 | 0.1641 | 0.4836 | -4.7377 |
| 9 | 2.07 | 0.01 | -0.7031 | 4.0053 | -0.0093 | -0.0703 | 0.0036 | 0.8061 | 0.1596 | 0.4465 | -5.6568 |
| 10 | 3.90 | 0.02 | -0.4472 | 3.4467 | 0.0534 | -0.0777 | 0.0041 | 0.8504 | 0.1555 | 0.4031 | -7.7112 |
| 11 | 5.75 | 0.01 | -0.1772 | 2.9247 | -0.0088 | -0.0320 | 0.0046 | 0.8196 | 0.1549 | 0.3647 | -16.5056 |
| 12 | 7.64 | 0.01 | 0.0910 | 2.4628 | 0.0161 | -0.0646 | 0.0052 | 0.8091 | 0.1501 | 0.3131 | 20.3912 |
| 13 | 9.46 | 0.02 | 0.3751 | 1.9377 | 0.0438 | -0.0283 | 0.0117 | 0.8374 | 0.1601 | 0.2773 | 5.1660 |
| 14 | 11.30 | 0.01 | 0.6636 | 1.4955 | -0.0033 | 0.0207 | 0.0060 | 0.8078 | 0.1656 | 0.2420 | 2.1942 |
| 15 | 13.20 | 0.01 | 0.9464 | 1.1807 | -0.0036 | 0.0267 | 0.0074 | 0.8506 | 0.1726 | 0.2180 | 1.2476 |
| 16 | 15.11 | 0.01 | 1.2254 | 0.9037 | -0.0325 | 0.1507 | 0.0137 | 0.8610 | 0.1772 | 0.1836 | 0.7638 |
| 17 | 17.08 | 0.00 | 1.5367 | 0.7575 | -0.1616 | 0.4776 | 0.0199 | 0.8278 | 0.1847 | 0.1431 | 0.4530 |
| 18 | 19.00 | -0.00 | 1.8049 | 0.5414 | -0.1646 | 0.5347 | 0.0391 | 0.8896 | 0.1923 | 0.0973 | 0.2871 |
| 19 | 20.99 | 0.01 | 2.2935 | 0.3408 | -0.1338 | 0.4327 | 0.0351 | 0.8460 | 0.1998 | 0.0462 | 0.1512 |
| 20 | 22.90 | 0.00 | 2.6855 | 0.2871 | -0.1282 | 0.5122 | -0.0106 | 0.8914 | 0.1934 | -0.0020 | 0.1012 |
| 21 | 24.85 | 0.00 | 3.0944 | 0.4995 | -0.0451 | 0.1832 | -0.0010 | 0.8382 | 0.1873 | -0.0491 | 0.1472 |
| 22 | 26.87 | 0.05 | 4.0282 | 0.0908 | 0.0926 | -1.5521 | 0.0799 | 0.8966 | 0.1923 | -0.0957 | 0.1705 |
| 23 | 28.01 | 0.08 | 4.3258 | 0.0421 | 0.8482 | -1.9715 | 0.0945 | 0.8735 | 0.1946 | -0.1211 | 0.1483 |
| 24 | 28.14 | 0.06 | 4.4218 | 0.0500 | 0.9057 | -2.0622 | 0.0951 | 0.8740 | 0.1976 | -0.1236 | 0.1560 |
| 25 | 28.51 | 0.07 | 4.5128 | 0.0506 | 0.9045 | -2.0977 | 0.1015 | 0.8604 | 0.1963 | -0.1359 | 0.1530 |
| 26 | 28.83 | 0.07 | 4.6018 | 0.7218 | 0.9947 | -2.2442 | 0.1159 | 0.8561 | 0.1927 | -0.1416 | 0.1567 |
| 27 | 29.10 | 0.07 | 4.6945 | 0.7504 | 0.9826 | -2.1697 | 0.1025 | 0.8529 | 0.1973 | -0.1444 | 0.1611 |
| 28 | 29.42 | 0.07 | 4.8153 | 0.9062 | 0.9182 | -1.9164 | 0.0970 | 0.8594 | 0.1967 | -0.1593 | 0.1882 |
| 29 | 29.71 | 0.07 | 4.9248 | 1.0509 | 0.9313 | -1.9075 | 0.0917 | 0.8429 | 0.2007 | -0.1578 | 0.2134 |
| 30 | 29.99 | 0.07 | 4.9682 | 0.9592 | 0.8606 | -1.7660 | 0.0917 | 0.8372 | 0.1994 | -0.1622 | 0.1917 |
| 31 | 30.26 | 0.06 | 5.1183 | 1.0766 | 0.8911 | -1.9633 | 0.0925 | 0.8320 | 0.2036 | -0.1716 | 0.2107 |
| 32 | 30.52 | 0.07 | 5.1461 | 1.0772 | 1.0196 | -2.0837 | 0.0949 | 0.8583 | 0.2047 | -0.1664 | 0.2056 |
| 33 | 30.82 | 0.05 | 5.2851 | 1.1350 | 1.1260 | -2.3275 | 0.1057 | 0.8308 | 0.2074 | -0.1768 | 0.2154 |
| 34 | 31.08 | 0.06 | 5.3612 | 1.0861 | 1.1064 | -2.2539 | 0.1039 | 0.8297 | 0.2116 | -0.1819 | 0.1992 |
| 35 | 31.37 | 0.08 | 5.4463 | 1.2650 | 1.1417 | -2.4542 | 0.1008 | 0.8217 | 0.2079 | -0.1862 | 0.2366 |
| 36 | 31.65 | 0.06 | 5.5016 | 1.3097 | 0.8810 | -1.7248 | 0.0708 | -0.0024 | 0.2070 | -0.2094 | 0.2336 |
| 37 | 31.90 | 0.04 | 5.5758 | 1.4815 | 0.8219 | -1.2503 | 0.0585 | 0.0024 | 0.2033 | -0.2009 | 0.2658 |
| 38 | 32.18 | 0.05 | 5.7178 | 1.4775 | 0.7456 | -1.3579 | 0.0656 | -0.0136 | 0.2067 | -0.2143 | 0.2584 |
| 39 | 32.43 | 0.02 | 5.7524 | 1.5374 | 0.3647 | -0.6532 | 0.0406 | -0.0175 | 0.1986 | -0.2183 | 0.2694 |
| 40 | 32.70 | 0.03 | 5.8771 | 1.5157 | 0.4536 | -0.8546 | 0.0553 | -0.0257 | 0.1965 | -0.2242 | 0.2579 |
| 41 | 32.95 | 0.02 | 5.9493 | 1.5046 | 0.3358 | -0.6460 | 0.0353 | -0.0350 | 0.1984 | -0.2334 | 0.2528 |
| 42 | 33.22 | 0.02 | 6.1072 | 1.5435 | 0.3258 | -0.5219 | 0.0418 | -0.0442 | 0.1969 | -0.2431 | 0.2527 |
| 43 | 33.46 | 0.03 | 6.1714 | 1.4256 | 0.2780 | -0.2944 | 0.0299 | -0.0460 | 0.2004 | -0.2464 | 0.2309 |
| 44 | 33.71 | 0.02 | 6.2758 | 1.4765 | 0.3200 | -0.4160 | 0.0543 | -0.0509 | 0.2018 | -0.2525 | 0.2344 |
| 45 | 33.97 | 0.04 | 6.3636 | 1.3715 | 0.5253 | -1.0400 | 0.0846 | -0.0491 | 0.2057 | -0.2548 | 0.2148 |
| 46 | 34.22 | 0.04 | 6.4582 | 1.4156 | 0.5272 | -0.8360 | 0.0870 | -0.0691 | 0.2050 | -0.2691 | 0.2192 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 142 | MACH 1.60 | RX1C-6 1.7 | PHI 0.0 | CONF 81&6F14 | L 6.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLOT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 6.5075 | 1.5433 | 0.5071 | -1.0566 | 0.0655 | -0.0627 | 0.2076 | -0.2703 | 0.2350 |
| 48 | 34.71 | 0.04 | 6.6151 | 1.5516 | 0.5335 | -1.0708 | 0.0794 | -0.0671 | 0.2064 | -0.2735 | 0.2345 |
| 49 | 34.97 | 0.06 | 6.7377 | 1.4977 | 0.7263 | -1.2267 | 0.0963 | -0.0656 | 0.2077 | -0.2773 | 0.2223 |
| 50 | 35.20 | 0.05 | 6.8506 | 1.4816 | 0.6336 | -1.2050 | 0.1104 | -0.0708 | 0.2088 | -0.2796 | 0.2163 |
| 51 | 35.43 | 0.05 | 6.9620 | 1.5364 | 0.6466 | -1.2884 | 0.0990 | -0.0750 | 0.2107 | -0.2857 | 0.2256 |
| 52 | 35.65 | 0.06 | 7.0781 | 1.4244 | 0.7614 | -1.3902 | 0.1112 | -0.0692 | 0.2095 | -0.2988 | 0.2030 |
| 53 | 35.93 | 0.06 | 7.2776 | 1.4216 | 0.7252 | -1.3536 | 0.0940 | -0.0813 | 0.2098 | -0.2912 | 0.2291 |
| 54 | 36.15 | 0.04 | 7.1678 | 1.5515 | 0.5341 | -0.9349 | 0.0761 | -0.1044 | 0.2026 | -0.3070 | 0.2220 |
| 55 | 36.40 | 0.04 | 7.2564 | 1.5764 | 0.5625 | -1.2564 | 0.1004 | -0.1020 | 0.2071 | -0.3091 | 0.2175 |
| 56 | 36.64 | 0.05 | 7.3365 | 1.6366 | 0.5045 | -1.0350 | 0.0764 | -0.1160 | 0.2018 | -0.3198 | 0.2234 |
| 57 | 36.86 | 0.06 | 7.4167 | 1.5963 | 0.7552 | -1.4411 | 0.1015 | -0.1018 | 0.2079 | -0.3097 | 0.2155 |
| 58 | 37.13 | 0.06 | 7.5741 | 1.5656 | 0.6652 | -1.1543 | 0.0903 | -0.1089 | 0.1995 | -0.3064 | 0.2066 |
| 59 | 37.34 | 0.04 | 7.5321 | 1.6523 | 0.4075 | -0.9279 | 0.0599 | -0.1051 | 0.1980 | -0.3031 | 0.2192 |
| 60 | 37.56 | 0.04 | 7.6631 | 1.6278 | 0.5426 | -1.1795 | 0.0791 | -0.1063 | 0.1984 | -0.3067 | 0.2119 |
| 61 | 37.82 | 0.05 | 7.8161 | 1.5835 | 0.6131 | -1.2250 | 0.0979 | -0.1490 | 0.1966 | -0.3456 | 0.2026 |
| 62 | 38.03 | 0.04 | 7.9346 | 1.5061 | 0.4049 | -0.9863 | 0.0502 | -0.1541 | 0.2035 | -0.3544 | 0.1901 |
| 63 | 38.27 | 0.07 | 7.9656 | 1.4944 | 0.7956 | -1.3351 | 0.0887 | -0.1547 | 0.1979 | -0.3526 | 0.1876 |
| 64 | 38.51 | 0.04 | 8.0835 | 1.4943 | 0.5818 | -1.0858 | 0.0386 | -0.1040 | 0.1809 | -0.3525 | 0.1804 |
| 65 | 38.73 | 0.05 | 8.0912 | 1.5053 | 0.5233 | -1.1003 | 0.0525 | -0.1744 | 0.1914 | -0.3656 | 0.1940 |
| 66 | 38.93 | 0.05 | 8.1676 | 1.4445 | 0.5685 | -1.0227 | 0.0514 | -0.1692 | 0.1910 | -0.3602 | 0.1766 |
| 67 | 39.18 | 0.04 | 8.2418 | 1.4431 | 0.6152 | -1.0286 | 0.0339 | -0.1781 | 0.1891 | -0.3652 | 0.1751 |
| 68 | 39.39 | 0.05 | 8.3467 | 1.4516 | 0.5892 | -1.2809 | 0.0584 | -0.1692 | 0.1913 | -0.3745 | 0.1777 |
| 69 | 39.58 | 0.06 | 8.4568 | 1.5423 | 0.6835 | -1.2533 | 0.0587 | -0.1782 | 0.1897 | -0.3675 | 0.1587 |
| 70 | 39.81 | 0.06 | 8.5326 | 1.5034 | 0.7496 | -1.2906 | 0.0650 | -0.1824 | 0.1901 | -0.3725 | 0.1621 |
| 71 | 40.01 | 0.06 | 8.6100 | 1.2541 | 0.6378 | -1.2697 | 0.0533 | -0.1979 | 0.1912 | -0.3891 | 0.1457 |
| 72 | 40.20 | 0.04 | 8.6114 | 1.3272 | 0.4545 | -1.1790 | 0.0295 | -0.2008 | 0.1861 | -0.3889 | 0.1541 |
| 73 | 40.42 | 0.06 | 8.7031 | 1.2871 | 0.6577 | -1.3208 | 0.0659 | -0.2052 | 0.1899 | -0.3951 | 0.1465 |
| 74 | 40.61 | 0.05 | 8.8455 | 1.1756 | 0.5345 | -1.1429 | 0.0657 | -0.2114 | 0.1868 | -0.3994 | 0.1333 |
| 75 | 40.84 | 0.05 | 8.9036 | 1.2544 | 0.5757 | -1.4533 | 0.0427 | -0.2274 | 0.1887 | -0.4161 | 0.1409 |
| 76 | 41.05 | 0.04 | 9.0411 | 1.2464 | 0.4581 | -1.2676 | 0.0488 | -0.2266 | 0.1804 | -0.4144 | 0.1380 |
| 77 | 41.24 | 0.04 | 9.0563 | 1.2162 | 0.5317 | -1.3766 | 0.0375 | -0.2163 | 0.1924 | -0.4087 | 0.1337 |
| 78 | 41.48 | 0.04 | 9.1636 | 1.1371 | 0.5757 | -1.4112 | 0.0319 | -0.2264 | 0.1874 | -0.4138 | 0.1241 |
| 79 | 41.64 | 0.03 | 9.2265 | 1.2503 | 0.5366 | -1.3700 | 0.0439 | -0.2292 | 0.1894 | -0.4186 | 0.1356 |
| 80 | 41.84 | 0.04 | 9.2347 | 1.3273 | 0.3857 | -1.3532 | 0.0382 | -0.2230 | 0.1943 | -0.4179 | 0.1437 |
| 81 | 42.04 | 0.05 | 9.3760 | 1.2167 | 0.6185 | -1.2296 | 0.0503 | -0.2421 | 0.1912 | -0.4333 | 0.1297 |
| 82 | 42.32 | 0.04 | 9.3752 | 1.1956 | 0.5293 | -1.4200 | 0.0452 | -0.2408 | 0.1880 | -0.4304 | 0.1211 |
| 83 | 42.50 | 0.04 | 9.5683 | 1.3106 | 0.5756 | -0.8875 | 0.0801 | -0.2405 | 0.1897 | -0.4302 | 0.1370 |
| 84 | 42.80 | 0.04 | 9.6351 | 1.2667 | 0.4505 | -1.1191 | 0.0069 | -0.2359 | 0.1885 | -0.4244 | 0.1441 |
| 85 | 42.86 | 0.04 | 9.6356 | 1.3153 | 0.5345 | -1.1426 | 0.0089 | -0.2407 | 0.1908 | -0.4315 | 0.1365 |
| 86 | 43.04 | 0.02 | 9.7474 | 1.2461 | 0.4545 | -1.4066 | 0.0377 | -0.2349 | 0.1944 | -0.4293 | 0.1274 |
| 87 | 43.22 | 0.04 | 9.7561 | 1.2524 | 0.6255 | -1.4474 | 0.0596 | -0.2360 | 0.1923 | -0.4303 | 0.1284 |
| 88 | 43.41 | 0.04 | 9.8548 | 1.1561 | 0.5306 | -1.4513 | 0.0096 | -0.2412 | 0.1972 | -0.4384 | 0.1169 |
| 89 | 43.59 | 0.02 | 9.9470 | 1.3451 | 0.4475 | -0.9597 | 0.0876 | -0.2436 | 0.1929 | -0.4365 | 0.1352 |
| 90 | 43.75 | 0.05 | 9.9355 | 1.1574 | 0.6341 | -1.5401 | 0.0765 | -0.2363 | 0.1952 | -0.4335 | 0.1205 |
| 91 | 43.95 | 0.05 | 10.0365 | 1.2592 | 0.7265 | -1.6756 | 0.0654 | -0.2358 | 0.2011 | -0.4369 | 0.1255 |
| 92 | 44.11 | 0.02 | 10.1522 | 1.3141 | 0.4602 | -1.0509 | 0.0085 | -0.2403 | 0.1962 | -0.4465 | 0.1295 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASHDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 142 1.60 1.7 0.0 BISOPLA 0.0 0 -20 0 -20 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XLP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.32 | 0.03 | 10.2530 | 1.1372 | 0.0496 | -1.4987 | 0.0776 | -0.2487 | 0.2024 | -0.4511 | 0.1109 |
| 94 | 44.50 | 0.04 | 10.2618 | 1.1226 | 0.0506 | -1.4933 | 0.1003 | -0.2410 | 0.1964 | -0.4392 | 0.1156 |
| 95 | 44.69 | 0.03 | 10.3044 | 1.2060 | 0.5430 | -1.0269 | 0.0832 | -0.2465 | 0.1962 | -0.4447 | 0.1250 |
| 96 | 44.88 | 0.04 | 10.4332 | 1.1836 | 0.7235 | -1.4936 | 0.0745 | -0.2469 | 0.2012 | -0.4481 | 0.1136 |
| 97 | 45.06 | 0.02 | 10.5147 | 1.2947 | 0.4034 | -0.4075 | 0.1306 | -0.2378 | 0.2031 | -0.4401 | 0.1231 |
| 98 | 45.25 | 0.02 | 10.6795 | 1.1393 | 0.6006 | -1.4941 | 0.0732 | -0.2460 | 0.2032 | -0.4492 | 0.1067 |
| 99 | 45.42 | 0.01 | 10.8360 | 1.1735 | 0.4478 | -1.1104 | 0.0901 | -0.2423 | 0.1951 | -0.4414 | 0.1103 |
| 100 | 45.61 | 0.02 | 10.8838 | 1.1704 | 0.4725 | -0.9289 | 0.0908 | -0.2367 | 0.2030 | -0.4397 | 0.1077 |
| 101 | 45.78 | 0.01 | 10.8269 | 1.1400 | 0.3658 | -0.8642 | 0.0902 | -0.2476 | 0.1995 | -0.4473 | 0.1053 |
| 102 | 45.95 | 0.02 | 10.8956 | 1.1216 | 0.4456 | -0.4026 | 0.0903 | -0.2419 | 0.2044 | -0.4463 | 0.1213 |
| 103 | 46.14 | 0.01 | 10.9855 | 1.0763 | 0.3510 | -0.3635 | 0.0961 | -0.2415 | 0.2057 | -0.4472 | 0.0981 |
| 104 | 46.31 | 0.01 | 10.9866 | 1.1366 | 0.2288 | 0.3992 | 0.0995 | -0.2404 | 0.2125 | -0.4529 | 0.1207 |
| 105 | 46.47 | 0.02 | 10.9381 | 1.0853 | 0.2786 | 0.6560 | 0.0988 | -0.1994 | 0.2321 | -0.4315 | 0.1650 |
| 106 | 46.66 | 0.01 | 11.0426 | 1.0645 | 0.2795 | -0.0875 | 0.0955 | -0.2518 | 0.2196 | -0.4657 | 0.1091 |
| 107 | 46.84 | 0.02 | 11.1152 | 1.0853 | 0.4721 | 0.5487 | 0.0932 | -0.2347 | 0.2267 | -0.4614 | 0.1228 |
| 108 | 47.00 | -0.00 | 11.1362 | 1.0393 | 0.1201 | 0.0707 | 0.0870 | -0.1972 | 0.2570 | -0.4542 | 0.1382 |
| 109 | 47.16 | 0.01 | 11.1264 | 1.0005 | 0.2628 | 0.7404 | 0.0873 | -0.1438 | 0.2683 | -0.4121 | 0.1313 |
| 110 | 47.36 | 0.01 | 11.1561 | 1.0456 | 0.3646 | 0.5058 | 0.0819 | -0.1735 | 0.2672 | -0.4407 | 0.1302 |
| 111 | 47.55 | 0.01 | 11.1547 | 0.9670 | 0.4094 | 0.8228 | 0.0755 | -0.1949 | 0.3360 | -0.5309 | 0.0492 |
| 112 | 47.71 | 0.01 | 11.0457 | -0.1261 | 0.3200 | 0.9000 | 0.0752 | -0.1962 | 0.3317 | -0.5319 | -0.0096 |
| 113 | 47.90 | 0.05 | 11.0770 | -0.3165 | 0.0401 | 1.5219 | 0.0201 | -0.0969 | 0.3785 | -0.4773 | -0.0772 |
| 114 | 48.06 | 0.01 | 11.0640 | -0.0059 | 0.2936 | 1.3436 | 0.0447 | -0.1491 | 0.3645 | -0.5066 | -0.0513 |
| 115 | 48.26 | 0.04 | 12.2427 | -1.7224 | 0.5179 | 1.5526 | 0.0093 | -0.0871 | 0.4058 | -0.4930 | -0.1407 |
| 116 | 48.48 | 0.04 | 12.2625 | -1.6921 | 0.5736 | 1.0870 | 0.0066 | -0.0806 | 0.4032 | -0.4698 | -0.1508 |
| 117 | 48.63 | 0.02 | 12.4723 | -1.9356 | 0.3643 | 1.9434 | 0.0147 | -0.0713 | 0.4003 | -0.4716 | -0.1555 |
| 118 | 48.80 | 0.03 | 12.5356 | -2.1361 | 0.6365 | 2.0003 | 0.0061 | -0.1015 | 0.4020 | -0.5045 | -0.1704 |
| 119 | 48.99 | 0.03 | 12.5458 | -1.7565 | 0.4369 | 1.9163 | 0.0090 | -0.1125 | 0.3928 | -0.5051 | -0.1555 |
| 120 | 49.15 | 0.01 | 12.6622 | -1.9466 | 0.3163 | 2.0100 | 0.0034 | -0.1544 | 0.3717 | -0.5261 | -0.1539 |
| 121 | 49.32 | 0.01 | 12.6623 | -1.9206 | 0.3405 | 2.1568 | 0.0086 | -0.1173 | 0.3777 | -0.4950 | -0.1517 |
| 122 | 49.51 | 0.00 | 12.6670 | -1.9776 | 0.2553 | 1.9853 | 0.0042 | -0.1550 | 0.3957 | -0.5167 | -0.1541 |
| 123 | 49.70 | -0.00 | 12.6910 | -2.0551 | 0.3056 | 1.7512 | -0.0063 | -0.1770 | 0.3501 | -0.5271 | -0.1589 |
| 124 | 49.87 | 0.01 | 13.0069 | -2.0627 | 0.3524 | 1.9200 | -0.0066 | -0.1666 | 0.3546 | -0.5212 | -0.1586 |
| 125 | 50.04 | 0.01 | 13.0505 | -2.0211 | 0.3583 | 1.8052 | -0.0119 | -0.1627 | 0.3617 | -0.5244 | -0.1549 |
| 126 | 50.23 | 0.03 | 13.0672 | -2.1150 | 0.5525 | 1.5742 | 0.0007 | -0.1450 | 0.3696 | -0.5146 | -0.1601 |
| 127 | 50.40 | -0.01 | 13.2105 | -2.1553 | 0.1552 | 1.7857 | -0.0050 | -0.1259 | 0.3746 | -0.5063 | -0.1631 |
| 128 | 50.57 | -0.03 | 13.2463 | -2.2532 | 0.0015 | 1.8172 | -0.0106 | -0.1577 | 0.3726 | -0.5305 | -0.1701 |
| 129 | 50.73 | -0.02 | 13.2412 | -2.2205 | 0.1812 | 1.2329 | -0.0028 | -0.1128 | 0.3736 | -0.4884 | -0.1707 |
| 130 | 50.88 | 0.01 | 13.1003 | -2.0867 | 0.4574 | 1.0876 | 0.0142 | -0.1544 | 0.3736 | -0.5260 | -0.1588 |
| 131 | 51.04 | -0.00 | 13.0672 | -2.0440 | 0.3317 | 1.0298 | 0.0147 | -0.1450 | 0.3676 | -0.5126 | -0.1562 |
| 132 | 51.18 | 0.02 | 12.8654 | -1.4971 | 0.5524 | 0.6859 | 0.0016 | -0.1549 | 0.3605 | -0.5154 | -0.1162 |
| 133 | 51.33 | 0.01 | 12.8961 | -1.4603 | 0.4558 | 0.6743 | 0.0563 | -0.1564 | 0.3669 | -0.5253 | -0.1132 |
| 134 | 51.53 | 0.00 | 12.9676 | -1.3955 | 0.4387 | 0.6535 | 0.0083 | -0.1545 | 0.3634 | -0.5179 | -0.1060 |
| 135 | 51.69 | 0.00 | 12.9592 | -1.4462 | 0.3573 | 0.8930 | 0.0078 | -0.1601 | 0.3690 | -0.5291 | -0.1115 |
| 136 | 51.85 | 0.00 | 13.0036 | -1.5213 | 0.4122 | 0.9015 | 0.0130 | -0.1543 | 0.3726 | -0.5071 | -0.1163 |
| 137 | 52.03 | 0.02 | 13.1134 | -1.4165 | 0.5627 | 0.8670 | 0.0079 | -0.1564 | 0.3698 | -0.5262 | -0.1080 |
| 138 | 52.19 | -0.01 | 13.0763 | -1.4054 | 0.1925 | 0.9602 | 0.0062 | -0.1467 | 0.3730 | -0.5195 | -0.1078 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 142 MACH 1.00 RX10-6 1.7 PHI 0.0 CONF BINOF14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | LA | LAB | LAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.38 | -0.00 | 12.9829 | -1.4523 | 0.2596 | 0.8719 | 0.0622 | -0.1460 | 0.3734 | -0.5164 | -0.1119 |
| 140 | 52.51 | -0.05 | 13.0470 | -1.5367 | -0.1607 | 0.9805 | 0.0624 | -0.1614 | 0.3879 | -0.5493 | -0.1040 |
| 141 | 52.70 | -0.05 | 13.1040 | -1.5044 | -0.1308 | 1.1523 | 0.0632 | -0.1239 | 0.3732 | -0.4971 | -0.1131 |
| 142 | 52.85 | -0.03 | 13.0839 | -1.2456 | 0.1305 | 0.9367 | 0.0570 | -0.1315 | 0.3041 | -0.4956 | -0.0953 |
| 143 | 53.02 | -0.02 | 13.1635 | -1.3096 | 0.1442 | 0.9074 | 0.0572 | -0.1501 | 0.3656 | -0.5157 | -0.0963 |
| 144 | 53.17 | -0.01 | 13.1220 | -1.2775 | 0.1217 | 0.8231 | 0.0573 | -0.1306 | 0.3003 | -0.4985 | -0.0974 |
| 145 | 53.34 | -0.02 | 13.2567 | -1.4944 | 0.2103 | 0.9217 | 0.0573 | -0.1774 | 0.3732 | -0.5506 | -0.1127 |
| 146 | 53.52 | -0.02 | 13.3450 | -1.4866 | 0.1956 | 0.9467 | 0.0519 | -0.1405 | 0.3710 | -0.5195 | -0.1109 |
| 147 | 53.66 | -0.01 | 13.3491 | -1.5515 | 0.1396 | 0.8699 | 0.0522 | -0.1731 | 0.3740 | -0.5471 | -0.1163 |
| 148 | 53.82 | -0.01 | 13.3240 | -1.5468 | 0.2040 | 0.9353 | 0.0517 | -0.1636 | 0.3711 | -0.5349 | -0.1163 |
| 149 | 53.99 | -0.01 | 13.4220 | -1.5530 | 0.1521 | 0.8696 | 0.0525 | -0.1687 | 0.3805 | -0.5496 | -0.1157 |
| 150 | 54.15 | -0.00 | 13.4548 | -1.5563 | 0.2006 | 0.8666 | 0.0533 | -0.1695 | 0.3880 | -0.5575 | -0.1180 |
| 151 | 54.30 | -0.01 | 13.5356 | -1.6972 | 0.2054 | 0.7831 | 0.0530 | -0.1639 | 0.3860 | -0.5499 | -0.1254 |
| 152 | 54.46 | -0.04 | 13.5213 | -1.6014 | 0.0452 | 0.7170 | 0.0536 | -0.1293 | 0.3424 | -0.5517 | -0.1229 |
| 153 | 54.63 | -0.02 | 13.6214 | -1.6377 | 0.1653 | 0.6459 | 0.0539 | -0.1575 | 0.3950 | -0.5525 | -0.1349 |
| 154 | 54.77 | -0.02 | 13.6482 | -1.7255 | 0.2110 | 0.5912 | 0.0484 | -0.1501 | 0.3955 | -0.5556 | -0.1264 |
| 155 | 54.92 | -0.02 | 13.5656 | -1.6741 | 0.1711 | 0.5235 | 0.0542 | -0.1445 | 0.4045 | -0.5494 | -0.1379 |
| 156 | 55.09 | -0.03 | 13.6169 | -1.7483 | 0.0777 | 0.6816 | 0.0542 | -0.1517 | 0.4011 | -0.5528 | -0.1284 |
| 157 | 55.23 | -0.04 | 13.6521 | -1.8274 | -0.0488 | 0.5632 | 0.0489 | -0.1543 | 0.4101 | -0.5641 | -0.1341 |
| 158 | 55.38 | -0.05 | 13.6626 | -1.8019 | 0.0416 | 0.5653 | 0.0494 | -0.1796 | 0.4066 | -0.5884 | -0.1385 |
| 159 | 55.54 | -0.03 | 13.7701 | -1.9147 | 0.1201 | 0.4176 | 0.0498 | -0.1477 | 0.4104 | -0.5581 | -0.1358 |
| 160 | 55.71 | -0.04 | 13.7062 | -2.0307 | 0.0596 | 0.2738 | 0.0500 | -0.1353 | 0.4108 | -0.5521 | -0.1482 |
| 161 | 55.80 | -0.03 | 13.6602 | -1.9084 | 0.0965 | 0.2607 | 0.0441 | -0.1536 | 0.4161 | -0.5697 | -0.1397 |
| 162 | 56.02 | -0.03 | 13.8520 | -2.0721 | 0.0150 | 0.3100 | 0.0446 | -0.1494 | 0.4151 | -0.5685 | -0.1498 |
| 163 | 56.17 | -0.05 | 13.8354 | -2.1578 | -0.0116 | 0.3203 | 0.0446 | -0.1426 | 0.4304 | -0.5790 | -0.1559 |
| 164 | 56.33 | -0.04 | 13.8369 | -2.0516 | 0.0497 | 0.3147 | 0.0445 | -0.1492 | 0.4432 | -0.5924 | -0.1483 |
| 165 | 56.53 | -0.06 | 14.2477 | -1.8262 | -0.1724 | 0.2858 | 0.0467 | -0.2274 | 0.4188 | -0.6462 | -0.1141 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1+2 MACH 1.00 RN/D-E 1.7 PHI 0.0 CONF 81+0F14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | ALPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.62 | -0.00 | -0.0151 | -0.0006 | 0.0205 | 0.0397 | -1.3341 | -0.0768 | 0.0195 | -0.3371 | -0.0222 | 0.3845 |
| 2 | -5.61 | 0.01 | -0.0115 | -0.0016 | 0.0206 | 0.0457 | -1.1771 | -0.0740 | 0.0186 | -0.3371 | -0.0215 | 0.3857 |
| 3 | -5.61 | 0.02 | -0.0162 | -0.0008 | 0.0202 | 0.0494 | -1.2469 | -0.0740 | 0.0188 | -0.3371 | -0.0215 | 0.3857 |
| 4 | -5.61 | 0.02 | -0.0139 | -0.0007 | 0.0215 | 0.0504 | -1.2908 | -0.0726 | 0.0183 | -0.3354 | -0.0210 | 0.3844 |
| 5 | -5.26 | 0.02 | -0.0102 | -0.0008 | 0.0201 | 0.0494 | -1.2407 | -0.0697 | 0.0213 | -0.3265 | -0.0263 | 0.3958 |
| 6 | -3.36 | 0.01 | -0.0150 | -0.0010 | 0.0208 | 0.0007 | -1.3307 | -0.0710 | 0.0246 | -0.3016 | -0.0346 | 0.4244 |
| 7 | -1.61 | 0.02 | -0.0136 | -0.0010 | 0.0193 | 0.0739 | -1.4151 | -0.0098 | 0.0257 | -0.2855 | -0.0421 | 0.4688 |
| 8 | 0.63 | 0.01 | -0.0170 | -0.0016 | 0.0183 | 0.0353 | -1.9506 | -0.5212 | 0.0244 | -0.2626 | -0.0468 | 0.5038 |
| 9 | 2.07 | 0.01 | -0.0143 | -0.0006 | 0.0145 | 0.0559 | -1.0140 | -0.4277 | 0.0236 | -0.2264 | -0.0552 | 0.5253 |
| 10 | 3.56 | 0.02 | -0.0116 | -0.0010 | 0.0152 | 0.0847 | -1.2881 | -0.3265 | 0.0216 | -0.1985 | -0.0676 | 0.0155 |
| 11 | 5.75 | 0.01 | -0.0105 | -0.0007 | 0.0167 | 0.0919 | -1.0108 | -0.2313 | 0.0187 | -0.1631 | -0.0808 | 0.7051 |
| 12 | 7.04 | 0.01 | -0.0065 | -0.0010 | 0.0205 | 0.0711 | -0.9289 | -0.1995 | 0.0166 | -0.1221 | -0.1121 | 0.8754 |
| 13 | 9.46 | 0.02 | -0.0151 | -0.0034 | 0.0257 | 0.1780 | -1.3455 | -0.0715 | 0.0142 | -0.0524 | -0.1582 | 1.2523 |
| 14 | 11.30 | 0.01 | -0.0216 | -0.0023 | 0.0298 | 0.1165 | -1.1389 | 0.0031 | 0.0111 | -0.0020 | 3.5802 | -20.2581 |
| 15 | 13.20 | 0.01 | -0.0331 | -0.0026 | 0.0183 | 0.0765 | -0.4324 | 0.0521 | 0.0117 | -0.0400 | 0.2245 | -0.7678 |
| 16 | 15.11 | 0.01 | -0.0457 | -0.0028 | 0.0166 | 0.0509 | -0.3032 | 0.0888 | 0.0130 | -0.0221 | 0.1467 | -0.2494 |
| 17 | 17.08 | 0.00 | -0.0565 | -0.0021 | 0.0156 | 0.0369 | -0.2836 | 0.1320 | 0.0136 | 0.0002 | 0.1030 | 0.0015 |
| 18 | 19.00 | -0.00 | -0.0619 | -0.0017 | 0.0136 | 0.0105 | -0.2913 | 0.1720 | 0.0155 | 0.0155 | 0.0901 | 0.1134 |
| 19 | 20.94 | 0.01 | -0.0645 | -0.0025 | -0.0032 | 0.0059 | 0.0377 | 0.2291 | 0.0156 | 0.0450 | 0.0881 | 0.1564 |
| 20 | 22.90 | 0.00 | -0.0553 | 0.0041 | -0.0157 | -0.0436 | 0.1047 | 0.2879 | 0.0157 | 0.0836 | 0.0545 | 0.2206 |
| 21 | 24.80 | 0.00 | -0.0761 | 0.0048 | -0.0092 | -0.0631 | 0.1205 | 0.3411 | 0.0165 | 0.0801 | 0.0484 | 0.2348 |
| 22 | 26.87 | 0.03 | -0.0824 | -0.0062 | 0.0111 | -0.0209 | 0.0985 | 0.4381 | 0.0165 | 0.1155 | 0.0377 | 0.2636 |
| 23 | 28.01 | 0.08 | -0.3145 | -0.0103 | 0.1477 | -0.0327 | 0.4690 | 0.4753 | 0.0153 | 0.1272 | 0.0322 | 0.2676 |
| 24 | 28.14 | 0.08 | 0.2545 | -0.0073 | 0.1248 | -0.0281 | 0.4704 | 0.4869 | 0.0160 | 0.1222 | 0.0355 | 0.2617 |
| 25 | 28.51 | 0.07 | 0.3776 | -0.0105 | 0.1671 | -0.0265 | 0.4932 | 0.5004 | 0.0149 | 0.1370 | 0.0296 | 0.2738 |
| 26 | 28.83 | 0.07 | 0.3367 | -0.0050 | 0.1535 | -0.0290 | 0.4854 | 0.4893 | 0.0165 | 0.1297 | 0.0337 | 0.2651 |
| 27 | 29.10 | 0.07 | 0.3034 | -0.0088 | 0.1427 | -0.0290 | 0.4703 | 0.4863 | 0.0176 | 0.1298 | 0.0360 | 0.2658 |
| 28 | 29.42 | 0.07 | 0.2671 | -0.0062 | 0.1281 | -0.0218 | 0.4483 | 0.4859 | 0.0192 | 0.1263 | 0.0367 | 0.2610 |
| 29 | 29.71 | 0.07 | 0.3188 | -0.0070 | 0.1383 | -0.0220 | 0.4338 | 0.4894 | 0.0186 | 0.1310 | 0.0360 | 0.2677 |
| 30 | 29.99 | 0.07 | 0.2785 | -0.0054 | 0.1252 | -0.0195 | 0.4528 | 0.4841 | 0.0200 | 0.1291 | 0.0413 | 0.2679 |
| 31 | 30.26 | 0.06 | 0.2618 | -0.0015 | 0.1175 | -0.0073 | 0.4503 | 0.4896 | 0.0205 | 0.1297 | 0.0415 | 0.2645 |
| 32 | 30.52 | 0.07 | 0.2535 | -0.0013 | 0.1145 | -0.0051 | 0.4454 | 0.4868 | 0.0209 | 0.1278 | 0.0425 | 0.2625 |
| 33 | 30.82 | 0.05 | 0.2365 | -0.0048 | 0.1443 | -0.0143 | 0.4288 | 0.5013 | 0.0200 | 0.1332 | 0.0399 | 0.2657 |
| 34 | 31.06 | 0.08 | 0.3473 | -0.0044 | 0.1463 | -0.0127 | 0.4270 | 0.5061 | 0.0205 | 0.1354 | 0.0395 | 0.2665 |
| 35 | 31.37 | 0.08 | 0.3062 | -0.0005 | 0.1302 | -0.0016 | 0.4272 | 0.5104 | 0.0230 | 0.1348 | 0.0451 | 0.2641 |
| 36 | 31.65 | 0.06 | 0.1869 | 0.0041 | 0.0755 | 0.0227 | 0.4417 | 0.4985 | 0.0261 | 0.1291 | 0.0523 | 0.2588 |
| 37 | 31.90 | 0.04 | 0.2206 | 0.0023 | 0.0582 | 0.0104 | 0.4379 | 0.5041 | 0.0271 | 0.1308 | 0.0538 | 0.2595 |
| 38 | 32.18 | 0.05 | 0.1879 | 0.0023 | 0.0677 | 0.0123 | 0.4077 | 0.5061 | 0.0270 | 0.1330 | 0.0533 | 0.2628 |
| 39 | 32.43 | 0.02 | 0.0915 | 0.0059 | 0.0467 | 0.0645 | 0.5104 | 0.5004 | 0.0260 | 0.1315 | 0.0559 | 0.2628 |
| 40 | 32.70 | 0.03 | 0.0954 | 0.0057 | 0.0460 | 0.0597 | 0.4822 | 0.5066 | 0.0277 | 0.1354 | 0.0545 | 0.2662 |
| 41 | 32.95 | 0.02 | 0.0941 | 0.0048 | 0.0358 | 0.0887 | 0.0580 | 0.5072 | 0.0278 | 0.1348 | 0.0548 | 0.2658 |
| 42 | 33.22 | 0.02 | 0.1147 | 0.0066 | 0.0366 | 0.0852 | 0.4935 | 0.5080 | 0.0273 | 0.1352 | 0.0537 | 0.2661 |
| 43 | 33.46 | 0.03 | -0.0086 | 0.0057 | 0.0126 | -0.0627 | -1.4651 | 0.5038 | 0.0273 | 0.1349 | 0.0542 | 0.2678 |
| 44 | 33.71 | 0.02 | 0.0290 | 0.0043 | 0.0409 | 0.0043 | 0.0007 | 0.5102 | 0.0269 | 0.1341 | 0.0521 | 0.2655 |
| 45 | 33.97 | 0.04 | 0.1497 | -0.0017 | 0.0700 | -0.0131 | 0.5397 | 0.5271 | 0.0267 | 0.1444 | 0.0506 | 0.2740 |
| 46 | 34.22 | 0.04 | 0.1595 | -0.0023 | 0.0736 | -0.0199 | 0.4577 | 0.5354 | 0.0261 | 0.1478 | 0.0487 | 0.2761 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 142 MACH 1.00 RNLG-6 1.7 PHI 0.0 CONF 31 ROLL 0.0 L DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CAF1 | CM1 | CB1 | ALPF1 | YCPF1 | CAF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 0.1722 | -0.0048 | 0.0845 | -0.0267 | 0.4707 | 0.5256 | 0.0271 | 0.1448 | 0.0516 | 0.2755 |
| 48 | 34.71 | 0.04 | 0.1734 | -0.0048 | 0.0734 | -0.0306 | 0.5502 | 0.5414 | 0.0280 | 0.1464 | 0.0537 | 0.2741 |
| 49 | 34.97 | 0.04 | 0.1753 | -0.0064 | 0.0925 | -0.0305 | 0.5277 | 0.5351 | 0.0274 | 0.1455 | 0.0512 | 0.2754 |
| 50 | 35.20 | 0.05 | 0.1765 | -0.0062 | 0.1063 | -0.0271 | 0.4746 | 0.5432 | 0.0278 | 0.1523 | 0.0508 | 0.2804 |
| 51 | 35.45 | 0.05 | 0.1743 | -0.0058 | 0.1013 | -0.0248 | 0.4332 | 0.5512 | 0.0287 | 0.1542 | 0.0521 | 0.2758 |
| 52 | 35.69 | 0.04 | 0.1719 | -0.0054 | 0.1030 | -0.0231 | 0.4042 | 0.5562 | 0.0283 | 0.1544 | 0.0503 | 0.2818 |
| 53 | 35.93 | 0.04 | 0.1714 | -0.0035 | 0.1017 | -0.0151 | 0.4395 | 0.5592 | 0.0301 | 0.1561 | 0.0538 | 0.2791 |
| 54 | 36.15 | 0.04 | 0.1693 | -0.0042 | 0.0956 | -0.0138 | 0.3548 | 0.5521 | 0.0312 | 0.1552 | 0.0564 | 0.2808 |
| 55 | 36.40 | 0.04 | 0.1699 | -0.0027 | 0.1001 | -0.0113 | 0.4419 | 0.5719 | 0.0305 | 0.1618 | 0.0533 | 0.2826 |
| 56 | 36.64 | 0.05 | 0.1685 | 0.0002 | 0.0959 | 0.0014 | 0.5147 | 0.5677 | 0.0311 | 0.1602 | 0.0548 | 0.2842 |
| 57 | 36.88 | 0.06 | 0.1702 | -0.0013 | 0.1022 | -0.0057 | 0.4545 | 0.5620 | 0.0321 | 0.1588 | 0.0571 | 0.2826 |
| 58 | 37.13 | 0.06 | 0.1712 | 0.0015 | 0.0767 | 0.0099 | 0.5073 | 0.5708 | 0.0303 | 0.1633 | 0.0523 | 0.2821 |
| 59 | 37.34 | 0.04 | 0.1701 | 0.0013 | 0.0771 | 0.0099 | 0.5141 | 0.5731 | 0.0315 | 0.1624 | 0.0550 | 0.2834 |
| 60 | 37.58 | 0.04 | 0.1778 | 0.0015 | 0.0845 | 0.0107 | 0.4775 | 0.5839 | 0.0314 | 0.1666 | 0.0546 | 0.2853 |
| 61 | 37.82 | 0.05 | 0.1537 | 0.0032 | 0.0746 | 0.0206 | 0.4854 | 0.5983 | 0.0314 | 0.1708 | 0.0527 | 0.2864 |
| 62 | 38.05 | 0.04 | 0.1568 | 0.0033 | 0.0782 | 0.0216 | 0.4477 | 0.6005 | 0.0314 | 0.1707 | 0.0525 | 0.2843 |
| 63 | 38.27 | 0.07 | 0.1618 | 0.0038 | 0.0788 | 0.0224 | 0.4756 | 0.5934 | 0.0327 | 0.1691 | 0.0551 | 0.2850 |
| 64 | 38.51 | 0.03 | 0.1613 | 0.0061 | 0.0556 | 0.0303 | 0.4804 | 0.6224 | 0.0306 | 0.1661 | 0.0495 | 0.2854 |
| 65 | 38.73 | 0.05 | 0.1557 | 0.0057 | 0.0684 | 0.0426 | 0.4893 | 0.6077 | 0.0328 | 0.1742 | 0.0536 | 0.2867 |
| 66 | 38.93 | 0.03 | 0.1717 | 0.0070 | 0.0755 | 0.0427 | 0.4709 | 0.6174 | 0.0322 | 0.1777 | 0.0521 | 0.2878 |
| 67 | 39.16 | 0.04 | 0.1726 | 0.0056 | 0.0757 | 0.0407 | 0.4543 | 0.6312 | 0.0312 | 0.1728 | 0.0494 | 0.2893 |
| 68 | 39.39 | 0.03 | 0.1723 | 0.0112 | 0.0575 | 0.0600 | 0.4917 | 0.6282 | 0.0325 | 0.1814 | 0.0524 | 0.2888 |
| 69 | 39.53 | 0.06 | 0.1522 | 0.0131 | 0.0595 | 0.0592 | 0.4506 | 0.6412 | 0.0330 | 0.1854 | 0.0515 | 0.2851 |
| 70 | 39.81 | 0.06 | 0.1404 | 0.0140 | 0.0611 | 0.0597 | 0.4352 | 0.6423 | 0.0345 | 0.1881 | 0.0537 | 0.2857 |
| 71 | 40.01 | 0.06 | 0.1356 | 0.0138 | 0.0611 | 0.0618 | 0.4425 | 0.6614 | 0.0342 | 0.1937 | 0.0517 | 0.2925 |
| 72 | 40.20 | 0.04 | 0.1249 | 0.0148 | 0.0532 | 0.0685 | 0.4259 | 0.6618 | 0.0336 | 0.1921 | 0.0506 | 0.2904 |
| 73 | 40.42 | 0.06 | 0.1083 | 0.0174 | 0.0681 | 0.0834 | 0.4046 | 0.6477 | 0.0364 | 0.1878 | 0.0553 | 0.2856 |
| 74 | 40.61 | 0.05 | 0.1044 | 0.0161 | 0.0718 | 0.0598 | 0.3989 | 0.6474 | 0.0356 | 0.1881 | 0.0615 | 0.2875 |
| 75 | 40.84 | 0.05 | 0.1540 | 0.0168 | 0.0593 | 0.1221 | 0.3351 | 0.6727 | 0.0367 | 0.1981 | 0.0545 | 0.2915 |
| 76 | 41.05 | 0.04 | 0.1375 | 0.0167 | 0.0544 | 0.1216 | 0.3982 | 0.6738 | 0.0362 | 0.1956 | 0.0507 | 0.2906 |
| 77 | 41.24 | 0.04 | 0.1386 | 0.0165 | 0.0552 | 0.1215 | 0.3983 | 0.6767 | 0.0362 | 0.1969 | 0.0503 | 0.2901 |
| 78 | 41.46 | 0.04 | 0.1405 | 0.0163 | 0.0499 | 0.1295 | 0.3936 | 0.6926 | 0.0375 | 0.2015 | 0.0541 | 0.2908 |
| 79 | 41.64 | 0.03 | 0.1230 | 0.0145 | 0.0505 | 0.1211 | 0.4106 | 0.6953 | 0.0378 | 0.2021 | 0.0544 | 0.2907 |
| 80 | 41.84 | 0.04 | 0.1134 | 0.0160 | 0.0444 | 0.1404 | 0.3915 | 0.6849 | 0.0376 | 0.1964 | 0.0575 | 0.2871 |
| 81 | 42.04 | 0.05 | 0.1277 | 0.0175 | 0.0505 | 0.1402 | 0.3955 | 0.6814 | 0.0426 | 0.1882 | 0.0644 | 0.2845 |
| 82 | 42.32 | 0.04 | 0.1364 | 0.0177 | 0.0530 | 0.1297 | 0.3806 | 0.6705 | 0.0424 | 0.1912 | 0.0632 | 0.2852 |
| 83 | 42.50 | 0.04 | 0.1348 | 0.0185 | 0.0535 | 0.1357 | 0.3769 | 0.6706 | 0.0437 | 0.1869 | 0.0757 | 0.2732 |
| 84 | 42.68 | 0.04 | 0.1345 | 0.0178 | 0.0533 | 0.1304 | 0.3931 | 0.6943 | 0.0435 | 0.1803 | 0.0703 | 0.2756 |
| 85 | 42.86 | 0.04 | 0.1368 | 0.0182 | 0.0522 | 0.1297 | 0.3761 | 0.6824 | 0.0443 | 0.1856 | 0.0665 | 0.2802 |
| 86 | 43.04 | 0.02 | 0.1414 | 0.0188 | 0.0535 | 0.1188 | 0.3812 | 0.6874 | 0.0456 | 0.1822 | 0.0697 | 0.2772 |
| 87 | 43.22 | 0.04 | 0.1369 | 0.0184 | 0.0574 | 0.1173 | 0.3858 | 0.6864 | 0.0460 | 0.1819 | 0.0701 | 0.2771 |
| 88 | 43.41 | 0.04 | 0.1342 | 0.0205 | 0.0571 | 0.1273 | 0.3477 | 0.6934 | 0.0469 | 0.1816 | 0.0769 | 0.2761 |
| 89 | 43.59 | 0.03 | 0.1458 | 0.0173 | 0.0585 | 0.1155 | 0.3772 | 0.6886 | 0.0486 | 0.1737 | 0.0764 | 0.2715 |
| 90 | 43.79 | 0.05 | 0.1722 | 0.0188 | 0.0638 | 0.1068 | 0.3646 | 0.6724 | 0.0460 | 0.1856 | 0.0684 | 0.2760 |
| 91 | 43.99 | 0.03 | 0.1585 | 0.0173 | 0.0551 | 0.1105 | 0.3521 | 0.6732 | 0.0473 | 0.1829 | 0.0706 | 0.2725 |
| 92 | 44.11 | 0.02 | 0.1561 | 0.0185 | 0.0547 | 0.1103 | 0.3504 | 0.6858 | 0.0496 | 0.1702 | 0.0780 | 0.2677 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 14C | MACH 1.00 | REYNO-E 1.7 | PHI 0.0 | CONF BARCF14 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | ACPF1 | YCPF1 | CNF2 | CM2 | CD2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.32 | 0.03 | 0.1E54 | 0.0197 | 0.0525 | 0.1163 | 0.3453 | 0.2442 | 0.0494 | 0.1725 | 0.0767 | 0.2678 |
| 94 | 44.50 | 0.04 | 0.1456 | 0.0188 | 0.0515 | 0.1345 | 0.3716 | 0.5588 | 0.0529 | 0.1535 | 0.0863 | 0.2563 |
| 95 | 44.69 | 0.03 | 0.1427 | 0.0187 | 0.0540 | 0.1123 | 0.3631 | 0.6293 | 0.0536 | 0.1663 | 0.0804 | 0.2643 |
| 96 | 44.80 | 0.04 | 0.1676 | 0.0174 | 0.0577 | 0.1042 | 0.3455 | 0.6501 | 0.0487 | 0.1722 | 0.0749 | 0.2645 |
| 97 | 45.0E | 0.02 | 0.1226 | 0.0191 | 0.0435 | 0.1564 | 0.3607 | 0.5776 | 0.0551 | 0.1410 | 0.0953 | 0.2446 |
| 98 | 45.23 | 0.02 | 0.1477 | 0.0185 | 0.0509 | 0.1049 | 0.3496 | 0.6308 | 0.0496 | 0.1645 | 0.0779 | 0.2583 |
| 99 | 45.42 | 0.01 | 0.1516 | 0.0166 | 0.0502 | 0.1192 | 0.3524 | 0.6167 | 0.0506 | 0.1551 | 0.0E2C | 0.2515 |
| 100 | 45.61 | 0.02 | 0.1436 | 0.0166 | 0.0496 | 0.1293 | 0.3481 | 0.6097 | 0.0512 | 0.1529 | 0.0840 | 0.2506 |
| 101 | 45.7e | 0.01 | 0.0E07 | 0.0156 | 0.0515 | 0.1533 | 0.3903 | 0.5747 | 0.0546 | 0.1377 | 0.0953 | 0.2356 |
| 102 | 45.95 | 0.02 | 0.1015 | 0.0172 | 0.0541 | 0.1094 | 0.3560 | 0.5E07 | 0.0538 | 0.1410 | 0.0914 | 0.2395 |
| 103 | 46.14 | 0.01 | 0.105E | 0.0167 | 0.0575 | 0.1521 | 0.3415 | 0.5960 | 0.0536 | 0.1436 | 0.0903 | 0.2405 |
| 104 | 46.31 | 0.01 | 0.0562 | 0.0147 | 0.0264 | 0.2525 | 0.3505 | 0.5556 | 0.0575 | 0.1270 | 0.1034 | 0.2285 |
| 105 | 46.47 | 0.02 | 0.0563 | 0.0122 | 0.0226 | 0.2052 | 0.3876 | 0.5516 | 0.0571 | 0.1260 | 0.1035 | 0.2284 |
| 106 | 46.66 | 0.02 | 0.0463 | 0.0136 | 0.0166 | 0.2537 | 0.3499 | 0.5543 | 0.0565 | 0.1279 | 0.1026 | 0.2307 |
| 107 | 46.8A | 0.02 | 0.0153 | 0.0162 | 0.0165 | 0.6666 | 0.4510 | 0.5274 | 0.0588 | 0.1155 | 0.1115 | 0.2156 |
| 108 | 47.00 | -0.00 | 0.0471 | 0.0163 | 0.0135 | 0.2167 | 0.2006 | 0.5545 | 0.0548 | 0.1293 | 0.0988 | 0.2332 |
| 109 | 47.1e | 0.01 | 0.0337 | 0.0151 | 0.0115 | 0.2700 | 0.3531 | 0.5629 | 0.0543 | 0.1300 | 0.0965 | 0.2305 |
| 110 | 47.3e | 0.01 | 0.0365 | 0.0166 | 0.0122 | 0.2285 | 0.3325 | 0.5645 | 0.0558 | 0.1301 | 0.0988 | 0.2305 |
| 111 | 47.55 | 0.01 | 0.0467 | 0.0151 | 0.0160 | 0.3710 | 0.1986 | 0.5431 | 0.0535 | 0.1559 | 0.0E32 | 0.2424 |
| 112 | 47.71 | 0.01 | 0.0165 | 0.0216 | -0.0007 | 2.0188 | -0.0381 | 0.0885 | 0.0521 | 0.1007 | 0.0757 | 0.2421 |
| 113 | 47.90 | 0.05 | -0.0737 | -0.0255 | -0.0235 | 0.0E30 | 0.3243 | 0.6043 | 0.0552 | 0.1321 | 0.0913 | 0.2186 |
| 114 | 48.0e | 0.01 | -0.0458 | 0.0146 | -0.0069 | -0.1652 | 0.4452 | 0.6235 | 0.0550 | 0.1425 | 0.0881 | 0.2284 |
| 115 | 48.2e | 0.04 | -0.0713 | -0.0115 | -0.0227 | 0.1801 | 0.3102 | 0.6202 | 0.0528 | 0.1413 | 0.0843 | 0.2256 |
| 116 | 48.46 | 0.04 | -0.0479 | -0.0124 | -0.0171 | 0.2816 | 0.3006 | 0.6619 | 0.0511 | 0.1534 | 0.0772 | 0.2318 |
| 117 | 48.63 | 0.02 | -0.0436 | -0.0144 | -0.0145 | 0.3302 | 0.3326 | 0.6993 | 0.0528 | 0.1476 | 0.0E15 | 0.2291 |
| 118 | 48.80 | 0.05 | -0.0E07 | -0.0146 | -0.0175 | 0.2965 | 0.2949 | 0.6587 | 0.0523 | 0.1521 | 0.0754 | 0.2305 |
| 119 | 48.99 | 0.02 | -0.0558 | -0.0141 | -0.0166 | 0.2527 | 0.3011 | 0.6606 | 0.0522 | 0.1516 | 0.0750 | 0.2295 |
| 120 | 49.15 | 0.01 | -0.0E54 | -0.0145 | -0.0155 | 0.2626 | 0.2970 | 0.6799 | 0.0521 | 0.1501 | 0.0772 | 0.2313 |
| 121 | 49.3e | 0.01 | -0.0525 | -0.0165 | -0.0116 | 0.3142 | 0.2210 | 0.6655 | 0.0522 | 0.1515 | 0.0784 | 0.2276 |
| 122 | 49.51 | 0.00 | -0.0570 | -0.0214 | -0.0145 | 0.3754 | 0.1757 | 0.6656 | 0.0515 | 0.1569 | 0.0751 | 0.2288 |
| 123 | 49.70 | -0.00 | -0.0568 | -0.0272 | -0.0053 | 0.4788 | 0.0933 | 0.7106 | 0.0493 | 0.1666 | 0.0654 | 0.2373 |
| 124 | 49.e1 | 0.01 | -0.0E4e | -0.0264 | -0.0069 | 0.4182 | 0.1075 | 0.7113 | 0.0503 | 0.1656 | 0.0707 | 0.2328 |
| 125 | 50.04 | 0.01 | -0.0456 | -0.0288 | 0.0004 | 0.5782 | -0.0080 | 0.7185 | 0.0496 | 0.1703 | 0.0690 | 0.2370 |
| 126 | 50.23 | 0.03 | -0.0E42 | -0.0269 | 0.0170 | 1.6249 | -0.3017 | 0.7191 | 0.0515 | 0.1672 | 0.0724 | 0.2328 |
| 127 | 50.40 | -0.01 | -0.0353 | -0.0275 | 0.0228 | 0.7789 | -0.0793 | 0.7360 | 0.0510 | 0.1730 | 0.0693 | 0.2351 |
| 128 | 50.57 | -0.03 | -0.0479 | -0.0274 | 0.0136 | 0.9814 | -0.1490 | 0.7235 | 0.0513 | 0.1667 | 0.0769 | 0.2332 |
| 129 | 50.73 | -0.02 | -0.0165 | -0.0156 | -0.0000 | 0.9035 | 0.0361 | 0.7406 | 0.0477 | 0.1714 | 0.0644 | 0.2314 |
| 130 | 50.88 | 0.01 | 0.0043 | -0.0093 | 0.0034 | -0.9995 | 0.5306 | 0.7270 | 0.0478 | 0.1665 | 0.0657 | 0.2290 |
| 131 | 51.06 | -0.00 | 0.0042 | -0.0088 | 0.0034 | -1.9553 | 0.7556 | 0.7251 | 0.0480 | 0.1654 | 0.0662 | 0.2281 |
| 132 | 51.1e | 0.02 | 0.0421 | 0.0021 | 0.0124 | 0.0407 | 0.2877 | 0.6885 | 0.0504 | 0.1513 | 0.0729 | 0.2196 |
| 133 | 51.35 | 0.01 | 0.0576 | -0.0001 | 0.0178 | -0.0017 | 0.3060 | 0.7053 | 0.0496 | 0.1556 | 0.0703 | 0.2240 |
| 134 | 51.53 | 0.00 | 0.0541 | 0.0051 | 0.0132 | 0.1116 | 0.2655 | 0.6785 | 0.0492 | 0.1457 | 0.0725 | 0.2206 |
| 135 | 51.69 | 0.00 | 0.0281 | 0.0057 | 0.0045 | 0.2184 | 0.1724 | 0.6821 | 0.0484 | 0.1522 | 0.0709 | 0.2231 |
| 136 | 51.85 | 0.00 | 0.0261 | 0.0064 | 0.0049 | 0.2245 | 0.1719 | 0.6803 | 0.0454 | 0.1469 | 0.0685 | 0.2205 |
| 137 | 52.03 | 0.02 | 0.0263 | 0.0058 | 0.0025 | 0.2205 | 0.1103 | 0.6853 | 0.0435 | 0.1462 | 0.0660 | 0.2228 |
| 138 | 52.19 | -0.01 | 0.0219 | 0.0044 | 0.0027 | 0.2646 | 0.1256 | 0.6857 | 0.0439 | 0.1492 | 0.0659 | 0.2241 |

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PARTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH RATIO-6 PHI CONF DEL1 DEL2 DEL3 DEL4 TRANSITION
7 142 1.60 1.7 0.0 DIHEDRAL 0.0 0 -20 0 -20 UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CD1 | ACPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.36 | -0.00 | 0.0167 | 0.0042 | 0.0001 | 0.2515 | 0.1257 | 0.0718 | 0.0445 | 0.1499 | 0.0662 | 0.2231 |
| 140 | 52.91 | -0.05 | 0.0131 | 0.0033 | 0.0015 | 0.2519 | 0.1145 | 0.0625 | 0.0451 | 0.1546 | 0.0661 | 0.2265 |
| 141 | 52.70 | -0.05 | 0.0035 | 0.0035 | -0.0021 | 0.9999 | -0.6000 | 0.0729 | 0.0424 | 0.1521 | 0.0630 | 0.2260 |
| 142 | 52.69 | -0.03 | 0.0015 | 0.0026 | -0.0009 | 0.9999 | -0.0676 | 0.0676 | 0.0416 | 0.1516 | 0.0626 | 0.2262 |
| 143 | 53.02 | -0.02 | 0.0035 | 0.0023 | -0.0007 | 0.0571 | -0.2000 | 0.0733 | 0.0402 | 0.1546 | 0.0597 | 0.2256 |
| 144 | 53.17 | -0.01 | 0.0022 | 0.0021 | -0.0003 | 0.9999 | -0.0857 | 0.0620 | 0.0416 | 0.1567 | 0.0616 | 0.2256 |
| 145 | 53.34 | -0.02 | -0.0003 | 0.0020 | -0.0000 | -0.0025 | 2.0000 | 0.0674 | 0.0416 | 0.1587 | 0.0605 | 0.2305 |
| 146 | 53.02 | -0.02 | 0.0005 | 0.0026 | -0.0004 | 2.0000 | -0.4444 | 0.0960 | 0.0438 | 0.1603 | 0.0626 | 0.2303 |
| 147 | 53.08 | -0.01 | 0.0010 | 0.0016 | 0.0004 | 1.5998 | 0.4000 | 0.7044 | 0.0427 | 0.1642 | 0.0606 | 0.2331 |
| 148 | 53.02 | -0.01 | -0.0001 | 0.0006 | 0.0002 | -1.9999 | -2.0000 | 0.6955 | 0.0434 | 0.1620 | 0.0621 | 0.2329 |
| 149 | 53.99 | -0.01 | -0.0005 | 0.0017 | 0.0003 | -5.0659 | -1.0000 | 0.6944 | 0.0414 | 0.1628 | 0.0556 | 0.2344 |
| 150 | 54.15 | -0.00 | -0.0002 | 0.0002 | 0.0011 | -0.9999 | -5.0000 | 0.0959 | 0.0403 | 0.1658 | 0.0574 | 0.2380 |
| 151 | 54.30 | -0.01 | -0.0022 | 0.0004 | 0.0003 | -0.1555 | -0.1154 | 0.0955 | 0.0391 | 0.1670 | 0.0561 | 0.2356 |
| 152 | 54.40 | -0.04 | 0.0035 | -0.0005 | 0.0024 | -0.1428 | 0.0857 | 0.7055 | 0.0384 | 0.1654 | 0.0540 | 0.2358 |
| 153 | 54.03 | -0.02 | -0.0017 | 0.0017 | -0.0005 | -0.8295 | 0.1852 | 0.7055 | 0.0376 | 0.1705 | 0.0533 | 0.2421 |
| 154 | 54.77 | -0.02 | -0.0007 | 0.0000 | -0.0008 | -0.0896 | 0.0426 | 0.7050 | 0.0390 | 0.1721 | 0.0505 | 0.2441 |
| 155 | 54.92 | -0.02 | -0.0006 | 0.0006 | -0.0023 | -0.0938 | 0.2074 | 0.7055 | 0.0346 | 0.1730 | 0.0463 | 0.2452 |
| 156 | 55.04 | -0.03 | -0.0002 | 0.0006 | -0.0005 | -0.0908 | 0.0306 | 0.7101 | 0.0350 | 0.1758 | 0.0493 | 0.2448 |
| 157 | 55.23 | -0.04 | -0.0025 | 0.00 | 0.0003 | 0.0 | -0.1200 | 0.7117 | 0.0338 | 0.1754 | 0.0472 | 0.2465 |
| 158 | 55.38 | -0.05 | -0.0002 | 0.0014 | -0.0001 | -0.0049 | 0.1774 | 0.7106 | 0.0334 | 0.1765 | 0.0462 | 0.2456 |
| 159 | 55.54 | -0.03 | -0.0003 | 0.0004 | 0.00 | -0.0035 | 0.0 | 0.7205 | 0.0331 | 0.1776 | 0.0459 | 0.2465 |
| 160 | 55.71 | -0.04 | -0.0026 | 0.0006 | 0.0004 | -0.2307 | -0.1538 | 0.7102 | 0.0313 | 0.1767 | 0.0436 | 0.2466 |
| 161 | 55.80 | -0.03 | 0.0046 | -0.0006 | 0.0035 | -0.1334 | 0.7609 | 0.7106 | 0.0293 | 0.1771 | 0.0408 | 0.2465 |
| 162 | 56.02 | -0.03 | 0.0040 | 0.0001 | 0.0020 | 0.0217 | 0.5652 | 0.7321 | 0.0299 | 0.1805 | 0.0408 | 0.2466 |
| 163 | 56.17 | -0.05 | -0.0015 | 0.0000 | 0.0010 | -0.3599 | -0.6667 | 0.7354 | 0.0288 | 0.1827 | 0.0384 | 0.2484 |
| 164 | 56.33 | -0.04 | 0.0010 | 0.0001 | 0.0022 | 0.1000 | 2.0000 | 0.7295 | 0.0271 | 0.1780 | 0.0374 | 0.2457 |
| 165 | 56.53 | -0.06 | -0.0051 | 0.0003 | 0.0000 | -0.0508 | -0.1176 | 0.7390 | 0.0294 | 0.1816 | 0.0398 | 0.2457 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 14C MACH 1.00 RX10-6 1.7 PHI 0.0 CONF 14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.82 | -0.00 | 0.0445 | 9.9999 | 0.0080 | 9.9999 | 0.1795 | -1.1032 | 0.0210 | -0.2840 | -0.0190 | 0.2574 |
| 2 | -5.81 | 0.01 | 0.0445 | 9.9999 | 0.0080 | 9.9999 | 0.1796 | -1.1018 | 0.0213 | -0.2836 | -0.0193 | 0.2574 |
| 3 | -5.81 | 0.02 | 0.0445 | 9.9999 | 0.0080 | 9.9999 | 0.1796 | -1.0972 | 0.0207 | -0.2828 | -0.0189 | 0.2577 |
| 4 | -5.81 | 0.02 | 0.0470 | 9.9999 | 0.0082 | 9.9999 | 0.1795 | -1.0996 | 0.0202 | -0.2836 | -0.0184 | 0.2576 |
| 5 | -5.20 | 0.02 | 0.0432 | 9.9999 | 0.0074 | 9.9999 | 0.1713 | -1.0273 | 0.0223 | -0.2668 | -0.0217 | 0.2597 |
| 6 | -5.36 | 0.01 | 0.0415 | 9.9999 | 0.0080 | 9.9999 | 0.1823 | -1.0478 | 0.0240 | -0.2680 | -0.0259 | 0.2673 |
| 7 | -1.61 | 0.02 | 0.0415 | 9.9999 | 0.0078 | 9.9999 | 0.1802 | -0.8201 | 0.0246 | -0.2289 | -0.0258 | 0.2771 |
| 8 | 0.25 | 0.01 | 0.0432 | 9.9999 | 0.0075 | 9.9999 | 0.1829 | -0.7202 | 0.0234 | -0.2082 | -0.0325 | 0.2891 |
| 9 | 2.07 | 0.01 | 0.0415 | 9.9999 | 0.0078 | 9.9999 | 0.1862 | -0.6175 | 0.0230 | -0.1797 | -0.0372 | 0.2910 |
| 10 | 3.90 | 0.02 | 0.0434 | 9.9999 | 0.0084 | 9.9999 | 0.1944 | -0.5193 | 0.0212 | -0.1470 | -0.0408 | 0.2831 |
| 11 | 5.75 | 0.01 | 0.0456 | 9.9999 | 0.0079 | 9.9999 | 0.1993 | -0.4149 | 0.0185 | -0.1157 | -0.0446 | 0.2785 |
| 12 | 7.64 | 0.01 | 0.0574 | 9.9999 | 0.0090 | 9.9999 | 0.0871 | -0.3277 | 0.0183 | -0.0814 | -0.0497 | 0.2484 |
| 13 | 9.44 | 0.02 | 0.0622 | 9.9999 | 0.0090 | 9.9999 | 0.0479 | -0.2417 | 0.0140 | -0.0507 | -0.0579 | 0.2098 |
| 14 | 11.30 | 0.01 | 0.0762 | 9.9999 | 0.0026 | 9.9999 | 0.0370 | -0.1557 | 0.0114 | -0.0245 | -0.0732 | 0.1574 |
| 15 | 13.20 | 0.01 | 0.0888 | 9.9999 | 0.0020 | 9.9999 | 0.0291 | -0.0960 | 0.0117 | 0.0010 | -0.1219 | -0.0104 |
| 16 | 15.11 | 0.01 | 0.0719 | 9.9999 | 0.0017 | 9.9999 | 0.0238 | -0.0472 | 0.0112 | 0.0256 | -0.2373 | -0.5424 |
| 17 | 17.06 | 0.00 | 0.0626 | 9.9999 | -0.0020 | 9.9999 | -0.0319 | 0.0211 | 0.0110 | 0.0510 | 0.5213 | 2.4171 |
| 18 | 19.00 | -0.00 | 0.0612 | 9.9999 | -0.0021 | 9.9999 | -0.0343 | 0.0830 | 0.0130 | 0.0781 | 0.1270 | 0.9188 |
| 19 | 20.94 | 0.01 | 0.0682 | 9.9999 | 0.0003 | 9.9999 | 0.0345 | 0.1397 | 0.0115 | 0.0980 | 0.0823 | 0.7615 |
| 20 | 22.90 | 0.00 | 0.0675 | 9.9999 | 0.0004 | 9.9999 | 0.0059 | 0.1601 | 0.0123 | 0.1112 | 0.0683 | 0.6174 |
| 21 | 24.86 | 0.00 | 0.0699 | 9.9999 | 0.0021 | 9.9999 | 0.0300 | 0.2178 | 0.0151 | 0.1224 | 0.0694 | 0.5625 |
| 22 | 26.87 | 0.05 | 0.0696 | 9.9999 | 0.0121 | 9.9999 | 0.1347 | 0.1906 | 0.0203 | 0.1116 | 0.1032 | 0.5676 |
| 23 | 28.01 | 0.08 | 0.0923 | 9.9999 | 0.0128 | 9.9999 | 0.1367 | 0.1582 | 0.0220 | 0.1111 | 0.1110 | 0.5605 |
| 24 | 28.14 | 0.08 | 0.0858 | 9.9999 | 0.0126 | 9.9999 | 0.1403 | 0.1539 | 0.0219 | 0.1180 | 0.1024 | 0.5517 |
| 25 | 28.51 | 0.07 | 0.0574 | 9.9999 | 0.0157 | 9.9999 | 0.1612 | 0.1990 | 0.0231 | 0.1120 | 0.1161 | 0.5628 |
| 26 | 28.83 | 0.07 | 0.0574 | 9.9999 | 0.0132 | 9.9999 | 0.1301 | 0.2077 | 0.0229 | 0.1186 | 0.1102 | 0.5623 |
| 27 | 29.10 | 0.07 | 0.0551 | 9.9999 | 0.0135 | 9.9999 | 0.1420 | 0.2173 | 0.0236 | 0.1183 | 0.1086 | 0.5444 |
| 28 | 29.42 | 0.07 | 0.0551 | 9.9999 | 0.0134 | 9.9999 | 0.1367 | 0.2216 | 0.0236 | 0.1202 | 0.1065 | 0.5424 |
| 29 | 29.71 | 0.07 | 0.1026 | 9.9999 | 0.0161 | 9.9999 | 0.1365 | 0.2257 | 0.0238 | 0.1211 | 0.1054 | 0.5368 |
| 30 | 29.99 | 0.07 | 0.0952 | 9.9999 | 0.0120 | 9.9999 | 0.1260 | 0.2330 | 0.0238 | 0.1244 | 0.1021 | 0.5339 |
| 31 | 30.28 | 0.08 | 0.0974 | 9.9999 | 0.0132 | 9.9999 | 0.1351 | 0.2346 | 0.0236 | 0.1249 | 0.1006 | 0.5324 |
| 32 | 30.52 | 0.07 | 0.1024 | 9.9999 | 0.0166 | 9.9999 | 0.1016 | 0.2402 | 0.0230 | 0.1254 | 0.0982 | 0.5221 |
| 33 | 30.82 | 0.09 | 0.1026 | 9.9999 | 0.0156 | 9.9999 | 0.1520 | 0.2254 | 0.0242 | 0.1227 | 0.1073 | 0.5464 |
| 34 | 31.08 | 0.08 | 0.1064 | 9.9999 | 0.0164 | 9.9999 | 0.1541 | 0.2393 | 0.0245 | 0.1264 | 0.1024 | 0.5282 |
| 35 | 31.37 | 0.08 | 0.1076 | 9.9999 | 0.0160 | 9.9999 | 0.1673 | 0.2424 | 0.0241 | 0.1281 | 0.0994 | 0.5285 |
| 36 | 31.65 | 0.06 | 0.0963 | 9.9999 | 0.0136 | 9.9999 | 0.1412 | 0.2784 | 0.0241 | 0.1390 | 0.0872 | 0.5029 |
| 37 | 31.90 | 0.04 | 0.0950 | 9.9999 | 0.0135 | 9.9999 | 0.1421 | 0.2733 | 0.0245 | 0.1362 | 0.0856 | 0.4984 |
| 38 | 32.18 | 0.05 | 0.0924 | 9.9999 | 0.0116 | 9.9999 | 0.1277 | 0.2800 | 0.0250 | 0.1405 | 0.0902 | 0.4913 |
| 39 | 32.43 | 0.02 | 0.0824 | 9.9999 | 0.0090 | 9.9999 | 0.1392 | 0.3078 | 0.0269 | 0.1446 | 0.0874 | 0.4691 |
| 40 | 32.70 | 0.03 | 0.0811 | 9.9999 | 0.0094 | 9.9999 | 0.1159 | 0.3174 | 0.0272 | 0.1457 | 0.0857 | 0.4590 |
| 41 | 32.95 | 0.02 | 0.0774 | 9.9999 | 0.0071 | 9.9999 | 0.0917 | 0.3445 | 0.0269 | 0.1534 | 0.0781 | 0.4453 |
| 42 | 33.22 | 0.02 | 0.0805 | 9.9999 | 0.0095 | 9.9999 | 0.1224 | 0.3407 | 0.0275 | 0.1515 | 0.0807 | 0.4447 |
| 43 | 33.46 | 0.03 | 0.0747 | 9.9999 | 0.0074 | 9.9999 | 0.0991 | 0.3786 | 0.0259 | 0.1634 | 0.0686 | 0.4316 |
| 44 | 33.71 | 0.02 | 0.0722 | 9.9999 | 0.0062 | 9.9999 | 0.0859 | 0.3852 | 0.0264 | 0.1595 | 0.0736 | 0.4367 |
| 45 | 33.97 | 0.04 | 0.0834 | 9.9999 | 0.0121 | 9.9999 | 0.1451 | 0.3779 | 0.0270 | 0.1641 | 0.0714 | 0.4342 |
| 46 | 34.22 | 0.04 | 0.0721 | 9.9999 | 0.0067 | 9.9999 | 0.1207 | 0.3883 | 0.0273 | 0.1591 | 0.0745 | 0.4343 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RN/B-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 142 | 1.60 | 1.7 | 0.0 | 0 INCHES | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PLOT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.62 | -0.00 | -1.5939 | 0.9881 | -0.0186 | 0.0005 | -0.0044 | 0.8303 | 0.2319 | 0.5984 | -3.5037 |
| 2 | -5.61 | 0.01 | -2.0656 | 0.9953 | 0.0035 | -0.0012 | -0.0044 | 0.8274 | 0.2301 | 0.5973 | -3.4705 |
| 3 | -5.01 | 0.02 | -2.0024 | 0.9951 | 0.0025 | -0.0057 | -0.0043 | 0.8229 | 0.2236 | 0.5943 | -3.4553 |
| 4 | -5.61 | 0.02 | -2.0146 | 1.0007 | 0.0045 | -0.0070 | -0.0043 | 0.8184 | 0.2301 | 0.5897 | -3.4765 |
| 5 | -5.20 | 0.02 | -1.8012 | 0.9260 | 0.0410 | -0.0748 | -0.0043 | 0.8050 | 0.2225 | 0.5825 | -3.6234 |
| 6 | -3.36 | 0.01 | -1.0967 | 0.6375 | 0.0035 | -0.0521 | 0.0003 | 0.7810 | 0.2091 | 0.5720 | -3.8095 |
| 7 | -1.01 | 0.02 | -1.2408 | 0.1983 | 0.0430 | -0.0406 | 0.0027 | 0.7852 | 0.1838 | 0.5216 | -4.1893 |
| 8 | 0.29 | 0.01 | -0.9741 | 0.0300 | -0.0315 | -0.0260 | 0.0030 | 0.8476 | 0.1641 | 0.4836 | -4.7377 |
| 9 | 2.07 | 0.01 | -0.7031 | 0.0053 | -0.0093 | -0.0703 | 0.0036 | 0.8001 | 0.1556 | 0.4485 | -5.0968 |
| 10 | 3.90 | 0.02 | -0.4472 | 0.0462 | 0.0532 | -0.0777 | 0.0041 | 0.8004 | 0.1555 | 0.4031 | -7.7112 |
| 11 | 5.75 | 0.01 | -0.1774 | 0.0247 | -0.0000 | -0.0320 | 0.0046 | 0.8156 | 0.1549 | 0.3647 | -16.5056 |
| 12 | 7.64 | 0.01 | 0.0910 | 0.0028 | 0.0161 | -0.0646 | 0.0052 | 0.8091 | 0.1501 | 0.3151 | 20.3912 |
| 13 | 9.44 | 0.02 | 0.3751 | 0.0377 | -0.0452 | -0.0265 | 0.0117 | 0.8374 | 0.1601 | 0.2773 | 5.1660 |
| 14 | 11.30 | 0.01 | 0.6330 | 0.0955 | -0.0035 | 0.0207 | 0.0000 | 0.8078 | 0.1650 | 0.2420 | 2.1942 |
| 15 | 13.20 | 0.01 | 0.9464 | 0.1607 | -0.0036 | 0.0267 | 0.0074 | 0.8706 | 0.1720 | 0.2180 | 1.2476 |
| 16 | 15.11 | 0.01 | 1.2659 | 0.2257 | -0.0029 | 0.1907 | 0.0137 | 0.9240 | 0.1772 | 0.1938 | 0.7838 |
| 17 | 17.08 | 0.00 | 1.5367 | 0.7375 | -0.1010 | 0.4776 | 0.0199 | 0.9276 | 0.1647 | 0.1631 | 0.4930 |
| 18 | 19.00 | -0.00 | 1.8049 | 0.9419 | -0.1040 | 0.5547 | 0.0291 | 0.9098 | 0.1923 | 0.1975 | 0.2871 |
| 19 | 20.94 | 0.01 | 2.0935 | 0.3468 | -0.1336 | 0.4327 | 0.0351 | 0.9450 | 0.1956 | 0.0952 | 0.1512 |
| 20 | 22.90 | 0.00 | 2.0855 | 0.2871 | -0.1182 | 0.3122 | -0.0106 | 0.1914 | 0.1934 | -0.0020 | 0.1012 |
| 21 | 24.80 | 0.00 | 3.3944 | 0.4995 | -0.0451 | 0.1632 | -0.0010 | 0.1382 | 0.1673 | -0.0451 | 0.1472 |
| 22 | 26.87 | 0.03 | 4.0262 | 0.6908 | 0.0526 | -1.0521 | 0.0759 | 0.9260 | 0.1923 | -0.0957 | 0.1769 |
| 23 | 28.81 | 0.03 | 4.2258 | 0.8421 | 0.0482 | -1.9715 | 0.0345 | 0.0735 | 0.1946 | -0.1211 | 0.1483 |
| 24 | 28.14 | 0.03 | 4.2216 | 0.8560 | 0.0557 | -2.0022 | 0.0451 | 0.0740 | 0.1976 | -0.1236 | 0.1560 |
| 25 | 28.51 | 0.07 | 4.2126 | 0.8508 | 0.0045 | -2.0977 | 0.1315 | 0.0804 | 0.1963 | -0.1355 | 0.1533 |
| 26 | 28.83 | 0.07 | 4.0643 | 0.7213 | 0.9547 | -2.0442 | 0.1139 | 0.0951 | 0.1927 | -0.1410 | 0.1567 |
| 27 | 29.10 | 0.07 | 4.0540 | 0.7014 | 0.9826 | -2.0697 | 0.1025 | 0.0929 | 0.1973 | -0.1444 | 0.1611 |
| 28 | 29.42 | 0.07 | 4.0153 | 0.6682 | 0.9104 | -1.9104 | 0.0970 | 0.0894 | 0.1967 | -0.1593 | 0.1682 |
| 29 | 29.71 | 0.07 | 4.0248 | 0.6805 | 0.9313 | -1.9075 | 0.0917 | 0.0929 | 0.2007 | -0.1578 | 0.2134 |
| 30 | 29.99 | 0.07 | 4.0502 | 0.6992 | 0.8804 | -1.7660 | 0.0917 | 0.0972 | 0.1994 | -0.1622 | 0.1917 |
| 31 | 30.26 | 0.06 | 5.1183 | 1.0766 | 0.8511 | -1.9633 | 0.0925 | 0.0820 | 0.2036 | -0.1716 | 0.2107 |
| 32 | 30.52 | 0.07 | 5.1461 | 1.0772 | 1.0196 | -2.0857 | 0.0929 | 0.0883 | 0.2047 | -0.1804 | 0.2056 |
| 33 | 30.82 | 0.09 | 5.2091 | 1.1390 | 1.1281 | -2.3279 | 0.1057 | 0.0858 | 0.2074 | -0.1766 | 0.2154 |
| 34 | 31.08 | 0.08 | 5.3012 | 1.2001 | 1.1084 | -2.6539 | 0.1239 | 0.0927 | 0.2116 | -0.1819 | 0.1992 |
| 35 | 31.37 | 0.06 | 5.4483 | 1.2838 | 1.1417 | -2.4542 | 0.1008 | 0.0817 | 0.2079 | -0.1862 | 0.2386 |
| 36 | 31.65 | 0.08 | 5.5516 | 1.3037 | 1.0844 | -1.7248 | 0.0760 | 0.0824 | 0.2070 | -0.2054 | 0.2536 |
| 37 | 31.90 | 0.04 | 5.5756 | 1.4819 | 0.8219 | -1.2563 | 0.0585 | 0.0824 | 0.2033 | -0.2009 | 0.2658 |
| 38 | 32.18 | 0.05 | 5.7178 | 1.4775 | 1.0492 | -1.3379 | 0.0550 | -0.0150 | 0.2067 | -0.2143 | 0.2584 |
| 39 | 32.43 | 0.06 | 5.7524 | 1.5374 | 0.8647 | -0.6532 | 0.0408 | -0.0175 | 0.1938 | -0.2163 | 0.2654 |
| 40 | 32.70 | 0.05 | 5.8771 | 1.6157 | 0.9538 | -0.6540 | 0.0393 | -0.0237 | 0.1965 | -0.2242 | 0.2579 |
| 41 | 32.95 | 0.02 | 5.9463 | 1.5040 | 0.8356 | -0.4660 | 0.0353 | -0.0350 | 0.1934 | -0.2334 | 0.2528 |
| 42 | 33.22 | 0.06 | 6.1012 | 1.5435 | 0.9238 | -0.5219 | 0.0418 | -0.0492 | 0.1969 | -0.2431 | 0.2527 |
| 43 | 33.46 | 0.03 | 6.1714 | 1.4250 | 0.2780 | -0.2944 | 0.0299 | -0.0450 | 0.2004 | -0.2464 | 0.2309 |
| 44 | 33.71 | 0.04 | 6.2752 | 1.4745 | 0.3800 | -0.3150 | 0.0343 | -0.0509 | 0.2018 | -0.2525 | 0.2344 |
| 45 | 33.97 | 0.04 | 6.3836 | 1.3715 | 0.5203 | -1.0400 | 0.0346 | -0.0491 | 0.2057 | -0.2548 | 0.2148 |
| 46 | 34.22 | 0.04 | 6.4582 | 1.4156 | 0.5274 | -0.8303 | 0.0370 | -0.0491 | 0.2050 | -0.2691 | 0.2152 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI DCAF L DELI DEL2 DEL3 DEL4 TRANSITION
7 142 1.60 1.7 0.0 81BCF14 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 6.5675 | 1.5433 | 0.5071 | -1.0556 | 0.0355 | -0.0627 | 0.2076 | -0.2703 | 0.2350 |
| 48 | 34.71 | 0.04 | 6.6151 | 1.5516 | 0.5335 | -0.7708 | 0.0794 | -0.0671 | 0.2064 | -0.2735 | 0.2345 |
| 49 | 34.97 | 0.06 | 6.7377 | 1.4977 | 0.7263 | -1.2267 | 0.0903 | -0.0696 | 0.2077 | -0.2773 | 0.2223 |
| 50 | 35.20 | 0.05 | 6.6566 | 1.4816 | 0.6336 | -1.2656 | 0.1104 | -0.0708 | 0.2066 | -0.2756 | 0.2163 |
| 51 | 35.43 | 0.05 | 6.6520 | 1.5564 | 0.6464 | -1.2864 | 0.0990 | -0.0750 | 0.2107 | -0.2857 | 0.2256 |
| 52 | 35.69 | 0.06 | 7.0161 | 1.4744 | 0.7616 | -1.3962 | 0.1112 | -0.0892 | 0.2095 | -0.2988 | 0.2030 |
| 53 | 35.93 | 0.06 | 7.0776 | 1.6216 | 0.7252 | -1.3536 | 0.0940 | -0.0813 | 0.2098 | -0.2912 | 0.2251 |
| 54 | 36.15 | 0.04 | 7.0678 | 1.5913 | 0.5341 | -0.9349 | 0.0761 | -0.1044 | 0.2026 | -0.3070 | 0.2220 |
| 55 | 36.40 | 0.04 | 7.2564 | 1.5764 | 0.5625 | -1.2969 | 0.1004 | -0.1020 | 0.2071 | -0.3091 | 0.2175 |
| 56 | 36.64 | 0.05 | 7.3303 | 1.6361 | 0.6343 | -1.0350 | 0.0769 | -0.1180 | 0.2018 | -0.3196 | 0.2234 |
| 57 | 36.88 | 0.06 | 7.4167 | 1.5963 | 0.7556 | -1.4411 | 0.1015 | -0.1016 | 0.2079 | -0.3097 | 0.2155 |
| 58 | 37.13 | 0.06 | 7.5741 | 1.5856 | 0.8052 | -1.1543 | 0.0883 | -0.1069 | 0.1995 | -0.3064 | 0.2066 |
| 59 | 37.34 | 0.04 | 7.5521 | 1.6523 | 0.4676 | -0.9279 | 0.0599 | -0.1051 | 0.1980 | -0.3031 | 0.2192 |
| 60 | 37.56 | 0.04 | 7.6631 | 1.6278 | 0.5426 | -1.1793 | 0.0791 | -0.1263 | 0.1984 | -0.3307 | 0.2119 |
| 61 | 37.82 | 0.05 | 7.8164 | 1.5635 | 0.6131 | -1.2250 | 0.0979 | -0.1490 | 0.1966 | -0.3456 | 0.2026 |
| 62 | 38.09 | 0.04 | 7.9346 | 1.5082 | 0.4645 | -0.9083 | 0.0592 | -0.1541 | 0.2003 | -0.3544 | 0.1901 |
| 63 | 38.27 | 0.07 | 7.9696 | 1.4594 | 0.7956 | -1.3391 | 0.0987 | -0.1547 | 0.1979 | -0.3526 | 0.1876 |
| 64 | 38.51 | 0.03 | 8.0023 | 1.4943 | 0.3616 | -0.8058 | 0.0380 | -0.1640 | 0.1989 | -0.3529 | 0.1804 |
| 65 | 38.73 | 0.05 | 8.0512 | 1.5853 | 0.5233 | -1.1033 | 0.0529 | -0.1744 | 0.1914 | -0.3658 | 0.1940 |
| 66 | 38.93 | 0.05 | 8.1262 | 1.4945 | 0.6285 | -1.0227 | 0.0514 | -0.1692 | 0.1910 | -0.3602 | 0.1766 |
| 67 | 39.16 | 0.04 | 8.0491 | 1.4931 | 0.4152 | -1.0200 | 0.0359 | -0.1701 | 0.1891 | -0.3652 | 0.1751 |
| 68 | 39.39 | 0.05 | 8.0564 | 1.4918 | 0.5852 | -1.2609 | 0.0584 | -0.1682 | 0.1913 | -0.3745 | 0.1777 |
| 69 | 39.58 | 0.06 | 8.0560 | 1.5423 | 0.6836 | -1.4533 | 0.0567 | -0.1782 | 0.1897 | -0.3675 | 0.1587 |
| 70 | 39.81 | 0.06 | 8.0568 | 1.5834 | 0.7496 | -1.4560 | 0.0550 | -0.1824 | 0.1901 | -0.3725 | 0.1621 |
| 71 | 40.01 | 0.06 | 8.0610 | 1.6541 | 0.8378 | -1.2697 | 0.0533 | -0.1979 | 0.1912 | -0.3891 | 0.1457 |
| 72 | 40.20 | 0.04 | 8.0814 | 1.6272 | 0.4949 | -1.1790 | 0.0295 | -0.2008 | 0.1881 | -0.3869 | 0.1541 |
| 73 | 40.42 | 0.06 | 8.0781 | 1.6271 | 0.6577 | -1.5268 | 0.0659 | -0.2052 | 0.1899 | -0.3951 | 0.1485 |
| 74 | 40.61 | 0.05 | 8.0995 | 1.6156 | 0.5345 | -1.1429 | 0.0657 | -0.2114 | 0.1880 | -0.3994 | 0.1333 |
| 75 | 40.84 | 0.05 | 8.0838 | 1.6544 | 0.5757 | -1.4333 | 0.0427 | -0.2274 | 0.1887 | -0.4161 | 0.1409 |
| 76 | 41.03 | 0.04 | 8.0911 | 1.6464 | 0.4961 | -1.2670 | 0.0488 | -0.2280 | 0.1884 | -0.4144 | 0.1380 |
| 77 | 41.24 | 0.04 | 8.0963 | 1.6162 | 0.5317 | -1.3765 | 0.0375 | -0.2163 | 0.1929 | -0.4067 | 0.1337 |
| 78 | 41.46 | 0.04 | 8.1038 | 1.6371 | 0.5757 | -1.4112 | 0.0319 | -0.2204 | 0.1874 | -0.4138 | 0.1241 |
| 79 | 41.64 | 0.03 | 8.2209 | 1.6263 | 0.5306 | -1.3700 | 0.0439 | -0.2292 | 0.1894 | -0.4186 | 0.1356 |
| 80 | 41.84 | 0.04 | 8.0947 | 1.6243 | 0.5037 | -1.3332 | 0.0382 | -0.2230 | 0.1943 | -0.4179 | 0.1437 |
| 81 | 42.04 | 0.05 | 8.0782 | 1.6161 | 0.6165 | -1.2296 | 0.0503 | -0.2421 | 0.1912 | -0.4333 | 0.1257 |
| 82 | 42.24 | 0.04 | 8.0752 | 1.6196 | 0.5233 | -1.4208 | 0.0452 | -0.2408 | 0.1896 | -0.4304 | 0.1211 |
| 83 | 42.50 | 0.04 | 8.0823 | 1.6108 | 0.5756 | -0.8875 | 0.0301 | -0.2405 | 0.1897 | -0.4302 | 0.1370 |
| 84 | 42.68 | 0.04 | 8.0951 | 1.6267 | 0.4965 | -1.1191 | 0.0349 | -0.2359 | 0.1885 | -0.4244 | 0.1441 |
| 85 | 42.88 | 0.04 | 8.0956 | 1.6153 | 0.5345 | -1.1426 | 0.0069 | -0.2437 | 0.1908 | -0.4315 | 0.1365 |
| 86 | 43.04 | 0.02 | 8.0474 | 1.6241 | 0.4345 | -1.4086 | 0.0277 | -0.2349 | 0.1944 | -0.4293 | 0.1474 |
| 87 | 43.22 | 0.04 | 8.0801 | 1.6229 | 0.6395 | -1.4474 | 0.0396 | -0.2380 | 0.1923 | -0.4303 | 0.1284 |
| 88 | 43.41 | 0.04 | 8.0948 | 1.6264 | 0.6366 | -1.4913 | 0.0496 | -0.2412 | 0.1972 | -0.4384 | 0.1169 |
| 89 | 43.59 | 0.03 | 8.0470 | 1.6491 | 0.4475 | -0.9557 | 0.0078 | -0.2438 | 0.1929 | -0.4365 | 0.1352 |
| 90 | 43.75 | 0.05 | 8.0355 | 1.1974 | 0.6341 | -1.5401 | 0.0705 | -0.2363 | 0.1952 | -0.4335 | 0.1205 |
| 91 | 43.99 | 0.05 | 10.0365 | 1.2552 | 0.7469 | -1.6756 | 0.0454 | -0.2538 | 0.2011 | -0.4569 | 0.1255 |
| 92 | 44.11 | 0.02 | 10.1542 | 1.3141 | 0.4662 | -1.0589 | 0.0085 | -0.2463 | 0.1962 | -0.4425 | 0.1295 |

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 [illegible] 1.7 [illegible] C.C 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CA | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.32 | 0.03 | 10.2530 | 1.1372 | C.0496 | -1.4937 | 0.0776 | -0.2487 | 0.2024 | -0.4511 | 0.1109 |
| 94 | 44.50 | 0.04 | 10.2016 | 1.2220 | 0.0506 | -1.8535 | 0.1003 | -0.2410 | 0.1962 | -0.4372 | 0.1199 |
| 95 | 44.69 | 0.03 | 10.3044 | 1.2000 | 0.5430 | -1.0265 | 0.0832 | -0.2465 | 0.1962 | -0.4447 | 0.1250 |
| 96 | 44.88 | 0.04 | 10.4332 | 1.1856 | 0.7295 | -1.0930 | 0.0725 | -0.2489 | 0.2012 | -0.4481 | 0.1136 |
| 97 | 45.08 | 0.02 | 10.5147 | 1.2547 | 0.4034 | -0.4075 | 0.0306 | -0.2570 | 0.2031 | -0.4601 | 0.1231 |
| 98 | 45.25 | 0.02 | 10.6755 | 1.1393 | 0.6032 | -1.4591 | 0.0732 | -0.2480 | 0.2032 | -0.4492 | 0.1067 |
| 99 | 45.42 | 0.01 | 10.8320 | 1.1735 | 0.5476 | -1.1104 | 0.0701 | -0.2423 | 0.1991 | -0.4414 | 0.1103 |
| 100 | 45.61 | 0.02 | 10.9818 | 1.1704 | 0.4725 | -0.9289 | 0.0708 | -0.2567 | 0.2030 | -0.4597 | 0.1077 |
| 101 | 45.78 | 0.01 | 10.8265 | 1.1400 | 0.3058 | -0.8842 | 0.0502 | -0.2474 | 0.1999 | -0.4473 | 0.1053 |
| 102 | 45.95 | 0.02 | 10.6750 | 1.1216 | 0.4950 | -1.0020 | 0.0703 | -0.2619 | 0.2044 | -0.4663 | 0.1213 |
| 103 | 46.14 | 0.01 | 10.5695 | 1.0763 | 0.3510 | -0.8655 | 0.0361 | -0.2615 | 0.2057 | -0.4672 | 0.0981 |
| 104 | 46.31 | 0.01 | 10.5026 | 1.0422 | 0.2486 | 0.3592 | 0.0395 | -0.2404 | 0.2125 | -0.4529 | 0.1207 |
| 105 | 46.47 | 0.02 | 10.4381 | 1.0053 | 0.2760 | 0.6560 | 0.0358 | -0.1974 | 0.2321 | -0.4315 | 0.1650 |
| 106 | 46.66 | 0.01 | 10.3942 | 1.0045 | 0.2795 | -0.0675 | 0.0355 | -0.2518 | 0.2139 | -0.4657 | 0.1491 |
| 107 | 46.84 | 0.02 | 10.2192 | 1.0063 | 0.4721 | 0.5487 | 0.0432 | -0.2347 | 0.2267 | -0.4614 | 0.1228 |
| 108 | 47.00 | -0.00 | 10.1362 | 1.0343 | 0.1201 | 0.0707 | 0.0370 | -0.1972 | 0.2270 | -0.4542 | 0.1382 |
| 109 | 47.16 | 0.01 | 10.1264 | 1.0005 | 0.2626 | 0.7409 | 0.0373 | -0.1438 | 0.2033 | -0.4121 | 0.1313 |
| 110 | 47.30 | 0.01 | 10.1591 | 1.0532 | 0.3648 | 0.5058 | 0.0819 | -0.1735 | 0.2072 | -0.4407 | 0.1302 |
| 111 | 47.55 | 0.01 | 10.5147 | 0.9870 | 0.4699 | 0.3226 | 0.0755 | -0.1949 | 0.3350 | -0.5309 | 0.0452 |
| 112 | 47.71 | 0.01 | 10.6437 | -0.1421 | 0.3260 | 0.0000 | 0.0752 | -0.1952 | 0.3337 | -0.5314 | -0.0096 |
| 113 | 47.90 | 0.05 | 10.6770 | -0.5165 | 0.0901 | 1.0219 | 0.0201 | -0.0769 | 0.3765 | -0.4773 | -0.0772 |
| 114 | 48.06 | 0.01 | 10.6540 | -0.6053 | 0.2436 | 1.0436 | 0.0447 | -0.1241 | 0.3045 | -0.5066 | -0.0513 |
| 115 | 48.25 | 0.04 | 12.2427 | -1.7424 | 0.5179 | 1.5520 | 0.0093 | -0.0871 | 0.4058 | -0.4930 | -0.1407 |
| 116 | 48.46 | 0.04 | 12.2563 | -1.6241 | 0.5750 | 1.0870 | 0.0080 | -0.0808 | 0.4032 | -0.4698 | -0.1508 |
| 117 | 48.63 | 0.02 | 12.4723 | -1.5356 | 0.3643 | 1.9439 | 0.0147 | -0.0713 | 0.4003 | -0.4716 | -0.1555 |
| 118 | 48.80 | 0.03 | 12.5356 | -2.1361 | 0.6385 | 2.0003 | 0.0061 | -0.1019 | 0.4026 | -0.5045 | -0.1704 |
| 119 | 48.99 | 0.03 | 12.5456 | -1.7565 | 0.4389 | 1.9163 | 0.0040 | -0.1125 | 0.3926 | -0.5051 | -0.1555 |
| 120 | 49.15 | 0.01 | 12.6622 | -1.7466 | 0.3163 | 2.0100 | 0.0034 | -0.1544 | 0.3717 | -0.5261 | -0.1539 |
| 121 | 49.32 | 0.01 | 12.6623 | -1.9206 | 0.3405 | 2.1568 | 0.0086 | -0.1173 | 0.3777 | -0.4950 | -0.1517 |
| 122 | 49.51 | 0.00 | 12.6270 | -1.9776 | 0.2553 | 1.9855 | 0.0042 | -0.1550 | 0.3557 | -0.5107 | -0.1541 |
| 123 | 49.70 | -0.00 | 12.5310 | -2.0951 | 0.3056 | 1.7512 | -0.0003 | -0.1770 | 0.3501 | -0.5271 | -0.1589 |
| 124 | 49.87 | 0.01 | 13.0069 | -2.0827 | 0.3524 | 1.9200 | -0.0306 | -0.1006 | 0.3946 | -0.5212 | -0.1586 |
| 125 | 50.04 | 0.01 | 13.0505 | -2.0211 | 0.3263 | 1.8052 | -0.0119 | -0.1627 | 0.3817 | -0.5244 | -0.1549 |
| 126 | 50.23 | 0.03 | 13.0674 | -2.1150 | 0.5525 | 1.9742 | 0.0007 | -0.1450 | 0.3946 | -0.5146 | -0.1601 |
| 127 | 50.40 | -0.01 | 13.2105 | -2.1553 | 0.1352 | 1.7857 | -0.0050 | -0.1259 | 0.3744 | -0.5003 | -0.1631 |
| 128 | 50.57 | -0.03 | 13.2465 | -2.0532 | 0.0015 | 1.6172 | -0.0106 | -0.1577 | 0.3726 | -0.5305 | -0.1701 |
| 129 | 50.73 | -0.02 | 13.2412 | -2.2605 | 0.1812 | 1.2325 | -0.0026 | -0.1128 | 0.3736 | -0.4864 | -0.1707 |
| 130 | 50.88 | 0.01 | 13.1003 | -2.0867 | 0.4574 | 1.8870 | 0.0142 | -0.1544 | 0.3736 | -0.5280 | -0.1588 |
| 131 | 51.04 | -0.00 | 13.0872 | -2.0440 | 0.3317 | 1.8298 | 0.0147 | -0.1450 | 0.3678 | -0.5126 | -0.1562 |
| 132 | 51.18 | 0.02 | 12.8854 | -1.4471 | 0.5564 | 0.6834 | 0.0018 | -0.1544 | 0.3605 | -0.5154 | -0.1162 |
| 133 | 51.35 | 0.01 | 12.8961 | -1.4663 | 0.4558 | 0.8743 | 0.0563 | -0.1584 | 0.3665 | -0.5253 | -0.1132 |
| 134 | 51.53 | 0.00 | 12.9218 | -1.3955 | 0.4367 | 0.8935 | 0.0003 | -0.1545 | 0.3634 | -0.5179 | -0.1060 |
| 135 | 51.69 | 0.00 | 12.9852 | -1.4482 | 0.3575 | 0.8330 | 0.0578 | -0.1601 | 0.3650 | -0.5291 | -0.1119 |
| 136 | 51.85 | 0.00 | 13.0038 | -1.5213 | 0.4122 | 0.9013 | 0.0730 | -0.1543 | 0.3728 | -0.5071 | -0.1163 |
| 137 | 52.03 | 0.02 | 13.1134 | -1.4165 | 0.5627 | 0.8670 | 0.0679 | -0.1564 | 0.3698 | -0.5262 | -0.1080 |
| 138 | 52.19 | -0.01 | 13.0783 | -1.4698 | 0.1929 | 0.9602 | 0.0662 | -0.1467 | 0.3708 | -0.5195 | -0.1078 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 142 1.00 1.7 0.0 BINOFIN 0.0 0 -20 0 -20 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | LA | LAB | LAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.38 | -0.00 | 12.9829 | -1.4523 | 0.2556 | 0.8719 | 0.0622 | -0.1469 | 0.3734 | -0.5164 | -0.1119 |
| 140 | 52.51 | -0.05 | 13.0470 | -1.5567 | -0.1227 | 0.9805 | 0.0529 | -0.1614 | 0.3679 | -0.5293 | -0.1040 |
| 141 | 52.70 | -0.05 | 13.0040 | -1.5044 | -0.1308 | 1.1523 | 0.0532 | -0.1259 | 0.3732 | -0.4971 | -0.1131 |
| 142 | 52.65 | -0.03 | 13.0039 | -1.4450 | 0.1303 | 0.9307 | 0.0570 | -0.1315 | 0.3641 | -0.4956 | -0.0953 |
| 143 | 53.02 | -0.02 | 13.1035 | -1.5656 | 0.1442 | 0.9674 | 0.0572 | -0.1501 | 0.3656 | -0.5157 | -0.0993 |
| 144 | 53.17 | -0.01 | 13.1220 | -1.4779 | 0.3211 | 0.8231 | 0.0573 | -0.1300 | 0.3663 | -0.4965 | -0.0974 |
| 145 | 53.34 | -0.02 | 13.2567 | -1.4994 | 0.2163 | 0.9217 | 0.0573 | -0.1774 | 0.3732 | -0.5506 | -0.1127 |
| 146 | 53.52 | -0.02 | 13.3450 | -1.4660 | 0.1556 | 0.9407 | 0.0519 | -0.1465 | 0.3710 | -0.5195 | -0.1109 |
| 147 | 53.68 | -0.01 | 13.2491 | -1.5525 | 0.1356 | 0.8699 | 0.0522 | -0.1731 | 0.3740 | -0.5471 | -0.1163 |
| 148 | 53.82 | -0.01 | 13.3240 | -1.5458 | 0.2040 | 0.9353 | 0.0517 | -0.1638 | 0.3711 | -0.5349 | -0.1163 |
| 149 | 53.99 | -0.01 | 13.4220 | -1.5520 | 0.1521 | 0.8696 | 0.0525 | -0.1687 | 0.3809 | -0.5496 | -0.1157 |
| 150 | 54.15 | -0.00 | 13.4920 | -1.5543 | 0.2000 | 0.0000 | 0.0538 | -0.1695 | 0.3860 | -0.5575 | -0.1180 |
| 151 | 54.30 | -0.01 | 13.5356 | -1.6972 | 0.2059 | 0.7851 | 0.0550 | -0.1839 | 0.3900 | -0.5459 | -0.1254 |
| 152 | 54.40 | -0.04 | 13.5215 | -1.6014 | 0.0452 | 0.7170 | 0.0530 | -0.1693 | 0.3924 | -0.5517 | -0.1229 |
| 153 | 54.63 | -0.02 | 13.6214 | -1.6377 | 0.1653 | 0.8439 | 0.0535 | -0.1575 | 0.3950 | -0.5525 | -0.1349 |
| 154 | 54.77 | -0.02 | 13.6482 | -1.7255 | 0.2116 | 0.9912 | 0.0484 | -0.1561 | 0.3995 | -0.5556 | -0.1264 |
| 155 | 54.92 | -0.02 | 13.5890 | -1.6741 | 0.1711 | 0.9239 | 0.0542 | -0.1445 | 0.4045 | -0.5494 | -0.1379 |
| 156 | 55.07 | -0.03 | 13.6169 | -1.6483 | 0.0771 | 0.8816 | 0.0542 | -0.1517 | 0.4011 | -0.5568 | -0.1484 |
| 157 | 55.23 | -0.04 | 13.6521 | -1.6274 | -0.0482 | 0.5632 | 0.0489 | -0.1540 | 0.4101 | -0.5641 | -0.1341 |
| 158 | 55.38 | -0.05 | 13.6626 | -1.6919 | 0.0416 | 0.3553 | 0.0494 | -0.1796 | 0.4066 | -0.5864 | -0.1385 |
| 159 | 55.54 | -0.03 | 13.7701 | -1.6147 | 0.1201 | 0.4176 | 0.0496 | -0.1477 | 0.4104 | -0.5581 | -0.1350 |
| 160 | 55.71 | -0.04 | 13.7062 | -2.0367 | 0.0548 | 0.2730 | 0.0500 | -0.1353 | 0.4168 | -0.5521 | -0.1482 |
| 161 | 55.88 | -0.03 | 13.6662 | -1.9084 | 0.0463 | 0.2607 | 0.0441 | -0.1536 | 0.4161 | -0.5697 | -0.1397 |
| 162 | 56.02 | -0.03 | 13.6860 | -2.0721 | 0.0150 | 0.3180 | 0.0446 | -0.1494 | 0.4151 | -0.5665 | -0.1498 |
| 163 | 56.17 | -0.05 | 13.8356 | -2.1576 | -0.0116 | 0.3203 | 0.0446 | -0.1426 | 0.4304 | -0.5796 | -0.1559 |
| 164 | 56.33 | -0.04 | 13.8362 | -2.0516 | 0.0497 | 0.3147 | 0.0445 | -0.1492 | 0.4432 | -0.5924 | -0.1483 |
| 165 | 56.53 | -0.06 | 14.2477 | -1.8262 | -0.1724 | 0.2850 | 0.0467 | -0.2274 | 0.4188 | -0.6462 | -0.1141 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART MACH 1.60 RN-E 1.7 PHI C.C CONF 81&UF14 L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ALPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.62 | -0.00 | -0.0151 | -0.0006 | 0.0205 | 0.0397 | -1.3341 | -0.0768 | 0.0195 | -0.3371 | -0.0222 | 0.3845 |
| 2 | -5.01 | 0.01 | -0.0175 | -0.0016 | 0.0208 | 0.0397 | -1.1771 | -0.0796 | 0.0186 | -0.3371 | -0.0215 | 0.3857 |
| 3 | -5.31 | 0.02 | -0.0162 | -0.0006 | 0.0202 | 0.0494 | -1.2469 | -0.0740 | 0.0135 | -0.3371 | -0.0215 | 0.3857 |
| 4 | -5.01 | 0.02 | -0.0189 | -0.0007 | 0.0215 | 0.0394 | -1.1966 | -0.0726 | 0.0183 | -0.3354 | -0.0210 | 0.3844 |
| 5 | -5.26 | 0.02 | -0.0162 | -0.0006 | 0.0201 | 0.0494 | -1.2407 | -0.0697 | 0.0213 | -0.3205 | -0.0263 | 0.3955 |
| 6 | -3.36 | 0.01 | -0.0156 | -0.0010 | 0.0208 | 0.0807 | -1.3307 | -0.0747 | 0.0240 | -0.3016 | -0.0346 | 0.4244 |
| 7 | -1.81 | 0.02 | -0.0136 | -0.0010 | 0.0193 | 0.0755 | -1.4151 | -0.0598 | 0.0257 | -0.2855 | -0.0421 | 0.4688 |
| 8 | 0.03 | 0.01 | -0.0170 | -0.0016 | 0.0183 | 0.0353 | -1.5508 | -0.5212 | 0.0244 | -0.2620 | -0.0468 | 0.5038 |
| 9 | 2.07 | 0.01 | -0.0145 | -0.0006 | 0.0145 | 0.0555 | -1.3140 | -0.4277 | 0.0236 | -0.2264 | -0.0552 | 0.5253 |
| 10 | 3.56 | 0.02 | -0.0116 | -0.0014 | 0.0134 | 0.0697 | -1.2981 | -0.3245 | 0.0216 | -0.1965 | -0.0676 | 0.5159 |
| 11 | 5.75 | 0.01 | -0.0165 | -0.0017 | 0.0187 | 0.0915 | -1.3106 | -0.2913 | 0.0187 | -0.1631 | -0.0808 | 0.7651 |
| 12 | 7.04 | 0.01 | -0.0229 | -0.0018 | 0.0265 | 0.0718 | -1.9269 | -0.1443 | 0.0162 | -0.1265 | -0.1121 | 0.8754 |
| 13 | 9.44 | 0.02 | -0.0151 | -0.0034 | 0.0257 | 0.1780 | -1.3455 | -0.0715 | 0.0142 | -0.0929 | -0.1586 | 1.2923 |
| 14 | 11.30 | 0.01 | -0.0241 | -0.0023 | 0.0296 | 0.1069 | -1.1305 | 0.0031 | 0.0111 | -0.0620 | 3.5202 | -20.2561 |
| 15 | 13.20 | 0.01 | -0.0331 | -0.0026 | 0.0183 | 0.0755 | -0.4324 | 0.3521 | 0.0117 | -0.0400 | 0.2245 | -0.7678 |
| 16 | 15.11 | 0.01 | -0.0457 | -0.0028 | 0.0166 | 0.0506 | -0.3934 | 0.0800 | 0.0130 | -0.0221 | 0.1467 | -0.2454 |
| 17 | 17.08 | 0.00 | -0.0509 | -0.0021 | 0.0150 | 0.0385 | -0.2636 | 0.1320 | 0.0136 | 0.0002 | 0.1030 | 0.0015 |
| 18 | 19.00 | -0.01 | -0.0519 | -0.0017 | 0.0138 | 0.0150 | -0.2413 | 0.1720 | 0.0155 | 0.0145 | 0.0901 | 0.1134 |
| 19 | 20.94 | 0.01 | -0.0545 | -0.0005 | 0.0132 | 0.0059 | 0.0377 | 0.2291 | 0.0156 | 0.0450 | 0.0881 | 0.1564 |
| 20 | 22.93 | 0.00 | -0.0533 | 0.0041 | -0.0157 | -0.0436 | 0.1647 | 0.2679 | 0.0157 | 0.0636 | 0.0545 | 0.2206 |
| 21 | 24.80 | 0.00 | -0.0761 | 0.0068 | -0.0092 | -0.0831 | 0.1209 | 0.3411 | 0.0165 | 0.0801 | 0.0484 | 0.2348 |
| 22 | 26.67 | 0.00 | -0.0183 | -0.0002 | 0.1111 | -0.0204 | 0.0085 | 0.4381 | 0.0163 | 0.1155 | 0.0377 | 0.2636 |
| 23 | 28.61 | 0.00 | 0.3145 | -0.0103 | 0.1477 | -0.0327 | 0.4690 | 0.4753 | 0.0153 | 0.1272 | 0.0322 | 0.2676 |
| 24 | 28.14 | 0.00 | -0.0543 | -0.0073 | 0.1240 | -0.0267 | 0.4709 | 0.4809 | 0.0166 | 0.1222 | 0.0355 | 0.2617 |
| 25 | 28.51 | 0.01 | 0.3776 | -0.0105 | 0.1671 | -0.0265 | 0.4432 | 0.5004 | 0.0145 | 0.1370 | 0.0256 | 0.2738 |
| 26 | 28.83 | 0.01 | 0.3367 | -0.0056 | 0.1535 | -0.0250 | 0.4654 | 0.4693 | 0.0165 | 0.1297 | 0.0337 | 0.2651 |
| 27 | 29.10 | 0.01 | 0.3034 | -0.0088 | 0.1427 | -0.0290 | 0.4703 | 0.4883 | 0.0178 | 0.1298 | 0.0360 | 0.2658 |
| 28 | 29.42 | 0.01 | 0.2681 | -0.0062 | 0.1267 | -0.0210 | 0.4483 | 0.4939 | 0.0192 | 0.1263 | 0.0357 | 0.2810 |
| 29 | 29.71 | 0.01 | 0.3188 | -0.0070 | 0.1383 | -0.0220 | 0.4336 | 0.4894 | 0.0188 | 0.1310 | 0.0380 | 0.2677 |
| 30 | 29.99 | 0.01 | 0.2765 | -0.0054 | 0.1254 | -0.0195 | 0.4528 | 0.4841 | 0.0200 | 0.1297 | 0.0413 | 0.2679 |
| 31 | 30.26 | 0.02 | 0.2818 | -0.0019 | 0.1175 | -0.0073 | 0.4503 | 0.4896 | 0.0205 | 0.1297 | 0.0415 | 0.2649 |
| 32 | 30.52 | 0.01 | 0.2535 | -0.0013 | 0.1169 | -0.0051 | 0.4454 | 0.4808 | 0.0209 | 0.1278 | 0.0429 | 0.2625 |
| 33 | 30.82 | 0.01 | 0.2365 | -0.0048 | 0.1443 | -0.0143 | 0.4288 | 0.5013 | 0.0200 | 0.1332 | 0.0399 | 0.2657 |
| 34 | 31.08 | 0.00 | 0.2473 | -0.0044 | 0.1403 | -0.0127 | 0.4270 | 0.5061 | 0.0203 | 0.1354 | 0.0396 | 0.2665 |
| 35 | 31.37 | 0.00 | 0.2042 | -0.0005 | 0.1306 | -0.0010 | 0.4272 | 0.5104 | 0.0230 | 0.1348 | 0.0451 | 0.2641 |
| 36 | 31.65 | 0.00 | 0.1819 | 0.0041 | 0.0795 | 0.0027 | 0.4917 | 0.4905 | 0.0201 | 0.1491 | 0.0523 | 0.2588 |
| 37 | 31.90 | 0.01 | 0.2206 | 0.0023 | 0.0902 | 0.0104 | 0.4379 | 0.5041 | 0.0271 | 0.1308 | 0.0538 | 0.2595 |
| 38 | 32.18 | 0.00 | 0.1819 | 0.0023 | 0.0877 | 0.0023 | 0.4077 | 0.5061 | 0.0276 | 0.1330 | 0.0533 | 0.2628 |
| 39 | 32.43 | 0.02 | 0.0915 | 0.0059 | 0.0467 | 0.0045 | 0.5104 | 0.5004 | 0.0280 | 0.1315 | 0.0535 | 0.2628 |
| 40 | 32.70 | 0.03 | 0.0954 | 0.0057 | 0.0460 | 0.0057 | 0.4822 | 0.5086 | 0.0277 | 0.1354 | 0.0545 | 0.2602 |
| 41 | 32.95 | 0.02 | 0.0941 | 0.0046 | 0.0356 | 0.0087 | 0.6580 | 0.5072 | 0.0278 | 0.1348 | 0.0548 | 0.2658 |
| 42 | 33.22 | 0.02 | 0.1147 | 0.0026 | 0.0362 | 0.0052 | 0.4435 | 0.5080 | 0.0273 | 0.1354 | 0.0537 | 0.2601 |
| 43 | 33.46 | 0.03 | -0.0086 | 0.0057 | 0.0126 | -0.0027 | -1.4551 | 0.5038 | 0.0273 | 0.1349 | 0.0542 | 0.2678 |
| 44 | 33.71 | 0.02 | 0.0290 | 0.0013 | 0.0404 | 0.0043 | 0.0007 | 0.5102 | 0.0269 | 0.1391 | 0.0521 | 0.2695 |
| 45 | 33.97 | 0.04 | 0.1497 | -0.0017 | 0.0700 | -0.0131 | 0.5397 | 0.5271 | 0.0267 | 0.1446 | 0.0508 | 0.2740 |
| 46 | 34.22 | 0.04 | 0.1535 | -0.0023 | 0.0736 | -0.0149 | 0.4577 | 0.5354 | 0.0261 | 0.1478 | 0.0487 | 0.2761 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 2 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST PART MACH RAIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 1.40 4.00 1.7 0.0 BINORMAL 0.0 0 -20 0 -20 UNKNOWN

| FLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | ALPF1 | YCPF1 | CNF2 | CM2 | CD2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 0.1722 | -0.0048 | 0.0045 | -0.0267 | 0.4907 | 0.5256 | 0.0271 | 0.1448 | 0.0516 | 0.2755 |
| 48 | 34.71 | 0.04 | 0.1734 | -0.0046 | 0.0134 | -0.0386 | 0.5562 | 0.5214 | 0.0280 | 0.1469 | 0.0537 | 0.2741 |
| 49 | 34.97 | 0.06 | 0.1753 | -0.0049 | 0.0025 | -0.0305 | 0.5277 | 0.5351 | 0.0274 | 0.1495 | 0.0512 | 0.2754 |
| 50 | 35.20 | 0.05 | 0.2265 | -0.0062 | 0.0103 | -0.0271 | 0.4746 | 0.5432 | 0.0276 | 0.1523 | 0.0508 | 0.2804 |
| 51 | 35.43 | 0.05 | 0.2243 | -0.0056 | 0.0113 | -0.0248 | 0.4332 | 0.5512 | 0.0287 | 0.1542 | 0.0521 | 0.2756 |
| 52 | 35.69 | 0.06 | 0.2269 | -0.0064 | 0.0230 | -0.0231 | 0.4042 | 0.5622 | 0.0283 | 0.1569 | 0.0503 | 0.2816 |
| 53 | 35.93 | 0.06 | 0.2314 | -0.0065 | 0.0117 | -0.0151 | 0.4395 | 0.5592 | 0.0301 | 0.1581 | 0.0538 | 0.2791 |
| 54 | 36.15 | 0.04 | 0.1393 | -0.0062 | 0.0152 | -0.0198 | 0.5398 | 0.5527 | 0.0312 | 0.1592 | 0.0564 | 0.2808 |
| 55 | 36.43 | 0.04 | 0.2399 | -0.0027 | 0.0188 | -0.0113 | 0.4414 | 0.5715 | 0.0335 | 0.1618 | 0.0533 | 0.2826 |
| 56 | 36.69 | 0.05 | 0.1465 | 0.0002 | 0.0159 | 0.0014 | 0.5147 | 0.5677 | 0.0311 | 0.1602 | 0.0548 | 0.2822 |
| 57 | 36.86 | 0.06 | 0.2262 | -0.0013 | 0.0126 | -0.0057 | 0.4545 | 0.5620 | 0.0321 | 0.1588 | 0.0571 | 0.2826 |
| 58 | 37.13 | 0.06 | 0.1512 | 0.0010 | 0.0167 | 0.0099 | 0.5073 | 0.5708 | 0.0303 | 0.1633 | 0.0523 | 0.2821 |
| 59 | 37.34 | 0.04 | 0.1381 | 0.0013 | 0.0116 | 0.0099 | 0.5141 | 0.5731 | 0.0315 | 0.1624 | 0.0550 | 0.2834 |
| 60 | 37.56 | 0.04 | 0.1776 | 0.0015 | 0.0149 | 0.0107 | 0.4775 | 0.5839 | 0.0319 | 0.1666 | 0.0546 | 0.2853 |
| 61 | 37.82 | 0.05 | 0.1537 | 0.0032 | 0.0146 | 0.0208 | 0.4854 | 0.5903 | 0.0314 | 0.1708 | 0.0527 | 0.2864 |
| 62 | 38.05 | 0.04 | 0.1560 | 0.0033 | 0.0172 | 0.0210 | 0.4477 | 0.6005 | 0.0314 | 0.1707 | 0.0525 | 0.2843 |
| 63 | 38.27 | 0.07 | 0.1810 | 0.0036 | 0.0108 | 0.0229 | 0.4758 | 0.5934 | 0.0327 | 0.1691 | 0.0551 | 0.2850 |
| 64 | 38.51 | 0.03 | 0.1413 | 0.0021 | 0.0196 | 0.0203 | 0.4804 | 0.6024 | 0.0306 | 0.1701 | 0.0495 | 0.2894 |
| 65 | 38.73 | 0.05 | 0.1357 | 0.0057 | 0.0184 | 0.0420 | 0.4893 | 0.6077 | 0.0320 | 0.1742 | 0.0536 | 0.2887 |
| 66 | 38.93 | 0.05 | 0.1117 | 0.0070 | 0.0205 | 0.0467 | 0.4909 | 0.6174 | 0.0322 | 0.1777 | 0.0521 | 0.2878 |
| 67 | 39.18 | 0.04 | 0.1226 | 0.0059 | 0.0257 | 0.0407 | 0.4543 | 0.6312 | 0.0312 | 0.1826 | 0.0494 | 0.2893 |
| 68 | 39.37 | 0.03 | 0.1273 | 0.0112 | 0.0275 | 0.0800 | 0.4917 | 0.6262 | 0.0329 | 0.1814 | 0.0524 | 0.2868 |
| 69 | 39.53 | 0.06 | 0.1320 | 0.0131 | 0.0245 | 0.0592 | 0.4506 | 0.6412 | 0.0330 | 0.1854 | 0.0515 | 0.2851 |
| 70 | 39.81 | 0.06 | 0.1404 | 0.0140 | 0.0211 | 0.0597 | 0.4352 | 0.6423 | 0.0345 | 0.1861 | 0.0537 | 0.2857 |
| 71 | 40.01 | 0.06 | 0.1356 | 0.0132 | 0.0200 | 0.0618 | 0.4425 | 0.6614 | 0.0342 | 0.1937 | 0.0517 | 0.2925 |
| 72 | 40.20 | 0.04 | 0.1249 | 0.0148 | 0.0232 | 0.1185 | 0.4259 | 0.6618 | 0.0338 | 0.1921 | 0.0506 | 0.2904 |
| 73 | 40.42 | 0.06 | 0.1063 | 0.0174 | 0.0221 | 0.1034 | 0.4046 | 0.6477 | 0.0304 | 0.1878 | 0.0553 | 0.2856 |
| 74 | 40.61 | 0.05 | 0.1004 | 0.0160 | 0.0218 | 0.0990 | 0.3989 | 0.6474 | 0.0356 | 0.1881 | 0.0515 | 0.2875 |
| 75 | 40.84 | 0.05 | 0.1540 | 0.0168 | 0.0293 | 0.1221 | 0.3351 | 0.6727 | 0.0367 | 0.1981 | 0.0545 | 0.2915 |
| 76 | 41.05 | 0.04 | 0.1373 | 0.0167 | 0.0244 | 0.1210 | 0.3982 | 0.6730 | 0.0362 | 0.1956 | 0.0507 | 0.2906 |
| 77 | 41.24 | 0.04 | 0.1366 | 0.0185 | 0.0252 | 0.1219 | 0.3963 | 0.6787 | 0.0362 | 0.1965 | 0.0563 | 0.2901 |
| 78 | 41.46 | 0.04 | 0.1255 | 0.0183 | 0.0259 | 0.1295 | 0.3936 | 0.6926 | 0.0375 | 0.2013 | 0.0541 | 0.2906 |
| 79 | 41.64 | 0.03 | 0.1230 | 0.0146 | 0.0305 | 0.1211 | 0.4106 | 0.6953 | 0.0378 | 0.2021 | 0.0544 | 0.2907 |
| 80 | 41.84 | 0.04 | 0.1139 | 0.0188 | 0.0249 | 0.1404 | 0.3915 | 0.6890 | 0.0396 | 0.1964 | 0.0575 | 0.2871 |
| 81 | 42.04 | 0.05 | 0.1277 | 0.0175 | 0.0205 | 0.1402 | 0.3955 | 0.6814 | 0.0426 | 0.1882 | 0.0644 | 0.2845 |
| 82 | 42.24 | 0.04 | 0.1364 | 0.0177 | 0.0256 | 0.1497 | 0.3888 | 0.6705 | 0.0424 | 0.1912 | 0.0636 | 0.2852 |
| 83 | 42.50 | 0.04 | 0.1348 | 0.0183 | 0.0235 | 0.1357 | 0.3769 | 0.6108 | 0.0437 | 0.1885 | 0.0797 | 0.2732 |
| 84 | 42.68 | 0.04 | 0.1345 | 0.0178 | 0.0233 | 0.1304 | 0.3951 | 0.6993 | 0.0433 | 0.1883 | 0.0703 | 0.2798 |
| 85 | 42.86 | 0.04 | 0.1360 | 0.0182 | 0.0222 | 0.1297 | 0.3761 | 0.6624 | 0.0443 | 0.1858 | 0.0685 | 0.2802 |
| 86 | 43.04 | 0.04 | 0.1414 | 0.0188 | 0.0239 | 0.1188 | 0.3812 | 0.6674 | 0.0458 | 0.1822 | 0.0697 | 0.2772 |
| 87 | 43.22 | 0.04 | 0.1367 | 0.0184 | 0.0274 | 0.1173 | 0.3856 | 0.6804 | 0.0460 | 0.1815 | 0.0701 | 0.2771 |
| 88 | 43.41 | 0.04 | 0.1442 | 0.0205 | 0.0271 | 0.1273 | 0.3477 | 0.6954 | 0.0487 | 0.1716 | 0.0709 | 0.2761 |
| 89 | 43.59 | 0.03 | 0.1456 | 0.0173 | 0.0265 | 0.1155 | 0.3772 | 0.6966 | 0.0466 | 0.1737 | 0.0764 | 0.2715 |
| 90 | 43.79 | 0.05 | 0.1726 | 0.0186 | 0.0231 | 0.1008 | 0.3046 | 0.6724 | 0.0460 | 0.1850 | 0.0684 | 0.2760 |
| 91 | 43.99 | 0.05 | 0.1565 | 0.0173 | 0.0251 | 0.1105 | 0.3521 | 0.6732 | 0.0473 | 0.1825 | 0.0706 | 0.2725 |
| 92 | 44.11 | 0.04 | 0.1561 | 0.0185 | 0.0247 | 0.1185 | 0.3504 | 0.6358 | 0.0456 | 0.1702 | 0.0780 | 0.2617 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 142 | MACH 1.00 | RX10-6 1.07 | PHI 0.0 | CONF 81 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | ACPF1 | YCPF1 | CNF2 | CH2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.32 | 0.03 | 0.1554 | 0.0197 | 0.0525 | 0.1165 | 0.3453 | 0.0442 | 0.0494 | 0.1725 | 0.0767 | 0.2678 |
| 94 | 44.50 | 0.04 | 0.1536 | 0.0188 | 0.0519 | 0.1343 | 0.3712 | 0.0508 | 0.0529 | 0.1935 | 0.0883 | 0.2583 |
| 95 | 44.69 | 0.03 | 0.1487 | 0.0187 | 0.0540 | 0.1123 | 0.3531 | 0.0293 | 0.0508 | 0.1663 | 0.0804 | 0.2643 |
| 96 | 44.80 | 0.04 | 0.1476 | 0.0174 | 0.0577 | 0.1042 | 0.3455 | 0.0501 | 0.0487 | 0.1722 | 0.0749 | 0.2645 |
| 97 | 45.01 | 0.02 | 0.1426 | 0.0191 | 0.0435 | 0.1504 | 0.3607 | 0.5778 | 0.0551 | 0.1410 | 0.0553 | 0.2440 |
| 98 | 45.25 | 0.02 | 0.1477 | 0.0155 | 0.0504 | 0.1049 | 0.3446 | 0.0300 | 0.0470 | 0.1645 | 0.0779 | 0.2582 |
| 99 | 45.42 | 0.01 | 0.1516 | 0.0180 | 0.0502 | 0.1194 | 0.3324 | 0.0187 | 0.0506 | 0.1551 | 0.0826 | 0.2515 |
| 100 | 45.61 | 0.02 | 0.1438 | 0.0180 | 0.0469 | 0.1293 | 0.3401 | 0.0097 | 0.0512 | 0.1529 | 0.0840 | 0.2508 |
| 101 | 45.76 | 0.01 | 0.0807 | 0.0156 | 0.0515 | 0.1953 | 0.3903 | 0.5747 | 0.0548 | 0.1377 | 0.0953 | 0.2358 |
| 102 | 45.93 | 0.02 | 0.1415 | 0.0172 | 0.0541 | 0.1094 | 0.3380 | 0.5887 | 0.0538 | 0.1410 | 0.0914 | 0.2395 |
| 103 | 46.14 | 0.01 | 0.1498 | 0.0167 | 0.0375 | 0.1521 | 0.3415 | 0.5900 | 0.0536 | 0.1436 | 0.0903 | 0.2405 |
| | | 0.01 | 0.1472 | 0.0149 | 0.0264 | 0.2525 | 0.3305 | 0.5550 | 0.0575 | 0.1470 | 0.1034 | 0.2285 |
| | | 0.02 | 0.0813 | 0.0122 | 0.0222 | 0.2092 | 0.3878 | 0.5516 | 0.0571 | 0.1260 | 0.1035 | 0.2284 |
| | | 0.02 | 0.0963 | 0.0136 | 0.0182 | 0.2537 | 0.3499 | 0.5543 | 0.0565 | 0.1479 | 0.1026 | 0.2307 |
| | | 0.02 | 0.0852 | 0.0102 | 0.0069 | 0.0660 | 0.4510 | 0.5274 | 0.0588 | 0.1155 | 0.1115 | 0.2150 |
| 108 | 47.00 | -0.00 | 0.0971 | 0.0103 | 0.0135 | 0.2187 | 0.2000 | 0.5545 | 0.0548 | 0.1253 | 0.0988 | 0.2332 |
| 109 | 47.16 | 0.01 | 0.0837 | 0.0091 | 0.0119 | 0.2700 | 0.3531 | 0.5629 | 0.0543 | 0.1300 | 0.0965 | 0.2305 |
| 110 | 47.36 | 0.01 | 0.0965 | 0.0088 | 0.0122 | 0.2205 | 0.3325 | 0.5045 | 0.0558 | 0.1301 | 0.0988 | 0.2309 |
| 111 | 47.55 | 0.01 | 0.0907 | 0.0151 | 0.0060 | 0.3710 | 0.1966 | 0.6431 | 0.0535 | 0.1559 | 0.0832 | 0.2424 |
| 112 | 47.71 | 0.01 | 0.0105 | 0.0012 | -0.0007 | 0.0108 | -0.0301 | 0.0869 | 0.0521 | 0.1067 | 0.0757 | 0.2421 |
| 113 | 47.90 | 0.05 | -0.0737 | -0.0055 | -0.0239 | 0.0600 | 0.3243 | 0.6043 | 0.0552 | 0.1321 | 0.0913 | 0.2186 |
| 114 | 48.06 | 0.01 | -0.0456 | 0.0040 | -0.0020 | -0.1052 | 0.4952 | 0.6239 | 0.0550 | 0.1425 | 0.0801 | 0.2084 |
| 115 | 48.26 | 0.04 | -0.0718 | -0.0115 | -0.0227 | 0.1001 | 0.3102 | 0.6202 | 0.0528 | 0.1413 | 0.0843 | 0.2256 |
| 116 | 48.48 | 0.04 | -0.0479 | -0.0124 | -0.0171 | 0.2810 | 0.3006 | 0.0619 | 0.0511 | 0.1534 | 0.0772 | 0.2318 |
| 117 | 48.63 | 0.02 | -0.0436 | -0.0144 | -0.0145 | 0.3302 | 0.3328 | 0.6443 | 0.0528 | 0.1476 | 0.0815 | 0.2291 |
| 118 | 48.80 | 0.03 | -0.0067 | -0.0148 | -0.0179 | 0.2405 | 0.2949 | 0.6387 | 0.0523 | 0.1541 | 0.0794 | 0.2365 |
| 119 | 48.99 | 0.02 | -0.0556 | -0.0141 | -0.0166 | 0.2527 | 0.3011 | 0.6606 | 0.0522 | 0.1516 | 0.0790 | 0.2295 |
| 120 | 49.19 | 0.01 | -0.0054 | -0.0122 | -0.0155 | 0.2020 | 0.2370 | 0.0749 | 0.0521 | 0.1501 | 0.0772 | 0.2313 |
| 121 | 49.32 | 0.01 | -0.0525 | -0.0145 | -0.0116 | 0.3142 | 0.2210 | 0.6655 | 0.0522 | 0.1515 | 0.0784 | 0.2278 |
| 122 | 49.51 | 0.01 | -0.0570 | -0.0124 | -0.0159 | 0.3754 | 0.1737 | 0.6050 | 0.0515 | 0.1509 | 0.0751 | 0.2288 |
| 123 | 49.70 | -0.00 | -0.0568 | -0.0272 | -0.0053 | 0.4783 | 0.0933 | 0.7106 | 0.0493 | 0.1666 | 0.0854 | 0.2373 |
| 124 | 49.87 | 0.01 | -0.0494 | -0.0264 | -0.0000 | 0.4112 | 0.1075 | 0.7113 | 0.0503 | 0.1656 | 0.0767 | 0.2328 |
| 125 | 50.04 | 0.01 | -0.0456 | -0.0288 | 0.0004 | 0.5702 | -0.0060 | 0.7185 | 0.0496 | 0.1703 | 0.0850 | 0.2370 |
| 126 | 50.23 | 0.03 | -0.0042 | -0.0269 | 0.0078 | 1.2240 | -0.3017 | 0.7151 | 0.0519 | 0.1672 | 0.0723 | 0.2328 |
| 127 | 50.40 | -0.01 | -0.0353 | -0.0275 | 0.0028 | 0.7789 | -0.0793 | 0.7360 | 0.0510 | 0.1730 | 0.0893 | 0.2351 |
| 128 | 50.57 | -0.03 | -0.0279 | -0.0279 | 0.0030 | 0.9819 | -0.1490 | 0.7235 | 0.0513 | 0.1667 | 0.0769 | 0.2332 |
| 129 | 50.73 | -0.02 | -0.0150 | -0.0150 | -0.0000 | 0.9035 | 0.0361 | 0.7406 | 0.0477 | 0.1714 | 0.0844 | 0.2314 |
| 130 | 50.88 | 0.01 | 0.0053 | -0.0053 | 0.0034 | -0.9999 | 0.5300 | 0.7270 | 0.0476 | 0.1665 | 0.0857 | 0.2290 |
| 131 | 51.06 | -0.00 | 0.0045 | -0.0086 | 0.0034 | -0.9553 | 0.7556 | 0.7251 | 0.0480 | 0.1656 | 0.0862 | 0.2281 |
| 132 | 51.16 | 0.02 | 0.0021 | 0.0021 | 0.0124 | 0.0407 | 0.2877 | 0.6889 | 0.0502 | 0.1513 | 0.0729 | 0.2156 |
| 133 | 51.35 | 0.01 | 0.0578 | -0.0001 | 0.0174 | -0.0017 | 0.5020 | 0.7353 | 0.0496 | 0.1560 | 0.0703 | 0.2240 |
| 134 | 51.53 | 0.00 | 0.0561 | 0.0051 | 0.0134 | 0.1018 | 0.2635 | 0.6785 | 0.0492 | 0.1457 | 0.0725 | 0.2206 |
| 135 | 51.69 | 0.00 | 0.0281 | 0.0057 | 0.0045 | 0.2184 | 0.1724 | 0.6021 | 0.0484 | 0.1522 | 0.0709 | 0.2231 |
| 136 | 51.83 | 0.00 | 0.0221 | 0.0064 | 0.0045 | 0.2245 | 0.1715 | 0.6083 | 0.0459 | 0.1469 | 0.0685 | 0.2205 |
| 137 | 52.03 | 0.02 | 0.0263 | 0.0058 | 0.0025 | 0.2205 | 0.1103 | 0.6853 | 0.0439 | 0.1402 | 0.0660 | 0.2228 |
| 138 | 52.19 | -0.01 | 0.0215 | 0.0044 | 0.0027 | 0.2646 | 0.1256 | 0.6657 | 0.0439 | 0.1492 | 0.0659 | 0.2241 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART MACH RAIC-6 PHI CONF DEL1 DEL2 DEL3 DEL4 TRANSITION
1 142 1.60 1.67 0.00 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CAF1 | CM1 | CN1 | XCPF1 | YCPF1 | CAF2 | CM2 | CN2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.36 | -0.00 | 0.0167 | 0.0042 | 0.0021 | 0.2515 | 0.1257 | 0.0718 | 0.0445 | 0.1499 | 0.0662 | 0.2231 |
| 140 | 52.51 | -0.05 | 0.0131 | 0.0033 | 0.0015 | 0.2514 | 0.1255 | 0.0623 | 0.0451 | 0.1546 | 0.0661 | 0.2205 |
| 141 | 52.70 | -0.05 | 0.0035 | 0.0035 | -0.0021 | 0.9999 | -0.0030 | 0.0729 | 0.0424 | 0.1521 | 0.0630 | 0.2260 |
| 142 | 52.85 | -0.03 | 0.0035 | 0.0029 | -0.0014 | 0.9999 | -0.0078 | 0.0876 | 0.0416 | 0.1516 | 0.0626 | 0.2262 |
| 143 | 53.00 | -0.02 | 0.0035 | 0.0027 | -0.0007 | 0.0571 | -0.2300 | 0.0733 | 0.0402 | 0.1546 | 0.0597 | 0.2256 |
| 144 | 53.17 | -0.01 | 0.0021 | 0.0021 | -0.0003 | 0.9999 | -0.0357 | 0.0823 | 0.0416 | 0.1567 | 0.0616 | 0.2256 |
| 145 | 53.34 | -0.02 | -0.0003 | 0.0020 | -0.0000 | -0.0055 | 2.0000 | 0.0874 | 0.0416 | 0.1567 | 0.0605 | 0.2309 |
| 146 | 53.52 | -0.04 | 0.0005 | 0.0015 | -0.0004 | 2.0000 | -0.4444 | 0.0963 | 0.0436 | 0.1603 | 0.0626 | 0.2303 |
| 147 | 53.68 | -0.01 | 0.0010 | 0.0010 | 0.0004 | 1.5998 | 0.4300 | 0.7044 | 0.0427 | 0.1642 | 0.0606 | 0.2331 |
| 148 | 53.84 | -0.01 | -0.0001 | 0.0006 | 0.0002 | -7.9989 | -2.0000 | 0.0995 | 0.0432 | 0.1663 | 0.0621 | 0.2329 |
| 149 | 53.99 | -0.01 | -0.0003 | 0.0017 | 0.0003 | -5.0009 | -1.0000 | 0.0944 | 0.0414 | 0.1628 | 0.0596 | 0.2344 |
| 150 | 54.15 | -0.00 | -0.0002 | 0.0002 | 0.0001 | -0.9999 | -0.5000 | 0.0959 | 0.0403 | 0.1650 | 0.0579 | 0.2380 |
| 151 | 54.30 | -0.01 | -0.0002 | 0.0004 | 0.0003 | -0.1333 | -0.1334 | 0.0985 | 0.0391 | 0.1670 | 0.0561 | 0.2356 |
| 152 | 54.48 | -0.04 | 0.0035 | -0.0005 | 0.0024 | -0.1428 | 0.0357 | 0.7033 | 0.0381 | 0.1692 | 0.0540 | 0.2358 |
| 153 | 54.63 | -0.02 | -0.0027 | 0.0017 | -0.0005 | -0.0295 | 0.1052 | 0.7055 | 0.0376 | 0.1705 | 0.0535 | 0.2421 |
| 154 | 54.77 | -0.02 | -0.0001 | 0.0006 | -0.0000 | -0.0096 | 0.0960 | 0.7050 | 0.0350 | 0.1721 | 0.0505 | 0.2441 |
| 155 | 54.92 | -0.03 | -0.0006 | 0.0006 | -0.0023 | -0.0930 | 0.2074 | 0.7035 | 0.0348 | 0.1730 | 0.0493 | 0.2452 |
| 156 | 55.04 | -0.03 | -0.0006 | 0.0006 | -0.0008 | -0.0508 | 0.0526 | 0.7101 | 0.0350 | 0.1758 | 0.0493 | 0.2448 |
| 157 | 55.23 | -0.04 | -0.0021 | 0.00 | 0.0003 | 0.0 | -0.1200 | 0.7117 | 0.0338 | 0.1754 | 0.0472 | 0.2465 |
| 158 | 55.38 | -0.03 | -0.0006 | 0.0006 | -0.0011 | -0.0545 | 0.1774 | 0.7100 | 0.0334 | 0.1765 | 0.0462 | 0.2456 |
| 159 | 55.54 | -0.03 | -0.0003 | 0.0004 | 0.00 | -0.0833 | 0.0 | 0.7205 | 0.0331 | 0.1776 | 0.0459 | 0.2465 |
| 160 | 55.71 | -0.04 | -0.0006 | 0.0006 | 0.0006 | -0.2307 | -0.1538 | 0.7102 | 0.0313 | 0.1767 | 0.0436 | 0.2466 |
| 161 | 55.86 | -0.03 | 0.0040 | -0.0006 | 0.0035 | -0.1304 | 0.7609 | 0.7186 | 0.0293 | 0.1771 | 0.0408 | 0.2465 |
| 162 | 56.02 | -0.03 | 0.0040 | 0.0001 | 0.0026 | 0.0217 | 0.5652 | 0.7321 | 0.0299 | 0.1805 | 0.0408 | 0.2466 |
| 163 | 56.17 | -0.05 | -0.0015 | 0.0006 | 0.0010 | -0.3999 | -0.6667 | 0.7354 | 0.0288 | 0.1827 | 0.0384 | 0.2484 |
| 164 | 56.33 | -0.04 | 0.0010 | 0.0001 | 0.0022 | 0.1000 | 2.0000 | 0.7245 | 0.0271 | 0.1780 | 0.0374 | 0.2457 |
| 165 | 56.53 | -0.06 | -0.0051 | 0.0003 | 0.0000 | -0.0588 | -0.1176 | 0.7390 | 0.0294 | 0.1816 | 0.0398 | 0.2457 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RADIUS PHI CONF L DELI DELZ DEL3 DEL4 TRANSITION
7 142 1.00 1.7 0.0 0.1E+14 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.82 | -0.00 | 0.0445 | 9.9999 | 0.0080 | 9.9999 | 0.1793 | -1.2032 | 0.0210 | -0.2660 | -0.0190 | 0.2574 |
| 2 | -5.81 | 0.01 | 0.0445 | 9.9999 | 0.0080 | 9.9999 | 0.1796 | -1.1918 | 0.0213 | -0.2656 | -0.0193 | 0.2574 |
| 3 | -5.81 | 0.02 | 0.0445 | 9.9999 | 0.0080 | 9.9999 | 0.1796 | -1.0972 | 0.0207 | -0.2628 | -0.0189 | 0.2577 |
| 4 | -5.81 | 0.04 | 0.0447 | 9.9999 | 0.0082 | 9.9999 | 0.1795 | -1.0996 | 0.0202 | -0.2636 | -0.0184 | 0.2579 |
| 5 | -5.26 | 0.02 | 0.0432 | 9.9999 | 0.0074 | 9.9999 | 0.1715 | -1.0273 | 0.0223 | -0.2668 | -0.0217 | 0.2567 |
| 6 | -5.36 | 0.01 | 0.0419 | 9.9999 | 0.0068 | 9.9999 | 0.1663 | -0.9278 | 0.0240 | -0.2480 | -0.0259 | 0.2673 |
| 7 | -1.81 | 0.02 | 0.0415 | 9.9999 | 0.0078 | 9.9999 | 0.1862 | -0.3261 | 0.0246 | -0.2269 | -0.0298 | 0.2771 |
| 8 | 0.25 | 0.01 | 0.0432 | 9.9999 | 0.0079 | 9.9999 | 0.1829 | -0.7202 | 0.0234 | -0.2062 | -0.0325 | 0.2891 |
| 9 | 2.07 | 0.01 | 0.0419 | 9.9999 | 0.0078 | 9.9999 | 0.1862 | -0.6175 | 0.0230 | -0.1797 | -0.0372 | 0.2916 |
| 10 | 3.60 | 0.02 | 0.0432 | 9.9999 | 0.0069 | 9.9999 | 0.1944 | -0.5193 | 0.0212 | -0.1476 | -0.0408 | 0.2831 |
| 11 | 5.75 | 0.01 | 0.0456 | 9.9999 | 0.0076 | 9.9999 | 0.1943 | -0.4149 | 0.0135 | -0.1157 | -0.0446 | 0.2785 |
| 12 | 7.04 | 0.01 | 0.0474 | 9.9999 | 0.0080 | 9.9999 | 0.0871 | -0.3277 | 0.0163 | -0.0814 | -0.0497 | 0.2484 |
| 13 | 9.44 | 0.02 | 0.0422 | 9.9999 | 0.0080 | 9.9999 | 0.0479 | -0.2417 | 0.0140 | -0.0507 | -0.0579 | 0.2058 |
| 14 | 11.30 | 0.01 | 0.0702 | 9.9999 | 0.0026 | 9.9999 | 0.0376 | -0.1557 | 0.0114 | -0.0245 | -0.0732 | 0.1574 |
| 15 | 13.20 | 0.01 | 0.0868 | 9.9999 | 0.0020 | 9.9999 | 0.0291 | -0.0960 | 0.0117 | 0.0010 | -0.1219 | -0.0104 |
| 16 | 15.11 | 0.01 | 0.0719 | 9.9999 | 0.0017 | 9.9999 | 0.0238 | -0.0472 | 0.0112 | 0.0256 | -0.2373 | -0.5424 |
| 17 | 17.00 | 0.00 | 0.0626 | 9.9999 | -0.0020 | 9.9999 | -0.0319 | 0.0211 | 0.0110 | 0.0510 | 0.5213 | 2.4171 |
| 18 | 19.00 | -0.01 | 0.0612 | 9.9999 | -0.0021 | 9.9999 | -0.0323 | 0.0630 | 0.0106 | 0.0701 | 0.1270 | 0.9188 |
| 19 | 20.94 | 0.01 | 0.0662 | 9.9999 | 0.0003 | 9.9999 | 0.0045 | 0.1397 | 0.0115 | 0.0580 | 0.0823 | 0.7015 |
| 20 | 22.90 | 0.00 | 0.0678 | 9.9999 | 0.0004 | 9.9999 | 0.0055 | 0.1601 | 0.0123 | 0.1112 | 0.0683 | 0.6174 |
| 21 | 24.86 | 0.00 | 0.0699 | 9.9999 | 0.0021 | 9.9999 | 0.0300 | 0.2176 | 0.0151 | 0.1224 | 0.0694 | 0.5625 |
| 22 | 26.87 | 0.05 | 0.0696 | 9.9999 | 0.0141 | 9.9999 | 0.1347 | 0.1906 | 0.0203 | 0.1116 | 0.1032 | 0.5076 |
| 23 | 28.84 | 0.08 | 0.0563 | 9.9999 | 0.0128 | 9.9999 | 0.1307 | 0.1962 | 0.0220 | 0.1111 | 0.1110 | 0.5605 |
| 24 | 28.14 | 0.06 | 0.0658 | 9.9999 | 0.0126 | 9.9999 | 0.1405 | 0.2139 | 0.0219 | 0.1186 | 0.1024 | 0.5517 |
| 25 | 28.51 | 0.07 | 0.0674 | 9.9999 | 0.0157 | 9.9999 | 0.1612 | 0.1990 | 0.0231 | 0.1120 | 0.1161 | 0.5028 |
| 26 | 28.83 | 0.07 | 0.0674 | 9.9999 | 0.0152 | 9.9999 | 0.1501 | 0.2077 | 0.0229 | 0.1166 | 0.1102 | 0.5623 |
| 27 | 29.10 | 0.07 | 0.0651 | 9.9999 | 0.0135 | 9.9999 | 0.1420 | 0.2173 | 0.0236 | 0.1133 | 0.1086 | 0.5444 |
| 28 | 29.42 | 0.07 | 0.0651 | 9.9999 | 0.0134 | 9.9999 | 0.1307 | 0.2216 | 0.0236 | 0.1202 | 0.1065 | 0.5424 |
| 29 | 29.71 | 0.07 | 0.0626 | 9.9999 | 0.0161 | 9.9999 | 0.1569 | 0.2257 | 0.0238 | 0.1211 | 0.1054 | 0.5366 |
| 30 | 29.99 | 0.07 | 0.0652 | 9.9999 | 0.0120 | 9.9999 | 0.1200 | 0.2330 | 0.0238 | 0.1244 | 0.1021 | 0.5339 |
| 31 | 30.26 | 0.08 | 0.0671 | 9.9999 | 0.0132 | 9.9999 | 0.1351 | 0.2346 | 0.0236 | 0.1245 | 0.1006 | 0.5324 |
| 32 | 30.52 | 0.07 | 0.1027 | 9.9999 | 0.0106 | 9.9999 | 0.1016 | 0.2402 | 0.0236 | 0.1254 | 0.0962 | 0.5221 |
| 33 | 30.82 | 0.09 | 0.1026 | 9.9999 | 0.0156 | 9.9999 | 0.1520 | 0.2256 | 0.0242 | 0.1227 | 0.1073 | 0.5444 |
| 34 | 31.08 | 0.06 | 0.1029 | 9.9999 | 0.0164 | 9.9999 | 0.1541 | 0.2393 | 0.0245 | 0.1204 | 0.1024 | 0.5282 |
| 35 | 31.37 | 0.08 | 0.1076 | 9.9999 | 0.0180 | 9.9999 | 0.1673 | 0.2424 | 0.0241 | 0.1281 | 0.0954 | 0.5285 |
| 36 | 31.65 | 0.06 | 0.0963 | 9.9999 | 0.0136 | 9.9999 | 0.1412 | 0.2784 | 0.0241 | 0.1390 | 0.0872 | 0.5029 |
| 37 | 31.90 | 0.04 | 0.0950 | 9.9999 | 0.0135 | 9.9999 | 0.1421 | 0.2733 | 0.0245 | 0.1362 | 0.0856 | 0.4984 |
| 38 | 32.18 | 0.05 | 0.0929 | 9.9999 | 0.0116 | 9.9999 | 0.1277 | 0.2800 | 0.0250 | 0.1405 | 0.0902 | 0.4913 |
| 39 | 32.43 | 0.02 | 0.0824 | 9.9999 | 0.0090 | 9.9999 | 0.1092 | 0.3078 | 0.0269 | 0.1444 | 0.0874 | 0.4891 |
| 40 | 32.70 | 0.03 | 0.0811 | 9.9999 | 0.0094 | 9.9999 | 0.1159 | 0.3174 | 0.0272 | 0.1457 | 0.0857 | 0.4590 |
| 41 | 32.95 | 0.02 | 0.0774 | 9.9999 | 0.0071 | 9.9999 | 0.0917 | 0.3445 | 0.0269 | 0.1534 | 0.0781 | 0.4453 |
| 42 | 33.22 | 0.04 | 0.0809 | 9.9999 | 0.0095 | 9.9999 | 0.1224 | 0.3407 | 0.0275 | 0.1515 | 0.0807 | 0.4467 |
| 43 | 33.46 | 0.03 | 0.0747 | 9.9999 | 0.0074 | 9.9999 | 0.0991 | 0.3786 | 0.0259 | 0.1634 | 0.0686 | 0.4316 |
| 44 | 33.71 | 0.04 | 0.0722 | 9.9999 | 0.0062 | 9.9999 | 0.0859 | 0.3852 | 0.0269 | 0.1595 | 0.0738 | 0.4367 |
| 45 | 33.97 | 0.04 | 0.0836 | 9.9999 | 0.0121 | 9.9999 | 0.1451 | 0.3779 | 0.0270 | 0.1641 | 0.0716 | 0.4342 |
| 46 | 34.22 | 0.04 | 0.0721 | 9.9999 | 0.0067 | 9.9999 | 0.1207 | 0.3883 | 0.0273 | 0.1591 | 0.0745 | 0.4343 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 142 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF 4 DIHEDRAL 0.0 DELI 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.32 | 0.03 | 0.1654 | 0.0157 | 0.0305 | 0.1103 | 0.3953 | 0.0442 | 0.0494 | 0.1725 | 0.0767 | 0.2678 |
| 94 | 44.50 | 0.04 | 0.1656 | 0.0158 | 0.0314 | 0.1345 | 0.3716 | 0.0588 | 0.0529 | 0.1535 | 0.0883 | 0.2563 |
| 95 | 44.69 | 0.03 | 0.1487 | 0.0167 | 0.0346 | 0.1123 | 0.3531 | 0.0293 | 0.0506 | 0.1663 | 0.0804 | 0.2643 |
| 96 | 44.88 | 0.04 | 0.1676 | 0.0174 | 0.0377 | 0.1042 | 0.3455 | 0.0501 | 0.0487 | 0.1722 | 0.0749 | 0.2646 |
| 97 | 45.06 | 0.02 | 0.1266 | 0.0151 | 0.0435 | 0.1364 | 0.3607 | 0.0778 | 0.0551 | 0.1410 | 0.0953 | 0.2446 |
| 98 | 45.25 | 0.04 | 0.1417 | 0.0155 | 0.0305 | 0.1049 | 0.3446 | 0.0308 | 0.0490 | 0.1645 | 0.0779 | 0.2583 |
| 99 | 45.42 | 0.01 | 0.1510 | 0.0162 | 0.0302 | 0.1192 | 0.3324 | 0.0107 | 0.0506 | 0.1551 | 0.0820 | 0.2515 |
| 100 | 45.61 | 0.04 | 0.1436 | 0.0160 | 0.0309 | 0.1293 | 0.3401 | 0.0697 | 0.0512 | 0.1529 | 0.0840 | 0.2506 |
| 101 | 45.78 | 0.01 | 0.1287 | 0.0156 | 0.0315 | 0.1535 | 0.3303 | 0.0747 | 0.0548 | 0.1377 | 0.0953 | 0.2396 |
| 102 | 45.93 | 0.04 | 0.1613 | 0.0172 | 0.0341 | 0.1094 | 0.3360 | 0.0607 | 0.0538 | 0.1410 | 0.0914 | 0.2395 |
| 103 | 46.14 | 0.01 | 0.1458 | 0.0167 | 0.0375 | 0.1521 | 0.3415 | 0.0900 | 0.0536 | 0.1436 | 0.0903 | 0.2406 |
| 104 | 46.31 | 0.01 | 0.1586 | 0.0147 | 0.0264 | 0.1525 | 0.3305 | 0.0558 | 0.0575 | 0.1470 | 0.1034 | 0.2285 |
| 105 | 46.47 | 0.02 | 0.1583 | 0.0162 | 0.0226 | 0.1692 | 0.3376 | 0.0516 | 0.0571 | 0.1260 | 0.1035 | 0.2284 |
| 106 | 46.66 | 0.01 | 0.1483 | 0.0150 | 0.0186 | 0.1937 | 0.3499 | 0.0543 | 0.0505 | 0.1279 | 0.1026 | 0.2307 |
| 107 | 46.84 | 0.02 | 0.1553 | 0.0162 | 0.0206 | 0.1886 | 0.3510 | 0.0274 | 0.0548 | 0.1155 | 0.1115 | 0.2156 |
| 108 | 47.00 | -0.00 | 0.1471 | 0.0165 | 0.0195 | 0.2107 | 0.2500 | 0.0545 | 0.0540 | 0.1293 | 0.0988 | 0.2332 |
| 109 | 47.16 | 0.01 | 0.0337 | 0.0051 | 0.0119 | 0.2700 | 0.3531 | 0.0629 | 0.0543 | 0.1300 | 0.0965 | 0.2305 |
| 110 | 47.36 | 0.01 | 0.1565 | 0.0166 | 0.0122 | 0.2265 | 0.3325 | 0.0645 | 0.0558 | 0.1301 | 0.0988 | 0.2305 |
| 111 | 47.55 | 0.01 | 0.1407 | 0.0151 | 0.0120 | 0.3710 | 0.1966 | 0.0431 | 0.0535 | 0.1559 | 0.0832 | 0.2424 |
| 112 | 47.71 | 0.01 | 0.1615 | 0.0172 | -0.0007 | 2.0188 | -0.0381 | 0.0685 | 0.0521 | 0.1667 | 0.0757 | 0.2421 |
| 113 | 47.90 | 0.05 | -0.0737 | -0.0156 | -0.0239 | 0.2600 | 0.3243 | -0.0045 | 0.0552 | 0.1321 | 0.0913 | 0.2166 |
| 114 | 48.08 | 0.01 | -0.0542 | 0.0040 | -0.0063 | -0.1052 | 0.4452 | 0.0239 | 0.0550 | 0.1425 | 0.0901 | 0.2284 |
| 115 | 48.26 | 0.04 | -0.0713 | -0.0115 | -0.0227 | 0.1031 | 0.3162 | 0.0202 | 0.0528 | 0.1413 | 0.0843 | 0.2256 |
| 116 | 48.46 | 0.04 | -0.0649 | -0.0124 | -0.0171 | 0.2816 | 0.3006 | 0.0619 | 0.0511 | 0.1534 | 0.0772 | 0.2318 |
| 117 | 48.63 | 0.02 | -0.0436 | -0.0144 | -0.0145 | 0.3302 | 0.3328 | 0.0443 | 0.0528 | 0.1478 | 0.0819 | 0.2291 |
| 118 | 48.80 | 0.03 | -0.0607 | -0.0146 | -0.0179 | 0.2965 | 0.2995 | 0.0587 | 0.0543 | 0.1521 | 0.0794 | 0.2305 |
| 119 | 48.99 | 0.02 | -0.0558 | -0.0141 | -0.0168 | 0.2527 | 0.3041 | 0.0606 | 0.0522 | 0.1516 | 0.0790 | 0.2295 |
| 120 | 49.15 | 0.01 | -0.0654 | -0.0165 | -0.0153 | 0.2820 | 0.2970 | 0.0749 | 0.0521 | 0.1501 | 0.0772 | 0.2313 |
| 121 | 49.34 | 0.01 | -0.0545 | -0.0165 | -0.0118 | 0.3142 | 0.2210 | 0.0695 | 0.0522 | 0.1515 | 0.0784 | 0.2276 |
| 122 | 49.51 | 0.00 | -0.0570 | -0.0214 | -0.0145 | 0.3754 | 0.1757 | 0.0658 | 0.0515 | 0.1509 | 0.0751 | 0.2288 |
| 123 | 49.70 | -0.00 | -0.0568 | -0.0272 | -0.0253 | 0.4765 | 0.0333 | 0.0706 | 0.0493 | 0.1488 | 0.0694 | 0.2373 |
| 124 | 49.87 | 0.01 | -0.0694 | -0.0284 | -0.0309 | 0.4112 | 0.1075 | 0.7113 | 0.0503 | 0.1656 | 0.0707 | 0.2326 |
| 125 | 50.04 | 0.01 | -0.0696 | -0.0288 | 0.0004 | 0.5752 | -0.0060 | 0.7165 | 0.0496 | 0.1703 | 0.0696 | 0.2370 |
| 126 | 50.23 | 0.03 | -0.0642 | -0.0287 | 0.0070 | 1.2240 | -0.0317 | 0.7131 | 0.0515 | 0.1672 | 0.0723 | 0.2328 |
| 127 | 50.40 | -0.01 | -0.0653 | -0.0278 | 0.0128 | 0.7739 | -0.0753 | 0.7350 | 0.0510 | 0.1730 | 0.0693 | 0.2351 |
| 128 | 50.57 | -0.03 | -0.0679 | -0.0274 | 0.0130 | 0.9619 | -0.1290 | 0.7235 | 0.0513 | 0.1667 | 0.0709 | 0.2332 |
| 129 | 50.73 | -0.02 | -0.0125 | -0.0150 | -0.0002 | 0.5035 | 0.0361 | 0.7406 | 0.0477 | 0.1714 | 0.0644 | 0.2314 |
| 130 | 50.88 | 0.01 | 0.0553 | -0.0053 | 0.0024 | -0.3596 | 0.0490 | 0.7270 | 0.0476 | 0.1665 | 0.0657 | 0.2250 |
| 131 | 51.06 | -0.00 | 0.0045 | -0.0088 | 0.0034 | -1.6953 | 0.7556 | 0.7251 | 0.0468 | 0.1654 | 0.0662 | 0.2281 |
| 132 | 51.18 | 0.02 | 0.0921 | 0.0021 | 0.0124 | 0.4907 | 0.2077 | 0.0684 | 0.0504 | 0.1513 | 0.0729 | 0.2196 |
| 133 | 51.35 | 0.01 | 0.0578 | -0.0001 | 0.0172 | -0.0017 | 0.3060 | 0.7053 | 0.0496 | 0.1550 | 0.0703 | 0.2240 |
| 134 | 51.53 | 0.00 | 0.0561 | 0.0051 | 0.0134 | 0.1116 | 0.2655 | 0.0705 | 0.0492 | 0.1457 | 0.0725 | 0.2200 |
| 135 | 51.67 | 0.00 | 0.0251 | 0.0057 | 0.0145 | 0.2184 | 0.1724 | 0.0621 | 0.0484 | 0.1522 | 0.0709 | 0.2231 |
| 136 | 51.83 | 0.00 | 0.0223 | 0.0064 | 0.0095 | 0.2295 | 0.1719 | 0.0683 | 0.0459 | 0.1469 | 0.0685 | 0.2205 |
| 137 | 52.03 | 0.02 | 0.0263 | 0.0058 | 0.0125 | 0.2205 | 0.1103 | 0.6653 | 0.0439 | 0.1462 | 0.0660 | 0.2228 |
| 138 | 52.19 | -0.01 | 0.0215 | 0.0049 | 0.0107 | 0.2640 | 0.1456 | 0.0657 | 0.0439 | 0.1492 | 0.0659 | 0.2241 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RAIC-o PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 142 1.60 1.7 0.0 DIMENSIONLESS 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ACPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.36 | -0.00 | 0.0167 | 0.0042 | 0.0021 | 0.2515 | 0.1257 | 0.0716 | 0.0445 | 0.1499 | 0.0662 | 0.2231 |
| 140 | 52.31 | -0.05 | 0.0131 | 0.0033 | 0.0015 | 0.2519 | 0.1195 | 0.0525 | 0.0451 | 0.1546 | 0.0661 | 0.2265 |
| 141 | 52.70 | +0.03 | 0.0035 | 0.0035 | -0.0021 | 0.9999 | -0.6000 | 0.0729 | 0.0424 | 0.1521 | 0.0630 | 0.2260 |
| 142 | 52.63 | -0.03 | 0.0035 | 0.0029 | -0.0019 | 0.9919 | -0.0078 | 0.0078 | 0.0418 | 0.1516 | 0.0626 | 0.2262 |
| 143 | 52.62 | -0.02 | 0.0035 | 0.0023 | -0.0017 | 0.0571 | -0.2300 | 0.0733 | 0.0402 | 0.1546 | 0.0597 | 0.2256 |
| 144 | 52.17 | -0.01 | 0.0035 | 0.0021 | -0.0013 | 0.9999 | -0.0057 | 0.0000 | 0.0416 | 0.1567 | 0.0610 | 0.2256 |
| 145 | 53.34 | -0.02 | -0.0003 | 0.0028 | -0.0016 | -0.8695 | 2.0000 | 0.0674 | 0.0416 | 0.1567 | 0.0605 | 0.2303 |
| 146 | 53.32 | -0.02 | 0.0005 | 0.0026 | -0.0014 | 2.0000 | -0.4444 | 0.0960 | 0.0436 | 0.1603 | 0.0626 | 0.2303 |
| 147 | 53.68 | -0.01 | 0.0016 | 0.0016 | -0.0004 | 1.5992 | 0.4300 | 0.0744 | 0.0427 | 0.1542 | 0.0606 | 0.2331 |
| 148 | 53.62 | -0.01 | -0.0001 | 0.0016 | 0.0002 | -7.4989 | -2.0000 | 0.0935 | 0.0434 | 0.1620 | 0.0621 | 0.2325 |
| 149 | 53.99 | -0.01 | -0.0003 | 0.0017 | 0.0003 | -5.0059 | -1.0000 | 0.0944 | 0.0414 | 0.1626 | 0.0596 | 0.2344 |
| 150 | 54.15 | -0.00 | -0.0002 | 0.0012 | 0.0011 | -0.9999 | -5.0000 | 0.0959 | 0.0403 | 0.1656 | 0.0579 | 0.2380 |
| 151 | 54.30 | -0.01 | -0.0002 | 0.0004 | 0.0003 | -0.1538 | -0.1154 | 0.0955 | 0.0391 | 0.1670 | 0.0561 | 0.2358 |
| 152 | 54.48 | -0.04 | 0.0035 | -0.0005 | 0.0024 | -0.1428 | 0.0007 | 0.7033 | 0.0381 | 0.1692 | 0.0540 | 0.2358 |
| 153 | 54.03 | -0.02 | -0.0027 | 0.0017 | -0.0005 | -0.0295 | 0.1352 | 0.7055 | 0.0370 | 0.1705 | 0.0533 | 0.2421 |
| 154 | 54.77 | -0.02 | -0.0007 | 0.0000 | -0.0008 | -0.0850 | 0.0426 | 0.7050 | 0.0350 | 0.1721 | 0.0505 | 0.2441 |
| 155 | 54.92 | -0.02 | -0.0006 | 0.0008 | -0.0023 | -0.0430 | 0.2674 | 0.7035 | 0.0340 | 0.1730 | 0.0493 | 0.2452 |
| 156 | 55.04 | -0.03 | -0.0002 | 0.0006 | -0.0003 | -0.0508 | 0.0305 | 0.7101 | 0.0350 | 0.1736 | 0.0493 | 0.2448 |
| 157 | 55.25 | -0.04 | -0.0002 | 0.00 | 0.0003 | 0.00 | -0.1200 | 0.7117 | 0.0336 | 0.1754 | 0.0472 | 0.2465 |
| 158 | 55.38 | -0.05 | -0.0002 | 0.0004 | -0.0001 | -0.0049 | 0.1774 | 0.7106 | 0.0332 | 0.1763 | 0.0462 | 0.2456 |
| 159 | 55.24 | -0.03 | -0.0003 | 0.0004 | 0.00 | -0.0035 | 0.00 | 0.7205 | 0.0331 | 0.1776 | 0.0459 | 0.2465 |
| 160 | 55.71 | -0.04 | -0.0002 | 0.0004 | 0.0004 | -0.2307 | -0.1538 | 0.7102 | 0.0313 | 0.1767 | 0.0436 | 0.2466 |
| 161 | 55.60 | -0.03 | 0.0046 | -0.0006 | 0.0035 | -0.1304 | -0.7605 | 0.7106 | 0.0293 | 0.1771 | 0.0408 | 0.2465 |
| 162 | 56.02 | -0.03 | 0.0040 | 0.0001 | 0.0026 | 0.0217 | 0.5002 | 0.7321 | 0.0295 | 0.1805 | 0.0408 | 0.2466 |
| 163 | 56.17 | -0.05 | -0.0015 | 0.0010 | 0.0010 | -0.3555 | -0.6007 | 0.7354 | 0.0288 | 0.1827 | 0.0384 | 0.2464 |
| 164 | 56.33 | -0.04 | 0.0010 | 0.0001 | 0.0022 | 0.1000 | 2.2000 | 0.7245 | 0.0271 | 0.1780 | 0.0374 | 0.2457 |
| 165 | 56.53 | -0.06 | -0.0051 | 0.0003 | 0.0000 | -0.3583 | -0.1176 | 0.7390 | 0.0274 | 0.1816 | 0.0398 | 0.2457 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RN/B-E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 142 1.00 1.7 0.0 BLANK14 6.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CAF3 | CY3 | CN3 | XCPF3 | YCPF3 | CAF4 | CY4 | CN4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.82 | -0.00 | 0.0445 | 0.0000 | 0.0000 | 0.0000 | 0.1796 | -1.1032 | 0.0210 | -0.2840 | -0.0190 | 0.2574 |
| 2 | -5.81 | 0.01 | 0.0445 | 0.0000 | 0.0000 | 0.0000 | 0.1796 | -1.1018 | 0.0213 | -0.2836 | -0.0193 | 0.2574 |
| 3 | -5.81 | 0.02 | 0.0445 | 0.0000 | 0.0000 | 0.0000 | 0.1796 | -1.0972 | 0.0207 | -0.2828 | -0.0189 | 0.2577 |
| 4 | -5.81 | 0.02 | 0.0470 | 0.0000 | 0.0000 | 0.0000 | 0.1795 | -1.0996 | 0.0202 | -0.2830 | -0.0184 | 0.2575 |
| 5 | -5.82 | 0.02 | 0.0432 | 0.0000 | 0.0074 | 0.0000 | 0.1715 | -1.0273 | 0.0223 | -0.2668 | -0.0217 | 0.2597 |
| 6 | -5.83 | 0.01 | 0.0419 | 0.0000 | 0.0000 | 0.0000 | 0.1803 | -0.9278 | 0.0240 | -0.2480 | -0.0259 | 0.2673 |
| 7 | -5.81 | 0.02 | 0.0419 | 0.0000 | 0.0078 | 0.0000 | 0.1802 | -0.8281 | 0.0248 | -0.2285 | -0.0256 | 0.2771 |
| 8 | 0.49 | 0.01 | 0.0416 | 0.0000 | 0.0079 | 0.0000 | 0.1803 | -0.7202 | 0.0234 | -0.2062 | -0.0325 | 0.2891 |
| 9 | 2.07 | 0.01 | 0.0419 | 0.0000 | 0.0078 | 0.0000 | 0.1802 | -0.6175 | 0.0230 | -0.1797 | -0.0372 | 0.2910 |
| 10 | 3.50 | 0.02 | 0.0432 | 0.0000 | 0.0074 | 0.0000 | 0.1944 | -0.5193 | 0.0212 | -0.1470 | -0.0408 | 0.2831 |
| 11 | 5.75 | 0.01 | 0.0456 | 0.0000 | 0.0079 | 0.0000 | 0.1593 | -0.4149 | 0.0185 | -0.1157 | -0.0446 | 0.2785 |
| 12 | 7.09 | 0.01 | 0.0374 | 0.0000 | 0.0080 | 0.0000 | 0.0571 | -0.3277 | 0.0163 | -0.0814 | -0.0497 | 0.2484 |
| 13 | 9.44 | 0.02 | 0.0422 | 0.0000 | 0.0038 | 0.0000 | 0.0479 | -0.2417 | 0.0140 | -0.0567 | -0.0579 | 0.2098 |
| 14 | 11.38 | 0.01 | 0.0762 | 0.0000 | 0.0026 | 0.0000 | 0.0370 | -0.1557 | 0.0114 | -0.0245 | -0.0732 | 0.1574 |
| 15 | 15.20 | 0.01 | 0.0228 | 0.0000 | 0.0020 | 0.0000 | 0.0291 | -0.0960 | 0.0117 | -0.0010 | -0.1219 | -0.0104 |
| 16 | 15.81 | 0.01 | 0.0719 | 0.0000 | 0.0017 | 0.0000 | 0.0238 | -0.0472 | 0.0112 | 0.0256 | -0.2373 | -0.5424 |
| 17 | 17.06 | 0.01 | 0.0626 | 0.0000 | -0.0022 | 0.0000 | -0.0319 | 0.0211 | 0.0110 | 0.0516 | 0.5213 | 2.4171 |
| 18 | 19.06 | -0.01 | 0.0612 | 0.0000 | -0.0021 | 0.0000 | -0.0343 | 0.0650 | 0.0108 | 0.0781 | 0.1270 | 0.5188 |
| 19 | 20.59 | 0.01 | 0.0662 | 0.0000 | 0.0003 | 0.0000 | 0.0345 | 0.1397 | 0.0115 | 0.0960 | 0.0823 | 0.7615 |
| 20 | 22.90 | 0.00 | 0.0673 | 0.0000 | 0.0004 | 0.0000 | 0.0059 | 0.1601 | 0.0123 | 0.1112 | 0.0683 | 0.6174 |
| 21 | 24.89 | 0.00 | 0.0699 | 0.0000 | 0.0021 | 0.0000 | 0.0300 | 0.2176 | 0.0151 | 0.1224 | 0.0694 | 0.5625 |
| 22 | 26.87 | 0.00 | 0.0696 | 0.0000 | 0.0121 | 0.0000 | 0.1347 | 0.1906 | 0.0203 | 0.1116 | 0.1032 | 0.5676 |
| 23 | 28.01 | 0.00 | 0.0929 | 0.0000 | 0.0128 | 0.0000 | 0.1387 | 0.1982 | 0.0220 | 0.1111 | 0.1110 | 0.5605 |
| 24 | 28.14 | 0.00 | 0.0958 | 0.0000 | 0.0126 | 0.0000 | 0.1403 | 0.2139 | 0.0219 | 0.1186 | 0.1024 | 0.5517 |
| 25 | 28.51 | 0.07 | 0.0919 | 0.0000 | 0.0157 | 0.0000 | 0.1512 | 0.1990 | 0.0231 | 0.1120 | 0.1161 | 0.5628 |
| 26 | 28.83 | 0.07 | 0.0974 | 0.0000 | 0.0152 | 0.0000 | 0.1581 | 0.2077 | 0.0229 | 0.1168 | 0.1102 | 0.5623 |
| 27 | 29.10 | 0.07 | 0.0951 | 0.0000 | 0.0135 | 0.0000 | 0.1420 | 0.2173 | 0.0236 | 0.1133 | 0.1086 | 0.5446 |
| 28 | 29.42 | 0.07 | 0.0951 | 0.0000 | 0.0134 | 0.0000 | 0.1507 | 0.2210 | 0.0236 | 0.1202 | 0.1065 | 0.5424 |
| 29 | 29.71 | 0.07 | 0.0926 | 0.0000 | 0.0131 | 0.0000 | 0.1569 | 0.2257 | 0.0238 | 0.1211 | 0.1056 | 0.5366 |
| 30 | 29.99 | 0.07 | 0.0952 | 0.0000 | 0.0120 | 0.0000 | 0.1200 | 0.2330 | 0.0238 | 0.1244 | 0.1021 | 0.5339 |
| 31 | 30.26 | 0.06 | 0.0971 | 0.0000 | 0.0132 | 0.0000 | 0.1351 | 0.2346 | 0.0236 | 0.1245 | 0.1006 | 0.5324 |
| 32 | 30.52 | 0.07 | 0.1027 | 0.0000 | 0.0106 | 0.0000 | 0.1016 | 0.2402 | 0.0236 | 0.1254 | 0.0982 | 0.5221 |
| 33 | 30.82 | 0.07 | 0.1026 | 0.0000 | 0.0156 | 0.0000 | 0.1520 | 0.2254 | 0.0242 | 0.1227 | 0.1073 | 0.5444 |
| 34 | 31.06 | 0.06 | 0.1064 | 0.0000 | 0.0164 | 0.0000 | 0.1541 | 0.2393 | 0.0245 | 0.1264 | 0.1024 | 0.5282 |
| 35 | 31.37 | 0.08 | 0.1078 | 0.0000 | 0.0180 | 0.0000 | 0.1673 | 0.2426 | 0.0241 | 0.1281 | 0.0954 | 0.5285 |
| 36 | 31.65 | 0.06 | 0.0963 | 0.0000 | 0.0136 | 0.0000 | 0.1412 | 0.2284 | 0.0241 | 0.1290 | 0.0972 | 0.5049 |
| 37 | 31.90 | 0.04 | 0.0950 | 0.0000 | 0.0135 | 0.0000 | 0.1421 | 0.2233 | 0.0249 | 0.1362 | 0.0956 | 0.4984 |
| 38 | 32.18 | 0.05 | 0.0969 | 0.0000 | 0.0116 | 0.0000 | 0.1277 | 0.2000 | 0.0250 | 0.1405 | 0.0902 | 0.4913 |
| 39 | 32.45 | 0.02 | 0.0824 | 0.0000 | 0.0090 | 0.0000 | 0.1092 | 0.3078 | 0.0269 | 0.1444 | 0.0874 | 0.4691 |
| 40 | 32.70 | 0.03 | 0.0811 | 0.0000 | 0.0094 | 0.0000 | 0.1155 | 0.3174 | 0.0272 | 0.1457 | 0.0857 | 0.4590 |
| 41 | 32.95 | 0.02 | 0.0774 | 0.0000 | 0.0071 | 0.0000 | 0.0917 | 0.3445 | 0.0269 | 0.1534 | 0.0781 | 0.4453 |
| 42 | 33.22 | 0.02 | 0.0765 | 0.0000 | 0.0095 | 0.0000 | 0.1224 | 0.3407 | 0.0275 | 0.1515 | 0.0867 | 0.4447 |
| 43 | 33.46 | 0.03 | 0.0747 | 0.0000 | 0.0074 | 0.0000 | 0.0991 | 0.3786 | 0.0259 | 0.1634 | 0.0884 | 0.4316 |
| 44 | 33.71 | 0.02 | 0.0722 | 0.0000 | 0.0062 | 0.0000 | 0.0859 | 0.3852 | 0.0265 | 0.1555 | 0.0736 | 0.4367 |
| 45 | 33.97 | 0.04 | 0.0834 | 0.0000 | 0.0121 | 0.0000 | 0.1451 | 0.3779 | 0.0270 | 0.1641 | 0.0714 | 0.4342 |
| 46 | 34.22 | 0.04 | 0.0761 | 0.0000 | 0.0067 | 0.0000 | 0.1207 | 0.3883 | 0.0273 | 0.1591 | 0.0745 | 0.4343 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 142 MACH 1.00 ALPHA 1.7 PHI 0.0 CONF 31 ELL 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CAF1 | CN1 | CM1 | XCPF1 | YCPF1 | CAF2 | CN2 | CM2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 0.1722 | -0.0040 | 0.0245 | -0.0267 | 0.4707 | 0.5256 | 0.0271 | 0.1448 | 0.0516 | 0.2755 |
| 48 | 34.71 | 0.04 | 0.1729 | -0.0048 | 0.0234 | -0.0306 | 0.4502 | 0.5214 | 0.0280 | 0.1424 | 0.0537 | 0.2741 |
| 49 | 34.97 | 0.04 | 0.1723 | -0.0064 | 0.0245 | -0.0305 | 0.4277 | 0.5231 | 0.0274 | 0.1455 | 0.0512 | 0.2754 |
| 50 | 35.20 | 0.05 | 0.1721 | -0.0062 | 0.0265 | -0.0271 | 0.4746 | 0.5242 | 0.0276 | 0.1523 | 0.0508 | 0.2804 |
| 51 | 35.43 | 0.05 | 0.1743 | -0.0058 | 0.0245 | -0.0248 | 0.4332 | 0.5512 | 0.0287 | 0.1542 | 0.0521 | 0.2756 |
| 52 | 35.69 | 0.06 | 0.1749 | -0.0064 | 0.0236 | -0.0231 | 0.4442 | 0.5622 | 0.0283 | 0.1583 | 0.0503 | 0.2816 |
| 53 | 35.93 | 0.06 | 0.1734 | -0.0035 | 0.0217 | -0.0151 | 0.4395 | 0.5592 | 0.0301 | 0.1561 | 0.0538 | 0.2791 |
| 54 | 36.15 | 0.04 | 0.1753 | -0.0062 | 0.0236 | -0.0138 | 0.3396 | 0.3527 | 0.0312 | 0.1552 | 0.0564 | 0.2806 |
| 55 | 36.40 | 0.04 | 0.2399 | -0.0027 | 0.0166 | -0.0113 | 0.4414 | 0.5715 | 0.0335 | 0.1616 | 0.0533 | 0.2826 |
| 56 | 36.64 | 0.05 | 0.1965 | 0.0002 | 0.0179 | 0.0014 | 0.5147 | 0.5677 | 0.0311 | 0.1602 | 0.0548 | 0.2822 |
| 57 | 36.88 | 0.06 | 0.2262 | -0.0013 | 0.0126 | -0.0057 | 0.4545 | 0.5820 | 0.0321 | 0.1588 | 0.0571 | 0.2828 |
| 58 | 37.13 | 0.06 | 0.1512 | 0.0013 | 0.0187 | 0.0099 | 0.5373 | 0.5708 | 0.0303 | 0.1633 | 0.0523 | 0.2821 |
| 59 | 37.34 | 0.04 | 0.1361 | 0.0013 | 0.0212 | 0.0099 | 0.5141 | 0.5731 | 0.0315 | 0.1624 | 0.0550 | 0.2834 |
| 60 | 37.58 | 0.04 | 0.1770 | 0.0018 | 0.0149 | 0.0107 | 0.4775 | 0.5838 | 0.0314 | 0.1666 | 0.0546 | 0.2853 |
| 61 | 37.82 | 0.05 | 0.1537 | 0.0032 | 0.0196 | 0.0208 | 0.4654 | 0.5963 | 0.0314 | 0.1708 | 0.0527 | 0.2864 |
| 62 | 38.05 | 0.04 | 0.1968 | 0.0033 | 0.0162 | 0.0210 | 0.4477 | 0.6005 | 0.0314 | 0.1707 | 0.0525 | 0.2843 |
| 63 | 38.27 | 0.07 | 0.1610 | 0.0036 | 0.0206 | 0.0226 | 0.4756 | 0.5934 | 0.0327 | 0.1691 | 0.0551 | 0.2850 |
| 64 | 38.51 | 0.03 | 0.1613 | 0.0041 | 0.0221 | 0.0303 | 0.4304 | 0.6224 | 0.0306 | 0.1741 | 0.0495 | 0.2894 |
| 65 | 38.73 | 0.05 | 0.1357 | 0.0037 | 0.0234 | 0.0242 | 0.4693 | 0.6077 | 0.0328 | 0.1742 | 0.0536 | 0.2887 |
| 66 | 38.93 | 0.03 | 0.1117 | 0.0076 | 0.0333 | 0.0427 | 0.4709 | 0.6174 | 0.0322 | 0.1777 | 0.0521 | 0.2878 |
| 67 | 39.18 | 0.04 | 0.1426 | 0.0059 | 0.0257 | 0.0307 | 0.4543 | 0.6312 | 0.0312 | 0.1826 | 0.0494 | 0.2893 |
| 68 | 39.39 | 0.03 | 0.1213 | 0.0112 | 0.0279 | 0.0400 | 0.4317 | 0.6282 | 0.0329 | 0.1814 | 0.0524 | 0.2868 |
| 69 | 39.63 | 0.06 | 0.1320 | 0.0131 | 0.0295 | 0.0492 | 0.4506 | 0.6412 | 0.0330 | 0.1854 | 0.0515 | 0.2891 |
| 70 | 39.81 | 0.06 | 0.1404 | 0.0140 | 0.0211 | 0.0497 | 0.4352 | 0.6423 | 0.0345 | 0.1861 | 0.0537 | 0.2897 |
| 71 | 40.01 | 0.06 | 0.1358 | 0.0136 | 0.0200 | 0.0418 | 0.4425 | 0.6419 | 0.0342 | 0.1837 | 0.0517 | 0.2925 |
| 72 | 40.20 | 0.04 | 0.1496 | 0.0148 | 0.0232 | 0.0483 | 0.4259 | 0.6018 | 0.0338 | 0.1921 | 0.0506 | 0.2904 |
| 73 | 40.42 | 0.06 | 0.1063 | 0.0174 | 0.0201 | 0.0534 | 0.4040 | 0.6477 | 0.0364 | 0.1878 | 0.0553 | 0.2858 |
| 74 | 40.61 | 0.05 | 0.1604 | 0.0166 | 0.0178 | 0.0496 | 0.3969 | 0.6474 | 0.0346 | 0.1861 | 0.0515 | 0.2875 |
| 75 | 40.84 | 0.05 | 0.1540 | 0.0168 | 0.0193 | 0.1221 | 0.3851 | 0.6727 | 0.0367 | 0.1861 | 0.0545 | 0.2915 |
| 76 | 41.05 | 0.04 | 0.1372 | 0.0187 | 0.0244 | 0.1218 | 0.3902 | 0.6730 | 0.0362 | 0.1956 | 0.0507 | 0.2906 |
| 77 | 41.24 | 0.04 | 0.1306 | 0.0185 | 0.0252 | 0.1219 | 0.3983 | 0.6787 | 0.0352 | 0.1969 | 0.0503 | 0.2901 |
| 78 | 41.48 | 0.04 | 0.1463 | 0.0183 | 0.0199 | 0.1259 | 0.3930 | 0.6720 | 0.0375 | 0.2013 | 0.0541 | 0.2906 |
| 79 | 41.64 | 0.03 | 0.1230 | 0.0149 | 0.0205 | 0.1211 | 0.4106 | 0.6953 | 0.0378 | 0.2021 | 0.0544 | 0.2907 |
| 80 | 41.84 | 0.04 | 0.1439 | 0.0188 | 0.0244 | 0.1404 | 0.3915 | 0.6849 | 0.0356 | 0.1964 | 0.0575 | 0.2871 |
| 81 | 42.04 | 0.05 | 0.1477 | 0.0175 | 0.0205 | 0.1402 | 0.3955 | 0.6814 | 0.0428 | 0.1882 | 0.0644 | 0.2845 |
| 82 | 42.24 | 0.04 | 0.1364 | 0.0177 | 0.0236 | 0.1497 | 0.3888 | 0.6705 | 0.0424 | 0.1912 | 0.0634 | 0.2852 |
| 83 | 42.50 | 0.04 | 0.1343 | 0.0183 | 0.0235 | 0.1357 | 0.3965 | 0.6798 | 0.0437 | 0.1865 | 0.0597 | 0.2832 |
| 84 | 42.68 | 0.04 | 0.1349 | 0.0178 | 0.0233 | 0.1304 | 0.3951 | 0.6843 | 0.0455 | 0.1883 | 0.0703 | 0.2858 |
| 85 | 42.88 | 0.04 | 0.1388 | 0.0182 | 0.0222 | 0.1297 | 0.3761 | 0.6824 | 0.0443 | 0.1858 | 0.0665 | 0.2852 |
| 86 | 43.09 | 0.02 | 0.1419 | 0.0188 | 0.0234 | 0.1188 | 0.3812 | 0.6874 | 0.0458 | 0.1822 | 0.0697 | 0.2772 |
| 87 | 43.22 | 0.04 | 0.1369 | 0.0184 | 0.0274 | 0.1173 | 0.3858 | 0.6804 | 0.0460 | 0.1815 | 0.0701 | 0.2771 |
| 88 | 43.41 | 0.04 | 0.1342 | 0.0205 | 0.0271 | 0.1273 | 0.3877 | 0.6824 | 0.0469 | 0.1716 | 0.0769 | 0.2701 |
| 89 | 43.59 | 0.03 | 0.1498 | 0.0173 | 0.0205 | 0.1155 | 0.3772 | 0.6868 | 0.0486 | 0.1737 | 0.0764 | 0.2715 |
| 90 | 43.75 | 0.05 | 0.1426 | 0.0168 | 0.0230 | 0.1108 | 0.3896 | 0.6724 | 0.0460 | 0.1956 | 0.0684 | 0.2760 |
| 91 | 43.93 | 0.03 | 0.1363 | 0.0173 | 0.0231 | 0.1105 | 0.3821 | 0.6732 | 0.0473 | 0.1825 | 0.0706 | 0.2725 |
| 92 | 44.11 | 0.04 | 0.1361 | 0.0163 | 0.0247 | 0.1103 | 0.3804 | 0.6758 | 0.0496 | 0.1702 | 0.0760 | 0.2677 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 142 MACH 1.00 RATIO-E 1.7 PHI 0.0 CONF BINCF14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF2 | CH3 | CD3 | XCPF3 | YCPF3 | CNF4 | CH4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.47 | 0.04 | 0.0305 | 0.0000 | 0.0105 | 0.0000 | 0.1347 | 0.3779 | 0.0270 | 0.1641 | 0.0714 | 0.4342 |
| 48 | 34.71 | 0.04 | 0.0746 | 0.0000 | 0.0105 | 0.0000 | 0.1193 | 0.3801 | 0.0273 | 0.1664 | 0.0707 | 0.4310 |
| 49 | 34.97 | 0.00 | 0.0771 | 0.0000 | 0.0106 | 0.0000 | 0.1375 | 0.3870 | 0.0270 | 0.1674 | 0.0696 | 0.4317 |
| 50 | 35.20 | 0.03 | 0.0744 | 0.0000 | 0.0123 | 0.0000 | 0.1522 | 0.3830 | 0.0277 | 0.1657 | 0.0723 | 0.4326 |
| 51 | 35.43 | 0.03 | 0.0746 | 0.0000 | 0.0104 | 0.0000 | 0.1396 | 0.3870 | 0.0280 | 0.1661 | 0.0723 | 0.4292 |
| 52 | 35.69 | 0.00 | 0.0745 | 0.0000 | 0.0113 | 0.0000 | 0.1517 | 0.3858 | 0.0276 | 0.1648 | 0.0715 | 0.4272 |
| 53 | 35.93 | 0.00 | 0.0720 | 0.0000 | 0.0134 | 0.0000 | 0.1634 | 0.3935 | 0.0287 | 0.1688 | 0.0725 | 0.4250 |
| 54 | 36.15 | 0.04 | 0.0745 | 0.0000 | 0.0123 | 0.0000 | 0.1051 | 0.4096 | 0.0304 | 0.1726 | 0.0742 | 0.4214 |
| 55 | 36.40 | 0.04 | 0.0746 | 0.0000 | 0.0114 | 0.0000 | 0.1528 | 0.3920 | 0.0303 | 0.1682 | 0.0771 | 0.4282 |
| 56 | 36.64 | 0.05 | 0.0763 | 0.0000 | 0.0104 | 0.0000 | 0.1905 | 0.4001 | 0.0314 | 0.1715 | 0.0773 | 0.4223 |
| 57 | 36.86 | 0.00 | 0.0767 | 0.0000 | 0.0156 | 0.0000 | 0.1958 | 0.4004 | 0.0310 | 0.1715 | 0.0763 | 0.4220 |
| 58 | 37.13 | 0.00 | 0.0745 | 0.0000 | 0.0126 | 0.0000 | 0.1716 | 0.4056 | 0.0321 | 0.1715 | 0.0763 | 0.4185 |
| 59 | 37.34 | 0.04 | 0.0723 | 0.0000 | 0.0095 | 0.0000 | 0.1449 | 0.4079 | 0.0327 | 0.1709 | 0.0802 | 0.4156 |
| 60 | 37.56 | 0.04 | 0.0762 | 0.0000 | 0.0114 | 0.0000 | 0.1672 | 0.4100 | 0.0337 | 0.1713 | 0.0822 | 0.4178 |
| 61 | 37.82 | 0.05 | 0.0732 | 0.0000 | 0.0142 | 0.0000 | 0.1940 | 0.4178 | 0.0346 | 0.1751 | 0.0828 | 0.4143 |
| 62 | 38.05 | 0.04 | 0.0754 | 0.0000 | 0.0125 | 0.0000 | 0.1859 | 0.4209 | 0.0350 | 0.1724 | 0.0833 | 0.4102 |
| 63 | 38.27 | 0.07 | 0.0815 | 0.0000 | 0.0179 | 0.0000 | 0.2100 | 0.4408 | 0.0343 | 0.1805 | 0.0778 | 0.4097 |
| 64 | 38.51 | 0.03 | 0.0716 | 0.0000 | 0.0078 | 0.0000 | 0.1467 | 0.4223 | 0.0360 | 0.1716 | 0.0852 | 0.4054 |
| 65 | 38.73 | 0.05 | 0.0745 | 0.0000 | 0.0116 | 0.0000 | 0.1798 | 0.4271 | 0.0360 | 0.1727 | 0.0843 | 0.4044 |
| 66 | 38.93 | 0.03 | 0.0615 | 0.0000 | 0.0116 | 0.0000 | 0.1930 | 0.4337 | 0.0368 | 0.1736 | 0.0844 | 0.4010 |
| 67 | 39.16 | 0.04 | 0.0632 | 0.0000 | 0.0115 | 0.0000 | 0.1883 | 0.4220 | 0.0370 | 0.1694 | 0.0877 | 0.4014 |
| 68 | 39.39 | 0.03 | 0.0657 | 0.0000 | 0.0131 | 0.0000 | 0.1994 | 0.4293 | 0.0367 | 0.1715 | 0.0855 | 0.3995 |
| 69 | 39.58 | 0.06 | 0.0744 | 0.0000 | 0.0183 | 0.0000 | 0.2400 | 0.4436 | 0.0372 | 0.1744 | 0.0838 | 0.3931 |
| 70 | 39.81 | 0.06 | 0.0695 | 0.0000 | 0.0134 | 0.0000 | 0.2210 | 0.4419 | 0.0375 | 0.1730 | 0.0848 | 0.3933 |
| 71 | 40.01 | 0.06 | 0.0615 | 0.0000 | 0.0124 | 0.0000 | 0.2003 | 0.4552 | 0.0375 | 0.1757 | 0.0827 | 0.3877 |
| 72 | 40.20 | 0.04 | 0.0615 | 0.0000 | 0.0136 | 0.0000 | 0.2229 | 0.4496 | 0.0383 | 0.1730 | 0.0851 | 0.3846 |
| 73 | 40.42 | 0.06 | 0.0644 | 0.0000 | 0.0150 | 0.0000 | 0.2329 | 0.4722 | 0.0375 | 0.1796 | 0.0794 | 0.3808 |
| 74 | 40.61 | 0.05 | 0.0645 | 0.0000 | 0.0135 | 0.0000 | 0.2246 | 0.4650 | 0.0374 | 0.1833 | 0.0773 | 0.3790 |
| 75 | 40.84 | 0.05 | 0.0665 | 0.0000 | 0.0174 | 0.0000 | 0.2571 | 0.4691 | 0.0397 | 0.1775 | 0.0846 | 0.3784 |
| 76 | 41.05 | 0.04 | 0.0644 | 0.0000 | 0.0155 | 0.0000 | 0.2407 | 0.4665 | 0.0413 | 0.1807 | 0.0849 | 0.3716 |
| 77 | 41.24 | 0.04 | 0.0644 | 0.0000 | 0.0165 | 0.0000 | 0.2502 | 0.4656 | 0.0414 | 0.1809 | 0.0850 | 0.3718 |
| 78 | 41.46 | 0.04 | 0.0652 | 0.0000 | 0.0166 | 0.0000 | 0.2532 | 0.4729 | 0.0420 | 0.1842 | 0.0868 | 0.3696 |
| 79 | 41.64 | 0.03 | 0.0615 | 0.0000 | 0.0163 | 0.0000 | 0.2633 | 0.4816 | 0.0445 | 0.1770 | 0.0924 | 0.3675 |
| 80 | 41.84 | 0.04 | 0.0594 | 0.0000 | 0.0147 | 0.0000 | 0.2475 | 0.4813 | 0.0449 | 0.1771 | 0.0933 | 0.3680 |
| 81 | 42.04 | 0.05 | 0.0593 | 0.0000 | 0.0161 | 0.0000 | 0.2715 | 0.5018 | 0.0463 | 0.1821 | 0.0883 | 0.3630 |
| 82 | 42.24 | 0.04 | 0.0665 | 0.0000 | 0.0197 | 0.0000 | 0.2945 | 0.5024 | 0.0456 | 0.1817 | 0.0913 | 0.3617 |
| 83 | 42.50 | 0.04 | 0.0618 | 0.0000 | 0.0173 | 0.0000 | 0.2799 | 0.5351 | 0.0474 | 0.1937 | 0.0768 | 0.3593 |
| 84 | 42.68 | 0.04 | 0.0555 | 0.0000 | 0.0158 | 0.0000 | 0.2647 | 0.5040 | 0.0447 | 0.1825 | 0.0887 | 0.3629 |
| 85 | 42.86 | 0.04 | 0.0566 | 0.0000 | 0.0167 | 0.0000 | 0.2756 | 0.5048 | 0.0455 | 0.1810 | 0.0901 | 0.3586 |
| 86 | 43.04 | 0.04 | 0.0618 | 0.0000 | 0.0153 | 0.0000 | 0.2623 | 0.5073 | 0.0464 | 0.1811 | 0.0914 | 0.3568 |
| 87 | 43.22 | 0.04 | 0.0604 | 0.0000 | 0.0152 | 0.0000 | 0.3179 | 0.5067 | 0.0465 | 0.1808 | 0.0918 | 0.3568 |
| 88 | 43.41 | 0.04 | 0.0564 | 0.0000 | 0.0174 | 0.0000 | 0.3157 | 0.5277 | 0.0450 | 0.1866 | 0.0853 | 0.3540 |
| 89 | 43.59 | 0.03 | 0.0517 | 0.0000 | 0.0155 | 0.0000 | 0.2978 | 0.5129 | 0.0465 | 0.1820 | 0.0886 | 0.3548 |
| 90 | 43.75 | 0.05 | 0.0618 | 0.0000 | 0.0168 | 0.0000 | 0.3042 | 0.5013 | 0.0467 | 0.1774 | 0.0871 | 0.3539 |
| 91 | 43.95 | 0.03 | 0.0619 | 0.0000 | 0.0154 | 0.0000 | 0.3134 | 0.5052 | 0.0499 | 0.1760 | 0.0938 | 0.3464 |
| 92 | 44.11 | 0.04 | 0.0592 | 0.0000 | 0.0141 | 0.0000 | 0.3226 | 0.5165 | 0.0467 | 0.1782 | 0.0950 | 0.3477 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART PACK RATIO=c PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 142 1.00 1.7 0.0 31.0F14 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.32 | 0.03 | 0.0475 | 9.9999 | 0.0152 | 9.9999 | 0.3173 | 0.5089 | 0.0496 | 0.1760 | 0.0975 | 0.3458 |
| 94 | 44.50 | 0.04 | 0.0504 | 9.9999 | 0.0152 | 9.9999 | 0.3179 | 0.5098 | 0.0460 | 0.1666 | 0.0945 | 0.3437 |
| 95 | 44.69 | 0.03 | 0.0503 | 9.9999 | 0.0154 | 9.9999 | 0.3200 | 0.5179 | 0.0478 | 0.1781 | 0.0961 | 0.3435 |
| 96 | 44.88 | 0.04 | 0.0554 | 9.9999 | 0.0173 | 9.9999 | 0.3123 | 0.5041 | 0.0526 | 0.1715 | 0.1047 | 0.3402 |
| 97 | 45.06 | 0.02 | 0.0446 | 9.9999 | 0.0144 | 9.9999 | 0.3273 | 0.5474 | 0.0480 | 0.1646 | 0.0877 | 0.3372 |
| 98 | 45.25 | 0.02 | 0.0505 | 9.9999 | 0.0163 | 9.9999 | 0.3249 | 0.5353 | 0.0529 | 0.1713 | 0.1001 | 0.3404 |
| 99 | 45.42 | 0.01 | 0.0424 | 9.9999 | 0.0142 | 9.9999 | 0.3290 | 0.5246 | 0.0517 | 0.1781 | 0.0985 | 0.3395 |
| 100 | 45.61 | 0.02 | 0.0464 | 9.9999 | 0.0156 | 9.9999 | 0.3211 | 0.5229 | 0.0539 | 0.1743 | 0.1031 | 0.3333 |
| 101 | 45.78 | 0.01 | 0.0439 | 9.9999 | 0.0145 | 9.9999 | 0.2938 | 0.5522 | 0.0505 | 0.1635 | 0.0914 | 0.3323 |
| 102 | 45.95 | 0.02 | 0.0452 | 9.9999 | 0.0172 | 9.9999 | 0.3116 | 0.5438 | 0.0522 | 0.1801 | 0.0960 | 0.3312 |
| 103 | 46.14 | 0.01 | 0.0438 | 9.9999 | 0.0135 | 9.9999 | 0.3174 | 0.5469 | 0.0520 | 0.1792 | 0.0962 | 0.3277 |
| 104 | 46.31 | 0.01 | 0.0434 | 9.9999 | 0.0145 | 9.9999 | 0.2938 | 0.5604 | 0.0534 | 0.1859 | 0.0885 | 0.3279 |
| 105 | 46.47 | 0.02 | 0.0418 | 9.9999 | 0.0107 | 9.9999 | 0.2585 | 0.5554 | 0.0522 | 0.1813 | 0.0940 | 0.3264 |
| 106 | 46.66 | 0.01 | 0.0414 | 9.9999 | 0.0107 | 9.9999 | 0.2565 | 0.5677 | 0.0509 | 0.1840 | 0.0856 | 0.3241 |
| 107 | 46.84 | 0.02 | 0.0440 | 9.9999 | 0.0119 | 9.9999 | 0.2705 | 0.5737 | 0.0513 | 0.1826 | 0.0894 | 0.3183 |
| 108 | 47.00 | 0.00 | 0.0426 | 9.9999 | 0.0150 | 9.9999 | 0.2852 | 0.5704 | 0.0503 | 0.1850 | 0.0873 | 0.3210 |
| 109 | 47.16 | 0.01 | 0.0477 | 9.9999 | 0.0127 | 9.9999 | 0.2662 | 0.5721 | 0.0503 | 0.1815 | 0.0875 | 0.3173 |
| 110 | 47.30 | 0.01 | 0.0435 | 9.9999 | 0.0145 | 9.9999 | 0.2483 | 0.5693 | 0.0510 | 0.1781 | 0.0856 | 0.3128 |
| 111 | 47.55 | 0.01 | 0.0435 | 9.9999 | 0.0109 | 9.9999 | 0.2589 | 0.5812 | 0.0481 | 0.1870 | 0.0730 | 0.3121 |
| 112 | 47.71 | 0.01 | 0.0526 | 9.9999 | 0.0150 | 9.9999 | 0.2567 | 0.7192 | 0.0492 | 0.2205 | 0.0801 | 0.3066 |
| 113 | 47.90 | 0.05 | 0.0563 | 9.9999 | 0.0125 | 9.9999 | 0.2185 | 0.5744 | 0.0508 | 0.1662 | 0.0884 | 0.2928 |
| 114 | 48.06 | 0.01 | 0.0563 | 9.9999 | 0.0146 | 9.9999 | 0.2629 | 0.6302 | 0.0488 | 0.1866 | 0.0743 | 0.2961 |
| 115 | 48.26 | 0.04 | 0.0512 | 9.9999 | 0.0162 | 9.9999 | 0.2647 | 0.5873 | 0.0469 | 0.1841 | 0.0827 | 0.2893 |
| 116 | 48.48 | 0.04 | 0.0500 | 9.9999 | 0.0156 | 9.9999 | 0.2600 | 0.5810 | 0.0441 | 0.1815 | 0.0786 | 0.2886 |
| 117 | 48.63 | 0.02 | 0.0512 | 9.9999 | 0.0152 | 9.9999 | 0.2484 | 0.5970 | 0.0446 | 0.1811 | 0.0801 | 0.2892 |
| 118 | 48.80 | 0.05 | 0.0567 | 9.9999 | 0.0136 | 9.9999 | 0.2535 | 0.5712 | 0.0434 | 0.1840 | 0.0766 | 0.2871 |
| 119 | 48.99 | 0.03 | 0.0536 | 9.9999 | 0.0163 | 9.9999 | 0.2563 | 0.5835 | 0.0439 | 0.1828 | 0.0772 | 0.2864 |
| 120 | 49.15 | 0.01 | 0.0537 | 9.9999 | 0.0141 | 9.9999 | 0.2628 | 0.5809 | 0.0455 | 0.1866 | 0.0811 | 0.2828 |
| 121 | 49.32 | 0.01 | 0.0488 | 9.9999 | 0.0112 | 9.9999 | 0.2295 | 0.5999 | 0.0450 | 0.1889 | 0.0804 | 0.2838 |
| 122 | 49.51 | 0.00 | 0.0522 | 9.9999 | 0.0138 | 9.9999 | 0.2456 | 0.5933 | 0.0479 | 0.1933 | 0.0866 | 0.2771 |
| 123 | 49.70 | -0.00 | 0.0500 | 9.9999 | 0.0140 | 9.9999 | 0.2433 | 0.5949 | 0.0457 | 0.1905 | 0.0812 | 0.2762 |
| 124 | 49.87 | 0.01 | 0.0529 | 9.9999 | 0.0138 | 9.9999 | 0.2451 | 0.5998 | 0.0491 | 0.1928 | 0.0883 | 0.2749 |
| 125 | 50.04 | 0.01 | 0.0525 | 9.9999 | 0.0120 | 9.9999 | 0.2266 | 0.5902 | 0.0508 | 0.1961 | 0.0944 | 0.2715 |
| 126 | 50.23 | 0.03 | 0.0561 | 9.9999 | 0.0146 | 9.9999 | 0.2438 | 0.5996 | 0.0497 | 0.1947 | 0.0937 | 0.2689 |
| 127 | 50.40 | -0.01 | 0.0512 | 9.9999 | 0.0124 | 9.9999 | 0.2422 | 0.5958 | 0.0503 | 0.1937 | 0.0935 | 0.2682 |
| 128 | 50.57 | -0.03 | 0.0561 | 9.9999 | 0.0146 | 9.9999 | 0.2630 | 0.5933 | 0.0496 | 0.1961 | 0.0909 | 0.2685 |
| 129 | 50.73 | -0.02 | 0.0438 | 9.9999 | 0.0118 | 9.9999 | 0.2706 | 0.5902 | 0.0534 | 0.1932 | 0.0988 | 0.2651 |
| 130 | 50.88 | 0.01 | 0.0560 | 9.9999 | 0.0118 | 9.9999 | 0.2560 | 0.5974 | 0.0554 | 0.1988 | 0.0999 | 0.2660 |
| 131 | 51.06 | -0.00 | 0.0560 | 9.9999 | 0.0123 | 9.9999 | 0.2460 | 0.5934 | 0.0553 | 0.1906 | 0.0981 | 0.2673 |
| 132 | 51.18 | 0.02 | 0.0481 | 9.9999 | 0.0101 | 9.9999 | 0.2020 | 0.5959 | 0.0541 | 0.1901 | 0.0908 | 0.2687 |
| 133 | 51.35 | 0.01 | 0.0560 | 9.9999 | 0.0126 | 9.9999 | 0.2560 | 0.5626 | 0.0549 | 0.1957 | 0.0942 | 0.2672 |
| 134 | 51.53 | 0.00 | 0.0561 | 9.9999 | 0.0075 | 9.9999 | 0.1933 | 0.5952 | 0.0538 | 0.1953 | 0.0904 | 0.2676 |
| 135 | 51.69 | 0.00 | 0.0438 | 9.9999 | 0.0099 | 9.9999 | 0.2260 | 0.6192 | 0.0527 | 0.1962 | 0.0851 | 0.2684 |
| 136 | 51.85 | 0.00 | 0.0413 | 9.9999 | 0.0067 | 9.9999 | 0.2107 | 0.6251 | 0.0531 | 0.1971 | 0.0852 | 0.2682 |
| 137 | 52.03 | 0.02 | 0.0436 | 9.9999 | 0.0065 | 9.9999 | 0.2027 | 0.6183 | 0.0520 | 0.1956 | 0.0841 | 0.2675 |
| 138 | 52.19 | -0.01 | 0.0369 | 9.9999 | 0.0065 | 9.9999 | 0.1671 | 0.6213 | 0.0524 | 0.1971 | 0.0843 | 0.2690 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH #X10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 142 1.00 1.7 0.0 C1&CF14 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.36 | -0.00 | 0.0526 | 0.0000 | 0.0115 | 0.9999 | 0.2106 | 0.6315 | 0.0510 | 0.1667 | 0.0807 | 0.2671 |
| 140 | 52.51 | -0.05 | 0.0538 | 0.0000 | 0.0116 | 0.9999 | 0.2344 | 0.6242 | 0.0514 | 0.1672 | 0.0823 | 0.2676 |
| 141 | 52.70 | -0.05 | 0.0413 | 0.0000 | 0.0107 | 0.9999 | 0.2591 | 0.6328 | 0.0503 | 0.1688 | 0.0795 | 0.2668 |
| 142 | 52.83 | -0.05 | 0.0478 | 0.0000 | 0.0112 | 0.9999 | 0.2353 | 0.6256 | 0.0520 | 0.1666 | 0.0831 | 0.2662 |
| 143 | 53.02 | -0.04 | 0.0464 | 0.0000 | 0.0091 | 0.9999 | 0.1901 | 0.6248 | 0.0498 | 0.1670 | 0.0797 | 0.2673 |
| 144 | 53.17 | -0.01 | 0.0435 | 0.0000 | 0.0099 | 0.9999 | 0.2255 | 0.6346 | 0.0506 | 0.1666 | 0.0800 | 0.2657 |
| 145 | 53.34 | -0.02 | 0.0401 | 0.0000 | 0.0101 | 0.9999 | 0.2519 | 0.6433 | 0.0486 | 0.1714 | 0.0755 | 0.2664 |
| 146 | 53.52 | -0.02 | 0.0396 | 0.0000 | 0.0075 | 0.9999 | 0.1923 | 0.6493 | 0.0491 | 0.1726 | 0.0756 | 0.2649 |
| 147 | 53.66 | -0.01 | 0.0415 | 0.0000 | 0.0087 | 0.9999 | 0.2296 | 0.6534 | 0.0476 | 0.1740 | 0.0725 | 0.2663 |
| 148 | 53.82 | -0.01 | 0.0443 | 0.0000 | 0.0087 | 0.9999 | 0.2096 | 0.6435 | 0.0484 | 0.1765 | 0.0752 | 0.2650 |
| 149 | 53.99 | -0.01 | 0.0465 | 0.0000 | 0.0101 | 0.9999 | 0.2172 | 0.6455 | 0.0455 | 0.1726 | 0.0704 | 0.2673 |
| 150 | 54.15 | -0.00 | 0.0479 | 0.0000 | 0.0092 | 0.9999 | 0.1921 | 0.6421 | 0.0447 | 0.1711 | 0.0696 | 0.2665 |
| 151 | 54.30 | -0.01 | 0.0452 | 0.0000 | 0.0095 | 0.9999 | 0.2102 | 0.6478 | 0.0433 | 0.1726 | 0.0668 | 0.2664 |
| 152 | 54.46 | -0.00 | 0.0414 | 0.0000 | 0.0092 | 0.9999 | 0.2222 | 0.6392 | 0.0446 | 0.1723 | 0.0635 | 0.2656 |
| 153 | 54.63 | -0.02 | 0.0452 | 0.0000 | 0.0095 | 0.9999 | 0.2102 | 0.6632 | 0.0405 | 0.1782 | 0.0611 | 0.2687 |
| 154 | 54.77 | -0.02 | 0.0463 | 0.0000 | 0.0100 | 0.9999 | 0.2289 | 0.6607 | 0.0391 | 0.1786 | 0.0592 | 0.2703 |
| 155 | 54.92 | -0.02 | 0.0438 | 0.0000 | 0.0085 | 0.9999 | 0.2032 | 0.6604 | 0.0363 | 0.1787 | 0.0580 | 0.2706 |
| 156 | 55.09 | -0.03 | 0.0412 | 0.0000 | 0.0084 | 0.9999 | 0.2092 | 0.6509 | 0.0361 | 0.1745 | 0.0546 | 0.2726 |
| 157 | 55.23 | -0.04 | 0.0425 | 0.0000 | 0.0096 | 0.9999 | 0.2306 | 0.6535 | 0.0371 | 0.1778 | 0.0568 | 0.2721 |
| 158 | 55.38 | -0.03 | 0.0463 | 0.0000 | 0.0101 | 0.9999 | 0.2101 | 0.6577 | 0.0392 | 0.1798 | 0.0585 | 0.2734 |
| 159 | 55.54 | -0.03 | 0.0500 | 0.0000 | 0.0099 | 0.9999 | 0.1960 | 0.6632 | 0.0381 | 0.1808 | 0.0546 | 0.2726 |
| 160 | 55.71 | -0.04 | 0.0474 | 0.0000 | 0.0116 | 0.9999 | 0.2447 | 0.6572 | 0.0391 | 0.1800 | 0.0517 | 0.2731 |
| 161 | 55.86 | -0.03 | 0.0437 | 0.0000 | 0.0085 | 0.9999 | 0.2037 | 0.6532 | 0.0396 | 0.1791 | 0.0536 | 0.2742 |
| 162 | 56.02 | -0.03 | 0.0426 | 0.0000 | 0.0102 | 0.9999 | 0.2477 | 0.6603 | 0.0340 | 0.1825 | 0.0510 | 0.2739 |
| 163 | 56.17 | -0.05 | 0.0428 | 0.0000 | 0.0084 | 0.9999 | 0.1918 | 0.6635 | 0.0329 | 0.1845 | 0.0492 | 0.2760 |
| 164 | 56.33 | -0.04 | 0.0412 | 0.0000 | 0.0115 | 0.9999 | 0.2524 | 0.6603 | 0.0331 | 0.1830 | 0.0495 | 0.2738 |
| 165 | 56.53 | -0.06 | 0.0437 | 0.0000 | 0.0096 | 0.9999 | 0.2243 | 0.6765 | 0.0353 | 0.1841 | 0.0522 | 0.2721 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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## MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&3 MACH 1.6 RX10-6 1.7 PHI 0.0 CONF 81&CP14 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.78 | 0.00 | -1.6536 | 6.8613 | 0.0235 | -0.0827 | -0.0018 | 0.9504 | 0.3035 | 0.6469 | -3.4200 |
| 2 | -5.78 | 0.01 | -1.6541 | 6.7124 | 0.0034 | -0.0345 | -0.0037 | 0.9507 | 0.3025 | 0.6482 | -3.3631 |
| 3 | -5.78 | 0.02 | -1.6516 | 6.6742 | 0.0378 | -0.0362 | -0.0036 | 0.9533 | 0.3025 | 0.6508 | -3.4155 |
| 4 | -5.77 | 0.02 | -1.6497 | 6.6560 | 0.0751 | -0.1009 | 0.0019 | 0.9559 | 0.3035 | 0.6524 | -3.4354 |
| 5 | -5.63 | 0.00 | -1.6551 | 6.5944 | -0.0361 | 0.0483 | -0.0036 | 0.9573 | 0.3000 | 0.6573 | -3.4724 |
| 6 | -4.00 | 0.02 | -1.6243 | 6.0686 | 0.0202 | -0.0163 | 0.0025 | 0.9258 | 0.3011 | 0.6247 | -3.7483 |
| 7 | -2.29 | 0.01 | -1.3068 | 5.5067 | -0.0065 | -0.0176 | 0.0029 | 0.8842 | 0.2973 | 0.5869 | -4.0453 |
| 8 | -0.49 | 0.01 | -1.0026 | 4.9553 | 0.0457 | -0.0833 | 0.0035 | 0.8259 | 0.2762 | 0.5497 | -4.5220 |
| 9 | 1.38 | 0.01 | -0.6167 | 4.3274 | -0.0451 | -0.0425 | 0.0039 | 0.7882 | 0.2746 | 0.5136 | -5.2855 |
| 10 | 3.33 | 0.01 | -0.5467 | 3.7092 | 0.0209 | -0.0008 | 0.0046 | 0.7042 | 0.2678 | 0.4765 | -6.5824 |
| 11 | 5.10 | 0.00 | -0.2518 | 3.2455 | -0.0472 | -0.0460 | 0.0048 | 0.7335 | 0.2935 | 0.4400 | -11.1256 |
| 12 | 7.01 | 0.02 | -0.0073 | 2.7025 | 0.0491 | -0.0338 | 0.0055 | 0.6955 | 0.3007 | 0.3946 | -370.0168 |
| 13 | 8.86 | 0.01 | 0.2963 | 2.1433 | 0.0386 | 0.0049 | 0.0061 | 0.6648 | 0.3146 | 0.3503 | 7.1860 |
| 14 | 10.77 | 0.01 | 0.6140 | 1.5744 | -0.0425 | 0.0561 | 0.0066 | 0.6330 | 0.3270 | 0.3061 | 2.5725 |
| 15 | 12.66 | 0.01 | 0.9434 | 1.0150 | 0.0053 | 0.0751 | 0.0075 | 0.6034 | 0.3349 | 0.2685 | 1.2865 |
| 16 | 14.59 | -0.01 | 1.2077 | 0.4746 | -0.0403 | 0.2365 | 0.0081 | 0.5791 | 0.3407 | 0.2384 | 0.7225 |
| 17 | 16.58 | 0.01 | 1.5572 | 0.7073 | -0.0758 | 0.3247 | 0.0086 | 0.5442 | 0.3469 | 0.1973 | 0.4542 |
| 18 | 18.53 | 0.01 | 1.8753 | 0.4375 | -0.0486 | 0.4378 | 0.0091 | 0.5099 | 0.3541 | 0.1558 | 0.2335 |
| 19 | 20.52 | 0.00 | 2.2367 | 0.3365 | -0.1351 | 0.7134 | -0.0111 | 0.4834 | 0.3569 | 0.1265 | 0.1491 |
| 20 | 22.54 | 0.00 | 2.5933 | 0.2554 | -0.0534 | 0.4716 | -0.0101 | 0.4237 | 0.3481 | 0.0756 | 0.0800 |
| 21 | 24.53 | -0.00 | 3.5402 | 0.2447 | -0.2000 | 0.8296 | -0.0361 | 0.3947 | 0.3501 | 0.0446 | 0.0606 |
| 22 | 26.57 | 0.05 | 4.2345 | 0.3714 | 0.4526 | -0.5603 | 0.0703 | 0.3665 | 0.3508 | 0.0157 | 0.0877 |
| 23 | 28.10 | 0.05 | 4.6255 | 0.4028 | 0.4854 | -1.1120 | 0.0933 | 0.3513 | 0.3556 | -0.0043 | 0.0870 |
| 24 | 28.13 | 0.00 | 4.6562 | 0.4777 | 0.6465 | -1.3230 | 0.0936 | 0.3451 | 0.3550 | -0.0099 | 0.0852 |
| 25 | 28.53 | 0.04 | 4.8124 | 0.2765 | 0.3553 | -0.7583 | 0.0829 | 0.3516 | 0.3505 | 0.0013 | 0.0575 |
| 26 | 28.78 | 0.04 | 4.8572 | 0.3314 | 0.3763 | -0.7212 | 0.0726 | 0.3423 | 0.3542 | -0.0119 | 0.0677 |
| 27 | 29.09 | 0.02 | 5.0374 | 0.2648 | 0.0558 | -0.1261 | 0.0456 | 0.3347 | 0.3577 | -0.0230 | 0.0526 |
| 28 | 29.44 | 0.04 | 5.1743 | 0.2478 | 0.3653 | -0.4498 | 0.0679 | 0.3306 | 0.3573 | -0.0267 | 0.0479 |
| 29 | 29.72 | 0.05 | 5.2854 | 0.1866 | 0.5240 | -0.8573 | 0.0903 | 0.3276 | 0.3621 | -0.0345 | 0.0352 |
| 30 | 30.00 | 0.04 | 5.3967 | 0.1112 | 0.4255 | -0.9393 | 0.1005 | 0.3340 | 0.3672 | -0.0328 | 0.0208 |
| 31 | 30.28 | 0.05 | 5.4885 | 0.0442 | 0.4408 | -0.8326 | 0.0746 | 0.3257 | 0.3711 | -0.0454 | 0.0081 |
| 32 | 30.58 | 0.06 | 5.6063 | -0.0263 | 0.5463 | -0.9038 | 0.0916 | 0.3249 | 0.3772 | -0.0528 | -0.0415 |
| 33 | 30.84 | 0.05 | 5.8134 | -0.2331 | 0.3756 | -0.2442 | 0.0854 | 0.3008 | 0.3779 | -0.0771 | -0.0401 |
| 34 | 31.11 | 0.04 | 5.8485 | -0.2514 | 0.2564 | 0.0670 | 0.0739 | 0.3105 | 0.3765 | -0.0660 | -0.0430 |
| 35 | 31.40 | 0.04 | 5.9568 | -0.2232 | 0.2763 | 0.1405 | 0.0476 | 0.3110 | 0.3789 | -0.0679 | -0.0372 |
| 36 | 31.68 | 0.03 | 6.1233 | -0.2982 | 0.2065 | 0.0076 | 0.0699 | 0.2959 | 0.3752 | -0.0813 | -0.0487 |
| 37 | 31.95 | 0.04 | 6.2424 | -0.3770 | 0.3532 | -0.4202 | 0.0821 | 0.2847 | 0.3769 | -0.0921 | -0.0604 |
| 38 | 32.22 | 0.04 | 6.3267 | -0.4167 | 0.2264 | -0.4300 | 0.0767 | 0.2853 | 0.3786 | -0.0932 | -0.0658 |
| 39 | 32.48 | 0.02 | 6.3982 | -0.3352 | 0.0581 | 0.1413 | 0.0389 | 0.2696 | 0.3765 | -0.0869 | -0.0530 |
| 40 | 32.75 | 0.02 | 6.5265 | -0.3536 | 0.0717 | 0.1943 | 0.0499 | 0.2767 | 0.3785 | -0.1018 | -0.0599 |
| 41 | 33.00 | 0.03 | 6.6122 | -0.0007 | 0.2027 | -0.2327 | 0.0330 | 0.2918 | 0.3735 | -0.0809 | -0.0509 |
| 42 | 33.27 | 0.01 | 6.6212 | -0.7246 | 0.0391 | 0.2333 | 0.0769 | 0.2724 | 0.3815 | -0.1091 | -0.1062 |
| 43 | 33.52 | 0.02 | 6.9483 | -0.7083 | 0.1010 | 0.3457 | 0.0821 | 0.2572 | 0.3823 | -0.1251 | -0.1019 |
| 44 | 33.78 | 0.03 | 6.9735 | -0.7516 | 0.1795 | 0.3300 | 0.0715 | 0.2630 | 0.3892 | -0.1262 | -0.1134 |
| 45 | 34.04 | 0.03 | 7.1343 | -0.6540 | 0.1727 | 0.1522 | 0.0991 | 0.2653 | 0.3918 | -0.1265 | -0.1337 |
| 46 | 34.28 | 0.01 | 7.3188 | -0.6833 | -0.0469 | 0.7407 | 0.0503 | 0.2603 | 0.3909 | -0.1306 | -0.1344 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 145 MACH 1.10 RNIC-6 1.7 PHI 0.0 CONF SINGLE L 60.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.55 | 0.04 | 7.3833 | -1.1345 | 0.2472 | 0.1206 | 0.1211 | 0.2737 | 0.3925 | -0.1218 | -0.1496 |
| 48 | 34.79 | 0.03 | 7.4013 | -1.1036 | 0.1901 | 0.1123 | 0.1109 | 0.2667 | 0.3905 | -0.1238 | -0.1450 |
| 49 | 35.03 | 0.02 | 7.5577 | -1.2294 | 0.2686 | 0.3064 | 0.1003 | 0.2975 | 0.3908 | -0.1333 | -0.1618 |
| 50 | 35.29 | 0.02 | 7.7205 | -1.2470 | 0.2916 | 0.3749 | 0.0951 | 0.2910 | 0.3941 | -0.1331 | -0.1615 |
| 51 | 35.53 | 0.03 | 7.7975 | -1.2677 | 0.2697 | 0.3508 | 0.1013 | 0.2961 | 0.3972 | -0.1311 | -0.1626 |
| 52 | 35.77 | 0.03 | 7.8695 | -1.3344 | 0.1899 | 0.3055 | 0.0796 | 0.2806 | 0.3909 | -0.1083 | -0.1696 |
| 53 | 35.99 | 0.02 | 7.9541 | -1.3156 | 0.1845 | 0.2741 | 0.1330 | 0.2958 | 0.3979 | -0.1321 | -0.2036 |
| 54 | 36.24 | 0.03 | 8.1236 | -1.3816 | 0.2564 | 0.1691 | 0.1498 | 0.2995 | 0.4020 | -0.1525 | -0.2235 |
| 55 | 36.48 | 0.01 | 8.1963 | -1.3385 | 0.2004 | 0.3656 | 0.1020 | 0.2873 | 0.3931 | -0.1058 | -0.1999 |
| 56 | 36.71 | 0.01 | 8.2701 | -1.3048 | -0.0047 | 0.4729 | 0.0607 | 0.2117 | 0.3941 | -0.1824 | -0.2061 |
| 57 | 36.96 | 0.02 | 8.4436 | -1.3811 | 0.0725 | 0.4556 | 0.1128 | 0.2917 | 0.3912 | -0.1895 | -0.2204 |
| 58 | 37.20 | 0.00 | 8.5063 | -1.4522 | -0.0721 | 0.4072 | 0.1035 | 0.2149 | 0.3855 | -0.1731 | -0.2177 |
| 59 | 37.43 | 0.01 | 8.5403 | -1.4757 | 0.0136 | 0.3770 | 0.0785 | 0.2243 | 0.3930 | -0.1887 | -0.2318 |
| 60 | 37.67 | 0.02 | 8.6662 | -2.0028 | 0.1634 | 0.1854 | 0.0794 | 0.1906 | 0.3872 | -0.1966 | -0.2306 |
| 61 | 37.92 | 0.02 | 8.8105 | -2.1760 | 0.1835 | 0.2549 | 0.1154 | 0.2036 | 0.3896 | -0.1858 | -0.2470 |
| 62 | 38.13 | -0.01 | 8.8135 | -2.1010 | -0.1745 | 0.4052 | 0.0837 | 0.1837 | 0.3852 | -0.2015 | -0.2383 |
| 63 | 38.41 | 0.02 | 8.9950 | -2.2052 | 0.0842 | 0.2304 | 0.0886 | 0.1894 | 0.3831 | -0.2137 | -0.2450 |
| 64 | 38.64 | 0.02 | 9.1158 | -2.3467 | 0.0372 | 0.2115 | 0.1001 | 0.1815 | 0.3831 | -0.2218 | -0.2578 |
| 65 | 38.87 | 0.01 | 9.1895 | -2.3371 | -0.0047 | 0.2709 | 0.0842 | 0.1858 | 0.3801 | -0.2143 | -0.2549 |
| 66 | 39.07 | 0.02 | 9.1940 | -2.4049 | 0.0225 | 0.2107 | 0.1348 | 0.1879 | 0.3841 | -0.2167 | -0.2703 |
| 67 | 39.33 | 0.00 | 9.3546 | -2.3535 | -0.1195 | 0.4063 | 0.0860 | 0.1866 | 0.3790 | -0.2204 | -0.2730 |
| 68 | 39.55 | 0.01 | 9.4362 | -2.4537 | 0.0420 | 0.1554 | 0.0856 | 0.1842 | 0.3709 | -0.2067 | -0.2812 |
| 69 | 39.75 | -0.01 | 9.5211 | -2.7165 | -0.1015 | 0.2973 | 0.0756 | 0.1405 | 0.3766 | -0.2361 | -0.2855 |
| 70 | 40.01 | -0.02 | 9.6761 | -2.9171 | -0.2315 | 0.3176 | 0.0302 | 0.1250 | 0.3698 | -0.2448 | -0.3014 |
| 71 | 40.21 | -0.01 | 9.7305 | -2.9181 | -0.0736 | 0.2095 | 0.0807 | 0.1306 | 0.3665 | -0.2299 | -0.2997 |
| 72 | 40.42 | 0.01 | 9.8713 | -3.0016 | 0.0142 | 0.0223 | 0.0836 | 0.1272 | 0.3702 | -0.2430 | -0.3141 |
| 73 | 40.62 | 0.01 | 9.9059 | -3.0501 | 0.0103 | 0.0810 | 0.0815 | 0.0947 | 0.3633 | -0.2685 | -0.3104 |
| 74 | 40.83 | 0.01 | 10.0389 | -3.0281 | 0.0259 | 0.1691 | 0.0817 | 0.1021 | 0.3575 | -0.2554 | -0.3254 |
| 75 | 41.06 | -0.01 | 10.1362 | -3.3577 | -0.1336 | 0.5539 | 0.0860 | 0.0734 | 0.3575 | -0.2840 | -0.3296 |
| 76 | 41.23 | 0.02 | 10.1670 | -3.4733 | 0.0939 | 0.0514 | 0.0806 | 0.1057 | 0.3702 | -0.2645 | -0.3416 |
| 77 | 41.47 | -0.01 | 10.3753 | -3.5821 | 0.0134 | 0.2125 | 0.0852 | 0.0878 | 0.3562 | -0.2685 | -0.3453 |
| 78 | 41.67 | -0.01 | 10.3855 | -3.5960 | -0.1190 | 0.4979 | 0.0815 | 0.0743 | 0.3534 | -0.2796 | -0.3578 |
| 79 | 41.85 | 0.00 | 10.4502 | -3.6283 | -0.0191 | 0.3071 | 0.0811 | 0.0777 | 0.3552 | -0.2774 | -0.3470 |
| 80 | 42.07 | -0.01 | 10.6353 | -3.8434 | -0.1265 | 0.7342 | 0.0810 | 0.0545 | 0.3456 | -0.2911 | -0.3614 |
| 81 | 42.26 | -0.01 | 10.6742 | -3.7311 | -0.1025 | 0.7424 | 0.0561 | 0.0502 | 0.3493 | -0.2991 | -0.3655 |
| 82 | 42.48 | -0.02 | 10.7563 | -3.8363 | -0.2478 | 0.8040 | 0.0505 | 0.0380 | 0.3480 | -0.3100 | -0.3603 |
| 83 | 42.64 | -0.01 | 10.8657 | -3.8914 | -0.2343 | 1.0349 | 0.0391 | 0.0231 | 0.3474 | -0.3263 | -0.3581 |
| 84 | 42.83 | -0.02 | 10.9483 | -4.1672 | -0.4100 | 1.4757 | 0.0201 | 0.0373 | 0.3552 | -0.3179 | -0.3825 |
| 85 | 43.01 | -0.02 | 10.9502 | -3.7853 | -0.2337 | 1.0076 | 0.0404 | 0.0230 | 0.3398 | -0.3163 | -0.3626 |
| 86 | 43.18 | -0.01 | 10.9995 | -3.8068 | -0.2612 | 2.0732 | -0.0055 | 0.0471 | 0.3385 | -0.2914 | -0.3652 |
| 87 | 43.37 | -0.04 | 11.1549 | -4.0064 | -0.4138 | 0.9736 | 0.0362 | 0.0116 | 0.3227 | -0.3111 | -0.3592 |
| 88 | 43.55 | -0.02 | 11.1756 | -3.9958 | -0.1511 | 0.6699 | 0.0319 | -0.0011 | 0.3207 | -0.3218 | -0.3575 |
| 89 | 43.74 | -0.02 | 11.2632 | -4.0378 | -0.1027 | 0.7151 | 0.0317 | -0.0135 | 0.3169 | -0.3304 | -0.3585 |
| 90 | 43.92 | -0.01 | 11.3560 | -4.1152 | 0.0264 | 0.6516 | 0.0394 | -0.0147 | 0.3108 | -0.3295 | -0.3627 |
| 91 | 44.09 | -0.01 | 11.4106 | -4.0756 | -0.0154 | 0.6107 | 0.0349 | -0.0170 | 0.3079 | -0.3249 | -0.3575 |
| 92 | 44.27 | -0.03 | 11.4887 | -4.1028 | -0.2300 | 0.8947 | 0.0104 | -0.0156 | 0.3060 | -0.3222 | -0.3571 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L' DEL1 DEL2 DEL3 DEL4 TRANSITION
7 143 1.10 1.7 0.0 0 -20 0 -20 UNKNOWN

| PLANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.47 | -0.02 | 11.4856 | -4.0563 | -0.0395 | 0.4019 | 0.0284 | -0.0323 | 0.3011 | -0.3334 | -0.3568 |
| 94 | 44.63 | -0.03 | 11.5178 | -4.0565 | -0.0547 | 0.0214 | 0.0220 | -0.0356 | 0.3022 | -0.3380 | -0.3557 |
| 95 | 44.82 | -0.01 | 11.5643 | -4.0516 | -0.0527 | 0.8202 | 0.0272 | -0.0242 | 0.2987 | -0.3229 | -0.3495 |
| 96 | 45.02 | -0.02 | 11.7117 | -4.1081 | -0.0765 | 0.2966 | 0.0297 | -0.0401 | 0.2925 | -0.3406 | -0.3506 |
| 97 | 45.20 | -0.02 | 11.7524 | -3.6998 | -0.2075 | 0.8529 | 0.0123 | -0.0463 | 0.2929 | -0.3392 | -0.3352 |
| 98 | 45.37 | 0.01 | 11.8154 | -3.6358 | 0.1881 | -0.1099 | 0.0479 | -0.0574 | 0.2905 | -0.3479 | -0.3330 |
| 99 | 45.55 | -0.02 | 11.8263 | -3.9666 | -0.2066 | 1.0631 | 0.0011 | -0.0437 | 0.2905 | -0.3342 | -0.3354 |
| 100 | 45.74 | -0.02 | 11.8540 | -3.8741 | -0.1726 | 0.1245 | -0.0042 | -0.0361 | 0.2869 | -0.3271 | -0.3100 |
| 101 | 45.91 | -0.03 | 11.8902 | -3.7528 | -0.2883 | 1.2622 | -0.0097 | -0.0325 | 0.2904 | -0.3229 | -0.3156 |
| 102 | 46.07 | -0.02 | 12.0483 | -3.7724 | -0.1717 | 1.1245 | -0.0141 | -0.0415 | 0.2934 | -0.3319 | -0.3131 |
| 103 | 46.26 | -0.02 | 12.0635 | -3.6865 | -0.2564 | 1.2234 | -0.0134 | -0.0372 | 0.2928 | -0.3300 | -0.3040 |
| 104 | 46.44 | -0.03 | 12.1322 | -3.6252 | -0.3021 | 1.4276 | -0.0357 | -0.0210 | 0.2924 | -0.3139 | -0.2991 |
| 105 | 46.61 | -0.03 | 12.1778 | -3.4054 | -0.2946 | 1.3457 | -0.0561 | -0.0082 | 0.2956 | -0.3038 | -0.2756 |
| 106 | 46.76 | -0.03 | 12.1930 | -3.4675 | -0.3406 | 1.4144 | -0.0430 | -0.0307 | 0.2968 | -0.3295 | -0.2854 |
| 107 | 46.93 | -0.03 | 12.2139 | -3.2715 | -0.3413 | 1.3143 | -0.0352 | -0.0276 | 0.2968 | -0.3244 | -0.2675 |
| 108 | 47.14 | -0.03 | 12.2679 | -3.3410 | -0.2763 | 1.2267 | -0.0395 | -0.0370 | 0.2982 | -0.3352 | -0.2719 |
| 109 | 47.30 | -0.03 | 12.2660 | -3.0531 | -0.2141 | 1.1000 | -0.0399 | -0.0266 | 0.2910 | -0.3196 | -0.2503 |
| 110 | 47.47 | -0.03 | 12.3506 | -3.0505 | -0.2007 | 1.0078 | -0.0434 | -0.0292 | 0.2949 | -0.3261 | -0.2623 |
| 111 | 47.64 | -0.03 | 12.4541 | -3.4347 | -0.1225 | 0.7598 | -0.0460 | -0.0348 | 0.2933 | -0.3281 | -0.2758 |
| 112 | 47.82 | -0.03 | 12.4869 | -3.3366 | -0.0411 | 0.5878 | -0.0300 | -0.0211 | 0.3026 | -0.3236 | -0.2675 |
| 113 | 48.00 | -0.02 | 12.5550 | -3.2655 | 0.0320 | 0.4816 | -0.0255 | -0.0095 | 0.3159 | -0.3264 | -0.2617 |
| 114 | 48.16 | -0.02 | 12.7170 | -3.0332 | 0.0055 | 0.2576 | 0.0107 | 0.0043 | 0.3450 | -0.3067 | -0.2651 |
| 115 | 48.34 | -0.02 | 12.8627 | -3.3502 | -0.0025 | 0.4543 | 0.0174 | 0.0423 | 0.3403 | -0.2980 | -0.2650 |
| 116 | 48.53 | -0.03 | 12.8854 | -3.0273 | 0.0261 | 0.2177 | 0.0439 | 0.0471 | 0.3641 | -0.3220 | -0.2470 |
| 117 | 48.68 | -0.02 | 12.9365 | -3.0538 | 0.0258 | 0.4624 | 0.0554 | 0.0481 | 0.3610 | -0.3329 | -0.2655 |
| 118 | 48.87 | -0.03 | 12.9826 | -3.0351 | -0.0111 | 0.5295 | 0.0300 | 0.0378 | 0.3734 | -0.3416 | -0.2681 |
| 119 | 49.02 | -0.03 | 12.9267 | -3.5054 | 0.0018 | 0.5042 | 0.0656 | 0.0569 | 0.3865 | -0.3298 | -0.2761 |
| 120 | 49.18 | -0.02 | 12.9497 | -3.4819 | 0.0673 | 0.6928 | 0.0703 | 0.0514 | 0.3901 | -0.3327 | -0.2673 |
| 121 | 49.36 | -0.00 | 12.9291 | -3.0314 | 0.1503 | 0.5026 | 0.0838 | 0.0499 | 0.3850 | -0.3351 | -0.2345 |
| 122 | 49.54 | -0.01 | 12.9641 | -3.1426 | 0.0783 | 0.7649 | 0.0858 | 0.0474 | 0.3892 | -0.3368 | -0.2424 |
| 123 | 49.71 | -0.00 | 12.9923 | -3.0483 | 0.1305 | 0.8585 | 0.0996 | 0.0421 | 0.3870 | -0.3449 | -0.2346 |
| 124 | 49.89 | -0.01 | 13.0432 | -3.0543 | 0.1646 | 0.8091 | 0.0944 | 0.0478 | 0.3901 | -0.3423 | -0.2376 |
| 125 | 50.08 | -0.01 | 13.1366 | -3.1800 | 0.1540 | 0.8996 | 0.0880 | 0.0482 | 0.3863 | -0.3401 | -0.2420 |
| 126 | 50.23 | -0.00 | 13.1963 | -3.1278 | 0.1602 | 0.9715 | 0.0948 | 0.0473 | 0.3952 | -0.3479 | -0.2370 |
| 127 | 50.39 | 0.01 | 13.1654 | -2.8514 | 0.2154 | 1.0575 | 0.0993 | 0.0629 | 0.4093 | -0.3464 | -0.2166 |
| 128 | 50.57 | -0.00 | 13.1956 | -2.7320 | 0.1772 | 1.1367 | 0.0959 | 0.0677 | 0.4155 | -0.3476 | -0.2078 |
| 129 | 50.73 | -0.01 | 13.1447 | -2.8917 | 0.1297 | 1.3102 | 0.0938 | 0.0616 | 0.4202 | -0.3536 | -0.1972 |
| 130 | 50.91 | -0.00 | 13.2784 | -2.8367 | 0.2141 | 1.1931 | 0.0999 | 0.0511 | 0.4226 | -0.3711 | -0.1986 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 143 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF SINGLE 14 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.78 | 0.00 | -0.0082 | -0.0002 | 0.0210 | 0.0246 | -2.9510 | -0.8637 | 0.0278 | -0.3286 | -0.0322 | 0.3802 |
| 2 | -5.78 | 0.01 | -0.0002 | -0.0001 | 0.0221 | 0.0101 | -3.0013 | -0.8675 | 0.0274 | -0.3294 | -0.0310 | 0.3797 |
| 3 | -5.75 | 0.02 | -0.0003 | -0.0002 | 0.0219 | 0.0241 | -2.9335 | -0.8614 | 0.0275 | -0.3284 | -0.0315 | 0.3812 |
| 4 | -5.77 | 0.02 | -0.0027 | -0.0001 | 0.0220 | 0.0079 | -1.9748 | -0.8720 | 0.0273 | -0.3304 | -0.0313 | 0.3788 |
| 5 | -5.83 | 0.00 | -0.0083 | -0.0001 | 0.0210 | 0.0120 | -2.9301 | -0.8630 | 0.0295 | -0.3297 | -0.0350 | 0.3864 |
| 6 | -5.80 | 0.02 | 0.0104 | -0.0002 | 0.0236 | 0.0038 | -1.9035 | -0.7940 | 0.0322 | -0.4104 | -0.0427 | 0.4117 |
| 7 | -2.29 | 0.01 | -0.0113 | -0.0002 | 0.0182 | 0.0177 | -1.8106 | -0.6545 | 0.0320 | -0.2875 | -0.0489 | 0.4399 |
| 8 | -0.45 | 0.01 | -0.0101 | -0.0006 | 0.0187 | 0.0172 | -1.8515 | -0.6552 | 0.0270 | -0.2641 | -0.0501 | 0.4721 |
| 9 | 1.58 | 0.01 | -0.0032 | -0.0004 | 0.0184 | 0.2812 | -5.7500 | -0.4503 | 0.0254 | -0.2273 | -0.0564 | 0.5048 |
| 10 | 3.33 | 0.01 | -0.0060 | -0.0007 | 0.0154 | 0.0044 | -1.7907 | -0.3008 | 0.0231 | -0.1967 | -0.0630 | 0.9363 |
| 11 | 5.10 | 0.00 | -0.0211 | -0.0004 | 0.0147 | 0.0190 | -0.6767 | -0.2818 | 0.0207 | -0.1685 | -0.0734 | 0.5575 |
| 12 | 7.01 | 0.02 | -0.0201 | -0.0015 | 0.0197 | 0.0575 | -0.7346 | -0.1767 | 0.0174 | -0.1397 | -0.0985 | 0.7680 |
| 13 | 8.80 | 0.01 | -0.0310 | -0.0021 | 0.0230 | 0.0677 | -0.7419 | -0.0779 | 0.0145 | -0.1058 | -0.1861 | 1.3561 |
| 14 | 10.77 | 0.01 | -0.0347 | -0.0018 | 0.0251 | 0.0515 | -0.7205 | -0.0004 | 0.0111 | -0.0893 | -1.6085 | 10.0435 |
| 15 | 12.66 | 0.01 | -0.0447 | -0.0005 | 0.0218 | 0.0112 | -0.4677 | 0.0472 | 0.0099 | -0.0543 | 0.2097 | -0.7267 |
| 16 | 14.59 | -0.01 | -0.0584 | -0.0002 | 0.0235 | 0.0342 | -0.4042 | 0.0985 | 0.0035 | -0.0094 | 0.0984 | -0.4574 |
| 17 | 16.58 | 0.01 | -0.0737 | -0.0015 | 0.0181 | 0.0234 | -0.2442 | 0.1421 | 0.0093 | 0.0127 | 0.0854 | 0.0894 |
| 18 | 18.55 | 0.01 | -0.1042 | -0.0048 | 0.0167 | 0.0497 | -0.1027 | 0.1811 | 0.0119 | 0.0200 | 0.0657 | 0.1546 |
| 19 | 20.52 | 0.00 | -0.1387 | -0.0048 | -0.0151 | -0.0348 | 0.1389 | 0.2278 | 0.0145 | 0.0420 | 0.0637 | 0.1845 |
| 20 | 22.54 | 0.00 | -0.1667 | -0.0065 | -0.0116 | -0.0556 | 0.1367 | 0.2669 | 0.0152 | 0.0818 | 0.0538 | 0.2154 |
| 21 | 24.53 | -0.00 | -0.2057 | -0.0105 | -0.0510 | -0.0538 | 0.2479 | 0.3048 | 0.0156 | 0.0622 | 0.0443 | 0.2041 |
| 22 | 26.57 | 0.00 | -0.1595 | -0.0052 | 0.0571 | -0.0520 | 0.0366 | 0.3011 | 0.0154 | 0.0495 | 0.0404 | 0.2348 |
| 23 | 28.10 | 0.05 | 0.2366 | -0.0055 | 0.1163 | -0.0252 | 0.5000 | 0.3937 | 0.0156 | 0.0696 | 0.0391 | 0.2276 |
| 24 | 28.13 | 0.00 | 0.2423 | -0.0049 | 0.1152 | -0.0197 | 0.5101 | 0.3985 | 0.0156 | 0.0620 | 0.0396 | 0.2306 |
| 25 | 28.33 | 0.04 | 0.1772 | -0.0034 | 0.0954 | -0.0192 | 0.5009 | 0.3958 | 0.0165 | 0.0533 | 0.0417 | 0.2357 |
| 26 | 28.78 | 0.04 | 0.1160 | -0.0021 | 0.0738 | -0.0190 | 0.4661 | 0.3809 | 0.0190 | 0.0454 | 0.0499 | 0.2242 |
| 27 | 29.04 | 0.02 | -0.0034 | 0.0028 | 0.0245 | -0.7646 | -7.3235 | 0.3762 | 0.0208 | 0.0409 | 0.0550 | 0.2139 |
| 28 | 29.44 | 0.04 | 0.1622 | -0.0012 | 0.0624 | -0.0144 | 0.7404 | 0.3932 | 0.0194 | 0.0469 | 0.0493 | 0.2261 |
| 29 | 29.72 | 0.05 | 0.1558 | -0.0035 | 0.0512 | -0.0251 | 0.5661 | 0.4133 | 0.0181 | 0.0964 | 0.0438 | 0.2332 |
| 30 | 30.00 | 0.04 | 0.2269 | -0.0037 | 0.1130 | -0.0163 | 0.5015 | 0.4307 | 0.0170 | 0.1052 | 0.0395 | 0.2443 |
| 31 | 30.28 | 0.05 | 0.0934 | -0.0027 | 0.0824 | -0.0259 | 0.7323 | 0.4218 | 0.0139 | 0.0987 | 0.0448 | 0.2340 |
| 32 | 30.56 | 0.06 | 0.1573 | -0.0031 | 0.0858 | -0.0197 | 0.5455 | 0.4380 | 0.0161 | 0.1004 | 0.0413 | 0.2426 |
| 33 | 30.84 | 0.05 | 0.0919 | -0.0020 | 0.0704 | -0.0218 | 0.7660 | 0.4427 | 0.0187 | 0.1103 | 0.0422 | 0.2452 |
| 34 | 31.11 | 0.04 | 0.0961 | -0.0021 | 0.0698 | -0.0455 | 1.1070 | 0.4472 | 0.0184 | 0.1101 | 0.0423 | 0.2462 |
| 35 | 31.40 | 0.04 | 0.0251 | -0.0005 | 0.0422 | -0.0172 | 1.4502 | 0.4483 | 0.0194 | 0.1108 | 0.0433 | 0.2472 |
| 36 | 31.68 | 0.03 | 0.0159 | -0.0020 | 0.0436 | -0.0205 | 0.8424 | 0.4052 | 0.0179 | 0.1212 | 0.0381 | 0.2583 |
| 37 | 31.95 | 0.04 | 0.1045 | -0.0023 | 0.0773 | -0.0220 | 0.7397 | 0.4743 | 0.0172 | 0.1220 | 0.0363 | 0.2583 |
| 38 | 32.24 | 0.04 | 0.0869 | -0.0015 | 0.0655 | -0.0173 | 0.7618 | 0.4705 | 0.0177 | 0.1206 | 0.0376 | 0.2567 |
| 39 | 32.48 | 0.02 | 0.0019 | 0.0034 | 0.0275 | 1.7892 | 14.4737 | 0.4741 | 0.0179 | 0.1236 | 0.0378 | 0.2607 |
| 40 | 32.75 | 0.04 | -0.0263 | 0.0022 | 0.0249 | -0.1004 | -1.2206 | 0.4790 | 0.0181 | 0.1240 | 0.0378 | 0.2585 |
| 41 | 33.03 | 0.03 | 0.1020 | -0.0013 | 0.0724 | -0.0127 | 0.7057 | 0.4934 | 0.0173 | 0.1315 | 0.0351 | 0.2665 |
| 42 | 33.27 | 0.01 | 0.0954 | -0.0015 | 0.0696 | -0.0345 | 1.0330 | 0.4696 | 0.0180 | 0.1267 | 0.0368 | 0.2625 |
| 43 | 33.52 | 0.02 | 0.0578 | -0.0012 | 0.0580 | -0.0208 | 1.0035 | 0.4783 | 0.0170 | 0.1234 | 0.0357 | 0.2580 |
| 44 | 33.78 | 0.03 | 0.0837 | -0.0015 | 0.0606 | -0.0233 | 0.8865 | 0.4932 | 0.0167 | 0.1296 | 0.0379 | 0.2628 |
| 45 | 34.04 | 0.03 | 0.1071 | -0.0024 | 0.0741 | -0.0224 | 0.6919 | 0.4894 | 0.0189 | 0.1283 | 0.0386 | 0.2622 |
| 46 | 34.28 | 0.01 | -0.0177 | 0.0029 | 0.0265 | -0.1038 | -1.1808 | 0.5063 | 0.0184 | 0.1370 | 0.0363 | 0.2706 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 143 140 147 MACH RAID-E PHI 0.0 CONF 3 DEL 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.03 | 0.04 | 0.1155 | -0.0634 | 0.0705 | -0.0139 | 0.6523 | 0.4695 | 0.0199 | 0.1272 | 0.0406 | 0.2595 |
| 48 | 34.49 | 0.03 | 0.1171 | -0.0643 | 0.0713 | -0.0140 | 0.6557 | 0.4744 | 0.0206 | 0.1301 | 0.0404 | 0.2631 |
| 49 | 35.03 | 0.02 | 0.0771 | -0.0613 | 0.0502 | -0.0169 | 0.8568 | 0.5017 | 0.0194 | 0.1332 | 0.0386 | 0.2654 |
| 50 | 35.49 | 0.02 | 0.0796 | -0.0614 | 0.0501 | -0.0203 | 0.8598 | 0.5067 | 0.0196 | 0.1316 | 0.0391 | 0.2628 |
| 51 | 35.93 | 0.03 | 0.0797 | -0.0603 | 0.0503 | -0.0204 | 0.8591 | 0.5020 | 0.0186 | 0.1336 | 0.0376 | 0.2661 |
| 52 | 35.41 | 0.03 | 0.1156 | 0.0004 | 0.0554 | 0.0119 | 2.2857 | 0.5199 | 0.0177 | 0.1414 | 0.0391 | 0.2722 |
| 53 | 35.99 | 0.02 | 0.1140 | -0.0006 | 0.0520 | -0.0000 | 0.8115 | 0.5145 | 0.0177 | 0.1355 | 0.0344 | 0.2711 |
| 54 | 36.49 | 0.03 | 0.1160 | -0.0003 | 0.0512 | -0.0023 | 0.8217 | 0.5071 | 0.0181 | 0.1355 | 0.0357 | 0.2672 |
| 55 | 36.98 | 0.01 | 0.0858 | -0.0002 | 0.0517 | -0.0115 | 0.8365 | 0.5146 | 0.0171 | 0.1409 | 0.0332 | 0.2738 |
| 56 | 36.71 | 0.01 | 0.0814 | -0.0001 | 0.0522 | -0.0019 | 1.0150 | 0.5358 | 0.0153 | 0.1459 | 0.0266 | 0.2796 |
| 57 | 36.96 | 0.02 | 0.0835 | -0.0003 | 0.0519 | -0.0032 | 0.7580 | 0.5289 | 0.0162 | 0.1455 | 0.0306 | 0.2759 |
| 58 | 37.42 | 0.01 | 0.0838 | 0.0005 | 0.0528 | 0.0000 | 0.8304 | 0.5200 | 0.0165 | 0.1459 | 0.0312 | 0.2759 |
| 59 | 37.93 | 0.01 | 0.0806 | 0.0010 | 0.0517 | 0.0124 | 0.7835 | 0.5351 | 0.0164 | 0.1474 | 0.0306 | 0.2755 |
| 60 | 37.67 | 0.02 | 0.0821 | 0.0006 | 0.0547 | 0.0115 | 1.0459 | 0.5501 | 0.0152 | 0.1530 | 0.0278 | 0.2781 |
| 61 | 37.92 | 0.02 | 0.0775 | 0.0017 | 0.0544 | 0.0218 | 0.8267 | 0.5408 | 0.0164 | 0.1515 | 0.0295 | 0.2762 |
| 62 | 38.43 | -0.01 | 0.0825 | 0.0006 | 0.0506 | 0.0217 | 1.0225 | 0.5495 | 0.0142 | 0.1603 | 0.0249 | 0.2824 |
| 63 | 38.91 | 0.02 | 0.0826 | 0.0004 | 0.0455 | 0.0122 | 1.3994 | 0.5606 | 0.0141 | 0.1637 | 0.0243 | 0.2819 |
| 64 | 39.64 | 0.02 | 0.0792 | 0.0019 | 0.0467 | 0.0479 | 1.0293 | 0.5755 | 0.0153 | 0.1614 | 0.0266 | 0.2787 |
| 65 | 38.37 | 0.01 | 0.0836 | 0.0018 | 0.0472 | 0.0478 | 1.4046 | 0.5617 | 0.0138 | 0.1605 | 0.0272 | 0.2759 |
| 66 | 39.07 | 0.02 | 0.0843 | 0.0035 | 0.0481 | 0.0922 | 1.1371 | 0.5776 | 0.0173 | 0.1598 | 0.0299 | 0.2767 |
| 67 | 39.33 | 0.00 | 0.0851 | 0.0017 | 0.0445 | 0.0484 | 1.2575 | 0.6075 | 0.0153 | 0.1709 | 0.0252 | 0.2813 |
| 68 | 39.83 | 0.01 | 0.0855 | 0.0015 | 0.0460 | 0.0859 | 1.0579 | 0.6025 | 0.0145 | 0.1751 | 0.0233 | 0.2813 |
| 69 | 36.75 | -0.01 | 0.0418 | 0.0024 | 0.0444 | 0.0574 | 1.0822 | 0.6212 | 0.0150 | 0.1745 | 0.0241 | 0.2805 |
| 70 | 40.01 | -0.02 | 0.0840 | 0.0015 | 0.0472 | 0.0772 | 1.0122 | 0.6301 | 0.0145 | 0.1747 | 0.0228 | 0.2825 |
| 71 | 40.21 | -0.01 | 0.0856 | 0.0013 | 0.0342 | 0.0439 | 1.1356 | 0.6036 | 0.0119 | 0.1696 | 0.0175 | 0.2857 |
| 72 | 40.92 | 0.01 | 0.0128 | 0.0051 | 0.0303 | 0.4047 | 2.4046 | 0.6170 | 0.0100 | 0.1705 | 0.0292 | 0.2763 |
| 73 | 40.02 | 0.01 | 0.0295 | 0.0005 | 0.0322 | 0.0301 | 1.0765 | 0.6098 | 0.0117 | 0.1916 | 0.0175 | 0.2881 |
| 74 | 40.53 | 0.01 | 0.0332 | 0.0005 | 0.0331 | 0.0271 | 0.9940 | 0.6709 | 0.0122 | 0.1933 | 0.0180 | 0.2849 |
| 75 | 41.00 | -0.01 | -0.0002 | 0.0037 | 0.0214 | -4.6244 | -28.7500 | 0.6559 | 0.0150 | 0.1830 | 0.0240 | 0.2788 |
| 76 | 41.43 | 0.02 | -0.0136 | 0.0074 | 0.0155 | -0.5338 | -1.1963 | 0.6415 | 0.0132 | 0.1769 | 0.0264 | 0.2789 |
| 77 | 41.97 | 0.01 | -0.0113 | 0.0030 | 0.0153 | -0.2855 | -1.3540 | 0.6792 | 0.0148 | 0.1916 | 0.0218 | 0.2821 |
| 78 | 41.47 | -0.01 | -0.0000 | 0.0036 | 0.0163 | -0.4999 | -3.0030 | 0.6767 | 0.0149 | 0.1914 | 0.0220 | 0.2828 |
| 79 | 41.00 | 0.00 | -0.0068 | 0.0052 | 0.0187 | -0.1413 | -0.2384 | 0.6714 | 0.0172 | 0.1873 | 0.0256 | 0.2790 |
| 80 | 42.07 | -0.01 | -0.0074 | 0.0033 | -0.0021 | -0.0918 | 0.0313 | 0.6812 | 0.0168 | 0.1926 | 0.0247 | 0.2815 |
| 81 | 42.26 | -0.01 | -0.0474 | 0.0033 | 0.0048 | -0.0638 | -0.1313 | 0.6663 | 0.0164 | 0.1924 | 0.0239 | 0.2803 |
| 82 | 42.96 | -0.02 | -0.0165 | 0.0046 | 0.0062 | -0.0601 | -0.0135 | 0.6987 | 0.0159 | 0.1963 | 0.0228 | 0.2806 |
| 83 | 42.64 | -0.01 | -0.0775 | 0.0032 | -0.0082 | -0.0067 | 0.0798 | 0.7022 | 0.0172 | 0.1972 | 0.0245 | 0.2808 |
| 84 | 42.83 | -0.02 | -0.1845 | 0.0118 | -0.0490 | -0.0038 | 0.2485 | 0.6726 | 0.0231 | 0.1854 | 0.0343 | 0.2733 |
| 85 | 43.01 | -0.02 | -0.0967 | 0.0037 | -0.0104 | -0.0375 | 0.1033 | 0.7033 | 0.0185 | 0.1935 | 0.0263 | 0.2751 |
| 86 | 43.18 | -0.01 | -0.1992 | 0.0046 | -0.0499 | -0.0241 | 0.2480 | 0.6993 | 0.0247 | 0.1763 | 0.0460 | 0.2636 |
| 87 | 43.37 | -0.04 | -0.0767 | 0.0026 | -0.0042 | -0.0335 | 0.0546 | 0.7307 | 0.0166 | 0.2040 | 0.0227 | 0.2792 |
| 88 | 43.55 | -0.02 | -0.0220 | 0.0019 | 0.0112 | -0.0913 | -0.5505 | 0.7031 | 0.0150 | 0.2047 | 0.0207 | 0.2784 |
| 89 | 43.74 | -0.02 | -0.0963 | 0.0023 | 0.0066 | -0.0497 | -0.1425 | 0.7541 | 0.0171 | 0.2094 | 0.0227 | 0.2777 |
| 90 | 43.92 | -0.01 | -0.0360 | 0.0026 | 0.0103 | -0.0540 | -0.2305 | 0.7529 | 0.0174 | 0.2065 | 0.0231 | 0.2748 |
| 91 | 44.09 | -0.01 | -0.0030 | 0.0021 | 0.0027 | -0.0999 | -7.5007 | 0.7770 | 0.0185 | 0.2153 | 0.0212 | 0.2771 |
| 92 | 44.47 | -0.03 | -0.1141 | 0.0026 | -0.0236 | -0.0024 | 0.2016 | 0.7442 | 0.0208 | 0.2021 | 0.0275 | 0.2716 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 143 MACH 1.10 RNIC-6 1.7 PHI 0.0 CONF BLACKFIN L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.47 | -0.02 | -0.0532 | 0.0024 | -0.0025 | -0.0451 | 0.0432 | 0.7580 | 0.0177 | 0.2060 | 0.0260 | 0.2726 |
| 94 | 44.63 | -0.03 | -0.0717 | 0.0031 | -0.0053 | -0.0432 | 0.1497 | 0.7591 | 0.0219 | 0.2046 | 0.0256 | 0.2710 |
| 95 | 44.62 | -0.01 | -0.1215 | 0.0037 | -0.0247 | -0.0303 | 0.2026 | 0.7400 | 0.0237 | 0.1955 | 0.0320 | 0.2696 |
| 96 | 45.02 | -0.02 | -0.0716 | 0.0023 | -0.0104 | -0.0372 | 0.1425 | 0.7573 | 0.0239 | 0.2040 | 0.0316 | 0.2667 |
| 97 | 45.20 | -0.02 | -0.0473 | 0.0023 | -0.0041 | -0.0466 | 0.0887 | 0.7571 | 0.0251 | 0.2011 | 0.0331 | 0.2656 |
| 98 | 45.37 | 0.01 | -0.0687 | 0.0033 | -0.0172 | -0.0416 | -0.0908 | 0.7542 | 0.0256 | 0.2023 | 0.0327 | 0.2647 |
| 99 | 45.52 | -0.03 | -0.1221 | 0.0003 | -0.0302 | -0.0025 | 0.2473 | 0.7415 | 0.0268 | 0.1933 | 0.0368 | 0.2608 |
| 100 | 45.74 | -0.02 | -0.1576 | -0.0019 | -0.0361 | 0.0139 | 0.2635 | 0.7379 | 0.0316 | 0.1843 | 0.0440 | 0.2567 |
| 101 | 45.51 | -0.03 | -0.1327 | -0.0010 | -0.0358 | 0.0075 | 0.2675 | 0.7390 | 0.0318 | 0.1851 | 0.0430 | 0.2576 |
| 102 | 46.07 | -0.02 | -0.1467 | -0.0062 | -0.0301 | 0.0423 | 0.2401 | 0.7331 | 0.0331 | 0.1834 | 0.0458 | 0.2538 |
| 103 | 46.26 | -0.02 | -0.1734 | -0.0095 | -0.0412 | 0.0569 | 0.2369 | 0.7305 | 0.0336 | 0.1844 | 0.0465 | 0.2552 |
| 104 | 46.44 | -0.03 | -0.1806 | -0.0123 | -0.0366 | 0.0760 | 0.2422 | 0.7309 | 0.0329 | 0.1865 | 0.0450 | 0.2550 |
| 105 | 46.61 | -0.03 | -0.1818 | -0.0222 | -0.0342 | 0.1372 | 0.2114 | 0.7276 | 0.0323 | 0.1875 | 0.0436 | 0.2542 |
| 106 | 46.79 | -0.05 | -0.1879 | -0.0194 | -0.0377 | 0.1158 | 0.2451 | 0.7268 | 0.0336 | 0.1843 | 0.0462 | 0.2536 |
| 107 | 46.95 | -0.05 | -0.1955 | -0.0213 | -0.0314 | 0.1421 | 0.2045 | 0.7253 | 0.0359 | 0.1750 | 0.0455 | 0.2468 |
| 108 | 47.14 | -0.05 | -0.1923 | -0.0196 | -0.0306 | 0.1333 | 0.2150 | 0.7291 | 0.0354 | 0.1812 | 0.0485 | 0.2485 |
| 109 | 47.30 | -0.05 | -0.1225 | -0.0194 | -0.0257 | 0.1563 | 0.2096 | 0.7377 | 0.0357 | 0.1920 | 0.0484 | 0.2467 |
| 110 | 47.47 | -0.05 | -0.0945 | -0.0227 | -0.0156 | 0.2719 | 0.1672 | 0.7355 | 0.0332 | 0.1981 | 0.0434 | 0.2457 |
| 111 | 47.64 | -0.05 | -0.0827 | -0.0242 | -0.0115 | 0.2574 | 0.1439 | 0.7723 | 0.0335 | 0.1907 | 0.0434 | 0.2469 |
| 112 | 47.82 | -0.04 | -0.0478 | -0.0263 | -0.0031 | 0.4634 | 0.0651 | 0.7705 | 0.0336 | 0.1907 | 0.0432 | 0.2456 |
| 113 | 48.00 | -0.02 | -0.0521 | -0.0249 | 0.0015 | 0.7507 | -0.0405 | 0.7745 | 0.0337 | 0.1891 | 0.0435 | 0.2442 |
| 114 | 48.16 | -0.04 | 0.0137 | -0.0156 | 0.0119 | 1.4491 | 0.0000 | 0.7516 | 0.0340 | 0.1829 | 0.0315 | 0.2433 |
| 115 | 48.34 | -0.02 | 0.0310 | -0.0168 | 0.0153 | -0.5354 | 0.4935 | 0.7415 | 0.0254 | 0.1787 | 0.0343 | 0.2410 |
| 116 | 48.53 | -0.03 | 0.0697 | -0.0111 | 0.0278 | -0.1594 | 0.3589 | 0.7492 | 0.0176 | 0.1837 | 0.0235 | 0.2452 |
| 117 | 48.68 | -0.02 | 0.0913 | -0.0095 | 0.0313 | -0.0550 | 0.3428 | 0.7335 | 0.0185 | 0.1771 | 0.0252 | 0.2414 |
| 118 | 48.87 | -0.03 | 0.0716 | -0.0047 | 0.0240 | -0.0656 | 0.3352 | 0.7278 | 0.0232 | 0.1701 | 0.0315 | 0.2337 |
| 119 | 49.02 | -0.03 | 0.0734 | -0.0025 | 0.0281 | -0.0341 | 0.3556 | 0.7109 | 0.0211 | 0.1660 | 0.0257 | 0.2335 |
| 120 | 49.18 | -0.02 | 0.0769 | -0.0013 | 0.0258 | 0.0183 | 0.3357 | 0.7114 | 0.0223 | 0.1663 | 0.0313 | 0.2338 |
| 121 | 49.36 | -0.00 | 0.0432 | 0.0007 | 0.0110 | 0.1782 | 0.2546 | 0.6793 | 0.0351 | 0.1488 | 0.0517 | 0.2150 |
| 122 | 49.54 | -0.01 | 0.0353 | 0.0077 | 0.0107 | 0.2101 | 0.2031 | 0.6846 | 0.0359 | 0.1514 | 0.0524 | 0.2212 |
| 123 | 49.71 | -0.00 | 0.0224 | 0.0058 | 0.0000 | 0.2565 | 0.2079 | 0.6760 | 0.0357 | 0.1487 | 0.0528 | 0.2200 |
| 124 | 49.89 | -0.01 | 0.0110 | 0.0050 | 0.0012 | 0.4710 | 0.1132 | 0.6835 | 0.0359 | 0.1512 | 0.0518 | 0.2212 |
| 125 | 50.06 | -0.01 | 0.0152 | 0.0058 | 0.0042 | 0.3020 | 0.2100 | 0.6728 | 0.0347 | 0.1560 | 0.0501 | 0.2252 |
| 126 | 50.23 | -0.00 | 0.0066 | 0.0035 | 0.0006 | 0.6325 | 1.3333 | 0.6714 | 0.0346 | 0.1519 | 0.0510 | 0.2234 |
| 127 | 50.39 | 0.01 | -0.0026 | 0.0019 | 0.0001 | -0.7307 | -0.0305 | 0.6717 | 0.0344 | 0.1525 | 0.0511 | 0.2267 |
| 128 | 50.57 | -0.00 | -0.0124 | 0.0023 | -0.0038 | -0.1605 | 0.3305 | 0.6715 | 0.0357 | 0.1503 | 0.0535 | 0.2251 |
| 129 | 50.73 | -0.01 | -0.0170 | 0.0025 | -0.0048 | -0.1706 | 0.2706 | 0.6720 | 0.0375 | 0.1483 | 0.0569 | 0.2250 |
| 130 | 50.91 | -0.00 | -0.0146 | 0.0020 | -0.0042 | -0.1529 | 0.2471 | 0.6721 | 0.0369 | 0.1496 | 0.0557 | 0.2259 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 143 | MACH 1.10 | REX10-6 1.7 | PHI 0.0 | CONF B1W0F14 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.78 | 0.00 | 0.0014 | 0.9999 | 0.0017 | 0.9999 | 0.0277 | -1.0503 | 0.0232 | -0.2921 | -0.0268 | 0.2781 |
| 2 | -5.78 | 0.01 | 0.0037 | 0.9999 | 0.0015 | 0.9999 | 0.0298 | -1.0532 | 0.0264 | -0.2948 | -0.0270 | 0.2799 |
| 3 | -5.78 | 0.02 | 0.0013 | 0.9999 | 0.0017 | 0.9999 | 0.0277 | -1.0479 | 0.0243 | -0.2926 | -0.0270 | 0.2792 |
| 4 | -5.77 | 0.04 | 0.0037 | 0.9999 | 0.0019 | 0.9999 | 0.0298 | -1.0456 | 0.0267 | -0.2928 | -0.0274 | 0.2800 |
| 5 | -5.83 | 0.00 | 0.0024 | 0.9999 | 0.0036 | 0.9999 | 0.0577 | -1.0257 | 0.0255 | -0.2876 | -0.0288 | 0.2806 |
| 6 | -5.80 | 0.02 | 0.0077 | 0.9999 | 0.0046 | 0.9999 | 0.0797 | -0.9910 | 0.0310 | -0.2865 | -0.0333 | 0.2863 |
| 7 | -2.29 | 0.01 | 0.0053 | 0.9999 | 0.0044 | 0.9999 | 0.0796 | -0.6230 | 0.0297 | -0.2487 | -0.0358 | 0.2976 |
| 8 | -0.49 | 0.01 | 0.0025 | 0.9999 | 0.0040 | 0.9999 | 0.0796 | -0.2741 | 0.0266 | -0.2183 | -0.0376 | 0.3015 |
| 9 | 1.38 | 0.01 | 0.0024 | 0.9999 | 0.0048 | 0.9999 | 0.0726 | -0.1184 | 0.0244 | -0.1926 | -0.0355 | 0.3114 |
| 10 | 3.33 | 0.01 | 0.0012 | 0.9999 | 0.0022 | 0.9999 | 0.0329 | -0.0256 | 0.0226 | -0.1604 | -0.0430 | 0.3060 |
| 11 | 5.10 | 0.00 | 0.0036 | 0.9999 | -0.0004 | 0.9999 | -0.0063 | -0.4339 | 0.0201 | -0.1305 | -0.0463 | 0.3017 |
| 12 | 7.01 | 0.02 | 0.0071 | 0.9999 | -0.0016 | 0.9999 | -0.0149 | -0.3277 | 0.0172 | -0.1039 | -0.0525 | 0.3171 |
| 13 | 8.86 | 0.01 | 0.0064 | 0.9999 | -0.0027 | 0.9999 | -0.0395 | -0.2355 | 0.0143 | -0.0823 | -0.0607 | 0.2815 |
| 14 | 10.77 | 0.01 | 0.0063 | 0.9999 | -0.0049 | 0.9999 | -0.0717 | -0.1514 | 0.0138 | -0.0555 | -0.0713 | 0.2155 |
| 15 | 12.66 | 0.01 | 0.0053 | 0.9999 | -0.0048 | 0.9999 | -0.0537 | -0.0813 | 0.0059 | -0.0007 | -0.1218 | 0.0086 |
| 16 | 14.59 | -0.01 | 0.0026 | 0.9999 | -0.0046 | 0.9999 | -0.0841 | -0.0150 | 0.0069 | 0.0244 | -0.5933 | -1.0267 |
| 17 | 16.56 | 0.01 | 0.0065 | 0.9999 | -0.0071 | 0.9999 | -0.1036 | 0.0287 | 0.0091 | 0.0462 | 0.3170 | 1.0058 |
| 18 | 18.55 | 0.01 | 0.0029 | 0.9999 | -0.0052 | 0.9999 | -0.0439 | 0.0804 | 0.0078 | 0.0601 | 0.0403 | 0.9271 |
| 19 | 20.52 | 0.00 | 0.0015 | 0.9999 | -0.0008 | 0.9999 | -0.0084 | 0.1311 | 0.0057 | 0.0556 | 0.0746 | 0.7292 |
| 20 | 22.54 | 0.00 | 0.0056 | 0.9999 | -0.0030 | 0.9999 | -0.0508 | 0.1582 | 0.0143 | 0.0973 | 0.0904 | 0.6150 |
| 21 | 24.53 | -0.00 | 0.0037 | 0.9999 | 0.0001 | 0.9999 | 0.0017 | 0.2084 | 0.0136 | 0.1235 | 0.0859 | 0.5964 |
| 22 | 26.57 | 0.00 | 0.0076 | 0.9999 | 0.0049 | 0.9999 | 0.0064 | 0.1044 | 0.0202 | 0.1011 | 0.1095 | 0.5483 |
| 23 | 28.10 | 0.05 | 0.0747 | 0.9999 | 0.0026 | 0.9999 | 0.0910 | 0.2302 | 0.0214 | 0.1068 | 0.1069 | 0.5335 |
| 24 | 28.13 | 0.00 | 0.0736 | 0.9999 | 0.0049 | 0.9999 | 0.0666 | 0.1960 | 0.0216 | 0.1032 | 0.1112 | 0.5265 |
| 25 | 28.53 | 0.04 | 0.0434 | 0.9999 | 0.0015 | 0.9999 | 0.0300 | 0.2059 | 0.0208 | 0.1104 | 0.1010 | 0.5362 |
| 26 | 28.78 | 0.04 | 0.0725 | 0.9999 | 0.0053 | 0.9999 | 0.0731 | 0.2182 | 0.0159 | 0.1145 | 0.0912 | 0.5247 |
| 27 | 29.09 | 0.02 | 0.0745 | 0.9999 | 0.0044 | 0.9999 | 0.0607 | 0.2368 | 0.0192 | 0.1247 | 0.0811 | 0.5268 |
| 28 | 29.44 | 0.04 | 0.0736 | 0.9999 | -0.0005 | 0.9999 | -0.0159 | 0.2270 | 0.0203 | 0.1200 | 0.0894 | 0.5288 |
| 29 | 29.72 | 0.05 | 0.0747 | 0.9999 | 0.0068 | 0.9999 | 0.0910 | 0.2433 | 0.0206 | 0.1256 | 0.0855 | 0.5162 |
| 30 | 30.00 | 0.04 | 0.0713 | 0.9999 | 0.0057 | 0.9999 | 0.0799 | 0.2308 | 0.0216 | 0.1236 | 0.0904 | 0.5151 |
| 31 | 30.28 | 0.05 | 0.0675 | 0.9999 | 0.0065 | 0.9999 | 0.0803 | 0.2804 | 0.0153 | 0.1393 | 0.0688 | 0.4568 |
| 32 | 30.56 | 0.06 | 0.0752 | 0.9999 | 0.0050 | 0.9999 | 0.1130 | 0.3042 | 0.0154 | 0.1494 | 0.0605 | 0.4511 |
| 33 | 30.84 | 0.03 | 0.0736 | 0.9999 | 0.0063 | 0.9999 | 0.0956 | 0.3252 | 0.0178 | 0.1589 | 0.0547 | 0.4886 |
| 34 | 31.11 | 0.04 | 0.0616 | 0.9999 | 0.0026 | 0.9999 | 0.0426 | 0.3280 | 0.0180 | 0.1610 | 0.0548 | 0.4900 |
| 35 | 31.40 | 0.04 | 0.0632 | 0.9999 | 0.0037 | 0.9999 | 0.0505 | 0.3285 | 0.0181 | 0.1660 | 0.0551 | 0.4971 |
| 36 | 31.68 | 0.03 | 0.0597 | 0.9999 | 0.0036 | 0.9999 | 0.0437 | 0.3422 | 0.0182 | 0.1652 | 0.0532 | 0.4828 |
| 37 | 31.95 | 0.04 | 0.0655 | 0.9999 | 0.0073 | 0.9999 | 0.1044 | 0.3499 | 0.0183 | 0.1687 | 0.0523 | 0.4821 |
| 38 | 32.22 | 0.04 | 0.0654 | 0.9999 | 0.0058 | 0.9999 | 0.0850 | 0.3472 | 0.0184 | 0.1650 | 0.0536 | 0.4770 |
| 39 | 32.48 | 0.04 | 0.0608 | 0.9999 | 0.0053 | 0.9999 | 0.0872 | 0.3393 | 0.0189 | 0.1616 | 0.0564 | 0.4826 |
| 40 | 32.75 | 0.02 | 0.0516 | 0.9999 | 0.0010 | 0.9999 | 0.0193 | 0.3479 | 0.0191 | 0.1654 | 0.0549 | 0.4754 |
| 41 | 33.00 | 0.03 | 0.0528 | 0.9999 | 0.0035 | 0.9999 | 0.0625 | 0.3644 | 0.0187 | 0.1716 | 0.0513 | 0.4709 |
| 42 | 33.27 | 0.01 | 0.0517 | 0.9999 | 0.0042 | 0.9999 | 0.0542 | 0.3607 | 0.0170 | 0.1796 | 0.0437 | 0.4621 |
| 43 | 33.52 | 0.02 | 0.0518 | 0.9999 | 0.0062 | 0.9999 | 0.1003 | 0.4049 | 0.0147 | 0.1840 | 0.0383 | 0.4549 |
| 44 | 33.78 | 0.03 | 0.0567 | 0.9999 | 0.0042 | 0.9999 | 0.0797 | 0.4034 | 0.0145 | 0.1824 | 0.0395 | 0.4534 |
| 45 | 34.04 | 0.03 | 0.0561 | 0.9999 | 0.0058 | 0.9999 | 0.1034 | 0.4224 | 0.0130 | 0.1882 | 0.0302 | 0.4455 |
| 46 | 34.28 | 0.01 | 0.0516 | 0.9999 | 0.0038 | 0.9999 | 0.0698 | 0.4248 | 0.0127 | 0.1892 | 0.0299 | 0.4454 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 2 OF 3

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 143 MACH 1.16 1.7 PHI 0.0 0.180DEG CONF C.C L DELT 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| FLINT | ALPHA | BETA | CAF3 | CM3 | CB3 | XCPF3 | YCPF3 | CAF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.55 | C.04 | C.0362 | 5.5555 | 0.0267 | 5.5559 | 0.1196 | 0.4421 | 0.0111 | 0.1946 | 0.0251 | 0.4402 |
| 48 | 34.79 | C.03 | 0.0515 | 5.5555 | 0.0246 | 5.5999 | 0.0874 | 0.4447 | 0.0111 | 0.1953 | 0.0250 | 0.4392 |
| 49 | 35.03 | 0.02 | C.0503 | 5.5555 | 0.0245 | 5.5555 | 0.0574 | 0.4552 | 0.0106 | 0.1973 | 0.0233 | 0.4334 |
| 50 | 35.29 | 0.02 | 0.0514 | 5.5555 | 0.0268 | 5.5555 | 0.1263 | 0.4594 | 0.0106 | 0.1985 | 0.0242 | 0.4321 |
| 51 | 35.53 | 0.03 | 0.0546 | 5.5555 | 0.0279 | 5.5555 | 0.1462 | 0.4593 | 0.0102 | 0.1980 | 0.0224 | 0.4311 |
| 52 | 35.77 | 0.03 | 0.0435 | 5.5555 | 0.0234 | 5.5555 | 0.0762 | 0.4518 | 0.0110 | 0.1955 | 0.0251 | 0.4283 |
| 53 | 35.99 | 0.02 | 0.0385 | 5.5555 | 0.0246 | 5.5555 | 0.1026 | 0.4538 | 0.0064 | 0.2048 | 0.0170 | 0.4147 |
| 54 | 36.24 | 0.03 | 0.0513 | 5.5555 | 0.0246 | 5.5559 | 0.1754 | 0.5169 | 0.0066 | 0.2132 | 0.0128 | 0.4125 |
| 55 | 36.48 | 0.01 | 0.0502 | 5.5555 | 0.0276 | 5.5555 | 0.1514 | 0.5011 | 0.0086 | 0.2064 | 0.0176 | 0.4119 |
| 56 | 36.71 | 0.01 | 0.0377 | 5.5555 | 0.0252 | 5.5559 | 0.1379 | 0.4674 | 0.0100 | 0.2010 | 0.0205 | 0.4124 |
| 57 | 36.96 | 0.02 | 0.0355 | 5.5555 | 0.0245 | 5.5559 | 0.1226 | 0.5113 | 0.0060 | 0.2073 | 0.0156 | 0.4054 |
| 58 | 37.20 | 0.00 | 0.0512 | 5.5555 | 0.0296 | 5.5555 | 0.1756 | 0.5266 | 0.0070 | 0.2130 | 0.0132 | 0.4036 |
| 59 | 37.43 | 0.01 | 0.0478 | 5.5555 | 0.0274 | 5.5559 | 0.1546 | 0.5341 | 0.0065 | 0.2138 | 0.0122 | 0.4003 |
| 60 | 37.67 | 0.02 | 0.0490 | 5.5555 | 0.0275 | 5.5559 | 0.1612 | 0.5199 | 0.0083 | 0.2075 | 0.0160 | 0.3991 |
| 61 | 37.92 | 0.02 | 0.0429 | 5.5555 | 0.0280 | 5.5559 | 0.1500 | 0.5505 | 0.0061 | 0.2166 | 0.0111 | 0.3935 |
| 62 | 38.15 | -0.01 | 0.0355 | 5.5555 | 0.0254 | 5.5559 | 0.1353 | 0.5175 | 0.0053 | 0.2046 | 0.0186 | 0.3954 |
| 63 | 38.41 | 0.02 | 0.0421 | 5.5555 | 0.0260 | 5.5555 | 0.1425 | 0.5265 | 0.0052 | 0.2076 | 0.0175 | 0.3943 |
| 64 | 38.64 | 0.02 | 0.0501 | 5.5555 | 0.0286 | 5.5555 | 0.1547 | 0.5477 | 0.0060 | 0.2136 | 0.0146 | 0.3900 |
| 65 | 38.87 | 0.01 | 0.0467 | 5.5555 | 0.0268 | 5.5555 | 0.1456 | 0.5569 | 0.0076 | 0.2156 | 0.0136 | 0.3871 |
| 66 | 39.07 | 0.02 | 0.0355 | 5.5555 | 0.0241 | 5.5555 | 0.1020 | 0.5787 | 0.0056 | 0.2219 | 0.0097 | 0.3834 |
| 67 | 39.33 | 0.00 | 0.0345 | 5.5555 | 0.0245 | 5.5559 | 0.1226 | 0.5612 | 0.0086 | 0.2147 | 0.0153 | 0.3826 |
| 68 | 39.55 | 0.01 | 0.0355 | 5.5555 | 0.0254 | 5.5555 | 0.1353 | 0.5626 | 0.0101 | 0.2147 | 0.0175 | 0.3816 |
| 69 | 39.75 | -0.01 | 0.0369 | 5.5555 | 0.0224 | 5.5559 | 0.0668 | 0.5058 | 0.0093 | 0.2147 | 0.0164 | 0.3795 |
| 70 | 40.01 | -0.02 | 0.0381 | 5.5555 | 0.0262 | 5.9999 | 0.0005 | 0.5696 | 0.0100 | 0.2151 | 0.0176 | 0.3786 |
| 71 | 40.21 | -0.01 | 0.0445 | 5.5555 | 0.0255 | 5.5559 | 0.1191 | 0.5592 | 0.0129 | 0.2103 | 0.0231 | 0.3781 |
| 72 | 40.42 | 0.01 | 0.0423 | 5.5555 | 0.0229 | 5.5555 | 0.0000 | 0.6270 | 0.0041 | 0.2336 | 0.0065 | 0.3726 |
| 73 | 40.62 | 0.01 | 0.0478 | 5.5555 | 0.0274 | 5.5559 | 0.1546 | 0.5736 | 0.0123 | 0.2135 | 0.0214 | 0.3724 |
| 74 | 40.83 | 0.01 | 0.0442 | 5.5555 | 0.0242 | 5.5555 | 0.0995 | 0.5896 | 0.0113 | 0.2183 | 0.0192 | 0.3703 |
| 75 | 41.06 | -0.01 | 0.0355 | 5.5555 | 0.0041 | 5.5559 | 0.1326 | 0.6352 | 0.0066 | 0.2324 | 0.0104 | 0.3659 |
| 76 | 41.23 | 0.02 | 0.0467 | 5.5555 | 0.0266 | 5.5559 | 0.1456 | 0.0067 | 0.0027 | 0.2429 | 0.0040 | 0.3632 |
| 77 | 41.47 | 0.01 | 0.0352 | 5.5555 | 0.0217 | 5.5559 | 0.0512 | 0.6461 | 0.0063 | 0.2347 | 0.0097 | 0.3621 |
| 78 | 41.67 | -0.01 | 0.0514 | 5.5555 | 0.0281 | 5.5559 | 0.1562 | 0.6433 | 0.0076 | 0.2332 | 0.0118 | 0.3625 |
| 79 | 41.88 | 0.00 | 0.0411 | 5.5555 | 0.0241 | 5.5559 | 0.0996 | 0.6703 | 0.0055 | 0.2394 | 0.0082 | 0.3572 |
| 80 | 42.07 | -0.01 | 0.0388 | 5.5555 | 0.0221 | 5.5559 | 0.0546 | 0.6974 | 0.0054 | 0.2485 | 0.0065 | 0.3563 |
| 81 | 42.26 | -0.01 | 0.0422 | 5.5555 | 0.0236 | 5.5559 | 0.0900 | 0.6759 | 0.0065 | 0.2396 | 0.0096 | 0.3545 |
| 82 | 42.46 | -0.02 | 0.0366 | 5.5555 | 0.0214 | 5.5559 | 0.1031 | 0.6767 | 0.0071 | 0.2368 | 0.0105 | 0.3525 |
| 83 | 42.64 | -0.01 | 0.0388 | 5.5555 | 0.0241 | 5.5559 | 0.1031 | 0.6885 | 0.0066 | 0.2415 | 0.0096 | 0.3508 |
| 84 | 42.83 | -0.02 | 0.0355 | 5.5555 | 0.0245 | 5.5559 | 0.1126 | 0.7433 | 0.0050 | 0.2546 | 0.0040 | 0.3425 |
| 85 | 43.01 | -0.02 | 0.0467 | 5.5555 | 0.0268 | 5.5559 | 0.1456 | 0.7097 | 0.0072 | 0.2455 | 0.0101 | 0.3459 |
| 86 | 43.18 | -0.01 | 0.0440 | 5.5555 | 0.0247 | 5.5559 | 0.0875 | 0.6579 | 0.0166 | 0.2217 | 0.0252 | 0.3370 |
| 87 | 43.37 | -0.04 | 0.0354 | 5.5555 | 0.0233 | 5.5559 | 0.0932 | 0.6916 | 0.0106 | 0.2389 | 0.0153 | 0.3453 |
| 88 | 43.55 | -0.02 | 0.0352 | 5.5555 | 0.0213 | 5.5559 | 0.0342 | 0.6564 | 0.0153 | 0.2260 | 0.0233 | 0.3443 |
| 89 | 43.74 | -0.02 | 0.0354 | 5.5555 | 0.0224 | 5.5559 | 0.0676 | 0.6778 | 0.0155 | 0.2300 | 0.0229 | 0.3353 |
| 90 | 43.92 | -0.01 | 0.0433 | 5.5555 | 0.0254 | 5.5559 | 0.1201 | 0.6787 | 0.0161 | 0.2307 | 0.0237 | 0.3399 |
| 91 | 44.09 | -0.01 | 0.0433 | 5.5555 | 0.0257 | 5.5559 | 0.1316 | 0.6665 | 0.0184 | 0.2273 | 0.0275 | 0.3400 |
| 92 | 44.27 | -0.03 | 0.0461 | 5.5555 | 0.0268 | 5.5559 | 0.1456 | 0.7137 | 0.0142 | 0.2400 | 0.0195 | 0.3363 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REIC-6 PHI CONF C DEL1 DEL2 DEL3 DEL4 TRANSITION
7 143 1.10 1.7 0.0 BINOFIN 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.47 | -0.02 | 0.0359 | 9.9999 | 0.0083 | 9.9999 | 0.1579 | 0.0841 | 0.0179 | 0.2302 | 0.0262 | 0.3365 |
| 94 | 44.63 | -0.03 | 0.0382 | 9.9999 | 0.0085 | 9.9999 | 0.1263 | 0.0840 | 0.0183 | 0.2310 | 0.0264 | 0.3326 |
| 95 | 44.82 | -0.01 | 0.0320 | 9.9999 | 0.0025 | 9.9999 | 0.0781 | 0.0802 | 0.0174 | 0.2345 | 0.0246 | 0.3321 |
| 96 | 45.02 | -0.02 | 0.0331 | 9.9999 | 0.0031 | 9.9999 | 0.0937 | 0.0876 | 0.0214 | 0.2266 | 0.0311 | 0.3295 |
| 97 | 45.20 | -0.02 | 0.0422 | 9.9999 | 0.0066 | 9.9999 | 0.1422 | 0.0850 | 0.0235 | 0.2240 | 0.0340 | 0.3270 |
| 98 | 45.37 | 0.01 | 0.0316 | 9.9999 | 0.0099 | 9.9999 | 0.1934 | 0.0708 | 0.0242 | 0.2235 | 0.0356 | 0.3293 |
| 99 | 45.55 | -0.03 | 0.0354 | 9.9999 | 0.0091 | 9.9999 | 0.1156 | 0.0919 | 0.0253 | 0.2223 | 0.0366 | 0.3213 |
| 100 | 45.74 | -0.02 | 0.0488 | 9.9999 | 0.0077 | 9.9999 | 0.1045 | 0.0767 | 0.0293 | 0.2156 | 0.0433 | 0.3186 |
| 101 | 45.91 | -0.03 | 0.0343 | 9.9999 | 0.0045 | 9.9999 | 0.1312 | 0.0780 | 0.0302 | 0.2148 | 0.0447 | 0.3178 |
| 102 | 46.07 | -0.02 | 0.0433 | 9.9999 | 0.0076 | 9.9999 | 0.1017 | 0.0870 | 0.0350 | 0.2046 | 0.0533 | 0.3114 |
| 103 | 46.26 | -0.02 | 0.0444 | 9.9999 | 0.0064 | 9.9999 | 0.1892 | 0.0476 | 0.0372 | 0.2011 | 0.0574 | 0.3105 |
| 104 | 46.44 | -0.03 | 0.0365 | 9.9999 | 0.0065 | 9.9999 | 0.1761 | 0.0293 | 0.0379 | 0.1957 | 0.0602 | 0.3110 |
| 105 | 46.61 | -0.03 | 0.0355 | 9.9999 | 0.0063 | 9.9999 | 0.1579 | 0.0841 | 0.0419 | 0.1815 | 0.0717 | 0.3107 |
| 106 | 46.78 | -0.05 | 0.0377 | 9.9999 | 0.0057 | 9.9999 | 0.1912 | 0.0956 | 0.0425 | 0.1835 | 0.0713 | 0.3081 |
| 107 | 46.95 | -0.05 | 0.0376 | 9.9999 | 0.0070 | 9.9999 | 0.1802 | 0.0624 | 0.0458 | 0.1724 | 0.0814 | 0.3065 |
| 108 | 47.14 | -0.03 | 0.0356 | 9.9999 | 0.0056 | 9.9999 | 0.2201 | 0.0544 | 0.0440 | 0.1806 | 0.0746 | 0.3028 |
| 109 | 47.30 | -0.03 | 0.0331 | 9.9999 | 0.0055 | 9.9999 | 0.1801 | 0.0730 | 0.0458 | 0.1726 | 0.0803 | 0.3018 |
| 110 | 47.47 | -0.05 | 0.0378 | 9.9999 | 0.0070 | 9.9999 | 0.1802 | 0.0441 | 0.0463 | 0.1636 | 0.0851 | 0.3007 |
| 111 | 47.64 | -0.03 | 0.0434 | 9.9999 | 0.0075 | 9.9999 | 0.1820 | 0.0493 | 0.0452 | 0.1635 | 0.0825 | 0.2998 |
| 112 | 47.82 | -0.03 | 0.0423 | 9.9999 | 0.0064 | 9.9999 | 0.1831 | 0.0306 | 0.0450 | 0.1643 | 0.0817 | 0.2984 |
| 113 | 48.00 | -0.02 | 0.0446 | 9.9999 | 0.0065 | 9.9999 | 0.1908 | 0.0524 | 0.0452 | 0.1646 | 0.0818 | 0.2980 |
| 114 | 48.18 | -0.02 | 0.0385 | 9.9999 | 0.0064 | 9.9999 | 0.1496 | 0.0673 | 0.0440 | 0.1687 | 0.0775 | 0.2974 |
| 115 | 48.34 | -0.02 | 0.0411 | 9.9999 | 0.0077 | 9.9999 | 0.1873 | 0.0747 | 0.0444 | 0.1685 | 0.0772 | 0.2935 |
| 116 | 48.53 | -0.03 | 0.0368 | 9.9999 | 0.0051 | 9.9999 | 0.1393 | 0.0913 | 0.0428 | 0.1740 | 0.0724 | 0.2943 |
| 117 | 48.68 | -0.02 | 0.0385 | 9.9999 | 0.0067 | 9.9999 | 0.1722 | 0.0696 | 0.0430 | 0.1788 | 0.0705 | 0.2933 |
| 118 | 48.87 | -0.03 | 0.0435 | 9.9999 | 0.0079 | 9.9999 | 0.1816 | 0.0935 | 0.0436 | 0.1726 | 0.0738 | 0.2908 |
| 119 | 49.02 | -0.03 | 0.0310 | 9.9999 | 0.0038 | 9.9999 | 0.1226 | 0.0853 | 0.0434 | 0.1757 | 0.0717 | 0.2903 |
| 120 | 49.18 | -0.02 | 0.0342 | 9.9999 | 0.0054 | 9.9999 | 0.1856 | 0.0627 | 0.0431 | 0.1768 | 0.0703 | 0.2886 |
| 121 | 49.36 | -0.00 | 0.0458 | 9.9999 | 0.0081 | 9.9999 | 0.1709 | 0.0853 | 0.0427 | 0.1733 | 0.0705 | 0.2863 |
| 122 | 49.54 | -0.01 | 0.0379 | 9.9999 | 0.0053 | 9.9999 | 0.1396 | 0.0856 | 0.0427 | 0.1725 | 0.0705 | 0.2847 |
| 123 | 49.71 | -0.00 | 0.0350 | 9.9999 | 0.0067 | 9.9999 | 0.1716 | 0.0613 | 0.0421 | 0.1728 | 0.0685 | 0.2827 |
| 124 | 49.89 | -0.01 | 0.0413 | 9.9999 | 0.0061 | 9.9999 | 0.1453 | 0.0121 | 0.0411 | 0.1735 | 0.0671 | 0.2834 |
| 125 | 50.06 | -0.01 | 0.0339 | 9.9999 | 0.0053 | 9.9999 | 0.1592 | 0.0191 | 0.0410 | 0.1755 | 0.0662 | 0.2835 |
| 126 | 50.23 | -0.00 | 0.0425 | 9.9999 | 0.0076 | 9.9999 | 0.1647 | 0.0265 | 0.0409 | 0.1759 | 0.0656 | 0.2821 |
| 127 | 50.39 | 0.01 | 0.0462 | 9.9999 | 0.0064 | 9.9999 | 0.1391 | 0.0146 | 0.0397 | 0.1742 | 0.0646 | 0.2834 |
| 128 | 50.57 | -0.00 | 0.0495 | 9.9999 | 0.0058 | 9.9999 | 0.1780 | 0.0139 | 0.0390 | 0.1737 | 0.0635 | 0.2829 |
| 129 | 50.73 | -0.01 | 0.0403 | 9.9999 | 0.0062 | 9.9999 | 0.1687 | 0.0170 | 0.0390 | 0.1745 | 0.0632 | 0.2828 |
| 130 | 50.91 | -0.00 | 0.0462 | 9.9999 | 0.0073 | 9.9999 | 0.1580 | 0.0295 | 0.0386 | 0.1766 | 0.0617 | 0.2823 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RATIO-B PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 144 0.60 1.7 0.0 BINOFIN 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.05 | -0.01 | -1.3360 | 5.9066 | 0.0236 | -0.0427 | -0.0343 | 0.6148 | 0.1502 | 0.4646 | -4.4228 |
| 2 | -0.04 | 0.01 | -1.3064 | 5.8818 | -0.0170 | -0.0394 | 0.0030 | 0.6147 | 0.1497 | 0.4650 | -4.4915 |
| 3 | -0.04 | 0.01 | -1.3205 | 5.8963 | -0.0054 | -0.0155 | 0.0029 | 0.6162 | 0.1501 | 0.4661 | -4.4652 |
| 4 | -0.04 | 0.00 | -1.3207 | 5.8965 | 0.0055 | -0.0173 | 0.0030 | 0.6202 | 0.1506 | 0.4696 | -4.4647 |
| 5 | -0.04 | 0.00 | -1.3042 | 5.8868 | 0.0121 | 0.0192 | 0.0029 | 0.6171 | 0.1499 | 0.4677 | -4.4908 |
| 6 | -0.05 | 0.00 | -1.2764 | 5.8000 | 0.0262 | -0.0065 | 0.0031 | 0.6173 | 0.1503 | 0.4670 | -4.5442 |
| 7 | -0.00 | 0.00 | -1.2105 | 5.8089 | 0.0102 | -0.0058 | 0.0031 | 0.6194 | 0.1484 | 0.4710 | -4.6330 |
| 8 | 1.50 | 0.00 | -0.9353 | 4.9352 | 0.0113 | 0.0000 | 0.0179 | 0.5744 | 0.1485 | 0.4255 | -5.2584 |
| 9 | 3.29 | 0.00 | -0.6067 | 4.3078 | 0.0526 | -0.0711 | 0.0113 | 0.5244 | 0.1436 | 0.3806 | -6.4416 |
| 10 | 5.13 | -0.00 | -0.3717 | 3.8213 | -0.0347 | 0.0105 | 0.0116 | 0.4830 | 0.1409 | 0.3430 | -9.7427 |
| 11 | 6.99 | -0.00 | -0.1037 | 2.9528 | -0.0074 | -0.0411 | 0.0193 | 0.4133 | 0.1423 | 0.2710 | -28.8730 |
| 12 | 8.00 | 0.00 | 0.1020 | 2.3453 | 0.0515 | -0.0041 | 0.0201 | 0.3661 | 0.1426 | 0.2255 | 12.2357 |
| 13 | 10.82 | -0.01 | 0.4787 | 1.7754 | -0.0352 | 0.0037 | 0.0205 | 0.3272 | 0.1455 | 0.1817 | 3.7324 |
| 14 | 12.90 | -0.04 | 0.7486 | 1.3431 | -0.0103 | 0.0525 | 0.0210 | 0.2907 | 0.1521 | 0.1386 | 1.7501 |
| 15 | 14.80 | -0.00 | 1.0221 | 1.0033 | -0.0465 | 0.0650 | 0.0196 | 0.2645 | 0.1619 | 0.1027 | 1.0599 |
| 16 | 16.15 | -0.01 | 1.2004 | 0.8059 | -0.0953 | 0.1483 | 0.0227 | 0.2369 | 0.1717 | 0.0672 | 0.6274 |
| 17 | 17.59 | -0.00 | 1.3964 | 0.4525 | -0.0967 | 0.2955 | 0.0232 | 0.2089 | 0.1796 | 0.0273 | 0.2833 |
| 18 | 19.69 | -0.02 | 1.6932 | -0.0749 | -0.3015 | 0.0411 | 0.0314 | 0.1857 | 0.1924 | -0.0267 | -0.0383 |
| 19 | 21.78 | -0.02 | 2.3165 | -0.5363 | -0.4627 | 1.2769 | 0.0365 | 0.1106 | 0.2027 | -0.0921 | -0.2531 |
| 20 | 23.87 | -0.04 | 2.6655 | -1.2347 | -0.6896 | 2.0302 | 0.0712 | 0.0034 | 0.2132 | -0.1518 | -0.4597 |
| 21 | 25.35 | -0.03 | 3.0566 | -1.8226 | -0.8032 | 1.5749 | 0.0363 | -0.0006 | 0.2186 | -0.2192 | -0.5518 |
| 22 | 27.46 | 0.03 | 3.5263 | -2.0151 | 0.2512 | -0.0521 | 0.0015 | -0.0830 | 0.2139 | -0.2971 | -0.5723 |
| 23 | 29.34 | 0.03 | 3.9747 | -2.4282 | 0.3167 | -0.0375 | 0.0317 | -0.1917 | 0.2232 | -0.3649 | -0.6105 |
| 24 | 31.28 | 0.04 | 4.3040 | -2.5263 | 0.2316 | 1.0493 | 0.0575 | -0.1793 | 0.2435 | -0.4228 | -0.6484 |
| 25 | 33.22 | 0.06 | 5.2054 | -2.7411 | 0.6151 | 0.3366 | 0.0555 | -0.2316 | 0.2482 | -0.4778 | -0.5266 |
| 26 | 33.63 | 0.07 | 5.2440 | -2.6545 | 0.6049 | 0.4720 | 0.0409 | -0.2404 | 0.2316 | -0.4521 | -0.5139 |
| 27 | 33.69 | 0.07 | 5.2635 | -2.7061 | 0.6826 | 0.6495 | 0.0400 | -0.2305 | 0.2353 | -0.4559 | -0.5224 |
| 28 | 34.11 | 0.07 | 5.3362 | -2.7780 | 0.6341 | 0.6754 | 0.0329 | -0.2411 | 0.2435 | -0.4967 | -0.5207 |
| 29 | 34.34 | 0.08 | 5.3565 | -2.7914 | 0.6535 | 0.7426 | 0.0254 | -0.2087 | 0.2611 | -0.4859 | -0.5205 |
| 30 | 34.69 | 0.09 | 5.4026 | -2.7726 | 0.6642 | 0.6045 | 0.0100 | -0.2005 | 0.2913 | -0.4918 | -0.5086 |
| 31 | 34.83 | 0.09 | 5.3546 | -2.8322 | 0.6161 | 0.8603 | 0.0041 | -0.1994 | 0.3105 | -0.5159 | -0.5117 |
| 32 | 35.07 | 0.09 | 5.3527 | -2.8024 | 0.6132 | 1.0010 | -0.0205 | -0.1935 | 0.3382 | -0.4817 | -0.5011 |
| 33 | 35.32 | 0.09 | 5.7053 | -2.8503 | 0.8723 | 0.3723 | 0.0136 | -0.1957 | 0.3142 | -0.5099 | -0.4840 |
| 34 | 35.56 | 0.09 | 5.7166 | -2.7619 | 0.8067 | 0.0019 | 0.0017 | -0.2390 | 0.2603 | -0.5194 | -0.4677 |
| 35 | 35.77 | 0.07 | 5.8530 | -2.7241 | 0.9873 | -1.2486 | 0.1007 | -0.2068 | 0.2722 | -0.5391 | -0.4654 |
| 36 | 36.01 | 0.08 | 5.9151 | -2.8755 | 1.0749 | -1.1816 | 0.0787 | -0.2480 | 0.2605 | -0.5326 | -0.4531 |
| 37 | 36.24 | 0.09 | 6.0651 | -2.9401 | 1.1037 | -0.9939 | 0.0492 | -0.2403 | 0.3105 | -0.5508 | -0.4844 |
| 38 | 36.47 | 0.08 | 6.1474 | -2.9055 | 1.0782 | -0.5146 | 0.0420 | -0.2212 | 0.3142 | -0.5469 | -0.4733 |
| 39 | 36.71 | 0.07 | 6.1715 | -2.9436 | 1.0681 | -0.5952 | 0.0424 | -0.2288 | 0.3137 | -0.5465 | -0.4769 |
| 40 | 36.94 | 0.06 | 6.2716 | -2.8563 | 1.0666 | -0.7003 | 0.0273 | -0.2360 | 0.3170 | -0.5403 | -0.4558 |
| 41 | 37.16 | 0.07 | 6.3121 | -2.9064 | 0.9484 | -0.6405 | 0.0345 | -0.2374 | 0.3221 | -0.5604 | -0.4605 |
| 42 | 37.41 | 0.09 | 6.4580 | -2.8396 | 1.0835 | -0.1921 | -0.0335 | -0.2009 | 0.3214 | -0.5321 | -0.4397 |
| 43 | 37.64 | 0.09 | 6.5277 | -2.8571 | 0.9533 | -0.5911 | -0.0503 | -0.1629 | 0.3630 | -0.5459 | -0.4337 |
| 44 | 37.87 | 0.08 | 6.6430 | -2.9156 | 0.9850 | -0.6444 | -0.0830 | -0.1590 | 0.3935 | -0.5525 | -0.4388 |
| 45 | 38.12 | 0.10 | 6.6306 | -2.9731 | 1.1235 | -0.5576 | -0.0606 | -0.1591 | 0.4064 | -0.5605 | -0.4353 |
| 46 | 38.33 | 0.09 | 6.6960 | -2.9944 | 1.0344 | -1.0542 | -0.0733 | -0.1513 | 0.4131 | -0.5644 | -0.4336 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REX10**6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 144 0.80 1.7 0.0 BINOMIAL 0.0 0 -20 0 -20 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 38.55 | 0.09 | 7.1060 | -3.0030 | 1.0217 | 1.4626 | -0.0813 | -0.1527 | 0.4245 | -0.5772 | -0.4309 |
| 48 | 38.79 | 0.10 | 7.2183 | -3.0952 | 1.0716 | 1.5215 | -0.0812 | -0.1580 | 0.4274 | -0.5854 | -0.4236 |
| 49 | 39.01 | 0.11 | 7.3582 | -3.1978 | 1.1268 | 1.6811 | -0.0961 | -0.1559 | 0.4374 | -0.5933 | -0.4322 |
| 50 | 39.21 | 0.10 | 7.5027 | -3.2983 | 1.1825 | 1.6492 | -0.0955 | -0.1622 | 0.4413 | -0.6035 | -0.4343 |
| 51 | 39.43 | 0.11 | 7.5183 | -3.1904 | 1.1366 | 1.2626 | -0.0718 | -0.1593 | 0.4413 | -0.6006 | -0.4252 |
| 52 | 39.63 | 0.11 | 7.4987 | -3.1e4e | 1.0e5e | 1.5297 | -0.0947 | -0.1563 | 0.4396 | -0.5981 | -0.4247 |
| 53 | 39.83 | 0.12 | 7.5967 | -3.1218 | 1.3101 | 0.7745 | -0.0474 | -0.1771 | 0.4390 | -0.6161 | -0.4109 |
| 54 | 40.03 | 0.10 | 7.6e5e | -2.9479 | 1.6980 | 0.5922 | -0.0401 | -0.1769 | 0.4390 | -0.6159 | -0.3886 |
| 55 | 40.24 | 0.11 | 7.6200 | -2.9642 | 1.1260 | 0.8293 | -0.0470 | -0.1913 | 0.4326 | -0.6241 | -0.3885 |
| 56 | 40.46 | 0.11 | 7.7316 | -2.9752 | 1.1473 | 0.8360 | -0.0238 | -0.2092 | 0.4314 | -0.6386 | -0.3845 |
| 57 | 40.65 | 0.11 | 7.7e78 | -2.8e86 | 1.1199 | 0.7040 | -0.0530 | -0.1962 | 0.4300 | -0.6262 | -0.3884 |
| 58 | 40.87 | 0.11 | 7.9078 | -3.0082 | 1.2625 | 0.7970 | -0.0803 | -0.1921 | 0.4526 | -0.6449 | -0.3775 |
| 59 | 41.08 | 0.11 | 7.9829 | -2.9654 | 1.1505 | 1.0042 | -0.0809 | -0.1855 | 0.4537 | -0.6392 | -0.3715 |
| 60 | 41.26 | 0.11 | 8.0578 | -2.9e17 | 1.1e5e | 0.9455 | -0.0801 | -0.1944 | 0.4536 | -0.6530 | -0.3700 |
| 61 | 41.46 | 0.12 | 8.1285 | -3.0536 | 1.2e45 | 0.9753 | -0.0746 | -0.1804 | 0.4624 | -0.6428 | -0.3756 |
| 62 | 41.66 | 0.11 | 8.1351 | -2.e772 | 1.e587 | 0.9748 | -0.0743 | -0.1897 | 0.4636 | -0.6535 | -0.3537 |
| 63 | 41.85 | 0.12 | 8.3710 | -3.1523 | 1.2802 | 1.2655 | -0.0751 | -0.2020 | 0.4653 | -0.6673 | -0.3765 |
| 64 | 42.05 | 0.13 | 8.4751 | -3.1033 | 1.3700 | 1.1367 | -0.0744 | -0.2120 | 0.4624 | -0.6745 | -0.3731 |
| 65 | 42.22 | 0.12 | 8.4913 | -3.0323 | 1.2349 | 1.2165 | -0.0817 | -0.2080 | 0.4716 | -0.6779 | -0.3588 |
| 66 | 42.41 | 0.12 | 8.5e4e | -3.2075 | 1.3e6e | 1.1490 | -0.0739 | -0.1916 | 0.4736 | -0.6696 | -0.3746 |
| 67 | 42.58 | 0.12 | 8.6730 | -3.2029 | 1.3249 | 1.1801 | -0.0736 | -0.1990 | 0.4789 | -0.6760 | -0.3693 |
| 68 | 42.78 | 0.12 | 8.6812 | -3.4038 | 1.4071 | 1.2100 | -0.0809 | -0.1959 | 0.4818 | -0.6777 | -0.3900 |
| 69 | 42.98 | 0.11 | 8.9751 | -3.5460 | 1.4246 | 1.2850 | -0.0807 | -0.2149 | 0.4803 | -0.6953 | -0.3949 |
| 70 | 43.13 | 0.11 | 8.9e19 | -3.4353 | 1.4155 | 1.1403 | -0.0874 | -0.1962 | 0.4836 | -0.6800 | -0.3829 |
| 71 | 43.31 | 0.11 | 9.0444 | -3.4161 | 1.4367 | 1.2253 | -0.0727 | -0.2055 | 0.4813 | -0.6869 | -0.3777 |
| 72 | 43.48 | 0.11 | 9.0e53 | -3.4056 | 1.4161 | 1.4203 | -0.0801 | -0.2074 | 0.4847 | -0.6921 | -0.3826 |
| 73 | 43.66 | 0.11 | 9.2060 | -3.5214 | 1.5430 | 1.1782 | -0.0795 | -0.1928 | 0.4932 | -0.6858 | -0.3825 |
| 74 | 43.87 | 0.11 | 9.3102 | -3.5e45 | 1.5257 | 1.1421 | -0.0789 | -0.1930 | 0.4969 | -0.6915 | -0.3829 |
| 75 | 44.04 | 0.11 | 9.3562 | -3.4788 | 1.6031 | 0.8338 | -0.0702 | -0.1927 | 0.4975 | -0.6902 | -0.3715 |
| 76 | 44.21 | 0.11 | 9.4427 | -3.6106 | 1.5e71 | 0.8220 | -0.0700 | -0.2001 | 0.5018 | -0.7019 | -0.3824 |
| 77 | 44.41 | 0.12 | 9.5553 | -3.5558 | 1.6454 | 0.8296 | -0.0823 | -0.1929 | 0.5036 | -0.6965 | -0.3721 |
| 78 | 44.58 | 0.11 | 9.6512 | -3.6704 | 1.5e6e | 1.0631 | -0.0776 | -0.1931 | 0.5041 | -0.6972 | -0.3827 |
| 79 | 44.76 | 0.12 | 9.6722 | -3.6082 | 1.6532 | 0.9646 | -0.0821 | -0.1891 | 0.5103 | -0.6994 | -0.3731 |
| 80 | 44.94 | 0.12 | 9.7174 | -3.5e5e | 1.5026 | 0.9559 | -0.0706 | -0.2018 | 0.5068 | -0.7106 | -0.3673 |
| 81 | 45.13 | 0.12 | 9.7553 | -3.6668 | 1.5678 | 1.0538 | -0.0696 | -0.1929 | 0.5154 | -0.7083 | -0.3761 |
| 82 | 45.30 | 0.12 | 9.8063 | -3.6142 | 1.5e27 | 0.9739 | -0.0690 | -0.2035 | 0.5117 | -0.7172 | -0.3687 |
| 83 | 45.46 | 0.12 | 9.9328 | -3.7678 | 1.5366 | 1.0512 | -0.0837 | -0.2039 | 0.5136 | -0.7171 | -0.3793 |
| 84 | 45.64 | 0.12 | 9.9629 | -3.7553 | 1.5731 | 1.1e33 | -0.0692 | -0.1997 | 0.5136 | -0.7133 | -0.3769 |
| 85 | 45.82 | 0.12 | 10.0430 | -3.8725 | 1.5027 | 0.9540 | -0.0680 | -0.2084 | 0.5150 | -0.7234 | -0.3657 |
| 86 | 46.00 | 0.12 | 10.1159 | -3.7e23 | 1.4546 | 1.1454 | -0.0603 | -0.2028 | 0.5240 | -0.7268 | -0.3686 |
| 87 | 46.18 | 0.12 | 10.2032 | -3.7945 | 1.4548 | 1.2484 | -0.0757 | -0.2083 | 0.5231 | -0.7314 | -0.3719 |
| 88 | 46.35 | 0.12 | 10.3453 | -3.7923 | 1.5e07 | 1.2150 | -0.0900 | -0.2177 | 0.5242 | -0.7456 | -0.3809 |
| 89 | 46.52 | 0.11 | 10.2228 | -3.8099 | 1.3740 | 1.2070 | -0.0824 | -0.2129 | 0.5250 | -0.7379 | -0.3731 |
| 90 | 46.68 | 0.10 | 10.e3ee | -3.9232 | 1.2213 | 1.0069 | -0.0635 | -0.2e3e | 0.5254 | -0.7560 | -0.3541 |
| 91 | 46.87 | 0.12 | 10.4532 | -3.8126 | 1.3445 | 1.3833 | -0.1050 | -0.2421 | 0.5263 | -0.7684 | -0.3647 |
| 92 | 47.03 | 0.10 | 10.3985 | -3.8008 | 1.1443 | 1.0147 | -0.0906 | -0.2411 | 0.5240 | -0.7651 | -0.3521 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART PACK MACH 0.60 PHI 0.0 CONF BLOCK15 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.21 | 0.10 | 10.5525 | -3.8225 | 1.1357 | 2.3542 | -0.1145 | -0.2406 | 0.5287 | -0.7755 | -0.3621 |
| 94 | 47.36 | 0.06 | 10.6161 | -3.8525 | 1.1480 | 2.3479 | -0.1140 | -0.2373 | 0.5245 | -0.7816 | -0.3631 |
| 95 | 47.50 | 0.06 | 10.7027 | -3.8805 | 1.1666 | 2.1330 | -0.1120 | -0.2399 | 0.5314 | -0.7713 | -0.3606 |
| 96 | 47.63 | 0.09 | 10.6525 | -3.8111 | 1.1509 | 2.1002 | -0.1371 | -0.2505 | 0.5243 | -0.7826 | -0.3578 |
| 97 | 47.90 | 0.06 | 10.7461 | -3.8182 | 1.1634 | 2.0241 | -0.1443 | -0.2729 | 0.5249 | -0.7973 | -0.3556 |
| 98 | 48.05 | 0.06 | 10.7342 | -3.8161 | 1.1746 | 3.0552 | -0.1316 | -0.2681 | 0.5182 | -0.8063 | -0.3501 |
| 99 | 48.22 | 0.06 | 10.8753 | -3.8515 | 1.1868 | 2.9719 | -0.1330 | -0.2702 | 0.5200 | -0.7986 | -0.3421 |
| 100 | 48.39 | 0.05 | 10.8761 | -3.8675 | 1.1905 | 3.1138 | -0.1507 | -0.3074 | 0.5022 | -0.8093 | -0.3326 |
| 101 | 48.54 | 0.04 | 10.8521 | -3.8556 | 1.1958 | 2.9700 | -0.1581 | -0.3352 | 0.4766 | -0.8156 | -0.3191 |
| 102 | 48.71 | 0.05 | 10.8653 | -3.8294 | 1.1909 | 2.8009 | -0.1569 | -0.3349 | 0.4784 | -0.8134 | -0.2929 |
| 103 | 48.88 | 0.02 | 10.9038 | -3.8556 | 1.2115 | 2.2560 | -0.1480 | -0.4739 | 0.3935 | -0.8644 | -0.2578 |
| 104 | 49.06 | 0.03 | 10.7506 | -3.8461 | 1.1957 | 2.7552 | -0.1419 | -0.3741 | 0.4516 | -0.8257 | -0.2735 |
| 105 | 49.23 | -0.01 | 10.8258 | -3.8400 | 1.1234 | 2.2060 | -0.1247 | -0.4361 | 0.4165 | -0.8546 | -0.2499 |
| 106 | 49.41 | 0.01 | 10.7000 | -3.8464 | 1.1657 | 2.0017 | -0.1475 | -0.4342 | 0.4259 | -0.8581 | -0.2335 |
| 107 | 49.58 | 0.01 | 10.7527 | -3.8520 | 1.2346 | 2.0651 | -0.1401 | -0.4538 | 0.4273 | -0.8611 | -0.2410 |
| 108 | 49.74 | 0.01 | 10.7179 | -3.8045 | 1.2523 | 2.0240 | -0.1172 | -0.4815 | 0.3951 | -0.8566 | -0.2335 |
| 109 | 49.92 | 0.01 | 10.8906 | -3.8765 | 1.3221 | 2.0457 | -0.1396 | -0.5730 | 0.4011 | -0.8341 | -0.2555 |
| 110 | 50.09 | 0.02 | 10.8515 | -3.8783 | 1.2753 | 2.0000 | -0.1170 | -0.5579 | 0.4080 | -0.8459 | -0.2505 |
| 111 | 50.26 | 0.02 | 10.8974 | -3.8272 | 1.2787 | 2.5373 | -0.1242 | -0.3977 | 0.4452 | -0.8429 | -0.2651 |
| 112 | 50.44 | 0.02 | 10.8346 | -3.8357 | 1.3402 | 2.0170 | -0.1244 | -0.5208 | 0.4050 | -0.8505 | -0.2820 |
| 113 | 50.60 | 0.03 | 10.8662 | -3.8036 | 1.4191 | 2.9231 | -0.0980 | -0.5210 | 0.5209 | -0.8464 | -0.3047 |
| 114 | 50.78 | 0.06 | 10.8461 | -3.8765 | 1.4147 | 3.2536 | -0.0969 | -0.3015 | 0.5458 | -0.8452 | -0.3323 |
| 115 | 50.97 | 0.05 | 10.7134 | -3.8166 | 1.4085 | 3.3035 | -0.0988 | -0.3084 | 0.5434 | -0.8517 | -0.3429 |
| 116 | 51.13 | 0.05 | 10.7915 | -3.8550 | 1.4072 | 3.2000 | -0.1035 | -0.3107 | 0.5454 | -0.8061 | -0.3352 |
| 117 | 51.30 | 0.06 | 10.9568 | -3.8352 | 1.4873 | 3.0253 | -0.1043 | -0.3355 | 0.5534 | -0.8939 | -0.3458 |
| 118 | 51.48 | 0.05 | 10.8852 | -3.8265 | 1.4348 | 3.0415 | -0.1149 | -0.3318 | 0.5460 | -0.9004 | -0.3549 |
| 119 | 51.64 | 0.05 | 10.8729 | -3.8220 | 1.4285 | 3.0803 | -0.1123 | -0.3401 | 0.5427 | -0.9088 | -0.3457 |
| 120 | 51.81 | 0.05 | 10.8221 | -3.8456 | 1.4277 | 3.0035 | -0.1128 | -0.3308 | 0.5466 | -0.8968 | -0.3505 |
| 121 | 51.97 | 0.10 | 12.1669 | -4.2475 | 1.6623 | 3.0445 | -0.1130 | -0.3524 | 0.5634 | -0.9128 | -0.3491 |
| 122 | 52.14 | 0.11 | 12.2595 | -4.3873 | 1.6721 | 3.0507 | -0.1270 | -0.3802 | 0.5542 | -0.9404 | -0.3579 |
| 123 | 52.32 | 0.11 | 12.3025 | -4.4662 | 1.6520 | 3.0112 | -0.1277 | -0.3953 | 0.5425 | -0.9376 | -0.3645 |
| 124 | 52.48 | 0.13 | 12.4670 | -4.4677 | 1.6816 | 3.7036 | -0.1115 | -0.3951 | 0.5340 | -0.9291 | -0.3696 |
| 125 | 52.65 | 0.13 | 12.5135 | -4.4842 | 1.6833 | 3.6553 | -0.1262 | -0.4066 | 0.5312 | -0.9376 | -0.3743 |
| 126 | 52.81 | 0.11 | 12.6275 | -4.5548 | 1.6975 | 3.4147 | -0.0807 | -0.3971 | 0.5124 | -0.9495 | -0.3639 |
| 127 | 52.98 | 0.12 | 12.6573 | -4.7256 | 1.7030 | 3.4637 | -0.0963 | -0.4352 | 0.4964 | -0.9316 | -0.3737 |
| 128 | 53.14 | 0.11 | 12.6685 | -4.7769 | 1.6814 | 3.4033 | -0.0957 | -0.4291 | 0.4970 | -0.9261 | -0.3764 |
| 129 | 53.30 | 0.14 | 12.8340 | -4.8371 | 1.7944 | 3.1039 | -0.0432 | -0.4317 | 0.4822 | -0.9139 | -0.3535 |
| 130 | 53.47 | 0.13 | 13.0667 | -4.9211 | 1.8493 | 3.0277 | -0.0350 | -0.3830 | 0.5121 | -0.8951 | -0.3766 |
| 131 | 53.62 | 0.13 | 13.0976 | -4.9055 | 1.8400 | 2.9277 | -0.0271 | -0.3782 | 0.5272 | -0.9034 | -0.3746 |
| 132 | 53.77 | 0.10 | 12.9566 | -4.8496 | 1.8111 | 2.7055 | 0.0033 | -0.4113 | 0.4979 | -0.9092 | -0.3680 |
| 133 | 53.96 | 0.11 | 13.2834 | -4.9600 | 1.8695 | 2.7662 | 0.0260 | -0.3593 | 0.5501 | -0.9054 | -0.3618 |
| 134 | 54.11 | 0.13 | 13.2197 | -4.8870 | 1.8628 | 2.8305 | 0.0202 | -0.3907 | 0.5325 | -0.9232 | -0.3681 |
| 135 | 54.26 | 0.11 | 13.2550 | -4.8562 | 1.8655 | 2.7227 | 0.0406 | -0.4021 | 0.5245 | -0.9270 | -0.3513 |
| 136 | 54.43 | 0.10 | 13.5109 | -5.0074 | 1.9027 | 2.5804 | 0.0420 | -0.3968 | 0.5029 | -0.9117 | -0.3751 |
| 137 | 54.60 | 0.10 | 13.6557 | -5.0157 | 1.9198 | 2.5675 | 0.0557 | -0.3743 | 0.5028 | -0.9371 | -0.3821 |
| 138 | 54.75 | 0.10 | 13.6269 | -5.0027 | 1.9476 | 2.6499 | 0.0508 | -0.3494 | 0.5087 | -0.9381 | -0.3951 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 144 MACH 0.80 RATIO-E 1.0 PHI 0.0 CONF 81MOF15 C 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 54.92 | 0.07 | 13.6057 | -5.2566 | 1.2476 | 2.9453 | 0.0567 | -0.3489 | 0.5789 | -0.9278 | -0.3509 |
| 140 | 55.11 | 0.10 | 14.1759 | -5.6711 | 1.4611 | 2.6624 | 0.0578 | -0.3674 | 0.5834 | -0.9478 | -0.4001 |
| 141 | 55.29 | 0.05 | 14.0362 | -5.5049 | 1.3712 | 2.9342 | 0.0424 | -0.3796 | 0.5766 | -0.9562 | -0.3522 |
| 142 | 55.46 | 0.10 | 14.2100 | -5.5264 | 1.4466 | 2.8205 | 0.0581 | -0.3647 | 0.5803 | -0.9510 | -0.3889 |
| 143 | 55.61 | 0.10 | 14.2666 | -5.5875 | 1.5188 | 2.8257 | 0.0560 | -0.3361 | 0.5720 | -0.9561 | -0.3916 |
| 144 | 55.76 | 0.10 | 14.1241 | -5.3817 | 1.5063 | 2.8223 | 0.0508 | -0.3616 | 0.5844 | -0.9260 | -0.3803 |
| 145 | 55.94 | 0.10 | 14.2263 | -5.5976 | 1.5134 | 2.8273 | 0.0507 | -0.3697 | 0.5837 | -0.9534 | -0.3754 |
| 146 | 56.08 | 0.08 | 14.1767 | -5.5263 | 1.4956 | 2.8091 | 0.0506 | -0.4155 | 0.5944 | -0.9746 | -0.3752 |
| 147 | 56.25 | 0.06 | 14.3201 | -5.5337 | 1.2766 | 2.7305 | 0.0518 | -0.3941 | 0.5896 | -0.9635 | -0.3664 |
| 148 | 56.41 | 0.10 | 14.4555 | -5.6745 | 1.3556 | 2.8796 | 0.0435 | -0.4007 | 0.5741 | -0.9748 | -0.3913 |
| 149 | 56.56 | 0.10 | 14.3736 | -5.5736 | 1.3322 | 2.9628 | 0.0511 | -0.4056 | 0.5763 | -0.9721 | -0.3736 |
| 150 | 56.72 | 0.08 | 14.3813 | -5.5917 | 1.1665 | 2.7968 | 0.0496 | -0.4078 | 0.5803 | -0.9741 | -0.3749 |
| 151 | 56.86 | 0.06 | 14.3237 | -5.5027 | 1.1335 | 2.7386 | 0.0522 | -0.3981 | 0.5800 | -0.9581 | -0.3702 |
| 152 | 57.02 | 0.07 | 14.4072 | -5.4365 | 1.0605 | 2.7952 | 0.0450 | -0.4128 | 0.5863 | -0.9729 | -0.3769 |
| 153 | 57.17 | 0.08 | 14.5083 | -5.5065 | 1.0576 | 2.4903 | 0.0010 | -0.4312 | 0.5683 | -0.9995 | -0.3755 |
| 154 | 57.31 | 0.05 | 14.4961 | -5.2027 | 1.1735 | 2.6546 | 0.0459 | -0.4132 | 0.5693 | -0.9625 | -0.3632 |
| 155 | 57.47 | 0.09 | 14.3963 | -5.1556 | 1.2285 | 2.5695 | 0.0456 | -0.4261 | 0.5764 | -0.9605 | -0.3612 |
| 156 | 57.61 | 0.09 | 14.3536 | -5.3048 | 1.1454 | 2.5224 | 0.0551 | -0.4120 | 0.5747 | -0.9867 | -0.3696 |
| 157 | 57.76 | 0.07 | 14.4586 | -5.3134 | 1.0292 | 2.5750 | 0.0535 | -0.4248 | 0.5681 | -0.9929 | -0.3675 |
| 158 | 57.91 | 0.06 | 14.4932 | -5.4355 | 0.9524 | 1.9552 | 0.0410 | -0.4034 | 0.5707 | -0.9821 | -0.3625 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RAIG-E PHI CONF D DEL1 DEL2 DEL3 DEL4 TRANSITION
7 [illegible] 0.6 BISOFIS 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | ALPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.05 | -0.01 | -0.0007 | 0.0025 | 0.0032 | -4.1445 | -5.1429 | -0.3169 | -0.0555 | -0.3927 | 0.0679 | 0.4807 |
| 2 | -0.04 | 0.01 | -0.0006 | 0.0025 | 0.0026 | -4.1003 | -4.8333 | -0.8203 | -0.0534 | -0.3944 | 0.0675 | 0.4808 |
| 3 | -0.04 | 0.01 | -0.0034 | 0.0018 | 0.0018 | -0.3625 | -0.5294 | -0.8219 | -0.0554 | -0.3965 | 0.0674 | 0.4824 |
| 4 | -0.04 | 0.00 | -0.0021 | 0.0023 | 0.0027 | -1.4057 | -1.4057 | -0.8219 | -0.0555 | -0.3959 | 0.0675 | 0.4817 |
| 5 | -0.04 | 0.00 | -0.0007 | 0.0026 | 0.0036 | -4.1445 | -5.1429 | -0.8153 | -0.0552 | -0.3933 | 0.0677 | 0.4824 |
| 6 | -0.05 | 0.00 | -0.0007 | 0.0026 | 0.0038 | -3.7150 | -5.1429 | -0.8053 | -0.0546 | -0.3891 | 0.0680 | 0.4832 |
| 7 | -0.06 | 0.00 | -0.0019 | 0.0022 | 0.0014 | -1.0550 | -0.7300 | -0.7717 | -0.0542 | -0.3728 | 0.0702 | 0.4830 |
| 8 | 1.90 | 0.00 | -0.0019 | 0.0012 | 0.00 | -0.1520 | 0.0 | -0.0045 | -0.0515 | -0.3252 | 0.0772 | 0.4694 |
| 9 | 3.29 | 0.00 | -0.0022 | 0.0026 | 0.0035 | -1.3187 | -1.5909 | -0.5476 | -0.0457 | -0.2720 | 0.0834 | 0.4968 |
| 10 | 5.13 | -0.00 | -0.0033 | 0.0019 | 0.0043 | -0.3500 | -0.8113 | -0.4302 | -0.0374 | -0.2185 | 0.0856 | 0.5008 |
| 11 | 6.64 | -0.00 | -0.0053 | 0.0017 | 0.0043 | -0.3209 | -0.8113 | -0.3199 | -0.0285 | -0.1837 | 0.0826 | 0.5117 |
| 12 | 8.08 | 0.01 | -0.0064 | 0.0015 | 0.0061 | -0.7920 | -2.5000 | -0.2000 | -0.0193 | -0.1157 | 0.0966 | 0.5568 |
| 13 | 10.62 | -0.01 | -0.0056 | 0.0018 | 0.0083 | -0.3210 | -1.1250 | -0.1276 | -0.0117 | -0.0728 | 0.0515 | 0.5708 |
| 14 | 12.50 | -0.01 | -0.0049 | 0.0010 | 0.0097 | -0.3838 | -2.0345 | -0.0443 | -0.0037 | -0.0248 | 0.0752 | 0.6272 |
| 15 | 14.30 | -0.00 | -0.0078 | -0.0008 | 0.0094 | 0.0457 | -0.2200 | -0.0006 | 0.0059 | -0.0184 | -16.5066 | 30.6867 |
| 16 | 16.15 | -0.01 | -0.0147 | -0.0016 | 0.0084 | 0.0681 | -0.4894 | 0.0021 | 0.0236 | 0.0015 | 0.5491 | 0.0345 |
| 17 | 17.99 | -0.02 | -0.0237 | -0.0043 | 0.0106 | 0.1899 | -0.2809 | 0.0952 | 0.0352 | 0.0254 | 0.3692 | 0.3091 |
| 18 | 19.84 | -0.02 | -0.0330 | -0.0116 | 0.0229 | 0.3910 | -0.8114 | 0.1343 | 0.0452 | 0.0475 | 0.3365 | 0.3535 |
| 19 | 21.76 | -0.02 | -0.0422 | -0.0176 | 0.0241 | 0.2585 | -0.3535 | 0.1817 | 0.0544 | 0.0722 | 0.2953 | 0.3972 |
| 20 | 23.67 | -0.04 | -0.0455 | -0.0216 | 0.0266 | 0.1020 | -0.0370 | 0.2414 | 0.0640 | 0.1028 | 0.2651 | 0.4260 |
| 21 | 25.55 | -0.03 | -0.0327 | -0.0243 | 0.0270 | 0.1270 | 0.1834 | 0.3330 | 0.0725 | 0.1466 | 0.2178 | 0.4411 |
| 22 | 27.40 | 0.03 | 0.1552 | [illegible] | 0.1023 | 0.1133 | 0.0928 | 0.3948 | 0.0796 | 0.2254 | 0.1613 | 0.4505 |
| 23 | 29.39 | 0.03 | 0.1102 | [illegible] | 0.0812 | 0.1036 | 0.7300 | 0.3449 | 0.0646 | 0.2481 | 0.1553 | 0.4553 |
| 24 | 31.26 | 0.04 | -0.0055 | -0.0479 | 0.0230 | -2.4503 | -3.8983 | 0.3818 | 0.0871 | 0.2622 | 0.1458 | 0.4507 |
| 25 | 33.22 | 0.06 | 0.0884 | -0.0259 | 0.0508 | 0.3002 | 0.0570 | 0.3696 | 0.0854 | 0.2949 | 0.1276 | 0.4403 |
| 26 | 33.03 | 0.07 | 0.0977 | -0.0428 | 0.0514 | 0.3422 | 0.8070 | 0.3008 | 0.0853 | 0.2905 | 0.1291 | 0.4395 |
| 27 | 33.89 | 0.07 | 0.0978 | -0.0284 | 0.0383 | 0.3556 | 0.0029 | 0.3042 | 0.0854 | 0.2908 | 0.1286 | 0.4377 |
| 28 | 34.11 | 0.07 | 0.0962 | -0.0305 | 0.0263 | 1.3092 | 1.3098 | 0.3023 | 0.0848 | 0.2870 | 0.1281 | 0.4342 |
| 29 | 34.34 | 0.06 | 0.0529 | -0.0304 | 0.0305 | 0.5244 | 0.5271 | 0.3711 | 0.0811 | 0.2853 | 0.1205 | 0.4310 |
| 30 | 34.54 | 0.05 | 0.0413 | -0.0312 | 0.0303 | 0.4134 | 0.4345 | 0.3697 | 0.0804 | 0.2865 | 0.1208 | 0.4303 |
| 31 | 34.85 | 0.05 | -0.0022 | -0.0324 | 0.0203 | -14.0877 | -9.2273 | 0.3040 | 0.0802 | 0.2857 | 0.1208 | 0.4302 |
| 32 | 35.07 | 0.05 | -0.0056 | -0.0292 | 0.0256 | -5.2104 | -4.4343 | 0.3007 | 0.0804 | 0.2865 | 0.1210 | 0.4304 |
| 33 | 35.32 | 0.05 | 0.0761 | -0.0271 | 0.0496 | 0.4870 | 0.0513 | 0.8855 | 0.0838 | 0.2956 | 0.1218 | 0.4311 |
| 34 | 35.50 | 0.04 | 0.1276 | -0.0284 | 0.0761 | 0.3007 | 0.3494 | 0.0879 | 0.0823 | 0.2951 | 0.0906 | 0.4285 |
| 35 | 35.77 | 0.07 | 0.2919 | -0.0367 | 0.1165 | 0.1711 | 0.4764 | 0.3981 | 0.0525 | 0.3008 | 0.0760 | 0.4321 |
| 36 | 36.01 | 0.06 | 0.1836 | -0.0333 | 0.0928 | 0.2309 | 0.3071 | 0.0894 | 0.0811 | 0.2907 | 0.0741 | 0.4303 |
| 37 | 36.24 | 0.05 | 0.1240 | -0.0425 | 0.0705 | 0.3426 | 0.5719 | 0.0917 | 0.0474 | 0.2967 | 0.0685 | 0.4289 |
| 38 | 36.47 | 0.06 | 0.1152 | -0.0438 | 0.0659 | 0.3781 | 0.3500 | 0.0971 | 0.0461 | 0.2991 | 0.0661 | 0.4290 |
| 39 | 36.71 | 0.07 | 0.1357 | -0.0411 | 0.0731 | 0.2940 | 0.5233 | 0.7041 | 0.0451 | 0.3024 | 0.0646 | 0.4295 |
| 40 | 36.94 | 0.06 | 0.1020 | -0.0523 | 0.0503 | 0.3503 | 0.5073 | 0.7138 | 0.0483 | 0.3110 | 0.0676 | 0.4357 |
| 41 | 37.16 | 0.07 | 0.0998 | -0.0358 | 0.0359 | 0.7990 | 0.8031 | 0.7104 | 0.0491 | 0.3073 | 0.0691 | 0.4326 |
| 42 | 37.41 | 0.05 | -0.0053 | -0.0283 | -0.0012 | -0.5731 | 0.0410 | 0.7060 | 0.0515 | 0.3057 | 0.0726 | 0.4326 |
| 43 | 37.64 | 0.05 | -0.0073 | -0.0153 | -0.0215 | -0.1755 | 0.2511 | 0.7030 | 0.0543 | 0.3058 | 0.0772 | 0.4350 |
| 44 | 37.87 | 0.06 | -0.0087 | -0.0144 | -0.0225 | -0.1626 | 0.2505 | 0.7040 | 0.0547 | 0.3053 | 0.0776 | 0.4332 |
| 45 | 38.12 | 0.10 | -0.1154 | 0.0005 | -0.0327 | -0.0042 | 0.2741 | 0.7044 | 0.0569 | 0.3074 | 0.0808 | 0.4364 |
| 46 | 38.33 | 0.09 | -0.1149 | -0.0052 | -0.0276 | 0.0453 | 0.2352 | 0.7079 | 0.0565 | 0.3070 | 0.0798 | 0.4337 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 144 MACH 0.80 RX10-6 1.7 PHI 0.0 CONF BINOFIN C.G. 0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 38.55 | 0.09 | -0.1177 | -0.0262 | -0.0278 | 0.0732 | 0.2364 | 0.7163 | 0.0563 | 0.3099 | 0.0786 | 0.4314 |
| 48 | 38.79 | 0.10 | -0.1023 | -0.0227 | -0.0213 | 0.1243 | 0.2084 | 0.7253 | 0.0537 | 0.3125 | 0.0768 | 0.4308 |
| 49 | 39.01 | 0.11 | -0.1242 | -0.0175 | -0.0331 | 0.1444 | 0.2669 | 0.7411 | 0.0535 | 0.3172 | 0.0722 | 0.4286 |
| 50 | 39.21 | 0.10 | -0.1343 | -0.0164 | -0.0403 | 0.1373 | 0.3005 | 0.7491 | 0.0518 | 0.3166 | 0.0697 | 0.4266 |
| 51 | 39.43 | 0.11 | -0.1456 | -0.0065 | 0.0044 | 0.1426 | -0.0961 | 0.7485 | 0.0507 | 0.3163 | 0.0677 | 0.4226 |
| 52 | 39.63 | 0.11 | -0.1158 | -0.0336 | -0.0265 | 0.1054 | 0.2052 | 0.7607 | 0.0503 | 0.3206 | 0.0661 | 0.4217 |
| 53 | 39.83 | 0.12 | -0.0818 | 0.0012 | 0.0255 | -0.7503 | -15.9375 | 0.7542 | 0.0496 | 0.3184 | 0.0657 | 0.4221 |
| 54 | 40.03 | 0.10 | -0.0148 | 0.0040 | 0.0145 | -0.3109 | -0.6797 | 0.7549 | 0.0490 | 0.3170 | 0.0645 | 0.4202 |
| 55 | 40.24 | 0.11 | -0.0118 | 0.0 | 0.0155 | 0.0 | -1.6525 | 0.7545 | 0.0476 | 0.3183 | 0.0631 | 0.4218 |
| 56 | 40.46 | 0.11 | -0.0042 | 0.0018 | 0.0195 | -0.9287 | -4.7381 | 0.7649 | 0.0473 | 0.3199 | 0.0618 | 0.4182 |
| 57 | 40.65 | 0.11 | -0.0403 | 0.0035 | 0.0150 | -0.0968 | -0.1241 | 0.7612 | 0.0490 | 0.3196 | 0.0643 | 0.4198 |
| 58 | 40.87 | 0.11 | -0.0383 | -0.0028 | 0.0063 | 0.0731 | -0.1645 | 0.7753 | 0.0476 | 0.3221 | 0.0614 | 0.4155 |
| 59 | 41.08 | 0.11 | -0.0244 | -0.0047 | 0.0102 | 0.1527 | -0.4180 | 0.7789 | 0.0461 | 0.3237 | 0.0592 | 0.4156 |
| 60 | 41.26 | 0.11 | -0.0305 | -0.0052 | 0.0101 | 0.1706 | -0.3311 | 0.7692 | 0.0441 | 0.3184 | 0.0573 | 0.4136 |
| 61 | 41.46 | 0.12 | -0.0154 | -0.0087 | 0.0134 | 0.6495 | -1.0300 | 0.7931 | 0.0439 | 0.3278 | 0.0553 | 0.4133 |
| 62 | 41.66 | 0.11 | -0.0815 | -0.0077 | 0.0045 | 0.1295 | 0.0798 | 0.7759 | 0.0453 | 0.3210 | 0.0584 | 0.4157 |
| 63 | 41.85 | 0.12 | -0.0371 | -0.0115 | 0.0138 | 0.3101 | -0.1024 | 0.8009 | 0.0436 | 0.3317 | 0.0540 | 0.4111 |
| 64 | 42.05 | 0.13 | -0.0419 | -0.0056 | 0.0029 | 0.2343 | -0.0694 | 0.8037 | 0.0424 | 0.3300 | 0.0527 | 0.4106 |
| 65 | 42.22 | 0.12 | -0.0505 | -0.0112 | -0.0029 | 0.2223 | 0.0575 | 0.8004 | 0.0421 | 0.3256 | 0.0526 | 0.4068 |
| 66 | 42.41 | 0.12 | -0.0457 | -0.0106 | 0.0007 | 0.3370 | -0.2256 | 0.8143 | 0.0402 | 0.3308 | 0.0493 | 0.4062 |
| 67 | 42.56 | 0.12 | -0.0474 | -0.0115 | -0.0019 | 0.2432 | 0.0402 | 0.8176 | 0.0413 | 0.3311 | 0.0505 | 0.4050 |
| 68 | 42.78 | 0.12 | -0.0417 | -0.0107 | 0.0030 | 0.4533 | -0.2981 | 0.8421 | 0.0389 | 0.3347 | 0.0438 | 0.4034 |
| 69 | 42.96 | 0.11 | -0.0381 | -0.0105 | -0.0005 | 0.2802 | 0.0238 | 0.8454 | 0.0378 | 0.3401 | 0.0447 | 0.4023 |
| 70 | 43.13 | 0.11 | -0.0428 | -0.0110 | 0.0007 | 0.4029 | -0.0243 | 0.8488 | 0.0364 | 0.3374 | 0.0433 | 0.4022 |
| 71 | 43.31 | 0.11 | -0.0372 | -0.0097 | 0.0005 | 0.5642 | -0.4012 | 0.8422 | 0.0367 | 0.3384 | 0.0435 | 0.4018 |
| 72 | 43.48 | 0.11 | -0.0466 | -0.0133 | -0.0074 | 0.2801 | 0.1591 | 0.8596 | 0.0352 | 0.3438 | 0.0405 | 0.4000 |
| 73 | 43.66 | 0.11 | -0.0281 | -0.0105 | 0.0031 | 0.4025 | -0.1186 | 0.8562 | 0.0350 | 0.3422 | 0.0408 | 0.3997 |
| 74 | 43.87 | 0.11 | -0.0420 | -0.0105 | 0.0021 | 0.5220 | -0.2537 | 0.8606 | 0.0339 | 0.3450 | 0.0391 | 0.3982 |
| 75 | 44.04 | 0.11 | -0.0226 | -0.0062 | 0.0125 | 2.3850 | -4.9615 | 0.8668 | 0.0336 | 0.3420 | 0.0387 | 0.3957 |
| 76 | 44.21 | 0.11 | -0.0093 | -0.0002 | 0.0111 | 1.0478 | -2.0795 | 0.8636 | 0.0327 | 0.3399 | 0.0378 | 0.3938 |
| 77 | 44.41 | 0.12 | 0.0046 | -0.0051 | 0.0178 | -1.1091 | 3.8696 | 0.8656 | 0.0321 | 0.3395 | 0.0371 | 0.3936 |
| 78 | 44.58 | 0.11 | 0.0022 | -0.0052 | 0.0151 | -1.4450 | 3.0211 | 0.8726 | 0.0321 | 0.3412 | 0.0359 | 0.3935 |
| 79 | 44.76 | 0.12 | 0.0137 | -0.0035 | 0.0150 | -0.2550 | 1.3869 | 0.8774 | 0.0315 | 0.3438 | 0.0358 | 0.3919 |
| 80 | 44.99 | 0.12 | -0.0002 | -0.0054 | 0.0163 | 2.0777 | -4.7306 | 0.8840 | 0.0326 | 0.3464 | 0.0371 | 0.3919 |
| 81 | 45.13 | 0.12 | -0.0085 | -0.0053 | 0.0130 | 0.5557 | -1.4607 | 0.8894 | 0.0321 | 0.3455 | 0.0360 | 0.3885 |
| 82 | 45.30 | 0.12 | 0.0156 | -0.0015 | 0.0020 | -0.0570 | 1.0459 | 0.8914 | 0.0305 | 0.3449 | 0.0343 | 0.3865 |
| 83 | 45.48 | 0.12 | -0.0056 | -0.0046 | 0.0108 | 0.8218 | -1.9286 | 0.9050 | 0.0302 | 0.3501 | 0.0334 | 0.3869 |
| 84 | 45.64 | 0.12 | -0.0013 | -0.0050 | 0.0145 | 3.8477 | -11.1538 | 0.8916 | 0.0293 | 0.3435 | 0.0329 | 0.3853 |
| 85 | 45.82 | 0.12 | -0.0001 | -0.0037 | 0.0168 | 37.0143 | -168.0000 | 0.8917 | 0.0291 | 0.3421 | 0.0327 | 0.3837 |
| 86 | 46.00 | 0.12 | 0.0032 | -0.0042 | 0.0158 | -1.3130 | 4.9375 | 0.9053 | 0.0293 | 0.3473 | 0.0324 | 0.3837 |
| 87 | 46.18 | 0.12 | -0.0056 | -0.0052 | 0.0114 | 0.5285 | -2.0357 | 0.9122 | 0.0291 | 0.3488 | 0.0320 | 0.3822 |
| 88 | 46.39 | 0.12 | -0.0058 | -0.0042 | 0.0121 | 0.7244 | -2.0862 | 0.9140 | 0.0289 | 0.3512 | 0.0315 | 0.3822 |
| 89 | 46.52 | 0.11 | -0.0397 | -0.0093 | 0.0036 | 0.2606 | -0.1008 | 0.9053 | 0.0298 | 0.3448 | 0.0330 | 0.3807 |
| 90 | 46.68 | 0.10 | -0.0018 | -0.0025 | -0.0002 | 0.2600 | 0.1021 | 0.9139 | 0.0297 | 0.3482 | 0.0326 | 0.3788 |
| 91 | 46.87 | 0.12 | -0.0003 | -0.0041 | -0.0016 | 0.2131 | 0.1752 | 0.9343 | 0.0294 | 0.3554 | 0.0315 | 0.3804 |
| 92 | 47.03 | 0.10 | -0.0017 | -0.0195 | -0.0171 | 0.2130 | 0.1807 | 0.9120 | 0.0301 | 0.3481 | 0.0331 | 0.3817 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK0C) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX1C-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
/ ### 0.80 1.7 0.0 BIBOFIS 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CAF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.21 | 0.10 | -0.1210 | -0.0237 | -0.0307 | 0.1981 | 0.2539 | 0.9292 | 0.0297 | 0.3522 | 0.0320 | 0.3791 |
| 94 | 47.38 | 0.09 | -0.1265 | -0.0255 | -0.0306 | 0.1946 | 0.2483 | 0.9324 | 0.0293 | 0.3540 | 0.0315 | 0.3787 |
| 95 | 47.56 | 0.09 | -0.1076 | -0.0236 | -0.0233 | 0.2215 | 0.2167 | 0.9343 | 0.0238 | 0.3565 | 0.0307 | 0.3796 |
| 96 | 47.73 | 0.09 | -0.2166 | -0.0365 | -0.0282 | 0.1795 | 0.3140 | 0.9323 | 0.0296 | 0.3540 | 0.0318 | 0.3757 |
| 97 | 47.90 | 0.09 | -0.2383 | -0.0423 | -0.0296 | 0.1774 | 0.3340 | 0.9341 | 0.0296 | 0.3534 | 0.0317 | 0.3783 |
| 98 | 48.05 | 0.08 | -0.2794 | -0.0479 | -0.0324 | 0.1745 | 0.3477 | 0.9375 | 0.0291 | 0.3559 | 0.0311 | 0.3797 |
| 99 | 48.22 | 0.08 | -0.2931 | -0.0515 | -0.0365 | 0.1757 | 0.3635 | 0.9341 | 0.0291 | 0.3522 | 0.0312 | 0.3771 |
| 100 | 48.39 | 0.09 | -0.3051 | -0.0521 | -0.0356 | 0.1707 | 0.3680 | 0.9442 | 0.0300 | 0.3565 | 0.0316 | 0.3797 |
| 101 | 48.54 | 0.09 | -0.3075 | -0.0536 | -0.0343 | 0.1749 | 0.3719 | 0.9444 | 0.0286 | 0.3558 | 0.0305 | 0.3768 |
| 102 | 48.71 | 0.08 | -0.2984 | -0.0551 | -0.0315 | 0.1840 | 0.3738 | 0.9549 | 0.0263 | 0.3595 | 0.0278 | 0.3770 |
| 103 | 48.88 | 0.08 | -0.3015 | -0.0558 | -0.0356 | 0.1852 | 0.3969 | 1.0147 | 0.0340 | 0.3678 | 0.0335 | 0.3821 |
| 104 | 49.06 | 0.08 | -0.3109 | -0.0437 | -0.0342 | 0.1405 | 0.3036 | 0.9810 | 0.0334 | 0.3720 | 0.0340 | 0.3792 |
| 105 | 49.23 | -0.01 | -0.2441 | -0.0454 | -0.0350 | 0.1859 | 0.4057 | 1.0206 | 0.0267 | 0.3673 | 0.0262 | 0.3754 |
| 106 | 49.41 | 0.01 | -0.3066 | -0.0419 | -0.0338 | 0.1360 | 0.4034 | 0.9975 | 0.0347 | 0.3797 | 0.0347 | 0.3806 |
| 107 | 49.58 | 0.01 | -0.3056 | -0.0420 | -0.0328 | 0.1356 | 0.4054 | 0.9927 | 0.0336 | 0.3755 | 0.0338 | 0.3788 |
| 108 | 49.74 | 0.01 | -0.2761 | -0.0476 | -0.0365 | 0.1723 | 0.4003 | 0.9823 | 0.0298 | 0.3682 | 0.0304 | 0.3746 |
| 109 | 49.92 | 0.01 | -0.2740 | -0.0505 | -0.0385 | 0.2001 | 0.3975 | 0.9818 | 0.0299 | 0.3665 | 0.0254 | 0.3753 |
| 110 | 50.09 | 0.02 | -0.2430 | -0.0491 | -0.0360 | 0.2020 | 0.4141 | 0.9838 | 0.0292 | 0.3687 | 0.0241 | 0.3723 |
| 111 | 50.26 | 0.02 | -0.2469 | -0.0471 | -0.0354 | 0.1910 | 0.4033 | 0.9820 | 0.0298 | 0.3657 | 0.0253 | 0.3725 |
| 112 | 50.44 | 0.02 | -0.2496 | -0.0536 | -0.0360 | 0.2375 | 0.3837 | 0.9585 | 0.0237 | 0.3583 | 0.0248 | 0.3718 |
| 113 | 50.60 | 0.03 | -0.2234 | -0.0448 | -0.0335 | 0.2004 | 0.3290 | 0.9388 | 0.0320 | 0.3576 | 0.0352 | 0.3724 |
| 114 | 50.78 | 0.03 | -0.1753 | -0.0423 | -0.0305 | 0.2411 | 0.2787 | 0.9407 | 0.0351 | 0.3552 | 0.0370 | 0.3753 |
| 115 | 50.97 | 0.05 | -0.1635 | -0.0359 | -0.0459 | 0.2408 | 0.2805 | 0.9501 | 0.0350 | 0.3589 | 0.0368 | 0.3757 |
| 116 | 51.13 | 0.05 | -0.1656 | -0.0428 | -0.0527 | 0.2304 | 0.2637 | 0.9465 | 0.0351 | 0.3540 | 0.0370 | 0.3733 |
| 117 | 51.30 | 0.06 | -0.1634 | -0.0411 | -0.0448 | 0.2513 | 0.2739 | 0.9720 | 0.0355 | 0.3634 | 0.0365 | 0.3735 |
| 118 | 51.48 | 0.09 | -0.1681 | -0.0421 | -0.0441 | 0.2502 | 0.2621 | 1.0042 | 0.0348 | 0.3750 | 0.0346 | 0.3734 |
| 119 | 51.64 | 0.09 | -0.2241 | -0.0450 | -0.0649 | 0.2166 | 0.2895 | 0.9943 | 0.0338 | 0.3700 | 0.0339 | 0.3721 |
| 120 | 51.81 | 0.09 | -0.2216 | -0.0487 | -0.0633 | 0.2197 | 0.2856 | 1.0097 | 0.0334 | 0.3755 | 0.0330 | 0.3722 |
| 121 | 51.97 | 0.10 | -0.2144 | -0.0473 | -0.0587 | 0.2237 | 0.2776 | 1.0248 | 0.0351 | 0.3806 | 0.0342 | 0.3714 |
| 122 | 52.14 | 0.11 | -0.2156 | -0.0496 | -0.0665 | 0.2258 | 0.3020 | 1.0205 | 0.0330 | 0.3766 | 0.0294 | 0.3690 |
| 123 | 52.32 | 0.11 | -0.2084 | -0.0492 | -0.0554 | 0.1846 | 0.3581 | 1.0366 | 0.0257 | 0.3823 | 0.0248 | 0.3686 |
| 124 | 52.48 | 0.13 | -0.2160 | -0.0492 | -0.0741 | 0.2277 | 0.3491 | 1.0136 | 0.0214 | 0.3707 | 0.0209 | 0.3657 |
| 125 | 52.65 | 0.13 | -0.1995 | -0.0463 | -0.0741 | 0.2319 | 0.3713 | 1.0158 | 0.0195 | 0.3693 | 0.0190 | 0.3635 |
| 126 | 52.81 | 0.11 | -0.1827 | -0.0446 | -0.0506 | 0.2752 | 0.3440 | 0.9838 | 0.0174 | 0.3564 | 0.0179 | 0.3616 |
| 127 | 52.98 | 0.12 | -0.1968 | -0.0443 | -0.0756 | 0.2249 | 0.3810 | 0.9739 | 0.0179 | 0.3533 | 0.0184 | 0.3628 |
| 128 | 53.14 | 0.11 | -0.1829 | -0.0415 | -0.0624 | 0.2540 | 0.3829 | 0.9804 | 0.0163 | 0.3595 | 0.0166 | 0.3646 |
| 129 | 53.30 | 0.14 | -0.1115 | -0.0301 | -0.0414 | 0.2703 | 0.3707 | 0.9213 | 0.0171 | 0.3350 | 0.0188 | 0.3614 |
| 130 | 53.47 | 0.13 | -0.1251 | -0.0355 | -0.0450 | 0.2667 | 0.3555 | 0.9643 | 0.0143 | 0.3492 | 0.0151 | 0.3621 |
| 131 | 53.62 | 0.13 | -0.0888 | -0.0242 | -0.0246 | 0.3524 | 0.3581 | 0.9506 | 0.0152 | 0.3454 | 0.0160 | 0.3634 |
| 132 | 53.77 | 0.16 | -0.0553 | -0.0186 | -0.0164 | 0.3143 | 0.2730 | 0.8837 | 0.0179 | 0.3188 | 0.0203 | 0.3608 |
| 133 | 53.96 | 0.11 | -0.0270 | -0.0051 | -0.0041 | 0.3372 | 0.1519 | 0.9179 | 0.0177 | 0.3310 | 0.0193 | 0.3606 |
| 134 | 54.11 | 0.13 | -0.0316 | -0.0103 | -0.0120 | 0.3290 | 0.0881 | 0.9146 | 0.0170 | 0.3300 | 0.0186 | 0.3608 |
| 135 | 54.26 | 0.11 | -0.0031 | -0.0164 | -0.0136 | 0.2004 | 0.2159 | 0.8872 | 0.0174 | 0.3186 | 0.0196 | 0.3553 |
| 136 | 54.43 | 0.10 | -0.0169 | -0.0062 | 0.0031 | 0.4654 | -0.1834 | 0.9250 | 0.0154 | 0.3342 | 0.0172 | 0.3613 |
| 137 | 54.60 | 0.10 | -0.0362 | -0.0075 | -0.0037 | 0.1964 | 0.0969 | 0.8924 | 0.0186 | 0.3206 | 0.0189 | 0.3592 |
| 138 | 54.75 | 0.10 | -0.0215 | -0.0101 | 0.0064 | 0.0047 | -0.3907 | 0.9009 | 0.0173 | 0.3239 | 0.0192 | 0.3595 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | CEL1 | CEL2 | CEL3 | CEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 144 | 0.60 | 1.7 | 0.0 | 0.15CP15 | 6.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PLANT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 54.92 | 0.07 | -0.0219 | -0.0007 | 0.0083 | 0.0327 | -0.3378 | 0.9043 | 0.0160 | 0.3243 | 0.0184 | 0.3582 |
| 140 | 55.11 | 0.16 | -0.0267 | -0.0103 | 0.0101 | 0.0409 | -0.2054 | 0.9371 | 0.0145 | 0.3385 | 0.0155 | 0.3613 |
| 141 | 55.29 | 0.05 | -0.0266 | -0.0086 | 0.0021 | 0.2217 | -0.0541 | 0.9440 | 0.0140 | 0.3404 | 0.0145 | 0.3606 |
| 142 | 55.46 | 0.16 | -0.0362 | -0.0075 | 0.0048 | 0.1514 | -0.1424 | 0.9265 | 0.0149 | 0.3337 | 0.0161 | 0.3602 |
| 143 | 55.61 | 0.10 | -0.0235 | -0.0075 | 0.0091 | 0.3507 | -0.3608 | 0.9575 | 0.0136 | 0.3458 | 0.0142 | 0.3612 |
| 144 | 55.76 | 0.14 | -0.0454 | -0.0066 | 0.0054 | 0.1999 | -0.1192 | 0.9523 | 0.0130 | 0.3446 | 0.0137 | 0.3621 |
| 145 | 55.74 | 0.10 | -0.0508 | -0.0116 | 0.0010 | 0.2269 | -0.0197 | 0.9402 | 0.0132 | 0.3385 | 0.0141 | 0.3601 |
| 146 | 56.06 | 0.08 | -0.0653 | -0.0160 | -0.0027 | 0.1496 | 0.0390 | 0.9229 | 0.0144 | 0.3324 | 0.0156 | 0.3602 |
| 147 | 56.25 | 0.06 | -0.0278 | -0.0035 | 0.0125 | 0.1903 | -0.4456 | 0.9504 | 0.0134 | 0.3407 | 0.0141 | 0.3585 |
| 148 | 56.41 | 0.10 | -0.0445 | -0.0050 | 0.0064 | 0.0878 | -0.1554 | 0.9503 | 0.0129 | 0.3441 | 0.0136 | 0.3621 |
| 149 | 56.56 | 0.10 | -0.0576 | -0.0046 | 0.0032 | 0.0798 | -0.0555 | 0.9464 | 0.0135 | 0.3400 | 0.0143 | 0.3585 |
| 150 | 56.72 | 0.08 | -0.0367 | -0.0049 | 0.0121 | 0.1434 | -0.3441 | 0.9021 | 0.0124 | 0.3459 | 0.0129 | 0.3556 |
| 151 | 56.86 | 0.06 | -0.0343 | -0.0062 | 0.0136 | 0.0858 | -0.3565 | 0.9450 | 0.0126 | 0.3392 | 0.0134 | 0.3590 |
| 152 | 57.02 | 0.07 | -0.0368 | 0.00 | 0.0124 | 0.0 | -0.3196 | 0.9067 | 0.0130 | 0.3473 | 0.0135 | 0.3553 |
| 153 | 57.17 | 0.02 | -0.0378 | -0.0006 | 0.0158 | 0.0160 | -0.4202 | 0.9617 | 0.0130 | 0.3446 | 0.0135 | 0.3566 |
| 154 | 57.31 | 0.09 | -0.0444 | -0.0023 | 0.0101 | 0.0356 | -0.0449 | 0.9517 | 0.0126 | 0.3392 | 0.0133 | 0.3564 |
| 155 | 57.47 | 0.09 | -0.0530 | 0.00 | 0.0142 | 0.0 | -0.2084 | 0.9394 | 0.0134 | 0.3376 | 0.0143 | 0.3588 |
| 156 | 57.61 | 0.05 | -0.0322 | 0.0006 | 0.0018 | -0.0196 | -0.0770 | 0.9700 | 0.0117 | 0.3484 | 0.0121 | 0.3567 |
| 157 | 57.76 | 0.07 | -0.0455 | -0.0012 | 0.0150 | 0.0241 | -0.3012 | 0.9750 | 0.0116 | 0.3507 | 0.0119 | 0.3567 |
| 158 | 57.91 | 0.06 | -0.0431 | 0.0031 | 0.0209 | -0.0721 | -0.4721 | 0.9649 | 0.0119 | 0.3447 | 0.0124 | 0.3573 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(USNSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 144 MACH 0.80 RN/C-6 1.7 PHI 0.0 CONF 61BCF15 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.05 | -0.01 | -0.0150 | 0.0000 | 0.0172 | 0.0000 | -1.1467 | -0.0606 | -0.0579 | -0.3669 | 0.0696 | 0.4287 |
| 2 | -0.04 | 0.01 | -0.0161 | 0.0000 | 0.0163 | 0.0000 | -0.9006 | -0.0672 | -0.0603 | -0.3761 | 0.0695 | 0.4267 |
| 3 | -0.04 | 0.01 | -0.0150 | 0.0000 | 0.0166 | 0.0000 | -1.1067 | -0.0606 | -0.0597 | -0.3662 | 0.0694 | 0.4257 |
| 4 | -0.04 | 0.00 | -0.0165 | 0.0000 | 0.0158 | 0.0000 | -0.9576 | -0.0638 | -0.0602 | -0.3705 | 0.0697 | 0.4289 |
| 5 | -0.04 | 0.00 | -0.0165 | 0.0000 | 0.0158 | 0.0000 | -0.9576 | -0.0622 | -0.0601 | -0.3665 | 0.0697 | 0.4274 |
| 6 | -0.05 | 0.00 | -0.0118 | 0.0000 | 0.0180 | 0.0000 | -1.4231 | -0.0535 | -0.0597 | -0.3658 | 0.0699 | 0.4286 |
| 7 | -0.06 | 0.01 | -0.0149 | 0.0000 | 0.0153 | 0.0000 | -1.0268 | -0.0172 | -0.0587 | -0.3493 | 0.0716 | 0.4275 |
| 8 | 1.50 | 0.00 | -0.0196 | 0.0000 | 0.0150 | 0.0000 | -0.7459 | -0.0848 | -0.0542 | -0.2975 | 0.0791 | 0.4345 |
| 9 | 3.29 | 0.00 | -0.0165 | 0.0000 | 0.0170 | 0.0000 | -1.0303 | -0.0741 | -0.0475 | -0.2515 | 0.0827 | 0.4388 |
| 10 | 5.13 | -0.00 | -0.0196 | 0.0000 | 0.0162 | 0.0000 | -0.8265 | -0.4439 | -0.0383 | -0.2040 | 0.0862 | 0.4394 |
| 11 | 6.94 | -0.00 | -0.0158 | 0.0000 | 0.0172 | 0.0000 | -1.1467 | -0.3316 | -0.0276 | -0.1480 | 0.0834 | 0.4463 |
| 12 | 8.80 | 0.00 | -0.0096 | 0.0000 | 0.0174 | 0.0000 | -1.3300 | -0.2274 | -0.0172 | -0.0931 | 0.0846 | 0.4495 |
| 13 | 10.62 | -0.01 | 0.0023 | 0.0000 | 0.0173 | 0.0000 | 7.5217 | -0.1302 | -0.0100 | -0.0506 | 0.0770 | 0.3900 |
| 14 | 12.50 | -0.01 | -0.0038 | 0.0000 | 0.0132 | 0.0000 | -3.4757 | -0.0512 | 0.0005 | -0.0205 | -0.0098 | 0.4012 |
| 15 | 14.36 | -0.00 | -0.0006 | 0.0000 | 0.0159 | 0.0000 | -19.8750 | -0.0006 | 0.0134 | 0.0016 | -2.0311 | -0.2424 |
| 16 | 16.15 | -0.01 | -0.0037 | 0.0000 | 0.0120 | 0.0000 | -3.2432 | 0.0586 | 0.0273 | 0.0240 | 0.4834 | 0.4246 |
| 17 | 17.99 | -0.00 | 0.0011 | 0.0000 | 0.0105 | 0.0000 | 9.5454 | 0.1206 | 0.0395 | 0.0554 | 0.3266 | 0.4582 |
| 18 | 19.84 | -0.00 | -0.0018 | 0.0000 | 0.0094 | 0.0000 | -5.0000 | 0.2273 | 0.0502 | 0.1105 | 0.2428 | 0.4863 |
| 19 | 21.76 | -0.02 | -0.0055 | 0.0000 | 0.0117 | 0.0000 | -0.1769 | 0.3366 | 0.0683 | 0.1656 | 0.2017 | 0.4891 |
| 20 | 23.67 | -0.04 | -0.0094 | 0.0000 | -0.0119 | 0.0000 | 0.1909 | 0.4338 | 0.0766 | 0.2159 | 0.1771 | 0.4976 |
| 21 | 25.55 | -0.03 | 0.0048 | 0.0000 | 0.0134 | 0.0000 | 0.7391 | 0.4952 | 0.0814 | 0.2451 | 0.1651 | 0.4970 |
| 22 | 27.40 | 0.03 | 0.0365 | 0.0000 | 0.0147 | 0.0000 | 0.4757 | 0.4946 | 0.0844 | 0.2466 | 0.1707 | 0.4986 |
| 23 | 29.39 | 0.03 | 0.0309 | 0.0000 | 0.0147 | 0.0000 | 0.4757 | 0.5068 | 0.0890 | 0.3041 | 0.1463 | 0.4994 |
| 24 | 31.20 | 0.04 | 0.0341 | 0.0000 | 0.0156 | 0.0000 | 0.4588 | 0.5092 | 0.0898 | 0.3342 | 0.1156 | 0.4780 |
| 25 | 33.22 | 0.06 | 0.0343 | 0.0000 | 0.0138 | 0.0000 | 0.4023 | 0.6991 | 0.0759 | 0.3260 | 0.1086 | 0.4761 |
| 26 | 33.63 | 0.07 | 0.0249 | 0.0000 | 0.0106 | 0.0000 | 0.4257 | 0.6793 | 0.0685 | 0.3186 | 0.1005 | 0.4690 |
| 27 | 33.89 | 0.07 | 0.0355 | 0.0000 | 0.0152 | 0.0000 | 0.4234 | 0.6810 | 0.0651 | 0.3195 | 0.0956 | 0.4691 |
| 28 | 34.11 | 0.07 | 0.0374 | 0.0000 | 0.0178 | 0.0000 | 0.4759 | 0.6557 | 0.0644 | 0.3059 | 0.0829 | 0.4665 |
| 29 | 34.34 | 0.06 | 0.0265 | 0.0000 | 0.0139 | 0.0000 | 0.5245 | 0.6528 | 0.0583 | 0.3092 | 0.0862 | 0.4736 |
| 30 | 34.55 | 0.09 | 0.0423 | 0.0000 | 0.0201 | 0.0000 | 0.4705 | 0.6131 | 0.0435 | 0.2912 | 0.0742 | 0.4749 |
| 31 | 34.85 | 0.05 | 0.0422 | 0.0000 | 0.0220 | 0.0000 | 0.5366 | 0.5945 | 0.0378 | 0.2849 | 0.0685 | 0.4793 |
| 32 | 35.07 | 0.09 | 0.0313 | 0.0000 | 0.0168 | 0.0000 | 0.5367 | 0.5946 | 0.0381 | 0.2849 | 0.0695 | 0.4863 |
| 33 | 35.32 | 0.09 | 0.0454 | 0.0000 | 0.0242 | 0.0000 | 0.5342 | 0.6071 | 0.0422 | 0.2934 | 0.0695 | 0.4832 |
| 34 | 35.56 | 0.09 | 0.0361 | 0.0000 | 0.0179 | 0.0000 | 0.4938 | 0.6326 | 0.0486 | 0.3046 | 0.0765 | 0.4815 |
| 35 | 35.77 | 0.07 | 0.0517 | 0.0000 | 0.0265 | 0.0000 | 0.5523 | 0.6735 | 0.0589 | 0.3265 | 0.0874 | 0.4848 |
| 36 | 36.01 | 0.08 | 0.0487 | 0.0000 | 0.0245 | 0.0000 | 0.5041 | 0.6489 | 0.0470 | 0.3129 | 0.0724 | 0.4822 |
| 37 | 36.24 | 0.09 | 0.0455 | 0.0000 | 0.0242 | 0.0000 | 0.5330 | 0.6352 | 0.0391 | 0.3058 | 0.0617 | 0.4829 |
| 38 | 36.47 | 0.08 | 0.0443 | 0.0000 | 0.0240 | 0.0000 | 0.5067 | 0.6146 | 0.0369 | 0.2975 | 0.0600 | 0.4840 |
| 39 | 36.71 | 0.07 | 0.0516 | 0.0000 | 0.0272 | 0.0000 | 0.5261 | 0.6336 | 0.0378 | 0.3057 | 0.0596 | 0.4823 |
| 40 | 36.94 | 0.08 | 0.0524 | 0.0000 | 0.0281 | 0.0000 | 0.5253 | 0.6440 | 0.0391 | 0.3126 | 0.0607 | 0.4854 |
| 41 | 37.16 | 0.07 | 0.0518 | 0.0000 | 0.0272 | 0.0000 | 0.5261 | 0.6319 | 0.0346 | 0.3077 | 0.0547 | 0.4865 |
| 42 | 37.41 | 0.09 | 0.0549 | 0.0000 | 0.0300 | 0.0000 | 0.5474 | 0.6455 | 0.0337 | 0.2906 | 0.0599 | 0.4879 |
| 43 | 37.64 | 0.09 | 0.0355 | 0.0000 | 0.0205 | 0.0000 | 0.5822 | 0.6039 | 0.0359 | 0.2779 | 0.0636 | 0.4929 |
| 44 | 37.87 | 0.08 | 0.0465 | 0.0000 | 0.0268 | 0.0000 | 0.5726 | 0.6063 | 0.0339 | 0.2776 | 0.0640 | 0.4955 |
| 45 | 38.12 | 0.10 | 0.0518 | 0.0000 | 0.0290 | 0.0000 | 0.5631 | 0.6072 | 0.0363 | 0.2795 | 0.0639 | 0.4925 |
| 46 | 38.33 | 0.09 | 0.0454 | 0.0000 | 0.0242 | 0.0000 | 0.5342 | 0.5944 | 0.0369 | 0.2734 | 0.0665 | 0.4932 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 144 MACH 0.80 RAIC-6 1.7 PHI 0.0 CONF BASELIS C.G 0 DEC1 -20 DEC2 0 DEC3 -20 DEC4 UNKNOWN TRANSITION

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ALPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 38.55 | 0.09 | 0.0516 | 9.9999 | 0.0284 | 9.9999 | 0.5315 | 0.5653 | 0.0366 | 0.2768 | 0.0647 | 0.4857 |
| 48 | 38.79 | 0.10 | 0.0485 | 9.9999 | 0.0265 | 9.9999 | 0.5556 | 0.5528 | 0.0367 | 0.2732 | 0.0663 | 0.4943 |
| 49 | 39.01 | 0.11 | 0.0517 | 9.9999 | 0.0278 | 9.9999 | 0.5368 | 0.5544 | 0.0370 | 0.2741 | 0.0667 | 0.4945 |
| 50 | 39.21 | 0.10 | 0.0532 | 9.9999 | 0.0285 | 9.9999 | 0.5307 | 0.5579 | 0.0369 | 0.2716 | 0.0661 | 0.4869 |
| 51 | 39.43 | 0.11 | 0.0528 | 9.9999 | 0.0338 | 9.9999 | 0.5376 | 0.5618 | 0.0363 | 0.2758 | 0.0645 | 0.4916 |
| 52 | 39.64 | 0.11 | 0.0485 | 9.9999 | 0.0275 | 9.9999 | 0.5594 | 0.5549 | 0.0370 | 0.2710 | 0.0666 | 0.4885 |
| 53 | 39.83 | 0.12 | 0.0542 | 9.9999 | 0.0295 | 9.9999 | 0.5468 | 0.5613 | 0.0364 | 0.2755 | 0.0648 | 0.4905 |
| 54 | 40.03 | 0.10 | 0.0545 | 9.9999 | 0.0304 | 9.9999 | 0.5588 | 0.5646 | 0.0360 | 0.2751 | 0.0615 | 0.4878 |
| 55 | 40.24 | 0.11 | 0.0507 | 9.9999 | 0.0340 | 9.9999 | 0.5611 | 0.5613 | 0.0355 | 0.2747 | 0.0610 | 0.4898 |
| 56 | 40.46 | 0.11 | 0.0562 | 9.9999 | 0.0332 | 9.9999 | 0.5618 | 0.5576 | 0.0346 | 0.2719 | 0.0582 | 0.4884 |
| 57 | 40.65 | 0.11 | 0.0545 | 9.9999 | 0.0304 | 9.9999 | 0.5588 | 0.5576 | 0.0349 | 0.2725 | 0.0583 | 0.4894 |
| 58 | 40.87 | 0.11 | 0.0546 | 9.9999 | 0.0296 | 9.9999 | 0.5608 | 0.5595 | 0.0355 | 0.2705 | 0.0595 | 0.4877 |
| 59 | 41.08 | 0.11 | 0.0552 | 9.9999 | 0.0332 | 9.9999 | 0.5618 | 0.5619 | 0.0357 | 0.2696 | 0.0602 | 0.4892 |
| 60 | 41.26 | 0.11 | 0.0481 | 9.9999 | 0.0275 | 9.9999 | 0.5612 | 0.5635 | 0.0346 | 0.2699 | 0.0582 | 0.4884 |
| 61 | 41.46 | 0.10 | 0.0543 | 9.9999 | 0.0315 | 9.9999 | 0.5612 | 0.5751 | 0.0359 | 0.2801 | 0.0624 | 0.4871 |
| 62 | 41.66 | 0.11 | 0.0543 | 9.9999 | 0.0305 | 9.9999 | 0.5701 | 0.5803 | 0.0352 | 0.2731 | 0.0586 | 0.4882 |
| 63 | 41.85 | 0.12 | 0.0511 | 9.9999 | 0.0313 | 9.9999 | 0.6137 | 0.5806 | 0.0357 | 0.2838 | 0.0614 | 0.4885 |
| 64 | 42.05 | 0.13 | 0.0590 | 9.9999 | 0.0334 | 9.9999 | 0.5620 | 0.6040 | 0.0346 | 0.2900 | 0.0572 | 0.4800 |
| 65 | 42.22 | 0.12 | 0.0511 | 9.9999 | 0.0306 | 9.9999 | 0.6000 | 0.5984 | 0.0354 | 0.2857 | 0.0591 | 0.4846 |
| 66 | 42.41 | 0.12 | 0.0602 | 9.9999 | 0.0305 | 9.9999 | 0.5455 | 0.6000 | 0.0357 | 0.2899 | 0.0594 | 0.4831 |
| 67 | 42.58 | 0.12 | 0.0543 | 9.9999 | 0.0305 | 9.9999 | 0.5701 | 0.6038 | 0.0352 | 0.2894 | 0.0582 | 0.4792 |
| 68 | 42.76 | 0.12 | 0.0537 | 9.9999 | 0.0291 | 9.9999 | 0.5502 | 0.5910 | 0.0359 | 0.2852 | 0.0607 | 0.4826 |
| 69 | 42.96 | 0.11 | 0.0537 | 9.9999 | 0.0341 | 9.9999 | 0.5502 | 0.6075 | 0.0346 | 0.2929 | 0.0572 | 0.4826 |
| 70 | 43.13 | 0.11 | 0.0575 | 9.9999 | 0.0311 | 9.9999 | 0.5416 | 0.6001 | 0.0355 | 0.2899 | 0.0591 | 0.4830 |
| 71 | 43.31 | 0.11 | 0.0555 | 9.9999 | 0.0377 | 9.9999 | 0.5401 | 0.6000 | 0.0355 | 0.2859 | 0.0591 | 0.4784 |
| 72 | 43.48 | 0.11 | 0.0543 | 9.9999 | 0.0305 | 9.9999 | 0.5701 | 0.5905 | 0.0355 | 0.2843 | 0.0594 | 0.4767 |
| 73 | 43.66 | 0.11 | 0.0558 | 9.9999 | 0.0316 | 9.9999 | 0.5673 | 0.5964 | 0.0356 | 0.2843 | 0.0596 | 0.4767 |
| 74 | 43.87 | 0.11 | 0.0574 | 9.9999 | 0.0316 | 9.9999 | 0.5550 | 0.6001 | 0.0352 | 0.2838 | 0.0586 | 0.4730 |
| 75 | 44.04 | 0.11 | 0.0567 | 9.9999 | 0.0368 | 9.9999 | 0.5526 | 0.5961 | 0.0362 | 0.2824 | 0.0607 | 0.4738 |
| 76 | 44.21 | 0.11 | 0.0744 | 9.9999 | 0.0419 | 9.9999 | 0.5626 | 0.6052 | 0.0361 | 0.2863 | 0.0598 | 0.4745 |
| 77 | 44.41 | 0.12 | 0.0652 | 9.9999 | 0.0368 | 9.9999 | 0.5346 | 0.5978 | 0.0364 | 0.2838 | 0.0608 | 0.4748 |
| 78 | 44.58 | 0.11 | 0.0637 | 9.9999 | 0.0341 | 9.9999 | 0.5502 | 0.5941 | 0.0360 | 0.2757 | 0.0615 | 0.4708 |
| 79 | 44.76 | 0.12 | 0.0574 | 9.9999 | 0.0312 | 9.9999 | 0.5550 | 0.5978 | 0.0362 | 0.2818 | 0.0605 | 0.4714 |
| 80 | 44.94 | 0.12 | 0.0652 | 9.9999 | 0.0361 | 9.9999 | 0.5545 | 0.6142 | 0.0355 | 0.2896 | 0.0577 | 0.4715 |
| 81 | 45.13 | 0.12 | 0.0605 | 9.9999 | 0.0339 | 9.9999 | 0.5613 | 0.6284 | 0.0353 | 0.2919 | 0.0561 | 0.4645 |
| 82 | 45.30 | 0.12 | 0.0667 | 9.9999 | 0.0368 | 9.9999 | 0.5526 | 0.6102 | 0.0362 | 0.2855 | 0.0593 | 0.4678 |
| 83 | 45.48 | 0.12 | 0.0651 | 9.9999 | 0.0367 | 9.9999 | 0.5646 | 0.6195 | 0.0355 | 0.2886 | 0.0572 | 0.4658 |
| 84 | 45.69 | 0.12 | 0.0620 | 9.9999 | 0.0356 | 9.9999 | 0.5784 | 0.6324 | 0.0345 | 0.2947 | 0.0545 | 0.4660 |
| 85 | 45.84 | 0.12 | 0.0651 | 9.9999 | 0.0373 | 9.9999 | 0.5736 | 0.6322 | 0.0348 | 0.2941 | 0.0550 | 0.4652 |
| 86 | 46.00 | 0.12 | 0.0635 | 9.9999 | 0.0376 | 9.9999 | 0.5902 | 0.6338 | 0.0352 | 0.2942 | 0.0555 | 0.4641 |
| 87 | 46.18 | 0.12 | 0.0615 | 9.9999 | 0.0377 | 9.9999 | 0.6100 | 0.6353 | 0.0357 | 0.2944 | 0.0561 | 0.4634 |
| 88 | 46.35 | 0.12 | 0.0635 | 9.9999 | 0.0372 | 9.9999 | 0.5888 | 0.6428 | 0.0349 | 0.2975 | 0.0542 | 0.4628 |
| 89 | 46.52 | 0.11 | 0.0588 | 9.9999 | 0.0388 | 9.9999 | 0.6289 | 0.6613 | 0.0332 | 0.3038 | 0.0501 | 0.4593 |
| 90 | 46.68 | 0.10 | 0.0572 | 9.9999 | 0.0346 | 9.9999 | 0.6095 | 0.6744 | 0.0328 | 0.3101 | 0.0486 | 0.4598 |
| 91 | 46.87 | 0.12 | 0.0612 | 9.9999 | 0.0365 | 9.9999 | 0.6140 | 0.6654 | 0.0330 | 0.3062 | 0.0495 | 0.4601 |
| 92 | 47.03 | 0.10 | 0.0571 | 9.9999 | 0.0360 | 9.9999 | 0.6316 | 0.6604 | 0.0314 | 0.3136 | 0.0461 | 0.4609 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 3 OF 4

MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART MACH 0.80 AXIS-6 1.7 PHI 0.0 CONF 15 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.21 | 0.10 | 0.0416 | 9.9999 | 0.0280 | 9.9999 | 0.6747 | 0.6857 | 0.0312 | 0.3140 | 0.0454 | 0.4579 |
| 94 | 47.38 | 0.09 | 0.0493 | 9.9999 | 0.0316 | 9.9999 | 0.6423 | 0.6877 | 0.0314 | 0.3136 | 0.0456 | 0.4560 |
| 95 | 47.50 | 0.09 | 0.0488 | 9.9999 | 0.0354 | 9.9999 | 0.6051 | 0.6858 | 0.0328 | 0.3051 | 0.0492 | 0.4582 |
| 96 | 47.73 | 0.09 | 0.0415 | 9.9999 | 0.0279 | 9.9999 | 0.6739 | 0.7474 | 0.0297 | 0.3300 | 0.0405 | 0.4537 |
| 97 | 47.90 | 0.09 | 0.0453 | 9.9999 | 0.0304 | 9.9999 | 0.6179 | 0.7240 | 0.0296 | 0.3284 | 0.0407 | 0.4536 |
| 98 | 48.05 | 0.08 | 0.0352 | 9.9999 | 0.0249 | 9.9999 | 0.6903 | 0.7440 | 0.0288 | 0.3344 | 0.0388 | 0.4495 |
| 99 | 48.22 | 0.08 | 0.0388 | 9.9999 | 0.0238 | 9.9999 | 0.6987 | 0.7331 | 0.0296 | 0.3325 | 0.0404 | 0.4538 |
| 100 | 48.39 | 0.08 | 0.0363 | 9.9999 | 0.0256 | 9.9999 | 0.6850 | 0.7456 | 0.0292 | 0.3379 | 0.0392 | 0.4532 |
| 101 | 48.54 | 0.08 | 0.0338 | 9.9999 | 0.0195 | 9.9999 | 0.5888 | 0.7609 | 0.0302 | 0.3411 | 0.0358 | 0.4483 |
| 102 | 48.71 | 0.08 | 0.0260 | 9.9999 | 0.0161 | 9.9999 | 0.6943 | 0.7608 | 0.0305 | 0.3425 | 0.0362 | 0.4502 |
| 103 | 48.88 | 0.07 | 0.0261 | 9.9999 | 0.0167 | 9.9999 | 0.7192 | 0.8224 | 0.0310 | 0.3713 | 0.0376 | 0.4514 |
| 104 | 49.06 | 0.07 | 0.0240 | 9.9999 | 0.0167 | 9.9999 | 0.6816 | 0.8212 | 0.0297 | 0.3690 | 0.0362 | 0.4493 |
| 105 | 49.23 | 0.07 | 0.0185 | 9.9999 | 0.0125 | 9.9999 | 1.1905 | 0.7990 | 0.0319 | 0.3595 | 0.0401 | 0.4528 |
| 106 | 49.41 | 0.07 | 0.0245 | 9.9999 | 0.0161 | 9.9999 | 0.6571 | 0.8092 | 0.0318 | 0.3782 | 0.0377 | 0.4485 |
| 107 | 49.58 | 0.07 | 0.0245 | 9.9999 | 0.0145 | 9.9999 | 0.6041 | 0.8334 | 0.0334 | 0.3773 | 0.0365 | 0.4527 |
| 108 | 49.74 | 0.07 | 0.0156 | 9.9999 | 0.0132 | 9.9999 | 0.6667 | 0.7998 | 0.0310 | 0.3831 | 0.0367 | 0.4541 |
| 109 | 49.92 | 0.07 | 0.0251 | 9.9999 | 0.0170 | 9.9999 | 0.5842 | 0.7831 | 0.0306 | 0.3487 | 0.0402 | 0.4576 |
| 110 | 50.09 | 0.06 | 0.0260 | 0.0155 | 9.9999 | 0.5982 | 0.7682 | 0.0310 | 0.3511 | 0.0403 | 0.4571 |
| 111 | 50.26 | 0.06 | 0.0261 | 0.0143 | 9.9999 | 0.5479 | 0.7883 | 0.0299 | 0.3600 | 0.0381 | 0.4575 |
| 112 | 50.44 | 0.06 | 0.0238 | 0.0186 | 9.9999 | 0.5245 | 0.7990 | 0.0302 | 0.3414 | 0.0407 | 0.4586 |
| 113 | 50.60 | 0.03 | 0.0291 | 0.0164 | 9.9999 | 0.5036 | 0.7980 | 0.0297 | 0.3421 | 0.0396 | 0.4588 |
| 114 | 50.78 | 0.06 | 0.0264 | 0.0206 | 9.9999 | 0.5417 | 0.7870 | 0.0300 | 0.3383 | 0.0408 | 0.4563 |
| 115 | 50.97 | 0.05 | 0.0322 | 0.0175 | 9.9999 | 0.5556 | 0.7867 | 0.0307 | 0.3583 | 0.0417 | 0.4592 |
| 116 | 51.13 | 0.05 | 0.0263 | 0.0166 | 9.9999 | 0.5139 | 0.7925 | 0.0307 | 0.3427 | 0.0405 | 0.4554 |
| 117 | 51.30 | 0.06 | 0.0283 | 0.0214 | 9.9999 | 0.5567 | 0.7476 | 0.0299 | 0.3390 | 0.0401 | 0.4535 |
| 118 | 51.48 | 0.05 | 0.0299 | 0.0228 | 9.9999 | 0.5714 | 0.7582 | 0.0297 | 0.3436 | 0.0392 | 0.4532 |
| 119 | 51.64 | 0.05 | 0.0415 | 0.0235 | 9.9999 | 0.5676 | 0.7926 | 0.0278 | 0.3575 | 0.0351 | 0.4511 |
| 120 | 51.81 | 0.05 | 0.0415 | 0.0241 | 9.9999 | 0.5621 | 0.8015 | 0.0270 | 0.3612 | 0.0337 | 0.4507 |
| 121 | 51.97 | 0.10 | 0.0323 | 0.0185 | 9.9999 | 0.5728 | 0.8084 | 0.0272 | 0.3624 | 0.0337 | 0.4484 |
| 122 | 52.14 | 0.11 | 0.0365 | 0.0215 | 9.9999 | 0.5772 | 0.8150 | 0.0270 | 0.3655 | 0.0332 | 0.4530 |
| 123 | 52.32 | 0.11 | 0.0417 | 0.0224 | 9.9999 | 0.5365 | 0.8481 | 0.0259 | 0.3632 | 0.0294 | 0.4518 |
| 124 | 52.48 | 0.13 | 0.0460 | 0.0241 | 9.9999 | 0.5031 | 0.8210 | 0.0265 | 0.3750 | 0.0323 | 0.4543 |
| 125 | 52.65 | 0.13 | 0.0511 | 0.0274 | 9.9999 | 0.5373 | 0.8256 | 0.0276 | 0.3767 | 0.0335 | 0.4562 |
| 126 | 52.81 | 0.11 | 0.0465 | 0.0261 | 9.9999 | 0.5283 | 0.8007 | 0.0280 | 0.3671 | 0.0350 | 0.4584 |
| 127 | 52.98 | 0.12 | 0.0465 | 0.0253 | 9.9999 | 0.5453 | 0.8325 | 0.0280 | 0.3825 | 0.0337 | 0.4594 |
| 128 | 53.14 | 0.11 | 0.0497 | 0.0268 | 9.9999 | 0.5403 | 0.8097 | 0.0272 | 0.3735 | 0.0336 | 0.4612 |
| 129 | 53.30 | 0.14 | 0.0497 | 0.0282 | 9.9999 | 0.5282 | 0.7956 | 0.0289 | 0.3720 | 0.0364 | 0.4680 |
| 130 | 53.47 | 0.13 | 0.0424 | 0.0215 | 9.9999 | 0.5214 | 0.7965 | 0.0290 | 0.3714 | 0.0366 | 0.4672 |
| 131 | 53.62 | 0.13 | 0.0514 | 0.0270 | 9.9999 | 0.5263 | 0.8017 | 0.0288 | 0.3757 | 0.0360 | 0.4686 |
| 132 | 53.77 | 0.14 | 0.0482 | 0.0260 | 9.9999 | 0.5322 | 0.7998 | 0.0290 | 0.3749 | 0.0363 | 0.4687 |
| 133 | 53.96 | 0.11 | 0.0546 | 0.0285 | 9.9999 | 0.5229 | 0.8295 | 0.0296 | 0.3869 | 0.0357 | 0.4658 |
| 134 | 54.11 | 0.13 | 0.0421 | 0.0226 | 9.9999 | 0.5381 | 0.8083 | 0.0291 | 0.3788 | 0.0361 | 0.4685 |
| 135 | 54.26 | 0.11 | 0.0515 | 0.0284 | 9.9999 | 0.5136 | 0.8268 | 0.0280 | 0.3852 | 0.0339 | 0.4659 |
| 136 | 54.43 | 0.10 | 0.0452 | 0.0241 | 9.9999 | 0.5349 | 0.8424 | 0.0287 | 0.3924 | 0.0341 | 0.4658 |
| 137 | 54.60 | 0.10 | 0.0465 | 0.0234 | 9.9999 | 0.5043 | 0.8517 | 0.0282 | 0.4016 | 0.0332 | 0.4715 |
| 138 | 54.75 | 0.10 | 0.0465 | 0.0237 | 9.9999 | 0.4897 | 0.8583 | 0.0294 | 0.4009 | 0.0296 | 0.4671 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH MAIC-E PHI CONF I DEL1 DEL2 DEL3 DEL4 TRANSITION
7 145 0.96 1.7 0.0 BINOFIN 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.20 | 0.03 | 9.3957 | -1.0151 | 0.0375 | -0.0862 | 0.0527 | -0.4437 | 0.2256 | -0.6703 | -0.1080 |
| 94 | 44.41 | 0.00 | 9.5366 | -0.9265 | 0.0381 | 0.0304 | 0.0319 | -0.4475 | 0.2402 | -0.6877 | -0.0971 |
| 95 | 44.59 | 0.01 | 9.5064 | -0.9295 | 0.2107 | -0.0650 | 0.0525 | -0.4444 | 0.2332 | -0.6777 | -0.0978 |
| 96 | 44.78 | 0.01 | 9.6744 | -1.0232 | 0.1131 | 0.1021 | 0.0408 | -0.4547 | 0.2328 | -0.6876 | -0.1058 |
| 97 | 44.96 | 0.01 | 9.7543 | -1.0273 | 0.0412 | 1.1414 | 0.0355 | -0.4630 | 0.2295 | -0.6926 | -0.1053 |
| 98 | 45.15 | 0.01 | 9.8338 | -1.0314 | 0.1446 | -0.3135 | 0.0556 | -0.4740 | 0.2324 | -0.7065 | -0.1008 |
| 99 | 45.33 | 0.02 | 9.8415 | -1.0538 | 0.0395 | 1.6444 | -0.0152 | -0.4588 | 0.2330 | -0.6925 | -0.1111 |
| 100 | 45.50 | 0.02 | 9.9688 | -1.1021 | 0.3399 | -0.4024 | 0.0563 | -0.4838 | 0.2283 | -0.7121 | -0.1110 |
| 101 | 45.67 | -0.01 | 10.0416 | -1.0566 | -0.0801 | 0.5946 | 0.0216 | -0.4611 | 0.2304 | -0.7116 | -0.1052 |
| 102 | 45.83 | -0.02 | 10.1081 | -1.0267 | -0.1128 | 1.0240 | 0.0016 | -0.4777 | 0.2352 | -0.7130 | -0.1013 |
| 103 | 46.04 | -0.01 | 10.2048 | -0.9940 | 0.0023 | -0.0633 | 0.0439 | -0.4656 | 0.2328 | -0.7184 | -0.0976 |
| 104 | 46.20 | -0.02 | 10.2978 | -1.1511 | -0.0482 | 0.4393 | 0.0358 | -0.4937 | 0.2295 | -0.7232 | -0.1123 |
| 105 | 46.35 | -0.00 | 10.3052 | -1.0326 | 0.1215 | 0.3145 | 0.0172 | -0.4890 | 0.2291 | -0.7181 | -0.1002 |
| 106 | 46.53 | 0.02 | 10.3541 | -1.0555 | 0.3210 | 0.5500 | 0.0033 | -0.4995 | 0.2328 | -0.7323 | -0.0927 |
| 107 | 46.72 | -0.03 | 10.3943 | -1.2563 | -0.4409 | 2.5405 | -0.0726 | -0.3582 | 0.2744 | -0.6726 | -0.1247 |
| 108 | 46.90 | -0.02 | 10.4566 | -1.0366 | -0.0506 | 0.5942 | 0.0237 | -0.5100 | 0.2377 | -0.7477 | -0.0855 |
| 109 | 47.07 | -0.02 | 10.5446 | -1.0778 | -0.2143 | 1.4164 | -0.0105 | -0.4804 | 0.2706 | -0.7511 | -0.0918 |
| 110 | 47.26 | 0.02 | 10.7032 | -1.0871 | 0.2001 | 1.0058 | -0.0434 | -0.4842 | 0.2574 | -0.7416 | -0.0816 |
| 111 | 47.44 | -0.03 | 10.7725 | -1.0313 | -0.1909 | 1.0830 | -0.0305 | -0.5016 | 0.2396 | -0.7414 | -0.0864 |
| 112 | 47.60 | -0.02 | 10.7824 | -1.0012 | -0.2691 | 2.1852 | -0.0035 | -0.4342 | 0.2776 | -0.7169 | -0.0929 |
| 113 | 47.77 | 0.01 | 10.7723 | -1.0671 | 0.1062 | 1.2685 | 0.0027 | -0.5075 | 0.2567 | -0.7642 | -0.0805 |
| 114 | 47.93 | -0.03 | 10.8918 | -1.0844 | -0.2140 | 1.0757 | -0.0230 | -0.4864 | 0.2779 | -0.7643 | -0.0812 |
| 115 | 48.13 | 0.01 | 10.9951 | -1.1555 | -0.0406 | 2.7068 | -0.0779 | -0.4362 | 0.3314 | -0.7676 | -0.1051 |
| 116 | 48.32 | -0.02 | 11.0167 | -1.0275 | -0.2714 | 2.9095 | -0.1410 | -0.5054 | 0.3318 | -0.7172 | -0.1363 |
| 117 | 48.49 | -0.01 | 11.1225 | -1.0320 | -0.2095 | 2.8057 | -0.1275 | -0.5002 | 0.3395 | -0.7257 | -0.1264 |
| 118 | 48.64 | -0.01 | 11.1926 | -1.0314 | -0.1995 | 2.3355 | -0.1007 | -0.4986 | 0.3042 | -0.7228 | -0.1099 |
| 119 | 48.83 | 0.00 | 11.2116 | -1.0146 | 0.0857 | 2.2637 | -0.1257 | -0.4019 | 0.3587 | -0.7606 | -0.1590 |
| 120 | 49.00 | -0.01 | 11.4562 | -1.7013 | -0.0854 | 2.3501 | -0.1200 | -0.3908 | 0.3596 | -0.7504 | -0.1537 |
| 121 | 49.16 | 0.00 | 11.4662 | -1.3028 | 0.1455 | 1.8770 | -0.0733 | -0.3676 | 0.3593 | -0.7469 | -0.1660 |
| 122 | 49.35 | 0.03 | 11.6697 | -2.5343 | 0.4158 | 2.1784 | -0.1001 | -0.3200 | 0.4105 | -0.7305 | -0.2189 |
| 123 | 49.54 | 0.05 | 11.6426 | -2.7116 | 0.6489 | 2.2686 | -0.0814 | -0.3257 | 0.4041 | -0.7298 | -0.2250 |
| 124 | 49.75 | 0.03 | 12.0742 | -3.5184 | 0.3079 | 2.5720 | -0.0671 | -0.2733 | 0.3952 | -0.6665 | -0.2867 |
| 125 | 49.90 | 0.04 | 12.2506 | -3.4375 | 0.5282 | 2.2804 | -0.0830 | -0.3403 | 0.3659 | -0.7262 | -0.2797 |
| 126 | 50.09 | 0.01 | 12.4836 | -3.5522 | 0.2520 | 2.1271 | -0.0783 | -0.3535 | 0.3704 | -0.7299 | -0.2846 |
| 127 | 50.28 | -0.00 | 12.5171 | -3.5791 | 0.1123 | 2.2512 | -0.0595 | -0.3366 | 0.3806 | -0.7170 | -0.2859 |
| 128 | 50.41 | 0.06 | 12.4523 | -3.5641 | 0.6193 | 1.9604 | -0.0155 | -0.3510 | 0.3842 | -0.7152 | -0.2862 |
| 129 | 50.58 | 0.03 | 12.5825 | -3.5768 | 0.3013 | 2.0386 | -0.0212 | -0.3457 | 0.3993 | -0.7450 | -0.2927 |
| 130 | 50.76 | 0.04 | 12.6514 | -3.5313 | 0.5437 | 2.0692 | -0.0012 | -0.3345 | 0.4134 | -0.7179 | -0.3107 |
| 131 | 50.95 | 0.07 | 12.9124 | -4.1358 | 0.8868 | 2.2410 | -0.0343 | -0.2980 | 0.4196 | -0.7176 | -0.3203 |
| 132 | 51.09 | 0.09 | 12.9116 | -4.1242 | 0.9435 | 2.0550 | -0.0392 | -0.2810 | 0.4328 | -0.7139 | -0.3194 |
| 133 | 51.29 | 0.05 | 13.2435 | -4.5237 | 0.5752 | 2.7319 | -0.0407 | -0.2350 | 0.4439 | -0.6770 | -0.3418 |
| 134 | 51.48 | 0.02 | 13.4546 | -4.7078 | 0.3085 | 2.7492 | -0.0269 | -0.2417 | 0.4547 | -0.6985 | -0.3489 |
| 135 | 51.65 | -0.00 | 13.6265 | -4.9579 | 0.1134 | 2.8708 | -0.0266 | -0.2163 | 0.4690 | -0.6854 | -0.3638 |
| 136 | 51.81 | 0.04 | 13.5255 | -4.9132 | 0.3631 | 2.5044 | -0.0372 | -0.2294 | 0.4723 | -0.7018 | -0.3615 |
| 137 | 51.99 | 0.04 | 13.5620 | -4.8933 | 0.6265 | 2.4513 | -0.0069 | -0.2348 | 0.4634 | -0.6983 | -0.3453 |
| 138 | 52.14 | 0.05 | 13.6117 | -4.8675 | 0.7654 | 2.5266 | -0.0203 | -0.2704 | 0.4583 | -0.7288 | -0.3576 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 145 MACH 0.90 REYNO 1.7 PHI 0.0 CONF BIBOF15 L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.36 | 0.06 | 8.0415 | -1.2316 | 0.5733 | -0.9608 | 0.1110 | -0.2014 | 0.2319 | -0.4333 | -0.2039 |
| 48 | 34.61 | 0.06 | 8.1065 | -1.1375 | 0.6355 | -1.0528 | 0.1179 | -0.2033 | 0.2339 | -0.4372 | -0.1884 |
| 49 | 34.87 | 0.05 | 8.2456 | -0.9842 | 0.5540 | -1.0311 | 0.0994 | -0.2244 | 0.2294 | -0.4538 | -0.1576 |
| 50 | 35.12 | 0.02 | 8.3447 | -0.8716 | 0.4267 | -0.7302 | 0.0460 | -0.2381 | 0.2254 | -0.4633 | -0.1372 |
| 51 | 35.34 | 0.03 | 8.4360 | -0.8776 | 0.3744 | -0.4222 | 0.0353 | -0.2361 | 0.2252 | -0.4613 | -0.1363 |
| 52 | 35.59 | 0.03 | 8.4972 | -0.8427 | 0.2582 | -0.3705 | 0.0291 | -0.2515 | 0.2216 | -0.4731 | -0.1267 |
| 53 | 35.82 | 0.02 | 8.5305 | -0.8974 | 0.2215 | -0.4917 | 0.0102 | -0.2468 | 0.2249 | -0.4717 | -0.1374 |
| 54 | 36.04 | 0.01 | 8.6365 | -0.8835 | 0.0451 | -0.1021 | -0.0218 | -0.2494 | 0.2270 | -0.4764 | -0.1331 |
| 55 | 36.25 | 0.01 | 8.6703 | -0.8024 | 0.1155 | -0.4586 | 0.0171 | -0.2609 | 0.2233 | -0.4843 | -0.1263 |
| 56 | 36.53 | 0.00 | 8.7762 | -0.7883 | 0.0683 | -0.2454 | -0.0210 | -0.2724 | 0.2225 | -0.4948 | -0.1163 |
| 57 | 36.75 | 0.02 | 8.8541 | -0.8046 | 0.1374 | -0.3446 | -0.0378 | -0.2897 | 0.2213 | -0.5110 | -0.1167 |
| 58 | 37.01 | 0.03 | 8.9610 | -0.7766 | 0.2066 | -0.4382 | 0.0439 | -0.2819 | 0.2225 | -0.5045 | -0.1115 |
| 59 | 37.26 | 0.02 | 7.1557 | -0.7623 | 0.1575 | -0.0430 | 0.0437 | -0.2995 | 0.2217 | -0.5212 | -0.1065 |
| 60 | 37.48 | 0.05 | 7.2442 | -0.7035 | 0.4415 | -0.5192 | 0.0516 | -0.3010 | 0.2184 | -0.5194 | -0.0971 |
| 61 | 37.74 | 0.05 | 7.2858 | -0.9184 | 0.4550 | -0.6055 | 0.0517 | -0.3088 | 0.2226 | -0.5314 | -0.1261 |
| 62 | 37.98 | 0.01 | 7.2221 | -0.7517 | 0.1306 | -0.4230 | 0.0312 | -0.3026 | 0.2259 | -0.5287 | -0.1057 |
| 63 | 38.20 | 0.04 | 7.3267 | -0.8062 | 0.3444 | -0.6725 | 0.0456 | -0.3048 | 0.2275 | -0.5323 | -0.1103 |
| 64 | 38.48 | 0.02 | 7.4566 | -0.7840 | 0.1468 | -0.2815 | 0.0456 | -0.3242 | 0.2247 | -0.5469 | -0.1020 |
| 65 | 38.71 | 0.04 | 7.5472 | -0.7154 | 0.3025 | -0.0649 | 0.0452 | -0.3177 | 0.2275 | -0.5452 | -0.0948 |
| 66 | 38.93 | 0.03 | 7.7063 | -0.7474 | 0.2642 | 0.0903 | 0.0454 | -0.3393 | 0.2284 | -0.5677 | -0.0970 |
| 67 | 39.14 | 0.05 | 7.7457 | -0.7766 | 0.3081 | 0.2563 | 0.0380 | -0.3441 | 0.2284 | -0.5725 | -0.1003 |
| 68 | 39.38 | 0.03 | 7.8575 | -0.7640 | 0.2106 | 0.0704 | 0.0402 | -0.3318 | 0.2292 | -0.5610 | -0.0967 |
| 69 | 39.56 | 0.01 | 7.9591 | -0.8505 | 0.0582 | 0.4022 | 0.0445 | -0.3343 | 0.2362 | -0.5705 | -0.1142 |
| 70 | 39.78 | 0.02 | 7.8795 | -0.7342 | 0.1645 | 0.2655 | 0.0449 | -0.3268 | 0.2423 | -0.5711 | -0.0932 |
| 71 | 40.00 | 0.03 | 8.0350 | -0.7537 | 0.1882 | 0.5505 | 0.0447 | -0.3264 | 0.2423 | -0.5687 | -0.0938 |
| 72 | 40.19 | 0.03 | 8.0499 | -0.7816 | 0.2717 | 0.6402 | 0.0443 | -0.3321 | 0.2379 | -0.5700 | -0.0946 |
| 73 | 40.40 | 0.02 | 8.1567 | -0.7663 | 0.1048 | 0.8048 | 0.0506 | -0.3229 | 0.2592 | -0.5821 | -0.0939 |
| 74 | 40.60 | 0.04 | 8.1550 | -0.7153 | 0.2656 | 0.3051 | 0.0455 | -0.3415 | 0.2386 | -0.5801 | -0.0877 |
| 75 | 40.81 | 0.02 | 8.2513 | -0.8562 | 0.1257 | 0.6828 | 0.0576 | -0.3503 | 0.2395 | -0.5898 | -0.1088 |
| 76 | 41.02 | 0.03 | 8.3767 | -0.8572 | 0.1777 | 0.9101 | 0.0510 | -0.3496 | 0.2530 | -0.6026 | -0.1023 |
| 77 | 41.23 | 0.01 | 8.4400 | -0.8503 | 0.0241 | 0.8015 | 0.0456 | -0.3722 | 0.2403 | -0.6125 | -0.1015 |
| 78 | 41.43 | 0.02 | 8.5338 | -0.7939 | 0.1245 | 0.3794 | 0.0348 | -0.4066 | 0.2334 | -0.6350 | -0.0930 |
| 79 | 41.61 | 0.05 | 8.4618 | -0.8150 | 0.4737 | 0.0565 | 0.0477 | -0.3712 | 0.2345 | -0.6057 | -0.0963 |
| 80 | 41.84 | 0.00 | 8.6523 | -0.9746 | -0.0007 | 0.3959 | 0.0481 | -0.3988 | 0.2382 | -0.6350 | -0.1126 |
| 81 | 42.05 | -0.00 | 8.6734 | -0.7545 | -0.1269 | 0.9693 | 0.0463 | -0.4071 | 0.2287 | -0.6358 | -0.0916 |
| 82 | 42.22 | 0.03 | 8.7492 | -0.8438 | 0.0859 | 0.9608 | 0.0480 | -0.3933 | 0.2377 | -0.6316 | -0.1079 |
| 83 | 42.41 | 0.02 | 8.8275 | -0.8900 | 0.2006 | 0.0125 | 0.0372 | -0.4204 | 0.2296 | -0.6450 | -0.1008 |
| 84 | 42.59 | 0.01 | 8.9068 | -0.7868 | -0.1169 | 0.7854 | 0.0351 | -0.4072 | 0.2378 | -0.6450 | -0.0795 |
| 85 | 42.78 | 0.03 | 9.0251 | -0.9816 | 0.2325 | 0.3517 | 0.0300 | -0.4162 | 0.2291 | -0.6453 | -0.1088 |
| 86 | 42.95 | 0.02 | 9.1412 | -0.9042 | 0.0804 | 1.0048 | 0.0340 | -0.4268 | 0.2369 | -0.6657 | -0.0969 |
| 87 | 43.12 | 0.01 | 9.0388 | -0.8573 | -0.0159 | 0.8071 | 0.0354 | -0.4044 | 0.2407 | -0.6451 | -0.0993 |
| 88 | 43.32 | -0.01 | 9.2081 | -0.9464 | -0.1031 | 0.9205 | 0.0336 | -0.4302 | 0.2324 | -0.6626 | -0.1082 |
| 89 | 43.51 | 0.01 | 9.3277 | -0.9525 | 0.0593 | -0.3076 | 0.0399 | -0.4463 | 0.2221 | -0.6884 | -0.1064 |
| 90 | 43.66 | 0.02 | 9.3116 | -0.8558 | 0.2691 | 0.4758 | 0.0496 | -0.4403 | 0.2274 | -0.6677 | -0.0923 |
| 91 | 43.85 | 0.01 | 9.3358 | -1.0808 | 0.0233 | 1.5893 | 0.0142 | -0.3894 | 0.2473 | -0.6367 | -0.1158 |
| 92 | 44.03 | 0.02 | 9.4153 | -1.0278 | 0.3566 | -0.8921 | 0.0338 | -0.4518 | 0.2329 | -0.6848 | -0.1092 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASRDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RAIC-6 PHA CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 145 0.60 1.7 0.0 81605F15 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | -1.7257 | 8.1621 | 0.0697 | -0.1285 | 0.0145 | 0.7676 | 0.2482 | 0.5396 | -3.5707 |
| 2 | -5.75 | -0.00 | -1.7366 | 8.2018 | -0.0301 | -0.0015 | 0.0143 | 0.7617 | 0.2428 | 0.5389 | -3.5708 |
| 3 | -5.75 | 0.00 | -1.7365 | 8.1741 | 0.0216 | -0.0385 | 0.0016 | 0.7847 | 0.2437 | 0.5410 | -3.5485 |
| 4 | -5.76 | 0.00 | -1.6303 | 7.4327 | 0.0245 | 0.0152 | -0.0105 | 0.6213 | 0.2013 | 0.6200 | -3.6505 |
| 5 | -5.51 | 0.00 | -1.7039 | 7.2142 | -0.0010 | 0.0400 | 0.0025 | 0.7769 | 0.1676 | 0.6091 | -4.0440 |
| 6 | -1.76 | -0.00 | -1.5111 | 6.5465 | -0.0356 | 0.0706 | 0.0026 | 0.7228 | 0.1561 | 0.5667 | -4.3523 |
| 7 | 0.04 | 0.01 | -1.2742 | 5.5288 | 0.0685 | -0.0558 | -0.0030 | 0.6727 | 0.1450 | 0.5278 | -4.6529 |
| 8 | 1.83 | 0.06 | -0.9664 | 5.1475 | 0.0563 | -0.0934 | 0.0035 | 0.6134 | 0.1376 | 0.4763 | -5.3269 |
| 9 | 3.65 | -0.01 | -0.6761 | 4.4922 | -0.0705 | 0.0033 | 0.0041 | 0.5598 | 0.1302 | 0.4256 | -6.6154 |
| 10 | 5.46 | 0.00 | -0.4654 | 3.8662 | 0.0453 | -0.0634 | 0.0047 | 0.5055 | 0.1257 | 0.3796 | -9.3308 |
| 11 | 7.33 | 0.01 | -0.0769 | 3.0485 | 0.0367 | -0.0095 | 0.0177 | 0.4440 | 0.1287 | 0.3154 | -35.6224 |
| 12 | 9.11 | 0.00 | 0.2025 | 2.3716 | 0.0218 | -0.0494 | 0.0119 | 0.4010 | 0.1312 | 0.2698 | 11.7112 |
| 13 | 10.97 | -0.00 | 0.5132 | 1.7833 | 0.0080 | -0.0591 | 0.0082 | 0.3544 | 0.1345 | 0.2155 | 3.4360 |
| 14 | 12.78 | -0.00 | 0.8285 | 1.2441 | -0.0525 | 0.0507 | 0.0067 | 0.3211 | 0.1432 | 0.1779 | 1.5016 |
| 15 | 14.64 | 0.00 | 1.0778 | 1.0048 | 0.0014 | 0.1025 | 0.0136 | 0.2976 | 0.1569 | 0.1407 | 0.9323 |
| 16 | 16.55 | -0.00 | 1.3070 | 0.7422 | -0.1257 | 0.2501 | 0.0145 | 0.2714 | 0.1690 | 0.1025 | 0.5429 |
| 17 | 18.46 | -0.02 | 1.7126 | 0.3077 | -0.2427 | 0.0202 | 0.0270 | 0.2416 | 0.1610 | 0.0808 | 0.1796 |
| 18 | 20.36 | -0.01 | 2.0615 | -0.1744 | -0.2555 | 0.0090 | 0.0333 | 0.1800 | 0.1424 | -0.0056 | -0.0838 |
| 19 | 22.25 | -0.02 | 2.4632 | -0.7568 | -0.3576 | 0.2794 | 0.0394 | 0.1559 | 0.2023 | -0.0664 | -0.3056 |
| 20 | 24.15 | -0.03 | 2.8056 | -1.2467 | -0.5623 | 0.3477 | 0.0215 | 0.0697 | 0.2009 | -0.1342 | -0.4320 |
| 21 | 26.06 | -0.02 | 3.3301 | -1.5945 | -0.5165 | 0.0111 | 0.0319 | 0.0057 | 0.2117 | -0.2060 | -0.4789 |
| 22 | 27.89 | 0.04 | 3.7755 | -1.7673 | 0.5906 | -0.1970 | 0.0081 | -0.0360 | 0.2048 | -0.2646 | -0.4681 |
| 23 | 27.82 | 0.02 | 3.8415 | -1.7302 | 0.4184 | -0.0355 | 0.0017 | -0.0410 | 0.2053 | -0.2503 | -0.4687 |
| 24 | 28.08 | 0.04 | 3.8415 | -1.7346 | 0.5061 | -0.0717 | 0.0055 | -0.0067 | 0.2060 | -0.2727 | -0.4568 |
| 25 | 28.40 | 0.02 | 3.8500 | -1.7543 | 0.3790 | -0.0010 | 0.0525 | -0.0655 | 0.2075 | -0.2730 | -0.4510 |
| 26 | 28.75 | 0.04 | 3.9757 | -1.8355 | 0.5176 | -0.0553 | 0.0089 | -0.0674 | 0.2103 | -0.2777 | -0.4623 |
| 27 | 29.03 | 0.04 | 4.0250 | -1.9187 | 0.3591 | -0.0505 | 0.0756 | -0.0848 | 0.2104 | -0.2953 | -0.4767 |
| 28 | 29.32 | 0.03 | 4.0659 | -1.9537 | 0.7272 | -0.1307 | 0.1030 | -0.1020 | 0.2132 | -0.3152 | -0.4641 |
| 29 | 29.61 | 0.06 | 4.2756 | -2.0264 | 0.7373 | -0.1575 | 0.1163 | -0.1057 | 0.2172 | -0.3229 | -0.4721 |
| 30 | 29.90 | 0.07 | 4.3756 | -2.1433 | 0.7999 | -0.1107 | 0.1165 | -0.1156 | 0.2180 | -0.3336 | -0.4654 |
| 31 | 30.17 | 0.06 | 4.5108 | -2.2267 | 0.7368 | -0.0252 | 0.1232 | -0.1327 | 0.2235 | -0.3562 | -0.4941 |
| 32 | 30.45 | 0.08 | 4.6269 | -2.3341 | 0.8305 | -0.0706 | 0.1300 | -0.1341 | 0.2247 | -0.3588 | -0.5045 |
| 33 | 30.73 | 0.08 | 4.7402 | -2.3264 | 0.7064 | -0.0754 | 0.1235 | -0.1336 | 0.2313 | -0.3649 | -0.4929 |
| 34 | 30.99 | 0.08 | 4.8115 | -2.2910 | 0.8753 | -0.0027 | 0.1100 | -0.1427 | 0.2322 | -0.3749 | -0.4761 |
| 35 | 31.28 | 0.06 | 4.9113 | -2.1754 | 0.6467 | -0.2753 | 0.0907 | -0.1462 | 0.2310 | -0.3752 | -0.4438 |
| 36 | 31.54 | 0.07 | 5.0015 | -2.2571 | 0.8007 | 0.0057 | 0.0905 | -0.1348 | 0.2351 | -0.3695 | -0.4556 |
| 37 | 31.82 | 0.07 | 5.1557 | -2.2138 | 0.7644 | -0.3637 | 0.1175 | -0.1471 | 0.2375 | -0.3846 | -0.4256 |
| 38 | 32.08 | 0.08 | 5.2426 | -2.2654 | 0.8553 | -0.4150 | 0.1114 | -0.1478 | 0.2398 | -0.3876 | -0.4207 |
| 39 | 32.36 | 0.08 | 5.4396 | -2.1066 | 0.7567 | -0.5079 | 0.1063 | -0.1757 | 0.2372 | -0.4129 | -0.3876 |
| 40 | 32.61 | 0.09 | 5.4578 | -1.9570 | 0.5336 | -0.7010 | 0.1137 | -0.1699 | 0.2393 | -0.4092 | -0.3659 |
| 41 | 32.86 | 0.08 | 5.4067 | -2.0342 | 0.8441 | -0.8717 | 0.1481 | -0.1591 | 0.2406 | -0.3957 | -0.3721 |
| 42 | 33.11 | 0.09 | 5.5265 | -1.7592 | 1.1477 | -1.0744 | 0.1737 | -0.1550 | 0.2356 | -0.3906 | -0.3159 |
| 43 | 33.39 | 0.08 | 5.2151 | -1.5617 | 0.9344 | -1.7172 | 0.1621 | -0.1760 | 0.2352 | -0.4112 | -0.2686 |
| 44 | 33.63 | 0.07 | 5.1042 | -1.4547 | 0.6741 | -1.5457 | 0.1495 | -0.1655 | 0.2314 | -0.4174 | -0.2507 |
| 45 | 33.87 | 0.07 | 5.0074 | -1.5045 | 0.8736 | -1.3781 | 0.1364 | -0.1850 | 0.2339 | -0.4229 | -0.2547 |
| 46 | 34.14 | 0.08 | 4.8472 | -1.2466 | 0.6197 | -1.1849 | 0.1370 | -0.1971 | 0.2307 | -0.4278 | -0.2050 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 144 MACH 0.80 RX10-6 4.7 PHI 0.0 CONF BIBOPAS L C.G 0 DEL1 -20 DEL2 0 DEL3 -20 DEL4 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 54.92 | 0.07 | C.0465 | 5.9999 | 0.0231 | 5.9999 | 0.4773 | 0.8036 | 0.0255 | 0.4033 | 0.0256 | 0.4670 |
| 140 | 55.11 | 0.10 | 0.0501 | 5.9999 | 0.0213 | 5.9999 | 0.4280 | 0.8766 | 0.0279 | 0.4072 | 0.0315 | 0.4645 |
| 141 | 55.29 | 0.05 | C.0422 | 5.9999 | 0.0201 | 5.9999 | 0.4774 | 0.8701 | 0.0267 | 0.4072 | 0.0307 | 0.4686 |
| 142 | 55.46 | 0.10 | 0.0500 | 5.9999 | 0.0213 | 5.9999 | 0.4269 | 0.8634 | 0.0258 | 0.4046 | 0.0295 | 0.4686 |
| 143 | 55.61 | 0.10 | 0.0518 | 5.9999 | 0.0214 | 5.9999 | 0.4155 | 0.8993 | 0.0284 | 0.4168 | 0.0316 | 0.4657 |
| 144 | 55.76 | 0.10 | 0.0500 | 5.9999 | 0.0213 | 5.9999 | 0.4265 | 0.8700 | 0.0245 | 0.4166 | 0.0280 | 0.4684 |
| 145 | 55.94 | 0.10 | 0.0458 | 5.9999 | 0.0212 | 5.9999 | 0.4266 | 0.8774 | 0.0262 | 0.4115 | 0.0295 | 0.4690 |
| 146 | 56.08 | 0.08 | 0.0421 | 5.9999 | 0.0175 | 5.9999 | 0.4167 | 0.8761 | 0.0254 | 0.4113 | 0.0290 | 0.4695 |
| 147 | 56.25 | 0.08 | 0.0468 | 5.9999 | 0.0151 | 5.9999 | 0.4090 | 0.8747 | 0.0246 | 0.4104 | 0.0282 | 0.4692 |
| 148 | 56.41 | 0.10 | 0.0365 | 5.9999 | 0.0167 | 5.9999 | 0.4293 | 0.8673 | 0.0241 | 0.4152 | 0.0272 | 0.4680 |
| 149 | 56.56 | 0.10 | 0.0466 | 5.9999 | 0.0205 | 5.9999 | 0.4495 | 0.8890 | 0.0241 | 0.4159 | 0.0272 | 0.4678 |
| 150 | 56.72 | 0.08 | 0.0481 | 5.9999 | 0.0225 | 5.9999 | 0.4771 | 0.8721 | 0.0225 | 0.4086 | 0.0258 | 0.4685 |
| 151 | 56.86 | 0.08 | 0.0480 | 5.9999 | 0.0218 | 5.9999 | 0.4509 | 0.8706 | 0.0223 | 0.4085 | 0.0257 | 0.4685 |
| 152 | 57.02 | 0.07 | 0.0481 | 5.9999 | 0.0175 | 5.9999 | 0.4464 | 0.8694 | 0.0210 | 0.4081 | 0.0242 | 0.4694 |
| 153 | 57.17 | 0.08 | 0.0480 | 5.9999 | 0.0206 | 5.9999 | 0.4259 | 0.8947 | 0.0231 | 0.4181 | 0.0259 | 0.4673 |
| 154 | 57.31 | 0.09 | 0.0496 | 5.9999 | 0.0213 | 5.9999 | 0.4765 | 0.8764 | 0.0210 | 0.4099 | 0.0240 | 0.4677 |
| 155 | 57.47 | 0.09 | 0.0554 | 5.9999 | 0.0175 | 5.9999 | 0.4943 | 0.8729 | 0.0210 | 0.4083 | 0.0241 | 0.4676 |
| 156 | 57.61 | 0.09 | 0.0554 | 5.9999 | 0.0175 | 5.9999 | 0.4943 | 0.8777 | 0.0218 | 0.4094 | 0.0249 | 0.4685 |
| 157 | 57.76 | 0.07 | 0.0322 | 5.9999 | 0.0178 | 5.9999 | 0.9528 | 0.8974 | 0.0211 | 0.4175 | 0.0238 | 0.4657 |
| 158 | 57.91 | 0.06 | 0.0366 | 5.9999 | 0.0171 | 5.9999 | 0.5588 | 0.8750 | 0.0194 | 0.4102 | 0.0222 | 0.4685 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 145 MACH 0.90 RAIG-E 1.7 PHI 0.0 CONF 81 WGFIS ELL 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.31 | 0.06 | 13.4866 | -4.5156 | 0.8229 | 2.3504 | -0.0135 | -0.2249 | 0.4657 | -0.6907 | -0.3422 |
| 140 | 52.46 | 0.04 | 13.4711 | -4.5046 | 0.8216 | 2.4282 | -0.0127 | -0.2622 | 0.4681 | -0.7304 | -0.3511 |
| 141 | 52.63 | 0.05 | 13.5522 | -4.5425 | 0.7805 | 2.3104 | -0.0002 | -0.2388 | 0.4623 | -0.7012 | -0.3342 |
| 142 | 52.79 | 0.08 | 13.4926 | -4.4982 | 1.0484 | 2.3075 | -0.0200 | -0.2697 | 0.4570 | -0.7268 | -0.3310 |
| 143 | 52.98 | 0.08 | 13.6338 | -4.6465 | 1.0426 | 2.1998 | -0.0065 | -0.2515 | 0.4648 | -0.7164 | -0.3410 |
| 144 | 53.14 | 0.02 | 13.4405 | -4.5215 | 0.8602 | 2.1790 | -0.0051 | -0.2763 | 0.4611 | -0.7375 | -0.3339 |
| 145 | 53.30 | 0.06 | 13.6440 | -4.5757 | 0.9018 | 2.0805 | 0.0071 | -0.2590 | 0.4729 | -0.7320 | -0.3354 |
| 146 | 53.46 | 0.03 | 13.4274 | -4.4556 | 0.6061 | 2.0325 | 0.0334 | -0.2602 | 0.4753 | -0.7456 | -0.3246 |
| 147 | 53.63 | 0.03 | 13.7710 | -4.8051 | 0.8251 | 1.9546 | 0.0339 | -0.2803 | 0.4730 | -0.7504 | -0.3170 |
| 148 | 53.78 | 0.02 | 13.6368 | -4.6154 | 0.8254 | 1.7705 | 0.0161 | -0.2596 | 0.4696 | -0.7293 | -0.3266 |
| 149 | 53.93 | 0.01 | 13.8088 | -4.5099 | 0.4556 | 1.9713 | 0.0153 | -0.2619 | 0.4741 | -0.7361 | -0.3266 |
| 150 | 54.09 | 0.07 | 13.7560 | -4.5453 | 1.0652 | 1.7256 | 0.0341 | -0.2497 | 0.4712 | -0.7210 | -0.3160 |
| 151 | 54.24 | 0.07 | 13.8015 | -4.5367 | 1.0205 | 1.7487 | 0.0279 | -0.2202 | 0.4822 | -0.7024 | -0.3215 |
| 152 | 54.40 | 0.02 | 13.7563 | -4.4952 | 0.9573 | 1.7208 | 0.0269 | -0.2373 | 0.4776 | -0.7150 | -0.3229 |
| 153 | 54.56 | 0.04 | 14.0143 | -4.6264 | 0.7100 | 1.6501 | 0.0356 | -0.2468 | 0.4973 | -0.7441 | -0.3444 |
| 154 | 54.70 | 0.03 | 13.8516 | -4.5758 | 0.7600 | 1.6516 | 0.0480 | -0.2506 | 0.4994 | -0.7500 | -0.3294 |
| 155 | 54.86 | 0.03 | 13.9334 | -4.5928 | 0.7400 | 1.2326 | 0.0435 | -0.2378 | 0.5018 | -0.7396 | -0.3208 |
| 156 | 55.02 | 0.07 | 14.0049 | -4.6258 | 1.1140 | 1.5184 | 0.0607 | -0.2671 | 0.5026 | -0.7697 | -0.3455 |
| 157 | 55.17 | 0.05 | 14.1361 | -4.6955 | 0.8700 | 1.1551 | 0.0502 | -0.2638 | 0.5051 | -0.7725 | -0.3464 |
| 158 | 55.32 | 0.05 | 14.1424 | -4.6774 | 0.9153 | 1.3231 | 0.0559 | -0.2613 | 0.5176 | -0.7785 | -0.3376 |
| 159 | 55.48 | 0.05 | 14.2844 | -5.1567 | 0.9515 | 1.1042 | 0.0693 | -0.2544 | 0.5180 | -0.7724 | -0.3639 |
| 160 | 55.65 | 0.01 | 14.2614 | -5.0528 | 0.8215 | 1.2032 | 0.0697 | -0.2547 | 0.5242 | -0.7589 | -0.3543 |
| 161 | 55.81 | 0.05 | 14.3120 | -4.8556 | 0.9548 | 1.2585 | 0.0756 | -0.2506 | 0.5278 | -0.7784 | -0.3421 |
| 162 | 55.96 | -0.02 | 14.3040 | -5.0061 | 0.8475 | 1.2757 | 0.0643 | -0.2751 | 0.5291 | -0.8042 | -0.3499 |
| 163 | 56.09 | 0.01 | 14.2315 | -5.0161 | 0.9573 | 1.3151 | 0.0696 | -0.2609 | 0.5327 | -0.7936 | -0.3525 |
| 164 | 56.26 | 0.04 | 14.3281 | -5.2004 | 0.8418 | 1.3759 | 0.0690 | -0.2626 | 0.5335 | -0.7965 | -0.3629 |
| 165 | 56.42 | -0.00 | 14.3546 | -5.1076 | 0.4389 | 1.3470 | 0.0638 | -0.2635 | 0.5343 | -0.7978 | -0.3558 |
| 166 | 56.57 | 0.02 | 14.4265 | -5.0413 | 0.8565 | 1.4806 | 0.0636 | -0.2740 | 0.5339 | -0.8079 | -0.3494 |
| 167 | 56.71 | 0.02 | 14.3429 | -5.0046 | 0.7026 | 1.2579 | 0.0637 | -0.2537 | 0.5429 | -0.7946 | -0.3489 |
| 168 | 56.88 | -0.01 | 14.4745 | -4.9255 | 0.3505 | 1.4441 | 0.0692 | -0.2745 | 0.5421 | -0.8166 | -0.3403 |
| 169 | 57.03 | 0.00 | 14.3951 | -5.0318 | 0.4812 | 1.3778 | 0.0639 | -0.2547 | 0.5508 | -0.8055 | -0.3495 |
| 170 | 57.18 | -0.01 | 14.4255 | -4.9976 | 0.2605 | 1.2569 | 0.0587 | -0.2767 | 0.5516 | -0.8283 | -0.3395 |
| 171 | 57.31 | -0.02 | 14.4331 | -4.7484 | 0.2755 | 1.2880 | 0.0651 | -0.2559 | 0.5668 | -0.8227 | -0.3250 |
| 172 | 57.46 | -0.00 | 14.4365 | -4.8567 | 0.3661 | 1.3072 | 0.0547 | -0.2613 | 0.5681 | -0.8294 | -0.3227 |
| 173 | 57.61 | -0.06 | 14.4250 | -4.8223 | 0.0295 | 0.1032 | 0.0043 | -0.3555 | 0.5160 | -0.8715 | -0.2768 |
| 174 | 57.76 | -0.07 | 14.4629 | -3.8540 | 0.0303 | -0.7166 | 0.0532 | -0.3590 | 0.4901 | -0.8490 | -0.2663 |
| 175 | 57.91 | -0.12 | 14.5378 | -4.2478 | -0.5716 | -0.8691 | 0.0586 | -0.3557 | 0.5053 | -0.8609 | -0.2922 |
| 176 | 58.05 | -0.09 | 14.5410 | -4.7312 | -0.2355 | -1.2717 | 0.0404 | -0.2725 | 0.5066 | -0.8393 | -0.3258 |
| 177 | 58.13 | -0.12 | 14.3864 | -4.4707 | -0.6241 | -0.9013 | 0.0457 | -0.2696 | 0.5628 | -0.8324 | -0.3108 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 145 MACH 0.50 RN/FT 1.0 PHI 0.0 CONF 8 INCFTS C.G 0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | -0.0175 | 0.0016 | 0.0067 | -0.0457 | -0.4971 | -0.0066 | -0.0256 | -0.3732 | 0.0258 | 0.4308 |
| 2 | -5.75 | -0.00 | -0.0167 | 0.0062 | 0.0076 | -0.0167 | -0.4265 | -0.0754 | -0.0255 | -0.3775 | 0.0256 | 0.4312 |
| 3 | -5.75 | 0.00 | -0.0163 | 0.0010 | 0.0100 | -0.0014 | -0.0135 | -0.8547 | -0.0253 | -0.3652 | 0.0256 | 0.4315 |
| 4 | -5.38 | 0.00 | -0.0213 | 0.00 | 0.0076 | 0.0 | -0.3280 | -1.0249 | -0.0421 | -0.4068 | 0.0410 | 0.4458 |
| 5 | -3.51 | 0.00 | -0.0158 | 0.0013 | 0.0060 | -0.0823 | -0.3797 | -0.9825 | -0.0460 | -0.4575 | 0.0468 | 0.4657 |
| 6 | -1.18 | -0.00 | -0.0117 | 0.0015 | 0.0054 | -0.1105 | -0.3140 | -0.8753 | -0.0400 | -0.4248 | 0.0532 | 0.4854 |
| 7 | 0.04 | 0.01 | -0.0130 | 0.0021 | 0.0061 | -0.1010 | -0.3154 | -0.7671 | -0.0452 | -0.3845 | 0.0565 | 0.5017 |
| 8 | 1.03 | 0.00 | -0.0102 | 0.0026 | 0.0058 | -0.1902 | -0.3725 | -0.8428 | -0.0400 | -0.3269 | 0.0715 | 0.5117 |
| 9 | 3.05 | -0.01 | 0.0015 | 0.0025 | 0.0061 | 1.5561 | 5.4000 | -0.5113 | -0.0455 | -0.2845 | 0.0751 | 0.5173 |
| 10 | 5.40 | 0.00 | -0.0079 | 0.0001 | 0.0050 | -0.0135 | -0.6757 | -0.3697 | -0.0337 | -0.2253 | 0.0864 | 0.5761 |
| 11 | 7.33 | 0.01 | -0.0083 | 0.00 | 0.0074 | 0.0 | -1.1746 | -0.2812 | -0.0261 | -0.1870 | 0.0930 | 0.5938 |
| 12 | 9.11 | 0.00 | -0.0051 | 0.00 | 0.0087 | 0.0 | -1.7059 | -0.1731 | -0.0101 | -0.1100 | 0.1047 | 0.6703 |
| 13 | 10.97 | -0.00 | -0.0102 | -0.0003 | 0.0058 | 0.0294 | -0.5666 | -0.0767 | -0.0111 | -0.0715 | 0.1450 | 0.9321 |
| 14 | 12.78 | -0.00 | -0.0116 | -0.0010 | 0.0062 | 0.0086 | -0.5776 | -0.0029 | -0.0015 | -0.0340 | 0.5174 | 11.7241 |
| 15 | 14.64 | 0.00 | -0.0115 | -0.0018 | 0.0055 | 0.1345 | -0.7983 | 0.0362 | 0.0153 | -0.0180 | 0.4228 | -0.4572 |
| 16 | 16.53 | -0.00 | -0.0066 | -0.0047 | 0.0051 | 0.2197 | -0.2316 | 0.0817 | 0.0361 | -0.0010 | 0.3690 | -0.0123 |
| 17 | 18.46 | -0.02 | -0.0077 | -0.0103 | 0.0154 | 0.2753 | -0.4085 | 0.1273 | 0.0415 | 0.0218 | 0.3259 | 0.1715 |
| 18 | 20.30 | -0.01 | -0.0035 | -0.0150 | 0.0127 | 0.2814 | -0.2213 | 0.1846 | 0.0528 | 0.0539 | 0.2855 | 0.2918 |
| 19 | 22.25 | -0.02 | -0.1035 | -0.0230 | 0.0050 | 0.2225 | -0.0464 | 0.2319 | 0.0624 | 0.0791 | 0.2651 | 0.3411 |
| 20 | 24.15 | -0.03 | -0.1567 | -0.0251 | -0.0324 | 0.1564 | 0.2044 | 0.3027 | 0.0726 | 0.1151 | 0.2406 | 0.3804 |
| 21 | 26.06 | -0.02 | -0.0258 | -0.0040 | 0.0125 | 0.1343 | -0.4195 | 0.4375 | 0.0805 | 0.1633 | 0.1839 | 0.4186 |
| 22 | 27.89 | 0.04 | 0.0518 | 0.0222 | 0.0201 | 0.0883 | 0.5904 | 0.5048 | 0.0834 | 0.1954 | 0.1474 | 0.4235 |
| 23 | 27.82 | 0.02 | 0.1364 | 0.0105 | 0.0235 | 0.0771 | 0.6153 | 0.5352 | 0.0835 | 0.2266 | 0.1561 | 0.4234 |
| 24 | 28.08 | 0.04 | 0.1870 | 0.0145 | 0.0262 | 0.0745 | 0.5056 | 0.5529 | 0.0837 | 0.2347 | 0.1515 | 0.4245 |
| 25 | 28.40 | 0.03 | 0.1800 | 0.0133 | 0.0288 | 0.0830 | 0.5330 | 0.5693 | 0.0847 | 0.2420 | 0.1488 | 0.4261 |
| 26 | 28.75 | 0.04 | 0.2346 | 0.0150 | 0.0273 | 0.0856 | 0.5420 | 0.5901 | 0.0847 | 0.2515 | 0.1436 | 0.4262 |
| 27 | 29.03 | 0.04 | 0.2118 | 0.0175 | 0.0257 | 0.0828 | 0.5466 | 0.5991 | 0.0843 | 0.2556 | 0.1408 | 0.4276 |
| 28 | 29.36 | 0.05 | 0.2725 | 0.0247 | 0.0245 | 0.0506 | 0.5139 | 0.6179 | 0.0841 | 0.2647 | 0.1362 | 0.4285 |
| 29 | 29.61 | 0.05 | 0.2946 | 0.0267 | 0.0267 | 0.0539 | 0.5145 | 0.6248 | 0.0846 | 0.2681 | 0.1351 | 0.4292 |
| 30 | 29.90 | 0.07 | 0.2781 | 0.0274 | 0.0243 | 0.0507 | 0.5167 | 0.6297 | 0.0847 | 0.2741 | 0.1325 | 0.4285 |
| 31 | 30.17 | 0.06 | 0.2925 | 0.0292 | 0.0213 | 0.0501 | 0.5176 | 0.6501 | 0.0845 | 0.2765 | 0.1300 | 0.4285 |
| 32 | 30.43 | 0.06 | 0.2831 | 0.0313 | 0.0205 | 0.1188 | 0.5354 | 0.6455 | 0.0853 | 0.2776 | 0.1322 | 0.4301 |
| 33 | 30.73 | 0.06 | 0.2941 | 0.0263 | 0.0212 | 0.1079 | 0.5373 | 0.6574 | 0.0855 | 0.2828 | 0.1301 | 0.4302 |
| 34 | 30.94 | 0.06 | 0.2907 | 0.0283 | 0.0185 | 0.1378 | 0.5018 | 0.6475 | 0.0859 | 0.2806 | 0.1327 | 0.4277 |
| 35 | 31.28 | 0.06 | 0.1571 | 0.0226 | 0.0510 | 0.1441 | 0.5793 | 0.6549 | 0.0863 | 0.2805 | 0.1318 | 0.4284 |
| 36 | 31.59 | 0.07 | 0.1315 | 0.0206 | 0.0757 | 0.2142 | 0.6044 | 0.6444 | 0.0867 | 0.2745 | 0.1346 | 0.4267 |
| 37 | 31.82 | 0.07 | 0.2178 | 0.0334 | 0.0140 | 0.1532 | 0.5237 | 0.6654 | 0.0858 | 0.2831 | 0.1250 | 0.4255 |
| 38 | 32.08 | 0.08 | 0.1932 | 0.0265 | 0.0109 | 0.1498 | 0.5275 | 0.6704 | 0.0857 | 0.2856 | 0.1279 | 0.4252 |
| 39 | 32.36 | 0.08 | 0.2011 | 0.0328 | 0.0116 | 0.1628 | 0.5052 | 0.6655 | 0.0863 | 0.2893 | 0.1230 | 0.4215 |
| 40 | 32.61 | 0.05 | 0.2466 | 0.0317 | 0.0172 | 0.1287 | 0.4706 | 0.6979 | 0.0818 | 0.2931 | 0.1173 | 0.4199 |
| 41 | 32.86 | 0.08 | 0.3248 | 0.0361 | 0.1516 | 0.1172 | 0.4649 | 0.6904 | 0.0733 | 0.2867 | 0.1062 | 0.4066 |
| 42 | 33.11 | 0.05 | 0.3081 | 0.0302 | 0.1072 | 0.1037 | 0.4543 | 0.6739 | 0.0645 | 0.2745 | 0.0957 | 0.4014 |
| 43 | 33.39 | 0.08 | 0.3447 | 0.0363 | 0.1575 | 0.1052 | 0.4389 | 0.6914 | 0.0659 | 0.2806 | 0.0953 | 0.4063 |
| 44 | 33.63 | 0.07 | 0.3406 | 0.0353 | 0.1522 | 0.1037 | 0.4476 | 0.6963 | 0.0641 | 0.2807 | 0.0921 | 0.4032 |
| 45 | 33.87 | 0.07 | 0.2928 | 0.0325 | 0.1375 | 0.1105 | 0.4696 | 0.6947 | 0.0654 | 0.2803 | 0.0942 | 0.4031 |
| 46 | 34.14 | 0.06 | 0.2583 | 0.0278 | 0.1404 | 0.0934 | 0.4706 | 0.7009 | 0.0632 | 0.2834 | 0.0902 | 0.4044 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 145 | 0.90 | 1.7 | 0.0 | BINOF15 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| FLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.36 | 0.00 | 0.2328 | 0.0224 | 0.1082 | 0.0964 | 0.4649 | 0.7095 | 0.0653 | 0.2879 | 0.0920 | 0.4057 |
| 48 | 34.61 | 0.06 | 0.2563 | 0.0236 | 0.1166 | 0.0922 | 0.4651 | 0.7126 | 0.0638 | 0.2852 | 0.0855 | 0.4058 |
| 49 | 34.87 | 0.05 | 0.2255 | 0.0166 | 0.1054 | 0.0746 | 0.4676 | 0.7274 | 0.0646 | 0.2959 | 0.0888 | 0.4067 |
| 50 | 35.12 | 0.02 | 0.1771 | 0.0063 | 0.0906 | 0.0539 | 0.4743 | 0.7447 | 0.0666 | 0.3069 | 0.0894 | 0.4121 |
| 51 | 35.34 | 0.03 | 0.0662 | 0.0042 | 0.0218 | 0.0617 | 0.3201 | 0.7589 | 0.0699 | 0.3178 | 0.0921 | 0.4187 |
| 52 | 35.59 | 0.03 | 0.0531 | 0.0035 | 0.0142 | 0.0601 | 0.1965 | 0.7579 | 0.0705 | 0.3181 | 0.0930 | 0.4197 |
| 53 | 35.82 | 0.02 | 0.0492 | 0.0038 | 0.0080 | 0.0735 | 0.1752 | 0.7539 | 0.0673 | 0.3181 | 0.0886 | 0.4186 |
| 54 | 36.04 | 0.01 | -0.0076 | -0.0068 | -0.0265 | 0.1033 | 3.4366 | 0.7720 | 0.0662 | 0.3203 | 0.0858 | 0.4149 |
| 55 | 36.29 | 0.01 | 0.0213 | 0.0035 | 0.0235 | 0.0678 | 0.2869 | 0.7749 | 0.0665 | 0.3235 | 0.0858 | 0.4175 |
| 56 | 36.53 | 0.00 | -0.0109 | 0.0062 | -0.0336 | -0.0184 | 9.0826 | 0.7824 | 0.0663 | 0.3253 | 0.0848 | 0.4158 |
| 57 | 36.75 | 0.02 | -0.0031 | -0.0003 | -0.0106 | 0.0566 | 9.8710 | 0.7929 | 0.0656 | 0.3285 | 0.0827 | 0.4143 |
| 58 | 37.01 | 0.03 | 0.1070 | 0.0064 | 0.0361 | 0.0599 | 0.3366 | 0.7865 | 0.0660 | 0.3257 | 0.0835 | 0.4139 |
| 59 | 37.26 | 0.02 | 0.0978 | 0.0058 | 0.0332 | 0.0594 | 0.3398 | 0.8017 | 0.0656 | 0.3340 | 0.0818 | 0.4166 |
| 60 | 37.49 | 0.05 | 0.1273 | 0.0074 | 0.0482 | 0.0582 | 0.3632 | 0.7968 | 0.0655 | 0.3320 | 0.0820 | 0.4156 |
| 61 | 37.74 | 0.05 | 0.1524 | 0.0095 | 0.0610 | 0.0651 | 0.4001 | 0.7997 | 0.0631 | 0.3295 | 0.0785 | 0.4125 |
| 62 | 37.96 | 0.01 | 0.1158 | 0.0061 | 0.0396 | 0.0510 | 0.3306 | 0.8086 | 0.0661 | 0.3356 | 0.0743 | 0.4152 |
| 63 | 38.20 | 0.04 | 0.1184 | 0.0077 | 0.0390 | 0.0651 | 0.3297 | 0.7975 | 0.0578 | 0.3271 | 0.0725 | 0.4102 |
| 64 | 38.48 | 0.02 | 0.0865 | 0.0040 | 0.0242 | 0.0403 | 0.2801 | 0.8101 | 0.0575 | 0.3377 | 0.0708 | 0.4128 |
| 65 | 38.71 | 0.04 | 0.0810 | 0.0044 | 0.0246 | 0.0544 | 0.3386 | 0.8074 | 0.0606 | 0.3322 | 0.0751 | 0.4115 |
| 66 | 38.93 | 0.03 | 0.0830 | 0.0024 | 0.0174 | 0.0382 | 0.2780 | 0.8032 | 0.0569 | 0.3300 | 0.0733 | 0.4109 |
| 67 | 39.14 | 0.05 | 0.0525 | 0.0006 | 0.0121 | 0.0152 | 0.2292 | 0.8121 | 0.0586 | 0.3342 | 0.0722 | 0.4115 |
| 68 | 39.36 | 0.03 | 0.0533 | 0.0013 | 0.0087 | 0.0249 | 0.1635 | 0.8209 | 0.0583 | 0.3396 | 0.0705 | 0.4107 |
| 69 | 39.56 | 0.01 | 0.0449 | 0.0018 | 0.0102 | 0.0402 | 0.2277 | 0.8124 | 0.0567 | 0.3336 | 0.0698 | 0.4106 |
| 70 | 39.78 | 0.02 | 0.0395 | 0.0021 | 0.0051 | 0.0352 | 0.2304 | 0.8022 | 0.0564 | 0.3268 | 0.0709 | 0.4074 |
| 71 | 40.00 | 0.03 | 0.0253 | 0.0026 | 0.0035 | 0.0086 | 0.1195 | 0.8036 | 0.0559 | 0.3281 | 0.0708 | 0.4083 |
| 72 | 40.19 | 0.03 | 0.0160 | 0.0045 | -0.0006 | 0.2814 | -0.0375 | 0.7947 | 0.0561 | 0.3170 | 0.0715 | 0.4040 |
| 73 | 40.40 | 0.02 | 0.0380 | 0.0045 | 0.0082 | 0.1296 | 0.2158 | 0.8082 | 0.0556 | 0.3290 | 0.0688 | 0.4071 |
| 74 | 40.60 | 0.04 | 0.0523 | 0.0061 | 0.0133 | 0.1169 | 0.2548 | 0.8244 | 0.0561 | 0.3357 | 0.0686 | 0.4072 |
| 75 | 40.81 | 0.02 | 0.0488 | 0.0064 | 0.0139 | 0.1371 | 0.2976 | 0.8246 | 0.0554 | 0.3333 | 0.0672 | 0.4042 |
| 76 | 41.02 | 0.03 | 0.0135 | 0.0037 | -0.0021 | 0.2742 | -0.1556 | 0.8214 | 0.0562 | 0.3343 | 0.0684 | 0.4070 |
| 77 | 41.23 | 0.01 | 0.0165 | 0.0031 | -0.0042 | 0.1886 | -0.2545 | 0.8464 | 0.0566 | 0.3453 | 0.0671 | 0.4086 |
| 78 | 41.43 | 0.02 | 0.0160 | 0.0015 | -0.0078 | 2.3755 | -9.7500 | 0.8503 | 0.0569 | 0.3473 | 0.0693 | 0.4065 |
| 79 | 41.61 | 0.03 | 0.0306 | 0.0031 | 0.0037 | 0.1013 | 0.1209 | 0.8714 | 0.0569 | 0.3549 | 0.0653 | 0.4073 |
| 80 | 41.84 | 0.01 | 0.0426 | 0.0035 | 0.0053 | 0.2805 | 0.2573 | 0.8507 | 0.0564 | 0.3466 | 0.0663 | 0.4074 |
| 81 | 42.05 | -0.00 | 0.0097 | 0.0042 | -0.0048 | 0.4332 | -0.4946 | 0.8808 | 0.0536 | 0.3505 | 0.0681 | 0.4072 |
| 82 | 42.22 | 0.03 | 0.0235 | 0.0047 | -0.0007 | 0.1844 | -0.0275 | 0.8759 | 0.0567 | 0.3558 | 0.0647 | 0.4063 |
| 83 | 42.41 | 0.02 | 0.0716 | 0.0042 | 0.0134 | 0.0538 | 0.1376 | 0.9350 | 0.0561 | 0.3839 | 0.0600 | 0.4105 |
| 84 | 42.59 | 0.01 | 0.0056 | 0.0015 | -0.0066 | 0.2112 | -0.9556 | 0.8961 | 0.0593 | 0.3672 | 0.0662 | 0.4097 |
| 85 | 42.78 | 0.03 | -0.0258 | 0.0008 | -0.0240 | -0.0310 | 0.9302 | 0.8788 | 0.0583 | 0.3538 | 0.0663 | 0.4026 |
| 86 | 42.93 | 0.02 | 0.0165 | 0.0023 | -0.0106 | 0.1361 | -0.3905 | 0.9068 | 0.0577 | 0.3698 | 0.0636 | 0.4078 |
| 87 | 43.12 | 0.01 | -0.0262 | 0.0 | -0.0196 | 0.0 | 0.7481 | 0.8784 | 0.0558 | 0.3591 | 0.0681 | 0.4085 |
| 88 | 43.32 | -0.01 | 0.0010 | 0.0023 | -0.0146 | 1.4381 | -9.1250 | 0.9052 | 0.0570 | 0.3680 | 0.0652 | 0.4065 |
| 89 | 43.51 | 0.01 | 0.1185 | 0.0062 | 0.0337 | 0.0691 | 0.3009 | 0.9707 | 0.0521 | 0.3998 | 0.0578 | 0.4062 |
| 90 | 43.66 | 0.02 | 0.0611 | 0.0025 | 0.0060 | 0.1132 | 0.1311 | 0.9066 | 0.0560 | 0.3665 | 0.0618 | 0.4037 |
| 91 | 43.85 | 0.01 | -0.0597 | 0.0 | -0.0357 | 0.0 | 0.6566 | 0.8479 | 0.0534 | 0.3353 | 0.0685 | 0.3954 |
| 92 | 44.03 | 0.02 | 0.1040 | 0.0044 | 0.0249 | 0.0505 | 0.3359 | 0.9589 | 0.0568 | 0.3677 | 0.0592 | 0.4043 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(RKSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 4

PARTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 145 0.90 1.7 0.0 DANGER 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.20 | 0.00 | 0.0536 | 0.0063 | 0.0036 | 0.1178 | 0.0673 | 0.9365 | 0.0577 | 0.3768 | 0.0616 | 0.4023 |
| 94 | 44.41 | 0.00 | -0.0124 | 0.0004 | -0.0110 | -0.0310 | 1.3043 | 0.9096 | 0.0556 | 0.3691 | 0.0655 | 0.4014 |
| 95 | 44.59 | 0.01 | 0.0215 | 0.0046 | -0.0011 | 0.2140 | -0.0512 | 0.9303 | 0.0565 | 0.3741 | 0.0640 | 0.4021 |
| 96 | 44.78 | 0.01 | 0.0277 | 0.0045 | -0.0074 | 0.1776 | -0.2071 | 0.9425 | 0.0579 | 0.3785 | 0.0614 | 0.4016 |
| 97 | 44.96 | 0.01 | -0.1065 | -0.0067 | -0.0732 | 0.0630 | 0.6870 | 0.9095 | 0.0606 | 0.3628 | 0.0666 | 0.3985 |
| 98 | 45.15 | 0.01 | 0.0067 | 0.0032 | 0.0000 | 0.1302 | 0.0491 | 0.9441 | 0.0574 | 0.3754 | 0.0610 | 0.3985 |
| 99 | 45.33 | 0.02 | -0.0045 | -0.0043 | -0.0015 | 0.0507 | 0.7286 | 0.9274 | 0.0590 | 0.3714 | 0.0636 | 0.4004 |
| 100 | 45.50 | 0.02 | 0.0247 | 0.0008 | -0.0063 | 0.2673 | -0.2551 | 0.9514 | 0.0587 | 0.3793 | 0.0617 | 0.3987 |
| 101 | 45.67 | -0.01 | -0.0078 | 0.0021 | -0.0272 | -0.2693 | 3.4872 | 0.9361 | 0.0588 | 0.3723 | 0.0627 | 0.3968 |
| 102 | 45.83 | -0.02 | -0.0015 | -0.0037 | -0.0471 | 0.0609 | 0.7730 | 0.9317 | 0.0609 | 0.3713 | 0.0654 | 0.3985 |
| 103 | 46.04 | -0.01 | -0.0046 | 0.0 | -0.0185 | 0.0 | 4.0217 | 0.9480 | 0.0616 | 0.3768 | 0.0656 | 0.3974 |
| 104 | 46.20 | -0.02 | -0.0302 | 0.0006 | -0.0321 | -0.0199 | 1.0029 | 0.9454 | 0.0600 | 0.3742 | 0.0635 | 0.3956 |
| 105 | 46.35 | -0.00 | -0.0261 | -0.0047 | -0.0356 | 0.0691 | 0.8074 | 0.9450 | 0.0610 | 0.3746 | 0.0652 | 0.3957 |
| 106 | 46.52 | 0.02 | -0.0078 | -0.0055 | -0.0305 | 0.0872 | 0.8390 | 0.9494 | 0.0620 | 0.3774 | 0.0653 | 0.3975 |
| 107 | 46.72 | -0.03 | -0.3124 | -0.0025 | -0.1532 | 0.1057 | 0.4896 | 0.9103 | 0.0554 | 0.3572 | 0.0608 | 0.3924 |
| 108 | 46.90 | -0.04 | -0.0494 | -0.0016 | -0.0421 | 0.0325 | 0.8219 | 0.9538 | 0.0624 | 0.3773 | 0.0652 | 0.3955 |
| 109 | 47.07 | -0.02 | -0.0062 | -0.0057 | -0.0487 | 0.0863 | 0.7050 | 0.9433 | 0.0626 | 0.3735 | 0.0666 | 0.3959 |
| 110 | 47.26 | 0.02 | -0.1114 | -0.0121 | -0.0726 | 0.1088 | 0.6406 | 0.9368 | 0.0630 | 0.3703 | 0.0671 | 0.3944 |
| 111 | 47.44 | -0.03 | -0.1528 | -0.0152 | -0.0884 | 0.1005 | 0.5639 | 0.9371 | 0.0646 | 0.3684 | 0.0685 | 0.3931 |
| 112 | 47.60 | -0.04 | -0.1564 | -0.0170 | -0.0920 | 0.1141 | 0.5691 | 0.9312 | 0.0639 | 0.3655 | 0.0688 | 0.3925 |
| 113 | 47.77 | 0.01 | -0.0599 | -0.0064 | -0.0527 | 0.0770 | 0.8796 | 0.9419 | 0.0616 | 0.3666 | 0.0654 | 0.3915 |
| 114 | 47.95 | -0.03 | -0.1410 | -0.0148 | -0.0756 | 0.1047 | 0.5624 | 0.9417 | 0.0629 | 0.3681 | 0.0668 | 0.3909 |
| 115 | 48.13 | 0.01 | -0.2661 | -0.0348 | -0.1275 | 0.1306 | 0.4789 | 0.9490 | 0.0633 | 0.3717 | 0.0667 | 0.3916 |
| 116 | 48.32 | -0.04 | -0.3022 | -0.0494 | -0.1496 | 0.1462 | 0.4785 | 0.9794 | 0.0562 | 0.3834 | 0.0574 | 0.3914 |
| 117 | 48.49 | -0.01 | -0.2627 | -0.0372 | -0.1275 | 0.1414 | 0.4867 | 0.9655 | 0.0606 | 0.3771 | 0.0628 | 0.3905 |
| 118 | 48.64 | -0.01 | -0.2619 | -0.0353 | -0.1291 | 0.1499 | 0.4927 | 0.9790 | 0.0581 | 0.3812 | 0.0593 | 0.3893 |
| 119 | 48.83 | 0.00 | -0.2135 | -0.0347C | -0.1082 | 0.2201 | 0.5070 | 1.0322 | 0.0377 | 0.3575 | 0.0365 | 0.3851 |
| 120 | 49.00 | -0.01 | -0.2570 | -0.0420 | -0.1262 | 0.1633 | 0.4908 | 1.0108 | 0.0523 | 0.3910 | 0.0517 | 0.3868 |
| 121 | 49.16 | 0.00 | -0.1693 | -0.0340 | -0.0902 | 0.2006 | 0.5328 | 1.0178 | 0.0340 | 0.3678 | 0.0334 | 0.3810 |
| 122 | 49.35 | 0.03 | -0.2142 | -0.0334 | -0.1038 | 0.1580 | 0.4917 | 0.9674 | 0.0369 | 0.3659 | 0.0381 | 0.3783 |
| 123 | 49.54 | 0.05 | -0.2011 | -0.0306 | -0.1012 | 0.1496 | 0.5032 | 0.9575 | 0.0348 | 0.3580 | 0.0363 | 0.3718 |
| 124 | 49.75 | 0.03 | -0.1956 | -0.0261 | -0.0744 | 0.2507 | 0.4055 | 0.9744 | 0.0395 | 0.3631 | 0.0405 | 0.3727 |
| 125 | 49.93 | 0.04 | -0.1207 | -0.0176 | -0.0619 | 0.3111 | 0.5124 | 1.0030 | 0.0318 | 0.3738 | 0.0315 | 0.3708 |
| 126 | 50.09 | 0.01 | -0.1041 | -0.0355 | -0.0554 | 0.3405 | 0.5296 | 1.0158 | 0.0235 | 0.3738 | 0.0291 | 0.3676 |
| 127 | 50.26 | -0.00 | -0.0245 | -0.0358 | -0.0457 | 0.4212 | 0.5377 | 1.0102 | 0.0261 | 0.3713 | 0.0259 | 0.3675 |
| 128 | 50.41 | 0.06 | -0.0268 | -0.0265 | -0.0200 | 0.9900 | 0.7222 | 0.9976 | 0.0219 | 0.3622 | 0.0220 | 0.3631 |
| 129 | 50.58 | 0.02 | -0.0440 | -0.0321 | -0.0281 | 0.7252 | 0.6401 | 0.9976 | 0.0222 | 0.3623 | 0.0223 | 0.3632 |
| 130 | 50.76 | 0.04 | -0.0057 | -0.0038 | -0.0379 | 0.9815 | 0.5445 | 1.0076 | 0.0223 | 0.3684 | 0.0222 | 0.3658 |
| 131 | 50.45 | 0.07 | -0.0272 | -0.0277 | -0.0234 | 1.0188 | 0.8603 | 0.9831 | 0.0190 | 0.3561 | 0.0194 | 0.3623 |
| 132 | 51.09 | 0.04 | -0.0261 | -0.0273 | -0.0254 | 0.9650 | 0.8905 | 0.9742 | 0.0193 | 0.3508 | 0.0198 | 0.3601 |
| 133 | 51.29 | 0.05 | -0.0998 | -0.0323 | -0.0533 | 0.3633 | 0.5336 | 0.9729 | 0.0183 | 0.3495 | 0.0188 | 0.3593 |
| 134 | 51.48 | 0.02 | -0.0850 | -0.0315 | -0.0405 | 0.4520 | 0.5827 | 0.9724 | 0.0203 | 0.3517 | 0.0209 | 0.3617 |
| 135 | 51.65 | -0.00 | -0.0595 | -0.0284 | -0.0327 | 0.4751 | 0.5968 | 0.9388 | 0.0196 | 0.3337 | 0.0205 | 0.3555 |
| 136 | 51.81 | 0.04 | -0.0450 | -0.0292 | -0.0298 | 0.5392 | 0.5523 | 0.9357 | 0.0195 | 0.3346 | 0.0209 | 0.3576 |
| 137 | 51.99 | 0.04 | -0.0261 | -0.0213 | -0.0143 | 0.8169 | 0.5479 | 0.9503 | 0.0211 | 0.3379 | 0.0222 | 0.3556 |
| 138 | 52.14 | 0.05 | -0.0250 | -0.0255 | -0.0195 | 1.0121 | 0.6055 | 0.9767 | 0.0195 | 0.3497 | 0.0200 | 0.3581 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 145 MACH 0.90 RX1C-6 1.7 PHI 0.0 CONF 81 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.31 | 0.06 | -0.0177 | -0.0265 | -0.0059 | 1.1566 | 0.3333 | 0.9631 | 0.0232 | 0.3423 | 0.0241 | 0.3554 |
| 140 | 52.48 | 0.04 | -0.0024 | -0.0177 | -0.0044 | 7.3779 | 0.1667 | 0.9701 | 0.0252 | 0.3472 | 0.0260 | 0.3576 |
| 141 | 52.63 | 0.05 | -0.0135 | -0.0161 | -0.0022 | 1.5339 | 0.2095 | 0.9497 | 0.0233 | 0.3353 | 0.0246 | 0.3531 |
| 142 | 52.79 | 0.06 | -0.0234 | -0.0221 | -0.0026 | 0.9448 | 0.1111 | 0.9805 | 0.0232 | 0.3496 | 0.0237 | 0.3566 |
| 143 | 52.98 | 0.06 | -0.0131 | -0.0173 | -0.0020 | 1.3211 | 0.1527 | 0.9673 | 0.0232 | 0.3444 | 0.0240 | 0.3561 |
| 144 | 53.14 | 0.06 | -0.0265 | -0.0178 | -0.0045 | 0.8102 | 0.1095 | 0.9496 | 0.0241 | 0.3359 | 0.0254 | 0.3538 |
| 145 | 53.30 | 0.06 | -0.0150 | -0.0132 | -0.0016 | 0.8550 | 0.0526 | 0.9365 | 0.0241 | 0.3284 | 0.0258 | 0.3507 |
| 146 | 53.46 | 0.03 | 0.0050 | -0.0116 | 0.0022 | -2.3269 | 2.4400 | 0.9408 | 0.0223 | 0.3320 | 0.0236 | 0.3507 |
| 147 | 53.63 | 0.03 | -0.0372 | -0.0161 | -0.0044 | 0.4330 | 0.1163 | 0.9233 | 0.0219 | 0.3230 | 0.0238 | 0.3458 |
| 148 | 53.78 | 0.02 | -0.0143 | -0.0118 | 0.0030 | 0.8255 | -0.2857 | 0.9408 | 0.0234 | 0.3298 | 0.0249 | 0.3506 |
| 149 | 53.93 | 0.01 | -0.0222 | -0.0126 | 0.0034 | 0.5766 | -0.1532 | 0.9496 | 0.0241 | 0.3323 | 0.0254 | 0.3500 |
| 150 | 54.09 | 0.00 | -0.0141 | -0.0061 | 0.0001 | 0.7524 | -0.5041 | 0.9381 | 0.0226 | 0.3266 | 0.0241 | 0.3482 |
| 151 | 54.24 | 0.00 | -0.0112 | -0.0077 | 0.0007 | 0.8878 | -0.7768 | 0.9334 | 0.0227 | 0.3266 | 0.0244 | 0.3455 |
| 152 | 54.40 | 0.02 | -0.0201 | -0.0163 | 0.0057 | 0.5126 | -0.2030 | 0.9336 | 0.0211 | 0.3205 | 0.0226 | 0.3497 |
| 153 | 54.56 | 0.04 | -0.0148 | -0.0082 | 0.0054 | 0.5543 | -0.3049 | 0.9620 | 0.0185 | 0.3364 | 0.0197 | 0.3457 |
| 154 | 54.70 | 0.03 | -0.0115 | -0.0064 | 0.0030 | 0.5507 | -0.8090 | 0.9487 | 0.0196 | 0.3295 | 0.0207 | 0.3473 |
| 155 | 54.85 | 0.03 | 0.0055 | -0.0052 | 0.0024 | -0.5511 | 2.3182 | 0.9577 | 0.0181 | 0.3348 | 0.0185 | 0.3456 |
| 156 | 55.02 | 0.07 | -0.0016 | -0.0043 | 0.0015 | 2.0000 | -9.9375 | 0.9621 | 0.0170 | 0.3353 | 0.0177 | 0.3485 |
| 157 | 55.17 | 0.05 | 0.0163 | 0.0015 | 0.0004 | 0.6921 | 1.2915 | 0.9768 | 0.0175 | 0.3387 | 0.0179 | 0.3468 |
| 158 | 55.34 | 0.05 | 0.0062 | 0.0 | 0.0010 | 0.0 | 2.6341 | 0.9605 | 0.0177 | 0.3358 | 0.0185 | 0.3475 |
| 159 | 55.48 | 0.05 | 0.0024 | 0.0042 | 0.0021 | 1.7507 | 9.2083 | 0.9755 | 0.0181 | 0.3391 | 0.0185 | 0.3476 |
| 160 | 55.65 | 0.01 | -0.0187 | 0.0049 | 0.0015 | -0.2090 | -0.0800 | 0.9578 | 0.0166 | 0.3323 | 0.0174 | 0.3476 |
| 161 | 55.81 | 0.05 | -0.0227 | 0.0074 | 0.0042 | -0.3261 | -0.6256 | 0.9340 | 0.0175 | 0.3228 | 0.0188 | 0.3456 |
| 162 | 55.96 | -0.02 | -0.0026 | 0.0026 | 0.0005 | -0.3201 | -0.7450 | 0.9608 | 0.0157 | 0.3331 | 0.0164 | 0.3467 |
| 163 | 56.09 | 0.01 | -0.0175 | 0.0060 | 0.0019 | -0.3689 | -1.1361 | 0.9592 | 0.0159 | 0.3334 | 0.0166 | 0.3478 |
| 164 | 56.26 | 0.04 | -0.0263 | 0.0074 | 0.0033 | -0.2010 | -0.5906 | 0.9562 | 0.0157 | 0.3337 | 0.0164 | 0.3456 |
| 165 | 56.42 | -0.00 | -0.0361 | 0.0048 | 0.0047 | -0.1330 | -0.4072 | 0.9623 | 0.0151 | 0.3348 | 0.0157 | 0.3479 |
| 166 | 56.57 | 0.02 | -0.0377 | 0.0068 | 0.0054 | -0.1251 | -0.4085 | 0.9652 | 0.0156 | 0.3345 | 0.0162 | 0.3466 |
| 167 | 56.71 | 0.02 | -0.0458 | 0.0054 | 0.0045 | -0.1087 | -0.2917 | 0.9654 | 0.0143 | 0.3344 | 0.0148 | 0.3464 |
| 168 | 56.88 | -0.01 | -0.0445 | 0.0056 | 0.0057 | -0.1172 | -0.3536 | 0.9696 | 0.0151 | 0.3363 | 0.0156 | 0.3465 |
| 169 | 57.03 | 0.00 | -0.0501 | 0.0061 | 0.0059 | -0.1220 | -0.3160 | 0.9771 | 0.0145 | 0.3393 | 0.0145 | 0.3473 |
| 170 | 57.18 | -0.01 | -0.0636 | 0.0049 | 0.0069 | -0.0716 | -0.1892 | 0.9609 | 0.0144 | 0.3315 | 0.0150 | 0.3456 |
| 171 | 57.31 | -0.02 | -0.0580 | 0.0050 | 0.0076 | -0.1611 | -0.3184 | 0.9637 | 0.0157 | 0.3329 | 0.0163 | 0.3455 |
| 172 | 57.46 | -0.00 | -0.0637 | 0.0066 | 0.0059 | -0.1070 | -0.2453 | 0.9578 | 0.0150 | 0.3324 | 0.0157 | 0.3471 |
| 173 | 57.61 | -0.00 | -0.0556 | 0.0042 | 0.0078 | -0.0757 | -0.3207 | 1.0133 | 0.0190 | 0.3532 | 0.0188 | 0.3486 |
| 174 | 57.76 | -0.01 | -0.0644 | 0.0045 | 0.0029 | -0.0730 | -0.1915 | 1.0136 | 0.0165 | 0.3513 | 0.0163 | 0.3465 |
| 175 | 57.91 | -0.02 | -0.0604 | 0.0023 | 0.0041 | -0.0382 | -0.2338 | 1.0232 | 0.0128 | 0.3543 | 0.0125 | 0.3483 |
| 176 | 58.05 | -0.05 | -0.0563 | 0.0015 | 0.0064 | 0.0267 | -0.2918 | 1.0116 | 0.0104 | 0.3518 | 0.0103 | 0.3478 |
| 177 | 58.13 | -0.12 | -0.0600 | -0.0032 | 0.0148 | 0.0534 | -0.2437 | 1.0012 | 0.0115 | 0.3497 | 0.0119 | 0.3453 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK0C1 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 145 | MACH 0.90 | RNIG-6 1.7 | PHI 0.0 | CONF 81DOF15 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | C.C1 | -C.0133 | 9.9999 | C.0178 | 9.9999 | -1.3383 | -0.9177 | -0.0273 | -0.3464 | 0.0298 | 0.3775 |
| 2 | -5.75 | -C.00 | -C.0106 | 9.9999 | C.0156 | 9.9999 | -1.0491 | -0.8781 | -0.0265 | -0.3292 | 0.0302 | 0.3746 |
| 3 | -5.75 | C.0C | -C.0174 | 9.9999 | C.0180 | 9.9999 | -1.0345 | -0.9087 | -0.0287 | -0.3417 | 0.0294 | 0.3760 |
| 4 | -5.36 | 0.0C | -C.0174 | 9.9999 | C.0165 | 9.9999 | -0.9713 | -1.1125 | -0.0455 | -0.4451 | 0.0409 | 0.4001 |
| 5 | -3.51 | 0.0C | -C.0116 | 9.9999 | C.0162 | 9.9999 | -1.4237 | -1.0593 | -0.0509 | -0.4422 | 0.0480 | 0.4175 |
| 6 | -1.78 | -C.00 | -C.0051 | 9.9999 | C.0176 | 9.9999 | -1.9341 | -0.9036 | -0.0517 | -0.4043 | 0.0538 | 0.4269 |
| 7 | 0.04 | C.01 | -C.0037 | 9.9999 | C.0227 | 9.9999 | -5.5946 | -0.8551 | -0.0503 | -0.3638 | 0.0588 | 0.4255 |
| 8 | 1.83 | C.0C | -C.0038 | 9.9999 | C.0217 | 9.9999 | -3.7105 | -0.7068 | -0.0503 | -0.3061 | 0.0709 | 0.4347 |
| 9 | 3.65 | -C.01 | C.0002 | 9.9999 | C.0242 | 9.9999 | 121.0000 | -0.6024 | -0.0441 | -0.2622 | 0.0732 | 0.4353 |
| 10 | 5.46 | 0.0C | -C.0054 | 9.9999 | C.0224 | 9.9999 | -2.3330 | -0.4679 | -0.0335 | -0.2042 | 0.0758 | 0.4363 |
| 11 | 7.33 | C.01 | -C.0147 | 9.9999 | C.0192 | 9.9999 | -1.3081 | -0.3484 | -0.0264 | -0.1448 | 0.0759 | 0.4155 |
| 12 | 9.11 | 0.0C | -C.0054 | 9.9999 | C.0235 | 9.9999 | -2.5425 | -0.2240 | -0.0189 | -0.0915 | 0.0827 | 0.3996 |
| 13 | 10.97 | -0.0C | C.0067 | 9.9999 | C.0206 | 9.9999 | 2.3076 | -0.1302 | -0.0102 | -0.0488 | 0.0785 | 0.3746 |
| 14 | 12.78 | -C.0C | C.0C6C | 9.9999 | C.0193 | 9.9999 | 3.2167 | -0.0508 | 0.0031 | -0.0209 | -0.0612 | 0.4122 |
| 15 | 14.64 | C.0C | C.0073 | 9.9999 | C.0224 | 9.9999 | 2.7945 | -0.0036 | C.0195 | 0.0006 | -5.2389 | -0.1579 |
| 16 | 16.55 | -C.0C | C.0157 | 9.9999 | C.0214 | 9.9999 | 1.0003 | 0.0621 | 0.0355 | 0.0244 | C.5776 | 0.3935 |
| 17 | 18.46 | -C.02 | C.0172 | 9.9999 | C.0148 | 9.9999 | 0.8005 | 0.1512 | 0.0518 | 0.0700 | 0.3425 | C.4629 |
| 18 | 20.36 | -C.01 | C.0133 | 9.9999 | C.0167 | 9.9999 | 0.6045 | 0.2380 | 0.0639 | 0.1146 | 0.2664 | C.4817 |
| 19 | 22.25 | -C.02 | C.0181 | 9.9999 | C.0053 | 9.9999 | 0.5776 | 0.3570 | 0.0751 | 0.1736 | 0.2104 | C.4863 |
| 20 | 24.15 | -C.03 | C.0175 | 9.9999 | C.0094 | 9.9999 | 0.5371 | 0.4478 | 0.0817 | 0.2207 | 0.1825 | 0.4927 |
| 21 | 26.06 | -C.02 | C.0245 | 9.9999 | C.0120 | 9.9999 | 0.4013 | 0.4489 | 0.0847 | 0.2289 | 0.1888 | 0.5095 |
| 22 | 27.89 | C.04 | C.0363 | 9.9999 | C.0212 | 9.9999 | 0.4223 | 0.4971 | 0.0884 | 0.2328 | 0.1978 | 0.5206 |
| 23 | 27.62 | C.02 | C.0303 | 9.9999 | C.0207 | 9.9999 | 0.4123 | 0.4657 | 0.0882 | 0.2416 | 0.1895 | C.5188 |
| 24 | 28.08 | 0.04 | C.0371 | 9.9999 | C.0233 | 9.9999 | 0.4066 | 0.4856 | 0.0884 | 0.2422 | C.1900 | 0.5202 |
| 25 | 28.40 | 0.03 | C.0437 | 9.9999 | C.0175 | 9.9999 | 0.4014 | 0.4823 | 0.0894 | 0.2521 | 0.1855 | C.5227 |
| 26 | 28.75 | 0.04 | C.0519 | 9.9999 | C.0203 | 9.9999 | 0.3919 | 0.4819 | 0.0901 | 0.2534 | 0.1871 | 0.5259 |
| 27 | 29.03 | 0.04 | C.0516 | 9.9999 | C.0214 | 9.9999 | 0.4139 | 0.4973 | 0.0905 | 0.2637 | 0.1821 | 0.5303 |
| 28 | 29.32 | C.05 | C.0546 | 9.9999 | C.0218 | 9.9999 | 0.3903 | 0.5117 | 0.0912 | 0.2715 | 0.1783 | 0.5306 |
| 29 | 29.61 | C.06 | C.0547 | 9.9999 | C.0222 | 9.9999 | 0.4066 | 0.5232 | 0.0916 | 0.2757 | 0.1755 | 0.5270 |
| 30 | 29.90 | 0.07 | C.0616 | 9.9999 | C.0238 | 9.9999 | 0.3870 | 0.5447 | 0.0924 | 0.2855 | 0.1696 | 0.5241 |
| 31 | 30.17 | 0.06 | C.0616 | 9.9999 | C.0233 | 9.9999 | 0.3789 | 0.5514 | 0.0915 | 0.2904 | 0.1666 | 0.5268 |
| 32 | 30.43 | 0.06 | C.0562 | 9.9999 | C.0201 | 9.9999 | 0.3563 | 0.5951 | 0.0865 | 0.3079 | 0.1493 | 0.5151 |
| 33 | 30.73 | 0.06 | C.0617 | 9.9999 | C.0217 | 9.9999 | 0.3525 | 0.5944 | 0.0893 | 0.3110 | 0.1503 | 0.5232 |
| 34 | 30.99 | 0.06 | C.0616 | 9.9999 | C.0211 | 9.9999 | 0.3491 | 0.6217 | 0.0854 | 0.3206 | 0.1374 | C.5157 |
| 35 | 31.28 | C.06 | C.0576 | 9.9999 | C.0186 | 9.9999 | 0.3235 | 0.6277 | 0.0860 | 0.3252 | 0.1371 | 0.5181 |
| 36 | 31.54 | 0.07 | C.0617 | 9.9999 | C.0206 | 9.9999 | 0.3344 | 0.6361 | 0.0749 | 0.3189 | 0.1178 | 0.5013 |
| 37 | 31.82 | C.07 | C.0685 | 9.9999 | C.0236 | 9.9999 | 0.3480 | 0.6425 | 0.0808 | 0.3248 | C.1258 | C.5055 |
| 38 | 32.08 | C.06 | C.0670 | 9.9999 | C.0228 | 9.9999 | 0.3378 | 0.6416 | C.0809 | 0.3290 | 0.1261 | 0.5128 |
| 39 | 32.36 | C.06 | C.0711 | 9.9999 | C.0234 | 9.9999 | 0.3296 | 0.6413 | 0.0751 | 0.3246 | 0.1171 | 0.5062 |
| 40 | 32.61 | C.07 | C.0744 | 9.9999 | C.0262 | 9.9999 | 0.3142 | 0.6313 | 0.0799 | 0.3264 | 0.1266 | 0.5170 |
| 41 | 32.86 | 0.06 | C.0711 | 9.9999 | C.0245 | 9.9999 | 0.3451 | 0.6262 | 0.0832 | 0.3295 | 0.1325 | 0.5245 |
| 42 | 33.11 | C.05 | C.0752 | 9.9999 | C.0234 | 9.9999 | 0.3382 | 0.6197 | 0.0881 | 0.3297 | 0.1422 | 0.5321 |
| 43 | 33.39 | 0.06 | C.0776 | 9.9999 | C.0283 | 9.9999 | 0.3042 | 0.6231 | 0.0876 | 0.3333 | 0.1407 | C.5356 |
| 44 | 33.63 | C.07 | C.0763 | 9.9999 | C.0286 | 9.9999 | 0.3482 | 0.6229 | 0.0879 | 0.3310 | 0.1412 | 0.5314 |
| 45 | 33.87 | C.07 | C.0776 | 9.9999 | C.0283 | 9.9999 | 0.3642 | 0.6412 | 0.0818 | 0.3320 | 0.1276 | 0.5178 |
| 46 | 34.14 | 0.08 | C.0816 | 9.9999 | C.0265 | 9.9999 | 0.3333 | 0.6383 | 0.0815 | 0.3317 | 0.1277 | 0.5157 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 145 0.90 1.7 0.0 BODF15 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.36 | 0.06 | 0.0642 | 9.9999 | 0.0240 | 9.9999 | 0.3744 | 0.6448 | 0.0808 | 0.3346 | 0.1254 | 0.5186 |
| 48 | 34.61 | 0.06 | 0.0626 | 9.9999 | 0.0244 | 9.9999 | 0.3892 | 0.6430 | 0.0763 | 0.3333 | 0.1218 | 0.5184 |
| 49 | 34.87 | 0.05 | 0.0574 | 9.9999 | 0.0207 | 9.9999 | 0.3613 | 0.6458 | 0.0789 | 0.3358 | 0.1222 | 0.5200 |
| 50 | 35.12 | 0.02 | 0.0561 | 9.9999 | 0.0236 | 9.9999 | 0.3925 | 0.6438 | 0.0766 | 0.3342 | 0.1196 | 0.5191 |
| 51 | 35.34 | 0.03 | 0.0532 | 9.9999 | 0.0209 | 9.9999 | 0.3936 | 0.6604 | 0.0744 | 0.3414 | 0.1127 | 0.5176 |
| 52 | 35.59 | 0.03 | 0.0557 | 9.9999 | 0.0234 | 9.9999 | 0.4173 | 0.6620 | 0.0731 | 0.3433 | 0.1104 | 0.5186 |
| 53 | 35.82 | 0.02 | 0.0557 | 9.9999 | 0.0243 | 9.9999 | 0.4370 | 0.6596 | 0.0718 | 0.3417 | 0.1089 | 0.5181 |
| 54 | 36.04 | 0.01 | 0.0516 | 9.9999 | 0.0224 | 9.9999 | 0.4350 | 0.6565 | 0.0686 | 0.3390 | 0.1045 | 0.5133 |
| 55 | 36.29 | 0.01 | 0.0558 | 9.9999 | 0.0255 | 9.9999 | 0.4667 | 0.6748 | 0.0722 | 0.3509 | 0.1070 | 0.5200 |
| 56 | 36.53 | 0.00 | 0.0525 | 9.9999 | 0.0252 | 9.9999 | 0.4773 | 0.6683 | 0.0698 | 0.3460 | 0.1045 | 0.5178 |
| 57 | 36.75 | 0.02 | 0.0487 | 9.9999 | 0.0243 | 9.9999 | 0.5000 | 0.6605 | 0.0695 | 0.3510 | 0.1027 | 0.5158 |
| 58 | 37.01 | 0.03 | 0.0514 | 9.9999 | 0.0261 | 9.9999 | 0.5080 | 0.6973 | 0.0706 | 0.3626 | 0.1013 | 0.5201 |
| 59 | 37.26 | 0.02 | 0.0480 | 9.9999 | 0.0241 | 9.9999 | 0.5251 | 0.7105 | 0.0688 | 0.3655 | 0.0969 | 0.5149 |
| 60 | 37.48 | 0.05 | 0.0514 | 9.9999 | 0.0256 | 9.9999 | 0.4990 | 0.7130 | 0.0668 | 0.3681 | 0.0964 | 0.5158 |
| 61 | 37.74 | 0.05 | 0.0566 | 9.9999 | 0.0291 | 9.9999 | 0.5150 | 0.7126 | 0.0682 | 0.3666 | 0.0929 | 0.5145 |
| 62 | 37.96 | 0.01 | 0.0525 | 9.9999 | 0.0283 | 9.9999 | 0.5401 | 0.7161 | 0.0674 | 0.3696 | 0.0939 | 0.5146 |
| 63 | 38.20 | 0.04 | 0.0496 | 9.9999 | 0.0270 | 9.9999 | 0.5433 | 0.7084 | 0.0620 | 0.3611 | 0.0875 | 0.5098 |
| 64 | 38.48 | 0.02 | 0.0493 | 9.9999 | 0.0259 | 9.9999 | 0.5383 | 0.7226 | 0.0643 | 0.3705 | 0.0890 | 0.5125 |
| 65 | 38.71 | 0.04 | 0.0472 | 9.9999 | 0.0252 | 9.9999 | 0.5350 | 0.7190 | 0.0592 | 0.3648 | 0.0823 | 0.5074 |
| 66 | 38.93 | 0.03 | 0.0444 | 9.9999 | 0.0255 | 9.9999 | 0.5756 | 0.7333 | 0.0552 | 0.3693 | 0.0793 | 0.5035 |
| 67 | 39.19 | 0.05 | 0.0350 | 9.9999 | 0.0213 | 9.9999 | 0.5462 | 0.7456 | 0.0552 | 0.3759 | 0.0740 | 0.5041 |
| 68 | 39.46 | 0.03 | 0.0456 | 9.9999 | 0.0275 | 9.9999 | 0.5553 | 0.7425 | 0.0553 | 0.3734 | 0.0745 | 0.5028 |
| 69 | 39.56 | 0.01 | 0.0430 | 9.9999 | 0.0245 | 9.9999 | 0.5804 | 0.7593 | 0.0524 | 0.3810 | 0.0690 | 0.5017 |
| 70 | 39.78 | 0.02 | 0.0444 | 9.9999 | 0.0255 | 9.9999 | 0.5756 | 0.7605 | 0.0499 | 0.3801 | 0.0656 | 0.4997 |
| 71 | 40.00 | 0.03 | 0.0463 | 9.9999 | 0.0262 | 9.9999 | 0.6018 | 0.7712 | 0.0501 | 0.3861 | 0.0645 | 0.5006 |
| 72 | 40.19 | 0.03 | 0.0471 | 9.9999 | 0.0263 | 9.9999 | 0.5596 | 0.7779 | 0.0461 | 0.3859 | 0.0592 | 0.4961 |
| 73 | 40.40 | 0.02 | 0.0444 | 9.9999 | 0.0250 | 9.9999 | 0.5643 | 0.7795 | 0.0490 | 0.3894 | 0.0628 | 0.4995 |
| 74 | 40.60 | 0.04 | 0.0430 | 9.9999 | 0.0255 | 9.9999 | 0.6057 | 0.7820 | 0.0503 | 0.3915 | 0.0643 | 0.5006 |
| 75 | 40.81 | 0.02 | 0.0382 | 9.9999 | 0.0222 | 9.9999 | 0.6133 | 0.8042 | 0.0487 | 0.4002 | 0.0609 | 0.4976 |
| 76 | 41.02 | 0.03 | 0.0402 | 9.9999 | 0.0236 | 9.9999 | 0.5871 | 0.8157 | 0.0464 | 0.4048 | 0.0595 | 0.4975 |
| 77 | 41.23 | 0.01 | 0.0345 | 9.9999 | 0.0210 | 9.9999 | 0.6017 | 0.8126 | 0.0506 | 0.4043 | 0.0622 | 0.4978 |
| 78 | 41.43 | 0.02 | 0.0431 | 9.9999 | 0.0245 | 9.9999 | 0.5791 | 0.8226 | 0.0513 | 0.4104 | 0.0623 | 0.4989 |
| 79 | 41.61 | 0.05 | 0.0376 | 9.9999 | 0.0218 | 9.9999 | 0.5798 | 0.8099 | 0.0522 | 0.4045 | 0.0644 | 0.4994 |
| 80 | 41.84 | 0.00 | 0.0418 | 9.9999 | 0.0242 | 9.9999 | 0.6003 | 0.8271 | 0.0501 | 0.4153 | 0.0598 | 0.4961 |
| 81 | 42.05 | -0.00 | 0.0282 | 9.9999 | 0.0167 | 9.9999 | 0.5922 | 0.8301 | 0.0519 | 0.4151 | 0.0625 | 0.5001 |
| 82 | 42.22 | 0.03 | 0.0443 | 9.9999 | 0.0236 | 9.9999 | 0.5856 | 0.8252 | 0.0524 | 0.4106 | 0.0635 | 0.4978 |
| 83 | 42.41 | 0.02 | 0.0445 | 9.9999 | 0.0235 | 9.9999 | 0.5743 | 0.8194 | 0.0580 | 0.4124 | 0.0708 | 0.5033 |
| 84 | 42.59 | 0.01 | 0.0463 | 9.9999 | 0.0247 | 9.9999 | 0.6129 | 0.8328 | 0.0557 | 0.4176 | 0.0669 | 0.5014 |
| 85 | 42.78 | 0.03 | 0.0383 | 9.9999 | 0.0217 | 9.9999 | 0.5978 | 0.8333 | 0.0516 | 0.4241 | 0.0604 | 0.4970 |
| 86 | 42.95 | 0.02 | 0.0378 | 9.9999 | 0.0223 | 9.9999 | 0.5931 | 0.8392 | 0.0551 | 0.4179 | 0.0656 | 0.4980 |
| 87 | 43.12 | -0.01 | 0.0350 | 9.9999 | 0.0224 | 9.9999 | 0.5744 | 0.8481 | 0.0529 | 0.4277 | 0.0609 | 0.4927 |
| 88 | 43.32 | -0.01 | 0.0346 | 9.9999 | 0.0232 | 9.9999 | 0.6067 | 0.8483 | 0.0557 | 0.4315 | 0.0641 | 0.4976 |
| 89 | 43.51 | 0.01 | 0.0402 | 9.9999 | 0.0257 | 9.9999 | 0.6393 | 0.8237 | 0.0616 | 0.4133 | 0.0748 | 0.5018 |
| 90 | 43.66 | 0.02 | 0.0348 | 9.9999 | 0.0226 | 9.9999 | 0.6494 | 0.8324 | 0.0564 | 0.4142 | 0.0677 | 0.4978 |
| 91 | 43.85 | 0.01 | 0.0348 | 9.9999 | 0.0232 | 9.9999 | 0.6667 | 0.8753 | 0.0443 | 0.4268 | 0.0506 | 0.4878 |
| 92 | 44.03 | 0.02 | 0.0385 | 9.9999 | 0.0240 | 9.9999 | 0.6170 | 0.8485 | 0.0610 | 0.4195 | 0.0719 | 0.4944 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASKCT 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 145 0.6C 1.7 C.C BIKOF 1> C.C 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.20 | 0.00 | 0.0227 | 5.5555 | 0.0195 | 5.9999 | 0.7453 | 0.8615 | 0.0596 | 0.4293 | 0.0692 | 0.4584 |
| 94 | 44.41 | 0.00 | 0.0421 | 5.5555 | 0.0266 | 5.9999 | 0.6947 | 0.8003 | 0.0556 | 0.4312 | 0.0632 | 0.4696 |
| 95 | 44.59 | 0.01 | 0.0350 | 5.5555 | 0.0241 | 5.9999 | 0.6179 | 0.8732 | 0.0576 | 0.4327 | 0.0660 | 0.4958 |
| 96 | 44.78 | 0.01 | 0.0362 | 5.5555 | 0.0242 | 5.9999 | 0.6258 | 0.8718 | 0.0602 | 0.4273 | 0.0691 | 0.4902 |
| 97 | 44.96 | 0.01 | 0.0362 | 5.5555 | 0.0238 | 5.9999 | 0.6575 | 0.8455 | 0.0581 | 0.4375 | 0.0626 | 0.4886 |
| 98 | 45.15 | 0.01 | 0.0417 | 5.5555 | 0.0264 | 5.9999 | 0.6346 | 0.8611 | 0.0601 | 0.4297 | 0.0698 | 0.4921 |
| 99 | 45.33 | 0.02 | 0.0172 | 5.5555 | 0.0170 | 5.9999 | 0.9884 | 0.8921 | 0.0565 | 0.4345 | 0.0633 | 0.4871 |
| 100 | 45.50 | 0.02 | 0.0345 | 5.5555 | 0.0232 | 5.9999 | 0.6646 | 0.8682 | 0.0591 | 0.4337 | 0.0669 | 0.4911 |
| 101 | 45.67 | -0.01 | 0.0383 | 5.5555 | 0.0222 | 5.9999 | 0.6116 | 0.8557 | 0.0585 | 0.4335 | 0.0653 | 0.4845 |
| 102 | 45.85 | -0.02 | 0.0321 | 5.5555 | 0.0230 | 5.9999 | 0.7105 | 0.8958 | 0.0582 | 0.4346 | 0.0629 | 0.4863 |
| 103 | 46.04 | -0.01 | 0.0455 | 5.5555 | 0.0262 | 5.9999 | 0.5663 | 0.8640 | 0.0586 | 0.4356 | 0.0658 | 0.4873 |
| 104 | 46.20 | -0.02 | 0.0367 | 5.5555 | 0.0225 | 5.9999 | 0.7459 | 0.8971 | 0.0586 | 0.4358 | 0.0655 | 0.4858 |
| 105 | 46.35 | -0.00 | 0.0403 | 5.5555 | 0.0253 | 5.9999 | 0.6278 | 0.8846 | 0.0590 | 0.4403 | 0.0652 | 0.4868 |
| 106 | 46.55 | 0.02 | 0.0363 | 5.5555 | 0.0235 | 5.9999 | 0.6564 | 0.8950 | 0.0595 | 0.4363 | 0.0665 | 0.4875 |
| 107 | 46.72 | -0.03 | 0.0145 | 5.5555 | 0.0146 | 5.9999 | 1.0069 | 0.8570 | 0.0567 | 0.4092 | 0.0663 | 0.4775 |
| 108 | 46.90 | -0.02 | 0.0403 | 5.5555 | 0.0247 | 5.9999 | 0.6125 | 0.9113 | 0.0607 | 0.4410 | 0.0666 | 0.4846 |
| 109 | 47.07 | -0.02 | 0.0254 | 5.5555 | 0.0217 | 5.9999 | 0.7381 | 0.9133 | 0.0595 | 0.4355 | 0.0651 | 0.4773 |
| 110 | 47.26 | 0.02 | 0.0457 | 5.5555 | 0.0272 | 5.9999 | 0.5965 | 0.8836 | 0.0547 | 0.4263 | 0.0619 | 0.4848 |
| 111 | 47.44 | -0.03 | 0.0334 | 5.5555 | 0.0230 | 5.9999 | 0.6866 | 0.9031 | 0.0524 | 0.4351 | 0.0585 | 0.4818 |
| 112 | 47.60 | -0.02 | 0.0267 | 5.5555 | 0.0183 | 5.9999 | 0.7181 | 0.8908 | 0.0521 | 0.4256 | 0.0585 | 0.4778 |
| 113 | 47.77 | 0.01 | 0.0348 | 5.5555 | 0.0221 | 5.9999 | 0.6351 | 0.9110 | 0.0578 | 0.4337 | 0.0634 | 0.4761 |
| 114 | 47.95 | -0.03 | 0.0261 | 5.5555 | 0.0189 | 5.9999 | 0.8726 | 0.9049 | 0.0543 | 0.4286 | 0.0600 | 0.4737 |
| 115 | 48.13 | 0.01 | 0.0213 | 5.5555 | 0.0187 | 5.9999 | 0.7840 | 0.8855 | 0.0465 | 0.4125 | 0.0525 | 0.4663 |
| 116 | 48.32 | -0.02 | 0.0335 | 5.5555 | 0.0203 | 5.9999 | 0.6804 | 0.8905 | 0.0575 | 0.3934 | 0.0641 | 0.4636 |
| 117 | 48.49 | -0.01 | 0.0321 | 5.5555 | 0.0228 | 5.9999 | 0.6480 | 0.8710 | 0.0419 | 0.4060 | 0.0481 | 0.4661 |
| 118 | 48.64 | -0.01 | 0.0367 | 5.5555 | 0.0201 | 5.9999 | 0.6547 | 0.8826 | 0.0464 | 0.3933 | 0.0550 | 0.4667 |
| 119 | 48.83 | 0.00 | 0.0253 | 5.5555 | 0.0194 | 5.9999 | 0.8621 | 0.8765 | 0.0374 | 0.3814 | 0.0458 | 0.4671 |
| 120 | 49.00 | -0.01 | 0.0367 | 5.5555 | 0.0212 | 5.9999 | 0.6900 | 0.8627 | 0.0394 | 0.3992 | 0.0456 | 0.4627 |
| 121 | 49.16 | 0.00 | 0.0321 | 5.5555 | 0.0197 | 5.9999 | 0.8137 | 0.8514 | 0.0375 | 0.3947 | 0.0440 | 0.4635 |
| 122 | 49.35 | 0.03 | 0.0443 | 5.5555 | 0.0254 | 5.9999 | 0.5747 | 0.8190 | 0.0319 | 0.3807 | 0.0389 | 0.4648 |
| 123 | 49.54 | 0.05 | 0.0538 | 5.5555 | 0.0300 | 5.9999 | 0.5567 | 0.8447 | 0.0318 | 0.3893 | 0.0376 | 0.4608 |
| 124 | 49.75 | 0.03 | 0.0367 | 5.5555 | 0.0235 | 5.9999 | 0.6176 | 0.7605 | 0.0381 | 0.3557 | 0.0500 | 0.4677 |
| 125 | 49.90 | 0.04 | 0.0429 | 5.5555 | 0.0242 | 5.9999 | 0.5854 | 0.7835 | 0.0382 | 0.3647 | 0.0487 | 0.4656 |
| 126 | 50.09 | 0.01 | 0.0430 | 5.5555 | 0.0237 | 5.9999 | 0.5924 | 0.7957 | 0.0392 | 0.3680 | 0.0493 | 0.4636 |
| 127 | 50.26 | -0.00 | 0.0457 | 5.5555 | 0.0265 | 5.9999 | 0.5423 | 0.7851 | 0.0378 | 0.3677 | 0.0481 | 0.4683 |
| 128 | 50.41 | 0.00 | 0.0362 | 5.5555 | 0.0194 | 5.9999 | 0.5355 | 0.8040 | 0.0397 | 0.3739 | 0.0493 | 0.4650 |
| 129 | 50.58 | 0.03 | 0.0470 | 5.5555 | 0.0248 | 5.9999 | 0.5245 | 0.7938 | 0.0368 | 0.3741 | 0.0488 | 0.4712 |
| 130 | 50.76 | 0.04 | 0.0443 | 5.5555 | 0.0243 | 5.9999 | 0.5446 | 0.7971 | 0.0380 | 0.3715 | 0.0476 | 0.4665 |
| 131 | 50.95 | 0.07 | 0.0417 | 5.5555 | 0.0215 | 5.9999 | 0.5168 | 0.7843 | 0.0380 | 0.3678 | 0.0458 | 0.4685 |
| 132 | 51.09 | 0.04 | 0.0423 | 5.5555 | 0.0266 | 5.9999 | 0.5096 | 0.7894 | 0.0384 | 0.3709 | 0.0486 | 0.4698 |
| 133 | 51.29 | 0.05 | 0.0443 | 5.5555 | 0.0218 | 5.9999 | 0.4887 | 0.7822 | 0.0375 | 0.3680 | 0.0479 | 0.4704 |
| 134 | 51.48 | 0.02 | 0.0385 | 5.5555 | 0.0202 | 5.9999 | 0.5193 | 0.7709 | 0.0378 | 0.3650 | 0.0456 | 0.4709 |
| 135 | 51.65 | -0.00 | 0.0324 | 5.5555 | 0.0265 | 5.9999 | 0.4778 | 0.7648 | 0.0382 | 0.3588 | 0.0459 | 0.4696 |
| 136 | 51.81 | 0.04 | 0.0324 | 5.5555 | 0.0206 | 5.9999 | 0.4971 | 0.7654 | 0.0370 | 0.3586 | 0.0483 | 0.4685 |
| 137 | 51.99 | 0.04 | 0.0483 | 5.5555 | 0.0236 | 5.9999 | 0.4772 | 0.7609 | 0.0371 | 0.3555 | 0.0487 | 0.4672 |
| 138 | 52.14 | 0.05 | 0.0443 | 5.5555 | 0.0222 | 5.9999 | 0.5023 | 0.7418 | 0.0349 | 0.3497 | 0.0470 | 0.4715 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 145 MACH 0.SC RX1C-6 1.7 PHI C.C CONF 61bcF15 L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | Cm3 | CB3 | XCPF3 | YCPF3 | CNF4 | Cm4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.31 | 0.08 | 0.0457 | 5.9999 | 0.0237 | 5.9999 | 0.4770 | 0.7433 | 0.0349 | 0.3481 | 0.0469 | 0.4683 |
| 140 | 52.48 | 0.04 | 0.0537 | 5.9999 | 0.0286 | 5.9999 | 0.4965 | 0.7414 | 0.0327 | 0.3476 | 0.044C | C.4685 |
| 141 | 52.63 | 0.05 | 0.0537 | 5.9999 | 0.0261 | 5.9999 | 0.4869 | 0.7393 | 0.0334 | 0.3475 | 0.0451 | 0.4701 |
| 142 | 52.79 | 0.08 | 0.0577 | 5.9999 | 0.0286 | 5.9999 | 0.4965 | 0.7409 | 0.0334 | 0.3476 | 0.0450 | 0.4692 |
| 143 | 52.96 | 0.06 | 0.0551 | 5.9999 | 0.0257 | 5.9999 | 0.4873 | 0.7397 | 0.0326 | 0.3483 | 0.0440 | 0.4682 |
| 144 | 53.14 | 0.02 | 0.0537 | 5.9999 | 0.0286 | 5.9999 | 0.4965 | 0.7520 | 0.0324 | 0.3494 | 0.043C | 0.4647 |
| 145 | 53.30 | 0.06 | 0.0537 | 5.9999 | 0.0286 | 5.9999 | 0.4963 | 0.7494 | 0.0315 | 0.3491 | 0.0426 | 0.4659 |
| 146 | 53.46 | 0.03 | 0.0443 | 5.9999 | 0.0216 | 5.9999 | 0.4667 | 0.7512 | 0.0338 | 0.3518 | 0.0446 | 0.4683 |
| 147 | 53.63 | 0.03 | 0.0537 | 5.9999 | 0.0286 | 5.9999 | 0.4963 | 0.7467 | 0.0330 | 0.3533 | 0.043C | 0.4668 |
| 148 | 53.78 | 0.04 | 0.0577 | 5.9999 | 0.0286 | 5.9999 | 0.4965 | 0.7509 | 0.0315 | 0.3535 | 0.0416 | 0.4671 |
| 149 | 53.93 | 0.01 | 0.0511 | 5.9999 | 0.0232 | 5.9999 | 0.4667 | 0.7645 | 0.0315 | 0.3541 | 0.0411 | 0.4632 |
| 150 | 54.09 | 0.07 | 0.0476 | 5.9999 | 0.0234 | 5.9999 | 0.4969 | 0.7776 | 0.0324 | 0.3591 | 0.0416 | 0.4618 |
| 151 | 54.24 | 0.07 | 0.0525 | 5.9999 | 0.0250 | 5.9999 | 0.4771 | 0.7748 | 0.0317 | 0.3592 | 0.0409 | 0.4637 |
| 152 | 54.40 | 0.02 | 0.0551 | 5.9999 | 0.0283 | 5.9999 | 0.4702 | 0.7703 | 0.0306 | 0.3593 | 0.0394 | 0.4617 |
| 153 | 54.56 | 0.04 | 0.0457 | 5.9999 | 0.0242 | 5.9999 | 0.4879 | 0.7920 | 0.0310 | 0.3684 | 0.0391 | 0.4651 |
| 154 | 54.70 | 0.03 | 0.0443 | 5.9999 | 0.0233 | 5.9999 | 0.5271 | 0.7604 | 0.0297 | 0.3632 | 0.0378 | 0.4619 |
| 155 | 54.88 | 0.03 | 0.0578 | 5.9999 | 0.0286 | 5.9999 | 0.4957 | 0.7943 | 0.0291 | 0.3665 | 0.0367 | 0.4615 |
| 156 | 55.02 | 0.07 | 0.0418 | 5.9999 | 0.0205 | 5.9999 | 0.5036 | 0.8153 | 0.0314 | 0.3757 | 0.0385 | 0.4619 |
| 157 | 55.17 | 0.05 | 0.0551 | 5.9999 | 0.0286 | 5.9999 | 0.4873 | 0.8102 | 0.0278 | 0.3754 | 0.0344 | 0.4633 |
| 158 | 55.32 | 0.05 | 0.0444 | 5.9999 | 0.0201 | 5.9999 | 0.4937 | 0.7976 | 0.0284 | 0.3718 | 0.0357 | 0.4661 |
| 159 | 55.48 | 0.05 | 0.0417 | 5.9999 | 0.0158 | 5.9999 | 0.4760 | 0.8503 | 0.0278 | 0.3964 | 0.0328 | 0.4663 |
| 160 | 55.63 | 0.01 | 0.0538 | 5.9999 | 0.0236 | 5.9999 | 0.4757 | 0.8041 | 0.0272 | 0.4008 | 0.0315 | 0.4638 |
| 161 | 55.81 | 0.05 | 0.0443 | 5.9999 | 0.0196 | 5.9999 | 0.4279 | 0.8485 | 0.0240 | 0.3980 | 0.0283 | 0.4688 |
| 162 | 55.96 | -0.02 | 0.0444 | 5.9999 | 0.0201 | 5.9999 | 0.4937 | 0.8367 | 0.0238 | 0.4014 | 0.0278 | 0.4686 |
| 163 | 56.09 | 0.01 | 0.0457 | 5.9999 | 0.0234 | 5.9999 | 0.5132 | 0.8567 | 0.0232 | 0.4001 | 0.0271 | 0.4676 |
| 164 | 56.26 | 0.04 | 0.0431 | 5.9999 | 0.0216 | 5.9999 | 0.5063 | 0.8008 | 0.0236 | 0.4113 | 0.0274 | 0.4734 |
| 165 | 56.42 | -0.00 | 0.0458 | 5.9999 | 0.0218 | 5.9999 | 0.4770 | 0.8633 | 0.0230 | 0.4051 | 0.0267 | 0.4694 |
| 166 | 56.57 | 0.02 | 0.0458 | 5.9999 | 0.0216 | 5.9999 | 0.4770 | 0.8527 | 0.0226 | 0.4013 | 0.0258 | 0.4706 |
| 167 | 56.71 | 0.02 | 0.0431 | 5.9999 | 0.0205 | 5.9999 | 0.4767 | 0.8565 | 0.0206 | 0.4008 | 0.0241 | 0.4686 |
| 168 | 56.88 | -0.01 | 0.0456 | 5.9999 | 0.0166 | 5.9999 | 0.4769 | 0.8697 | 0.0212 | 0.4063 | 0.0244 | 0.4672 |
| 169 | 57.03 | 0.00 | 0.0350 | 5.9999 | 0.0157 | 5.9999 | 0.5051 | 0.8656 | 0.0199 | 0.4064 | 0.0230 | 0.4694 |
| 170 | 57.18 | -0.01 | 0.0445 | 5.9999 | 0.0223 | 5.9999 | 0.5023 | 0.8028 | 0.0197 | 0.4033 | 0.0229 | 0.4674 |
| 171 | 57.31 | -0.02 | 0.0445 | 5.9999 | 0.0207 | 5.9999 | 0.4662 | 0.8415 | 0.0193 | 0.3994 | 0.0230 | 0.4698 |
| 172 | 57.48 | -0.00 | 0.0444 | 5.9999 | 0.0233 | 5.9999 | 0.5200 | 0.8793 | 0.0173 | 0.4081 | 0.0157 | 0.4641 |
| 173 | 57.61 | -0.06 | 0.0418 | 5.9999 | 0.0155 | 5.9999 | 0.4772 | 0.8926 | 0.0217 | 0.4137 | 0.0246 | 0.4636 |
| 174 | 57.78 | -0.07 | 0.0418 | 5.9999 | 0.0216 | 5.9999 | 0.5036 | 0.8815 | 0.0191 | 0.4097 | 0.0217 | 0.4648 |
| 175 | 57.91 | -0.12 | 0.0322 | 5.9999 | 0.0175 | 5.9999 | 0.5435 | 0.8892 | 0.0190 | 0.4131 | 0.0214 | 0.4648 |
| 176 | 58.05 | -0.09 | 0.0364 | 5.9999 | 0.0174 | 5.9999 | 0.4780 | 0.8512 | 0.0178 | 0.3998 | 0.0205 | 0.4657 |
| 177 | 58.13 | -0.12 | 0.0310 | 5.9999 | 0.0155 | 5.9999 | 0.5129 | 0.8435 | 0.0178 | 0.3967 | 0.0211 | 0.4675 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 6

MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 146 MACH 1.60 RX10-6 1.7 PHI 0.0 CONF BLANK 15 C 0.0 DELT 0 DELZ -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.83 | 0.04 | -2.1583 | 8.1452 | 0.0318 | -0.0452 | 0.0025 | 0.9840 | 0.2621 | 0.7219 | -3.7052 |
| 2 | -5.84 | 0.01 | -2.1592 | 8.1516 | -0.0035 | -0.0121 | 0.0024 | 0.9857 | 0.2628 | 0.7229 | -3.6975 |
| 3 | -5.84 | 0.02 | -2.1602 | 8.1585 | -0.0035 | -0.0121 | 0.0024 | 0.9767 | 0.2594 | 0.7173 | -3.7060 |
| 4 | -5.85 | 0.02 | -2.1611 | 8.2154 | -0.0283 | -0.0193 | 0.0010 | 0.9708 | 0.2601 | 0.7167 | -3.7018 |
| 5 | -4.96 | 0.01 | -1.9346 | 7.0785 | 0.0186 | -0.0535 | 0.0028 | 0.9495 | 0.2620 | 0.7075 | -3.6692 |
| 6 | -3.13 | 0.02 | -1.4067 | 7.2508 | 0.0166 | -0.0546 | 0.0041 | 0.9083 | 0.2616 | 0.6871 | -4.1041 |
| 7 | -1.39 | 0.02 | -1.4712 | 8.4536 | 0.0426 | -0.0703 | 0.0095 | 0.8479 | 0.2065 | 0.6414 | -4.4139 |
| 8 | 0.47 | 0.02 | -1.1466 | 9.6754 | -0.0602 | -0.0518 | 0.0038 | 0.7768 | 0.1913 | 0.5875 | -4.6566 |
| 9 | 2.29 | 0.02 | -0.8645 | 4.5588 | 0.0407 | -0.0563 | 0.0043 | 0.7165 | 0.1769 | 0.5396 | -5.6663 |
| 10 | 4.09 | 0.02 | -0.5376 | 4.0908 | 0.0364 | -0.1102 | 0.0100 | 0.6427 | 0.1588 | 0.4860 | -7.6053 |
| 11 | 5.93 | 0.03 | -0.2671 | 3.4414 | 0.0755 | -0.1301 | 0.0052 | 0.5980 | 0.1606 | 0.4374 | -12.8824 |
| 12 | 7.82 | 0.02 | 0.0355 | 2.7837 | 0.0041 | -0.0258 | 0.0114 | 0.5467 | 0.1685 | 0.3782 | 69.2250 |
| 13 | 9.61 | 0.02 | 0.3456 | 2.1419 | 0.0183 | -0.0566 | 0.0179 | 0.5038 | 0.1745 | 0.3293 | 8.1376 |
| 14 | 11.52 | 0.02 | 0.6701 | 1.5404 | -0.0313 | -0.0511 | 0.0127 | 0.4657 | 0.1802 | 0.2855 | 2.2988 |
| 15 | 13.37 | 0.02 | 0.9669 | 1.0567 | -0.0176 | -0.0237 | 0.0136 | 0.4204 | 0.1793 | 0.2411 | 1.1112 |
| 16 | 15.30 | 0.02 | 1.2104 | 0.7756 | 0.0037 | 0.1330 | 0.0191 | 0.3841 | 0.1813 | 0.2028 | 0.5919 |
| 17 | 17.27 | 0.02 | 1.4293 | 0.4047 | -0.0752 | 0.2905 | 0.0204 | 0.3537 | 0.1926 | 0.1611 | 0.2484 |
| 18 | 19.18 | 0.02 | 1.6393 | -0.1667 | -0.0564 | 0.3839 | 0.0213 | 0.3101 | 0.2076 | 0.1025 | -0.0396 |
| 19 | 21.12 | 0.02 | 1.8528 | -0.4088 | -0.1135 | 0.5041 | 0.0183 | 0.2604 | 0.2164 | 0.0440 | -0.1911 |
| 20 | 23.11 | 0.00 | 2.0900 | -0.7065 | -0.0306 | 0.5525 | -0.0121 | 0.2011 | 0.2176 | -0.0167 | -0.2460 |
| 21 | 25.06 | 0.01 | 2.3161 | -0.9602 | -0.2132 | 0.7338 | -0.0143 | 0.1314 | 0.2117 | -0.0803 | -0.2536 |
| 22 | 27.08 | 0.07 | 2.5359 | -1.2322 | 0.7236 | -1.7126 | 0.0516 | 0.0762 | 0.2151 | -0.1369 | -0.2090 |
| 23 | 28.04 | 0.06 | 2.6582 | -1.3163 | 0.6205 | -1.4133 | 0.0401 | 0.0416 | 0.2121 | -0.1765 | -0.2169 |
| 24 | 28.15 | 0.06 | 2.7466 | -1.3347 | 0.6705 | -1.6182 | 0.0646 | 0.0361 | 0.2121 | -0.1760 | -0.1972 |
| 25 | 28.53 | 0.07 | 2.8151 | -1.3675 | 0.7306 | -1.6184 | 0.0587 | 0.0271 | 0.2113 | -0.1842 | -0.2091 |
| 26 | 28.65 | 0.07 | 2.8561 | -1.3938 | 0.8251 | -1.5403 | 0.0530 | 0.0225 | 0.2110 | -0.1885 | -0.1963 |
| 27 | 29.13 | 0.06 | 3.0515 | -1.5234 | 0.8291 | -1.8123 | 0.0659 | 0.0152 | 0.2106 | -0.1954 | -0.1709 |
| 28 | 29.44 | 0.09 | 3.1066 | -1.5741 | 0.8615 | -1.8831 | 0.0607 | 0.0045 | 0.2102 | -0.2057 | -0.1701 |
| 29 | 29.74 | 0.08 | 3.2273 | -1.6524 | 0.7552 | -1.4207 | 0.0428 | -0.0101 | 0.2098 | -0.2199 | -0.1768 |
| 30 | 30.01 | 0.09 | 3.2742 | -1.6966 | 0.9200 | -2.0656 | 0.0576 | -0.0050 | 0.2102 | -0.2132 | -0.1877 |
| 31 | 30.30 | 0.08 | 3.4670 | -1.8051 | 0.8228 | -1.7237 | 0.0384 | -0.0181 | 0.2114 | -0.2255 | -0.1590 |
| 32 | 30.56 | 0.09 | 3.5361 | -1.8613 | 0.9269 | -1.7557 | 0.0503 | -0.0296 | 0.2090 | -0.2386 | -0.1556 |
| 33 | 30.86 | 0.09 | 3.7062 | -1.9473 | 0.9345 | -1.9317 | 0.0572 | -0.0441 | 0.2117 | -0.2556 | -0.1486 |
| 34 | 31.11 | 0.05 | 3.7454 | -1.9803 | 0.8917 | -1.8707 | 0.0570 | -0.0536 | 0.2090 | -0.2626 | -0.1508 |
| 35 | 31.40 | 0.07 | 3.8263 | -2.0712 | 0.7024 | -1.5267 | 0.0393 | -0.0661 | 0.2087 | -0.2728 | -0.1495 |
| 36 | 31.67 | 0.07 | 3.9252 | -2.0880 | 0.8807 | -1.8652 | 0.0396 | -0.0669 | 0.2084 | -0.2733 | -0.1500 |
| 37 | 31.94 | 0.07 | 3.9347 | -2.0963 | 0.8142 | -1.7627 | 0.0457 | -0.0735 | 0.2082 | -0.2787 | -0.1518 |
| 38 | 32.21 | 0.07 | 4.1143 | -2.2014 | 0.9458 | -1.9193 | 0.0396 | -0.0905 | 0.2079 | -0.2935 | -0.1343 |
| 39 | 32.47 | 0.06 | 4.2244 | -2.2564 | 0.9852 | -1.9373 | 0.0290 | -0.0941 | 0.2044 | -0.2986 | -0.1536 |
| 40 | 32.73 | 0.06 | 4.3477 | -2.3211 | 0.9714 | -1.9448 | 0.0411 | -0.1038 | 0.2029 | -0.3067 | -0.1546 |
| 41 | 33.00 | 0.05 | 4.4554 | -2.3905 | 0.9693 | -1.9596 | 0.0175 | -0.1143 | 0.2033 | -0.3176 | -0.1534 |
| 42 | 33.25 | 0.06 | 4.5617 | -2.4477 | 0.9702 | -1.9647 | 0.0299 | -0.1266 | 0.2044 | -0.3316 | -0.1587 |
| 43 | 33.49 | 0.06 | 4.6651 | -2.5055 | 0.9827 | -1.9760 | 0.0420 | -0.1186 | 0.2051 | -0.3237 | -0.1679 |
| 44 | 33.75 | 0.05 | 4.7516 | -2.5636 | 0.9752 | -1.9286 | 0.0415 | -0.1388 | 0.2025 | -0.3413 | -0.1519 |
| 45 | 34.01 | 0.06 | 4.8668 | -2.6475 | 0.9397 | -1.9231 | 0.0670 | -0.1310 | 0.2070 | -0.3380 | -0.1372 |
| 46 | 34.26 | 0.06 | 4.9734 | -2.7371 | 0.9174 | -1.9603 | 0.0665 | -0.1414 | 0.2033 | -0.3447 | -0.1487 |

PARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 146 | 1.00 | 1.7 | 0.0 | B150F15 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CA | CAM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.05 | 7.0862 | -0.9081 | 0.4153 | -0.8025 | 0.0551 | -0.1498 | 0.2052 | -0.3550 | -0.1280 |
| 48 | 34.75 | 0.07 | 7.1315 | -0.0513 | 0.4154 | -1.1450 | 0.0968 | -0.1404 | 0.2081 | -0.3485 | -0.1250 |
| 49 | 35.01 | 0.05 | 7.2726 | -0.8345 | 0.4016 | -0.6575 | 0.0731 | -0.1544 | 0.2034 | -0.3578 | -0.1148 |
| 50 | 35.24 | 0.05 | 7.3240 | -0.7963 | 0.4506 | -0.6255 | 0.0911 | -0.1501 | 0.2048 | -0.3549 | -0.1079 |
| 51 | 35.47 | 0.04 | 7.4388 | -0.7714 | 0.3825 | -0.5687 | 0.0853 | -0.1598 | 0.1974 | -0.3572 | -0.1037 |
| 52 | 35.73 | 0.05 | 7.5166 | -0.7121 | 0.5773 | -0.5056 | 0.0760 | -0.1591 | 0.2034 | -0.3625 | -0.1028 |
| 53 | 35.97 | 0.05 | 7.6160 | -0.7021 | 0.4534 | -0.6004 | 0.0744 | -0.1761 | 0.1967 | -0.3728 | -0.0922 |
| 54 | 36.18 | 0.04 | 7.6660 | -0.6858 | 0.4505 | -0.6513 | 0.0606 | -0.1726 | 0.1945 | -0.3671 | -0.0874 |
| 55 | 36.45 | 0.04 | 7.8491 | -0.7285 | 0.3570 | -0.7029 | 0.0871 | -0.1660 | 0.1949 | -0.3609 | -0.0926 |
| 56 | 36.69 | 0.04 | 7.8757 | -0.7366 | 0.4566 | -0.7274 | 0.0755 | -0.1657 | 0.1925 | -0.3782 | -0.0928 |
| 57 | 36.89 | 0.01 | 7.8455 | -0.7146 | 0.1578 | -0.2022 | 0.0458 | -0.1667 | 0.1824 | -0.3711 | -0.0504 |
| 58 | 37.17 | 0.04 | 8.1061 | -0.7355 | 0.4197 | -0.5502 | 0.0703 | -0.2102 | 0.1847 | -0.3949 | -0.0913 |
| 59 | 37.39 | 0.03 | 8.1818 | -0.6562 | 0.3257 | -0.5865 | 0.0475 | -0.2080 | 0.1828 | -0.3908 | -0.0851 |
| 60 | 37.61 | 0.06 | 8.2355 | -0.6561 | 0.6024 | -0.9451 | 0.1004 | -0.2038 | 0.1840 | -0.3878 | -0.0981 |
| 61 | 37.87 | 0.03 | 8.4216 | -0.8064 | 0.3336 | -0.5294 | 0.0540 | -0.2266 | 0.1826 | -0.4050 | -0.0955 |
| 62 | 38.10 | 0.04 | 8.5428 | -0.8062 | 0.5037 | -0.5131 | 0.1187 | -0.2121 | 0.1918 | -0.4035 | -0.0974 |
| 63 | 38.32 | 0.05 | 8.5823 | -0.8325 | 0.6053 | -1.0693 | 0.1135 | -0.2133 | 0.1855 | -0.3988 | -0.0971 |
| 64 | 38.56 | 0.05 | 8.8359 | -0.9061 | 0.6257 | -1.1262 | 0.0903 | -0.2326 | 0.1885 | -0.4211 | -0.1042 |
| 65 | 38.79 | 0.05 | 8.7556 | -0.9048 | 0.5895 | -0.9534 | 0.1138 | -0.2304 | 0.1833 | -0.4197 | -0.1102 |
| 66 | 38.99 | 0.04 | 8.8575 | -0.9021 | 0.4761 | -0.8742 | 0.0799 | -0.2304 | 0.1773 | -0.4337 | -0.1109 |
| 67 | 39.21 | 0.06 | 8.8254 | -0.9026 | 0.7516 | -1.1279 | 0.1210 | -0.2390 | 0.1856 | -0.4246 | -0.1023 |
| 68 | 39.44 | 0.03 | 8.9541 | -0.9021 | 0.5147 | -0.9342 | 0.0922 | -0.2370 | 0.1773 | -0.4343 | -0.1036 |
| 69 | 39.63 | 0.02 | 9.0378 | -0.9027 | 0.3477 | -0.6574 | 0.0574 | -0.2717 | 0.1755 | -0.4472 | -0.1065 |
| 70 | 39.86 | 0.05 | 9.1415 | -0.9144 | 0.6555 | -0.9808 | 0.1393 | -0.2519 | 0.1842 | -0.4361 | -0.1000 |
| 71 | 40.07 | 0.04 | 9.1485 | -0.9318 | 0.6056 | -1.0349 | 0.1279 | -0.2569 | 0.1853 | -0.4422 | -0.1018 |
| 72 | 40.26 | 0.03 | 9.2635 | -1.0166 | 0.4556 | -0.7404 | 0.1046 | -0.2803 | 0.1782 | -0.4585 | -0.1099 |
| 73 | 40.46 | 0.03 | 9.3350 | -1.0148 | 0.4073 | -0.7224 | 0.0816 | -0.2851 | 0.1726 | -0.4577 | -0.1087 |
| 74 | 40.66 | 0.03 | 9.4495 | -0.9975 | 0.4512 | -0.8035 | 0.0707 | -0.2931 | 0.1733 | -0.4663 | -0.1063 |
| 75 | 40.89 | 0.03 | 9.4915 | -1.0007 | 0.4526 | -0.9244 | 0.0826 | -0.3048 | 0.1784 | -0.4832 | -0.1054 |
| 76 | 41.09 | 0.03 | 9.5760 | -0.9350 | 0.4011 | -0.8440 | 0.1004 | -0.2858 | 0.1766 | -0.4624 | -0.0977 |
| 77 | 41.30 | 0.03 | 9.6134 | -0.9655 | 0.4363 | -0.8303 | 0.0772 | -0.2939 | 0.1713 | -0.4651 | -0.1005 |
| 78 | 41.52 | 0.02 | 9.7004 | -1.0058 | 0.3640 | -0.6999 | 0.0596 | -0.3201 | 0.1786 | -0.4987 | -0.1099 |
| 79 | 41.71 | 0.02 | 9.7581 | -1.1145 | 0.4075 | -0.5718 | 0.0948 | -0.3323 | 0.1764 | -0.5027 | -0.1137 |
| 80 | 41.93 | 0.02 | 9.8304 | -1.0523 | 0.4174 | -0.8006 | 0.0953 | -0.3209 | 0.1768 | -0.4977 | -0.1063 |
| 81 | 42.12 | 0.02 | 9.9107 | -1.0597 | 0.3551 | -0.4314 | 0.1164 | -0.3021 | 0.1771 | -0.4791 | -0.1069 |
| 82 | 42.29 | 0.02 | 9.9664 | -1.1360 | 0.3736 | -0.6807 | 0.0725 | -0.3275 | 0.1721 | -0.4956 | -0.1138 |
| 83 | 42.49 | 0.01 | 10.0350 | -0.9248 | 0.2817 | -0.2405 | 0.1246 | -0.2949 | 0.1804 | -0.4752 | -0.0921 |
| 84 | 42.68 | 0.02 | 10.1063 | -1.0635 | 0.3961 | -0.5311 | 0.0758 | -0.3308 | 0.1726 | -0.5036 | -0.1048 |
| 85 | 42.85 | 0.01 | 10.1614 | -1.0065 | 0.3273 | -0.4850 | 0.0673 | -0.3279 | 0.1718 | -0.4997 | -0.0991 |
| 86 | 43.02 | 0.01 | 10.2366 | -1.1362 | 0.2264 | -0.3266 | 0.0730 | -0.3293 | 0.1786 | -0.5079 | -0.1110 |
| 87 | 43.21 | 0.01 | 10.3266 | -0.9700 | 0.2258 | -0.1534 | 0.1164 | -0.3059 | 0.1896 | -0.4955 | -0.0939 |
| 88 | 43.40 | 0.02 | 10.3758 | -1.0556 | 0.3785 | -0.0598 | 0.0905 | -0.3172 | 0.1810 | -0.4982 | -0.1017 |
| 89 | 43.57 | 0.02 | 10.4052 | -0.9824 | 0.3778 | -0.0688 | 0.0783 | -0.3113 | 0.1784 | -0.4957 | -0.0944 |
| 90 | 43.74 | 0.01 | 10.5225 | -1.0603 | 0.3724 | -0.7206 | 0.0574 | -0.3435 | 0.1768 | -0.5143 | -0.1027 |
| 91 | 43.92 | 0.01 | 10.5571 | -1.0840 | 0.3850 | -0.5230 | 0.0690 | -0.3337 | 0.1762 | -0.5099 | -0.1027 |
| 92 | 44.10 | 0.02 | 10.5149 | -0.9675 | 0.3360 | 0.0755 | 0.0903 | -0.3383 | 0.1782 | -0.5165 | -0.0920 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 146 MACH 1.00 RX10-6 1.7 PHI 0.0 CONF 81M0F15 L 0.6 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.30 | 0.00 | 10.7430 | -1.0557 | 0.3945 | -0.7621 | 0.0525 | -0.3395 | 0.1615 | -0.5210 | -0.0983 |
| 94 | 44.49 | 0.00 | 10.7746 | -1.1073 | 0.4268 | -0.7926 | 0.0470 | -0.3385 | 0.1785 | -0.5170 | -0.1028 |
| 95 | 44.68 | -0.01 | 10.8150 | -1.1476 | 0.2476 | -0.5034 | 0.0761 | -0.3549 | 0.1761 | -0.5310 | -0.1096 |
| 96 | 44.87 | -0.00 | 10.8605 | -1.1852 | 0.3304 | -0.6049 | 0.0706 | -0.3506 | 0.1761 | -0.5327 | -0.1017 |
| 97 | 45.02 | 0.01 | 10.8952 | -1.2091 | 0.4122 | -0.7061 | 0.0765 | -0.3475 | 0.1780 | -0.5255 | -0.0971 |
| 98 | 45.22 | 0.00 | 11.0063 | -1.2515 | 0.3421 | -0.6329 | 0.0684 | -0.3400 | 0.1792 | -0.5192 | -0.0992 |
| 99 | 45.41 | -0.01 | 11.1245 | -1.2938 | 0.2270 | -0.1449 | 0.0863 | -0.3472 | 0.1806 | -0.5266 | -0.0863 |
| 100 | 45.57 | -0.00 | 11.2060 | -1.3522 | 0.2422 | -0.6859 | 0.0822 | -0.3441 | 0.1809 | -0.5250 | -0.0939 |
| 101 | 45.76 | 0.00 | 11.2717 | -0.5575 | 0.2717 | 0.0000 | 0.0880 | -0.3405 | 0.1825 | -0.5230 | -0.0848 |
| 102 | 45.93 | 0.01 | 11.3601 | -1.3829 | 0.3951 | -0.6103 | 0.0781 | -0.3618 | 0.1830 | -0.5418 | -0.0956 |
| 103 | 46.12 | 0.01 | 11.3668 | -1.3504 | 0.4048 | -0.6503 | 0.0825 | -0.3396 | 0.1869 | -0.5265 | -0.0922 |
| 104 | 46.32 | -0.01 | 11.4212 | -0.6177 | 0.0514 | 0.3687 | 0.0870 | -0.3340 | 0.1911 | -0.5251 | -0.0716 |
| 105 | 46.48 | 0.01 | 11.4405 | -0.7085 | 0.2480 | 0.5349 | 0.0868 | -0.3221 | 0.1926 | -0.5147 | -0.0818 |
| 106 | 46.66 | -0.01 | 11.4732 | -0.5013 | 0.1756 | 0.0607 | 0.0868 | -0.2977 | 0.1996 | -0.4973 | -0.0437 |
| 107 | 46.85 | -0.01 | 11.3647 | -0.2770 | 0.2064 | 0.0989 | 0.0869 | -0.3048 | 0.2297 | -0.5345 | -0.0246 |
| 108 | 47.02 | -0.02 | 11.4030 | -0.3605 | 0.0835 | 0.9604 | 0.0868 | -0.2939 | 0.2315 | -0.5254 | -0.0331 |
| 109 | 47.19 | -0.01 | 11.5081 | -0.3573 | 0.1701 | 0.9623 | 0.0828 | -0.2936 | 0.2323 | -0.5261 | -0.0310 |
| 110 | 47.39 | -0.00 | 11.6795 | -0.3862 | 0.2536 | 0.8952 | 0.0815 | -0.2911 | 0.2704 | -0.5615 | -0.0504 |
| 111 | 47.55 | 0.01 | 11.6286 | -1.0673 | 0.3812 | 0.7623 | 0.0571 | -0.2515 | 0.2688 | -0.5406 | -0.0918 |
| 112 | 47.72 | 0.01 | 11.6251 | -1.7078 | 0.3405 | 1.4474 | -0.0096 | -0.1116 | 0.3370 | -0.4485 | -0.1511 |
| 113 | 47.89 | 0.03 | 11.6818 | -1.8567 | 0.4756 | 1.4447 | -0.0149 | -0.0984 | 0.3479 | -0.4462 | -0.1564 |
| 114 | 48.07 | 0.03 | 11.6812 | -1.8267 | 0.5092 | 1.3718 | -0.0149 | -0.1070 | 0.3750 | -0.4820 | -0.1605 |
| 115 | 48.26 | 0.03 | 12.0262 | -2.3444 | 0.5137 | 1.2212 | -0.0132 | -0.0969 | 0.4031 | -0.5000 | -0.2076 |
| 116 | 48.44 | 0.03 | 12.0287 | -2.4961 | 0.5581 | 1.1276 | -0.0128 | -0.0719 | 0.3970 | -0.4884 | -0.2035 |
| 117 | 48.59 | 0.03 | 12.0366 | -2.0026 | 0.5383 | 1.2289 | -0.0076 | -0.0868 | 0.4031 | -0.4899 | -0.2282 |
| 118 | 48.78 | 0.02 | 12.0871 | -3.2394 | 0.5425 | 1.7166 | -0.0258 | -0.1054 | 0.3983 | -0.5037 | -0.2611 |
| 119 | 48.98 | 0.04 | 12.0870 | -3.2452 | 0.5695 | 1.8691 | -0.0260 | -0.1409 | 0.3890 | -0.5299 | -0.2535 |
| 120 | 49.14 | 0.04 | 12.0802 | -3.1866 | 0.6166 | 1.7707 | -0.0250 | -0.1457 | 0.3774 | -0.5211 | -0.2486 |
| 121 | 49.31 | 0.02 | 12.0565 | -3.1705 | 0.3570 | 2.0603 | -0.0263 | -0.1368 | 0.3642 | -0.5210 | -0.2466 |
| 122 | 49.49 | 0.03 | 12.0525 | -3.1624 | 0.4761 | 1.8733 | -0.0305 | -0.1334 | 0.3713 | -0.5047 | -0.2449 |
| 123 | 49.69 | 0.01 | 13.0885 | -3.0750 | 0.2781 | 1.8118 | -0.0292 | -0.1753 | 0.3596 | -0.5349 | -0.2352 |
| 124 | 49.88 | 0.02 | 13.1388 | -3.2228 | 0.3657 | 1.8448 | -0.0343 | -0.1766 | 0.3615 | -0.5381 | -0.2457 |
| 125 | 50.02 | 0.01 | 13.2345 | -3.2353 | 0.3670 | 1.8109 | -0.0233 | -0.1967 | 0.3648 | -0.5615 | -0.2445 |
| 126 | 50.21 | 0.03 | 13.3168 | -3.1313 | 0.7676 | 1.3930 | -0.0051 | -0.1524 | 0.3716 | -0.5240 | -0.2351 |
| 127 | 50.40 | 0.02 | 13.3805 | -3.1456 | 0.3821 | 1.5502 | -0.0011 | -0.1391 | 0.3636 | -0.5027 | -0.2351 |
| 128 | 50.58 | 0.04 | 13.3843 | -3.0749 | 0.5622 | 1.4077 | 0.0354 | -0.1268 | 0.3714 | -0.5002 | -0.2297 |
| 129 | 50.73 | -0.00 | 13.4522 | -3.3420 | 0.1860 | 1.3842 | 0.0256 | -0.1462 | 0.3634 | -0.5096 | -0.2464 |
| 130 | 50.89 | 0.03 | 13.3672 | -2.8447 | 0.4924 | 1.3319 | 0.0398 | -0.1207 | 0.3673 | -0.4940 | -0.2134 |
| 131 | 51.08 | 0.02 | 13.1882 | -2.2527 | 0.3850 | 1.1529 | 0.0720 | -0.1478 | 0.3610 | -0.5088 | -0.1966 |
| 132 | 51.22 | 0.02 | 13.3707 | -2.6815 | 0.3063 | 1.1731 | 0.0567 | -0.1330 | 0.3730 | -0.4759 | -0.2118 |
| 133 | 51.37 | 0.02 | 13.2181 | -2.5331 | 0.3830 | 1.1206 | 0.0761 | -0.1076 | 0.3627 | -0.4706 | -0.1917 |
| 134 | 51.57 | 0.02 | 13.3446 | -2.4210 | 0.3937 | 1.0507 | 0.0815 | -0.0984 | 0.3686 | -0.4669 | -0.1814 |
| 135 | 51.71 | 0.02 | 13.0564 | -2.2516 | 0.3708 | 1.1301 | 0.0779 | -0.0979 | 0.3692 | -0.4670 | -0.1719 |
| 136 | 51.89 | -0.01 | 13.3328 | -2.3756 | 0.1063 | 1.0503 | 0.0641 | -0.1036 | 0.3696 | -0.4731 | -0.1762 |
| 137 | 52.06 | 0.00 | 13.2287 | -1.9278 | 0.2066 | 1.0006 | 0.0621 | -0.1013 | 0.3661 | -0.4673 | -0.1457 |
| 138 | 52.22 | 0.02 | 13.1514 | -1.7416 | 0.4101 | 0.9488 | 0.0676 | -0.0877 | 0.3735 | -0.4612 | -0.1324 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 140 | 1.00 | 1.7 | 0.0 | B180F15 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PLANT | ALPHA | BETA | CN | CLN | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.40 | 0.00 | 13.2250 | -1.6966 | 0.2676 | 1.0204 | 0.0622 | -0.0985 | 0.3683 | -0.4667 | -0.1284 |
| 140 | 52.54 | -0.01 | 13.1404 | -1.7093 | 0.1433 | 0.9726 | 0.0623 | -0.0704 | 0.3773 | -0.4557 | -0.1346 |
| 141 | 52.70 | 0.01 | 13.1434 | -1.6872 | 0.2357 | 0.9541 | 0.0623 | -0.0633 | 0.3880 | -0.4513 | -0.1284 |
| 142 | 52.69 | 0.01 | 13.2561 | -1.7736 | 0.1561 | 0.9494 | 0.0574 | -0.0803 | 0.3880 | -0.4683 | -0.1338 |
| 143 | 53.66 | -0.00 | 13.3255 | -1.8151 | 0.1008 | 0.8575 | 0.0520 | -0.0486 | 0.4224 | -0.4710 | -0.1440 |
| 144 | 53.22 | -0.02 | 13.4021 | -2.1316 | -0.0299 | 0.9200 | 0.0581 | -0.0666 | 0.4204 | -0.4921 | -0.1565 |
| 145 | 53.38 | -0.01 | 13.3273 | -2.0022 | 0.1062 | 0.9649 | 0.0630 | -0.0578 | 0.4291 | -0.4870 | -0.1502 |
| 146 | 53.54 | -0.01 | 13.3689 | -2.0597 | 0.1350 | 0.9150 | 0.0522 | -0.0596 | 0.4339 | -0.4735 | -0.1541 |
| 147 | 53.70 | -0.03 | 13.4325 | -2.1551 | -0.0781 | 0.9337 | 0.0523 | -0.0342 | 0.4385 | -0.4727 | -0.1634 |
| 148 | 53.86 | -0.00 | 13.4589 | -2.2172 | 0.1263 | 0.8891 | 0.0525 | -0.0514 | 0.4405 | -0.4920 | -0.1643 |
| 149 | 54.01 | 0.00 | 13.4655 | -2.2724 | 0.2574 | 0.8775 | 0.0471 | -0.0590 | 0.4536 | -0.4897 | -0.1688 |
| 150 | 54.17 | -0.00 | 13.5108 | -2.3063 | 0.1960 | 0.8191 | 0.0467 | -0.0646 | 0.4513 | -0.5160 | -0.1767 |
| 151 | 54.32 | -0.01 | 13.4754 | -2.4017 | 0.0855 | 0.7993 | 0.0525 | -0.0579 | 0.4546 | -0.5126 | -0.1782 |
| 152 | 54.49 | -0.03 | 13.5420 | -2.4681 | -0.0553 | 0.8551 | 0.0535 | -0.0802 | 0.4532 | -0.5335 | -0.1834 |
| 153 | 54.64 | -0.01 | 13.6328 | -2.4103 | 0.1787 | 0.8735 | 0.0532 | -0.0712 | 0.4577 | -0.5290 | -0.1915 |
| 154 | 54.80 | -0.00 | 13.7311 | -2.4104 | 0.2698 | 0.8621 | 0.0537 | -0.0750 | 0.4523 | -0.5274 | -0.2051 |
| 155 | 54.95 | -0.02 | 13.7503 | -2.3427 | 0.0885 | 0.8130 | 0.0539 | -0.0797 | 0.4605 | -0.5403 | -0.2067 |
| 156 | 55.10 | -0.02 | 13.6307 | -2.2103 | 0.0540 | 0.8004 | 0.0477 | -0.0732 | 0.4629 | -0.5362 | -0.2059 |
| 157 | 55.27 | -0.03 | 13.6945 | -2.3402 | -0.0230 | 0.5745 | 0.0469 | -0.0924 | 0.4660 | -0.5585 | -0.2188 |
| 158 | 55.40 | -0.02 | 13.7978 | -2.3641 | 0.0960 | 0.6278 | 0.0540 | -0.0858 | 0.4696 | -0.5555 | -0.2148 |
| 159 | 55.56 | -0.02 | 13.8785 | -2.3554 | 0.0558 | 0.5866 | 0.0482 | -0.1029 | 0.4765 | -0.5736 | -0.2204 |
| 160 | 55.72 | -0.01 | 13.7772 | -2.2260 | 0.1761 | 0.4065 | 0.0540 | -0.0803 | 0.4716 | -0.5520 | -0.2192 |
| 161 | 55.50 | -0.01 | 14.0033 | -2.2061 | 0.1886 | 0.3981 | 0.0495 | -0.0870 | 0.4721 | -0.5592 | -0.2285 |
| 162 | 56.04 | -0.03 | 13.8965 | -2.1431 | -0.0398 | 0.4883 | 0.0493 | -0.0825 | 0.4788 | -0.5614 | -0.2248 |
| 163 | 56.19 | -0.05 | 13.9840 | -2.1956 | -0.0697 | 0.6195 | 0.0490 | -0.1109 | 0.4822 | -0.5930 | -0.2285 |
| 164 | 56.39 | -0.01 | 14.2725 | -2.2852 | 0.2254 | 0.4047 | 0.0503 | -0.1555 | 0.4666 | -0.6221 | -0.2068 |
| 165 | 56.55 | -0.04 | 14.4258 | -2.3410 | -0.0154 | -0.0180 | 0.0415 | -0.2222 | 0.4027 | -0.6249 | -0.1969 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CLAF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 146 1.06 1.7 0.0 BLKOFF 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.83 | 0.04 | -0.0433 | 0.0008 | 0.0147 | -0.0185 | -0.3493 | -1.1305 | -0.0239 | -0.5188 | 0.0212 | 0.4589 |
| 2 | -5.84 | 0.01 | -0.0422 | 0.0016 | 0.0154 | -0.0238 | -0.3458 | -1.1278 | -0.0240 | -0.5175 | 0.0213 | 0.4586 |
| 3 | -5.84 | 0.02 | -0.0457 | 0.0 | 0.0144 | 0.0 | -0.3158 | -1.1251 | -0.0243 | -0.5156 | 0.0216 | 0.4583 |
| 4 | -5.85 | 0.02 | -0.0444 | 0.0 | 0.0146 | 0.0 | -0.3160 | -1.1305 | -0.0243 | -0.5188 | 0.0215 | 0.4589 |
| 5 | -4.96 | 0.01 | -0.0384 | 0.0006 | 0.0163 | -0.0156 | -0.4245 | -1.0873 | -0.0253 | -0.5016 | 0.0237 | 0.4700 |
| 6 | -3.13 | 0.02 | -0.0322 | 0.0005 | 0.0169 | -0.0133 | -0.5240 | -0.9339 | -0.0171 | -0.4928 | 0.0172 | 0.4958 |
| 7 | -1.39 | 0.02 | -0.0332 | 0.0 | 0.0157 | 0.0 | -0.4729 | -0.8740 | -0.0177 | -0.4435 | 0.0203 | 0.5075 |
| 8 | 0.47 | 0.02 | -0.0319 | 0.0001 | 0.0148 | -0.0031 | -0.4039 | -0.7432 | -0.0196 | -0.3848 | 0.0267 | 0.5177 |
| 9 | 2.29 | 0.02 | -0.0292 | 0.0002 | 0.0135 | -0.0064 | -0.3623 | -0.6068 | -0.0213 | -0.3266 | 0.0352 | 0.5382 |
| 10 | 4.09 | 0.04 | -0.0282 | -0.0012 | 0.0160 | 0.0424 | -0.5087 | -0.4752 | -0.0264 | -0.2637 | 0.0430 | 0.5550 |
| 11 | 5.93 | 0.03 | -0.0364 | -0.0026 | 0.0190 | 0.0677 | -0.4948 | -0.3468 | -0.0152 | -0.2218 | 0.0436 | 0.6358 |
| 12 | 7.82 | 0.02 | -0.0366 | -0.0028 | 0.0192 | 0.0778 | -0.5500 | -0.2340 | -0.0110 | -0.1662 | 0.0471 | 0.7103 |
| 13 | 9.81 | 0.02 | -0.0166 | -0.0014 | 0.0218 | 0.0745 | -1.1596 | -0.1366 | -0.0052 | -0.1132 | 0.0376 | 0.8172 |
| 14 | 11.84 | 0.02 | -0.0331 | -0.0012 | 0.0153 | 0.0363 | -0.4068 | -0.0459 | 0.0015 | -0.0700 | -0.0361 | 1.4036 |
| 15 | 13.87 | 0.02 | -0.0481 | -0.0005 | 0.0146 | 0.0104 | -0.3042 | 0.0206 | 0.0067 | -0.0360 | 0.2492 | -1.3383 |
| 16 | 15.90 | 0.02 | -0.0578 | -0.0024 | 0.0133 | 0.0410 | -0.2305 | 0.0879 | 0.0179 | -0.0123 | 0.2040 | -0.1401 |
| 17 | 17.87 | 0.02 | -0.0557 | -0.0032 | 0.0171 | 0.0376 | -0.3076 | 0.1326 | 0.0261 | 0.0115 | 0.2123 | 0.0865 |
| 18 | 19.18 | 0.02 | -0.0745 | -0.0079 | 0.0145 | 0.1057 | -0.1992 | 0.2023 | 0.0395 | 0.0501 | 0.1570 | 0.2474 |
| 19 | 21.12 | 0.02 | -0.1002 | -0.0120 | 0.0205 | 0.1199 | -0.0350 | 0.2698 | 0.0480 | 0.0865 | 0.1778 | 0.3206 |
| 20 | 23.11 | 0.06 | -0.1035 | -0.0165 | -0.0474 | 0.0626 | 0.2575 | 0.3501 | 0.0535 | 0.1175 | 0.1582 | 0.3476 |
| 21 | 25.06 | 0.01 | -0.1065 | -0.0201 | -0.0267 | 0.0759 | 0.2500 | 0.4373 | 0.0582 | 0.1751 | 0.1331 | 0.4004 |
| 22 | 27.06 | 0.07 | 0.2783 | 0.0273 | 0.1510 | 0.0402 | 0.5424 | 0.0207 | 0.0508 | 0.2588 | 0.0818 | 0.4170 |
| 23 | 28.04 | 0.08 | 0.1762 | 0.0182 | 0.1060 | 0.1034 | 0.6017 | 0.0080 | 0.0539 | 0.2525 | 0.0886 | 0.4153 |
| 24 | 28.15 | 0.05 | 0.2140 | 0.0187 | 0.1335 | 0.0655 | 0.6095 | 0.0210 | 0.0536 | 0.2595 | 0.0862 | 0.4175 |
| 25 | 28.53 | 0.07 | 0.2326 | 0.0196 | 0.1334 | 0.0844 | 0.5734 | 0.0420 | 0.0534 | 0.2672 | 0.0832 | 0.4163 |
| 26 | 28.85 | 0.07 | 0.2041 | 0.0165 | 0.1178 | 0.0917 | 0.5830 | 0.0458 | 0.0543 | 0.2708 | 0.0841 | 0.4194 |
| 27 | 29.13 | 0.08 | 0.2425 | 0.0205 | 0.1365 | 0.0862 | 0.5742 | 0.0620 | 0.0544 | 0.2761 | 0.0822 | 0.4201 |
| 28 | 29.49 | 0.05 | 0.2037 | 0.0167 | 0.1225 | 0.0909 | 0.5896 | 0.0691 | 0.0546 | 0.2821 | 0.0788 | 0.4214 |
| 29 | 29.74 | 0.08 | 0.1839 | 0.0165 | 0.1055 | 0.0899 | 0.5738 | 0.0697 | 0.0575 | 0.2803 | 0.0858 | 0.4181 |
| 30 | 30.01 | 0.05 | 0.3302 | 0.0291 | 0.1742 | 0.0883 | 0.5276 | 0.7133 | 0.0545 | 0.3014 | 0.0764 | 0.4232 |
| 31 | 30.30 | 0.08 | 0.2313 | 0.0207 | 0.1225 | 0.0856 | 0.5312 | 0.7130 | 0.0573 | 0.2999 | 0.0804 | 0.4206 |
| 32 | 30.50 | 0.09 | 0.1665 | 0.0157 | 0.1012 | 0.0953 | 0.6007 | 0.7016 | 0.0594 | 0.2940 | 0.0847 | 0.4196 |
| 33 | 30.86 | 0.09 | 0.2822 | 0.0253 | 0.1444 | 0.0898 | 0.5115 | 0.7356 | 0.0571 | 0.3113 | 0.0776 | 0.4232 |
| 34 | 31.11 | 0.09 | 0.2319 | 0.0206 | 0.1251 | 0.0892 | 0.5405 | 0.7299 | 0.0589 | 0.3063 | 0.0807 | 0.4237 |
| 35 | 31.40 | 0.07 | 0.2162 | 0.0202 | 0.1262 | 0.0904 | 0.5460 | 0.7407 | 0.0594 | 0.3140 | 0.0802 | 0.4239 |
| 36 | 31.67 | 0.07 | 0.1967 | 0.0176 | 0.1161 | 0.0850 | 0.5758 | 0.7379 | 0.0600 | 0.3111 | 0.0813 | 0.4216 |
| 37 | 31.94 | 0.07 | 0.1712 | 0.0139 | 0.0986 | 0.0810 | 0.5589 | 0.7546 | 0.0584 | 0.3189 | 0.0774 | 0.4227 |
| 38 | 32.21 | 0.07 | 0.1785 | 0.0167 | 0.0972 | 0.0935 | 0.5434 | 0.7705 | 0.0561 | 0.3278 | 0.0754 | 0.4254 |
| 39 | 32.47 | 0.06 | 0.1747 | 0.0181 | 0.0917 | 0.1038 | 0.5249 | 0.7799 | 0.0576 | 0.3322 | 0.0739 | 0.4260 |
| 40 | 32.73 | 0.06 | 0.1443 | 0.0156 | 0.0785 | 0.1097 | 0.5302 | 0.7908 | 0.0573 | 0.3369 | 0.0725 | 0.4261 |
| 41 | 33.00 | 0.05 | 0.0363 | 0.0100 | 0.0227 | 0.0756 | 0.6253 | 0.7783 | 0.0596 | 0.3305 | 0.0766 | 0.4247 |
| 42 | 33.25 | 0.06 | 0.0703 | 0.0144 | 0.0381 | 0.1474 | 0.5297 | 0.7934 | 0.0583 | 0.3366 | 0.0735 | 0.4243 |
| 43 | 33.49 | 0.06 | 0.1317 | 0.0125 | 0.0594 | 0.0551 | 0.5270 | 0.8044 | 0.0568 | 0.3412 | 0.0706 | 0.4242 |
| 44 | 33.75 | 0.05 | 0.0756 | 0.0051 | 0.0480 | 0.1145 | 0.6029 | 0.7974 | 0.0585 | 0.3386 | 0.0734 | 0.4247 |
| 45 | 34.01 | 0.06 | 0.1040 | 0.0057 | 0.0655 | 0.0549 | 0.6295 | 0.8043 | 0.0578 | 0.3413 | 0.0719 | 0.4246 |
| 46 | 34.26 | 0.06 | 0.1063 | 0.0137 | 0.1624 | 0.0736 | 0.5497 | 0.8206 | 0.0571 | 0.3491 | 0.0696 | 0.4255 |

TEST 7 PART 149 MACH 1.00 RX1C-6 1.7 PHI 0.0 CONF BLNCPLD L C.C DEC1 0 DEC2 -20 DEC3 0 DEC4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.05 | C.1556 | C.0067 | C.0816 | 0.0560 | 0.5206 | 0.8110 | 0.0585 | 0.3440 | 0.0721 | 0.4242 |
| 48 | 34.75 | 0.07 | C.1602 | C.0104 | C.1035 | C.0578 | 0.5744 | 0.8001 | 0.0587 | 0.3308 | 0.0734 | 0.4239 |
| 49 | 35.01 | 0.05 | C.1575 | C.0072 | 0.0851 | C.0458 | 0.5404 | 0.8001 | 0.0606 | 0.3380 | 0.0757 | 0.4225 |
| 50 | 35.24 | 0.05 | C.1657 | C.0063 | 0.0572 | 0.0572 | 0.5070 | 0.8029 | 0.0601 | 0.3393 | 0.0749 | 0.4226 |
| 51 | 35.47 | 0.04 | 0.1426 | 0.0046 | 0.0852 | 0.0323 | 0.5976 | 0.7861 | 0.0625 | 0.3302 | 0.0791 | 0.4156 |
| 52 | 35.73 | 0.05 | C.1554 | C.0065 | C.0814 | C.0263 | 0.6113 | 0.7879 | 0.0630 | 0.3350 | 0.0800 | 0.4227 |
| 53 | 35.97 | 0.05 | C.1556 | C.0027 | C.0771 | C.0195 | 0.5516 | 0.8001 | 0.0650 | 0.3353 | 0.0812 | 0.4191 |
| 54 | 36.18 | 0.04 | C.1203 | 0.0027 | C.0736 | C.0225 | 0.6365 | 0.7945 | 0.0660 | 0.3335 | 0.0831 | 0.4203 |
| 55 | 36.45 | 0.04 | 0.1652 | C.0058 | C.0905 | C.0352 | 0.5467 | 0.8078 | 0.0678 | 0.3383 | 0.0839 | 0.4188 |
| 56 | 36.69 | 0.04 | 0.1044 | -C.0008 | 0.0612 | -0.0077 | 0.5858 | 0.8031 | 0.0679 | 0.3356 | 0.0846 | 0.4179 |
| 57 | 36.89 | 0.01 | C.0855 | -C.0014 | C.0507 | -0.0163 | 0.5897 | 0.8004 | 0.0682 | 0.3349 | 0.0852 | C.4184 |
| 58 | 37.17 | 0.04 | C.0864 | -0.0035 | C.0581 | -0.0430 | 0.6974 | 0.8058 | 0.0666 | 0.3348 | 0.0854 | 0.4155 |
| 59 | 37.39 | 0.03 | 0.0511 | -C.0032 | 0.0315 | -0.0628 | 0.6255 | 0.8112 | 0.0680 | 0.3380 | 0.0848 | 0.4167 |
| 60 | 37.61 | 0.00 | 0.2028 | 0.0067 | C.1102 | C.0430 | 0.5434 | 0.8102 | 0.0663 | 0.3393 | 0.0835 | 0.4147 |
| 61 | 37.87 | 0.03 | C.0695 | -0.0018 | 0.0473 | -0.0201 | 0.5256 | 0.8236 | 0.0631 | 0.3413 | 0.0827 | 0.4164 |
| 62 | 38.10 | 0.04 | C.1978 | C.0051 | 0.1025 | 0.0258 | 0.5202 | 0.8290 | 0.0648 | 0.3418 | 0.0830 | 0.4123 |
| 63 | 38.32 | 0.05 | 0.2305 | 0.0087 | 0.1174 | 0.0378 | 0.5096 | 0.8372 | 0.0681 | 0.3446 | 0.0814 | 0.4116 |
| 64 | 38.58 | 0.03 | 0.2047 | C.0082 | 0.1050 | 0.0342 | 0.5038 | 0.8426 | 0.0686 | 0.3467 | 0.0807 | 0.4115 |
| 65 | 38.79 | 0.05 | 0.2056 | C.0072 | C.1052 | 0.0351 | 0.5314 | 0.8426 | 0.0683 | 0.3456 | 0.0811 | 0.4102 |
| 66 | 38.99 | 0.04 | C.1460 | C.0056 | C.0756 | C.0342 | 0.5171 | 0.8724 | 0.0668 | 0.3568 | 0.0766 | 0.4113 |
| 67 | 39.21 | 0.06 | 0.2165 | C.0078 | 0.1152 | C.0358 | 0.5330 | 0.8617 | 0.0676 | 0.3514 | 0.0785 | C.4079 |
| 68 | 39.44 | 0.03 | C.1765 | C.0060 | 0.0989 | C.0452 | 0.5192 | 0.8670 | 0.0677 | 0.3546 | 0.0781 | 0.4091 |
| 69 | 39.63 | 0.02 | C.1455 | C.0065 | C.0702 | 0.0474 | 0.4311 | 0.8777 | 0.0667 | 0.3619 | 0.0760 | 0.4124 |
| 70 | 39.88 | 0.03 | C.2421 | 0.0140 | 0.1215 | C.0579 | 0.5041 | 0.8544 | 0.0687 | 0.3448 | 0.0804 | 0.4036 |
| 71 | 40.07 | 0.04 | C.2025 | C.0110 | C.1022 | 0.0544 | 0.5047 | 0.8599 | 0.0685 | 0.3479 | 0.0797 | 0.4048 |
| 72 | 40.28 | 0.03 | C.1748 | C.0096 | C.0864 | C.0550 | 0.4943 | 0.8789 | 0.0667 | 0.3580 | 0.0759 | 0.4074 |
| 73 | 40.46 | 0.03 | C.1982 | C.0136 | C.0952 | C.0687 | 0.4803 | 0.8682 | 0.0671 | 0.3501 | 0.0773 | 0.4033 |
| 74 | 40.66 | 0.03 | C.1814 | C.0124 | C.0726 | C.0775 | 0.4494 | 0.8706 | 0.0674 | 0.3520 | C.0774 | 0.4043 |
| 75 | 40.89 | 0.03 | C.1456 | C.0057 | C.0706 | C.0650 | 0.4719 | 0.8795 | 0.0667 | 0.3562 | 0.0758 | 0.4045 |
| 76 | 41.09 | 0.03 | C.1655 | C.0115 | C.0816 | 0.0726 | 0.4930 | 0.8746 | 0.0667 | 0.3531 | 0.0763 | 0.4038 |
| 77 | 41.30 | 0.03 | C.1451 | C.0100 | C.0670 | C.0690 | 0.4017 | 0.8720 | 0.0669 | 0.3496 | 0.0767 | 0.4010 |
| 78 | 41.52 | 0.02 | C.1001 | 0.0103 | C.0384 | C.1030 | 0.3840 | 0.9194 | 0.0615 | 0.3710 | 0.0669 | 0.4035 |
| 79 | 41.71 | 0.02 | C.1420 | C.0058 | 0.0730 | 0.0091 | 0.5141 | 0.8812 | 0.0656 | 0.3526 | 0.0745 | C.4004 |
| 80 | 41.93 | 0.02 | C.1056 | C.0040 | C.0527 | C.0677 | 0.4804 | 0.8947 | 0.0653 | 0.3577 | 0.0730 | C.3998 |
| 81 | 42.12 | 0.02 | C.1359 | C.0055 | 0.0715 | 0.0730 | 0.5291 | 0.8554 | 0.0677 | 0.3383 | 0.0792 | 0.3955 |
| 82 | 42.29 | 0.02 | 0.1063 | C.0050 | C.0507 | C.0646 | 0.4705 | 0.8821 | 0.0663 | 0.3527 | 0.0752 | 0.3999 |
| 83 | 42.45 | 0.01 | C.1353 | C.0105 | C.0756 | C.0755 | 0.5426 | 0.8277 | C.0697 | 0.3267 | 0.0842 | 0.3947 |
| 84 | 42.68 | 0.02 | 0.0954 | C.0053 | C.0475 | C.0553 | 0.4948 | 0.8806 | 0.0674 | 0.3515 | 0.0766 | 0.3992 |
| 85 | 42.85 | 0.01 | C.0850 | C.0072 | 0.0423 | C.0810 | 0.4747 | 0.8831 | 0.0662 | 0.3525 | C.0750 | 0.3992 |
| 86 | 43.02 | 0.01 | C.0824 | C.0053 | 0.0365 | C.0644 | 0.4435 | 0.8910 | 0.0674 | 0.3575 | 0.0757 | 0.4013 |
| 87 | 43.21 | 0.01 | C.0958 | C.0091 | 0.0538 | C.0913 | 0.5386 | 0.8232 | 0.0710 | 0.3213 | 0.0863 | C.3963 |
| 88 | 43.40 | 0.02 | C.0760 | C.0081 | C.0446 | C.1030 | 0.5576 | 0.8323 | 0.0705 | 0.3234 | 0.0847 | 0.3885 |
| 89 | 43.57 | 0.02 | 0.0712 | C.0066 | C.0381 | C.0957 | 0.5077 | 0.8595 | C.0692 | 0.3357 | C.0805 | 0.3908 |
| 90 | 43.74 | 0.01 | C.0794 | C.0065 | C.0442 | C.1072 | 0.5082 | 0.8969 | 0.0670 | 0.3556 | 0.0745 | 0.3956 |
| 91 | 43.92 | 0.01 | C.0744 | C.0067 | C.0317 | C.0902 | 0.4266 | 0.8861 | 0.0686 | 0.3495 | 0.0774 | 0.3945 |
| 92 | 44.10 | 0.02 | C.0736 | 0.0101 | 0.0299 | C.1306 | 0.4102 | 0.8812 | 0.0665 | 0.3425 | C.0755 | 0.3887 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART two MACH 1.00 RNIO-6 1.7 PHI 0.0 CONF BINDER 15 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.30 | 0.00 | 0.0715 | 0.0085 | 0.0200 | 0.1240 | 0.2786 | 0.8972 | 0.0636 | 0.3510 | 0.0758 | 0.3913 |
| 94 | 44.49 | 0.00 | 0.0827 | 0.0114 | 0.0216 | 0.1381 | 0.2542 | 0.8994 | 0.0677 | 0.3528 | 0.0752 | 0.3921 |
| 95 | 44.68 | -0.01 | 0.0919 | 0.0112 | 0.0389 | 0.1221 | 0.4237 | 0.8719 | 0.0717 | 0.3417 | 0.0823 | 0.3515 |
| 96 | 44.87 | -0.00 | 0.0945 | 0.0136 | 0.0373 | 0.1378 | 0.3951 | 0.8706 | 0.0712 | 0.3400 | 0.0818 | 0.3906 |
| 97 | 45.02 | 0.01 | 0.0947 | 0.0120 | 0.0362 | 0.1269 | 0.3827 | 0.8661 | 0.0702 | 0.3385 | 0.0809 | 0.3877 |
| 98 | 45.22 | 0.00 | 0.1005 | 0.0153 | 0.0353 | 0.1399 | 0.3245 | 0.8675 | 0.0676 | 0.3445 | 0.0764 | 0.3862 |
| 99 | 45.41 | -0.01 | 0.0834 | 0.0104 | 0.0278 | 0.1249 | 0.3337 | 0.8772 | 0.0704 | 0.3408 | 0.0803 | 0.3885 |
| 100 | 45.57 | -0.00 | 0.0951 | 0.0072 | 0.0248 | 0.1221 | 0.4203 | 0.8466 | 0.0734 | 0.3275 | 0.0867 | 0.3867 |
| 101 | 45.76 | 0.00 | 0.0813 | 0.0065 | 0.0266 | 0.1128 | 0.4346 | 0.8337 | 0.0742 | 0.3186 | 0.0893 | 0.3838 |
| 102 | 45.93 | 0.01 | 0.0855 | 0.0116 | 0.0276 | 0.1283 | 0.3217 | 0.8743 | 0.0708 | 0.3361 | 0.0810 | 0.3844 |
| 103 | 46.12 | 0.01 | 0.0525 | 0.0062 | 0.0163 | 0.1566 | 0.3111 | 0.8494 | 0.0730 | 0.3266 | 0.0860 | 0.3845 |
| 104 | 46.32 | -0.01 | 0.0466 | 0.0062 | 0.0157 | 0.1551 | 0.3965 | 0.8237 | 0.0742 | 0.3154 | 0.0901 | 0.3829 |
| 105 | 46.48 | 0.01 | 0.0396 | 0.0052 | 0.0150 | 0.1334 | 0.3846 | 0.8162 | 0.0751 | 0.3118 | 0.0918 | 0.3811 |
| 106 | 46.68 | -0.01 | 0.0190 | 0.0015 | 0.0070 | 0.0790 | 0.3684 | 0.7896 | 0.0764 | 0.3032 | 0.0968 | 0.3840 |
| 107 | 46.83 | -0.01 | 0.0057 | -0.0003 | 0.0026 | -0.0309 | 0.2680 | 0.7964 | 0.0766 | 0.3054 | 0.0962 | 0.3835 |
| 108 | 47.02 | -0.02 | 0.0122 | 0.0003 | 0.0019 | 0.0240 | 0.1557 | 0.8240 | 0.0751 | 0.3222 | 0.0911 | 0.3907 |
| 109 | 47.19 | -0.01 | 0.0252 | 0.0036 | 0.0063 | 0.1191 | 0.2500 | 0.8522 | 0.0718 | 0.3314 | 0.0860 | 0.3889 |
| 110 | 47.39 | -0.00 | 0.0193 | 0.0035 | 0.0026 | 0.2022 | 0.1347 | 0.8727 | 0.0709 | 0.3401 | 0.0813 | 0.3897 |
| 111 | 47.55 | 0.01 | 0.0118 | 0.0025 | -0.0044 | 1.0937 | -0.3729 | 0.8812 | 0.0526 | 0.3329 | 0.0957 | 0.3778 |
| 112 | 47.72 | 0.01 | -0.1311 | -0.0104 | -0.0042 | 0.0795 | 0.4897 | 0.7342 | 0.0416 | 0.2604 | 0.0566 | 0.3547 |
| 113 | 47.89 | 0.03 | -0.1061 | -0.0122 | -0.0512 | 0.1109 | 0.4321 | 0.7611 | 0.0417 | 0.2702 | 0.0547 | 0.3550 |
| 114 | 48.07 | 0.03 | -0.1034 | -0.0134 | -0.0526 | 0.1298 | 0.5082 | 0.7572 | 0.0411 | 0.2655 | 0.0542 | 0.3507 |
| 115 | 48.26 | 0.03 | -0.0959 | -0.0128 | -0.0526 | 0.3209 | 0.5213 | 0.7926 | 0.0393 | 0.2770 | 0.0495 | 0.3495 |
| 116 | 48.44 | 0.03 | -0.0051 | -0.0115 | -0.0504 | 1.3082 | 0.9231 | 0.8051 | 0.0376 | 0.2866 | 0.0467 | 0.3486 |
| 117 | 48.59 | 0.03 | -0.0070 | -0.0120 | -0.0056 | 1.7150 | 0.8300 | 0.8314 | 0.0431 | 0.2857 | 0.0518 | 0.3484 |
| 118 | 48.78 | 0.02 | -0.0315 | -0.0157 | -0.0135 | 0.4524 | 0.4232 | 0.8506 | 0.0487 | 0.2973 | 0.0572 | 0.3495 |
| 119 | 48.98 | 0.04 | -0.0437 | -0.0158 | -0.0156 | 0.4543 | 0.3824 | 0.8708 | 0.0538 | 0.3053 | 0.0583 | 0.3506 |
| 120 | 49.19 | 0.04 | -0.0436 | -0.0155 | -0.0156 | 0.4404 | 0.3816 | 0.8700 | 0.0502 | 0.3033 | 0.0576 | 0.3484 |
| 121 | 49.31 | 0.02 | -0.0525 | -0.0163 | -0.0171 | 0.3494 | 0.3263 | 0.8534 | 0.0469 | 0.2952 | 0.0549 | 0.3458 |
| 122 | 49.49 | 0.03 | -0.0356 | -0.0172 | -0.0104 | 0.4868 | 0.2905 | 0.8693 | 0.0483 | 0.3025 | 0.0555 | 0.3480 |
| 123 | 49.69 | 0.01 | -0.0122 | -0.0157 | 0.0024 | 1.6154 | -0.1967 | 0.8960 | 0.0501 | 0.3156 | 0.0559 | 0.3522 |
| 124 | 49.88 | 0.02 | -0.0062 | -0.0200 | 0.0040 | 3.2271 | -0.6452 | 0.9014 | 0.0505 | 0.3166 | 0.0560 | 0.3512 |
| 125 | 50.02 | 0.01 | -0.0144 | -0.0232 | 0.0027 | 1.6117 | -0.1875 | 0.9193 | 0.0558 | 0.3238 | 0.0607 | 0.3522 |
| 126 | 50.21 | 0.03 | -0.0242 | -0.0116 | 0.0147 | -0.4678 | 0.8074 | 0.8857 | 0.0426 | 0.3007 | 0.0492 | 0.3473 |
| 127 | 50.40 | 0.02 | -0.0005 | -0.0180 | 0.0042 | -17.7849 | 5.3333 | 0.8345 | 0.0346 | 0.2880 | 0.0414 | 0.3427 |
| 128 | 50.56 | 0.04 | -0.0060 | -0.0067 | -0.0042 | 1.0120 | 0.4884 | 0.7888 | 0.0296 | 0.2571 | 0.0367 | 0.3353 |
| 129 | 50.73 | -0.00 | 0.0050 | -0.0120 | 0.0062 | -1.3339 | 0.6889 | 0.8222 | 0.0298 | 0.2830 | 0.0363 | 0.3443 |
| 130 | 50.89 | 0.03 | 0.0060 | -0.0061 | -0.0003 | -16.1707 | -0.5000 | 0.7748 | 0.0283 | 0.2612 | 0.0366 | 0.3372 |
| 131 | 51.06 | 0.02 | 0.0246 | -0.0005 | 0.0105 | -0.0202 | 0.4234 | 0.7543 | 0.0301 | 0.2516 | 0.0400 | 0.3338 |
| 132 | 51.22 | 0.04 | 0.0211 | 0.0012 | 0.0087 | 0.0509 | 0.4125 | 0.7813 | 0.0293 | 0.2645 | 0.0376 | 0.3386 |
| 133 | 51.37 | 0.02 | 0.0 | -0.0005 | -0.0001 | -0.0005 | -0.0001 | 0.7285 | 0.0283 | 0.2440 | 0.0389 | 0.3349 |
| 134 | 51.57 | 0.02 | -0.0151 | -0.0018 | -0.0066 | 0.1066 | 0.4371 | 0.7191 | 0.0282 | 0.2400 | 0.0393 | 0.3338 |
| 135 | 51.71 | 0.02 | -0.0174 | -0.0028 | -0.0065 | 0.1610 | 0.3966 | 0.7021 | 0.0280 | 0.2330 | 0.0359 | 0.3319 |
| 136 | 51.89 | -0.01 | -0.0150 | -0.0028 | -0.0067 | 0.1867 | 0.4467 | 0.7154 | 0.0273 | 0.2415 | 0.0382 | 0.3376 |
| 137 | 52.06 | 0.00 | -0.0361 | -0.0067 | -0.0105 | 0.2227 | 0.3621 | 0.6821 | 0.0265 | 0.2268 | 0.0418 | 0.3325 |
| 138 | 52.22 | 0.02 | -0.0220 | -0.0048 | -0.0077 | 0.2183 | 0.3500 | 0.6929 | 0.0281 | 0.2336 | 0.0406 | 0.3371 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1&C | PACK 1.00 | MACH 1.7 | PHI 0.0 | CONF 61&CP15 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.40 | 0.00 | -0.0196 | -0.0061 | -0.0006 | 0.3062 | 0.3367 | 0.6847 | 0.0286 | 0.2302 | 0.0418 | 0.3362 |
| 140 | 52.54 | -0.01 | -0.0191 | -0.0053 | -0.0054 | 0.3511 | 0.2963 | 0.6928 | 0.0279 | 0.2352 | 0.0403 | 0.3395 |
| 141 | 52.70 | 0.01 | -0.0183 | -0.0056 | -0.0036 | 0.3621 | 0.2209 | 0.6928 | 0.0281 | 0.2346 | 0.0406 | 0.3386 |
| 142 | 52.89 | 0.01 | -0.0176 | -0.0046 | -0.0019 | 0.3078 | 0.1962 | 0.7002 | 0.0276 | 0.2416 | 0.0391 | 0.3421 |
| 143 | 53.06 | -0.00 | -0.0169 | -0.0055 | -0.0061 | 0.2633 | 0.2919 | 0.7060 | 0.0271 | 0.2425 | 0.0383 | 0.3425 |
| 144 | 53.22 | -0.02 | -0.0170 | -0.0054 | -0.0053 | 0.2756 | 0.3316 | 0.7200 | 0.0271 | 0.2462 | 0.0377 | 0.3421 |
| 145 | 53.38 | -0.01 | -0.0164 | -0.0055 | -0.0064 | 0.2590 | 0.3478 | 0.7134 | 0.0267 | 0.2430 | 0.0375 | 0.3406 |
| 146 | 53.54 | -0.01 | -0.0161 | -0.0047 | -0.0055 | 0.2920 | 0.3416 | 0.7241 | 0.0265 | 0.2471 | 0.0367 | 0.3413 |
| 147 | 53.70 | -0.03 | -0.0157 | -0.0046 | -0.0064 | 0.2336 | 0.3249 | 0.7303 | 0.0263 | 0.2494 | 0.0361 | 0.3415 |
| 148 | 53.86 | -0.00 | -0.0156 | -0.0048 | -0.0074 | 0.2450 | 0.3776 | 0.7360 | 0.0261 | 0.2498 | 0.0357 | 0.3413 |
| 149 | 54.01 | 0.00 | -0.0151 | -0.0034 | -0.0047 | 0.2253 | 0.3113 | 0.7374 | 0.0255 | 0.2524 | 0.0352 | 0.3423 |
| 150 | 54.17 | -0.00 | -0.0149 | -0.0043 | -0.0058 | 0.2887 | 0.3893 | 0.7454 | 0.0252 | 0.2562 | 0.0339 | 0.3437 |
| 151 | 54.32 | -0.01 | -0.0174 | -0.0035 | -0.0060 | 0.2242 | 0.3448 | 0.7494 | 0.0255 | 0.2582 | 0.0341 | 0.3446 |
| 152 | 54.49 | -0.03 | -0.0163 | -0.0042 | -0.0044 | 0.2578 | 0.2699 | 0.7516 | 0.0250 | 0.2561 | 0.0333 | 0.3447 |
| 153 | 54.64 | -0.01 | -0.0155 | -0.0041 | -0.0056 | 0.2061 | 0.2915 | 0.7516 | 0.0256 | 0.2580 | 0.0341 | 0.3433 |
| 154 | 54.80 | -0.00 | -0.0176 | -0.0043 | -0.0040 | 0.2444 | 0.2273 | 0.7632 | 0.0246 | 0.2640 | 0.0323 | 0.3459 |
| 155 | 54.95 | -0.02 | -0.0167 | -0.0046 | -0.0047 | 0.2481 | 0.2513 | 0.7605 | 0.0245 | 0.2637 | 0.0323 | 0.3468 |
| 156 | 55.10 | -0.02 | -0.0214 | -0.0042 | -0.0039 | 0.1963 | 0.1822 | 0.7693 | 0.0242 | 0.2684 | 0.0315 | 0.3485 |
| 157 | 55.27 | -0.03 | -0.0190 | -0.0035 | -0.0031 | 0.2053 | 0.1652 | 0.7749 | 0.0237 | 0.2695 | 0.0308 | 0.3484 |
| 158 | 55.40 | -0.02 | -0.0248 | -0.0041 | -0.0055 | 0.1896 | 0.2379 | 0.7746 | 0.0236 | 0.2715 | 0.0305 | 0.3505 |
| 159 | 55.56 | -0.02 | -0.0216 | -0.0035 | -0.0023 | 0.1806 | 0.1065 | 0.7757 | 0.0236 | 0.2723 | 0.0305 | 0.3511 |
| 160 | 55.72 | -0.01 | -0.0180 | -0.0043 | -0.0015 | 0.2390 | 0.0506 | 0.7858 | 0.0227 | 0.2751 | 0.0290 | 0.3510 |
| 161 | 55.90 | -0.01 | -0.0225 | -0.0035 | -0.0015 | 0.1704 | 0.0830 | 0.7888 | 0.0225 | 0.2768 | 0.0286 | 0.3510 |
| 162 | 56.04 | -0.03 | -0.0216 | -0.0040 | -0.0015 | 0.2130 | 0.0800 | 0.7793 | 0.0220 | 0.2744 | 0.0290 | 0.3522 |
| 163 | 56.19 | -0.05 | -0.0253 | -0.0035 | -0.0032 | 0.1384 | 0.1265 | 0.7901 | 0.0218 | 0.2801 | 0.0276 | 0.3546 |
| 164 | 56.39 | -0.01 | -0.0217 | -0.0045 | -0.0013 | 0.2075 | 0.0599 | 0.8072 | 0.0215 | 0.2850 | 0.0267 | 0.3531 |
| 165 | 56.55 | -0.04 | -0.0215 | -0.0043 | -0.0046 | 0.0108 | 0.1649 | 0.8451 | 0.0206 | 0.2957 | 0.0244 | 0.3498 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK1) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 1.60 RN/F=6 1.7 PHI 0.0 CONF 61 & OF 15 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.83 | 0.04 | 0.0364 | 5.9999 | 0.0088 | 5.9999 | 0.2618 | -1.2334 | -0.0287 | -0.4779 | 0.0233 | 0.3875 |
| 2 | -5.84 | 0.01 | 0.0377 | 5.9999 | 0.0165 | 5.9999 | 0.2581 | -1.2390 | -0.0288 | -0.4804 | 0.0233 | 0.3877 |
| 3 | -5.84 | 0.02 | 0.0365 | 5.9999 | 0.0085 | 5.9999 | 0.1890 | -1.2334 | -0.0287 | -0.4789 | 0.0233 | 0.3883 |
| 4 | -5.85 | 0.02 | 0.0350 | 5.9999 | 0.0060 | 5.9999 | 0.2179 | -1.2304 | -0.0291 | -0.4777 | 0.0237 | 0.3882 |
| 5 | -4.96 | 0.01 | 0.0403 | 5.9999 | 0.0082 | 5.9999 | 0.2134 | -1.1753 | -0.0301 | -0.4606 | 0.0257 | 0.3925 |
| 6 | -3.43 | 0.02 | 0.0370 | 5.9999 | 0.0074 | 5.9999 | 0.1958 | -1.1011 | -0.0280 | -0.4493 | 0.0255 | 0.4080 |
| 7 | -1.39 | 0.02 | 0.0377 | 5.9999 | 0.0085 | 5.9999 | 0.2361 | -0.9796 | -0.0274 | -0.4003 | 0.0280 | 0.4088 |
| 8 | 0.47 | 0.02 | 0.0462 | 5.9999 | 0.0106 | 5.9999 | 0.2637 | -0.8520 | -0.0275 | -0.3463 | 0.0321 | 0.4065 |
| 9 | 2.29 | 0.02 | 0.0465 | 5.9999 | 0.0131 | 5.9999 | 0.2823 | -0.7187 | -0.0273 | -0.2846 | 0.0380 | 0.3961 |
| 10 | 4.09 | 0.02 | 0.0526 | 5.9999 | 0.0116 | 5.9999 | 0.2197 | -0.5752 | -0.0265 | -0.2256 | 0.0441 | 0.3922 |
| 11 | 5.93 | 0.03 | 0.0606 | 5.9999 | 0.0112 | 5.9999 | 0.1851 | -0.4607 | -0.0189 | -0.1768 | 0.0411 | 0.3838 |
| 12 | 7.82 | 0.02 | 0.0581 | 5.9999 | 0.0091 | 5.9999 | 0.1869 | -0.3427 | -0.0135 | -0.1195 | 0.0395 | 0.3488 |
| 13 | 9.61 | 0.02 | 0.0558 | 5.9999 | 0.0082 | 5.9999 | 0.1342 | -0.2484 | -0.0060 | -0.0663 | 0.0242 | 0.2668 |
| 14 | 11.52 | 0.02 | 0.0672 | 5.9999 | 0.0068 | 5.9999 | 0.0715 | -0.1405 | 0.0017 | -0.0299 | -0.0141 | 0.2131 |
| 15 | 13.37 | 0.02 | 0.0657 | 5.9999 | 0.0045 | 5.9999 | 0.0647 | -0.0607 | 0.0093 | 0.0044 | -0.1535 | -0.0726 |
| 16 | 15.30 | 0.02 | 0.0615 | 5.9999 | 0.0019 | 5.9999 | 0.0219 | -0.0056 | 0.0213 | 0.0344 | -0.3051 | -0.1429 |
| 17 | 17.27 | 0.02 | 0.0658 | 5.9999 | 0.0021 | 5.9999 | 0.0301 | 0.0744 | 0.0339 | 0.0063 | 0.4551 | 0.8910 |
| 18 | 19.18 | 0.02 | 0.0743 | 5.9999 | 0.0018 | 5.9999 | 0.0180 | 0.1642 | 0.0437 | 0.1146 | 0.2660 | 0.6982 |
| 19 | 21.12 | 0.02 | 0.0772 | 5.9999 | 0.0022 | 5.9999 | 0.0285 | 0.2352 | 0.0489 | 0.1554 | 0.2044 | 0.6456 |
| 20 | 23.11 | 0.00 | 0.0648 | 5.9999 | -0.0037 | 5.9999 | -0.0572 | 0.3204 | 0.0536 | 0.1986 | 0.1579 | 0.6260 |
| 21 | 25.06 | 0.01 | 0.0765 | 5.9999 | 0.0036 | 5.9999 | 0.0479 | 0.3618 | 0.0561 | 0.2318 | 0.1469 | 0.6071 |
| 22 | 27.06 | 0.07 | 0.0561 | 5.9999 | 0.0127 | 5.9999 | 0.1497 | 0.3406 | 0.0651 | 0.2146 | 0.1911 | 0.6299 |
| 23 | 28.04 | 0.06 | 0.1025 | 5.9999 | 0.0155 | 5.9999 | 0.1508 | 0.3975 | 0.0644 | 0.2473 | 0.1620 | 0.6222 |
| 24 | 28.15 | 0.09 | 0.1051 | 5.9999 | 0.0180 | 5.9999 | 0.1651 | 0.3944 | 0.0651 | 0.2466 | 0.1651 | 0.6253 |
| 25 | 28.53 | 0.07 | 0.0567 | 5.9999 | 0.0131 | 5.9999 | 0.1356 | 0.3997 | 0.0657 | 0.2502 | 0.1644 | 0.6260 |
| 26 | 28.65 | 0.07 | 0.0555 | 5.9999 | 0.0126 | 5.9999 | 0.1458 | 0.4111 | 0.0655 | 0.2552 | 0.1593 | 0.6268 |
| 27 | 29.13 | 0.08 | 0.1018 | 5.9999 | 0.0154 | 5.9999 | 0.1517 | 0.4052 | 0.0659 | 0.2528 | 0.1627 | 0.6239 |
| 28 | 29.44 | 0.09 | 0.1068 | 5.9999 | 0.0163 | 5.9999 | 0.1531 | 0.4048 | 0.0666 | 0.2539 | 0.1650 | 0.6273 |
| 29 | 29.74 | 0.08 | 0.1054 | 5.9999 | 0.0167 | 5.9999 | 0.1586 | 0.4368 | 0.0649 | 0.2726 | 0.1486 | 0.6241 |
| 30 | 30.01 | 0.09 | 0.1062 | 5.9999 | 0.0135 | 5.9999 | 0.1940 | 0.4157 | 0.0677 | 0.2616 | 0.1629 | 0.6253 |
| 31 | 30.30 | 0.08 | 0.1115 | 5.9999 | 0.0201 | 5.9999 | 0.1804 | 0.4365 | 0.0655 | 0.2727 | 0.1501 | 0.6248 |
| 32 | 30.59 | 0.09 | 0.1080 | 5.9999 | 0.0174 | 5.9999 | 0.1613 | 0.4044 | 0.0648 | 0.2565 | 0.1596 | 0.6165 |
| 33 | 30.88 | 0.09 | 0.1116 | 5.9999 | 0.0201 | 5.9999 | 0.1692 | 0.4479 | 0.0666 | 0.2766 | 0.1487 | 0.6178 |
| 34 | 31.11 | 0.09 | 0.1117 | 5.9999 | 0.0202 | 5.9999 | 0.1810 | 0.4779 | 0.0660 | 0.2924 | 0.1381 | 0.6118 |
| 35 | 31.40 | 0.07 | 0.1067 | 5.9999 | 0.0178 | 5.9999 | 0.1670 | 0.4678 | 0.0659 | 0.2567 | 0.1351 | 0.6082 |
| 36 | 31.67 | 0.07 | 0.1068 | 5.9999 | 0.0166 | 5.9999 | 0.1575 | 0.5358 | 0.0660 | 0.3206 | 0.1232 | 0.5984 |
| 37 | 31.94 | 0.07 | 0.1031 | 5.9999 | 0.0141 | 5.9999 | 0.1369 | 0.5283 | 0.0667 | 0.3170 | 0.1263 | 0.6000 |
| 38 | 32.21 | 0.07 | 0.1093 | 5.9999 | 0.0153 | 5.9999 | 0.1419 | 0.5238 | 0.0673 | 0.3158 | 0.1285 | 0.6028 |
| 39 | 32.47 | 0.06 | 0.1020 | 5.9999 | 0.0135 | 5.9999 | 0.1325 | 0.5332 | 0.0672 | 0.3189 | 0.1261 | 0.5981 |
| 40 | 32.73 | 0.06 | 0.1067 | 5.9999 | 0.0144 | 5.9999 | 0.1431 | 0.5004 | 0.0658 | 0.3362 | 0.1162 | 0.5936 |
| 41 | 33.00 | 0.05 | 0.0920 | 5.9999 | 0.0102 | 5.9999 | 0.1110 | 0.5969 | 0.0640 | 0.3523 | 0.1072 | 0.5902 |
| 42 | 33.25 | 0.06 | 0.0958 | 5.9999 | 0.0115 | 5.9999 | 0.1202 | 0.6007 | 0.0651 | 0.3548 | 0.1084 | 0.5907 |
| 43 | 33.49 | 0.06 | 0.1006 | 5.9999 | 0.0158 | 5.9999 | 0.1572 | 0.5961 | 0.0657 | 0.3520 | 0.1102 | 0.5963 |
| 44 | 33.75 | 0.05 | 0.0884 | 5.9999 | 0.0095 | 5.9999 | 0.1124 | 0.6206 | 0.0644 | 0.3635 | 0.1038 | 0.5856 |
| 45 | 34.01 | 0.06 | 0.0882 | 5.9999 | 0.0105 | 5.9999 | 0.1237 | 0.6218 | 0.0653 | 0.3642 | 0.1050 | 0.5858 |
| 46 | 34.26 | 0.06 | 0.0968 | 5.9999 | 0.0166 | 5.9999 | 0.1655 | 0.6298 | 0.0662 | 0.3677 | 0.1051 | 0.5838 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | REXIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 146 | 1.00 | 1.7 | 0.0 | BINGFIS | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.05 | 0.0506 | 0.9999 | 0.0131 | 0.9999 | 0.1446 | 0.6383 | 0.0663 | 0.3730 | 0.1039 | 0.5643 |
| 48 | 34.75 | 0.07 | 0.0563 | 0.9999 | 0.0135 | 0.9999 | 0.1515 | 0.6340 | 0.0664 | 0.3706 | 0.1047 | 0.5645 |
| 49 | 35.01 | 0.05 | 0.0552 | 0.9999 | 0.0135 | 0.9999 | 0.1500 | 0.6457 | 0.0666 | 0.3763 | 0.1032 | 0.5627 |
| 50 | 35.24 | 0.05 | 0.0516 | 0.9999 | 0.0106 | 0.9999 | 0.1414 | 0.6451 | 0.0675 | 0.3732 | 0.1047 | 0.5785 |
| 51 | 35.47 | 0.04 | 0.0503 | 0.9999 | 0.0150 | 0.9999 | 0.1663 | 0.6595 | 0.0672 | 0.3827 | 0.1018 | 0.5795 |
| 52 | 35.73 | 0.05 | 0.0465 | 0.9999 | 0.0132 | 0.9999 | 0.1759 | 0.6553 | 0.0679 | 0.3788 | 0.1036 | 0.5780 |
| 53 | 35.97 | 0.05 | 0.0513 | 0.9999 | 0.0165 | 0.9999 | 0.2029 | 0.6681 | 0.0685 | 0.3836 | 0.1025 | 0.5741 |
| 54 | 36.16 | 0.04 | 0.0459 | 0.9999 | 0.0135 | 0.9999 | 0.1611 | 0.6653 | 0.0685 | 0.3854 | 0.1030 | 0.5792 |
| 55 | 36.45 | 0.04 | 0.0450 | 0.9999 | 0.0165 | 0.9999 | 0.1943 | 0.6838 | 0.0714 | 0.3816 | 0.1076 | 0.5748 |
| 56 | 36.69 | 0.04 | 0.0465 | 0.9999 | 0.0183 | 0.9999 | 0.2070 | 0.6856 | 0.0716 | 0.3836 | 0.1070 | 0.5736 |
| 57 | 36.89 | 0.01 | 0.0510 | 0.9999 | 0.0194 | 0.9999 | 0.2134 | 0.6762 | 0.0712 | 0.3858 | 0.1053 | 0.5705 |
| 58 | 37.17 | 0.04 | 0.0438 | 0.9999 | 0.0164 | 0.9999 | 0.1904 | 0.6808 | 0.0736 | 0.3876 | 0.1082 | 0.5694 |
| 59 | 37.39 | 0.03 | 0.0438 | 0.9999 | 0.0165 | 0.9999 | 0.2024 | 0.6886 | 0.0745 | 0.3801 | 0.1114 | 0.5683 |
| 60 | 37.61 | 0.06 | 0.0457 | 0.9999 | 0.0227 | 0.9999 | 0.2374 | 0.6835 | 0.0740 | 0.3865 | 0.1093 | 0.5660 |
| 61 | 37.87 | 0.03 | 0.0385 | 0.9999 | 0.0145 | 0.9999 | 0.1845 | 0.6820 | 0.0742 | 0.3847 | 0.1088 | 0.5646 |
| 62 | 38.10 | 0.04 | 0.0455 | 0.9999 | 0.0185 | 0.9999 | 0.2150 | 0.6785 | 0.0745 | 0.3836 | 0.1104 | 0.5656 |
| 63 | 38.32 | 0.05 | 0.0448 | 0.9999 | 0.0184 | 0.9999 | 0.2178 | 0.6875 | 0.0743 | 0.3878 | 0.1081 | 0.5646 |
| 64 | 38.56 | 0.05 | 0.0455 | 0.9999 | 0.0222 | 0.9999 | 0.2483 | 0.7046 | 0.0758 | 0.3920 | 0.1048 | 0.5563 |
| 65 | 38.79 | 0.05 | 0.0405 | 0.9999 | 0.0172 | 0.9999 | 0.2178 | 0.7073 | 0.0739 | 0.3912 | 0.1045 | 0.5531 |
| 66 | 38.99 | 0.04 | 0.0421 | 0.9999 | 0.0167 | 0.9999 | 0.2080 | 0.7013 | 0.0747 | 0.3899 | 0.1066 | 0.5560 |
| 67 | 39.21 | 0.06 | 0.0433 | 0.9999 | 0.0202 | 0.9999 | 0.2380 | 0.7026 | 0.0749 | 0.3895 | 0.1068 | 0.5544 |
| 68 | 39.44 | 0.03 | 0.0406 | 0.9999 | 0.0186 | 0.9999 | 0.2305 | 0.7170 | 0.0740 | 0.3950 | 0.1032 | 0.5509 |
| 69 | 39.63 | 0.02 | 0.0421 | 0.9999 | 0.0157 | 0.9999 | 0.2092 | 0.7156 | 0.0740 | 0.3925 | 0.1034 | 0.5496 |
| 70 | 39.86 | 0.05 | 0.0458 | 0.9999 | 0.0224 | 0.9999 | 0.2672 | 0.7250 | 0.0736 | 0.3909 | 0.1015 | 0.5474 |
| 71 | 40.07 | 0.04 | 0.0448 | 0.9999 | 0.0214 | 0.9999 | 0.2553 | 0.7424 | 0.0723 | 0.4032 | 0.0974 | 0.5431 |
| 72 | 40.26 | 0.03 | 0.0447 | 0.9999 | 0.0176 | 0.9999 | 0.2259 | 0.7424 | 0.0723 | 0.4027 | 0.0974 | 0.5424 |
| 73 | 40.46 | 0.03 | 0.0463 | 0.9999 | 0.0204 | 0.9999 | 0.2609 | 0.7456 | 0.0717 | 0.4059 | 0.0962 | 0.5444 |
| 74 | 40.68 | 0.02 | 0.0456 | 0.9999 | 0.0206 | 0.9999 | 0.2579 | 0.7396 | 0.0724 | 0.4030 | 0.0975 | 0.5445 |
| 75 | 40.89 | 0.03 | 0.0433 | 0.9999 | 0.0228 | 0.9999 | 0.2740 | 0.7491 | 0.0719 | 0.4081 | 0.0960 | 0.5448 |
| 76 | 41.09 | 0.03 | 0.0434 | 0.9999 | 0.0204 | 0.9999 | 0.2605 | 0.7505 | 0.0715 | 0.4062 | 0.0958 | 0.5412 |
| 77 | 41.30 | 0.03 | 0.0421 | 0.9999 | 0.0222 | 0.9999 | 0.2707 | 0.7596 | 0.0709 | 0.4103 | 0.0934 | 0.5403 |
| 78 | 41.52 | 0.02 | 0.0441 | 0.9999 | 0.0175 | 0.9999 | 0.2521 | 0.7514 | 0.0716 | 0.4066 | 0.0953 | 0.5403 |
| 79 | 41.71 | 0.02 | 0.0411 | 0.9999 | 0.0175 | 0.9999 | 0.2521 | 0.7677 | 0.0700 | 0.4127 | 0.0912 | 0.5378 |
| 80 | 41.93 | 0.02 | 0.0432 | 0.9999 | 0.0223 | 0.9999 | 0.2892 | 0.7617 | 0.0707 | 0.4103 | 0.0928 | 0.5386 |
| 81 | 42.12 | 0.02 | 0.0410 | 0.9999 | 0.0198 | 0.9999 | 0.2793 | 0.7855 | 0.0682 | 0.4178 | 0.0868 | 0.5315 |
| 82 | 42.29 | 0.02 | 0.0384 | 0.9999 | 0.0244 | 0.9999 | 0.3116 | 0.7850 | 0.0684 | 0.4177 | 0.0887 | 0.5335 |
| 83 | 42.49 | 0.01 | 0.0410 | 0.9999 | 0.0206 | 0.9999 | 0.2936 | 0.7951 | 0.0675 | 0.4204 | 0.0869 | 0.5288 |
| 84 | 42.68 | 0.02 | 0.0405 | 0.9999 | 0.0223 | 0.9999 | 0.3150 | 0.7829 | 0.0695 | 0.4156 | 0.0888 | 0.5309 |
| 85 | 42.85 | 0.01 | 0.0386 | 0.9999 | 0.0197 | 0.9999 | 0.2876 | 0.7751 | 0.0700 | 0.4161 | 0.0903 | 0.5305 |
| 86 | 43.02 | 0.01 | 0.0401 | 0.9999 | 0.0185 | 0.9999 | 0.2803 | 0.7836 | 0.0696 | 0.4146 | 0.0891 | 0.5291 |
| 87 | 43.21 | 0.01 | 0.0387 | 0.9999 | 0.0177 | 0.9999 | 0.2560 | 0.8015 | 0.0676 | 0.4197 | 0.0844 | 0.5237 |
| 88 | 43.40 | 0.02 | 0.0380 | 0.9999 | 0.0193 | 0.9999 | 0.2761 | 0.8081 | 0.0673 | 0.4195 | 0.0833 | 0.5191 |
| 89 | 43.57 | 0.02 | 0.0360 | 0.9999 | 0.0203 | 0.9999 | 0.2904 | 0.7944 | 0.0690 | 0.4166 | 0.0869 | 0.5269 |
| 90 | 43.74 | 0.02 | 0.0360 | 0.9999 | 0.0226 | 0.9999 | 0.2976 | 0.7722 | 0.0711 | 0.4096 | 0.0921 | 0.5304 |
| 91 | 43.92 | 0.01 | 0.0373 | 0.9999 | 0.0205 | 0.9999 | 0.2935 | 0.7862 | 0.0704 | 0.4119 | 0.0898 | 0.5239 |
| 92 | 44.10 | 0.02 | 0.0365 | 0.9999 | 0.0198 | 0.9999 | 0.2847 | 0.7808 | 0.0703 | 0.4104 | 0.0901 | 0.5258 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REYIO-C PHI CONF C DEL1 DEL2 DEL3 DEL4 TRANSITION
7 140 1.60 1.7 0.0 0 15 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.30 | 0.00 | 0.0727 | 5.9999 | 0.0238 | 5.9999 | 0.3207 | 0.7613 | 0.0718 | 0.4004 | 0.0943 | 0.5259 |
| 94 | 44.49 | 0.00 | 0.0738 | 5.9999 | 0.0241 | 5.9999 | 0.3134 | 0.7516 | 0.0714 | 0.3969 | 0.0950 | 0.5275 |
| 95 | 44.68 | -0.01 | 0.0701 | 5.9999 | 0.0213 | 5.9999 | 0.3045 | 0.7925 | 0.0708 | 0.4144 | 0.0894 | 0.5225 |
| 96 | 44.87 | -0.00 | 0.0664 | 5.9999 | 0.0196 | 5.9999 | 0.2950 | 0.7802 | 0.0721 | 0.4115 | 0.0917 | 0.5234 |
| 97 | 45.02 | 0.01 | 0.0684 | 5.9999 | 0.0191 | 5.9999 | 0.2881 | 0.7880 | 0.0711 | 0.4068 | 0.0903 | 0.5188 |
| 98 | 45.22 | 0.00 | 0.0714 | 5.9999 | 0.0215 | 5.9999 | 0.3072 | 0.7883 | 0.0720 | 0.4090 | 0.0946 | 0.5226 |
| 99 | 45.41 | -0.01 | 0.0566 | 5.9999 | 0.0134 | 5.9999 | 0.2372 | 0.7697 | 0.0725 | 0.4013 | 0.0942 | 0.5213 |
| 100 | 45.57 | -0.00 | 0.0591 | 5.9999 | 0.0150 | 5.9999 | 0.2542 | 0.7930 | 0.0712 | 0.4070 | 0.0898 | 0.5133 |
| 101 | 45.76 | 0.00 | 0.0604 | 5.9999 | 0.0174 | 5.9999 | 0.2723 | 0.7934 | 0.0706 | 0.4054 | 0.0893 | 0.5116 |
| 102 | 45.93 | 0.01 | 0.0640 | 5.9999 | 0.0175 | 5.9999 | 0.2801 | 0.7753 | 0.0722 | 0.4000 | 0.0932 | 0.5159 |
| 103 | 46.12 | 0.01 | 0.0603 | 5.9999 | 0.0161 | 5.9999 | 0.2674 | 0.7969 | 0.0713 | 0.4056 | 0.0855 | 0.5090 |
| 104 | 46.32 | -0.01 | 0.0627 | 5.9999 | 0.0166 | 5.9999 | 0.2684 | 0.7805 | 0.0696 | 0.3984 | 0.0888 | 0.5066 |
| 105 | 46.48 | 0.01 | 0.0614 | 5.9999 | 0.0172 | 5.9999 | 0.2836 | 0.7862 | 0.0703 | 0.3953 | 0.0894 | 0.5028 |
| 106 | 46.66 | -0.01 | 0.0595 | 5.9999 | 0.0131 | 5.9999 | 0.2435 | 0.7629 | 0.0751 | 0.3866 | 0.0985 | 0.5067 |
| 107 | 46.85 | -0.01 | 0.0551 | 5.9999 | 0.0142 | 5.9999 | 0.2562 | 0.7605 | 0.0739 | 0.3800 | 0.0972 | 0.4998 |
| 108 | 47.02 | -0.02 | 0.0585 | 5.9999 | 0.0136 | 5.9999 | 0.2551 | 0.7823 | 0.0750 | 0.3879 | 0.0959 | 0.4958 |
| 109 | 47.19 | -0.01 | 0.0527 | 5.9999 | 0.0120 | 5.9999 | 0.2281 | 0.7974 | 0.0730 | 0.3923 | 0.0916 | 0.4920 |
| 110 | 47.39 | -0.00 | 0.0620 | 5.9999 | 0.0166 | 5.9999 | 0.2906 | 0.8119 | 0.0720 | 0.3940 | 0.0967 | 0.4862 |
| 111 | 47.55 | 0.01 | 0.0600 | 5.9999 | 0.0165 | 5.9999 | 0.2755 | 0.8446 | 0.0644 | 0.3981 | 0.0844 | 0.4713 |
| 112 | 47.72 | 0.01 | 0.0711 | 5.9999 | 0.0221 | 5.9999 | 0.3211 | 0.8669 | 0.0320 | 0.3158 | 0.0479 | 0.4735 |
| 113 | 47.89 | 0.03 | 0.0536 | 5.9999 | 0.0151 | 5.9999 | 0.2439 | 0.8462 | 0.0351 | 0.3055 | 0.0541 | 0.4713 |
| 114 | 48.07 | 0.03 | 0.0735 | 5.9999 | 0.0240 | 5.9999 | 0.3270 | 0.8340 | 0.0337 | 0.3004 | 0.0527 | 0.4701 |
| 115 | 48.26 | 0.03 | 0.0685 | 5.9999 | 0.0216 | 5.9999 | 0.3158 | 0.8195 | 0.0356 | 0.2904 | 0.0574 | 0.4687 |
| 116 | 48.44 | 0.03 | 0.0716 | 5.9999 | 0.0228 | 5.9999 | 0.3216 | 0.8190 | 0.0365 | 0.2889 | 0.0589 | 0.4667 |
| 117 | 48.59 | 0.03 | 0.0685 | 5.9999 | 0.0231 | 5.9999 | 0.3377 | 0.8220 | 0.0362 | 0.2912 | 0.0581 | 0.4681 |
| 118 | 48.78 | 0.02 | 0.0735 | 5.9999 | 0.0250 | 5.9999 | 0.3408 | 0.8369 | 0.0359 | 0.2946 | 0.0583 | 0.4625 |
| 119 | 48.98 | 0.04 | 0.0709 | 5.9999 | 0.0257 | 5.9999 | 0.3630 | 0.8455 | 0.0366 | 0.2985 | 0.0566 | 0.4593 |
| 120 | 49.14 | 0.04 | 0.0648 | 5.9999 | 0.0214 | 5.9999 | 0.3308 | 0.8446 | 0.0370 | 0.2988 | 0.0573 | 0.4604 |
| 121 | 49.31 | 0.02 | 0.0759 | 5.9999 | 0.0278 | 5.9999 | 0.3841 | 0.8501 | 0.0373 | 0.2968 | 0.0573 | 0.4596 |
| 122 | 49.49 | 0.03 | 0.0705 | 5.9999 | 0.0267 | 5.9999 | 0.3771 | 0.8457 | 0.0373 | 0.2984 | 0.0577 | 0.4621 |
| 123 | 49.69 | 0.01 | 0.0664 | 5.9999 | 0.0251 | 5.9999 | 0.3675 | 0.8391 | 0.0392 | 0.2988 | 0.0613 | 0.4675 |
| 124 | 49.88 | 0.02 | 0.0705 | 5.9999 | 0.0267 | 5.9999 | 0.3771 | 0.8447 | 0.0394 | 0.3013 | 0.0611 | 0.4673 |
| 125 | 50.02 | 0.01 | 0.0564 | 5.9999 | 0.0223 | 5.9999 | 0.3325 | 0.8493 | 0.0437 | 0.2996 | 0.0673 | 0.4614 |
| 126 | 50.21 | 0.05 | 0.0511 | 5.9999 | 0.0169 | 5.9999 | 0.3196 | 0.8283 | 0.0408 | 0.2924 | 0.0645 | 0.4653 |
| 127 | 50.40 | 0.02 | 0.0560 | 5.9999 | 0.0187 | 5.9999 | 0.3345 | 0.8335 | 0.0454 | 0.2932 | 0.0716 | 0.4628 |
| 128 | 50.58 | 0.04 | 0.0571 | 5.9999 | 0.0204 | 5.9999 | 0.3344 | 0.8442 | 0.0471 | 0.3084 | 0.0709 | 0.4643 |
| 129 | 50.73 | -0.00 | 0.0620 | 5.9999 | 0.0225 | 5.9999 | 0.3635 | 0.8700 | 0.0476 | 0.3059 | 0.0707 | 0.4565 |
| 130 | 50.89 | 0.03 | 0.0560 | 5.9999 | 0.0176 | 5.9999 | 0.3436 | 0.8934 | 0.0478 | 0.3174 | 0.0689 | 0.4578 |
| 131 | 51.06 | 0.02 | 0.0534 | 5.9999 | 0.0142 | 5.9999 | 0.3279 | 0.8987 | 0.0455 | 0.3201 | 0.0651 | 0.4582 |
| 132 | 51.22 | 0.02 | 0.0535 | 5.9999 | 0.0145 | 5.9999 | 0.3537 | 0.7128 | 0.0426 | 0.3263 | 0.0597 | 0.4578 |
| 133 | 51.37 | 0.02 | 0.0571 | 5.9999 | 0.0150 | 5.9999 | 0.3766 | 0.7256 | 0.0432 | 0.3267 | 0.0596 | 0.4536 |
| 134 | 51.57 | 0.02 | 0.0515 | 5.9999 | 0.0136 | 5.9999 | 0.3243 | 0.8961 | 0.0388 | 0.3171 | 0.0557 | 0.4556 |
| 135 | 51.71 | 0.02 | 0.0421 | 5.9999 | 0.0111 | 5.9999 | 0.2643 | 0.7080 | 0.0408 | 0.3226 | 0.0576 | 0.4557 |
| 136 | 51.89 | -0.01 | 0.0535 | 5.9999 | 0.0175 | 5.9999 | 0.3159 | 0.8803 | 0.0388 | 0.3137 | 0.0536 | 0.4570 |
| 137 | 52.06 | 0.00 | 0.0520 | 5.9999 | 0.0159 | 5.9999 | 0.3006 | 0.8672 | 0.0369 | 0.3063 | 0.0552 | 0.4556 |
| 138 | 52.22 | 0.02 | 0.0444 | 5.9999 | 0.0134 | 5.9999 | 0.2960 | 0.8712 | 0.0371 | 0.3061 | 0.0552 | 0.4560 |

PARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 140 MACH 1.00 RNIC-6 1.7 PHI 0.0 CONF 016CF15 L 0.6 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| FCIAT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.40 | 0.00 | 0.0530 | 5.5555 | 0.0163 | 5.5599 | 0.3331 | 0.6581 | 0.0355 | 0.3008 | 0.0539 | 0.4576 |
| 140 | 52.54 | -0.01 | 0.0481 | 5.5555 | 0.0145 | 5.5599 | 0.3021 | 0.6435 | 0.0340 | 0.2933 | 0.0528 | 0.4557 |
| 141 | 52.70 | 0.01 | 0.0433 | 5.5555 | 0.0117 | 5.5555 | 0.2708 | 0.6534 | 0.0337 | 0.2970 | 0.0515 | 0.4545 |
| 142 | 52.84 | 0.01 | 0.0444 | 5.5555 | 0.0132 | 5.5599 | 0.2980 | 0.6341 | 0.0334 | 0.2915 | 0.0526 | 0.4597 |
| 143 | 53.06 | -0.00 | 0.0553 | 5.5555 | 0.0154 | 5.5555 | 0.3514 | 0.6625 | 0.0331 | 0.2998 | 0.0495 | 0.4525 |
| 144 | 53.22 | -0.02 | 0.0480 | 5.5599 | 0.0150 | 5.5599 | 0.3132 | 0.6790 | 0.0334 | 0.3062 | 0.0491 | 0.4509 |
| 145 | 53.38 | -0.01 | 0.0456 | 5.5555 | 0.0138 | 5.5599 | 0.3033 | 0.6719 | 0.0336 | 0.3032 | 0.0495 | 0.4512 |
| 146 | 53.54 | -0.01 | 0.0460 | 5.5599 | 0.0150 | 5.5599 | 0.3132 | 0.6665 | 0.0322 | 0.3022 | 0.0481 | 0.4520 |
| 147 | 53.70 | -0.03 | 0.0444 | 5.5555 | 0.0142 | 5.5555 | 0.3205 | 0.6693 | 0.0320 | 0.3020 | 0.0477 | 0.4512 |
| 148 | 53.86 | -0.00 | 0.0460 | 5.5555 | 0.0134 | 5.5599 | 0.2809 | 0.6797 | 0.0316 | 0.3059 | 0.0464 | 0.4500 |
| 149 | 54.01 | 0.00 | 0.0504 | 5.5555 | 0.0166 | 5.5555 | 0.3330 | 0.6661 | 0.0311 | 0.3007 | 0.0486 | 0.4514 |
| 150 | 54.17 | -0.00 | 0.0492 | 5.5555 | 0.0155 | 5.5599 | 0.3157 | 0.6799 | 0.0310 | 0.3053 | 0.0455 | 0.4460 |
| 151 | 54.32 | -0.01 | 0.0445 | 5.5555 | 0.0142 | 5.5555 | 0.3213 | 0.6831 | 0.0301 | 0.3044 | 0.0441 | 0.4458 |
| 152 | 54.49 | -0.03 | 0.0405 | 5.5555 | 0.0134 | 5.5555 | 0.3309 | 0.6910 | 0.0297 | 0.3078 | 0.0430 | 0.4454 |
| 153 | 54.64 | -0.01 | 0.0528 | 5.5555 | 0.0202 | 5.5555 | 0.3833 | 0.6955 | 0.0292 | 0.3091 | 0.0421 | 0.4464 |
| 154 | 54.80 | -0.00 | 0.0444 | 5.5555 | 0.0142 | 5.5555 | 0.3205 | 0.6593 | 0.0287 | 0.3116 | 0.0411 | 0.4456 |
| 155 | 54.95 | -0.02 | 0.0506 | 5.5555 | 0.0161 | 5.5555 | 0.3186 | 0.7078 | 0.0284 | 0.3142 | 0.0402 | 0.4435 |
| 156 | 55.10 | -0.02 | 0.0455 | 5.5555 | 0.0145 | 5.5599 | 0.3013 | 0.7120 | 0.0272 | 0.3162 | 0.0383 | 0.4441 |
| 157 | 55.27 | -0.03 | 0.0454 | 5.5555 | 0.0156 | 5.5555 | 0.3164 | 0.7169 | 0.0270 | 0.3200 | 0.0378 | 0.4478 |
| 158 | 55.40 | -0.02 | 0.0457 | 5.5555 | 0.0138 | 5.5599 | 0.3026 | 0.7233 | 0.0265 | 0.3216 | 0.0373 | 0.4446 |
| 159 | 55.56 | -0.02 | 0.0445 | 5.5555 | 0.0142 | 5.5555 | 0.3198 | 0.7189 | 0.0262 | 0.3215 | 0.0365 | 0.4472 |
| 160 | 55.72 | -0.01 | 0.0462 | 5.5555 | 0.0160 | 5.5999 | 0.3320 | 0.7273 | 0.0260 | 0.3241 | 0.0358 | 0.4456 |
| 161 | 55.90 | -0.01 | 0.0455 | 5.5555 | 0.0161 | 5.5555 | 0.3259 | 0.7273 | 0.0250 | 0.3256 | 0.0344 | 0.4480 |
| 162 | 56.04 | -0.03 | 0.0507 | 5.5555 | 0.0167 | 5.5599 | 0.3300 | 0.7331 | 0.0247 | 0.3262 | 0.0337 | 0.4477 |
| 163 | 56.19 | -0.05 | 0.0470 | 5.5555 | 0.0154 | 5.5599 | 0.3284 | 0.7333 | 0.0243 | 0.3257 | 0.0332 | 0.4496 |
| 164 | 56.39 | -0.01 | 0.0463 | 5.5555 | 0.0155 | 5.5599 | 0.3216 | 0.7515 | 0.0257 | 0.3357 | 0.0343 | 0.4467 |
| 165 | 56.55 | -0.04 | 0.0495 | 5.5555 | 0.0166 | 5.5599 | 0.3360 | 0.7639 | 0.0261 | 0.3408 | 0.0342 | 0.4461 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 147 1.10 1.7 MACH RXIO-6 PHI 0.0 CONF BLNDF15 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.78 | 0.01 | -2.2356 | 8.1221 | 0.0167 | -0.0200 | 0.0025 | 1.0847 | 0.2836 | 0.7960 | -3.6266 |
| 2 | -5.78 | 0.01 | -2.1967 | 8.0827 | 0.0178 | -0.0362 | -0.0027 | 1.0833 | 0.2878 | 0.7954 | -3.6763 |
| 3 | -5.78 | 0.00 | -2.1946 | 8.0870 | -0.0070 | 0.0272 | 0.0024 | 1.0904 | 0.2876 | 0.8025 | -3.6845 |
| 4 | -5.18 | 0.01 | -1.9664 | 7.8014 | 0.0525 | -0.0159 | 0.0030 | 1.0816 | 0.2868 | 0.7948 | -3.8571 |
| 5 | -3.30 | 0.01 | -1.2564 | 7.1431 | 0.0422 | -0.0786 | 0.0035 | 1.0294 | 0.2876 | 0.7416 | -4.0569 |
| 6 | -1.50 | 0.01 | -1.4735 | 6.4745 | 0.0404 | -0.0350 | 0.0039 | 0.9822 | 0.2900 | 0.6923 | -4.3941 |
| 7 | 0.30 | 0.00 | -1.2227 | 5.8205 | -0.0405 | -0.0354 | 0.0041 | 0.9488 | 0.2970 | 0.6518 | -4.7605 |
| 8 | 2.15 | 0.01 | -0.9068 | 5.0525 | 0.0402 | -0.0342 | 0.0047 | 0.9086 | 0.3052 | 0.6034 | -5.6037 |
| 9 | 3.97 | -0.00 | -0.6084 | 4.3333 | -0.1031 | 0.0622 | 0.0049 | 0.8605 | 0.3120 | 0.5486 | -7.1222 |
| 10 | 5.84 | 0.01 | -0.2413 | 3.5650 | 0.0067 | -0.0129 | 0.0057 | 0.7995 | 0.3148 | 0.4848 | -14.7727 |
| 11 | 7.75 | 0.01 | 0.0246 | 2.8796 | 0.0043 | -0.0490 | 0.0115 | 0.7496 | 0.3123 | 0.4373 | 117.0020 |
| 12 | 9.57 | -0.00 | 0.3559 | 2.1897 | -0.0111 | 0.1254 | 0.0118 | 0.7153 | 0.3238 | 0.3915 | 6.0843 |
| 13 | 11.52 | 0.02 | 0.7259 | 1.5116 | 0.0262 | -0.0216 | 0.0128 | 0.6892 | 0.3335 | 0.3358 | 2.0710 |
| 14 | 12.98 | 0.01 | 1.0018 | 1.1056 | 0.0275 | 0.0252 | 0.0133 | 0.6673 | 0.3416 | 0.3058 | 1.1038 |
| 15 | 14.54 | 0.01 | 1.3221 | 0.6128 | -0.0096 | 0.1165 | 0.0140 | 0.6106 | 0.3507 | 0.2599 | 0.4635 |
| 16 | 16.95 | 0.00 | 1.7055 | 0.1878 | -0.0215 | 0.2799 | 0.0201 | 0.5613 | 0.3551 | 0.2062 | 0.1100 |
| 17 | 18.84 | -0.01 | 2.0216 | -0.1575 | -0.1139 | 0.3201 | 0.0156 | 0.5204 | 0.3573 | 0.1631 | -0.0779 |
| 18 | 20.55 | -0.01 | 2.4725 | -0.4363 | -0.1941 | 0.5465 | 0.0002 | 0.4741 | 0.3535 | 0.1167 | -0.1773 |
| 19 | 22.61 | -0.00 | 3.1451 | -0.8545 | -0.1875 | 0.8035 | -0.0191 | 0.4014 | 0.3364 | 0.0650 | -0.2208 |
| 20 | 24.61 | -0.02 | 3.8066 | -1.2956 | -0.3545 | 1.0365 | -0.0395 | 0.3512 | 0.3284 | 0.0228 | -0.2225 |
| 21 | 26.66 | 0.04 | 4.5054 | -1.7644 | 0.4348 | -0.8305 | 0.0543 | 0.3005 | 0.3249 | -0.0244 | -0.2007 |
| 22 | 28.11 | 0.04 | 4.9477 | -2.0554 | 0.3808 | -0.7746 | 0.0613 | 0.2648 | 0.3253 | -0.0604 | -0.1931 |
| 23 | 28.22 | 0.04 | 4.9845 | -1.8005 | 0.3651 | -0.7174 | 0.0560 | 0.2602 | 0.3219 | -0.0616 | -0.2005 |
| 24 | 28.60 | 0.04 | 5.0267 | -2.0526 | 0.3321 | -0.6976 | 0.0507 | 0.2609 | 0.3204 | -0.0534 | -0.1875 |
| 25 | 28.92 | 0.02 | 5.1256 | -2.0918 | 0.1331 | -0.1972 | 0.0398 | 0.2614 | 0.3211 | -0.0596 | -0.1918 |
| 26 | 29.19 | 0.04 | 5.2078 | -1.8034 | 0.3104 | -0.3845 | 0.0459 | 0.2465 | 0.3195 | -0.0729 | -0.1992 |
| 27 | 29.52 | 0.06 | 5.3180 | -1.1846 | 0.0184 | -1.3630 | 0.1022 | 0.2381 | 0.3216 | -0.0834 | -0.2147 |
| 28 | 29.81 | 0.06 | 5.3533 | -1.3166 | 0.7062 | -1.4007 | 0.1166 | 0.2240 | 0.3191 | -0.0950 | -0.2370 |
| 29 | 30.09 | 0.07 | 5.6220 | -1.2652 | 0.7262 | -1.4736 | 0.1026 | 0.2243 | 0.3243 | -0.1000 | -0.2293 |
| 30 | 30.37 | 0.07 | 5.6111 | -1.4437 | 0.7458 | -1.5002 | 0.1304 | 0.1998 | 0.3244 | -0.1246 | -0.2473 |
| 31 | 30.64 | 0.04 | 5.5488 | -1.5935 | 0.4022 | -0.7521 | 0.1165 | 0.2011 | 0.3265 | -0.1254 | -0.2679 |
| 32 | 30.95 | 0.06 | 6.1741 | -1.7303 | 0.5001 | -0.9058 | 0.1415 | 0.1842 | 0.3302 | -0.1460 | -0.2802 |
| 33 | 31.20 | 0.04 | 6.2034 | -1.7222 | 0.3140 | -0.2935 | 0.1028 | 0.1817 | 0.3341 | -0.1524 | -0.2776 |
| 34 | 31.48 | 0.04 | 6.2751 | -1.7262 | 0.4146 | -0.3401 | 0.0808 | 0.1942 | 0.3327 | -0.1385 | -0.2813 |
| 35 | 31.77 | 0.03 | 6.3068 | -1.6852 | 0.3413 | -0.3948 | 0.1148 | 0.1590 | 0.3299 | -0.1709 | -0.2867 |
| 36 | 32.04 | 0.03 | 6.3653 | -1.6723 | 0.3127 | -0.3111 | 0.1096 | 0.1612 | 0.3313 | -0.1701 | -0.2843 |
| 37 | 32.31 | 0.03 | 6.3998 | -1.6154 | 0.3173 | -0.3408 | 0.0884 | 0.1890 | 0.3302 | -0.1412 | -0.2797 |
| 38 | 32.58 | 0.04 | 6.4329 | -2.0450 | 0.4491 | -0.3235 | 0.1048 | 0.1688 | 0.3334 | -0.1646 | -0.2949 |
| 39 | 32.84 | 0.03 | 6.4528 | -2.0015 | 0.2613 | -0.2528 | 0.0996 | 0.1645 | 0.3312 | -0.1667 | -0.2921 |
| 40 | 33.11 | 0.01 | 7.0345 | -2.0836 | 0.1716 | -0.3105 | 0.1111 | 0.1546 | 0.3324 | -0.1778 | -0.2934 |
| 41 | 33.37 | 0.04 | 7.1921 | -2.3175 | 0.3894 | -0.3740 | 0.1224 | 0.1464 | 0.3337 | -0.1873 | -0.3222 |
| 42 | 33.62 | 0.04 | 7.2079 | -2.4166 | 0.3404 | -0.2674 | 0.1116 | 0.1394 | 0.3386 | -0.1992 | -0.3316 |
| 43 | 33.87 | 0.01 | 7.3415 | -2.3545 | 0.1903 | -0.0130 | 0.1057 | 0.1433 | 0.3362 | -0.1929 | -0.3208 |
| 44 | 34.13 | 0.02 | 7.4206 | -2.4055 | 0.2524 | -0.1389 | 0.1117 | 0.1530 | 0.3387 | -0.1851 | -0.3242 |
| 45 | 34.39 | 0.03 | 7.4578 | -2.6543 | 0.4111 | -0.3656 | 0.1453 | 0.1417 | 0.3418 | -0.2001 | -0.3475 |
| 46 | 34.63 | 0.03 | 7.8554 | -2.7045 | 0.3925 | -0.3508 | 0.1453 | 0.1512 | 0.3540 | -0.2028 | -0.3590 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 147 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF 81 DF 15 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCANT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.88 | 0.03 | 7.7832 | -2.7302 | 0.3545 | -0.2446 | 0.1342 | 0.1397 | 0.3463 | -0.2066 | -0.3517 |
| 48 | 35.14 | 0.02 | 7.8458 | -2.7565 | 0.2467 | 0.0274 | 0.1177 | 0.1246 | 0.3477 | -0.2231 | -0.3537 |
| 49 | 35.36 | 0.03 | 8.0038 | -2.8746 | 0.2364 | 0.0106 | 0.1074 | 0.1194 | 0.3505 | -0.2311 | -0.3592 |
| 50 | 35.59 | 0.03 | 8.1038 | -3.1368 | 0.3736 | -0.2064 | 0.1019 | 0.1433 | 0.3561 | -0.2148 | -0.3871 |
| 51 | 35.85 | 0.02 | 8.2122 | -3.0230 | 0.2352 | 0.0648 | 0.1294 | 0.1231 | 0.3542 | -0.2311 | -0.3681 |
| 52 | 36.09 | 0.02 | 8.3108 | -3.0722 | 0.1993 | 0.1790 | 0.1180 | 0.1191 | 0.3539 | -0.2348 | -0.3697 |
| 53 | 36.32 | 0.02 | 8.5075 | -3.2648 | 0.2718 | 0.0336 | 0.1411 | 0.1136 | 0.3606 | -0.2472 | -0.3837 |
| 54 | 36.57 | 0.01 | 8.6124 | -3.3568 | 0.1107 | 0.2230 | 0.1409 | 0.0932 | 0.3543 | -0.2610 | -0.3944 |
| 55 | 36.81 | 0.01 | 8.7237 | -3.4438 | 0.1388 | 0.3320 | 0.1355 | 0.1000 | 0.3566 | -0.2568 | -0.3948 |
| 56 | 37.03 | 0.03 | 8.7838 | -3.4563 | 0.2516 | -0.0130 | 0.1365 | 0.0918 | 0.3525 | -0.2606 | -0.3935 |
| 57 | 37.29 | 0.03 | 8.8717 | -3.6545 | 0.3155 | 0.1125 | 0.1576 | 0.0991 | 0.3556 | -0.2607 | -0.4164 |
| 58 | 37.52 | 0.01 | 9.0115 | -3.5857 | 0.1137 | 0.0583 | 0.1159 | 0.0700 | 0.3494 | -0.2733 | -0.3983 |
| 59 | 37.76 | 0.02 | 9.0562 | -3.6556 | 0.1777 | 0.2083 | 0.1368 | 0.1098 | 0.3563 | -0.2667 | -0.4087 |
| 60 | 38.01 | 0.02 | 9.1064 | -3.7344 | 0.1972 | 0.1432 | 0.1350 | 0.0849 | 0.3525 | -0.2675 | -0.4104 |
| 61 | 38.24 | 0.02 | 9.2205 | -3.8418 | 0.1570 | 0.2472 | 0.1318 | 0.0824 | 0.3488 | -0.2663 | -0.4166 |
| 62 | 38.46 | 0.01 | 9.3824 | -3.9858 | 0.0093 | 0.4537 | 0.1163 | 0.0556 | 0.3407 | -0.2850 | -0.4226 |
| 63 | 38.72 | 0.00 | 9.4620 | -4.1430 | 0.0372 | 0.3503 | 0.1215 | 0.0678 | 0.3498 | -0.2819 | -0.4379 |
| 64 | 38.95 | 0.01 | 9.5602 | -4.0499 | 0.1428 | 0.2420 | 0.0900 | 0.0397 | 0.3419 | -0.3017 | -0.4227 |
| 65 | 39.15 | -0.01 | 9.6032 | -4.2014 | 0.0717 | 0.3760 | 0.1003 | 0.0456 | 0.3390 | -0.2934 | -0.4375 |
| 66 | 39.40 | 0.02 | 9.7773 | -4.3235 | 0.2156 | 0.3091 | 0.1007 | 0.0284 | 0.3389 | -0.3105 | -0.4422 |
| 67 | 39.63 | -0.02 | 9.8313 | -4.2564 | -0.0415 | 0.3657 | 0.0968 | 0.0405 | 0.3358 | -0.2953 | -0.4370 |
| 68 | 39.85 | -0.01 | 9.9659 | -4.4213 | -0.0406 | 0.4852 | 0.0904 | 0.0245 | 0.3408 | -0.3163 | -0.4463 |
| 69 | 40.08 | 0.00 | 9.9719 | -4.3768 | 0.1235 | 0.0568 | 0.0552 | 0.0127 | 0.3311 | -0.3184 | -0.4389 |
| 70 | 40.29 | -0.03 | 10.0316 | -4.3754 | -0.0691 | 0.2243 | 0.0803 | -0.0038 | 0.3283 | -0.3321 | -0.4358 |
| 71 | 40.48 | -0.01 | 10.1645 | -4.6751 | -0.0548 | 0.6408 | 0.0966 | 0.0112 | 0.3311 | -0.3199 | -0.4590 |
| 72 | 40.69 | -0.02 | 10.2696 | -4.7523 | -0.1083 | 0.8283 | 0.0964 | -0.0054 | 0.3342 | -0.3396 | -0.4628 |
| 73 | 40.90 | 0.00 | 10.2710 | -4.6555 | 0.0816 | 0.3373 | 0.0818 | 0.0113 | 0.3204 | -0.3091 | -0.4537 |
| 74 | 41.13 | -0.02 | 10.3659 | -4.8659 | -0.1092 | 0.4879 | 0.0765 | -0.0096 | 0.3179 | -0.3275 | -0.4528 |
| 75 | 41.36 | -0.02 | 10.5846 | -4.9502 | -0.0155 | 0.5662 | 0.0713 | -0.0295 | 0.3235 | -0.3530 | -0.4667 |
| 76 | 41.54 | -0.03 | 10.5747 | -4.8241 | -0.0381 | 0.2375 | 0.0506 | -0.0500 | 0.3145 | -0.3711 | -0.4562 |
| 77 | 41.74 | -0.03 | 10.6342 | -4.9758 | -0.1074 | 0.6486 | 0.0713 | -0.0371 | 0.3204 | -0.3575 | -0.4679 |
| 78 | 41.95 | -0.03 | 10.7648 | -5.1314 | -0.1642 | 0.8744 | 0.0656 | -0.0507 | 0.3246 | -0.3553 | -0.4758 |
| 79 | 42.15 | -0.04 | 10.8972 | -5.0853 | -0.1675 | 0.5531 | 0.0513 | -0.0688 | 0.3231 | -0.3919 | -0.4652 |
| 80 | 42.34 | -0.04 | 10.9378 | -5.1295 | -0.2416 | 0.6791 | 0.0504 | -0.0773 | 0.3185 | -0.3958 | -0.4687 |
| 81 | 42.53 | -0.02 | 11.1023 | -5.2818 | -0.1101 | 1.0356 | 0.0445 | -0.0830 | 0.3259 | -0.3889 | -0.4757 |
| 82 | 42.74 | -0.04 | 11.1366 | -5.3062 | -0.1011 | 0.8547 | 0.0401 | -0.0874 | 0.3116 | -0.3990 | -0.4762 |
| 83 | 42.91 | -0.02 | 11.1844 | -5.2308 | -0.0262 | 0.4401 | 0.0417 | -0.0714 | 0.3212 | -0.3926 | -0.4685 |
| 84 | 43.08 | -0.05 | 11.2513 | -5.3115 | -0.3660 | 1.3004 | 0.0339 | -0.0805 | 0.3153 | -0.3958 | -0.4721 |
| 85 | 43.25 | -0.03 | 11.2969 | -5.2943 | -0.1290 | 0.8817 | 0.0405 | -0.0918 | 0.3157 | -0.4075 | -0.4687 |
| 86 | 43.44 | -0.04 | 11.4196 | -5.3156 | -0.2736 | 1.4014 | 0.0230 | -0.0756 | 0.3077 | -0.3833 | -0.4833 |
| 87 | 43.64 | -0.03 | 11.4930 | -5.4045 | -0.1624 | 1.1252 | 0.0062 | -0.0893 | 0.3019 | -0.3912 | -0.4703 |
| 88 | 43.84 | -0.04 | 11.4823 | -5.3564 | -0.2745 | 1.1657 | 0.0242 | -0.1002 | 0.3057 | -0.4058 | -0.4656 |
| 89 | 43.98 | -0.05 | 11.6550 | -5.4524 | -0.2637 | 0.9530 | 0.0329 | -0.1323 | 0.2947 | -0.4269 | -0.4712 |
| 90 | 44.18 | -0.04 | 11.7421 | -5.5607 | -0.3112 | 1.1134 | 0.0039 | -0.1247 | 0.2906 | -0.4152 | -0.4736 |
| 91 | 44.35 | -0.05 | 11.7526 | -5.5656 | -0.4175 | 1.7135 | -0.0249 | -0.0960 | 0.3059 | -0.4019 | -0.4717 |
| 92 | 44.54 | -0.04 | 11.8214 | -5.5011 | -0.1492 | 0.9233 | 0.0227 | -0.1232 | 0.2920 | -0.4151 | -0.4654 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 147 MACH 1.10 RNIC-6 1.7 PHI 0.0 CONF B16CF15 L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.72 | -0.04 | 11.8136 | -5.4155 | -0.0263 | -0.0562 | 0.0403 | -0.1362 | 0.2836 | -0.4218 | -0.4584 |
| 94 | 44.90 | -0.04 | 11.8547 | -5.3436 | -0.2277 | 0.9587 | -0.0111 | -0.1071 | 0.2856 | -0.3927 | -0.4600 |
| 95 | 45.09 | -0.03 | 11.9943 | -5.3548 | 0.0104 | 0.0229 | 0.0354 | -0.1590 | 0.2816 | -0.4408 | -0.4630 |
| 96 | 45.27 | -0.04 | 12.0411 | -5.5446 | -0.1527 | 0.1471 | 0.0353 | -0.1625 | 0.2773 | -0.4398 | -0.4608 |
| 97 | 45.45 | -0.02 | 12.1068 | -5.5260 | 0.0178 | 0.0514 | 0.0011 | -0.1305 | 0.2836 | -0.4141 | -0.4616 |
| 98 | 45.64 | -0.03 | 12.1917 | -5.4562 | -0.1813 | 0.9731 | -0.0101 | -0.1409 | 0.2836 | -0.4245 | -0.4508 |
| 99 | 45.81 | -0.04 | 12.2064 | -5.2322 | -0.1022 | 0.9572 | -0.0313 | -0.1133 | 0.2836 | -0.3969 | -0.4286 |
| 100 | 45.98 | -0.04 | 12.2616 | -5.2667 | -0.1162 | 0.9855 | -0.0208 | -0.1406 | 0.2846 | -0.4252 | -0.4316 |
| 101 | 46.16 | -0.06 | 12.3313 | -5.3652 | -0.2505 | 1.2787 | -0.0534 | -0.1266 | 0.2818 | -0.4084 | -0.4351 |
| 102 | 46.34 | -0.07 | 12.3971 | -5.2156 | -0.4675 | 1.2155 | -0.0417 | -0.1257 | 0.2836 | -0.4093 | -0.4199 |
| 103 | 46.51 | -0.05 | 12.3350 | -5.1257 | -0.2172 | 1.1535 | -0.0635 | -0.1058 | 0.2866 | -0.3924 | -0.4157 |
| 104 | 46.67 | -0.06 | 12.4316 | -4.9385 | -0.2256 | 1.1508 | -0.0628 | -0.1007 | 0.2883 | -0.3890 | -0.3973 |
| 105 | 46.86 | -0.06 | 12.3776 | -4.8181 | -0.3181 | 1.3836 | -0.0745 | -0.0844 | 0.2943 | -0.3787 | -0.3853 |
| 106 | 47.04 | -0.04 | 12.4041 | -4.7415 | -0.1201 | 1.0346 | -0.0945 | -0.0897 | 0.2937 | -0.3834 | -0.3796 |
| 107 | 47.19 | -0.05 | 12.4525 | -4.7474 | -0.1932 | 1.0041 | -0.0781 | -0.0890 | 0.2929 | -0.3819 | -0.3800 |
| 108 | 47.37 | -0.04 | 12.4365 | -4.7516 | -0.1371 | 0.9365 | -0.0723 | -0.0930 | 0.2953 | -0.3884 | -0.3794 |
| 109 | 47.55 | -0.05 | 12.7063 | -5.0011 | -0.1701 | 0.7451 | -0.0441 | -0.0837 | 0.3030 | -0.3867 | -0.3917 |
| 110 | 47.74 | -0.05 | 12.9062 | -5.2347 | -0.1317 | 0.0028 | -0.0379 | -0.0555 | 0.3169 | -0.3724 | -0.4058 |
| 111 | 47.89 | -0.04 | 12.8773 | -5.1256 | -0.0662 | 0.5587 | -0.0380 | -0.0565 | 0.3144 | -0.3709 | -0.4030 |
| 112 | 48.08 | -0.02 | 13.0795 | -5.2585 | 0.1916 | 0.6665 | 0.0066 | -0.0084 | 0.3435 | -0.3519 | -0.4212 |
| 113 | 48.25 | -0.04 | 13.0561 | -5.4625 | -0.0554 | 0.3171 | 0.0226 | -0.0161 | 0.3560 | -0.3721 | -0.4184 |
| 114 | 48.41 | -0.04 | 13.0866 | -5.3151 | -0.0744 | 0.3919 | 0.0497 | -0.0060 | 0.3577 | -0.3637 | -0.4064 |
| 115 | 48.59 | -0.03 | 13.0935 | -5.2315 | 0.0044 | 0.3657 | 0.0714 | 0.0146 | 0.3609 | -0.3463 | -0.3996 |
| 116 | 48.75 | -0.03 | 13.1655 | -5.1213 | -0.0385 | 0.4151 | 0.0678 | 0.0030 | 0.3653 | -0.3623 | -0.3889 |
| 117 | 48.93 | -0.01 | 13.1416 | -5.0053 | 0.1263 | 0.5292 | 0.0979 | 0.0178 | 0.3692 | -0.3514 | -0.3812 |
| 118 | 49.11 | -0.03 | 13.1657 | -4.8838 | 0.0389 | 0.0213 | 0.0981 | 0.0391 | 0.3692 | -0.3301 | -0.3665 |
| 119 | 49.27 | -0.03 | 13.2100 | -4.8164 | 0.0777 | 0.7003 | 0.0980 | 0.0494 | 0.3696 | -0.3202 | -0.3495 |
| 120 | 49.45 | -0.04 | 13.3150 | -4.8754 | 0.1084 | 0.8553 | 0.0760 | 0.0252 | 0.3734 | -0.3482 | -0.3439 |
| 121 | 49.61 | -0.01 | 13.2459 | -4.4346 | 0.2008 | 0.6535 | 0.0558 | 0.0406 | 0.3713 | -0.3307 | -0.3347 |
| 122 | 49.82 | -0.04 | 13.3565 | -4.4554 | 0.1725 | 0.7671 | 0.0604 | 0.0353 | 0.3761 | -0.3308 | -0.3340 |
| 123 | 49.97 | -0.01 | 13.3124 | -4.4541 | 0.1377 | 0.7611 | 0.0604 | 0.0481 | 0.3772 | -0.3291 | -0.3346 |
| 124 | 50.13 | -0.00 | 13.4243 | -4.4033 | 0.2425 | 0.8081 | 0.0351 | 0.0474 | 0.3829 | -0.3355 | -0.3280 |
| 125 | 50.31 | -0.00 | 13.3457 | -4.0832 | 0.2254 | 0.5543 | 0.0598 | 0.0519 | 0.3854 | -0.3335 | -0.3059 |
| 126 | 50.50 | 0.00 | 13.4655 | -4.0353 | 0.2561 | 0.8621 | 0.0499 | 0.0703 | 0.3971 | -0.3268 | -0.2997 |
| 127 | 50.64 | -0.00 | 13.3104 | -3.5166 | 0.1544 | 1.2032 | 0.0595 | 0.0810 | 0.4027 | -0.3217 | -0.2642 |
| 128 | 50.81 | 0.01 | 13.3554 | -3.6466 | 0.2775 | 1.0302 | 0.0493 | 0.0881 | 0.4066 | -0.3185 | -0.2732 |
| 129 | 50.97 | 0.01 | 13.3356 | -3.3152 | 0.2724 | 1.1521 | 0.0490 | 0.0589 | 0.3989 | -0.3400 | -0.2485 |
| 130 | 51.17 | 0.02 | 13.4967 | -3.5034 | 0.3702 | 1.0421 | 0.0501 | 0.0729 | 0.4055 | -0.3326 | -0.2575 |
| 131 | 51.31 | -0.00 | 13.4562 | -3.3305 | 0.2162 | 1.1686 | 0.0497 | 0.0671 | 0.4082 | -0.3411 | -0.2468 |
| 132 | 51.48 | 0.01 | 13.6191 | -3.2565 | 0.2080 | 1.2262 | 0.0553 | 0.0541 | 0.4063 | -0.3522 | -0.2422 |
| 133 | 51.66 | 0.01 | 13.7250 | -3.4260 | 0.2251 | 1.1863 | 0.0503 | 0.0629 | 0.4081 | -0.3452 | -0.2496 |
| 134 | 51.82 | 0.03 | 13.6341 | -3.3755 | 0.3884 | 1.1548 | 0.0507 | 0.0489 | 0.4059 | -0.3570 | -0.2479 |
| 135 | 51.97 | 0.03 | 13.6548 | -3.4065 | 0.4192 | 1.0810 | 0.0502 | 0.0524 | 0.4046 | -0.3522 | -0.2495 |
| 136 | 52.16 | 0.01 | 13.6264 | -3.4147 | 0.3197 | 0.9131 | 0.0462 | 0.0494 | 0.4117 | -0.3623 | -0.2468 |
| 137 | 52.31 | 0.02 | 13.7622 | -3.4612 | 0.3470 | 0.9953 | 0.0510 | 0.0511 | 0.4089 | -0.3578 | -0.2515 |
| 138 | 52.50 | 0.01 | 13.8863 | -3.3546 | 0.3143 | 0.8877 | 0.0465 | 0.0525 | 0.4104 | -0.3779 | -0.2445 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIA MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 147 | 1.16 | 1.7 | 0.0 | BABOF15 | C.C | 0 | -20 | 0 | -20 | UNKNOWN |

| PLINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAE | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 32.04 | 0.01 | 13.8513 | -3.3325 | 0.3047 | 0.8345 | 0.0413 | 0.0363 | 0.4093 | -0.3730 | -0.2406 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 147 1.1C 1.7 | MACH | RNIO-6 | PHI 0.0 | CONF single | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | Col | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.78 | 0.01 | -0.0356 | 0.0 | 0.0144 | 0.0 | -0.3616 | -1.1503 | -0.0066 | -0.5551 | 0.0059 | 0.4825 |
| 2 | -5.78 | 0.01 | -0.0342 | 0.0011 | 0.0174 | -0.0342 | -0.5404 | -1.1427 | -0.0076 | -0.5545 | 0.0061 | 0.4835 |
| 3 | -5.78 | 0.00 | -0.0356 | 0.0002 | 0.0145 | -0.0050 | -0.3643 | -1.1503 | -0.0070 | -0.5541 | 0.0061 | 0.4817 |
| 4 | -5.18 | 0.01 | -0.0410 | 0.0 | 0.0138 | 0.0 | -0.3374 | -1.0732 | -0.0074 | -0.5297 | 0.0058 | 0.4635 |
| 5 | -3.30 | 0.01 | -0.0374 | 0.0004 | 0.0128 | -0.0107 | -0.3422 | -0.9704 | -0.0061 | -0.4925 | 0.0064 | 0.5079 |
| 6 | -1.50 | 0.01 | -0.0395 | -0.0001 | 0.0120 | 0.0029 | -0.3438 | -0.8572 | -0.0101 | -0.4436 | 0.0119 | 0.5195 |
| 7 | 0.30 | 0.00 | -0.0323 | -0.0007 | 0.0102 | 0.0217 | -0.3158 | -0.7390 | -0.0137 | -0.3946 | 0.0186 | 0.5335 |
| 8 | 2.15 | 0.01 | -0.0255 | -0.0007 | 0.0095 | 0.0234 | -0.3177 | -0.6113 | -0.0167 | -0.3304 | 0.0274 | 0.5405 |
| 9 | 3.97 | -0.00 | -0.0343 | -0.0013 | 0.0084 | 0.0379 | -0.2449 | -0.4894 | -0.0171 | -0.2755 | 0.0350 | 0.5638 |
| 10 | 5.84 | 0.01 | -0.0462 | -0.0019 | 0.0161 | 0.0412 | -0.2386 | -0.3689 | -0.0155 | -0.2086 | 0.0421 | 0.5654 |
| 11 | 7.75 | 0.01 | -0.0443 | -0.0021 | 0.0137 | 0.0475 | -0.3100 | -0.2546 | -0.0112 | -0.1589 | 0.0441 | 0.6162 |
| 12 | 9.57 | -0.00 | -0.0467 | -0.0013 | 0.0145 | 0.0279 | -0.3112 | -0.1273 | -0.0052 | -0.1122 | 0.0409 | 0.8820 |
| 13 | 11.52 | 0.02 | -0.0226 | -0.0015 | 0.0149 | 0.0314 | -0.2463 | -0.0334 | 0.0031 | -0.0628 | -0.0529 | 1.8772 |
| 14 | 14.58 | 0.01 | -0.0254 | -0.0028 | 0.0173 | 0.0429 | -0.2649 | 0.0239 | 0.0114 | -0.0295 | 0.4772 | -1.2510 |
| 15 | 14.54 | 0.01 | -0.0703 | -0.0024 | 0.0192 | 0.0342 | -0.2735 | 0.0875 | 0.0229 | -0.0014 | 0.2621 | -0.0180 |
| 16 | 16.55 | 0.00 | -0.0778 | -0.0020 | 0.0200 | 0.0781 | -0.2601 | 0.1660 | 0.0352 | 0.0319 | 0.2118 | 0.1524 |
| 17 | 18.54 | -0.01 | -0.0275 | -0.0043 | 0.0174 | 0.1060 | -0.1962 | 0.2254 | 0.0410 | 0.0586 | 0.1618 | 0.2608 |
| 18 | 20.55 | -0.01 | -0.1320 | -0.0110 | -0.0086 | 0.0885 | 0.0653 | 0.2881 | 0.0491 | 0.0885 | 0.1704 | 0.3073 |
| 19 | 22.61 | -0.00 | -0.1776 | -0.0047 | -0.0470 | 0.0285 | 0.2644 | 0.3583 | 0.0559 | 0.1234 | 0.1560 | 0.3442 |
| 20 | 24.61 | -0.00 | -0.2366 | -0.0166 | -0.0128 | 0.0453 | 0.3470 | 0.4166 | 0.0603 | 0.1491 | 0.1447 | 0.3578 |
| 21 | 26.66 | 0.04 | 0.1045 | 0.0055 | 0.0541 | 0.0449 | 0.9004 | 0.5245 | 0.0519 | 0.2040 | 0.0589 | 0.3888 |
| 22 | 28.61 | 0.04 | 0.1612 | 0.0072 | 0.0721 | 0.0595 | 0.7597 | 0.5398 | 0.0548 | 0.2088 | 0.0559 | 0.3868 |
| 23 | 28.22 | 0.04 | 0.1349 | 0.0067 | 0.0571 | 0.0649 | 0.7228 | 0.5573 | 0.0513 | 0.2173 | 0.0920 | 0.3699 |
| 24 | 28.60 | 0.04 | 0.0726 | 0.0048 | 0.0703 | 0.0808 | 0.9764 | 0.5447 | 0.0526 | 0.2093 | 0.0965 | 0.3842 |
| 25 | 28.92 | 0.02 | 0.0326 | 0.0024 | 0.0491 | 0.0750 | 1.5513 | 0.5484 | 0.0532 | 0.2111 | 0.0970 | 0.3845 |
| 26 | 29.19 | 0.04 | 0.0748 | 0.0045 | 0.0741 | 0.0565 | 0.9285 | 0.5605 | 0.0517 | 0.2163 | 0.0922 | 0.3894 |
| 27 | 29.52 | 0.06 | 0.2361 | 0.0094 | 0.1457 | 0.0395 | 0.6287 | 0.5912 | 0.0459 | 0.2366 | 0.0776 | 0.4002 |
| 28 | 29.81 | 0.06 | 0.2334 | 0.0099 | 0.1456 | 0.0425 | 0.6418 | 0.5903 | 0.0453 | 0.2385 | 0.0759 | 0.3999 |
| 29 | 30.09 | 0.07 | 0.2168 | 0.0094 | 0.1373 | 0.0450 | 0.6275 | 0.6004 | 0.0445 | 0.2428 | 0.0733 | 0.4004 |
| 30 | 30.37 | 0.07 | 0.2019 | 0.0095 | 0.1030 | 0.0303 | 0.6246 | 0.6243 | 0.0427 | 0.2517 | 0.0684 | 0.4032 |
| 31 | 30.69 | 0.09 | 0.1767 | 0.0080 | 0.1288 | 0.0168 | 0.7204 | 0.6327 | 0.0454 | 0.2551 | 0.0717 | 0.4032 |
| 32 | 30.95 | 0.08 | 0.2252 | 0.0094 | 0.1531 | 0.0196 | 0.6388 | 0.6342 | 0.0434 | 0.2566 | 0.0684 | 0.4046 |
| 33 | 31.20 | 0.09 | 0.1179 | -0.0010 | 0.0981 | -0.0085 | 0.8319 | 0.6263 | 0.0464 | 0.2516 | 0.0741 | 0.4018 |
| 34 | 31.48 | 0.09 | 0.1016 | -0.0015 | 0.0943 | -0.0149 | 0.9356 | 0.6339 | 0.0456 | 0.2552 | 0.0722 | 0.4026 |
| 35 | 31.77 | 0.03 | 0.1148 | -0.0023 | 0.1050 | -0.0201 | 0.9146 | 0.6452 | 0.0456 | 0.2612 | 0.0706 | 0.4049 |
| 36 | 32.04 | 0.03 | 0.1131 | 0.0017 | 0.0963 | 0.0062 | 0.8690 | 0.6528 | 0.0447 | 0.2653 | 0.0684 | 0.4064 |
| 37 | 32.31 | 0.03 | 0.1046 | 0.0043 | 0.0881 | 0.0412 | 0.8411 | 0.6633 | 0.0440 | 0.2709 | 0.0663 | 0.4085 |
| 38 | 32.58 | 0.04 | 0.0735 | -0.0007 | 0.0810 | -0.0095 | 1.1022 | 0.6532 | 0.0451 | 0.2661 | 0.0650 | 0.4074 |
| 39 | 32.84 | 0.03 | 0.0602 | 0.0017 | 0.0816 | 0.0212 | 1.0175 | 0.6771 | 0.0440 | 0.2776 | 0.0649 | 0.4100 |
| 40 | 33.11 | 0.01 | 0.1315 | 0.0010 | 0.0872 | 0.0137 | 0.8157 | 0.6785 | 0.0429 | 0.2771 | 0.0632 | 0.4084 |
| 41 | 33.37 | 0.04 | 0.1201 | -0.0033 | 0.1087 | -0.0275 | 0.9050 | 0.6961 | 0.0434 | 0.2846 | 0.0623 | 0.4089 |
| 42 | 33.62 | 0.04 | 0.1355 | -0.0005 | 0.1107 | -0.0066 | 0.8150 | 0.7024 | 0.0430 | 0.2868 | 0.0612 | 0.4111 |
| 43 | 33.87 | 0.01 | 0.1237 | -0.0022 | 0.1067 | -0.0178 | 0.8632 | 0.7080 | 0.0431 | 0.2926 | 0.0608 | 0.4132 |
| 44 | 34.13 | 0.02 | 0.1015 | -0.0013 | 0.0956 | -0.0128 | 0.9185 | 0.7146 | 0.0440 | 0.2939 | 0.0615 | 0.4112 |
| 45 | 34.39 | 0.03 | 0.1067 | -0.0017 | 0.1305 | -0.0102 | 0.7826 | 0.7146 | 0.0437 | 0.2949 | 0.0611 | 0.4128 |
| 46 | 34.63 | 0.03 | 0.1467 | -0.0026 | 0.1186 | -0.0175 | 0.7939 | 0.7258 | 0.0443 | 0.3003 | 0.0610 | 0.4137 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 147 RX10-6 1.1C 1.7 PHI 0.0 CONF BIMCFIG L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.68 | 0.03 | 0.0639 | -0.0034 | 0.0898 | -0.0406 | 1.0704 | 0.7304 | 0.0448 | 0.3033 | 0.0613 | 0.4152 |
| 48 | 35.14 | 0.02 | 0.1467 | -0.0015 | 0.1145 | -0.0101 | 0.7704 | 0.7305 | 0.0441 | 0.3033 | 0.0603 | 0.4152 |
| 49 | 35.36 | 0.03 | 0.1662 | -0.0030 | 0.0956 | -0.0283 | 0.9001 | 0.7351 | 0.0440 | 0.3040 | 0.0600 | 0.4146 |
| 50 | 35.59 | 0.03 | 0.1453 | -0.0016 | 0.1151 | -0.0067 | 0.7981 | 0.7371 | 0.0420 | 0.3047 | 0.0569 | 0.4133 |
| 51 | 35.85 | 0.02 | 0.1157 | -0.0021 | 0.1017 | -0.0162 | 0.8769 | 0.7308 | 0.0426 | 0.3027 | 0.0583 | 0.4142 |
| 52 | 36.09 | 0.02 | 0.0787 | -0.0015 | 0.0749 | -0.0170 | 1.0526 | 0.7320 | 0.0423 | 0.3120 | 0.0562 | 0.4145 |
| 53 | 36.32 | 0.02 | 0.1257 | 0.0005 | 0.1038 | 0.0072 | 0.8247 | 0.7475 | 0.0391 | 0.3094 | 0.0523 | 0.4139 |
| 54 | 36.57 | 0.01 | 0.1066 | 0.0009 | 0.0872 | 0.0084 | 0.9100 | 0.7639 | 0.0384 | 0.3152 | 0.0502 | 0.4126 |
| 55 | 36.81 | 0.01 | 0.0821 | 0.0004 | 0.0828 | 0.0049 | 1.0365 | 0.7615 | 0.0375 | 0.3150 | 0.0492 | 0.4138 |
| 56 | 37.03 | 0.03 | 0.0978 | 0.0024 | 0.0884 | 0.0248 | 0.9103 | 0.7803 | 0.0351 | 0.3229 | 0.0449 | 0.4138 |
| 57 | 37.29 | 0.03 | 0.1579 | 0.0006 | 0.1156 | 0.0361 | 0.7343 | 0.7806 | 0.0337 | 0.3219 | 0.0431 | 0.4124 |
| 58 | 37.52 | 0.01 | 0.0747 | 0.0034 | 0.0740 | 0.0456 | 0.9906 | 0.8006 | 0.0334 | 0.3300 | 0.0417 | 0.4122 |
| 59 | 37.76 | 0.02 | 0.0780 | 0.0036 | 0.0753 | 0.0437 | 0.9653 | 0.8043 | 0.0333 | 0.3316 | 0.0413 | 0.4125 |
| 60 | 38.01 | 0.02 | 0.0855 | 0.0049 | 0.0834 | 0.0573 | 0.9679 | 0.8131 | 0.0328 | 0.3345 | 0.0403 | 0.4114 |
| 61 | 38.24 | 0.02 | 0.1138 | 0.0064 | 0.0962 | 0.0563 | 0.7924 | 0.8045 | 0.0326 | 0.3303 | 0.0405 | 0.4106 |
| 62 | 38.48 | 0.01 | 0.0924 | 0.0059 | 0.0778 | 0.0659 | 0.8997 | 0.8182 | 0.0320 | 0.3359 | 0.0398 | 0.4105 |
| 63 | 38.72 | 0.00 | 0.1064 | 0.0080 | 0.0838 | 0.0753 | 0.7874 | 0.8156 | 0.0324 | 0.3337 | 0.0397 | 0.4091 |
| 64 | 38.95 | 0.01 | 0.0944 | 0.0060 | 0.0733 | 0.0740 | 0.9834 | 0.8301 | 0.0330 | 0.3436 | 0.0393 | 0.4100 |
| 65 | 39.15 | -0.01 | 0.0857 | 0.0062 | 0.0681 | 0.0945 | 0.9146 | 0.8346 | 0.0332 | 0.3420 | 0.0397 | 0.4098 |
| 66 | 39.40 | 0.02 | 0.0715 | 0.0066 | 0.0648 | 0.0967 | 0.9911 | 0.8472 | 0.0334 | 0.3464 | 0.0403 | 0.4067 |
| 67 | 39.63 | -0.02 | 0.0960 | 0.0057 | 0.0878 | 0.1226 | 1.0256 | 0.8597 | 0.0330 | 0.3506 | 0.0383 | 0.4079 |
| 68 | 39.85 | -0.01 | 0.0973 | 0.0058 | 0.0837 | 0.0979 | 0.9571 | 0.8539 | 0.0334 | 0.3484 | 0.0388 | 0.4080 |
| 69 | 40.08 | 0.00 | 0.0827 | 0.0045 | 0.0765 | 0.1207 | 0.9432 | 0.8827 | 0.0323 | 0.3602 | 0.0365 | 0.4021 |
| 70 | 40.29 | -0.03 | 0.0993 | 0.0064 | 0.0873 | 0.1099 | 0.8959 | 0.8964 | 0.0323 | 0.3669 | 0.0360 | 0.4092 |
| 71 | 40.48 | -0.01 | 0.0858 | 0.0060 | 0.0758 | 0.1508 | 1.1432 | 0.8738 | 0.0344 | 0.3546 | 0.0393 | 0.4055 |
| 72 | 40.69 | -0.02 | 0.0930 | 0.0063 | 0.0795 | 0.1870 | 1.1750 | 0.8726 | 0.0348 | 0.3536 | 0.0398 | 0.4048 |
| 73 | 40.90 | 0.00 | 0.0760 | 0.0050 | 0.0771 | 0.1924 | 1.4265 | 0.8663 | 0.0345 | 0.3581 | 0.0385 | 0.4061 |
| 74 | 41.13 | -0.02 | 0.0988 | 0.0058 | 0.0946 | 0.1959 | 1.1600 | 0.9112 | 0.0344 | 0.3693 | 0.0377 | 0.4052 |
| 75 | 41.34 | -0.02 | -0.0005 | 0.0026 | 0.0242 | -2.8900 | -26.8885 | 0.8937 | 0.0357 | 0.3612 | 0.0397 | 0.4020 |
| 76 | 41.54 | -0.03 | 0.0104 | 0.0031 | 0.0284 | 0.2982 | 2.9963 | 0.9201 | 0.0349 | 0.3735 | 0.0376 | 0.4032 |
| 77 | 41.74 | -0.03 | -0.0040 | 0.0023 | 0.0218 | -0.5752 | -5.4500 | 0.9236 | 0.0362 | 0.3704 | 0.0391 | 0.4010 |
| 78 | 41.93 | -0.03 | -0.0031 | -0.0024 | 0.0163 | 0.0558 | -0.1405 | 0.9165 | 0.0364 | 0.3696 | 0.0396 | 0.4017 |
| 79 | 42.15 | -0.04 | -0.0231 | -0.0004 | 0.0112 | 0.0173 | -0.4848 | 0.9355 | 0.0368 | 0.3742 | 0.0393 | 0.3995 |
| 80 | 42.34 | -0.04 | -0.0324 | -0.0015 | -0.0016 | 0.0320 | 0.0103 | 0.9315 | 0.0383 | 0.3724 | 0.0411 | 0.3997 |
| 81 | 42.53 | -0.02 | -0.0461 | -0.0036 | 0.0035 | 0.0783 | -0.0348 | 0.9541 | 0.0374 | 0.3827 | 0.0392 | 0.4011 |
| 82 | 42.72 | -0.04 | -0.0449 | -0.0031 | 0.0051 | 0.0692 | -0.0092 | 0.9506 | 0.0370 | 0.3824 | 0.0395 | 0.4003 |
| 83 | 42.91 | -0.02 | -0.0665 | -0.0031 | -0.0091 | 0.0464 | 0.0783 | 0.9573 | 0.0386 | 0.3808 | 0.0403 | 0.3978 |
| 84 | 43.08 | -0.05 | -0.0926 | -0.0063 | -0.0181 | 0.0081 | 0.1940 | 0.9540 | 0.0398 | 0.3811 | 0.0417 | 0.3992 |
| 85 | 43.25 | -0.03 | -0.0732 | -0.0041 | -0.0081 | 0.0835 | 0.1108 | 0.9722 | 0.0391 | 0.3871 | 0.0402 | 0.3981 |
| 86 | 43.44 | -0.04 | -0.1171 | -0.0067 | -0.0279 | 0.0005 | 0.2267 | 0.9819 | 0.0424 | 0.3869 | 0.0440 | 0.3960 |
| 87 | 43.64 | -0.03 | -0.1032 | -0.0060 | -0.0352 | 0.0562 | 0.3414 | 0.9721 | 0.0410 | 0.3832 | 0.0421 | 0.3962 |
| 88 | 43.81 | -0.04 | -0.1116 | -0.0066 | -0.0305 | 0.0005 | 0.2706 | 0.9757 | 0.0411 | 0.3858 | 0.0421 | 0.3954 |
| 89 | 43.98 | -0.05 | -0.0367 | -0.0028 | 0.0011 | 0.0783 | -0.0300 | 1.0218 | 0.0379 | 0.4057 | 0.0371 | 0.3970 |
| 90 | 44.18 | -0.04 | -0.1759 | -0.0128 | -0.0649 | 0.0713 | 0.3584 | 0.9788 | 0.0424 | 0.3845 | 0.0438 | 0.3932 |
| 91 | 44.35 | -0.05 | -0.1695 | -0.0151 | -0.0687 | 0.0798 | 0.3624 | 0.9862 | 0.0436 | 0.3881 | 0.0442 | 0.3939 |
| 92 | 44.54 | -0.04 | -0.0877 | -0.0015 | -0.0015 | 0.0598 | 0.0345 | 1.0318 | 0.0397 | 0.4057 | 0.0384 | 0.3932 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 1+7 | MACH 1.10 | RN/C-6 1.7 | PHI 0.0 | CONF BIMOFAS | L 30.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.72 | -0.04 | -0.0247 | C.C | C.0047 | C.0 | -0.1903 | 1.0318 | 0.0431 | 0.4062 | 0.0388 | C.3537 |
| 94 | 44.96 | -0.04 | -0.1256 | -C.0152 | -C.C007 | C.0849 | 0.3717 | C.9903 | 0.0443 | 0.3885 | 0.0444 | C.3899 |
| 95 | 45.09 | -0.03 | C.0056 | 0.0018 | C.C145 | C.1876 | T.5104 | 1.0444 | 0.0396 | 0.4087 | 0.0381 | 0.3513 |
| 96 | 45.27 | -0.04 | C.0036 | C.0011 | C.C1CC | C.1903 | 1.7357 | 1.0543 | 0.0436 | 0.4116 | 0.0385 | C.3504 |
| 97 | 45.43 | -C.02 | -C.1323 | -C.0131 | -C.C4C7 | C.0992 | 0.3679 | 1.0266 | 0.0449 | 0.3997 | C.C436 | 0.3885 |
| 98 | 45.64 | -0.03 | -C.1995 | -C.0134 | -0.0051 | C.0929 | 0.3074 | 1.0224 | 0.0462 | 0.3961 | C.C452 | 0.3880 |
| 99 | 45.81 | -0.04 | -C.1124 | -C.0114 | -0.0029 | C.1C1C | 0.3811 | 1.0173 | 0.0476 | 0.3914 | C.C468 | 0.3847 |
| 100 | 45.96 | -0.04 | -C.1347 | -C.0120 | -C.C4CC | C.0893 | 0.3021 | 1.0122 | 0.0485 | 0.3890 | 0.0477 | 0.3843 |
| 101 | 46.10 | -0.06 | -C.1456 | -C.0155 | -C.CCC8 | 0.1094 | 0.4175 | 1.0210 | 0.0483 | 0.3922 | 0.0473 | 0.3841 |
| 102 | 46.34 | -C.07 | -C.1C7E | -C.0242 | -C.CC26 | C.1446 | 0.3746 | 1.0047 | 0.0485 | 0.3829 | 0.0486 | 0.3811 |
| 103 | 46.51 | -C.05 | -C.1CCC | -C.02CE | -C.CC25 | C.1302 | 0.3905 | 1.0067 | 0.0493 | 0.3856 | C.C49C | 0.3832 |
| 104 | 46.67 | -0.06 | -C.1587 | -C.C27C | -C.CCCC | C.1717 | 0.3703 | 0.9896 | 0.0479 | 0.3719 | 0.0484 | 0.3758 |
| 105 | 46.86 | -0.06 | -C.1542 | -C.0237 | -C.CCC8 | C.1540 | 0.3942 | 1.0046 | 0.0480 | 0.3781 | 0.0478 | 0.3763 |
| 106 | 47.04 | -C.04 | -C.1463 | -C.C242 | -C.CC24 | C.1559 | 0.3765 | 1.0024 | 0.0461 | 0.3758 | 0.C460 | 0.3748 |
| 107 | 47.19 | -0.05 | -C.1373 | -C.0235 | -C.CC35 | C.2153 | 0.3895 | 0.9991 | 0.0437 | 0.3719 | 0.0437 | 0.3722 |
| 108 | 47.37 | -C.06 | -C.1156 | -C.C25C | -C.C4CC | C.2479 | 0.3931 | 1.0005 | 0.0434 | 0.3689 | C.C443 | 0.3687 |
| 109 | 47.55 | -C.05 | -C.0264 | -C.0335 | -C.CC5C | 1.2008 | C.1894 | 0.9962 | 0.0229 | 0.3557 | C.C23C | 0.3604 |
| 110 | 47.74 | -C.05 | -C.CC3C | -C.0031 | C.0027 | 11.0713 | -C.9300 | 1.0036 | 0.0192 | 0.3629 | C.C192 | 0.3618 |
| 111 | 47.89 | -C.04 | -C.C24C | -C.C328 | -C.CC3C | 2.3366 | 0.2143 | 0.9972 | 0.0212 | 0.3590 | C.C213 | C.3606 |
| 112 | 48.08 | -C.02 | C.C32C | -C.C2CC | C.C25C | -C.3C3C | 0.4022 | 0.9764 | C.0122 | 0.3562 | 0.0125 | C.3578 |
| 113 | 48.25 | -C.04 | C.0CC2 | -C.C25C | C.CCC5 | -C.4161 | 0.4439 | 0.9838 | 0.0124 | 0.3440 | 0.0129 | 0.3565 |
| 114 | 48.41 | -C.04 | C.CC34 | -C.C11C | C.C373 | -C.13CC | 0.4373 | 0.9936 | 0.0134 | 0.3151 | C.C15C | 0.3504 |
| 115 | 48.59 | -C.03 | C.0992 | -C.CCC3 | C.C443 | -C.C858 | 0.4460 | 0.9902 | 0.0130 | 0.3133 | C.C145 | 0.3496 |
| 116 | 48.75 | -C.03 | C.C44C | -C.0023 | C.C495 | -C.0331 | 0.4554 | 0.9811 | 0.0139 | 0.3071 | C.C158 | 0.3485 |
| 117 | 48.93 | -C.01 | C.CE1C | C.CCC2C | C.C34E | C.C247 | C.4332 | 0.8371 | 0.0154 | 0.2870 | C.C184 | C.3428 |
| 118 | 49.11 | -0.03 | C.C5C7 | C.0046 | C.CC38 | C.C848 | 0.4205 | 0.8081 | C.0173 | 0.2736 | 0.C214 | 0.3384 |
| 119 | 49.27 | -0.03 | 0.0428 | C.CC5C | C.CC16I | C.1145 | 0.3684 | 0.7954 | 0.0179 | 0.2710 | 0.0225 | 0.3408 |
| 120 | 49.49 | -C.02 | C.CC43 | C.CCC5 | C.CCCE | C.5816 | 0.1866 | 0.7701 | 0.0158 | 0.2580 | 0.0258 | 0.3350 |
| 121 | 49.61 | -C.01 | C.0153 | C.0043 | C.0037 | C.2812 | 0.2418 | 0.7901 | 0.0197 | 0.2692 | 0.0250 | 0.3408 |
| 122 | 49.82 | -C.02 | C.CC1C | C.CCC8 | -C.CCC1C | 2.8C11 | -1.0300 | 0.7928 | 0.0188 | 0.2699 | 0.C238 | 0.3405 |
| 123 | 49.97 | -C.01 | C.CC95 | C.0023 | C.CC23 | C.2324 | 0.2323 | 0.7928 | 0.0137 | 0.2685 | 0.C236 | 0.3392 |
| 124 | 50.13 | -C.0C | -C.CC64 | C.CCC7 | -C.CC3C | -C.1094 | 0.7613 | 0.7812 | 0.0191 | 0.2641 | 0.0245 | C.3381 |
| 125 | 50.31 | -C.0C | -C.C11C | -C.CCC7 | -C.CC5C | C.1441 | C.5000 | 0.7583 | 0.0204 | 0.2553 | 0.0265 | 0.3367 |
| 126 | 50.50 | C.CC | -C.C151 | -C.CC13 | -C.CC55 | C.C993 | 0.4196 | 0.7715 | 0.0197 | 0.2625 | 0.0256 | 0.3403 |
| 127 | 50.69 | -C.CC | -C.C41E | -C.CC37 | -C.C157 | C.C888 | 0.3765 | 0.7089 | 0.0238 | 0.2356 | C.C336 | 0.3323 |
| 128 | 50.81 | 0.01 | -C.C21C | -C.CCC6 | -C.CC5Z | C.C942 | 0.3333 | 0.7322 | 0.0225 | 0.2401 | 0.C308 | 0.3361 |
| 129 | 50.97 | C.01 | -C.C445 | -C.CCC5 | -C.C136 | C.C563 | 0.3131 | 0.7225 | 0.0240 | 0.2436 | C.C333 | 0.3363 |
| 130 | 51.17 | C.CZ | -C.CZ19 | -C.CCC3 | -C.CC6C | C.C856 | 0.2437 | 0.7434 | 0.0220 | 0.2529 | 0.C296 | 0.3402 |
| 131 | 51.31 | -C.CC | -C.C3EE | -C.CC31 | -C.CC56 | C.C843 | 0.2663 | 0.7263 | 0.0227 | 0.2456 | 0.C313 | 0.3382 |
| 132 | 51.48 | C.CI | -C.CZ45 | -C.CCCE | -C.C11A | C.CE97 | 0.2009 | 0.7297 | 0.0232 | 0.2471 | 0.C318 | 0.3386 |
| 133 | 51.66 | 0.01 | -C.C355 | -C.CCCE | -C.CC61 | C.C78C | 0.2256 | 0.7430 | 0.0226 | 0.2524 | 0.C305 | 0.3357 |
| 134 | 51.84 | C.C3 | -C.C352 | -C.CC42 | -C.CC87 | C.1C72 | 0.2219 | 0.7341 | 0.0228 | 0.2482 | 0.C311 | 0.3381 |
| 135 | 51.97 | 0.03 | -C.C373 | -C.CC36 | -C.CCE5 | C.C966 | 0.1850 | 0.7395 | 0.0227 | 0.2495 | 0.C307 | C.3374 |
| 136 | 52.16 | C.CI | -C.CZ13 | -C.CCC1 | -C.CC33 | C.1136 | 0.1209 | 0.7329 | 0.0223 | 0.2538 | 0.C297 | C.3371 |
| 137 | 52.31 | C.CZ | -C.C315 | -C.CCCZ | -C.CC3E | C.1CC4 | 0.1191 | 0.7535 | 0.0217 | 0.2555 | 0.0288 | C.3351 |
| 138 | 52.50 | C.CI | -C.CZEE | -C.CCCZ | -C.CCCE | C.C796 | 0.0226 | 0.7703 | 0.0217 | 0.2629 | 0.0282 | 0.3413 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 6

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | REIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 497 | 1.10 | 1.7 | C.C | BIaOFIa | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.84 | 0.01 | -0.0266 | -0.0023 | -0.1106 | 0.0805 | 0.0226 | 0.7609 | 0.0215 | 0.2577 | 0.0283 | 0.3387 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 147 MACH 1.10 RN/F 1.7 PHI 0.0 CONF 15 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.78 | 0.01 | 0.0376 | 5.5555 | 0.0082 | 5.5559 | 0.1441 | -1.2278 | -0.0130 | -0.5261 | 0.0106 | 0.4362 |
| 2 | -5.76 | 0.01 | 0.0354 | 5.5555 | 0.0075 | 5.5555 | 0.1332 | -1.2264 | -0.0133 | -0.5285 | 0.0105 | 0.4316 |
| 3 | -5.78 | 0.00 | 0.0356 | 5.5555 | 0.0074 | 5.5555 | 0.1248 | -1.2334 | -0.0131 | -0.5263 | 0.0107 | 0.4294 |
| 4 | -5.18 | 0.01 | 0.0324 | 5.5555 | 0.0073 | 5.5559 | 0.1196 | -1.1604 | -0.0140 | -0.4996 | 0.0128 | 0.4307 |
| 5 | -3.30 | 0.01 | 0.0060 | 5.5555 | 0.0021 | 5.5555 | 0.1023 | -1.0528 | -0.0164 | -0.4068 | 0.0156 | 0.4377 |
| 6 | -1.56 | 0.01 | 0.0466 | 5.5555 | 0.0086 | 5.5555 | 0.1376 | -0.9920 | -0.0189 | -0.4130 | 0.0201 | 0.4385 |
| 7 | 0.30 | 0.00 | 0.0347 | 5.5555 | 0.0089 | 5.5555 | 0.1538 | -0.8224 | -0.0204 | -0.3600 | 0.0246 | 0.4378 |
| 8 | 2.15 | 0.01 | 0.0371 | 5.5555 | 0.0082 | 5.5555 | 0.1193 | -0.6978 | -0.0215 | -0.3018 | 0.0309 | 0.4325 |
| 9 | 3.57 | -0.00 | 0.0395 | 5.5555 | 0.0038 | 5.5999 | 0.0640 | -0.5745 | -0.0215 | -0.2424 | 0.0375 | 0.4219 |
| 10 | 5.84 | 0.01 | 0.0215 | 5.5555 | 0.0031 | 5.5555 | 0.0502 | -0.4520 | -0.0186 | -0.1832 | 0.0412 | 0.4054 |
| 11 | 7.75 | 0.01 | 0.0701 | 5.5555 | 0.0037 | 5.5555 | 0.0529 | -0.3268 | -0.0143 | -0.1326 | 0.0438 | 0.4038 |
| 12 | 9.57 | -0.00 | 0.0251 | 5.5555 | 0.0014 | 5.5555 | 0.0203 | -0.2145 | -0.0064 | -0.0800 | 0.0299 | 0.3730 |
| 13 | 11.52 | 0.02 | 0.0703 | 5.5555 | -0.0003 | 5.5555 | -0.0043 | -0.1099 | 0.0037 | -0.0345 | -0.0337 | 0.3142 |
| 14 | 12.98 | 0.01 | 0.0704 | 5.5555 | -0.0017 | 5.5555 | -0.0242 | -0.0484 | 0.0139 | -0.0047 | -0.2879 | 0.0573 |
| 15 | 14.54 | 0.01 | 0.0772 | 5.5555 | 0.0025 | 5.5559 | 0.0324 | 0.0222 | 0.0267 | 0.0285 | 1.2032 | 1.2838 |
| 16 | 16.55 | 0.00 | 0.0745 | 5.5555 | -0.0007 | 5.5555 | -0.0098 | 0.0915 | 0.0380 | 0.0755 | 0.4148 | 0.8249 |
| 17 | 18.04 | -0.01 | 0.0764 | 5.5555 | 0.0030 | 5.5559 | 0.0383 | 0.1484 | 0.0436 | 0.1056 | 0.2927 | 0.7364 |
| 18 | 20.55 | -0.01 | 0.0665 | 5.5555 | -0.0015 | 5.5555 | -0.0225 | 0.2450 | 0.0484 | 0.1469 | 0.2150 | 0.6529 |
| 19 | 22.61 | -0.00 | 0.0611 | 5.5555 | -0.0044 | 5.5555 | -0.0735 | 0.2932 | 0.0530 | 0.1811 | 0.1867 | 0.6178 |
| 20 | 24.01 | -0.02 | 0.0633 | 5.5555 | -0.0065 | 5.5555 | -0.0979 | 0.3754 | 0.0535 | 0.2210 | 0.1425 | 0.5867 |
| 21 | 26.66 | 0.04 | 0.0605 | 5.5555 | 0.0067 | 5.5559 | 0.1062 | 0.5462 | 0.0587 | 0.2061 | 0.1686 | 0.5917 |
| 22 | 28.11 | 0.04 | 0.0761 | 5.5555 | 0.0103 | 5.5559 | 0.1521 | 0.5775 | 0.0580 | 0.2236 | 0.1536 | 0.5923 |
| 23 | 28.22 | 0.04 | 0.0735 | 5.5555 | 0.0061 | 5.5555 | 0.1104 | 0.5840 | 0.0581 | 0.2275 | 0.1513 | 0.5924 |
| 24 | 26.80 | 0.04 | 0.0699 | 5.5555 | 0.0156 | 5.5559 | 0.1603 | 0.4906 | 0.0562 | 0.2428 | 0.1384 | 0.5980 |
| 25 | 28.52 | 0.02 | 0.0781 | 5.5555 | 0.0112 | 5.5559 | 0.1436 | 0.4181 | 0.0553 | 0.2474 | 0.1322 | 0.5917 |
| 26 | 29.19 | 0.04 | 0.0795 | 5.5555 | 0.0122 | 5.5559 | 0.1540 | 0.4262 | 0.0560 | 0.2522 | 0.1314 | 0.5917 |
| 27 | 29.52 | 0.06 | 0.0764 | 5.5555 | 0.0218 | 5.5559 | 0.2264 | 0.4352 | 0.0589 | 0.2587 | 0.1353 | 0.5944 |
| 28 | 29.81 | 0.06 | 0.0758 | 5.5555 | 0.0178 | 5.5559 | 0.1966 | 0.4340 | 0.0588 | 0.2595 | 0.1355 | 0.5979 |
| 29 | 30.09 | 0.07 | 0.0741 | 5.5555 | 0.0207 | 5.5559 | 0.2202 | 0.4487 | 0.0586 | 0.2666 | 0.1306 | 0.5947 |
| 30 | 30.37 | 0.07 | 0.0767 | 5.5555 | 0.0195 | 5.5559 | 0.2152 | 0.4402 | 0.0582 | 0.2602 | 0.1212 | 0.5836 |
| 31 | 30.64 | 0.04 | 0.0764 | 5.5555 | 0.0141 | 5.5555 | 0.1758 | 0.3232 | 0.0560 | 0.3010 | 0.1076 | 0.5752 |
| 32 | 30.95 | 0.06 | 0.0750 | 5.5555 | 0.0210 | 5.5559 | 0.2260 | 0.3408 | 0.0555 | 0.3104 | 0.1027 | 0.5742 |
| 33 | 31.20 | 0.04 | 0.0815 | 5.5555 | 0.0147 | 5.5559 | 0.1306 | 0.3599 | 0.0536 | 0.3188 | 0.0954 | 0.5654 |
| 34 | 31.48 | 0.04 | 0.0761 | 5.5555 | 0.0178 | 5.5559 | 0.2070 | 0.3715 | 0.0529 | 0.3249 | 0.0925 | 0.5681 |
| 35 | 31.77 | 0.03 | 0.0853 | 5.5555 | 0.0163 | 5.5559 | 0.1920 | 0.3905 | 0.0525 | 0.3330 | 0.0889 | 0.5639 |
| 36 | 32.04 | 0.03 | 0.0752 | 5.5555 | 0.0145 | 5.5559 | 0.1884 | 0.3870 | 0.0530 | 0.3304 | 0.0902 | 0.5623 |
| 37 | 32.31 | 0.03 | 0.0775 | 5.5555 | 0.0135 | 5.5559 | 0.1787 | 0.3654 | 0.0540 | 0.3204 | 0.0955 | 0.5667 |
| 38 | 32.58 | 0.04 | 0.0745 | 5.5555 | 0.0154 | 5.5559 | 0.1816 | 0.3645 | 0.0514 | 0.3359 | 0.0850 | 0.5556 |
| 39 | 32.84 | 0.03 | 0.0734 | 5.5555 | 0.0113 | 5.5555 | 0.1562 | 0.3658 | 0.0519 | 0.3361 | 0.0857 | 0.5550 |
| 40 | 33.11 | 0.01 | 0.0766 | 5.5555 | 0.0125 | 5.5559 | 0.1662 | 0.3681 | 0.0521 | 0.3363 | 0.0856 | 0.5530 |
| 41 | 33.37 | 0.04 | 0.0779 | 5.5555 | 0.0135 | 5.5555 | 0.1787 | 0.3646 | 0.0498 | 0.3536 | 0.0772 | 0.5486 |
| 42 | 33.62 | 0.04 | 0.0762 | 5.5555 | 0.0164 | 5.5559 | 0.2047 | 0.3664 | 0.0501 | 0.3539 | 0.0772 | 0.5459 |
| 43 | 33.87 | 0.01 | 0.0755 | 5.5555 | 0.0101 | 5.5559 | 0.1447 | 0.3639 | 0.0502 | 0.3524 | 0.0775 | 0.5473 |
| 44 | 34.13 | 0.02 | 0.0762 | 5.5555 | 0.0095 | 5.5559 | 0.1387 | 0.3687 | 0.0493 | 0.3537 | 0.0760 | 0.5453 |
| 45 | 34.39 | 0.03 | 0.0758 | 5.5555 | 0.0204 | 5.5559 | 0.2383 | 0.3792 | 0.0482 | 0.3644 | 0.0709 | 0.5368 |
| 46 | 34.63 | 0.03 | 0.0777 | 5.5555 | 0.0157 | 5.5559 | 0.2023 | 0.3881 | 0.0459 | 0.3647 | 0.0667 | 0.5300 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 147 | MACH 1.10 | RNIE-6 1.7 | PHI 0.0 | CONF 81&0F15 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 36.08 | 0.03 | 0.0762 | 5.9955 | 0.0178 | 5.9999 | 0.2242 | 0.7022 | 0.0436 | 0.3097 | 0.0621 | 0.5265 |
| 48 | 35.14 | 0.02 | 0.0716 | 5.9955 | 0.0143 | 5.9999 | 0.1994 | 0.6953 | 0.0442 | 0.3081 | 0.0632 | 0.5263 |
| 49 | 35.36 | 0.03 | 0.0725 | 5.9955 | 0.0153 | 5.9999 | 0.2102 | 0.7142 | 0.0428 | 0.3733 | 0.0599 | 0.5226 |
| 50 | 35.59 | 0.03 | 0.0765 | 5.9955 | 0.0156 | 5.9999 | 0.2170 | 0.7316 | 0.0419 | 0.3797 | 0.0572 | 0.5196 |
| 51 | 35.85 | 0.02 | 0.0774 | 5.9955 | 0.0157 | 5.9999 | 0.2269 | 0.7345 | 0.0415 | 0.3812 | 0.0561 | 0.5156 |
| 52 | 36.09 | 0.02 | 0.0749 | 5.9955 | 0.0124 | 5.9999 | 0.1914 | 0.7263 | 0.0420 | 0.3750 | 0.0578 | 0.5163 |
| 53 | 36.32 | 0.02 | 0.0758 | 5.9955 | 0.0222 | 5.9999 | 0.2792 | 0.7594 | 0.0408 | 0.3888 | 0.0537 | 0.5119 |
| 54 | 36.57 | 0.01 | 0.0814 | 5.9955 | 0.0117 | 5.9999 | 0.1909 | 0.7623 | 0.0401 | 0.3865 | 0.0526 | 0.5101 |
| 55 | 36.81 | 0.01 | 0.0782 | 5.9955 | 0.0187 | 5.9999 | 0.2452 | 0.7757 | 0.0393 | 0.3927 | 0.0506 | 0.5063 |
| 56 | 37.05 | 0.03 | 0.0715 | 5.9955 | 0.0174 | 5.9999 | 0.2507 | 0.7579 | 0.0407 | 0.3871 | 0.0537 | 0.5107 |
| 57 | 37.29 | 0.02 | 0.0735 | 5.9955 | 0.0136 | 5.9999 | 0.2145 | 0.7874 | 0.0389 | 0.3976 | 0.0494 | 0.5056 |
| 58 | 37.52 | 0.01 | 0.0769 | 5.9955 | 0.0207 | 5.9999 | 0.2659 | 0.7885 | 0.0401 | 0.3878 | 0.0521 | 0.5046 |
| 59 | 37.76 | 0.02 | 0.0812 | 5.9955 | 0.0139 | 5.9999 | 0.2275 | 0.7782 | 0.0389 | 0.3907 | 0.0499 | 0.5021 |
| 60 | 36.01 | 0.02 | 0.0769 | 5.9955 | 0.0158 | 5.9999 | 0.2735 | 0.7800 | 0.0393 | 0.3928 | 0.0503 | 0.5032 |
| 61 | 38.24 | 0.02 | 0.0648 | 5.9955 | 0.0180 | 5.9999 | 0.2481 | 0.8032 | 0.0382 | 0.4015 | 0.0475 | 0.4995 |
| 62 | 38.48 | 0.01 | 0.0702 | 5.9955 | 0.0152 | 5.9999 | 0.2739 | 0.8070 | 0.0385 | 0.4042 | 0.0477 | 0.5009 |
| 63 | 38.72 | 0.00 | 0.0656 | 5.9955 | 0.0185 | 5.9999 | 0.2794 | 0.8420 | 0.0359 | 0.4165 | 0.0426 | 0.4948 |
| 64 | 38.95 | 0.01 | 0.0657 | 5.9955 | 0.0174 | 5.9999 | 0.2652 | 0.8016 | 0.0387 | 0.3991 | 0.0482 | 0.4975 |
| 65 | 39.19 | -0.01 | 0.0588 | 5.9955 | 0.0133 | 5.9999 | 0.2266 | 0.8270 | 0.0378 | 0.4090 | 0.0457 | 0.4948 |
| 66 | 39.40 | 0.02 | 0.0603 | 5.9955 | 0.0203 | 5.9999 | 0.3275 | 0.8407 | 0.0374 | 0.4176 | 0.0441 | 0.4932 |
| 67 | 39.63 | -0.02 | 0.0555 | 5.9955 | 0.0142 | 5.9999 | 0.2375 | 0.8201 | 0.0387 | 0.4058 | 0.0471 | 0.4948 |
| 68 | 39.85 | -0.01 | 0.0655 | 5.9955 | 0.0192 | 5.9999 | 0.2936 | 0.8391 | 0.0382 | 0.4126 | 0.0455 | 0.4917 |
| 69 | 40.08 | 0.00 | 0.0655 | 5.9955 | 0.0187 | 5.9999 | 0.2859 | 0.8151 | 0.0396 | 0.4029 | 0.0485 | 0.4943 |
| 70 | 40.29 | -0.03 | 0.0564 | 5.9955 | 0.0140 | 5.9999 | 0.2487 | 0.8054 | 0.0407 | 0.3985 | 0.0505 | 0.4948 |
| 71 | 40.48 | -0.01 | 0.0541 | 5.9955 | 0.0138 | 5.9999 | 0.2556 | 0.8716 | 0.0379 | 0.4240 | 0.0434 | 0.4863 |
| 72 | 40.69 | -0.04 | 0.0615 | 5.9955 | 0.0170 | 5.9999 | 0.2796 | 0.8767 | 0.0382 | 0.4244 | 0.0435 | 0.4841 |
| 73 | 40.90 | 0.00 | 0.0621 | 5.9955 | 0.0180 | 5.9999 | 0.2908 | 0.8834 | 0.0377 | 0.4282 | 0.0426 | 0.4848 |
| 74 | 41.13 | -0.04 | 0.0495 | 5.9955 | 0.0125 | 5.9999 | 0.2530 | 0.8575 | 0.0402 | 0.4166 | 0.0468 | 0.4859 |
| 75 | 41.35 | -0.02 | 0.0654 | 5.9955 | 0.0201 | 5.9999 | 0.3078 | 0.9024 | 0.0383 | 0.4331 | 0.0426 | 0.4800 |
| 76 | 41.54 | -0.03 | 0.0606 | 5.9955 | 0.0164 | 5.9999 | 0.3031 | 0.8805 | 0.0401 | 0.4260 | 0.0455 | 0.4836 |
| 77 | 41.76 | -0.03 | 0.0645 | 5.9955 | 0.0163 | 5.9999 | 0.2799 | 0.8993 | 0.0396 | 0.4320 | 0.0438 | 0.4804 |
| 78 | 41.95 | -0.03 | 0.0574 | 5.9955 | 0.0168 | 5.9999 | 0.2932 | 0.9263 | 0.0383 | 0.4426 | 0.0412 | 0.4768 |
| 79 | 42.15 | -0.04 | 0.0608 | 5.9955 | 0.0153 | 5.9999 | 0.3180 | 0.9081 | 0.0402 | 0.4363 | 0.0443 | 0.4815 |
| 80 | 42.34 | -0.04 | 0.0574 | 5.9955 | 0.0177 | 5.9999 | 0.3389 | 0.9235 | 0.0390 | 0.4363 | 0.0422 | 0.4757 |
| 81 | 42.53 | -0.02 | 0.0525 | 5.9955 | 0.0161 | 5.9999 | 0.2870 | 0.9243 | 0.0401 | 0.4416 | 0.0433 | 0.4776 |
| 82 | 42.72 | -0.04 | 0.0564 | 5.9955 | 0.0156 | 5.9999 | 0.2808 | 0.9256 | 0.0400 | 0.4435 | 0.0432 | 0.4792 |
| 83 | 42.91 | -0.02 | 0.0634 | 5.9955 | 0.0226 | 5.9999 | 0.3492 | 0.9420 | 0.0400 | 0.4475 | 0.0424 | 0.4749 |
| 84 | 43.08 | -0.03 | 0.0618 | 5.9955 | 0.0123 | 5.9999 | 0.2800 | 0.9474 | 0.0394 | 0.4501 | 0.0416 | 0.4751 |
| 85 | 43.25 | -0.03 | 0.0530 | 5.9955 | 0.0142 | 5.9999 | 0.2884 | 0.9421 | 0.0399 | 0.4498 | 0.0423 | 0.4774 |
| 86 | 43.44 | -0.04 | 0.0495 | 5.9955 | 0.0134 | 5.9999 | 0.2713 | 0.9499 | 0.0387 | 0.4511 | 0.0386 | 0.4644 |
| 87 | 43.64 | -0.03 | 0.0610 | 5.9955 | 0.0180 | 5.9999 | 0.2956 | 0.9337 | 0.0407 | 0.4401 | 0.0436 | 0.4716 |
| 88 | 43.81 | -0.04 | 0.0484 | 5.9955 | 0.0136 | 5.9999 | 0.2857 | 0.9505 | 0.0406 | 0.4525 | 0.0429 | 0.4760 |
| 89 | 43.98 | -0.05 | 0.0555 | 5.9955 | 0.0184 | 5.9999 | 0.3077 | 0.9451 | 0.0428 | 0.4517 | 0.0453 | 0.4779 |
| 90 | 44.18 | -0.04 | 0.0542 | 5.9955 | 0.0136 | 5.9999 | 0.2884 | 0.9441 | 0.0392 | 0.4414 | 0.0415 | 0.4678 |
| 91 | 44.35 | -0.05 | 0.0455 | 5.9955 | 0.0153 | 5.9999 | 0.3097 | 0.9379 | 0.0384 | 0.4384 | 0.0409 | 0.4694 |
| 92 | 44.54 | -0.04 | 0.0621 | 5.9955 | 0.0203 | 5.9999 | 0.3274 | 0.9432 | 0.0439 | 0.4494 | 0.0465 | 0.4764 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 147 1.10 1.7 | MACH 0.6 | RN/D-E 3.0 | PHI 0.0 | CONF 31 OF 15 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.72 | -0.04 | 0.0342 | 5.5555 | 0.0161 | 5.9999 | 0.2976 | 0.9317 | 0.0446 | 0.4456 | 0.0475 | 0.4753 |
| 94 | 44.90 | -0.04 | 0.0364 | 5.5555 | 0.0138 | 5.5559 | 0.2857 | 0.9326 | 0.0398 | 0.4353 | 0.0427 | 0.4671 |
| 95 | 45.09 | -0.03 | 0.0367 | 5.5555 | 0.0156 | 5.9999 | 0.3345 | 0.9357 | 0.0458 | 0.4452 | 0.0485 | 0.4758 |
| 96 | 45.27 | -0.04 | 0.0381 | 5.5555 | 0.0138 | 5.5559 | 0.2957 | 0.9406 | 0.0465 | 0.4471 | 0.0494 | 0.4754 |
| 97 | 45.45 | -0.02 | 0.0364 | 5.5555 | 0.0143 | 5.5559 | 0.2961 | 0.9368 | 0.0432 | 0.4347 | 0.0461 | 0.4641 |
| 98 | 45.64 | -0.03 | 0.0436 | 5.5555 | 0.0125 | 5.9999 | 0.2600 | 0.9398 | 0.0422 | 0.4328 | 0.0449 | 0.4606 |
| 99 | 45.81 | -0.04 | 0.0353 | 5.5555 | 0.0171 | 5.5555 | 0.3096 | 0.9106 | 0.0434 | 0.4222 | 0.0476 | 0.4637 |
| 100 | 45.98 | -0.04 | 0.0355 | 5.5555 | 0.0173 | 5.5559 | 0.3170 | 0.9176 | 0.0423 | 0.4231 | 0.0461 | 0.4611 |
| 101 | 46.16 | -0.06 | 0.0379 | 5.5555 | 0.0116 | 5.9999 | 0.3361 | 0.8953 | 0.0427 | 0.4114 | 0.0477 | 0.4555 |
| 102 | 46.34 | -0.07 | 0.0381 | 5.5555 | 0.0136 | 5.5559 | 0.2957 | 0.8936 | 0.0404 | 0.3796 | 0.0484 | 0.4552 |
| 103 | 46.51 | -0.05 | 0.0456 | 5.5555 | 0.0144 | 5.5559 | 0.2969 | 0.8803 | 0.0410 | 0.3910 | 0.0476 | 0.4545 |
| 104 | 46.67 | -0.06 | 0.0380 | 5.5555 | 0.0107 | 5.5559 | 0.2316 | 0.7852 | 0.0400 | 0.3554 | 0.0509 | 0.4527 |
| 105 | 46.86 | -0.06 | 0.0285 | 5.5555 | 0.0068 | 5.5559 | 0.2353 | 0.8154 | 0.0421 | 0.3681 | 0.0516 | 0.4514 |
| 106 | 47.04 | -0.04 | 0.0341 | 5.5555 | 0.0104 | 5.9999 | 0.3407 | 0.7305 | 0.0301 | 0.3341 | 0.0488 | 0.4522 |
| 107 | 47.19 | -0.05 | 0.0364 | 5.5555 | 0.0154 | 5.5559 | 0.3446 | 0.7506 | 0.0358 | 0.3406 | 0.0473 | 0.4505 |
| 108 | 47.37 | -0.04 | 0.0451 | 5.5555 | 0.0140 | 5.5559 | 0.3111 | 0.7516 | 0.0372 | 0.3381 | 0.0454 | 0.4498 |
| 109 | 47.55 | -0.05 | 0.0382 | 5.5555 | 0.0126 | 5.5559 | 0.3316 | 0.7405 | 0.0376 | 0.3335 | 0.0507 | 0.4501 |
| 110 | 47.74 | -0.05 | 0.0456 | 5.5555 | 0.0167 | 5.5559 | 0.3374 | 0.7493 | 0.0368 | 0.3359 | 0.0484 | 0.4483 |
| 111 | 47.89 | -0.04 | 0.0485 | 5.5555 | 0.0157 | 5.5559 | 0.3244 | 0.7506 | 0.0371 | 0.3374 | 0.0520 | 0.4495 |
| 112 | 48.08 | -0.02 | 0.0353 | 5.5555 | 0.0154 | 5.5559 | 0.3514 | 0.7710 | 0.0385 | 0.3436 | 0.0434 | 0.4457 |
| 113 | 48.25 | -0.04 | 0.0461 | 5.5555 | 0.0164 | 5.5559 | 0.3565 | 0.7725 | 0.0355 | 0.3440 | 0.0459 | 0.4453 |
| 114 | 48.41 | -0.04 | 0.0435 | 5.5555 | 0.0135 | 5.5559 | 0.3174 | 0.7913 | 0.0398 | 0.3504 | 0.0503 | 0.4425 |
| 115 | 48.59 | -0.03 | 0.0346 | 5.5555 | 0.0105 | 5.5559 | 0.3035 | 0.7946 | 0.0406 | 0.3503 | 0.0510 | 0.4468 |
| 116 | 48.75 | -0.03 | 0.0461 | 5.5555 | 0.0164 | 5.5559 | 0.3565 | 0.8046 | 0.0390 | 0.3536 | 0.0484 | 0.4395 |
| 117 | 48.93 | -0.01 | 0.0518 | 5.5555 | 0.0186 | 5.5559 | 0.3596 | 0.8206 | 0.0364 | 0.3596 | 0.0467 | 0.4375 |
| 118 | 49.11 | -0.03 | 0.0458 | 5.5555 | 0.0157 | 5.5559 | 0.3593 | 0.8149 | 0.0340 | 0.3545 | 0.0417 | 0.4351 |
| 119 | 49.27 | -0.03 | 0.0450 | 5.5555 | 0.0145 | 5.5559 | 0.3316 | 0.7961 | 0.0314 | 0.3473 | 0.0395 | 0.4374 |
| 120 | 49.45 | -0.02 | 0.0458 | 5.5555 | 0.0153 | 5.5559 | 0.3501 | 0.7876 | 0.0294 | 0.3364 | 0.0384 | 0.4382 |
| 121 | 49.61 | -0.01 | 0.0465 | 5.5555 | 0.0178 | 5.5559 | 0.3563 | 0.7459 | 0.0293 | 0.3276 | 0.0393 | 0.4388 |
| 122 | 49.82 | -0.02 | 0.0445 | 5.5555 | 0.0158 | 5.5559 | 0.3527 | 0.7501 | 0.0280 | 0.3256 | 0.0374 | 0.4394 |
| 123 | 49.97 | -0.01 | 0.0483 | 5.5555 | 0.0188 | 5.5559 | 0.3900 | 0.7371 | 0.0280 | 0.3248 | 0.0380 | 0.4406 |
| 124 | 50.13 | -0.00 | 0.0507 | 5.5555 | 0.0181 | 5.5559 | 0.3577 | 0.7504 | 0.0274 | 0.3212 | 0.0376 | 0.4358 |
| 125 | 50.31 | -0.00 | 0.0427 | 5.5555 | 0.0138 | 5.5559 | 0.3239 | 0.7131 | 0.0283 | 0.3142 | 0.0398 | 0.4406 |
| 126 | 50.50 | 0.00 | 0.0342 | 5.5555 | 0.0153 | 5.5559 | 0.3567 | 0.7103 | 0.0274 | 0.3155 | 0.0386 | 0.4442 |
| 127 | 50.64 | -0.00 | 0.0380 | 5.5555 | 0.0135 | 5.5559 | 0.3253 | 0.6993 | 0.0255 | 0.3055 | 0.0423 | 0.4426 |
| 128 | 50.81 | 0.01 | 0.0481 | 5.5555 | 0.0188 | 5.5559 | 0.3733 | 0.6931 | 0.0274 | 0.3060 | 0.0396 | 0.4415 |
| 129 | 50.97 | 0.01 | 0.0457 | 5.5555 | 0.0155 | 5.5559 | 0.3931 | 0.7109 | 0.0294 | 0.3117 | 0.0416 | 0.4385 |
| 130 | 51.17 | 0.02 | 0.0497 | 5.5555 | 0.0199 | 5.5559 | 0.4012 | 0.6937 | 0.0283 | 0.3042 | 0.0409 | 0.4385 |
| 131 | 51.31 | -0.00 | 0.0520 | 5.5555 | 0.0215 | 5.5559 | 0.4143 | 0.6916 | 0.0283 | 0.3037 | 0.0410 | 0.4391 |
| 132 | 51.48 | 0.01 | 0.0475 | 5.5555 | 0.0186 | 5.5559 | 0.3797 | 0.7085 | 0.0280 | 0.3110 | 0.0396 | 0.4389 |
| 133 | 51.66 | 0.01 | 0.0465 | 5.5555 | 0.0182 | 5.5559 | 0.3655 | 0.7038 | 0.0280 | 0.3080 | 0.0399 | 0.4376 |
| 134 | 51.82 | 0.03 | 0.0522 | 5.5555 | 0.0197 | 5.5559 | 0.3781 | 0.7191 | 0.0287 | 0.3136 | 0.0400 | 0.4361 |
| 135 | 51.97 | 0.03 | 0.0500 | 5.5555 | 0.0192 | 5.5559 | 0.3928 | 0.7104 | 0.0281 | 0.3090 | 0.0398 | 0.4350 |
| 136 | 52.16 | 0.01 | 0.0500 | 5.5555 | 0.0191 | 5.5559 | 0.3826 | 0.7157 | 0.0281 | 0.3104 | 0.0394 | 0.4349 |
| 137 | 52.31 | 0.02 | 0.0554 | 5.5555 | 0.0217 | 5.5559 | 0.3859 | 0.7142 | 0.0283 | 0.3107 | 0.0397 | 0.4350 |
| 138 | 52.50 | 0.01 | 0.0444 | 5.5555 | 0.0160 | 5.5559 | 0.3812 | 0.6999 | 0.0281 | 0.3053 | 0.0402 | 0.4362 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RNIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 147 | 1.10 | 1.7 | C.C | BIBOF15 | C.C | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.69 | 0.01 | 0.0491 | 5.9555 | 0.0177 | 5.9999 | 0.3012 | 0.6966 | 0.0281 | 0.3033 | 0.0404 | 0.4358 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 148 | MACH 0.80 | RALC-2 1.7 | PHI C.C | CONF 61 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| INT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | -5.68 | 0.02 | -0.0511 | 1.7068 | 0.1675 | -0.1691 | 0.0221 | 0.5581 | 0.3122 | 0.2459 | -2.4727 |
| | -5.00 | 0.01 | -0.0528 | 1.0532 | 0.0542 | -0.1030 | 0.0140 | 0.5503 | 0.3120 | 0.2437 | -2.4442 |
| | -5.08 | 0.01 | -0.0765 | 1.0049 | 0.1048 | -0.2100 | 0.0149 | 0.5562 | 0.3121 | 0.2441 | -2.4525 |
| | -5.09 | 0.00 | -0.0542 | 1.0497 | 0.0059 | -0.1300 | 0.0150 | 0.5578 | 0.3124 | 0.2474 | -2.4011 |
| | -5.34 | 0.00 | -0.0534 | 1.0259 | 0.0501 | -0.1340 | 0.0151 | 0.5660 | 0.3035 | 0.2625 | -2.6824 |
| | -3.53 | 0.00 | -0.0566 | 2.0005 | 0.0717 | -0.1597 | 0.0302 | 0.4902 | 0.2055 | 0.2923 | -3.8280 |
| | -1.80 | 0.00 | -0.0334 | 2.0251 | 0.0773 | -0.1844 | 0.0257 | 0.4801 | 0.1789 | 0.3013 | -4.5137 |
| | 0.01 | 0.01 | -0.0105 | 2.0766 | 0.1213 | -0.2130 | 0.0243 | 0.4579 | 0.1654 | 0.2926 | -5.4748 |
| | 1.79 | 0.01 | -0.0319 | 2.0027 | 0.1217 | -0.1878 | 0.0246 | 0.4310 | 0.1506 | 0.2746 | -7.3966 |
| | 3.57 | 0.01 | -0.0243 | 2.0446 | 0.1074 | -0.1873 | 0.0255 | 0.4059 | 0.1487 | 0.2572 | -10.9448 |
| | 5.33 | 0.00 | -0.0075 | 2.0153 | 0.0755 | -0.1823 | 0.0259 | 0.3808 | 0.1476 | 0.2332 | -25.8107 |
| | 7.14 | 0.01 | 0.1140 | 2.0245 | 0.1072 | -0.1871 | 0.0200 | 0.3506 | 0.1450 | 0.2010 | 19.6869 |
| | 8.86 | 0.00 | 0.3319 | 1.8872 | 0.0525 | -0.0858 | 0.0270 | 0.3201 | 0.1514 | 0.1687 | 5.6274 |
| | 10.07 | 0.00 | 0.5488 | 1.5112 | 0.0235 | -0.0504 | 0.0204 | 0.2821 | 0.1539 | 0.1283 | 2.7537 |
| 15 | 12.44 | 0.00 | 0.7662 | 1.2052 | 0.0411 | -0.0240 | 0.0210 | 0.2601 | 0.1594 | 0.1008 | 1.5689 |
| 16 | 14.22 | 0.00 | 1.0064 | 0.9726 | 0.0090 | -0.0195 | 0.0214 | 0.2402 | 0.1678 | 0.0724 | 0.9664 |
| 17 | 16.07 | -0.00 | 1.2445 | 0.7270 | -0.0377 | -0.0258 | 0.0227 | 0.2192 | 0.1774 | 0.0418 | 0.5842 |
| 18 | 17.90 | -0.01 | 1.5259 | 0.4867 | -0.1047 | 0.0244 | 0.0270 | 0.1859 | 0.1812 | 0.0027 | 0.3019 |
| 19 | 19.70 | -0.02 | 1.8144 | 0.0846 | -0.3112 | 0.0716 | 0.0433 | 0.1464 | 0.1849 | -0.0385 | 0.0467 |
| 20 | 21.53 | -0.02 | 2.0867 | -0.2260 | -0.3743 | 1.1306 | 0.0433 | 0.1123 | 0.1946 | -0.0823 | -0.1082 |
| 21 | 23.37 | -0.04 | 2.4320 | -0.6002 | -0.7559 | 2.0745 | 0.0342 | 0.0897 | 0.2072 | -0.1175 | -0.2715 |
| 22 | 25.16 | -0.03 | 2.7454 | -0.8167 | -0.5937 | 1.4402 | 0.0158 | 0.0489 | 0.2152 | -0.1643 | -0.2993 |
| 23 | 27.01 | -0.00 | 3.0866 | -0.8576 | -0.0816 | 0.2841 | 0.0427 | 0.0040 | 0.2081 | -0.2041 | -0.2764 |
| 24 | 27.80 | 0.01 | 3.1357 | -0.8081 | 0.1467 | -0.0335 | 0.0439 | -0.0078 | 0.2068 | -0.2146 | -0.4577 |
| 25 | 28.03 | 0.02 | 3.2120 | -0.8146 | 0.1935 | -0.0132 | 0.0512 | -0.0034 | 0.2090 | -0.2174 | -0.2536 |
| 26 | 28.33 | 0.01 | 3.2913 | -0.7348 | 0.1383 | 0.1301 | 0.0439 | -0.0048 | 0.2137 | -0.2165 | -0.2260 |
| 27 | 28.68 | 0.02 | 3.3695 | -0.7856 | 0.1878 | 0.1741 | 0.0366 | -0.0175 | 0.2189 | -0.2364 | -0.2344 |
| 28 | 28.97 | 0.01 | 3.3626 | -0.7023 | 0.1372 | 0.1030 | 0.0446 | -0.0101 | 0.2189 | -0.2290 | -0.2254 |
| 29 | 29.25 | 0.02 | 3.4583 | -0.7505 | 0.2717 | 0.0177 | 0.0450 | -0.0175 | 0.2221 | -0.2396 | -0.2170 |
| 30 | 29.53 | 0.01 | 3.4559 | -0.7629 | 0.1332 | 0.0543 | 0.0299 | -0.0152 | 0.2273 | -0.2425 | -0.2011 |
| 31 | 29.82 | 0.03 | 3.5222 | -0.8074 | 0.3365 | 0.1005 | 0.0452 | -0.0249 | 0.2282 | -0.2531 | -0.1915 |
| 32 | 30.08 | 0.03 | 3.5662 | -0.6940 | 0.4218 | -0.4506 | 0.0530 | -0.0207 | 0.2324 | -0.2531 | -0.1929 |
| 33 | 30.34 | 0.03 | 3.6510 | -0.7122 | 0.2765 | 0.4154 | 0.0466 | -0.0142 | 0.2388 | -0.2630 | -0.1930 |
| 34 | 30.62 | 0.03 | 3.7465 | -0.7379 | 0.3356 | 0.3728 | 0.0446 | -0.0194 | 0.2530 | -0.2730 | -0.1969 |
| 35 | 30.89 | 0.02 | 3.7903 | -0.7510 | 0.1554 | 1.0614 | -0.0006 | -0.0024 | 0.2661 | -0.2705 | -0.1981 |
| 36 | 31.17 | 0.02 | 3.8562 | -0.7605 | 0.1404 | 1.0650 | -0.0005 | -0.0058 | 0.2748 | -0.2806 | -0.1972 |
| 37 | 31.43 | 0.04 | 3.9015 | -0.7416 | 0.2716 | 0.9163 | 0.0073 | -0.0032 | 0.2832 | -0.2864 | -0.1901 |
| 38 | 31.70 | 0.04 | 3.9567 | -0.7257 | 0.2654 | 1.0032 | 0.0140 | -0.0006 | 0.2874 | -0.2880 | -0.1817 |
| 39 | 31.96 | 0.03 | 4.0557 | -0.6334 | 0.2384 | 1.1811 | -0.0073 | -0.0069 | 0.2912 | -0.3001 | -0.1560 |
| 40 | 32.21 | 0.05 | 4.1478 | -0.7619 | 0.4155 | 1.0007 | 0.0078 | 0.0006 | 0.3010 | -0.2944 | -0.1652 |
| 41 | 32.48 | 0.05 | 4.2008 | -0.5465 | 0.4517 | 0.8643 | 0.0067 | -0.0219 | 0.2917 | -0.3136 | -0.1302 |
| 42 | 32.74 | 0.05 | 4.2766 | -0.5001 | 0.4229 | 0.8701 | 0.0091 | -0.0281 | 0.2855 | -0.3137 | -0.1169 |
| 43 | 32.97 | 0.05 | 4.3464 | -0.4705 | 0.4088 | 0.9412 | 0.0092 | -0.0335 | 0.2859 | -0.3195 | -0.1082 |
| 44 | 33.23 | 0.04 | 4.3866 | -0.3565 | 0.4052 | 0.8874 | 0.0045 | -0.0324 | 0.2873 | -0.3198 | -0.0822 |
| 45 | 33.48 | 0.05 | 4.4934 | -0.2981 | 0.3155 | 0.8818 | 0.0035 | -0.0457 | 0.2925 | -0.3382 | -0.0663 |
| 46 | 33.72 | 0.06 | 4.5712 | -0.2866 | 0.3654 | 1.0022 | -0.0047 | -0.0296 | 0.3117 | -0.3413 | -0.0632 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART NACH 0.0C | RATIO-E 1.7 | PHI C.C | CONF OINOF23 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.68 | 0.02 | -0.0511 | 1.7022 | 0.1075 | -0.1891 | 0.0221 | 0.5581 | 0.3122 | 0.2459 | -2.4727 |
| 2 | -5.00 | 0.01 | -0.0526 | 1.6932 | 0.0942 | -0.1836 | 0.0146 | 0.5503 | 0.3126 | 0.2437 | -2.4442 |
| 3 | -5.08 | 0.01 | -0.0765 | 1.6046 | 0.1048 | -0.2106 | 0.0149 | 0.5582 | 0.3121 | 0.2461 | -2.4525 |
| 4 | -5.09 | 0.00 | -0.0342 | 1.6497 | 0.0854 | -0.1900 | 0.0150 | 0.5578 | 0.3104 | 0.2474 | -2.4011 |
| 5 | -5.34 | 0.00 | -0.0434 | 1.7259 | 0.0501 | -0.1346 | 0.0151 | 0.5660 | 0.3035 | 0.2625 | -2.6824 |
| 6 | -3.53 | 0.00 | -0.0966 | 2.0665 | 0.0777 | -0.1597 | 0.0302 | 0.4902 | 0.2655 | 0.2423 | -3.8280 |
| 7 | -1.80 | 0.00 | -0.0334 | 2.0351 | 0.0773 | -0.1844 | 0.0257 | 0.4801 | 0.1789 | 0.3013 | -4.5137 |
| 8 | 0.01 | 0.01 | -0.5105 | 2.0769 | 0.1213 | -0.2130 | 0.0243 | 0.4579 | 0.1654 | 0.2926 | -5.4748 |
| 9 | 1.79 | 0.01 | -0.3519 | 2.0027 | 0.1217 | -0.1878 | 0.0248 | 0.4310 | 0.1506 | 0.2744 | -7.3966 |
| 10 | 3.57 | 0.01 | -0.2325 | 2.0446 | 0.1074 | -0.1873 | 0.0253 | 0.4059 | 0.1487 | 0.2572 | -10.9448 |
| 11 | 5.33 | 0.00 | -0.0575 | 2.0153 | 0.0755 | -0.1823 | 0.0259 | 0.3808 | 0.1476 | 0.2332 | -25.8107 |
| 12 | 7.14 | 0.01 | 0.1140 | 2.0245 | 0.1672 | -0.1871 | 0.0266 | 0.3506 | 0.1496 | 0.2010 | 19.6869 |
| 13 | 8.86 | 0.00 | 0.3319 | 1.8076 | 0.0525 | -0.0858 | 0.0270 | 0.3201 | 0.1514 | 0.1687 | 5.6274 |
| 14 | 10.67 | 0.00 | 0.5400 | 1.5112 | 0.0435 | -0.0504 | 0.0234 | 0.2821 | 0.1539 | 0.1283 | 2.7537 |
| 15 | 12.44 | 0.00 | 0.7682 | 1.2052 | 0.0411 | -0.0246 | 0.0210 | 0.2601 | 0.1594 | 0.1008 | 1.5689 |
| 16 | 14.22 | 0.00 | 1.0064 | 0.9726 | 0.0456 | -0.0193 | 0.0219 | 0.2402 | 0.1678 | 0.0724 | 0.9664 |
| 17 | 16.07 | -0.00 | 1.2445 | 0.7276 | -0.0377 | -0.0258 | 0.0227 | 0.2192 | 0.1774 | 0.0418 | 0.5842 |
| 18 | 17.90 | -0.01 | 1.5259 | 0.4867 | -0.1097 | 0.0224 | 0.0370 | 0.1839 | 0.1612 | 0.0027 | 0.3019 |
| 19 | 19.70 | -0.02 | 1.8194 | 0.0846 | -0.3112 | 0.0710 | 0.0433 | 0.1404 | 0.1849 | -0.0385 | 0.0467 |
| 20 | 21.53 | -0.02 | 2.0667 | -0.2266 | -0.3743 | 1.1306 | 0.0453 | 0.1123 | 0.1946 | -0.0623 | -0.1082 |
| 21 | 23.37 | -0.04 | 2.4320 | -0.6662 | -0.7555 | 2.0745 | 0.0342 | 0.0897 | 0.2072 | -0.1175 | -0.2715 |
| 22 | 25.18 | -0.03 | 2.7159 | -0.8167 | -0.5937 | 1.4402 | 0.0158 | 0.0489 | 0.2132 | -0.1643 | -0.2993 |
| 23 | 27.01 | -0.00 | 3.0866 | -0.8576 | -0.0816 | 0.2641 | 0.0427 | 0.0040 | 0.2081 | -0.2041 | -0.2784 |
| 24 | 27.80 | 0.01 | 3.1597 | -0.8061 | 0.1467 | -0.0335 | 0.0459 | -0.0078 | 0.2068 | -0.2146 | -0.2577 |
| 25 | 28.63 | 0.02 | 3.2120 | -0.8146 | 0.1535 | -0.0132 | 0.0512 | -0.0084 | 0.2090 | -0.2174 | -0.2536 |
| 26 | 28.33 | 0.01 | 3.2513 | -0.7348 | 0.1305 | 0.1301 | 0.0434 | -0.0048 | 0.2137 | -0.2165 | -0.2260 |
| 27 | 26.08 | 0.02 | 3.3650 | -0.7850 | 0.1678 | 0.1741 | 0.0368 | -0.0175 | 0.2189 | -0.2364 | -0.2348 |
| 28 | 28.97 | 0.01 | 3.3826 | -0.7023 | 0.1372 | 0.1036 | 0.0446 | -0.0101 | 0.2189 | -0.2290 | -0.2254 |
| 29 | 29.25 | 0.02 | 3.4583 | -0.7505 | 0.2717 | 0.0177 | 0.0450 | -0.0175 | 0.2221 | -0.2396 | -0.2170 |
| 30 | 29.53 | 0.01 | 3.4954 | -0.7625 | 0.1332 | 0.0043 | 0.0299 | -0.0152 | 0.2273 | -0.2465 | -0.2011 |
| 31 | 29.82 | 0.03 | 3.5288 | -0.6874 | 0.3383 | 0.1005 | 0.0452 | -0.0249 | 0.2282 | -0.2531 | -0.1915 |
| 32 | 30.08 | 0.03 | 3.6002 | -0.6946 | 0.4218 | -0.0506 | 0.0330 | -0.0207 | 0.2324 | -0.2531 | -0.1929 |
| 33 | 30.34 | 0.03 | 3.6918 | -0.7122 | 0.2765 | 0.4154 | 0.0446 | -0.0142 | 0.2488 | -0.2630 | -0.1930 |
| 34 | 30.62 | 0.03 | 3.7485 | -0.7375 | 0.3356 | 0.3728 | 0.0446 | -0.0194 | 0.2530 | -0.2730 | -0.1969 |
| 35 | 30.89 | 0.02 | 3.7903 | -0.7510 | 0.1554 | 1.0614 | -0.0006 | -0.0024 | 0.2681 | -0.2705 | -0.1981 |
| 36 | 31.17 | 0.02 | 3.8562 | -0.7003 | 0.1909 | 1.0650 | -0.0005 | -0.0058 | 0.2748 | -0.2806 | -0.1972 |
| 37 | 31.43 | 0.04 | 3.9015 | -0.7416 | 0.2711 | 0.9163 | 0.0073 | -0.0032 | 0.2832 | -0.2864 | -0.1901 |
| 38 | 31.70 | 0.04 | 3.9547 | -0.7257 | 0.2694 | 1.0632 | 0.0146 | -0.0006 | 0.2874 | -0.2880 | -0.1817 |
| 39 | 31.96 | 0.03 | 4.0557 | -0.6334 | 0.2364 | 1.1611 | -0.0073 | -0.0069 | 0.2912 | -0.3001 | -0.1560 |
| 40 | 32.21 | 0.05 | 4.1478 | -0.7019 | 0.4155 | 1.0007 | 0.0076 | 0.0006 | 0.3010 | -0.2944 | -0.1652 |
| 41 | 32.48 | 0.05 | 4.2008 | -0.5465 | 0.4517 | 0.8643 | 0.0087 | -0.0219 | 0.2917 | -0.3136 | -0.1302 |
| 42 | 32.74 | 0.05 | 4.2788 | -0.5001 | 0.4229 | 0.8701 | 0.0091 | -0.0281 | 0.2855 | -0.3137 | -0.1169 |
| 43 | 32.97 | 0.05 | 4.3464 | -0.4705 | 0.4088 | 0.9412 | 0.0092 | -0.0335 | 0.2859 | -0.3195 | -0.1082 |
| 44 | 33.23 | 0.04 | 4.3866 | -0.3565 | 0.4052 | 0.8874 | 0.0065 | -0.0324 | 0.2873 | -0.3198 | -0.0822 |
| 45 | 33.48 | 0.05 | 4.4534 | -0.2981 | 0.5155 | 0.8618 | 0.0035 | -0.0457 | 0.2925 | -0.3382 | -0.0663 |
| 46 | 33.72 | 0.06 | 4.5712 | -0.2866 | 0.5654 | 1.0022 | -0.0047 | -0.0296 | 0.3117 | -0.3413 | -0.0632 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 148 | MACH 0.60 | ALT 4.7 | PHI 0.0 | CONF 61 | L 23 | G.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.68 | 0.02 | -0.0511 | 1.7088 | 0.1075 | -0.1691 | 0.0221 | 0.5581 | 0.3122 | 0.2459 | -2.4727 |
| 2 | -5.00 | 0.01 | -0.0628 | 1.6632 | 0.0542 | -0.1636 | 0.0148 | 0.5503 | 0.3126 | 0.2437 | -2.4442 |
| 3 | -5.68 | 0.01 | -0.0785 | 1.6049 | 0.1048 | -0.2108 | 0.0149 | 0.5582 | 0.3121 | 0.2461 | -2.4525 |
| 4 | -5.69 | 0.00 | -0.0392 | 1.6497 | 0.0059 | -0.1300 | 0.0150 | 0.5578 | 0.3104 | 0.2474 | -2.6011 |
| 5 | -5.34 | 0.00 | -0.0434 | 1.7255 | 0.0501 | -0.1346 | 0.0151 | 0.5660 | 0.3035 | 0.2625 | -2.6824 |
| 6 | -3.53 | 0.00 | -0.0588 | 2.0005 | 0.0777 | -0.1597 | 0.0302 | 0.4982 | 0.2659 | 0.2323 | -3.8280 |
| 7 | -1.80 | 0.00 | -0.0334 | 2.0351 | 0.0773 | -0.1844 | 0.0237 | 0.4801 | 0.1789 | 0.3013 | -4.5137 |
| 8 | 0.01 | 0.01 | -0.0106 | 2.0769 | 0.1213 | -0.2136 | 0.0243 | 0.4579 | 0.1654 | 0.2926 | -5.4748 |
| 9 | 1.79 | 0.01 | -0.0319 | 2.0027 | 0.1217 | -0.1878 | 0.0246 | 0.4310 | 0.1506 | 0.2744 | -7.3966 |
| 10 | 3.57 | 0.01 | -0.0363 | 2.0449 | 0.1074 | -0.1873 | 0.0253 | 0.4059 | 0.1487 | 0.2572 | -10.6448 |
| 11 | 5.33 | 0.00 | -0.0575 | 2.0153 | 0.0755 | -0.1623 | 0.0259 | 0.3808 | 0.1476 | 0.2332 | -25.8107 |
| 12 | 7.14 | 0.01 | 0.1140 | 2.0245 | 0.1072 | -0.1871 | 0.0266 | 0.3506 | 0.1496 | 0.2010 | 19.6869 |
| 13 | 8.86 | 0.00 | 0.3319 | 1.8676 | 0.0525 | -0.0858 | 0.0270 | 0.3201 | 0.1514 | 0.1687 | 5.6276 |
| 14 | 10.67 | 0.00 | 0.5480 | 1.5114 | 0.0235 | -0.0504 | 0.0204 | 0.2821 | 0.1539 | 0.1283 | 2.7537 |
| 15 | 12.44 | 0.00 | 0.7602 | 1.2052 | 0.0411 | -0.0240 | 0.0210 | 0.2601 | 0.1594 | 0.1008 | 1.5689 |
| 16 | 14.22 | 0.00 | 1.0064 | 0.9726 | 0.0050 | -0.0193 | 0.0215 | 0.2402 | 0.1678 | 0.0724 | 0.9664 |
| 17 | 16.07 | -0.00 | 1.2445 | 0.7270 | -0.0377 | -0.0258 | 0.0227 | 0.2192 | 0.1774 | 0.0418 | 0.5842 |
| 18 | 17.90 | -0.01 | 1.5209 | 0.4867 | -0.1097 | 0.0229 | 0.0370 | 0.1839 | 0.1612 | 0.0227 | 0.3019 |
| 19 | 19.70 | -0.02 | 1.8144 | 0.0846 | -0.2112 | 0.0716 | 0.0433 | 0.1464 | 0.1845 | -0.0385 | 0.0467 |
| 20 | 21.53 | -0.06 | 2.0987 | -0.2286 | -0.3743 | 0.1306 | 0.0453 | 0.1123 | 0.1946 | -0.0823 | -0.1082 |
| 21 | 23.37 | -0.06 | 2.4320 | -0.6002 | -0.7555 | 2.0745 | 0.0342 | 0.0897 | 0.2072 | -0.1175 | -0.2715 |
| 22 | 25.16 | -0.03 | 2.7154 | -0.8147 | -0.9497 | 1.4902 | 0.0158 | 0.0469 | 0.2132 | -0.1643 | -0.2493 |
| 23 | 27.01 | -0.00 | 3.0806 | -0.8576 | -0.0816 | 0.2841 | 0.0427 | 0.0040 | 0.2081 | -0.2041 | -0.2764 |
| 24 | 27.80 | 0.00 | 3.1557 | -0.8081 | 0.1467 | -0.0335 | 0.0439 | -0.0078 | 0.2068 | -0.2146 | -0.2577 |
| 25 | 28.03 | 0.02 | 3.2120 | -0.8146 | 0.1935 | -0.0132 | 0.0512 | -0.0084 | 0.2050 | -0.2174 | -0.2536 |
| 26 | 28.33 | 0.01 | 3.2913 | -0.7348 | 0.1305 | 0.1301 | 0.0439 | -0.0048 | 0.2137 | -0.2185 | -0.2260 |
| 27 | 28.68 | 0.02 | 3.3650 | -0.7850 | 0.1678 | 0.1741 | 0.0366 | -0.0175 | 0.2189 | -0.2364 | -0.2344 |
| 28 | 28.97 | 0.01 | 3.3820 | -0.7023 | 0.1372 | 0.1038 | 0.0440 | -0.0101 | 0.2189 | -0.2290 | -0.2254 |
| 29 | 29.25 | 0.02 | 3.4583 | -0.7505 | 0.2717 | 0.0177 | 0.0450 | -0.0175 | 0.2221 | -0.2396 | -0.2170 |
| 30 | 29.53 | 0.01 | 3.4954 | -0.7629 | 0.1332 | 0.0643 | 0.0299 | -0.0152 | 0.2273 | -0.2425 | -0.2011 |
| 31 | 29.82 | 0.03 | 3.5266 | -0.6874 | 0.3365 | 0.1005 | 0.0452 | -0.0249 | 0.2282 | -0.2531 | -0.1915 |
| 32 | 30.08 | 0.03 | 3.5502 | -0.6946 | 0.4218 | -0.0560 | 0.0530 | -0.0267 | 0.2324 | -0.2591 | -0.1929 |
| 33 | 30.34 | 0.03 | 3.6910 | -0.7122 | 0.2765 | 0.4154 | 0.0446 | -0.0142 | 0.2488 | -0.2630 | -0.1930 |
| 34 | 30.62 | 0.03 | 3.7465 | -0.7376 | 0.3326 | 0.3728 | 0.0448 | -0.0194 | 0.2530 | -0.2730 | -0.1969 |
| 35 | 30.89 | 0.02 | 3.7903 | -0.7510 | 0.1554 | 1.0614 | -0.0006 | -0.0024 | 0.2681 | -0.2705 | -0.1981 |
| 36 | 31.17 | 0.02 | 3.8582 | -0.7065 | 0.1404 | 1.0650 | -0.0005 | -0.0058 | 0.2748 | -0.2806 | -0.1972 |
| 37 | 31.43 | 0.04 | 3.9015 | -0.7416 | 0.2711 | 0.9163 | 0.0073 | -0.0032 | 0.2832 | -0.2864 | -0.1901 |
| 38 | 31.70 | 0.04 | 3.9947 | -0.7457 | 0.2654 | 1.0632 | 0.0140 | -0.0006 | 0.2874 | -0.2880 | -0.1817 |
| 39 | 31.96 | 0.03 | 4.0557 | -0.8334 | 0.2384 | 1.1611 | -0.0073 | -0.0069 | 0.2912 | -0.3001 | -0.1560 |
| 40 | 32.21 | 0.05 | 4.1418 | -0.7019 | 0.4155 | 1.0007 | 0.0078 | 0.0000 | 0.3010 | -0.2944 | -0.1692 |
| 41 | 32.48 | 0.05 | 4.2008 | -0.5469 | 0.4517 | 0.8643 | 0.0067 | -0.0219 | 0.2917 | -0.3136 | -0.1302 |
| 42 | 32.74 | 0.05 | 4.2788 | -0.5001 | 0.4229 | 0.8701 | 0.0091 | -0.0281 | 0.2855 | -0.3137 | -0.1169 |
| 43 | 32.97 | 0.05 | 4.3464 | -0.4705 | 0.4166 | 0.9412 | 0.0092 | -0.0335 | 0.2859 | -0.3195 | -0.1082 |
| 44 | 33.23 | 0.04 | 4.3866 | -0.3564 | 0.4052 | 0.8674 | 0.0045 | -0.0324 | 0.2873 | -0.3198 | -0.0822 |
| 45 | 33.48 | 0.05 | 4.4534 | -0.2981 | 0.3155 | 0.8818 | 0.0035 | -0.0457 | 0.2925 | -0.3382 | -0.0663 |
| 46 | 33.72 | 0.06 | 4.5712 | -0.2868 | 0.3654 | 1.0022 | -0.0047 | -0.0296 | 0.3117 | -0.3413 | -0.0632 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 148 MACH 0.80 RNIC=E 1.7 PHI 0.0 BLKG=23 CONF C.C L 0 DEL1 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.98 | C.05 | 4.E155 | -C.2687 | C.4563 | 1.1315 | -0.0348 | -0.0231 | 0.3285 | -0.3516 | -0.0582 |
| 48 | 34.21 | 0.06 | 4.6517 | -C.2564 | C.5c6c | 1.0966 | -0.0116 | -0.0233 | 0.3328 | -0.3561 | -0.0547 |
| 49 | 34.45 | 0.07 | 4.8145 | -C.2642 | C.7C59 | 1.1002 | -0.0114 | -0.0021 | 0.3464 | -0.3443 | -0.0549 |
| 50 | 34.71 | 0.07 | 4.8955 | -C.2754 | C.725c | 1.1336 | -0.0114 | -0.0041 | 0.3616 | -0.3657 | -0.0571 |
| 51 | 34.55 | C.08 | 4.5466 | -C.1440 | C.7E53 | C.8522 | 0.0116 | -0.0148 | 0.3532 | -0.3680 | -0.0291 |
| 52 | 35.18 | 0.07 | 5.0562 | -C.0678 | C.d116 | C.4C66 | 0.0213 | -0.0234 | 0.3527 | -0.3761 | -0.0134 |
| 53 | 35.42 | 0.07 | 5.0572 | C.1534 | C.9C49 | -0.7541 | 0.0623 | -0.0870 | 0.3084 | -0.3956 | 0.0301 |
| 54 | 35.69 | 0.06 | 5.1262 | C.1672 | C.81c0 | -1.1418 | 0.0775 | -0.0981 | 0.2915 | -0.3895 | 0.0326 |
| 55 | 35.88 | C.07 | 5.1525 | C.2565 | C.5536 | -1.3719 | 0.0854 | -0.1165 | 0.2696 | -0.4060 | 0.0494 |
| 56 | 36.12 | 0.06 | 5.2866 | C.2432 | C.4C84 | -1.1045 | 0.0711 | -0.0922 | 0.3103 | -0.4025 | 0.0461 |
| 57 | 36.36 | C.07 | 5.3524 | C.1665 | 1.CC23 | -C.6520 | 0.0556 | -0.0541 | 0.3446 | -0.3989 | 0.0352 |
| 58 | 36.59 | 0.07 | 5.4cc0 | C.1385 | C.9485 | -C.5236 | 0.0412 | -0.0443 | 0.3617 | -0.4060 | 0.0252 |
| 59 | 36.83 | 0.07 | 5.5462 | C.2513 | C.5655 | -C.6208 | 0.0491 | -0.0646 | 0.3532 | -0.4178 | 0.0526 |
| 60 | 37.06 | 0.06 | 5.5718 | C.4363 | C.9003 | -C.5557 | 0.0565 | -0.0916 | 0.3343 | -0.4309 | 0.0788 |
| 61 | 37.28 | 0.07 | 5.7238 | C.3CE1 | C.5676 | -0.1526 | 0.0264 | -0.0602 | 0.3542 | -0.4144 | 0.0538 |
| 62 | 37.52 | 0.07 | 5.7534 | C.2775 | C.E55c | 0.1796 | 0.0110 | -0.0493 | 0.3734 | -0.4223 | 0.0402 |
| 63 | 37.75 | C.07 | 5.8714 | C.1857 | C.7E36 | C.8195 | -0.0126 | -0.0201 | 0.4072 | -0.4273 | 0.0316 |
| 64 | 37.98 | 0.08 | 6.0033 | 0.0694 | C.8115 | 1.3605 | -0.0287 | -0.0112 | 0.4282 | -0.4394 | 0.0107 |
| 65 | 38.22 | 0.08 | 6.0746 | C.0545 | C.8648 | 1.4702 | -0.0291 | -0.0169 | 0.4295 | -0.4464 | C.0090 |
| 66 | 38.44 | 0.08 | 6.2714 | -C.0465 | C.7741 | 2.0500 | -0.0452 | -0.0220 | 0.4240 | -0.4510 | -0.0079 |
| 67 | 38.66 | 0.08 | 6.4106 | -0.0314 | C.8552 | 2.2550 | -0.0450 | -0.0265 | 0.4337 | -0.4602 | -0.0049 |
| 68 | 38.88 | 0.09 | 6.5257 | -C.0882 | 0.0C00 | 2.1900 | -0.0446 | -0.0262 | 0.4389 | -0.4651 | -0.0135 |
| 69 | 39.10 | 0.08 | 6.6018 | -C.1248 | C.7511 | 2.2496 | -0.0444 | -0.0180 | 0.4374 | -0.4554 | -C.0189 |
| 70 | 39.29 | 0.08 | 6.6496 | -C.0540 | 0.7285 | 2.1154 | -0.0303 | -0.0258 | 0.4327 | -0.4585 | -C.0082 |
| 71 | 39.52 | 0.10 | 6.7316 | C.0227 | C.9502 | 1.8310 | -0.0209 | -0.0457 | 0.4375 | -0.4833 | 0.0034 |
| 72 | 39.71 | 0.08 | 6.8283 | C.2485 | C.7424 | 1.5516 | -0.0195 | -0.0383 | 0.4360 | -0.4743 | 0.0375 |
| 73 | 39.90 | 0.08 | 6.7C1C | C.1923 | C.7156 | 1.8695 | -0.0204 | -0.0406 | 0.4337 | -0.4743 | 0.0287 |
| 74 | 40.11 | 0.08 | 6.7ac5 | C.4014 | 0.7371 | 1.5845 | -0.0183 | -0.0031 | 0.4286 | -0.4918 | 0.0598 |
| 75 | 40.31 | 0.08 | 6.6559 | C.5162 | C.7403 | 1.1223 | -0.0026 | -0.0747 | 0.4165 | -0.4893 | 0.0775 |
| 76 | 40.52 | 0.08 | 6.5263 | C.1946 | 0.8557 | 1.7445 | -0.0192 | -0.0382 | 0.4327 | -0.4510 | 0.0279 |
| 77 | 40.73 | 0.08 | 7.0226 | C.2775 | C.E614 | 1.6731 | -0.0186 | -0.0534 | 0.4476 | -0.5011 | 0.0393 |
| 78 | 40.94 | 0.05 | 7.1845 | C.1330 | 0.9770 | 1.8306 | -0.0184 | -0.0455 | 0.4542 | -0.4996 | 0.0185 |
| 79 | 41.14 | 0.08 | 7.2110 | C.1485 | C.9337 | 1.8504 | -0.0201 | -0.0441 | 0.4613 | -0.5055 | 0.0206 |
| 80 | 41.34 | 0.08 | 7.3026 | C.1965 | 0.8826 | 2.0815 | -0.0204 | -0.0447 | 0.4607 | -0.5055 | C.0203 |
| 81 | 41.53 | 0.08 | 7.3860 | C.2752 | C.8178 | 2.0254 | -0.0256 | -0.0575 | 0.4622 | -0.5198 | 0.0378 |
| 82 | 41.74 | 0.05 | 7.4035 | C.1335 | C.9707 | 2.0115 | -0.0328 | -0.0571 | 0.4641 | -0.5213 | 0.0179 |
| 83 | 41.91 | 0.07 | 7.4655 | C.2171 | 0.8900 | 2.1601 | -0.0331 | -0.0623 | 0.4570 | -0.5194 | 0.0291 |
| 84 | 42.09 | 0.08 | 7.4283 | 0.0468 | 0.0951 | 1.7135 | -0.0165 | -0.1221 | 0.4182 | -0.5403 | 0.0863 |
| 85 | 42.28 | 0.08 | 7.6680 | C.1E43 | C.8757 | 2.3242 | -0.0404 | -0.0595 | 0.4640 | -0.5236 | 0.0240 |
| 86 | 42.47 | 0.09 | 7.5271 | -C.1e17 | C.9405 | 2.7196 | -0.0414 | -0.0621 | 0.4636 | -0.5256 | -0.0204 |
| 87 | 42.63 | 0.08 | 7.7855 | C.1823 | C.8607 | 2.3230 | -0.0399 | -0.0649 | 0.4673 | -0.5323 | 0.0234 |
| 88 | 42.82 | 0.09 | 8.0CC8 | -C.1273 | C.9314 | 2.7291 | -0.0463 | -0.0548 | 0.4697 | -0.5246 | -0.0159 |
| 89 | 43.01 | 0.08 | 8.0505 | -0.0231 | 0.9124 | 2.6437 | -0.0477 | -0.0788 | 0.4674 | -0.5463 | -0.0029 |
| 90 | 43.20 | 0.09 | 8.1535 | -C.1C25 | C.9356 | 2.7911 | -0.0479 | -0.0552 | 0.4711 | -0.5264 | -0.0126 |
| 91 | 43.34 | 0.08 | 8.0753 | C.0471 | C.9225 | 2.5434 | -0.0546 | -0.0858 | 0.4655 | -0.5514 | 0.0058 |
| 92 | 43.55 | 0.09 | 8.2982 | -0.2169 | C.9265 | 2.9112 | -0.0553 | -0.0739 | 0.4726 | -0.5466 | -0.0261 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 148 | MACH 0.60 | REIC=6 1.7 | PHI C.C | CONF BIBOF23 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.73 | 0.09 | 8.3626 | -0.1554 | 0.9614 | 2.9894 | -0.0526 | -0.0816 | 0.4711 | -0.5528 | -0.0191 |
| 94 | 43.90 | 0.08 | 8.3618 | -0.0513 | 0.8885 | 2.7853 | -0.0615 | -0.0810 | 0.4786 | -0.5597 | -0.0061 |
| 95 | 44.10 | 0.08 | 8.4361 | -0.0724 | 0.8920 | 2.8138 | -0.0614 | -0.0813 | 0.4746 | -0.5562 | -0.0086 |
| 96 | 44.30 | 0.09 | 8.5226 | -0.3517 | 0.8747 | 3.1084 | -0.0619 | -0.0873 | 0.4636 | -0.5680 | -0.0408 |
| 97 | 44.47 | 0.08 | 8.5716 | -0.0785 | 0.8576 | 2.8722 | -0.0602 | -0.0794 | 0.4653 | -0.5647 | -0.0092 |
| 98 | 44.64 | 0.09 | 8.7774 | -0.2840 | 0.9221 | 2.9225 | -0.0605 | -0.0921 | 0.4844 | -0.5765 | -0.0328 |
| 99 | 44.82 | 0.08 | 8.7152 | -0.1337 | 0.8474 | 2.9201 | -0.0604 | -0.0919 | 0.4840 | -0.5759 | -0.0153 |
| 100 | 45.01 | 0.09 | 8.8249 | -0.1934 | 0.9436 | 3.0298 | -0.0615 | -0.0903 | 0.4659 | -0.5762 | -0.0218 |
| 101 | 45.18 | 0.08 | 8.9126 | -0.2061 | 0.8205 | 3.0287 | -0.0599 | -0.0932 | 0.4682 | -0.5814 | -0.0231 |
| 102 | 45.35 | 0.08 | 8.9536 | -0.2325 | 0.8871 | 3.0556 | -0.0598 | -0.0949 | 0.4840 | -0.5789 | -0.0260 |
| 103 | 45.53 | 0.08 | 9.0536 | -0.3261 | 0.8238 | 3.1092 | -0.0596 | -0.1095 | 0.4854 | -0.5948 | -0.0360 |
| 104 | 45.70 | 0.08 | 9.0980 | -0.3062 | 0.8048 | 2.9950 | -0.0590 | -0.1019 | 0.4910 | -0.5928 | -0.0337 |
| 105 | 45.88 | 0.07 | 9.1766 | -0.3425 | 0.8179 | 2.9725 | -0.0586 | -0.1017 | 0.4947 | -0.5963 | -0.0373 |
| 106 | 46.04 | 0.08 | 9.2617 | -0.4027 | 0.8265 | 3.0636 | -0.0446 | -0.1086 | 0.4910 | -0.5945 | -0.0457 |
| 107 | 46.22 | 0.08 | 9.2883 | -0.3825 | 0.8240 | 3.0557 | -0.0514 | -0.0974 | 0.4957 | -0.5930 | -0.0390 |
| 108 | 46.42 | 0.07 | 9.4e5t | -0.4556 | 0.8478 | 2.9e07 | -0.0651 | -0.1008 | 0.4989 | -0.5996 | -0.0485 |
| 109 | 46.58 | 0.08 | 9.4e15 | -0.4551 | 0.9220 | 2.9449 | -0.0430 | -0.1079 | 0.4952 | -0.6040 | -0.0481 |
| 110 | 46.73 | 0.07 | 9.4416 | -0.2275 | 0.8106 | 2.9805 | -0.0629 | -0.1250 | 0.4957 | -0.6206 | -0.0241 |
| 111 | 46.52 | 0.07 | 9.5678 | -0.3588 | 0.8547 | 3.1239 | -0.0359 | -0.1288 | 0.4901 | -0.6188 | -0.0374 |
| 112 | 47.09 | 0.07 | 9.5966 | -0.2455 | 0.8026 | 3.0107 | -0.0353 | -0.1247 | 0.4952 | -0.6198 | -0.0257 |
| 113 | 47.26 | 0.08 | 9.6015 | -0.2390 | 0.7346 | 3.2040 | -0.0285 | -0.1495 | 0.4817 | -0.6311 | -0.0249 |
| 114 | 47.43 | 0.06 | 9.7144 | -0.3763 | 0.8060 | 3.1345 | -0.0208 | -0.1419 | 0.4930 | -0.6348 | -0.0389 |
| 115 | 47.60 | 0.08 | 9.6952 | -0.1343 | 0.7944 | 3.1804 | -0.0280 | -0.1652 | 0.4818 | -0.6469 | -0.0139 |
| 116 | 47.77 | 0.07 | 9.8032 | -0.3365 | 0.7855 | 3.2000 | -0.0278 | -0.1594 | 0.4920 | -0.6513 | -0.0346 |
| 117 | 47.94 | 0.08 | 9.7823 | -0.1103 | 0.7016 | 3.1158 | -0.0273 | -0.1768 | 0.4678 | -0.6446 | -0.0113 |
| 118 | 48.10 | 0.09 | 9.8814 | -0.1115 | 0.8020 | 2.9869 | -0.0338 | -0.1552 | 0.4831 | -0.6403 | 0.0116 |
| 119 | 48.25 | 0.08 | 9.8114 | 0.3092 | 0.8092 | 2.8213 | -0.0406 | -0.2117 | 0.4342 | -0.6459 | 0.0322 |
| 120 | 48.41 | 0.08 | 9.9016 | 1.2295 | 0.9041 | 2.9365 | -0.0365 | -0.2722 | 0.3876 | -0.6598 | 0.1308 |
| 121 | 48.58 | 0.08 | 9.8E48 | 1.4853 | 0.9247 | 1.6883 | -0.0372 | -0.2970 | 0.3722 | -0.6691 | 0.1578 |
| 122 | 48.74 | 0.01 | 9.8082 | 1.5726 | 0.9460 | 1.6859 | -0.0367 | -0.3065 | 0.3724 | -0.6789 | 0.1694 |
| 123 | 48.92 | 0.02 | 9.8087 | 1.4392 | 0.9336 | 1.6217 | -0.0222 | -0.3063 | 0.3790 | -0.6853 | 0.1536 |
| 124 | 49.11 | 0.01 | 9.9987 | 1.2911 | 0.8547 | 1.1134 | -0.0224 | -0.2949 | 0.4194 | -0.6744 | 0.1366 |
| 125 | 49.27 | 0.00 | 9.8654 | 1.7274 | 0.9278 | 1.7768 | -0.0139 | -0.3055 | 0.3690 | -0.6745 | 0.1844 |
| 126 | 49.43 | 0.03 | 9.8165 | 1.5e05 | 0.9e00 | 1.9444 | -0.0295 | -0.2813 | 0.4175 | -0.6985 | 0.1579 |
| 127 | 49.61 | 0.02 | 9.8087 | 1.5336 | 0.9557 | 2.0221 | -0.0209 | -0.2853 | 0.4054 | -0.6908 | 0.1388 |
| 128 | 49.78 | -0.00 | 9.9244 | 1.5787 | 0.1691 | 1.9504 | -0.0131 | -0.3080 | 0.3978 | -0.7058 | 0.1658 |
| 129 | 49.97 | 0.03 | 9.9867 | 0.2004 | 0.5194 | 2.2082 | -0.0213 | -0.2772 | 0.4366 | -0.7139 | 0.0602 |
| 130 | 50.14 | 0.04 | 10.0171 | 0.4565 | 0.9567 | 2.4145 | -0.0295 | -0.2424 | 0.4641 | -0.7066 | 0.0456 |
| 131 | 50.29 | 0.04 | 10.0216 | 0.5962 | 0.5377 | 2.2687 | -0.0285 | -0.2577 | 0.4537 | -0.7135 | 0.0595 |
| 132 | 50.46 | 0.05 | 10.1535 | 0.1767 | 0.8352 | 2.4037 | -0.0294 | -0.2401 | 0.4804 | -0.7006 | 0.0174 |
| 133 | 50.64 | 0.05 | 10.3019 | 0.0425 | 0.8507 | 2.5677 | -0.0215 | -0.2695 | 0.4585 | -0.7281 | 0.0042 |
| 134 | 50.80 | 0.05 | 10.3783 | 0.0552 | 0.8288 | 2.5180 | -0.0269 | -0.2651 | 0.4453 | -0.7105 | 0.0053 |
| 135 | 50.99 | 0.05 | 10.6851 | -0.0457 | 0.8236 | 2.8218 | -0.0369 | -0.2552 | 0.4916 | -0.7468 | -0.0044 |
| 136 | 51.16 | 0.04 | 10.7763 | -0.7010 | 0.9415 | 3.3088 | -0.0259 | -0.2212 | 0.5042 | -0.7254 | -0.0650 |
| 137 | 51.33 | 0.05 | 11.1016 | -1.0865 | 0.9100 | 4.2699 | -0.0264 | -0.2339 | 0.5268 | -0.7607 | -0.0974 |
| 138 | 51.51 | 0.05 | 11.1414 | -1.2360 | 0.9151 | 4.3419 | -0.0266 | -0.2345 | 0.5393 | -0.7718 | -0.1109 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 148 | MACH 0.80 | REID-6 1.7 | PHI C.C | CONF 81bCF23 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.68 | 0.08 | 11.2736 | -1.2000 | 0.4668 | 4.4572 | -0.0341 | -0.2359 | 0.5418 | -0.7777 | -0.1064 |
| 140 | 51.84 | 0.07 | 11.2566 | -1.1866 | 0.6570 | 4.5367 | -0.0348 | -0.2303 | 0.5503 | -0.7806 | -0.1054 |
| 141 | 52.00 | 0.06 | 11.3335 | -1.3662 | 0.5088 | 4.3657 | -0.0411 | -0.2366 | 0.5398 | -0.7764 | -0.1205 |
| 142 | 52.16 | 0.07 | 11.3561 | -1.2715 | 0.6001 | 4.3949 | -0.0410 | -0.2405 | 0.5515 | -0.7980 | -0.1126 |
| 143 | 52.34 | 0.09 | 11.5125 | -1.4352 | 0.8250 | 4.4556 | -0.0490 | -0.2632 | 0.5269 | -0.7901 | -0.1250 |
| 144 | 52.51 | 0.08 | 11.5256 | -1.4114 | 0.7354 | 4.5132 | -0.0489 | -0.2474 | 0.5446 | -0.7970 | -0.1225 |
| 145 | 52.68 | 0.11 | 11.6482 | -1.4871 | 1.0085 | 4.1254 | -0.0405 | -0.2751 | 0.5230 | -0.7981 | -0.1277 |
| 146 | 52.85 | 0.14 | 11.7234 | -1.4555 | 1.0250 | 3.8227 | -0.0312 | -0.2805 | 0.5264 | -0.8119 | -0.1242 |
| 147 | 53.01 | 0.12 | 11.7667 | -1.4143 | 1.3772 | 3.3858 | -0.0155 | -0.2845 | 0.5276 | -0.8123 | -0.1200 |
| 148 | 53.18 | 0.12 | 11.8676 | -1.5065 | 1.4706 | 3.0754 | -0.0069 | -0.2836 | 0.5273 | -0.8169 | -0.1269 |
| 149 | 53.35 | 0.12 | 12.0655 | -1.6816 | 1.5015 | 2.7559 | 0.0315 | -0.2789 | 0.5301 | -0.8050 | -0.1396 |
| 150 | 53.50 | 0.13 | 12.1015 | -1.7065 | 1.6436 | 2.4787 | 0.0399 | -0.2853 | 0.5239 | -0.8092 | -0.1454 |
| 151 | 53.67 | 0.13 | 12.2431 | -1.7867 | 1.7057 | 2.2584 | 0.0484 | -0.2791 | 0.5287 | -0.8078 | -0.1454 |
| 152 | 53.82 | 0.12 | 12.1439 | -1.6783 | 1.6077 | 2.3538 | 0.0404 | -0.2928 | 0.5142 | -0.8119 | -0.1362 |
| 153 | 53.98 | 0.12 | 12.2538 | -1.5903 | 1.5728 | 2.2634 | 0.0415 | -0.2939 | 0.5256 | -0.8192 | -0.1298 |
| 154 | 54.14 | 0.13 | 12.4141 | -1.7854 | 1.6848 | 2.0205 | 0.0573 | -0.2908 | 0.5254 | -0.8221 | -0.1438 |
| 155 | 54.28 | 0.12 | 12.3321 | -1.6522 | 1.6256 | 2.3254 | 0.0635 | -0.2926 | 0.5383 | -0.8308 | -0.1340 |
| 156 | 54.46 | 0.13 | 12.7376 | -2.0212 | 1.8300 | 2.4137 | 0.0571 | -0.2730 | 0.5484 | -0.8190 | -0.1587 |
| 157 | 54.61 | 0.11 | 12.5980 | -1.7335 | 1.5685 | 2.5144 | 0.0566 | -0.2858 | 0.5422 | -0.8260 | -0.1381 |
| 158 | 54.78 | 0.11 | 12.6235 | -2.0477 | 1.4446 | 2.3702 | 0.0572 | -0.2881 | 0.5032 | -0.8313 | -0.1567 |
| 159 | 54.92 | 0.12 | 12.7776 | -1.9377 | 1.5251 | 2.2851 | 0.0560 | -0.2675 | 0.5470 | -0.8345 | -0.1516 |
| 160 | 55.08 | 0.11 | 12.8603 | -1.9065 | 1.4888 | 2.2470 | 0.0578 | -0.2765 | 0.5526 | -0.8251 | -0.1526 |
| 161 | 55.26 | 0.11 | 12.9572 | -1.8748 | 1.3836 | 2.4595 | 0.0584 | -0.2803 | 0.5432 | -0.8482 | -0.1447 |
| 162 | 55.44 | 0.11 | 13.1975 | -2.0922 | 1.4076 | 2.3525 | 0.0592 | -0.2868 | 0.5754 | -0.8442 | -0.1737 |
| 163 | 55.64 | 0.12 | 13.2287 | -2.0487 | 1.4848 | 2.0814 | 0.0586 | -0.2831 | 0.5769 | -0.8600 | -0.1547 |
| 164 | 55.79 | 0.14 | 13.3931 | -2.3459 | 1.5015 | 2.0518 | 0.0000 | -0.2707 | 0.5917 | -0.8005 | -0.1784 |
| 165 | 55.96 | 0.11 | 13.4636 | -2.2962 | 1.3516 | 2.4255 | 0.0748 | -0.2654 | 0.5948 | -0.8602 | -0.1706 |
| 166 | 56.14 | 0.10 | 13.5165 | -2.3730 | 1.5265 | 2.3027 | 0.0670 | -0.2796 | 0.5986 | -0.8783 | -0.1755 |
| 167 | 56.29 | 0.10 | 13.4652 | -2.1656 | 1.5065 | 2.3111 | 0.0604 | -0.2794 | 0.5846 | -0.8640 | -0.1611 |
| 168 | 56.45 | 0.09 | 13.4662 | -2.1636 | 1.3066 | 2.7000 | 0.0667 | -0.2792 | 0.5910 | -0.8703 | -0.1604 |
| 169 | 56.60 | 0.07 | 13.4867 | -2.1610 | 1.0773 | 2.7538 | 0.0569 | -0.2662 | 0.5958 | -0.8620 | -0.1605 |
| 170 | 56.75 | 0.06 | 13.5445 | -2.1656 | 0.9999 | 2.4528 | 0.0610 | -0.2719 | 0.6048 | -0.8708 | -0.1607 |
| 171 | 56.89 | 0.09 | 13.5052 | -2.1535 | 1.3410 | 2.4592 | 0.0634 | -0.2696 | 0.6086 | -0.8783 | -0.1595 |
| 172 | 57.03 | 0.08 | 13.5140 | -2.1545 | 1.2419 | 2.6302 | 0.0599 | -0.2717 | 0.6077 | -0.8795 | -0.1624 |
| 173 | 57.18 | 0.07 | 13.5238 | -1.9671 | 1.0216 | 2.5763 | 0.0608 | -0.2676 | 0.6147 | -0.8824 | -0.1455 |
| 174 | 57.32 | 0.06 | 13.5210 | -2.1647 | 0.9787 | 2.3752 | 0.0615 | -0.2508 | 0.6155 | -0.8664 | -0.1602 |
| 175 | 57.47 | 0.07 | 13.5150 | -2.1319 | 1.0311 | 2.5138 | 0.0681 | -0.2657 | 0.6213 | -0.8871 | -0.1577 |
| 176 | 57.62 | 0.05 | 13.5457 | -1.9269 | 0.8704 | 2.5230 | 0.0665 | -0.2853 | 0.6211 | -0.9065 | -0.1424 |
| 177 | 57.78 | 0.05 | 13.6736 | -2.0718 | 0.8884 | 2.4228 | 0.0621 | -0.2709 | 0.6226 | -0.8930 | -0.1513 |
| 178 | 57.84 | 0.05 | 13.4552 | -2.0657 | 0.7773 | 2.4415 | 0.0614 | -0.2607 | 0.6266 | -0.8874 | -0.1553 |
| 179 | 57.85 | 0.05 | 13.4815 | -1.9003 | 0.8459 | 2.2735 | 0.0621 | -0.2734 | 0.6214 | -0.8949 | -0.1410 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1ne 0.60 1.7 0.0 dimless 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.68 | 0.02 | -0.0358 | -0.0041 | 0.0275 | 0.F132 | -0.7662 | -0.8486 | -0.0346 | -0.2537 | 0.0534 | 0.3911 |
| 2 | -5.68 | 0.01 | -0.0354 | -0.0044 | 0.0256 | 0.1253 | -0.7357 | -0.8486 | -0.0349 | -0.2537 | 0.0535 | 0.3911 |
| 3 | -5.68 | 0.01 | -0.0303 | -0.0031 | 0.0307 | 0.1019 | -1.0127 | -0.8421 | -0.0359 | -0.2506 | 0.0559 | 0.3902 |
| 4 | -5.65 | 0.00 | -0.0414 | -0.0044 | 0.0244 | 0.1074 | -0.9097 | -0.8401 | -0.0353 | -0.2521 | 0.0552 | 0.3936 |
| 5 | -5.34 | 0.00 | -0.0498 | -0.0056 | 0.0268 | 0.1103 | -0.9106 | -0.8338 | -0.0346 | -0.2464 | 0.0547 | 0.3888 |
| 6 | -3.53 | 0.00 | -0.0245 | 0.0005 | 0.0303 | -0.0534 | -1.2562 | -0.8428 | -0.0349 | -0.3258 | 0.0412 | 0.3839 |
| 7 | -1.80 | 0.00 | -0.0121 | 0.0027 | 0.0254 | -0.2240 | -2.1040 | -0.8582 | -0.0366 | -0.3344 | 0.0426 | 0.3897 |
| 8 | 0.01 | 0.01 | -0.0067 | 0.0027 | 0.0220 | -0.3111 | -2.5333 | -0.7931 | -0.0398 | -0.3102 | 0.0501 | 0.3987 |
| 9 | 1.79 | 0.01 | -0.0085 | 0.0044 | 0.0196 | -0.5227 | -2.3368 | -0.6865 | -0.0443 | -0.2726 | 0.0645 | 0.3976 |
| 10 | 3.57 | 0.01 | -0.0167 | 0.0006 | 0.0147 | -0.0520 | -0.8706 | -0.8248 | -0.0482 | -0.2534 | 0.0772 | 0.4055 |
| 11 | 5.35 | 0.00 | -0.0136 | 0.0005 | 0.0138 | -0.0355 | -1.0142 | -0.5343 | -0.0477 | -0.2487 | 0.0852 | 0.4655 |
| 12 | 7.14 | 0.01 | -0.0076 | 0.0017 | 0.0145 | -0.2222 | -1.0516 | -0.4273 | -0.0411 | -0.2096 | 0.0962 | 0.4904 |
| 13 | 8.86 | 0.00 | -0.0165 | 0.0 | 0.0172 | 0.0 | -1.0171 | -0.2894 | -0.0323 | -0.1552 | 0.1117 | 0.5365 |
| 14 | 10.07 | 0.00 | -0.0252 | -0.0005 | 0.0124 | 0.0345 | -0.9963 | -0.1548 | -0.0223 | -0.0999 | 0.1440 | 0.6453 |
| 15 | 12.44 | 0.00 | -0.0311 | -0.0014 | 0.0116 | 0.0435 | -0.3769 | -0.0592 | -0.0088 | -0.0555 | 0.1482 | 0.9365 |
| 16 | 14.22 | 0.00 | -0.0344 | -0.0044 | 0.0162 | 0.1209 | -0.4700 | 0.0096 | 0.0117 | -0.0130 | 1.2222 | -1.3636 |
| 17 | 16.07 | -0.00 | -0.0404 | -0.0056 | 0.0188 | 0.1432 | -0.4133 | 0.0725 | 0.0338 | 0.0148 | 0.4660 | 0.2037 |
| 18 | 17.90 | -0.01 | -0.0339 | -0.0141 | 0.0388 | 0.3561 | -1.1396 | 0.1394 | 0.0470 | 0.0414 | 0.3370 | 0.2966 |
| 19 | 19.70 | -0.02 | -0.0003 | -0.0232 | 0.0467 | 0.3493 | -0.8145 | 0.2126 | 0.0603 | 0.0737 | 0.2837 | 0.3468 |
| 20 | 21.53 | -0.04 | -0.1454 | -0.0336 | 0.0524 | 0.2860 | -0.4748 | 0.2769 | 0.0684 | 0.1112 | 0.2507 | 0.4077 |
| 21 | 23.37 | -0.04 | -0.1944 | -0.0450 | 0.0038 | 0.2521 | -0.3194 | 0.3104 | 0.0710 | 0.1506 | 0.2288 | 0.4852 |
| 22 | 25.18 | -0.03 | -0.1493 | -0.0428 | -0.0065 | 0.1701 | 0.3500 | 0.2702 | 0.0712 | 0.2005 | 0.1514 | 0.4264 |
| 23 | 27.01 | -0.00 | -0.1161 | -0.0151 | 0.0532 | 0.1305 | 0.5030 | 0.5657 | 0.0545 | 0.2249 | 0.0570 | 0.3978 |
| 24 | 27.80 | 0.01 | 0.0578 | 0.0076 | 0.0253 | 0.1319 | 1.0750 | 0.5056 | 0.0565 | 0.2237 | 0.1000 | 0.3954 |
| 25 | 26.03 | 0.02 | 0.1066 | 0.0145 | 0.1063 | 0.1314 | 0.5787 | 0.5658 | 0.0520 | 0.2226 | 0.0888 | 0.3806 |
| 26 | 28.33 | 0.01 | 0.0515 | 0.0096 | 0.0007 | 0.1742 | 1.7210 | 0.5935 | 0.0521 | 0.2236 | 0.0878 | 0.3767 |
| 27 | 28.68 | 0.02 | 0.0124 | 0.0056 | 0.0677 | 0.4341 | 5.4415 | 0.5971 | 0.0488 | 0.2225 | 0.0818 | 0.3727 |
| 28 | 28.97 | 0.01 | 0.0051 | 0.0167 | 0.0591 | 0.1044 | 1.5215 | 0.6005 | 0.0481 | 0.2215 | 0.0802 | 0.3685 |
| 29 | 29.25 | 0.02 | 0.0172 | 0.0071 | 0.0773 | 0.4157 | 4.5000 | 0.6006 | 0.0462 | 0.2214 | 0.0769 | 0.3687 |
| 30 | 29.53 | 0.01 | 0.0323 | 0.0063 | 0.0754 | 0.2627 | 2.3313 | 0.6021 | 0.0444 | 0.2192 | 0.0737 | 0.3641 |
| 31 | 29.82 | 0.03 | 0.0877 | 0.0148 | 0.1098 | 0.1603 | 1.2497 | 0.6055 | 0.0437 | 0.2195 | 0.0722 | 0.3625 |
| 32 | 30.06 | 0.03 | 0.0645 | 0.0101 | 0.1007 | 0.1506 | 1.3394 | 0.6023 | 0.0425 | 0.2180 | 0.0705 | 0.3619 |
| 33 | 30.34 | 0.03 | 0.0255 | 0.0103 | 0.0824 | 0.4053 | 3.2348 | 0.6024 | 0.0421 | 0.2180 | 0.0698 | 0.3618 |
| 34 | 30.62 | 0.03 | 0.0445 | 0.0134 | 0.0936 | 0.3097 | 2.0800 | 0.6023 | 0.0421 | 0.2192 | 0.0698 | 0.3640 |
| 35 | 30.89 | 0.02 | -0.1452 | -0.0050 | 0.0001 | 0.0602 | -0.0306 | 0.6022 | 0.0425 | 0.2205 | 0.0705 | 0.3661 |
| 36 | 31.17 | 0.02 | -0.1120 | -0.0027 | 0.0197 | 0.6296 | -0.1302 | 0.6068 | 0.0419 | 0.2212 | 0.0690 | 0.3646 |
| 37 | 31.43 | 0.04 | -0.1285 | -0.0027 | 0.0256 | 0.0214 | -0.0442 | 0.6135 | 0.0412 | 0.2217 | 0.0672 | 0.3614 |
| 38 | 31.70 | 0.04 | -0.1789 | 0.0021 | 0.0276 | -0.0344 | -0.3516 | 0.6038 | 0.0402 | 0.2210 | 0.0667 | 0.3668 |
| 39 | 31.96 | 0.03 | -0.1505 | -0.0043 | -0.0135 | 0.0416 | 0.0921 | 0.6134 | 0.0402 | 0.2243 | 0.0656 | 0.3657 |
| 40 | 32.21 | 0.05 | -0.1067 | -0.0041 | 0.0165 | 0.0380 | -0.1546 | 0.6152 | 0.0398 | 0.2295 | 0.0650 | 0.3744 |
| 41 | 32.48 | 0.05 | -0.1257 | -0.0016 | -0.0007 | 0.0146 | 0.0354 | 0.6167 | 0.0389 | 0.2259 | 0.0630 | 0.3662 |
| 42 | 32.74 | 0.05 | -0.1194 | -0.0016 | -0.0039 | 0.0134 | 0.0323 | 0.6166 | 0.0379 | 0.2285 | 0.0615 | 0.3705 |
| 43 | 32.97 | 0.05 | -0.1500 | -0.0058 | -0.0188 | 0.0366 | 0.1254 | 0.6155 | 0.0378 | 0.2280 | 0.0615 | 0.3704 |
| 44 | 33.23 | 0.04 | -0.1410 | -0.0038 | -0.0124 | 0.0201 | 0.0980 | 0.6221 | 0.0378 | 0.2298 | 0.0608 | 0.3695 |
| 45 | 33.48 | 0.05 | -0.1266 | -0.0032 | -0.0102 | 0.0252 | 0.1280 | 0.6253 | 0.0378 | 0.2301 | 0.0605 | 0.3686 |
| 46 | 33.72 | 0.06 | -0.1765 | -0.0112 | -0.0292 | 0.0049 | 0.1695 | 0.6221 | 0.0378 | 0.2312 | 0.0608 | 0.3716 |

PARTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 1ac 0.80 4.7 0.0 B1SUP23 6.6 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CO1 | XCPF1 | YCPF1 | CNF2 | CM2 | CO2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.98 | 0.05 | -0.1494 | -0.0065 | -0.0201 | 0.0058 | 0.1744 | 0.6154 | 0.0378 | 0.2306 | 0.0615 | 0.3747 |
| 48 | 34.21 | 0.05 | -0.1377 | -0.0054 | -0.0244 | 0.0392 | 0.1640 | 0.6215 | 0.0378 | 0.2336 | 0.0608 | 0.3759 |
| 49 | 34.45 | 0.07 | -0.1240 | -0.0085 | -0.0256 | 0.0518 | 0.1555 | 0.6252 | 0.0385 | 0.2327 | 0.0616 | 0.3722 |
| 50 | 34.71 | 0.07 | -0.1404 | -0.0049 | -0.0222 | 0.0336 | 0.1516 | 0.6305 | 0.0378 | 0.2354 | 0.0600 | 0.3734 |
| 51 | 34.95 | 0.08 | -0.0992 | -0.0094 | 0.0009 | 0.0447 | -0.0700 | 0.6142 | 0.0378 | 0.2315 | 0.0616 | 0.3768 |
| 52 | 35.18 | 0.07 | -0.0835 | 0.0016 | 0.0241 | -0.0541 | -0.4467 | 0.6209 | 0.0374 | 0.2307 | 0.0603 | 0.3716 |
| 53 | 35.42 | 0.07 | 0.1279 | 0.0365 | 0.0507 | 0.2383 | 0.7089 | 0.6308 | 0.0365 | 0.2302 | 0.0578 | 0.3645 |
| 54 | 35.65 | 0.06 | 0.2157 | 0.0382 | 0.1273 | 0.1784 | 0.5899 | 0.6340 | 0.0352 | 0.2356 | 0.0555 | 0.3716 |
| 55 | 35.88 | 0.07 | 0.2410 | 0.0417 | 0.1390 | 0.1729 | 0.5769 | 0.6471 | 0.0348 | 0.2380 | 0.0538 | 0.3678 |
| 56 | 36.12 | 0.06 | 0.2156 | 0.0395 | 0.1285 | 0.1831 | 0.5962 | 0.6469 | 0.0355 | 0.2406 | 0.0549 | 0.3726 |
| 57 | 36.36 | 0.07 | 0.0758 | 0.0246 | 0.0716 | 0.3333 | 0.9725 | 0.6404 | 0.0368 | 0.2386 | 0.0574 | 0.3725 |
| 58 | 36.59 | 0.07 | 0.0661 | 0.0233 | 0.0699 | 0.3414 | 1.0255 | 0.6404 | 0.0374 | 0.2376 | 0.0585 | 0.3710 |
| 59 | 36.83 | 0.07 | 0.0624 | 0.0226 | 0.0693 | 0.3257 | 0.9513 | 0.6403 | 0.0366 | 0.2402 | 0.0574 | 0.3751 |
| 60 | 37.06 | 0.06 | 0.0664 | 0.0242 | 0.0686 | 0.2864 | 0.7732 | 0.6353 | 0.0362 | 0.2451 | 0.0554 | 0.3751 |
| 61 | 37.28 | 0.07 | -0.0318 | 0.0058 | 0.0124 | -0.1825 | -0.3902 | 0.6468 | 0.0374 | 0.2420 | 0.0579 | 0.3742 |
| 62 | 37.52 | 0.07 | -0.0711 | -0.0005 | -0.0038 | 0.0608 | 0.0529 | 0.6489 | 0.0371 | 0.2416 | 0.0571 | 0.3726 |
| 63 | 37.75 | 0.07 | -0.1532 | -0.0246 | -0.0451 | 0.1274 | 0.2333 | 0.6488 | 0.0377 | 0.2418 | 0.0581 | 0.3727 |
| 64 | 37.98 | 0.06 | -0.2077 | -0.0371 | -0.0730 | 0.1441 | 0.2034 | 0.6551 | 0.0377 | 0.2475 | 0.0576 | 0.3778 |
| 65 | 38.22 | 0.06 | -0.2552 | -0.0358 | -0.0736 | 0.1561 | 0.2062 | 0.6630 | 0.0374 | 0.2512 | 0.0565 | 0.3788 |
| 66 | 38.44 | 0.06 | -0.2806 | -0.0524 | -0.0805 | 0.1667 | 0.2008 | 0.6728 | 0.0371 | 0.2533 | 0.0552 | 0.3765 |
| 67 | 38.66 | 0.06 | -0.3118 | -0.0556 | -0.0906 | 0.1912 | 0.2905 | 0.6857 | 0.0369 | 0.2606 | 0.0537 | 0.3803 |
| 68 | 38.88 | 0.05 | -0.2691 | -0.0505 | -0.0825 | 0.1965 | 0.2867 | 0.6956 | 0.0365 | 0.2617 | 0.0524 | 0.3762 |
| 69 | 39.10 | 0.06 | -0.2546 | -0.0573 | -0.0881 | 0.1946 | 0.2922 | 0.7053 | 0.0362 | 0.2663 | 0.0513 | 0.3776 |
| 70 | 39.29 | 0.06 | -0.2665 | -0.0514 | -0.0744 | 0.1926 | 0.2856 | 0.7067 | 0.0358 | 0.2653 | 0.0505 | 0.3744 |
| 71 | 39.52 | 0.10 | -0.2041 | -0.0358 | -0.0511 | 0.1953 | 0.2506 | 0.7054 | 0.0362 | 0.2637 | 0.0513 | 0.3738 |
| 72 | 39.71 | 0.06 | -0.1958 | -0.0314 | -0.0463 | 0.1802 | 0.2469 | 0.7087 | 0.0355 | 0.2653 | 0.0501 | 0.3744 |
| 73 | 39.90 | 0.08 | -0.2270 | -0.0371 | -0.0557 | 0.1836 | 0.2631 | 0.7184 | 0.0355 | 0.2687 | 0.0494 | 0.3740 |
| 74 | 40.11 | 0.06 | -0.2015 | -0.0256 | -0.0336 | 0.1809 | 0.2063 | 0.7120 | 0.0352 | 0.2669 | 0.0495 | 0.3748 |
| 75 | 40.31 | 0.06 | -0.1820 | -0.0242 | -0.0342 | 0.1895 | 0.2108 | 0.7251 | 0.0343 | 0.2692 | 0.0472 | 0.3713 |
| 76 | 40.52 | 0.08 | -0.1852 | -0.0264 | -0.0387 | 0.1965 | 0.2090 | 0.7397 | 0.0343 | 0.2748 | 0.0468 | 0.3715 |
| 77 | 40.73 | 0.08 | -0.2046 | -0.0391 | -0.0499 | 0.1909 | 0.2436 | 0.7396 | 0.0346 | 0.2748 | 0.0468 | 0.3718 |
| 78 | 40.94 | 0.09 | -0.1882 | -0.0435 | -0.0557 | 0.2312 | 0.1896 | 0.7592 | 0.0340 | 0.2816 | 0.0447 | 0.3710 |
| 79 | 41.14 | 0.03 | -0.2106 | -0.0440 | -0.0483 | 0.2089 | 0.2295 | 0.7657 | 0.0333 | 0.2847 | 0.0435 | 0.3718 |
| 80 | 41.34 | 0.06 | -0.2136 | -0.0521 | -0.0454 | 0.2434 | 0.2127 | 0.7658 | 0.0333 | 0.2835 | 0.0435 | 0.3702 |
| 81 | 41.53 | 0.08 | -0.2369 | -0.0453 | -0.0617 | 0.1898 | 0.2581 | 0.7624 | 0.0333 | 0.2832 | 0.0437 | 0.3714 |
| 82 | 41.74 | 0.05 | -0.2360 | -0.0521 | -0.0580 | 0.2208 | 0.2457 | 0.7724 | 0.0330 | 0.2853 | 0.0427 | 0.3694 |
| 83 | 41.91 | 0.07 | -0.2384 | -0.0422 | -0.0665 | 0.1769 | 0.2788 | 0.7789 | 0.0323 | 0.2858 | 0.0419 | 0.3685 |
| 84 | 42.09 | 0.06 | -0.2361 | -0.0399 | -0.0610 | 0.1750 | 0.2675 | 0.7724 | 0.0320 | 0.2866 | 0.0415 | 0.3710 |
| 85 | 42.28 | 0.08 | -0.2737 | -0.0566 | -0.0713 | 0.2069 | 0.2605 | 0.7870 | 0.0327 | 0.2896 | 0.0416 | 0.3679 |
| 86 | 42.47 | 0.09 | -0.2560 | -0.0603 | -0.0704 | 0.2075 | 0.2699 | 0.7904 | 0.0320 | 0.2929 | 0.0402 | 0.3676 |
| 87 | 42.63 | 0.08 | -0.2754 | -0.0544 | -0.0745 | 0.1548 | 0.2659 | 0.8002 | 0.0320 | 0.2932 | 0.0400 | 0.3665 |
| 88 | 42.82 | 0.05 | -0.2652 | -0.0518 | -0.0731 | 0.2620 | 0.2632 | 0.8003 | 0.0314 | 0.2920 | 0.0392 | 0.3648 |
| 89 | 43.01 | 0.08 | -0.3136 | -0.0558 | -0.0872 | 0.1903 | 0.2782 | 0.8067 | 0.0314 | 0.2964 | 0.0389 | 0.3674 |
| 90 | 43.20 | 0.05 | -0.3141 | -0.0558 | -0.0835 | 0.1935 | 0.2657 | 0.8134 | 0.0311 | 0.2969 | 0.0382 | 0.3650 |
| 91 | 43.36 | 0.08 | -0.3429 | -0.0625 | -0.0918 | 0.1823 | 0.2676 | 0.8198 | 0.0311 | 0.2988 | 0.0379 | 0.3649 |
| 92 | 43.55 | 0.09 | -0.3467 | -0.0643 | -0.0903 | 0.1892 | 0.2656 | 0.8261 | 0.0302 | 0.3038 | 0.0365 | 0.3669 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 148 | MACH 0.80 | RX10-6 1.7 | PHI 0.0 | CONF 61B0F23 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.73 | 0.05 | -0.3584 | -0.0645 | -0.0924 | 0.1812 | 0.2579 | 0.8346 | 0.0302 | 0.3057 | 0.0362 | 0.3662 |
| 94 | 43.90 | 0.08 | -0.3503 | -0.0645 | -0.0891 | 0.1840 | 0.2429 | 0.8347 | 0.0302 | 0.3044 | 0.0362 | 0.3647 |
| 95 | 44.13 | 0.08 | -0.3507 | -0.0645 | -0.0820 | 0.1838 | 0.2355 | 0.8380 | 0.0302 | 0.3060 | 0.0360 | 0.3651 |
| 96 | 44.30 | 0.04 | -0.3511 | -0.0635 | -0.0736 | 0.1819 | 0.2307 | 0.8401 | 0.0298 | 0.3101 | 0.0352 | 0.3665 |
| 97 | 44.47 | 0.08 | -0.3507 | -0.0652 | -0.0640 | 0.1878 | 0.2102 | 0.8594 | 0.0286 | 0.3125 | 0.0335 | 0.3636 |
| 98 | 44.64 | 0.04 | -0.3535 | -0.0638 | -0.0621 | 0.1753 | 0.1708 | 0.8613 | 0.0286 | 0.3121 | 0.0334 | 0.3625 |
| 99 | 44.82 | 0.05 | -0.3788 | -0.0643 | -0.0536 | 0.1697 | 0.1664 | 0.8512 | 0.0294 | 0.3088 | 0.0346 | 0.3627 |
| 100 | 45.01 | 0.09 | -0.3977 | -0.0630 | -0.0722 | 0.1635 | 0.1815 | 0.8626 | 0.0287 | 0.3157 | 0.0332 | 0.3606 |
| 101 | 45.19 | 0.06 | -0.4038 | -0.0650 | -0.0715 | 0.1611 | 0.1771 | 0.8628 | 0.0287 | 0.3106 | 0.0332 | 0.3606 |
| 102 | 45.35 | 0.08 | -0.3962 | -0.0646 | -0.0616 | 0.1606 | 0.1556 | 0.8611 | 0.0280 | 0.3125 | 0.0325 | 0.3624 |
| 103 | 45.53 | 0.08 | -0.3840 | -0.0613 | -0.0527 | 0.1593 | 0.1370 | 0.8607 | 0.0277 | 0.3168 | 0.0316 | 0.3597 |
| 104 | 45.70 | 0.06 | -0.3803 | -0.0590 | -0.0479 | 0.1521 | 0.1233 | 0.8640 | 0.0273 | 0.3183 | 0.0305 | 0.3601 |
| 105 | 45.88 | 0.07 | -0.3743 | -0.0568 | -0.0395 | 0.1565 | 0.1067 | 0.8872 | 0.0266 | 0.3212 | 0.0300 | 0.3620 |
| 106 | 46.04 | 0.08 | -0.3522 | -0.0555 | -0.0422 | 0.1573 | 0.0829 | 0.9035 | 0.0263 | 0.3252 | 0.0292 | 0.3595 |
| 107 | 46.22 | 0.06 | -0.3773 | -0.0562 | -0.0402 | 0.1542 | 0.1066 | 0.8938 | 0.0266 | 0.3217 | 0.0298 | 0.3595 |
| 108 | 46.42 | 0.07 | -0.3662 | -0.0523 | -0.0226 | 0.1511 | 0.0852 | 0.9050 | 0.0257 | 0.3286 | 0.0284 | 0.3632 |
| 109 | 46.58 | 0.08 | -0.3174 | -0.0496 | -0.0155 | 0.1362 | 0.0469 | 0.9084 | 0.0260 | 0.3251 | 0.0286 | 0.3578 |
| 110 | 46.73 | 0.07 | -0.3538 | -0.0513 | -0.0335 | 0.1451 | 0.0740 | 0.9020 | 0.0260 | 0.3220 | 0.0288 | 0.3570 |
| 111 | 46.92 | 0.07 | -0.3517 | -0.0487 | -0.0226 | 0.1469 | 0.0628 | 0.9117 | 0.0257 | 0.3266 | 0.0282 | 0.3582 |
| 112 | 47.09 | 0.07 | -0.3337 | -0.0465 | -0.0298 | 0.1405 | 0.0494 | 0.9161 | 0.0250 | 0.3310 | 0.0272 | 0.3606 |
| 113 | 47.26 | 0.06 | -0.3258 | -0.0466 | -0.0315 | 0.1419 | 0.0968 | 0.9229 | 0.0246 | 0.3322 | 0.0267 | 0.3606 |
| 114 | 47.43 | 0.06 | -0.3295 | -0.0452 | -0.0217 | 0.1463 | 0.0735 | 0.9326 | 0.0240 | 0.3369 | 0.0258 | 0.3613 |
| 115 | 47.60 | 0.06 | -0.3371 | -0.0459 | -0.0253 | 0.1362 | 0.1342 | 0.9357 | 0.0240 | 0.3410 | 0.0257 | 0.3644 |
| 116 | 47.77 | 0.03 | -0.3165 | -0.0441 | -0.0345 | 0.1428 | 0.1116 | 0.9457 | 0.0233 | 0.3392 | 0.0247 | 0.3587 |
| 117 | 47.96 | 0.06 | -0.3337 | -0.0455 | -0.0300 | 0.1377 | 0.1496 | 0.9360 | 0.0233 | 0.3359 | 0.0249 | 0.3588 |
| 118 | 48.10 | 0.05 | -0.3164 | -0.0473 | -0.0033 | 0.1319 | 0.1022 | 0.9457 | 0.0220 | 0.3405 | 0.0233 | 0.3601 |
| 119 | 48.25 | 0.05 | -0.3458 | -0.0466 | -0.0231 | 0.1338 | 0.1604 | 0.9555 | 0.0220 | 0.3414 | 0.0230 | 0.3573 |
| 120 | 48.41 | 0.03 | -0.3465 | -0.0452 | -0.0128 | 0.1303 | 0.2102 | 0.9572 | 0.0214 | 0.3472 | 0.0224 | 0.3627 |
| 121 | 48.58 | 0.02 | -0.3479 | -0.0474 | -0.0245 | 0.1362 | 0.2429 | 0.9671 | 0.0207 | 0.3505 | 0.0215 | 0.3625 |
| 122 | 48.74 | 0.01 | -0.3180 | -0.0451 | -0.0161 | 0.1414 | 0.2369 | 0.9752 | 0.0201 | 0.3495 | 0.0206 | 0.3584 |
| 123 | 48.92 | 0.02 | -0.2788 | -0.0383 | -0.0235 | 0.1374 | 0.2291 | 0.9666 | 0.0201 | 0.3502 | 0.0207 | 0.3615 |
| 124 | 49.11 | 0.01 | -0.2664 | -0.0455 | -0.0282 | 0.1623 | 0.2094 | 0.9623 | 0.0191 | 0.3457 | 0.0199 | 0.3563 |
| 125 | 49.27 | 0.00 | -0.2434 | -0.0416 | -0.0242 | 0.1708 | 0.2036 | 0.9837 | 0.0195 | 0.3532 | 0.0198 | 0.3551 |
| 126 | 49.45 | 0.03 | -0.3140 | -0.0496 | -0.0531 | 0.1580 | 0.2907 | 0.9708 | 0.0194 | 0.3470 | 0.0204 | 0.3574 |
| 127 | 49.61 | 0.02 | -0.2823 | -0.0452 | -0.0264 | 0.1595 | 0.3059 | 0.9708 | 0.0192 | 0.3483 | 0.0198 | 0.3588 |
| 128 | 49.78 | -0.00 | -0.1914 | -0.0371 | -0.0533 | 0.1655 | 0.2782 | 0.9935 | 0.0182 | 0.3554 | 0.0184 | 0.3577 |
| 129 | 49.97 | 0.03 | -0.2858 | -0.0407 | -0.0212 | 0.1567 | 0.3127 | 0.9727 | 0.0189 | 0.3502 | 0.0194 | 0.3601 |
| 130 | 50.14 | 0.04 | -0.2678 | -0.0412 | -0.0324 | 0.1540 | 0.3449 | 0.9800 | 0.0189 | 0.3563 | 0.0197 | 0.3563 |
| 131 | 50.29 | 0.04 | -0.2618 | -0.0428 | -0.0564 | 0.1510 | 0.3420 | 0.9796 | 0.0182 | 0.3431 | 0.0186 | 0.3502 |
| 132 | 50.46 | 0.05 | -0.2788 | -0.0406 | -0.0558 | 0.1475 | 0.3464 | 0.9750 | 0.0182 | 0.3432 | 0.0187 | 0.3520 |
| 133 | 50.64 | 0.03 | -0.2652 | -0.0346 | -0.0735 | 0.1512 | 0.3225 | 0.9833 | 0.0183 | 0.3470 | 0.0186 | 0.3525 |
| 134 | 50.80 | 0.05 | -0.2566 | -0.0377 | -0.0659 | 0.1599 | 0.2792 | 0.9962 | 0.0200 | 0.3533 | 0.0200 | 0.3547 |
| 135 | 50.99 | 0.05 | -0.2911 | -0.0432 | -0.0838 | 0.1485 | 0.2877 | 1.0117 | 0.0183 | 0.3526 | 0.0181 | 0.3485 |
| 136 | 51.18 | 0.04 | -0.2745 | -0.0401 | -0.0742 | 0.1460 | 0.2699 | 1.0004 | 0.0204 | 0.3469 | 0.0204 | 0.3467 |
| 137 | 51.33 | 0.05 | -0.2762 | -0.0447 | -0.0631 | 0.1618 | 0.2286 | 1.0394 | 0.0204 | 0.3659 | 0.0196 | 0.3520 |
| 138 | 51.51 | 0.03 | -0.2667 | -0.0425 | -0.0535 | 0.1634 | 0.2053 | 1.0451 | 0.0197 | 0.3630 | 0.0188 | 0.3473 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 14d MACH 0.80 RNIG-6 1.7 PHI C.C CONF B1eUF2J L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.88 | 0.06 | -0.2750 | -0.0435 | -0.0566 | 0.1596 | 0.2060 | 1.0830 | 0.0184 | 0.3769 | 0.0171 | 0.3490 |
| 140 | 51.84 | 0.07 | -0.3056 | -0.0481 | -0.0734 | 0.1525 | 0.2376 | 1.0702 | 0.0181 | 0.3721 | 0.0169 | 0.3476 |
| 141 | 52.00 | 0.06 | -0.2559 | -0.0457 | -0.0748 | 0.1525 | 0.2496 | 1.0705 | 0.0168 | 0.3668 | 0.0157 | 0.3427 |
| 142 | 52.16 | 0.07 | -0.2136 | -0.0473 | -0.0761 | 0.1567 | 0.2636 | 1.0678 | 0.0172 | 0.3709 | 0.0156 | 0.3433 |
| 143 | 52.34 | 0.09 | -0.2382 | -0.0478 | -0.0534 | 0.1412 | 0.2762 | 1.0884 | 0.0152 | 0.3667 | 0.0140 | 0.3370 |
| 144 | 52.51 | 0.08 | -0.2536 | -0.0496 | -0.0550 | 0.1405 | 0.2692 | 1.0982 | 0.0152 | 0.3716 | 0.0139 | 0.3383 |
| 145 | 52.66 | 0.11 | -0.2363 | -0.0455 | -0.0253 | 0.1366 | 0.2537 | 1.0949 | 0.0149 | 0.3699 | 0.0136 | 0.3375 |
| 146 | 52.85 | 0.12 | -0.2261 | -0.0306 | -0.0706 | 0.1268 | 0.2665 | 1.0887 | 0.0146 | 0.3615 | 0.0134 | 0.3321 |
| 147 | 53.01 | 0.12 | -0.2051 | -0.0288 | -0.0481 | 0.1308 | 0.2347 | 1.0955 | 0.0139 | 0.3594 | 0.0127 | 0.3281 |
| 148 | 53.18 | 0.14 | -0.1888 | -0.0269 | -0.0271 | 0.1262 | 0.1608 | 1.0887 | 0.0139 | 0.3615 | 0.0128 | 0.3321 |
| 149 | 53.35 | 0.12 | -0.0100 | 0.0027 | 0.0314 | -0.2692 | -3.1250 | 1.0557 | 0.0158 | 0.3470 | 0.0150 | 0.3287 |
| 150 | 53.50 | 0.13 | 0.0010 | 0.0023 | 0.0416 | 2.4600 | 43.1000 | 1.0465 | 0.0165 | 0.3406 | 0.0158 | 0.3267 |
| 151 | 53.67 | 0.13 | -0.0096 | 0.0027 | 0.0288 | -0.2800 | -2.9900 | 1.0756 | 0.0152 | 0.3512 | 0.0142 | 0.3265 |
| 152 | 53.82 | 0.14 | -0.0249 | -0.0019 | 0.0167 | 0.0458 | -0.6340 | 1.0724 | 0.0152 | 0.3483 | 0.0142 | 0.3248 |
| 153 | 53.98 | 0.12 | -0.0014 | 0.0041 | 0.0350 | -2.8000 | -24.2000 | 1.0580 | 0.0159 | 0.3610 | 0.0150 | 0.3223 |
| 154 | 54.14 | 0.13 | -0.0113 | 0.0055 | 0.0465 | -0.4872 | -3.5897 | 1.0447 | 0.0166 | 0.3386 | 0.0159 | 0.3241 |
| 155 | 54.26 | 0.12 | 0.0206 | 0.0073 | 0.0532 | 0.3551 | 2.5748 | 1.0468 | 0.0173 | 0.3353 | 0.0165 | 0.3203 |
| 156 | 54.46 | 0.13 | -0.0170 | 0.0050 | 0.0374 | -0.2955 | -2.2045 | 1.0468 | 0.0166 | 0.3366 | 0.0159 | 0.3216 |
| 157 | 54.61 | 0.11 | 0.0085 | 0.0073 | 0.0454 | 0.8201 | 5.5652 | 1.0501 | 0.0166 | 0.3369 | 0.0158 | 0.3209 |
| 158 | 54.78 | 0.11 | -0.0196 | 0.0041 | 0.0358 | -0.2698 | -1.8098 | 1.0533 | 0.0159 | 0.3411 | 0.0151 | 0.3238 |
| 159 | 54.92 | 0.12 | -0.0117 | 0.0037 | 0.0444 | -0.3140 | -3.8016 | 1.0566 | 0.0152 | 0.3427 | 0.0144 | 0.3244 |
| 160 | 55.08 | 0.11 | -0.0023 | 0.0041 | 0.0396 | -0.1654 | -1.2239 | 1.0315 | 0.0173 | 0.3504 | 0.0167 | 0.3208 |
| 161 | 55.26 | 0.11 | -0.0388 | 0.0027 | 0.0414 | -0.0700 | -1.0725 | 1.0249 | 0.0173 | 0.3490 | 0.0165 | 0.3210 |
| 162 | 55.44 | 0.11 | -0.0438 | 0.0037 | 0.0344 | -0.0857 | -0.7863 | 1.0560 | 0.0159 | 0.3423 | 0.0150 | 0.3236 |
| 163 | 55.64 | 0.12 | -0.0508 | 0.0037 | 0.0414 | -0.0722 | -0.8156 | 1.0380 | 0.0166 | 0.3367 | 0.0160 | 0.3244 |
| 164 | 55.79 | 0.12 | -0.0272 | 0.0024 | 0.0269 | -0.2990 | -1.7163 | 1.0448 | 0.0162 | 0.3373 | 0.0155 | 0.3229 |
| 165 | 55.98 | 0.11 | -0.0274 | 0.0050 | 0.0450 | -0.1831 | -1.7867 | 1.0559 | 0.0152 | 0.3430 | 0.0144 | 0.3248 |
| 166 | 56.14 | 0.10 | -0.0365 | 0.0041 | 0.0435 | -0.1042 | -1.1290 | 1.0626 | 0.0152 | 0.3436 | 0.0143 | 0.3233 |
| 167 | 56.29 | 0.10 | -0.0477 | 0.0045 | 0.0417 | -0.0951 | -0.8745 | 1.0537 | 0.0155 | 0.3381 | 0.0148 | 0.3218 |
| 168 | 56.45 | 0.09 | -0.0537 | 0.0037 | 0.0434 | -0.0662 | -0.8079 | 1.0320 | 0.0158 | 0.3321 | 0.0153 | 0.3218 |
| 169 | 56.80 | 0.07 | -0.0567 | 0.0037 | 0.0431 | -0.0646 | -0.7802 | 1.0451 | 0.0151 | 0.3385 | 0.0145 | 0.3235 |
| 170 | 56.75 | 0.06 | -0.0573 | 0.0062 | 0.0481 | -0.0367 | -0.8384 | 1.0254 | 0.0149 | 0.3355 | 0.0145 | 0.3272 |
| 171 | 56.89 | 0.09 | -0.0634 | 0.0018 | 0.0487 | -0.0289 | -0.7686 | 1.0365 | 0.0151 | 0.3392 | 0.0146 | 0.3267 |
| 172 | 57.03 | 0.08 | -0.0615 | 0.0014 | 0.0493 | -0.0166 | -0.8047 | 1.0366 | 0.0151 | 0.3366 | 0.0146 | 0.3241 |
| 173 | 57.16 | 0.07 | -0.0592 | 0.0005 | 0.0460 | -0.0088 | -0.7440 | 1.0386 | 0.0145 | 0.3379 | 0.0139 | 0.3253 |
| 174 | 57.32 | 0.06 | -0.0649 | 0.0005 | 0.0535 | -0.0057 | -0.8352 | 1.0663 | 0.0138 | 0.3463 | 0.0129 | 0.3248 |
| 175 | 57.47 | 0.07 | -0.0683 | 0.0005 | 0.0571 | -0.0127 | -0.9316 | 1.0542 | 0.0138 | 0.3434 | 0.0131 | 0.3237 |
| 176 | 57.62 | 0.05 | -0.0665 | -0.0005 | 0.0496 | 0.0048 | -0.8905 | 1.0325 | 0.0138 | 0.3372 | 0.0134 | 0.3266 |
| 177 | 57.78 | 0.05 | -0.1204 | -0.0014 | 0.0523 | 0.0112 | -0.4343 | 1.0852 | 0.0131 | 0.3491 | 0.0123 | 0.3277 |
| 178 | 57.89 | 0.05 | -0.1167 | -0.0019 | 0.0491 | 0.0114 | -0.5488 | 1.0567 | 0.0130 | 0.3452 | 0.0123 | 0.3267 |
| 179 | 57.85 | 0.05 | -0.1362 | -0.0022 | 0.0613 | 0.0170 | -0.4707 | 1.0503 | 0.0137 | 0.3421 | 0.0130 | 0.3258 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 146 MACH 0.60 REYNO-6 1.7 PHI 0.0 CONF B1B0F2S C.G 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.68 | 0.02 | 0.0453 | 9.9999 | -0.0022 | 9.9999 | -0.0490 | -0.6681 | -0.0286 | -0.2211 | 0.0430 | 0.3310 |
| 2 | -5.68 | 0.01 | 0.0422 | 9.9999 | -0.0014 | 9.9999 | -0.0320 | -0.6747 | -0.0288 | -0.2216 | 0.0428 | 0.3285 |
| 3 | -5.68 | 0.01 | 0.0511 | 9.9999 | 0.0006 | 9.9999 | 0.0113 | -0.6681 | -0.0286 | -0.2199 | 0.0430 | 0.3291 |
| 4 | -5.69 | 0.00 | 0.0453 | 9.9999 | -0.0011 | 9.9999 | -0.0235 | -0.6686 | -0.0288 | -0.2201 | 0.0433 | 0.3304 |
| 5 | -5.34 | 0.00 | 0.0333 | 9.9999 | -0.0032 | 9.9999 | -0.0957 | -0.6568 | -0.0286 | -0.2156 | 0.0446 | 0.3287 |
| 6 | -3.53 | 0.00 | 0.0153 | 9.9999 | -0.0065 | 9.9999 | -0.4526 | -0.6040 | -0.0352 | -0.2570 | 0.0358 | 0.3360 |
| 7 | -1.80 | 0.00 | 0.0152 | 9.9999 | -0.0046 | 9.9999 | -0.3036 | -0.6009 | -0.0381 | -0.3099 | 0.0430 | 0.3454 |
| 8 | 0.01 | 0.01 | 0.0052 | 9.9999 | -0.0028 | 9.9999 | -0.3053 | -0.8353 | -0.0439 | -0.2942 | 0.0526 | 0.3522 |
| 9 | 1.79 | 0.01 | 0.0121 | 9.9999 | -0.0014 | 9.9999 | -0.1120 | -0.7347 | -0.0439 | -0.2484 | 0.0598 | 0.3381 |
| 10 | 3.57 | 0.01 | 0.0051 | 9.9999 | -0.0005 | 9.9999 | -0.0534 | -0.6005 | -0.0475 | -0.2163 | 0.0718 | 0.3246 |
| 11 | 5.33 | 0.00 | 0.0030 | 9.9999 | 0.0014 | 9.9999 | 0.4839 | -0.5505 | -0.0502 | -0.2026 | 0.0850 | 0.3431 |
| 12 | 7.14 | 0.01 | 0.0001 | 9.9999 | -0.0012 | 9.9999 | -12.0000 | -0.4905 | -0.0443 | -0.1665 | 0.0903 | 0.3434 |
| 13 | 8.86 | 0.00 | -0.0025 | 9.9999 | -0.0028 | 9.9999 | 0.5000 | -0.3420 | -0.0359 | -0.1147 | 0.1049 | 0.3354 |
| 14 | 10.67 | 0.00 | 0.0001 | 9.9999 | -0.0012 | 9.9999 | -12.0000 | -0.2043 | -0.0242 | -0.0565 | 0.1186 | 0.2768 |
| 15 | 12.44 | 0.00 | 0.0150 | 9.9999 | 0.0023 | 9.9999 | 0.1546 | -0.0982 | -0.0068 | -0.0164 | 0.0688 | 0.1670 |
| 16 | 14.22 | 0.00 | 0.0210 | 9.9999 | 0.0005 | 9.9999 | 0.0229 | -0.0303 | 0.0155 | 0.0115 | -0.5127 | -0.3790 |
| 17 | 16.07 | -0.00 | 0.0422 | 9.9999 | 0.0021 | 9.9999 | 0.0503 | 0.0574 | 0.0401 | 0.0510 | 0.6592 | 0.6891 |
| 18 | 17.90 | -0.01 | 0.0056 | 9.9999 | -0.0133 | 9.9999 | -1.3800 | 0.1090 | 0.0616 | 0.1047 | 0.3247 | 0.5522 |
| 19 | 19.70 | -0.02 | 0.0156 | 9.9999 | -0.0151 | 9.9999 | -0.9573 | 0.3329 | 0.0783 | 0.1588 | 0.2354 | 0.4771 |
| 20 | 21.53 | -0.02 | 0.0163 | 9.9999 | -0.0279 | 9.9999 | -2.6999 | 0.4522 | 0.0845 | 0.2051 | 0.1865 | 0.4623 |
| 21 | 23.37 | -0.04 | 0.0075 | 9.9999 | -0.0311 | 9.9999 | -4.1262 | 0.5429 | 0.0736 | 0.2357 | 0.1301 | 0.4342 |
| 22 | 25.18 | -0.03 | 0.0014 | 9.9999 | -0.0245 | 9.9999 | -0.7815 | 0.5273 | 0.0714 | 0.2412 | 0.1354 | 0.4575 |
| 23 | 27.01 | -0.00 | 0.0563 | 9.9999 | -0.0178 | 9.9999 | -0.3048 | 0.5397 | 0.0625 | 0.2514 | 0.1166 | 0.4659 |
| 24 | 27.80 | 0.01 | 0.0643 | 9.9999 | -0.0173 | 9.9999 | -0.2088 | 0.5347 | 0.0556 | 0.2493 | 0.1043 | 0.4663 |
| 25 | 28.03 | 0.02 | 0.0563 | 9.9999 | -0.0185 | 9.9999 | -0.3245 | 0.5285 | 0.0542 | 0.2487 | 0.1026 | 0.4707 |
| 26 | 28.33 | 0.01 | 0.0496 | 9.9999 | -0.0232 | 9.9999 | -0.4069 | 0.5104 | 0.0501 | 0.2400 | 0.0981 | 0.4701 |
| 27 | 28.68 | 0.02 | 0.0566 | 9.9999 | -0.0225 | 9.9999 | -0.3839 | 0.5043 | 0.0478 | 0.2416 | 0.0947 | 0.4794 |
| 28 | 28.97 | 0.01 | 0.0565 | 9.9999 | -0.0186 | 9.9999 | -0.3234 | 0.5076 | 0.0481 | 0.2433 | 0.0948 | 0.4794 |
| 29 | 29.25 | 0.02 | 0.0703 | 9.9999 | -0.0145 | 9.9999 | -0.2058 | 0.5114 | 0.0468 | 0.2460 | 0.0915 | 0.4811 |
| 30 | 29.53 | 0.01 | 0.0646 | 9.9999 | -0.0157 | 9.9999 | -0.3045 | 0.5057 | 0.0469 | 0.2448 | 0.0927 | 0.4841 |
| 31 | 29.82 | 0.03 | 0.0704 | 9.9999 | -0.0145 | 9.9999 | -0.2055 | 0.5058 | 0.0466 | 0.2473 | 0.0921 | 0.4889 |
| 32 | 30.08 | 0.03 | 0.0716 | 9.9999 | -0.0166 | 9.9999 | -0.2377 | 0.5127 | 0.0459 | 0.2485 | 0.0856 | 0.4855 |
| 33 | 30.34 | 0.03 | 0.0706 | 9.9999 | -0.0186 | 9.9999 | -0.2377 | 0.5145 | 0.0456 | 0.2527 | 0.0850 | 0.4927 |
| 34 | 30.62 | 0.03 | 0.0587 | 9.9999 | -0.0213 | 9.9999 | -0.3035 | 0.4993 | 0.0459 | 0.2480 | 0.0920 | 0.4966 |
| 35 | 30.89 | 0.02 | 0.0585 | 9.9999 | -0.0178 | 9.9999 | -0.3036 | 0.5095 | 0.0456 | 0.2538 | 0.0896 | 0.4980 |
| 36 | 31.17 | 0.02 | 0.0587 | 9.9999 | -0.0150 | 9.9999 | -0.3240 | 0.5034 | 0.0457 | 0.2538 | 0.0908 | 0.5036 |
| 37 | 31.43 | 0.04 | 0.0578 | 9.9999 | -0.0208 | 9.9999 | -0.3044 | 0.5006 | 0.0457 | 0.2548 | 0.0914 | 0.5091 |
| 38 | 31.70 | 0.04 | 0.0587 | 9.9999 | -0.0156 | 9.9999 | -0.3240 | 0.4957 | 0.0460 | 0.2531 | 0.0932 | 0.5126 |
| 39 | 31.96 | 0.03 | 0.0647 | 9.9999 | -0.0157 | 9.9999 | -0.3040 | 0.5040 | 0.0457 | 0.2563 | 0.0908 | 0.5089 |
| 40 | 32.21 | 0.05 | 0.0587 | 9.9999 | -0.0150 | 9.9999 | -0.3240 | 0.4700 | 0.0470 | 0.2494 | 0.0986 | 0.5233 |
| 41 | 32.48 | 0.05 | 0.0678 | 9.9999 | -0.0155 | 9.9999 | -0.2354 | 0.5040 | 0.0457 | 0.2588 | 0.0908 | 0.5135 |
| 42 | 32.74 | 0.05 | 0.0644 | 9.9999 | -0.0174 | 9.9999 | -0.2087 | 0.5107 | 0.0457 | 0.2553 | 0.0886 | 0.5077 |
| 43 | 32.97 | 0.05 | 0.0648 | 9.9999 | -0.0165 | 9.9999 | -0.2866 | 0.5098 | 0.0456 | 0.2613 | 0.0855 | 0.5125 |
| 44 | 33.23 | 0.04 | 0.0735 | 9.9999 | -0.0143 | 9.9999 | -0.1942 | 0.5098 | 0.0456 | 0.2613 | 0.0895 | 0.5125 |
| 45 | 33.48 | 0.05 | 0.0754 | 9.9999 | -0.0114 | 9.9999 | -0.1434 | 0.5200 | 0.0456 | 0.2671 | 0.0878 | 0.5136 |
| 46 | 33.72 | 0.06 | 0.0645 | 9.9999 | -0.0173 | 9.9999 | -0.2076 | 0.5064 | 0.0463 | 0.2623 | 0.0915 | 0.5181 |

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PARTIAL MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 14B | 0.86 | 1.7 | 0.0 | BINOF2A | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.98 | 0.05 | 0.0733 | 9.9999 | -0.0107 | 9.9999 | -0.1461 | 0.5199 | 0.0459 | 0.2671 | 0.0883 | 0.5137 |
| 48 | 34.21 | 0.05 | 0.0763 | 9.9999 | -0.0093 | 9.9999 | -0.1214 | 0.5030 | 0.0463 | 0.2634 | 0.0921 | 0.5237 |
| 49 | 34.45 | 0.07 | 0.0973 | 9.9999 | -0.0025 | 9.9999 | -0.0298 | 0.5063 | 0.0469 | 0.2675 | 0.0926 | 0.5283 |
| 50 | 34.71 | 0.07 | 0.0963 | 9.9999 | -0.0083 | 9.9999 | -0.0940 | 0.5053 | 0.0466 | 0.2661 | 0.0926 | 0.5306 |
| 51 | 34.95 | 0.08 | 0.0761 | 9.9999 | -0.0093 | 9.9999 | -0.1217 | 0.4986 | 0.0468 | 0.2664 | 0.0938 | 0.5342 |
| 52 | 35.18 | 0.07 | 0.0912 | 9.9999 | -0.0064 | 9.9999 | -0.0762 | 0.5122 | 0.0465 | 0.2724 | 0.0908 | 0.5317 |
| 53 | 35.42 | 0.07 | 0.0976 | 9.9999 | -0.0017 | 9.9999 | -0.0179 | 0.5464 | 0.0439 | 0.2785 | 0.0803 | 0.5058 |
| 54 | 35.65 | 0.06 | 0.1058 | 9.9999 | 0.0037 | 9.9999 | 0.0346 | 0.5608 | 0.0432 | 0.2848 | 0.0763 | 0.5026 |
| 55 | 35.88 | 0.07 | 0.1177 | 9.9999 | 0.0094 | 9.9999 | 0.0795 | 0.5736 | 0.0429 | 0.2891 | 0.0749 | 0.5040 |
| 56 | 36.12 | 0.06 | 0.1165 | 9.9999 | 0.0022 | 9.9999 | 0.0216 | 0.5669 | 0.0432 | 0.2886 | 0.0763 | 0.5091 |
| 57 | 36.36 | 0.07 | 0.1026 | 9.9999 | 0.0046 | 9.9999 | 0.0451 | 0.5498 | 0.0442 | 0.2837 | 0.0804 | 0.5160 |
| 58 | 36.59 | 0.07 | 0.1026 | 9.9999 | 0.0081 | 9.9999 | 0.0790 | 0.5396 | 0.0449 | 0.2830 | 0.0832 | 0.5245 |
| 59 | 36.83 | 0.07 | 0.1026 | 9.9999 | 0.0081 | 9.9999 | 0.0790 | 0.5533 | 0.0442 | 0.2877 | 0.0799 | 0.5261 |
| 60 | 37.06 | 0.06 | 0.0956 | 9.9999 | 0.0032 | 9.9999 | 0.0319 | 0.5703 | 0.0432 | 0.2926 | 0.0758 | 0.5131 |
| 61 | 37.28 | 0.07 | 0.0957 | 9.9999 | 0.0055 | 9.9999 | 0.0552 | 0.5599 | 0.0442 | 0.2862 | 0.0789 | 0.5147 |
| 62 | 37.52 | 0.07 | 0.0956 | 9.9999 | 0.0027 | 9.9999 | 0.0269 | 0.5556 | 0.0442 | 0.2867 | 0.0795 | 0.5196 |
| 63 | 37.75 | 0.07 | 0.0905 | 9.9999 | 0.0048 | 9.9999 | 0.0533 | 0.5418 | 0.0457 | 0.2853 | 0.0844 | 0.5266 |
| 64 | 37.98 | 0.08 | 0.0753 | 9.9999 | -0.0034 | 9.9999 | -0.0446 | 0.5417 | 0.0461 | 0.2866 | 0.0851 | 0.5296 |
| 65 | 38.22 | 0.08 | 0.0848 | 9.9999 | -0.0004 | 9.9999 | -0.0046 | 0.5463 | 0.0458 | 0.2911 | 0.0835 | 0.5325 |
| 66 | 38.44 | 0.08 | 0.0787 | 9.9999 | 0.0004 | 9.9999 | 0.0049 | 0.5401 | 0.0462 | 0.2873 | 0.0846 | 0.5261 |
| 67 | 38.66 | 0.08 | 0.0755 | 9.9999 | -0.0045 | 9.9999 | -0.0597 | 0.5530 | 0.0458 | 0.2916 | 0.0829 | 0.5273 |
| 68 | 38.88 | 0.09 | 0.0870 | 9.9999 | -0.0065 | 9.9999 | -0.0865 | 0.5497 | 0.0455 | 0.2901 | 0.0829 | 0.5278 |
| 69 | 39.10 | 0.08 | 0.0855 | 9.9999 | -0.0027 | 9.9999 | -0.0387 | 0.5665 | 0.0455 | 0.2938 | 0.0804 | 0.5187 |
| 70 | 39.29 | 0.08 | 0.0877 | 9.9999 | 0.0022 | 9.9999 | 0.0253 | 0.5735 | 0.0446 | 0.2967 | 0.0777 | 0.5173 |
| 71 | 39.52 | 0.10 | 0.0838 | 9.9999 | -0.0032 | 9.9999 | -0.0399 | 0.5667 | 0.0449 | 0.2951 | 0.0792 | 0.5207 |
| 72 | 39.71 | 0.08 | 0.0855 | 9.9999 | -0.0027 | 9.9999 | -0.0387 | 0.5671 | 0.0442 | 0.3027 | 0.0753 | 0.5155 |
| 73 | 39.90 | 0.08 | 0.0758 | 9.9999 | -0.0022 | 9.9999 | -0.0293 | 0.6006 | 0.0432 | 0.3011 | 0.0720 | 0.5014 |
| 74 | 40.11 | 0.06 | 0.0758 | 9.9999 | 0.0013 | 9.9999 | 0.0180 | 0.6144 | 0.0423 | 0.3065 | 0.0688 | 0.5038 |
| 75 | 40.31 | 0.08 | 0.0906 | 9.9999 | 0.0060 | 9.9999 | 0.0660 | 0.6146 | 0.0416 | 0.3095 | 0.0677 | 0.5036 |
| 76 | 40.52 | 0.08 | 0.0725 | 9.9999 | -0.0014 | 9.9999 | -0.0185 | 0.6068 | 0.0427 | 0.3072 | 0.0702 | 0.5046 |
| 77 | 40.73 | 0.08 | 0.0788 | 9.9999 | 0.0027 | 9.9999 | 0.0343 | 0.6120 | 0.0437 | 0.3088 | 0.0714 | 0.5045 |
| 78 | 40.94 | 0.09 | 0.0788 | 9.9999 | 0.0027 | 9.9999 | 0.0343 | 0.6084 | 0.0440 | 0.3048 | 0.0723 | 0.5010 |
| 79 | 41.14 | 0.08 | 0.0817 | 9.9999 | 0.0053 | 9.9999 | 0.0649 | 0.6084 | 0.0443 | 0.3073 | 0.0728 | 0.5051 |
| 80 | 41.34 | 0.08 | 0.0859 | 9.9999 | -0.0004 | 9.9999 | -0.0055 | 0.6084 | 0.0440 | 0.3048 | 0.0723 | 0.5010 |
| 81 | 41.53 | 0.08 | 0.0757 | 9.9999 | 0.0025 | 9.9999 | 0.0331 | 0.6290 | 0.0430 | 0.3137 | 0.0684 | 0.4987 |
| 82 | 41.74 | 0.09 | 0.0817 | 9.9999 | 0.0053 | 9.9999 | 0.0649 | 0.6255 | 0.0433 | 0.3110 | 0.0693 | 0.4971 |
| 83 | 41.91 | 0.07 | 0.0788 | 9.9999 | 0.0063 | 9.9999 | 0.0798 | 0.6394 | 0.0417 | 0.3196 | 0.0652 | 0.4936 |
| 84 | 42.09 | 0.08 | 0.0817 | 9.9999 | 0.0041 | 9.9999 | 0.0508 | 0.6206 | 0.0424 | 0.3207 | 0.0673 | 0.4868 |
| 85 | 42.28 | 0.06 | 0.0728 | 9.9999 | 0.0046 | 9.9999 | 0.0637 | 0.6270 | 0.0427 | 0.3103 | 0.0682 | 0.4949 |
| 86 | 42.47 | 0.09 | 0.0758 | 9.9999 | 0.0046 | 9.9999 | 0.0636 | 0.6237 | 0.0425 | 0.3088 | 0.0681 | 0.4950 |
| 87 | 42.63 | 0.08 | 0.0728 | 9.9999 | 0.0046 | 9.9999 | 0.0637 | 0.6270 | 0.0425 | 0.3090 | 0.0677 | 0.4929 |
| 88 | 42.82 | 0.09 | 0.0757 | 9.9999 | 0.0071 | 9.9999 | 0.0943 | 0.6273 | 0.0415 | 0.3090 | 0.0661 | 0.4925 |
| 89 | 43.01 | 0.08 | 0.0728 | 9.9999 | 0.0053 | 9.9999 | 0.0798 | 0.6306 | 0.0411 | 0.3080 | 0.0652 | 0.4884 |
| 90 | 43.20 | 0.09 | 0.0817 | 9.9999 | 0.0076 | 9.9999 | 0.0933 | 0.6374 | 0.0411 | 0.3097 | 0.0645 | 0.4858 |
| 91 | 43.34 | 0.08 | 0.0758 | 9.9999 | 0.0046 | 9.9999 | 0.0636 | 0.6311 | 0.0408 | 0.3102 | 0.0627 | 0.4887 |
| 92 | 43.55 | 0.09 | 0.0758 | 9.9999 | 0.0072 | 9.9999 | 0.0954 | 0.6319 | 0.0412 | 0.3073 | 0.0652 | 0.4863 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSROC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&6 MACH 0.60 RX1C-6 1.7 PHI 0.0 CONF B1B0F2S L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.73 | 0.05 | 0.0695 | 9.9999 | 0.0043 | 9.9999 | 0.0622 | 0.6386 | 0.0412 | 0.3078 | 0.0645 | 0.4819 |
| 94 | 43.90 | 0.08 | 0.0715 | 9.9999 | 0.0072 | 9.9999 | 0.0954 | 0.6526 | 0.0399 | 0.3163 | 0.0612 | 0.4846 |
| 95 | 44.10 | 0.08 | 0.0726 | 9.9999 | 0.0058 | 9.9999 | 0.0795 | 0.6523 | 0.0406 | 0.3113 | 0.0623 | 0.4771 |
| 96 | 44.30 | 0.09 | 0.0727 | 9.9999 | 0.0066 | 9.9999 | 0.0956 | 0.6512 | 0.0405 | 0.3132 | 0.0622 | 0.4816 |
| 97 | 44.47 | 0.08 | 0.0727 | 9.9999 | 0.0081 | 9.9999 | 0.1116 | 0.6659 | 0.0396 | 0.3167 | 0.0599 | 0.4763 |
| 98 | 44.64 | 0.09 | 0.0695 | 9.9999 | 0.0055 | 9.9999 | 0.0791 | 0.6602 | 0.0398 | 0.3133 | 0.0602 | 0.4746 |
| 99 | 44.82 | 0.08 | 0.0635 | 9.9999 | 0.0050 | 9.9999 | 0.0790 | 0.6705 | 0.0391 | 0.3152 | 0.0583 | 0.4761 |
| 100 | 45.01 | 0.09 | 0.0694 | 9.9999 | 0.0067 | 9.9999 | 0.0960 | 0.6759 | 0.0394 | 0.3189 | 0.0582 | 0.4718 |
| 101 | 45.18 | 0.08 | 0.0654 | 9.9999 | 0.0067 | 9.9999 | 0.0960 | 0.6726 | 0.0391 | 0.3162 | 0.0581 | 0.4761 |
| 102 | 45.35 | 0.08 | 0.0693 | 9.9999 | 0.0067 | 9.9999 | 0.0961 | 0.6814 | 0.0390 | 0.3175 | 0.0572 | 0.4660 |
| 103 | 45.53 | 0.08 | 0.0683 | 9.9999 | 0.0052 | 9.9999 | 0.0766 | 0.6849 | 0.0387 | 0.3177 | 0.0565 | 0.4635 |
| 104 | 45.70 | 0.08 | 0.0732 | 9.9999 | 0.0055 | 9.9999 | 0.1258 | 0.6846 | 0.0390 | 0.3191 | 0.0569 | 0.4660 |
| 105 | 45.88 | 0.07 | 0.0722 | 9.9999 | 0.0063 | 9.9999 | 0.1283 | 0.7016 | 0.0387 | 0.3202 | 0.0552 | 0.4565 |
| 106 | 46.04 | 0.08 | 0.0721 | 9.9999 | 0.0104 | 9.9999 | 0.1446 | 0.7017 | 0.0383 | 0.3202 | 0.0546 | 0.4564 |
| 107 | 46.22 | 0.08 | 0.0672 | 9.9999 | 0.0057 | 9.9999 | 0.0995 | 0.7018 | 0.0377 | 0.3239 | 0.0538 | 0.4615 |
| 108 | 46.42 | 0.07 | 0.0671 | 9.9999 | 0.0057 | 9.9999 | 0.0997 | 0.7173 | 0.0376 | 0.3270 | 0.0525 | 0.4559 |
| 109 | 46.58 | 0.08 | 0.0745 | 9.9999 | 0.0130 | 9.9999 | 0.1740 | 0.7138 | 0.0383 | 0.3243 | 0.0537 | 0.4543 |
| 110 | 46.73 | 0.07 | 0.0721 | 9.9999 | 0.0053 | 9.9999 | 0.1285 | 0.7376 | 0.0370 | 0.3335 | 0.0501 | 0.4521 |
| 111 | 46.92 | 0.07 | 0.0650 | 9.9999 | 0.0101 | 9.9999 | 0.1469 | 0.7511 | 0.0370 | 0.3365 | 0.0492 | 0.4486 |
| 112 | 47.09 | 0.07 | 0.0656 | 9.9999 | 0.0060 | 9.9999 | 0.1340 | 0.7814 | 0.0367 | 0.3478 | 0.0465 | 0.4452 |
| 113 | 47.26 | 0.06 | 0.0585 | 9.9999 | 0.0086 | 9.9999 | 0.1203 | 0.8000 | 0.0366 | 0.3524 | 0.0457 | 0.4403 |
| 114 | 47.43 | 0.08 | 0.0568 | 9.9999 | 0.0062 | 9.9999 | 0.1013 | 0.8065 | 0.0369 | 0.3541 | 0.0457 | 0.4390 |
| 115 | 47.60 | 0.08 | 0.0658 | 9.9999 | 0.0055 | 9.9999 | 0.1310 | 0.8336 | 0.0359 | 0.3635 | 0.0431 | 0.4360 |
| 116 | 47.77 | 0.07 | 0.0610 | 9.9999 | 0.0052 | 9.9999 | 0.1021 | 0.8403 | 0.0363 | 0.3665 | 0.0432 | 0.4361 |
| 117 | 47.96 | 0.06 | 0.0510 | 9.9999 | 0.0052 | 9.9999 | 0.1021 | 0.8339 | 0.0349 | 0.3684 | 0.0419 | 0.4417 |
| 118 | 48.10 | 0.05 | 0.0491 | 9.9999 | 0.0024 | 9.9999 | 0.0535 | 0.8340 | 0.0346 | 0.3671 | 0.0415 | 0.4402 |
| 119 | 48.25 | 0.05 | 0.0450 | 9.9999 | 0.0047 | 9.9999 | 0.1051 | 0.8377 | 0.0337 | 0.3698 | 0.0402 | 0.4415 |
| 120 | 48.41 | 0.03 | 0.0422 | 9.9999 | 0.0034 | 9.9999 | 0.0801 | 0.8503 | 0.0331 | 0.3786 | 0.0386 | 0.4415 |
| 121 | 48.58 | 0.02 | 0.0422 | 9.9999 | 0.0034 | 9.9999 | 0.0801 | 0.8497 | 0.0331 | 0.3775 | 0.0390 | 0.4442 |
| 122 | 48.74 | 0.01 | 0.0396 | 9.9999 | 0.0042 | 9.9999 | 0.1089 | 0.8481 | 0.0330 | 0.3768 | 0.0385 | 0.4443 |
| 123 | 48.92 | 0.02 | 0.0451 | 9.9999 | 0.0024 | 9.9999 | 0.0535 | 0.8664 | 0.0323 | 0.3832 | 0.0372 | 0.4413 |
| 124 | 49.11 | 0.01 | 0.0352 | 9.9999 | 0.0008 | 9.9999 | 0.0197 | 0.8418 | 0.0317 | 0.3787 | 0.0377 | 0.4495 |
| 125 | 49.27 | 0.00 | 0.0333 | 9.9999 | -0.0009 | 9.9999 | -0.0261 | 0.8501 | 0.0324 | 0.3801 | 0.0381 | 0.4471 |
| 126 | 49.45 | 0.03 | 0.0362 | 9.9999 | 0.0015 | 9.9999 | 0.0493 | 0.8587 | 0.0324 | 0.3791 | 0.0387 | 0.4531 |
| 127 | 49.61 | 0.02 | 0.0351 | 9.9999 | 0.0031 | 9.9999 | 0.0790 | 0.8534 | 0.0324 | 0.3840 | 0.0380 | 0.4500 |
| 128 | 49.78 | -0.00 | 0.0332 | 9.9999 | 0.0014 | 9.9999 | 0.0490 | 0.8638 | 0.0317 | 0.3865 | 0.0368 | 0.4497 |
| 129 | 49.97 | 0.03 | 0.0451 | 9.9999 | 0.0071 | 9.9999 | 0.1585 | 0.8488 | 0.0312 | 0.3842 | 0.0367 | 0.4527 |
| 130 | 50.14 | 0.04 | 0.0451 | 9.9999 | 0.0071 | 9.9999 | 0.1585 | 0.8254 | 0.0309 | 0.3787 | 0.0374 | 0.4588 |
| 131 | 50.29 | 0.06 | 0.0421 | 9.9999 | 0.0057 | 9.9999 | 0.1353 | 0.8390 | 0.0306 | 0.3834 | 0.0365 | 0.4570 |
| 132 | 50.46 | 0.05 | 0.0453 | 9.9999 | 0.0060 | 9.9999 | 0.1362 | 0.8338 | 0.0310 | 0.3800 | 0.0371 | 0.4557 |
| 133 | 50.64 | 0.05 | 0.0453 | 9.9999 | 0.0071 | 9.9999 | 0.1578 | 0.8282 | 0.0326 | 0.3804 | 0.0396 | 0.4592 |
| 134 | 50.80 | 0.05 | 0.0481 | 9.9999 | 0.0105 | 9.9999 | 0.2265 | 0.8350 | 0.0326 | 0.3808 | 0.0391 | 0.4561 |
| 135 | 50.99 | 0.05 | 0.0572 | 9.9999 | 0.0126 | 9.9999 | 0.2243 | 0.8300 | 0.0327 | 0.3811 | 0.0396 | 0.4592 |
| 136 | 51.16 | 0.04 | 0.0453 | 9.9999 | 0.0096 | 9.9999 | 0.2106 | 0.8483 | 0.0331 | 0.3856 | 0.0390 | 0.4545 |
| 137 | 51.33 | 0.05 | 0.0454 | 9.9999 | 0.0060 | 9.9999 | 0.1316 | 0.8686 | 0.0338 | 0.3934 | 0.0389 | 0.4526 |
| 138 | 51.51 | 0.05 | 0.0548 | 9.9999 | 0.0091 | 9.9999 | 0.1881 | 0.8805 | 0.0335 | 0.3937 | 0.0380 | 0.4471 |

TEST 7 PART 14B MACH 0.60 RNIC-6 1.7 PHI 0.0 BINDERS CONF C.C ℓ DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.68 | 0.06 | 0.0456 | 5.9999 | 0.0066 | 5.9999 | 0.1311 | 0.8892 | 0.0329 | 0.4012 | 0.0370 | 0.4512 |
| 140 | 51.84 | 0.07 | 0.0517 | 5.9999 | 0.0077 | 5.9999 | 0.1493 | 0.8755 | 0.0325 | 0.3926 | 0.0376 | 0.4484 |
| 141 | 52.00 | 0.06 | 0.0457 | 5.9999 | 0.0068 | 5.9999 | 0.1355 | 0.8822 | 0.0319 | 0.3850 | 0.0370 | 0.4512 |
| 142 | 52.16 | 0.07 | 0.0485 | 5.9999 | 0.0063 | 5.9999 | 0.1282 | 0.8995 | 0.0330 | 0.4021 | 0.0367 | 0.4476 |
| 143 | 52.34 | 0.05 | 0.0576 | 5.9999 | 0.0125 | 5.9999 | 0.2237 | 0.8783 | 0.0307 | 0.3989 | 0.0350 | 0.4523 |
| 144 | 52.51 | 0.08 | 0.0457 | 5.9999 | 0.0072 | 5.9999 | 0.1582 | 0.8729 | 0.0304 | 0.3948 | 0.0348 | 0.4523 |
| 145 | 52.66 | 0.11 | 0.0457 | 5.9999 | 0.0072 | 5.9999 | 0.1582 | 0.8825 | 0.0297 | 0.3927 | 0.0344 | 0.4551 |
| 146 | 52.85 | 0.12 | 0.0578 | 5.9999 | 0.0125 | 5.9999 | 0.2237 | 0.8832 | 0.0290 | 0.3966 | 0.0336 | 0.4594 |
| 147 | 53.01 | 0.12 | 0.0638 | 5.9999 | 0.0170 | 5.9999 | 0.2663 | 0.8734 | 0.0290 | 0.4011 | 0.0333 | 0.4592 |
| 148 | 53.18 | 0.12 | 0.0516 | 5.9999 | 0.0085 | 5.9999 | 0.1713 | 0.8838 | 0.0284 | 0.4056 | 0.0321 | 0.4560 |
| 149 | 53.35 | 0.12 | 0.0575 | 5.9999 | 0.0111 | 5.9999 | 0.2033 | 0.8940 | 0.0290 | 0.4089 | 0.0325 | 0.4574 |
| 150 | 53.50 | 0.13 | 0.0638 | 5.9999 | 0.0156 | 5.9999 | 0.2481 | 0.8810 | 0.0288 | 0.4170 | 0.0319 | 0.4628 |
| 151 | 53.67 | 0.13 | 0.0577 | 5.9999 | 0.0153 | 5.9999 | 0.2659 | 0.9045 | 0.0284 | 0.4186 | 0.0314 | 0.4628 |
| 152 | 53.82 | 0.12 | 0.0517 | 5.9999 | 0.0113 | 5.9999 | 0.2183 | 0.8736 | 0.0290 | 0.4100 | 0.0332 | 0.4693 |
| 153 | 53.98 | 0.12 | 0.0635 | 5.9999 | 0.0182 | 5.9999 | 0.2855 | 0.8927 | 0.0281 | 0.4183 | 0.0315 | 0.4685 |
| 154 | 54.14 | 0.13 | 0.0575 | 5.9999 | 0.0142 | 5.9999 | 0.2496 | 0.9025 | 0.0278 | 0.4230 | 0.0330 | 0.4687 |
| 155 | 54.28 | 0.12 | 0.0636 | 5.9999 | 0.0182 | 5.9999 | 0.2851 | 0.8942 | 0.0291 | 0.4243 | 0.0326 | 0.4744 |
| 156 | 54.46 | 0.13 | 0.0640 | 5.9999 | 0.0184 | 5.9999 | 0.2851 | 0.8909 | 0.0291 | 0.4241 | 0.0327 | 0.4760 |
| 157 | 54.61 | 0.11 | 0.0578 | 5.9999 | 0.0178 | 5.9999 | 0.3072 | 0.8977 | 0.0291 | 0.4258 | 0.0325 | 0.4743 |
| 158 | 54.78 | 0.11 | 0.0488 | 5.9999 | 0.0111 | 5.9999 | 0.2273 | 0.9056 | 0.0282 | 0.4326 | 0.0311 | 0.4781 |
| 159 | 54.92 | 0.12 | 0.0640 | 5.9999 | 0.0171 | 5.9999 | 0.2870 | 0.8837 | 0.0286 | 0.4258 | 0.0328 | 0.4835 |
| 160 | 55.08 | 0.11 | 0.0634 | 5.9999 | 0.0162 | 5.9999 | 0.2855 | 0.8892 | 0.0291 | 0.4271 | 0.0328 | 0.4803 |
| 161 | 55.26 | 0.11 | 0.0578 | 5.9999 | 0.0153 | 5.9999 | 0.2854 | 0.8860 | 0.0285 | 0.4260 | 0.0321 | 0.4831 |
| 162 | 55.44 | 0.11 | 0.0575 | 5.9999 | 0.0130 | 5.9999 | 0.2250 | 0.9103 | 0.0278 | 0.4369 | 0.0305 | 0.4833 |
| 163 | 55.64 | 0.12 | 0.0575 | 5.9999 | 0.0131 | 5.9999 | 0.2250 | 0.8930 | 0.0288 | 0.4375 | 0.0322 | 0.4895 |
| 164 | 55.79 | 0.12 | 0.0577 | 5.9999 | 0.0178 | 5.9999 | 0.3077 | 0.9136 | 0.0285 | 0.4453 | 0.0312 | 0.4874 |
| 165 | 55.98 | 0.11 | 0.0578 | 5.9999 | 0.0178 | 5.9999 | 0.3082 | 0.9168 | 0.0281 | 0.4500 | 0.0306 | 0.4898 |
| 166 | 56.14 | 0.10 | 0.0548 | 5.9999 | 0.0115 | 5.9999 | 0.2095 | 0.9085 | 0.0284 | 0.4467 | 0.0312 | 0.4917 |
| 167 | 56.29 | 0.10 | 0.0577 | 5.9999 | 0.0125 | 5.9999 | 0.2241 | 0.8932 | 0.0280 | 0.4416 | 0.0313 | 0.4938 |
| 168 | 56.45 | 0.09 | 0.0516 | 5.9999 | 0.0106 | 5.9999 | 0.1944 | 0.8982 | 0.0280 | 0.4432 | 0.0312 | 0.4934 |
| 169 | 56.60 | 0.07 | 0.0545 | 5.9999 | 0.0135 | 5.9999 | 0.2549 | 0.9116 | 0.0289 | 0.4481 | 0.0318 | 0.4913 |
| 170 | 56.75 | 0.06 | 0.0575 | 5.9999 | 0.0152 | 5.9999 | 0.2851 | 0.9049 | 0.0285 | 0.4475 | 0.0320 | 0.4946 |
| 171 | 56.89 | 0.05 | 0.0454 | 5.9999 | 0.0107 | 5.9999 | 0.2357 | 0.9220 | 0.0283 | 0.4538 | 0.0307 | 0.4922 |
| 172 | 57.03 | 0.06 | 0.0454 | 5.9999 | 0.0096 | 5.9999 | 0.2102 | 0.9050 | 0.0286 | 0.4514 | 0.0316 | 0.4988 |
| 173 | 57.18 | 0.07 | 0.0515 | 5.9999 | 0.0124 | 5.9999 | 0.2416 | 0.9322 | 0.0286 | 0.4597 | 0.0306 | 0.4931 |
| 174 | 57.32 | 0.06 | 0.0454 | 5.9999 | 0.0096 | 5.9999 | 0.2102 | 0.9305 | 0.0283 | 0.4600 | 0.0304 | 0.4944 |
| 175 | 57.47 | 0.07 | 0.0455 | 5.9999 | 0.0096 | 5.9999 | 0.1059 | 0.9289 | 0.0288 | 0.4591 | 0.0311 | 0.4944 |
| 176 | 57.62 | 0.05 | 0.0393 | 5.9999 | 0.0067 | 5.9999 | 0.1695 | 0.9337 | 0.0281 | 0.4637 | 0.0301 | 0.4986 |
| 177 | 57.78 | 0.05 | 0.0453 | 5.9999 | 0.0096 | 5.9999 | 0.2111 | 0.9301 | 0.0288 | 0.4623 | 0.0309 | 0.4976 |
| 178 | 57.84 | 0.05 | 0.0422 | 5.9999 | 0.0081 | 5.9999 | 0.1922 | 0.9523 | 0.0277 | 0.4693 | 0.0291 | 0.4928 |
| 179 | 57.85 | 0.05 | 0.0392 | 5.9999 | 0.0067 | 5.9999 | 0.1700 | 0.9319 | 0.0284 | 0.4616 | 0.0304 | 0.4953 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 149 MACH 0.50 RNIO-6 1.7 PHI 0.0 CONF 21nCF23 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | -0.01 | -0.8103 | 2.0343 | -0.0368 | -0.1080 | 0.0303 | 0.6100 | 0.3150 | 0.2951 | -2.5105 |
| 2 | -5.69 | 0.00 | -0.7047 | 2.0145 | 0.0574 | -0.0508 | 0.0305 | 0.6096 | 0.3157 | 0.2940 | -2.5671 |
| 3 | -5.68 | 0.00 | -0.7835 | 2.0266 | 0.0437 | -0.1176 | 0.0306 | 0.6079 | 0.3154 | 0.2926 | -2.5854 |
| 4 | -4.69 | 0.01 | -0.7137 | 2.3545 | 0.1163 | -0.3446 | 0.0278 | 0.5974 | 0.2849 | 0.3125 | -3.2992 |
| 5 | -3.65 | 0.00 | -0.6265 | 3.0747 | 0.0311 | -0.1053 | 0.0142 | 0.5598 | 0.2111 | 0.3485 | -3.7066 |
| 6 | -1.66 | 0.01 | -0.6535 | 4.4554 | 0.0990 | -0.1043 | 0.0305 | 0.5325 | 0.1938 | 0.3417 | -4.3205 |
| 7 | -0.04 | 0.01 | -0.5722 | 2.9323 | 0.1206 | -0.1003 | 0.0091 | 0.5141 | 0.1780 | 0.3361 | -5.1246 |
| 8 | 1.76 | 0.00 | -0.4160 | 2.7791 | -0.0088 | -0.0896 | 0.0157 | 0.4801 | 0.1640 | 0.3162 | -6.6802 |
| 9 | 3.80 | -0.00 | -0.2621 | 2.8445 | 0.0062 | -0.0595 | 0.0336 | 0.4518 | 0.1575 | 0.2944 | -10.0857 |
| 10 | 5.40 | -0.00 | -0.1346 | 2.9316 | -0.0691 | -0.0896 | 0.0341 | 0.4277 | 0.1554 | 0.2723 | -16.8082 |
| 11 | 7.25 | 0.00 | 0.1274 | 2.1742 | 0.0185 | -0.0622 | 0.0175 | 0.3764 | 0.1493 | 0.2271 | 17.0765 |
| 12 | 9.03 | 0.00 | 0.3058 | 1.8537 | 0.0302 | -0.0216 | 0.0115 | 0.3433 | 0.1488 | 0.1965 | 6.0627 |
| 13 | 10.87 | -0.00 | 0.5535 | 1.9440 | -0.0025 | 0.0043 | 0.0122 | 0.3106 | 0.1488 | 0.1618 | 2.5791 |
| 14 | 12.66 | 0.00 | 0.7954 | 1.1715 | 0.0370 | 0.0035 | 0.0192 | 0.2869 | 0.1507 | 0.1303 | 1.4728 |
| 15 | 14.52 | -0.01 | 1.0666 | 0.8876 | -0.0272 | 0.0610 | 0.0137 | 0.2697 | 0.1644 | 0.1004 | 0.8301 |
| 16 | 16.42 | -0.01 | 1.3712 | 0.6407 | -0.0482 | 0.1029 | 0.0144 | 0.2305 | 0.1703 | 0.0602 | 0.4673 |
| 17 | 18.31 | -0.01 | 1.6765 | 0.2675 | -0.1434 | 0.4534 | 0.0271 | 0.2026 | 0.1804 | 0.0222 | 0.1556 |
| 18 | 20.17 | -0.02 | 1.9548 | -0.1413 | -0.2666 | 0.7477 | 0.0335 | 0.1569 | 0.1836 | -0.0285 | -0.0708 |
| 19 | 22.05 | -0.04 | 2.2365 | -0.6432 | -0.6042 | 1.0788 | 0.0378 | 0.1146 | 0.1956 | -0.0816 | -0.2693 |
| 20 | 23.92 | -0.04 | 2.5026 | -0.9141 | -0.5585 | 1.5241 | -0.0046 | 0.1044 | 0.2007 | -0.1024 | -0.2359 |
| 21 | 25.80 | -0.04 | 2.7540 | -0.8475 | -0.5762 | 1.5585 | -0.0267 | 0.0718 | 0.2141 | -0.1423 | -0.2163 |
| 22 | 27.70 | 0.01 | 3.0365 | -0.4207 | 0.1638 | -0.1409 | 0.0481 | 0.0332 | 0.2065 | -0.1673 | -0.1278 |
| 23 | 27.89 | 0.01 | 3.0582 | -0.4665 | 0.1665 | -0.0867 | 0.0477 | 0.0285 | 0.2013 | -0.1728 | -0.1467 |
| 24 | 28.24 | 0.01 | 3.0810 | -0.4987 | 0.2656 | -0.4252 | 0.0679 | 0.0254 | 0.2004 | -0.1750 | -0.1209 |
| 25 | 28.49 | 0.01 | 3.0982 | -0.5372 | 0.2191 | -0.2103 | 0.0490 | 0.0135 | 0.2012 | -0.1877 | -0.1139 |
| 26 | 28.83 | 0.03 | 3.0230 | -0.2577 | 0.5787 | -0.8425 | 0.0866 | -0.0010 | 0.2020 | -0.2030 | -0.0711 |
| 27 | 29.14 | 0.03 | 3.0661 | -0.2365 | 0.5804 | -0.7363 | 0.0763 | -0.0015 | 0.2023 | -0.2038 | -0.0651 |
| 28 | 29.42 | 0.02 | 3.0635 | -0.2179 | 0.5813 | -0.2406 | 0.0500 | -0.0008 | 0.2004 | -0.2072 | -0.0588 |
| 29 | 29.70 | 0.02 | 3.0717 | -0.1528 | 0.4160 | -0.2289 | 0.0502 | -0.0039 | 0.2065 | -0.2124 | -0.0511 |
| 30 | 29.98 | 0.02 | 3.0693 | -0.1263 | 0.3924 | -0.1305 | 0.0629 | 0.0040 | 0.2167 | -0.2121 | -0.0338 |
| 31 | 30.25 | 0.04 | 3.0540 | -0.1024 | 0.5625 | -0.3855 | 0.0766 | -0.0065 | 0.2204 | -0.2269 | -0.0259 |
| 32 | 30.52 | 0.03 | 4.0115 | -0.1104 | 0.5403 | -0.4604 | 0.0902 | -0.0122 | 0.2232 | -0.2354 | -0.0275 |
| 33 | 30.83 | 0.04 | 4.0358 | -0.0243 | 0.6206 | -0.4674 | 0.0938 | -0.0037 | 0.2356 | -0.2393 | -0.0059 |
| 34 | 31.08 | 0.04 | 4.0655 | 0.0065 | 0.0418 | -0.3156 | 0.0778 | 0.0015 | 0.2451 | -0.2436 | 0.0153 |
| 35 | 31.35 | 0.05 | 4.0773 | 0.0570 | 0.7676 | -0.5019 | 0.0785 | -0.0046 | 0.2393 | -0.2439 | 0.0133 |
| 36 | 31.61 | 0.04 | 4.0240 | 0.1915 | 0.5221 | 0.0146 | 0.0646 | -0.0033 | 0.2460 | -0.2513 | 0.0443 |
| 37 | 31.90 | 0.04 | 4.0457 | 0.1754 | 0.5648 | 0.0545 | 0.0648 | -0.0078 | 0.2550 | -0.2628 | 0.0395 |
| 38 | 32.15 | 0.05 | 4.0515 | 0.3056 | 0.6914 | -0.1352 | 0.0724 | -0.0115 | 0.2555 | -0.2670 | 0.0675 |
| 39 | 32.41 | 0.05 | 4.0219 | 0.4122 | 0.6625 | -0.1400 | 0.0664 | -0.0070 | 0.2678 | -0.2748 | 0.0892 |
| 40 | 32.68 | 0.06 | 4.0320 | 0.4551 | 0.8096 | -0.4721 | 0.0807 | -0.0177 | 0.2460 | -0.2637 | 0.1046 |
| 41 | 32.94 | 0.05 | 4.0535 | 0.7542 | 0.7633 | -0.5502 | 0.0955 | -0.0532 | 0.2410 | -0.2943 | 0.1556 |
| 42 | 33.18 | 0.06 | 4.0248 | 0.8234 | 0.8446 | -0.9787 | 0.0959 | -0.0550 | 0.2363 | -0.2853 | 0.1672 |
| 43 | 33.44 | 0.04 | 4.0532 | 0.9346 | 0.8391 | -1.1417 | 0.0900 | -0.0696 | 0.2263 | -0.2960 | 0.1875 |
| 44 | 33.70 | 0.04 | 5.1100 | 1.1100 | 0.8646 | -1.1043 | 0.0844 | -0.0811 | 0.2283 | -0.3095 | 0.2169 |
| 45 | 33.93 | 0.05 | 5.1433 | 1.1360 | 0.7225 | -1.1195 | 0.0709 | -0.0732 | 0.2326 | -0.3061 | 0.2210 |
| 46 | 34.19 | 0.03 | 5.2788 | 1.3574 | 0.9282 | -0.9585 | 0.0850 | -0.0843 | 0.2299 | -0.3143 | 0.2571 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 145 C.GC 1.7 | MACH AXIC-6 | PHI 0.0 ELMOF23 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.46 | 0.03 | 5.2995 | 1.3126 | 0.5538 | -0.8422 | 0.0786 | -0.0815 | 0.2320 | -0.3136 | 0.2477 |
| 48 | 34.66 | 0.04 | 5.3041 | 1.4058 | 0.5965 | -0.8784 | 0.0790 | -0.0827 | 0.2311 | -0.3139 | 0.2734 |
| 49 | 34.93 | 0.03 | 5.3185 | 1.3855 | 0.4773 | -0.8095 | 0.0732 | -0.1133 | 0.2295 | -0.3482 | 0.2729 |
| 50 | 35.17 | 0.02 | 5.3522 | 1.0035 | 0.4007 | -1.0371 | 0.0675 | -0.1068 | 0.2324 | -0.3392 | 0.2868 |
| 51 | 35.41 | 0.02 | 5.3641 | 1.7035 | 0.3501 | -0.9935 | 0.0613 | -0.1034 | 0.2361 | -0.3395 | 0.3008 |
| 52 | 35.64 | 0.01 | 5.3725 | 1.3506 | 0.3514 | -0.9558 | 0.0552 | -0.0961 | 0.2305 | -0.3267 | 0.3345 |
| 53 | 35.88 | 0.02 | 5.3545 | 1.8127 | 0.3570 | -1.0716 | 0.0629 | -0.1060 | 0.2387 | -0.3447 | 0.3128 |
| 54 | 36.11 | -0.00 | 5.3629 | 1.9409 | 0.1405 | -0.8691 | 0.0490 | -0.1202 | 0.2362 | -0.3624 | 0.3308 |
| 55 | 36.34 | 0.01 | 5.3422 | 1.9578 | 0.2753 | -0.8715 | 0.0435 | -0.1211 | 0.2341 | -0.3552 | 0.3362 |
| 56 | 36.58 | 0.01 | 5.3167 | 2.1252 | 0.2556 | -0.7753 | 0.0365 | -0.1274 | 0.2296 | -0.3570 | 0.3532 |
| 57 | 36.83 | 0.03 | 5.3124 | 2.1912 | 0.4764 | -0.8851 | 0.0505 | -0.1405 | 0.2280 | -0.3685 | 0.3585 |
| 58 | 37.06 | -0.00 | 5.3044 | 2.2337 | 0.1724 | -0.5852 | 0.0251 | -0.1304 | 0.2308 | -0.3672 | 0.3614 |
| 59 | 37.30 | 0.01 | 5.2528 | 2.3616 | 0.2673 | -0.4094 | 0.0445 | -0.1394 | 0.2280 | -0.3674 | 0.3778 |
| 60 | 37.53 | 0.04 | 5.3664 | 2.4116 | 0.4143 | -0.2457 | 0.0570 | -0.1507 | 0.2284 | -0.3871 | 0.3788 |
| 61 | 37.76 | 0.02 | 5.4737 | 2.4223 | 0.2352 | -0.0097 | 0.0505 | -0.1613 | 0.2342 | -0.3955 | 0.3742 |
| 62 | 37.99 | 0.00 | 5.4466 | 2.4051 | 0.1045 | 0.0003 | 0.0444 | -0.1574 | 0.2334 | -0.3906 | 0.3824 |
| 63 | 38.24 | 0.01 | 5.6521 | 2.4901 | 0.2224 | -0.0534 | 0.0385 | -0.1700 | 0.2346 | -0.4046 | 0.3743 |
| 64 | 38.47 | 0.02 | 5.5932 | 2.5079 | 0.3082 | -0.2128 | 0.0328 | -0.1733 | 0.2296 | -0.4029 | 0.3804 |
| 65 | 38.68 | 0.03 | 5.6536 | 2.4372 | 0.3780 | -0.1545 | 0.0454 | -0.1648 | 0.2383 | -0.4031 | 0.3647 |
| 66 | 38.91 | 0.01 | 5.7701 | 2.5231 | 0.1755 | 0.3542 | 0.0305 | -0.1626 | 0.2344 | -0.4025 | 0.3727 |
| 67 | 39.19 | 0.01 | 5.8629 | 2.5458 | 0.2475 | 0.1631 | 0.0451 | -0.1711 | 0.2375 | -0.4066 | 0.3709 |
| 68 | 39.40 | 0.01 | 5.9068 | 2.6954 | 0.1707 | 0.3743 | 0.0451 | -0.1804 | 0.2403 | -0.4087 | 0.3869 |
| 69 | 39.61 | 0.01 | 7.0278 | 2.6016 | 0.1886 | 0.7117 | 0.0439 | -0.1647 | 0.2583 | -0.4230 | 0.3702 |
| 70 | 39.82 | 0.01 | 7.0069 | 2.6257 | 0.1315 | 0.8447 | 0.0434 | -0.1493 | 0.2542 | -0.4035 | 0.3751 |
| 71 | 40.03 | -0.01 | 7.1151 | 2.7535 | -0.0836 | 1.0587 | 0.0309 | -0.1733 | 0.2509 | -0.4242 | 0.3870 |
| 72 | 40.23 | 0.00 | 7.2420 | 2.6973 | 0.0341 | 1.0044 | 0.0376 | -0.1867 | 0.2533 | -0.4420 | 0.3722 |
| 73 | 40.46 | -0.01 | 7.2465 | 2.7615 | -0.0807 | 1.1356 | 0.0311 | -0.1767 | 0.2556 | -0.4321 | 0.3811 |
| 74 | 40.67 | -0.01 | 7.2628 | 2.7672 | -0.0781 | 0.8528 | 0.0259 | -0.1951 | 0.2505 | -0.4456 | 0.3800 |
| 75 | 40.86 | 0.01 | 7.3463 | 2.7465 | 0.1543 | 0.7339 | 0.0326 | -0.1896 | 0.2550 | -0.4446 | 0.3738 |
| 76 | 41.07 | 0.01 | 7.4141 | 2.7256 | 0.0725 | 1.2396 | 0.0247 | -0.1781 | 0.2563 | -0.4324 | 0.3677 |
| 77 | 41.29 | -0.00 | 7.4548 | 2.8053 | 0.0076 | 1.0076 | 0.0197 | -0.1813 | 0.2562 | -0.4375 | 0.3763 |
| 78 | 41.47 | 0.00 | 7.4563 | 2.8341 | -0.0059 | 1.2915 | 0.0168 | -0.1850 | 0.2542 | -0.4392 | 0.3781 |
| 79 | 41.67 | -0.02 | 7.5555 | 2.8161 | -0.1514 | 1.3037 | 0.0193 | -0.1946 | 0.2562 | -0.4508 | 0.3728 |
| 80 | 41.86 | -0.00 | 7.5857 | 2.8780 | 0.1150 | 0.5552 | 0.0219 | -0.2063 | 0.2485 | -0.4548 | 0.3794 |
| 81 | 42.07 | -0.01 | 7.7442 | 2.8456 | 0.1148 | 0.2051 | 0.0372 | -0.2294 | 0.2419 | -0.4713 | 0.3804 |
| 82 | 42.24 | -0.00 | 7.8142 | 2.7567 | 0.0454 | 1.0457 | 0.0276 | -0.2157 | 0.2510 | -0.4667 | 0.3520 |
| 83 | 42.43 | 0.00 | 7.8751 | 2.9054 | 0.1586 | 0.5372 | 0.0363 | -0.2284 | 0.2469 | -0.4753 | 0.3689 |
| 84 | 42.63 | -0.00 | 8.0416 | 2.8454 | 0.0739 | 1.0004 | 0.0226 | -0.2111 | 0.2465 | -0.4576 | 0.3414 |
| 85 | 42.77 | 0.01 | 7.8402 | 2.9061 | 0.2956 | 0.1558 | 0.0374 | -0.2399 | 0.2449 | -0.4849 | 0.3707 |
| 86 | 42.97 | -0.00 | 8.0330 | 2.7244 | -0.0151 | 1.0953 | 0.0224 | -0.1902 | 0.2541 | -0.4443 | 0.3352 |
| 87 | 43.16 | 0.00 | 8.1608 | 2.7013 | 0.0551 | 1.2367 | 0.0158 | -0.2168 | 0.2551 | -0.4719 | 0.3302 |
| 88 | 43.36 | -0.02 | 8.0641 | 2.8137 | -0.0541 | 0.8918 | 0.0371 | -0.2351 | 0.2493 | -0.4845 | 0.3381 |
| 89 | 43.55 | -0.00 | 8.2745 | 2.8159 | 0.1586 | 0.0056 | 0.0526 | -0.2580 | 0.2441 | -0.5022 | 0.3408 |
| 90 | 43.71 | -0.00 | 8.3644 | 2.8566 | 0.1721 | 0.2753 | 0.0516 | -0.2673 | 0.2408 | -0.5082 | 0.3457 |
| 91 | 43.92 | 0.01 | 8.4250 | 2.9136 | 0.2647 | 0.5276 | 0.0383 | -0.2584 | 0.2575 | -0.5160 | 0.3457 |
| 92 | 44.13 | -0.01 | 8.3756 | 2.7469 | -0.1613 | 1.0529 | 0.0163 | -0.2204 | 0.2693 | -0.4898 | 0.3204 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 144 MACH 0.90 REYC-6 1.7 PHI 0.0 CONF B1B0F23 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.28 | 0.02 | 8.5103 | 2.8535 | 0.4864 | -0.3922 | 0.0545 | -0.2538 | 0.2473 | -0.5012 | 0.3353 |
| 94 | 44.48 | 0.00 | 8.5040 | 2.7851 | 0.1484 | 0.0259 | 0.0324 | -0.2604 | 0.2431 | -0.5036 | 0.3221 |
| 95 | 44.66 | -0.01 | 8.6242 | 2.8301 | 0.1981 | -0.4208 | 0.0550 | -0.2515 | 0.2423 | -0.4943 | 0.3281 |
| 96 | 44.84 | -0.00 | 8.6511 | 2.8243 | 0.1775 | 0.3039 | 0.0337 | -0.2843 | 0.2447 | -0.5291 | 0.3250 |
| 97 | 45.01 | -0.02 | 8.7455 | 2.5420 | -0.1007 | 1.8024 | -0.0025 | -0.2420 | 0.2606 | -0.5033 | 0.2890 |
| 98 | 45.14 | -0.00 | 8.6477 | 2.8142 | 0.3365 | -0.2505 | 0.0429 | -0.2550 | 0.2322 | -0.5272 | 0.3181 |
| 99 | 45.39 | -0.01 | 8.9721 | 2.8380 | 0.0555 | 0.8832 | 0.0142 | -0.2967 | 0.2521 | -0.5488 | 0.3164 |
| 100 | 45.56 | -0.02 | 9.0293 | 2.7155 | 0.0621 | 0.0321 | 0.0276 | -0.3030 | 0.2492 | -0.5522 | 0.3012 |
| 101 | 45.71 | -0.02 | 8.9372 | 2.8350 | 0.0270 | 0.7161 | 0.0147 | -0.2799 | 0.2411 | -0.5211 | 0.3177 |
| 102 | 45.90 | 0.01 | 9.1840 | 2.5348 | 0.1207 | 1.6604 | -0.0157 | -0.2579 | 0.2655 | -0.5035 | 0.2766 |
| 103 | 46.07 | -0.03 | 9.1574 | 2.7755 | 0.0241 | -0.1256 | 0.0460 | -0.2691 | 0.2427 | -0.5315 | 0.3035 |
| 104 | 46.26 | -0.01 | 9.3023 | 2.7352 | 0.0306 | 1.3104 | -0.0115 | -0.2698 | 0.2480 | -0.5378 | 0.2926 |
| 105 | 46.44 | -0.01 | 9.4022 | 2.7715 | 0.1616 | 0.5524 | 0.0293 | -0.3183 | 0.2516 | -0.5699 | 0.2968 |
| 106 | 46.60 | -0.02 | 9.3546 | 2.7451 | 0.0445 | 0.7759 | 0.0336 | -0.2915 | 0.2440 | -0.5355 | 0.2926 |
| 107 | 46.80 | -0.02 | 9.5726 | 2.5465 | -0.1051 | 1.6692 | -0.0117 | -0.2646 | 0.2793 | -0.5440 | 0.2661 |
| 108 | 46.96 | -0.04 | 9.5544 | 2.5050 | -0.2077 | 1.6391 | -0.0238 | -0.2590 | 0.2647 | -0.5238 | 0.2685 |
| 109 | 47.12 | -0.03 | 9.6655 | 2.6171 | -0.1455 | 1.4113 | -0.0102 | -0.2906 | 0.2635 | -0.5541 | 0.2708 |
| 110 | 47.30 | -0.01 | 9.7269 | 2.7214 | 0.0455 | 1.5008 | -0.0108 | -0.2643 | 0.2635 | -0.5479 | 0.2798 |
| 111 | 47.48 | -0.01 | 9.7960 | 2.6051 | 0.0172 | 1.7163 | -0.0112 | -0.3111 | 0.2736 | -0.5847 | 0.2655 |
| 112 | 47.66 | -0.02 | 9.8052 | 2.5052 | -0.0789 | 1.6025 | -0.0225 | -0.2800 | 0.2524 | -0.5724 | 0.2600 |
| 113 | 47.82 | 0.00 | 9.8555 | 2.8099 | 0.3227 | 0.3388 | 0.0255 | -0.3377 | 0.2560 | -0.5957 | 0.2851 |
| 114 | 48.00 | -0.03 | 9.9240 | 2.6344 | -0.1235 | 1.5823 | -0.0096 | -0.2858 | 0.3071 | -0.5929 | 0.2655 |
| 115 | 48.18 | -0.00 | 10.0654 | 2.3622 | 0.0455 | 2.2665 | -0.0245 | -0.2224 | 0.3166 | -0.5388 | 0.2347 |
| 116 | 48.34 | -0.02 | 10.1037 | 2.3234 | -0.1451 | 2.3473 | -0.0247 | -0.2197 | 0.3258 | -0.5455 | 0.2300 |
| 117 | 48.54 | -0.01 | 10.3458 | 2.0501 | -0.0127 | 2.2153 | -0.0237 | -0.2423 | 0.3437 | -0.5860 | 0.2020 |
| 118 | 48.69 | -0.01 | 10.3321 | 1.9504 | -0.0403 | 1.9328 | -0.0227 | -0.1907 | 0.3512 | -0.5499 | 0.1888 |
| 119 | 48.85 | 0.01 | 10.3555 | 1.7831 | 0.1756 | 1.7765 | -0.0182 | -0.1954 | 0.3620 | -0.5574 | 0.1703 |
| 120 | 49.03 | 0.03 | 10.3377 | 1.9255 | 0.5505 | 1.4758 | -0.0031 | -0.2100 | 0.3457 | -0.5623 | 0.1866 |
| 121 | 49.21 | 0.02 | 10.3458 | 1.8525 | 0.4268 | 1.6590 | -0.0096 | -0.1861 | 0.3632 | -0.5693 | 0.1780 |
| 122 | 49.39 | 0.07 | 10.7151 | 1.5125 | 0.6068 | 1.0097 | -0.0099 | -0.2217 | 0.3793 | -0.6010 | 0.1225 |
| 123 | 49.60 | 0.08 | 11.2170 | 0.8526 | 0.7169 | 0.2630 | -0.0082 | -0.1900 | 0.4212 | -0.5612 | 0.0136 |
| 124 | 49.78 | 0.02 | 11.3266 | 0.8035 | 0.3249 | 1.7764 | -0.0017 | -0.1955 | 0.3601 | -0.5756 | 0.0058 |
| 125 | 49.96 | 0.01 | 11.4602 | -0.2243 | 0.2523 | 1.5106 | 0.0171 | -0.1725 | 0.3872 | -0.5597 | -0.0156 |
| 126 | 50.13 | 0.03 | 11.5080 | -0.0431 | 0.4082 | 1.5092 | 0.0036 | -0.1805 | 0.4088 | -0.5953 | -0.0081 |
| 127 | 50.31 | 0.05 | 11.6078 | -0.2333 | 0.6055 | 1.6532 | 0.0493 | -0.1918 | 0.4043 | -0.5961 | -0.0201 |
| 128 | 50.49 | 0.02 | 11.7201 | -0.2025 | 0.3475 | 1.6909 | 0.0315 | -0.2105 | 0.4195 | -0.6380 | -0.0178 |
| 129 | 50.66 | 0.05 | 11.7132 | -0.2554 | 0.7074 | 1.4534 | 0.0442 | -0.1425 | 0.4321 | -0.5746 | -0.0252 |
| 130 | 50.84 | 0.07 | 11.5461 | -0.0475 | 0.6033 | 1.6023 | 0.0436 | -0.1450 | 0.4434 | -0.5854 | -0.0542 |
| 131 | 50.99 | 0.05 | 11.8518 | -0.6784 | 0.8288 | 1.5002 | 0.0571 | -0.1316 | 0.4650 | -0.6006 | -0.0569 |
| 132 | 51.20 | 0.05 | 12.4465 | -1.7521 | 0.5573 | 2.1552 | 0.0161 | -0.1306 | 0.4799 | -0.6105 | -0.1392 |
| 133 | 51.35 | 0.04 | 12.2451 | -1.3121 | 0.5721 | 1.7293 | 0.0446 | -0.0942 | 0.4873 | -0.5815 | -0.1072 |
| 134 | 51.54 | 0.06 | 12.7111 | -1.8729 | 0.1576 | 1.9044 | 0.0397 | -0.1009 | 0.4912 | -0.6000 | -0.1473 |
| 135 | 51.74 | 0.08 | 12.8005 | -1.9165 | 0.2612 | 1.9264 | 0.0450 | -0.1530 | 0.4864 | -0.6393 | -0.1488 |
| 136 | 51.91 | 0.01 | 13.0658 | -2.1483 | 0.2652 | 1.8708 | 0.0472 | -0.1109 | 0.4936 | -0.6044 | -0.1644 |
| 137 | 52.06 | 0.05 | 12.8313 | -1.8750 | 0.5516 | 2.1008 | 0.0448 | -0.1512 | 0.4806 | -0.6318 | -0.1461 |
| 138 | 52.23 | 0.06 | 12.9338 | -1.8168 | 0.0867 | 2.1404 | 0.0449 | -0.1035 | 0.4695 | -0.6330 | -0.1396 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 149 MACH 0.90 RX10-6 1.7 PHI 0.0 DELTA 0.0 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.38 | 0.09 | 12.8352 | -1.7267 | 0.9513 | 2.1495 | 0.0440 | -0.1380 | 0.4684 | -0.6064 | -0.1347 |
| 140 | 52.56 | 0.07 | 12.8695 | -1.6783 | 0.8842 | 1.9896 | 0.0454 | -0.1621 | 0.4667 | -0.6228 | -0.1294 |
| 141 | 52.74 | 0.07 | 12.9005 | -1.6578 | 0.8455 | 2.2443 | 0.0445 | -0.1738 | 0.4584 | -0.6322 | -0.1125 |
| 142 | 52.89 | 0.07 | 12.9273 | -1.6372 | 0.8135 | 2.0576 | 0.0452 | -0.1474 | 0.4668 | -0.6142 | -0.1109 |
| 143 | 53.06 | 0.09 | 12.9317 | -1.5561 | 1.0053 | 2.2726 | 0.0440 | -0.1573 | 0.4623 | -0.6196 | -0.1263 |
| 144 | 53.22 | 0.10 | 13.0241 | -1.5508 | 1.0078 | 2.1131 | 0.0447 | -0.1682 | 0.4639 | -0.6321 | -0.1191 |
| 145 | 53.38 | 0.07 | 12.8560 | -1.6119 | 0.8754 | 2.0028 | 0.0450 | -0.1584 | 0.4634 | -0.6248 | -0.1253 |
| 146 | 53.55 | 0.06 | 13.0118 | -1.4415 | 0.8754 | 1.9570 | 0.0462 | -0.1767 | 0.4663 | -0.6450 | -0.1108 |
| 147 | 53.71 | 0.08 | 13.1350 | -1.4555 | 0.9067 | 1.8103 | 0.0530 | -0.1612 | 0.4674 | -0.6286 | -0.1113 |
| 148 | 53.89 | 0.05 | 12.9674 | -1.4346 | 0.9142 | 1.9675 | 0.0468 | -0.1510 | 0.4706 | -0.6216 | -0.1105 |
| 149 | 54.00 | 0.05 | 12.8842 | -1.3237 | 0.8717 | 1.8529 | 0.0525 | -0.1523 | 0.4643 | -0.6166 | -0.1027 |
| 150 | 54.17 | 0.03 | 13.1235 | -1.3842 | 0.9343 | 1.7553 | 0.0478 | -0.1701 | 0.4716 | -0.6411 | -0.1207 |
| 151 | 54.33 | 0.05 | 13.0834 | -1.3758 | 1.0171 | 1.6792 | 0.0530 | -0.1676 | 0.4758 | -0.6434 | -0.1281 |
| 152 | 54.48 | 0.06 | 13.0743 | -1.5251 | 0.8826 | 1.9503 | 0.0504 | -0.1771 | 0.4734 | -0.6505 | -0.1170 |
| 153 | 54.64 | 0.04 | 13.1621 | -1.3522 | 0.8132 | 1.5134 | 0.0551 | -0.1685 | 0.4775 | -0.6464 | -0.1027 |
| 154 | 54.78 | 0.07 | 13.0351 | -1.4377 | 0.9014 | 1.9171 | 0.0502 | -0.1543 | 0.4759 | -0.6342 | -0.1103 |
| 155 | 54.93 | 0.06 | 13.0758 | -1.4710 | 0.9514 | 1.4357 | 0.0605 | -0.1474 | 0.4802 | -0.6276 | -0.1125 |
| 156 | 55.11 | 0.07 | 13.0882 | -1.3572 | 0.9424 | 1.8673 | 0.0550 | -0.1654 | 0.4851 | -0.6684 | -0.1165 |
| 157 | 55.26 | 0.07 | 13.0157 | -1.5636 | 0.9665 | 0.9437 | 0.0833 | -0.1517 | 0.4960 | -0.6456 | -0.1479 |
| 158 | 55.40 | 0.01 | 13.0459 | -1.3882 | 0.8303 | 1.1331 | 0.0573 | -0.1693 | 0.4972 | -0.6664 | -0.1198 |
| 159 | 55.57 | 0.04 | 13.3344 | -1.5375 | 0.7174 | 1.2451 | 0.0564 | -0.1832 | 0.4928 | -0.6760 | -0.1153 |
| 160 | 55.74 | 0.05 | 13.4805 | -1.6353 | 0.7435 | 1.2426 | 0.0551 | -0.1868 | 0.5064 | -0.6851 | -0.1215 |
| 161 | 55.87 | 0.05 | 13.3661 | -1.6048 | 0.7610 | 1.0708 | 0.0572 | -0.1419 | 0.5036 | -0.6454 | -0.1244 |
| 162 | 56.04 | 0.05 | 13.4677 | -1.6022 | 0.7496 | 1.2227 | 0.0533 | -0.1472 | 0.5101 | -0.6632 | -0.1205 |
| 163 | 56.18 | 0.06 | 13.2581 | -1.3714 | 0.8853 | 1.4243 | 0.0493 | -0.1532 | 0.5141 | -0.6672 | -0.1031 |
| 164 | 56.34 | 0.06 | 13.4284 | -1.5854 | 0.8521 | 0.9497 | 0.0524 | -0.1535 | 0.5145 | -0.6679 | -0.1181 |
| 165 | 56.50 | 0.04 | 13.4346 | -1.6577 | 0.8580 | 1.1407 | 0.0534 | -0.1664 | 0.5181 | -0.6845 | -0.1264 |
| 166 | 56.65 | 0.04 | 13.4545 | -1.5454 | 0.8156 | 0.9918 | 0.0516 | -0.1572 | 0.5209 | -0.6781 | -0.1149 |
| 167 | 56.80 | 0.00 | 13.5303 | -1.6338 | 0.8235 | 1.1677 | 0.0561 | -0.1697 | 0.5329 | -0.7026 | -0.1207 |
| 168 | 56.95 | 0.02 | 13.5168 | -1.6263 | 0.8459 | 1.1259 | 0.0577 | -0.1936 | 0.5313 | -0.6849 | -0.1275 |
| 169 | 57.10 | 0.02 | 13.4784 | -1.5808 | 0.8470 | 1.0186 | 0.0502 | -0.1428 | 0.5471 | -0.6899 | -0.1158 |
| 170 | 57.24 | -0.02 | 13.4714 | -1.5366 | 0.8259 | 1.0206 | 0.0514 | -0.1770 | 0.5503 | -0.7273 | -0.1141 |
| 171 | 57.39 | 0.02 | 13.5455 | -1.2170 | 0.5107 | 1.3068 | 0.0453 | -0.2044 | 0.5491 | -0.7535 | -0.0898 |
| 172 | 57.55 | -0.01 | 13.5655 | -1.2775 | 0.6355 | 0.9604 | 0.0450 | -0.2154 | 0.5454 | -0.7448 | -0.0646 |
| 173 | 57.70 | -0.10 | 13.6276 | -0.9691 | -0.4057 | -0.9031 | 0.0463 | -0.2053 | 0.5314 | -0.7367 | -0.0711 |
| 174 | 57.84 | -0.08 | 13.6243 | -1.0493 | -0.2749 | -0.8770 | 0.0464 | -0.2186 | 0.5530 | -0.7742 | -0.0697 |
| 175 | 58.00 | -0.09 | 13.5710 | -2.1562 | -0.2415 | -1.5517 | 0.0471 | -0.2180 | 0.5507 | -0.7727 | -0.1330 |
| 176 | 58.16 | -0.11 | 13.6276 | -1.4756 | -0.5334 | -1.3524 | 0.0338 | -0.1818 | 0.5503 | -0.7381 | -0.1085 |
| 177 | 58.17 | -0.09 | 13.7760 | -1.7404 | -0.2571 | -1.3789 | 0.0344 | -0.1893 | 0.5486 | -0.7379 | -0.1264 |
| 178 | 58.17 | -0.12 | 13.6618 | -1.4642 | -0.5569 | -1.1263 | 0.0378 | -0.1918 | 0.5414 | -0.7330 | -0.1071 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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RANTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 144 0.5C 1.0 | REF R31C-6 | PHI 0.0 | CONF 0.0F25 | L C.C | DELI 0 | DELZ -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CAF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | -0.01 | -0.0127 | C.0004 | C.0187 | -0.0303 | -1.4697 | -0.6478 | -0.0331 | -0.2871 | 0.0511 | 0.4433 |
| 2 | -5.64 | 0.00 | -0.0226 | -0.0023 | 0.0192 | -0.1026 | -0.0262 | -0.0026 | -0.0334 | -0.2855 | 0.0520 | 0.4447 |
| 3 | -5.68 | 0.00 | -0.0201 | -0.0012 | 0.0195 | 0.0577 | -0.7212 | -0.6421 | -0.0331 | -0.2833 | 0.0515 | 0.4412 |
| 4 | -4.69 | 0.01 | -0.0158 | 0.0023 | 0.0215 | -0.1463 | -1.3041 | -0.6244 | -0.0260 | -0.3566 | 0.0339 | 0.4356 |
| 5 | -3.65 | 0.00 | -0.0090 | 0.0055 | 0.0285 | -0.6129 | -3.1720 | -0.6933 | -0.0294 | -0.3770 | 0.0330 | 0.4221 |
| 6 | -1.66 | 0.01 | -0.0166 | 0.0051 | 0.0270 | -5.9683 | -31.1111 | -0.8211 | -0.0312 | -0.3630 | 0.0380 | 0.4421 |
| 7 | -0.04 | 0.01 | -0.0027 | 0.0003 | 0.0202 | -2.3214 | -7.4643 | -0.7723 | -0.0383 | -0.3420 | 0.0496 | 0.4425 |
| 8 | 1.76 | 0.00 | 0.0035 | 0.0045 | 0.0157 | 1.7143 | 2.8596 | -0.6926 | -0.0449 | -0.3014 | 0.0648 | 0.4352 |
| 9 | 3.60 | -0.00 | 0.0066 | 0.0063 | 0.0128 | 0.1250 | 10.6250 | -0.5926 | -0.0454 | -0.2715 | 0.0767 | 0.4582 |
| 10 | 5.40 | -0.00 | 0.0091 | 0.0032 | 0.0101 | 0.3911 | 1.1170 | -0.5038 | -0.0474 | -0.2493 | 0.0940 | 0.4946 |
| 11 | 7.25 | 0.00 | 0.0067 | 0.0032 | 0.0106 | -0.4783 | -1.5942 | -0.3669 | -0.0471 | -0.2015 | 0.1283 | 0.5496 |
| 12 | 9.03 | 0.00 | 0.0113 | 0.0030 | 0.0057 | -0.3162 | -0.5043 | -0.2051 | -0.0397 | -0.1434 | 0.1933 | 0.6996 |
| 13 | 10.87 | -0.00 | 0.0164 | 0.0040 | 0.0041 | -0.2412 | -0.2529 | -0.0981 | -0.0277 | -0.0943 | 0.2822 | 0.5867 |
| 14 | 12.66 | 0.00 | -0.0015 | -0.0004 | 0.0132 | 0.4500 | -0.5625 | -0.0178 | -0.0051 | -0.0350 | 0.4912 | 3.1315 |
| 15 | 14.52 | -0.01 | -0.0066 | -0.0043 | 0.0080 | 0.7258 | -1.3387 | 0.0569 | 0.0182 | -0.0095 | 0.3203 | -0.1661 |
| 16 | 16.42 | -0.01 | -0.0163 | -0.0122 | 0.0050 | 0.0052 | -0.2737 | 0.1907 | 0.0402 | 0.0214 | 0.2743 | 0.1461 |
| 17 | 18.31 | -0.01 | -0.0342 | -0.0201 | 0.0063 | 0.5876 | -0.2429 | 0.2219 | 0.0571 | 0.0589 | 0.2574 | 0.2652 |
| 18 | 20.17 | -0.02 | -0.0755 | -0.0345 | 0.0025 | 0.4324 | -0.3314 | 0.2917 | 0.0726 | 0.0936 | 0.2488 | 0.3205 |
| 19 | 22.06 | -0.04 | -0.1441 | -0.0452 | -0.0262 | 0.3135 | 0.1322 | 0.3672 | 0.0800 | 0.1472 | 0.2066 | 0.3803 |
| 20 | 23.92 | -0.04 | -0.2435 | -0.0583 | -0.0644 | 0.2353 | 0.2043 | 0.4436 | 0.0817 | 0.1771 | 0.1842 | 0.3551 |
| 21 | 25.80 | -0.04 | -0.3360 | -0.0440 | -0.0838 | 0.1860 | 0.3544 | 0.5324 | 0.0788 | 0.2026 | 0.1481 | 0.3806 |
| 22 | 27.70 | 0.01 | 0.0268 | 0.0161 | 0.0542 | 0.0654 | 0.4043 | 0.5955 | 0.0540 | 0.2097 | 0.0907 | 0.3521 |
| 23 | 27.69 | 0.01 | 0.1376 | 0.0114 | 0.0723 | 0.0627 | 0.5252 | 0.6064 | 0.0543 | 0.2129 | 0.0855 | 0.3509 |
| 24 | 28.49 | 0.01 | 0.1916 | 0.0193 | 0.1021 | 0.1007 | 0.5327 | 0.6111 | 0.0515 | 0.2101 | 0.0843 | 0.3438 |
| 25 | 28.49 | 0.01 | 0.1912 | 0.0185 | 0.1021 | 0.0987 | 0.5327 | 0.6141 | 0.0493 | 0.2102 | 0.0803 | 0.3423 |
| 26 | 28.83 | 0.03 | 0.2252 | 0.0266 | 0.1067 | 0.1004 | 0.5200 | 0.6201 | 0.0473 | 0.2095 | 0.0762 | 0.3378 |
| 27 | 29.19 | 0.03 | 0.2708 | 0.0268 | 0.1425 | 0.0990 | 0.5262 | 0.6239 | 0.0462 | 0.2112 | 0.0741 | 0.3385 |
| 28 | 29.42 | 0.02 | 0.1715 | 0.0160 | 0.0576 | 0.0508 | 0.5093 | 0.6207 | 0.0471 | 0.2126 | 0.0751 | 0.3392 |
| 29 | 29.70 | 0.02 | 0.1712 | 0.0161 | 0.1000 | 0.1060 | 0.5840 | 0.6269 | 0.0446 | 0.2126 | 0.0714 | 0.3351 |
| 30 | 29.90 | 0.02 | 0.1803 | 0.0200 | 0.1101 | 0.1190 | 0.6105 | 0.6328 | 0.0448 | 0.2107 | 0.0708 | 0.3330 |
| 31 | 30.25 | 0.04 | 0.2701 | 0.0362 | 0.1471 | 0.1140 | 0.5446 | 0.6365 | 0.0442 | 0.2146 | 0.0692 | 0.3361 |
| 32 | 30.52 | 0.03 | 0.2356 | 0.0266 | 0.1416 | 0.1119 | 0.5907 | 0.6352 | 0.0431 | 0.2165 | 0.0668 | 0.3358 |
| 33 | 30.80 | 0.04 | 0.2574 | 0.0364 | 0.1618 | 0.1223 | 0.5461 | 0.6451 | 0.0437 | 0.2188 | 0.0678 | 0.3392 |
| 34 | 31.06 | 0.04 | 0.2645 | 0.0340 | 0.1542 | 0.1260 | 0.5721 | 0.6479 | 0.0431 | 0.2202 | 0.0666 | 0.3398 |
| 35 | 31.35 | 0.05 | 0.2843 | 0.0371 | 0.1616 | 0.1307 | 0.5886 | 0.6452 | 0.0431 | 0.2211 | 0.0669 | 0.3427 |
| 36 | 31.61 | 0.04 | 0.1866 | 0.0252 | 0.1119 | 0.1024 | 0.6216 | 0.6450 | 0.0428 | 0.2211 | 0.0664 | 0.3427 |
| 37 | 31.90 | 0.04 | 0.1758 | 0.0252 | 0.1141 | 0.1026 | 0.6350 | 0.6507 | 0.0426 | 0.2238 | 0.0654 | 0.3446 |
| 38 | 32.19 | 0.05 | 0.1957 | 0.0304 | 0.1221 | 0.1004 | 0.6111 | 0.6505 | 0.0423 | 0.2266 | 0.0644 | 0.3452 |
| 39 | 32.41 | 0.05 | 0.2276 | 0.0332 | 0.1306 | 0.1458 | 0.5740 | 0.6535 | 0.0420 | 0.2275 | 0.0642 | 0.3481 |
| 40 | 32.66 | 0.06 | 0.2564 | 0.0382 | 0.1447 | 0.1288 | 0.5953 | 0.6522 | 0.0405 | 0.2310 | 0.0612 | 0.3467 |
| 41 | 32.94 | 0.05 | 0.3556 | 0.0428 | 0.1745 | 0.1195 | 0.4720 | 0.6728 | 0.0390 | 0.2356 | 0.0579 | 0.3502 |
| 42 | 33.18 | 0.06 | 0.3558 | 0.0442 | 0.1696 | 0.1316 | 0.4965 | 0.6814 | 0.0389 | 0.2386 | 0.0564 | 0.3502 |
| 43 | 33.46 | 0.06 | 0.3608 | 0.0474 | 0.1736 | 0.1313 | 0.4811 | 0.6931 | 0.0378 | 0.2416 | 0.0568 | 0.3501 |
| 44 | 33.70 | 0.06 | 0.3333 | 0.0470 | 0.1617 | 0.1416 | 0.4852 | 0.7017 | 0.0372 | 0.2426 | 0.0531 | 0.3457 |
| 45 | 33.93 | 0.05 | 0.3054 | 0.0442 | 0.1561 | 0.1447 | 0.5046 | 0.6987 | 0.0368 | 0.2458 | 0.0526 | 0.3517 |
| 46 | 34.19 | 0.05 | 0.2678 | 0.0418 | 0.1455 | 0.1560 | 0.5223 | 0.7014 | 0.0365 | 0.2505 | 0.0520 | 0.3571 |

TEST 7 PART 149 PACK 0.96 RXIC-6 1.7 PRI 0.0 CONF 23 L 0.6 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.44 | 0.03 | 0.2735 | C.0358 | 0.1370 | C.1457 | 0.5305 | 0.7014 | 0.0365 | 0.2505 | 0.0520 | 0.3571 |
| 48 | 34.00 | 0.04 | C.2621 | C.0356 | C.1355 | C.1514 | 0.5163 | 0.7014 | 0.0362 | 0.2505 | C.0516 | 0.3571 |
| 49 | 34.95 | 0.03 | 0.2237 | C.0358 | C.1122 | C.1601 | 0.5017 | 0.7117 | 0.0361 | 0.2533 | C.0507 | C.3559 |
| 50 | 35.17 | 0.02 | 0.1946 | C.0323 | C.0933 | C.1661 | 0.4794 | 0.7200 | 0.0355 | 0.2602 | 0.C489 | 0.3585 |
| 51 | 35.41 | 0.02 | 0.1627 | C.0311 | C.0665 | C.1612 | 0.4592 | 0.7374 | 0.0345 | 0.2634 | C.0474 | 0.3572 |
| 52 | 35.09 | 0.01 | C.1376 | C.0262 | 0.0553 | C.1675 | 0.4736 | 0.7355 | 0.0349 | 0.2617 | 0.0476 | 0.3567 |
| 53 | 35.88 | 0.02 | C.0954 | C.0173 | 0.0385 | C.1738 | 0.3874 | 0.7449 | 0.0349 | 0.2672 | 0.C465 | C.3587 |
| 54 | 36.11 | -0.00 | 0.1092 | 0.0157 | C.0431 | C.1602 | 0.3949 | 0.7448 | 0.0349 | 0.2694 | 0.C469 | 0.3617 |
| 55 | 36.34 | 0.01 | 0.0949 | C.0177 | C.0362 | 0.1860 | 0.3781 | 0.7464 | 0.0343 | 0.2692 | 0.C459 | 0.3607 |
| 56 | 36.58 | 0.01 | 0.1151 | 0.0212 | 0.0464 | C.1785 | 0.3898 | 0.7550 | 0.0337 | 0.2722 | 0.C446 | C.3605 |
| 57 | 36.83 | C.03 | C.0548 | C.0173 | 0.0324 | C.1823 | 0.3422 | 0.7608 | 0.0331 | 0.2749 | 0.C435 | C.3613 |
| 58 | 37.06 | -0.00 | 0.0038 | 0.0125 | 0.0043 | 0.2330 | 0.0000 | 0.7664 | 0.0331 | 0.2777 | 0.C432 | 0.3623 |
| 59 | 37.30 | 0.01 | C.0777 | C.0116 | C.0246 | 0.1416 | 0.3168 | 0.7608 | 0.0331 | 0.2749 | 0.C435 | C.3613 |
| 60 | 37.53 | C.04 | 0.0641 | C.0091 | 0.0203 | C.1676 | 0.4312 | 0.7579 | 0.0331 | 0.2735 | 0.C437 | C.3606 |
| 61 | 37.76 | 0.02 | 0.0650 | C.0063 | C.0230 | 0.0564 | 0.3531 | 0.7664 | 0.0331 | 0.2777 | 0.C432 | 0.3623 |
| 62 | 37.99 | 0.00 | C.0767 | C.0063 | C.0175 | C.0887 | 0.2038 | 0.7737 | 0.0325 | 0.2802 | 0.C420 | 0.3621 |
| 63 | 38.24 | C.01 | C.0805 | C.0047 | C.0244 | 0.0565 | 0.3034 | 0.7709 | 0.0331 | 0.2777 | 0.C429 | 0.3602 |
| 64 | 38.47 | 0.02 | 0.0371 | C.0031 | -0.0047 | C.0833 | -0.1276 | 0.7881 | 0.0319 | 0.2825 | 0.0405 | C.3585 |
| 65 | 38.68 | C.03 | C.0458 | C.0036 | 0.0084 | 0.0779 | 0.1332 | 0.7823 | 0.0325 | 0.2809 | 0.C416 | 0.3596 |
| 66 | 38.91 | 0.01 | 0.0356 | -C.0016 | C.0070 | -0.0210 | 0.1906 | 0.7794 | 0.0325 | 0.2818 | 0.0417 | 0.3616 |
| 67 | 39.15 | 0.01 | 0.0259 | -C.0008 | 0.0027 | -C.0239 | 0.1345 | 0.7822 | 0.0325 | 0.2832 | 0.0416 | 0.3620 |
| 68 | 39.40 | 0.01 | 0.0311 | -C.0015 | 0.0032 | -0.0497 | 0.1025 | 0.7852 | 0.0325 | 0.2823 | 0.0414 | 0.3595 |
| 69 | 39.61 | 0.01 | -C.0082 | -C.0074 | -C.0156 | C.5059 | 1.9294 | 0.7823 | 0.0328 | 0.2805 | 0.C419 | 0.3590 |
| 70 | 39.82 | 0.01 | 0.0223 | -0.0027 | -0.0024 | -0.1007 | -0.2131 | 0.7811 | 0.0327 | 0.2793 | 0.0419 | 0.3576 |
| 71 | 40.03 | -C.01 | -0.0324 | -C.0106 | -0.0297 | 0.3274 | 0.9167 | 0.7866 | 0.0324 | 0.2810 | 0.C412 | 0.3571 |
| 72 | 40.23 | 0.00 | -0.0159 | -C.0050 | -0.0061 | C.4515 | 1.3107 | 0.7961 | 0.0318 | 0.2864 | 0.0399 | 0.3588 |
| 73 | 40.46 | -0.01 | -0.0348 | -C.0118 | -C.0312 | 0.3379 | 0.8947 | 0.7924 | 0.0318 | 0.2837 | 0.C402 | 0.3580 |
| 74 | 40.67 | -0.01 | -0.0465 | -0.0141 | -C.0381 | 0.3004 | 0.8128 | 0.7953 | 0.0318 | 0.2839 | 0.0400 | 0.3565 |
| 75 | 40.86 | C.01 | C.0 | -0.0055 | -C.0153 | -C.0059 | -0.0193 | 0.8097 | 0.0307 | 0.2873 | 0.C379 | 0.3549 |
| 76 | 41.07 | 0.01 | -C.0364 | -0.0141 | -0.0458 | C.2490 | 0.6120 | 0.8162 | 0.0307 | 0.2915 | C.C375 | 0.3562 |
| 77 | 41.29 | -0.00 | -C.0034 | -C.0177 | -0.0512 | C.2785 | 0.6082 | 0.8153 | 0.0307 | 0.2900 | 0.C378 | 0.3557 |
| 78 | 41.47 | 0.00 | -0.0068 | -C.0160 | -C.0033 | C.2179 | 0.7346 | 0.8123 | 0.0310 | 0.2921 | 0.0381 | 0.3565 |
| 79 | 41.67 | -0.02 | -0.0837 | -C.0172 | -C.0567 | 0.2053 | 0.6782 | 0.8153 | 0.0307 | 0.2900 | 0.0378 | 0.3557 |
| 80 | 41.86 | -0.00 | -0.0138 | -0.0056 | -0.0332 | 0.0503 | 2.4056 | 0.8466 | 0.0290 | 0.3039 | 0.C343 | 0.3590 |
| 81 | 42.07 | -C.01 | C.0172 | -C.0046 | -C.0107 | -C.2303 | -0.6236 | 0.8466 | 0.0285 | 0.3051 | 0.C338 | 0.3604 |
| 82 | 42.24 | -0.00 | -0.0151 | -C.0050 | -C.0343 | 0.0549 | 2.5000 | 0.8381 | 0.0290 | 0.3009 | 0.C347 | 0.3591 |
| 83 | 42.43 | 0.00 | C.0475 | -C.0038 | -C.0046 | -C.0163 | -0.0833 | 0.8665 | 0.0279 | 0.3101 | 0.C322 | 0.3575 |
| 84 | 42.63 | -0.00 | -C.1259 | -C.0223 | -C.0746 | C.1776 | 0.5457 | 0.8266 | 0.0307 | 0.2955 | C.C371 | 0.3575 |
| 85 | 42.77 | 0.01 | -C.0250 | -C.0101 | -C.0360 | C.3488 | 1.2392 | 0.8381 | 0.0290 | 0.3009 | 0.C347 | 0.3591 |
| 86 | 42.97 | -0.00 | -C.1153 | -C.0223 | -0.0654 | C.1925 | 0.5992 | 0.8296 | 0.0299 | 0.2947 | 0.C361 | 0.3552 |
| 87 | 43.18 | C.00 | -0.1122 | -C.0231 | -C.0768 | C.2055 | 0.6844 | 0.8411 | 0.0290 | 0.2979 | 0.0369 | C.3541 |
| 88 | 43.36 | -0.02 | -C.0116 | -C.0161 | -0.0251 | C.0750 | 2.5667 | 0.8610 | 0.0285 | 0.3052 | 0.C331 | 0.3545 |
| 89 | 43.55 | -C.00 | C.0522 | C.0004 | C.0 | C.0074 | 0.0 | 0.8895 | 0.0270 | 0.3143 | 0.0304 | 0.3533 |
| 90 | 43.71 | -0.00 | 0.0105 | C.0015 | -0.0040 | 0.0255 | -0.0766 | 0.8896 | 0.0267 | 0.3120 | 0.0300 | C.3508 |
| 91 | 43.92 | 0.01 | -C.0063 | -C.0063 | -C.0215 | -21.6667 | -74.3333 | 0.8838 | 0.0270 | 0.3116 | 0.0306 | 0.3525 |
| 92 | 44.13 | -0.01 | -0.1424 | -C.0266 | -0.0676 | C.1870 | 0.6111 | 0.8679 | 0.0288 | 0.3061 | 0.C331 | 0.3526 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1+5 MACH 0.90 RNIG-6 1.7 PHI 0.0 CONF 81+0F25 L C.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.28 | 0.02 | 0.0578 | 0.0046 | -0.0047 | 0.0884 | -0.0818 | 0.9151 | 0.0259 | 0.3198 | 0.0283 | 0.3494 |
| 94 | 44.48 | 0.00 | -0.0132 | -0.0062 | -0.0066 | 0.6204 | 2.9197 | 0.9009 | 0.0247 | 0.3125 | 0.0267 | 0.3473 |
| 95 | 44.66 | -0.01 | 0.0502 | 0.0067 | 0.0067 | 0.0738 | 0.0738 | 0.9323 | 0.0250 | 0.3234 | 0.0268 | 0.3485 |
| 96 | 44.84 | -0.00 | 0.0336 | 0.0 | -0.0186 | 0.0 | -0.5546 | 0.9294 | 0.0245 | 0.3243 | 0.0264 | 0.3489 |
| 97 | 45.01 | -0.02 | -0.1604 | -0.0313 | -0.1135 | 0.1733 | 0.6289 | 0.9008 | 0.0264 | 0.3152 | 0.0293 | 0.3495 |
| 98 | 45.19 | -0.00 | 0.1581 | 0.0164 | 0.0164 | 0.1188 | 0.1223 | 0.9636 | 0.0236 | 0.3334 | 0.0248 | 0.3465 |
| 99 | 45.39 | -0.01 | -0.0827 | -0.0156 | -0.0053 | 0.1896 | 0.7900 | 0.9323 | 0.0245 | 0.3234 | 0.0263 | 0.3465 |
| 100 | 45.58 | -0.02 | -0.0530 | -0.0124 | -0.0531 | 0.2295 | 1.0016 | 0.9407 | 0.0242 | 0.3276 | 0.0257 | 0.3482 |
| 101 | 45.71 | -0.02 | -0.1162 | -0.0204 | -0.0681 | 0.1752 | 0.7583 | 0.9324 | 0.0242 | 0.3212 | 0.0260 | 0.3465 |
| 102 | 45.90 | 0.01 | -0.2203 | -0.0348 | -0.1303 | 0.1581 | 0.5913 | 0.9593 | 0.0246 | 0.3317 | 0.0252 | 0.3458 |
| 103 | 46.07 | -0.03 | 0.1382 | 0.0145 | 0.0179 | 0.1075 | 0.1299 | 0.9736 | 0.0233 | 0.3340 | 0.0240 | 0.3431 |
| 104 | 46.26 | -0.01 | -0.1578 | -0.0254 | -0.1111 | 0.1808 | 0.7046 | 0.9736 | 0.0233 | 0.3340 | 0.0240 | 0.3431 |
| 105 | 46.44 | -0.01 | -0.0328 | -0.0110 | -0.0487 | 0.3353 | 1.4853 | 0.9766 | 0.0228 | 0.3332 | 0.0233 | 0.3411 |
| 106 | 46.60 | -0.02 | -0.0767 | -0.0172 | -0.0763 | 0.2239 | 0.9170 | 0.9922 | 0.0216 | 0.3385 | 0.0218 | 0.3411 |
| 107 | 46.80 | -0.02 | -0.1356 | -0.0256 | -0.0972 | 0.1841 | 0.7157 | 0.9921 | 0.0228 | 0.3386 | 0.0230 | 0.3413 |
| 108 | 46.96 | -0.04 | -0.2526 | -0.0420 | -0.1574 | 0.1688 | 0.5439 | 0.9863 | 0.0233 | 0.3381 | 0.0237 | 0.3428 |
| 109 | 47.12 | -0.03 | -0.1458 | -0.0270 | -0.0995 | 0.1853 | 0.6823 | 1.0036 | 0.0226 | 0.3395 | 0.0227 | 0.3383 |
| 110 | 47.30 | -0.01 | -0.1007 | -0.0344 | -0.1092 | 0.1906 | 0.6044 | 0.9976 | 0.0231 | 0.3391 | 0.0231 | 0.3398 |
| 111 | 47.48 | -0.01 | -0.2265 | -0.0410 | -0.1510 | 0.1697 | 0.5774 | 0.9962 | 0.0216 | 0.3384 | 0.0217 | 0.3397 |
| 112 | 47.66 | -0.02 | -0.1545 | -0.0351 | -0.1164 | 0.1862 | 0.6874 | 1.0074 | 0.0222 | 0.3439 | 0.0220 | 0.3413 |
| 113 | 47.82 | 0.00 | -0.0058 | -0.0067 | -0.0355 | 0.1500 | 0.1333 | 1.0205 | 0.0213 | 0.3431 | 0.0209 | 0.3362 |
| 114 | 48.00 | -0.03 | -0.1635 | -0.0316 | -0.0569 | 0.1931 | 0.5998 | 1.0176 | 0.0222 | 0.3418 | 0.0218 | 0.3358 |
| 115 | 48.16 | -0.00 | -0.2404 | -0.0473 | -0.1241 | 0.1966 | 0.5161 | 1.0442 | 0.0207 | 0.3559 | 0.0196 | 0.3406 |
| 116 | 48.34 | -0.02 | -0.2184 | -0.0473 | -0.1129 | 0.2104 | 0.5108 | 1.0641 | 0.0196 | 0.3643 | 0.0184 | 0.3424 |
| 117 | 48.54 | -0.01 | -0.1662 | -0.0416 | -0.1113 | 0.2202 | 0.5440 | 1.0586 | 0.0199 | 0.3549 | 0.0188 | 0.3352 |
| 118 | 48.69 | -0.01 | -0.1764 | -0.0453 | -0.0974 | 0.2571 | 0.5520 | 1.0773 | 0.0182 | 0.3636 | 0.0169 | 0.3375 |
| 119 | 48.85 | 0.01 | -0.1740 | -0.0395 | -0.0954 | 0.2208 | 0.5485 | 1.0727 | 0.0159 | 0.3571 | 0.0165 | 0.3329 |
| 120 | 49.03 | 0.03 | -0.1515 | -0.0374 | -0.0788 | 0.2658 | 0.5962 | 1.0871 | 0.0184 | 0.3594 | 0.0170 | 0.3306 |
| 121 | 49.21 | 0.02 | -0.1253 | -0.0231 | -0.0736 | 0.1640 | 0.5874 | 1.0871 | 0.0205 | 0.3560 | 0.0188 | 0.3275 |
| 122 | 49.39 | 0.07 | -0.1424 | -0.0261 | -0.0600 | 0.1656 | 0.5017 | 1.0797 | 0.0199 | 0.3528 | 0.0184 | 0.3267 |
| 123 | 49.60 | 0.06 | -0.1756 | -0.0335 | -0.0766 | 0.1866 | 0.5401 | 1.0798 | 0.0209 | 0.3494 | 0.0194 | 0.3236 |
| 124 | 49.78 | 0.02 | -0.0835 | -0.0277 | -0.0485 | 0.3699 | 0.5702 | 1.0987 | 0.0187 | 0.3513 | 0.0170 | 0.3198 |
| 125 | 49.96 | 0.01 | -0.0365 | -0.0245 | -0.0345 | 0.0303 | 0.6683 | 1.0914 | 0.0176 | 0.3469 | 0.0161 | 0.3178 |
| 126 | 50.13 | 0.03 | 0.0463 | -0.0115 | -0.0018 | -0.2489 | -0.0434 | 1.0915 | 0.0179 | 0.3446 | 0.0158 | 0.3157 |
| 127 | 50.31 | 0.05 | 0.0200 | -0.0146 | -0.0085 | -0.7391 | -0.4444 | 1.0971 | 0.0167 | 0.3462 | 0.0152 | 0.3155 |
| 128 | 50.49 | 0.02 | 0.0281 | -0.0144 | -0.0124 | -0.5120 | -0.4399 | 1.1010 | 0.0158 | 0.3505 | 0.0144 | 0.3184 |
| 129 | 50.66 | 0.05 | 0.0433 | -0.0113 | -0.0105 | -0.2606 | -0.2428 | 1.1010 | 0.0155 | 0.3494 | 0.0141 | 0.3173 |
| 130 | 50.84 | 0.07 | 0.0587 | -0.0094 | -0.0095 | -0.1595 | -0.1694 | 1.1064 | 0.0152 | 0.3531 | 0.0138 | 0.3192 |
| 131 | 50.99 | 0.05 | 0.1021 | -0.0027 | 0.0126 | -0.0265 | 0.1257 | 1.0933 | 0.0147 | 0.3505 | 0.0134 | 0.3206 |
| 132 | 51.20 | 0.05 | -0.0456 | -0.0155 | -0.0044 | 0.3304 | 1.4042 | 1.1045 | 0.0147 | 0.3548 | 0.0133 | 0.3212 |
| 133 | 51.35 | 0.04 | 0.0335 | -0.0073 | -0.0175 | -0.2190 | -0.5331 | 1.1056 | 0.0138 | 0.3533 | 0.0125 | 0.3196 |
| 134 | 51.54 | 0.00 | 0.0142 | -0.0042 | -0.0296 | -0.2993 | -2.0884 | 1.1043 | 0.0141 | 0.3548 | 0.0128 | 0.3213 |
| 135 | 51.74 | 0.08 | 0.0572 | -0.0004 | -0.0026 | -0.0067 | -0.0489 | 1.0915 | 0.0152 | 0.3432 | 0.0140 | 0.3144 |
| 136 | 51.91 | 0.01 | 0.0028 | 0.0012 | -0.0005 | 0.0184 | -0.1029 | 1.0873 | 0.0141 | 0.3454 | 0.0130 | 0.3177 |
| 137 | 52.06 | 0.05 | 0.0354 | -0.0008 | -0.0047 | -0.0196 | -0.1201 | 1.0855 | 0.0157 | 0.3438 | 0.0145 | 0.3167 |
| 138 | 52.23 | 0.06 | 0.0434 | -0.0027 | 0.0055 | -0.0622 | 0.1267 | 1.0869 | 0.0164 | 0.3443 | 0.0151 | 0.3167 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 144 MACH 0.90 RN1G-6 1.7 PHI 0.0 CONF 61 OF 23 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANE | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.38 | 0.05 | 0.0263 | -0.0052 | -0.0020 | -0.2198 | -0.0769 | 1.1078 | 0.0166 | 0.3523 | 0.0150 | 0.3181 |
| 140 | 52.56 | 0.07 | 0.0461 | -0.0066 | 0.0063 | -0.0161 | 0.1727 | 1.0937 | 0.0165 | 0.3433 | 0.0154 | 0.3139 |
| 141 | 52.74 | 0.07 | 0.0276 | -0.0035 | 0.0061 | -0.1399 | 0.2537 | 1.0779 | 0.0180 | 0.3360 | 0.0167 | 0.3117 |
| 142 | 52.89 | 0.07 | 0.0250 | -0.0036 | 0.0076 | -0.1544 | 0.3127 | 1.0947 | 0.0172 | 0.3441 | 0.0157 | 0.3143 |
| 143 | 53.06 | 0.05 | 0.0052 | -0.0026 | 0.0023 | -1.2593 | 0.4444 | 1.0917 | 0.0176 | 0.3404 | 0.0163 | 0.3116 |
| 144 | 53.22 | 0.10 | 0.0263 | -0.0035 | 0.0041 | -0.1714 | 0.2000 | 1.1058 | 0.0169 | 0.3449 | 0.0153 | 0.3119 |
| 145 | 53.38 | 0.07 | 0.0155 | -0.0031 | 0.0108 | -0.1584 | 0.5446 | 1.1013 | 0.0169 | 0.3408 | 0.0153 | 0.3094 |
| 146 | 53.55 | 0.06 | 0.0194 | -0.0023 | 0.0166 | -0.1194 | 0.5473 | 1.0929 | 0.0174 | 0.3368 | 0.0159 | 0.3082 |
| 147 | 53.71 | 0.08 | 0.0313 | -0.0026 | 0.0166 | -0.0247 | 0.5957 | 1.0944 | 0.0163 | 0.3406 | 0.0149 | 0.3112 |
| 148 | 53.84 | 0.05 | 0.0150 | 0.0 | 0.0126 | 0.0 | 0.6802 | 1.0858 | 0.0171 | 0.3376 | 0.0157 | 0.3098 |
| 149 | 54.00 | 0.05 | 0.0188 | -0.0026 | 0.0151 | -0.0410 | 0.8000 | 1.0704 | 0.0179 | 0.3256 | 0.0168 | 0.3045 |
| 150 | 54.17 | 0.03 | 0.0367 | 0.0031 | 0.0197 | 0.0798 | 0.5087 | 1.1168 | 0.0157 | 0.3447 | 0.0141 | 0.3086 |
| 151 | 54.33 | 0.05 | 0.0435 | 0.0042 | 0.0213 | 0.0576 | 0.4900 | 1.1150 | 0.0157 | 0.3441 | 0.0141 | 0.3086 |
| 152 | 54.48 | 0.06 | 0.0426 | 0.0054 | 0.0204 | 0.1270 | 0.6803 | 1.1038 | 0.0163 | 0.3398 | 0.0148 | 0.3079 |
| 153 | 54.64 | 0.04 | 0.0282 | 0.0042 | 0.0208 | 0.1507 | 0.7397 | 1.0982 | 0.0168 | 0.3371 | 0.0153 | 0.3070 |
| 154 | 54.78 | 0.07 | 0.0430 | 0.0048 | 0.0245 | 0.1078 | 0.5695 | 1.1105 | 0.0154 | 0.3411 | 0.0139 | 0.3072 |
| 155 | 54.93 | 0.06 | 0.0383 | 0.0042 | 0.0205 | 0.1612 | 0.5466 | 1.1204 | 0.0149 | 0.3455 | 0.0133 | 0.3084 |
| 156 | 55.11 | 0.07 | 0.0438 | 0.0023 | 0.0164 | 0.0154 | 2.7692 | 1.1149 | 0.0157 | 0.3407 | 0.0141 | 0.3056 |
| 157 | 55.26 | 0.07 | 0.0453 | 0.0021 | 0.0187 | 0.1787 | 0.5786 | 1.1261 | 0.0143 | 0.3472 | 0.0127 | 0.3083 |
| 158 | 55.40 | 0.01 | 0.0304 | 0.0073 | 0.0224 | 0.2413 | 0.7365 | 1.1114 | 0.0140 | 0.3459 | 0.0126 | 0.3111 |
| 159 | 55.57 | 0.04 | 0.0330 | 0.0066 | 0.0150 | 2.1935 | 5.0300 | 1.1101 | 0.0143 | 0.3454 | 0.0129 | 0.3112 |
| 160 | 55.74 | 0.05 | -0.0156 | 0.0031 | 0.0134 | -0.1561 | -0.6780 | 1.0705 | 0.0146 | 0.3359 | 0.0135 | 0.3120 |
| 161 | 55.87 | 0.05 | -0.0245 | 0.0023 | 0.0107 | -0.0545 | -0.4370 | 1.0961 | 0.0140 | 0.3431 | 0.0128 | 0.3130 |
| 162 | 56.04 | 0.05 | 0.0015 | 0.0046 | 0.0278 | 9.0000 | 18.0000 | 1.0849 | 0.0126 | 0.3421 | 0.0117 | 0.3154 |
| 163 | 56.18 | 0.06 | -0.0260 | 0.0046 | 0.0171 | -0.1655 | -0.6103 | 1.1032 | 0.0137 | 0.3463 | 0.0124 | 0.3135 |
| 164 | 56.34 | 0.06 | -0.0275 | 0.0043 | 0.0158 | -0.0611 | -0.4173 | 1.0877 | 0.0137 | 0.3384 | 0.0128 | 0.3169 |
| 165 | 56.50 | 0.04 | -0.0312 | 0.0015 | 0.0231 | -0.0619 | -0.7399 | 1.0900 | 0.0124 | 0.3492 | 0.0113 | 0.3204 |
| 166 | 56.65 | 0.04 | -0.0316 | 0.0035 | 0.0216 | -0.1246 | -0.6791 | 1.1071 | 0.0128 | 0.3462 | 0.0116 | 0.3127 |
| 167 | 56.80 | 0.06 | -0.0414 | 0.0012 | 0.0231 | -0.0280 | -0.5571 | 1.1141 | 0.0118 | 0.3537 | 0.0106 | 0.3175 |
| 168 | 56.95 | 0.02 | -0.0365 | 0.0014 | 0.0204 | -0.0205 | -0.3601 | 1.0917 | 0.0115 | 0.3474 | 0.0105 | 0.3182 |
| 169 | 57.10 | 0.03 | -0.0317 | -0.0027 | 0.0131 | 0.0266 | -0.1290 | 1.0916 | 0.0115 | 0.3519 | 0.0105 | 0.3224 |
| 170 | 57.24 | -0.02 | -0.0264 | -0.0019 | 0.0275 | 0.0240 | -0.3421 | 1.0972 | 0.0106 | 0.3523 | 0.0097 | 0.3211 |
| 171 | 57.39 | 0.02 | -0.0379 | -0.0027 | 0.0115 | 0.0196 | -0.0835 | 1.1188 | 0.0112 | 0.3573 | 0.0100 | 0.3195 |
| 172 | 57.55 | -0.01 | -0.0160 | -0.0012 | 0.0234 | 0.0165 | -0.2091 | 1.1364 | 0.0109 | 0.3657 | 0.0096 | 0.3218 |
| 173 | 57.70 | -0.10 | -0.0785 | -0.0026 | 0.0321 | 0.0093 | -0.4091 | 1.1466 | 0.0107 | 0.3646 | 0.0093 | 0.3180 |
| 174 | 57.84 | -0.08 | -0.0763 | 0.0004 | 0.0301 | -0.0049 | -0.3842 | 1.1550 | 0.0104 | 0.3687 | 0.0090 | 0.3192 |
| 175 | 58.00 | -0.05 | -0.0305 | 0.0031 | 0.0406 | -0.1000 | -1.3219 | 1.1776 | 0.0084 | 0.3790 | 0.0071 | 0.3185 |
| 176 | 58.12 | -0.11 | -0.0371 | 0.0015 | 0.0290 | -0.0417 | -0.7839 | 1.1722 | 0.0081 | 0.3701 | 0.0069 | 0.3157 |
| 177 | 58.17 | -0.05 | -0.0346 | 0.0019 | 0.0304 | -0.0557 | -0.8774 | 1.1862 | 0.0086 | 0.3747 | 0.0071 | 0.3158 |
| 178 | 58.17 | -0.12 | -0.0514 | -0.0004 | 0.0206 | 0.0075 | -0.4053 | 1.1304 | 0.0093 | 0.3584 | 0.0081 | 0.3148 |

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 149 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 81 DEG 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | -0.01 | 0.0441 | 0.0000 | 0.0232 | 0.0000 | 0.5252 | -0.0743 | -0.0228 | -0.2735 | 0.0338 | 0.4057 |
| 2 | -5.69 | 0.00 | 0.0388 | 0.0000 | 0.0227 | 0.0000 | 0.5846 | -0.0003 | -0.0231 | -0.2704 | 0.0345 | 0.4054 |
| 3 | -5.68 | 0.00 | 0.0368 | 0.0000 | 0.0217 | 0.0000 | 0.5597 | -0.0685 | -0.0225 | -0.2731 | 0.0336 | 0.4085 |
| 4 | -4.89 | 0.01 | 0.0353 | 0.0000 | 0.0186 | 0.0000 | 0.5051 | -0.0770 | -0.0233 | -0.2737 | 0.0345 | 0.4043 |
| 5 | -3.85 | 0.00 | -0.0010 | 0.0000 | 0.0206 | 0.0000 | -21.3000 | -0.0272 | -0.0262 | -0.3580 | 0.0283 | 0.3661 |
| 6 | -1.86 | 0.01 | 0.0056 | 0.0000 | 0.0234 | 0.0000 | 2.4945 | -0.0815 | -0.0293 | -0.3403 | 0.0340 | 0.3650 |
| 7 | -0.04 | 0.01 | 0.0014 | 0.0000 | 0.0206 | 0.0000 | 17.9333 | -0.0862 | -0.0379 | -0.3258 | 0.0476 | 0.4016 |
| 8 | 1.76 | 0.00 | -0.0013 | 0.0000 | 0.0207 | 0.0000 | -21.3077 | -0.0782 | -0.0465 | -0.2863 | 0.0648 | 0.3686 |
| 9 | 3.80 | -0.00 | -0.0008 | 0.0000 | 0.0203 | 0.0000 | -4.0147 | -0.0854 | -0.0496 | -0.2541 | 0.0764 | 0.3514 |
| 10 | 5.80 | -0.00 | -0.0052 | 0.0000 | 0.0201 | 0.0000 | -2.8526 | -0.0856 | -0.0544 | -0.2331 | 0.0962 | 0.4121 |
| 11 | 7.25 | 0.00 | -0.0143 | 0.0000 | 0.0216 | 0.0000 | -1.5135 | -0.4296 | -0.0550 | -0.1826 | 0.1280 | 0.4252 |
| 12 | 9.03 | 0.00 | -0.0274 | 0.0000 | 0.0185 | 0.0000 | -0.6761 | -0.2695 | -0.0479 | -0.1236 | 0.1653 | 0.4270 |
| 13 | 10.87 | -0.00 | -0.0354 | 0.0000 | 0.0175 | 0.0000 | -0.5041 | -0.1492 | -0.0302 | -0.0692 | 0.2025 | 0.4638 |
| 14 | 12.86 | 0.00 | -0.0085 | 0.0000 | 0.0200 | 0.0000 | -2.2500 | -0.0518 | -0.0063 | -0.0306 | 0.1210 | 0.5503 |
| 15 | 14.52 | -0.01 | 0.0055 | 0.0000 | 0.0152 | 0.0000 | 1.5340 | 0.0336 | 0.0217 | 0.0050 | 0.5625 | 0.2325 |
| 16 | 16.42 | -0.01 | 0.0127 | 0.0000 | 0.0124 | 0.0000 | 0.9097 | 0.1474 | 0.0468 | 0.0518 | 0.3174 | 0.3514 |
| 17 | 18.31 | -0.01 | -0.0026 | 0.0000 | -0.0002 | 0.0000 | 0.0741 | 0.2604 | 0.0699 | 0.0595 | 0.2451 | 0.3548 |
| 18 | 20.17 | -0.02 | 0.0027 | 0.0000 | -0.0008 | 0.0000 | -0.2857 | 0.4040 | 0.0610 | 0.1851 | 0.1745 | 0.3588 |
| 19 | 22.06 | -0.04 | 0.0057 | 0.0000 | -0.0025 | 0.0000 | -1.5593 | 0.6024 | 0.0841 | 0.2451 | 0.1357 | 0.4136 |
| 20 | 23.92 | -0.04 | 0.0112 | 0.0000 | -0.0029 | 0.0000 | -1.1207 | 0.5399 | 0.0728 | 0.2107 | 0.1347 | 0.3903 |
| 21 | 25.80 | -0.04 | 0.0218 | 0.0000 | -0.0117 | 0.0000 | -0.5354 | 0.5488 | 0.0616 | 0.2192 | 0.1122 | 0.3554 |
| 22 | 27.70 | 0.04 | 0.0445 | 0.0000 | 0.0055 | 0.0000 | 0.0967 | 0.5490 | 0.0591 | 0.2200 | 0.1086 | 0.4162 |
| 23 | 27.89 | 0.01 | 0.0481 | 0.0000 | -0.0044 | 0.0000 | -0.0924 | 0.5390 | 0.0583 | 0.2264 | 0.1081 | 0.4237 |
| 24 | 28.24 | 0.01 | 0.0501 | 0.0000 | -0.0001 | 0.0000 | -0.0019 | 0.5337 | 0.0594 | 0.2339 | 0.1114 | 0.4383 |
| 25 | 28.49 | 0.01 | 0.0538 | 0.0000 | 0.0030 | 0.0000 | 0.0469 | 0.5375 | 0.0566 | 0.2371 | 0.1015 | 0.4407 |
| 26 | 28.83 | 0.03 | 0.0742 | 0.0000 | 0.0075 | 0.0000 | 0.1000 | 0.5319 | 0.0552 | 0.2289 | 0.1038 | 0.4491 |
| 27 | 29.14 | 0.03 | 0.0695 | 0.0000 | 0.0154 | 0.0000 | 0.1717 | 0.5334 | 0.0527 | 0.2391 | 0.0988 | 0.4483 |
| 28 | 29.42 | 0.02 | 0.0717 | 0.0000 | 0.0106 | 0.0000 | 0.0942 | 0.5306 | 0.0515 | 0.2410 | 0.0971 | 0.4541 |
| 29 | 29.70 | 0.02 | 0.0665 | 0.0000 | 0.0062 | 0.0000 | 0.0639 | 0.5194 | 0.0498 | 0.2378 | 0.0959 | 0.4579 |
| 30 | 29.98 | 0.02 | 0.0636 | 0.0000 | 0.0036 | 0.0000 | 0.0408 | 0.5257 | 0.0487 | 0.2415 | 0.0927 | 0.4594 |
| 31 | 30.25 | 0.04 | 0.0716 | 0.0000 | 0.0057 | 0.0000 | 0.0795 | 0.5198 | 0.0487 | 0.2400 | 0.0937 | 0.4617 |
| 32 | 30.52 | 0.03 | 0.0614 | 0.0000 | 0.0017 | 0.0000 | 0.0263 | 0.5265 | 0.0481 | 0.2407 | 0.0914 | 0.4572 |
| 33 | 30.80 | 0.04 | 0.0645 | 0.0000 | 0.0120 | 0.0000 | 0.1409 | 0.5267 | 0.0479 | 0.2462 | 0.0909 | 0.4675 |
| 34 | 31.08 | 0.04 | 0.0626 | 0.0000 | 0.0147 | 0.0000 | 0.1580 | 0.5298 | 0.0474 | 0.2496 | 0.0903 | 0.4715 |
| 35 | 31.35 | 0.05 | 0.0675 | 0.0000 | 0.0132 | 0.0000 | 0.1510 | 0.5329 | 0.0473 | 0.2511 | 0.0887 | 0.4711 |
| 36 | 31.61 | 0.04 | 0.0744 | 0.0000 | 0.0160 | 0.0000 | 0.1877 | 0.5328 | 0.0479 | 0.2522 | 0.0858 | 0.4734 |
| 37 | 31.90 | 0.04 | 0.0752 | 0.0000 | 0.0188 | 0.0000 | 0.0948 | 0.5329 | 0.0476 | 0.2544 | 0.0853 | 0.4775 |
| 38 | 32.15 | 0.05 | 0.0675 | 0.0000 | 0.0152 | 0.0000 | 0.1510 | 0.5390 | 0.0473 | 0.2561 | 0.0877 | 0.4789 |
| 39 | 32.41 | 0.05 | 0.0623 | 0.0000 | 0.0117 | 0.0000 | 0.1419 | 0.5419 | 0.0476 | 0.2595 | 0.0878 | 0.4788 |
| 40 | 32.68 | 0.06 | 0.0691 | 0.0000 | 0.0075 | 0.0000 | 0.1069 | 0.5511 | 0.0482 | 0.2633 | 0.0839 | 0.4778 |
| 41 | 32.94 | 0.05 | 0.0678 | 0.0000 | 0.0152 | 0.0000 | 0.1963 | 0.5506 | 0.0453 | 0.2650 | 0.0822 | 0.4814 |
| 42 | 33.18 | 0.06 | 0.0658 | 0.0000 | 0.0175 | 0.0000 | 0.1944 | 0.5565 | 0.0453 | 0.2678 | 0.0813 | 0.4811 |
| 43 | 33.46 | 0.04 | 0.0578 | 0.0000 | 0.0152 | 0.0000 | 0.1963 | 0.5507 | 0.0453 | 0.2684 | 0.0822 | 0.4875 |
| 44 | 33.70 | 0.04 | 0.1063 | 0.0000 | 0.0222 | 0.0000 | 0.2240 | 0.5658 | 0.0441 | 0.2727 | 0.0776 | 0.4819 |
| 45 | 33.93 | 0.05 | 0.0615 | 0.0000 | 0.0158 | 0.0000 | 0.1932 | 0.5667 | 0.0441 | 0.2730 | 0.0775 | 0.4800 |
| 46 | 34.19 | 0.03 | 0.0671 | 0.0000 | 0.0183 | 0.0000 | 0.2104 | 0.5750 | 0.0432 | 0.2777 | 0.0752 | 0.4830 |

PARTIAL MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 149 | 0.90 | 1.7 | 0.0 | 61 | OF23 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.46 | 0.03 | 0.0923 | 9.9999 | 0.0208 | 9.9999 | 0.2257 | 0.5717 | 0.0441 | 0.2754 | 0.0771 | 0.4817 |
| 48 | 34.00 | 0.04 | 0.0872 | 9.9999 | 0.0182 | 9.9999 | 0.1858 | 0.5609 | 0.0432 | 0.2742 | 0.0744 | 0.4807 |
| 49 | 34.93 | 0.03 | 0.0818 | 9.9999 | 0.0148 | 9.9999 | 0.1804 | 0.5800 | 0.0428 | 0.2810 | 0.0739 | 0.4844 |
| 50 | 35.17 | 0.04 | 0.0818 | 9.9999 | 0.0158 | 9.9999 | 0.1934 | 0.5977 | 0.0428 | 0.2844 | 0.0717 | 0.4759 |
| 51 | 35.41 | 0.02 | 0.0870 | 9.9999 | 0.0183 | 9.9999 | 0.2136 | 0.5919 | 0.0428 | 0.2873 | 0.0724 | 0.4855 |
| 52 | 35.69 | 0.01 | 0.0894 | 9.9999 | 0.0191 | 9.9999 | 0.2208 | 0.5881 | 0.0428 | 0.2867 | 0.0728 | 0.4874 |
| 53 | 35.88 | 0.02 | 0.0920 | 9.9999 | 0.0238 | 9.9999 | 0.2592 | 0.5911 | 0.0428 | 0.2902 | 0.0725 | 0.4910 |
| 54 | 36.11 | -0.00 | 0.0711 | 9.9999 | 0.0150 | 9.9999 | 0.2103 | 0.5972 | 0.0423 | 0.2906 | 0.0708 | 0.4867 |
| 55 | 36.34 | 0.01 | 0.0735 | 9.9999 | 0.0161 | 9.9999 | 0.2192 | 0.5963 | 0.0419 | 0.2934 | 0.0702 | 0.4921 |
| 56 | 36.56 | 0.01 | 0.0788 | 9.9999 | 0.0188 | 9.9999 | 0.2105 | 0.6053 | 0.0413 | 0.2951 | 0.0682 | 0.4875 |
| 57 | 36.83 | 0.03 | 0.0841 | 9.9999 | 0.0182 | 9.9999 | 0.2144 | 0.6142 | 0.0410 | 0.3001 | 0.0668 | 0.4885 |
| 58 | 37.06 | -0.00 | 0.0814 | 9.9999 | 0.0219 | 9.9999 | 0.2096 | 0.6142 | 0.0410 | 0.3001 | 0.0668 | 0.4885 |
| 59 | 37.30 | 0.01 | 0.0716 | 9.9999 | 0.0150 | 9.9999 | 0.2136 | 0.6261 | 0.0407 | 0.3020 | 0.0650 | 0.4824 |
| 60 | 37.53 | 0.04 | 0.0741 | 9.9999 | 0.0174 | 9.9999 | 0.2281 | 0.6501 | 0.0394 | 0.3136 | 0.0606 | 0.4823 |
| 61 | 37.76 | 0.02 | 0.0769 | 9.9999 | 0.0159 | 9.9999 | 0.2245 | 0.6530 | 0.0394 | 0.3148 | 0.0603 | 0.4821 |
| 62 | 37.99 | 0.00 | 0.0785 | 9.9999 | 0.0208 | 9.9999 | 0.2629 | 0.6492 | 0.0387 | 0.3141 | 0.0556 | 0.4838 |
| 63 | 38.24 | 0.01 | 0.0785 | 9.9999 | 0.0206 | 9.9999 | 0.2629 | 0.6639 | 0.0387 | 0.3164 | 0.0583 | 0.4796 |
| 64 | 38.47 | 0.02 | 0.0765 | 9.9999 | 0.0206 | 9.9999 | 0.2629 | 0.6551 | 0.0387 | 0.3189 | 0.0591 | 0.4867 |
| 65 | 38.68 | 0.03 | 0.0774 | 9.9999 | 0.0217 | 9.9999 | 0.2768 | 0.6725 | 0.0381 | 0.3212 | 0.0566 | 0.4773 |
| 66 | 38.91 | 0.01 | 0.0699 | 9.9999 | 0.0191 | 9.9999 | 0.1818 | 0.6759 | 0.0381 | 0.3236 | 0.0564 | 0.4788 |
| 67 | 39.19 | 0.01 | 0.0858 | 9.9999 | 0.0145 | 9.9999 | 0.2208 | 0.6907 | 0.0375 | 0.3280 | 0.0543 | 0.4748 |
| 68 | 39.40 | 0.01 | 0.0706 | 9.9999 | 0.0150 | 9.9999 | 0.2691 | 0.6907 | 0.0375 | 0.3302 | 0.0543 | 0.4780 |
| 69 | 39.61 | 0.01 | 0.0695 | 9.9999 | 0.0101 | 9.9999 | 0.2031 | 0.7026 | 0.0372 | 0.3332 | 0.0530 | 0.4742 |
| 70 | 39.82 | 0.01 | 0.0644 | 9.9999 | 0.0127 | 9.9999 | 0.2870 | 0.7045 | 0.0370 | 0.3328 | 0.0525 | 0.4724 |
| 71 | 40.03 | -0.01 | 0.0588 | 9.9999 | 0.0081 | 9.9999 | 0.1627 | 0.7104 | 0.0364 | 0.3343 | 0.0512 | 0.4708 |
| 72 | 40.23 | 0.00 | 0.0615 | 9.9999 | 0.0095 | 9.9999 | 0.2258 | 0.7224 | 0.0358 | 0.3384 | 0.0496 | 0.4684 |
| 73 | 40.46 | -0.01 | 0.0618 | 9.9999 | 0.0118 | 9.9999 | 0.2771 | 0.7313 | 0.0355 | 0.3412 | 0.0486 | 0.4668 |
| 74 | 40.67 | -0.01 | 0.0592 | 9.9999 | 0.0113 | 9.9999 | 0.2682 | 0.7314 | 0.0352 | 0.3412 | 0.0462 | 0.4665 |
| 75 | 40.86 | 0.01 | 0.0548 | 9.9999 | 0.0107 | 9.9999 | 0.3046 | 0.7313 | 0.0352 | 0.3401 | 0.0482 | 0.4651 |
| 76 | 41.07 | 0.01 | 0.0591 | 9.9999 | 0.0124 | 9.9999 | 0.3160 | 0.7432 | 0.0346 | 0.3442 | 0.0466 | 0.4631 |
| 77 | 41.29 | -0.01 | 0.0470 | 9.9999 | 0.0140 | 9.9999 | 0.2977 | 0.7550 | 0.0343 | 0.3473 | 0.0455 | 0.4599 |
| 78 | 41.47 | 0.00 | 0.0591 | 9.9999 | 0.0124 | 9.9999 | 0.3160 | 0.7610 | 0.0341 | 0.3495 | 0.0448 | 0.4597 |
| 79 | 41.67 | -0.02 | 0.0364 | 9.9999 | 0.0132 | 9.9999 | 0.3636 | 0.7661 | 0.0338 | 0.3522 | 0.0442 | 0.4605 |
| 80 | 41.86 | -0.00 | 0.0591 | 9.9999 | 0.0124 | 9.9999 | 0.3160 | 0.7522 | 0.0341 | 0.3470 | 0.0453 | 0.4613 |
| 81 | 42.07 | -0.01 | 0.0443 | 9.9999 | 0.0145 | 9.9999 | 0.3355 | 0.7641 | 0.0335 | 0.3511 | 0.0438 | 0.4595 |
| 82 | 42.24 | -0.00 | 0.0591 | 9.9999 | 0.0178 | 9.9999 | 0.2295 | 0.7730 | 0.0332 | 0.3528 | 0.0429 | 0.4564 |
| 83 | 42.43 | 0.00 | 0.0350 | 9.9999 | 0.0134 | 9.9999 | 0.3960 | 0.7731 | 0.0332 | 0.3550 | 0.0429 | 0.4592 |
| 84 | 42.63 | -0.00 | 0.0266 | 9.9999 | 0.0115 | 9.9999 | 0.4020 | 0.8026 | 0.0324 | 0.3637 | 0.0404 | 0.4531 |
| 85 | 42.77 | 0.01 | 0.0364 | 9.9999 | 0.0132 | 9.9999 | 0.3636 | 0.7790 | 0.0327 | 0.3578 | 0.0420 | 0.4590 |
| 86 | 42.97 | -0.00 | 0.0309 | 9.9999 | 0.0132 | 9.9999 | 0.3634 | 0.8145 | 0.0316 | 0.3667 | 0.0387 | 0.4501 |
| 87 | 43.18 | 0.00 | 0.0260 | 9.9999 | 0.0103 | 9.9999 | 0.3978 | 0.8116 | 0.0316 | 0.3664 | 0.0389 | 0.4514 |
| 88 | 43.36 | -0.02 | 0.0338 | 9.9999 | 0.0140 | 9.9999 | 0.4143 | 0.8059 | 0.0313 | 0.3660 | 0.0388 | 0.4541 |
| 89 | 43.55 | -0.00 | 0.0363 | 9.9999 | 0.0132 | 9.9999 | 0.4202 | 0.8028 | 0.0318 | 0.3658 | 0.0397 | 0.4558 |
| 90 | 43.71 | -0.00 | 0.0433 | 9.9999 | 0.0204 | 9.9999 | 0.4124 | 0.8029 | 0.0316 | 0.3658 | 0.0393 | 0.4556 |
| 91 | 43.92 | 0.01 | 0.0388 | 9.9999 | 0.0185 | 9.9999 | 0.4776 | 0.8030 | 0.0313 | 0.3658 | 0.0389 | 0.4555 |
| 92 | 44.13 | -0.01 | 0.0154 | 9.9999 | 0.0105 | 9.9999 | 0.6612 | 0.8308 | 0.0302 | 0.3774 | 0.0361 | 0.4509 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 149 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF BODY23 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.28 | 0.02 | 0.0452 | 0.9999 | 0.0214 | 0.9999 | 0.4353 | 0.8087 | 0.0313 | 0.3694 | 0.0387 | 0.4567 |
| 94 | 44.46 | 0.00 | 0.0385 | 0.9999 | 0.0165 | 0.9999 | 0.4243 | 0.8295 | 0.0304 | 0.3752 | 0.0366 | 0.4524 |
| 95 | 44.66 | -0.01 | 0.0491 | 0.9999 | 0.0234 | 0.9999 | 0.4774 | 0.8145 | 0.0313 | 0.3698 | 0.0386 | 0.4540 |
| 96 | 44.84 | -0.00 | 0.0578 | 0.9999 | 0.0251 | 0.9999 | 0.4399 | 0.8088 | 0.0307 | 0.3671 | 0.0375 | 0.4539 |
| 97 | 45.01 | -0.02 | -0.0062 | 0.9999 | 0.0041 | 0.9999 | -21.0000 | 0.8531 | 0.0296 | 0.3612 | 0.0349 | 0.4468 |
| 98 | 45.19 | -0.00 | 0.0544 | 0.9999 | 0.0245 | 0.9999 | 0.4574 | 0.8205 | 0.0307 | 0.3713 | 0.0374 | 0.4525 |
| 99 | 45.39 | -0.01 | 0.0367 | 0.9999 | 0.0226 | 0.9999 | 0.5312 | 0.8414 | 0.0298 | 0.3782 | 0.0356 | 0.4495 |
| 100 | 45.58 | -0.02 | 0.0263 | 0.9999 | 0.0177 | 0.9999 | 0.6246 | 0.8356 | 0.0295 | 0.3777 | 0.0353 | 0.4521 |
| 101 | 45.71 | -0.02 | 0.0205 | 0.9999 | 0.0140 | 0.9999 | 0.6840 | 0.8415 | 0.0295 | 0.3793 | 0.0351 | 0.4508 |
| 102 | 45.90 | 0.01 | 0.0167 | 0.9999 | 0.0113 | 0.9999 | 0.8064 | 0.8632 | 0.0301 | 0.3879 | 0.0349 | 0.4494 |
| 103 | 46.07 | -0.03 | 0.0388 | 0.9999 | 0.0206 | 0.9999 | 0.5299 | 0.8398 | 0.0293 | 0.3785 | 0.0345 | 0.4507 |
| 104 | 46.26 | -0.01 | 0.0178 | 0.9999 | 0.0156 | 0.9999 | 0.8913 | 0.8574 | 0.0296 | 0.3853 | 0.0345 | 0.4494 |
| 105 | 46.44 | -0.01 | 0.0335 | 0.9999 | 0.0202 | 0.9999 | 0.6023 | 0.8634 | 0.0290 | 0.3846 | 0.0336 | 0.4455 |
| 106 | 46.60 | -0.02 | 0.0251 | 0.9999 | 0.0152 | 0.9999 | 0.8011 | 0.8560 | 0.0295 | 0.3848 | 0.0345 | 0.4493 |
| 107 | 46.80 | -0.02 | 0.0230 | 0.9999 | 0.0173 | 0.9999 | 0.7521 | 0.8675 | 0.0301 | 0.3866 | 0.0347 | 0.4457 |
| 108 | 46.98 | -0.04 | 0.0283 | 0.9999 | 0.0177 | 0.9999 | 0.8246 | 0.8737 | 0.0298 | 0.3912 | 0.0342 | 0.4492 |
| 109 | 47.12 | -0.03 | 0.0230 | 0.9999 | 0.0173 | 0.9999 | 0.7521 | 0.8665 | 0.0284 | 0.3845 | 0.0319 | 0.4446 |
| 110 | 47.30 | -0.01 | 0.0230 | 0.9999 | 0.0173 | 0.9999 | 0.7521 | 0.8912 | 0.0292 | 0.3938 | 0.0328 | 0.4418 |
| 111 | 47.48 | -0.01 | 0.0209 | 0.9999 | 0.0160 | 0.9999 | 0.7867 | 0.8811 | 0.0289 | 0.3914 | 0.0325 | 0.4442 |
| 112 | 47.66 | -0.02 | 0.0269 | 0.9999 | 0.0246 | 0.9999 | 0.8907 | 0.8899 | 0.0285 | 0.3941 | 0.0325 | 0.4428 |
| 113 | 47.82 | 0.00 | 0.0462 | 0.9999 | 0.0293 | 0.9999 | 0.6347 | 0.8655 | 0.0284 | 0.3953 | 0.0320 | 0.4464 |
| 114 | 48.00 | -0.03 | 0.0282 | 0.9999 | 0.0187 | 0.9999 | 0.8044 | 0.9001 | 0.0284 | 0.3988 | 0.0315 | 0.4428 |
| 115 | 48.18 | -0.00 | 0.0100 | 0.9999 | 0.0111 | 0.9999 | 1.1058 | 0.8983 | 0.0300 | 0.4002 | 0.0336 | 0.4455 |
| 116 | 48.34 | -0.02 | 0.0100 | 0.9999 | 0.0111 | 0.9999 | 1.1058 | 0.8984 | 0.0294 | 0.4002 | 0.0328 | 0.4455 |
| 117 | 48.54 | -0.01 | 0.0230 | 0.9999 | 0.0172 | 0.9999 | 0.7479 | 0.8956 | 0.0289 | 0.3977 | 0.0323 | 0.4441 |
| 118 | 48.69 | -0.01 | 0.0209 | 0.9999 | 0.0160 | 0.9999 | 0.7867 | 0.8909 | 0.0295 | 0.3958 | 0.0331 | 0.4443 |
| 119 | 48.85 | 0.01 | 0.0334 | 0.9999 | 0.0201 | 0.9999 | 0.6012 | 0.8893 | 0.0294 | 0.3929 | 0.0331 | 0.4418 |
| 120 | 49.03 | 0.03 | 0.0358 | 0.9999 | 0.0244 | 0.9999 | 0.6019 | 0.9013 | 0.0289 | 0.3981 | 0.0321 | 0.4417 |
| 121 | 49.21 | 0.02 | 0.0488 | 0.9999 | 0.0285 | 0.9999 | 0.5830 | 0.8982 | 0.0294 | 0.3969 | 0.0328 | 0.4418 |
| 122 | 49.39 | 0.07 | 0.0384 | 0.9999 | 0.0246 | 0.9999 | 0.6407 | 0.8938 | 0.0294 | 0.3970 | 0.0329 | 0.4442 |
| 123 | 49.60 | 0.08 | 0.0385 | 0.9999 | 0.0225 | 0.9999 | 0.5840 | 0.9050 | 0.0316 | 0.4002 | 0.0350 | 0.4423 |
| 124 | 49.78 | 0.02 | 0.0383 | 0.9999 | 0.0226 | 0.9999 | 0.5865 | 0.8832 | 0.0300 | 0.3946 | 0.0340 | 0.4468 |
| 125 | 49.96 | 0.01 | 0.0409 | 0.9999 | 0.0258 | 0.9999 | 0.6297 | 0.8967 | 0.0286 | 0.3982 | 0.0318 | 0.4446 |
| 126 | 50.13 | 0.03 | 0.0281 | 0.9999 | 0.0217 | 0.9999 | 0.7759 | 0.8997 | 0.0283 | 0.3995 | 0.0314 | 0.4440 |
| 127 | 50.31 | 0.05 | 0.0382 | 0.9999 | 0.0266 | 0.9999 | 0.6970 | 0.9088 | 0.0271 | 0.4012 | 0.0298 | 0.4416 |
| 128 | 50.49 | 0.02 | 0.0383 | 0.9999 | 0.0245 | 0.9999 | 0.6396 | 0.8983 | 0.0283 | 0.3989 | 0.0315 | 0.4440 |
| 129 | 50.66 | 0.05 | 0.0352 | 0.9999 | 0.0253 | 0.9999 | 0.7100 | 0.9100 | 0.0283 | 0.4029 | 0.0311 | 0.4428 |
| 130 | 50.84 | 0.07 | 0.0331 | 0.9999 | 0.0221 | 0.9999 | 0.8078 | 0.9100 | 0.0277 | 0.4028 | 0.0304 | 0.4427 |
| 131 | 50.99 | 0.05 | 0.0433 | 0.9999 | 0.0265 | 0.9999 | 0.6214 | 0.9066 | 0.0270 | 0.4063 | 0.0297 | 0.4445 |
| 132 | 51.20 | 0.05 | 0.0331 | 0.9999 | 0.0226 | 0.9999 | 0.8047 | 0.9085 | 0.0270 | 0.4099 | 0.0297 | 0.4402 |
| 133 | 51.35 | 0.04 | 0.0433 | 0.9999 | 0.0255 | 0.9999 | 0.5969 | 0.9102 | 0.0267 | 0.4060 | 0.0294 | 0.4461 |
| 134 | 51.54 | 0.00 | 0.0465 | 0.9999 | 0.0273 | 0.9999 | 0.5626 | 0.9084 | 0.0270 | 0.4042 | 0.0297 | 0.4449 |
| 135 | 51.74 | 0.06 | 0.0336 | 0.9999 | 0.0288 | 0.9999 | 0.5360 | 0.9011 | 0.0270 | 0.3998 | 0.0300 | 0.4437 |
| 136 | 51.91 | 0.01 | 0.0485 | 0.9999 | 0.0314 | 0.9999 | 0.6487 | 0.9142 | 0.0264 | 0.4056 | 0.0285 | 0.4437 |
| 137 | 52.06 | 0.05 | 0.0433 | 0.9999 | 0.0255 | 0.9999 | 0.5969 | 0.9067 | 0.0270 | 0.4024 | 0.0298 | 0.4438 |
| 138 | 52.23 | 0.06 | 0.0485 | 0.9999 | 0.0284 | 0.9999 | 0.5845 | 0.9019 | 0.0282 | 0.3983 | 0.0312 | 0.4416 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 145 MACH 0.90 RNIC-6 1.7 PHI 0.0 CONF 81 DEL 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CAF3 | CM3 | CA3 | ACPF3 | YCPF3 | CAF4 | CM4 | CA4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.36 | 0.09 | 0.0483 | 0.0000 | 0.0253 | 0.0000 | 0.6068 | 0.9006 | 0.0273 | 0.4019 | 0.0303 | 0.4462 |
| 140 | 52.56 | 0.07 | 0.0533 | 0.0000 | 0.0317 | 0.0000 | 0.5939 | 0.8917 | 0.0276 | 0.3937 | 0.0305 | 0.4415 |
| 141 | 52.74 | 0.07 | 0.0560 | 0.0000 | 0.0325 | 0.0000 | 0.5879 | 0.8813 | 0.0287 | 0.3903 | 0.0325 | 0.4429 |
| 142 | 52.89 | 0.07 | 0.0457 | 0.0000 | 0.0281 | 0.0000 | 0.6139 | 0.8902 | 0.0281 | 0.3952 | 0.0315 | 0.4440 |
| 143 | 53.00 | 0.09 | 0.0431 | 0.0000 | 0.0268 | 0.0000 | 0.6219 | 0.8987 | 0.0281 | 0.3985 | 0.0312 | 0.4418 |
| 144 | 53.22 | 0.10 | 0.0388 | 0.0000 | 0.0241 | 0.0000 | 0.6480 | 0.9048 | 0.0289 | 0.3994 | 0.0298 | 0.4414 |
| 145 | 53.38 | 0.07 | 0.0482 | 0.0000 | 0.0292 | 0.0000 | 0.6080 | 0.9092 | 0.0286 | 0.4013 | 0.0293 | 0.4414 |
| 146 | 53.53 | 0.06 | 0.0506 | 0.0000 | 0.0315 | 0.0000 | 0.6196 | 0.9005 | 0.0280 | 0.3974 | 0.0296 | 0.4413 |
| 147 | 53.71 | 0.08 | 0.0566 | 0.0000 | 0.0331 | 0.0000 | 0.5851 | 0.9017 | 0.0289 | 0.3980 | 0.0295 | 0.4414 |
| 148 | 53.89 | 0.08 | 0.0360 | 0.0000 | 0.0243 | 0.0000 | 0.6396 | 0.9031 | 0.0284 | 0.3987 | 0.0298 | 0.4415 |
| 149 | 54.00 | 0.05 | 0.0378 | 0.0000 | 0.0284 | 0.0000 | 0.7500 | 0.8972 | 0.0269 | 0.3940 | 0.0300 | 0.4391 |
| 150 | 54.17 | 0.03 | 0.0535 | 0.0000 | 0.0296 | 0.0000 | 0.5542 | 0.9161 | 0.0283 | 0.4032 | 0.0288 | 0.4401 |
| 151 | 54.33 | 0.05 | 0.0534 | 0.0000 | 0.0306 | 0.0000 | 0.5732 | 0.9266 | 0.0295 | 0.4066 | 0.0275 | 0.4412 |
| 152 | 54.48 | 0.06 | 0.0481 | 0.0000 | 0.0314 | 0.0000 | 0.6000 | 0.9267 | 0.0292 | 0.4131 | 0.0272 | 0.4458 |
| 153 | 54.64 | 0.04 | 0.0534 | 0.0000 | 0.0306 | 0.0000 | 0.5732 | 0.9266 | 0.0295 | 0.4055 | 0.0275 | 0.4424 |
| 154 | 54.78 | 0.07 | 0.0424 | 0.0000 | 0.0295 | 0.0000 | 0.6062 | 0.9154 | 0.0292 | 0.4055 | 0.0274 | 0.4458 |
| 155 | 54.93 | 0.08 | 0.0375 | 0.0000 | 0.0253 | 0.0000 | 0.6607 | 0.9206 | 0.0252 | 0.4102 | 0.0272 | 0.4492 |
| 156 | 55.11 | 0.07 | 0.0524 | 0.0000 | 0.0306 | 0.0000 | 0.5732 | 0.9267 | 0.0245 | 0.4208 | 0.0268 | 0.4520 |
| 157 | 55.26 | 0.07 | 0.0438 | 0.0000 | 0.0344 | 0.0000 | 0.5417 | 0.9298 | 0.0244 | 0.4240 | 0.0283 | 0.4560 |
| 158 | 55.40 | 0.01 | 0.0456 | 0.0000 | 0.0286 | 0.0000 | 0.6131 | 0.9165 | 0.0244 | 0.4265 | 0.0268 | 0.4668 |
| 159 | 55.57 | 0.04 | 0.0481 | 0.0000 | 0.0271 | 0.0000 | 0.5831 | 0.9140 | 0.0240 | 0.4233 | 0.0263 | 0.4631 |
| 160 | 55.74 | 0.05 | 0.0456 | 0.0000 | 0.0265 | 0.0000 | 0.5866 | 0.9140 | 0.0246 | 0.4276 | 0.0265 | 0.4675 |
| 161 | 55.87 | 0.05 | 0.0481 | 0.0000 | 0.0291 | 0.0000 | 0.6064 | 0.8994 | 0.0252 | 0.4234 | 0.0280 | 0.4708 |
| 162 | 56.04 | 0.05 | 0.0481 | 0.0000 | 0.0291 | 0.0000 | 0.6064 | 0.9112 | 0.0243 | 0.4317 | 0.0267 | 0.4737 |
| 163 | 56.18 | 0.06 | 0.0431 | 0.0000 | 0.0258 | 0.0000 | 0.5973 | 0.8960 | 0.0258 | 0.4208 | 0.0291 | 0.4745 |
| 164 | 56.34 | 0.00 | 0.0358 | 0.0000 | 0.0206 | 0.0000 | 0.6519 | 0.9111 | 0.0240 | 0.4326 | 0.0264 | 0.4748 |
| 165 | 56.50 | 0.04 | 0.0382 | 0.0000 | 0.0223 | 0.0000 | 0.5863 | 0.9050 | 0.0255 | 0.4324 | 0.0281 | 0.4777 |
| 166 | 56.65 | 0.04 | 0.0358 | 0.0000 | 0.0308 | 0.0000 | 0.5519 | 0.9062 | 0.0255 | 0.4259 | 0.0282 | 0.4766 |
| 167 | 56.80 | 0.00 | 0.0483 | 0.0000 | 0.0281 | 0.0000 | 0.5409 | 0.9033 | 0.0263 | 0.4315 | 0.0293 | 0.4793 |
| 168 | 56.95 | 0.02 | 0.0379 | 0.0000 | 0.0243 | 0.0000 | 0.6412 | 0.9091 | 0.0263 | 0.4353 | 0.0290 | 0.4786 |
| 169 | 57.10 | 0.03 | 0.0329 | 0.0000 | 0.0215 | 0.0000 | 0.6657 | 0.9262 | 0.0271 | 0.4395 | 0.0293 | 0.4795 |
| 170 | 57.24 | -0.02 | 0.0375 | 0.0000 | 0.0243 | 0.0000 | 0.6412 | 0.9260 | 0.0280 | 0.4410 | 0.0302 | 0.4763 |
| 171 | 57.39 | 0.02 | 0.0303 | 0.0000 | 0.0206 | 0.0000 | 0.6815 | 0.9468 | 0.0281 | 0.4459 | 0.0275 | 0.4752 |
| 172 | 57.55 | -0.01 | 0.0430 | 0.0000 | 0.0267 | 0.0000 | 0.6211 | 0.9437 | 0.0268 | 0.4465 | 0.0282 | 0.4732 |
| 173 | 57.70 | -0.10 | 0.0325 | 0.0000 | 0.0215 | 0.0000 | 0.6657 | 0.9307 | 0.0258 | 0.4384 | 0.0277 | 0.4711 |
| 174 | 57.84 | -0.08 | 0.0227 | 0.0000 | 0.0164 | 0.0000 | 0.7034 | 0.9276 | 0.0269 | 0.4405 | 0.0290 | 0.4746 |
| 175 | 58.00 | -0.05 | 0.0353 | 0.0000 | 0.0252 | 0.0000 | 0.7131 | 0.8987 | 0.0261 | 0.4269 | 0.0290 | 0.4748 |
| 176 | 58.12 | -0.11 | 0.0304 | 0.0000 | 0.0266 | 0.0000 | 0.6794 | 0.8950 | 0.0255 | 0.4239 | 0.0285 | 0.4747 |
| 177 | 58.17 | -0.05 | 0.0303 | 0.0000 | 0.0227 | 0.0000 | 0.7484 | 0.9076 | 0.0252 | 0.4281 | 0.0277 | 0.4717 |
| 178 | 58.17 | -0.12 | 0.0200 | 0.0000 | 0.0195 | 0.0000 | 0.8052 | 0.9017 | 0.0258 | 0.4256 | 0.0286 | 0.4720 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 PART 150 MACH 1.60 RNIC-6 1.7 PHI 0.0 CONF BLOWERS DELTA 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | -1.1340 | 3.7974 | 0.1455 | -0.2002 | 0.0191 | 0.7167 | 0.2470 | 0.4696 | -3.3487 |
| 2 | -5.74 | 0.00 | -1.1350 | 3.7842 | 0.1161 | -0.1749 | 0.0190 | 0.7167 | 0.2469 | 0.4677 | -3.3341 |
| 3 | -5.75 | -0.00 | -1.1545 | 3.7856 | 0.0480 | -0.1657 | 0.0186 | 0.7198 | 0.2485 | 0.4712 | -3.2672 |
| 4 | -5.65 | -0.00 | -1.1323 | 3.8248 | 0.0727 | -0.1004 | 0.0190 | 0.7193 | 0.2410 | 0.4782 | -3.3777 |
| 5 | -4.14 | -0.00 | -0.9979 | 3.8575 | 0.0625 | -0.2060 | 0.0256 | 0.7071 | 0.2271 | 0.4799 | -3.8671 |
| 6 | -2.65 | -0.00 | -0.8826 | 3.7542 | 0.0535 | -0.2107 | 0.0203 | 0.6761 | 0.2096 | 0.4670 | -4.3503 |
| 7 | -0.79 | 0.00 | -0.7215 | 3.8545 | 0.0711 | -0.1869 | 0.0148 | 0.6505 | 0.1927 | 0.4578 | -4.9272 |
| 8 | 1.04 | -0.01 | -0.5367 | 3.8007 | 0.0243 | -0.1431 | 0.0152 | 0.6200 | 0.1645 | 0.4355 | -6.0905 |
| 9 | 2.95 | -0.00 | -0.3421 | 3.9757 | 0.0231 | -0.1185 | 0.0158 | 0.5948 | 0.1833 | 0.4115 | -8.6589 |
| 10 | 4.72 | 0.01 | -0.1623 | 4.0042 | 0.0201 | -0.0847 | 0.0103 | 0.5727 | 0.1873 | 0.3854 | -16.4166 |
| 11 | 6.59 | 0.01 | 0.0522 | 3.9255 | 0.0166 | -0.1008 | 0.0105 | 0.5338 | 0.1872 | 0.3466 | 44.5923 |
| 12 | 8.43 | 0.00 | 0.2786 | 1.9964 | 0.0344 | -0.0564 | 0.0173 | 0.4697 | 0.1810 | 0.3087 | 7.1648 |
| 13 | 10.26 | 0.00 | 0.5165 | 1.8726 | 0.0175 | -0.0400 | 0.0237 | 0.4553 | 0.1780 | 0.2773 | 3.2385 |
| 14 | 12.12 | -0.01 | 0.6166 | 1.8777 | -0.0030 | 0.0147 | 0.0166 | 0.4104 | 0.1746 | 0.2356 | 1.5758 |
| 15 | 13.99 | -0.00 | 1.0677 | 1.8243 | -0.0251 | 0.0271 | 0.0078 | 0.3774 | 0.1773 | 0.2001 | 0.9417 |
| 16 | 15.92 | -0.01 | 1.3618 | 0.7491 | -0.0012 | 0.0800 | 0.0145 | 0.3449 | 0.1810 | 0.1639 | 0.5471 |
| 17 | 17.85 | -0.00 | 1.6729 | 0.4651 | -0.0772 | 0.2614 | 0.0148 | 0.3067 | 0.1855 | 0.1208 | 0.2780 |
| 18 | 19.74 | -0.01 | 2.0321 | 0.2039 | -0.1771 | 0.4799 | 0.0096 | 0.2685 | 0.1938 | 0.0749 | 0.1001 |
| 19 | 21.67 | 0.00 | 2.4355 | 0.0385 | -0.2256 | 0.5362 | -0.0002 | 0.2213 | 0.1966 | 0.0247 | 0.0150 |
| 20 | 23.64 | -0.01 | 2.8653 | 0.1215 | -0.2614 | 0.7091 | -0.0224 | 0.1781 | 0.1902 | -0.0261 | 0.0409 |
| 21 | 25.57 | 0.02 | 3.3216 | 0.2756 | 0.1691 | -0.6277 | 0.0297 | 0.1227 | 0.1876 | -0.0649 | 0.0781 |
| 22 | 27.55 | 0.05 | 3.8486 | 0.3745 | 0.0201 | -1.2191 | 0.0746 | 0.0814 | 0.1906 | -0.1092 | 0.1396 |
| 23 | 28.02 | 0.06 | 4.2187 | 0.5841 | 0.6371 | -1.1430 | 0.0690 | 0.0554 | 0.1862 | -0.1308 | 0.1385 |
| 24 | 28.31 | 0.06 | 4.3173 | 0.5764 | 0.6056 | -1.2010 | 0.0754 | 0.0583 | 0.1869 | -0.1286 | 0.1340 |
| 25 | 28.59 | 0.05 | 4.3863 | 0.7244 | 0.5475 | -1.0084 | 0.0658 | 0.0428 | 0.1824 | -0.1396 | 0.1651 |
| 26 | 28.92 | 0.05 | 4.4563 | 0.7161 | 0.5515 | -1.0504 | 0.0701 | 0.0345 | 0.1840 | -0.1501 | 0.1379 |
| 27 | 29.23 | 0.05 | 4.5016 | 0.8123 | 0.6359 | -1.1721 | 0.0708 | 0.0343 | 0.1839 | -0.1496 | 0.1765 |
| 28 | 29.52 | 0.06 | 4.7145 | 0.8380 | 0.7131 | -1.3156 | 0.0715 | 0.0255 | 0.1873 | -0.1618 | 0.1777 |
| 29 | 29.81 | 0.07 | 4.7771 | 0.8811 | 0.7276 | -1.0515 | 0.0762 | 0.0312 | 0.1888 | -0.1576 | 0.1800 |
| 30 | 30.09 | 0.07 | 4.8060 | 0.8161 | 0.8004 | -1.0015 | 0.0902 | 0.0255 | 0.1873 | -0.1618 | 0.1674 |
| 31 | 30.36 | 0.07 | 4.9123 | 0.8240 | 0.9057 | -1.7033 | 0.0867 | 0.0216 | 0.1869 | -0.1653 | 0.1800 |
| 32 | 30.62 | 0.07 | 5.0012 | 0.8043 | 0.8251 | -1.4451 | 0.0768 | 0.0122 | 0.1811 | -0.1669 | 0.1728 |
| 33 | 30.91 | 0.07 | 5.1160 | 0.9574 | 0.8458 | -1.5154 | 0.0795 | 0.0036 | 0.1811 | -0.1775 | 0.1871 |
| 34 | 31.18 | 0.06 | 5.1762 | 0.9551 | 0.7300 | -1.3091 | 0.0794 | -0.0014 | 0.1774 | -0.1788 | 0.1844 |
| 35 | 31.46 | 0.07 | 5.2305 | 1.0067 | 0.7505 | -1.2552 | 0.0800 | -0.0141 | 0.1766 | -0.1907 | 0.1868 |
| 36 | 31.73 | 0.05 | 5.3430 | 1.0606 | 0.8283 | -0.9505 | 0.0824 | -0.0248 | 0.1695 | -0.1943 | 0.1965 |
| 37 | 32.00 | 0.05 | 5.4544 | 1.2179 | 0.8769 | -1.1484 | 0.0573 | -0.0314 | 0.1720 | -0.2034 | 0.2324 |
| 38 | 32.26 | 0.06 | 5.5340 | 1.3467 | 0.7695 | -1.3583 | 0.0697 | -0.0307 | 0.1726 | -0.2035 | 0.2433 |
| 39 | 32.52 | 0.05 | 5.6016 | 1.4500 | 0.6984 | -1.3516 | 0.0758 | -0.0294 | 0.1710 | -0.2004 | 0.2588 |
| 40 | 32.79 | 0.05 | 5.6615 | 1.5856 | 0.5256 | -0.9212 | 0.0524 | -0.0429 | 0.1649 | -0.2078 | 0.2757 |
| 41 | 33.05 | 0.05 | 5.7734 | 1.6437 | 0.5507 | -1.2050 | 0.0764 | -0.0420 | 0.1666 | -0.2086 | 0.2847 |
| 42 | 33.29 | 0.04 | 5.7954 | 1.7357 | 0.4007 | -0.9020 | 0.0550 | -0.0447 | 0.1653 | -0.2100 | 0.3000 |
| 43 | 33.56 | 0.04 | 5.9224 | 1.8035 | 0.5061 | -1.0787 | 0.0712 | -0.0438 | 0.1646 | -0.2084 | 0.3180 |
| 44 | 33.79 | 0.03 | 5.9214 | 1.9446 | 0.4008 | -0.8170 | 0.0535 | -0.0479 | 0.1653 | -0.2132 | 0.3283 |
| 45 | 34.03 | 0.04 | 6.0322 | 2.0341 | 0.4766 | -0.7859 | 0.0598 | -0.0567 | 0.1677 | -0.2244 | 0.3372 |
| 46 | 34.31 | 0.05 | 6.1760 | 2.0536 | 0.5616 | -0.8455 | 0.0721 | -0.0576 | 0.1700 | -0.2276 | 0.3328 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DELI DEL2 DEL3 DEL4 TRANSITION
7 150 1.60 4.7 0.0 81605423 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.56 | 0.04 | 8.2559 | 2.1136 | 0.4631 | -0.8140 | 0.0666 | -0.0633 | 0.1726 | -0.2359 | 0.3376 |
| 48 | 34.77 | 0.05 | 8.2580 | 2.1143 | 0.5547 | -0.9205 | 0.0845 | -0.0584 | 0.1734 | -0.2323 | 0.3379 |
| 49 | 35.03 | 0.02 | 8.3649 | 2.1288 | 0.2857 | -0.3317 | 0.0549 | -0.0641 | 0.1716 | -0.2359 | 0.3596 |
| 50 | 35.24 | 0.03 | 8.3469 | 2.1244 | 0.4058 | -0.6126 | 0.0678 | -0.0720 | 0.1730 | -0.2420 | 0.3505 |
| 51 | 35.51 | 0.03 | 8.4986 | 2.1061 | 0.3248 | -0.3174 | 0.0554 | -0.0657 | 0.1716 | -0.2375 | 0.3539 |
| 52 | 35.76 | 0.02 | 8.4283 | 2.1472 | 0.2546 | -0.3501 | 0.0619 | -0.0769 | 0.1711 | -0.2500 | 0.3536 |
| 53 | 35.99 | 0.03 | 8.4287 | 2.1751 | 0.3553 | -0.5568 | 0.0682 | -0.0775 | 0.1711 | -0.2486 | 0.3557 |
| 54 | 36.21 | 0.02 | 8.7764 | 2.1257 | 0.2575 | -0.3531 | 0.0567 | -0.0812 | 0.1692 | -0.2504 | 0.3580 |
| 55 | 36.45 | 0.02 | 8.8333 | 2.1332 | 0.2646 | -0.2809 | 0.0567 | -0.0813 | 0.1711 | -0.2524 | 0.3488 |
| 56 | 36.71 | 0.03 | 8.9081 | 2.1053 | 0.3661 | -0.4373 | 0.0692 | -0.0873 | 0.1685 | -0.2558 | 0.3596 |
| 57 | 36.94 | 0.04 | 8.9587 | 2.1517 | 0.4531 | -0.5276 | 0.0871 | -0.0756 | 0.1737 | -0.2495 | 0.3503 |
| 58 | 37.15 | 0.03 | 7.0079 | 2.1145 | 0.3756 | -0.4765 | 0.0754 | -0.0957 | 0.1689 | -0.2646 | 0.3416 |
| 59 | 37.41 | 0.04 | 7.2153 | 2.1276 | 0.4786 | -0.6162 | 0.0713 | -0.0877 | 0.1728 | -0.2605 | 0.3503 |
| 60 | 37.64 | 0.04 | 7.3022 | 2.1317 | 0.2773 | -0.4465 | 0.0595 | -0.1109 | 0.1645 | -0.2753 | 0.3275 |
| 61 | 37.87 | 0.03 | 7.4035 | 2.1375 | 0.4030 | -0.6165 | 0.0835 | -0.0961 | 0.1736 | -0.2697 | 0.3238 |
| 62 | 38.11 | 0.03 | 7.4750 | 2.1416 | 0.4506 | -0.6598 | 0.0806 | -0.0969 | 0.1679 | -0.2635 | 0.3212 |
| 63 | 38.34 | 0.02 | 7.5597 | 2.1781 | 0.4104 | -0.6544 | 0.0726 | -0.1060 | 0.1671 | -0.2730 | 0.3146 |
| 64 | 38.58 | 0.01 | 7.6544 | 2.1958 | 0.3456 | -0.6772 | 0.0672 | -0.1159 | 0.1642 | -0.2814 | 0.3067 |
| 65 | 38.79 | 0.05 | 7.7431 | 2.1348 | 0.7422 | -0.9655 | 0.0913 | -0.1058 | 0.1735 | -0.2812 | 0.3015 |
| 66 | 39.01 | 0.04 | 7.8065 | 2.1356 | 0.5479 | -0.8030 | 0.0880 | -0.1153 | 0.1657 | -0.2869 | 0.2994 |
| 67 | 39.23 | 0.04 | 7.9335 | 2.2808 | 0.6455 | -0.9156 | 0.0802 | -0.1257 | 0.1687 | -0.2984 | 0.2850 |
| 68 | 39.44 | 0.05 | 7.9740 | 2.2543 | 0.6337 | -0.7022 | 0.0861 | -0.1204 | 0.1735 | -0.3019 | 0.2823 |
| 69 | 39.64 | 0.04 | 8.0376 | 2.3040 | 0.5747 | -0.7060 | 0.0868 | -0.1297 | 0.1725 | -0.3022 | 0.2867 |
| 70 | 39.86 | 0.03 | 8.1477 | 2.2965 | 0.4005 | -0.7588 | 0.0692 | -0.1480 | 0.1695 | -0.3115 | 0.2811 |
| 71 | 40.07 | 0.04 | 8.1362 | 2.3578 | 0.5402 | -0.5738 | 0.0692 | -0.1385 | 0.1703 | -0.3088 | 0.2858 |
| 72 | 40.25 | 0.05 | 8.2522 | 2.2767 | 0.6137 | -0.5491 | 0.0810 | -0.1490 | 0.1725 | -0.3129 | 0.2759 |
| 73 | 40.47 | 0.03 | 8.3271 | 2.3209 | 0.4021 | -0.4930 | 0.0696 | -0.1557 | 0.1742 | -0.3259 | 0.2787 |
| 74 | 40.69 | 0.04 | 8.4063 | 2.3467 | 0.4816 | -0.4751 | 0.0699 | -0.1551 | 0.1690 | -0.3241 | 0.2795 |
| 75 | 40.88 | 0.04 | 8.5045 | 2.3828 | 0.5462 | -0.5577 | 0.0764 | -0.1479 | 0.1712 | -0.3191 | 0.2802 |
| 76 | 41.10 | 0.02 | 8.5636 | 2.3815 | 0.4311 | -0.4486 | 0.0705 | -0.1559 | 0.1676 | -0.3237 | 0.2781 |
| 77 | 41.29 | 0.04 | 8.6052 | 2.3521 | 0.5810 | -0.5809 | 0.0709 | -0.1644 | 0.1725 | -0.3369 | 0.2710 |
| 78 | 41.49 | 0.02 | 8.7414 | 2.3274 | 0.3754 | -0.3186 | 0.0654 | -0.1636 | 0.1684 | -0.3320 | 0.2663 |
| 79 | 41.69 | 0.02 | 8.8368 | 2.3721 | 0.4356 | -0.6813 | 0.0661 | -0.1796 | 0.1634 | -0.3430 | 0.2686 |
| 80 | 41.89 | 0.02 | 8.8564 | 2.4245 | 0.3732 | -0.5577 | 0.0681 | -0.1626 | 0.1767 | -0.3327 | 0.2738 |
| 81 | 42.08 | 0.03 | 8.8267 | 2.4527 | 0.4531 | -0.5102 | 0.0720 | -0.1595 | 0.1659 | -0.3296 | 0.2772 |
| 82 | 42.27 | 0.03 | 8.9406 | 2.4705 | 0.5660 | -0.5051 | 0.0723 | -0.1600 | 0.1709 | -0.3309 | 0.2764 |
| 83 | 42.46 | 0.02 | 9.0715 | 2.3850 | 0.4462 | -0.6059 | 0.0670 | -0.1639 | 0.1735 | -0.3424 | 0.2629 |
| 84 | 42.65 | 0.03 | 9.1664 | 2.3765 | 0.4547 | -0.6433 | 0.0682 | -0.1654 | 0.1750 | -0.3384 | 0.2690 |
| 85 | 42.83 | -0.02 | 9.2560 | 2.3835 | 0.3637 | -0.2273 | 0.0727 | -0.1763 | 0.1676 | -0.3441 | 0.2574 |
| 86 | 43.00 | 0.03 | 9.3078 | 2.4174 | 0.4001 | -0.7545 | 0.0801 | -0.1795 | 0.1730 | -0.3493 | 0.2597 |
| 87 | 43.18 | 0.02 | 9.2671 | 2.4375 | 0.4008 | -0.3687 | 0.0674 | -0.1656 | 0.1691 | -0.3347 | 0.2630 |
| 88 | 43.36 | 0.03 | 9.4543 | 2.4553 | 0.3553 | -0.2276 | 0.0795 | -0.1747 | 0.1678 | -0.3425 | 0.2586 |
| 89 | 43.56 | 0.01 | 9.5153 | 2.3400 | 0.3647 | -0.3451 | 0.0683 | -0.1809 | 0.1743 | -0.3548 | 0.2498 |
| 90 | 43.73 | 0.01 | 9.6744 | 2.4035 | 0.4175 | -0.6395 | 0.0693 | -0.1831 | 0.1687 | -0.3518 | 0.2485 |
| 91 | 43.94 | -0.01 | 9.6677 | 2.3650 | 0.2478 | -0.3782 | 0.0689 | -0.1863 | 0.1721 | -0.3584 | 0.2450 |
| 92 | 44.16 | 0.01 | 9.8928 | 2.4311 | 0.3106 | -0.4714 | 0.0733 | -0.1848 | 0.1746 | -0.3594 | 0.2508 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 150 MACH 1.00 RNIC-6 1.7 PHI 0.0 CONF 81b0r2s L 6.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | ACP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.35 | 0.01 | 9.7025 | 2.5224 | 0.4556 | -0.5766 | 0.0695 | -0.1816 | 0.1694 | -0.3510 | 0.2599 |
| 94 | 44.55 | 0.02 | 9.6426 | 2.5332 | 0.4163 | -0.4856 | 0.0697 | -0.1771 | 0.1737 | -0.3506 | 0.2371 |
| 95 | 44.76 | 0.01 | 9.6263 | 2.5027 | 0.3370 | -0.1521 | 0.0693 | -0.1920 | 0.1714 | -0.3634 | 0.2370 |
| 96 | 44.95 | 0.01 | 9.5770 | 2.5363 | 0.4121 | -0.3667 | 0.0700 | -0.1931 | 0.1746 | -0.3677 | 0.2364 |
| 97 | 45.11 | -0.02 | 10.1155 | 2.2275 | 0.0639 | 0.3222 | 0.0663 | -0.1605 | 0.1713 | -0.3518 | 0.2183 |
| 98 | 45.31 | 0.00 | 10.1092 | 2.2851 | 0.3114 | -0.3555 | 0.0704 | -0.2070 | 0.1666 | -0.3736 | 0.2359 |
| 99 | 45.51 | -0.01 | 10.2968 | 2.2245 | 0.1701 | -0.1303 | 0.0706 | -0.2027 | 0.1667 | -0.3694 | 0.2199 |
| 100 | 45.68 | 0.01 | 10.3363 | 2.2654 | 0.3401 | -0.1922 | 0.0706 | -0.2083 | 0.1654 | -0.3737 | 0.2230 |
| 101 | 45.85 | 0.01 | 10.3475 | 2.2861 | 0.1645 | 0.8104 | 0.0739 | -0.2075 | 0.1693 | -0.3768 | 0.2385 |
| 102 | 46.02 | 0.03 | 10.4956 | 2.3513 | 0.5551 | -0.3405 | 0.0713 | -0.2005 | 0.1712 | -0.3717 | 0.2248 |
| 103 | 46.21 | -0.01 | 10.5266 | 2.1732 | 0.3227 | -0.5176 | 0.0720 | -0.2028 | 0.1657 | -0.3685 | 0.2064 |
| 104 | 46.40 | 0.01 | 10.6190 | 2.2052 | 0.3341 | -0.3743 | 0.0707 | -0.2087 | 0.1758 | -0.3845 | 0.2265 |
| 105 | 46.56 | 0.00 | 10.6544 | 2.3226 | 0.3572 | 0.1120 | 0.0705 | -0.1983 | 0.1752 | -0.3735 | 0.2177 |
| 106 | 46.72 | 0.00 | 10.6646 | 2.7163 | 0.2226 | 0.8636 | 0.0660 | -0.1660 | 0.2124 | -0.3804 | 0.2588 |
| 107 | 46.91 | 0.03 | 10.6533 | 2.4455 | 0.5551 | 0.3654 | 0.0694 | -0.1186 | 0.2263 | -0.3445 | 0.2304 |
| 108 | 47.09 | -0.01 | 10.7446 | 2.4926 | 0.1882 | 0.6060 | 0.0695 | -0.1775 | 0.2234 | -0.4005 | 0.2315 |
| 109 | 47.25 | 0.02 | 10.8167 | 2.1574 | 0.5076 | -0.1215 | 0.0656 | -0.1630 | 0.2447 | -0.4077 | 0.1996 |
| 110 | 47.41 | 0.02 | 10.8164 | 1.8796 | 0.4012 | 0.7101 | 0.0627 | -0.0901 | 0.2992 | -0.3693 | 0.1739 |
| 111 | 47.62 | 0.04 | 11.1057 | 0.9334 | 0.4578 | 1.2127 | 0.0206 | -0.0562 | 0.3148 | -0.3710 | 0.0840 |
| 112 | 47.77 | 0.02 | 11.1658 | 1.0155 | 0.4646 | 1.0374 | 0.0271 | -0.0497 | 0.3165 | -0.3682 | 0.0921 |
| 113 | 47.97 | 0.03 | 11.2566 | 0.2251 | 0.4822 | 1.0465 | 0.0315 | -0.0357 | 0.3404 | -0.3761 | 0.0155 |
| 114 | 48.14 | 0.02 | 11.3565 | 0.3216 | 0.7371 | 1.3575 | 0.0434 | -0.0492 | 0.3438 | -0.3930 | 0.0458 |
| 115 | 48.35 | 0.01 | 11.4724 | 0.1030 | 0.3513 | 1.4706 | 0.0271 | -0.0497 | 0.3486 | -0.3585 | 0.0088 |
| 116 | 48.52 | 0.02 | 11.5770 | -0.3525 | 0.3843 | 1.5028 | 0.0199 | -0.0560 | 0.3529 | -0.4089 | -0.0331 |
| 117 | 48.72 | 0.04 | 11.5885 | -0.2888 | 0.6107 | 2.0364 | 0.0195 | -0.0372 | 0.3480 | -0.3852 | -0.0224 |
| 118 | 48.87 | 0.03 | 11.6477 | -0.2765 | 0.4792 | 2.0564 | 0.0197 | -0.0609 | 0.3456 | -0.4067 | -0.0225 |
| 119 | 49.04 | 0.03 | 11.6767 | -0.2296 | 0.4455 | 2.1500 | 0.0194 | -0.0549 | 0.3443 | -0.3992 | -0.0192 |
| 120 | 49.22 | 0.03 | 11.7616 | -0.2561 | 0.4423 | 2.1347 | 0.0196 | -0.0574 | 0.3412 | -0.3986 | -0.0212 |
| 121 | 49.39 | 0.02 | 12.1554 | -0.2144 | 0.3342 | 2.1206 | 0.0201 | -0.0697 | 0.3348 | -0.4045 | -0.0176 |
| 122 | 49.56 | 0.03 | 12.1371 | -0.2695 | 0.4885 | 2.0367 | 0.0319 | -0.0435 | 0.3338 | -0.3773 | -0.0222 |
| 123 | 49.75 | -0.00 | 12.2271 | -0.0884 | 0.1503 | 1.9536 | 0.0334 | -0.0931 | 0.3265 | -0.4134 | -0.0071 |
| 124 | 49.92 | 0.03 | 12.2328 | -0.1756 | 0.5285 | 1.8551 | 0.0329 | -0.0852 | 0.3247 | -0.3879 | -0.0144 |
| 125 | 50.09 | 0.02 | 12.4176 | -0.3417 | 0.3977 | 1.9062 | 0.0392 | -0.0828 | 0.3282 | -0.4090 | -0.0275 |
| 126 | 50.27 | 0.02 | 12.4367 | -0.0885 | 0.4526 | 1.9553 | 0.0408 | -0.0839 | 0.3250 | -0.4089 | -0.0543 |
| 127 | 50.45 | 0.01 | 12.4855 | -0.3742 | 0.4148 | 1.9287 | 0.0384 | -0.0985 | 0.3261 | -0.4245 | -0.0869 |
| 128 | 50.61 | 0.01 | 12.5078 | -0.0875 | 0.3532 | 1.9065 | 0.0367 | -0.0993 | 0.3235 | -0.4227 | -0.0637 |
| 129 | 50.80 | -0.02 | 12.8719 | -1.3533 | 0.1110 | 1.9380 | 0.0651 | -0.1032 | 0.3209 | -0.4240 | -0.1051 |
| 130 | 50.96 | 0.03 | 12.8257 | -1.1056 | 0.0697 | 1.1694 | 0.0714 | -0.0980 | 0.3164 | -0.4143 | -0.0865 |
| 131 | 51.09 | -0.01 | 12.3586 | -0.1662 | 0.1677 | 0.9800 | 0.0722 | -0.0874 | 0.3153 | -0.4027 | -0.0136 |
| 132 | 51.27 | -0.00 | 12.8225 | -0.3555 | 0.4573 | 0.8926 | 0.0722 | -0.0856 | 0.3160 | -0.4016 | -0.0440 |
| 133 | 51.45 | -0.01 | 12.5839 | -0.2561 | 0.1580 | 1.0302 | 0.0726 | -0.0749 | 0.3126 | -0.3875 | -0.0235 |
| 134 | 51.62 | 0.01 | 12.5819 | -0.2671 | 0.4044 | 0.8418 | 0.0728 | -0.0525 | 0.3165 | -0.3714 | -0.0165 |
| 135 | 51.80 | -0.01 | 12.7431 | -0.3585 | 0.2526 | 1.0491 | 0.0728 | -0.0608 | 0.3267 | -0.3875 | -0.0282 |
| 136 | 51.97 | 0.02 | 12.7168 | -0.7074 | 0.5153 | 0.5134 | 0.0732 | -0.0300 | 0.3307 | -0.3667 | -0.0548 |
| 137 | 52.15 | -0.02 | 12.9531 | -0.7366 | 0.1552 | 1.0504 | 0.0735 | -0.0348 | 0.3348 | -0.3696 | -0.0569 |
| 138 | 52.30 | -0.02 | 12.8629 | -0.5213 | 0.2219 | 0.8607 | 0.0740 | -0.0208 | 0.3344 | -0.3552 | -0.0405 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RATIO-E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 150 1.60 1.7 0.0 BINOFIN 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.46 | -0.02 | 12.8582 | -0.5306 | 0.1699 | 1.0325 | 0.0620 | -0.0231 | 0.3373 | -0.3604 | -0.0412 |
| 140 | 52.04 | -0.00 | 12.9795 | -0.1362 | 0.3658 | 0.9108 | 0.0736 | -0.0232 | 0.3403 | -0.3635 | -0.0567 |
| 141 | 51.61 | 0.02 | 12.6600 | -0.4430 | 0.5241 | 0.8813 | 0.0782 | -0.0638 | 0.3214 | -0.3900 | -0.0349 |
| 142 | 50.24 | 0.03 | 12.2466 | -0.0647 | 0.4501 | 1.6182 | 0.0449 | -0.0579 | 0.3284 | -0.3863 | -0.0004 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&2 MACH 1.60 RNIC-6 1.7 PHI 0.0 CONF B1&WF23 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ACPF1 | YCPF1 | CNF2 | CM2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | -0.0399 | -0.0047 | 0.0334 | 0.1164 | -0.8357 | -1.0533 | -0.0152 | -0.5372 | 0.0145 | 0.5106 |
| 2 | -5.74 | 0.00 | -0.0515 | -0.0046 | 0.0241 | 0.0760 | -0.5655 | -1.0641 | -0.0150 | -0.5370 | 0.0141 | 0.5047 |
| 3 | -5.75 | -0.00 | -0.0515 | -0.0046 | 0.0241 | 0.0760 | -0.5655 | -1.0535 | -0.0147 | -0.5331 | 0.0135 | 0.5060 |
| 4 | -5.85 | -0.00 | -0.0445 | -0.0047 | 0.0305 | 0.1063 | -0.6941 | -1.0533 | -0.0157 | -0.5372 | 0.0149 | 0.5106 |
| 5 | -4.14 | -0.00 | -0.0442 | -0.0036 | 0.0276 | 0.0868 | -0.6310 | -1.0545 | -0.0260 | -0.5543 | 0.0246 | 0.5257 |
| 6 | -2.35 | -0.03 | -0.0350 | -0.0036 | 0.0315 | 0.1015 | -0.9118 | -0.9831 | -0.0297 | -0.5300 | 0.0302 | 0.5473 |
| 7 | -0.79 | 0.00 | -0.0301 | -0.0011 | 0.0308 | 0.0955 | -1.0160 | -0.8892 | -0.0317 | -0.4915 | 0.0357 | 0.5527 |
| 8 | 1.04 | -0.01 | -0.0344 | 0.0043 | 0.0243 | -0.1260 | -0.7059 | -0.7669 | -0.0354 | -0.4507 | 0.0426 | 0.5727 |
| 9 | 2.95 | -0.00 | -0.0437 | 0.0140 | 0.0213 | -0.0505 | -0.4879 | -0.6726 | -0.0326 | -0.3918 | 0.0485 | 0.5828 |
| 10 | 4.72 | 0.01 | -0.0525 | 0.0225 | 0.0181 | -0.0547 | -0.3431 | -0.5230 | -0.0296 | -0.3361 | 0.0566 | 0.6426 |
| 11 | 6.59 | 0.01 | -0.0348 | 0.0214 | 0.0291 | -0.0416 | -0.8306 | -0.3614 | -0.0202 | -0.2762 | 0.0558 | 0.7643 |
| 12 | 8.43 | 0.00 | -0.0263 | 0.0299 | 0.0399 | 0.1099 | -1.5165 | -0.2319 | -0.0116 | -0.2065 | 0.0499 | 0.8993 |
| 13 | 10.26 | 0.00 | -0.0255 | -0.0036 | 0.0467 | 0.1796 | -2.3495 | -0.0916 | -0.0029 | -0.1506 | 0.0316 | 1.6449 |
| 14 | 12.12 | -0.01 | -0.0518 | -0.0054 | 0.0336 | 0.1043 | -0.8369 | 0.0459 | 0.0011 | -0.0827 | 0.0231 | -1.8004 |
| 15 | 13.99 | -0.00 | -0.0671 | -0.0050 | 0.0202 | 0.0748 | -0.5007 | 0.1335 | 0.0152 | -0.0447 | 0.1142 | -0.3345 |
| 16 | 15.92 | -0.01 | -0.0711 | -0.0075 | 0.0145 | 0.1058 | -0.2035 | 0.2208 | 0.0281 | 0.0037 | 0.1272 | 0.0166 |
| 17 | 17.85 | -0.00 | -0.1037 | -0.0231 | 0.0120 | 0.2225 | -0.1153 | 0.3133 | 0.0409 | 0.0536 | 0.1306 | 0.1765 |
| 18 | 19.74 | -0.01 | -0.1467 | -0.0306 | -0.0097 | 0.2057 | 0.0655 | 0.4315 | 0.0521 | 0.1158 | 0.1208 | 0.2683 |
| 19 | 21.67 | 0.00 | -0.1834 | -0.0256 | -0.0417 | 0.1364 | 0.2272 | 0.5243 | 0.0550 | 0.1726 | 0.1049 | 0.3292 |
| 20 | 23.64 | -0.01 | -0.2410 | -0.0231 | -0.0623 | 0.0557 | 0.3415 | 0.6255 | 0.0570 | 0.2187 | 0.0912 | 0.3497 |
| 21 | 25.57 | 0.02 | -0.2264 | -0.0058 | -0.0186 | -0.2190 | -0.0825 | 0.7688 | 0.0585 | 0.2607 | 0.0735 | 0.3651 |
| 22 | 27.55 | 0.05 | 0.3015 | 0.0467 | 0.1002 | 0.1695 | 0.2581 | 0.8804 | 0.0570 | 0.3349 | 0.0648 | 0.3804 |
| 23 | 28.02 | 0.06 | 0.3188 | 0.0533 | 0.1018 | 0.1871 | 0.3696 | 0.8909 | 0.0576 | 0.3329 | 0.0647 | 0.3804 |
| 24 | 28.31 | 0.06 | 0.2812 | 0.0432 | 0.1050 | 0.1855 | 0.0339 | 0.8882 | 0.0581 | 0.3376 | 0.0654 | 0.3801 |
| 25 | 28.59 | 0.05 | 0.2523 | 0.0453 | 0.1586 | 0.1797 | 0.6287 | 0.8986 | 0.0581 | 0.3427 | 0.0646 | 0.3814 |
| 26 | 28.92 | 0.05 | 0.2750 | 0.0468 | 0.1069 | 0.1762 | 0.0158 | 0.9089 | 0.0591 | 0.3477 | 0.0651 | 0.3824 |
| 27 | 29.23 | 0.05 | 0.2638 | 0.0457 | 0.1745 | 0.1751 | 0.6151 | 0.9324 | 0.0591 | 0.3555 | 0.0634 | 0.3817 |
| 28 | 29.52 | 0.06 | 0.2885 | 0.0468 | 0.1769 | 0.1824 | 0.6130 | 0.9351 | 0.0597 | 0.3562 | 0.0634 | 0.3810 |
| 29 | 29.81 | 0.07 | 0.2990 | 0.0501 | 0.1674 | 0.1675 | 0.6267 | 0.9455 | 0.0597 | 0.3591 | 0.0632 | 0.3798 |
| 30 | 30.09 | 0.07 | 0.3055 | 0.0507 | 0.1654 | 0.1539 | 0.6055 | 0.9554 | 0.0597 | 0.3632 | 0.0625 | 0.3796 |
| 31 | 30.38 | 0.07 | 0.3075 | 0.0576 | 0.2135 | 0.1567 | 0.5810 | 0.9586 | 0.0591 | 0.3634 | 0.0617 | 0.3791 |
| 32 | 30.64 | 0.07 | 0.2767 | 0.0472 | 0.1765 | 0.1765 | 0.6391 | 0.9622 | 0.0608 | 0.3646 | 0.0632 | 0.3784 |
| 33 | 30.91 | 0.07 | 0.2974 | 0.0490 | 0.1843 | 0.1648 | 0.6197 | 0.9596 | 0.0606 | 0.3628 | 0.0633 | 0.3781 |
| 34 | 31.18 | 0.06 | 0.3017 | 0.0496 | 0.1875 | 0.1650 | 0.6226 | 0.9673 | 0.0618 | 0.3666 | 0.0635 | 0.3790 |
| 35 | 31.46 | 0.07 | 0.3206 | 0.0458 | 0.1505 | 0.1553 | 0.5952 | 0.9700 | 0.0618 | 0.3658 | 0.0638 | 0.3771 |
| 36 | 31.73 | 0.05 | 0.2827 | 0.0535 | 0.1864 | 0.1671 | 0.6625 | 0.9673 | 0.0626 | 0.3656 | 0.0647 | 0.3780 |
| 37 | 32.00 | 0.05 | 0.2217 | 0.0365 | 0.1387 | 0.1734 | 0.6258 | 0.9752 | 0.0634 | 0.3652 | 0.0650 | 0.3765 |
| 38 | 32.26 | 0.06 | 0.2842 | 0.0371 | 0.1254 | 0.1619 | 0.6144 | 0.9779 | 0.0645 | 0.3623 | 0.0659 | 0.3765 |
| 39 | 32.52 | 0.05 | 0.1719 | 0.0353 | 0.1148 | 0.2054 | 0.6678 | 0.9679 | 0.0645 | 0.3490 | 0.0666 | 0.3608 |
| 40 | 32.79 | 0.05 | 0.2559 | 0.0428 | 0.0448 | 0.4767 | 0.7979 | 0.9577 | 0.0621 | 0.3428 | 0.0645 | 0.3575 |
| 41 | 33.05 | 0.05 | 0.1140 | 0.0303 | 0.0796 | 0.2655 | 0.6986 | 0.9323 | 0.0577 | 0.3250 | 0.0615 | 0.3486 |
| 42 | 33.29 | 0.04 | 0.0978 | 0.0255 | 0.0554 | 0.3024 | 0.5072 | 0.9194 | 0.0550 | 0.3175 | 0.0598 | 0.3454 |
| 43 | 33.56 | 0.04 | 0.1468 | 0.0292 | 0.0882 | 0.1995 | 0.6017 | 0.9118 | 0.0540 | 0.3127 | 0.0593 | 0.3430 |
| 44 | 33.79 | 0.03 | 0.1219 | 0.0269 | 0.0845 | 0.1674 | 0.5565 | 0.9008 | 0.0519 | 0.3101 | 0.0572 | 0.3420 |
| 45 | 34.03 | 0.04 | 0.0935 | 0.0198 | 0.0656 | 0.2107 | 0.7410 | 0.9160 | 0.0534 | 0.3155 | 0.0583 | 0.3449 |
| 46 | 34.31 | 0.05 | 0.1726 | 0.0223 | 0.1118 | 0.1291 | 0.6478 | 0.9318 | 0.0534 | 0.3193 | 0.0573 | 0.3427 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART PACF RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 15C 1.CC 1.7 C.C Blank C.C 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | ACPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.56 | 0.04 | 0.1846 | 0.0208 | 0.1130 | 0.1129 | 0.8121 | 0.9291 | 0.0534 | 0.3191 | 0.0574 | 0.3434 |
| 48 | 34.77 | 0.05 | 0.1857 | 0.0151 | 0.1307 | 0.1067 | 0.8092 | 0.9266 | 0.0536 | 0.3188 | 0.0575 | 0.3436 |
| 49 | 35.03 | 0.02 | 0.0906 | 0.0106 | 0.0604 | 0.1193 | 0.8667 | 0.9371 | 0.0513 | 0.3218 | 0.0548 | 0.3434 |
| 50 | 35.29 | 0.03 | 0.1955 | 0.0137 | 0.1274 | 0.1085 | 0.8371 | 0.9322 | 0.0500 | 0.3181 | 0.0536 | 0.3391 |
| 51 | 35.51 | 0.03 | 0.0833 | 0.0025 | 0.0642 | 0.0348 | 0.7706 | 0.9348 | 0.0497 | 0.3173 | 0.0532 | 0.3395 |
| 52 | 35.76 | 0.02 | 0.1949 | 0.0094 | 0.1245 | 0.0909 | 0.8375 | 0.9376 | 0.0471 | 0.3165 | 0.0502 | 0.3376 |
| 53 | 35.99 | 0.03 | 0.1925 | 0.0100 | 0.1208 | 0.0930 | 0.8087 | 0.9378 | 0.0466 | 0.3144 | 0.0497 | 0.3352 |
| 54 | 36.21 | 0.02 | 0.1834 | 0.0056 | 0.0850 | 0.0634 | 0.8370 | 0.9433 | 0.0446 | 0.3127 | 0.0475 | 0.3315 |
| 55 | 36.45 | 0.02 | 0.0842 | 0.0021 | 0.0437 | 0.0331 | 0.6812 | 0.9512 | 0.0451 | 0.3134 | 0.0474 | 0.3255 |
| 56 | 36.71 | 0.03 | 0.1835 | 0.0106 | 0.1156 | 0.0947 | 0.8773 | 0.9401 | 0.0434 | 0.3108 | 0.0459 | 0.3285 |
| 57 | 36.94 | 0.04 | 0.2425 | 0.0137 | 0.1525 | 0.0563 | 0.5480 | 0.9362 | 0.0440 | 0.3076 | 0.0469 | 0.3272 |
| 58 | 37.15 | 0.03 | 0.2166 | 0.0106 | 0.1206 | 0.0678 | 0.5099 | 0.9434 | 0.0440 | 0.3096 | 0.0466 | 0.3282 |
| 59 | 37.41 | 0.04 | 0.1577 | 0.0025 | 0.0865 | 0.0164 | 0.5463 | 0.9395 | 0.0435 | 0.3086 | 0.0463 | 0.3284 |
| 60 | 37.64 | 0.02 | 0.1459 | 0.0025 | 0.0708 | 0.0250 | 0.5625 | 0.9553 | 0.0435 | 0.3130 | 0.0456 | 0.3276 |
| 61 | 37.87 | 0.03 | 0.1760 | 0.0087 | 0.0976 | 0.0038 | 0.5485 | 0.9523 | 0.0467 | 0.3145 | 0.0490 | 0.3307 |
| 62 | 38.11 | 0.03 | 0.1359 | 0.0025 | 0.0808 | 0.0213 | 0.4911 | 0.9679 | 0.0472 | 0.3235 | 0.0487 | 0.3343 |
| 63 | 38.34 | 0.02 | 0.1946 | 0.0063 | 0.0969 | 0.0426 | 0.4978 | 0.9730 | 0.0482 | 0.3251 | 0.0496 | 0.3341 |
| 64 | 38.58 | 0.01 | 0.2221 | 0.0087 | 0.1060 | 0.0391 | 0.4881 | 0.9754 | 0.0511 | 0.3274 | 0.0524 | 0.3356 |
| 65 | 38.79 | 0.05 | 0.2441 | 0.0063 | 0.1247 | 0.0340 | 0.5107 | 0.9697 | 0.0548 | 0.3302 | 0.0565 | 0.3405 |
| 66 | 39.01 | 0.04 | 0.1953 | 0.0054 | 0.0904 | 0.0479 | 0.4824 | 0.9655 | 0.0540 | 0.3336 | 0.0548 | 0.3385 |
| 67 | 39.23 | 0.04 | 0.2400 | 0.0108 | 0.1182 | 0.0450 | 0.4926 | 0.9775 | 0.0551 | 0.3329 | 0.0564 | 0.3405 |
| 68 | 39.49 | 0.05 | 0.2228 | 0.0072 | 0.1042 | 0.0365 | 0.4907 | 0.9879 | 0.0547 | 0.3354 | 0.0554 | 0.3395 |
| 69 | 39.64 | 0.04 | 0.1761 | 0.0054 | 0.0760 | 0.0525 | 0.4377 | 0.9986 | 0.0523 | 0.3373 | 0.0524 | 0.3378 |
| 70 | 39.86 | 0.03 | 0.1667 | 0.0050 | 0.0777 | 0.0257 | 0.4605 | 1.0064 | 0.0552 | 0.3391 | 0.0548 | 0.3369 |
| 71 | 40.07 | 0.04 | 0.1645 | 0.0047 | 0.0721 | 0.0287 | 0.4381 | 0.9984 | 0.0557 | 0.3374 | 0.0556 | 0.3375 |
| 72 | 40.25 | 0.05 | 0.1668 | 0.0050 | 0.0714 | 0.0424 | 0.4039 | 0.9892 | 0.0542 | 0.3347 | 0.0548 | 0.3363 |
| 73 | 40.47 | 0.03 | 0.1442 | 0.0025 | 0.0637 | 0.0201 | 0.4416 | 1.0025 | 0.0526 | 0.3346 | 0.0525 | 0.3340 |
| 74 | 40.69 | 0.04 | 0.1320 | 0.0054 | 0.0580 | 0.0408 | 0.4418 | 1.0055 | 0.0513 | 0.3298 | 0.0511 | 0.3280 |
| 75 | 40.88 | 0.04 | 0.1615 | 0.0063 | 0.0742 | 0.0513 | 0.4583 | 0.9955 | 0.0474 | 0.3226 | 0.0476 | 0.3240 |
| 76 | 41.10 | 0.02 | 0.1436 | 0.0060 | 0.0678 | 0.0457 | 0.4664 | 0.9956 | 0.0450 | 0.3204 | 0.0452 | 0.3218 |
| 77 | 41.29 | 0.04 | 0.1415 | 0.0062 | 0.0643 | 0.0422 | 0.4387 | 1.0101 | 0.0458 | 0.3208 | 0.0454 | 0.3178 |
| 78 | 41.49 | 0.04 | 0.1200 | 0.0051 | 0.0422 | 0.0356 | 0.3513 | 1.0394 | 0.0422 | 0.3284 | 0.0406 | 0.3160 |
| 79 | 41.69 | 0.02 | 0.1334 | 0.0055 | 0.0506 | 0.0309 | 0.3803 | 1.0239 | 0.0395 | 0.3207 | 0.0385 | 0.3132 |
| 80 | 41.89 | 0.02 | 0.1170 | 0.0072 | 0.0427 | 0.0615 | 0.3034 | 1.0184 | 0.0395 | 0.3156 | 0.0387 | 0.3072 |
| 81 | 42.08 | 0.02 | 0.1265 | 0.0060 | 0.0522 | 0.0623 | 0.4062 | 1.0138 | 0.0385 | 0.3094 | 0.0380 | 0.3052 |
| 82 | 42.27 | 0.03 | 0.1167 | 0.0058 | 0.0504 | 0.0460 | 0.4732 | 0.9782 | 0.0370 | 0.2961 | 0.0378 | 0.3027 |
| 83 | 42.48 | 0.02 | 0.1221 | 0.0038 | 0.0367 | 0.1121 | 0.2978 | 1.0414 | 0.0359 | 0.3203 | 0.0345 | 0.3078 |
| 84 | 42.69 | 0.03 | 0.1144 | 0.0072 | 0.0504 | 0.0632 | 0.4427 | 0.9869 | 0.0345 | 0.2991 | 0.0349 | 0.3025 |
| 85 | 42.83 | 0.02 | 0.1103 | 0.0072 | 0.0452 | 0.0656 | 0.4094 | 1.0129 | 0.0332 | 0.3032 | 0.0328 | 0.2993 |
| 86 | 43.00 | 0.03 | 0.0924 | 0.0066 | 0.0329 | 0.0710 | 0.3359 | 1.0101 | 0.0350 | 0.3030 | 0.0347 | 0.2995 |
| 87 | 43.18 | 0.02 | 0.0956 | 0.0105 | 0.0356 | 0.1056 | 0.3091 | 1.0068 | 0.0332 | 0.3029 | 0.0329 | 0.2995 |
| 88 | 43.38 | 0.03 | 0.0870 | 0.0037 | 0.0383 | 0.0421 | 0.4401 | 0.9679 | 0.0345 | 0.2857 | 0.0357 | 0.2952 |
| 89 | 43.56 | 0.01 | 0.0947 | 0.0083 | 0.0322 | 0.0377 | 0.3405 | 1.0140 | 0.0318 | 0.3018 | 0.0314 | 0.2976 |
| 90 | 43.73 | 0.01 | 0.0956 | 0.0101 | 0.0359 | 0.1023 | 0.3026 | 1.0100 | 0.0326 | 0.3009 | 0.0321 | 0.2960 |
| 91 | 43.94 | -0.01 | 0.0975 | 0.0101 | 0.0275 | 0.1039 | 0.2819 | 1.0243 | 0.0321 | 0.3079 | 0.0314 | 0.3008 |
| 92 | 44.18 | 0.01 | 0.0457 | -0.0004 | 0.0212 | -0.0084 | 0.4041 | 0.9637 | 0.0332 | 0.2829 | 0.0344 | 0.2936 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSONIC 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART RACH RXIG-E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 150 1.00 1.7 0.0 BINOF23 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.35 | 0.01 | 0.1162 | 0.0136 | 0.0517 | 0.1121 | 0.2733 | 1.0291 | 0.0337 | 0.3104 | 0.0327 | 0.3018 |
| 94 | 44.55 | 0.02 | 0.0661 | 0.0116 | 0.0249 | 0.1227 | 0.2771 | 1.0148 | 0.0316 | 0.3014 | 0.0311 | 0.2970 |
| 95 | 44.76 | 0.01 | 0.0766 | 0.0025 | 0.0260 | 0.0368 | 0.3301 | 1.0016 | 0.0320 | 0.2993 | 0.0320 | 0.2988 |
| 96 | 44.95 | 0.01 | 0.0957 | 0.0116 | 0.0267 | 0.1102 | 0.2082 | 1.0159 | 0.0331 | 0.3034 | 0.0326 | 0.2986 |
| 97 | 45.11 | -0.02 | 0.0254 | -0.0021 | 0.0096 | -0.0837 | 0.3802 | 0.9917 | 0.0330 | 0.2800 | 0.0347 | 0.2942 |
| 98 | 45.31 | 0.00 | 0.0954 | 0.0112 | 0.0261 | 0.1173 | 0.2103 | 1.0182 | 0.0327 | 0.3001 | 0.0321 | 0.3006 |
| 99 | 45.51 | -0.01 | 0.1227 | 0.0145 | 0.0324 | 0.1203 | 0.2092 | 1.0168 | 0.0330 | 0.3041 | 0.0325 | 0.2991 |
| 100 | 45.68 | 0.01 | 0.0630 | 0.0058 | 0.0256 | 0.0696 | 0.3081 | 1.0045 | 0.0324 | 0.2963 | 0.0323 | 0.2956 |
| 101 | 45.85 | 0.01 | 0.0512 | -0.0007 | 0.0125 | -0.0132 | 0.2446 | 0.9845 | 0.0324 | 0.2856 | 0.0336 | 0.2961 |
| 102 | 46.02 | 0.03 | 0.0990 | 0.0166 | 0.0245 | 0.1068 | 0.2401 | 1.0009 | 0.0329 | 0.3001 | 0.0329 | 0.2998 |
| 103 | 46.21 | -0.01 | 0.0569 | 0.0057 | 0.0261 | 0.0857 | 0.2699 | 1.0046 | 0.0329 | 0.3011 | 0.0328 | 0.2998 |
| 104 | 46.40 | 0.01 | 0.0870 | -0.0025 | 0.0055 | -0.0667 | 0.1564 | 0.9834 | 0.0324 | 0.2982 | 0.0335 | 0.3033 |
| 105 | 46.58 | 0.00 | 0.0505 | 0.0065 | 0.0212 | 0.0757 | 0.2345 | 0.9950 | 0.0324 | 0.2955 | 0.0326 | 0.3010 |
| 106 | 46.72 | 0.00 | 0.0470 | -0.0011 | 0.0065 | -0.0220 | 0.1478 | 0.9907 | 0.0323 | 0.3040 | 0.0326 | 0.3069 |
| 107 | 46.91 | 0.03 | 0.0812 | 0.0075 | 0.0162 | 0.0526 | 0.1995 | 1.0052 | 0.0289 | 0.3282 | 0.0276 | 0.3128 |
| 108 | 47.09 | -0.01 | 0.0477 | -0.0017 | 0.0016 | -0.0142 | 0.0202 | 1.0026 | 0.0328 | 0.3026 | 0.0327 | 0.3018 |
| 109 | 47.25 | 0.02 | 0.0794 | 0.0075 | 0.0110 | 0.0596 | 0.1365 | 1.0020 | 0.0330 | 0.3161 | 0.0322 | 0.3032 |
| 110 | 47.41 | 0.02 | 0.0418 | 0.0140 | -0.0041 | 0.2941 | -0.0872 | 1.0591 | 0.0244 | 0.3101 | 0.0230 | 0.2984 |
| 111 | 47.62 | 0.04 | -0.0741 | -0.0011 | -0.0366 | 0.0143 | 0.7043 | 1.0275 | 0.0296 | 0.3011 | 0.0288 | 0.2931 |
| 112 | 47.77 | 0.02 | -0.0547 | -0.0021 | -0.0240 | 0.0224 | 0.6758 | 1.0156 | 0.0312 | 0.2984 | 0.0306 | 0.2927 |
| 113 | 47.97 | 0.03 | -0.0064 | -0.0066 | -0.0226 | 1.3485 | 3.5454 | 0.9901 | 0.0256 | 0.2812 | 0.0299 | 0.2846 |
| 114 | 48.14 | 0.06 | -0.0176 | -0.0061 | -0.0256 | 0.3462 | 1.0008 | 0.9757 | 0.0296 | 0.2740 | 0.0304 | 0.2806 |
| 115 | 48.35 | 0.01 | 0.0002 | -0.0066 | -0.0187 | -35.0000 | -97.0000 | 0.9951 | 0.0296 | 0.2805 | 0.0298 | 0.2815 |
| 116 | 48.52 | 0.02 | -0.0116 | -0.0096 | -0.0232 | 0.8772 | 2.1353 | 1.0200 | 0.0301 | 0.2925 | 0.0293 | 0.2850 |
| 117 | 48.72 | 0.04 | -0.0161 | -0.0110 | -0.0250 | 0.6064 | 1.2660 | 1.0555 | 0.0309 | 0.3049 | 0.0293 | 0.2889 |
| 118 | 48.87 | 0.03 | -0.0231 | -0.0126 | -0.0266 | 0.5565 | 0.8912 | 1.0503 | 0.0292 | 0.3051 | 0.0276 | 0.2883 |
| 119 | 49.04 | 0.03 | -0.0231 | -0.0126 | -0.0266 | 0.5565 | 0.8912 | 1.0530 | 0.0295 | 0.3058 | 0.0280 | 0.2904 |
| 120 | 49.22 | 0.03 | -0.0226 | -0.0107 | -0.0202 | 0.5139 | 0.5078 | 1.0503 | 0.0280 | 0.3023 | 0.0266 | 0.2878 |
| 121 | 49.35 | 0.02 | -0.0165 | -0.0128 | -0.0196 | 0.6927 | 1.0260 | 1.0605 | 0.0283 | 0.3063 | 0.0267 | 0.2907 |
| 122 | 49.50 | 0.03 | -0.0180 | -0.0118 | -0.0178 | 0.6256 | 0.9026 | 1.0606 | 0.0280 | 0.3052 | 0.0264 | 0.2878 |
| 123 | 49.75 | -0.00 | 0.0148 | -0.0110 | -0.0002 | -0.7451 | -0.0131 | 1.0805 | 0.0264 | 0.3172 | 0.0245 | 0.2934 |
| 124 | 49.92 | 0.03 | -0.0034 | -0.0118 | -0.0172 | 3.4657 | 2.1429 | 1.0834 | 0.0274 | 0.3204 | 0.0253 | 0.2958 |
| 125 | 50.09 | 0.02 | 0.0235 | -0.0111 | -0.0058 | -0.4715 | 0.2459 | 1.1027 | 0.0261 | 0.3264 | 0.0237 | 0.2960 |
| 126 | 50.27 | 0.04 | 0.0264 | -0.0096 | 0.0140 | -0.1896 | 0.2903 | 1.1192 | 0.0246 | 0.3357 | 0.0220 | 0.2995 |
| 127 | 50.45 | 0.01 | 0.0537 | -0.0025 | 0.0310 | -0.0268 | 0.3306 | 1.0753 | 0.0269 | 0.3168 | 0.0250 | 0.2944 |
| 128 | 50.61 | 0.01 | 0.0695 | -0.0061 | 0.0216 | -0.0881 | 0.3049 | 1.1078 | 0.0226 | 0.3258 | 0.0206 | 0.2977 |
| 129 | 50.80 | -0.02 | 0.0805 | -0.0029 | 0.0234 | -0.0360 | 0.2914 | 1.1026 | 0.0233 | 0.3262 | 0.0212 | 0.2959 |
| 130 | 50.96 | 0.03 | 0.0893 | 0.0067 | 0.0277 | 0.0076 | 0.3103 | 1.0613 | 0.0236 | 0.3104 | 0.0225 | 0.2925 |
| 131 | 51.09 | -0.01 | 0.0643 | 0.0025 | 0.0171 | 0.0450 | 0.2658 | 1.0212 | 0.0236 | 0.2924 | 0.0233 | 0.2863 |
| 132 | 51.27 | -0.00 | 0.0644 | 0.0036 | 0.0181 | 0.0559 | 0.2504 | 1.0264 | 0.0240 | 0.2938 | 0.0234 | 0.2862 |
| 133 | 51.45 | -0.01 | 0.0440 | 0.0021 | 0.0076 | 0.0482 | 0.1776 | 1.0083 | 0.0243 | 0.2882 | 0.0241 | 0.2858 |
| 134 | 51.64 | 0.01 | 0.0562 | 0.0054 | -0.0019 | 0.0201 | -0.1005 | 0.9493 | 0.0237 | 0.2832 | 0.0250 | 0.2773 |
| 135 | 51.80 | -0.01 | 0.0649 | -0.0007 | -0.0015 | -0.1373 | -0.3137 | 0.9080 | 0.0233 | 0.2505 | 0.0256 | 0.2758 |
| 136 | 51.97 | 0.02 | 0.0647 | -0.0007 | 0.0005 | -0.1429 | 0.1020 | 0.8934 | 0.0245 | 0.2425 | 0.0275 | 0.2723 |
| 137 | 52.15 | -0.02 | -0.0061 | -0.0041 | 0.0016 | 11.0000 | -10.0000 | 0.8851 | 0.0245 | 0.2440 | 0.0277 | 0.2757 |
| 138 | 52.30 | -0.02 | -0.0066 | -0.0067 | 0.0049 | 1.1007 | -8.5000 | 0.8815 | 0.0242 | 0.2435 | 0.0275 | 0.2763 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 15C | 1.60 | 1.7 | 0.0 | B1BCF23 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.46 | -0.02 | -0.0007 | -0.0011 | 0.0059 | 1.5714 | -0.7143 | 0.6814 | 0.0246 | 0.2477 | 0.0277 | 0.2816 |
| 140 | 52.64 | -0.00 | -0.0012 | -0.0007 | 0.0058 | 0.5833 | -0.5000 | 0.8762 | 0.0247 | 0.2462 | 0.0282 | 0.2816 |
| 141 | 51.61 | 0.02 | 0.0024 | 0.0025 | 0.0148 | 0.1044 | -0.6145 | 0.9850 | 0.0257 | 0.2869 | 0.0261 | 0.2912 |
| 142 | 50.24 | 0.03 | -0.0142 | -0.0060 | 0.0031 | 0.4218 | -0.2177 | 1.0207 | 0.0264 | 0.3021 | 0.0259 | 0.2960 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RATIO-E | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 150 | 1.00 | 1.7 | 0.0 | 61b0F2s | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | 0.01 | 0.0758 | 9.9999 | 0.0126 | 9.9999 | 0.2104 | -1.2577 | -0.0097 | -0.4392 | 0.0077 | 0.3492 |
| 2 | -5.74 | 0.00 | 0.0848 | 9.9999 | 0.0156 | 9.9999 | 0.2246 | -1.2576 | -0.0096 | -0.4392 | 0.0079 | 0.3492 |
| 3 | -5.75 | -0.00 | 0.0848 | 9.9999 | 0.0156 | 9.9999 | 0.2246 | -1.2520 | -0.0105 | -0.4358 | 0.0086 | 0.3481 |
| 4 | -5.65 | -0.00 | 0.0848 | 9.9999 | 0.0161 | 9.9999 | 0.2144 | -1.2577 | -0.0097 | -0.4392 | 0.0077 | 0.3492 |
| 5 | -4.14 | -0.00 | 0.0749 | 9.9999 | 0.0162 | 9.9999 | 0.2436 | -1.2390 | -0.0157 | -0.4357 | 0.0159 | 0.3549 |
| 6 | -2.35 | -0.03 | 0.0748 | 9.9999 | 0.0194 | 9.9999 | 0.2568 | -1.2069 | -0.0286 | -0.4290 | 0.0237 | 0.3555 |
| 7 | -0.79 | 0.00 | 0.0655 | 9.9999 | 0.0195 | 9.9999 | 0.2831 | -1.1183 | -0.0356 | -0.4029 | 0.0317 | 0.3603 |
| 8 | 1.04 | -0.01 | 0.0653 | 9.9999 | 0.0197 | 9.9999 | 0.2977 | -0.9951 | -0.0391 | -0.3569 | 0.0393 | 0.3587 |
| 9 | 2.95 | -0.00 | 0.0677 | 9.9999 | 0.0135 | 9.9999 | 0.2051 | -0.8813 | -0.0386 | -0.3244 | 0.0438 | 0.3681 |
| 10 | 4.72 | 0.01 | 0.0752 | 9.9999 | 0.0107 | 9.9999 | 0.1465 | -0.7447 | -0.0374 | -0.2657 | 0.0503 | 0.3568 |
| 11 | 6.59 | 0.01 | 0.0802 | 9.9999 | 0.0073 | 9.9999 | 0.0915 | -0.5946 | -0.0298 | -0.2058 | 0.0501 | 0.3462 |
| 12 | 8.43 | 0.00 | 0.0946 | 9.9999 | 0.0113 | 9.9999 | 0.1194 | -0.4444 | -0.0206 | -0.1487 | 0.0465 | 0.3346 |
| 13 | 10.26 | 0.00 | 0.0955 | 9.9999 | 0.0083 | 9.9999 | 0.1125 | -0.2903 | -0.0081 | -0.0882 | 0.0275 | 0.3038 |
| 14 | 12.12 | -0.01 | 0.0999 | 9.9999 | 0.0044 | 9.9999 | 0.0794 | -0.1573 | 0.0026 | -0.0293 | -0.0166 | 0.1865 |
| 15 | 13.99 | -0.00 | 0.0850 | 9.9999 | 0.0052 | 9.9999 | 0.0661 | -0.0484 | 0.0133 | 0.0297 | -0.2749 | -0.6135 |
| 16 | 15.92 | -0.01 | 0.0999 | 9.9999 | 0.0019 | 9.9999 | 0.0126 | 0.0627 | 0.0251 | 0.0831 | 0.4600 | 1.3246 |
| 17 | 17.85 | -0.00 | 0.0930 | 9.9999 | -0.0088 | 9.9999 | -0.0944 | 0.1951 | 0.0382 | 0.1431 | 0.1958 | 0.7334 |
| 18 | 19.74 | -0.01 | 0.0960 | 9.9999 | -0.0136 | 9.9999 | -0.1329 | 0.3202 | 0.0471 | 0.2036 | 0.1434 | 0.6202 |
| 19 | 21.67 | 0.00 | 0.1076 | 9.9999 | -0.0104 | 9.9999 | -0.0969 | 0.4254 | 0.0497 | 0.2520 | 0.1168 | 0.5924 |
| 20 | 23.64 | -0.01 | 0.1030 | 9.9999 | -0.0146 | 9.9999 | -0.1415 | 0.5060 | 0.0536 | 0.2995 | 0.1058 | 0.5919 |
| 21 | 25.57 | 0.02 | 0.1123 | 9.9999 | -0.0063 | 9.9999 | -0.0558 | 0.5465 | 0.0575 | 0.3240 | 0.1048 | 0.5907 |
| 22 | 27.55 | 0.05 | 0.1337 | 9.9999 | 0.0040 | 9.9999 | 0.0496 | 0.5800 | 0.0627 | 0.3466 | 0.1081 | 0.5975 |
| 23 | 28.02 | 0.06 | 0.1433 | 9.9999 | 0.0075 | 9.9999 | 0.0525 | 0.5854 | 0.0627 | 0.3512 | 0.1071 | 0.6000 |
| 24 | 28.31 | 0.06 | 0.1405 | 9.9999 | 0.0073 | 9.9999 | 0.0521 | 0.5946 | 0.0622 | 0.3626 | 0.1029 | 0.5997 |
| 25 | 28.59 | 0.05 | 0.1405 | 9.9999 | 0.0073 | 9.9999 | 0.0521 | 0.6020 | 0.0622 | 0.3644 | 0.1034 | 0.6054 |
| 26 | 28.92 | 0.05 | 0.1406 | 9.9999 | 0.0093 | 9.9999 | 0.0658 | 0.6181 | 0.0627 | 0.3727 | 0.1015 | 0.6030 |
| 27 | 29.23 | 0.05 | 0.1432 | 9.9999 | 0.0104 | 9.9999 | 0.0728 | 0.6182 | 0.0627 | 0.3747 | 0.1015 | 0.6061 |
| 28 | 29.52 | 0.06 | 0.1424 | 9.9999 | 0.0157 | 9.9999 | 0.0969 | 0.6375 | 0.0627 | 0.3843 | 0.0980 | 0.6006 |
| 29 | 29.81 | 0.07 | 0.1424 | 9.9999 | 0.0157 | 9.9999 | 0.0969 | 0.6180 | 0.0638 | 0.3798 | 0.1032 | 0.6145 |
| 30 | 30.09 | 0.07 | 0.1718 | 9.9999 | 0.0203 | 9.9999 | 0.1174 | 0.6397 | 0.0636 | 0.3894 | 0.0997 | 0.6087 |
| 31 | 30.36 | 0.07 | 0.1814 | 9.9999 | 0.0258 | 9.9999 | 0.1420 | 0.6398 | 0.0645 | 0.3945 | 0.1005 | 0.6168 |
| 32 | 30.62 | 0.07 | 0.1826 | 9.9999 | 0.0196 | 9.9999 | 0.0979 | 0.6594 | 0.0649 | 0.4013 | 0.0976 | 0.6086 |
| 33 | 30.91 | 0.07 | 0.1871 | 9.9999 | 0.0218 | 9.9999 | 0.1305 | 0.6673 | 0.0654 | 0.4060 | 0.0980 | 0.6084 |
| 34 | 31.18 | 0.06 | 0.1824 | 9.9999 | 0.0195 | 9.9999 | 0.1200 | 0.6658 | 0.0646 | 0.4142 | 0.0945 | 0.6058 |
| 35 | 31.46 | 0.07 | 0.1901 | 9.9999 | 0.0195 | 9.9999 | 0.1298 | 0.6944 | 0.0654 | 0.4161 | 0.0942 | 0.5951 |
| 36 | 31.73 | 0.05 | 0.1931 | 9.9999 | 0.0191 | 9.9999 | 0.1059 | 0.7002 | 0.0644 | 0.4210 | 0.0909 | 0.5944 |
| 37 | 32.00 | 0.05 | 0.1936 | 9.9999 | 0.0170 | 9.9999 | 0.1168 | 0.6919 | 0.0646 | 0.4178 | 0.0934 | 0.6038 |
| 38 | 32.26 | 0.06 | 0.1975 | 9.9999 | 0.0216 | 9.9999 | 0.1336 | 0.7001 | 0.0649 | 0.4235 | 0.0928 | 0.6048 |
| 39 | 32.52 | 0.05 | 0.1978 | 9.9999 | 0.0174 | 9.9999 | 0.1175 | 0.7107 | 0.0657 | 0.4263 | 0.0925 | 0.5958 |
| 40 | 32.79 | 0.05 | 0.1934 | 9.9999 | 0.0124 | 9.9999 | 0.0753 | 0.7050 | 0.0665 | 0.4240 | 0.0943 | 0.6013 |
| 41 | 33.05 | 0.05 | 0.1983 | 9.9999 | 0.0138 | 9.9999 | 0.0958 | 0.7128 | 0.0675 | 0.4236 | 0.0947 | 0.5942 |
| 42 | 33.29 | 0.04 | 0.1910 | 9.9999 | 0.0123 | 9.9999 | 0.0935 | 0.7044 | 0.0686 | 0.4150 | 0.0974 | 0.5892 |
| 43 | 33.58 | 0.04 | 0.1961 | 9.9999 | 0.0195 | 9.9999 | 0.1298 | 0.6967 | 0.0654 | 0.4011 | 0.0939 | 0.5757 |
| 44 | 33.79 | 0.03 | 0.1864 | 9.9999 | 0.0115 | 9.9999 | 0.0858 | 0.6891 | 0.0631 | 0.3934 | 0.0916 | 0.5768 |
| 45 | 34.03 | 0.04 | 0.1982 | 9.9999 | 0.0134 | 9.9999 | 0.1007 | 0.6916 | 0.0634 | 0.3910 | 0.0873 | 0.5653 |
| 46 | 34.31 | 0.05 | 0.1905 | 9.9999 | 0.0158 | 9.9999 | 0.1126 | 0.6894 | 0.0586 | 0.3876 | 0.0850 | 0.5622 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 15C | MACH 1.00 | RN X10-6 1.7 | PHI 0.0 | CONF 81 | L 6.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.56 | 0.04 | 0.1265 | 9.9999 | 0.0111 | 9.9999 | 0.0863 | 0.6977 | 0.0578 | 0.3961 | 0.0828 | 0.5591 |
| 48 | 34.77 | 0.05 | 0.1216 | 9.9999 | 0.0115 | 9.9999 | 0.0997 | 0.6873 | 0.0566 | 0.3832 | 0.0814 | 0.5578 |
| 49 | 35.03 | 0.02 | 0.1265 | 9.9999 | 0.0138 | 9.9999 | 0.0852 | 0.7115 | 0.0570 | 0.3951 | 0.0802 | 0.5554 |
| 50 | 35.29 | 0.03 | 0.1267 | 9.9999 | 0.0126 | 9.9999 | 0.1225 | 0.7016 | 0.0517 | 0.3859 | 0.0737 | 0.5499 |
| 51 | 35.51 | 0.03 | 0.1052 | 9.9999 | 0.0068 | 9.9999 | 0.0618 | 0.7068 | 0.0536 | 0.3864 | 0.0755 | 0.5468 |
| 52 | 35.76 | 0.02 | 0.1058 | 9.9999 | 0.0156 | 9.9999 | 0.1242 | 0.7133 | 0.0480 | 0.3865 | 0.0682 | 0.5419 |
| 53 | 35.99 | 0.03 | 0.1263 | 9.9999 | 0.0145 | 9.9999 | 0.1156 | 0.7133 | 0.0489 | 0.3865 | 0.0686 | 0.5419 |
| 54 | 36.21 | 0.02 | 0.1165 | 9.9999 | 0.0160 | 9.9999 | 0.1352 | 0.7196 | 0.0473 | 0.3848 | 0.0658 | 0.5352 |
| 55 | 36.45 | 0.02 | 0.1135 | 9.9999 | 0.0115 | 9.9999 | 0.1042 | 0.7166 | 0.0460 | 0.3835 | 0.0642 | 0.5352 |
| 56 | 36.71 | 0.03 | 0.1113 | 9.9999 | 0.0126 | 9.9999 | 0.1135 | 0.7250 | 0.0447 | 0.3849 | 0.0616 | 0.5297 |
| 57 | 36.96 | 0.04 | 0.1138 | 9.9999 | 0.0138 | 9.9999 | 0.1213 | 0.7253 | 0.0439 | 0.3850 | 0.0605 | 0.5308 |
| 58 | 37.19 | 0.03 | 0.1090 | 9.9999 | 0.0115 | 9.9999 | 0.1053 | 0.7309 | 0.0428 | 0.3863 | 0.0586 | 0.5286 |
| 59 | 37.41 | 0.04 | 0.1139 | 9.9999 | 0.0148 | 9.9999 | 0.1297 | 0.7213 | 0.0419 | 0.3810 | 0.0581 | 0.5282 |
| 60 | 37.64 | 0.02 | 0.1090 | 9.9999 | 0.0134 | 9.9999 | 0.1230 | 0.7242 | 0.0424 | 0.3831 | 0.0587 | 0.5311 |
| 61 | 37.87 | 0.03 | 0.1135 | 9.9999 | 0.0148 | 9.9999 | 0.1297 | 0.7298 | 0.0403 | 0.3825 | 0.0553 | 0.5241 |
| 62 | 38.11 | 0.03 | 0.1162 | 9.9999 | 0.0178 | 9.9999 | 0.1526 | 0.7269 | 0.0414 | 0.3833 | 0.0565 | 0.5273 |
| 63 | 38.34 | 0.02 | 0.1163 | 9.9999 | 0.0150 | 9.9999 | 0.1286 | 0.7296 | 0.0411 | 0.3846 | 0.0563 | 0.5271 |
| 64 | 38.58 | 0.04 | 0.1114 | 9.9999 | 0.0146 | 9.9999 | 0.1307 | 0.7360 | 0.0403 | 0.3881 | 0.0546 | 0.5258 |
| 65 | 38.79 | 0.05 | 0.1232 | 9.9999 | 0.0231 | 9.9999 | 0.1872 | 0.7437 | 0.0387 | 0.3864 | 0.0520 | 0.5158 |
| 66 | 39.01 | 0.04 | 0.1131 | 9.9999 | 0.0245 | 9.9999 | 0.2042 | 0.7392 | 0.0405 | 0.3869 | 0.0551 | 0.5262 |
| 67 | 39.23 | 0.04 | 0.1183 | 9.9999 | 0.0255 | 9.9999 | 0.2153 | 0.7437 | 0.0393 | 0.3865 | 0.0528 | 0.5223 |
| 68 | 39.44 | 0.05 | 0.1018 | 9.9999 | 0.0178 | 9.9999 | 0.1725 | 0.7509 | 0.0398 | 0.3896 | 0.0531 | 0.5191 |
| 69 | 39.64 | 0.04 | 0.1054 | 9.9999 | 0.0164 | 9.9999 | 0.1650 | 0.7505 | 0.0415 | 0.3919 | 0.0553 | 0.5222 |
| 70 | 39.86 | 0.03 | 0.1113 | 9.9999 | 0.0221 | 9.9999 | 0.1964 | 0.7558 | 0.0417 | 0.3934 | 0.0552 | 0.5205 |
| 71 | 40.07 | 0.04 | 0.1065 | 9.9999 | 0.0217 | 9.9999 | 0.2038 | 0.7561 | 0.0409 | 0.3943 | 0.0541 | 0.5216 |
| 72 | 40.25 | 0.05 | 0.1138 | 9.9999 | 0.0252 | 9.9999 | 0.2214 | 0.7794 | 0.0376 | 0.4023 | 0.0485 | 0.5161 |
| 73 | 40.47 | 0.03 | 0.0922 | 9.9999 | 0.0155 | 9.9999 | 0.1726 | 0.7620 | 0.0426 | 0.3973 | 0.0558 | 0.5215 |
| 74 | 40.69 | 0.04 | 0.1065 | 9.9999 | 0.0246 | 9.9999 | 0.2276 | 0.7733 | 0.0404 | 0.4010 | 0.0523 | 0.5185 |
| 75 | 40.88 | 0.04 | 0.1138 | 9.9999 | 0.0271 | 9.9999 | 0.2383 | 0.7841 | 0.0412 | 0.4049 | 0.0525 | 0.5164 |
| 76 | 41.10 | 0.02 | 0.1041 | 9.9999 | 0.0225 | 9.9999 | 0.2159 | 0.7899 | 0.0394 | 0.4051 | 0.0498 | 0.5129 |
| 77 | 41.29 | 0.04 | 0.1138 | 9.9999 | 0.0250 | 9.9999 | 0.2553 | 0.7988 | 0.0402 | 0.4093 | 0.0504 | 0.5124 |
| 78 | 41.49 | 0.02 | 0.0976 | 9.9999 | 0.0210 | 9.9999 | 0.2109 | 0.7873 | 0.0424 | 0.4046 | 0.0538 | 0.5138 |
| 79 | 41.69 | 0.02 | 0.0999 | 9.9999 | 0.0203 | 9.9999 | 0.2037 | 0.7930 | 0.0418 | 0.4075 | 0.0524 | 0.5144 |
| 80 | 41.89 | 0.02 | 0.1138 | 9.9999 | 0.0266 | 9.9999 | 0.2553 | 0.7908 | 0.0395 | 0.4056 | 0.0499 | 0.5129 |
| 81 | 42.08 | 0.02 | 0.0994 | 9.9999 | 0.0212 | 9.9999 | 0.2136 | 0.8014 | 0.0405 | 0.4084 | 0.0506 | 0.5098 |
| 82 | 42.27 | 0.03 | 0.1052 | 9.9999 | 0.0250 | 9.9999 | 0.2502 | 0.8223 | 0.0371 | 0.4141 | 0.0452 | 0.5036 |
| 83 | 42.46 | 0.02 | 0.1114 | 9.9999 | 0.0275 | 9.9999 | 0.2502 | 0.7861 | 0.0395 | 0.3986 | 0.0502 | 0.5071 |
| 84 | 42.65 | 0.03 | 0.1019 | 9.9999 | 0.0224 | 9.9999 | 0.2197 | 0.8248 | 0.0379 | 0.4164 | 0.0460 | 0.5048 |
| 85 | 42.83 | 0.02 | 0.0972 | 9.9999 | 0.0191 | 9.9999 | 0.1966 | 0.8138 | 0.0379 | 0.4096 | 0.0466 | 0.5033 |
| 86 | 43.00 | 0.03 | 0.1115 | 9.9999 | 0.0269 | 9.9999 | 0.2413 | 0.8141 | 0.0389 | 0.4106 | 0.0493 | 0.5043 |
| 87 | 43.18 | 0.02 | 0.0972 | 9.9999 | 0.0173 | 9.9999 | 0.1778 | 0.8047 | 0.0371 | 0.4074 | 0.0460 | 0.5062 |
| 88 | 43.38 | 0.03 | 0.0815 | 9.9999 | 0.0155 | 9.9999 | 0.1775 | 0.8332 | 0.0358 | 0.4137 | 0.0430 | 0.4966 |
| 89 | 43.56 | 0.01 | 0.0828 | 9.9999 | 0.0132 | 9.9999 | 0.1600 | 0.8126 | 0.0368 | 0.4048 | 0.0452 | 0.4981 |
| 90 | 43.73 | 0.01 | 0.0955 | 9.9999 | 0.0165 | 9.9999 | 0.1843 | 0.8152 | 0.0373 | 0.4080 | 0.0458 | 0.5005 |
| 91 | 43.94 | -0.01 | 0.0970 | 9.9999 | 0.0201 | 9.9999 | 0.2070 | 0.8046 | 0.0368 | 0.4031 | 0.0457 | 0.5011 |
| 92 | 44.16 | 0.01 | 0.0874 | 9.9999 | 0.0155 | 9.9999 | 0.1777 | 0.8320 | 0.0344 | 0.4119 | 0.0414 | 0.4951 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 15C | MACH 1.00 | RNIC-E 1.7 | PHI 0.0 | CONF B1B0F23 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.35 | 0.01 | 0.1085 | 0.0000 | 0.0256 | 0.9999 | 0.2365 | 0.7744 | 0.0363 | 0.3917 | 0.0468 | 0.5059 |
| 94 | 44.55 | 0.02 | 0.0965 | 0.0000 | 0.0191 | 0.9999 | 0.1972 | 0.8112 | 0.0368 | 0.4041 | 0.0453 | 0.4982 |
| 95 | 44.76 | 0.01 | 0.0946 | 0.0000 | 0.0195 | 0.9999 | 0.2106 | 0.8225 | 0.0351 | 0.4057 | 0.0427 | 0.4933 |
| 96 | 44.93 | 0.01 | 0.0847 | 0.0000 | 0.0152 | 0.9999 | 0.1800 | 0.7937 | 0.0367 | 0.3963 | 0.0462 | 0.4993 |
| 97 | 45.11 | -0.02 | 0.0726 | 0.0000 | 0.0115 | 0.9999 | 0.1582 | 0.8306 | 0.0341 | 0.4058 | 0.0407 | 0.4858 |
| 98 | 45.31 | 0.00 | 0.0967 | 0.0000 | 0.0230 | 0.9999 | 0.2320 | 0.7890 | 0.0358 | 0.3934 | 0.0454 | 0.4992 |
| 99 | 45.51 | -0.01 | 0.0844 | 0.0000 | 0.0171 | 0.9999 | 0.2023 | 0.7872 | 0.0353 | 0.3901 | 0.0445 | 0.4955 |
| 100 | 45.68 | 0.01 | 0.0844 | 0.0000 | 0.0152 | 0.9999 | 0.1806 | 0.8239 | 0.0361 | 0.4053 | 0.0438 | 0.4920 |
| 101 | 45.85 | 0.01 | 0.0760 | 0.0000 | 0.0112 | 0.9999 | 0.1630 | 0.8263 | 0.0347 | 0.4041 | 0.0415 | 0.4878 |
| 102 | 46.02 | 0.03 | 0.0816 | 0.0000 | 0.0155 | 0.9999 | 0.1946 | 0.8067 | 0.0349 | 0.3966 | 0.0433 | 0.4916 |
| 103 | 46.21 | -0.01 | 0.0795 | 0.0000 | 0.0167 | 0.9999 | 0.2105 | 0.8194 | 0.0339 | 0.4009 | 0.0413 | 0.4893 |
| 104 | 46.40 | 0.01 | 0.0801 | 0.0000 | 0.0164 | 0.9999 | 0.1734 | 0.8350 | 0.0349 | 0.4051 | 0.0418 | 0.4851 |
| 105 | 46.56 | 0.00 | 0.0765 | 0.0000 | 0.0175 | 0.9999 | 0.2271 | 0.8230 | 0.0342 | 0.4008 | 0.0413 | 0.4841 |
| 106 | 46.72 | 0.00 | 0.0800 | 0.0000 | 0.0132 | 0.9999 | 0.2203 | 0.8375 | 0.0343 | 0.4051 | 0.0410 | 0.4836 |
| 107 | 46.91 | 0.03 | 0.0847 | 0.0000 | 0.0136 | 0.9999 | 0.2101 | 0.8416 | 0.0348 | 0.4050 | 0.0414 | 0.4812 |
| 108 | 47.09 | -0.01 | 0.0871 | 0.0000 | 0.0158 | 0.9999 | 0.2331 | 0.8417 | 0.0343 | 0.4019 | 0.0408 | 0.4775 |
| 109 | 47.25 | 0.02 | 0.0841 | 0.0000 | 0.0215 | 0.9999 | 0.2852 | 0.8325 | 0.0338 | 0.3968 | 0.0406 | 0.4766 |
| 110 | 47.41 | 0.02 | 0.0847 | 0.0000 | 0.0117 | 0.9999 | 0.2216 | 0.8383 | 0.0322 | 0.3970 | 0.0384 | 0.4736 |
| 111 | 47.62 | 0.04 | 0.0788 | 0.0000 | 0.0204 | 0.9999 | 0.2583 | 0.7971 | 0.0343 | 0.3791 | 0.0430 | 0.4756 |
| 112 | 47.77 | 0.02 | 0.0781 | 0.0000 | 0.0222 | 0.9999 | 0.2819 | 0.7891 | 0.0340 | 0.3765 | 0.0436 | 0.4771 |
| 113 | 47.97 | 0.03 | 0.0851 | 0.0000 | 0.0186 | 0.9999 | 0.2696 | 0.8997 | 0.0427 | 0.3393 | 0.0611 | 0.4856 |
| 114 | 48.14 | 0.00 | 0.0763 | 0.0000 | 0.0211 | 0.9999 | 0.2769 | 0.7402 | 0.0346 | 0.3570 | 0.0576 | 0.4784 |
| 115 | 48.35 | 0.01 | 0.0851 | 0.0000 | 0.0158 | 0.9999 | 0.2835 | 0.8802 | 0.0440 | 0.3281 | 0.0647 | 0.4823 |
| 116 | 48.52 | 0.02 | 0.0832 | 0.0000 | 0.0203 | 0.9999 | 0.3107 | 0.7017 | 0.0346 | 0.3316 | 0.0627 | 0.4726 |
| 117 | 48.72 | 0.04 | 0.0808 | 0.0000 | 0.0242 | 0.9999 | 0.2999 | 0.7356 | 0.0340 | 0.3406 | 0.0598 | 0.4631 |
| 118 | 48.87 | 0.03 | 0.0736 | 0.0000 | 0.0236 | 0.9999 | 0.3211 | 0.7467 | 0.0345 | 0.3447 | 0.0594 | 0.4603 |
| 119 | 49.06 | 0.03 | 0.0864 | 0.0000 | 0.0221 | 0.9999 | 0.3328 | 0.7432 | 0.0343 | 0.3372 | 0.0596 | 0.4537 |
| 120 | 49.22 | 0.03 | 0.0782 | 0.0000 | 0.0278 | 0.9999 | 0.3556 | 0.7429 | 0.0348 | 0.3332 | 0.0603 | 0.4485 |
| 121 | 49.35 | 0.02 | 0.0751 | 0.0000 | 0.0225 | 0.9999 | 0.3301 | 0.7591 | 0.0345 | 0.3413 | 0.0586 | 0.4498 |
| 122 | 49.56 | 0.03 | 0.0816 | 0.0000 | 0.0217 | 0.9999 | 0.3527 | 0.7044 | 0.0345 | 0.3437 | 0.0582 | 0.4466 |
| 123 | 49.75 | -0.00 | 0.0751 | 0.0000 | 0.0225 | 0.9999 | 0.3301 | 0.7566 | 0.0426 | 0.3389 | 0.0564 | 0.4478 |
| 124 | 49.92 | 0.03 | 0.0804 | 0.0000 | 0.0231 | 0.9999 | 0.3474 | 0.8018 | 0.0440 | 0.3372 | 0.0549 | 0.4455 |
| 125 | 50.09 | 0.02 | 0.0816 | 0.0000 | 0.0236 | 0.9999 | 0.3640 | 0.8060 | 0.0420 | 0.3586 | 0.0521 | 0.4456 |
| 126 | 50.27 | 0.02 | 0.0838 | 0.0000 | 0.0257 | 0.9999 | 0.4024 | 0.8230 | 0.0414 | 0.3644 | 0.0503 | 0.4425 |
| 127 | 50.45 | 0.01 | 0.0756 | 0.0000 | 0.0253 | 0.9999 | 0.4288 | 0.8103 | 0.0416 | 0.3625 | 0.0513 | 0.4474 |
| 128 | 50.61 | 0.01 | 0.0743 | 0.0000 | 0.0231 | 0.9999 | 0.4245 | 0.8333 | 0.0388 | 0.3693 | 0.0485 | 0.4431 |
| 129 | 50.80 | -0.02 | 0.0758 | 0.0000 | 0.0217 | 0.9999 | 0.4377 | 0.8253 | 0.0338 | 0.3677 | 0.0470 | 0.4458 |
| 130 | 50.96 | 0.03 | 0.0751 | 0.0000 | 0.0225 | 0.9999 | 0.3901 | 0.8338 | 0.0368 | 0.3692 | 0.0441 | 0.4427 |
| 131 | 51.09 | -0.01 | 0.0815 | 0.0000 | 0.0215 | 0.9999 | 0.4219 | 0.8302 | 0.0362 | 0.3684 | 0.0436 | 0.4437 |
| 132 | 51.27 | -0.00 | 0.0815 | 0.0000 | 0.0225 | 0.9999 | 0.4405 | 0.8402 | 0.0365 | 0.3755 | 0.0431 | 0.4438 |
| 133 | 51.45 | -0.01 | 0.0862 | 0.0000 | 0.0256 | 0.9999 | 0.3907 | 0.8596 | 0.0362 | 0.3806 | 0.0421 | 0.4426 |
| 134 | 51.62 | 0.01 | 0.0854 | 0.0000 | 0.0207 | 0.9999 | 0.4199 | 0.8441 | 0.0361 | 0.3726 | 0.0428 | 0.4419 |
| 135 | 51.80 | -0.01 | 0.0855 | 0.0000 | 0.0196 | 0.9999 | 0.4756 | 0.7741 | 0.0381 | 0.3459 | 0.0492 | 0.4468 |
| 136 | 51.97 | 0.02 | 0.0881 | 0.0000 | 0.0287 | 0.9999 | 0.4207 | 0.7556 | 0.0376 | 0.3580 | 0.0523 | 0.4472 |
| 137 | 52.15 | -0.02 | 0.0845 | 0.0000 | 0.0212 | 0.9999 | 0.4772 | 0.7772 | 0.0391 | 0.3455 | 0.0503 | 0.4448 |
| 138 | 52.30 | -0.02 | 0.0844 | 0.0000 | 0.0231 | 0.9999 | 0.5196 | 0.7390 | 0.0393 | 0.3306 | 0.0531 | 0.4473 |

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | REIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 150 | 1.60 | 1.7 | 0.0 | BINDER3 | 6.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.46 | -0.02 | 0.0345 | 9.9999 | 0.0212 | 9.9999 | 0.4772 | 0.7287 | 0.0380 | 0.3267 | 0.0522 | 0.4484 |
| 140 | 52.64 | -0.00 | 0.0344 | 9.9999 | 0.0221 | 9.9999 | 0.4778 | 0.7340 | 0.0377 | 0.3252 | 0.0514 | 0.4436 |
| 141 | 51.61 | 0.02 | 0.0347 | 9.9999 | 0.0232 | 9.9999 | 0.6607 | 0.8441 | 0.0395 | 0.3615 | 0.0468 | 0.4283 |
| 142 | 50.24 | 0.03 | 0.0340 | 9.9999 | 0.0286 | 9.9999 | 0.6491 | 0.7575 | 0.0449 | 0.3231 | 0.0592 | 0.4266 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 4

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 151 MACH 1.10 RXIC=6 1.7 PHI 0.0 CONF 0.0 L 0.6 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLP | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.02 | -1.2310 | 4.0564 | 0.0443 | -0.1231 | 0.0177 | 0.0811 | 0.2692 | 0.5918 | -3.3292 |
| 2 | -5.75 | 0.02 | -1.1966 | 4.0255 | 0.1883 | -0.1534 | 0.0160 | 0.0742 | 0.2875 | 0.5806 | -3.3871 |
| 3 | -5.75 | 0.01 | -1.2342 | 4.0766 | 0.1314 | -0.1663 | 0.0179 | 0.0779 | 0.2921 | 0.5858 | -3.3047 |
| 4 | -5.16 | 0.02 | -1.1396 | 4.0814 | 0.0931 | -0.0659 | 0.0161 | 0.0819 | 0.2840 | 0.5978 | -3.5813 |
| 5 | -3.23 | 0.00 | -0.9963 | 4.0026 | 0.0637 | -0.1089 | 0.0135 | 0.0653 | 0.2830 | 0.5823 | -4.0401 |
| 6 | -1.45 | 0.00 | -0.8298 | 3.7834 | 0.0456 | -0.1566 | 0.0192 | 0.0412 | 0.2799 | 0.5613 | -4.5636 |
| 7 | 0.48 | 0.03 | -0.6826 | 3.5360 | 0.2245 | -0.2461 | 0.0149 | 0.0290 | 0.2865 | 0.5425 | -5.7719 |
| 8 | 2.32 | 0.01 | -0.5259 | 3.3014 | 0.0878 | -0.1951 | 0.0149 | 0.0230 | 0.2921 | 0.5316 | -6.2778 |
| 9 | 4.18 | 0.00 | -0.2631 | 2.9256 | -0.0047 | -0.0722 | 0.0101 | 0.7941 | 0.2955 | 0.4587 | -11.1342 |
| 10 | 6.07 | 0.01 | 0.0102 | 2.5066 | 0.0023 | -0.0503 | 0.0102 | 0.7830 | 0.3049 | 0.4561 | 250.9140 |
| 11 | 7.97 | 0.01 | 0.2067 | 2.1507 | 0.0005 | -0.1103 | 0.0107 | 0.7271 | 0.3033 | 0.4178 | 10.3047 |
| 12 | 9.80 | -0.00 | 0.4567 | 1.7520 | -0.0126 | 0.0703 | 0.0223 | 0.6998 | 0.3147 | 0.3851 | 3.6235 |
| 13 | 11.74 | -0.01 | 0.7656 | 1.2816 | -0.1165 | 0.0272 | 0.0232 | 0.6596 | 0.3182 | 0.3417 | 1.6313 |
| 14 | 13.64 | -0.00 | 1.1165 | 0.8201 | 0.0004 | 0.2419 | 0.0233 | 0.6203 | 0.3209 | 0.2995 | 0.7345 |
| 15 | 15.61 | 0.00 | 1.4074 | 0.4817 | 0.0525 | 0.2554 | 0.0240 | 0.5601 | 0.3246 | 0.2557 | 0.3422 |
| 16 | 17.60 | -0.01 | 1.7013 | 0.2237 | -0.1518 | 0.4383 | 0.0144 | 0.5315 | 0.3254 | 0.2059 | 0.1497 |
| 17 | 19.52 | -0.02 | 2.0531 | 0.0257 | -0.2142 | 0.5450 | 0.0099 | 0.4699 | 0.3281 | 0.1638 | 0.0123 |
| 18 | 21.53 | -0.01 | 2.4167 | 0.0016 | -0.0556 | 0.6627 | -0.0205 | 0.4366 | 0.3217 | 0.1170 | 0.0006 |
| 19 | 23.55 | 0.00 | 3.1112 | 0.2056 | 0.0043 | 0.4136 | -0.0282 | 0.4033 | 0.3152 | 0.0881 | 0.0349 |
| 20 | 25.54 | -0.02 | 3.8566 | 0.1516 | -0.1043 | 0.0247 | -0.0259 | 0.3582 | 0.3101 | 0.0481 | 0.0404 |
| 21 | 27.56 | 0.02 | 4.5364 | 0.3737 | 0.3178 | -0.4336 | 0.0600 | 0.3247 | 0.3083 | 0.0234 | 0.0824 |
| 22 | 28.10 | 0.03 | 4.6354 | 0.3761 | 0.3542 | -0.4142 | 0.0604 | 0.3181 | 0.3056 | 0.0145 | 0.0811 |
| 23 | 28.45 | 0.01 | 4.6756 | 0.4421 | 0.2214 | -0.3431 | 0.0552 | 0.3136 | 0.2997 | 0.0139 | 0.0945 |
| 24 | 28.71 | 0.02 | 4.6263 | 0.4532 | 0.2725 | -0.4267 | 0.0719 | 0.3048 | 0.3025 | 0.0023 | 0.0939 |
| 25 | 29.04 | 0.03 | 4.5075 | 0.5077 | 0.3111 | -0.2216 | 0.0613 | 0.3062 | 0.3039 | 0.0043 | 0.1034 |
| 26 | 29.30 | 0.01 | 4.5614 | 0.4652 | 0.1281 | 0.1884 | 0.0337 | 0.3094 | 0.3039 | 0.0055 | 0.0534 |
| 27 | 29.65 | 0.01 | 5.1445 | 0.3530 | 0.1507 | -0.1361 | 0.0460 | 0.2784 | 0.3080 | -0.0275 | 0.0886 |
| 28 | 29.92 | 0.03 | 5.1537 | 0.4280 | 0.3530 | -0.3571 | 0.0573 | 0.2900 | 0.3003 | -0.0155 | 0.0832 |
| 29 | 30.21 | 0.04 | 5.3041 | 0.4126 | 0.5565 | -0.4217 | 0.0966 | 0.2650 | 0.3121 | -0.0270 | 0.0778 |
| 30 | 30.49 | 0.04 | 5.4263 | 0.3763 | 0.4467 | -0.3740 | 0.1067 | 0.2616 | 0.3156 | -0.0373 | 0.0682 |
| 31 | 30.76 | 0.07 | 5.4554 | 0.3673 | 0.7050 | -0.2174 | 0.1181 | 0.3250 | 0.3249 | 0.0001 | 0.0560 |
| 32 | 31.05 | 0.04 | 5.4261 | 0.2516 | 0.3704 | -0.0691 | 0.0896 | 0.3015 | 0.3256 | -0.0241 | 0.0443 |
| 33 | 31.32 | 0.04 | 5.4658 | 0.2237 | 0.4797 | -0.2374 | 0.0852 | 0.3072 | 0.3246 | -0.0174 | 0.0393 |
| 34 | 31.60 | 0.03 | 5.4663 | 0.2524 | 0.2627 | 0.1573 | 0.0742 | 0.2875 | 0.3277 | -0.0397 | 0.0429 |
| 35 | 31.87 | 0.03 | 5.5237 | 0.2212 | 0.2152 | 0.2373 | 0.0687 | 0.2842 | 0.3280 | -0.0437 | 0.0373 |
| 36 | 32.15 | 0.03 | 5.5656 | 0.1873 | 0.3475 | -0.1797 | 0.0921 | 0.2957 | 0.3297 | -0.0340 | 0.0309 |
| 37 | 32.40 | 0.03 | 5.1211 | 0.2052 | 0.3054 | -0.0289 | 0.0865 | 0.2888 | 0.3281 | -0.0392 | 0.0335 |
| 38 | 32.68 | 0.02 | 5.4561 | 0.1475 | 0.2513 | -0.0788 | 0.0882 | 0.2844 | 0.3305 | -0.0460 | 0.0235 |
| 39 | 32.95 | 0.02 | 5.4010 | 0.1453 | 0.2411 | -0.0602 | 0.0878 | 0.2834 | 0.3318 | -0.0483 | 0.0227 |
| 40 | 33.22 | 0.02 | 5.3644 | 0.0458 | 0.1765 | 0.2390 | 0.0500 | 0.2657 | 0.3340 | -0.0688 | 0.0070 |
| 41 | 33.45 | -0.00 | 5.5460 | 0.1055 | -0.0172 | 0.4215 | 0.0551 | 0.2702 | 0.3378 | -0.0675 | 0.0252 |
| 42 | 33.72 | 0.01 | 5.7201 | -0.0775 | 0.1184 | 0.4270 | 0.0552 | 0.2686 | 0.3402 | -0.0741 | -0.0116 |
| 43 | 33.96 | 0.03 | 5.7609 | -0.1627 | 0.3056 | 0.3363 | 0.0872 | 0.2731 | 0.3443 | -0.0711 | -0.0241 |
| 44 | 34.20 | 0.01 | 6.0089 | -0.0760 | 0.0725 | 0.4152 | 0.0667 | 0.2700 | 0.3464 | -0.0695 | -0.0113 |
| 45 | 34.47 | 0.02 | 7.0128 | -0.2775 | 0.1592 | 0.4656 | 0.0665 | 0.2668 | 0.3520 | -0.0831 | -0.0396 |
| 46 | 34.73 | 0.01 | 7.0730 | -0.1536 | 0.0005 | 0.5314 | 0.0668 | 0.2621 | 0.3550 | -0.0928 | -0.0274 |

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 151 | MACH 1.10 | RX10-6 1.7 | PHI 0.0 | CONF 010UF2S | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.96 | 0.03 | 7.2228 | -0.4300 | 0.0771 | 0.5039 | 0.0726 | 0.2526 | 0.3047 | -0.1121 | -0.0595 |
| 48 | 35.21 | 0.01 | 7.3366 | -0.4274 | 0.0591 | 0.5900 | 0.0728 | 0.2726 | 0.3075 | -0.1048 | -0.0582 |
| 49 | 35.45 | 0.01 | 7.3767 | -0.3737 | 0.0767 | 0.4569 | 0.0626 | 0.2455 | 0.3054 | -0.1195 | -0.0507 |
| 50 | 35.71 | 0.00 | 7.4263 | -0.3486 | -0.0003 | 0.4465 | 0.0578 | 0.2540 | 0.3088 | -0.1146 | -0.0719 |
| 51 | 35.93 | 0.03 | 7.5964 | -0.3430 | 0.2371 | 0.5449 | 0.0662 | 0.2547 | 0.3727 | -0.1180 | -0.0715 |
| 52 | 36.17 | 0.03 | 7.7264 | -0.2925 | 0.1572 | 0.4468 | 0.0706 | 0.2423 | 0.3707 | -0.1264 | -0.0962 |
| 53 | 36.46 | 0.00 | 7.8028 | -0.2505 | -0.0175 | 0.6319 | 0.0584 | 0.2314 | 0.3730 | -0.1386 | -0.0885 |
| 54 | 36.69 | 0.01 | 7.9316 | -0.2326 | 0.1426 | 0.3768 | 0.0793 | 0.2420 | 0.3745 | -0.1325 | -0.1079 |
| 55 | 36.95 | -0.00 | 8.0979 | -0.2247 | -0.0755 | 0.7456 | 0.0597 | 0.2270 | 0.3669 | -0.1355 | -0.1018 |
| 56 | 37.18 | 0.01 | 8.0953 | -0.2461 | 0.0541 | 0.6193 | 0.0612 | 0.2360 | 0.3652 | -0.1292 | -0.1049 |
| 57 | 37.42 | 0.01 | 8.2450 | -0.2146 | 0.0932 | 0.6021 | 0.0605 | 0.2254 | 0.3603 | -0.1349 | -0.1109 |
| 58 | 37.65 | 0.01 | 8.3249 | -0.1959 | 0.0625 | 0.5214 | 0.0600 | 0.2228 | 0.3720 | -0.1492 | -0.1153 |
| 59 | 37.88 | 0.02 | 8.3949 | -0.1617 | 0.1289 | 0.6360 | 0.0660 | 0.2327 | 0.3569 | -0.1237 | -0.1129 |
| 60 | 38.11 | 0.01 | 8.4566 | -0.1575 | 0.0947 | 0.4770 | 0.0565 | 0.1991 | 0.3525 | -0.1584 | -0.1062 |
| 61 | 38.35 | 0.03 | 8.5558 | -0.1825 | 0.2076 | 0.6284 | 0.0771 | 0.2314 | 0.3608 | -0.1596 | -0.1382 |
| 62 | 38.58 | -0.00 | 8.6175 | -0.1587 | 0.0216 | 0.5180 | 0.0570 | 0.1959 | 0.3550 | -0.1591 | -0.1197 |
| 63 | 38.82 | -0.01 | 8.6505 | -0.1035 | -0.0543 | 0.5758 | 0.0571 | 0.1902 | 0.3436 | -0.1474 | -0.1161 |
| 64 | 39.04 | -0.01 | 8.6826 | -0.1335 | -0.0215 | 0.5585 | 0.0575 | 0.1838 | 0.3432 | -0.1574 | -0.1288 |
| 65 | 39.31 | -0.02 | 8.5122 | -0.1525 | -0.1751 | 0.6457 | 0.0526 | 0.1778 | 0.3480 | -0.1702 | -0.1253 |
| 66 | 39.52 | 0.01 | 8.5642 | -0.2166 | 0.1166 | 0.4272 | 0.0531 | 0.2034 | 0.3408 | -0.1374 | -0.1360 |
| 67 | 39.74 | -0.00 | 8.0533 | -0.3312 | -0.0378 | 0.6883 | 0.0527 | 0.1703 | 0.3505 | -0.1802 | -0.1464 |
| 68 | 39.96 | -0.00 | 8.1667 | -0.3413 | -0.0471 | 0.4976 | 0.0464 | 0.1734 | 0.3412 | -0.1658 | -0.1463 |
| 69 | 40.17 | 0.01 | 8.2544 | -0.4345 | 0.0307 | 0.7014 | 0.0477 | 0.1757 | 0.3547 | -0.1790 | -0.1550 |
| 70 | 40.39 | 0.01 | 8.4116 | -0.4775 | 0.0517 | 0.7200 | 0.0375 | 0.1629 | 0.3540 | -0.1911 | -0.1570 |
| 71 | 40.57 | 0.00 | 8.4350 | -0.5586 | -0.0341 | 0.7624 | 0.0429 | 0.1615 | 0.3531 | -0.1766 | -0.1694 |
| 72 | 40.78 | -0.01 | 8.5035 | -0.6574 | -0.1458 | 1.0213 | 0.0316 | 0.1625 | 0.3490 | -0.1671 | -0.1786 |
| 73 | 41.00 | 0.01 | 8.6347 | -0.6453 | 0.0505 | 0.5636 | 0.0334 | 0.1436 | 0.3368 | -0.1532 | -0.1703 |
| 74 | 41.19 | -0.01 | 8.6121 | -0.7061 | -0.0764 | 0.5291 | 0.0392 | 0.1411 | 0.3223 | -0.1812 | -0.1631 |
| 75 | 41.41 | 0.01 | 8.7358 | -0.7334 | 0.0275 | 0.6786 | 0.0273 | 0.1519 | 0.3364 | -0.1845 | -0.1780 |
| 76 | 41.62 | 0.01 | 8.8415 | -0.7352 | 0.0696 | 0.9444 | 0.0274 | 0.1471 | 0.3330 | -0.2059 | -0.1768 |
| 77 | 41.82 | -0.01 | 8.9038 | -0.8683 | -0.3216 | 1.3501 | 0.0343 | 0.1582 | 0.3439 | -0.1907 | -0.1987 |
| 78 | 42.01 | -0.00 | 8.9316 | -0.8305 | -0.1466 | 0.7996 | 0.0180 | 0.1466 | 0.3285 | -0.1797 | -0.1843 |
| 79 | 42.21 | -0.00 | 10.0216 | -1.0484 | -0.1551 | 1.0804 | 0.0365 | 0.1442 | 0.3327 | -0.1885 | -0.1844 |
| 80 | 42.40 | 0.00 | 10.1069 | -1.0030 | -0.1771 | 1.3221 | 0.0305 | 0.1357 | 0.3256 | -0.1899 | -0.1864 |
| 81 | 42.60 | -0.01 | 10.2387 | -1.0625 | -0.2052 | 1.1951 | 0.0014 | 0.1139 | 0.3201 | -0.2062 | -0.1937 |
| 82 | 42.78 | -0.01 | 10.3364 | -1.0750 | -0.2430 | 1.4790 | -0.0152 | 0.1260 | 0.3333 | -0.2073 | -0.2004 |
| 83 | 42.97 | -0.00 | 10.3388 | -1.0457 | -0.1517 | 1.3558 | -0.0191 | 0.1281 | 0.3302 | -0.2021 | -0.1988 |
| 84 | 43.14 | -0.01 | 10.4628 | -1.0787 | -0.1144 | 0.7502 | 0.0196 | 0.0765 | 0.3191 | -0.2405 | -0.1891 |
| 85 | 43.33 | -0.04 | 10.6218 | -2.1058 | -0.5490 | 1.5965 | -0.0143 | 0.0816 | 0.3312 | -0.2495 | -0.2039 |
| 86 | 43.52 | -0.02 | 10.6573 | -2.1139 | -0.2497 | 1.2201 | -0.0240 | 0.0755 | 0.3101 | -0.2345 | -0.1984 |
| 87 | 43.69 | -0.01 | 10.6115 | -2.0204 | -0.1158 | 0.5408 | -0.0018 | 0.0646 | 0.2982 | -0.2335 | -0.1906 |
| 88 | 43.89 | -0.02 | 10.7402 | -2.1464 | -0.2457 | 1.2933 | -0.0133 | 0.0712 | 0.3100 | -0.2387 | -0.1998 |
| 89 | 44.03 | -0.02 | 10.7102 | -2.0621 | -0.2616 | 1.4919 | -0.0248 | 0.0852 | 0.3064 | -0.2191 | -0.1925 |
| 90 | 44.22 | -0.01 | 10.8026 | -2.0278 | -0.1137 | 0.7571 | 0.0103 | 0.0569 | 0.2905 | -0.2335 | -0.1877 |
| 91 | 44.43 | -0.02 | 10.8716 | -1.9876 | -0.1356 | 0.4642 | 0.0226 | 0.0638 | 0.2871 | -0.2233 | -0.1828 |
| 92 | 44.58 | -0.02 | 10.8883 | -2.0214 | -0.2217 | 1.0595 | -0.0227 | 0.0490 | 0.2867 | -0.1878 | -0.2040 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RATIO=E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 151 1.10 1.7 0.0 BLANKETS C.G 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | LA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.78 | -0.00 | 10.9606 | -1.9770 | -0.0353 | 0.5013 | 0.0118 | 0.0541 | 0.2790 | -0.2249 | -0.1804 |
| 94 | 44.97 | -0.02 | 11.0479 | -2.0135 | -0.0291 | 0.5012 | -0.0232 | 0.0536 | 0.2867 | -0.2331 | -0.2064 |
| 95 | 45.14 | -0.02 | 11.0819 | -2.0209 | -0.1478 | 0.2569 | 0.0348 | 0.0464 | 0.2773 | -0.2309 | -0.1824 |
| 96 | 45.31 | -0.02 | 11.1363 | -1.9176 | 0.0075 | -0.1041 | 0.0377 | 0.0342 | 0.2688 | -0.2346 | -0.1718 |
| 97 | 45.51 | -0.01 | 11.2507 | -2.0149 | 0.0545 | 0.2444 | 0.0244 | 0.0312 | 0.2705 | -0.2343 | -0.1791 |
| 98 | 45.70 | -0.03 | 11.3313 | -1.9356 | -0.1428 | 0.0329 | 0.0321 | 0.0290 | 0.2734 | -0.2449 | -0.1712 |
| 99 | 45.85 | -0.02 | 11.2825 | -1.9261 | -0.0036 | 0.3851 | 0.0136 | 0.0360 | 0.2660 | -0.2306 | -0.1707 |
| 100 | 46.02 | -0.02 | 11.4421 | -2.0031 | -0.1044 | 0.7228 | 0.0321 | 0.0405 | 0.2730 | -0.2345 | -0.1751 |
| 101 | 46.23 | -0.03 | 11.5056 | -2.0512 | -0.2564 | 1.0423 | -0.0095 | 0.0280 | 0.2630 | -0.2550 | -0.1783 |
| 102 | 46.39 | -0.04 | 11.4833 | -1.9550 | -0.2704 | 0.9328 | -0.0036 | 0.0395 | 0.2725 | -0.2330 | -0.1702 |
| 103 | 46.56 | -0.04 | 11.5444 | -1.9597 | -0.2125 | 0.8124 | -0.0022 | 0.0221 | 0.2642 | -0.2421 | -0.1640 |
| 104 | 46.74 | -0.02 | 11.7920 | -2.0158 | -0.0335 | 0.7715 | 0.0081 | 0.0254 | 0.2663 | -0.2409 | -0.2049 |
| 105 | 46.92 | -0.02 | 11.6569 | -1.8176 | -0.0708 | 0.8231 | -0.0060 | 0.0222 | 0.2642 | -0.2420 | -0.1554 |
| 106 | 47.10 | -0.02 | 11.7675 | -1.8575 | -0.1515 | 0.9235 | -0.0081 | 0.0308 | 0.2679 | -0.2371 | -0.1576 |
| 107 | 47.27 | -0.03 | 11.8136 | -1.7851 | -0.1635 | 0.9059 | 0.0030 | 0.0230 | 0.2653 | -0.2423 | -0.1511 |
| 108 | 47.43 | -0.02 | 11.9435 | -2.0295 | -0.0744 | 0.8097 | 0.0085 | 0.0433 | 0.2717 | -0.2284 | -0.1908 |
| 109 | 47.56 | -0.03 | 11.8735 | -1.8662 | -0.1236 | 0.8007 | 0.0145 | 0.0459 | 0.2841 | -0.2382 | -0.1403 |
| 110 | 47.75 | -0.03 | 12.0452 | -2.0223 | -0.2355 | 0.8579 | 0.0255 | 0.0382 | 0.3038 | -0.2155 | -0.1878 |
| 111 | 47.96 | -0.03 | 12.1046 | -2.0448 | -0.1756 | 0.8013 | 0.0431 | 0.0710 | 0.3027 | -0.2316 | -0.1689 |
| 112 | 48.14 | -0.04 | 12.0338 | -2.0326 | -0.0636 | 0.4945 | 0.0709 | 0.1006 | 0.3352 | -0.2286 | -0.1576 |
| 113 | 48.31 | -0.02 | 12.2862 | -2.1014 | -0.0156 | 0.3724 | 0.0713 | 0.0850 | 0.3285 | -0.2434 | -0.1760 |
| 114 | 48.47 | -0.02 | 12.2256 | -1.7455 | 0.0010 | 0.4914 | 0.0705 | 0.0803 | 0.3132 | -0.2326 | -0.1427 |
| 115 | 48.64 | -0.01 | 12.2505 | -1.7028 | 0.0230 | 0.4314 | 0.0767 | 0.0725 | 0.3073 | -0.2347 | -0.1393 |
| 116 | 48.81 | -0.01 | 12.1963 | -1.5018 | 0.0609 | 0.3029 | 0.0709 | 0.0838 | 0.3017 | -0.2178 | -0.1231 |
| 117 | 48.98 | -0.01 | 12.3330 | -1.6235 | 0.0214 | 0.5410 | 0.0657 | 0.0787 | 0.3108 | -0.2320 | -0.1317 |
| 118 | 49.15 | -0.01 | 12.3952 | -1.5339 | 0.0565 | 0.7299 | 0.0706 | 0.0627 | 0.3114 | -0.2486 | -0.1237 |
| 119 | 49.32 | -0.02 | 12.3751 | -1.5320 | -0.0054 | 0.6424 | 0.0712 | 0.0687 | 0.3184 | -0.2496 | -0.1238 |
| 120 | 49.50 | 0.01 | 12.5655 | -1.4236 | 0.2181 | 0.6750 | 0.0757 | 0.0900 | 0.3170 | -0.2269 | -0.1530 |
| 121 | 49.69 | -0.00 | 12.6135 | -1.7588 | 0.1107 | 0.8529 | 0.0924 | 0.0726 | 0.3163 | -0.2434 | -0.1394 |
| 122 | 49.80 | 0.00 | 12.6440 | -1.7426 | 0.1078 | 0.8004 | 0.0817 | 0.0994 | 0.3219 | -0.2225 | -0.1379 |
| 123 | 50.04 | 0.00 | 12.7266 | -1.8021 | 0.1152 | 1.0623 | 0.0923 | 0.0956 | 0.3215 | -0.2258 | -0.1416 |
| 124 | 50.20 | 0.01 | 12.6754 | -1.5929 | 0.2163 | 1.2634 | 0.0807 | 0.1155 | 0.3326 | -0.2173 | -0.1256 |
| 125 | 50.36 | -0.00 | 12.6795 | -1.5381 | 0.1328 | 1.1181 | 0.0922 | 0.1121 | 0.3311 | -0.2190 | -0.1213 |
| 126 | 50.55 | 0.01 | 12.6544 | -1.6562 | 0.2653 | 1.1600 | 0.0757 | 0.1061 | 0.3405 | -0.2348 | -0.1477 |
| 127 | 50.71 | 0.00 | 12.8358 | -1.7487 | 0.2580 | 1.1296 | 0.0707 | 0.1212 | 0.3512 | -0.2300 | -0.1362 |
| 128 | 50.90 | -0.03 | 13.1227 | -2.3340 | -0.1137 | 1.2058 | 0.0800 | 0.1041 | 0.3606 | -0.2625 | -0.1773 |
| 129 | 51.05 | 0.01 | 13.1104 | -2.2145 | 0.3347 | 0.9217 | 0.0808 | 0.1426 | 0.3695 | -0.2289 | -0.1689 |
| 130 | 51.21 | 0.03 | 13.0875 | -2.1066 | 0.3876 | 0.9315 | 0.0869 | 0.1424 | 0.3674 | -0.2400 | -0.1607 |
| 131 | 51.40 | 0.02 | 13.3758 | -2.0036 | 0.3778 | 0.6693 | 0.0736 | 0.1117 | 0.3603 | -0.2686 | -0.1946 |
| 132 | 51.56 | 0.04 | 13.3362 | -2.4555 | 0.3132 | 0.9556 | 0.0814 | 0.1174 | 0.3574 | -0.2345 | -0.1871 |
| 133 | 51.72 | 0.03 | 13.3344 | -2.4888 | 0.4288 | 0.9564 | 0.0812 | 0.1162 | 0.3531 | -0.2349 | -0.1865 |
| 134 | 51.89 | 0.05 | 13.4065 | -2.5461 | 0.4570 | 0.9429 | 0.0870 | 0.1017 | 0.3470 | -0.2453 | -0.1932 |
| 135 | 52.05 | 0.02 | 13.4057 | -2.5507 | 0.3566 | 0.8408 | 0.0566 | 0.0874 | 0.3366 | -0.2491 | -0.1903 |
| 136 | 52.22 | 0.01 | 13.4956 | -2.6556 | 0.2756 | 1.0039 | 0.0510 | 0.0759 | 0.3484 | -0.2684 | -0.1968 |
| 137 | 52.37 | 0.02 | 13.3900 | -2.3764 | 0.3033 | 0.7666 | 0.0517 | 0.0651 | 0.3519 | -0.2667 | -0.1775 |
| 138 | 52.54 | 0.03 | 13.4701 | -2.4744 | 0.4073 | 0.7303 | 0.0519 | 0.0771 | 0.3555 | -0.2763 | -0.1837 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RN/D-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 151 | 1.10 | 1.7 | 0.0 | Biburds | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.70 | 0.01 | 13.4468 | -2.4068 | 0.3164 | 0.7772 | 0.0519 | 0.0808 | 0.3594 | -0.2785 | -0.1790 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASK0) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RATIO=6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 151 1.16 1.7 0.0 BARDF23 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.02 | -0.0177 | -0.0036 | 0.0203 | 0.2022 | -1.1475 | -1.1319 | -0.0115 | -0.6231 | 0.0101 | 0.5505 |
| 2 | -5.75 | 0.04 | -0.0038 | -0.0033 | 0.0161 | 0.1377 | -0.7045 | -1.1246 | -0.0121 | -0.6216 | 0.0108 | 0.5527 |
| 3 | -5.75 | 0.01 | -0.0152 | -0.0044 | 0.0186 | 0.2595 | -1.2215 | -1.1260 | -0.0122 | -0.6204 | 0.0108 | 0.5516 |
| 4 | -5.16 | 0.02 | -0.0278 | -0.0023 | 0.0127 | 0.0853 | -0.4563 | -1.0748 | -0.0163 | -0.6178 | 0.0151 | 0.5726 |
| 5 | -3.23 | 0.00 | -0.0297 | -0.0010 | 0.0107 | 0.0552 | -0.3604 | -0.9964 | -0.0144 | -0.5667 | 0.0144 | 0.5886 |
| 6 | -1.45 | 0.00 | -0.0345 | -0.0007 | 0.0108 | 0.0414 | -0.3523 | -0.9180 | -0.0079 | -0.5038 | 0.0086 | 0.6141 |
| 7 | 0.46 | 0.03 | -0.0363 | 0.0010 | 0.0140 | -0.0318 | -0.4809 | -0.8183 | -0.0103 | -0.5167 | 0.0126 | 0.6241 |
| 8 | 2.32 | 0.01 | -0.0264 | 0.0015 | 0.0149 | -0.0065 | -0.5274 | -0.6973 | -0.0131 | -0.4436 | 0.0188 | 0.6361 |
| 9 | 4.16 | 0.00 | -0.0145 | 0.0030 | 0.0276 | -0.2067 | -1.9367 | -0.5816 | -0.0155 | -0.3662 | 0.0267 | 0.6336 |
| 10 | 6.07 | 0.01 | -0.0061 | -0.0019 | 0.0198 | 0.0196 | -0.2904 | -0.4295 | -0.0165 | -0.2915 | 0.0384 | 0.6787 |
| 11 | 7.97 | 0.01 | -0.0547 | -0.0010 | 0.0361 | 0.0176 | -0.6596 | -0.2784 | -0.0096 | -0.2126 | 0.0343 | 0.7615 |
| 12 | 9.80 | -0.00 | -0.0726 | -0.0042 | 0.0371 | 0.0939 | -0.4700 | -0.1361 | -0.0026 | -0.1552 | 0.0191 | 1.1254 |
| 13 | 11.74 | -0.01 | -0.0758 | -0.0062 | 0.0505 | 0.1298 | -0.6718 | 0.0246 | 0.0098 | -0.0823 | 0.4000 | -3.3451 |
| 14 | 13.64 | -0.00 | -0.0746 | -0.0142 | 0.0701 | 0.1149 | -0.2053 | 0.1495 | 0.0220 | -0.0220 | 0.1472 | -0.1472 |
| 15 | 15.61 | 0.00 | -0.1177 | -0.0108 | 0.0190 | 0.1426 | -0.1615 | 0.2825 | 0.0311 | 0.0217 | 0.1100 | 0.0768 |
| 16 | 17.60 | -0.01 | -0.1544 | -0.0240 | -0.0113 | 0.1556 | 0.0081 | 0.4054 | 0.0365 | 0.0780 | 0.0973 | 0.1923 |
| 17 | 19.52 | -0.02 | -0.1629 | -0.0214 | -0.0057 | 0.1315 | 0.0350 | 0.4952 | 0.0433 | 0.1380 | 0.0875 | 0.2786 |
| 18 | 21.53 | -0.01 | -0.2716 | -0.0178 | -0.0761 | 0.0834 | 0.2383 | 0.5897 | 0.0474 | 0.1870 | 0.0803 | 0.3171 |
| 19 | 23.55 | 0.00 | -0.3442 | -0.0142 | -0.1065 | 0.0412 | 0.3095 | 0.6559 | 0.0481 | 0.2250 | 0.0734 | 0.3436 |
| 20 | 25.52 | -0.02 | -0.3150 | -0.0165 | -0.0973 | 0.0393 | 0.3049 | 0.7403 | 0.0467 | 0.2667 | 0.0626 | 0.3601 |
| 21 | 27.56 | 0.02 | -0.3658 | 0.0055 | -0.1408 | 1.3226 | 0.6154 | 0.8435 | 0.0435 | 0.3020 | 0.0534 | 0.3704 |
| 22 | 28.10 | 0.03 | 0.2278 | 0.0022 | 0.0782 | 0.2301 | 2.7430 | 0.8153 | 0.0435 | 0.3039 | 0.0534 | 0.3728 |
| 23 | 26.45 | 0.01 | 0.1231 | 0.0115 | 0.1214 | 0.0564 | 0.9359 | 0.8330 | 0.0425 | 0.3123 | 0.0515 | 0.3750 |
| 24 | 28.71 | 0.02 | 0.0703 | 0.0083 | 0.1000 | 0.0892 | 1.5075 | 0.8330 | 0.0441 | 0.3115 | 0.0529 | 0.3739 |
| 25 | 29.04 | 0.03 | -0.0157 | 0.0014 | 0.0564 | -0.0859 | -3.5890 | 0.8330 | 0.0441 | 0.3105 | 0.0525 | 0.3728 |
| 26 | 29.36 | 0.01 | -0.0273 | -0.0007 | 0.0362 | 0.0181 | -0.9690 | 0.8520 | 0.0438 | 0.3197 | 0.0514 | 0.3752 |
| 27 | 29.65 | 0.01 | 0.0803 | 0.0003 | 0.0758 | 0.1040 | 1.3232 | 0.8639 | 0.0431 | 0.3264 | 0.0499 | 0.3778 |
| 28 | 29.92 | 0.03 | 0.0867 | 0.0055 | 0.0870 | 0.1140 | 1.1179 | 0.8720 | 0.0423 | 0.3321 | 0.0485 | 0.3808 |
| 29 | 30.21 | 0.04 | 0.1699 | 0.0135 | 0.1522 | 0.0732 | 0.8013 | 0.8817 | 0.0403 | 0.3366 | 0.0457 | 0.3818 |
| 30 | 30.49 | 0.04 | 0.2355 | 0.0093 | 0.1806 | 0.0366 | 0.7369 | 0.8578 | 0.0389 | 0.3299 | 0.0453 | 0.3846 |
| 31 | 30.76 | 0.07 | 0.2126 | 0.0082 | 0.1662 | 0.0281 | 0.7810 | 0.8771 | 0.0381 | 0.3353 | 0.0435 | 0.3823 |
| 32 | 31.03 | 0.04 | 0.0756 | -0.0023 | 0.1086 | -0.0369 | 1.4981 | 0.8721 | 0.0396 | 0.3330 | 0.0454 | 0.3818 |
| 33 | 31.32 | 0.04 | 0.1232 | 0.0007 | 0.1264 | 0.0055 | 1.0258 | 0.8618 | 0.0374 | 0.3386 | 0.0425 | 0.3840 |
| 34 | 31.60 | 0.03 | 0.0907 | -0.0042 | 0.0521 | -0.0258 | 1.0190 | 0.9010 | 0.0389 | 0.3430 | 0.0432 | 0.3807 |
| 35 | 31.87 | 0.03 | 0.0826 | -0.0045 | 0.0542 | -0.0536 | 1.7908 | 0.9009 | 0.0389 | 0.3440 | 0.0432 | 0.3818 |
| 36 | 32.15 | 0.03 | 0.1595 | 0.0 | 0.1314 | 0.0 | 0.9673 | 0.9179 | 0.0371 | 0.3492 | 0.0405 | 0.3804 |
| 37 | 32.40 | 0.03 | 0.1232 | 0.0007 | 0.1275 | 0.0055 | 1.0345 | 0.9116 | 0.0365 | 0.3500 | 0.0400 | 0.3839 |
| 38 | 32.68 | 0.02 | 0.0808 | 0.0010 | 0.0975 | 0.0270 | 1.6032 | 0.9308 | 0.0360 | 0.3573 | 0.0387 | 0.3838 |
| 39 | 32.95 | 0.02 | 0.0164 | -0.0014 | 0.0843 | -0.0733 | 0.5759 | 0.9356 | 0.0355 | 0.3586 | 0.0379 | 0.3833 |
| 40 | 33.22 | 0.02 | -0.0247 | -0.0007 | 0.0604 | 0.0273 | -1.6367 | 0.9670 | 0.0334 | 0.3688 | 0.0350 | 0.3814 |
| 41 | 33.49 | -0.00 | -0.0293 | -0.0010 | 0.0427 | 0.0329 | -1.4572 | 0.9574 | 0.0343 | 0.3642 | 0.0359 | 0.3804 |
| 42 | 33.72 | 0.01 | 0.0361 | -0.0003 | 0.0634 | -0.0080 | 2.3102 | 0.9710 | 0.0324 | 0.3706 | 0.0334 | 0.3819 |
| 43 | 33.98 | 0.03 | 0.0536 | 0.0007 | 0.1167 | 0.0072 | 1.2474 | 0.9569 | 0.0316 | 0.3648 | 0.0331 | 0.3813 |
| 44 | 34.20 | 0.01 | 0.0423 | 0.0000 | 0.0850 | 0.0008 | 2.0023 | 0.9929 | 0.0302 | 0.3754 | 0.0304 | 0.3781 |
| 45 | 34.47 | 0.02 | 0.0402 | 0.0003 | 0.0858 | 0.0072 | 2.1319 | 1.0097 | 0.0292 | 0.3816 | 0.0290 | 0.3775 |
| 46 | 34.73 | 0.01 | 0.0089 | -0.0001 | 0.0721 | -0.0781 | 0.1196 | 1.0242 | 0.0266 | 0.3847 | 0.0279 | 0.3756 |

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART ASY | MACH 1.10 | R31E-6 1.7 | PHI 0.0 | CONF B1B0F23 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.96 | 0.03 | 0.0774 | 0.0026 | 0.1048 | 0.0337 | 1.3541 | 1.0363 | 0.0279 | 0.3886 | 0.0269 | 0.3756 |
| 48 | 35.21 | 0.01 | 0.0803 | 0.0026 | 0.1101 | 0.0313 | 1.3221 | 1.0378 | 0.0292 | 0.3816 | 0.0282 | 0.3735 |
| 49 | 35.45 | 0.01 | 0.0445 | 0.0016 | 0.0662 | 0.0217 | 1.9371 | 1.0618 | 0.0236 | 0.3953 | 0.0269 | 0.3723 |
| 50 | 35.71 | 0.00 | 0.0816 | 0.0014 | 0.0474 | 0.0222 | 1.0016 | 1.0559 | 0.0286 | 0.3922 | 0.0270 | 0.3714 |
| 51 | 35.93 | 0.03 | 0.0774 | 0.0007 | 0.0502 | 0.0160 | 2.4098 | 1.0414 | 0.0295 | 0.3851 | 0.0284 | 0.3737 |
| 52 | 36.17 | 0.03 | 0.0956 | 0.0041 | 0.1214 | 0.0347 | 1.2190 | 1.0416 | 0.0279 | 0.3872 | 0.0268 | 0.3717 |
| 53 | 36.46 | 0.00 | 0.0464 | 0.0036 | 0.0675 | 0.0644 | 1.8856 | 1.0697 | 0.0255 | 0.3965 | 0.0238 | 0.3711 |
| 54 | 36.69 | 0.01 | 0.0760 | 0.0046 | 0.1058 | 0.0588 | 1.3929 | 1.0529 | 0.0255 | 0.3926 | 0.0242 | 0.3729 |
| 55 | 36.95 | -0.00 | 0.0110 | 0.0026 | 0.0716 | 0.2368 | 6.5088 | 1.0794 | 0.0245 | 0.3956 | 0.0227 | 0.3703 |
| 56 | 37.18 | 0.01 | 0.0331 | 0.0040 | 0.0801 | 0.1195 | 2.0589 | 1.0746 | 0.0237 | 0.3992 | 0.0221 | 0.3715 |
| 57 | 37.42 | 0.01 | 0.0176 | 0.0026 | 0.0765 | 0.1534 | 4.5284 | 1.0748 | 0.0226 | 0.3972 | 0.0212 | 0.3696 |
| 58 | 37.65 | 0.01 | 0.0379 | 0.0049 | 0.0849 | 0.1298 | 2.2342 | 1.0749 | 0.0218 | 0.3963 | 0.0203 | 0.3687 |
| 59 | 37.88 | 0.02 | 0.0229 | 0.0048 | 0.0847 | 0.1720 | 3.1469 | 1.0858 | 0.0221 | 0.3985 | 0.0204 | 0.3676 |
| 60 | 38.11 | 0.01 | 0.0281 | 0.0072 | 0.0727 | 0.2778 | 4.7389 | 1.1123 | 0.0221 | 0.4026 | 0.0199 | 0.3626 |
| 61 | 38.35 | 0.03 | 0.0560 | 0.0065 | 0.0592 | 0.1241 | 1.7724 | 1.0884 | 0.0235 | 0.3958 | 0.0188 | 0.3637 |
| 62 | 38.58 | -0.00 | 0.0491 | 0.0053 | 0.0668 | 0.1651 | 1.6051 | 1.1148 | 0.0206 | 0.4028 | 0.0185 | 0.3613 |
| 63 | 38.82 | -0.01 | 0.0131 | 0.0046 | 0.0720 | 0.3529 | 5.4853 | 1.1246 | 0.0206 | 0.4037 | 0.0184 | 0.3596 |
| 64 | 39.04 | -0.01 | 0.0021 | 0.0046 | 0.0835 | 1.5000 | 20.5025 | 1.1494 | 0.0205 | 0.4041 | 0.0181 | 0.3578 |
| 65 | 39.31 | -0.02 | -0.0106 | 0.0058 | 0.0958 | -0.5179 | -4.6964 | 1.1390 | 0.0214 | 0.4049 | 0.0188 | 0.3554 |
| 66 | 39.52 | 0.01 | 0.0003 | 0.0053 | 0.0867 | 1.9714 | 17.9714 | 1.1393 | 0.0197 | 0.4010 | 0.0173 | 0.3526 |
| 67 | 39.74 | -0.00 | -0.0107 | 0.0033 | 0.0907 | -0.3063 | -4.7297 | 1.1441 | 0.0202 | 0.4015 | 0.0176 | 0.3505 |
| 68 | 39.96 | -0.00 | 0.0003 | 0.0018 | 0.0913 | 2.5033 | 22.1667 | 1.1498 | 0.0197 | 0.4074 | 0.0165 | 0.3497 |
| 69 | 40.17 | 0.01 | -0.0056 | 0.0046 | 0.0948 | -0.8276 | -8.0000 | 1.1649 | 0.0214 | 0.4007 | 0.0184 | 0.3446 |
| 70 | 40.39 | 0.01 | -0.0118 | 0.0037 | 0.0954 | -0.5167 | -3.4000 | 1.1697 | 0.0205 | 0.4040 | 0.0175 | 0.3454 |
| 71 | 40.57 | 0.00 | -0.0056 | 0.0040 | 0.0905 | -0.4141 | -4.2424 | 1.1794 | 0.0214 | 0.4048 | 0.0182 | 0.3432 |
| 72 | 40.78 | -0.01 | -0.0032 | -0.0007 | 0.0957 | 0.0127 | -0.3702 | 1.1856 | 0.0198 | 0.4076 | 0.0167 | 0.3438 |
| 73 | 41.00 | 0.01 | -0.0231 | 0.0016 | 0.0959 | -0.0711 | -1.1213 | 1.1930 | 0.0212 | 0.4053 | 0.0178 | 0.3398 |
| 74 | 41.19 | -0.01 | -0.0178 | 0.0005 | 0.0965 | -0.0077 | -0.5408 | 1.1905 | 0.0227 | 0.4024 | 0.0190 | 0.3380 |
| 75 | 41.41 | 0.01 | -0.0123 | -0.0033 | 0.0951 | 0.0497 | -0.0697 | 1.2002 | 0.0212 | 0.4069 | 0.0177 | 0.3396 |
| 76 | 41.62 | 0.01 | -0.0080 | -0.0063 | -0.0015 | 0.0713 | 0.0143 | 1.2015 | 0.0227 | 0.4075 | 0.0189 | 0.3391 |
| 77 | 41.82 | -0.01 | -0.0138 | -0.0126 | -0.0235 | 0.0867 | 0.1736 | 1.2233 | 0.0232 | 0.4103 | 0.0189 | 0.3396 |
| 78 | 42.01 | -0.00 | -0.0021 | -0.0037 | 0.0035 | 0.0598 | -0.0559 | 1.2210 | 0.0232 | 0.4062 | 0.0190 | 0.3327 |
| 79 | 42.21 | -0.00 | -0.0064 | -0.0095 | -0.0126 | 0.0534 | 0.1124 | 1.2161 | 0.0241 | 0.4049 | 0.0198 | 0.3329 |
| 80 | 42.40 | 0.00 | -0.0126 | -0.0136 | -0.0268 | 0.1058 | 0.2082 | 1.2219 | 0.0256 | 0.4037 | 0.0209 | 0.3304 |
| 81 | 42.60 | -0.01 | -0.0187 | -0.0143 | -0.0258 | 0.1127 | 0.2036 | 1.2413 | 0.0241 | 0.4110 | 0.0194 | 0.3311 |
| 82 | 42.78 | -0.01 | -0.0200 | -0.0242 | -0.0359 | 0.1411 | 0.2793 | 1.2413 | 0.0246 | 0.4091 | 0.0198 | 0.3296 |
| 83 | 42.97 | -0.00 | -0.0119 | -0.0173 | -0.0447 | 0.1067 | 0.2739 | 1.2438 | 0.0256 | 0.4079 | 0.0206 | 0.3278 |
| 84 | 43.14 | -0.01 | -0.0218 | -0.0237 | -0.0602 | 0.0594 | 0.0051 | 1.2430 | 0.0268 | 0.4010 | 0.0216 | 0.3226 |
| 85 | 43.33 | -0.04 | -0.1710 | -0.0205 | -0.0431 | 0.1225 | 0.2523 | 1.2574 | 0.0256 | 0.4089 | 0.0203 | 0.3252 |
| 86 | 43.52 | -0.02 | -0.1556 | -0.0180 | -0.0405 | 0.1167 | 0.2914 | 1.2575 | 0.0256 | 0.4071 | 0.0203 | 0.3237 |
| 87 | 43.69 | -0.01 | -0.1429 | -0.0177 | -0.0390 | 0.1236 | 0.2728 | 1.2608 | 0.0266 | 0.4085 | 0.0211 | 0.3240 |
| 88 | 43.89 | -0.02 | -0.1760 | -0.0156 | -0.0406 | 0.1153 | 0.2775 | 1.2634 | 0.0271 | 0.4059 | 0.0215 | 0.3213 |
| 89 | 44.03 | -0.02 | -0.2530 | -0.0253 | -0.0798 | 0.1139 | 0.3134 | 1.2623 | 0.0295 | 0.4033 | 0.0234 | 0.3195 |
| 90 | 44.22 | -0.01 | -0.1674 | -0.0124 | -0.0245 | 0.1150 | 0.2282 | 1.2649 | 0.0286 | 0.4006 | 0.0226 | 0.3167 |
| 91 | 44.43 | -0.02 | -0.0465 | -0.0030 | 0.0005 | 0.0643 | -0.0104 | 1.2553 | 0.0290 | 0.3969 | 0.0231 | 0.3162 |
| 92 | 44.58 | -0.02 | -0.1479 | -0.0111 | -0.0347 | 0.1194 | 0.3099 | 1.2770 | 0.0286 | 0.4055 | 0.0224 | 0.3178 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 151 MACH 1.10 RN/D=E 6 A.7 PHI 0.0 BLOF23 CONF 0.0 L 0 DEL1 -20 DEL2 0 DEL3 -20 DEL4 TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF1 | CM1 | CB1 | ALPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.78 | -0.00 | -0.0566 | -0.0056 | -0.0232 | 0.0999 | 0.2398 | 1.2554 | 0.0295 | 0.3941 | 0.0235 | 0.3135 |
| 94 | 44.97 | -0.02 | -0.1693 | -0.0213 | -0.0956 | 0.1259 | 0.3487 | 1.2698 | 0.0297 | 0.4011 | 0.0234 | 0.3156 |
| 95 | 45.14 | -0.02 | -0.1362 | -0.0150 | -0.0385 | 0.1149 | 0.2958 | 1.2569 | 0.0286 | 0.3945 | 0.0227 | 0.3139 |
| 96 | 45.31 | -0.02 | 0.0463 | 0.0056 | 0.0365 | 0.2392 | 0.7200 | 1.2344 | 0.0286 | 0.3796 | 0.0231 | 0.3027 |
| 97 | 45.51 | -0.01 | -0.0833 | -0.0103 | -0.0247 | 0.1246 | 0.2966 | 1.2534 | 0.0296 | 0.3867 | 0.0236 | 0.3085 |
| 98 | 45.70 | -0.03 | -0.1148 | -0.0083 | -0.0684 | 0.0896 | 0.4314 | 1.2330 | 0.0277 | 0.3726 | 0.0225 | 0.3022 |
| 99 | 45.85 | -0.02 | -0.0855 | -0.0076 | -0.0228 | 0.1085 | 0.3426 | 1.2545 | 0.0279 | 0.3851 | 0.0222 | 0.3076 |
| 100 | 46.02 | -0.02 | -0.1022 | -0.0136 | -0.0344 | 0.1279 | 0.3371 | 1.2514 | 0.0272 | 0.3804 | 0.0217 | 0.3039 |
| 101 | 46.23 | -0.03 | -0.1464 | -0.0204 | -0.0541 | 0.1372 | 0.3648 | 1.2586 | 0.0272 | 0.3848 | 0.0216 | 0.3057 |
| 102 | 46.39 | -0.04 | -0.1965 | -0.0264 | -0.0524 | 0.1370 | 0.3351 | 1.2587 | 0.0266 | 0.3838 | 0.0205 | 0.3049 |
| 103 | 46.56 | -0.04 | -0.1879 | -0.0271 | -0.0411 | 0.1583 | 0.3810 | 1.2468 | 0.0260 | 0.3770 | 0.0193 | 0.3024 |
| 104 | 46.74 | -0.02 | -0.1654 | -0.0183 | -0.0421 | 0.1492 | 0.3554 | 1.2421 | 0.0258 | 0.3726 | 0.0192 | 0.3000 |
| 105 | 46.92 | -0.02 | -0.1285 | -0.0210 | -0.0453 | 0.1832 | 0.3825 | 1.2229 | 0.0258 | 0.3634 | 0.0195 | 0.2971 |
| 106 | 47.10 | -0.02 | -0.1405 | -0.0196 | -0.0446 | 0.1838 | 0.3887 | 1.2156 | 0.0252 | 0.3612 | 0.0190 | 0.2972 |
| 107 | 47.27 | -0.03 | -0.1161 | -0.0167 | -0.0436 | 0.1670 | 0.3590 | 1.2085 | 0.0224 | 0.3549 | 0.0185 | 0.2937 |
| 108 | 47.45 | -0.02 | -0.0956 | -0.0151 | -0.0413 | 0.1930 | 0.4172 | 1.1984 | 0.0224 | 0.3500 | 0.0187 | 0.2925 |
| 109 | 47.56 | -0.03 | -0.0261 | -0.0168 | -0.0182 | 0.0444 | 0.7000 | 1.1907 | 0.0186 | 0.3418 | 0.0139 | 0.2870 |
| 110 | 47.79 | -0.03 | -0.0545 | -0.0184 | -0.0221 | 0.5335 | 0.6397 | 1.1925 | 0.0187 | 0.3392 | 0.0115 | 0.2845 |
| 111 | 47.98 | -0.03 | 0.0443 | -0.0134 | 0.0085 | -0.3628 | 0.1917 | 1.1758 | 0.0117 | 0.3250 | 0.0099 | 0.2798 |
| 112 | 48.14 | -0.02 | 0.1254 | -0.0030 | 0.0421 | -0.0232 | 0.3230 | 1.1405 | 0.0110 | 0.3227 | 0.0056 | 0.2814 |
| 113 | 48.31 | -0.02 | 0.1355 | -0.0007 | 0.0457 | -0.0050 | 0.3376 | 1.1355 | 0.0124 | 0.3113 | 0.0110 | 0.2741 |
| 114 | 48.47 | -0.02 | 0.1451 | 0.0107 | 0.0571 | 0.0581 | 0.3395 | 1.0839 | 0.0108 | 0.2906 | 0.0174 | 0.2681 |
| 115 | 48.64 | -0.01 | 0.1327 | 0.0121 | 0.0475 | 0.0909 | 0.3504 | 1.0756 | 0.0105 | 0.2872 | 0.0157 | 0.2670 |
| 116 | 48.81 | -0.01 | 0.0801 | 0.0045 | 0.0184 | 0.1573 | 0.3366 | 1.0547 | 0.0228 | 0.2957 | 0.0208 | 0.2701 |
| 117 | 48.98 | -0.01 | 0.0475 | 0.0051 | 0.0114 | 0.1511 | 0.2398 | 1.0896 | 0.0234 | 0.2963 | 0.0215 | 0.2719 |
| 118 | 49.15 | -0.01 | 0.0155 | 0.0001 | 0.0008 | 0.3058 | 0.0291 | 1.0347 | 0.0234 | 0.2705 | 0.0227 | 0.2614 |
| 119 | 49.32 | -0.02 | 0.0266 | 0.0061 | 0.0025 | 0.2128 | 0.0878 | 1.0251 | 0.0225 | 0.2657 | 0.0219 | 0.2592 |
| 120 | 49.50 | 0.01 | 0.0043 | 0.0041 | -0.0035 | 0.2375 | -0.3750 | 0.9852 | 0.0228 | 0.2463 | 0.0236 | 0.2552 |
| 121 | 49.69 | -0.00 | 0.0156 | 0.0041 | 0.0033 | 0.2069 | 0.1875 | 0.9113 | 0.0226 | 0.2282 | 0.0248 | 0.2504 |
| 122 | 49.80 | 0.00 | 0.0026 | 0.0010 | -0.0035 | 0.0290 | -1.3333 | 0.8819 | 0.0235 | 0.2199 | 0.0267 | 0.2493 |
| 123 | 50.04 | 0.00 | -0.0040 | 0.0010 | -0.0051 | -0.2439 | 1.2927 | 0.8706 | 0.0245 | 0.2195 | 0.0275 | 0.2503 |
| 124 | 50.20 | 0.01 | -0.0041 | 0.0014 | -0.0041 | -0.3333 | 1.0238 | 0.8685 | 0.0248 | 0.2239 | 0.0286 | 0.2579 |
| 125 | 50.36 | -0.00 | -0.0061 | 0.0007 | -0.0075 | -0.0833 | 0.9286 | 0.8685 | 0.0248 | 0.2249 | 0.0286 | 0.2596 |
| 126 | 50.55 | 0.01 | -0.0130 | 0.0007 | -0.0042 | -0.0519 | 0.5259 | 0.8682 | 0.0250 | 0.2308 | 0.0288 | 0.2658 |
| 127 | 50.71 | 0.00 | -0.0196 | 0.0004 | -0.0059 | -0.0197 | 0.3005 | 0.8651 | 0.0251 | 0.2289 | 0.0290 | 0.2646 |
| 128 | 50.90 | -0.03 | -0.0180 | -0.0004 | 0.00 | 0.0214 | 0.0 | 0.8804 | 0.0246 | 0.2381 | 0.0279 | 0.2705 |
| 129 | 51.05 | 0.01 | -0.0252 | -0.0007 | 0.0031 | 0.0268 | -0.1226 | 0.8855 | 0.0241 | 0.2385 | 0.0272 | 0.2694 |
| 130 | 51.21 | 0.03 | -0.0255 | -0.0007 | 0.0059 | 0.0265 | -0.2311 | 0.8755 | 0.0244 | 0.2377 | 0.0279 | 0.2715 |
| 131 | 51.40 | 0.02 | -0.0217 | -0.0007 | 0.0111 | 0.0311 | -0.5111 | 0.8920 | 0.0234 | 0.2463 | 0.0263 | 0.2781 |
| 132 | 51.56 | 0.02 | -0.0310 | -0.0007 | 0.0134 | 0.0218 | -0.4206 | 0.8878 | 0.0244 | 0.2451 | 0.0275 | 0.2761 |
| 133 | 51.72 | 0.03 | -0.0305 | -0.0007 | 0.0121 | 0.0219 | -0.3906 | 0.8962 | 0.0234 | 0.2450 | 0.0262 | 0.2734 |
| 134 | 51.89 | 0.03 | -0.0321 | -0.0007 | 0.0134 | 0.0217 | -0.4193 | 0.8894 | 0.0237 | 0.2446 | 0.0267 | 0.2750 |
| 135 | 52.05 | 0.02 | -0.0245 | -0.0007 | 0.0185 | 0.0271 | -0.7442 | 0.9101 | 0.0225 | 0.2523 | 0.0247 | 0.2772 |
| 136 | 52.22 | 0.01 | -0.0241 | -0.0007 | 0.0174 | 0.0249 | -0.6906 | 0.9120 | 0.0228 | 0.2509 | 0.0250 | 0.2751 |
| 137 | 52.37 | 0.02 | -0.0227 | 0.0 | 0.0175 | 0.0 | -0.7915 | 0.9128 | 0.0229 | 0.2521 | 0.0251 | 0.2762 |
| 138 | 52.54 | 0.03 | -0.0316 | 0.0 | 0.0161 | 0.0 | -0.5091 | 0.9173 | 0.0233 | 0.2499 | 0.0255 | 0.2724 |

PARTIAL MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | AXIS=6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 151 | 1.61 | 1.7 | 0.0 | BIBOF2 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PCINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.70 | 0.01 | -0.0228 | 0.0 | 0.2182 | 0.0 | -0.7924 | 0.9157 | 0.0229 | 0.2499 | 0.0250 | 0.2729 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 151 MACH 1.10 RNIG-6 1.0 PHI 0.0 CONF BINOFF25 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CN3 | CB3 | XCPF3 | YCPF3 | CNF4 | CN4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.75 | 0.02 | 0.0745 | 5.5555 | 0.0223 | 5.5559 | 0.2992 | -1.3644 | 0.0052 | -0.5484 | -0.0038 | 0.4020 |
| 2 | -5.75 | 0.02 | 0.0761 | 5.5555 | 0.0233 | 5.5559 | 0.3044 | -1.3514 | 0.0045 | -0.5457 | -0.0034 | 0.4037 |
| 3 | -5.75 | 0.01 | 0.0768 | 5.5555 | 0.0225 | 5.5559 | 0.2927 | -1.3560 | 0.0050 | -0.5465 | -0.0037 | 0.4036 |
| 4 | -5.16 | 0.02 | 0.0611 | 5.5555 | 0.0247 | 5.5559 | 0.4044 | -1.3057 | 0.0010 | -0.5341 | -0.0007 | 0.4090 |
| 5 | -3.23 | 0.00 | 0.0453 | 5.5556 | 0.0267 | 5.5559 | 0.6319 | -1.2425 | -0.0030 | -0.5175 | 0.0040 | 0.4166 |
| 6 | -1.49 | 0.00 | 0.0366 | 5.5555 | 0.0271 | 5.5559 | 0.7414 | -1.1324 | -0.0090 | -0.4772 | 0.0084 | 0.4214 |
| 7 | 0.46 | 0.03 | 0.0477 | 5.5555 | 0.0271 | 5.5559 | 0.5666 | -1.0484 | -0.0091 | -0.4490 | 0.0087 | 0.4283 |
| 8 | 2.32 | 0.01 | 0.0263 | 5.5555 | 0.0234 | 5.5559 | 0.4420 | -0.9058 | -0.0141 | -0.3867 | 0.0156 | 0.4269 |
| 9 | 4.18 | 0.00 | 0.0743 | 5.5555 | 0.0284 | 5.5559 | 0.3518 | -0.7682 | -0.0194 | -0.3303 | 0.0252 | 0.4295 |
| 10 | 6.07 | 0.01 | 0.0542 | 5.5555 | 0.0155 | 5.5559 | 0.2087 | -0.6066 | -0.0207 | -0.2543 | 0.0341 | 0.4179 |
| 11 | 7.97 | 0.01 | 0.0262 | 5.5555 | 0.0150 | 5.5559 | 0.2192 | -0.4271 | -0.0152 | -0.1930 | 0.0357 | 0.4518 |
| 12 | 9.80 | -0.00 | 0.0641 | 5.5555 | 0.0077 | 5.5555 | 0.1405 | -0.2801 | -0.0062 | -0.1243 | 0.0214 | 0.4313 |
| 13 | 11.74 | -0.01 | 0.0730 | 5.5555 | 0.0067 | 5.5559 | 0.0911 | -0.1151 | 0.0050 | -0.0438 | -0.0436 | 0.3806 |
| 14 | 13.64 | -0.00 | 0.0711 | 5.5555 | 0.0014 | 5.5555 | 0.0190 | -0.0033 | 0.0152 | 0.0267 | -4.6471 | -8.1471 |
| 15 | 15.61 | 0.00 | 0.0665 | 5.5556 | 0.0060 | 5.5555 | 0.0692 | 0.1283 | 0.0225 | 0.0564 | 0.1811 | 0.7632 |
| 16 | 17.60 | -0.01 | 0.0714 | 5.5555 | -0.0065 | 5.5555 | -0.0905 | 0.2451 | 0.0322 | 0.1571 | 0.1326 | 0.6463 |
| 17 | 19.52 | -0.02 | 0.0803 | 5.5555 | -0.0032 | 5.5555 | -0.0397 | 0.3490 | 0.0366 | 0.2130 | 0.1053 | 0.6105 |
| 18 | 21.53 | -0.01 | 0.0824 | 5.5555 | -0.0056 | 5.5555 | -0.0678 | 0.4398 | 0.0406 | 0.2556 | 0.0924 | 0.5816 |
| 19 | 23.55 | 0.00 | 0.0515 | 5.5555 | -0.0048 | 5.5559 | -0.0527 | 0.5286 | 0.0423 | 0.2927 | 0.0800 | 0.5535 |
| 20 | 25.52 | -0.02 | 0.0851 | 5.5555 | -0.0114 | 5.5559 | -0.1330 | 0.5956 | 0.0432 | 0.3188 | 0.0726 | 0.5356 |
| 21 | 27.56 | 0.02 | 0.1244 | 5.5555 | 0.0046 | 5.5559 | 0.0372 | 0.6440 | 0.0426 | 0.3410 | 0.0724 | 0.5295 |
| 22 | 28.10 | 0.03 | 0.1266 | 5.5555 | 0.0106 | 5.5559 | 0.0524 | 0.6514 | 0.0406 | 0.3444 | 0.0718 | 0.5287 |
| 23 | 28.45 | 0.01 | 0.1202 | 5.5555 | 0.0026 | 5.5559 | 0.0217 | 0.6420 | 0.0479 | 0.3431 | 0.0745 | 0.5344 |
| 24 | 28.71 | 0.02 | 0.1224 | 5.5555 | 0.0015 | 5.5559 | 0.0156 | 0.6620 | 0.0471 | 0.3501 | 0.0711 | 0.5288 |
| 25 | 29.04 | 0.03 | 0.1224 | 5.5555 | 0.0015 | 5.5559 | 0.0158 | 0.6821 | 0.0464 | 0.3575 | 0.0680 | 0.5247 |
| 26 | 29.36 | 0.01 | 0.1136 | 5.5555 | 0.0020 | 5.5559 | 0.0178 | 0.7045 | 0.0457 | 0.3677 | 0.0649 | 0.5219 |
| 27 | 29.65 | 0.01 | 0.1356 | 5.5555 | 0.0081 | 5.5559 | 0.0598 | 0.7165 | 0.0474 | 0.3696 | 0.0661 | 0.5159 |
| 28 | 29.92 | 0.03 | 0.1311 | 5.5555 | 0.0156 | 5.5559 | 0.0728 | 0.7173 | 0.0477 | 0.3725 | 0.0665 | 0.5159 |
| 29 | 30.21 | 0.04 | 0.1378 | 5.5555 | 0.0105 | 5.5559 | 0.0751 | 0.7370 | 0.0483 | 0.3790 | 0.0656 | 0.5143 |
| 30 | 30.49 | 0.04 | 0.1443 | 5.5555 | 0.0141 | 5.5559 | 0.0976 | 0.7717 | 0.0481 | 0.3888 | 0.0624 | 0.5039 |
| 31 | 30.76 | 0.07 | 0.1311 | 5.5555 | 0.0156 | 5.5559 | 0.0726 | 0.7544 | 0.0467 | 0.3869 | 0.0588 | 0.4956 |
| 32 | 31.05 | 0.04 | 0.1316 | 5.5555 | 0.0136 | 5.5559 | 0.0994 | 0.8273 | 0.0441 | 0.4054 | 0.0533 | 0.4901 |
| 33 | 31.32 | 0.04 | 0.1376 | 5.5555 | 0.0144 | 5.5559 | 0.1045 | 0.8371 | 0.0443 | 0.4080 | 0.0525 | 0.4876 |
| 34 | 31.60 | 0.03 | 0.1427 | 5.5555 | 0.0111 | 5.5555 | 0.0792 | 0.8547 | 0.0431 | 0.4110 | 0.0505 | 0.4809 |
| 35 | 31.87 | 0.03 | 0.1200 | 5.5555 | 0.0087 | 5.5555 | 0.0723 | 0.8547 | 0.0431 | 0.4102 | 0.0505 | 0.4795 |
| 36 | 32.15 | 0.03 | 0.1267 | 5.5555 | 0.0105 | 5.5555 | 0.0861 | 0.8670 | 0.0431 | 0.4138 | 0.0497 | 0.4773 |
| 37 | 32.40 | 0.03 | 0.1311 | 5.5555 | 0.0135 | 5.5559 | 0.1060 | 0.8706 | 0.0431 | 0.4163 | 0.0495 | 0.4782 |
| 38 | 32.66 | 0.02 | 0.1222 | 5.5555 | 0.0123 | 5.5559 | 0.1002 | 0.8562 | 0.0431 | 0.4117 | 0.0503 | 0.4798 |
| 39 | 32.95 | 0.02 | 0.1244 | 5.5555 | 0.0142 | 5.5559 | 0.1140 | 0.8759 | 0.0417 | 0.4166 | 0.0476 | 0.4757 |
| 40 | 33.22 | 0.02 | 0.1065 | 5.5555 | 0.0054 | 5.5555 | 0.0551 | 0.8610 | 0.0410 | 0.4164 | 0.0465 | 0.4732 |
| 41 | 33.45 | -0.00 | 0.1134 | 5.5555 | 0.0107 | 5.5559 | 0.0945 | 0.8808 | 0.0417 | 0.4161 | 0.0473 | 0.4723 |
| 42 | 33.72 | 0.01 | 0.1065 | 5.5555 | 0.0055 | 5.5555 | 0.0668 | 0.8675 | 0.0414 | 0.4242 | 0.0454 | 0.4674 |
| 43 | 35.96 | 0.03 | 0.1242 | 5.5555 | 0.0106 | 5.5559 | 0.1352 | 0.9373 | 0.0410 | 0.4309 | 0.0438 | 0.4557 |
| 44 | 34.20 | 0.01 | 0.1045 | 5.5555 | 0.0052 | 5.5555 | 0.0877 | 0.9247 | 0.0415 | 0.4281 | 0.0449 | 0.4630 |
| 45 | 34.47 | 0.02 | 0.1065 | 5.5555 | 0.0120 | 5.5559 | 0.1123 | 0.9445 | 0.0415 | 0.4314 | 0.0435 | 0.4567 |
| 46 | 34.73 | 0.01 | 0.1044 | 5.5555 | 0.0105 | 5.5555 | 0.1044 | 0.9371 | 0.0417 | 0.4306 | 0.0445 | 0.4585 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 151 | MACH 1.10 | RX10-6 1.7 | PHI 0.0 | CONF 81B0F23 | L 0.0 | DELT 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CBS | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.96 | 0.03 | C.1044 | 5.9999 | C.C1C5 | 5.9999 | 0.1044 | 0.9569 | 0.0417 | 0.4333 | 0.0436 | 0.4529 |
| 48 | 35.21 | 0.01 | C.1044 | 5.9999 | 0.0052 | 5.9999 | 0.0878 | 0.9763 | 0.0426 | 0.4386 | 0.0412 | C.4486 |
| 49 | 35.45 | 0.01 | 0.0934 | 5.9999 | 0.0057 | 5.9999 | 0.0810 | 0.9560 | 0.0417 | 0.4293 | 0.0436 | C.4496 |
| 50 | 35.71 | 0.00 | 0.1044 | 5.9999 | 0.0120 | 5.9999 | 0.1122 | 0.9920 | 0.0410 | 0.4396 | 0.0413 | 0.4431 |
| 51 | 35.93 | 0.03 | 0.1177 | 5.9999 | 0.0137 | 5.9999 | 0.1164 | 0.9943 | 0.0417 | 0.4389 | 0.0419 | 0.4414 |
| 52 | 36.17 | 0.03 | 0.1088 | 5.9999 | 0.0116 | 5.9999 | 0.1028 | 1.0114 | 0.0407 | 0.4425 | 0.0462 | 0.4377 |
| 53 | 36.40 | 0.00 | 0.0999 | 5.9999 | 0.0105 | 5.9999 | 0.1053 | 0.9957 | 0.0424 | 0.4375 | 0.0425 | 0.4397 |
| 54 | 36.69 | 0.01 | 0.0978 | 5.9999 | 0.0077 | 5.9999 | 0.0769 | 1.0058 | 0.0419 | 0.4385 | 0.0416 | 0.4360 |
| 55 | 36.95 | -0.00 | C.1044 | 5.9999 | 0.0092 | 5.9999 | 0.0878 | 1.0004 | 0.0433 | 0.4364 | 0.0433 | 0.4362 |
| 56 | 37.18 | 0.01 | 0.1067 | 5.9999 | 0.0112 | 5.9999 | 0.1024 | 1.0103 | 0.0431 | 0.4361 | 0.0427 | 0.4336 |
| 57 | 37.42 | 0.01 | 0.1087 | 5.9999 | 0.0125 | 5.9999 | 0.1189 | 1.0150 | 0.0438 | 0.4376 | 0.0432 | 0.4311 |
| 58 | 37.65 | 0.01 | 0.1088 | 5.9999 | 0.0136 | 5.9999 | 0.1270 | 1.0100 | 0.0441 | 0.4363 | 0.0437 | 0.4320 |
| 59 | 37.88 | 0.02 | 0.1045 | 5.9999 | 0.0105 | 5.9999 | 0.1043 | 1.0110 | 0.0446 | 0.4331 | 0.0441 | 0.4284 |
| 60 | 38.11 | 0.01 | 0.0913 | 5.9999 | 0.0064 | 5.9999 | 0.0698 | 0.9862 | 0.0451 | 0.4286 | 0.0457 | 0.4348 |
| 61 | 38.35 | 0.03 | C.1001 | 5.9999 | 0.0105 | 5.9999 | 0.1051 | 1.0211 | 0.0441 | 0.4366 | 0.0432 | 0.4276 |
| 62 | 38.58 | -0.00 | 0.0957 | 5.9999 | 0.0076 | 5.9999 | 0.0796 | 0.9958 | 0.0455 | 0.4266 | 0.0457 | 0.4283 |
| 63 | 38.82 | -0.01 | 0.0825 | 5.9999 | 0.0040 | 5.9999 | 0.0480 | 1.0005 | 0.0455 | 0.4278 | 0.0455 | 0.4275 |
| 64 | 39.04 | -0.01 | 0.0975 | 5.9999 | 0.0077 | 5.9999 | 0.0768 | 1.0106 | 0.0459 | 0.4268 | 0.0451 | 0.4223 |
| 65 | 39.31 | -0.02 | 0.0913 | 5.9999 | 0.0072 | 5.9999 | 0.0793 | 0.9908 | 0.0455 | 0.4235 | 0.0460 | 0.4274 |
| 66 | 39.52 | 0.01 | 0.1088 | 5.9999 | 0.0125 | 5.9999 | 0.1188 | 1.0104 | 0.0460 | 0.4214 | 0.0456 | 0.4168 |
| 67 | 39.74 | -0.00 | C.0955 | 5.9999 | 0.0102 | 5.9999 | 0.1071 | 1.0158 | 0.0441 | 0.4156 | 0.0434 | 0.4131 |
| 68 | 39.96 | -0.00 | 0.0978 | 5.9999 | 0.0112 | 5.9999 | 0.1144 | 1.0115 | 0.0456 | 0.4161 | 0.0453 | 0.4114 |
| 69 | 40.17 | 0.01 | C.0912 | 5.9999 | 0.0107 | 5.9999 | 0.1175 | 1.0117 | 0.0452 | 0.4161 | 0.0446 | 0.4113 |
| 70 | 40.39 | 0.01 | 0.0999 | 5.9999 | 0.0157 | 5.9999 | 0.1575 | 1.0215 | 0.0452 | 0.4150 | 0.0442 | 0.4063 |
| 71 | 40.57 | 0.00 | 0.0823 | 5.9999 | 0.0092 | 5.9999 | 0.1114 | 1.0215 | 0.0452 | 0.4122 | 0.0442 | 0.4033 |
| 72 | 40.78 | -0.01 | 0.0823 | 5.9999 | 0.0105 | 5.9999 | 0.1325 | 1.0365 | 0.0395 | 0.4055 | 0.0381 | 0.3951 |
| 73 | 41.00 | 0.01 | 0.0958 | 5.9999 | 0.0148 | 5.9999 | 0.1524 | 1.0324 | 0.0456 | 0.4125 | 0.0442 | 0.3995 |
| 74 | 41.19 | -0.01 | 0.0911 | 5.9999 | 0.0131 | 5.9999 | 0.1653 | 1.0328 | 0.0442 | 0.4124 | 0.0428 | 0.3953 |
| 75 | 41.41 | 0.01 | 0.0885 | 5.9999 | 0.0140 | 5.9999 | 0.1574 | 1.0431 | 0.0421 | 0.4075 | 0.0403 | 0.3908 |
| 76 | 41.62 | 0.01 | 0.0883 | 5.9999 | 0.0144 | 5.9999 | 0.1702 | 1.0395 | 0.0414 | 0.4048 | 0.0398 | 0.3894 |
| 77 | 41.82 | -0.01 | 0.0846 | 5.9999 | 0.0077 | 5.9999 | 0.1194 | 1.0630 | 0.0371 | 0.4005 | 0.0355 | 0.3844 |
| 78 | 42.01 | -0.00 | C.0793 | 5.9999 | 0.0137 | 5.9999 | 0.1808 | 1.0465 | 0.0433 | 0.4073 | 0.0414 | 0.3892 |
| 79 | 42.21 | -0.00 | 0.0905 | 5.9999 | 0.0203 | 5.9999 | 0.2229 | 1.0470 | 0.0409 | 0.4034 | 0.0391 | 0.3853 |
| 80 | 42.40 | 0.00 | 0.0822 | 5.9999 | 0.0101 | 5.9999 | 0.1900 | 1.0477 | 0.0414 | 0.4037 | 0.0395 | 0.3853 |
| 81 | 42.60 | -0.01 | 0.0712 | 5.9999 | 0.0126 | 5.9999 | 0.1775 | 1.0477 | 0.0409 | 0.4009 | 0.0390 | 0.3826 |
| 82 | 42.78 | -0.01 | 0.0849 | 5.9999 | 0.0172 | 5.9999 | 0.2034 | 1.0436 | 0.0375 | 0.3957 | 0.0360 | 0.3792 |
| 83 | 42.97 | -0.00 | 0.0779 | 5.9999 | 0.0140 | 5.9999 | 0.1797 | 1.0480 | 0.0395 | 0.3986 | 0.0377 | 0.3798 |
| 84 | 43.14 | -0.01 | 0.0856 | 5.9999 | 0.0133 | 5.9999 | 0.1930 | 1.0579 | 0.0426 | 0.4117 | 0.0433 | 0.3892 |
| 85 | 43.33 | -0.04 | 0.0845 | 5.9999 | 0.0148 | 5.9999 | 0.2290 | 1.0468 | 0.0402 | 0.3968 | 0.0384 | 0.3789 |
| 86 | 43.54 | -0.02 | 0.0778 | 5.9999 | 0.0174 | 5.9999 | 0.2258 | 1.0515 | 0.0410 | 0.4034 | 0.0390 | 0.3836 |
| 87 | 43.69 | -0.01 | 0.0711 | 5.9999 | 0.0161 | 5.9999 | 0.2266 | 1.0522 | 0.0420 | 0.4048 | 0.0399 | 0.3847 |
| 88 | 43.89 | -0.02 | 0.0851 | 5.9999 | 0.0126 | 5.9999 | 0.2103 | 1.0475 | 0.0403 | 0.3967 | 0.0385 | 0.3806 |
| 89 | 44.03 | -0.02 | 0.0957 | 5.9999 | 0.0123 | 5.9999 | 0.2201 | 1.0288 | 0.0397 | 0.3912 | 0.0389 | 0.3802 |
| 90 | 44.22 | -0.01 | 0.0957 | 5.9999 | 0.0123 | 5.9999 | 0.2201 | 1.0556 | 0.0427 | 0.4073 | 0.0405 | 0.3858 |
| 91 | 44.43 | -0.02 | 0.0850 | 5.9999 | 0.0165 | 5.9999 | 0.2448 | 1.0631 | 0.0435 | 0.4058 | 0.0409 | 0.3855 |
| 92 | 44.58 | -0.02 | 0.0850 | 5.9999 | 0.0165 | 5.9999 | 0.2448 | 1.0538 | 0.0401 | 0.4024 | 0.0381 | 0.3818 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PANTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 151 | MACH 1.10 | REXIC-E 1.7 | PHI 0.0 | CONF b160F2s | L C.C | DEL1 0 | DEL2 -40 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | Cm3 | C83 | XCPF3 | YCPF3 | CNF4 | Cm4 | C84 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.78 | -0.00 | 0.0755 | 5.5555 | 0.0206 | 5.9999 | 0.2759 | 1.0532 | 0.0427 | 0.4072 | 0.0406 | 0.3868 |
| 94 | 44.97 | -0.02 | 0.0649 | 5.5555 | 0.0182 | 5.9999 | 0.2634 | 1.0440 | 0.0397 | 0.3966 | 0.0380 | 0.3828 |
| 95 | 45.14 | -0.02 | 0.0650 | 5.5555 | 0.0188 | 5.5555 | 0.2699 | 1.0424 | 0.0406 | 0.3951 | 0.0390 | 0.3828 |
| 96 | 45.31 | -0.02 | 0.0685 | 5.5555 | 0.0204 | 5.5555 | 0.2955 | 1.0655 | 0.0426 | 0.4133 | 0.0400 | 0.3879 |
| 97 | 45.51 | -0.01 | 0.0685 | 5.5555 | 0.0204 | 5.9999 | 0.2955 | 1.0361 | 0.0392 | 0.3965 | 0.0378 | 0.3831 |
| 98 | 45.70 | -0.03 | 0.0557 | 5.5555 | 0.0156 | 5.5555 | 0.2666 | 1.0413 | 0.0422 | 0.4024 | 0.0405 | 0.3865 |
| 99 | 45.85 | -0.02 | 0.0512 | 5.5555 | 0.0146 | 5.5555 | 0.2844 | 1.0421 | 0.0390 | 0.4014 | 0.0374 | 0.3852 |
| 100 | 46.02 | -0.02 | 0.0558 | 5.5555 | 0.0158 | 5.9999 | 0.2837 | 1.0334 | 0.0386 | 0.3955 | 0.0373 | 0.3827 |
| 101 | 46.23 | -0.02 | 0.0646 | 5.5555 | 0.0183 | 5.5555 | 0.2336 | 1.0305 | 0.0393 | 0.3845 | 0.0389 | 0.3805 |
| 102 | 46.39 | -0.04 | 0.0645 | 5.5555 | 0.0201 | 5.9999 | 0.3109 | 1.0028 | 0.0400 | 0.3850 | 0.0399 | 0.3839 |
| 103 | 46.56 | -0.04 | 0.0645 | 5.5555 | 0.0201 | 5.9999 | 0.3109 | 0.9960 | 0.0391 | 0.3808 | 0.0392 | 0.3816 |
| 104 | 46.74 | -0.02 | 0.0557 | 5.5555 | 0.0176 | 5.5555 | 0.3134 | 0.9645 | 0.0426 | 0.3712 | 0.0442 | 0.3849 |
| 105 | 46.92 | -0.02 | 0.0713 | 5.5555 | 0.0214 | 5.5555 | 0.3004 | 0.9496 | 0.0415 | 0.3635 | 0.0437 | 0.3827 |
| 106 | 47.10 | -0.02 | 0.0646 | 5.5555 | 0.0201 | 5.9999 | 0.3104 | 0.9386 | 0.0427 | 0.3587 | 0.0455 | 0.3822 |
| 107 | 47.27 | -0.03 | 0.0558 | 5.5555 | 0.0188 | 5.5555 | 0.3010 | 0.9363 | 0.0423 | 0.3594 | 0.0451 | 0.3835 |
| 108 | 47.43 | -0.02 | 0.0557 | 5.5555 | 0.0185 | 5.5555 | 0.3128 | 0.9233 | 0.0437 | 0.3521 | 0.0473 | 0.3813 |
| 109 | 47.59 | -0.03 | 0.0611 | 5.5555 | 0.0215 | 5.5555 | 0.3579 | 0.9452 | 0.0398 | 0.3611 | 0.0422 | 0.3820 |
| 110 | 47.75 | -0.03 | 0.0466 | 5.5555 | 0.0170 | 5.5555 | 0.3024 | 0.9517 | 0.0385 | 0.3617 | 0.0405 | 0.3801 |
| 111 | 47.96 | -0.03 | 0.0558 | 5.5555 | 0.0203 | 5.9999 | 0.3033 | 0.9597 | 0.0372 | 0.3668 | 0.0388 | 0.3843 |
| 112 | 48.14 | -0.02 | 0.0463 | 5.5555 | 0.0183 | 5.9999 | 0.4338 | 0.9628 | 0.0353 | 0.3731 | 0.0359 | 0.3796 |
| 113 | 48.31 | -0.02 | 0.0558 | 5.5555 | 0.0204 | 5.9999 | 0.3051 | 0.9658 | 0.0356 | 0.3675 | 0.0365 | 0.3805 |
| 114 | 48.47 | -0.02 | 0.0663 | 5.5555 | 0.0226 | 5.5555 | 0.3011 | 0.9528 | 0.0371 | 0.3601 | 0.0389 | 0.3779 |
| 115 | 48.64 | -0.01 | 0.0648 | 5.5555 | 0.0228 | 5.5555 | 0.3512 | 0.9569 | 0.0359 | 0.3635 | 0.0375 | 0.3799 |
| 116 | 48.81 | -0.01 | 0.0515 | 5.5555 | 0.0191 | 5.5555 | 0.3722 | 0.9387 | 0.0375 | 0.3576 | 0.0400 | 0.3809 |
| 117 | 48.98 | -0.01 | 0.0555 | 5.5555 | 0.0204 | 5.9999 | 0.3544 | 0.9535 | 0.0373 | 0.3598 | 0.0391 | 0.3776 |
| 118 | 49.15 | -0.01 | 0.0561 | 5.5555 | 0.0223 | 5.9999 | 0.3837 | 0.9399 | 0.0362 | 0.3578 | 0.0385 | 0.3807 |
| 119 | 49.32 | -0.02 | 0.0647 | 5.5555 | 0.0255 | 5.9999 | 0.3934 | 0.9399 | 0.0362 | 0.3578 | 0.0385 | 0.3807 |
| 120 | 49.50 | 0.01 | 0.0560 | 5.5555 | 0.0212 | 5.5555 | 0.3793 | 0.9359 | 0.0366 | 0.3546 | 0.0385 | 0.3782 |
| 121 | 49.69 | -0.00 | 0.0465 | 5.5555 | 0.0188 | 5.9999 | 0.4012 | 0.9209 | 0.0354 | 0.3463 | 0.0385 | 0.3760 |
| 122 | 49.86 | 0.00 | 0.0644 | 5.5555 | 0.0246 | 5.5555 | 0.3795 | 0.9101 | 0.0344 | 0.3487 | 0.0376 | 0.3808 |
| 123 | 50.04 | 0.00 | 0.0627 | 5.5555 | 0.0245 | 5.5555 | 0.3906 | 0.9200 | 0.0348 | 0.3511 | 0.0375 | 0.3784 |
| 124 | 50.20 | 0.01 | 0.0563 | 5.5555 | 0.0233 | 5.5559 | 0.3990 | 0.8976 | 0.0348 | 0.3404 | 0.0388 | 0.3782 |
| 125 | 50.36 | -0.00 | 0.0462 | 5.5555 | 0.0174 | 5.5555 | 0.4317 | 0.9153 | 0.0348 | 0.3446 | 0.0381 | 0.3764 |
| 126 | 50.55 | 0.01 | 0.0565 | 5.5555 | 0.0224 | 5.9999 | 0.3841 | 0.8847 | 0.0343 | 0.3277 | 0.0397 | 0.3789 |
| 127 | 50.71 | 0.00 | 0.0561 | 5.5555 | 0.0240 | 5.5555 | 0.4286 | 0.8866 | 0.0329 | 0.3225 | 0.0389 | 0.3815 |
| 128 | 50.90 | -0.03 | 0.0556 | 5.5555 | 0.0221 | 5.5555 | 0.4104 | 0.8891 | 0.0327 | 0.3161 | 0.0404 | 0.3833 |
| 129 | 51.05 | 0.01 | 0.0626 | 5.5555 | 0.0253 | 5.9999 | 0.4172 | 0.8840 | 0.0329 | 0.3097 | 0.0409 | 0.3852 |
| 130 | 51.21 | 0.03 | 0.0698 | 5.5555 | 0.0266 | 5.9999 | 0.3721 | 0.7759 | 0.0337 | 0.3062 | 0.0434 | 0.3865 |
| 131 | 51.40 | 0.02 | 0.0563 | 5.5555 | 0.0214 | 5.5559 | 0.3301 | 0.7517 | 0.0347 | 0.2904 | 0.0462 | 0.3863 |
| 132 | 51.56 | 0.02 | 0.0565 | 5.5555 | 0.0233 | 5.9999 | 0.4134 | 0.7548 | 0.0350 | 0.2895 | 0.0464 | 0.3841 |
| 133 | 51.72 | 0.03 | 0.0605 | 5.5555 | 0.0238 | 5.5555 | 0.3663 | 0.7768 | 0.0338 | 0.3013 | 0.0434 | 0.3865 |
| 134 | 51.89 | 0.03 | 0.0561 | 5.5555 | 0.0243 | 5.5555 | 0.4145 | 0.8078 | 0.0331 | 0.3162 | 0.0410 | 0.3846 |
| 135 | 52.05 | 0.02 | 0.0542 | 5.5555 | 0.0205 | 5.9999 | 0.3772 | 0.7362 | 0.0356 | 0.2836 | 0.0484 | 0.3852 |
| 136 | 52.22 | 0.01 | 0.0566 | 5.5555 | 0.0224 | 5.9999 | 0.3952 | 0.7428 | 0.0357 | 0.2826 | 0.0481 | 0.3805 |
| 137 | 52.37 | 0.02 | 0.0565 | 5.5555 | 0.0242 | 5.5555 | 0.4283 | 0.7122 | 0.0374 | 0.2712 | 0.0526 | 0.3808 |
| 138 | 52.54 | 0.03 | 0.0561 | 5.5555 | 0.0233 | 5.5559 | 0.4116 | 0.7424 | 0.0363 | 0.2843 | 0.0489 | 0.3829 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXIC-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 151 | 1.10 | 1.7 | C.C | B1WDF23 | C.C | 0 | -20 | 0 | -20 | UNKNOWN |

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.70 | C.01 | C.C75C | 9.9999 | C.C303 | 9.9999 | 0.4041 | 0.7169 | 0.0378 | 0.2770 | 0.0528 | 0.3864 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASREC)  7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN PASSIVE TAILS EFFECTS DATA

TEST PART MACH REYNO PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 152 0.60 1.7 0.0 BINORIB 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.89 | -0.04 | -1.3351 | 4.6224 | -0.2206 | -0.3416 | 0.0388 | 0.6290 | 0.3653 | 0.4637 | -3.4629 |
| 2 | -5.89 | 0.01 | -1.3544 | 4.6849 | -0.2191 | -0.2478 | 0.0415 | 0.6218 | 0.3602 | 0.4554 | -3.4025 |
| 3 | -5.89 | 0.01 | -1.3202 | 4.6117 | -0.2194 | -0.2468 | 0.0388 | 0.6217 | 0.3634 | 0.4583 | -3.4532 |
| 4 | -5.82 | 0.02 | -1.3150 | 4.6462 | -0.1223 | -0.1223 | 0.0219 | 0.6344 | 0.3610 | 0.4734 | -3.5224 |
| 5 | -4.70 | 0.02 | -1.2163 | 4.2422 | 0.0466 | -0.1556 | 0.0096 | 0.6110 | 0.3462 | 0.4708 | -3.8657 |
| 6 | -2.92 | 0.01 | -1.1326 | 3.8716 | -0.0075 | -0.0890 | 0.0101 | 0.7649 | 0.4490 | 0.5159 | -4.2430 |
| 7 | -1.18 | 0.01 | -1.2220 | 5.7017 | 0.0201 | -0.1285 | 0.0107 | 0.7193 | 0.1992 | 0.5201 | -4.6658 |
| 8 | 0.01 | 0.01 | -1.2020 | 5.9228 | -0.0005 | -0.1013 | 0.0111 | 0.6502 | 0.1044 | 0.5058 | -5.2060 |
| 9 | 2.37 | 0.01 | -0.9555 | 5.0921 | 0.0165 | -0.1390 | 0.0116 | 0.6587 | 0.1711 | 0.4877 | -5.6827 |
| 10 | 4.09 | 0.02 | -0.7667 | 5.1966 | 0.0164 | -0.1397 | 0.0121 | 0.6117 | 0.1585 | 0.4532 | -6.6055 |
| 11 | 5.86 | 0.02 | -0.5263 | 4.6832 | 0.0755 | -0.2035 | 0.0159 | 0.5576 | 0.1525 | 0.4051 | -8.6651 |
| 12 | 7.00 | 0.01 | -0.2683 | 4.1656 | -0.0155 | -0.1134 | 0.0130 | 0.4994 | 0.1562 | 0.3492 | -14.4583 |
| 13 | 9.35 | 0.02 | 0.0476 | 3.3771 | 0.0375 | -0.0833 | 0.0135 | 0.4361 | 0.1521 | 0.2860 | 83.1369 |
| 14 | 11.18 | 0.02 | 0.3521 | 2.6816 | 0.0067 | -0.1105 | 0.0140 | 0.3736 | 0.1553 | 0.2185 | 6.3290 |
| 15 | 12.93 | 0.04 | 0.7159 | 1.9746 | -0.0045 | -0.0315 | 0.0143 | 0.3186 | 0.1587 | 0.1599 | 2.3384 |
| 16 | 14.73 | 0.02 | 1.0922 | 1.0765 | -0.0325 | 0.0006 | 0.0150 | 0.2652 | 0.1615 | 0.1038 | 1.0173 |
| 17 | 16.58 | 0.02 | 1.4604 | 0.4352 | -0.0476 | 0.0141 | 0.0172 | 0.2109 | 0.1684 | 0.0425 | 0.3135 |
| 18 | 18.42 | 0.02 | 1.8324 | -0.2116 | -0.0695 | 0.0279 | 0.0219 | 0.1497 | 0.1734 | -0.0242 | -0.1217 |
| 19 | 20.25 | 0.03 | 2.1224 | -0.9772 | -0.2645 | 0.5145 | 0.1019 | 0.0747 | 0.1765 | -0.1038 | -0.4604 |
| 20 | 22.08 | -0.01 | 2.0267 | -1.8227 | -0.4375 | 1.0073 | 0.1050 | 0.0130 | 0.1685 | -0.1755 | -0.6819 |
| 21 | 23.93 | -0.01 | 2.0884 | -2.4732 | -0.0534 | 1.0413 | 0.1933 | -0.0410 | 0.1952 | -0.2302 | -0.8563 |
| 22 | 25.78 | -0.00 | 2.0994 | -2.9237 | -0.0134 | 1.2135 | 0.0008 | -0.0858 | 0.2027 | -0.2885 | -0.8952 |
| 23 | 27.63 | 0.05 | 3.7308 | -3.3352 | 0.4544 | -0.6591 | 0.1360 | -0.1514 | 0.2050 | -0.3564 | -0.8940 |
| 24 | 27.66 | 0.04 | 3.8998 | -3.3264 | 0.4265 | -0.5022 | 0.1034 | -0.1504 | 0.2004 | -0.3633 | -0.8987 |
| 25 | 27.86 | 0.04 | 3.8942 | -3.3561 | 0.4695 | -0.5715 | 0.1064 | -0.1495 | 0.2031 | -0.3526 | -0.5085 |
| 26 | 27.88 | 0.05 | 3.7963 | -3.3527 | 0.3172 | -0.7444 | 0.1305 | -0.1593 | 0.2068 | -0.3661 | -0.8925 |
| 27 | 28.27 | 0.05 | 3.7819 | -3.3157 | 0.3335 | -0.6816 | 0.1236 | -0.1550 | 0.2067 | -0.3617 | -0.8767 |
| 28 | 28.53 | 0.04 | 3.8778 | -3.2812 | 0.4211 | -0.4823 | 0.1096 | -0.1596 | 0.2146 | -0.3742 | -0.8462 |
| 29 | 28.62 | 0.06 | 3.8923 | -3.2941 | 0.4214 | -0.7766 | 0.1005 | -0.1455 | 0.2170 | -0.3625 | -0.8463 |
| 30 | 29.13 | 0.06 | 3.9874 | -3.2946 | 0.4936 | -0.6879 | 0.1342 | -0.1543 | 0.2202 | -0.3745 | -0.8263 |
| 31 | 29.44 | 0.05 | 4.0405 | -3.3321 | 0.4022 | -0.6068 | 0.1252 | -0.1504 | 0.2248 | -0.3752 | -0.8247 |
| 32 | 29.71 | 0.06 | 4.1020 | -3.2914 | 0.4902 | -0.5903 | 0.1020 | -0.1483 | 0.2274 | -0.3755 | -0.8024 |
| 33 | 29.98 | 0.07 | 4.1744 | -3.3280 | 0.4124 | -0.5436 | 0.1024 | -0.1554 | 0.2305 | -0.3859 | -0.7573 |
| 34 | 30.23 | 0.07 | 4.2417 | -3.3175 | 0.3931 | -0.5903 | 0.1027 | -0.1603 | 0.2318 | -0.3921 | -0.7840 |
| 35 | 30.53 | 0.08 | 4.3356 | -3.3516 | 0.7496 | -1.1759 | 0.1935 | -0.1531 | 0.2416 | -0.3947 | -0.7799 |
| 36 | 30.79 | 0.06 | 4.3196 | -3.3644 | 0.4266 | -0.5736 | 0.1475 | -0.1458 | 0.2356 | -0.3994 | -0.7785 |
| 37 | 31.07 | 0.06 | 4.3904 | -3.4163 | 0.4585 | -0.6161 | 0.1326 | -0.1454 | 0.2650 | -0.4104 | -0.7781 |
| 38 | 31.34 | 0.06 | 4.4066 | -3.4316 | 0.3886 | -0.5424 | 0.1030 | -0.1463 | 0.2780 | -0.4245 | -0.7736 |
| 39 | 31.59 | 0.07 | 4.5336 | -3.4352 | 0.4556 | -0.6214 | 0.1179 | -0.1477 | 0.2796 | -0.4275 | -0.7656 |
| 40 | 31.87 | 0.06 | 4.6205 | -3.5741 | 0.6094 | -0.8294 | 0.1546 | -0.1458 | 0.2873 | -0.4331 | -0.7737 |
| 41 | 32.13 | 0.06 | 4.7431 | -3.5273 | 0.6022 | -0.8967 | 0.1483 | -0.1482 | 0.2827 | -0.4309 | -0.7437 |
| 42 | 32.40 | 0.07 | 4.8367 | -3.4953 | 0.7448 | -0.8918 | 0.1630 | -0.1549 | 0.2911 | -0.4459 | -0.7228 |
| 43 | 32.65 | 0.05 | 4.8986 | -3.3956 | 0.2805 | -0.1076 | 0.1052 | -0.1735 | 0.2873 | -0.4608 | -0.6939 |
| 44 | 32.91 | 0.06 | 4.9095 | -3.3000 | 0.6275 | -0.8424 | 0.1480 | -0.1812 | 0.2882 | -0.4694 | -0.6774 |
| 45 | 33.14 | 0.05 | 5.0363 | -3.4348 | 0.6760 | -0.8104 | 0.1128 | -0.1723 | 0.2943 | -0.4665 | -0.6820 |
| 46 | 33.40 | 0.06 | 5.0784 | -3.4115 | 0.5862 | -0.7099 | 0.0783 | -0.1709 | 0.2990 | -0.4698 | -0.6718 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 152 MACH .60 RN/10**6 1.7 PHI 0.0 CONF 18 L 60.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.66 | 0.08 | 5.1605 | -3.3048 | 0.5157 | 0.3642 | 0.0473 | -0.1877 | 0.2594 | -0.4871 | -0.6367 |
| 48 | 33.88 | 0.09 | 5.2170 | -3.3425 | 0.6547 | 0.1642 | 0.0706 | -0.1898 | 0.3096 | -0.4793 | -0.6407 |
| 49 | 34.13 | 0.09 | 5.3052 | -3.3750 | 0.6366 | 0.3530 | 0.0819 | -0.1703 | 0.3217 | -0.4520 | -0.6362 |
| 50 | 34.40 | 0.10 | 5.4251 | -3.3986 | 0.7263 | 0.1576 | 0.0773 | -0.1802 | 0.3254 | -0.5056 | -0.6168 |
| 51 | 34.63 | 0.11 | 5.5051 | -3.3741 | 0.8710 | 0.1702 | 0.1083 | -0.1607 | 0.3389 | -0.4946 | -0.6125 |
| 52 | 34.80 | 0.12 | 5.6019 | -3.2517 | 1.0332 | -0.2349 | 0.1500 | -0.1702 | 0.3418 | -0.5118 | -0.5876 |
| 53 | 35.10 | 0.11 | 5.6562 | -3.2083 | 0.9522 | -0.3444 | 0.1594 | -0.1769 | 0.3375 | -0.5144 | -0.5630 |
| 54 | 35.36 | 0.12 | 5.7139 | -3.1117 | 1.1200 | -1.0963 | 0.1693 | -0.2030 | 0.3189 | -0.5219 | -0.5446 |
| 55 | 35.59 | 0.10 | 5.7838 | -3.0280 | 1.0763 | -1.5409 | 0.1845 | -0.2356 | 0.2948 | -0.5304 | -0.5253 |
| 56 | 35.81 | 0.09 | 5.8365 | -2.9942 | 1.0562 | -1.6901 | 0.1714 | -0.2400 | 0.2600 | -0.5355 | -0.5147 |
| 57 | 36.06 | 0.09 | 5.9150 | -3.0249 | 1.0346 | -1.7506 | 0.1858 | -0.2396 | 0.2977 | -0.5373 | -0.5105 |
| 58 | 36.27 | 0.10 | 6.0113 | -3.0742 | 1.0578 | -1.4583 | 0.1714 | -0.2359 | 0.3158 | -0.5513 | -0.5111 |
| 59 | 36.51 | 0.11 | 6.1288 | -3.1200 | 1.1024 | -1.2384 | 0.1644 | -0.2115 | 0.3335 | -0.5450 | -0.5101 |
| 60 | 36.76 | 0.10 | 6.1306 | -3.0385 | 1.1055 | -1.3927 | 0.1715 | -0.2263 | 0.3243 | -0.5526 | -0.4957 |
| 61 | 36.98 | 0.10 | 6.1952 | -2.9474 | 1.0877 | -1.4255 | 0.1650 | -0.2515 | 0.3167 | -0.5702 | -0.4758 |
| 62 | 37.21 | 0.10 | 6.2567 | -2.9733 | 1.0856 | -1.2729 | 0.1550 | -0.2492 | 0.3271 | -0.5763 | -0.4721 |
| 63 | 37.45 | 0.10 | 6.3401 | -2.9658 | 1.0775 | -0.9228 | 0.1431 | -0.2273 | 0.3405 | -0.5678 | -0.4705 |
| 64 | 37.67 | 0.11 | 6.4146 | -2.9187 | 1.0811 | -0.2603 | 0.1270 | -0.1727 | 0.3697 | -0.5644 | -0.4854 |
| 65 | 37.92 | 0.12 | 6.2554 | -3.2782 | 1.0569 | -0.1197 | 0.0903 | -0.1621 | 0.4181 | -0.5802 | -0.4923 |
| 66 | 38.15 | 0.12 | 6.7735 | -3.3564 | 1.0235 | 0.3707 | 0.0695 | -0.1621 | 0.4283 | -0.5904 | -0.4946 |
| 67 | 38.37 | 0.12 | 6.8163 | -3.3527 | 1.0543 | 0.5025 | 0.0905 | -0.1636 | 0.4363 | -0.5959 | -0.4883 |
| 68 | 38.58 | 0.12 | 6.9565 | -3.4456 | 1.0744 | 0.7355 | 0.0901 | -0.1540 | 0.4469 | -0.6009 | -0.4931 |
| 69 | 38.81 | 0.12 | 7.0363 | -3.4962 | 1.0770 | 1.3645 | 0.0506 | -0.1617 | 0.4487 | -0.6104 | -0.4969 |
| 70 | 39.03 | 0.11 | 7.0421 | -3.4363 | 0.9446 | 1.4259 | 0.0303 | -0.1665 | 0.4546 | -0.6213 | -0.5013 |
| 71 | 39.23 | 0.12 | 7.3524 | -3.5562 | 1.0781 | 0.7301 | 0.0979 | -0.1727 | 0.4565 | -0.6312 | -0.4884 |
| 72 | 39.46 | 0.13 | 7.5437 | -3.6560 | 1.1304 | 1.1030 | 0.0602 | -0.1706 | 0.4627 | -0.6333 | -0.4980 |
| 73 | 39.65 | 0.11 | 7.4482 | -3.4304 | 1.0112 | 0.6247 | 0.0844 | -0.1742 | 0.4613 | -0.6355 | -0.4606 |
| 74 | 39.88 | 0.12 | 7.5016 | -3.5226 | 1.0266 | 0.9306 | 0.0542 | -0.1810 | 0.4637 | -0.6447 | -0.4656 |
| 75 | 40.05 | 0.13 | 7.5827 | -3.4629 | 1.1175 | 0.6021 | 0.0994 | -0.1797 | 0.4613 | -0.6410 | -0.4567 |
| 76 | 40.25 | 0.11 | 7.5422 | -3.4071 | 0.9772 | 1.1786 | 0.0392 | -0.1988 | 0.4571 | -0.6359 | -0.4567 |
| 77 | 40.47 | 0.10 | 7.5428 | -3.1760 | 1.0154 | 0.4002 | 0.0380 | -0.1865 | 0.4546 | -0.6413 | -0.4213 |
| 78 | 40.67 | 0.11 | 7.7731 | -3.2512 | 1.1068 | 0.3495 | 0.0794 | -0.1903 | 0.4715 | -0.6676 | -0.4183 |
| 79 | 40.89 | 0.11 | 7.8324 | -3.2663 | 1.0883 | 0.6073 | 0.0712 | -0.1896 | 0.4654 | -0.6552 | -0.4170 |
| 80 | 41.10 | 0.12 | 7.9260 | -3.3156 | 1.2041 | 0.4434 | 0.0442 | -0.1815 | 0.4611 | -0.6626 | -0.4165 |
| 81 | 41.28 | 0.12 | 8.0141 | -3.2674 | 1.1563 | 0.5354 | 0.0795 | -0.1796 | 0.4650 | -0.6663 | -0.4102 |
| 82 | 41.48 | 0.11 | 8.1781 | -3.3575 | 1.1928 | 0.6299 | 0.0389 | -0.1798 | 0.4720 | -0.6665 | -0.4154 |
| 83 | 41.66 | 0.11 | 8.2733 | -3.3292 | 1.1875 | 0.7532 | 0.0724 | -0.1809 | 0.4933 | -0.6758 | -0.4024 |
| 84 | 41.87 | 0.11 | 8.2264 | -3.1614 | 1.1402 | 0.5631 | 0.0729 | -0.1945 | 0.4878 | -0.6823 | -0.3866 |
| 85 | 42.05 | 0.08 | 8.2606 | -3.0557 | 0.9150 | 0.4309 | 0.0953 | -0.2561 | 0.4424 | -0.6586 | -0.3704 |
| 86 | 42.25 | 0.11 | 8.4564 | -3.1163 | 1.2092 | 0.7034 | 0.0857 | -0.1918 | 0.4780 | -0.6678 | -0.4026 |
| 87 | 42.41 | 0.06 | 8.2662 | -2.5566 | 0.6815 | 0.2750 | 0.0395 | -0.3169 | 0.4056 | -0.7227 | -0.3055 |
| 88 | 42.61 | 0.12 | 8.7768 | -3.7330 | 1.3535 | 0.5598 | 0.0438 | -0.1849 | 0.5054 | -0.6903 | -0.4253 |
| 89 | 42.77 | 0.11 | 8.7287 | -3.6823 | 1.0980 | 1.3292 | 0.0357 | -0.2024 | 0.4989 | -0.7013 | -0.3950 |
| 90 | 42.97 | 0.12 | 8.8763 | -3.7446 | 1.2203 | 1.3031 | 0.0357 | -0.1847 | 0.5056 | -0.6905 | -0.4219 |
| 91 | 43.16 | 0.12 | 9.0223 | -3.7935 | 1.2209 | 1.6569 | 0.0349 | -0.2105 | 0.4811 | -0.6917 | -0.4202 |
| 92 | 43.35 | 0.12 | 9.1888 | -3.8711 | 1.2225 | 1.7060 | 0.0280 | -0.2108 | 0.5035 | -0.7143 | -0.4331 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSEC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 152 MACH 0.60 RAIC-6 1.7 PHI 0.0 CONF 13 I 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.51 | 0.11 | 9.0460 | -3.6925 | 1.1231 | 1.5450 | 0.0215 | -0.2010 | 0.5104 | -0.7114 | -0.4085 |
| 94 | 43.69 | 0.12 | 9.0263 | -3.6954 | 1.1115 | 2.1303 | 0.0052 | -0.2107 | 0.5117 | -0.7224 | -0.4372 |
| 95 | 43.69 | 0.12 | 9.2560 | -3.9325 | 1.2220 | 1.7512 | 0.0071 | -0.2072 | 0.5103 | -0.7175 | -0.4229 |
| 96 | 44.07 | 0.12 | 9.3465 | -3.9314 | 1.2196 | 1.7000 | 0.0146 | -0.2179 | 0.5080 | -0.7259 | -0.4098 |
| 97 | 44.29 | 0.12 | 9.3407 | -3.9744 | 1.2196 | 1.4114 | 0.0301 | -0.2140 | 0.5159 | -0.7299 | -0.4148 |
| 98 | 44.49 | 0.12 | 9.4906 | -3.9866 | 1.1776 | 1.7304 | 0.0146 | -0.2109 | 0.5149 | -0.7313 | -0.4264 |
| 99 | 44.81 | 0.11 | 9.5040 | -3.9943 | 1.1365 | 1.6157 | 0.0229 | -0.2176 | 0.5204 | -0.7360 | -0.4097 |
| 100 | 44.78 | 0.11 | 9.5259 | -3.9968 | 1.1575 | 1.6741 | 0.0249 | -0.2149 | 0.5273 | -0.7413 | -0.4165 |
| 101 | 44.98 | 0.12 | 9.5585 | -4.0362 | 1.2657 | 1.8009 | 0.0222 | -0.2108 | 0.5295 | -0.7363 | -0.4205 |
| 102 | 45.15 | 0.12 | 9.7763 | -4.3313 | 1.2613 | 2.2238 | -0.0076 | -0.2376 | 0.5255 | -0.7625 | -0.4430 |
| 103 | 45.32 | 0.10 | 9.7359 | -4.1242 | 1.0583 | 2.1017 | 0.0004 | -0.2302 | 0.5236 | -0.7598 | -0.4234 |
| 104 | 45.49 | 0.11 | 9.6156 | -4.0356 | 1.1577 | 2.2456 | 0.0144 | -0.2439 | 0.5284 | -0.7723 | -0.4357 |
| 105 | 45.66 | 0.10 | 9.5038 | -4.2068 | 1.0562 | 1.9314 | 0.0367 | -0.2256 | 0.5303 | -0.7553 | -0.4247 |
| 106 | 45.84 | 0.11 | 9.6751 | -4.2816 | 1.1845 | 1.8805 | 0.0341 | -0.2270 | 0.5303 | -0.7633 | -0.4271 |
| 107 | 46.01 | 0.10 | 10.0354 | -4.2366 | 1.1573 | 1.9124 | 0.0026 | -0.2370 | 0.5346 | -0.7722 | -0.4221 |
| 108 | 46.19 | 0.10 | 10.0747 | -4.2817 | 1.0996 | 1.9073 | -0.0021 | -0.2360 | 0.5332 | -0.7652 | -0.4250 |
| 109 | 46.36 | 0.11 | 10.1720 | -4.4057 | 1.1901 | 1.9589 | -0.0050 | -0.2356 | 0.5388 | -0.7744 | -0.4335 |
| 110 | 46.53 | 0.12 | 10.3563 | -4.3557 | 1.2341 | 2.1816 | -0.0195 | -0.2471 | 0.5378 | -0.7847 | -0.4405 |
| 111 | 46.71 | 0.11 | 10.3945 | -4.6356 | 1.1582 | 2.1433 | -0.0206 | -0.2547 | 0.5372 | -0.7919 | -0.4459 |
| 112 | 46.87 | 0.09 | 10.3215 | -4.4866 | 0.9167 | 2.3804 | -0.0204 | -0.2698 | 0.5348 | -0.8034 | -0.4348 |
| 113 | 47.05 | 0.11 | 10.5266 | -4.7001 | 1.1321 | 2.5291 | -0.0422 | -0.2853 | 0.5382 | -0.8035 | -0.4465 |
| 114 | 47.21 | 0.09 | 10.4865 | -4.5916 | 0.9343 | 2.5473 | -0.0426 | -0.2735 | 0.5396 | -0.8131 | -0.4361 |
| 115 | 47.38 | 0.09 | 10.4935 | -4.5456 | 0.8885 | 2.5365 | -0.0634 | -0.2804 | 0.5424 | -0.8228 | -0.4332 |
| 116 | 47.57 | 0.10 | 10.7030 | -4.6521 | 0.9269 | 2.6534 | -0.0716 | -0.2937 | 0.5424 | -0.8360 | -0.4384 |
| 117 | 47.72 | 0.07 | 10.5527 | -4.5833 | 0.8451 | 3.1559 | -0.1083 | -0.2985 | 0.5392 | -0.8356 | -0.4327 |
| 118 | 47.90 | 0.08 | 10.5547 | -4.4956 | 0.7443 | 3.0471 | -0.1154 | -0.2969 | 0.5462 | -0.8370 | -0.4243 |
| 119 | 48.05 | 0.08 | 10.6861 | -4.5144 | 0.8107 | 3.4007 | -0.1308 | -0.2943 | 0.5476 | -0.8418 | -0.4225 |
| 120 | 48.23 | 0.07 | 10.7188 | -4.4524 | 0.6826 | 3.3696 | -0.1449 | -0.3071 | 0.5441 | -0.8511 | -0.4191 |
| 121 | 48.40 | 0.07 | 10.7445 | -4.5255 | 0.6826 | 3.4713 | -0.1453 | -0.3068 | 0.5365 | -0.8452 | -0.4215 |
| 122 | 48.55 | 0.08 | 10.7384 | -4.5254 | 0.5841 | 3.4172 | -0.1809 | -0.3409 | 0.5276 | -0.8885 | -0.4029 |
| 123 | 48.72 | 0.07 | 10.7238 | -4.5265 | 0.5567 | 3.5862 | -0.1882 | -0.3422 | 0.5281 | -0.8763 | -0.3941 |
| 124 | 48.90 | 0.05 | 10.6828 | -4.4826 | 0.4388 | 3.2638 | -0.1890 | -0.3407 | 0.5216 | -0.8703 | -0.3774 |
| 125 | 49.08 | 0.05 | 10.6962 | -4.4563 | 0.4044 | 3.1681 | -0.1796 | -0.3522 | 0.5127 | -0.8648 | -0.3752 |
| 126 | 49.29 | 0.04 | 10.6436 | -4.4823 | 0.3375 | 2.7706 | -0.1779 | -0.3622 | 0.4934 | -0.8576 | -0.3579 |
| 127 | 49.42 | 0.03 | 10.6658 | -4.4676 | 0.3085 | 3.1674 | -0.1828 | -0.3502 | 0.5086 | -0.8588 | -0.3578 |
| 128 | 49.57 | 0.01 | 10.5341 | -4.2567 | 0.1581 | 2.6594 | -0.1899 | -0.4326 | 0.4724 | -0.8451 | -0.3886 |
| 129 | 49.75 | 0.03 | 10.8288 | -4.6046 | 0.2664 | 2.8753 | -0.1862 | -0.4152 | 0.5011 | -0.8193 | -0.3329 |
| 130 | 49.92 | 0.02 | 10.7365 | -4.2134 | 0.2101 | 2.6693 | -0.1625 | -0.4207 | 0.4917 | -0.8124 | -0.2993 |
| 131 | 50.09 | 0.02 | 10.6438 | -4.6023 | 0.2660 | 2.8617 | -0.1619 | -0.4002 | 0.5152 | -0.8154 | -0.3292 |
| 132 | 50.26 | 0.02 | 10.9270 | -4.4431 | 0.2379 | 2.8167 | -0.1771 | -0.4104 | 0.5077 | -0.8181 | -0.3140 |
| 133 | 50.43 | 0.03 | 11.0060 | -4.6157 | 0.3069 | 2.7789 | -0.1479 | -0.3687 | 0.5194 | -0.8081 | -0.3452 |
| 134 | 50.58 | 0.03 | 11.1363 | -4.6899 | 0.3217 | 2.7563 | -0.1475 | -0.3694 | 0.5336 | -0.8230 | -0.3493 |
| 135 | 50.76 | 0.04 | 11.2138 | -4.6046 | 0.4715 | 2.8825 | -0.1470 | -0.3726 | 0.5396 | -0.8122 | -0.3548 |
| 136 | 50.93 | 0.00 | 11.3041 | -4.6767 | 0.3567 | 3.0073 | -0.1410 | -0.4152 | 0.5349 | -0.8481 | -0.4041 |
| 137 | 51.14 | 0.00 | 12.1261 | -5.5392 | 0.5010 | 3.5144 | -0.0701 | -0.4016 | 0.5861 | -0.9077 | -0.4568 |
| 138 | 51.31 | 0.05 | 12.1177 | -5.5351 | 0.4501 | 3.6332 | -0.0760 | -0.3821 | 0.5804 | -0.9025 | -0.4403 |

MARTIN MISSILE TAILS EFFECTS DATA.

TEST PART MACH RX10-6 PHI CONF L DELT DEL2 DEL3 DEL4 TRANSITION
1 152 0.80 1.7 0.0 BINOFIN 0.0 0 -20 0 -20 UNKNOWN

| PCINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.48 | 0.08 | 12.1269 | -5.3070 | 0.5256 | 3.8058 | -0.0339 | -0.3943 | 0.5942 | -0.5685 | -0.4561 |
| 140 | 51.69 | 0.06 | 12.3186 | -5.6542 | 0.5771 | 3.9003 | -0.0336 | -0.4214 | 0.5943 | -1.0157 | -0.4560 |
| 141 | 51.83 | 0.07 | 12.4357 | -5.9246 | 0.6031 | 4.0504 | -0.0391 | -0.4232 | 0.5953 | -1.0185 | -0.4763 |
| 142 | 52.00 | 0.10 | 12.6774 | -6.1265 | 0.6742 | 4.3107 | -0.0369 | -0.4408 | 0.5947 | -1.0215 | -0.4834 |
| 143 | 52.16 | 0.08 | 12.8648 | -6.3485 | 0.5241 | 4.4605 | -0.0327 | -0.4243 | 0.5892 | -1.0135 | -0.4776 |
| 144 | 52.34 | 0.10 | 12.8742 | -6.3713 | 0.5121 | 4.4630 | -0.0302 | -0.4220 | 0.5920 | -1.0140 | -0.4790 |
| 145 | 52.49 | 0.10 | 12.8220 | -6.0133 | 0.8755 | 4.4255 | -0.1074 | -0.4376 | 0.5901 | -1.0277 | -0.4763 |
| 146 | 52.64 | 0.11 | 12.8507 | -5.9345 | 1.0015 | 4.1349 | -0.1205 | -0.4455 | 0.5889 | -1.0342 | -0.4691 |
| 147 | 52.82 | 0.12 | 12.7158 | -5.6587 | 1.2231 | 3.8378 | -0.1057 | -0.4542 | 0.5788 | -1.0130 | -0.4680 |
| 148 | 53.00 | 0.12 | 12.8457 | -5.9571 | 1.2800 | 3.8451 | -0.1277 | -0.4664 | 0.5834 | -1.0518 | -0.4665 |
| 149 | 53.14 | 0.13 | 12.8148 | -5.7265 | 1.3272 | 4.0531 | -0.1211 | -0.4484 | 0.5860 | -1.0344 | -0.4665 |
| 150 | 53.31 | 0.12 | 12.9516 | -5.9217 | 1.4371 | 3.9631 | -0.0884 | -0.4545 | 0.5867 | -1.0462 | -0.4558 |
| 151 | 53.47 | 0.12 | 12.9554 | -6.0329 | 1.3232 | 3.8376 | -0.0816 | -0.4596 | 0.5881 | -1.0387 | -0.4641 |
| 152 | 53.64 | 0.12 | 13.1542 | -6.2743 | 1.4043 | 4.0413 | -0.0197 | -0.4454 | 0.5828 | -1.0282 | -0.4542 |
| 153 | 53.80 | 0.12 | 13.2377 | -6.3122 | 1.4421 | 3.2190 | -0.0578 | -0.4737 | 0.5835 | -1.0572 | -0.4542 |
| 154 | 53.93 | 0.10 | 13.1503 | -6.1480 | 1.4245 | 4.0139 | -0.0271 | -0.4776 | 0.5873 | -1.0649 | -0.4661 |
| 155 | 54.11 | 0.10 | 13.3570 | -6.1459 | 1.3383 | 2.8702 | 0.0034 | -0.4734 | 0.5907 | -1.0641 | -0.4661 |
| 156 | 54.29 | 0.12 | 13.3163 | -6.3765 | 1.4936 | 2.8805 | 0.0181 | -0.4835 | 0.5862 | -1.0637 | -0.4718 |
| 157 | 54.44 | 0.11 | 13.3583 | -6.5494 | 1.3200 | 2.9221 | 0.0183 | -0.4715 | 0.6026 | -1.0742 | -0.4757 |
| 158 | 54.60 | 0.12 | 13.4760 | -6.6042 | 1.4035 | 2.8550 | 0.0415 | -0.4904 | 0.6276 | -1.0761 | -0.4868 |
| 159 | 54.75 | 0.11 | 13.5044 | -6.6035 | 1.3455 | 2.8329 | 0.0265 | -0.4300 | 0.6348 | -1.0648 | -0.4749 |
| 160 | 54.92 | 0.11 | 13.6513 | -6.7594 | 1.3839 | 3.0699 | 0.0414 | -0.4190 | 0.6538 | -1.0729 | -0.4784 |
| 161 | 55.07 | 0.11 | 13.8598 | -6.9691 | 1.4022 | 2.7707 | 0.0346 | -0.4362 | 0.6510 | -1.0873 | -0.4730 |
| 162 | 55.23 | 0.11 | 13.9234 | -6.9737 | 1.4966 | 2.7295 | 0.0506 | -0.4234 | 0.6603 | -1.0838 | -0.4799 |
| 163 | 55.45 | 0.10 | 14.0888 | -7.0020 | 1.3037 | 2.9236 | 0.0500 | -0.4392 | 0.6707 | -1.1100 | -0.4839 |
| 164 | 55.61 | 0.10 | 14.0508 | -6.8058 | 1.3865 | 2.7524 | 0.0356 | -0.4438 | 0.6860 | -1.1095 | -0.4733 |
| 165 | 55.77 | 0.09 | 14.0431 | -7.0215 | 1.2002 | 3.0512 | 0.0423 | -0.4382 | 0.6722 | -1.1065 | -0.4861 |
| 166 | 55.94 | 0.10 | 14.0895 | -6.8079 | 1.3223 | 3.0155 | 0.0275 | -0.4579 | 0.6857 | -1.1217 | -0.4774 |
| 167 | 56.10 | 0.09 | 14.0660 | -6.9515 | 1.2857 | 2.9064 | 0.0281 | -0.4381 | 0.6770 | -1.1151 | -0.4826 |
| 168 | 56.26 | 0.10 | 14.0557 | -6.8751 | 1.4465 | 2.7207 | 0.0303 | -0.4425 | 0.6765 | -1.1190 | -0.4750 |
| 169 | 56.41 | 0.07 | 14.2101 | -6.9305 | 1.0872 | 2.9935 | 0.0213 | -0.4526 | 0.6756 | -1.1282 | -0.4776 |
| 170 | 56.56 | 0.10 | 14.0659 | -6.7983 | 1.3955 | 2.9191 | 0.0433 | -0.4521 | 0.6745 | -1.1267 | -0.4667 |
| 171 | 56.73 | 0.07 | 14.0164 | -6.9185 | 1.0571 | 2.7537 | 0.0391 | -0.4376 | 0.6714 | -1.1091 | -0.4690 |
| 172 | 56.89 | 0.09 | 14.1223 | -6.9767 | 1.2577 | 2.8188 | 0.0322 | -0.4431 | 0.6824 | -1.1455 | -0.4735 |
| 173 | 57.04 | 0.09 | 14.0858 | -6.9827 | 1.2516 | 2.8233 | 0.0378 | -0.4692 | 0.6846 | -1.1538 | -0.4741 |
| 174 | 57.19 | 0.08 | 14.0505 | -6.9771 | 1.1026 | 2.8573 | 0.0436 | -0.4405 | 0.6809 | -1.1294 | -0.4536 |
| 175 | 57.32 | 0.05 | 14.0255 | -6.8252 | 0.8524 | 2.8540 | 0.0348 | -0.4405 | 0.6786 | -1.1191 | -0.4351 |
| 176 | 57.50 | 0.08 | 14.0559 | -6.8852 | 1.0284 | 2.8148 | 0.0372 | -0.4448 | 0.6787 | -1.1235 | -0.4571 |
| 177 | 57.64 | 0.06 | 14.0803 | -6.9572 | 0.9455 | 2.8167 | 0.0311 | -0.4695 | 0.6759 | -1.1458 | -0.4694 |
| 178 | 57.78 | 0.07 | 14.0963 | -6.8245 | 1.0624 | 2.8007 | 0.0333 | -0.4885 | 0.6806 | -1.1690 | -0.4660 |
| 179 | 57.92 | 0.05 | 14.0822 | -6.9816 | 0.9067 | 2.8517 | 0.0470 | -0.4570 | 0.6923 | -1.1493 | -0.4700 |
| 180 | 57.95 | 0.04 | 14.1484 | -6.8967 | 0.8874 | 2.8173 | 0.0340 | -0.4633 | 0.6764 | -1.1338 | -0.4672 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASACC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 152 MACH 0.60 ALPHA 1.00 PHI 0.00 CONF 81 L 60 DELT 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.069 | -0.04 | -0.0051 | 0.0018 | 0.0126 | -0.3531 | -2.4566 | -0.0639 | -0.0289 | -0.2761 | 0.0436 | 0.4156 |
| 2 | -5.069 | 0.01 | 0.0005 | 0.0001 | 0.0104 | 0.0403 | 17.9401 | -0.0581 | -0.0288 | -0.2767 | 0.0438 | 0.4144 |
| 3 | -5.069 | 0.01 | -0.0005 | 0.0027 | 0.0157 | -9.0040 | -52.1064 | -0.0639 | -0.0287 | -0.2765 | 0.0433 | 0.4165 |
| 4 | -5.062 | 0.02 | -0.0004 | 0.0022 | 0.0149 | -1.0743 | -10.2470 | -0.0640 | -0.0286 | -0.2761 | 0.0422 | 0.4155 |
| 5 | -4.970 | 0.02 | -0.0026 | 0.0025 | 0.0136 | -0.5021 | -3.0540 | -0.0647 | -0.0286 | -0.2800 | 0.0428 | 0.4182 |
| 6 | -4.974 | 0.01 | 0.0011 | 0.0006 | 0.0142 | 0.5479 | 13.4064 | -0.0744 | -0.0286 | -0.3219 | 0.0347 | 0.4157 |
| 7 | -1.168 | 0.01 | 0.0055 | 0.0045 | 0.0135 | 0.5161 | 1.4573 | -0.7537 | -0.0284 | -0.3145 | 0.0351 | 0.4173 |
| 8 | 0.001 | 0.01 | 0.0007 | 0.0008 | 0.0123 | 0.4951 | 1.2018 | -0.7118 | -0.0295 | -0.3034 | 0.0415 | 0.4263 |
| 9 | 2.137 | 0.01 | 0.0156 | 0.0048 | 0.0131 | 0.3202 | 0.8694 | -0.6636 | -0.0307 | -0.2860 | 0.0597 | 0.4368 |
| 10 | 4.069 | 0.02 | 0.0140 | 0.0049 | 0.0134 | 0.2529 | 0.7333 | -0.6017 | -0.0401 | -0.2752 | 0.0799 | 0.4574 |
| 11 | 5.060 | 0.02 | 0.0178 | 0.0042 | 0.0132 | 0.2301 | 0.7383 | -0.5509 | -0.0489 | -0.2567 | 0.0921 | 0.4723 |
| 12 | 7.000 | 0.01 | 0.0185 | 0.0041 | 0.0131 | 0.2349 | 0.6599 | -0.4403 | -0.0436 | -0.2131 | 0.0989 | 0.4835 |
| 13 | 9.030 | 0.02 | 0.0257 | 0.0045 | 0.0175 | 0.2008 | 1.0990 | -0.3265 | -0.0351 | -0.1670 | 0.1074 | 0.5114 |
| 14 | 11.018 | 0.02 | 0.0163 | 0.0042 | 0.0179 | 0.2290 | 0.9750 | -0.2020 | -0.0225 | -0.1067 | 0.1116 | 0.5284 |
| 15 | 12.993 | 0.02 | 0.0164 | 0.0034 | 0.0207 | 0.2074 | 1.2001 | -0.0906 | -0.0077 | -0.0546 | 0.0851 | 0.6030 |
| 16 | 14.973 | 0.02 | 0.0111 | 0.0021 | 0.0267 | 0.1893 | 1.8018 | -0.0001 | 0.0131 | -0.0148 | -101.0540 | 147.4700 |
| 17 | 16.950 | 0.02 | 0.0469 | 0.0045 | 0.0305 | 0.1214 | 0.9910 | 0.0701 | 0.0252 | 0.0185 | 0.3602 | 0.2637 |
| 18 | 18.942 | 0.02 | 0.0491 | 0.0023 | 0.0414 | 0.0624 | 1.0307 | 0.1082 | 0.0435 | 0.0598 | 0.2585 | 0.3547 |
| 19 | 20.925 | 0.00 | 0.0566 | 0.0003 | 0.0612 | 0.0051 | 1.0344 | 0.2486 | 0.0591 | 0.0565 | 0.2376 | 0.3897 |
| 20 | 22.908 | -0.01 | 0.0625 | -0.0025 | 0.0655 | -0.0330 | 1.0359 | 0.3088 | 0.0672 | 0.1325 | 0.2176 | 0.4305 |
| 21 | 23.993 | -0.01 | 0.0545 | -0.0130 | 0.1158 | -0.1376 | 1.2253 | 0.3698 | 0.0736 | 0.1618 | 0.1997 | 0.4376 |
| 22 | 25.870 | -0.00 | 0.0616 | -0.0158 | 0.0596 | -0.2757 | 4.9020 | 0.4780 | 0.0775 | 0.2095 | 0.1621 | 0.4300 |
| 23 | 27.863 | 0.05 | 0.0781 | 0.0353 | 0.1382 | 0.1208 | 0.4899 | 0.6154 | 0.0588 | 0.2546 | 0.0555 | 0.4138 |
| 24 | 27.880 | 0.04 | 0.1610 | 0.0265 | 0.1639 | 0.1134 | 0.5741 | 0.6044 | 0.0647 | 0.2562 | 0.1070 | 0.4140 |
| 25 | 27.880 | 0.04 | 0.2447 | 0.0318 | 0.1173 | 0.1293 | 0.4792 | 0.6110 | 0.0598 | 0.2512 | 0.0575 | 0.4112 |
| 26 | 27.880 | 0.05 | 0.2852 | 0.0326 | 0.1323 | 0.1235 | 0.4915 | 0.6101 | 0.0595 | 0.2502 | 0.0501 | 0.4062 |
| 27 | 28.827 | 0.05 | 0.2550 | 0.0310 | 0.1303 | 0.1217 | 0.5343 | 0.6202 | 0.0572 | 0.2540 | 0.0522 | 0.4098 |
| 28 | 28.853 | 0.04 | 0.1992 | 0.0265 | 0.1176 | 0.1431 | 0.5903 | 0.6147 | 0.0562 | 0.2501 | 0.0517 | 0.4083 |
| 29 | 28.862 | 0.06 | 0.2503 | 0.0346 | 0.1351 | 0.1194 | 0.5345 | 0.6079 | 0.0485 | 0.2444 | 0.0797 | 0.4021 |
| 30 | 29.815 | 0.06 | 0.2901 | 0.0356 | 0.1323 | 0.1265 | 0.5251 | 0.6078 | 0.0471 | 0.2424 | 0.0774 | 0.3988 |
| 31 | 29.844 | 0.05 | 0.2465 | 0.0304 | 0.1405 | 0.1225 | 0.5852 | 0.6121 | 0.0472 | 0.2462 | 0.0771 | 0.4023 |
| 32 | 29.871 | 0.06 | 0.2855 | 0.0359 | 0.1362 | 0.1180 | 0.5409 | 0.6094 | 0.0452 | 0.2444 | 0.0741 | 0.4011 |
| 33 | 29.908 | 0.07 | 0.3272 | 0.0352 | 0.1728 | 0.1208 | 0.5281 | 0.6067 | 0.0430 | 0.2426 | 0.0708 | 0.3955 |
| 34 | 30.825 | 0.07 | 0.3295 | 0.0401 | 0.1725 | 0.1198 | 0.5081 | 0.6063 | 0.0417 | 0.2439 | 0.0685 | 0.4010 |
| 35 | 30.853 | 0.08 | 0.3745 | 0.0449 | 0.1952 | 0.1197 | 0.5206 | 0.6127 | 0.0413 | 0.2481 | 0.0673 | 0.4017 |
| 36 | 30.879 | 0.08 | 0.3825 | 0.0455 | 0.1757 | 0.1137 | 0.5273 | 0.6126 | 0.0424 | 0.2481 | 0.0691 | 0.4045 |
| 37 | 31.807 | 0.06 | 0.2937 | 0.0295 | 0.1452 | 0.1212 | 0.6122 | 0.6127 | 0.0429 | 0.2485 | 0.0700 | 0.4056 |
| 38 | 31.834 | 0.06 | 0.1925 | 0.0243 | 0.1475 | 0.1242 | 0.6510 | 0.6113 | 0.0419 | 0.2488 | 0.0665 | 0.4071 |
| 39 | 31.859 | 0.07 | 0.2250 | 0.0273 | 0.1400 | 0.1215 | 0.6221 | 0.6115 | 0.0400 | 0.2468 | 0.0653 | 0.4065 |
| 40 | 31.887 | 0.08 | 0.2615 | 0.0295 | 0.1566 | 0.1130 | 0.5909 | 0.6233 | 0.0402 | 0.2536 | 0.0644 | 0.4073 |
| 41 | 32.813 | 0.05 | 0.2972 | 0.0302 | 0.1713 | 0.1051 | 0.5764 | 0.6190 | 0.0386 | 0.2523 | 0.0623 | 0.4077 |
| 42 | 32.840 | 0.05 | 0.2766 | 0.0301 | 0.1634 | 0.1089 | 0.5910 | 0.6206 | 0.0379 | 0.2524 | 0.0610 | 0.4068 |
| 43 | 32.865 | 0.05 | 0.1558 | 0.0239 | 0.1218 | 0.1156 | 0.6307 | 0.6236 | 0.0371 | 0.2541 | 0.0594 | 0.4078 |
| 44 | 32.891 | 0.06 | 0.2004 | 0.0263 | 0.1196 | 0.1250 | 0.5827 | 0.6268 | 0.0383 | 0.2550 | 0.0575 | 0.4070 |
| 45 | 33.819 | 0.05 | 0.1652 | 0.0244 | 0.1292 | 0.1186 | 0.5786 | 0.6255 | 0.0354 | 0.2553 | 0.0565 | 0.4062 |
| 46 | 33.840 | 0.08 | 0.1648 | 0.0240 | 0.0933 | 0.1458 | 0.5859 | 0.6265 | 0.0353 | 0.2563 | 0.0561 | 0.4079 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART PACK RADC-6 PHI CONF C DEL1 DEL2 DEL3 DEL4 TRANSITION
7 152 0.80 1.7 0.0 BLANKFIN 0.0 0 -20 0 -20 UNKNOWN

| FLINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.66 | 0.08 | 0.1103 | 0.0151 | 0.0712 | 0.1734 | 0.6454 | 0.6255 | 0.0350 | 0.2566 | 0.0559 | 0.4102 |
| 48 | 33.86 | 0.09 | 0.1566 | 0.0224 | 0.0726 | 0.1417 | 0.5903 | 0.6435 | 0.0343 | 0.2570 | 0.0545 | 0.4108 |
| 49 | 34.13 | 0.05 | 0.1440 | 0.0174 | 0.0695 | 0.1210 | 0.6233 | 0.6342 | 0.0350 | 0.2614 | 0.0551 | 0.4121 |
| 50 | 34.40 | 0.10 | 0.1438 | 0.0192 | 0.0706 | 0.1337 | 0.6255 | 0.6371 | 0.0348 | 0.2632 | 0.0545 | 0.4131 |
| 51 | 34.63 | 0.11 | 0.1765 | 0.0212 | 0.1111 | 0.1200 | 0.6279 | 0.6284 | 0.0339 | 0.2595 | 0.0540 | 0.4125 |
| 52 | 34.88 | 0.12 | 0.2575 | 0.0311 | 0.1276 | 0.1209 | 0.5342 | 0.6344 | 0.0332 | 0.2606 | 0.0524 | 0.4107 |
| 53 | 35.10 | 0.11 | 0.2788 | 0.0256 | 0.1455 | 0.1083 | 0.5364 | 0.6345 | 0.0328 | 0.2598 | 0.0515 | 0.4094 |
| 54 | 35.36 | 0.12 | 0.3171 | 0.0466 | 0.1525 | 0.1203 | 0.4823 | 0.6405 | 0.0314 | 0.2629 | 0.0491 | 0.4104 |
| 55 | 35.59 | 0.10 | 0.3321 | 0.0457 | 0.1512 | 0.1375 | 0.4553 | 0.6435 | 0.0310 | 0.2634 | 0.0482 | 0.4093 |
| 56 | 35.81 | 0.05 | 0.3746 | 0.0519 | 0.1666 | 0.1371 | 0.4291 | 0.6026 | 0.0301 | 0.2716 | 0.0455 | 0.4093 |
| 57 | 36.06 | 0.05 | 0.3537 | 0.0480 | 0.1585 | 0.1358 | 0.4420 | 0.6596 | 0.0303 | 0.2719 | 0.0468 | 0.4122 |
| 58 | 36.27 | 0.10 | 0.3421 | 0.0451 | 0.1456 | 0.1444 | 0.4046 | 0.6507 | 0.0314 | 0.2659 | 0.0483 | 0.4088 |
| 59 | 36.51 | 0.11 | 0.3185 | 0.0436 | 0.1558 | 0.1349 | 0.4393 | 0.6536 | 0.0317 | 0.2672 | 0.0486 | 0.4088 |
| 60 | 36.76 | 0.10 | 0.3123 | 0.0356 | 0.1552 | 0.1267 | 0.4907 | 0.6566 | 0.0311 | 0.2670 | 0.0474 | 0.4085 |
| 61 | 36.98 | 0.10 | 0.3050 | 0.0440 | 0.1390 | 0.1442 | 0.4557 | 0.6745 | 0.0301 | 0.2751 | 0.0447 | 0.4075 |
| 62 | 37.21 | 0.10 | 0.3135 | 0.0426 | 0.1457 | 0.1304 | 0.4546 | 0.6769 | 0.0300 | 0.2769 | 0.0443 | 0.4079 |
| 63 | 37.45 | 0.10 | 0.2817 | 0.0337 | 0.1520 | 0.1265 | 0.5045 | 0.6700 | 0.0310 | 0.2729 | 0.0463 | 0.4073 |
| 64 | 37.67 | 0.11 | 0.2485 | 0.0268 | 0.1516 | 0.1771 | 0.5993 | 0.6635 | 0.0318 | 0.2702 | 0.0480 | 0.4070 |
| 65 | 37.92 | 0.12 | 0.1783 | 0.0054 | 0.1173 | 0.0822 | 0.6575 | 0.6711 | 0.0316 | 0.2735 | 0.0475 | 0.4078 |
| 66 | 38.15 | 0.12 | 0.1629 | -0.0078 | 0.1453 | -0.0947 | 0.6653 | 0.6805 | 0.0314 | 0.2800 | 0.0456 | 0.4085 |
| 67 | 38.37 | 0.12 | 0.1702 | -0.0140 | 0.1216 | -0.0824 | 0.7146 | 0.6875 | 0.0314 | 0.2783 | 0.0457 | 0.4048 |
| 68 | 38.58 | 0.12 | 0.1529 | -0.0163 | 0.1314 | -0.0845 | 0.6834 | 0.7052 | 0.0308 | 0.2846 | 0.0437 | 0.4035 |
| 69 | 38.81 | 0.12 | 0.1435 | -0.0300 | 0.0973 | -0.2425 | 0.7852 | 0.7127 | 0.0306 | 0.2871 | 0.0430 | 0.4028 |
| 70 | 39.09 | 0.11 | 0.1378 | -0.0292 | 0.1067 | -0.2165 | 0.7756 | 0.7171 | 0.0306 | 0.2886 | 0.0430 | 0.4025 |
| 71 | 39.23 | 0.12 | 0.2011 | -0.0256 | 0.1374 | -0.1265 | 0.6831 | 0.7395 | 0.0295 | 0.2962 | 0.0405 | 0.4033 |
| 72 | 39.46 | 0.13 | 0.1818 | -0.0258 | 0.1419 | -0.1410 | 0.6706 | 0.7531 | 0.0294 | 0.3018 | 0.0391 | 0.4008 |
| 73 | 39.65 | 0.11 | 0.2082 | -0.0328 | 0.1286 | -0.0275 | 0.6178 | 0.7322 | 0.0303 | 0.2927 | 0.0414 | 0.3998 |
| 74 | 39.86 | 0.12 | 0.1609 | -0.0159 | 0.1184 | -0.0663 | 0.6595 | 0.7456 | 0.0295 | 0.2986 | 0.0398 | 0.4005 |
| 75 | 40.05 | 0.13 | 0.2156 | -0.0168 | 0.1306 | -0.0463 | 0.6219 | 0.7591 | 0.0292 | 0.3037 | 0.0385 | 0.4001 |
| 76 | 40.25 | 0.11 | 0.1765 | -0.0153 | 0.1116 | -0.0699 | 0.6545 | 0.7606 | 0.0294 | 0.3042 | 0.0387 | 0.4000 |
| 77 | 40.47 | 0.10 | 0.1726 | -0.0051 | 0.1113 | -0.0292 | 0.6447 | 0.7462 | 0.0295 | 0.2973 | 0.0402 | 0.3999 |
| 78 | 40.67 | 0.11 | 0.1661 | -0.0041 | 0.1179 | -0.0218 | 0.6250 | 0.7711 | 0.0292 | 0.3081 | 0.0379 | 0.3995 |
| 79 | 40.89 | 0.11 | 0.1859 | -0.0130 | 0.1235 | -0.0666 | 0.6505 | 0.7622 | 0.0295 | 0.3038 | 0.0388 | 0.3988 |
| 80 | 41.10 | 0.12 | 0.2469 | -0.0140 | 0.1474 | -0.0502 | 0.6118 | 0.7675 | 0.0291 | 0.3145 | 0.0376 | 0.3993 |
| 81 | 41.28 | 0.12 | 0.2140 | -0.0161 | 0.1345 | -0.0647 | 0.6283 | 0.7817 | 0.0288 | 0.3108 | 0.0368 | 0.3978 |
| 82 | 41.48 | 0.11 | 0.2367 | -0.0155 | 0.1421 | -0.0604 | 0.6156 | 0.7900 | 0.0282 | 0.3177 | 0.0354 | 0.3981 |
| 83 | 41.68 | 0.11 | 0.1577 | -0.0199 | 0.1269 | -0.1008 | 0.6400 | 0.7965 | 0.0288 | 0.3164 | 0.0362 | 0.3972 |
| 84 | 41.87 | 0.11 | 0.1532 | -0.0167 | 0.1235 | -0.0969 | 0.6393 | 0.7904 | 0.0286 | 0.3142 | 0.0362 | 0.3975 |
| 85 | 42.05 | 0.06 | 0.1170 | -0.0081 | 0.0708 | -0.0522 | 0.6565 | 0.8029 | 0.0275 | 0.3173 | 0.0343 | 0.3954 |
| 86 | 42.25 | 0.11 | 0.1654 | -0.0256 | 0.1209 | -0.1526 | 0.7159 | 0.8068 | 0.0281 | 0.3195 | 0.0349 | 0.3980 |
| 87 | 42.41 | 0.06 | 0.0830 | 0.0055 | 0.0907 | 0.0712 | 0.5627 | 0.8041 | 0.0269 | 0.3168 | 0.0335 | 0.3940 |
| 88 | 42.61 | 0.12 | 0.1877 | -0.0255 | 0.1249 | -0.1301 | 0.6808 | 0.8051 | 0.0286 | 0.3209 | 0.0319 | 0.3962 |
| 89 | 42.77 | 0.11 | 0.1514 | -0.0257 | 0.1042 | -0.1706 | 0.6882 | 0.8217 | 0.0274 | 0.3249 | 0.0334 | 0.3954 |
| 90 | 42.97 | 0.12 | 0.1694 | -0.0278 | 0.1146 | -0.1601 | 0.6967 | 0.8275 | 0.0280 | 0.3267 | 0.0324 | 0.3945 |
| 91 | 43.16 | 0.12 | 0.1228 | -0.0313 | 0.0962 | -0.2552 | 0.7833 | 0.8244 | 0.0271 | 0.3265 | 0.0329 | 0.3961 |
| 92 | 43.35 | 0.12 | 0.1115 | -0.0256 | 0.0882 | -0.2667 | 0.7878 | 0.8406 | 0.0265 | 0.3318 | 0.0316 | 0.3946 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 15C MACH 0.90 RAIC-E 1.7 PHI 0.0 CONF 0 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.51 | 0.11 | 0.0731 | -0.0324 | 0.0059 | -0.4441 | 0.9496 | 0.6365 | 0.0263 | 0.3295 | 0.0315 | 0.3540 |
| 94 | 43.69 | 0.12 | 0.0665 | -0.0336 | 0.0057 | -0.5356 | 1.0017 | 0.6379 | 0.0267 | 0.3291 | 0.0315 | 0.3528 |
| 95 | 43.89 | 0.12 | 0.0755 | -0.0321 | 0.0052 | -0.4237 | 0.9913 | 0.6408 | 0.0260 | 0.3328 | 0.0307 | 0.3530 |
| 96 | 44.07 | 0.12 | 0.0663 | -0.0318 | 0.0070 | -0.3871 | 0.9434 | 0.6371 | 0.0251 | 0.3361 | 0.0293 | 0.3545 |
| 97 | 44.24 | 0.12 | 0.0560 | -0.0321 | 0.0092 | -0.3261 | 0.9099 | 0.6435 | 0.0255 | 0.3311 | 0.0303 | 0.3523 |
| 98 | 44.44 | 0.12 | 0.0758 | -0.0324 | 0.0067 | -0.4067 | 0.9617 | 0.6416 | 0.0247 | 0.3363 | 0.0287 | 0.3526 |
| 99 | 44.61 | 0.11 | 0.0606 | -0.0256 | 0.0088 | -0.2547 | 0.8824 | 0.6367 | 0.0249 | 0.3370 | 0.0290 | 0.3524 |
| 100 | 44.78 | 0.11 | 0.0669 | -0.0315 | 0.0070 | -0.4581 | 1.1082 | 0.6528 | 0.0247 | 0.3326 | 0.0289 | 0.3521 |
| 101 | 44.96 | 0.12 | 0.0732 | -0.0312 | 0.0751 | -0.4270 | 1.0265 | 0.6558 | 0.0244 | 0.3356 | 0.0286 | 0.3521 |
| 102 | 45.13 | 0.12 | 0.0596 | -0.0333 | 0.0073 | -0.5057 | 1.2093 | 0.6705 | 0.0239 | 0.3431 | 0.0275 | 0.3542 |
| 103 | 45.32 | 0.10 | 0.0469 | -0.0335 | 0.0095 | -0.7310 | 1.3907 | 0.6691 | 0.0236 | 0.3407 | 0.0272 | 0.3520 |
| 104 | 45.49 | 0.11 | 0.0468 | -0.0377 | 0.0090 | -0.9268 | 1.6975 | 0.6709 | 0.0234 | 0.3421 | 0.0269 | 0.3528 |
| 105 | 45.66 | 0.10 | 0.0517 | -0.0330 | 0.0087 | -0.6386 | 1.2884 | 0.6754 | 0.0232 | 0.3428 | 0.0265 | 0.3516 |
| 106 | 45.84 | 0.11 | 0.0669 | -0.0296 | 0.0722 | -0.4933 | 1.0796 | 0.6843 | 0.0220 | 0.3464 | 0.0249 | 0.3517 |
| 107 | 46.01 | 0.10 | 0.0622 | -0.0271 | 0.0775 | -0.3303 | 0.9409 | 0.6813 | 0.0227 | 0.3455 | 0.0258 | 0.3521 |
| 108 | 46.19 | 0.10 | 0.0573 | -0.0261 | 0.0847 | -0.2915 | 1.1695 | 0.6873 | 0.0219 | 0.3474 | 0.0247 | 0.3515 |
| 109 | 46.36 | 0.11 | 0.0498 | -0.0312 | 0.0965 | -0.0500 | 1.3055 | 0.6859 | 0.0220 | 0.3461 | 0.0249 | 0.3507 |
| 110 | 46.53 | 0.12 | 0.0626 | -0.0261 | 0.0496 | -1.2353 | 1.9136 | 0.9052 | 0.0213 | 0.3549 | 0.0238 | 0.3520 |
| 111 | 46.71 | 0.11 | 0.0145 | -0.0331 | 0.0456 | -2.2640 | 3.1410 | 0.9026 | 0.0213 | 0.3542 | 0.0238 | 0.3524 |
| 112 | 46.87 | 0.09 | -0.0326 | -0.0412 | 0.0260 | 1.0821 | -0.7300 | 0.8923 | 0.0214 | 0.3492 | 0.0240 | 0.3514 |
| 113 | 47.05 | 0.11 | -0.0266 | -0.0411 | 0.0245 | 1.0573 | -0.6309 | 0.9041 | 0.0212 | 0.3543 | 0.0235 | 0.3518 |
| 114 | 47.21 | 0.09 | -0.0529 | -0.0443 | 0.0156 | 0.8269 | -0.3736 | 0.9057 | 0.0205 | 0.3555 | 0.0227 | 0.3525 |
| 115 | 47.38 | 0.09 | -0.0643 | -0.0462 | 0.0095 | 0.5478 | -0.0536 | 0.9101 | 0.0203 | 0.3570 | 0.0223 | 0.3522 |
| 116 | 47.57 | 0.10 | -0.1153 | -0.0507 | -0.0119 | 0.4240 | 0.1300 | 0.9147 | 0.0199 | 0.3576 | 0.0218 | 0.3505 |
| 117 | 47.72 | 0.07 | -0.1256 | -0.0542 | -0.0348 | 0.2520 | 0.2586 | 0.9176 | 0.0201 | 0.3556 | 0.0219 | 0.3521 |
| 118 | 47.90 | 0.08 | -0.1673 | -0.0524 | -0.0494 | 0.2497 | 0.2450 | 0.9176 | 0.0201 | 0.3558 | 0.0219 | 0.3521 |
| 119 | 48.05 | 0.08 | -0.2314 | -0.0565 | -0.0667 | 0.2458 | 0.2681 | 0.9132 | 0.0202 | 0.3571 | 0.0222 | 0.3510 |
| 120 | 48.23 | 0.07 | -0.2467 | -0.0577 | -0.0781 | 0.2336 | 0.3065 | 0.9210 | 0.0195 | 0.3602 | 0.0212 | 0.3511 |
| 121 | 48.40 | 0.07 | -0.2496 | -0.0561 | -0.0782 | 0.2332 | 0.3141 | 0.9225 | 0.0199 | 0.3603 | 0.0216 | 0.3505 |
| 122 | 48.55 | 0.08 | -0.2653 | -0.0581 | -0.0842 | 0.2033 | 0.3049 | 0.9252 | 0.0188 | 0.3751 | 0.0195 | 0.3527 |
| 123 | 48.72 | 0.07 | -0.2762 | -0.0556 | -0.1045 | 0.1991 | 0.3765 | 0.9435 | 0.0185 | 0.3669 | 0.0196 | 0.3510 |
| 124 | 48.90 | 0.05 | -0.2775 | -0.0571 | -0.1040 | 0.2057 | 0.3749 | 0.9479 | 0.0182 | 0.3708 | 0.0192 | 0.3512 |
| 125 | 49.06 | 0.05 | -0.2834 | -0.0556 | -0.1058 | 0.1561 | 0.3877 | 0.9404 | 0.0185 | 0.3707 | 0.0196 | 0.3517 |
| 126 | 49.24 | 0.04 | -0.2853 | -0.0569 | -0.1020 | 0.2071 | 0.4027 | 0.9747 | 0.0168 | 0.3830 | 0.0173 | 0.3529 |
| 127 | 49.42 | 0.03 | -0.2855 | -0.0510 | -0.0852 | 0.2217 | 0.3708 | 0.9652 | 0.0174 | 0.3761 | 0.0181 | 0.3557 |
| 128 | 49.57 | 0.01 | -0.2840 | -0.0495 | -0.0856 | 0.2109 | 0.4454 | 0.9691 | 0.0171 | 0.3780 | 0.0177 | 0.3522 |
| 129 | 49.75 | 0.03 | -0.2541 | -0.0510 | -0.1042 | 0.2006 | 0.4101 | 0.9697 | 0.0164 | 0.3792 | 0.0169 | 0.3510 |
| 130 | 49.92 | 0.02 | -0.2477 | -0.0485 | -0.1095 | 0.1973 | 0.4438 | 0.9692 | 0.0170 | 0.3769 | 0.0176 | 0.3505 |
| 131 | 50.09 | 0.02 | -0.2380 | -0.0475 | -0.1083 | 0.2020 | 0.4571 | 0.9762 | 0.0165 | 0.3811 | 0.0170 | 0.3512 |
| 132 | 50.26 | 0.02 | -0.2473 | -0.0475 | -0.1122 | 0.1959 | 0.4535 | 0.9757 | 0.0161 | 0.3820 | 0.0165 | 0.3515 |
| 133 | 50.43 | 0.03 | -0.2375 | -0.0462 | -0.1058 | 0.2020 | 0.4447 | 0.9774 | 0.0158 | 0.3800 | 0.0162 | 0.3507 |
| 134 | 50.58 | 0.03 | -0.2371 | -0.0475 | -0.1075 | 0.2019 | 0.4535 | 0.9765 | 0.0161 | 0.3795 | 0.0168 | 0.3501 |
| 135 | 50.76 | 0.04 | -0.2192 | -0.0462 | -0.1000 | 0.2188 | 0.4562 | 0.9665 | 0.0158 | 0.3821 | 0.0150 | 0.3473 |
| 136 | 50.93 | 0.06 | -0.2062 | -0.0469 | -0.0819 | 0.2347 | 0.3936 | 1.0084 | 0.0143 | 0.3923 | 0.0142 | 0.3490 |
| 137 | 51.14 | 0.06 | -0.1924 | -0.0367 | -0.0391 | 0.2519 | 0.2950 | 1.0531 | 0.0138 | 0.4096 | 0.0131 | 0.3489 |
| 138 | 51.31 | 0.05 | -0.1864 | -0.0372 | -0.0345 | 0.2539 | 0.2732 | 1.0384 | 0.0144 | 0.3967 | 0.0139 | 0.3540 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 152 | MACH 0.80 | REYNO-E 1.7 | PHI 0.0 | CONF BIBOPIA | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.48 | 0.06 | -0.1325 | -0.0358 | -0.0392 | 0.2963 | 0.2933 | 1.0634 | 0.0132 | 0.4075 | 0.0124 | 0.3832 |
| 140 | 51.83 | 0.06 | -0.1615 | -0.0434 | -0.0384 | 0.2665 | 0.3423 | 1.0665 | 0.0124 | 0.4076 | 0.0121 | 0.3822 |
| 141 | 51.83 | 0.07 | -0.1232 | -0.0385 | -0.0352 | 0.3156 | 0.2860 | 1.0993 | 0.0117 | 0.4158 | 0.0107 | 0.3819 |
| 142 | 52.00 | 0.10 | -0.1561 | -0.0420 | -0.0326 | 0.2795 | 0.3505 | 1.0994 | 0.0113 | 0.4190 | 0.0103 | 0.3811 |
| 143 | 52.10 | 0.10 | -0.1632 | -0.0451 | -0.0345 | 0.2761 | 0.3364 | 1.1039 | 0.0108 | 0.4204 | 0.0096 | 0.3808 |
| 144 | 52.34 | 0.10 | -0.1934 | -0.0442 | -0.0333 | 0.3079 | 0.3017 | 1.1059 | 0.0102 | 0.4231 | 0.0092 | 0.3812 |
| 145 | 52.49 | 0.10 | -0.1747 | -0.0483 | -0.0354 | 0.2764 | 0.3403 | 1.0995 | 0.0103 | 0.4181 | 0.0094 | 0.3803 |
| 146 | 52.69 | 0.11 | -0.1884 | -0.0472 | -0.0358 | 0.2904 | 0.3205 | 1.0990 | 0.0097 | 0.4111 | 0.0089 | 0.3771 |
| 147 | 52.82 | 0.12 | -0.1919 | -0.0388 | -0.0348 | 0.2557 | 0.4274 | 1.0932 | 0.0115 | 0.3961 | 0.0105 | 0.3761 |
| 148 | 53.00 | 0.12 | -0.1958 | -0.0388 | -0.0326 | 0.2577 | 0.4140 | 1.0869 | 0.0099 | 0.4096 | 0.0091 | 0.3771 |
| 149 | 53.14 | 0.13 | -0.1806 | -0.0363 | -0.0328 | 0.2008 | 0.4588 | 1.0902 | 0.0114 | 0.3904 | 0.0110 | 0.3753 |
| 150 | 53.31 | 0.12 | -0.1936 | -0.0420 | -0.0342 | 0.2181 | 0.5229 | 1.0938 | 0.0109 | 0.3900 | 0.0105 | 0.3736 |
| 151 | 53.47 | 0.12 | -0.0475 | -0.0161 | -0.0335 | 0.2136 | 0.7084 | 1.0805 | 0.0099 | 0.3957 | 0.0093 | 0.3732 |
| 152 | 53.69 | 0.12 | -0.0917 | -0.0031 | -0.0268 | 0.1603 | 1.0907 | 1.0985 | 0.0103 | 0.3899 | 0.0098 | 0.3718 |
| 153 | 53.80 | 0.12 | -0.0306 | -0.0075 | -0.0275 | 0.2367 | 0.8953 | 1.0914 | 0.0100 | 0.3893 | 0.0096 | 0.3738 |
| 154 | 53.95 | 0.12 | -0.0158 | -0.0036 | -0.0154 | 0.1900 | 1.2004 | 1.0973 | 0.0096 | 0.3920 | 0.0094 | 0.3750 |
| 155 | 54.11 | 0.10 | 0.0053 | 0.0006 | -0.0003 | 0.1133 | -1.1925 | 1.0587 | 0.0097 | 0.3933 | 0.0092 | 0.3715 |
| 156 | 54.26 | 0.12 | -0.0177 | -0.0013 | -0.0174 | 0.0750 | 0.9892 | 1.0879 | 0.0101 | 0.3966 | 0.0095 | 0.3734 |
| 157 | 54.44 | 0.11 | -0.0071 | 0.0001 | -0.0072 | -0.0141 | 1.0173 | 1.0920 | 0.0106 | 0.3872 | 0.0102 | 0.3718 |
| 158 | 54.60 | 0.12 | -0.0001 | 0.0031 | -0.0008 | -3.0103 | 0.9192 | 1.0981 | 0.0103 | 0.3883 | 0.0098 | 0.3705 |
| 159 | 54.75 | 0.11 | -0.0232 | -0.0004 | -0.0055 | 0.0173 | 0.4281 | 1.0903 | 0.0112 | 0.3875 | 0.0108 | 0.3725 |
| 160 | 54.92 | 0.11 | -0.0363 | -0.0010 | -0.0141 | 0.0270 | 0.3609 | 1.0923 | 0.0113 | 0.3852 | 0.0110 | 0.3731 |
| 161 | 55.07 | 0.11 | -0.0162 | 0.0010 | -0.0030 | -0.0018 | 0.1356 | 1.0869 | 0.0111 | 0.3859 | 0.0107 | 0.3721 |
| 162 | 55.25 | 0.11 | -0.0003 | 0.0003 | 0.0007 | -2.0112 | -22.4048 | 1.0914 | 0.0110 | 0.3828 | 0.0107 | 0.3721 |
| 163 | 55.45 | 0.10 | -0.0162 | 0.0044 | -0.0046 | -0.2717 | 0.2725 | 1.0935 | 0.0104 | 0.3869 | 0.0100 | 0.3707 |
| 164 | 55.61 | 0.10 | -0.0113 | 0.0026 | 0.0002 | -0.2302 | -0.0178 | 1.0944 | 0.0102 | 0.3855 | 0.0095 | 0.3726 |
| 165 | 55.77 | 0.09 | -0.0240 | 0.0025 | -0.0066 | -0.1205 | 0.2759 | 1.0905 | 0.0093 | 0.3909 | 0.0089 | 0.3721 |
| 166 | 55.94 | 0.10 | -0.0405 | -0.0036 | -0.0012 | 0.0009 | 0.3090 | 1.0907 | 0.0095 | 0.3876 | 0.0091 | 0.3691 |
| 167 | 56.10 | 0.09 | -0.0214 | 0.0007 | -0.0046 | -0.0327 | 0.2156 | 1.0810 | 0.0093 | 0.3939 | 0.0088 | 0.3713 |
| 168 | 56.26 | 0.10 | -0.0141 | 0.0010 | 0.0003 | -0.1193 | -0.0215 | 1.0811 | 0.0087 | 0.3931 | 0.0082 | 0.3705 |
| 169 | 56.41 | 0.07 | -0.0267 | -0.0010 | -0.0051 | 0.0375 | 0.1916 | 1.0709 | 0.0083 | 0.3986 | 0.0078 | 0.3722 |
| 170 | 56.58 | 0.10 | -0.0376 | -0.0027 | -0.0091 | 0.0736 | 0.0487 | 1.0930 | 0.0087 | 0.3904 | 0.0083 | 0.3708 |
| 171 | 56.73 | 0.07 | -0.0025 | 0.0040 | 0.0146 | -1.3800 | -5.0160 | 1.0418 | 0.0092 | 0.3876 | 0.0088 | 0.3720 |
| 172 | 56.89 | 0.05 | -0.0022 | 0.0034 | 0.0110 | -1.3903 | -5.0160 | 1.0814 | 0.0085 | 0.3940 | 0.0080 | 0.3718 |
| 173 | 57.04 | 0.05 | -0.0125 | 0.0021 | 0.0068 | -0.2401 | -0.5457 | 1.0735 | 0.0076 | 0.3977 | 0.0071 | 0.3705 |
| 174 | 57.19 | 0.08 | -0.0016 | 0.0007 | 0.0026 | -0.0167 | -1.2072 | 1.0594 | 0.0082 | 0.3914 | 0.0078 | 0.3695 |
| 175 | 57.32 | 0.05 | -0.0023 | 0.0002 | 0.0079 | -2.0571 | -7.7539 | 1.0901 | 0.0089 | 0.3901 | 0.0085 | 0.3713 |
| 176 | 57.50 | 0.08 | 0.0124 | 0.0074 | 0.0202 | 0.5571 | 1.0261 | 1.0543 | 0.0078 | 0.3921 | 0.0074 | 0.3716 |
| 177 | 57.64 | 0.06 | 0.0107 | 0.0078 | 0.0217 | 0.7254 | 2.0251 | 1.0542 | 0.0081 | 0.3925 | 0.0077 | 0.3723 |
| 178 | 57.78 | 0.07 | -0.0075 | 0.0033 | 0.0094 | -0.4004 | -1.2573 | 1.0838 | 0.0078 | 0.3948 | 0.0073 | 0.3705 |
| 179 | 57.92 | 0.05 | -0.0112 | 0.0045 | 0.0085 | -0.4377 | -0.6180 | 1.0871 | 0.0072 | 0.3953 | 0.0068 | 0.3709 |
| 180 | 57.93 | 0.04 | -0.0126 | 0.0048 | 0.0086 | -0.3752 | -0.6270 | 1.0834 | 0.0078 | 0.3965 | 0.0073 | 0.3725 |

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST [illegible] MACH 1.7 RALO-E PHS CONF [illegible]F13 L C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNFS | CMS | CBS | ACPFS | YCPFS | CNF4 | CM4 | CB4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.089 | [illegible] | C.C121 | S.9999 | C.CC62 | S.9999 | C.3482 | -C.7030 | -C.0302 | -C.2572 | C.0430 | C.3658 |
| 2 | -5.065 | [illegible] | C.C134 | S.9999 | C.CC57 | S.9999 | C.4207 | -C.7001 | -C.0302 | -C.2578 | C.0428 | C.3650 |
| 3 | -5.069 | [illegible] | C.C162 | S.9999 | C.CC62 | S.9999 | C.3639 | -C.7002 | -C.0299 | -C.2581 | C.0426 | C.3654 |
| 4 | -5.084 | [illegible] | C.C165 | S.9999 | C.CC71 | S.9999 | C.3709 | -C.7014 | -C.0304 | -C.2568 | C.0434 | C.3660 |
| 5 | -4.78 | [illegible] | C.C176 | S.9999 | C.CC56 | S.9999 | C.3363 | -C.6746 | -C.0308 | -C.2477 | C.0454 | C.3645 |
| 6 | -2.99 | [illegible] | C.C046 | S.9999 | C.CC24 | S.9999 | C.6015 | -C.6001 | -C.0320 | -C.2567 | C.0401 | C.3733 |
| 7 | -1.19 | [illegible] | C.C023 | S.9999 | C.CC35 | S.9999 | C.6025 | -C.6002 | -C.0319 | -C.2566 | C.0356 | C.3704 |
| 8 | C.C4 | [illegible] | C.C013 | S.9999 | C.CC19 | S.9999 | 1.4864 | -C.7015 | -C.0354 | -C.2607 | C.0464 | C.3687 |
| 9 | 2.37 | [illegible] | C.C024 | S.9999 | C.CC4E | S.9999 | 2.0364 | -C.7206 | -C.0451 | -C.2EEC | C.0615 | C.3678 |
| 10 | 4.07 | [illegible] | C.CC16 | S.9999 | C.CC31 | S.9999 | 3.1163 | -C.6701 | -C.0528 | -C.2513 | C.0788 | C.3751 |
| 11 | 5.86 | [illegible] | C.CC77 | S.9999 | C.CC75 | S.9999 | 1.0293 | -C.5762 | -C.0506 | -C.2204 | C.0875 | C.3812 |
| 12 | 7.86 | [illegible] | -C.CCC3 | S.9999 | C.CC43 | S.9999 | -14.3792 | -C.0037 | -C.0478 | -C.1474 | C.0548 | C.3919 |
| 13 | 9.86 | [illegible] | -C.CC76 | S.9999 | C.CC18 | S.9999 | -C.2580 | -C.3756 | -C.0380 | -C.1444 | C.1010 | C.3844 |
| 14 | 11.18 | [illegible] | -C.CC17 | S.9999 | C.CC46 | S.9999 | -2.7145 | -C.2444 | -C.0245 | -C.0912 | C.1004 | C.3736 |
| 15 | 12.59 | [illegible] | -C.C126 | S.9999 | C.CC25 | S.9999 | -C.1960 | -C.1263 | -C.0056 | -C.0423 | C.0747 | C.3355 |
| 16 | 14.79 | [illegible] | C.CCC5 | S.9999 | C.CC33 | S.9999 | 1.3642 | -C.0273 | C.0009 | C.0008 | -C.3176 | -C.0274 |
| 17 | 16.58 | [illegible] | C.CC12 | S.9999 | C.CC25 | S.9999 | 2.4244 | C.0092 | C.0313 | C.0424 | C.4532 | C.6127 |
| 18 | 18.42 | [illegible] | C.CC14 | S.9999 | C.CC26 | S.9999 | 2.1736 | C.1705 | C.0536 | C.0877 | C.3013 | C.4612 |
| 19 | 20.23 | [illegible] | -C.CC40 | S.9999 | -C.CC27 | S.9999 | C.6772 | C.3005 | C.0754 | C.1368 | C.2510 | C.4551 |
| 20 | 22.08 | [illegible] | -C.CC2E | S.9999 | -C.CC19 | S.9999 | C.4233 | C.4359 | C.0022 | C.1965 | C.1686 | C.4508 |
| 21 | 23.93 | [illegible] | -C.CC2E | S.9999 | -C.CC47 | S.9999 | C.5812 | C.5430 | C.0776 | C.2406 | C.1429 | C.4431 |
| 22 | 25.78 | [illegible] | -C.CC34 | S.9999 | -C.CCC9 | S.9999 | 2.2101 | C.5265 | C.0621 | C.2431 | C.1116 | C.4368 |
| 23 | 27.63 | [illegible] | C.CC13 | S.9999 | -C.CC33 | S.9999 | -C.2930 | C.5642 | C.0656 | C.2491 | C.1163 | C.4415 |
| 24 | 27.88 | [illegible] | C.CC1E | S.9999 | -C.CC34 | S.9999 | -C.2016 | C.5695 | C.0596 | C.2512 | C.1056 | C.4411 |
| 25 | 27.EE | [illegible] | C.CC3C | S.9999 | C.CC27 | S.9999 | C.0894 | C.5605 | C.0631 | C.2499 | C.1126 | C.4459 |
| 26 | 27.88 | [illegible] | C.CC1E | S.9999 | -C.CC31 | S.9999 | -C.1046 | C.5041 | C.0663 | C.2537 | C.1175 | C.4498 |
| 27 | 28.27 | [illegible] | C.CC22 | S.9999 | -C.CCC3 | S.9999 | -C.0136 | C.5639 | C.0586 | C.2524 | C.1039 | C.4478 |
| 28 | 28.53 | [illegible] | C.CC2E | S.9999 | C.CCC6 | S.9999 | C.0362 | C.5667 | C.0535 | C.2500 | C.C554 | C.4459 |
| 29 | 28.EE | [illegible] | C.C141 | S.9999 | -C.CC3C | S.9999 | -C.2561 | C.5581 | C.0524 | C.2458 | C.C538 | C.4478 |
| 30 | 29.13 | [illegible] | C.CC51 | S.9999 | -C.CCC1 | S.9999 | -C.0040 | C.5593 | C.0516 | C.2498 | C.C926 | C.4467 |
| 31 | 29.48 | [illegible] | C.CC77 | S.9999 | C.CC1E | S.9999 | C.0652 | C.5522 | C.0456 | C.2459 | C.C825 | C.4453 |
| 32 | 29.71 | [illegible] | C.CC7E | S.9999 | C.CCC7 | S.9999 | C.0253 | C.5603 | C.0451 | C.2444 | C.C825 | C.4474 |
| 33 | 29.98 | [illegible] | C.CC7C | S.9999 | C.CC11 | S.9999 | C.0397 | C.5638 | C.0435 | C.2450 | C.0799 | C.4505 |
| 34 | 30.23 | [illegible] | C.CC55 | S.9999 | C.CC44 | S.9999 | C.1230 | C.5507 | C.0422 | C.2493 | C.C757 | C.4478 |
| 35 | 30.53 | [illegible] | C.CC55 | S.9999 | C.CC41 | S.9999 | C.1146 | C.5525 | C.0410 | C.2482 | C.C741 | C.4493 |
| 36 | 30.79 | [illegible] | C.CC17 | S.9999 | C.CC3E | S.9999 | C.1203 | C.5526 | C.0381 | C.2466 | C.C689 | C.4503 |
| 37 | 31.07 | [illegible] | C.CC1E | S.9999 | -C.CC34 | S.9999 | -C.2016 | C.5546 | C.0370 | C.2507 | C.C666 | C.4521 |
| 38 | 31.34 | [illegible] | C.CC1E | S.9999 | -C.CCCE | S.9999 | -C.0414 | C.5578 | C.0367 | C.2520 | C.C657 | C.4518 |
| 39 | 31.59 | [illegible] | C.CC75 | S.9999 | C.CC43 | S.9999 | C.1569 | C.5673 | C.0363 | C.2567 | C.C635 | C.4524 |
| 40 | 31.87 | [illegible] | C.CC4E | S.9999 | C.CC31 | S.9999 | C.1254 | C.5707 | C.0358 | C.2591 | C.C626 | C.4536 |
| 41 | 32.13 | [illegible] | C.CC44 | S.9999 | C.CC5C | S.9999 | C.1456 | C.5706 | C.0361 | C.2555 | C.C632 | C.4567 |
| 42 | 32.43 | [illegible] | C.CC3E | S.9999 | C.CC3E | S.9999 | C.2505 | C.5769 | C.0358 | C.2624 | C.C620 | C.4548 |
| 43 | 32.65 | [illegible] | C.CC3C | S.9999 | C.CC41 | S.9999 | C.1357 | C.5799 | C.0360 | C.2641 | C.C626 | C.4554 |
| 44 | 32.91 | [illegible] | C.C410 | S.9999 | C.CC1C | S.9999 | C.2471 | C.5909 | C.0358 | C.2696 | C.C605 | C.4562 |
| 45 | 33.14 | [illegible] | C.CC35 | S.9999 | C.CC26 | S.9999 | C.2148 | C.5945 | C.0359 | C.2712 | C.C603 | C.4562 |
| 46 | 33.40 | [illegible] | C.CC2C | S.9999 | C.CC4C | S.9999 | C.1621 | C.5960 | C.0360 | C.2725 | C.C603 | C.4572 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 152 | MACH 0.80 | RX10-6 1.7 | PHI 0.0 | CONF 61 | L 6.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.66 | 0.08 | 0.0342 | 9.9999 | 0.0000 | 9.9999 | 0.1995 | 0.5977 | 0.0355 | 0.2740 | 0.0593 | 0.4584 |
| 48 | 33.00 | 0.09 | 0.0362 | 9.9999 | 0.0000 | 9.9999 | 0.2418 | 0.5961 | 0.0355 | 0.2732 | 0.0601 | 0.4583 |
| 49 | 34.13 | 0.09 | 0.0354 | 9.9999 | 0.0087 | 9.9999 | 0.2485 | 0.5943 | 0.0364 | 0.2736 | 0.0612 | 0.4604 |
| 50 | 34.40 | 0.10 | 0.0355 | 9.9999 | 0.0072 | 9.9999 | 0.2035 | 0.6035 | 0.0360 | 0.2782 | 0.0594 | 0.4598 |
| 51 | 34.63 | 0.11 | 0.0361 | 9.9999 | 0.0095 | 9.9999 | 0.2501 | 0.6007 | 0.0362 | 0.2769 | 0.0602 | 0.4610 |
| 52 | 34.88 | 0.12 | 0.0370 | 9.9999 | 0.0132 | 9.9999 | 0.2933 | 0.6039 | 0.0358 | 0.2769 | 0.0592 | 0.4619 |
| 53 | 35.10 | 0.11 | 0.0355 | 9.9999 | 0.0081 | 9.9999 | 0.2201 | 0.5976 | 0.0363 | 0.2767 | 0.0607 | 0.4630 |
| 54 | 35.36 | 0.12 | 0.0360 | 9.9999 | 0.0103 | 9.9999 | 0.2296 | 0.6165 | 0.0355 | 0.2845 | 0.0575 | 0.4614 |
| 55 | 35.59 | 0.10 | 0.0363 | 9.9999 | 0.0074 | 9.9999 | 0.1938 | 0.6259 | 0.0353 | 0.2873 | 0.0583 | 0.4590 |
| 56 | 35.81 | 0.09 | 0.0316 | 9.9999 | 0.0106 | 9.9999 | 0.2096 | 0.6240 | 0.0356 | 0.2861 | 0.0570 | 0.4617 |
| 57 | 36.06 | 0.09 | 0.0410 | 9.9999 | 0.0053 | 9.9999 | 0.2276 | 0.6303 | 0.0353 | 0.2903 | 0.0555 | 0.4606 |
| 58 | 36.27 | 0.10 | 0.0363 | 9.9999 | 0.0080 | 9.9999 | 0.2226 | 0.6307 | 0.0349 | 0.2920 | 0.0547 | 0.4595 |
| 59 | 36.51 | 0.11 | 0.0423 | 9.9999 | 0.0130 | 9.9999 | 0.2795 | 0.6303 | 0.0353 | 0.2907 | 0.0555 | 0.4612 |
| 60 | 36.76 | 0.10 | 0.0358 | 9.9999 | 0.0178 | 9.9999 | 0.3188 | 0.6302 | 0.0352 | 0.2937 | 0.0551 | 0.4602 |
| 61 | 36.98 | 0.10 | 0.0450 | 9.9999 | 0.0145 | 9.9999 | 0.2946 | 0.6479 | 0.0341 | 0.2983 | 0.0527 | 0.4605 |
| 62 | 37.21 | 0.10 | 0.0365 | 9.9999 | 0.0152 | 9.9999 | 0.3096 | 0.6472 | 0.0348 | 0.2984 | 0.0535 | 0.4597 |
| 63 | 37.45 | 0.10 | 0.0468 | 9.9999 | 0.0116 | 9.9999 | 0.2501 | 0.6429 | 0.0349 | 0.2962 | 0.0542 | 0.4608 |
| 64 | 37.67 | 0.11 | 0.0435 | 9.9999 | 0.0143 | 9.9999 | 0.3275 | 0.6201 | 0.0365 | 0.2916 | 0.0580 | 0.4643 |
| 65 | 37.92 | 0.12 | 0.0451 | 9.9999 | 0.0160 | 9.9999 | 0.3299 | 0.6291 | 0.0372 | 0.2937 | 0.0591 | 0.4665 |
| 66 | 38.15 | 0.12 | 0.0456 | 9.9999 | 0.0171 | 9.9999 | 0.3460 | 0.6196 | 0.0378 | 0.2902 | 0.0605 | 0.4684 |
| 67 | 38.37 | 0.12 | 0.0327 | 9.9999 | 0.0115 | 9.9999 | 0.3528 | 0.6163 | 0.0382 | 0.2893 | 0.0615 | 0.4694 |
| 68 | 38.58 | 0.12 | 0.0327 | 9.9999 | 0.0115 | 9.9999 | 0.3526 | 0.6175 | 0.0382 | 0.2898 | 0.0618 | 0.4693 |
| 69 | 38.81 | 0.12 | 0.0247 | 9.9999 | 0.0075 | 9.9999 | 0.3046 | 0.6197 | 0.0389 | 0.2882 | 0.0636 | 0.4715 |
| 70 | 39.03 | 0.11 | 0.0335 | 9.9999 | 0.0139 | 9.9999 | 0.3900 | 0.6245 | 0.0389 | 0.2939 | 0.0622 | 0.4706 |
| 71 | 39.23 | 0.12 | 0.0363 | 9.9999 | 0.0141 | 9.9999 | 0.3867 | 0.6184 | 0.0393 | 0.2893 | 0.0637 | 0.4693 |
| 72 | 39.48 | 0.13 | 0.0411 | 9.9999 | 0.0134 | 9.9999 | 0.3808 | 0.6196 | 0.0393 | 0.2922 | 0.0634 | 0.4716 |
| 73 | 39.65 | 0.11 | 0.0465 | 9.9999 | 0.0187 | 9.9999 | 0.3581 | 0.6517 | 0.0373 | 0.3040 | 0.0572 | 0.4665 |
| 74 | 39.88 | 0.12 | 0.0365 | 9.9999 | 0.0174 | 9.9999 | 0.3782 | 0.6419 | 0.0383 | 0.2990 | 0.0596 | 0.4659 |
| 75 | 40.05 | 0.13 | 0.0411 | 9.9999 | 0.0146 | 9.9999 | 0.3539 | 0.6342 | 0.0380 | 0.2974 | 0.0598 | 0.4690 |
| 76 | 40.25 | 0.11 | 0.0355 | 9.9999 | 0.0139 | 9.9999 | 0.3900 | 0.6457 | 0.0378 | 0.3017 | 0.0587 | 0.4688 |
| 77 | 40.47 | 0.10 | 0.0382 | 9.9999 | 0.0155 | 9.9999 | 0.4044 | 0.6516 | 0.0376 | 0.3032 | 0.0573 | 0.4654 |
| 78 | 40.67 | 0.11 | 0.0357 | 9.9999 | 0.0105 | 9.9999 | 0.3765 | 0.6707 | 0.0370 | 0.3115 | 0.0551 | 0.4644 |
| 79 | 40.89 | 0.11 | 0.0436 | 9.9999 | 0.0176 | 9.9999 | 0.4027 | 0.6581 | 0.0376 | 0.3058 | 0.0571 | 0.4646 |
| 80 | 41.10 | 0.12 | 0.0361 | 9.9999 | 0.0102 | 9.9999 | 0.4259 | 0.6457 | 0.0386 | 0.3009 | 0.0599 | 0.4675 |
| 81 | 41.28 | 0.12 | 0.0430 | 9.9999 | 0.0165 | 9.9999 | 0.3773 | 0.6424 | 0.0387 | 0.3003 | 0.0602 | 0.4675 |
| 82 | 41.48 | 0.11 | 0.0446 | 9.9999 | 0.0160 | 9.9999 | 0.4006 | 0.6391 | 0.0392 | 0.2987 | 0.0613 | 0.4674 |
| 83 | 41.68 | 0.11 | 0.0478 | 9.9999 | 0.0189 | 9.9999 | 0.3878 | 0.6613 | 0.0383 | 0.3071 | 0.0578 | 0.4643 |
| 84 | 41.87 | 0.11 | 0.0461 | 9.9999 | 0.0180 | 9.9999 | 0.3995 | 0.6508 | 0.0379 | 0.3062 | 0.0575 | 0.4647 |
| 85 | 42.05 | 0.08 | 0.0420 | 9.9999 | 0.0160 | 9.9999 | 0.3798 | 0.7101 | 0.0360 | 0.3298 | 0.0475 | 0.4589 |
| 86 | 42.25 | 0.11 | 0.0434 | 9.9999 | 0.0166 | 9.9999 | 0.3866 | 0.6665 | 0.0381 | 0.3070 | 0.0571 | 0.4605 |
| 87 | 42.41 | 0.06 | 0.0351 | 9.9999 | 0.0145 | 9.9999 | 0.4230 | 0.7503 | 0.0312 | 0.3418 | 0.0418 | 0.4556 |
| 88 | 42.61 | 0.12 | 0.0565 | 9.9999 | 0.0225 | 9.9999 | 0.3956 | 0.6622 | 0.0380 | 0.3063 | 0.0573 | 0.4625 |
| 89 | 42.77 | 0.11 | 0.0473 | 9.9999 | 0.0195 | 9.9999 | 0.4115 | 0.6780 | 0.0373 | 0.3116 | 0.0549 | 0.4599 |
| 90 | 42.97 | 0.12 | 0.0482 | 9.9999 | 0.0192 | 9.9999 | 0.3943 | 0.6671 | 0.0376 | 0.3067 | 0.0563 | 0.4597 |
| 91 | 43.16 | 0.12 | 0.0445 | 9.9999 | 0.0175 | 9.9999 | 0.3923 | 0.6846 | 0.0371 | 0.3146 | 0.0541 | 0.4593 |
| 92 | 43.35 | 0.12 | 0.0355 | 9.9999 | 0.0213 | 9.9999 | 0.3639 | 0.6013 | 0.0370 | 0.3119 | 0.0542 | 0.4578 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASRDCT) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 152 MACH 0.60 RX10-6 1.7 PHI 0.0 CONF BLNCF13 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.51 | 0.11 | 0.0405 | 0.0000 | 0.0162 | 0.0000 | 0.3988 | 0.7059 | 0.0352 | 0.3234 | 0.0455 | 0.4556 |
| 94 | 43.69 | 0.12 | 0.0387 | 0.0000 | 0.0156 | 0.0000 | 0.4149 | 0.7054 | 0.0354 | 0.3208 | 0.0501 | 0.4548 |
| 95 | 43.39 | 0.12 | 0.0367 | 0.0000 | 0.0224 | 0.0000 | 0.3953 | 0.7130 | 0.0355 | 0.3235 | 0.0497 | 0.4537 |
| 96 | 44.07 | 0.12 | 0.0395 | 0.0000 | 0.0183 | 0.0000 | 0.3987 | 0.7085 | 0.0352 | 0.3221 | 0.0456 | 0.4546 |
| 97 | 44.24 | 0.12 | 0.0325 | 0.0000 | 0.0206 | 0.0000 | 0.3955 | 0.7116 | 0.0351 | 0.3230 | 0.0493 | 0.4535 |
| 98 | 44.44 | 0.12 | 0.0417 | 0.0000 | 0.0177 | 0.0000 | 0.4234 | 0.7034 | 0.0352 | 0.3206 | 0.0498 | 0.4536 |
| 99 | 44.61 | 0.11 | 0.0312 | 0.0000 | 0.0203 | 0.0000 | 0.3956 | 0.7161 | 0.0346 | 0.3248 | 0.0483 | 0.4524 |
| 100 | 44.78 | 0.11 | 0.0457 | 0.0000 | 0.0180 | 0.0000 | 0.4061 | 0.7276 | 0.0340 | 0.3294 | 0.0468 | 0.4528 |
| 101 | 44.96 | 0.12 | 0.0338 | 0.0000 | 0.0226 | 0.0000 | 0.4196 | 0.7138 | 0.0342 | 0.3252 | 0.0476 | 0.4515 |
| 102 | 45.15 | 0.12 | 0.0458 | 0.0000 | 0.0179 | 0.0000 | 0.3311 | 0.7371 | 0.0332 | 0.3314 | 0.0451 | 0.4496 |
| 103 | 45.32 | 0.10 | 0.0424 | 0.0000 | 0.0205 | 0.0000 | 0.4311 | 0.7340 | 0.0334 | 0.3296 | 0.0456 | 0.4491 |
| 104 | 45.49 | 0.11 | 0.0359 | 0.0000 | 0.0227 | 0.0000 | 0.4100 | 0.7066 | 0.0316 | 0.3425 | 0.0414 | 0.4456 |
| 105 | 45.66 | 0.10 | 0.0525 | 0.0000 | 0.0222 | 0.0000 | 0.4223 | 0.7418 | 0.0330 | 0.3330 | 0.0446 | 0.4489 |
| 106 | 45.84 | 0.11 | 0.0403 | 0.0000 | 0.0184 | 0.0000 | 0.4355 | 0.7356 | 0.0327 | 0.3283 | 0.0445 | 0.4464 |
| 107 | 46.01 | 0.10 | 0.0430 | 0.0000 | 0.0192 | 0.0000 | 0.4456 | 0.7355 | 0.0330 | 0.3284 | 0.0449 | 0.4466 |
| 108 | 46.19 | 0.10 | 0.0546 | 0.0000 | 0.0216 | 0.0000 | 0.3994 | 0.7373 | 0.0326 | 0.3312 | 0.0443 | 0.4492 |
| 109 | 46.36 | 0.11 | 0.0430 | 0.0000 | 0.0185 | 0.0000 | 0.4366 | 0.7421 | 0.0321 | 0.3318 | 0.0433 | 0.4471 |
| 110 | 46.53 | 0.12 | 0.0417 | 0.0000 | 0.0192 | 0.0000 | 0.4395 | 0.7499 | 0.0316 | 0.3345 | 0.0422 | 0.4460 |
| 111 | 46.71 | 0.11 | 0.0513 | 0.0000 | 0.0222 | 0.0000 | 0.4430 | 0.7592 | 0.0315 | 0.3379 | 0.0418 | 0.4451 |
| 112 | 46.87 | 0.09 | 0.0551 | 0.0000 | 0.0193 | 0.0000 | 0.4344 | 0.7802 | 0.0303 | 0.3466 | 0.0386 | 0.4434 |
| 113 | 47.05 | 0.11 | 0.0433 | 0.0000 | 0.0175 | 0.0000 | 0.4124 | 0.7878 | 0.0300 | 0.3491 | 0.0381 | 0.4432 |
| 114 | 47.21 | 0.09 | 0.0491 | 0.0000 | 0.0206 | 0.0000 | 0.4032 | 0.7927 | 0.0295 | 0.3504 | 0.0373 | 0.4421 |
| 115 | 47.38 | 0.09 | 0.0448 | 0.0000 | 0.0187 | 0.0000 | 0.4184 | 0.7990 | 0.0292 | 0.3526 | 0.0366 | 0.4413 |
| 116 | 47.57 | 0.10 | 0.0577 | 0.0000 | 0.0195 | 0.0000 | 0.4757 | 0.8038 | 0.0288 | 0.3552 | 0.0359 | 0.4418 |
| 117 | 47.72 | 0.07 | 0.0270 | 0.0000 | 0.0115 | 0.0000 | 0.4273 | 0.8059 | 0.0287 | 0.3564 | 0.0357 | 0.4424 |
| 118 | 47.90 | 0.08 | 0.0391 | 0.0000 | 0.0180 | 0.0000 | 0.4393 | 0.8055 | 0.0286 | 0.3557 | 0.0356 | 0.4415 |
| 119 | 48.05 | 0.08 | 0.0242 | 0.0000 | 0.0121 | 0.0000 | 0.5016 | 0.8263 | 0.0274 | 0.3638 | 0.0332 | 0.4403 |
| 120 | 48.23 | 0.07 | 0.0352 | 0.0000 | 0.0157 | 0.0000 | 0.4446 | 0.8422 | 0.0270 | 0.3694 | 0.0321 | 0.4386 |
| 121 | 48.40 | 0.07 | 0.0325 | 0.0000 | 0.0144 | 0.0000 | 0.4414 | 0.8405 | 0.0272 | 0.3694 | 0.0324 | 0.4395 |
| 122 | 48.55 | 0.06 | 0.0244 | 0.0000 | 0.0102 | 0.0000 | 0.4396 | 0.8472 | 0.0261 | 0.3719 | 0.0305 | 0.4390 |
| 123 | 48.72 | 0.07 | 0.0217 | 0.0000 | 0.0091 | 0.0000 | 0.4207 | 0.8487 | 0.0261 | 0.3716 | 0.0308 | 0.4379 |
| 124 | 48.90 | 0.05 | 0.0325 | 0.0000 | 0.0144 | 0.0000 | 0.4414 | 0.8520 | 0.0256 | 0.3736 | 0.0303 | 0.4385 |
| 125 | 49.06 | 0.05 | 0.0243 | 0.0000 | 0.0110 | 0.0000 | 0.4541 | 0.8487 | 0.0262 | 0.3720 | 0.0309 | 0.4384 |
| 126 | 49.24 | 0.06 | 0.0217 | 0.0000 | 0.0087 | 0.0000 | 0.4042 | 0.8535 | 0.0257 | 0.3741 | 0.0302 | 0.4384 |
| 127 | 49.42 | 0.03 | 0.0190 | 0.0000 | 0.0082 | 0.0000 | 0.4330 | 0.8693 | 0.0262 | 0.3805 | 0.0302 | 0.4377 |
| 128 | 49.57 | 0.01 | 0.0163 | 0.0000 | 0.0077 | 0.0000 | 0.4739 | 0.8852 | 0.0258 | 0.3790 | 0.0295 | 0.4390 |
| 129 | 49.75 | 0.03 | 0.0190 | 0.0000 | 0.0079 | 0.0000 | 0.4171 | 0.8793 | 0.0245 | 0.3832 | 0.0279 | 0.4358 |
| 130 | 49.92 | 0.02 | 0.0217 | 0.0000 | 0.0093 | 0.0000 | 0.4392 | 0.8516 | 0.0247 | 0.3721 | 0.0291 | 0.4373 |
| 131 | 50.09 | 0.02 | 0.0217 | 0.0000 | 0.0095 | 0.0000 | 0.4392 | 0.8666 | 0.0245 | 0.3791 | 0.0283 | 0.4373 |
| 132 | 50.26 | 0.02 | 0.0163 | 0.0000 | 0.0070 | 0.0000 | 0.4308 | 0.8748 | 0.0240 | 0.3810 | 0.0275 | 0.4355 |
| 133 | 50.43 | 0.03 | 0.0217 | 0.0000 | 0.0102 | 0.0000 | 0.4900 | 0.8558 | 0.0245 | 0.3735 | 0.0287 | 0.4365 |
| 134 | 50.58 | 0.03 | 0.0162 | 0.0000 | 0.0084 | 0.0000 | 0.3344 | 0.8837 | 0.0243 | 0.3777 | 0.0282 | 0.4374 |
| 135 | 50.76 | 0.04 | 0.0354 | 0.0000 | 0.0135 | 0.0000 | 0.3911 | 0.8654 | 0.0240 | 0.3786 | 0.0278 | 0.4374 |
| 136 | 50.93 | 0.00 | 0.0163 | 0.0000 | 0.0066 | 0.0000 | 0.4002 | 0.8868 | 0.0236 | 0.3864 | 0.0268 | 0.4347 |
| 137 | 51.14 | 0.00 | 0.0217 | 0.0000 | 0.0095 | 0.0000 | 0.4392 | 0.9252 | 0.0267 | 0.4003 | 0.0289 | 0.4327 |
| 138 | 51.31 | 0.05 | 0.0271 | 0.0000 | 0.0115 | 0.0000 | 0.4405 | 0.9223 | 0.0263 | 0.4001 | 0.0286 | 0.4338 |

PARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 152 | MACH 0.80 | RE1C-6 1.7 | PHI C.C | CONF 61wF13 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PCINT | ALPHA | BETA | CNF3 | CM3 | CB3 | ACPF3 | YCPF3 | CNF4 | CM4 | CB4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.48 | 0.06 | 0.0312 | 5.5555 | 0.0133 | 5.5999 | 0.4244 | 0.9378 | 0.0261 | 0.4056 | 0.0279 | 0.4325 |
| 140 | 51.65 | 0.08 | 0.0211 | 5.5555 | 0.0154 | 5.5999 | 0.4340 | 0.9250 | 0.0246 | 0.4027 | 0.0265 | 0.4335 |
| 141 | 51.83 | 0.07 | 0.0325 | 5.5555 | 0.0141 | 5.5999 | 0.4321 | 0.9553 | 0.0255 | 0.4133 | 0.0267 | 0.4326 |
| 142 | 52.00 | 0.10 | 0.0325 | 5.5555 | 0.0144 | 5.5999 | 0.4314 | 0.9712 | 0.0246 | 0.4202 | 0.0254 | 0.4327 |
| 143 | 52.16 | 0.10 | 0.0258 | 5.5555 | 0.0125 | 5.5999 | 0.4305 | 0.9606 | 0.0237 | 0.4156 | 0.0247 | 0.4325 |
| 144 | 52.34 | 0.10 | 0.0276 | 5.5555 | 0.0127 | 5.5999 | 0.4304 | 0.9636 | 0.0240 | 0.4151 | 0.0249 | 0.4306 |
| 145 | 52.49 | 0.10 | 0.0276 | 5.5555 | 0.0127 | 5.5999 | 0.4682 | 0.9594 | 0.0227 | 0.4141 | 0.0237 | 0.4316 |
| 146 | 52.69 | 0.11 | 0.0256 | 5.5555 | 0.0136 | 5.5999 | 0.4345 | 0.9490 | 0.0220 | 0.4104 | 0.0232 | 0.4325 |
| 147 | 52.82 | 0.12 | 0.0353 | 5.5555 | 0.0181 | 5.5999 | 0.4395 | 0.9196 | 0.0214 | 0.3987 | 0.0233 | 0.4336 |
| 148 | 53.00 | 0.12 | 0.0353 | 5.5555 | 0.0166 | 5.5999 | 0.4746 | 0.9370 | 0.0219 | 0.4065 | 0.0234 | 0.4338 |
| 149 | 53.14 | 0.13 | 0.0408 | 5.5555 | 0.0186 | 5.5999 | 0.4549 | 0.9166 | 0.0217 | 0.3989 | 0.0237 | 0.4352 |
| 150 | 53.31 | 0.12 | 0.0365 | 5.5555 | 0.0165 | 5.5999 | 0.4673 | 0.9027 | 0.0215 | 0.3938 | 0.0239 | 0.4363 |
| 151 | 53.47 | 0.14 | 0.0408 | 5.5555 | 0.0201 | 5.5999 | 0.4318 | 0.9311 | 0.0213 | 0.4045 | 0.0225 | 0.4348 |
| 152 | 53.64 | 0.12 | 0.0436 | 5.5999 | 0.0196 | 5.5999 | 0.4533 | 0.8999 | 0.0215 | 0.3961 | 0.0237 | 0.4358 |
| 153 | 53.80 | 0.12 | 0.0422 | 5.5555 | 0.0202 | 5.5999 | 0.4778 | 0.9092 | 0.0215 | 0.3971 | 0.0237 | 0.4368 |
| 154 | 53.95 | 0.10 | 0.0356 | 5.5555 | 0.0162 | 5.5999 | 0.4565 | 0.9291 | 0.0216 | 0.4038 | 0.0227 | 0.4364 |
| 155 | 54.11 | 0.10 | 0.0365 | 5.5555 | 0.0171 | 5.5999 | 0.4465 | 0.9429 | 0.0217 | 0.4099 | 0.0220 | 0.4367 |
| 156 | 54.26 | 0.12 | 0.0355 | 5.5555 | 0.0173 | 5.5999 | 0.4481 | 0.9350 | 0.0196 | 0.4106 | 0.0207 | 0.4338 |
| 157 | 54.44 | 0.11 | 0.0478 | 5.5555 | 0.0221 | 5.5999 | 0.4596 | 0.9797 | 0.0193 | 0.4251 | 0.0197 | 0.4340 |
| 158 | 54.60 | 0.12 | 0.0362 | 5.5555 | 0.0182 | 5.5999 | 0.4733 | 0.9043 | 0.0196 | 0.4265 | 0.0199 | 0.4338 |
| 159 | 54.75 | 0.11 | 0.0261 | 5.5555 | 0.0115 | 5.5999 | 0.4592 | 0.9797 | 0.0194 | 0.4271 | 0.0198 | 0.4360 |
| 160 | 54.92 | 0.11 | 0.0273 | 5.5555 | 0.0126 | 5.5999 | 0.4667 | 0.9913 | 0.0196 | 0.4296 | 0.0152 | 0.4377 |
| 161 | 55.07 | 0.11 | 0.0328 | 5.5555 | 0.0146 | 5.5999 | 0.4435 | 0.9830 | 0.0185 | 0.4308 | 0.0185 | 0.4382 |
| 162 | 55.25 | 0.11 | 0.0357 | 5.5555 | 0.0175 | 5.5999 | 0.4397 | 0.9849 | 0.0187 | 0.4320 | 0.0190 | 0.4386 |
| 163 | 55.45 | 0.10 | 0.0342 | 5.5555 | 0.0150 | 5.5999 | 0.4371 | 0.9928 | 0.0187 | 0.4355 | 0.0189 | 0.4386 |
| 164 | 55.61 | 0.10 | 0.0315 | 5.5555 | 0.0142 | 5.5999 | 0.4491 | 0.9787 | 0.0182 | 0.4365 | 0.0186 | 0.4402 |
| 165 | 55.77 | 0.09 | 0.0358 | 5.5555 | 0.0140 | 5.5555 | 0.3917 | 0.9989 | 0.0177 | 0.4380 | 0.0177 | 0.4385 |
| 166 | 55.94 | 0.10 | 0.0322 | 5.5555 | 0.0142 | 5.5999 | 0.4515 | 1.0053 | 0.0177 | 0.4418 | 0.0176 | 0.4395 |
| 167 | 56.10 | 0.09 | 0.0314 | 5.5555 | 0.0134 | 5.5999 | 0.4249 | 0.9976 | 0.0172 | 0.4395 | 0.0173 | 0.4406 |
| 168 | 56.26 | 0.10 | 0.0356 | 5.5555 | 0.0140 | 5.5999 | 0.3917 | 0.9695 | 0.0179 | 0.4360 | 0.0181 | 0.4406 |
| 169 | 56.41 | 0.07 | 0.0363 | 5.5555 | 0.0156 | 5.5999 | 0.4060 | 1.0067 | 0.0168 | 0.4422 | 0.0167 | 0.4393 |
| 170 | 56.58 | 0.10 | 0.0405 | 5.5555 | 0.0175 | 5.5999 | 0.4306 | 1.0035 | 0.0169 | 0.4401 | 0.0169 | 0.4386 |
| 171 | 56.73 | 0.07 | 0.0327 | 5.5555 | 0.0136 | 5.5999 | 0.4203 | 1.0082 | 0.0159 | 0.4416 | 0.0158 | 0.4374 |
| 172 | 56.89 | 0.09 | 0.0255 | 5.5555 | 0.0136 | 5.5999 | 0.4529 | 1.0131 | 0.0155 | 0.4436 | 0.0153 | 0.4382 |
| 173 | 57.04 | 0.05 | 0.0313 | 5.5555 | 0.0130 | 5.5999 | 0.4135 | 1.0128 | 0.0161 | 0.4436 | 0.0155 | 0.4380 |
| 174 | 57.19 | 0.08 | 0.0366 | 5.5555 | 0.0165 | 5.5999 | 0.4495 | 1.0101 | 0.0159 | 0.4401 | 0.0158 | 0.4374 |
| 175 | 57.32 | 0.05 | 0.0256 | 5.5555 | 0.0136 | 5.5999 | 0.4545 | 1.0383 | 0.0139 | 0.4524 | 0.0130 | 0.4356 |
| 176 | 57.50 | 0.06 | 0.0258 | 5.5555 | 0.0126 | 5.5555 | 0.4199 | 1.0096 | 0.0140 | 0.4406 | 0.0135 | 0.4364 |
| 177 | 57.64 | 0.06 | 0.0244 | 5.5555 | 0.0103 | 5.5999 | 0.4235 | 0.9903 | 0.0136 | 0.4325 | 0.0136 | 0.4371 |
| 178 | 57.78 | 0.07 | 0.0256 | 5.5555 | 0.0146 | 5.5555 | 0.4275 | 1.0341 | 0.0137 | 0.4482 | 0.0133 | 0.4334 |
| 179 | 57.92 | 0.05 | 0.0257 | 5.5555 | 0.0114 | 5.5999 | 0.4450 | 1.0120 | 0.0145 | 0.4419 | 0.0143 | 0.4367 |
| 180 | 57.95 | 0.04 | 0.0265 | 5.5555 | 0.0134 | 5.5999 | 0.4560 | 1.0292 | 0.0134 | 0.4472 | 0.0130 | 0.4345 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASDCC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DELI DELZ DEL3 DEL4 TRANSITION
7 153 0.90 1.7 0.0 BIaOF13 0.0 0 -20 0 -40 UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | -1.4617 | 5.0783 | -0.0151 | 0.0066 | -0.0236 | 0.6944 | 0.3723 | 0.5221 | -3.4743 |
| 2 | -5.71 | 0.02 | -1.4365 | 5.0277 | 0.0121 | 0.0197 | -0.0172 | 0.6945 | 0.3731 | 0.5194 | -3.4989 |
| 3 | -5.71 | 0.01 | -1.4371 | 5.0263 | -0.0894 | 0.1215 | -0.0236 | 0.6926 | 0.3759 | 0.5167 | -3.4988 |
| 4 | -5.69 | 0.02 | -1.4241 | 4.9902 | 0.0253 | 0.0130 | -0.0103 | 0.6973 | 0.3752 | 0.5221 | -3.5230 |
| 5 | -4.77 | 0.03 | -1.4247 | 5.0048 | 0.1585 | -0.1427 | 0.0284 | 0.6615 | 0.3386 | 0.5449 | -3.6637 |
| 6 | -2.97 | 0.02 | -1.5131 | 0.0033 | 0.0005 | -0.0751 | 0.0096 | 0.6392 | 0.2446 | 0.5944 | -4.2303 |
| 7 | -1.22 | 0.02 | -1.5822 | 0.2693 | 0.0340 | -0.0811 | 0.0036 | 0.6032 | 0.2075 | 0.5957 | -4.5342 |
| 8 | 0.01 | 0.01 | -1.1759 | 0.8504 | -0.0613 | -0.0714 | -0.0024 | 0.7508 | 0.1953 | 0.5035 | -4.9582 |
| 9 | 2.41 | 0.02 | -0.5926 | 0.6158 | -0.0162 | -0.0564 | -0.0362 | 0.7198 | 0.1633 | 0.5365 | -5.6235 |
| 10 | 4.17 | 0.02 | -0.0259 | 0.3436 | -0.0142 | -0.0253 | -0.0014 | 0.6755 | 0.1711 | 0.5044 | -6.4706 |
| 11 | 5.58 | 0.02 | -0.5746 | 0.7543 | -0.0253 | -0.1106 | 0.0117 | 0.6120 | 0.1562 | 0.4558 | -8.3356 |
| 12 | 7.01 | 0.02 | -0.5168 | 0.2118 | -0.0417 | 0.0199 | 0.0119 | 0.5417 | 0.1452 | 0.3965 | -13.2658 |
| 13 | 9.56 | 0.01 | 0.0888 | 0.1581 | -0.0470 | -0.0414 | 0.0061 | 0.4580 | 0.1422 | 0.3159 | 35.5223 |
| 14 | 11.43 | 0.02 | 0.4961 | 0.2515 | -0.0145 | 0.0496 | 0.0127 | 0.3914 | 0.1442 | 0.2472 | 5.0476 |
| 15 | 13.25 | 0.02 | 0.7987 | 1.4501 | 0.0377 | -0.0001 | 0.0135 | 0.3417 | 0.1487 | 0.1930 | 1.8656 |
| 16 | 15.13 | 0.02 | 1.1463 | 0.9025 | 0.0227 | -0.0469 | 0.0018 | 0.2939 | 0.1567 | 0.1362 | 0.7877 |
| 17 | 17.05 | 0.02 | 1.5313 | 0.2388 | -0.0518 | 0.0820 | 0.0340 | 0.2444 | 0.1720 | 0.0724 | 0.1560 |
| 18 | 18.94 | 0.01 | 1.9252 | -0.4013 | -0.1080 | 0.3004 | 0.0469 | 0.1702 | 0.1793 | -0.0091 | -0.2356 |
| 19 | 20.84 | 0.00 | 2.3012 | -1.3811 | -0.2751 | 0.7081 | 0.0979 | 0.0891 | 0.1868 | -0.0957 | -0.5645 |
| 20 | 22.74 | -0.00 | 2.6955 | -2.3681 | -0.3883 | 1.1402 | 0.1409 | 0.0037 | 0.1937 | -0.1900 | -0.8340 |
| 21 | 24.63 | -0.02 | 3.1042 | -2.6727 | -0.4320 | 1.5575 | 0.0961 | 0.0064 | 0.2133 | -0.2069 | -0.8394 |
| 22 | 26.55 | -0.01 | 3.5250 | -3.0023 | -0.3878 | 0.8581 | 0.0350 | -0.0572 | 0.2194 | -0.2714 | -0.8273 |
| 23 | 27.62 | 0.04 | 3.9156 | -3.0205 | 0.3330 | -0.0246 | 0.0361 | -0.1141 | 0.2072 | -0.3213 | -0.7707 |
| 24 | 27.92 | 0.03 | 3.9355 | -3.0194 | 0.1748 | -0.1665 | 0.0412 | -0.0992 | 0.2115 | -0.3107 | -0.7059 |
| 25 | 27.92 | 0.03 | 3.9056 | -3.0585 | 0.2541 | -0.3544 | 0.0343 | -0.1012 | 0.2099 | -0.3111 | -0.7623 |
| 26 | 27.94 | 0.03 | 3.9700 | -3.0516 | 0.2881 | -0.7171 | 0.0062 | -0.1020 | 0.2094 | -0.3114 | -0.7787 |
| 27 | 28.34 | 0.05 | 4.0154 | -3.1135 | 0.5269 | -0.9574 | 0.1001 | -0.1132 | 0.2102 | -0.3234 | -0.7746 |
| 28 | 28.80 | 0.05 | 4.1034 | -3.0145 | 0.5305 | -0.9509 | 0.0944 | -0.1075 | 0.2135 | -0.3216 | -0.7258 |
| 29 | 28.89 | 0.05 | 4.1752 | -2.9700 | 0.4480 | -0.7784 | 0.0316 | -0.1122 | 0.2159 | -0.3281 | -0.7107 |
| 30 | 29.23 | 0.06 | 4.2061 | -3.0047 | 0.5242 | -1.0525 | 0.1397 | -0.1170 | 0.2180 | -0.3350 | -0.7052 |
| 31 | 29.51 | 0.05 | 4.3444 | -3.0200 | 0.5145 | -0.8207 | 0.1208 | -0.1159 | 0.2220 | -0.3419 | -0.6952 |
| 32 | 29.74 | 0.05 | 4.3760 | -2.8746 | 0.4847 | -0.7608 | 0.1146 | -0.1004 | 0.2276 | -0.3342 | -0.6565 |
| 33 | 30.06 | 0.05 | 4.4643 | -3.0152 | 0.5064 | -0.9134 | 0.1470 | -0.1031 | 0.2303 | -0.3334 | -0.6763 |
| 34 | 30.33 | 0.05 | 4.5337 | -2.9366 | 0.4918 | -0.7309 | 0.1089 | -0.1070 | 0.2356 | -0.3426 | -0.6463 |
| 35 | 30.61 | 0.06 | 4.6754 | -2.9155 | 0.0589 | -1.1022 | 0.1736 | -0.1104 | 0.2405 | -0.3509 | -0.6245 |
| 36 | 30.88 | 0.06 | 4.7454 | -2.8224 | 0.0354 | -1.2602 | 0.1869 | -0.1116 | 0.2455 | -0.3571 | -0.5543 |
| 37 | 31.16 | 0.08 | 4.8686 | -2.7915 | 0.5324 | -1.3261 | 0.2008 | -0.1080 | 0.2492 | -0.3572 | -0.5711 |
| 38 | 31.44 | 0.06 | 5.0142 | -2.7166 | 0.8007 | -1.1799 | 0.1821 | -0.1153 | 0.2513 | -0.3666 | -0.5418 |
| 39 | 31.69 | 0.06 | 5.0654 | -2.7235 | 0.8705 | -1.0434 | 0.1757 | -0.1224 | 0.2538 | -0.3762 | -0.5377 |
| 40 | 31.97 | 0.08 | 5.1555 | -2.6763 | 0.7854 | -0.9837 | 0.1819 | -0.1309 | 0.2563 | -0.3872 | -0.5187 |
| 41 | 32.23 | 0.06 | 5.2172 | -2.5561 | 0.5067 | -1.2342 | 0.1763 | -0.1302 | 0.2559 | -0.3861 | -0.4976 |
| 42 | 32.51 | 0.10 | 5.4165 | -2.5055 | 1.0078 | -1.0917 | 0.1908 | -0.1394 | 0.2579 | -0.3973 | -0.4626 |
| 43 | 32.77 | 0.05 | 5.5042 | -2.3874 | 1.1043 | -1.9068 | 0.1914 | -0.1544 | 0.2562 | -0.4106 | -0.4337 |
| 44 | 33.04 | 0.06 | 5.5834 | -2.3047 | 1.0411 | -1.0394 | 0.1790 | -0.1647 | 0.2567 | -0.4194 | -0.4271 |
| 45 | 33.26 | 0.06 | 5.6271 | -2.2810 | 0.9445 | -1.8209 | 0.1810 | -0.1609 | 0.2583 | -0.4192 | -0.4018 |
| 46 | 33.53 | 0.07 | 5.7051 | -2.1854 | 0.7004 | -1.6407 | 0.1284 | -0.1768 | 0.2554 | -0.4322 | -0.3778 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 153 | MACH 0.90 | RNLG 1.7 | PHI 0.0 | CLRF BLOCF13 | D 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | ACP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.78 | 0.07 | 8.8488 | -2.0156 | 0.7486 | -1.5116 | 0.1097 | -0.1670 | 0.2596 | -0.4266 | -0.3446 |
| 48 | 34.01 | 0.06 | 8.9133 | -1.9874 | 0.6341 | -1.3528 | 0.0906 | -0.1749 | 0.2663 | -0.4392 | -0.3360 |
| 49 | 34.27 | 0.03 | 8.0451 | -1.9956 | 0.3524 | -1.1664 | 0.1034 | -0.1990 | 0.2539 | -0.4585 | -0.3306 |
| 50 | 34.52 | 0.06 | 8.0715 | -2.0161 | 0.6536 | -1.3167 | 0.1230 | -0.1969 | 0.2626 | -0.4557 | -0.3321 |
| 51 | 34.76 | 0.04 | 8.1507 | -1.8256 | 0.4717 | -1.1557 | 0.0915 | -0.2106 | 0.2630 | -0.4706 | -0.2956 |
| 52 | 35.00 | 0.04 | 8.3002 | -1.7563 | 0.3726 | -1.0878 | 0.0473 | -0.2101 | 0.2620 | -0.4721 | -0.2788 |
| 53 | 35.24 | 0.04 | 8.3827 | -1.6403 | 0.5325 | -1.2555 | 0.0609 | -0.2056 | 0.2620 | -0.4674 | -0.2568 |
| 54 | 35.50 | 0.02 | 8.5218 | -1.7451 | 0.3265 | -1.0696 | 0.0418 | -0.2293 | 0.2616 | -0.4910 | -0.2630 |
| 55 | 35.73 | 0.03 | 8.5605 | -1.6174 | 0.3657 | -0.7519 | -0.0088 | -0.2308 | 0.2665 | -0.4974 | -0.2465 |
| 56 | 35.95 | 0.04 | 8.6046 | -1.5175 | 0.4337 | -0.7551 | -0.0149 | -0.2429 | 0.2680 | -0.5030 | -0.2277 |
| 57 | 36.19 | 0.03 | 8.7228 | -1.6382 | 0.3380 | -0.7651 | -0.0082 | -0.2478 | 0.2668 | -0.5087 | -0.2437 |
| 58 | 36.44 | 0.03 | 8.8456 | -1.5162 | 0.3636 | -0.4884 | -0.0014 | -0.2693 | 0.2583 | -0.5257 | -0.2199 |
| 59 | 36.65 | 0.02 | 8.9561 | -1.6342 | 0.3684 | -0.3535 | 0.0365 | -0.2518 | 0.2592 | -0.5111 | -0.2407 |
| 60 | 36.91 | 0.03 | 8.9427 | -1.5033 | 0.3134 | -0.3194 | -0.0137 | -0.2694 | 0.2551 | -0.5246 | -0.2165 |
| 61 | 37.14 | 0.02 | 7.0067 | -1.4352 | 0.2356 | -0.6710 | 0.0877 | -0.2669 | 0.2526 | -0.5216 | -0.2048 |
| 62 | 37.37 | 0.04 | 7.1264 | -1.5018 | 0.4065 | -0.5524 | 0.0187 | -0.2913 | 0.2530 | -0.5443 | -0.2058 |
| 63 | 37.62 | 0.03 | 7.3456 | -1.4541 | 0.4677 | -0.6312 | 0.1335 | -0.2602 | 0.2547 | -0.5370 | -0.1980 |
| 64 | 37.83 | 0.03 | 7.4816 | -1.5143 | 0.3265 | -0.5044 | 0.1076 | -0.2671 | 0.2559 | -0.5431 | -0.2080 |
| 65 | 38.08 | 0.03 | 7.3536 | -1.3831 | 0.3695 | -0.4887 | 0.0575 | -0.3109 | 0.2526 | -0.5635 | -0.1871 |
| 66 | 38.33 | 0.01 | 7.5005 | -1.4578 | 0.7018 | -0.6942 | 0.1028 | -0.3107 | 0.2538 | -0.5765 | -0.1917 |
| 67 | 38.54 | 0.03 | 7.3058 | -1.5005 | 0.5153 | -0.5892 | 0.1066 | -0.2997 | 0.2595 | -0.5592 | -0.2000 |
| 68 | 38.76 | 0.01 | 7.7323 | -1.3552 | 0.0436 | -0.6883 | 0.0906 | -0.3247 | 0.2673 | -0.5920 | -0.2009 |
| 69 | 39.00 | 0.02 | 7.7112 | -1.3046 | 0.1912 | -0.1528 | 0.0772 | -0.3090 | 0.2645 | -0.5735 | -0.1776 |
| 70 | 39.23 | 0.03 | 7.8115 | -1.3655 | 0.3674 | -0.2305 | 0.1153 | -0.3109 | 0.2722 | -0.5831 | -0.1928 |
| 71 | 39.43 | 0.04 | 7.8855 | -1.4265 | 0.4131 | 0.0322 | 0.1272 | -0.2644 | 0.2861 | -0.5706 | -0.1810 |
| 72 | 39.64 | 0.04 | 7.9064 | -1.3651 | 0.2657 | 0.0157 | 0.0834 | -0.4151 | 0.2743 | -0.5874 | -0.1752 |
| 73 | 39.86 | 0.02 | 8.0068 | -1.3247 | 0.2207 | 0.1795 | 0.0759 | -0.3124 | 0.2636 | -0.5760 | -0.1655 |
| 74 | 40.07 | 0.03 | 8.0550 | -1.3736 | 0.3582 | 0.2043 | 0.0924 | -0.3075 | 0.2795 | -0.5868 | -0.1729 |
| 75 | 40.32 | 0.04 | 8.1719 | -1.4657 | 0.3468 | 0.6105 | 0.1371 | -0.3093 | 0.3044 | -0.6136 | -0.1759 |
| 76 | 40.52 | 0.02 | 8.1413 | -1.3778 | 0.1673 | 0.3132 | 0.0707 | -0.3282 | 0.2885 | -0.6167 | -0.1692 |
| 77 | 40.75 | 0.01 | 8.2558 | -1.3853 | -0.0166 | 0.7327 | 0.0700 | -0.3278 | 0.2935 | -0.6212 | -0.1677 |
| 78 | 40.99 | 0.02 | 8.3051 | -1.4353 | 0.0653 | 0.8116 | 0.0760 | -0.3174 | 0.3017 | -0.6190 | -0.1732 |
| 79 | 41.16 | -0.00 | 8.4064 | -1.4455 | -0.1235 | 0.7647 | 0.0519 | -0.3399 | 0.2898 | -0.6256 | -0.1713 |
| 80 | 41.37 | 0.02 | 8.5025 | -1.5258 | 0.0474 | 0.9808 | 0.0833 | -0.3382 | 0.3110 | -0.6491 | -0.1795 |
| 81 | 41.55 | 0.00 | 8.5661 | -1.4765 | -0.0057 | 0.9513 | 0.0906 | -0.3746 | 0.2811 | -0.6557 | -0.1724 |
| 82 | 41.76 | 0.02 | 8.5524 | -1.3910 | 0.1627 | 0.9853 | 0.0903 | -0.3659 | 0.2853 | -0.6512 | -0.1627 |
| 83 | 41.96 | 0.03 | 8.7120 | -1.4562 | 0.1736 | 0.9646 | 0.0929 | -0.3828 | 0.2770 | -0.6598 | -0.1720 |
| 84 | 42.15 | 0.02 | 8.7594 | -1.3391 | 0.0116 | 0.2604 | 0.0481 | -0.3901 | 0.2771 | -0.6672 | -0.1757 |
| 85 | 42.36 | 0.03 | 8.8112 | -1.5815 | 0.1383 | 0.9352 | 0.0330 | -0.3621 | 0.2889 | -0.6510 | -0.1795 |
| 86 | 42.52 | 0.02 | 8.8065 | -1.3721 | 0.1065 | 0.8296 | 0.0495 | -0.4030 | 0.2751 | -0.6782 | -0.1770 |
| 87 | 42.73 | 0.02 | 8.9554 | -1.5550 | 0.0284 | 0.9566 | 0.0480 | -0.4075 | 0.2677 | -0.6953 | -0.1733 |
| 88 | 42.90 | 0.02 | 9.1018 | -1.6255 | 0.0105 | 1.0157 | 0.0455 | -0.3814 | 0.3062 | -0.6875 | -0.1751 |
| 89 | 43.08 | 0.03 | 9.2023 | -1.6555 | 0.1715 | 0.2914 | 0.0497 | -0.4078 | 0.2844 | -0.6921 | -0.1799 |
| 90 | 43.27 | 0.02 | 9.1051 | -1.6726 | 0.1477 | 0.9819 | 0.0485 | -0.3886 | 0.2910 | -0.6798 | -0.1821 |
| 91 | 43.45 | 0.03 | 9.2757 | -1.7114 | 0.2448 | 0.3855 | 0.0493 | -0.4018 | 0.2834 | -0.6823 | -0.1845 |
| 92 | 43.63 | 0.02 | 9.3111 | -1.7202 | 0.2103 | -0.0445 | 0.0638 | -0.4256 | 0.2685 | -0.6942 | -0.1847 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSRDC) T BY 16 FOOT TRANSONIC WIND TUNNEL FACILITY

FACE 1 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
F 153 0.90 1.7 0.0 BIBOFIS C.G 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.79 | 0.02 | 9.3011 | -1.3179 | 0.1953 | 0.1954 | 0.0438 | -0.4177 | 0.2632 | -0.7010 | -0.1954 |
| 94 | 43.90 | 0.03 | 9.4159 | -1.3478 | 0.2067 | -0.0034 | 0.0514 | -0.4015 | 0.2646 | -0.6864 | -0.1962 |
| 95 | 44.10 | 0.00 | 9.0216 | -1.3626 | -0.0012 | 0.0047 | 0.0430 | -0.4496 | 0.2652 | -0.7349 | -0.1957 |
| 96 | 44.36 | -0.00 | 9.0942 | -1.3424 | -0.0104 | -0.1578 | 0.0400 | -0.4038 | 0.2755 | -0.7412 | -0.1797 |
| 97 | 44.54 | -0.01 | 9.7707 | -1.3825 | -0.2042 | 1.6905 | -0.0048 | -0.4038 | 0.3062 | -0.7100 | -0.1679 |
| 98 | 44.72 | 0.01 | 9.7654 | -1.3524 | -0.1350 | 1.5925 | -0.0350 | -0.4126 | 0.3140 | -0.7266 | -0.1995 |
| 99 | 44.92 | 0.01 | 9.8482 | -1.3677 | -0.0010 | 1.1555 | -0.0271 | -0.4480 | 0.2673 | -0.7354 | -0.1558 |
| 100 | 45.09 | 0.02 | 9.8681 | -1.3541 | 0.0034 | 0.8755 | -0.0324 | -0.4545 | 0.2734 | -0.7280 | -0.1029 |
| 101 | 45.28 | 0.03 | 10.0315 | -2.0425 | 0.1818 | 0.4261 | -0.0115 | -0.4873 | 0.2716 | -0.7591 | -0.2043 |
| 102 | 45.48 | 0.04 | 9.9860 | -2.0038 | 0.2446 | 1.1400 | -0.0396 | -0.4404 | 0.2644 | -0.7314 | -0.2066 |
| 103 | 45.63 | -0.00 | 10.0765 | -2.0862 | -0.2083 | 1.9525 | -0.0735 | -0.4458 | 0.3050 | -0.7548 | -0.2070 |
| 104 | 45.81 | 0.01 | 10.0296 | -2.0814 | 0.1195 | 0.2002 | -0.0155 | -0.4885 | 0.2738 | -0.7623 | -0.2136 |
| 105 | 45.98 | -0.03 | 10.2416 | -2.2138 | -0.2508 | 1.1504 | -0.0497 | -0.5114 | 0.2819 | -0.7933 | -0.2162 |
| 106 | 46.16 | -0.00 | 10.2261 | -2.0865 | -0.0052 | 0.8487 | -0.0548 | -0.4879 | 0.2673 | -0.7553 | -0.2022 |
| 107 | 46.33 | -0.00 | 10.4466 | -2.1742 | -0.1850 | 1.0858 | -0.1016 | -0.4837 | 0.2914 | -0.7551 | -0.2061 |
| 108 | 46.51 | -0.01 | 10.4096 | -2.1346 | -0.1524 | 1.4459 | -0.0814 | -0.4758 | 0.2999 | -0.7757 | -0.2055 |
| 109 | 46.68 | -0.01 | 10.5265 | -2.2041 | -0.2486 | 1.4507 | -0.0883 | -0.4703 | 0.2947 | -0.7650 | -0.2082 |
| 110 | 46.86 | -0.02 | 10.6051 | -2.2356 | -0.2705 | 1.6076 | -0.1069 | -0.4844 | 0.2976 | -0.7821 | -0.2112 |
| 111 | 47.03 | 0.00 | 10.6842 | -2.1641 | -0.1029 | 1.0842 | -0.0942 | -0.4602 | 0.2933 | -0.7535 | -0.2029 |
| 112 | 47.21 | 0.01 | 10.7250 | -2.2778 | -0.1516 | 1.0402 | -0.0805 | -0.4911 | 0.3023 | -0.7933 | -0.2116 |
| 113 | 47.39 | 0.01 | 10.8771 | -2.2949 | -0.0531 | 2.1479 | -0.1019 | -0.4446 | 0.3334 | -0.7780 | -0.2063 |
| 114 | 47.55 | 0.02 | 10.8669 | -2.2826 | -0.1166 | 1.8798 | -0.0824 | -0.4965 | 0.3191 | -0.8105 | -0.2082 |
| 115 | 47.73 | 0.00 | 10.8782 | -2.2515 | -0.1172 | 2.0031 | -0.0819 | -0.4805 | 0.3246 | -0.7851 | -0.2070 |
| 116 | 47.91 | 0.01 | 11.1167 | -2.3021 | -0.1146 | 2.0210 | -0.1339 | -0.4940 | 0.3447 | -0.7887 | -0.2143 |
| 117 | 48.08 | 0.03 | 11.0959 | -2.3915 | 0.1232 | 2.1525 | -0.1015 | -0.4698 | 0.3356 | -0.8253 | -0.2155 |
| 118 | 48.27 | 0.05 | 11.2220 | -2.3360 | 0.2213 | 2.0111 | -0.1477 | -0.4908 | 0.3710 | -0.7878 | -0.2260 |
| 119 | 48.43 | 0.05 | 11.4038 | -2.4826 | 0.2865 | 2.7725 | -0.1471 | -0.4451 | 0.3701 | -0.8152 | -0.2334 |
| 120 | 48.60 | 0.02 | 11.3055 | -2.4130 | -0.0222 | 2.7423 | -0.1405 | -0.4324 | 0.3796 | -0.8120 | -0.2400 |
| 121 | 48.79 | 0.03 | 11.3665 | -2.4754 | 0.0038 | 2.7400 | -0.1336 | -0.3700 | 0.3926 | -0.7626 | -0.2442 |
| 122 | 48.96 | 0.00 | 11.3484 | -2.4665 | -0.2764 | 2.8450 | -0.1263 | -0.3950 | 0.4201 | -0.8151 | -0.2501 |
| 123 | 49.15 | 0.06 | 11.7530 | -2.6443 | 0.4156 | 2.2760 | -0.1251 | -0.3612 | 0.4365 | -0.7777 | -0.2760 |
| 124 | 49.32 | 0.05 | 11.7011 | -2.6467 | 0.3675 | 2.0330 | -0.1179 | -0.4055 | 0.4184 | -0.8219 | -0.2770 |
| 125 | 49.53 | 0.10 | 12.0061 | -2.9402 | 0.6036 | 2.6311 | -0.1387 | -0.3403 | 0.4765 | -0.8168 | -0.3266 |
| 126 | 49.69 | 0.10 | 12.0328 | -2.9405 | 0.7012 | 2.8806 | -0.0956 | -0.3344 | 0.4901 | -0.8244 | -0.3275 |
| 127 | 49.91 | 0.02 | 12.0760 | -2.9604 | -0.0145 | 2.3308 | -0.0346 | -0.3769 | 0.4344 | -0.8113 | -0.3929 |
| 128 | 50.07 | 0.06 | 12.0515 | -2.9611 | 0.3501 | 2.2492 | -0.0976 | -0.3635 | 0.4308 | -0.8136 | -0.3673 |
| 129 | 50.26 | 0.06 | 12.7419 | -3.1405 | 0.3677 | 2.7256 | -0.0927 | -0.3682 | 0.4453 | -0.8135 | -0.4035 |
| 130 | 50.43 | 0.06 | 12.7607 | -3.1403 | 0.4201 | 2.1319 | -0.0593 | -0.3527 | 0.4676 | -0.8203 | -0.3856 |
| 131 | 50.59 | 0.05 | 12.8095 | -3.0068 | 0.3585 | 2.4231 | -0.0661 | -0.3616 | 0.4622 | -0.8238 | -0.3910 |
| 132 | 50.76 | 0.06 | 12.7430 | -3.1753 | 0.3614 | 1.7391 | -0.0385 | -0.3302 | 0.4840 | -0.8207 | -0.3763 |
| 133 | 50.93 | 0.04 | 12.8458 | -3.1537 | 0.2226 | 2.3649 | -0.0509 | -0.3099 | 0.4931 | -0.8025 | -0.4013 |
| 134 | 51.11 | 0.04 | 13.2561 | -3.2528 | 0.3027 | 2.3738 | -0.0703 | -0.3403 | 0.5043 | -0.8305 | -0.4181 |
| 135 | 51.30 | 0.01 | 13.5346 | -3.9835 | -0.0602 | 2.6757 | -0.0826 | -0.3597 | 0.5153 | -0.8750 | -0.4421 |
| 136 | 51.45 | 0.06 | 13.2060 | -3.2630 | 0.4606 | 2.6777 | -0.0883 | -0.2745 | 0.5254 | -0.7999 | -0.4374 |
| 137 | 51.66 | 0.06 | 13.2165 | -3.3962 | 0.4825 | 3.0755 | -0.0655 | -0.3197 | 0.5241 | -0.8437 | -0.4625 |
| 138 | 51.83 | 0.04 | 13.9463 | -3.4369 | 0.4469 | 2.3665 | -0.0499 | -0.3251 | 0.5253 | -0.8543 | -0.4615 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART PACF XAIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 153 0.90 1.0 0.0 BLANKETS 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | ACP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.03 | 0.07 | 14.0307 | -0.3347 | 0.6201 | 2.4131 | -0.0189 | -0.3621 | 0.5521 | -0.8942 | -0.4525 |
| 140 | 52.13 | 0.04 | 13.8835 | -0.4163 | 0.4436 | 2.4321 | -0.0256 | -0.3187 | 0.5226 | -0.8418 | -0.4530 |
| 141 | 52.33 | 0.04 | 13.9240 | -0.4136 | 0.3395 | 2.3537 | -0.0122 | -0.3339 | 0.5335 | -0.8643 | -0.4606 |
| 142 | 52.48 | 0.00 | 13.9965 | -0.3516 | 0.2210 | 2.3196 | -0.0144 | -0.3212 | 0.5247 | -0.8528 | -0.4538 |
| 143 | 52.64 | 0.05 | 13.8406 | -0.3547 | 0.0805 | 2.4891 | -0.0259 | -0.3013 | 0.5246 | -0.8252 | -0.4375 |
| 144 | 52.82 | 0.00 | 13.9460 | -0.2826 | 1.0545 | 2.3750 | -0.0196 | -0.3211 | 0.5233 | -0.8413 | -0.4471 |
| 145 | 52.98 | 0.07 | 13.9447 | -0.3064 | 0.8879 | 2.4392 | -0.0130 | -0.3289 | 0.5239 | -0.8527 | -0.4522 |
| 146 | 53.14 | 0.00 | 13.9774 | -0.1476 | 0.7054 | 2.0877 | -0.0178 | -0.3438 | 0.5266 | -0.8643 | -0.4398 |
| 147 | 53.30 | 0.07 | 13.9522 | -0.3465 | 0.6746 | 2.4575 | -0.0130 | -0.3492 | 0.5222 | -0.8714 | -0.4549 |
| 148 | 53.49 | 0.09 | 14.1404 | -0.4588 | 0.5814 | 2.4145 | -0.0191 | -0.3641 | 0.5315 | -0.8960 | -0.4566 |
| 149 | 53.62 | 0.06 | 13.9615 | -0.3354 | 0.7585 | 2.0223 | -0.0113 | -0.3500 | 0.5254 | -0.8760 | -0.4531 |
| 150 | 53.80 | 0.10 | 14.2227 | -0.6516 | 1.0015 | 2.1281 | -0.0238 | -0.3730 | 0.5334 | -0.9064 | -0.4685 |
| 151 | 53.96 | -0.00 | 14.1963 | -0.3441 | 0.1148 | 1.8245 | 0.0101 | -0.3514 | 0.5334 | -0.8848 | -0.4481 |
| 152 | 54.10 | 0.05 | 14.2116 | -0.4526 | 0.2771 | 2.0221 | -0.0112 | -0.3676 | 0.5307 | -0.9043 | -0.4601 |
| 153 | 54.25 | 0.00 | 14.2127 | -0.4414 | 0.2453 | 1.9798 | 0.0100 | -0.3664 | 0.5431 | -0.9095 | -0.4532 |
| 154 | 54.42 | 0.06 | 14.2374 | -0.4752 | 0.0050 | 1.9307 | 0.0105 | -0.3660 | 0.5438 | -0.9118 | -0.4733 |
| 155 | 54.57 | 0.03 | 14.2712 | -0.3060 | 0.4264 | 1.4040 | 0.0236 | -0.3474 | 0.5542 | -0.9016 | -0.4673 |
| 156 | 54.72 | 0.00 | 14.2752 | -0.4957 | 0.1347 | 1.2779 | 0.0301 | -0.3442 | 0.5321 | -0.8993 | -0.4553 |
| 157 | 54.88 | 0.03 | 14.4117 | -0.5142 | 0.4102 | 1.3924 | 0.0305 | -0.3665 | 0.5628 | -0.9293 | -0.4728 |
| 158 | 55.04 | 0.07 | 14.4622 | -0.4745 | 0.4135 | 1.4329 | 0.0309 | -0.3572 | 0.5626 | -0.9252 | -0.4689 |
| 159 | 55.19 | 0.07 | 14.5366 | -0.4466 | 0.5114 | 1.1106 | 0.0502 | -0.3465 | 0.5719 | -0.9184 | -0.4641 |
| 160 | 55.33 | 0.04 | 14.5066 | -0.5362 | 0.6634 | 1.1876 | 0.0500 | -0.3179 | 0.5675 | -0.8854 | -0.4549 |
| 161 | 55.48 | 0.06 | 14.3757 | -0.4111 | 0.7664 | 1.0568 | 0.0377 | -0.3369 | 0.5711 | -0.9080 | -0.4660 |
| 162 | 55.66 | 0.05 | 14.5559 | -0.4674 | 1.0697 | 1.2491 | 0.0499 | -0.3539 | 0.5711 | -0.9245 | -0.4457 |
| 163 | 55.83 | 0.07 | 14.5554 | -0.5873 | 0.5421 | 0.9370 | 0.0446 | -0.3442 | 0.5754 | -0.9196 | -0.4526 |
| 164 | 55.98 | 0.06 | 14.4197 | -0.4566 | 0.3173 | 1.1227 | 0.0305 | -0.3319 | 0.5750 | -0.9077 | -0.4480 |
| 165 | 56.11 | 0.05 | 14.4725 | -0.5040 | 0.6761 | 1.1641 | 0.0385 | -0.3462 | 0.5719 | -0.9181 | -0.4454 |
| 166 | 56.28 | 0.02 | 14.5227 | -0.6013 | 0.3522 | 1.2659 | 0.0570 | -0.3429 | 0.5635 | -0.9264 | -0.4527 |
| 167 | 56.44 | 0.08 | 14.5563 | -0.6388 | 0.6673 | 0.9584 | 0.0574 | -0.3784 | 0.5628 | -0.9612 | -0.4517 |
| 168 | 56.59 | 0.03 | 14.6387 | -0.5856 | 0.6134 | 1.2266 | 0.0519 | -0.3737 | 0.5666 | -0.9605 | -0.4502 |
| 169 | 56.74 | 0.03 | 14.6165 | -0.4814 | 0.5361 | 1.2963 | 0.0566 | -0.3549 | 0.5615 | -0.9364 | -0.4434 |
| 170 | 56.88 | 0.02 | 14.6137 | -0.4445 | 0.4265 | 1.2211 | 0.0449 | -0.3465 | 0.5717 | -0.9402 | -0.4410 |
| 171 | 57.03 | 0.01 | 14.5535 | -0.3856 | 0.2583 | 1.2561 | 0.0513 | -0.3461 | 0.5701 | -0.9362 | -0.4378 |
| 172 | 57.17 | -0.03 | 14.5240 | -0.4700 | 0.0032 | 1.3145 | 0.0570 | -0.3650 | 0.5926 | -0.9606 | -0.4436 |
| 173 | 57.33 | 0.00 | 14.5027 | -0.3866 | 0.2732 | 1.2755 | 0.0578 | -0.3784 | 0.5954 | -0.9778 | -0.4285 |
| 174 | 57.48 | 0.01 | 14.5344 | -0.5356 | 0.3814 | 0.8238 | 0.0407 | -0.4041 | 0.5873 | -0.9914 | -0.4550 |
| 175 | 57.62 | -0.05 | 14.7381 | -0.6878 | -0.0771 | 0.3469 | 0.0378 | -0.4675 | 0.5937 | -1.0232 | -0.3860 |
| 176 | 57.77 | -0.05 | 14.7169 | -0.7067 | -0.3798 | -0.4466 | 0.0014 | -0.4532 | 0.5763 | -1.0255 | -0.3914 |
| 177 | 57.92 | -0.10 | 14.6859 | -0.2755 | -0.4942 | -1.5323 | -0.0102 | -0.4003 | 0.6117 | -1.0120 | -0.4237 |
| 178 | 58.07 | -0.10 | 14.6736 | -0.4967 | -0.5555 | -1.2518 | 0.0020 | -0.3883 | 0.6258 | -1.0161 | -0.4364 |
| 179 | 58.19 | -0.08 | 14.7867 | -0.4820 | -0.2342 | -1.4376 | 0.0024 | -0.3761 | 0.6372 | -1.0133 | -0.4384 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(INSROC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&3 MACH 0.90 RNIE 6.7 CCNF 0.0 BODY 13 L.C. DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | 0.0117 | 0.0025 | 0.0075 | 0.2138 | 0.0431 | -0.0534 | -0.0239 | -0.2886 | 0.0443 | 0.4417 |
| 2 | -5.71 | 0.02 | 0.0117 | 0.0027 | 0.0078 | 0.2309 | 0.0000 | -0.0480 | -0.0257 | -0.2960 | 0.0456 | 0.4444 |
| 3 | -5.71 | 0.01 | 0.0117 | 0.0031 | 0.0075 | 0.2051 | 0.0431 | -0.0455 | -0.0302 | -0.2858 | 0.0469 | 0.4427 |
| 4 | -5.69 | 0.02 | 0.0056 | 0.0026 | 0.0063 | 0.2293 | 0.0383 | -0.0691 | -0.0264 | -0.2978 | 0.0395 | 0.4451 |
| 5 | -4.77 | 0.03 | 0.0227 | 0.0068 | 0.0120 | 0.2997 | 0.0303 | -0.0738 | -0.0222 | -0.3457 | 0.0284 | 0.4411 |
| 6 | -2.97 | 0.02 | 0.0455 | 0.0071 | 0.0050 | 0.2736 | 0.0255 | -0.0620 | -0.0225 | -0.3036 | 0.0272 | 0.4391 |
| 7 | -1.22 | 0.02 | 0.0262 | 0.0053 | 0.0066 | 0.2625 | 0.3276 | -0.7666 | -0.0257 | -0.3488 | 0.0326 | 0.4423 |
| 8 | 0.61 | 0.01 | 0.0055 | 0.0037 | 0.0079 | 0.1933 | 0.2007 | -0.7097 | -0.0318 | -0.3201 | 0.0449 | 0.4516 |
| 9 | 2.41 | 0.02 | 0.0295 | 0.0052 | 0.0055 | 0.1740 | 0.1930 | -0.6594 | -0.0411 | -0.3001 | 0.0623 | 0.4552 |
| 10 | 4.17 | 0.02 | 0.0496 | 0.0050 | 0.0050 | 0.1208 | 0.1730 | -0.5960 | -0.0445 | -0.2851 | 0.0746 | 0.4783 |
| 11 | 5.96 | 0.02 | 0.0833 | 0.0031 | 0.0060 | 0.0951 | 0.2410 | -0.5162 | -0.0476 | -0.2562 | 0.0925 | 0.4564 |
| 12 | 7.81 | 0.02 | 0.1162 | 0.0030 | 0.0027 | 0.1653 | 0.1072 | -0.4180 | -0.0488 | -0.2185 | 0.1119 | 0.5253 |
| 13 | 9.56 | 0.01 | 0.0505 | 0.0038 | 0.0096 | 0.1181 | 0.3158 | -0.2578 | -0.0424 | -0.1482 | 0.1643 | 0.5748 |
| 14 | 11.43 | 0.02 | 0.0849 | 0.0040 | 0.0119 | 0.1147 | 0.3421 | -0.1375 | -0.0299 | -0.0909 | 0.2177 | 0.6668 |
| 15 | 13.25 | 0.02 | 0.1463 | 0.0037 | 0.0155 | 0.0919 | 0.3834 | -0.0493 | -0.0389 | -0.0463 | 0.1806 | 0.5381 |
| 16 | 15.13 | 0.02 | 0.0252 | 0.0021 | 0.0139 | 0.0538 | 0.3907 | 0.0310 | 0.0156 | -0.0104 | 0.5035 | -0.3366 |
| 17 | 17.05 | 0.02 | 0.0506 | 0.0026 | 0.0256 | 0.0395 | 0.5056 | 0.1101 | 0.0411 | 0.0233 | 0.3725 | 0.2116 |
| 18 | 18.94 | 0.01 | 0.0817 | -0.0005 | 0.0402 | -0.0001 | 0.6079 | 0.1957 | 0.0621 | 0.0004 | 0.3173 | 0.3392 |
| 19 | 20.84 | 0.00 | 0.0716 | -0.0025 | 0.0546 | -0.1295 | 0.7549 | 0.2922 | 0.0794 | 0.1128 | 0.2718 | 0.3666 |
| 20 | 22.74 | -0.00 | 0.0678 | -0.0148 | 0.0637 | -0.2158 | 0.9395 | 0.3791 | 0.0873 | 0.1562 | 0.2303 | 0.4121 |
| 21 | 24.63 | -0.02 | 0.0512 | -0.0251 | 0.0720 | -0.3049 | 2.0096 | 0.4401 | 0.0859 | 0.1644 | 0.1952 | 0.4185 |
| 22 | 26.53 | -0.01 | 0.0326 | -0.0304 | 0.0791 | -0.2495 | 0.8924 | 0.5745 | 0.0863 | 0.2368 | 0.1398 | 0.4121 |
| 23 | 27.42 | 0.04 | 0.2666 | 0.0318 | 0.1064 | 0.1193 | 0.4364 | 0.6218 | 0.0647 | 0.2473 | 0.1040 | 0.3578 |
| 24 | 27.92 | 0.03 | 0.1169 | 0.0055 | 0.0518 | 0.0848 | 0.4492 | 0.6119 | 0.0679 | 0.2454 | 0.1110 | 0.4011 |
| 25 | 27.52 | 0.03 | 0.1574 | 0.0150 | 0.0725 | 0.0554 | 0.4630 | 0.6145 | 0.0685 | 0.2449 | 0.1115 | 0.3588 |
| 26 | 27.94 | 0.03 | 0.1465 | 0.0216 | 0.0633 | 0.1138 | 0.4375 | 0.6272 | 0.0676 | 0.2497 | 0.1078 | 0.3582 |
| 27 | 28.34 | 0.05 | 0.2293 | 0.0266 | 0.1032 | 0.1163 | 0.4507 | 0.6227 | 0.0618 | 0.2468 | 0.0952 | 0.3564 |
| 28 | 28.80 | 0.05 | 0.2578 | 0.0266 | 0.1036 | 0.1140 | 0.4357 | 0.6307 | 0.0575 | 0.2496 | 0.0911 | 0.3558 |
| 29 | 28.89 | 0.05 | 0.2019 | 0.0216 | 0.0895 | 0.1071 | 0.4432 | 0.6231 | 0.0558 | 0.2483 | 0.0895 | 0.3553 |
| 30 | 29.23 | 0.06 | 0.3055 | 0.0338 | 0.1423 | 0.1168 | 0.4058 | 0.6313 | 0.0526 | 0.2481 | 0.0833 | 0.3530 |
| 31 | 29.51 | 0.05 | 0.2725 | 0.0314 | 0.1331 | 0.1154 | 0.4385 | 0.6259 | 0.0505 | 0.2463 | 0.0806 | 0.3535 |
| 32 | 29.79 | 0.05 | 0.2832 | 0.0314 | 0.1345 | 0.1111 | 0.4762 | 0.6285 | 0.0506 | 0.2479 | 0.0805 | 0.3545 |
| 33 | 30.06 | 0.05 | 0.3145 | 0.0352 | 0.1527 | 0.1125 | 0.4667 | 0.6325 | 0.0494 | 0.2495 | 0.0781 | 0.3545 |
| 34 | 30.33 | 0.05 | 0.2873 | 0.0350 | 0.1405 | 0.1140 | 0.4606 | 0.6278 | 0.0459 | 0.2477 | 0.0731 | 0.3547 |
| 35 | 30.61 | 0.06 | 0.3511 | 0.0410 | 0.1724 | 0.1167 | 0.4910 | 0.6291 | 0.0450 | 0.2477 | 0.0715 | 0.3538 |
| 36 | 30.88 | 0.06 | 0.3677 | 0.0436 | 0.1734 | 0.1100 | 0.4710 | 0.6280 | 0.0423 | 0.2480 | 0.0673 | 0.3545 |
| 37 | 31.16 | 0.06 | 0.3588 | 0.0513 | 0.1872 | 0.1266 | 0.4694 | 0.6268 | 0.0409 | 0.2482 | 0.0652 | 0.3560 |
| 38 | 31.44 | 0.08 | 0.3476 | 0.0444 | 0.1763 | 0.1276 | 0.4654 | 0.6294 | 0.0411 | 0.2496 | 0.0652 | 0.3565 |
| 39 | 31.69 | 0.06 | 0.3266 | 0.0421 | 0.1594 | 0.1258 | 0.4875 | 0.6309 | 0.0396 | 0.2494 | 0.0627 | 0.3554 |
| 40 | 31.97 | 0.06 | 0.2952 | 0.0454 | 0.1677 | 0.1256 | 0.4602 | 0.6341 | 0.0396 | 0.2504 | 0.0624 | 0.3545 |
| 41 | 32.23 | 0.08 | 0.3461 | 0.0428 | 0.1675 | 0.1257 | 0.4311 | 0.6419 | 0.0393 | 0.2543 | 0.0612 | 0.3562 |
| 42 | 32.51 | 0.10 | 0.4135 | 0.0530 | 0.1848 | 0.1201 | 0.4408 | 0.6526 | 0.0368 | 0.2591 | 0.0563 | 0.3576 |
| 43 | 32.77 | 0.09 | 0.4087 | 0.0515 | 0.1827 | 0.1266 | 0.4494 | 0.6630 | 0.0380 | 0.2642 | 0.0562 | 0.3985 |
| 44 | 33.02 | 0.09 | 0.4048 | 0.0541 | 0.1722 | 0.1336 | 0.4254 | 0.6762 | 0.0348 | 0.2694 | 0.0514 | 0.3584 |
| 45 | 33.26 | 0.08 | 0.3543 | 0.0488 | 0.1445 | 0.1376 | 0.4089 | 0.6840 | 0.0342 | 0.2727 | 0.0501 | 0.3587 |
| 46 | 33.53 | 0.07 | 0.3225 | 0.0481 | 0.1353 | 0.1400 | 0.4109 | 0.6842 | 0.0335 | 0.2733 | 0.0490 | 0.3595 |

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PART A POSSIBLE TAILS EFFECTS DATA

TEST PART MACH RN/0-E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
1 ABS 0.90 1.0 0.0 0.150F13 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.78 | 0.07 | 0.2583 | 0.0383 | 0.1015 | 0.1481 | 0.3930 | 0.6921 | 0.0333 | 0.2765 | 0.0482 | 0.3955 |
| 48 | 34.01 | 0.06 | 0.2463 | 0.0375 | 0.0934 | 0.1519 | 0.3700 | 0.6934 | 0.0329 | 0.2776 | 0.0475 | 0.4004 |
| 49 | 34.27 | 0.03 | 0.2451 | 0.0364 | 0.0938 | 0.1486 | 0.3628 | 0.7039 | 0.0325 | 0.2811 | 0.0462 | 0.3993 |
| 50 | 34.52 | 0.06 | 0.2775 | 0.0418 | 0.1146 | 0.1505 | 0.4137 | 0.7065 | 0.0319 | 0.2826 | 0.0452 | 0.3999 |
| 51 | 34.76 | 0.04 | 0.2586 | 0.0374 | 0.0935 | 0.1565 | 0.3791 | 0.7104 | 0.0321 | 0.2835 | 0.0452 | 0.3956 |
| 52 | 35.00 | 0.04 | 0.2597 | 0.0422 | 0.0980 | 0.1613 | 0.3944 | 0.7197 | 0.0315 | 0.2875 | 0.0438 | 0.3955 |
| 53 | 35.24 | 0.04 | 0.2284 | 0.0351 | 0.0811 | 0.1535 | 0.3560 | 0.7328 | 0.0305 | 0.2931 | 0.0417 | 0.4000 |
| 54 | 35.50 | 0.04 | 0.1932 | 0.0278 | 0.0674 | 0.1604 | 0.2918 | 0.7409 | 0.0301 | 0.2956 | 0.0407 | 0.3990 |
| 55 | 35.73 | 0.03 | 0.1283 | 0.0220 | 0.0297 | 0.1717 | 0.2316 | 0.7448 | 0.0299 | 0.2969 | 0.0402 | 0.3987 |
| 56 | 35.95 | 0.04 | 0.0159 | 0.0060 | -0.0240 | 0.5034 | -1.5079 | 0.7541 | 0.0297 | 0.3005 | 0.0394 | 0.3985 |
| 57 | 36.19 | 0.03 | 0.1007 | 0.0176 | 0.0168 | 0.1750 | 0.1645 | 0.7568 | 0.0291 | 0.3020 | 0.0385 | 0.3991 |
| 58 | 36.44 | 0.02 | 0.1114 | 0.0173 | 0.0231 | 0.1555 | 0.2073 | 0.7640 | 0.0290 | 0.3051 | 0.0380 | 0.3981 |
| 59 | 36.65 | 0.02 | 0.1200 | 0.0216 | 0.0271 | 0.1802 | 0.2251 | 0.7647 | 0.0285 | 0.3034 | 0.0373 | 0.3968 |
| 60 | 36.91 | 0.03 | 0.0642 | 0.0138 | -0.0074 | 0.2154 | -0.1111 | 0.7642 | 0.0278 | 0.3122 | 0.0355 | 0.3981 |
| 61 | 37.14 | 0.02 | 0.1490 | 0.0196 | 0.0536 | 0.1277 | 0.3311 | 0.7712 | 0.0284 | 0.3070 | 0.0369 | 0.3986 |
| 62 | 37.37 | 0.04 | 0.0643 | 0.0111 | 0.0034 | 0.1653 | 0.0508 | 0.7946 | 0.0275 | 0.3159 | 0.0347 | 0.3975 |
| 63 | 37.62 | 0.05 | 0.2435 | 0.0231 | 0.1155 | 0.0950 | 0.4742 | 0.7739 | 0.0287 | 0.3054 | 0.0371 | 0.3946 |
| 64 | 37.83 | 0.03 | 0.2160 | 0.0181 | 0.0963 | 0.0860 | 0.4508 | 0.7830 | 0.0280 | 0.3096 | 0.0358 | 0.3954 |
| 65 | 38.08 | 0.03 | 0.1362 | 0.0113 | 0.0461 | 0.0869 | 0.3539 | 0.8012 | 0.0269 | 0.3179 | 0.0336 | 0.3968 |
| 66 | 38.33 | 0.07 | 0.2016 | 0.0162 | 0.0843 | 0.0807 | 0.4197 | 0.8103 | 0.0267 | 0.3205 | 0.0330 | 0.3955 |
| 67 | 38.54 | 0.03 | 0.1718 | 0.0143 | 0.0743 | 0.0834 | 0.4038 | 0.8059 | 0.0265 | 0.3166 | 0.0335 | 0.3938 |
| 68 | 38.78 | 0.07 | 0.1802 | 0.0148 | 0.0745 | 0.0825 | 0.4046 | 0.8143 | 0.0263 | 0.3214 | 0.0323 | 0.3947 |
| 69 | 39.00 | 0.02 | 0.1682 | 0.0091 | 0.0716 | 0.0711 | 0.4025 | 0.8065 | 0.0269 | 0.3171 | 0.0334 | 0.3932 |
| 70 | 39.25 | 0.03 | 0.1737 | 0.0143 | 0.0773 | 0.0825 | 0.4052 | 0.8195 | 0.0264 | 0.3220 | 0.0323 | 0.3925 |
| 71 | 39.43 | 0.04 | 0.1707 | 0.0141 | 0.0822 | 0.0822 | 0.4737 | 0.7949 | 0.0274 | 0.3113 | 0.0345 | 0.3918 |
| 72 | 39.69 | 0.02 | 0.1469 | 0.0107 | 0.0592 | 0.0894 | 0.3998 | 0.8274 | 0.0254 | 0.3244 | 0.0307 | 0.3921 |
| 73 | 39.86 | 0.02 | 0.1126 | 0.0077 | 0.0442 | 0.0885 | 0.3924 | 0.8221 | 0.0259 | 0.3220 | 0.0315 | 0.3917 |
| 74 | 40.07 | 0.03 | 0.1065 | 0.0063 | 0.0475 | 0.0816 | 0.4034 | 0.8171 | 0.0261 | 0.3183 | 0.0320 | 0.3895 |
| 75 | 40.32 | 0.04 | 0.1176 | 0.0058 | 0.0556 | 0.0834 | 0.4730 | 0.7975 | 0.0267 | 0.3120 | 0.0335 | 0.3912 |
| 76 | 40.52 | 0.02 | 0.0962 | 0.0037 | 0.0280 | 0.0862 | 0.3244 | 0.8342 | 0.0247 | 0.3278 | 0.0295 | 0.3907 |
| 77 | 40.75 | 0.01 | 0.0922 | 0.0026 | 0.0235 | 0.0813 | 0.4986 | 0.8196 | 0.0257 | 0.3185 | 0.0314 | 0.3886 |
| 78 | 40.94 | 0.02 | 0.0965 | 0.0049 | 0.0406 | 0.0893 | 0.4046 | 0.8275 | 0.0250 | 0.3217 | 0.0310 | 0.3886 |
| 79 | 41.16 | -0.00 | 0.0405 | 0.0 | 0.0193 | 0.0 | 0.4709 | 0.8328 | 0.0253 | 0.3226 | 0.0304 | 0.3874 |
| 80 | 41.37 | 0.02 | 0.0268 | -0.0023 | 0.0119 | -0.0089 | 0.4454 | 0.8379 | 0.0246 | 0.3267 | 0.0294 | 0.3900 |
| 81 | 41.55 | 0.00 | 0.0473 | 0.0 | 0.0105 | 0.0 | 0.2227 | 0.8756 | 0.0227 | 0.3407 | 0.0260 | 0.3891 |
| 82 | 41.76 | 0.02 | 0.0484 | 0.0062 | 0.0112 | 0.0641 | 0.2321 | 0.8762 | 0.0226 | 0.3429 | 0.0258 | 0.3905 |
| 83 | 41.96 | 0.03 | 0.0511 | 0.0012 | 0.0157 | 0.0235 | 0.3063 | 0.8770 | 0.0228 | 0.3404 | 0.0260 | 0.3881 |
| 84 | 42.15 | 0.02 | 0.0578 | 0.0025 | 0.0162 | 0.0434 | 0.3147 | 0.8784 | 0.0225 | 0.3400 | 0.0257 | 0.3871 |
| 85 | 42.34 | 0.03 | -0.0061 | -0.0063 | -0.0051 | 0.7732 | 0.7060 | 0.8563 | 0.0238 | 0.3312 | 0.0278 | 0.3867 |
| 86 | 42.52 | 0.02 | 0.0207 | 0.0062 | 0.0092 | 0.0776 | 0.3266 | 0.8705 | 0.0211 | 0.3466 | 0.0236 | 0.3889 |
| 87 | 42.73 | 0.02 | 0.0857 | 0.0057 | 0.0200 | 0.0869 | 0.3043 | 0.9106 | 0.0208 | 0.3565 | 0.0229 | 0.3915 |
| 88 | 42.90 | 0.04 | -0.0262 | -0.0048 | -0.0082 | 0.2377 | 0.0379 | 0.8958 | 0.0245 | 0.3268 | 0.0250 | 0.3864 |
| 89 | 43.08 | 0.03 | 0.0284 | 0.0 | 0.0135 | 0.0 | 0.3092 | 0.8868 | 0.0226 | 0.3429 | 0.0234 | 0.3875 |
| 90 | 43.27 | 0.02 | 0.0778 | 0.0073 | 0.0254 | 0.0940 | 0.3267 | 0.9095 | 0.0210 | 0.3536 | 0.0231 | 0.3888 |
| 91 | 43.45 | 0.03 | 0.0549 | 0.0037 | 0.0202 | 0.0674 | 0.3673 | 0.8975 | 0.0211 | 0.3470 | 0.0235 | 0.3865 |
| 92 | 43.63 | 0.02 | 0.0735 | 0.0068 | 0.0275 | 0.0922 | 0.3725 | 0.9213 | 0.0201 | 0.3564 | 0.0218 | 0.3868 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 153 MACH 0.90 RAIC-C 1.7 PHI C.C BIBOFIS 0.6 CONF E DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.79 | 0.02 | C.C0C5 | -C.0357 | 0.0154 | C.C544 | 0.2624 | 0.9473 | 0.0190 | 0.3682 | 0.0201 | 0.3887 |
| 94 | 43.90 | 0.03 | C.C11C | -C.0C02 | -C.0C44 | -C.0C6C | 0.0714 | 0.9135 | 0.0204 | 0.3547 | 0.0224 | 0.3861 |
| 95 | 44.10 | 0.00 | C.0246 | C.0C34 | -C.0C13 | C.1417 | -0.0027 | 0.9498 | 0.0188 | 0.3701 | 0.0198 | 0.3897 |
| 96 | 44.30 | -0.00 | 0.1043 | C.C1C3 | C.0224 | C.1776 | 0.2106 | 0.9799 | 0.0177 | 0.3799 | 0.0181 | 0.3877 |
| 97 | 44.54 | -0.01 | -0.0073 | -C.0C56 | -0.0365 | C.1474 | 0.3434 | 0.9303 | 0.0205 | 0.3615 | 0.0219 | 0.3885 |
| 98 | 44.72 | 0.01 | -0.0069 | -C.0C1C | -0.0331 | C.1231 | 0.3930 | 0.9383 | 0.0201 | 0.3623 | 0.0215 | 0.3861 |
| 99 | 44.92 | 0.01 | -0.0775 | -C.0166 | -0.0466 | C.1293 | 0.6060 | 0.9513 | 0.0194 | 0.3678 | 0.0204 | 0.3866 |
| 100 | 45.09 | 0.02 | -0.1065 | -C.0147 | -0.0616 | C.1359 | 0.5619 | 0.9483 | 0.0194 | 0.3641 | 0.0205 | 0.3848 |
| 101 | 45.28 | 0.03 | -C.0696 | -C.0116 | -C.0473 | C.1597 | 0.6356 | 0.9814 | 0.0176 | 0.3804 | 0.0186 | 0.3876 |
| 102 | 45.46 | 0.04 | -0.1561 | -C.0278 | -0.0912 | C.1458 | 0.4797 | 0.9396 | 0.0194 | 0.3614 | 0.0207 | 0.3845 |
| 103 | 45.63 | -0.00 | -0.1634 | -C.0246 | -C.0881 | C.1470 | 0.5265 | 0.9553 | 0.0192 | 0.3692 | 0.0201 | 0.3865 |
| 104 | 45.81 | 0.01 | 0.0491 | C.0086 | -0.0106 | C.1508 | -0.1800 | 1.0140 | 0.0163 | 0.3917 | 0.0162 | 0.3878 |
| 105 | 45.98 | -0.03 | -0.1083 | -C.0171 | -0.0682 | C.1581 | 0.6110 | 0.9901 | 0.0173 | 0.3838 | 0.0175 | 0.3876 |
| 106 | 46.18 | -0.00 | -0.0045 | 0.0065 | -0.0288 | -C.2C61 | 0.3536 | 1.0058 | 0.0166 | 0.3869 | 0.0165 | 0.3866 |
| 107 | 46.38 | -0.00 | -0.2256 | -C.0363 | -C.1154 | C.1616 | 0.5174 | 0.9901 | 0.0182 | 0.3832 | 0.0184 | 0.3870 |
| 108 | 46.54 | -0.01 | -0.1162 | -0.0174 | -0.0755 | C.1561 | 0.6052 | 1.0078 | 0.0166 | 0.3867 | 0.0167 | 0.3846 |
| 109 | 46.80 | -0.01 | -0.1449 | -C.0227 | -C.0811 | C.1569 | 0.5598 | 1.0109 | 0.0170 | 0.3915 | 0.0168 | 0.3877 |
| 110 | 46.80 | -0.02 | -0.1593 | -C.0314 | -C.1C75 | C.1578 | 0.5396 | 1.0015 | 0.0176 | 0.3867 | 0.0176 | 0.3861 |
| 111 | 47.03 | 0.00 | -0.1619 | -C.0268 | -C.0966 | C.1657 | 0.5555 | 1.0067 | 0.0172 | 0.3891 | 0.0171 | 0.3865 |
| 112 | 47.21 | 0.01 | -0.1774 | -C.0273 | -C.0965 | C.1541 | 0.5237 | 1.0199 | 0.0165 | 0.3934 | 0.0162 | 0.3857 |
| 113 | 47.39 | 0.01 | -0.1767 | -C.0275 | -C.0897 | C.1602 | 0.5254 | 1.0107 | 0.0174 | 0.3905 | 0.0172 | 0.3864 |
| 114 | 47.59 | 0.02 | -0.1464 | -C.0201 | -C.0716 | C.1595 | 0.5025 | 1.0025 | 0.0183 | 0.3877 | 0.0158 | 0.3852 |
| 115 | 47.75 | 0.00 | -0.2208 | -C.0359 | -C.1063 | C.1624 | 0.4816 | 1.0066 | 0.0170 | 0.3869 | 0.0169 | 0.3843 |
| 116 | 47.91 | 0.01 | -0.2491 | -C.0439 | -C.1219 | C.1741 | 0.4693 | 1.0376 | 0.0162 | 0.4016 | 0.0156 | 0.3870 |
| 117 | 48.08 | 0.03 | -C.1557 | -C.0245 | -C.0693 | C.1536 | 0.5586 | 1.0310 | 0.0166 | 0.3968 | 0.0161 | 0.3849 |
| 118 | 48.27 | 0.05 | -0.2009 | -C.0363 | -0.1281 | C.1726 | 0.4784 | 1.0427 | 0.0154 | 0.4020 | 0.0148 | 0.3858 |
| 119 | 48.43 | 0.05 | -0.2467 | -C.0455 | -C.1226 | C.1648 | 0.4959 | 1.0453 | 0.0154 | 0.4021 | 0.0148 | 0.3847 |
| 120 | 48.60 | 0.02 | -0.2597 | -C.0516 | -0.1475 | C.1563 | 0.4925 | 1.0516 | 0.0136 | 0.4040 | 0.0131 | 0.3841 |
| 121 | 48.79 | 0.03 | -0.2201 | -C.0456 | -C.1165 | C.2079 | 0.5037 | 1.0595 | 0.0136 | 0.4058 | 0.0125 | 0.3836 |
| 122 | 48.96 | 0.00 | -0.2361 | -0.0524 | -0.1171 | C.2257 | 0.5046 | 1.0643 | 0.0122 | 0.4174 | 0.0113 | 0.3850 |
| 123 | 49.15 | 0.00 | -0.1085 | -C.0346 | -C.1016 | C.2057 | 0.6032 | 1.0556 | 0.0121 | 0.4031 | 0.0115 | 0.3818 |
| 124 | 49.34 | 0.05 | -0.1378 | -C.0332 | -C.0804 | C.2416 | 0.6275 | 1.0734 | 0.0112 | 0.4067 | 0.0104 | 0.3807 |
| 125 | 49.53 | 0.10 | -0.1645 | -C.0366 | -C.1034 | C.1592 | 0.5607 | 1.0655 | 0.0114 | 0.4072 | 0.0107 | 0.3821 |
| 126 | 49.69 | 0.11 | -0.1221 | -0.0304 | -0.0846 | C.2928 | 0.5261 | 1.0612 | 0.0111 | 0.4060 | 0.0105 | 0.3826 |
| 127 | 49.91 | 0.02 | -0.1063 | -C.0375 | -C.0711 | 0.3561 | 0.6688 | 1.1040 | 0.0093 | 0.4204 | 0.0084 | 0.3816 |
| 128 | 50.11 | 0.00 | -0.1068 | -0.0365 | -0.0673 | 0.3855 | 0.6075 | 1.1022 | 0.0091 | 0.4194 | 0.0083 | 0.3805 |
| 129 | 50.28 | 0.00 | -0.0834 | -C.0333 | -C.0611 | C.4000 | 0.7322 | 1.1051 | 0.0089 | 0.4157 | 0.0080 | 0.3758 |
| 130 | 50.43 | 0.02 | -0.0463 | -0.0220 | -0.0475 | C.5346 | 1.1218 | 1.0868 | 0.0089 | 0.4102 | 0.0082 | 0.3774 |
| 131 | 50.55 | 0.05 | -0.0371 | -0.0242 | -0.0493 | C.6526 | 1.3277 | 1.0858 | 0.0082 | 0.4103 | 0.0076 | 0.3779 |
| 132 | 50.70 | 0.06 | -0.0361 | -0.0224 | -0.0487 | C.6208 | 1.3478 | 1.0827 | 0.0078 | 0.4095 | 0.0072 | 0.3782 |
| 133 | 50.93 | 0.04 | -0.0130 | -C.0161 | -C.0357 | 1.3930 | 3.0462 | 1.0765 | 0.0080 | 0.4063 | 0.0074 | 0.3767 |
| 134 | 51.11 | 0.04 | -0.0693 | -0.0255 | -0.0560 | C.2000 | 0.6514 | 1.0774 | 0.0080 | 0.4067 | 0.0074 | 0.3775 |
| 135 | 51.30 | 0.01 | -0.1181 | -C.0253 | -C.0588 | C.1976 | 0.7515 | 1.0563 | 0.0091 | 0.3951 | 0.0086 | 0.3748 |
| 136 | 51.45 | 0.06 | -0.1262 | -0.0263 | -0.0594 | C.1658 | 0.7434 | 1.0371 | 0.0098 | 0.3881 | 0.0095 | 0.3742 |
| 137 | 51.66 | 0.06 | -0.0594 | -0.0178 | -0.0403 | C.1793 | 0.8382 | 1.0548 | 0.0080 | 0.3967 | 0.0076 | 0.3761 |
| 138 | 51.83 | 0.04 | -0.0515 | -0.0053 | -0.0396 | C.1807 | 1.1571 | 1.0537 | 0.0082 | 0.3954 | 0.0078 | 0.3753 |

PARTIAL MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXIG-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 153 | 0.90 | 1.7 | 0.0 | BIWOF13 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CN1 | CB1 | XCPF1 | YCPF1 | CNF2 | CN2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.00 | 0.07 | -0.0035 | -0.0105 | -0.0311 | 1.4101 | 5.6364 | 1.0532 | 0.0090 | 0.3956 | 0.0086 | 0.3757 |
| 140 | 52.13 | 0.09 | -0.0016 | -0.0137 | -0.0403 | 0.4422 | 1.2977 | 1.0418 | 0.0096 | 0.3963 | 0.0092 | 0.3746 |
| 141 | 52.33 | 0.04 | -0.0122 | -0.0074 | -0.0367 | 2.0065 | 7.6451 | 1.0626 | 0.0076 | 0.3965 | 0.0072 | 0.3736 |
| 142 | 52.48 | 0.08 | -0.0029 | -0.0060 | -0.0276 | 2.0564 | 7.1253 | 1.0600 | 0.0083 | 0.3961 | 0.0078 | 0.3737 |
| 143 | 52.64 | 0.09 | -0.0235 | -0.0130 | -0.0332 | 0.5442 | 1.3894 | 1.0666 | 0.0082 | 0.3965 | 0.0077 | 0.3725 |
| 144 | 52.82 | 0.10 | -0.0004 | -0.0078 | -0.0212 | 19.5109 | 24.9188 | 1.0903 | 0.0082 | 0.4061 | 0.0075 | 0.3742 |
| 145 | 52.98 | 0.07 | 0.0008 | -0.0106 | -0.0134 | -0.7504 | -1.5102 | 1.0815 | 0.0086 | 0.4038 | 0.0080 | 0.3733 |
| 146 | 53.14 | 0.08 | 0.0169 | -0.0071 | -0.0054 | -0.4559 | -0.5205 | 1.0855 | 0.0078 | 0.4043 | 0.0072 | 0.3724 |
| 147 | 53.30 | 0.07 | 0.0108 | -0.0058 | -0.0117 | -0.5373 | -1.0866 | 1.0698 | 0.0077 | 0.3970 | 0.0072 | 0.3711 |
| 148 | 53.49 | 0.05 | -0.0218 | -0.0107 | -0.0245 | 0.5170 | 1.1056 | 1.0666 | 0.0078 | 0.3961 | 0.0073 | 0.3726 |
| 149 | 53.62 | 0.06 | 0.0034 | -0.0058 | -0.0108 | -1.1132 | -3.1866 | 1.0849 | 0.0070 | 0.4033 | 0.0065 | 0.3717 |
| 150 | 53.80 | 0.06 | -0.0121 | -0.0074 | -0.0214 | 0.8119 | 1.8074 | 1.1171 | 0.0056 | 0.4150 | 0.0050 | 0.3715 |
| 151 | 53.96 | -0.00 | 0.0295 | -0.0015 | 0.0013 | -0.0509 | 0.0462 | 1.0940 | 0.0064 | 0.4055 | 0.0055 | 0.3708 |
| 152 | 54.10 | 0.05 | 0.0044 | -0.0044 | -0.0067 | -0.9098 | -2.2116 | 1.0992 | 0.0059 | 0.4072 | 0.0054 | 0.3704 |
| 153 | 54.25 | 0.06 | 0.0344 | 0.0026 | -0.0058 | 0.0750 | -0.0233 | 1.1060 | 0.0056 | 0.4050 | 0.0051 | 0.3698 |
| 154 | 54.42 | 0.06 | 0.0106 | 0.0007 | -0.0064 | 0.0001 | -0.5300 | 1.0049 | 0.0057 | 0.4017 | 0.0053 | 0.3703 |
| 155 | 54.57 | 0.03 | 0.0251 | 0.0056 | -0.0032 | 0.2252 | -0.1479 | 1.1041 | 0.0053 | 0.4094 | 0.0048 | 0.3708 |
| 156 | 54.72 | 0.06 | 0.0213 | 0.0067 | 0.0017 | 0.2142 | 0.0345 | 1.0960 | 0.0051 | 0.4068 | 0.0047 | 0.3705 |
| 157 | 54.88 | 0.03 | 0.0248 | 0.0058 | 0.0002 | 0.2359 | -0.0382 | 1.0982 | 0.0043 | 0.4061 | 0.0039 | 0.3698 |
| 158 | 55.04 | 0.07 | 0.0302 | 0.0066 | 0.0007 | 0.2309 | 0.2265 | 1.1063 | 0.0040 | 0.4118 | 0.0036 | 0.3715 |
| 159 | 55.19 | 0.07 | 0.0372 | 0.0065 | 0.0078 | 0.2594 | 0.2050 | 1.1032 | 0.0038 | 0.4105 | 0.0034 | 0.3721 |
| 160 | 55.33 | 0.04 | 0.0060 | 0.0079 | 0.0011 | 0.8414 | 0.1254 | 1.0788 | 0.0057 | 0.3988 | 0.0053 | 0.3697 |
| 161 | 55.48 | 0.06 | 0.0156 | 0.0041 | 0.0021 | 0.2580 | 0.1325 | 1.0772 | 0.0043 | 0.3988 | 0.0040 | 0.3703 |
| 162 | 55.68 | 0.09 | 0.0249 | 0.0067 | 0.0106 | 0.2692 | 0.4271 | 1.0940 | 0.0044 | 0.4061 | 0.0040 | 0.3712 |
| 163 | 55.83 | 0.07 | 0.0359 | 0.0068 | 0.0155 | 0.1839 | 0.4303 | 1.1044 | 0.0027 | 0.4054 | 0.0024 | 0.3707 |
| 164 | 55.98 | 0.02 | 0.0321 | 0.0060 | 0.0180 | 0.1993 | 0.5425 | 1.1004 | 0.0036 | 0.4102 | 0.0033 | 0.3728 |
| 165 | 56.11 | 0.05 | 0.0008 | 0.0024 | 0.0085 | 4.0021 | 14.8308 | 1.0736 | 0.0041 | 0.3974 | 0.0038 | 0.3702 |
| 166 | 56.28 | 0.02 | 0.0064 | 0.0056 | 0.0060 | 0.8755 | 1.3980 | 1.0992 | 0.0035 | 0.4065 | 0.0032 | 0.3716 |
| 167 | 56.46 | 0.06 | 0.0295 | 0.0073 | 0.0182 | 0.2820 | 0.7011 | 1.1020 | 0.0035 | 0.4055 | 0.0032 | 0.3716 |
| 168 | 56.59 | 0.03 | 0.0016 | 0.0034 | 0.0063 | 5.0057 | 13.0776 | 1.1123 | 0.0025 | 0.4141 | 0.0023 | 0.3723 |
| 169 | 56.74 | 0.03 | -0.0012 | 0.0025 | 0.0119 | -2.4179 | -3.9484 | 1.1175 | 0.0026 | 0.4158 | 0.0023 | 0.3721 |
| 170 | 56.89 | 0.02 | -0.0120 | 0.0012 | 0.0076 | -0.1061 | -0.3652 | 1.0822 | 0.0037 | 0.4011 | 0.0034 | 0.3704 |
| 171 | 57.03 | 0.01 | -0.0069 | 0.0050 | -0.0185 | -0.7250 | -2.3844 | 1.0896 | 0.0034 | 0.4041 | 0.0031 | 0.3708 |
| 172 | 57.17 | -0.03 | -0.0201 | 0.0007 | 0.0060 | -0.2208 | -0.2306 | 1.0881 | 0.0035 | 0.4034 | 0.0032 | 0.3725 |
| 173 | 57.33 | 0.00 | -0.0227 | 0.0042 | 0.0118 | -0.1251 | -0.5219 | 1.0986 | 0.0028 | 0.4077 | 0.0026 | 0.3711 |
| 174 | 57.48 | 0.03 | -0.0115 | 0.0026 | 0.0101 | -0.1742 | -0.6011 | 1.1448 | 0.0011 | 0.4275 | 0.0010 | 0.3734 |
| 175 | 57.62 | -0.05 | -0.0185 | 0.0024 | 0.0090 | -0.1298 | -0.4380 | 1.1439 | 0.0017 | 0.4299 | 0.0019 | 0.3720 |
| 176 | 57.77 | -0.06 | -0.0136 | 0.0026 | 0.0056 | -0.0435 | -0.2762 | 1.1622 | 0.0007 | 0.4310 | 0.0006 | 0.3708 |
| 177 | 57.92 | -0.10 | -0.0259 | -0.0031 | -0.0091 | 0.1216 | -0.3580 | 1.1636 | 0.0004 | 0.4307 | 0.0003 | 0.3701 |
| 178 | 58.07 | -0.10 | -0.0103 | 0.0 | -0.0021 | 0.0 | 0.2045 | 1.1494 | 0.0002 | 0.4246 | 0.0002 | 0.3689 |
| 179 | 58.19 | -0.08 | -0.0117 | -0.0017 | -0.0006 | 0.1454 | 0.0514 | 1.1520 | 0.0003 | 0.4252 | 0.0003 | 0.3691 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TASHOC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 4

PART-A MISSILE TAILS EFFECTS DATA

TEST 7 | PART 153 | MACH 0.90 | ALPHA 4.0 | PHI 0.0 | CONF Blank13 | L 6.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| FLINT | ALPHA | BETA | CNF3 | CM3 | CA3 | ALPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | 0.01 | 0.0023 | 9.9999 | 0.0023 | 9.9999 | 1.0032 | -0.7314 | -0.0251 | -0.2520 | 0.0344 | 0.3592 |
| 2 | -5.71 | 0.01 | 0.0026 | 9.9999 | 0.0030 | 9.9999 | 1.3000 | -0.7213 | -0.0264 | -0.2600 | 0.0367 | 0.3673 |
| 3 | -5.71 | 0.01 | -0.0037 | 9.9999 | 0.0026 | 9.9999 | -0.2169 | -0.7355 | -0.0252 | -0.2539 | 0.0343 | 0.3998 |
| 4 | -5.69 | 0.02 | 0.0041 | 9.9999 | 0.0034 | 9.9999 | 0.7257 | -0.7241 | -0.0260 | -0.2572 | 0.0362 | 0.3988 |
| 5 | -4.77 | 0.03 | 0.0522 | 9.9999 | 0.0226 | 9.9999 | 0.4303 | -0.7361 | -0.0266 | -0.2818 | 0.0377 | 0.3990 |
| 6 | -2.97 | 0.02 | 0.0241 | 9.9999 | 0.0053 | 9.9999 | 2.0274 | -0.8384 | -0.0262 | -0.3446 | 0.0306 | 0.4017 |
| 7 | -1.22 | 0.02 | -0.0035 | 9.9999 | 0.0030 | 9.9999 | -0.7717 | -0.8349 | -0.0304 | -0.3352 | 0.0365 | 0.4015 |
| 8 | 0.01 | 0.01 | 0.0026 | 9.9999 | 0.0064 | 9.9999 | 8.0250 | -0.7708 | -0.0372 | -0.3091 | 0.0477 | 0.3968 |
| 9 | 2.41 | 0.02 | -0.0030 | 9.9999 | 0.0077 | 9.9999 | -2.5749 | -0.7359 | -0.0453 | -0.2918 | 0.0670 | 0.3965 |
| 10 | 4.17 | 0.04 | -0.0160 | 9.9999 | 0.0066 | 9.9999 | -1.0032 | -0.8709 | -0.0510 | -0.2736 | 0.0769 | 0.4078 |
| 11 | 5.58 | 0.02 | -0.0116 | 9.9999 | 0.0075 | 9.9999 | -0.8832 | -0.8716 | -0.0538 | -0.2373 | 0.0941 | 0.4151 |
| 12 | 7.01 | 0.04 | -0.0167 | 9.9999 | 0.0053 | 9.9999 | -0.2043 | -0.8050 | -0.0521 | -0.1996 | 0.1116 | 0.4287 |
| 13 | 8.56 | 0.01 | -0.0176 | 9.9999 | 0.0063 | 9.9999 | -0.3591 | -0.8075 | -0.0452 | -0.1363 | 0.1469 | 0.4431 |
| 14 | 11.45 | 0.02 | -0.0265 | 9.9999 | 0.0058 | 9.9999 | -0.2042 | -0.8179 | -0.0293 | -0.0803 | 0.1636 | 0.4479 |
| 15 | 13.25 | 0.02 | -0.0215 | 9.9999 | 0.0096 | 9.9999 | -0.4479 | -0.8735 | -0.0039 | -0.0370 | 0.1213 | 0.5030 |
| 16 | 15.13 | 0.04 | -0.0087 | 9.9999 | 0.0083 | 9.9999 | 1.2428 | 0.0056 | 0.0173 | -0.0021 | 3.0409 | -0.3762 |
| 17 | 17.05 | 0.02 | -0.0004 | 9.9999 | 0.0053 | 9.9999 | -13.2924 | 0.1111 | 0.0495 | 0.0413 | 0.4453 | 0.3715 |
| 18 | 18.99 | 0.01 | 0.0082 | 9.9999 | 0.0063 | 9.9999 | 2.0377 | 0.2356 | 0.0779 | 0.0627 | 0.3304 | 0.3930 |
| 19 | 20.84 | 0.00 | -0.0112 | 9.9999 | 0.0023 | 9.9999 | -0.2060 | 0.3761 | 0.0980 | 0.1555 | 0.2606 | 0.4135 |
| 20 | 22.74 | -0.00 | -0.0041 | 9.9999 | 0.0063 | 9.9999 | 0.4100 | 0.5249 | 0.1003 | 0.2200 | 0.1883 | 0.4279 |
| 21 | 24.63 | -0.02 | -0.0177 | 9.9999 | 0.0088 | 9.9999 | 0.4980 | 0.5107 | 0.0712 | 0.2071 | 0.1394 | 0.4056 |
| 22 | 26.59 | -0.01 | 0.0434 | 9.9999 | -0.0010 | 9.9999 | -0.2006 | 0.5005 | 0.0696 | 0.2315 | 0.1245 | 0.4138 |
| 23 | 27.92 | 0.04 | 0.0310 | 9.9999 | 0.0102 | 9.9999 | 0.3495 | 0.5059 | 0.0735 | 0.2416 | 0.1299 | 0.4269 |
| 24 | 27.94 | 0.03 | 0.0216 | 9.9999 | 0.0065 | 9.9999 | 0.3019 | 0.5574 | 0.0637 | 0.2305 | 0.1139 | 0.4227 |
| 25 | 27.92 | 0.03 | 0.0287 | 9.9999 | 0.0094 | 9.9999 | 0.3260 | 0.5600 | 0.0660 | 0.2401 | 0.1178 | 0.4287 |
| 26 | 27.94 | 0.03 | 0.0216 | 9.9999 | 0.0065 | 9.9999 | 0.3019 | 0.5520 | 0.0625 | 0.2377 | 0.1131 | 0.4301 |
| 27 | 26.34 | 0.05 | 0.0360 | 9.9999 | 0.0117 | 9.9999 | 0.3260 | 0.5635 | 0.0656 | 0.2446 | 0.1163 | 0.4338 |
| 28 | 26.00 | 0.05 | 0.0406 | 9.9999 | 0.0146 | 9.9999 | 0.3585 | 0.5604 | 0.0592 | 0.2429 | 0.1056 | 0.4334 |
| 29 | 26.89 | 0.05 | 0.0356 | 9.9999 | 0.0130 | 9.9999 | 0.3268 | 0.5609 | 0.0579 | 0.2442 | 0.1032 | 0.4354 |
| 30 | 24.23 | 0.06 | 0.0269 | 9.9999 | 0.0087 | 9.9999 | 0.3306 | 0.5581 | 0.0579 | 0.2434 | 0.1037 | 0.4361 |
| 31 | 25.51 | 0.05 | 0.0321 | 9.9999 | 0.0121 | 9.9999 | 0.3363 | 0.5675 | 0.0536 | 0.2475 | 0.0944 | 0.4361 |
| 32 | 29.79 | 0.05 | 0.0365 | 9.9999 | 0.0126 | 9.9999 | 0.3257 | 0.5557 | 0.0520 | 0.2458 | 0.0935 | 0.4387 |
| 33 | 30.06 | 0.05 | 0.0405 | 9.9999 | 0.0154 | 9.9999 | 0.3282 | 0.5608 | 0.0437 | 0.2472 | 0.0886 | 0.4408 |
| 34 | 30.33 | 0.05 | 0.0366 | 9.9999 | 0.0116 | 9.9999 | 0.3015 | 0.5545 | 0.0463 | 0.2465 | 0.0870 | 0.4446 |
| 35 | 30.61 | 0.06 | 0.0361 | 9.9999 | 0.0111 | 9.9999 | 0.3065 | 0.5467 | 0.0473 | 0.2443 | 0.0865 | 0.4469 |
| 36 | 30.88 | 0.06 | 0.0366 | 9.9999 | 0.0113 | 9.9999 | 0.2937 | 0.5508 | 0.0472 | 0.2462 | 0.0856 | 0.4470 |
| 37 | 31.16 | 0.08 | 0.0525 | 9.9999 | 0.0182 | 9.9999 | 0.3432 | 0.5574 | 0.0447 | 0.2507 | 0.0801 | 0.4498 |
| 38 | 31.44 | 0.06 | 0.0529 | 9.9999 | 0.0192 | 9.9999 | 0.3405 | 0.5578 | 0.0431 | 0.2505 | 0.0759 | 0.4502 |
| 39 | 31.69 | 0.08 | 0.0465 | 9.9999 | 0.0153 | 9.9999 | 0.3251 | 0.5734 | 0.0428 | 0.2595 | 0.0742 | 0.4523 |
| 40 | 31.97 | 0.08 | 0.0433 | 9.9999 | 0.0132 | 9.9999 | 0.3035 | 0.5742 | 0.0427 | 0.2592 | 0.0743 | 0.4513 |
| 41 | 32.23 | 0.08 | 0.0539 | 9.9999 | 0.0182 | 9.9999 | 0.3365 | 0.5812 | 0.0425 | 0.2625 | 0.0731 | 0.4523 |
| 42 | 32.51 | 0.10 | 0.0522 | 9.9999 | 0.0191 | 9.9999 | 0.3738 | 0.5841 | 0.0421 | 0.2650 | 0.0720 | 0.4538 |
| 43 | 32.77 | 0.09 | 0.0505 | 9.9999 | 0.0186 | 9.9999 | 0.3291 | 0.5830 | 0.0416 | 0.2653 | 0.0713 | 0.4550 |
| 44 | 33.02 | 0.09 | 0.0522 | 9.9999 | 0.0200 | 9.9999 | 0.3401 | 0.5913 | 0.0414 | 0.2694 | 0.0699 | 0.4556 |
| 45 | 33.26 | 0.08 | 0.0516 | 9.9999 | 0.0195 | 9.9999 | 0.3454 | 0.5842 | 0.0419 | 0.2664 | 0.0717 | 0.4560 |
| 46 | 33.53 | 0.07 | 0.0521 | 9.9999 | 0.0188 | 9.9999 | 0.3441 | 0.5904 | 0.0398 | 0.2718 | 0.0667 | 0.4557 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | AXIS-E | PHI | CONF | L | DEC1 | DEC2 | DEC3 | DEC4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 153 | 0.5C | 1.7 | 0.0 | BIBOFIS | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| PLANT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.78 | 0.07 | 0.0527 | 9.9999 | 0.0178 | 9.9999 | 0.3369 | 0.5935 | 0.0432 | 0.2707 | 0.0677 | 0.4561 |
| 48 | 34.01 | 0.06 | 0.0443 | 9.9999 | 0.0145 | 9.9999 | 0.3261 | 0.0078 | 0.0364 | 0.2770 | 0.0635 | 0.4558 |
| 49 | 34.27 | 0.03 | 0.0364 | 9.9999 | 0.0112 | 9.9999 | 0.2926 | 0.6148 | 0.0384 | 0.2803 | 0.0624 | 0.4560 |
| 50 | 34.52 | 0.06 | 0.0455 | 9.9999 | 0.0152 | 9.9999 | 0.3329 | 0.0218 | 0.0382 | 0.2837 | 0.0614 | 0.4562 |
| 51 | 34.76 | 0.04 | 0.0435 | 9.9999 | 0.0145 | 9.9999 | 0.3263 | 0.6192 | 0.0379 | 0.2826 | 0.0611 | 0.4564 |
| 52 | 35.00 | 0.04 | 0.0426 | 9.9999 | 0.0131 | 9.9999 | 0.3105 | 0.0275 | 0.0377 | 0.2870 | 0.0600 | 0.4574 |
| 53 | 35.24 | 0.04 | 0.0527 | 9.9999 | 0.0178 | 9.9999 | 0.3369 | 0.6386 | 0.0374 | 0.2905 | 0.0585 | 0.4565 |
| 54 | 35.50 | 0.04 | 0.0431 | 9.9999 | 0.0134 | 9.9999 | 0.3096 | 0.0401 | 0.0368 | 0.2942 | 0.0565 | 0.4554 |
| 55 | 35.73 | 0.03 | 0.0407 | 9.9999 | 0.0133 | 9.9999 | 0.3254 | 0.6477 | 0.0363 | 0.2959 | 0.0560 | 0.4565 |
| 56 | 35.95 | 0.04 | 0.0416 | 9.9999 | 0.0130 | 9.9999 | 0.3096 | 0.0579 | 0.0356 | 0.2996 | 0.0540 | 0.4554 |
| 57 | 36.19 | 0.03 | 0.0355 | 9.9999 | 0.0104 | 9.9999 | 0.2906 | 0.6623 | 0.0355 | 0.3018 | 0.0536 | 0.4555 |
| 58 | 36.44 | 0.02 | 0.0287 | 9.9999 | 0.0075 | 9.9999 | 0.2622 | 0.0858 | 0.0344 | 0.3103 | 0.0502 | 0.4524 |
| 59 | 36.65 | 0.02 | 0.0429 | 9.9999 | 0.0134 | 9.9999 | 0.3250 | 0.6720 | 0.0351 | 0.3063 | 0.0522 | 0.4557 |
| 60 | 36.91 | 0.03 | 0.0424 | 9.9999 | 0.0084 | 9.9999 | 0.2932 | 0.0775 | 0.0346 | 0.3082 | 0.0514 | 0.4548 |
| 61 | 37.14 | 0.02 | 0.0287 | 9.9999 | 0.0081 | 9.9999 | 0.2831 | 0.6983 | 0.0340 | 0.3162 | 0.0488 | 0.4528 |
| 62 | 37.37 | 0.04 | 0.0322 | 9.9999 | 0.0099 | 9.9999 | 0.3064 | 0.7060 | 0.0338 | 0.3203 | 0.0475 | 0.4524 |
| 63 | 37.62 | 0.05 | 0.0358 | 9.9999 | 0.0107 | 9.9999 | 0.2948 | 0.7235 | 0.0326 | 0.3277 | 0.0451 | 0.4530 |
| 64 | 37.83 | 0.03 | 0.0404 | 9.9999 | 0.0145 | 9.9999 | 0.3270 | 0.7204 | 0.0326 | 0.3287 | 0.0449 | 0.4528 |
| 65 | 38.08 | 0.03 | 0.0357 | 9.9999 | 0.0110 | 9.9999 | 0.3051 | 0.7265 | 0.0323 | 0.3280 | 0.0445 | 0.4516 |
| 66 | 38.33 | 0.01 | 0.0358 | 9.9999 | 0.0130 | 9.9999 | 0.3035 | 0.7417 | 0.0317 | 0.3345 | 0.0428 | 0.4510 |
| 67 | 38.54 | 0.03 | 0.0361 | 9.9999 | 0.0126 | 9.9999 | 0.3344 | 0.7474 | 0.0311 | 0.3374 | 0.0417 | 0.4514 |
| 68 | 38.78 | 0.07 | 0.0450 | 9.9999 | 0.0173 | 9.9999 | 0.3034 | 0.7514 | 0.0311 | 0.3366 | 0.0415 | 0.4508 |
| 69 | 39.00 | 0.02 | 0.0375 | 9.9999 | 0.0147 | 9.9999 | 0.3305 | 0.7563 | 0.0309 | 0.3416 | 0.0408 | 0.4505 |
| 70 | 39.23 | 0.03 | 0.0376 | 9.9999 | 0.0156 | 9.9999 | 0.4193 | 0.7603 | 0.0305 | 0.3439 | 0.0399 | 0.4494 |
| 71 | 39.43 | 0.04 | 0.0260 | 9.9999 | 0.0105 | 9.9999 | 0.4351 | 0.7655 | 0.0300 | 0.3455 | 0.0392 | 0.4514 |
| 72 | 39.69 | 0.02 | 0.0235 | 9.9999 | 0.0116 | 9.9999 | 0.4096 | 0.7670 | 0.0296 | 0.3454 | 0.0389 | 0.4503 |
| 73 | 39.86 | 0.02 | 0.0341 | 9.9999 | 0.0164 | 9.9999 | 0.4795 | 0.7781 | 0.0293 | 0.3506 | 0.0377 | 0.4508 |
| 74 | 40.07 | 0.03 | 0.0282 | 9.9999 | 0.0135 | 9.9999 | 0.4787 | 0.7920 | 0.0287 | 0.3566 | 0.0363 | 0.4502 |
| 75 | 40.32 | 0.04 | 0.0139 | 9.9999 | 0.0092 | 9.9999 | 0.6040 | 0.7920 | 0.0284 | 0.3563 | 0.0359 | 0.4498 |
| 76 | 40.52 | 0.02 | 0.0156 | 9.9999 | 0.0117 | 9.9999 | 0.5928 | 0.7906 | 0.0280 | 0.3555 | 0.0362 | 0.4496 |
| 77 | 40.75 | 0.01 | 0.0146 | 9.9999 | 0.0085 | 9.9999 | 0.6377 | 0.8056 | 0.0276 | 0.3613 | 0.0346 | 0.4484 |
| 78 | 40.94 | 0.02 | 0.0115 | 9.9999 | 0.0091 | 9.9999 | 0.7936 | 0.8043 | 0.0277 | 0.3616 | 0.0345 | 0.4495 |
| 79 | 41.16 | -0.00 | 0.0162 | 9.9999 | 0.0112 | 9.9999 | 0.6936 | 0.8096 | 0.0274 | 0.3632 | 0.0335 | 0.4484 |
| 80 | 41.37 | 0.02 | 0.0079 | 9.9999 | 0.0100 | 9.9999 | 1.0921 | 0.8102 | 0.0270 | 0.3662 | 0.0330 | 0.4475 |
| 81 | 41.55 | 0.00 | 0.0261 | 9.9999 | 0.0157 | 9.9999 | 0.5509 | 0.8182 | 0.0271 | 0.3666 | 0.0332 | 0.4480 |
| 82 | 41.76 | 0.02 | 0.0091 | 9.9999 | 0.0171 | 9.9999 | 2.2970 | 0.8103 | 0.0269 | 0.3672 | 0.0325 | 0.4487 |
| 83 | 41.96 | 0.03 | -0.0035 | 9.9999 | 0.0036 | 9.9999 | -0.9200 | 0.8336 | 0.0263 | 0.3729 | 0.0310 | 0.4474 |
| 84 | 42.15 | 0.02 | 0.0191 | 9.9999 | 0.0100 | 9.9999 | 0.8378 | 0.8448 | 0.0259 | 0.3786 | 0.0307 | 0.4475 |
| 85 | 42.34 | 0.02 | 0.0126 | 9.9999 | 0.0113 | 9.9999 | 0.8997 | 0.8435 | 0.0255 | 0.3782 | 0.0303 | 0.4481 |
| 86 | 42.52 | 0.02 | 0.0105 | 9.9999 | 0.0133 | 9.9999 | 0.7156 | 0.8503 | 0.0255 | 0.3796 | 0.0300 | 0.4484 |
| 87 | 42.73 | 0.02 | -0.0004 | 9.9999 | 0.0060 | 9.9999 | -15.0480 | 0.8572 | 0.0250 | 0.3831 | 0.0292 | 0.4469 |
| 88 | 42.90 | 0.02 | -0.0051 | 9.9999 | 0.0035 | 9.9999 | -0.6085 | 0.8584 | 0.0254 | 0.3818 | 0.0296 | 0.4447 |
| 89 | 43.08 | 0.03 | 0.0232 | 9.9999 | 0.0135 | 9.9999 | 0.8039 | 0.8628 | 0.0251 | 0.3850 | 0.0291 | 0.4463 |
| 90 | 43.27 | 0.02 | 0.0162 | 9.9999 | 0.0115 | 9.9999 | 0.7309 | 0.8627 | 0.0248 | 0.3847 | 0.0288 | 0.4459 |
| 91 | 43.45 | 0.03 | 0.0173 | 9.9999 | 0.0136 | 9.9999 | 0.7028 | 0.8753 | 0.0241 | 0.3906 | 0.0276 | 0.4462 |
| 92 | 43.63 | 0.02 | 0.0031 | 9.9999 | 0.0066 | 9.9999 | 2.3689 | 0.8822 | 0.0236 | 0.3934 | 0.0270 | 0.4457 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RNIG-6 PHI CONF E DEL1 DEL2 DEL3 DEL4 TRANSITION
7 153 0.6C 1.7 0.0 BLOCKS 0.0 0 -20 0 -20 UNKNOWN

| PCONT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.79 | 0.02 | 0.0137 | 0.0000 | 0.0125 | 0.0000 | 0.9080 | 0.8808 | 0.0238 | 0.3928 | 0.0271 | 0.4460 |
| 94 | 43.96 | 0.03 | 0.0000 | 0.0000 | 0.0155 | 0.0000 | 1.4990 | 0.8844 | 0.0237 | 0.3965 | 0.0265 | 0.4469 |
| 95 | 44.18 | 0.00 | 0.0042 | 0.0000 | 0.0087 | 0.0000 | 2.0781 | 0.8959 | 0.0235 | 0.3992 | 0.0263 | 0.4456 |
| 96 | 44.36 | -0.00 | 0.0114 | 0.0000 | 0.0116 | 0.0000 | 1.0208 | 0.8806 | 0.0242 | 0.3937 | 0.0275 | 0.4471 |
| 97 | 44.54 | -0.01 | 0.0051 | 0.0000 | 0.0090 | 0.0000 | 0.9922 | 0.9056 | 0.0229 | 0.4025 | 0.0253 | 0.4445 |
| 98 | 44.72 | 0.01 | 0.0122 | 0.0000 | 0.0122 | 0.0000 | 0.7741 | 0.9193 | 0.0226 | 0.4057 | 0.0247 | 0.4432 |
| 99 | 44.92 | 0.01 | 0.0050 | 0.0000 | 0.0106 | 0.0000 | 1.1815 | 0.9140 | 0.0224 | 0.4060 | 0.0245 | 0.4441 |
| 100 | 45.09 | 0.02 | 0.0105 | 0.0000 | 0.0137 | 0.0000 | 0.7375 | 0.9183 | 0.0219 | 0.4081 | 0.0239 | 0.4444 |
| 101 | 45.28 | 0.03 | 0.0050 | 0.0000 | 0.0106 | 0.0000 | 1.1815 | 0.9180 | 0.0224 | 0.4080 | 0.0244 | 0.4444 |
| 102 | 45.46 | 0.04 | 0.0146 | 0.0000 | 0.0141 | 0.0000 | 0.9426 | 0.9141 | 0.0220 | 0.4054 | 0.0241 | 0.4434 |
| 103 | 45.63 | -0.00 | 0.0019 | 0.0000 | 0.0074 | 0.0000 | 3.9072 | 0.9154 | 0.0221 | 0.4058 | 0.0242 | 0.4432 |
| 104 | 45.81 | 0.01 | 0.0232 | 0.0000 | 0.0174 | 0.0000 | 0.7481 | 0.9100 | 0.0222 | 0.4063 | 0.0242 | 0.4453 |
| 105 | 45.98 | -0.03 | -0.0005 | 0.0000 | 0.0069 | 0.0000 | -13.8442 | 0.9362 | 0.0210 | 0.4149 | 0.0225 | 0.4432 |
| 106 | 46.16 | -0.00 | 0.0079 | 0.0000 | 0.0188 | 0.0000 | 0.6052 | 0.9222 | 0.0218 | 0.4092 | 0.0237 | 0.4437 |
| 107 | 46.33 | -0.00 | 0.0079 | 0.0000 | 0.0085 | 0.0000 | 1.1302 | 0.9290 | 0.0215 | 0.4125 | 0.0236 | 0.4444 |
| 108 | 46.51 | -0.01 | 0.0050 | 0.0000 | 0.0106 | 0.0000 | 1.1815 | 0.9221 | 0.0220 | 0.4093 | 0.0239 | 0.4438 |
| 109 | 46.68 | -0.01 | 0.0050 | 0.0000 | 0.0106 | 0.0000 | 1.1815 | 0.9387 | 0.0216 | 0.4160 | 0.0230 | 0.4432 |
| 110 | 46.86 | -0.02 | 0.0162 | 0.0000 | 0.0103 | 0.0000 | 1.0130 | 0.9201 | 0.0220 | 0.4118 | 0.0238 | 0.4446 |
| 111 | 47.03 | 0.00 | 0.0042 | 0.0000 | 0.0087 | 0.0000 | 2.0781 | 0.9402 | 0.0209 | 0.4166 | 0.0223 | 0.4433 |
| 112 | 47.21 | 0.01 | 0.0122 | 0.0000 | 0.0161 | 0.0000 | 1.5352 | 0.9359 | 0.0215 | 0.4155 | 0.0230 | 0.4446 |
| 113 | 47.38 | 0.01 | 0.0067 | 0.0000 | 0.0085 | 0.0000 | 1.2727 | 0.9455 | 0.0212 | 0.4189 | 0.0225 | 0.4431 |
| 114 | 47.55 | 0.02 | 0.0137 | 0.0000 | 0.0125 | 0.0000 | 0.9080 | 0.9619 | 0.0203 | 0.4254 | 0.0211 | 0.4423 |
| 115 | 47.73 | 0.00 | 0.0145 | 0.0000 | 0.0135 | 0.0000 | 0.9022 | 0.9511 | 0.0202 | 0.4202 | 0.0213 | 0.4418 |
| 116 | 47.91 | 0.01 | 0.0115 | 0.0000 | 0.0100 | 0.0000 | 0.2240 | 0.9507 | 0.0213 | 0.4211 | 0.0224 | 0.4430 |
| 117 | 48.08 | 0.03 | 0.0102 | 0.0000 | 0.0103 | 0.0000 | 1.0130 | 0.9674 | 0.0197 | 0.4280 | 0.0204 | 0.4424 |
| 118 | 48.27 | 0.05 | 0.0142 | 0.0000 | 0.0087 | 0.0000 | 2.0781 | 0.9477 | 0.0214 | 0.4194 | 0.0226 | 0.4428 |
| 119 | 48.43 | 0.05 | 0.0093 | 0.0000 | 0.0075 | 0.0000 | 1.7498 | 0.9492 | 0.0213 | 0.4211 | 0.0225 | 0.4437 |
| 120 | 48.60 | 0.02 | 0.0039 | 0.0000 | 0.0066 | 0.0000 | 1.0348 | 0.9216 | 0.0214 | 0.4102 | 0.0233 | 0.4451 |
| 121 | 48.79 | 0.03 | 0.0007 | 0.0000 | 0.0066 | 0.0000 | 9.4587 | 0.9406 | 0.0217 | 0.4181 | 0.0231 | 0.4445 |
| 122 | 48.96 | 0.00 | 0.0055 | 0.0000 | 0.0088 | 0.0000 | 1.6051 | 0.9269 | 0.0220 | 0.4133 | 0.0238 | 0.4455 |
| 123 | 49.15 | 0.00 | 0.0145 | 0.0000 | 0.0121 | 0.0000 | 0.8147 | 0.9196 | 0.0205 | 0.4086 | 0.0223 | 0.4446 |
| 124 | 49.32 | 0.05 | 0.0128 | 0.0000 | 0.0147 | 0.0000 | 0.7042 | 0.9120 | 0.0208 | 0.4063 | 0.0228 | 0.4454 |
| 125 | 49.53 | 0.10 | 0.0255 | 0.0000 | 0.0162 | 0.0000 | 0.6334 | 0.9231 | 0.0200 | 0.4108 | 0.0217 | 0.4456 |
| 126 | 49.69 | 0.10 | 0.0195 | 0.0000 | 0.0155 | 0.0000 | 0.7025 | 0.9214 | 0.0210 | 0.4052 | 0.0228 | 0.4442 |
| 127 | 49.91 | 0.02 | 0.0180 | 0.0000 | 0.0128 | 0.0000 | 0.7963 | 0.9101 | 0.0217 | 0.4040 | 0.0235 | 0.4438 |
| 128 | 50.07 | 0.06 | 0.0180 | 0.0000 | 0.0151 | 0.0000 | 0.6151 | 0.9141 | 0.0214 | 0.4043 | 0.0234 | 0.4422 |
| 129 | 50.26 | 0.00 | 0.0218 | 0.0000 | 0.0163 | 0.0000 | 0.7655 | 0.9315 | 0.0217 | 0.4106 | 0.0233 | 0.4408 |
| 130 | 50.43 | 0.08 | 0.0221 | 0.0000 | 0.0154 | 0.0000 | 0.8045 | 0.9318 | 0.0204 | 0.4116 | 0.0219 | 0.4417 |
| 131 | 50.59 | 0.05 | 0.0215 | 0.0000 | 0.0158 | 0.0000 | 0.7100 | 0.9285 | 0.0206 | 0.4090 | 0.0224 | 0.4403 |
| 132 | 50.76 | 0.06 | 0.0226 | 0.0000 | 0.0171 | 0.0000 | 0.6611 | 0.9330 | 0.0204 | 0.4126 | 0.0219 | 0.4422 |
| 133 | 50.93 | 0.04 | 0.0171 | 0.0000 | 0.0135 | 0.0000 | 0.7861 | 0.9259 | 0.0206 | 0.4084 | 0.0223 | 0.4410 |
| 134 | 51.11 | 0.04 | 0.0180 | 0.0000 | 0.0151 | 0.0000 | 0.6151 | 0.9193 | 0.0198 | 0.4105 | 0.0209 | 0.4413 |
| 135 | 51.30 | 0.01 | 0.0215 | 0.0000 | 0.0150 | 0.0000 | 0.6825 | 0.9412 | 0.0198 | 0.4168 | 0.0211 | 0.4429 |
| 136 | 51.45 | 0.06 | 0.0171 | 0.0000 | 0.0132 | 0.0000 | 0.7065 | 0.9332 | 0.0195 | 0.4204 | 0.0205 | 0.4411 |
| 137 | 51.66 | 0.06 | 0.0205 | 0.0000 | 0.0167 | 0.0000 | 0.8123 | 0.9491 | 0.0192 | 0.4166 | 0.0203 | 0.4411 |
| 138 | 51.83 | 0.04 | 0.0188 | 0.0000 | 0.0151 | 0.0000 | 0.6618 | 0.9478 | 0.0189 | 0.4184 | 0.0200 | 0.4415 |

MANTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 153 | MACH 0.90 | RXIC-6 1.7 | PHI 0.0 | CONF DIBOPIA | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.00 | 0.07 | 0.0154 | 0.9999 | 0.0142 | 0.9999 | 0.7291 | 0.9176 | 0.0195 | 0.4045 | 0.0213 | 0.4408 |
| 140 | 52.13 | 0.04 | 0.0322 | 0.9999 | 0.0211 | 0.9999 | 0.6543 | 0.9300 | 0.0188 | 0.4065 | 0.0202 | 0.4392 |
| 141 | 52.33 | 0.04 | 0.0205 | 0.9999 | 0.0184 | 0.9999 | 0.7577 | 0.9490 | 0.0186 | 0.4167 | 0.0196 | 0.4391 |
| 142 | 52.48 | 0.00 | 0.0335 | 0.9999 | 0.0206 | 0.9999 | 0.6135 | 0.9368 | 0.0186 | 0.4105 | 0.0201 | 0.4362 |
| 143 | 52.64 | 0.09 | 0.0287 | 0.9999 | 0.0196 | 0.9999 | 0.6606 | 0.9405 | 0.0192 | 0.4121 | 0.0204 | 0.4382 |
| 144 | 52.82 | 0.10 | 0.0357 | 0.9999 | 0.0225 | 0.9999 | 0.6295 | 0.9499 | 0.0191 | 0.4157 | 0.0201 | 0.4376 |
| 145 | 52.98 | 0.07 | 0.0264 | 0.9999 | 0.0183 | 0.9999 | 0.6916 | 0.9446 | 0.0184 | 0.4141 | 0.0195 | 0.4383 |
| 146 | 53.14 | 0.06 | 0.0322 | 0.9999 | 0.0208 | 0.9999 | 0.6445 | 0.9362 | 0.0186 | 0.4092 | 0.0202 | 0.4357 |
| 147 | 53.30 | 0.07 | 0.0252 | 0.9999 | 0.0182 | 0.9999 | 0.7206 | 0.9516 | 0.0177 | 0.4151 | 0.0186 | 0.4362 |
| 148 | 53.49 | 0.05 | 0.0296 | 0.9999 | 0.0216 | 0.9999 | 0.7036 | 0.9473 | 0.0182 | 0.4134 | 0.0192 | 0.4364 |
| 149 | 53.62 | 0.06 | 0.0252 | 0.9999 | 0.0179 | 0.9999 | 0.7368 | 0.9516 | 0.0171 | 0.4145 | 0.0180 | 0.4360 |
| 150 | 53.80 | 0.10 | 0.0228 | 0.9999 | 0.0178 | 0.9999 | 0.7706 | 0.9603 | 0.0173 | 0.4213 | 0.0179 | 0.4366 |
| 151 | 53.94 | -0.00 | 0.0258 | 0.9999 | 0.0200 | 0.9999 | 0.6699 | 0.9584 | 0.0167 | 0.4165 | 0.0175 | 0.4356 |
| 152 | 54.10 | 0.05 | 0.0305 | 0.9999 | 0.0218 | 0.9999 | 0.6930 | 0.9529 | 0.0171 | 0.4163 | 0.0180 | 0.4366 |
| 153 | 54.25 | 0.08 | 0.0299 | 0.9999 | 0.0203 | 0.9999 | 0.6777 | 0.9749 | 0.0161 | 0.4241 | 0.0165 | 0.4351 |
| 154 | 54.42 | 0.06 | 0.0227 | 0.9999 | 0.0164 | 0.9999 | 0.7487 | 0.9870 | 0.0152 | 0.4254 | 0.0154 | 0.4350 |
| 155 | 54.57 | 0.03 | 0.0200 | 0.9999 | 0.0152 | 0.9999 | 0.7554 | 0.9707 | 0.0159 | 0.4263 | 0.0163 | 0.4356 |
| 156 | 54.72 | 0.06 | 0.0251 | 0.9999 | 0.0185 | 0.9999 | 0.7519 | 0.9912 | 0.0151 | 0.4324 | 0.0153 | 0.4362 |
| 157 | 54.88 | 0.03 | 0.0217 | 0.9999 | 0.0171 | 0.9999 | 0.7859 | 0.9939 | 0.0152 | 0.4339 | 0.0153 | 0.4365 |
| 158 | 55.04 | 0.04 | 0.0193 | 0.9999 | 0.0161 | 0.9999 | 0.8317 | 0.9987 | 0.0150 | 0.4367 | 0.0151 | 0.4381 |
| 159 | 55.19 | 0.07 | 0.0252 | 0.9999 | 0.0179 | 0.9999 | 0.7066 | 1.0021 | 0.0150 | 0.4392 | 0.0150 | 0.4383 |
| 160 | 55.33 | 0.04 | 0.0182 | 0.9999 | 0.0144 | 0.9999 | 0.7884 | 1.0054 | 0.0141 | 0.4400 | 0.0140 | 0.4377 |
| 161 | 55.46 | 0.06 | 0.0215 | 0.9999 | 0.0193 | 0.9999 | 0.7004 | 0.9951 | 0.0150 | 0.4366 | 0.0151 | 0.4387 |
| 162 | 55.66 | 0.05 | 0.0194 | 0.9999 | 0.0154 | 0.9999 | 0.7914 | 0.9954 | 0.0145 | 0.4355 | 0.0150 | 0.4378 |
| 163 | 55.83 | 0.07 | 0.0222 | 0.9999 | 0.0214 | 0.9999 | 0.6838 | 0.9961 | 0.0161 | 0.4386 | 0.0162 | 0.4377 |
| 164 | 55.98 | 0.02 | 0.0252 | 0.9999 | 0.0175 | 0.9999 | 0.7886 | 0.9912 | 0.0147 | 0.4343 | 0.0145 | 0.4381 |
| 165 | 56.11 | 0.05 | 0.0182 | 0.9999 | 0.0151 | 0.9999 | 0.8268 | 1.0118 | 0.0135 | 0.4412 | 0.0134 | 0.4361 |
| 166 | 56.28 | 0.04 | 0.0147 | 0.9999 | 0.0135 | 0.9999 | 0.9416 | 1.0230 | 0.0144 | 0.4401 | 0.0141 | 0.4358 |
| 167 | 56.44 | 0.06 | 0.0218 | 0.9999 | 0.0156 | 0.9999 | 0.7133 | 1.0050 | 0.0142 | 0.4391 | 0.0141 | 0.4369 |
| 168 | 56.59 | 0.03 | 0.0218 | 0.9999 | 0.0191 | 0.9999 | 0.8010 | 1.0265 | 0.0132 | 0.4473 | 0.0125 | 0.4362 |
| 169 | 56.74 | 0.03 | 0.0182 | 0.9999 | 0.0151 | 0.9999 | 0.8268 | 1.0218 | 0.0129 | 0.4448 | 0.0126 | 0.4354 |
| 170 | 56.88 | 0.02 | 0.0343 | 0.9999 | 0.0202 | 0.9999 | 0.6243 | 1.0229 | 0.0121 | 0.4456 | 0.0116 | 0.4344 |
| 171 | 57.03 | 0.01 | 0.0300 | 0.9999 | 0.0201 | 0.9999 | 0.6666 | 1.0356 | 0.0117 | 0.4475 | 0.0113 | 0.4325 |
| 172 | 57.17 | -0.03 | 0.0218 | 0.9999 | 0.0194 | 0.9999 | 0.7133 | 1.0383 | 0.0112 | 0.4487 | 0.0108 | 0.4321 |
| 173 | 57.33 | 0.00 | 0.0218 | 0.9999 | 0.0153 | 0.9999 | 0.8595 | 1.0326 | 0.0096 | 0.4560 | 0.0093 | 0.4313 |
| 174 | 57.48 | 0.03 | 0.0184 | 0.9999 | 0.0135 | 0.9999 | 0.9300 | 1.0546 | 0.0114 | 0.4549 | 0.0108 | 0.4313 |
| 175 | 57.62 | -0.05 | 0.0207 | 0.9999 | 0.0192 | 0.9999 | 0.7318 | 1.0717 | 0.0098 | 0.4604 | 0.0090 | 0.4298 |
| 176 | 57.77 | -0.08 | 0.0191 | 0.9999 | 0.0188 | 0.9999 | 0.9401 | 1.0400 | 0.0110 | 0.4478 | 0.0106 | 0.4304 |
| 177 | 57.92 | -0.10 | 0.0137 | 0.9999 | 0.0113 | 0.9999 | 0.8275 | 1.0097 | 0.0124 | 0.4367 | 0.0123 | 0.4329 |
| 178 | 58.07 | -0.10 | 0.0087 | 0.9999 | 0.0062 | 0.9999 | 1.2270 | 0.9990 | 0.0120 | 0.4306 | 0.0120 | 0.4312 |
| 179 | 58.19 | -0.08 | 0.0160 | 0.9999 | 0.0125 | 0.9999 | 0.7775 | 1.0003 | 0.0123 | 0.4319 | 0.0123 | 0.4317 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSDOC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH REX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 15A 1.60 1.7 0.0 BIMCFIG 6.6 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLA | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.83 | 0.03 | -2.372E | 5.2059 | 0.0492 | -0.1427 | 0.0094 | 1.1450 | 0.2637 | 0.8612 | -3.9050 |
| 2 | -5.03 | 0.01 | -2.3714 | 5.2356 | 0.0555 | -0.1464 | 0.0095 | 1.1456 | 0.2656 | 0.8549 | -3.8904 |
| 3 | -5.03 | 0.01 | -2.3556 | 5.2057 | 0.0146 | -0.1096 | 0.0096 | 1.1467 | 0.2646 | 0.8618 | -3.9264 |
| 4 | -5.00 | 0.01 | -2.3111 | 5.2318 | 0.0270 | -0.1113 | 0.0096 | 1.1520 | 0.2781 | 0.8739 | -3.8945 |
| 5 | -4.01 | 0.01 | -2.0538 | 4.0037 | -0.0212 | -0.0767 | 0.0059 | 1.1120 | 0.2622 | 0.8497 | -4.2063 |
| 6 | -2.27 | 0.01 | -1.0754 | 2.3373 | 0.0535 | -0.0157 | 0.0106 | 1.0755 | 0.2509 | 0.8185 | -4.4362 |
| 7 | -0.48 | 0.01 | -1.2551 | 7.0837 | 0.0587 | -0.1826 | 0.0051 | 1.0204 | 0.2416 | 0.7046 | -6.7513 |
| 8 | 1.31 | 0.02 | -1.4142 | 7.2760 | 0.0538 | -0.2155 | -0.0004 | 0.9816 | 0.2309 | 0.7507 | -5.1459 |
| 9 | 3.21 | 0.01 | -1.1625 | 6.4155 | 0.0255 | -0.1213 | 0.0056 | 0.9236 | 0.2225 | 0.7007 | -5.8232 |
| 10 | 4.96 | 0.01 | -0.7465 | 5.0751 | -0.0095 | -0.0888 | 0.0029 | 0.8833 | 0.2136 | 0.6483 | -7.3202 |
| 11 | 6.83 | 0.01 | -0.3040 | 4.5175 | -0.0582 | -0.0646 | 0.0062 | 0.7807 | 0.2135 | 0.5672 | -11.7398 |
| 12 | 8.63 | 0.01 | -0.0042 | 3.0496 | 0.0576 | -0.1098 | 0.0127 | 0.7303 | 0.2098 | 0.4965 | -66.9152 |
| 13 | 10.49 | 0.02 | 0.3317 | 2.7005 | 0.0405 | -0.0770 | 0.0130 | 0.6935 | 0.2096 | 0.4245 | 8.1421 |
| 14 | 12.30 | 0.01 | 0.7166 | 1.6278 | 0.0273 | -0.0553 | 0.0136 | 0.5505 | 0.2077 | 0.3506 | 2.5795 |
| 15 | 14.26 | 0.01 | 1.0775 | 1.2168 | -0.0146 | 0.0147 | 0.0317 | 0.4507 | 0.2016 | 0.2890 | 1.1312 |
| 16 | 16.21 | 0.01 | 1.4944 | 0.4334 | -0.0488 | 0.0778 | 0.0207 | 0.4128 | 0.1971 | 0.2157 | 0.2900 |
| 17 | 18.16 | 0.01 | 1.8518 | -0.2764 | -0.0367 | 0.2552 | 0.0557 | 0.3375 | 0.1961 | 0.1414 | -0.1429 |
| 18 | 20.16 | 0.01 | 2.2756 | -1.0811 | -0.0017 | 0.3672 | 0.0950 | 0.2641 | 0.2034 | 0.0607 | -0.4543 |
| 19 | 22.06 | 0.01 | 2.5516 | -1.8327 | -0.1092 | 0.3624 | 0.0116 | 0.1703 | 0.2087 | -0.0384 | -0.6156 |
| 20 | 24.04 | -0.02 | 3.0019 | -2.3562 | -0.3776 | 1.1350 | -0.0082 | 0.0825 | 0.2057 | -0.1228 | -0.6527 |
| 21 | 26.01 | 0.02 | 4.2549 | -2.4731 | 0.0644 | 0.1960 | -0.0347 | 0.0203 | 0.2084 | -0.1681 | -0.5812 |
| 22 | 28.00 | 0.01 | 4.5269 | -2.6556 | 0.7107 | -1.0191 | 0.0514 | -0.0485 | 0.2152 | -0.2037 | -0.5355 |
| 23 | 28.00 | 0.00 | 4.5074 | -2.6476 | 0.8450 | -1.7683 | 0.0576 | -0.0544 | 0.2134 | -0.2078 | -0.5329 |
| 24 | 28.40 | 0.02 | 5.0430 | -2.8743 | 0.8217 | -1.7470 | 0.0579 | -0.0686 | 0.2151 | -0.2817 | -0.5303 |
| 25 | 28.71 | 0.02 | 5.1029 | -2.8757 | 0.5569 | -1.2748 | 0.0515 | -0.0774 | 0.2126 | -0.2503 | -0.5244 |
| 26 | 29.03 | 0.00 | 5.2406 | -2.9785 | 0.5140 | -2.2218 | 0.0776 | -0.0933 | 0.2124 | -0.3060 | -0.5035 |
| 27 | 29.35 | 0.00 | 5.3210 | -2.7768 | 0.8703 | -1.9943 | 0.0593 | -0.0976 | 0.2107 | -0.3063 | -0.5207 |
| 28 | 29.69 | 0.00 | 5.5443 | -2.8763 | 1.0452 | -2.5375 | 0.0959 | -0.1115 | 0.2125 | -0.3244 | -0.5188 |
| 29 | 29.92 | 0.00 | 5.5761 | -2.8669 | 0.9051 | -2.1535 | 0.0805 | -0.1210 | 0.2107 | -0.3317 | -0.5144 |
| 30 | 30.20 | 0.00 | 5.6960 | -2.8669 | 0.8789 | -1.8746 | 0.0969 | -0.1321 | 0.2107 | -0.3428 | -0.5071 |
| 31 | 30.47 | 0.00 | 5.7529 | -2.9456 | 1.0522 | -2.2312 | 0.0815 | -0.1361 | 0.2119 | -0.3500 | -0.5052 |
| 32 | 30.74 | 0.00 | 5.9530 | -2.9773 | 0.9301 | -2.1320 | 0.0816 | -0.1536 | 0.2166 | -0.3644 | -0.5044 |
| 33 | 31.03 | 0.10 | 6.0058 | -2.9382 | 1.0629 | -2.2623 | 0.0860 | -0.1638 | 0.2092 | -0.3730 | -0.4841 |
| 34 | 31.31 | 0.00 | 6.1063 | -2.9766 | 0.9638 | -1.9881 | 0.0741 | -0.1696 | 0.2079 | -0.3783 | -0.4714 |
| 35 | 31.58 | 0.00 | 6.1682 | -2.9411 | 0.8816 | -1.7009 | 0.0857 | -0.1802 | 0.2065 | -0.3867 | -0.4753 |
| 36 | 31.85 | 0.10 | 6.3567 | -2.8744 | 1.0466 | -2.1441 | 0.0929 | -0.1857 | 0.2088 | -0.3945 | -0.4522 |
| 37 | 32.13 | 0.00 | 6.3777 | -2.8140 | 0.7516 | -1.5498 | 0.0396 | -0.1961 | 0.2047 | -0.4008 | -0.4512 |
| 38 | 32.39 | 0.00 | 6.5616 | -2.8033 | 0.8332 | -1.8190 | 0.0171 | -0.2043 | 0.2043 | -0.4086 | -0.4343 |
| 39 | 32.65 | 0.07 | 6.5832 | -2.8716 | 0.7812 | -1.6662 | 0.0230 | -0.2212 | 0.2039 | -0.4251 | -0.4362 |
| 40 | 32.91 | 0.00 | 6.6440 | -2.9050 | 0.8316 | -1.8219 | 0.0353 | -0.2132 | 0.2065 | -0.4197 | -0.4372 |
| 41 | 33.17 | 0.07 | 6.7585 | -2.7765 | 0.7064 | -1.3114 | 0.0 | -0.2204 | 0.2039 | -0.4303 | -0.4169 |
| 42 | 33.41 | 0.06 | 6.8516 | -2.8182 | 0.7566 | -1.6449 | 0.0651 | -0.2261 | 0.2040 | -0.4301 | -0.3818 |
| 43 | 33.67 | 0.07 | 6.9030 | -2.8961 | 0.8093 | -1.8775 | 0.0355 | -0.2230 | 0.2033 | -0.4263 | -0.3816 |
| 44 | 33.93 | 0.06 | 6.9951 | -2.9967 | 0.9102 | -1.9673 | 0.0766 | -0.2219 | 0.2051 | -0.4270 | -0.3550 |
| 45 | 34.17 | 0.06 | 7.1356 | -2.3705 | 0.5816 | -1.2575 | 0.0893 | -0.2278 | 0.2061 | -0.4355 | -0.3321 |
| 46 | 34.43 | 0.05 | 7.1062 | -2.4968 | 0.8853 | -0.8251 | 0.0301 | -0.2374 | 0.2067 | -0.4441 | -0.3138 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 154 MACH 1.00 RNIC-6 1.7 PHI 0.0 CONF BLOCF13 D 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CN | CLP | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.68 | 0.05 | 7.2678 | -2.2446 | 0.4596 | -0.3955 | 0.0589 | -0.2565 | 0.2127 | -0.4492 | -0.3088 |
| 48 | 34.91 | 0.06 | 7.3667 | -2.2656 | 0.7174 | -1.3020 | 0.1196 | -0.2496 | 0.2146 | -0.4444 | -0.3079 |
| 49 | 35.16 | 0.04 | 7.4185 | -2.1642 | 0.3507 | -0.6202 | 0.0372 | -0.2432 | 0.2117 | -0.4549 | -0.2917 |
| 50 | 35.40 | 0.08 | 7.5321 | -2.2209 | 0.7233 | -1.3787 | 0.1377 | -0.2565 | 0.2158 | -0.4543 | -0.2928 |
| 51 | 35.66 | 0.06 | 7.6576 | -2.1635 | 0.5906 | -1.1413 | 0.1086 | -0.2466 | 0.2156 | -0.4644 | -0.2652 |
| 52 | 35.88 | 0.07 | 7.6793 | -2.2316 | 0.7590 | -1.5411 | 0.1365 | -0.2530 | 0.2173 | -0.4531 | -0.2904 |
| 53 | 36.12 | 0.05 | 7.7456 | -2.0838 | 0.4526 | -0.9246 | 0.0797 | -0.2475 | 0.2132 | -0.4607 | -0.2690 |
| 54 | 36.35 | 0.04 | 7.8056 | -2.1126 | 0.4146 | -0.9436 | 0.0858 | -0.2501 | 0.2177 | -0.4738 | -0.2689 |
| 55 | 36.59 | 0.06 | 7.9738 | -2.0515 | 0.6829 | -1.4096 | 0.1221 | -0.2416 | 0.2163 | -0.4581 | -0.2573 |
| 56 | 36.82 | 0.05 | 8.0664 | -2.0360 | 0.4296 | -0.9501 | 0.0866 | -0.2397 | 0.2129 | -0.4686 | -0.2536 |
| 57 | 37.06 | 0.06 | 8.1216 | -2.0087 | 0.6389 | -1.3276 | 0.1226 | -0.2460 | 0.2185 | -0.4645 | -0.2473 |
| 58 | 37.31 | 0.05 | 8.2369 | -2.0056 | 0.5043 | -1.1066 | 0.0934 | -0.2401 | 0.2151 | -0.4752 | -0.2543 |
| 59 | 37.53 | 0.06 | 8.2959 | -2.0748 | 0.6136 | -1.3399 | 0.0878 | -0.2700 | 0.2146 | -0.4845 | -0.2512 |
| 60 | 37.78 | 0.06 | 8.3792 | -2.0163 | 0.5564 | -1.1174 | 0.0824 | -0.2473 | 0.2116 | -0.4692 | -0.2535 |
| 61 | 38.00 | 0.06 | 8.4552 | -2.0540 | 0.5766 | -1.1341 | 0.0590 | -0.2662 | 0.2126 | -0.4768 | -0.2429 |
| 62 | 38.24 | 0.05 | 8.5405 | -2.0145 | 0.5116 | -1.1045 | 0.0857 | -0.2479 | 0.2111 | -0.4786 | -0.2511 |
| 63 | 38.47 | 0.05 | 8.6212 | -2.0506 | 0.6105 | -1.1867 | 0.0836 | -0.2666 | 0.2126 | -0.4993 | -0.2480 |
| 64 | 38.71 | 0.05 | 8.7049 | -2.1777 | 0.4941 | -1.0057 | 0.0489 | -0.2673 | 0.2125 | -0.4997 | -0.2485 |
| 65 | 38.91 | 0.05 | 8.7803 | -2.1824 | 0.5214 | -1.0420 | 0.0779 | -0.2653 | 0.2137 | -0.5021 | -0.2492 |
| 66 | 39.13 | 0.07 | 8.8679 | -2.0878 | 0.7103 | -1.4476 | 0.1313 | -0.2546 | 0.2109 | -0.4755 | -0.2370 |
| 67 | 39.36 | 0.05 | 8.9569 | -2.1754 | 0.5056 | -1.0414 | 0.0731 | -0.2508 | 0.2110 | -0.5118 | -0.2415 |
| 68 | 39.57 | 0.07 | 9.0359 | -2.1460 | 0.7327 | -1.4913 | 0.0974 | -0.2593 | 0.2173 | -0.5118 | -0.2352 |
| 69 | 39.78 | 0.08 | 9.1078 | -2.1125 | 0.7238 | -1.4621 | 0.1031 | -0.2665 | 0.2117 | -0.4963 | -0.2319 |
| 70 | 39.99 | 0.06 | 9.1740 | -2.0218 | 0.5345 | -1.0245 | 0.0854 | -0.2567 | 0.2132 | -0.5119 | -0.2416 |
| 71 | 40.19 | 0.07 | 9.2360 | -2.1545 | 0.6555 | -1.3408 | 0.1090 | -0.3143 | 0.2095 | -0.5238 | -0.2333 |
| 72 | 40.40 | 0.04 | 9.3067 | -2.1745 | 0.3265 | -0.6277 | 0.0218 | -0.3040 | 0.2101 | -0.5141 | -0.2348 |
| 73 | 40.63 | 0.06 | 9.3845 | -2.0361 | 0.6874 | -1.3865 | 0.0982 | -0.3179 | 0.2130 | -0.5279 | -0.2228 |
| 74 | 40.86 | 0.07 | 9.4579 | -2.0166 | 0.7147 | -1.4559 | 0.1455 | -0.3092 | 0.2161 | -0.5253 | -0.2145 |
| 75 | 41.06 | 0.04 | 9.5465 | -2.1213 | 0.3485 | -0.6735 | 0.0875 | -0.3223 | 0.2069 | -0.5292 | -0.2222 |
| 76 | 41.29 | 0.06 | 9.6260 | -2.1624 | 0.6654 | -1.3592 | 0.1291 | -0.3166 | 0.2106 | -0.5272 | -0.2236 |
| 77 | 41.48 | 0.06 | 9.7134 | -2.1282 | 0.6183 | -1.2643 | 0.1230 | -0.3192 | 0.2159 | -0.5301 | -0.2274 |
| 78 | 41.66 | 0.05 | 9.7916 | -2.0656 | 0.4854 | -0.9697 | 0.0803 | -0.3378 | 0.2102 | -0.5406 | -0.2210 |
| 79 | 41.87 | 0.07 | 9.8726 | -2.1457 | 0.6446 | -1.3385 | 0.1121 | -0.3284 | 0.2132 | -0.5416 | -0.2196 |
| 80 | 42.08 | 0.05 | 9.9624 | -2.1956 | 0.4916 | -1.0076 | 0.0739 | -0.3356 | 0.2132 | -0.5488 | -0.2155 |
| 81 | 42.27 | 0.06 | 10.0373 | -2.2546 | 0.5841 | -1.2490 | 0.1069 | -0.3466 | 0.2132 | -0.5558 | -0.2256 |
| 82 | 42.45 | 0.05 | 10.0953 | -2.1064 | 0.4000 | -0.8580 | 0.0773 | -0.3411 | 0.2136 | -0.5519 | -0.2174 |
| 83 | 42.65 | 0.05 | 10.2260 | -2.2093 | 0.4932 | -1.0051 | 0.1307 | -0.3544 | 0.2145 | -0.5693 | -0.2157 |
| 84 | 42.84 | 0.05 | 10.2705 | -2.2163 | 0.5016 | -1.0479 | 0.1240 | -0.3562 | 0.2153 | -0.5715 | -0.2179 |
| 85 | 43.01 | 0.05 | 10.2747 | -2.2454 | 0.3535 | -0.8097 | 0.0783 | -0.3628 | 0.2067 | -0.5695 | -0.2189 |
| 86 | 43.21 | 0.05 | 10.3071 | -2.2677 | 0.3507 | -0.9521 | 0.0585 | -0.3505 | 0.2098 | -0.5469 | -0.2200 |
| 87 | 43.40 | 0.04 | 10.4572 | -2.2359 | 0.3365 | -0.5353 | 0.0815 | -0.3648 | 0.2062 | -0.5710 | -0.2138 |
| 88 | 43.59 | 0.05 | 10.5136 | -2.2661 | 0.4575 | -0.5080 | 0.0792 | -0.3751 | 0.2040 | -0.5791 | -0.2176 |
| 89 | 43.77 | 0.05 | 10.6371 | -2.2671 | 0.5257 | -0.8550 | 0.0625 | -0.3888 | 0.2089 | -0.5977 | -0.2319 |
| 90 | 43.99 | 0.03 | 10.6720 | -2.2658 | 0.3201 | -0.6668 | 0.0450 | -0.3655 | 0.2108 | -0.5763 | -0.2123 |
| 91 | 44.11 | 0.05 | 10.6800 | -2.3342 | 0.4317 | -0.2049 | 0.1196 | -0.3565 | 0.2148 | -0.5736 | -0.2186 |
| 92 | 44.33 | 0.02 | 10.8752 | -2.2577 | 0.1662 | -0.5204 | 0.0000 | -0.4163 | 0.2024 | -0.6187 | -0.2333 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RNIO-6 PHI CONF T DEL1 DEL2 DEL3 DEL4 TRANSITION
7 154 1.60 1.7 0.0 BLNCFLG 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.50 | 0.05 | 10.8518 | -2.4140 | 0.4503 | -0.5202 | 0.0803 | -0.3664 | 0.2055 | -0.5919 | -0.2225 |
| 94 | 44.66 | 0.04 | 10.8614 | -2.4351 | 0.3123 | -0.5476 | 0.0571 | -0.3676 | 0.2040 | -0.5916 | -0.2201 |
| 95 | 44.65 | 0.01 | 11.1395 | -2.5466 | 0.2045 | -0.6129 | 0.0522 | -0.3736 | 0.2052 | -0.5838 | -0.2269 |
| 96 | 45.08 | 0.04 | 11.1544 | -2.4963 | 0.3065 | -0.5008 | 0.0582 | -0.4007 | 0.2085 | -0.6092 | -0.2157 |
| 97 | 45.20 | 0.02 | 11.1765 | -2.5960 | 0.3401 | -0.1751 | 0.0746 | -0.3943 | 0.2079 | -0.6022 | -0.2139 |
| 98 | 45.44 | 0.04 | 11.2471 | -2.4600 | 0.2789 | 0.1072 | 0.1089 | -0.3834 | 0.2113 | -0.5967 | -0.2142 |
| 99 | 45.04 | 0.02 | 11.4431 | -2.5831 | 0.3402 | -0.2833 | 0.0705 | -0.3980 | 0.2117 | -0.6097 | -0.2240 |
| 100 | 45.04 | 0.03 | 11.4642 | -2.6025 | 0.4006 | -0.3719 | 0.0924 | -0.4023 | 0.2087 | -0.6110 | -0.2270 |
| 101 | 45.58 | 0.01 | 11.5535 | -2.6665 | 0.2774 | -0.4471 | 0.0592 | -0.4337 | 0.2020 | -0.6357 | -0.2308 |
| 102 | 46.16 | 0.04 | 11.8093 | -2.5316 | 0.1906 | 0.4144 | 0.0737 | -0.4068 | 0.2124 | -0.6197 | -0.2200 |
| 103 | 46.34 | 0.05 | 11.8469 | -2.5851 | 0.3077 | 0.0666 | 0.0612 | -0.4036 | 0.2084 | -0.6120 | -0.2219 |
| 104 | 46.34 | 0.06 | 11.8617 | -2.4906 | 0.0905 | -0.1822 | 0.0500 | -0.4044 | 0.2155 | -0.6179 | -0.2089 |
| 105 | 46.66 | 0.02 | 11.8938 | -2.3808 | 0.1375 | 0.3560 | 0.0574 | -0.3880 | 0.2159 | -0.6039 | -0.2045 |
| 106 | 46.85 | 0.01 | 11.9366 | -2.6274 | 0.0067 | 0.4404 | 0.0495 | -0.3585 | 0.2301 | -0.5884 | -0.1757 |
| 107 | 47.09 | 0.02 | 11.9814 | -2.5855 | 0.1595 | 1.0208 | 0.0209 | -0.3503 | 0.2457 | -0.5960 | -0.1793 |
| 108 | 47.23 | 0.01 | 11.9881 | -2.5361 | 0.1016 | 1.0236 | -0.0067 | -0.3199 | 0.2746 | -0.5947 | -0.2137 |
| 109 | 47.41 | 0.01 | 11.9890 | -2.4338 | 0.1622 | 1.0063 | 0.0270 | -0.3367 | 0.2792 | -0.6156 | -0.2051 |
| 110 | 47.56 | 0.04 | 11.9952 | -2.3852 | 0.3165 | 1.0013 | 0.0094 | -0.3491 | 0.2963 | -0.6073 | -0.2157 |
| 111 | 47.74 | 0.02 | 11.9953 | -2.7112 | 0.0231 | 1.0866 | -0.0212 | -0.2995 | 0.3121 | -0.6115 | -0.2266 |
| 112 | 47.94 | 0.04 | 12.0363 | -2.5875 | 0.3241 | 1.0028 | -0.0208 | -0.1929 | 0.3004 | -0.5733 | -0.2933 |
| 113 | 48.04 | 0.02 | 12.1113 | -2.2556 | 0.1006 | 1.0544 | -0.0260 | -0.2370 | 0.3085 | -0.6055 | -0.2666 |
| 114 | 48.20 | 0.05 | 12.0802 | -2.6911 | 0.4376 | 1.0473 | -0.0204 | -0.1897 | 0.3443 | -0.5840 | -0.3141 |
| 115 | 48.47 | 0.06 | 12.0810 | -2.3064 | 0.0115 | 1.5020 | -0.0435 | -0.1806 | 0.4014 | -0.5820 | -0.3457 |
| 116 | 48.64 | 0.04 | 12.0943 | -2.4903 | 0.4210 | 1.0851 | -0.0010 | -0.2153 | 0.4000 | -0.6153 | -0.3832 |
| 117 | 48.82 | 0.06 | 12.1748 | -2.4556 | 0.1786 | 1.0665 | -0.0502 | -0.2072 | 0.4031 | -0.6073 | -0.3865 |
| 118 | 48.98 | 0.05 | 12.1864 | -2.5745 | 0.5711 | 1.0485 | -0.0571 | -0.2107 | 0.3969 | -0.6076 | -0.3837 |
| 119 | 49.14 | 0.05 | 12.2431 | -2.5250 | 0.4792 | 2.0315 | -0.0569 | -0.2395 | 0.3952 | -0.6297 | -0.3808 |
| 120 | 49.33 | 0.04 | 12.2932 | -2.6826 | 0.3239 | 2.0141 | -0.0614 | -0.2434 | 0.3794 | -0.6226 | -0.3729 |
| 121 | 49.51 | 0.04 | 12.1934 | -2.0444 | 0.4065 | 2.1243 | -0.0490 | -0.2548 | 0.3727 | -0.6275 | -0.3823 |
| 122 | 49.69 | 0.05 | 12.2755 | -2.0249 | 0.5883 | 2.0113 | -0.0481 | -0.2513 | 0.3637 | -0.6150 | -0.3638 |
| 123 | 49.87 | 0.01 | 12.3353 | -2.0807 | 0.1644 | 1.7596 | -0.0642 | -0.2646 | 0.3633 | -0.6279 | -0.3663 |
| 124 | 50.05 | 0.05 | 12.4417 | -2.0675 | 0.5245 | 1.7471 | -0.0501 | -0.2533 | 0.3674 | -0.6207 | -0.3776 |
| 125 | 50.23 | 0.02 | 12.4856 | -2.1340 | 0.2171 | 1.9352 | -0.0302 | -0.2645 | 0.3708 | -0.6353 | -0.3807 |
| 126 | 50.39 | 0.07 | 12.5306 | -2.0464 | 0.7236 | 1.8481 | -0.0100 | -0.2471 | 0.3730 | -0.6201 | -0.3698 |
| 127 | 50.58 | 0.01 | 12.7358 | -2.2583 | 0.2249 | 1.8547 | 0.0055 | -0.2720 | 0.3764 | -0.6484 | -0.3828 |
| 128 | 50.75 | 0.01 | 12.7432 | -2.2165 | 0.1205 | 1.8574 | -0.0057 | -0.2564 | 0.3771 | -0.6335 | -0.3783 |
| 129 | 50.91 | 0.03 | 12.8854 | -2.3373 | 0.4526 | 1.8722 | 0.0241 | -0.2425 | 0.3812 | -0.6237 | -0.3900 |
| 130 | 51.04 | 0.01 | 12.9349 | -2.0559 | 0.3074 | 2.0189 | 0.0245 | -0.2399 | 0.3923 | -0.6322 | -0.3778 |
| 131 | 51.21 | 0.01 | 13.0824 | -2.1431 | 0.3575 | 2.0105 | 0.0807 | -0.2497 | 0.3928 | -0.6425 | -0.3759 |
| 132 | 51.37 | 0.01 | 13.0779 | -2.1092 | 0.2917 | 2.0165 | 0.0787 | -0.2495 | 0.3843 | -0.6088 | -0.3731 |
| 133 | 51.54 | 0.01 | 13.1261 | -2.3565 | 0.3265 | 2.0583 | 0.0726 | -0.2272 | 0.4015 | -0.6287 | -0.3741 |
| 134 | 51.70 | 0.01 | 13.1476 | -2.1773 | 0.3332 | 2.0300 | 0.0840 | -0.2149 | 0.3954 | -0.6103 | -0.3730 |
| 135 | 51.87 | 0.06 | 13.1820 | -2.1561 | 0.7206 | 1.9216 | 0.0596 | -0.2123 | 0.3978 | -0.6101 | -0.3687 |
| 136 | 52.05 | 0.02 | 13.2357 | -2.3134 | 0.4631 | 2.9198 | 0.0616 | -0.2010 | 0.4050 | -0.6060 | -0.3787 |
| 137 | 52.22 | 0.01 | 13.2648 | -2.3666 | 0.2006 | 2.2707 | 0.0544 | -0.2018 | 0.4124 | -0.6142 | -0.3210 |
| 138 | 52.40 | -0.03 | 13.2044 | -2.2705 | -0.1006 | 1.2205 | 0.0442 | -0.2057 | 0.4139 | -0.6196 | -0.3116 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 PART 459 MACH 1.00 RN/IN-6 1.7 PHI 0.0 CONF BASOFF 13 T 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.53 | -0.01 | 13.9283 | -4.2453 | 0.1820 | 0.9515 | 0.0355 | -0.2176 | 0.4110 | -0.6286 | -0.3138 |
| 140 | 52.72 | -0.01 | 13.7516 | -4.1775 | 0.1907 | 1.2221 | 0.0499 | -0.1943 | 0.4188 | -0.6131 | -0.3043 |
| 141 | 52.90 | -0.00 | 13.7244 | -4.1033 | 0.1814 | 0.5812 | 0.0391 | -0.2012 | 0.4187 | -0.6199 | -0.3033 |
| 142 | 53.09 | 0.01 | 13.6737 | -3.9704 | 0.1810 | 0.9502 | 0.0303 | -0.1831 | 0.4194 | -0.6025 | -0.2964 |
| 143 | 53.22 | -0.01 | 13.6035 | -4.1065 | 0.0922 | 1.1557 | 0.0305 | -0.1906 | 0.4178 | -0.6062 | -0.2975 |
| 144 | 53.38 | -0.04 | 13.6073 | -4.1464 | -0.1465 | 1.0194 | 0.0457 | -0.1978 | 0.4200 | -0.6178 | -0.3003 |
| 145 | 53.54 | 0.00 | 13.5555 | -3.0524 | 0.2455 | 0.8647 | 0.0492 | -0.1850 | 0.4188 | -0.6038 | -0.2850 |
| 146 | 53.71 | -0.02 | 13.5078 | -4.2502 | 0.0911 | 0.8038 | 0.0402 | -0.2013 | 0.4196 | -0.6209 | -0.3056 |
| 147 | 53.85 | -0.02 | 13.4791 | -3.9572 | 0.1035 | 0.8573 | 0.0370 | -0.2051 | 0.4196 | -0.6247 | -0.2916 |
| 148 | 54.01 | 0.01 | 13.4661 | -4.1263 | 0.2343 | 0.8142 | 0.0314 | -0.2107 | 0.4185 | -0.6232 | -0.2953 |
| 149 | 54.18 | -0.02 | 13.4123 | -4.2130 | 0.0850 | 0.7808 | 0.0403 | -0.1859 | 0.4230 | -0.6069 | -0.3050 |
| 150 | 54.32 | -0.02 | 13.3967 | -4.3915 | 0.1139 | 0.8571 | 0.0318 | -0.2030 | 0.4249 | -0.6279 | -0.3160 |
| 151 | 54.50 | -0.04 | 13.3151 | -4.4510 | -0.0456 | 0.7532 | 0.0329 | -0.2164 | 0.4327 | -0.6491 | -0.3178 |
| 152 | 54.69 | -0.02 | 13.2992 | -4.3587 | 0.0731 | 0.7749 | 0.0304 | -0.2159 | 0.4325 | -0.6504 | -0.3245 |
| 153 | 54.80 | -0.00 | 13.2758 | -4.3571 | 0.2052 | 0.7403 | 0.0383 | -0.2242 | 0.4336 | -0.6648 | -0.3237 |
| 154 | 54.99 | -0.05 | 13.2379 | -4.4956 | -0.0205 | 0.5624 | 0.0477 | -0.2195 | 0.4391 | -0.6586 | -0.3226 |
| 155 | 55.14 | -0.01 | 13.2166 | -4.3965 | 0.1037 | 0.6458 | 0.0473 | -0.2136 | 0.4465 | -0.6601 | -0.3269 |
| 156 | 55.28 | -0.02 | 13.2051 | -4.4644 | 0.0525 | 0.6514 | 0.0334 | -0.2330 | 0.4524 | -0.6866 | -0.3279 |
| 157 | 55.42 | -0.01 | 13.2395 | -4.4725 | 0.1751 | 0.6140 | 0.0336 | -0.2308 | 0.4567 | -0.6876 | -0.3351 |
| 158 | 55.57 | -0.01 | 13.2089 | -4.4457 | 0.1085 | 0.7234 | 0.0333 | -0.2427 | 0.4571 | -0.6999 | -0.3245 |
| 159 | 55.73 | -0.05 | 13.2779 | -4.7913 | 0.2137 | 0.4122 | 0.0344 | -0.2385 | 0.4618 | -0.7008 | -0.3356 |
| 160 | 55.90 | -0.01 | 13.2015 | -4.4865 | 0.2392 | 0.3598 | 0.0409 | -0.2323 | 0.4584 | -0.6968 | -0.3277 |
| 161 | 56.06 | -0.04 | 13.2704 | -4.8037 | 0.0249 | 0.5465 | 0.0346 | -0.2459 | 0.4696 | -0.7106 | -0.3343 |
| 162 | 56.21 | -0.03 | 13.2051 | -4.7813 | 0.1179 | 0.4412 | 0.0301 | -0.2498 | 0.4622 | -0.7271 | -0.3296 |
| 163 | 56.42 | -0.02 | 13.2525 | -4.7856 | 0.1262 | 0.3611 | 0.0368 | -0.2382 | 0.4282 | -0.7664 | -0.3216 |
| 164 | 56.54 | -0.04 | 13.2713 | -4.8411 | 0.1222 | 0.3603 | 0.0308 | -0.2443 | 0.4316 | -0.7759 | -0.3163 |
| 165 | 56.71 | -0.07 | 13.2681 | -5.0474 | -0.1558 | -0.5714 | 0.0414 | -0.2723 | 0.4249 | -0.7972 | -0.3386 |
| 166 | 56.87 | -0.01 | 13.2677 | -4.9287 | -0.0518 | -0.6126 | 0.0420 | -0.2389 | 0.4200 | -0.7657 | -0.3287 |
| 167 | 57.01 | -0.06 | 13.2378 | -4.8041 | 0.0273 | -0.8341 | 0.0362 | -0.2355 | 0.4342 | -0.7697 | -0.3278 |
| 168 | 57.14 | -0.06 | 13.2559 | -4.8777 | -0.0063 | -0.7550 | 0.0414 | -0.2121 | 0.4490 | -0.7817 | -0.3319 |
| 169 | 57.30 | -0.06 | 13.2368 | -4.9715 | -0.0773 | -0.7659 | 0.0302 | -0.2275 | 0.4464 | -0.7739 | -0.3351 |
| 170 | 57.49 | -0.06 | 13.2348 | -5.0065 | -0.0767 | -0.7674 | 0.0355 | -0.2274 | 0.4436 | -0.7704 | -0.3436 |
| 171 | 57.58 | -0.06 | 13.2322 | -5.0276 | 0.0086 | -0.8649 | 0.0411 | -0.2481 | 0.4202 | -0.7683 | -0.3401 |
| 172 | 57.72 | -0.06 | 13.2218 | -4.9583 | 0.0051 | -0.8241 | 0.0383 | -0.2557 | 0.4199 | -0.7756 | -0.3381 |
| 173 | 57.90 | -0.06 | 13.2365 | -5.0051 | -0.0428 | -0.8749 | 0.0531 | -0.2908 | 0.4192 | -0.8100 | -0.3371 |
| 174 | 58.03 | -0.05 | 13.2207 | -5.0015 | 0.0205 | -0.8249 | 0.0472 | -0.2736 | 0.4203 | -0.7941 | -0.3392 |
| 175 | 58.19 | -0.05 | 13.2071 | -5.0124 | 0.0034 | -0.8084 | 0.0549 | -0.2795 | 0.4311 | -0.8110 | -0.3400 |
| 176 | 58.33 | -0.05 | 13.1963 | -5.0268 | 0.0043 | -0.8071 | 0.0594 | -0.2696 | 0.4279 | -0.8211 | -0.3490 |
| 177 | 58.35 | -0.04 | 13.2133 | -5.3338 | 0.0057 | -0.2766 | 0.0251 | -0.2883 | 0.4235 | -0.8138 | -0.3508 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH AXIS-E PHI CONF L DELI DELZ DEL3 DEL4 TRANSITION
/ 154 1.06 1.7 0.0 DEGREES 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | Co1 | XCPF1 | YCPF1 | CNF2 | CM2 | Co2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.83 | 0.03 | 0.0066 | 0.0041 | 0.0135 | 0.8370 | 22.0704 | -1.2077 | -0.0059 | -0.5384 | 0.0049 | 0.4458 |
| 2 | -5.83 | 0.01 | -0.0013 | 0.0046 | 0.0116 | -3.9403 | -8.9916 | -1.2078 | -0.0057 | -0.5378 | 0.0047 | 0.4453 |
| 3 | -5.83 | 0.01 | -0.0026 | 0.0050 | 0.0101 | -1.5008 | -5.0662 | -1.2113 | -0.0060 | -0.5402 | 0.0050 | 0.4460 |
| 4 | -5.80 | 0.01 | -0.0011 | 0.0035 | 0.0105 | -3.1033 | -7.9408 | -1.1966 | -0.0077 | -0.5362 | 0.0064 | 0.4481 |
| 5 | -4.81 | 0.00 | 0.0010 | 0.0041 | 0.0114 | 4.1022 | 11.4365 | -1.1338 | -0.0104 | -0.5220 | 0.0145 | 0.4604 |
| 6 | -2.27 | 0.01 | 0.0004 | 0.0048 | 0.0135 | 0.7873 | 2.2057 | -1.0585 | -0.0217 | -0.4995 | 0.0205 | 0.4726 |
| 7 | -0.48 | 0.01 | 0.0013 | 0.0032 | 0.0098 | 2.4826 | 7.5020 | -0.9859 | -0.0227 | -0.4775 | 0.0231 | 0.4843 |
| 8 | 1.31 | 0.02 | 0.0118 | 0.0059 | 0.0123 | 0.5003 | 1.0372 | -0.8908 | -0.0225 | -0.4481 | 0.0253 | 0.5031 |
| 9 | 3.21 | 0.01 | 0.0078 | 0.0046 | 0.0106 | 0.5901 | 1.3633 | -0.7627 | -0.0220 | -0.3959 | 0.0285 | 0.5151 |
| 10 | 4.96 | 0.01 | -0.0019 | 0.0027 | 0.0095 | -1.4216 | -5.0100 | -0.6302 | -0.0185 | -0.3430 | 0.0291 | 0.5302 |
| 11 | 6.63 | 0.01 | 0.0038 | 0.0034 | 0.0157 | 0.9449 | 4.3472 | -0.4604 | -0.0165 | -0.2719 | 0.0354 | 0.5836 |
| 12 | 8.63 | 0.01 | 0.0130 | 0.0052 | 0.0168 | 0.6903 | 1.4931 | -0.3410 | -0.0130 | -0.2050 | 0.0381 | 0.6002 |
| 13 | 10.49 | 0.02 | 0.0220 | 0.0036 | 0.0245 | 0.1637 | 1.1126 | -0.2141 | -0.0057 | -0.1373 | 0.0267 | 0.6411 |
| 14 | 12.38 | 0.01 | 0.0164 | 0.0035 | 0.0233 | 0.1903 | 1.3646 | -0.0701 | 0.0034 | -0.0790 | -0.0486 | 1.1279 |
| 15 | 14.26 | 0.01 | 0.0185 | 0.0063 | 0.0265 | 0.0162 | 1.4316 | 0.0235 | 0.0166 | -0.0310 | 0.7068 | -1.3191 |
| 16 | 16.21 | 0.00 | 0.0079 | -0.0001 | 0.0241 | -0.2020 | 3.0977 | 0.1270 | 0.0296 | 0.0169 | 0.2334 | 0.1348 |
| 17 | 18.16 | 0.01 | 0.0091 | -0.0024 | 0.0300 | -0.2639 | 3.2962 | 0.2159 | 0.0438 | 0.0578 | 0.2027 | 0.2675 |
| 18 | 20.10 | 0.01 | -0.0041 | -0.0051 | 0.0249 | 1.2440 | -3.9703 | 0.3323 | 0.0562 | 0.1134 | 0.1691 | 0.3427 |
| 19 | 22.06 | 0.01 | -0.0041 | -0.0171 | 0.0348 | 0.3860 | -0.1092 | 0.4506 | 0.0587 | 0.1754 | 0.1362 | 0.3893 |
| 20 | 24.04 | -0.02 | -0.0166 | -0.0376 | -0.0367 | 0.2410 | 0.2096 | 0.5301 | 0.0625 | 0.2212 | 0.1166 | 0.4126 |
| 21 | 26.01 | 0.02 | 0.0378 | 0.0161 | 0.0351 | 0.4262 | 0.1327 | 0.7248 | 0.0544 | 0.3072 | 0.0750 | 0.4238 |
| 22 | 28.00 | 0.01 | 0.0235 | 0.0519 | 0.1096 | 0.1870 | 0.4006 | 0.8395 | 0.0495 | 0.3543 | 0.0569 | 0.4280 |
| 23 | 28.00 | 0.00 | 0.0230 | 0.0558 | 0.1165 | 0.2043 | 0.4266 | 0.8395 | 0.0497 | 0.3593 | 0.0592 | 0.4280 |
| 24 | 28.00 | 0.00 | 0.0214 | 0.0554 | 0.1161 | 0.2044 | 0.4279 | 0.8499 | 0.0506 | 0.3628 | 0.0588 | 0.4285 |
| 25 | 28.71 | 0.00 | 0.2241 | 0.0482 | 0.0564 | 0.2150 | 0.4393 | 0.8592 | 0.0514 | 0.3685 | 0.0598 | 0.4289 |
| 26 | 29.03 | 0.00 | 0.3512 | 0.0653 | 0.1400 | 0.1854 | 0.4231 | 0.8905 | 0.0487 | 0.3818 | 0.0547 | 0.4287 |
| 27 | 29.35 | 0.00 | 0.3382 | 0.0633 | 0.1395 | 0.1883 | 0.4148 | 0.8995 | 0.0490 | 0.3851 | 0.0544 | 0.4275 |
| 28 | 29.65 | 0.10 | 0.3510 | 0.0703 | 0.1658 | 0.1798 | 0.4235 | 0.9312 | 0.0471 | 0.3983 | 0.0505 | 0.4277 |
| 29 | 29.92 | 0.00 | 0.3175 | 0.0661 | 0.1535 | 0.1893 | 0.4206 | 0.9333 | 0.0465 | 0.4010 | 0.0515 | 0.4297 |
| 30 | 30.20 | 0.00 | 0.3044 | 0.0630 | 0.1478 | 0.1830 | 0.4193 | 0.9434 | 0.0485 | 0.4047 | 0.0513 | 0.4286 |
| 31 | 30.47 | 0.05 | 0.3351 | 0.0682 | 0.1418 | 0.1846 | 0.4181 | 0.9671 | 0.0465 | 0.4138 | 0.0486 | 0.4279 |
| 32 | 30.74 | 0.05 | 0.3077 | 0.0662 | 0.1334 | 0.1826 | 0.4337 | 0.9621 | 0.0485 | 0.4153 | 0.0504 | 0.4296 |
| 33 | 31.03 | 0.10 | 0.3245 | 0.0676 | 0.1424 | 0.1772 | 0.4382 | 0.9746 | 0.0488 | 0.4178 | 0.0501 | 0.4256 |
| 34 | 31.31 | 0.09 | 0.2733 | 0.0661 | 0.1435 | 0.1759 | 0.4533 | 0.9678 | 0.0508 | 0.4149 | 0.0525 | 0.4287 |
| 35 | 31.58 | 0.08 | 0.3555 | 0.0682 | 0.1492 | 0.1732 | 0.4462 | 0.9660 | 0.0490 | 0.4217 | 0.0497 | 0.4277 |
| 36 | 31.85 | 0.10 | 0.3667 | 0.0696 | 0.1536 | 0.1780 | 0.4551 | 0.9655 | 0.0496 | 0.4251 | 0.0506 | 0.4271 |
| 37 | 32.13 | 0.08 | 0.2118 | 0.0406 | 0.0535 | 0.1517 | 0.4418 | 0.9917 | 0.0517 | 0.4246 | 0.0521 | 0.4282 |
| 38 | 32.39 | 0.08 | 0.2238 | 0.0317 | 0.0643 | 0.2311 | 0.3772 | 1.0264 | 0.0506 | 0.4391 | 0.0455 | 0.4278 |
| 39 | 32.65 | 0.07 | 0.1327 | 0.0370 | 0.0451 | 0.2784 | 0.3397 | 1.0215 | 0.0531 | 0.4364 | 0.0520 | 0.4272 |
| 40 | 32.91 | 0.08 | 0.2053 | 0.0405 | 0.0488 | 0.2240 | 0.3661 | 1.0457 | 0.0505 | 0.4453 | 0.0463 | 0.4258 |
| 41 | 33.17 | 0.07 | 0.1157 | 0.0357 | 0.0355 | 0.3081 | 0.3372 | 1.0165 | 0.0559 | 0.4258 | 0.0550 | 0.4188 |
| 42 | 33.41 | 0.08 | 0.1021 | 0.0383 | 0.0394 | 0.2359 | 0.3494 | 0.9958 | 0.0542 | 0.4097 | 0.0544 | 0.4114 |
| 43 | 33.67 | 0.07 | 0.0760 | 0.0246 | 0.0215 | 0.3217 | 0.2659 | 0.9609 | 0.0509 | 0.3871 | 0.0529 | 0.4028 |
| 44 | 33.93 | 0.06 | 0.1016 | 0.0273 | 0.0293 | 0.2559 | 0.3068 | 0.9623 | 0.0486 | 0.3885 | 0.0508 | 0.4016 |
| 45 | 34.17 | 0.06 | 0.2226 | 0.0425 | 0.0471 | 0.1925 | 0.4502 | 0.9837 | 0.0485 | 0.3969 | 0.0457 | 0.4035 |
| 46 | 34.43 | 0.03 | 0.0789 | 0.0178 | 0.0206 | 0.2319 | 0.3644 | 0.9724 | 0.0510 | 0.3946 | 0.0524 | 0.4058 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RNIC-6 PHI CONF I DELI DELZ DEL3 DEL4 TRANSITION
7 154 1.60 1.7 0.0 BIBOFIS 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.06 | 0.05 | 0.1731 | 0.0367 | 0.0735 | 0.1777 | 0.4247 | 0.9825 | 0.0483 | 0.3945 | 0.0491 | 0.4015 |
| 48 | 34.51 | 0.00 | 0.2226 | 0.0364 | 0.1068 | 0.1628 | 0.4312 | 0.9792 | 0.0464 | 0.3913 | 0.0474 | 0.3990 |
| 49 | 35.16 | 0.04 | 0.1853 | 0.0368 | 0.0476 | 0.1712 | 0.4520 | 0.9717 | 0.0481 | 0.3895 | 0.0495 | 0.4008 |
| 50 | 35.40 | 0.08 | 0.2381 | 0.0365 | 0.1195 | 0.1548 | 0.4035 | 0.9792 | 0.0480 | 0.3899 | 0.0469 | 0.3982 |
| 51 | 35.06 | 0.06 | 0.1760 | 0.0265 | 0.0889 | 0.1514 | 0.4993 | 0.9864 | 0.0452 | 0.3925 | 0.0458 | 0.3975 |
| 52 | 35.68 | 0.07 | 0.2069 | 0.0378 | 0.1029 | 0.1402 | 0.4991 | 0.9890 | 0.0433 | 0.3929 | 0.0437 | 0.3973 |
| 53 | 36.12 | 0.05 | 0.1472 | 0.0231 | 0.0697 | 0.1571 | 0.4733 | 0.9853 | 0.0433 | 0.3904 | 0.0439 | 0.3962 |
| 54 | 36.35 | 0.04 | 0.1853 | 0.0265 | 0.0891 | 0.1541 | 0.4988 | 0.9837 | 0.0441 | 0.3881 | 0.0417 | 0.3937 |
| 55 | 36.59 | 0.06 | 0.2567 | 0.0365 | 0.1248 | 0.1435 | 0.4862 | 0.9930 | 0.0399 | 0.3907 | 0.0401 | 0.3935 |
| 56 | 36.82 | 0.05 | 0.2171 | 0.0365 | 0.1018 | 0.1425 | 0.4990 | 0.9883 | 0.0396 | 0.3885 | 0.0400 | 0.3931 |
| 57 | 37.08 | 0.06 | 0.2148 | 0.0261 | 0.1037 | 0.1310 | 0.4829 | 0.9980 | 0.0385 | 0.3905 | 0.0385 | 0.3917 |
| 58 | 37.31 | 0.05 | 0.2038 | 0.0264 | 0.0996 | 0.1284 | 0.4883 | 1.0025 | 0.0396 | 0.3954 | 0.0367 | 0.3944 |
| 59 | 37.53 | 0.06 | 0.1763 | 0.0231 | 0.0845 | 0.1312 | 0.4797 | 0.9966 | 0.0385 | 0.3910 | 0.0386 | 0.3923 |
| 60 | 37.78 | 0.06 | 0.1578 | 0.0254 | 0.0684 | 0.1287 | 0.4981 | 1.0002 | 0.0384 | 0.3922 | 0.0383 | 0.3921 |
| 61 | 38.00 | 0.06 | 0.1715 | 0.0266 | 0.0765 | 0.1265 | 0.4988 | 1.0037 | 0.0385 | 0.3933 | 0.0383 | 0.3915 |
| 62 | 38.24 | 0.05 | 0.1546 | 0.0197 | 0.0712 | 0.1278 | 0.4904 | 1.0111 | 0.0366 | 0.3950 | 0.0363 | 0.3907 |
| 63 | 38.47 | 0.05 | 0.2073 | 0.0223 | 0.1026 | 0.1077 | 0.4951 | 1.0106 | 0.0336 | 0.3966 | 0.0381 | 0.3924 |
| 64 | 38.71 | 0.05 | 0.1769 | 0.0224 | 0.0793 | 0.1258 | 0.4947 | 1.0134 | 0.0371 | 0.3984 | 0.0360 | 0.3912 |
| 65 | 38.91 | 0.05 | 0.2032 | 0.0230 | 0.0946 | 0.1134 | 0.4855 | 1.0157 | 0.0378 | 0.3972 | 0.0372 | 0.3911 |
| 66 | 39.13 | 0.07 | 0.2733 | 0.0333 | 0.1290 | 0.1220 | 0.4742 | 0.9938 | 0.0339 | 0.3847 | 0.0342 | 0.3871 |
| 67 | 39.36 | 0.05 | 0.2077 | 0.0240 | 0.0947 | 0.1157 | 0.4559 | 1.0079 | 0.0336 | 0.3919 | 0.0336 | 0.3888 |
| 68 | 39.57 | 0.07 | 0.1868 | 0.0197 | 0.0856 | 0.1228 | 0.4944 | 1.0084 | 0.0312 | 0.3887 | 0.0310 | 0.3854 |
| 69 | 39.78 | 0.08 | 0.2245 | 0.0238 | 0.1119 | 0.1053 | 0.4982 | 1.0024 | 0.0315 | 0.3884 | 0.0315 | 0.3855 |
| 70 | 39.99 | 0.08 | 0.1844 | 0.0225 | 0.0925 | 0.0842 | 0.5016 | 1.0133 | 0.0307 | 0.3869 | 0.0303 | 0.3838 |
| 71 | 40.19 | 0.07 | 0.1887 | 0.0177 | 0.0913 | 0.0950 | 0.4890 | 1.0077 | 0.0282 | 0.3844 | 0.0280 | 0.3814 |
| 72 | 40.40 | 0.09 | 0.2027 | 0.0078 | 0.0929 | 0.0741 | 0.5037 | 1.0184 | 0.0276 | 0.3865 | 0.0271 | 0.3815 |
| 73 | 40.63 | 0.06 | 0.1975 | 0.0179 | 0.0940 | 0.0908 | 0.4759 | 1.0041 | 0.0279 | 0.3830 | 0.0278 | 0.3814 |
| 74 | 40.88 | 0.07 | 0.2596 | 0.0263 | 0.1195 | 0.0934 | 0.4999 | 0.9942 | 0.0266 | 0.3721 | 0.0271 | 0.3781 |
| 75 | 41.06 | 0.04 | 0.1838 | 0.0214 | 0.0881 | 0.0896 | 0.4683 | 1.0045 | 0.0256 | 0.3796 | 0.0255 | 0.3778 |
| 76 | 41.29 | 0.06 | 0.2141 | 0.0177 | 0.1012 | 0.0848 | 0.4726 | 1.0045 | 0.0246 | 0.3807 | 0.0245 | 0.3785 |
| 77 | 41.48 | 0.06 | 0.2140 | 0.0153 | 0.1016 | 0.0903 | 0.4749 | 0.9938 | 0.0248 | 0.3749 | 0.0250 | 0.3773 |
| 78 | 41.68 | 0.05 | 0.1866 | 0.0092 | 0.0773 | 0.0847 | 0.4803 | 1.0129 | 0.0233 | 0.3834 | 0.0230 | 0.3785 |
| 79 | 41.87 | 0.07 | 0.1804 | 0.0127 | 0.0847 | 0.0845 | 0.4295 | 1.0106 | 0.0230 | 0.3820 | 0.0228 | 0.3780 |
| 80 | 42.08 | 0.05 | 0.1866 | 0.0155 | 0.0815 | 0.1029 | 0.4074 | 1.0096 | 0.0218 | 0.3809 | 0.0216 | 0.3772 |
| 81 | 42.27 | 0.08 | 0.1804 | 0.0153 | 0.0817 | 0.0850 | 0.4532 | 1.0012 | 0.0222 | 0.3772 | 0.0222 | 0.3768 |
| 82 | 42.49 | 0.05 | 0.1869 | 0.0118 | 0.0844 | 0.0863 | 0.3989 | 1.0120 | 0.0218 | 0.3805 | 0.0216 | 0.3759 |
| 83 | 42.65 | 0.05 | 0.1963 | 0.0211 | 0.0929 | 0.1010 | 0.4884 | 0.9929 | 0.0223 | 0.3723 | 0.0225 | 0.3790 |
| 84 | 42.82 | 0.05 | 0.1895 | 0.0156 | 0.0886 | 0.1020 | 0.4508 | 0.9941 | 0.0218 | 0.3733 | 0.0220 | 0.3755 |
| 85 | 43.01 | 0.05 | 0.1950 | 0.0130 | 0.0851 | 0.0840 | 0.4456 | 1.0133 | 0.0208 | 0.3818 | 0.0203 | 0.3799 |
| 86 | 43.24 | 0.05 | 0.2594 | 0.0174 | 0.1262 | 0.1753 | 0.2031 | 1.0253 | 0.0190 | 0.3845 | 0.0186 | 0.3750 |
| 87 | 43.40 | 0.04 | 0.1103 | 0.0129 | 0.0357 | 0.1171 | 0.3241 | 1.0262 | 0.0195 | 0.3875 | 0.0190 | 0.3778 |
| 88 | 43.59 | 0.05 | 0.1952 | 0.0115 | 0.0824 | 0.0793 | 0.4293 | 1.0248 | 0.0197 | 0.3857 | 0.0193 | 0.3763 |
| 89 | 43.77 | 0.05 | 0.1151 | 0.0105 | 0.0378 | 0.1436 | 0.3263 | 1.0368 | 0.0187 | 0.3902 | 0.0181 | 0.3783 |
| 90 | 43.94 | 0.03 | 0.1018 | 0.0133 | 0.0320 | 0.1308 | 0.3208 | 1.0238 | 0.0190 | 0.3840 | 0.0186 | 0.3750 |
| 91 | 44.11 | 0.05 | 0.1994 | 0.0135 | 0.0750 | 0.0905 | 0.5019 | 0.9767 | 0.0217 | 0.3650 | 0.0222 | 0.3737 |
| 92 | 44.33 | 0.02 | 0.1263 | 0.0170 | 0.0425 | 0.1348 | 0.3363 | 1.0390 | 0.0183 | 0.3902 | 0.0176 | 0.3759 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

PARTIAL PASSIVE TAILS EFFECTS DATA

TEST PART MACH NAIC-6 PRT CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 154 1.60 1.7 0.6 BIMORIS 0.6 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.50 | 0.05 | 0.1352 | 0.0153 | 0.0535 | 0.1133 | 0.3988 | 1.0278 | 0.0201 | 0.3866 | 0.0196 | 0.3761 |
| 94 | 44.66 | 0.04 | 0.1111 | 0.0141 | 0.0534 | 0.1262 | 0.3130 | 1.0387 | 0.0181 | 0.3903 | 0.0174 | 0.3757 |
| 95 | 44.89 | 0.01 | 0.1117 | 0.0154 | 0.0529 | 0.1734 | 0.2652 | 1.0387 | 0.0186 | 0.3897 | 0.0179 | 0.3752 |
| 96 | 45.08 | 0.02 | 0.1064 | 0.0144 | 0.0536 | 0.1355 | 0.3309 | 1.0265 | 0.0195 | 0.3829 | 0.0191 | 0.3752 |
| 97 | 45.26 | 0.03 | 0.1151 | 0.0156 | 0.0532 | 0.1353 | 0.3062 | 1.0440 | 0.0191 | 0.3933 | 0.0183 | 0.3767 |
| 98 | 45.44 | 0.04 | 0.1207 | 0.0150 | 0.0536 | 0.1240 | 0.2975 | 0.9926 | 0.0221 | 0.3722 | 0.0223 | 0.3750 |
| 99 | 45.64 | 0.02 | 0.1116 | 0.0155 | 0.0535 | 0.1351 | 0.3844 | 1.0316 | 0.0206 | 0.3890 | 0.0200 | 0.3771 |
| 100 | 45.82 | 0.03 | 0.1071 | 0.0157 | 0.0533 | 0.1501 | 0.4041 | 1.0252 | 0.0205 | 0.3846 | 0.0201 | 0.3758 |
| 101 | 45.98 | 0.01 | 0.1119 | 0.0113 | 0.0466 | 0.1011 | 0.3025 | 1.0356 | 0.0202 | 0.3897 | 0.0195 | 0.3765 |
| 102 | 46.16 | 0.02 | 0.1267 | 0.0151 | 0.0175 | 0.1069 | 0.2113 | 1.0226 | 0.0210 | 0.3854 | 0.0206 | 0.3768 |
| 103 | 46.34 | 0.03 | 0.1556 | 0.0155 | 0.0402 | 0.0554 | 0.4025 | 1.0125 | 0.0221 | 0.3816 | 0.0218 | 0.3767 |
| 104 | 46.52 | 0.00 | 0.0522 | 0.0131 | 0.0204 | 0.1469 | 0.2885 | 1.0212 | 0.0225 | 0.3849 | 0.0221 | 0.3769 |
| 105 | 46.68 | 0.02 | 0.1224 | 0.0100 | 0.0303 | 0.1133 | 0.3451 | 1.0211 | 0.0223 | 0.3868 | 0.0219 | 0.3788 |
| 106 | 46.85 | 0.01 | 0.0920 | 0.0064 | 0.0196 | 0.1503 | 0.2496 | 1.0209 | 0.0237 | 0.3912 | 0.0231 | 0.3802 |
| 107 | 47.04 | 0.02 | 0.0508 | 0.0057 | 0.0044 | 0.1004 | 0.1443 | 1.0402 | 0.0245 | 0.3969 | 0.0236 | 0.3816 |
| 108 | 47.23 | 0.01 | -0.0256 | 0.0045 | -0.0345 | -0.2850 | 0.9860 | 1.0414 | 0.0169 | 0.3913 | 0.0163 | 0.3757 |
| 109 | 47.41 | 0.01 | 0.0585 | 0.0145 | 0.0 | 0.3708 | 0.0 | 1.0611 | 0.0177 | 0.3995 | 0.0167 | 0.3769 |
| 110 | 47.58 | 0.04 | -0.0004 | 0.0112 | -0.0184 | -1.3340 | 2.1017 | 1.0402 | 0.0188 | 0.3936 | 0.0180 | 0.3757 |
| 111 | 47.74 | 0.02 | -0.0215 | 0.0056 | -0.0535 | -0.0888 | 0.8569 | 1.0388 | 0.0147 | 0.3883 | 0.0142 | 0.3738 |
| 112 | 47.94 | 0.04 | -0.0258 | -0.0138 | -0.0481 | 0.1838 | 0.4782 | 0.9491 | 0.0193 | 0.3478 | 0.0204 | 0.3663 |
| 113 | 48.09 | 0.02 | -0.0544 | -0.0259 | -0.0581 | 0.0412 | 0.5922 | 0.9621 | 0.0185 | 0.3524 | 0.0193 | 0.3663 |
| 114 | 48.28 | 0.05 | -0.0174 | -0.0136 | -0.0493 | 0.7535 | 1.1070 | 0.9691 | 0.0177 | 0.3630 | 0.0179 | 0.3670 |
| 115 | 48.47 | 0.06 | -0.0344 | -0.0118 | -0.0367 | 2.4094 | 3.3950 | 0.9621 | 0.0175 | 0.3564 | 0.0183 | 0.3625 |
| 116 | 48.64 | 0.04 | -0.0064 | -0.0166 | -0.0598 | 41.5221 | 24.5784 | 1.0515 | 0.0186 | 0.3872 | 0.0177 | 0.3682 |
| 117 | 48.82 | 0.06 | -0.0157 | -0.0161 | -0.0173 | 0.5193 | 0.8759 | 1.0549 | 0.0186 | 0.3869 | 0.0178 | 0.3668 |
| 118 | 48.98 | 0.05 | -0.0172 | -0.0159 | -0.0184 | 1.1205 | 1.0674 | 1.0560 | 0.0179 | 0.3866 | 0.0170 | 0.3686 |
| 119 | 49.14 | 0.05 | -0.0136 | -0.0161 | -0.0150 | 1.3316 | 1.0591 | 1.0573 | 0.0176 | 0.3886 | 0.0165 | 0.3676 |
| 120 | 49.33 | 0.04 | -0.0163 | -0.0161 | -0.0146 | 1.7562 | 1.4317 | 1.0666 | 0.0173 | 0.3906 | 0.0162 | 0.3663 |
| 121 | 49.51 | 0.04 | -0.0257 | -0.0212 | -0.0156 | 0.8253 | 0.7590 | 1.0740 | 0.0185 | 0.3937 | 0.0152 | 0.3666 |
| 122 | 49.69 | 0.05 | -0.0241 | -0.0155 | -0.0163 | 4.6262 | 2.9851 | 1.0856 | 0.0152 | 0.3986 | 0.0140 | 0.3666 |
| 123 | 49.87 | 0.01 | 0.0030 | -0.0203 | -0.0225 | -0.7703 | -2.9762 | 1.0573 | 0.0150 | 0.4044 | 0.0137 | 0.3685 |
| 124 | 50.05 | 0.05 | -0.0213 | -0.0157 | -0.0214 | -0.9254 | -0.6059 | 1.1047 | 0.0137 | 0.4054 | 0.0124 | 0.3665 |
| 125 | 50.23 | 0.02 | 0.0300 | -0.0158 | -0.0268 | -0.8004 | -0.0208 | 1.1013 | 0.0115 | 0.4050 | 0.0108 | 0.3677 |
| 126 | 50.39 | 0.07 | 0.0426 | -0.0138 | 0.0036 | -0.3246 | 0.0717 | 1.0776 | 0.0126 | 0.3925 | 0.0117 | 0.3642 |
| 127 | 50.56 | 0.01 | 0.0403 | -0.0136 | -0.0037 | -0.3402 | -0.0928 | 1.0591 | 0.0121 | 0.3841 | 0.0105 | 0.3627 |
| 128 | 50.75 | 0.01 | 0.0194 | -0.0124 | -0.0210 | -0.6345 | -0.5999 | 1.0493 | 0.0103 | 0.3863 | 0.0098 | 0.3624 |
| 129 | 50.91 | 0.03 | 0.0211 | -0.0075 | -0.0166 | -0.3556 | -0.7960 | 1.0458 | 0.0102 | 0.3782 | 0.0096 | 0.3617 |
| 130 | 51.09 | 0.01 | 0.0518 | 0.0005 | 0.0102 | 0.0705 | 0.1980 | 1.0374 | 0.0117 | 0.3746 | 0.0113 | 0.3611 |
| 131 | 51.21 | 0.01 | 0.0602 | 0.0079 | 0.0095 | -0.0924 | 0.1240 | 1.0291 | 0.0111 | 0.3716 | 0.0108 | 0.3611 |
| 132 | 51.37 | 0.01 | 0.0647 | 0.0077 | 0.0109 | 0.1193 | 0.1015 | 0.9707 | 0.0146 | 0.3500 | 0.0153 | 0.3606 |
| 133 | 51.54 | 0.01 | 0.0451 | 0.0070 | 0.0052 | 0.1426 | 0.1062 | 0.9377 | 0.0144 | 0.3351 | 0.0154 | 0.3574 |
| 134 | 51.70 | 0.01 | 0.0455 | 0.0073 | 0.0068 | 0.1404 | 0.1067 | 0.9376 | 0.0148 | 0.3361 | 0.0158 | 0.3585 |
| 135 | 51.87 | 0.00 | 0.0182 | 0.0045 | -0.0003 | 0.2775 | -0.3901 | 0.9328 | 0.0139 | 0.3351 | 0.0149 | 0.3592 |
| 136 | 52.05 | 0.02 | 0.0131 | 0.0043 | -0.0072 | 0.3437 | -0.5914 | 0.9410 | 0.0138 | 0.3394 | 0.0147 | 0.3607 |
| 137 | 52.22 | 0.01 | -0.0044 | 0.0017 | -0.0130 | -0.3868 | 2.9412 | 0.9435 | 0.0121 | 0.3411 | 0.0128 | 0.3615 |
| 138 | 52.40 | -0.03 | -0.0125 | 0.0026 | -0.0175 | -0.0516 | 1.1521 | 0.9301 | 0.0131 | 0.3413 | 0.0140 | 0.3646 |

PARTIAL PASSIVE TAILS EFFECTS DATA

TEST 7 PART 1&4 PACK 1.00 RN/B-E 1.7 PHI 0.00 CONF 1 DEG 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLANT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CA2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.53 | -0.01 | -0.0127 | 0.0003 | -0.0150 | -0.0236 | 1.1770 | 0.9457 | 0.0125 | 0.3444 | 0.0132 | 0.3642 |
| 140 | 52.72 | -0.01 | -0.0135 | -0.0016 | -0.0179 | 0.0367 | 1.1197 | 0.9234 | 0.0130 | 0.3386 | 0.0141 | 0.3630 |
| 141 | 52.90 | -0.00 | -0.0128 | -0.0015 | -0.0150 | 0.0035 | 1.1863 | 0.9255 | 0.0131 | 0.3369 | 0.0142 | 0.3646 |
| 142 | 53.04 | 0.01 | 0.0022 | 0.0002 | -0.0106 | 0.0410 | -2.7360 | 0.9278 | 0.0127 | 0.3393 | 0.0137 | 0.3657 |
| 143 | 53.22 | -0.01 | -0.0186 | -0.0021 | -0.0174 | 0.0130 | 0.9331 | 0.9170 | 0.0126 | 0.3354 | 0.0138 | 0.3657 |
| 144 | 53.38 | -0.04 | -0.0116 | -0.0018 | -0.0121 | 0.0004 | 1.1239 | 0.9158 | 0.0126 | 0.3350 | 0.0140 | 0.3658 |
| 145 | 53.56 | 0.00 | -0.0059 | -0.0014 | -0.0092 | 0.2374 | 1.5843 | 0.9146 | 0.0127 | 0.3350 | 0.0139 | 0.3662 |
| 146 | 53.71 | -0.02 | -0.0099 | -0.0016 | -0.0113 | 0.1044 | 1.1451 | 0.9196 | 0.0115 | 0.3455 | 0.0123 | 0.3677 |
| 147 | 53.85 | -0.02 | -0.0174 | -0.0011 | -0.0123 | 0.0035 | 0.7036 | 0.9264 | 0.0123 | 0.3413 | 0.0133 | 0.3684 |
| 148 | 54.01 | 0.01 | -0.0150 | -0.0017 | -0.0102 | 0.0050 | 0.6559 | 0.9182 | 0.0110 | 0.3366 | 0.0127 | 0.3687 |
| 149 | 54.15 | -0.02 | -0.0107 | -0.0015 | -0.0100 | 0.1138 | 0.6307 | 0.9312 | 0.0113 | 0.3438 | 0.0122 | 0.3692 |
| 150 | 54.32 | -0.02 | -0.0122 | -0.0015 | -0.0084 | 0.1141 | 0.0000 | 0.9208 | 0.0115 | 0.3427 | 0.0124 | 0.3696 |
| 151 | 54.50 | -0.04 | -0.0138 | -0.0015 | -0.0082 | 0.1038 | 0.5961 | 0.9431 | 0.0106 | 0.3492 | 0.0113 | 0.3703 |
| 152 | 54.69 | -0.02 | -0.0159 | -0.0017 | -0.0089 | 0.1070 | 0.5300 | 0.9491 | 0.0097 | 0.3523 | 0.0102 | 0.3713 |
| 153 | 54.80 | -0.00 | -0.0112 | -0.0021 | -0.0091 | 0.0991 | 0.4306 | 0.9384 | 0.0105 | 0.3476 | 0.0112 | 0.3705 |
| 154 | 54.95 | -0.05 | -0.0123 | -0.0022 | -0.0103 | 0.1047 | 0.3699 | 0.9495 | 0.0096 | 0.3518 | 0.0104 | 0.3721 |
| 155 | 55.11 | -0.01 | -0.0249 | -0.0028 | -0.0075 | 0.1130 | 0.3054 | 0.9478 | 0.0097 | 0.3525 | 0.0102 | 0.3724 |
| 156 | 55.26 | -0.02 | -0.0168 | -0.0015 | -0.0095 | 0.0993 | 0.2090 | 0.9502 | 0.0098 | 0.3533 | 0.0103 | 0.3715 |
| 157 | 55.42 | -0.01 | -0.0245 | -0.0019 | -0.0072 | 0.0763 | 0.2901 | 0.9454 | 0.0101 | 0.3516 | 0.0107 | 0.3722 |
| 158 | 55.57 | -0.01 | -0.0221 | -0.0019 | -0.0091 | 0.0811 | 0.2435 | 0.9363 | 0.0106 | 0.3466 | 0.0113 | 0.3716 |
| 159 | 55.73 | -0.05 | -0.0221 | -0.0017 | -0.0042 | 0.0770 | 0.1907 | 0.9479 | 0.0096 | 0.3532 | 0.0104 | 0.3727 |
| 160 | 55.90 | -0.04 | -0.0166 | -0.0018 | -0.0049 | 0.0834 | 0.1616 | 0.9551 | 0.0092 | 0.3556 | 0.0096 | 0.3723 |
| 161 | 56.04 | -0.04 | -0.0241 | -0.0015 | -0.0055 | 0.0823 | 0.2269 | 0.9562 | 0.0096 | 0.3572 | 0.0101 | 0.3735 |
| 162 | 56.21 | -0.03 | -0.0256 | -0.0021 | -0.0082 | 0.0984 | 0.2488 | 0.9588 | 0.0093 | 0.3569 | 0.0097 | 0.3734 |
| 163 | 56.42 | -0.02 | -0.0279 | -0.0030 | -0.0064 | 0.1078 | 0.3020 | 0.9649 | 0.0071 | 0.3670 | 0.0072 | 0.3728 |
| 164 | 56.54 | -0.04 | -0.0271 | -0.0026 | -0.0067 | 0.1034 | 0.2480 | 0.9608 | 0.0085 | 0.3711 | 0.0065 | 0.3723 |
| 165 | 56.71 | -0.07 | 0.0022 | 0.0043 | 0.0045 | 1.9556 | 2.0520 | 1.0831 | 0.0041 | 0.3588 | 0.0035 | 0.3752 |
| 166 | 56.87 | -0.07 | 0.0025 | 0.0035 | 0.0026 | 1.5604 | 1.0433 | 1.0565 | 0.0042 | 0.3551 | 0.0040 | 0.3733 |
| 167 | 57.01 | -0.06 | 0.0106 | 0.0063 | 0.0063 | 0.4059 | 0.5962 | 1.0692 | 0.0033 | 0.4001 | 0.0031 | 0.3743 |
| 168 | 57.14 | -0.06 | 0.0067 | 0.0062 | 0.0038 | 0.2923 | 0.5072 | 1.0466 | 0.0043 | 0.3694 | 0.0041 | 0.3720 |
| 169 | 57.30 | -0.06 | 0.0271 | 0.0053 | 0.0118 | 0.1957 | 0.4296 | 1.0479 | 0.0040 | 0.3655 | 0.0038 | 0.3717 |
| 170 | 57.44 | -0.06 | 0.0241 | 0.0062 | 0.0134 | 0.1995 | 0.4001 | 1.0456 | 0.0043 | 0.3889 | 0.0041 | 0.3718 |
| 171 | 57.58 | -0.06 | 0.0168 | 0.0045 | 0.0066 | 0.2850 | 0.5135 | 1.0458 | 0.0046 | 0.3676 | 0.0044 | 0.3708 |
| 172 | 57.72 | -0.06 | 0.0021 | -0.0003 | 0.0004 | -0.2749 | 0.3048 | 1.0125 | 0.0054 | 0.3755 | 0.0053 | 0.3713 |
| 173 | 57.90 | -0.06 | 0.0217 | 0.0050 | 0.0077 | 0.0428 | 0.6602 | 1.0421 | 0.0042 | 0.3887 | 0.0040 | 0.3730 |
| 174 | 58.05 | -0.05 | 0.0027 | -0.0005 | 0.0057 | -0.0747 | 0.0235 | 1.0304 | 0.0040 | 0.3836 | 0.0035 | 0.3722 |
| 175 | 58.19 | -0.05 | 0.0148 | 0.0011 | 0.0085 | 0.0744 | 0.6333 | 1.0281 | 0.0034 | 0.3828 | 0.0033 | 0.3723 |
| 176 | 58.33 | -0.05 | 0.0256 | 0.0027 | 0.0126 | 0.1041 | 0.5016 | 1.0399 | 0.0028 | 0.3862 | 0.0027 | 0.3733 |
| 177 | 58.35 | -0.04 | 0.0155 | 0.0025 | 0.0075 | 0.2454 | 0.4984 | 1.0826 | 0.0032 | 0.4043 | 0.0030 | 0.3734 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(TRANSONIC 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 154 | MACH 1.60 | REX10-6 1.7 | PHI 0.0 | CONF BIBOFIN | L 0.0 | DELT 0 | DELZ -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.83 | 0.03 | 0.0243 | 9.9999 | 0.0071 | 9.9999 | 0.2931 | -1.3096 | -0.0095 | -0.5017 | 0.0073 | 0.3831 |
| 2 | -5.83 | 0.01 | 0.0249 | 9.9999 | 0.0071 | 9.9999 | 0.2931 | -1.3070 | -0.0095 | -0.5065 | 0.0073 | 0.3830 |
| 3 | -5.83 | 0.01 | 0.0221 | 9.9999 | 0.0067 | 9.9999 | 0.3041 | -1.3071 | -0.0095 | -0.5012 | 0.0073 | 0.3834 |
| 4 | -5.80 | 0.01 | 0.0259 | 9.9999 | 0.0066 | 9.9999 | 0.2957 | -1.3113 | -0.0118 | -0.5035 | 0.0090 | 0.3839 |
| 5 | -4.01 | 0.00 | 0.0210 | 9.9999 | 0.0058 | 9.9999 | 0.2771 | -1.2529 | -0.0132 | -0.4825 | 0.0153 | 0.3851 |
| 6 | -2.27 | 0.01 | 0.0144 | 9.9999 | 0.0037 | 9.9999 | 0.2570 | 1.1651 | -0.0265 | -0.4623 | 0.0244 | 0.3901 |
| 7 | -0.46 | 0.01 | 0.0158 | 9.9999 | 0.0060 | 9.9999 | 0.3344 | -1.1215 | -0.0308 | -0.4450 | 0.0273 | 0.3988 |
| 8 | 1.31 | 0.02 | 0.0266 | 9.9999 | 0.0081 | 9.9999 | 0.2301 | -1.0341 | -0.0274 | -0.4234 | 0.0285 | 0.4095 |
| 9 | 3.21 | 0.01 | 0.0357 | 9.9999 | 0.0054 | 9.9999 | 0.1517 | -0.9024 | -0.0303 | -0.3855 | 0.0336 | 0.4055 |
| 10 | 4.96 | 0.01 | 0.0357 | 9.9999 | 0.0051 | 9.9999 | 0.1433 | -0.7850 | -0.0263 | -0.3660 | 0.0344 | 0.4026 |
| 11 | 6.83 | 0.01 | 0.0357 | 9.9999 | 0.0054 | 9.9999 | 0.1517 | -0.6149 | -0.0225 | -0.2426 | 0.0363 | 0.3946 |
| 12 | 8.63 | 0.01 | 0.0357 | 9.9999 | 0.0042 | 9.9999 | 0.1180 | -0.4700 | -0.0165 | -0.1820 | 0.0352 | 0.3873 |
| 13 | 10.49 | 0.02 | 0.0225 | 9.9999 | 0.0005 | 9.9999 | 0.0401 | -0.3150 | -0.0065 | -0.1204 | 0.0207 | 0.3822 |
| 14 | 12.38 | 0.01 | 0.0159 | 9.9999 | -0.0018 | 9.9999 | -0.1136 | -0.1840 | 0.0020 | -0.0646 | -0.0141 | 0.3458 |
| 15 | 14.20 | 0.01 | 0.0114 | 9.9999 | -0.0014 | 9.9999 | -0.1232 | -0.0714 | 0.0139 | -0.0052 | -0.1951 | 0.1254 |
| 16 | 16.21 | 0.00 | 0.0102 | 9.9999 | -0.0015 | 9.9999 | -0.1475 | 0.0343 | 0.0302 | 0.0433 | 0.5925 | 0.8478 |
| 17 | 18.18 | 0.01 | 0.0161 | 9.9999 | -0.0005 | 9.9999 | -0.0279 | 0.1817 | 0.0481 | 0.1042 | 0.2646 | 0.5737 |
| 18 | 20.10 | 0.01 | 0.0221 | 9.9999 | -0.0033 | 9.9999 | -0.1206 | 0.2997 | 0.0561 | 0.1593 | 0.1871 | 0.5314 |
| 19 | 22.06 | 0.01 | 0.0372 | 9.9999 | -0.0021 | 9.9999 | -0.0966 | 0.4320 | 0.0564 | 0.2229 | 0.1305 | 0.5160 |
| 20 | 24.04 | -0.02 | 0.0467 | 9.9999 | -0.0134 | 9.9999 | -0.0838 | 0.5031 | 0.0545 | 0.2637 | 0.0967 | 0.5037 |
| 21 | 26.01 | 0.02 | 0.0406 | 9.9999 | -0.0028 | 9.9999 | -0.0692 | 0.5542 | 0.0623 | 0.2885 | 0.1124 | 0.5205 |
| 22 | 28.00 | 0.07 | 0.0755 | 9.9999 | 0.0125 | 9.9999 | 0.1656 | 0.6018 | 0.0665 | 0.3144 | 0.1105 | 0.5224 |
| 23 | 28.00 | 0.08 | 0.0643 | 9.9999 | 0.0155 | 9.9999 | 0.1882 | 0.6089 | 0.0667 | 0.3171 | 0.1055 | 0.5225 |
| 24 | 28.48 | 0.08 | 0.0687 | 9.9999 | 0.0178 | 9.9999 | 0.2004 | 0.6227 | 0.0666 | 0.3249 | 0.1070 | 0.5218 |
| 25 | 28.71 | 0.06 | 0.0734 | 9.9999 | 0.0117 | 9.9999 | 0.1601 | 0.6433 | 0.0655 | 0.3346 | 0.1018 | 0.5201 |
| 26 | 29.03 | 0.08 | 0.0791 | 9.9999 | 0.0215 | 9.9999 | 0.2327 | 0.6199 | 0.0676 | 0.3277 | 0.1054 | 0.5287 |
| 27 | 29.35 | 0.08 | 0.0845 | 9.9999 | 0.0171 | 9.9999 | 0.2021 | 0.6291 | 0.0676 | 0.3323 | 0.1078 | 0.5282 |
| 28 | 29.65 | 0.10 | 0.1030 | 9.9999 | 0.0265 | 9.9999 | 0.2574 | 0.6429 | 0.0681 | 0.3405 | 0.1059 | 0.5296 |
| 29 | 29.92 | 0.06 | 0.0858 | 9.9999 | 0.0217 | 9.9999 | 0.2416 | 0.6626 | 0.0681 | 0.3481 | 0.0998 | 0.5254 |
| 30 | 30.20 | 0.08 | 0.0822 | 9.9999 | 0.0181 | 9.9999 | 0.2194 | 0.6775 | 0.0656 | 0.3557 | 0.0968 | 0.5246 |
| 31 | 30.47 | 0.09 | 0.0833 | 9.9999 | 0.0175 | 9.9999 | 0.2146 | 0.6787 | 0.0669 | 0.3567 | 0.0986 | 0.5255 |
| 32 | 30.74 | 0.09 | 0.0951 | 9.9999 | 0.0233 | 9.9999 | 0.2563 | 0.7070 | 0.0656 | 0.3697 | 0.0928 | 0.5229 |
| 33 | 31.03 | 0.10 | 0.0942 | 9.9999 | 0.0231 | 9.9999 | 0.2452 | 0.7202 | 0.0666 | 0.3793 | 0.0915 | 0.5208 |
| 34 | 31.31 | 0.09 | 0.0978 | 9.9999 | 0.0216 | 9.9999 | 0.2396 | 0.7400 | 0.0651 | 0.3838 | 0.0880 | 0.5186 |
| 35 | 31.58 | 0.08 | 0.0756 | 9.9999 | 0.0160 | 9.9999 | 0.2113 | 0.7356 | 0.0668 | 0.3821 | 0.0908 | 0.5196 |
| 36 | 31.85 | 0.10 | 0.0958 | 9.9999 | 0.0225 | 9.9999 | 0.2443 | 0.7715 | 0.0655 | 0.3983 | 0.0846 | 0.5163 |
| 37 | 32.13 | 0.08 | 0.0832 | 9.9999 | 0.0198 | 9.9999 | 0.2354 | 0.7847 | 0.0639 | 0.4036 | 0.0814 | 0.5143 |
| 38 | 32.39 | 0.08 | 0.0974 | 9.9999 | 0.0256 | 9.9999 | 0.2666 | 0.7766 | 0.0653 | 0.4007 | 0.0841 | 0.5166 |
| 39 | 32.65 | 0.07 | 0.0733 | 9.9999 | 0.0165 | 9.9999 | 0.2248 | 0.7936 | 0.0638 | 0.4080 | 0.0804 | 0.5141 |
| 40 | 32.91 | 0.08 | 0.0918 | 9.9999 | 0.0241 | 9.9999 | 0.2691 | 0.7762 | 0.0665 | 0.4005 | 0.0857 | 0.5160 |
| 41 | 33.17 | 0.07 | 0.0766 | 9.9999 | 0.0185 | 9.9999 | 0.2203 | 0.8186 | 0.0643 | 0.4179 | 0.0785 | 0.5165 |
| 42 | 33.41 | 0.08 | 0.0884 | 9.9999 | 0.0237 | 9.9999 | 0.2681 | 0.8330 | 0.0649 | 0.4225 | 0.0774 | 0.5066 |
| 43 | 33.67 | 0.07 | 0.0775 | 9.9999 | 0.0184 | 9.9999 | 0.2372 | 0.8425 | 0.0646 | 0.4260 | 0.0767 | 0.5057 |
| 44 | 33.93 | 0.06 | 0.0665 | 9.9999 | 0.0145 | 9.9999 | 0.2236 | 0.8465 | 0.0652 | 0.4276 | 0.0768 | 0.5035 |
| 45 | 34.17 | 0.06 | 0.0688 | 9.9999 | 0.0151 | 9.9999 | 0.2190 | 0.8388 | 0.0639 | 0.4180 | 0.0762 | 0.4984 |
| 46 | 34.43 | 0.05 | 0.0632 | 9.9999 | 0.0133 | 9.9999 | 0.2099 | 0.8361 | 0.0602 | 0.4061 | 0.0720 | 0.4881 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 154 | MACH 1.00 | RX10-6 1.7 | PHI 0.0 | CONF 81 | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| FLINT | ALPHA | BETA | CNF3 | CM3 | CD3 | XCPF3 | YCPF3 | CNF4 | CM4 | CD4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.68 | 0.05 | 0.0643 | 5.9999 | 0.0134 | 5.5999 | 0.2078 | 0.8366 | 0.0569 | 0.4059 | 0.0704 | 0.4852 |
| 48 | 34.51 | 0.06 | 0.0666 | 5.5555 | 0.0102 | 5.5595 | 0.2358 | 0.8309 | 0.0560 | 0.4065 | 0.0693 | 0.4857 |
| 49 | 35.10 | 0.04 | 0.0642 | 5.5555 | 0.0135 | 5.5555 | 0.2160 | 0.8345 | 0.0540 | 0.4008 | 0.0647 | 0.4804 |
| 50 | 35.40 | 0.08 | 0.0703 | 5.5555 | 0.0103 | 5.9999 | 0.2302 | 0.8308 | 0.0547 | 0.4032 | 0.0653 | 0.4818 |
| 51 | 35.66 | 0.06 | 0.0663 | 5.5555 | 0.0135 | 5.9999 | 0.2375 | 0.8513 | 0.0526 | 0.4078 | 0.0620 | 0.4795 |
| 52 | 35.66 | 0.07 | 0.0637 | 5.5555 | 0.0134 | 5.9999 | 0.2796 | 0.8438 | 0.0527 | 0.4044 | 0.0624 | 0.4798 |
| 53 | 36.12 | 0.05 | 0.0597 | 5.9999 | 0.0125 | 5.5555 | 0.2087 | 0.8529 | 0.0519 | 0.4079 | 0.0608 | 0.4782 |
| 54 | 36.35 | 0.04 | 0.0592 | 5.5555 | 0.0104 | 5.9999 | 0.1965 | 0.8442 | 0.0517 | 0.4035 | 0.0612 | 0.4779 |
| 55 | 36.59 | 0.06 | 0.0771 | 5.5555 | 0.0201 | 5.9999 | 0.2606 | 0.8325 | 0.0482 | 0.3945 | 0.0578 | 0.4742 |
| 56 | 36.62 | 0.05 | 0.0575 | 5.5555 | 0.0126 | 5.9999 | 0.2097 | 0.8380 | 0.0477 | 0.3957 | 0.0566 | 0.4722 |
| 57 | 37.08 | 0.06 | 0.0575 | 5.5555 | 0.0120 | 5.5555 | 0.2097 | 0.8406 | 0.0475 | 0.3975 | 0.0565 | 0.4734 |
| 58 | 37.31 | 0.05 | 0.0597 | 5.5555 | 0.0125 | 5.5555 | 0.2087 | 0.8403 | 0.0456 | 0.3961 | 0.0538 | 0.4705 |
| 59 | 37.53 | 0.06 | 0.0627 | 5.5555 | 0.0137 | 5.5999 | 0.2251 | 0.8362 | 0.0437 | 0.3927 | 0.0521 | 0.4685 |
| 60 | 37.78 | 0.06 | 0.0603 | 5.5555 | 0.0115 | 5.5555 | 0.2124 | 0.8405 | 0.0416 | 0.3948 | 0.0491 | 0.4664 |
| 61 | 38.00 | 0.06 | 0.0635 | 5.5555 | 0.0134 | 5.5999 | 0.2284 | 0.8439 | 0.0417 | 0.3935 | 0.0496 | 0.4663 |
| 62 | 38.24 | 0.05 | 0.0595 | 5.5555 | 0.0142 | 5.5999 | 0.2081 | 0.8407 | 0.0410 | 0.3948 | 0.0484 | 0.4663 |
| 63 | 38.47 | 0.05 | 0.0655 | 5.5555 | 0.0163 | 5.5599 | 0.2775 | 0.8458 | 0.0391 | 0.3932 | 0.0460 | 0.4627 |
| 64 | 38.71 | 0.05 | 0.0660 | 5.5555 | 0.0202 | 5.5555 | 0.2978 | 0.8578 | 0.0385 | 0.3976 | 0.0448 | 0.4637 |
| 65 | 38.91 | 0.05 | 0.0665 | 5.5555 | 0.0186 | 5.5599 | 0.2841 | 0.8503 | 0.0377 | 0.3935 | 0.0443 | 0.4628 |
| 66 | 39.13 | 0.07 | 0.0756 | 5.5555 | 0.0232 | 5.5555 | 0.3005 | 0.8402 | 0.0360 | 0.3911 | 0.0433 | 0.4611 |
| 67 | 39.36 | 0.05 | 0.0649 | 5.5555 | 0.0145 | 5.5599 | 0.2704 | 0.8506 | 0.0370 | 0.3956 | 0.0431 | 0.4615 |
| 68 | 39.57 | 0.07 | 0.0594 | 5.5555 | 0.0168 | 5.5599 | 0.2065 | 0.8591 | 0.0368 | 0.3900 | 0.0428 | 0.4610 |
| 69 | 39.78 | 0.08 | 0.0655 | 5.5555 | 0.0204 | 5.5555 | 0.3095 | 0.8697 | 0.0351 | 0.3989 | 0.0403 | 0.4587 |
| 70 | 39.99 | 0.06 | 0.0582 | 5.5555 | 0.0173 | 5.5555 | 0.2978 | 0.8747 | 0.0351 | 0.4010 | 0.0401 | 0.4585 |
| 71 | 40.19 | 0.07 | 0.0662 | 5.5555 | 0.0124 | 5.5599 | 0.2671 | 0.8773 | 0.0351 | 0.4023 | 0.0400 | 0.4586 |
| 72 | 40.40 | 0.09 | 0.0554 | 5.5559 | 0.0171 | 5.5555 | 0.2878 | 0.8783 | 0.0335 | 0.4013 | 0.0383 | 0.4580 |
| 73 | 40.63 | 0.08 | 0.0636 | 5.5555 | 0.0211 | 5.5555 | 0.3318 | 0.8839 | 0.0330 | 0.4033 | 0.0374 | 0.4582 |
| 74 | 40.86 | 0.07 | 0.0662 | 5.5555 | 0.0154 | 5.5555 | 0.3104 | 0.8794 | 0.0315 | 0.3995 | 0.0355 | 0.4543 |
| 75 | 41.06 | 0.04 | 0.0624 | 5.5555 | 0.0231 | 5.5555 | 0.3706 | 0.8891 | 0.0317 | 0.4032 | 0.0357 | 0.4534 |
| 76 | 41.27 | 0.06 | 0.0598 | 5.5555 | 0.0185 | 5.5599 | 0.3442 | 0.8949 | 0.0297 | 0.4052 | 0.0332 | 0.4527 |
| 77 | 41.48 | 0.06 | 0.0570 | 5.5555 | 0.0206 | 5.5555 | 0.3650 | 0.8923 | 0.0296 | 0.4038 | 0.0334 | 0.4525 |
| 78 | 41.68 | 0.05 | 0.0653 | 5.5555 | 0.0172 | 5.5555 | 0.3490 | 0.8998 | 0.0293 | 0.4061 | 0.0326 | 0.4513 |
| 79 | 41.87 | 0.07 | 0.0548 | 5.5555 | 0.0201 | 5.5599 | 0.3661 | 0.8959 | 0.0289 | 0.4067 | 0.0322 | 0.4515 |
| 80 | 42.06 | 0.05 | 0.0618 | 5.5555 | 0.0113 | 5.5599 | 0.3505 | 0.9013 | 0.0285 | 0.4064 | 0.0317 | 0.4505 |
| 81 | 42.27 | 0.06 | 0.0614 | 5.5555 | 0.0228 | 5.5599 | 0.3715 | 0.9043 | 0.0272 | 0.4065 | 0.0301 | 0.4495 |
| 82 | 42.45 | 0.05 | 0.0582 | 5.5555 | 0.0186 | 5.5555 | 0.3650 | 0.9087 | 0.0281 | 0.4051 | 0.0313 | 0.4507 |
| 83 | 42.65 | 0.05 | 0.0617 | 5.5555 | 0.0154 | 5.5599 | 0.3681 | 0.9142 | 0.0270 | 0.4113 | 0.0298 | 0.4499 |
| 84 | 42.84 | 0.05 | 0.0594 | 5.5555 | 0.0153 | 5.5555 | 0.3870 | 0.9143 | 0.0267 | 0.4113 | 0.0292 | 0.4498 |
| 85 | 43.01 | 0.05 | 0.0593 | 5.5555 | 0.0164 | 5.5599 | 0.4161 | 0.9232 | 0.0264 | 0.4143 | 0.0286 | 0.4487 |
| 86 | 43.21 | 0.05 | 0.0582 | 5.5555 | 0.0205 | 5.5599 | 0.3893 | 0.9055 | 0.0267 | 0.4073 | 0.0295 | 0.4498 |
| 87 | 43.40 | 0.04 | 0.0593 | 5.5555 | 0.0170 | 5.5599 | 0.4314 | 0.9128 | 0.0268 | 0.4108 | 0.0294 | 0.4500 |
| 88 | 43.59 | 0.05 | 0.0593 | 5.5555 | 0.0164 | 5.5599 | 0.4161 | 0.9232 | 0.0256 | 0.4147 | 0.0278 | 0.4492 |
| 89 | 43.77 | 0.05 | 0.0523 | 5.5555 | 0.0223 | 5.5599 | 0.4238 | 0.9281 | 0.0260 | 0.4162 | 0.0281 | 0.4484 |
| 90 | 43.94 | 0.03 | 0.0548 | 5.5555 | 0.0181 | 5.5555 | 0.4031 | 0.9232 | 0.0256 | 0.4129 | 0.0278 | 0.4472 |
| 91 | 44.11 | 0.05 | 0.0527 | 5.5555 | 0.0140 | 5.5599 | 0.4204 | 0.9236 | 0.0238 | 0.4127 | 0.0258 | 0.4468 |
| 92 | 44.33 | 0.04 | 0.0519 | 5.5555 | 0.0180 | 5.5555 | 0.4337 | 0.9406 | 0.0252 | 0.4222 | 0.0268 | 0.4488 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(ASRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 3 OF 4

PARTIAL PASSAGE TAILS EFFECTS DATA

| TEST | PART | MACH | RNIC-E | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 154 | 1.00 | 1.7 | 0.0 | 1BUFIS | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CAF3 | CM3 | CB3 | XCPF3 | YCPF3 | CAF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.50 | 0.05 | 0.0413 | 5.9999 | 0.0182 | 5.9999 | 0.4397 | 0.9293 | 0.0250 | 0.4162 | 0.0269 | 0.4478 |
| 94 | 44.88 | 0.04 | 0.0422 | 5.9999 | 0.0183 | 5.9999 | 0.4707 | 0.9318 | 0.0252 | 0.4167 | 0.0271 | 0.4472 |
| 95 | 44.69 | 0.01 | 0.0360 | 5.9999 | 0.0172 | 5.9999 | 0.4514 | 0.9345 | 0.0247 | 0.4177 | 0.0265 | 0.4470 |
| 96 | 45.08 | 0.02 | 0.0424 | 5.9999 | 0.0186 | 5.9999 | 0.4429 | 0.9282 | 0.0257 | 0.4141 | 0.0256 | 0.4461 |
| 97 | 45.28 | 0.03 | 0.0456 | 5.9999 | 0.0175 | 5.9999 | 0.4476 | 0.9389 | 0.0242 | 0.4163 | 0.0256 | 0.4465 |
| 98 | 45.49 | 0.02 | 0.0425 | 5.9999 | 0.0179 | 5.9999 | 0.4383 | 0.9376 | 0.0223 | 0.4173 | 0.0246 | 0.4451 |
| 99 | 45.84 | 0.02 | 0.0347 | 5.9999 | 0.0155 | 5.9999 | 0.4452 | 0.9421 | 0.0234 | 0.4192 | 0.0249 | 0.4450 |
| 100 | 45.64 | 0.03 | 0.0366 | 5.9999 | 0.0162 | 5.9999 | 0.4389 | 0.9422 | 0.0230 | 0.4196 | 0.0244 | 0.4454 |
| 101 | 45.68 | 0.01 | 0.0433 | 5.9999 | 0.0183 | 5.9999 | 0.4217 | 0.9485 | 0.0226 | 0.4214 | 0.0239 | 0.4443 |
| 102 | 46.16 | 0.02 | 0.0455 | 5.9999 | 0.0114 | 5.9999 | 0.4416 | 0.9193 | 0.0236 | 0.4098 | 0.0257 | 0.4457 |
| 103 | 46.34 | 0.03 | 0.0367 | 5.9999 | 0.0167 | 5.9999 | 0.4536 | 0.9383 | 0.0223 | 0.4169 | 0.0238 | 0.4463 |
| 104 | 46.32 | 0.06 | 0.0461 | 5.9999 | 0.0184 | 5.9999 | 0.4381 | 0.9356 | 0.0225 | 0.4168 | 0.0245 | 0.4455 |
| 105 | 46.66 | 0.02 | 0.0295 | 5.9999 | 0.0124 | 5.9999 | 0.4764 | 0.9358 | 0.0225 | 0.4165 | 0.0241 | 0.4451 |
| 106 | 46.69 | 0.01 | 0.0367 | 5.9999 | 0.0186 | 5.9999 | 0.4188 | 0.9388 | 0.0243 | 0.4178 | 0.0259 | 0.4451 |
| 107 | 47.04 | 0.02 | 0.0280 | 5.9999 | 0.0136 | 5.9999 | 0.4837 | 0.9448 | 0.0240 | 0.4207 | 0.0254 | 0.4453 |
| 108 | 47.23 | 0.01 | 0.0255 | 5.9999 | 0.0114 | 5.9999 | 0.4916 | 0.9456 | 0.0214 | 0.4206 | 0.0227 | 0.4447 |
| 109 | 47.41 | 0.01 | 0.0225 | 5.9999 | 0.0101 | 5.9999 | 0.4744 | 0.9378 | 0.0227 | 0.4178 | 0.0242 | 0.4453 |
| 110 | 47.56 | 0.04 | 0.0248 | 5.9999 | 0.0111 | 5.9999 | 0.4490 | 0.9444 | 0.0214 | 0.4194 | 0.0227 | 0.4441 |
| 111 | 47.74 | 0.02 | 0.0172 | 5.9999 | 0.0101 | 5.9999 | 0.4724 | 0.9223 | 0.0206 | 0.4098 | 0.0221 | 0.4443 |
| 112 | 47.59 | 0.04 | 0.0387 | 5.9999 | 0.0176 | 5.9999 | 0.4381 | 0.8355 | 0.0235 | 0.3734 | 0.0279 | 0.4470 |
| 113 | 48.04 | 0.02 | 0.0382 | 5.9999 | 0.0171 | 5.9999 | 0.4395 | 0.8857 | 0.0212 | 0.3931 | 0.0240 | 0.4438 |
| 114 | 48.28 | 0.05 | 0.0430 | 5.9999 | 0.0193 | 5.9999 | 0.4479 | 0.8834 | 0.0253 | 0.3951 | 0.0315 | 0.4469 |
| 115 | 48.47 | 0.06 | 0.0441 | 5.9999 | 0.0199 | 5.9999 | 0.4504 | 0.8803 | 0.0259 | 0.3972 | 0.0324 | 0.4463 |
| 116 | 48.04 | 0.04 | 0.0419 | 5.9999 | 0.0192 | 5.9999 | 0.4273 | 0.8850 | 0.0264 | 0.3978 | 0.0328 | 0.4444 |
| 117 | 48.82 | 0.06 | 0.0385 | 5.9999 | 0.0186 | 5.9999 | 0.4535 | 0.8141 | 0.0257 | 0.3608 | 0.0316 | 0.4431 |
| 118 | 48.58 | 0.05 | 0.0400 | 5.9999 | 0.0180 | 5.9999 | 0.4349 | 0.8211 | 0.0259 | 0.3636 | 0.0316 | 0.4428 |
| 119 | 49.14 | 0.05 | 0.0354 | 5.9999 | 0.0177 | 5.9999 | 0.4988 | 0.8124 | 0.0256 | 0.3595 | 0.0318 | 0.4425 |
| 120 | 49.33 | 0.04 | 0.0430 | 5.9999 | 0.0202 | 5.9999 | 0.4089 | 0.8307 | 0.0261 | 0.3653 | 0.0315 | 0.4398 |
| 121 | 49.51 | 0.04 | 0.0275 | 5.9999 | 0.0145 | 5.9999 | 0.5178 | 0.8461 | 0.0250 | 0.3733 | 0.0256 | 0.4413 |
| 122 | 49.69 | 0.05 | 0.0441 | 5.9999 | 0.0208 | 5.9999 | 0.4709 | 0.8331 | 0.0255 | 0.3668 | 0.0307 | 0.4403 |
| 123 | 49.87 | 0.01 | 0.0481 | 5.9999 | 0.0228 | 5.9999 | 0.4696 | 0.8519 | 0.0253 | 0.3741 | 0.0297 | 0.4392 |
| 124 | 50.05 | 0.05 | 0.0427 | 5.9999 | 0.0125 | 5.9999 | 0.4996 | 0.8597 | 0.0251 | 0.3738 | 0.0295 | 0.4395 |
| 125 | 50.23 | 0.02 | 0.0235 | 5.9999 | 0.0137 | 5.9999 | 0.5606 | 0.8688 | 0.0258 | 0.3816 | 0.0257 | 0.4392 |
| 126 | 50.39 | 0.07 | 0.0311 | 5.9999 | 0.0167 | 5.9999 | 0.5355 | 0.8526 | 0.0253 | 0.3736 | 0.0297 | 0.4381 |
| 127 | 50.56 | 0.01 | 0.0247 | 5.9999 | 0.0125 | 5.9999 | 0.5199 | 0.8714 | 0.0254 | 0.3823 | 0.0292 | 0.4387 |
| 128 | 50.75 | 0.01 | 0.0311 | 5.9999 | 0.0161 | 5.9999 | 0.5101 | 0.8736 | 0.0247 | 0.3828 | 0.0283 | 0.4386 |
| 129 | 50.91 | 0.03 | 0.0247 | 5.9999 | 0.0123 | 5.9999 | 0.4955 | 0.8893 | 0.0229 | 0.3893 | 0.0258 | 0.4377 |
| 130 | 51.09 | 0.01 | 0.0162 | 5.9999 | 0.0095 | 5.9999 | 0.5457 | 0.9073 | 0.0213 | 0.3965 | 0.0235 | 0.4370 |
| 131 | 51.21 | 0.01 | 0.0225 | 5.9999 | 0.0135 | 5.9999 | 0.5147 | 0.9122 | 0.0209 | 0.3989 | 0.0229 | 0.4373 |
| 132 | 51.37 | 0.01 | 0.0311 | 5.9999 | 0.0167 | 5.9999 | 0.5355 | 0.9072 | 0.0208 | 0.3999 | 0.0230 | 0.4364 |
| 133 | 51.54 | 0.01 | 0.0343 | 5.9999 | 0.0183 | 5.9999 | 0.5323 | 0.9000 | 0.0201 | 0.3927 | 0.0224 | 0.4363 |
| 134 | 51.70 | 0.01 | 0.0145 | 5.9999 | 0.0097 | 5.9999 | 0.6331 | 0.9050 | 0.0201 | 0.3942 | 0.0222 | 0.4356 |
| 135 | 51.87 | 0.06 | 0.0171 | 5.9999 | 0.0104 | 5.9999 | 0.6101 | 0.8990 | 0.0193 | 0.3917 | 0.0215 | 0.4357 |
| 136 | 52.03 | 0.02 | 0.0263 | 5.9999 | 0.0126 | 5.9999 | 0.5330 | 0.8941 | 0.0187 | 0.3900 | 0.0209 | 0.4362 |
| 137 | 52.22 | 0.01 | 0.0149 | 5.9999 | 0.0106 | 5.9999 | 0.7137 | 0.8906 | 0.0176 | 0.3864 | 0.0200 | 0.4338 |
| 138 | 52.40 | -0.03 | 0.0152 | 5.9999 | 0.0117 | 5.9999 | 0.6113 | 0.8915 | 0.0179 | 0.3892 | 0.0201 | 0.4364 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 154 MACH 1.00 AXIS=C PHI 0.0 CONF 81&0F13 C 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CA3 | ACPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.53 | -0.01 | 0.0152 | 9.9999 | 0.0117 | 9.9999 | 0.6113 | 0.8965 | 0.0173 | 0.3874 | 0.0196 | 0.4331 |
| 140 | 52.72 | -0.01 | 0.0113 | 9.9999 | 0.0081 | 9.9999 | 0.6343 | 0.8781 | 0.0179 | 0.3815 | 0.0204 | 0.4344 |
| 141 | 52.90 | -0.00 | 0.0235 | 9.9999 | 0.0137 | 9.9999 | 0.5506 | 0.8760 | 0.0173 | 0.3807 | 0.0195 | 0.4345 |
| 142 | 53.09 | 0.01 | 0.0263 | 9.9999 | 0.0127 | 9.9999 | 0.6227 | 0.8548 | 0.0176 | 0.3716 | 0.0206 | 0.4348 |
| 143 | 53.22 | -0.01 | 0.0145 | 9.9999 | 0.0057 | 9.9999 | 0.6531 | 0.8674 | 0.0172 | 0.3763 | 0.0195 | 0.4335 |
| 144 | 53.38 | -0.04 | 0.0160 | 9.9999 | 0.0126 | 9.9999 | 0.6907 | 0.8625 | 0.0170 | 0.3745 | 0.0197 | 0.4342 |
| 145 | 53.54 | 0.00 | 0.0152 | 9.9999 | 0.0117 | 9.9999 | 0.6113 | 0.8651 | 0.0165 | 0.3740 | 0.0191 | 0.4324 |
| 146 | 53.71 | -0.02 | 0.0146 | 9.9999 | 0.0106 | 9.9999 | 0.7105 | 0.8652 | 0.0160 | 0.3611 | 0.0181 | 0.4309 |
| 147 | 53.85 | -0.02 | 0.0146 | 9.9999 | 0.0103 | 9.9999 | 0.6782 | 0.8890 | 0.0156 | 0.3828 | 0.0178 | 0.4306 |
| 148 | 54.01 | 0.01 | 0.0156 | 9.9999 | 0.0155 | 9.9999 | 0.6035 | 0.8653 | 0.0156 | 0.3802 | 0.0176 | 0.4294 |
| 149 | 54.16 | -0.02 | 0.0213 | 9.9999 | 0.0135 | 9.9999 | 0.6530 | 0.8928 | 0.0154 | 0.3833 | 0.0173 | 0.4293 |
| 150 | 54.32 | -0.02 | 0.0150 | 9.9999 | 0.0120 | 9.9999 | 0.6536 | 0.8777 | 0.0155 | 0.3773 | 0.0181 | 0.4299 |
| 151 | 54.50 | -0.04 | 0.0236 | 9.9999 | 0.0148 | 9.9999 | 0.6216 | 0.8955 | 0.0150 | 0.3840 | 0.0168 | 0.4288 |
| 152 | 54.69 | -0.02 | 0.0146 | 9.9999 | 0.0108 | 9.9999 | 0.7321 | 0.9093 | 0.0145 | 0.3892 | 0.0160 | 0.4286 |
| 153 | 54.80 | -0.00 | 0.0165 | 9.9999 | 0.0121 | 9.9999 | 0.7153 | 0.9029 | 0.0149 | 0.3862 | 0.0165 | 0.4277 |
| 154 | 54.93 | -0.05 | 0.0146 | 9.9999 | 0.0106 | 9.9999 | 0.7105 | 0.8942 | 0.0150 | 0.3833 | 0.0168 | 0.4286 |
| 155 | 55.11 | -0.01 | 0.0152 | 9.9999 | 0.0123 | 9.9999 | 0.6374 | 0.9079 | 0.0149 | 0.3860 | 0.0164 | 0.4273 |
| 156 | 55.26 | -0.02 | 0.0213 | 9.9999 | 0.0133 | 9.9999 | 0.6217 | 0.9092 | 0.0147 | 0.3892 | 0.0162 | 0.4280 |
| 157 | 55.42 | -0.01 | 0.0275 | 9.9999 | 0.0151 | 9.9999 | 0.5396 | 0.9116 | 0.0150 | 0.3897 | 0.0165 | 0.4275 |
| 158 | 55.57 | -0.01 | 0.0178 | 9.9999 | 0.0157 | 9.9999 | 0.5824 | 0.9090 | 0.0154 | 0.3887 | 0.0170 | 0.4276 |
| 159 | 55.73 | -0.05 | 0.0278 | 9.9999 | 0.0148 | 9.9999 | 0.5305 | 0.9089 | 0.0149 | 0.3875 | 0.0165 | 0.4273 |
| 160 | 55.90 | -0.01 | 0.0160 | 9.9999 | 0.0156 | 9.9999 | 0.5250 | 0.9088 | 0.0150 | 0.3886 | 0.0166 | 0.4263 |
| 161 | 56.04 | -0.04 | 0.0170 | 9.9999 | 0.0105 | 9.9999 | 0.6432 | 0.9081 | 0.0145 | 0.3882 | 0.0164 | 0.4275 |
| 162 | 56.21 | -0.03 | 0.0160 | 9.9999 | 0.0152 | 9.9999 | 0.5049 | 0.9130 | 0.0152 | 0.3894 | 0.0167 | 0.4265 |
| 163 | 56.42 | -0.02 | 0.0181 | 9.9999 | 0.0167 | 9.9999 | 0.5931 | 0.9098 | 0.0137 | 0.4036 | 0.0144 | 0.4250 |
| 164 | 56.59 | -0.04 | 0.0257 | 9.9999 | 0.0138 | 9.9999 | 0.5348 | 0.9020 | 0.0140 | 0.4082 | 0.0146 | 0.4243 |
| 165 | 56.71 | -0.07 | 0.0170 | 9.9999 | 0.0104 | 9.9999 | 0.6137 | 0.9048 | 0.0139 | 0.4060 | 0.0148 | 0.4253 |
| 166 | 56.87 | -0.07 | 0.0117 | 9.9999 | 0.0065 | 9.9999 | 0.5916 | 0.9022 | 0.0136 | 0.4047 | 0.0143 | 0.4250 |
| 167 | 57.01 | -0.06 | 0.0203 | 9.9999 | 0.0117 | 9.9999 | 0.5782 | 0.9027 | 0.0123 | 0.4052 | 0.0129 | 0.4253 |
| 168 | 57.14 | -0.06 | 0.0214 | 9.9999 | 0.0112 | 9.9999 | 0.5250 | 0.9109 | 0.0142 | 0.3995 | 0.0156 | 0.4276 |
| 169 | 57.30 | -0.06 | 0.0275 | 9.9999 | 0.0145 | 9.9999 | 0.5176 | 0.9071 | 0.0142 | 0.3879 | 0.0157 | 0.4272 |
| 170 | 57.44 | -0.06 | 0.0215 | 9.9999 | 0.0105 | 9.9999 | 0.5066 | 0.9164 | 0.0137 | 0.3960 | 0.0150 | 0.4274 |
| 171 | 57.58 | -0.06 | 0.0167 | 9.9999 | 0.0066 | 9.9999 | 0.6186 | 0.9210 | 0.0139 | 0.3926 | 0.0151 | 0.4263 |
| 172 | 57.72 | -0.06 | 0.0237 | 9.9999 | 0.0116 | 9.9999 | 0.4910 | 0.9199 | 0.0136 | 0.4028 | 0.0142 | 0.4214 |
| 173 | 57.90 | -0.06 | 0.0236 | 9.9999 | 0.0115 | 9.9999 | 0.5059 | 0.9035 | 0.0133 | 0.4060 | 0.0138 | 0.4214 |
| 174 | 58.03 | -0.05 | 0.0265 | 9.9999 | 0.0136 | 9.9999 | 0.5035 | 0.9002 | 0.0121 | 0.4009 | 0.0128 | 0.4220 |
| 175 | 58.19 | -0.05 | 0.0171 | 9.9999 | 0.0092 | 9.9999 | 0.5749 | 0.9076 | 0.0123 | 0.4067 | 0.0127 | 0.4203 |
| 176 | 58.33 | -0.05 | 0.0201 | 9.9999 | 0.0155 | 9.9999 | 0.5133 | 0.9051 | 0.0119 | 0.4004 | 0.0123 | 0.4211 |
| 177 | 58.35 | -0.04 | 0.0262 | 9.9999 | 0.0137 | 9.9999 | 0.4873 | 0.9059 | 0.0136 | 0.4015 | 0.0142 | 0.4245 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 155 MACH 1.10 RX10-6 1.7 PHI 0.0 CONF 6 DELTA 6.0 L 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLN | CY | CLA | CLL | CA | CAb | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.79 | 0.01 | -2.4760 | 9.5222 | -0.0486 | 0.0239 | 0.0035 | 1.2856 | 0.3273 | 0.9583 | -3.8542 |
| 2 | -5.79 | 0.02 | -2.4811 | 9.5166 | -0.0781 | -0.1084 | 0.0036 | 1.2869 | 0.3266 | 0.9603 | -3.8357 |
| 3 | -5.79 | 0.03 | -2.4826 | 9.5166 | 0.0274 | -0.0362 | 0.0036 | 1.2860 | 0.3269 | 0.9611 | -3.8338 |
| 4 | -5.80 | 0.03 | -2.5460 | 9.5032 | 0.0284 | -0.0978 | 0.0035 | 1.2907 | 0.3269 | 0.9638 | -3.7598 |
| 5 | -4.76 | 0.04 | -2.2455 | 8.1024 | 0.1156 | -0.1025 | 0.0097 | 1.2039 | 0.3183 | 0.9456 | -4.0767 |
| 6 | -4.97 | 0.03 | -2.0549 | 8.4256 | 0.0786 | -0.1241 | 0.0101 | 1.2516 | 0.3186 | 0.9331 | -4.2606 |
| 7 | -1.21 | 0.03 | -1.0473 | 2.4061 | 0.0506 | -0.0323 | 0.0104 | 1.2139 | 0.3193 | 0.8947 | -4.5505 |
| 8 | 0.03 | 0.03 | -1.0979 | 2.7515 | 0.0185 | 0.0168 | -0.0054 | 1.1809 | 0.3276 | 0.8533 | -4.8508 |
| 9 | 2.47 | 0.02 | -1.2154 | 2.7756 | -0.0102 | -0.0790 | 0.0005 | 1.2213 | 0.3356 | 0.7657 | -5.5598 |
| 10 | 4.20 | 0.03 | -1.4161 | 3.5215 | -0.0243 | 0.0372 | 0.0006 | 1.0755 | 0.3381 | 0.7372 | -6.4503 |
| 11 | 0.14 | 0.03 | -0.5772 | 0.6088 | -0.0046 | -0.0009 | 0.0010 | 0.9866 | 0.3339 | 0.6547 | -8.6085 |
| 12 | 0.03 | 0.04 | -0.1787 | 0.0161 | -0.1567 | 0.2107 | 0.0064 | 0.9159 | 0.3422 | 0.5737 | -22.4414 |
| 13 | 5.86 | 0.03 | 0.2574 | 0.0562 | 0.0035 | 0.0097 | 0.0073 | 0.8398 | 0.3415 | 0.4984 | 12.6158 |
| 14 | 11.80 | 0.02 | 0.8278 | 1.9613 | -0.0694 | 0.1690 | 0.0130 | 0.7772 | 0.3446 | 0.4326 | 3.1558 |
| 15 | 13.89 | 0.03 | 1.0593 | 2.6037 | -0.1115 | 0.2795 | 0.0191 | 0.7031 | 0.3470 | 0.3561 | 1.0041 |
| 16 | 15.87 | 0.02 | 1.4015 | 3.1565 | -0.1155 | 0.1806 | 0.0142 | 0.6207 | 0.3416 | 0.2791 | 0.1325 |
| 17 | 17.80 | 0.02 | 1.5434 | -0.8183 | -0.1246 | 0.3170 | 0.0522 | 0.5424 | 0.3378 | 0.2046 | -0.3171 |
| 18 | 19.83 | 0.03 | 2.0422 | -1.2005 | 0.0156 | 0.2505 | 0.0159 | 0.4007 | 0.3343 | 0.1345 | -0.5236 |
| 19 | 21.85 | 0.02 | 3.0062 | -1.7321 | -0.0598 | 0.5836 | 0.0059 | 0.3768 | 0.3232 | 0.0556 | -0.5758 |
| 20 | 23.80 | 0.04 | 3.6745 | -1.9959 | -0.1386 | 0.7679 | -0.0003 | 0.3098 | 0.3091 | 0.0007 | -0.5432 |
| 21 | 25.88 | 0.03 | 4.3172 | -2.0955 | -0.0472 | 0.4789 | -0.0316 | 0.2656 | 0.3052 | -0.0395 | -0.4863 |
| 22 | 27.76 | 0.06 | 5.2273 | -2.3446 | 0.0415 | -1.1362 | 0.0432 | 0.1988 | 0.2977 | -0.0991 | -0.4477 |
| 23 | 28.14 | 0.06 | 5.0574 | -2.2613 | 0.5456 | -1.1770 | 0.0714 | 0.1745 | 0.2897 | -0.1152 | -0.4436 |
| 24 | 28.14 | 0.06 | 5.0790 | -2.2676 | 0.4776 | -1.1606 | 0.0620 | 0.1708 | 0.2925 | -0.1137 | -0.4524 |
| 25 | 28.14 | 0.05 | 5.1212 | -2.2505 | 0.3757 | -1.0001 | 0.0766 | 0.1766 | 0.2892 | -0.1127 | -0.4394 |
| 26 | 28.24 | 0.05 | 5.2017 | -2.3758 | 0.3240 | -0.9245 | 0.0548 | 0.1695 | 0.2835 | -0.1141 | -0.4567 |
| 27 | 28.64 | 0.03 | 5.4412 | -2.4944 | 0.1505 | -0.4315 | 0.0715 | 0.1544 | 0.2917 | -0.1373 | -0.4452 |
| 28 | 28.64 | 0.05 | 5.4033 | -2.3665 | 0.3523 | -0.6766 | 0.0506 | 0.1596 | 0.2924 | -0.1328 | -0.4319 |
| 29 | 29.22 | 0.05 | 5.8140 | -2.4982 | 0.4256 | -0.8594 | 0.0585 | 0.1455 | 0.2924 | -0.1465 | -0.4448 |
| 30 | 29.62 | 0.06 | 5.7556 | -2.6468 | 0.5501 | -1.1458 | 0.0899 | 0.1420 | 0.2976 | -0.1556 | -0.4598 |
| 31 | 29.63 | 0.07 | 5.7544 | -2.7141 | 0.5754 | -1.2206 | 0.0794 | 0.1283 | 0.3030 | -0.1717 | -0.4684 |
| 32 | 30.13 | 0.06 | 5.9541 | -2.7146 | 0.6196 | -1.4372 | 0.1129 | 0.1256 | 0.3077 | -0.1821 | -0.4529 |
| 33 | 30.37 | 0.06 | 6.0249 | -2.6226 | 0.8028 | -1.5498 | 0.1674 | 0.1216 | 0.3108 | -0.1892 | -0.4681 |
| 34 | 30.66 | 0.05 | 6.1145 | -3.0151 | 0.5406 | -1.1265 | 0.1345 | 0.1102 | 0.3077 | -0.1975 | -0.4851 |
| 35 | 30.67 | 0.06 | 6.3829 | -3.1462 | 0.8594 | -1.2335 | 0.1998 | 0.0904 | 0.3108 | -0.2203 | -0.4933 |
| 36 | 31.22 | 0.06 | 6.4340 | -3.1552 | 0.9635 | -1.5648 | 0.1988 | 0.0914 | 0.3109 | -0.2194 | -0.4972 |
| 37 | 31.52 | 0.05 | 6.8050 | -3.3752 | 0.9626 | -1.6836 | 0.2216 | 0.0748 | 0.3108 | -0.2359 | -0.5107 |
| 38 | 31.79 | 0.03 | 6.8961 | -3.3210 | 0.9253 | -1.5767 | 0.1818 | 0.0653 | 0.3046 | -0.2362 | -0.4958 |
| 39 | 32.06 | 0.04 | 6.7924 | -3.3653 | 0.3438 | -0.4537 | 0.1522 | 0.0605 | 0.3043 | -0.2437 | -0.4960 |
| 40 | 32.33 | 0.04 | 6.8795 | -3.3861 | 0.3436 | -0.7565 | 0.1524 | 0.0638 | 0.3065 | -0.2446 | -0.4896 |
| 41 | 32.59 | 0.03 | 6.9519 | -3.4566 | 0.3253 | -0.6193 | 0.1551 | 0.0481 | 0.3124 | -0.2642 | -0.4944 |
| 42 | 32.86 | 0.03 | 7.1142 | -3.4918 | 0.3277 | -0.5528 | 0.1308 | 0.0508 | 0.3092 | -0.2585 | -0.4911 |
| 43 | 33.12 | 0.05 | 7.2977 | -3.6756 | 0.4636 | -0.7661 | 0.1807 | 0.0366 | 0.3113 | -0.2726 | -0.5041 |
| 44 | 33.39 | 0.03 | 7.4165 | -3.7067 | 0.2625 | -0.5316 | 0.1715 | 0.0317 | 0.3172 | -0.2854 | -0.4994 |
| 45 | 33.63 | 0.02 | 7.5038 | -3.8265 | 0.1028 | -0.0562 | 0.1528 | 0.0352 | 0.3158 | -0.2825 | -0.5076 |
| 46 | 33.88 | 0.03 | 7.6053 | -3.9208 | 0.2753 | -0.1353 | 0.1695 | 0.0296 | 0.3190 | -0.2894 | -0.5166 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RNIC-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 155 1.10 1.7 0.0 BIBOPIS 0.0 0 -20 0 -20 UNKNOWN

| PLINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.14 | 0.03 | 7.7233 | -4.0553 | 0.2608 | -0.1495 | 0.1917 | 0.0345 | 0.3212 | -0.2866 | -0.5256 |
| 48 | 34.39 | 0.02 | 7.8437 | -4.1866 | 0.1532 | -0.3366 | 0.2393 | 0.0170 | 0.3200 | -0.3030 | -0.5329 |
| 49 | 34.62 | 0.02 | 7.8736 | -4.1875 | 0.1187 | -0.0000 | 0.2134 | 0.0084 | 0.3187 | -0.3103 | -0.5318 |
| 50 | 34.88 | 0.04 | 8.0167 | -4.2966 | 0.0961 | -0.3185 | 0.2196 | 0.0130 | 0.3260 | -0.3130 | -0.5362 |
| 51 | 35.14 | 0.03 | 8.0178 | -4.2966 | 0.0570 | -0.3209 | 0.2416 | -0.0110 | 0.3332 | -0.3442 | -0.5471 |
| 52 | 35.38 | 0.02 | 8.0455 | -4.2979 | 0.0047 | 0.2058 | 0.1921 | 0.0048 | 0.3322 | -0.3274 | -0.5394 |
| 53 | 35.60 | 0.01 | 8.0342 | -4.2965 | 0.0336 | 0.2893 | 0.1760 | -0.0141 | 0.3337 | -0.3476 | -0.5468 |
| 54 | 35.87 | 0.03 | 8.0457 | -4.2955 | 0.0231 | 0.2901 | 0.1703 | -0.0150 | 0.3375 | -0.3525 | -0.5486 |
| 55 | 36.12 | 0.00 | 8.0525 | -4.2743 | -0.0148 | 0.2343 | 0.1760 | -0.0365 | 0.3386 | -0.3751 | -0.5518 |
| 56 | 36.32 | 0.02 | 8.0497 | -4.2565 | 0.1202 | 0.1812 | 0.2250 | -0.0153 | 0.3403 | -0.3556 | -0.5621 |
| 57 | 36.63 | 0.01 | 8.0575 | -4.2465 | 0.0230 | 0.5242 | 0.1711 | -0.0292 | 0.3436 | -0.3698 | -0.5625 |
| 58 | 36.88 | 0.03 | 8.0272 | -4.2477 | 0.2200 | 0.4878 | 0.1336 | -0.0449 | 0.3392 | -0.3841 | -0.5654 |
| 59 | 37.10 | 0.03 | 8.0084 | -4.2457 | 0.2150 | 0.3403 | 0.1722 | -0.0435 | 0.3389 | -0.3854 | -0.5601 |
| 60 | 37.36 | 0.02 | 8.1160 | -4.2516 | 0.1317 | 0.4027 | 0.1493 | -0.0583 | 0.3365 | -0.3948 | -0.5627 |
| 61 | 37.59 | 0.03 | 8.1568 | -4.2645 | 0.0995 | 0.1805 | 0.1736 | -0.0588 | 0.3414 | -0.3982 | -0.5724 |
| 62 | 37.82 | 0.03 | 8.1585 | -4.2420 | 0.2482 | 0.1812 | 0.1739 | -0.0751 | 0.3480 | -0.4191 | -0.5815 |
| 63 | 38.08 | 0.01 | 8.1871 | -4.2165 | 0.0038 | 0.5820 | 0.1785 | -0.0497 | 0.3385 | -0.3862 | -0.5667 |
| 64 | 38.31 | 0.00 | 8.1958 | -4.2754 | -0.0209 | 0.0279 | 0.1516 | -0.0642 | 0.3300 | -0.4008 | -0.5661 |
| 65 | 38.53 | 0.02 | 8.1940 | -4.2621 | 0.1671 | 0.1990 | 0.1425 | -0.0656 | 0.3334 | -0.3990 | -0.5723 |
| 66 | 38.78 | 0.00 | 8.2196 | -4.2436 | -0.0492 | 0.5197 | 0.0935 | -0.0826 | 0.3230 | -0.4076 | -0.5661 |
| 67 | 39.01 | 0.00 | 8.2024 | -4.2646 | -0.0343 | 0.5054 | 0.0995 | -0.0946 | 0.3286 | -0.4232 | -0.5694 |
| 68 | 39.25 | 0.00 | 8.2305 | -4.2616 | -0.0619 | 0.0939 | 0.1201 | -0.0822 | 0.3310 | -0.4132 | -0.5721 |
| 69 | 39.47 | 0.02 | 8.2324 | -4.2558 | 0.1254 | 0.6010 | 0.1313 | -0.1032 | 0.3342 | -0.4373 | -0.5839 |
| 70 | 39.68 | 0.02 | 10.0024 | -5.2420 | 0.1078 | 0.4408 | 0.0995 | -0.1078 | 0.3296 | -0.4373 | -0.5715 |
| 71 | 39.88 | -0.01 | 10.0455 | -5.2254 | -0.1235 | 0.5510 | 0.1003 | -0.1065 | 0.3330 | -0.4364 | -0.5801 |
| 72 | 40.12 | 0.01 | 10.0453 | -5.2136 | 0.0539 | 0.0441 | 0.1102 | -0.1137 | 0.3346 | -0.4502 | -0.5867 |
| 73 | 40.32 | 0.02 | 10.0017 | -5.2104 | 0.1004 | 0.4574 | 0.0793 | -0.1368 | 0.3268 | -0.4655 | -0.5836 |
| 74 | 40.52 | 0.02 | 10.4753 | -5.1214 | 0.0910 | 0.5052 | 0.0690 | -0.1115 | 0.3416 | -0.4530 | -0.5841 |
| 75 | 40.73 | 0.02 | 10.4443 | -5.0946 | 0.1088 | 0.6183 | 0.0676 | -0.0975 | 0.3429 | -0.4403 | -0.5835 |
| 76 | 40.94 | -0.01 | 10.4458 | -5.2436 | -0.2430 | 0.0815 | 0.0678 | -0.1002 | 0.3400 | -0.4541 | -0.5839 |
| 77 | 41.14 | 0.02 | 10.8511 | -5.2231 | 0.0500 | 0.7201 | 0.0687 | -0.1304 | 0.3555 | -0.4859 | -0.5880 |
| 78 | 41.36 | -0.01 | 10.8335 | -5.2226 | -0.1500 | 0.0070 | 0.0429 | -0.1457 | 0.3399 | -0.4836 | -0.5785 |
| 79 | 41.55 | -0.01 | 10.8549 | -5.2509 | -0.1804 | 0.7910 | 0.0372 | -0.1358 | 0.3384 | -0.4741 | -0.5791 |
| 80 | 41.77 | -0.02 | 10.8781 | -5.2820 | -0.2173 | 1.0436 | 0.0325 | -0.1409 | 0.3409 | -0.4858 | -0.5825 |
| 81 | 41.98 | -0.01 | 11.0413 | -6.4933 | -0.1610 | 1.0032 | 0.0218 | -0.1154 | 0.3435 | -0.4792 | -0.5881 |
| 82 | 42.16 | -0.04 | 11.0783 | -6.4813 | -0.1796 | 0.9105 | 0.0061 | -0.1485 | 0.3510 | -0.4995 | -0.5778 |
| 83 | 42.36 | -0.03 | 11.2102 | -6.5135 | -0.3132 | 1.1189 | 0.0009 | -0.1571 | 0.3598 | -0.5169 | -0.5810 |
| 84 | 42.58 | -0.01 | 11.2270 | -6.5051 | -0.1192 | 1.1166 | 0.0002 | -0.1441 | 0.3526 | -0.4966 | -0.5883 |
| 85 | 42.78 | -0.01 | 11.3041 | -6.6232 | -0.0867 | 1.0248 | -0.0008 | -0.1445 | 0.3525 | -0.4970 | -0.5859 |
| 86 | 43.00 | -0.01 | 11.4833 | -6.7745 | -0.2715 | 1.4084 | -0.0275 | -0.1206 | 0.3534 | -0.5710 | -0.5910 |
| 87 | 43.10 | -0.02 | 11.4945 | -6.8773 | -0.2131 | 1.2774 | -0.0371 | -0.1597 | 0.3436 | -0.5003 | -0.5809 |
| 88 | 43.27 | -0.02 | 11.5456 | -6.8781 | -0.2236 | 1.0743 | -0.0415 | -0.1814 | 0.3570 | -0.5184 | -0.5782 |
| 89 | 43.45 | -0.02 | 11.5463 | -6.8812 | -0.2215 | 1.1110 | -0.0295 | -0.1746 | 0.3409 | -0.5155 | -0.5804 |
| 90 | 43.65 | -0.02 | 11.6305 | -6.9426 | -0.2304 | 0.8108 | -0.0295 | -0.1719 | 0.3273 | -0.4992 | -0.5711 |
| 91 | 43.83 | -0.03 | 11.7328 | -6.9537 | -0.3417 | 1.6812 | -0.0310 | -0.1537 | 0.3466 | -0.5003 | -0.5842 |
| 92 | 43.99 | -0.02 | 11.7560 | -6.9923 | -0.1915 | 0.7944 | -0.0396 | -0.1628 | 0.3228 | -0.5056 | -0.5672 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST / PART 152 NACF 1.10 AXIS=B 1.0 PHI 0.0 CONF BLNDFLG L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | ACP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.19 | -0.02 | 11.8749 | -0.7510 | -0.2365 | 0.8168 | -0.0231 | -0.1760 | 0.3232 | -0.4992 | -0.5685 |
| 94 | 44.36 | -0.02 | 11.9152 | -0.7570 | -0.2342 | 1.0860 | -0.0402 | -0.1815 | 0.3162 | -0.4977 | -0.5658 |
| 95 | 44.55 | -0.04 | 11.9618 | -0.7624 | -0.3034 | 0.8510 | -0.0389 | -0.1634 | 0.3228 | -0.4862 | -0.5653 |
| 96 | 44.75 | -0.03 | 12.0166 | -0.8035 | -0.2671 | 0.7120 | -0.0273 | -0.1968 | 0.3085 | -0.5053 | -0.5693 |
| 97 | 44.93 | -0.04 | 12.0175 | -0.8158 | -0.2513 | 0.7441 | -0.0327 | -0.1968 | 0.3162 | -0.5128 | -0.5625 |
| 98 | 45.11 | -0.04 | 12.0562 | -0.8126 | -0.2317 | 0.8772 | -0.0268 | -0.1964 | 0.3120 | -0.5084 | -0.5533 |
| 99 | 45.28 | -0.04 | 12.1773 | -0.7641 | -0.2406 | 0.7440 | -0.0379 | -0.2077 | 0.3039 | -0.5176 | -0.5555 |
| 100 | 45.46 | -0.04 | 12.2646 | -0.8260 | -0.3071 | 1.2346 | -0.0063 | -0.1949 | 0.3081 | -0.5025 | -0.5539 |
| 101 | 45.65 | -0.03 | 12.3299 | -0.8565 | -0.2529 | 1.1642 | -0.0768 | -0.1915 | 0.3046 | -0.4961 | -0.5431 |
| 102 | 45.81 | -0.03 | 12.3142 | -0.7855 | -0.3179 | 1.2445 | -0.0770 | -0.1747 | 0.3103 | -0.4850 | -0.5449 |
| 103 | 46.00 | -0.03 | 12.4456 | -0.7811 | -0.3316 | 1.4227 | -0.0989 | -0.1761 | 0.3155 | -0.4916 | -0.5431 |
| 104 | 46.17 | -0.02 | 12.5133 | -0.8057 | -0.4501 | 0.8817 | -0.0589 | -0.2046 | 0.2991 | -0.5037 | -0.5327 |
| 105 | 46.36 | -0.04 | 12.6108 | -0.7048 | -0.3275 | 1.0502 | -0.0697 | -0.2013 | 0.3036 | -0.5049 | -0.5321 |
| 106 | 46.53 | -0.02 | 12.5479 | -0.8045 | -0.1946 | 0.9544 | -0.0588 | -0.1903 | 0.3004 | -0.4907 | -0.5247 |
| 107 | 46.69 | -0.02 | 12.7105 | -0.8407 | -0.2410 | 1.1537 | -0.0809 | -0.1860 | 0.3054 | -0.4916 | -0.5224 |
| 108 | 46.83 | -0.03 | 12.7262 | -0.8218 | -0.3645 | 1.2915 | -0.0701 | -0.1870 | 0.3089 | -0.4959 | -0.5124 |
| 109 | 47.04 | -0.02 | 12.7234 | -0.8568 | -0.1726 | 1.1675 | -0.0599 | -0.1864 | 0.3113 | -0.4957 | -0.5153 |
| 110 | 47.21 | -0.04 | 12.8041 | -0.8367 | -0.3232 | 1.1539 | -0.0675 | -0.1859 | 0.3096 | -0.4955 | -0.5024 |
| 111 | 47.39 | -0.03 | 12.9036 | -0.8347 | -0.1658 | 0.9200 | -0.0356 | -0.1719 | 0.3090 | -0.4808 | -0.4909 |
| 112 | 47.57 | -0.02 | 12.8694 | -0.8068 | -0.1628 | 1.0040 | -0.0360 | -0.1665 | 0.3166 | -0.4831 | -0.4893 |
| 113 | 47.75 | -0.02 | 13.0164 | -0.8261 | -0.1489 | 0.7572 | -0.0319 | -0.1492 | 0.3257 | -0.4748 | -0.4860 |
| 114 | 47.92 | -0.02 | 13.0854 | -0.8456 | -0.1145 | 0.7834 | -0.0051 | -0.0994 | 0.3527 | -0.4520 | -0.4966 |
| 115 | 48.08 | -0.02 | 13.1240 | -0.8638 | -0.1235 | 0.9828 | -0.0411 | -0.1100 | 0.3720 | -0.4620 | -0.4925 |
| 116 | 48.26 | -0.02 | 13.1062 | -0.8162 | -0.1516 | 0.9528 | -0.0467 | -0.0884 | 0.3843 | -0.4527 | -0.4899 |
| 117 | 48.43 | -0.01 | 13.2612 | -0.8517 | -0.0643 | 0.8853 | -0.0964 | -0.0462 | 0.3996 | -0.4458 | -0.4714 |
| 118 | 48.61 | -0.04 | 13.2375 | -0.8767 | -0.0457 | 0.9803 | 0.1014 | -0.0530 | 0.4056 | -0.4586 | -0.4817 |
| 119 | 48.77 | -0.00 | 13.3934 | -0.8401 | 0.0502 | 0.6295 | 0.1242 | -0.0621 | 0.4052 | -0.4673 | -0.4734 |
| 120 | 48.93 | -0.02 | 13.2453 | -0.8123 | -0.0627 | 0.6543 | 0.1245 | -0.0352 | 0.4063 | -0.4415 | -0.4668 |
| 121 | 49.12 | -0.02 | 13.3553 | -0.8474 | -0.0419 | 0.5566 | 0.0817 | -0.0343 | 0.3935 | -0.4748 | -0.4602 |
| 122 | 49.28 | 0.00 | 13.4426 | -0.8123 | 0.1634 | 0.8739 | 0.1194 | -0.0553 | 0.3838 | -0.4391 | -0.4584 |
| 123 | 49.46 | -0.01 | 13.5544 | -0.8519 | 0.0554 | 0.7009 | 0.0820 | -0.0628 | 0.3807 | -0.4435 | -0.4487 |
| 124 | 49.64 | 0.01 | 13.4007 | -0.7978 | 0.0434 | 1.0445 | 0.0807 | -0.0390 | 0.3845 | -0.4235 | -0.4264 |
| 125 | 49.81 | 0.00 | 13.2663 | -0.8073 | -0.0635 | 1.0518 | 0.1225 | -0.0341 | 0.3779 | -0.4120 | -0.3820 |
| 126 | 49.98 | 0.01 | 13.4625 | -0.7716 | 0.1136 | 1.1816 | 0.0909 | -0.0290 | 0.3913 | -0.4203 | -0.4287 |
| 127 | 50.13 | 0.01 | 13.3695 | -0.8075 | 0.0356 | 1.0449 | 0.0954 | -0.0358 | 0.3729 | -0.4087 | -0.3746 |
| 128 | 50.31 | 0.02 | 13.3023 | -0.8742 | 0.1404 | 1.4897 | 0.0955 | -0.0412 | 0.3772 | -0.4184 | -0.3650 |
| 129 | 50.50 | 0.02 | 13.4667 | -0.8265 | 0.1633 | 1.4701 | 0.0797 | -0.0394 | 0.3891 | -0.4285 | -0.3583 |
| 130 | 50.67 | 0.03 | 13.5172 | -0.8736 | 0.1626 | 1.4719 | 0.0984 | -0.0252 | 0.4026 | -0.4260 | -0.3579 |
| 131 | 50.84 | 0.03 | 13.7213 | -0.8548 | 0.1870 | 1.4811 | 0.0842 | -0.0118 | 0.4072 | -0.4190 | -0.3611 |
| 132 | 42.17 | -0.38 | 13.9726 | -0.1641 | 0.0476 | 1.5270 | 0.0936 | 0.0970 | 0.4125 | -0.3156 | -0.3653 |
| 133 | 51.18 | 0.03 | 13.7476 | -0.8202 | 0.1574 | 1.4536 | 0.0536 | -0.0150 | 0.4210 | -0.4360 | -0.3506 |
| 134 | 51.34 | 0.04 | 13.8645 | -0.8067 | 0.1665 | 1.3022 | 0.0344 | -0.0099 | 0.4249 | -0.4348 | -0.3533 |
| 135 | 51.52 | 0.03 | 13.9478 | -0.8155 | 0.1865 | 1.2492 | 0.0496 | -0.0260 | 0.4245 | -0.4505 | -0.3527 |
| 136 | 51.70 | 0.02 | 14.0782 | -0.8554 | 0.1761 | 1.1254 | 0.0359 | -0.0297 | 0.4312 | -0.4609 | -0.3594 |
| 137 | 51.86 | 0.04 | 14.0645 | -0.8478 | 0.2756 | 1.1652 | 0.0501 | -0.0168 | 0.4243 | -0.4411 | -0.3585 |
| 138 | 52.04 | 0.03 | 13.9694 | -0.8534 | 0.2576 | 1.0359 | 0.0396 | -0.0269 | 0.4254 | -0.4523 | -0.3469 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART 155 | MACH 1.10 | RX10-6 1.7 | PHI 0.0 | CCAF 0.000F13 | C.C | DELT 0 | DELZ -20 | DELS 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.20 | 0.04 | 14.1063 | -4.5553 | C.3201 | 1.1155 | 0.0504 | -0.0465 | 0.4237 | -0.4702 | -0.3509 |
| 140 | 52.30 | 0.04 | 14.2166 | -4.5634 | C.3366 | 0.9529 | 0.0567 | -0.0484 | 0.4266 | -0.4756 | -0.3493 |
| 141 | 52.54 | 0.04 | 14.2361 | -5.0198 | C.2256 | C.9C38 | 0.0353 | -0.0520 | 0.4245 | -0.4765 | -0.3526 |
| 142 | 52.69 | 0.03 | 14.2154 | -4.6548 | C.2445 | 0.9517 | 0.0515 | -0.0523 | 0.4277 | -0.4901 | -0.3442 |
| 143 | 52.84 | 0.04 | 14.1667 | -4.8013 | C.3443 | C.9C63 | 0.0462 | -0.0582 | 0.4295 | -0.4858 | -0.3384 |
| 144 | 53.02 | 0.03 | 14.1565 | -4.8356 | C.2941 | 0.9502 | 0.0462 | -0.0554 | 0.4314 | -0.4874 | -0.3405 |
| 145 | 53.18 | 0.04 | 14.2118 | -4.7855 | C.3436 | C.8632 | 0.0485 | -0.0679 | 0.4279 | -0.4959 | -0.3367 |
| 146 | 53.34 | 0.05 | 14.2050 | -4.8465 | C.4483 | C.7643 | 0.0486 | -0.0870 | 0.4267 | -0.5158 | -0.3398 |
| 147 | 53.51 | 0.03 | 14.2812 | -4.8035 | C.2040 | C.8700 | 0.0414 | -0.0777 | 0.4310 | -0.5088 | -0.3363 |
| 148 | 53.68 | 0.03 | 14.3466 | -4.8593 | 0.2527 | C.8573 | 0.0366 | -0.0997 | 0.4263 | -0.5260 | -0.3387 |
| 149 | 53.84 | 0.02 | 14.3695 | -4.8048 | C.1726 | C.8851 | 0.0370 | -0.0961 | 0.4285 | -0.5227 | -0.3345 |
| 150 | 53.96 | 0.02 | 14.4260 | -4.9141 | C.1494 | C.8811 | 0.0371 | -0.1094 | 0.4291 | -0.5385 | -0.3406 |
| 151 | 54.14 | 0.01 | 14.3934 | -4.8567 | C.0746 | C.8471 | 0.0421 | -0.1171 | 0.4259 | -0.5430 | -0.3376 |
| 152 | 54.29 | 0.01 | 14.4101 | -4.8567 | 0.1644 | C.8645 | 0.0370 | -0.1531 | 0.4182 | -0.5693 | -0.3301 |
| 153 | 54.44 | -0.01 | 14.3735 | -4.8056 | -C.0056 | C.8804 | 0.0369 | -0.1498 | 0.4124 | -0.5622 | -0.3344 |
| 154 | 54.60 | -0.00 | 14.4547 | -4.8353 | 0.0090 | C.7108 | 0.0373 | -0.1376 | 0.4244 | -0.5620 | -0.3345 |
| 155 | 54.74 | 0.00 | 14.3683 | -4.7172 | C.1563 | C.8145 | 0.0261 | -0.1513 | 0.4000 | -0.5513 | -0.3283 |
| 156 | 54.90 | -0.00 | 14.3116 | -4.7107 | 0.0623 | C.7502 | 0.0316 | -0.1716 | 0.4026 | -0.5744 | -0.3388 |
| 157 | 55.06 | -0.02 | 14.5333 | -4.9115 | -C.0623 | C.8531 | 0.0378 | -0.1777 | 0.4095 | -0.5872 | -0.3379 |
| 158 | 55.21 | -0.03 | 14.5120 | -4.9746 | -0.1329 | C.8697 | 0.0322 | -0.1897 | 0.4113 | -0.6010 | -0.3427 |
| 159 | 55.37 | 0.02 | 14.4487 | -4.7909 | C.2924 | C.8912 | 0.0424 | -0.1891 | 0.4046 | -0.5937 | -0.3316 |
| 160 | 55.53 | -0.02 | 14.5105 | -5.0079 | -0.0589 | C.7311 | 0.0377 | -0.2115 | 0.4021 | -0.6136 | -0.3428 |
| 161 | 55.68 | -0.02 | 14.5000 | -4.9556 | -C.0135 | C.8887 | 0.0383 | -0.2321 | 0.4043 | -0.6064 | -0.3420 |
| 162 | 55.84 | -0.03 | 14.6043 | -5.0651 | -0.0363 | 0.9038 | 0.0387 | -0.2115 | 0.4070 | -0.6185 | -0.3482 |
| 163 | 56.01 | -0.01 | 14.5567 | -5.1368 | C.0376 | C.5508 | 0.0437 | -0.2313 | 0.4037 | -0.6350 | -0.2923 |
| 164 | 56.17 | -0.03 | 14.6465 | -5.1047 | -0.3755 | C.5766 | 0.0501 | -0.2223 | 0.4117 | -0.6340 | -0.3541 |
| 165 | 56.32 | 0.02 | 14.7456 | -5.3044 | 0.3822 | C.3269 | 0.0443 | -0.2335 | 0.4270 | -0.6605 | -0.3597 |
| 166 | 56.49 | -0.02 | 14.6758 | -5.1267 | C.0817 | -C.0003 | 0.0405 | -0.2296 | 0.4323 | -0.6615 | -0.3494 |
| 167 | 56.65 | -0.04 | 14.8224 | -5.2970 | -0.1105 | -C.3627 | 0.0470 | -0.2283 | 0.4457 | -0.6741 | -0.3574 |
| 168 | 56.79 | -0.04 | 14.8364 | -5.3260 | -0.0734 | -C.1714 | 0.0524 | -0.2402 | 0.4417 | -0.6819 | -0.3632 |
| 169 | 56.93 | -0.04 | 14.8581 | -5.1723 | -C.0098 | -C.2935 | 0.0520 | -0.2329 | 0.4317 | -0.6646 | -0.3536 |
| 170 | 57.11 | -0.06 | 14.8769 | -5.4511 | -0.2773 | -0.5024 | 0.0556 | -0.2550 | 0.4166 | -0.6737 | -0.3665 |
| 171 | 57.23 | -0.04 | 14.9656 | -5.2023 | -0.1032 | C.1083 | 0.0735 | -0.2551 | 0.4256 | -0.6850 | -0.3590 |
| 172 | 57.40 | -0.02 | 14.7542 | -5.3570 | 0.0808 | -C.2602 | 0.0638 | -0.2629 | 0.4177 | -0.6807 | -0.3648 |
| 173 | 57.55 | -0.01 | 14.8775 | -5.5503 | C.2740 | -C.3697 | 0.0417 | -0.2796 | 0.4115 | -0.6916 | -0.3735 |
| 174 | 57.68 | -0.01 | 14.7660 | -5.3410 | 0.1746 | -C.0761 | 0.0632 | -0.3052 | 0.4205 | -0.7261 | -0.3747 |
| 175 | 57.83 | -0.02 | 14.8209 | -5.3504 | -C.1414 | C.0883 | 0.0632 | -0.2715 | 0.4330 | -0.7040 | -0.3749 |
| 176 | 57.99 | -0.03 | 14.8754 | -5.0185 | -0.1823 | -0.0304 | 0.0521 | -0.2792 | 0.4322 | -0.7115 | -0.3777 |
| 177 | 58.12 | -0.04 | 14.8279 | -5.0775 | -C.0650 | C.1776 | 0.0629 | -0.2531 | 0.4500 | -0.7038 | -0.3829 |
| 178 | 58.27 | -0.07 | 14.6654 | -5.1563 | -0.4652 | C.4000 | 0.0624 | -0.2704 | 0.4595 | -0.7104 | -0.3900 |
| 179 | 58.37 | -0.04 | 14.9021 | -5.8542 | -C.0587 | C.2297 | 0.0629 | -0.2917 | 0.4322 | -0.7239 | -0.3932 |
| 180 | 58.37 | -0.05 | 14.8191 | -5.8007 | -0.1811 | -0.1258 | 0.0520 | -0.3038 | 0.4355 | -0.7391 | -0.3779 |
| 181 | 57.50 | -0.11 | 14.8748 | -5.5304 | -C.4208 | C.0339 | 0.0232 | -0.3015 | 0.4086 | -0.7101 | -0.3718 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH AXIS-E PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 155 1.10 1.7 C.C DIACFIG 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CN1 | CB1 | XCPF1 | YCPF1 | CNF2 | CN2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.79 | 0.001 | 0.0000 | 0.0061 | 0.0155 | 0.7629 | 1.9312 | -1.2354 | -0.0047 | -0.5632 | 0.0038 | 0.4721 |
| 2 | -5.79 | 0.002 | 0.0001 | 0.0054 | 0.0153 | 0.0070 | 1.9073 | -1.2299 | -0.0049 | -0.5600 | 0.0040 | 0.4716 |
| 3 | -5.79 | 0.003 | 0.0004 | 0.0057 | 0.0165 | 0.5761 | 1.8019 | -1.2332 | -0.0048 | -0.5813 | 0.0039 | 0.4714 |
| 4 | -5.80 | 0.003 | -0.0001 | 0.0040 | 0.0127 | -2.8705 | -7.9302 | -1.2316 | -0.0051 | -0.5806 | 0.0041 | 0.4716 |
| 5 | -4.78 | 0.004 | 0.0035 | 0.0040 | 0.0120 | 1.3722 | 3.6402 | -1.1821 | -0.0043 | -0.5638 | 0.0070 | 0.4776 |
| 6 | -2.97 | 0.003 | 0.0029 | 0.0043 | 0.0116 | 1.4033 | 3.8009 | -1.1398 | -0.0040 | -0.5501 | 0.0058 | 0.4876 |
| 7 | -1.21 | 0.003 | 0.0130 | 0.0048 | 0.0132 | 0.3389 | 0.9003 | -1.0505 | -0.0011 | -0.5325 | 0.0010 | 0.5073 |
| 8 | 0.03 | 0.003 | 0.0044 | 0.0032 | 0.0101 | 0.7277 | 1.8240 | -0.9304 | -0.0048 | -0.4858 | 0.0051 | 0.5177 |
| 9 | 2.47 | 0.002 | 0.0142 | 0.0035 | 0.0102 | 0.2537 | 0.7206 | -0.7976 | -0.0108 | -0.4190 | 0.0136 | 0.5253 |
| 10 | 4.28 | 0.003 | 0.0109 | 0.0027 | 0.0087 | 0.4441 | 1.3037 | -0.6853 | -0.0151 | -0.3602 | 0.0228 | 0.5430 |
| 11 | 6.14 | 0.003 | -0.0006 | 0.0022 | 0.0095 | -0.3669 | -1.0864 | -0.5213 | -0.0162 | -0.2667 | 0.0311 | 0.5499 |
| 12 | 8.03 | 0.001 | -0.0006 | 0.0017 | 0.0101 | -0.2835 | -1.0307 | -0.3734 | -0.0116 | -0.2108 | 0.0311 | 0.5838 |
| 13 | 9.82 | 0.003 | -0.0090 | 0.0013 | 0.0157 | -0.1465 | -1.7389 | -0.2299 | -0.0040 | -0.1520 | 0.0174 | 0.6612 |
| 14 | 11.80 | 0.002 | 0.0100 | 0.0013 | 0.0200 | 0.2168 | 4.0049 | -0.0008 | 0.0002 | -0.0845 | -0.0059 | 0.9523 |
| 15 | 13.69 | 0.003 | -0.0034 | 0.0010 | 0.0241 | -0.2543 | -7.0814 | 0.0367 | 0.0186 | -0.0225 | 0.5071 | -0.6123 |
| 16 | 15.07 | 0.002 | -0.0035 | 0.0014 | 0.0294 | -0.1868 | -5.2230 | 0.1047 | 0.0330 | 0.0337 | 0.2006 | 0.2048 |
| 17 | 17.66 | 0.002 | 0.0155 | -0.0026 | 0.0341 | -0.2517 | 2.2006 | 0.2613 | 0.0440 | 0.0764 | 0.1682 | 0.2624 |
| 18 | 19.03 | 0.003 | -0.0131 | -0.0007 | 0.0194 | 0.0849 | -1.4780 | 0.3453 | 0.0501 | 0.1417 | 0.1267 | 0.3584 |
| 19 | 21.65 | 0.002 | -0.0005 | -0.0035 | 0.0203 | 0.2236 | -0.3056 | 0.4886 | 0.0540 | 0.1697 | 0.1104 | 0.3880 |
| 20 | 23.80 | 0.002 | -0.0135 | -0.0077 | -0.0001 | 0.1324 | 0.2034 | 0.5649 | 0.0568 | 0.2306 | 0.1005 | 0.4083 |
| 21 | 25.00 | 0.003 | -0.0043 | -0.0028 | -0.0038 | 0.0652 | 0.0887 | 0.6593 | 0.0526 | 0.2769 | 0.0757 | 0.4231 |
| 22 | 27.70 | 0.002 | 0.0179 | 0.0160 | 0.0033 | 0.0855 | 0.4742 | 0.7434 | 0.0438 | 0.3195 | 0.0589 | 0.4298 |
| 23 | 28.14 | 0.006 | 0.0248 | 0.0164 | 0.0142 | 0.0741 | 0.4592 | 0.7460 | 0.0432 | 0.3191 | 0.0577 | 0.4266 |
| 24 | 28.14 | 0.006 | 0.0240 | 0.0176 | 0.0161 | 0.0775 | 0.4655 | 0.7531 | 0.0436 | 0.3224 | 0.0578 | 0.4281 |
| 25 | 28.14 | 0.003 | 0.0196 | 0.0176 | 0.0151 | 0.0853 | 0.4764 | 0.7482 | 0.0437 | 0.3200 | 0.0584 | 0.4277 |
| 26 | 28.64 | 0.005 | 0.0123 | 0.0191 | 0.0144 | 0.0811 | 0.5336 | 0.7480 | 0.0456 | 0.3206 | 0.0612 | 0.4286 |
| 27 | 28.64 | 0.003 | 0.1500 | 0.0054 | 0.0792 | 0.0360 | 0.5260 | 0.7446 | 0.0460 | 0.3196 | 0.0617 | 0.4292 |
| 28 | 28.64 | 0.003 | 0.1497 | 0.0053 | 0.0783 | 0.0375 | 0.5410 | 0.7541 | 0.0459 | 0.3269 | 0.0608 | 0.4336 |
| 29 | 29.22 | 0.003 | 0.1231 | 0.0068 | 0.0837 | 0.0716 | 0.5171 | 0.7765 | 0.0438 | 0.3383 | 0.0562 | 0.4345 |
| 30 | 29.25 | 0.006 | 0.1642 | 0.0165 | 0.0944 | 0.0526 | 0.4974 | 0.7874 | 0.0426 | 0.3426 | 0.0541 | 0.4355 |
| 31 | 29.63 | 0.007 | 0.2149 | 0.0191 | 0.0973 | 0.0704 | 0.5428 | 0.8130 | 0.0403 | 0.3529 | 0.0495 | 0.4341 |
| 32 | 30.13 | 0.006 | 0.2545 | 0.0186 | 0.1098 | 0.0801 | 0.4316 | 0.8294 | 0.0374 | 0.3612 | 0.0456 | 0.4353 |
| 33 | 30.37 | 0.006 | 0.3156 | 0.0195 | 0.1542 | 0.0582 | 0.4366 | 0.8431 | 0.0360 | 0.3678 | 0.0426 | 0.4363 |
| 34 | 30.60 | 0.005 | 0.2757 | 0.0163 | 0.1374 | 0.0389 | 0.4912 | 0.8472 | 0.0377 | 0.3713 | 0.0444 | 0.4383 |
| 35 | 30.97 | 0.006 | 0.3333 | 0.0252 | 0.1753 | 0.0276 | 0.5260 | 0.8463 | 0.0366 | 0.3707 | 0.0434 | 0.4361 |
| 36 | 31.44 | 0.006 | 0.4045 | 0.0262 | 0.1918 | 0.0220 | 0.5375 | 0.8494 | 0.0375 | 0.3726 | 0.0441 | 0.4367 |
| 37 | 31.52 | 0.005 | 0.3976 | 0.0252 | 0.1882 | 0.0258 | 0.5262 | 0.8651 | 0.0355 | 0.3786 | 0.0410 | 0.4378 |
| 38 | 31.79 | 0.003 | 0.4461 | 0.0269 | 0.1956 | 0.0240 | 0.5407 | 0.8708 | 0.0366 | 0.3822 | 0.0422 | 0.4369 |
| 39 | 32.06 | 0.004 | 0.2355 | 0.0054 | 0.1305 | 0.0225 | 0.5550 | 0.8636 | 0.0368 | 0.3815 | 0.0423 | 0.4392 |
| 40 | 32.33 | 0.004 | 0.2115 | 0.0044 | 0.1148 | 0.0444 | 0.5227 | 0.8618 | 0.0363 | 0.3865 | 0.0411 | 0.4383 |
| 41 | 32.59 | 0.003 | 0.2822 | 0.0110 | 0.1466 | 0.0390 | 0.5156 | 0.8963 | 0.0345 | 0.3922 | 0.0385 | 0.4378 |
| 42 | 32.86 | 0.003 | 0.1574 | 0.0007 | 0.1004 | 0.0441 | 0.5342 | 0.9051 | 0.0353 | 0.3960 | 0.0389 | 0.4375 |
| 43 | 33.12 | 0.005 | 0.2542 | 0.0064 | 0.1375 | 0.0331 | 0.5407 | 0.9140 | 0.0346 | 0.3997 | 0.0377 | 0.4373 |
| 44 | 33.38 | 0.003 | 0.2001 | 0.0063 | 0.1396 | 0.0243 | 0.5373 | 0.9119 | 0.0342 | 0.3978 | 0.0376 | 0.4362 |
| 45 | 33.63 | 0.002 | 0.1500 | 0.0027 | 0.1085 | 0.0150 | 0.6331 | 0.9227 | 0.0354 | 0.4035 | 0.0383 | 0.4377 |
| 46 | 33.88 | 0.003 | 0.1669 | 0.0040 | 0.1143 | 0.0214 | 0.6115 | 0.9420 | 0.0339 | 0.4114 | 0.0380 | 0.4367 |

PARTIAL MISSILE TAILS EFFECTS DATA

TEST 7 | PART 155 | MACH 1.16 | RX10-6 1.7 | PHI 0.0 | CONF 8 | L 6.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | Cm1 | CB1 | XCPF1 | YCPF1 | CNF2 | Cm2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.14 | 0.03 | 0.2533 | 0.0053 | 0.1484 | 0.0210 | 0.5858 | 0.9533 | 0.0325 | 0.4161 | 0.0341 | 0.4366 |
| 48 | 34.39 | 0.02 | 0.2822 | 0.0054 | 0.1586 | 0.0209 | 0.5823 | 0.9622 | 0.0316 | 0.4184 | 0.0329 | 0.4346 |
| 49 | 34.62 | 0.02 | 0.2729 | 0.0067 | 0.1556 | 0.0246 | 0.5790 | 0.9795 | 0.0311 | 0.4250 | 0.0318 | 0.4338 |
| 50 | 34.88 | 0.04 | 0.2851 | 0.0075 | 0.1596 | 0.0263 | 0.5776 | 0.9794 | 0.0306 | 0.4247 | 0.0315 | 0.4335 |
| 51 | 35.14 | 0.03 | 0.2856 | 0.0055 | 0.1596 | 0.0211 | 0.5530 | 0.9789 | 0.0304 | 0.4234 | 0.0311 | 0.4326 |
| 52 | 35.38 | 0.04 | 0.2857 | 0.0049 | 0.1605 | 0.0220 | 0.5627 | 0.9788 | 0.0315 | 0.4317 | 0.0316 | 0.4323 |
| 53 | 35.60 | 0.01 | 0.2815 | 0.0058 | 0.1575 | 0.0250 | 0.5965 | 0.9987 | 0.0310 | 0.4322 | 0.0311 | 0.4327 |
| 54 | 35.87 | 0.03 | 0.2900 | 0.0023 | 0.1635 | 0.0154 | 0.5900 | 1.0078 | 0.0314 | 0.4362 | 0.0310 | 0.4328 |
| 55 | 36.12 | 0.00 | 0.2805 | 0.0081 | 0.1582 | 0.0337 | 0.6037 | 0.9970 | 0.0293 | 0.4314 | 0.0294 | 0.4327 |
| 56 | 36.36 | 0.04 | 0.2841 | 0.0065 | 0.1596 | 0.0337 | 0.5892 | 1.0048 | 0.0285 | 0.4342 | 0.0284 | 0.4321 |
| 57 | 36.63 | 0.01 | 0.2830 | 0.0048 | 0.1581 | 0.0263 | 0.6539 | 1.0160 | 0.0286 | 0.4397 | 0.0281 | 0.4319 |
| 58 | 36.88 | 0.03 | 0.2819 | 0.0025 | 0.1604 | 0.0206 | 0.7113 | 1.0246 | 0.0263 | 0.4430 | 0.0277 | 0.4324 |
| 59 | 37.10 | 0.03 | 0.2941 | 0.0074 | 0.1642 | 0.0382 | 0.6241 | 1.0215 | 0.0270 | 0.4413 | 0.0265 | 0.4326 |
| 60 | 37.36 | 0.04 | 0.2910 | 0.0055 | 0.1637 | 0.0496 | 0.6478 | 1.0260 | 0.0261 | 0.4427 | 0.0255 | 0.4315 |
| 61 | 37.59 | 0.03 | 0.2919 | 0.0056 | 0.1602 | 0.0501 | 0.6264 | 1.0372 | 0.0248 | 0.4462 | 0.0239 | 0.4321 |
| 62 | 37.82 | 0.03 | 0.2856 | 0.0055 | 0.1642 | 0.0512 | 0.6140 | 1.0403 | 0.0245 | 0.4529 | 0.0234 | 0.4313 |
| 63 | 38.08 | 0.01 | 0.2887 | 0.0064 | 0.1661 | 0.0360 | 0.6412 | 1.0616 | 0.0245 | 0.4576 | 0.0235 | 0.4310 |
| 64 | 38.31 | 0.01 | 0.2834 | 0.0058 | 0.1618 | 0.0455 | 0.6594 | 1.0661 | 0.0245 | 0.4588 | 0.0230 | 0.4303 |
| 65 | 38.53 | 0.02 | 0.2872 | 0.0060 | 0.1672 | 0.0510 | 0.6181 | 1.0685 | 0.0241 | 0.4583 | 0.0226 | 0.4285 |
| 66 | 38.78 | 0.00 | 0.2849 | 0.0046 | 0.1634 | 0.0481 | 0.6393 | 1.0861 | 0.0242 | 0.4656 | 0.0223 | 0.4285 |
| 67 | 39.01 | 0.00 | 0.2866 | 0.0025 | 0.1643 | 0.0250 | 0.6427 | 1.0938 | 0.0243 | 0.4663 | 0.0222 | 0.4282 |
| 68 | 39.25 | 0.0 | 0.2840 | 0.0053 | 0.1775 | 0.0428 | 0.6251 | 1.0940 | 0.0246 | 0.4671 | 0.0220 | 0.4270 |
| 69 | 39.47 | 0.02 | 0.2994 | 0.0037 | 0.1670 | 0.0373 | 0.6735 | 1.1026 | 0.0243 | 0.4706 | 0.0221 | 0.4268 |
| 70 | 39.68 | 0.04 | 0.2818 | 0.0029 | 0.0511 | 0.0305 | 0.6250 | 1.1172 | 0.0240 | 0.4761 | 0.0215 | 0.4262 |
| 71 | 39.88 | -0.01 | 0.2910 | 0.0026 | 0.0576 | 0.0286 | 0.6335 | 1.1274 | 0.0241 | 0.4767 | 0.0214 | 0.4246 |
| 72 | 40.14 | 0.01 | 0.2927 | 0.0036 | 0.0664 | 0.0351 | 0.6463 | 1.1341 | 0.0239 | 0.4809 | 0.0211 | 0.4240 |
| 73 | 40.32 | 0.02 | 0.2762 | 0.0015 | 0.0455 | 0.0197 | 0.6499 | 1.1407 | 0.0243 | 0.4853 | 0.0213 | 0.4237 |
| 74 | 40.52 | 0.04 | 0.2867 | 0.0027 | 0.0525 | 0.0287 | 0.6359 | 1.1503 | 0.0244 | 0.4810 | 0.0215 | 0.4233 |
| 75 | 40.73 | 0.02 | 0.2850 | -0.0006 | 0.0503 | -0.0087 | 0.7295 | 1.1506 | 0.0237 | 0.4856 | 0.0206 | 0.4215 |
| 76 | 40.94 | -0.01 | 0.2856 | -0.0019 | 0.0461 | -0.0252 | 0.7739 | 1.1653 | 0.0244 | 0.4903 | 0.0210 | 0.4208 |
| 77 | 41.14 | 0.02 | 0.2871 | -0.0008 | 0.0502 | -0.0119 | 0.7467 | 1.1667 | 0.0242 | 0.4953 | 0.0208 | 0.4203 |
| 78 | 41.36 | -0.01 | 0.2868 | -0.0033 | 0.0364 | -0.0297 | 0.8060 | 1.1733 | 0.0255 | 0.4919 | 0.0218 | 0.4193 |
| 79 | 41.55 | -0.01 | 0.2808 | -0.0047 | 0.0298 | -0.0527 | 0.8674 | 1.1745 | 0.0250 | 0.4919 | 0.0213 | 0.4188 |
| 80 | 41.77 | -0.02 | 0.2876 | -0.0061 | 0.0292 | -0.0280 | 1.0312 | 1.1901 | 0.0251 | 0.4961 | 0.0211 | 0.4165 |
| 81 | 41.96 | -0.01 | 0.2815 | -0.0056 | 0.0227 | -0.7567 | 1.9852 | 1.1868 | 0.0256 | 0.4926 | 0.0218 | 0.4151 |
| 82 | 42.16 | -0.02 | 0.2861 | -0.0102 | 0.0145 | -10.0540 | 144.4010 | 1.1934 | 0.0258 | 0.4960 | 0.0217 | 0.4157 |
| 83 | 42.36 | -0.03 | -0.0036 | -0.0111 | 0.0115 | 3.2664 | -3.3932 | 1.2038 | 0.0261 | 0.4989 | 0.0217 | 0.4143 |
| 84 | 42.53 | -0.01 | -0.0146 | -0.0156 | 0.0123 | 1.0279 | -0.0363 | 1.1995 | 0.0266 | 0.4935 | 0.0222 | 0.4118 |
| 85 | 42.73 | -0.01 | -0.0347 | -0.0173 | -0.0007 | 0.4966 | 0.0202 | 1.2095 | 0.0264 | 0.4983 | 0.0219 | 0.4126 |
| 86 | 35.38 | -0.37 | -0.1458 | -0.0153 | -0.0166 | 0.4210 | 0.1996 | 1.2086 | 0.0270 | 0.4932 | 0.0224 | 0.4081 |
| 87 | 43.10 | -0.02 | -0.0714 | -0.0242 | -0.0175 | 0.3396 | 0.2548 | 1.2065 | 0.0267 | 0.4907 | 0.0222 | 0.4067 |
| 88 | 43.27 | -0.04 | -0.0505 | -0.0200 | -0.0126 | 0.3431 | 0.2464 | 1.2187 | 0.0268 | 0.4958 | 0.0220 | 0.4068 |
| 89 | 43.45 | -0.02 | -0.0825 | -0.0224 | -0.0169 | 0.3592 | 0.2537 | 1.2156 | 0.0260 | 0.4919 | 0.0214 | 0.4043 |
| 90 | 43.63 | -0.04 | -0.0653 | -0.0244 | -0.0184 | 0.3407 | 0.2765 | 1.2170 | 0.0260 | 0.4930 | 0.0214 | 0.4051 |
| 91 | 43.83 | -0.03 | -0.1530 | -0.0321 | -0.0537 | 0.2101 | 0.3510 | 1.1869 | 0.0231 | 0.4700 | 0.0195 | 0.3960 |
| 92 | 43.99 | -0.04 | -0.0813 | -0.0192 | -0.0244 | 0.3139 | 0.3903 | 1.2068 | 0.0233 | 0.4793 | 0.0193 | 0.3971 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 5 OF 6

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 155 MACH 1.10 RN/C-E 1.7 PHI 0.0 CONF 81 BODIES L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CM1 | CA1 | XCPF1 | YCPF1 | CNF2 | CM2 | CA2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.19 | -0.02 | -0.0064 | -0.0052 | -0.0082 | 0.6194 | 0.9753 | 1.2096 | 0.0186 | 0.4750 | 0.0154 | 0.3927 |
| 94 | 44.30 | -0.02 | -0.0058 | -0.0047 | -0.0078 | 0.6054 | 0.9362 | 1.2104 | 0.0184 | 0.4757 | 0.0150 | 0.3925 |
| 95 | 44.55 | -0.04 | -0.0063 | -0.0202 | -0.0328 | 0.2520 | 0.4090 | 1.2101 | 0.0166 | 0.4732 | 0.0137 | 0.3511 |
| 96 | 44.75 | -0.03 | -0.0065 | -0.0145 | -0.0255 | 0.2988 | 0.3187 | 1.2120 | 0.0153 | 0.4733 | 0.0126 | 0.3503 |
| 97 | 44.93 | -0.04 | -0.0292 | -0.0082 | -0.0176 | 0.2810 | 0.6115 | 1.1996 | 0.0135 | 0.4648 | 0.0113 | 0.3675 |
| 98 | 45.11 | -0.04 | -0.0120 | -0.0060 | -0.0104 | 0.5503 | 0.9114 | 1.2043 | 0.0123 | 0.4645 | 0.0102 | 0.3657 |
| 99 | 45.28 | -0.04 | -0.0067 | -0.0060 | -0.0254 | 0.2642 | 0.4850 | 1.2088 | 0.0134 | 0.4651 | 0.0111 | 0.3681 |
| 100 | 45.49 | -0.04 | -0.0054 | -0.0217 | -0.0455 | 0.2431 | 0.5067 | 1.1948 | 0.0118 | 0.4546 | 0.0099 | 0.3847 |
| 101 | 45.65 | -0.03 | -0.0062 | -0.0179 | -0.0401 | 0.2236 | 0.5749 | 1.1874 | 0.0099 | 0.4525 | 0.0083 | 0.3814 |
| 102 | 45.81 | -0.03 | -0.0126 | -0.0227 | -0.0394 | 0.2014 | 0.4744 | 1.1906 | 0.0106 | 0.4558 | 0.0089 | 0.3828 |
| 103 | 46.00 | -0.03 | -0.1524 | -0.0316 | -0.0692 | 0.2076 | 0.4536 | 1.1916 | 0.0102 | 0.4550 | 0.0086 | 0.3817 |
| 104 | 46.17 | -0.02 | -0.0125 | -0.0078 | -0.0595 | 0.2275 | 0.9384 | 1.1922 | 0.0082 | 0.4525 | 0.0069 | 0.3795 |
| 105 | 46.36 | -0.04 | -0.0774 | -0.0175 | -0.0445 | 0.2317 | 0.5749 | 1.1835 | 0.0075 | 0.4475 | 0.0063 | 0.3782 |
| 106 | 46.53 | -0.02 | -0.0716 | -0.0166 | -0.0396 | 0.2364 | 0.5559 | 1.1770 | 0.0066 | 0.4432 | 0.0056 | 0.3766 |
| 107 | 46.69 | -0.02 | -0.0672 | -0.0214 | -0.0469 | 0.2458 | 0.5379 | 1.1773 | 0.0072 | 0.4431 | 0.0061 | 0.3764 |
| 108 | 46.85 | -0.03 | -0.1044 | -0.0281 | -0.0518 | 0.2696 | 0.4963 | 1.1772 | 0.0072 | 0.4434 | 0.0061 | 0.3767 |
| 109 | 47.04 | -0.02 | -0.0522 | -0.0226 | -0.0497 | 0.2812 | 0.5368 | 1.1641 | 0.0062 | 0.4367 | 0.0053 | 0.3751 |
| 110 | 47.21 | -0.04 | -0.1267 | -0.0245 | -0.0554 | 0.3573 | 0.5733 | 1.1552 | 0.0061 | 0.4314 | 0.0053 | 0.3734 |
| 111 | 47.39 | -0.03 | -0.0485 | -0.0242 | -0.0511 | 0.5207 | 0.6686 | 1.1423 | 0.0056 | 0.4242 | 0.0049 | 0.3714 |
| 112 | 47.57 | -0.04 | -0.0561 | -0.0245 | -0.0541 | 0.4693 | 0.6786 | 1.1365 | 0.0056 | 0.4227 | 0.0049 | 0.3719 |
| 113 | 47.75 | -0.02 | -0.0076 | -0.0285 | -0.0175 | 3.1464 | 2.2966 | 1.0922 | 0.0057 | 0.4007 | 0.0052 | 0.3665 |
| 114 | 47.92 | -0.02 | 0.0076 | -0.0226 | -0.0124 | -3.2089 | -1.6344 | 1.0822 | 0.0051 | 0.3971 | 0.0047 | 0.3670 |
| 115 | 48.08 | -0.02 | 0.0132 | -0.0225 | -0.0135 | -1.5842 | -1.0184 | 1.0711 | 0.0054 | 0.3915 | 0.0050 | 0.3655 |
| 116 | 48.26 | -0.02 | 0.0087 | -0.0249 | -0.0196 | -1.7130 | -2.2716 | 1.0203 | 0.0073 | 0.3701 | 0.0071 | 0.3605 |
| 117 | 48.43 | 0.01 | 0.0253 | 0.0031 | -0.0091 | 0.1220 | -0.3606 | 0.9805 | 0.0110 | 0.3426 | 0.0115 | 0.3561 |
| 118 | 48.61 | -0.01 | 0.0291 | 0.0026 | -0.0174 | 0.1256 | -0.2351 | 0.9672 | 0.0105 | 0.3403 | 0.0109 | 0.3581 |
| 119 | 48.77 | -0.06 | 0.0446 | 0.0054 | 0.0005 | 0.2099 | 0.0202 | 0.9605 | 0.0109 | 0.3428 | 0.0114 | 0.3567 |
| 120 | 48.93 | -0.02 | 0.0216 | 0.0100 | 0.0111 | 0.1654 | 0.1841 | 0.9516 | 0.0110 | 0.3379 | 0.0116 | 0.3551 |
| 121 | 49.12 | -0.02 | 0.0551 | 0.0115 | 0.0064 | 0.2092 | 0.1167 | 0.9716 | 0.0105 | 0.3486 | 0.0108 | 0.3582 |
| 122 | 49.28 | 0.00 | 0.0655 | 0.0132 | 0.0114 | 0.2019 | 0.1749 | 0.9645 | 0.0108 | 0.3447 | 0.0112 | 0.3573 |
| 123 | 49.46 | -0.01 | 0.0554 | 0.0107 | 0.0016 | 0.2717 | 0.0458 | 0.9640 | 0.0107 | 0.3526 | 0.0105 | 0.3584 |
| 124 | 49.64 | 0.01 | -0.0254 | 0.0029 | -0.0222 | -0.6553 | 0.8796 | 0.8653 | 0.0159 | 0.2565 | 0.0184 | 0.3468 |
| 125 | 49.81 | 0.00 | -0.0435 | -0.0018 | -0.0282 | 0.0414 | 0.6480 | 0.8357 | 0.0187 | 0.2881 | 0.0225 | 0.3456 |
| 126 | 49.98 | 0.01 | 0.0047 | 0.0053 | -0.0105 | 1.1203 | -2.2414 | 0.9259 | 0.0116 | 0.3292 | 0.0126 | 0.3565 |
| 127 | 50.13 | 0.01 | -0.0447 | -0.0015 | -0.0277 | 0.0336 | 0.6194 | 0.8458 | 0.0169 | 0.3005 | 0.0199 | 0.3537 |
| 128 | 50.31 | 0.02 | -0.0366 | -0.0013 | -0.0261 | 0.0365 | 0.6722 | 0.8366 | 0.0176 | 0.2951 | 0.0213 | 0.3519 |
| 129 | 50.50 | 0.02 | -0.0417 | -0.0020 | -0.0266 | 0.0411 | 0.5871 | 0.8416 | 0.0182 | 0.2955 | 0.0217 | 0.3511 |
| 130 | 50.67 | 0.03 | -0.0545 | -0.0026 | -0.0368 | 0.0307 | 0.5351 | 0.8438 | 0.0175 | 0.2968 | 0.0208 | 0.3518 |
| 131 | 50.84 | 0.03 | -0.0451 | -0.0023 | -0.0270 | 0.0465 | 0.5496 | 0.8591 | 0.0165 | 0.3032 | 0.0192 | 0.3530 |
| 132 | 42.17 | -0.38 | -0.0471 | -0.0016 | -0.0186 | 0.0340 | 0.5087 | 0.8580 | 0.0166 | 0.3029 | 0.0196 | 0.3531 |
| 133 | 51.18 | 0.03 | -0.0413 | -0.0013 | -0.0246 | 0.0315 | 0.5951 | 0.8668 | 0.0160 | 0.3074 | 0.0184 | 0.3538 |
| 134 | 51.34 | 0.04 | -0.0250 | -0.0015 | -0.0178 | 0.0173 | 0.6123 | 0.8623 | 0.0148 | 0.3147 | 0.0168 | 0.3567 |
| 135 | 51.52 | 0.03 | -0.0291 | -0.0003 | -0.0175 | 0.0163 | 0.5999 | 0.8734 | 0.0152 | 0.3094 | 0.0174 | 0.3542 |
| 136 | 51.70 | 0.02 | -0.0125 | 0.0 | -0.0113 | 0.0 | 0.9249 | 0.8959 | 0.0136 | 0.3196 | 0.0152 | 0.3567 |
| 137 | 51.86 | 0.04 | -0.0156 | -0.0001 | -0.0127 | 0.0051 | 0.6449 | 0.8914 | 0.0140 | 0.3179 | 0.0157 | 0.3566 |
| 138 | 52.01 | 0.03 | -0.0118 | 0.0003 | -0.0096 | -0.0254 | 0.6162 | 0.8936 | 0.0137 | 0.3195 | 0.0154 | 0.3575 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 PART 1&5 MACH 1.10 1.7 PHI 0.0 BINOFLO C.C DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF1 | CM1 | CD1 | XCPF1 | YCPF1 | CNF2 | CM2 | CD2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.20 | 0.04 | -0.0051 | C.0004 | -0.0062 | -0.0785 | 1.2196 | 0.9105 | 0.0131 | 0.3262 | 0.0144 | 0.3583 |
| 140 | 52.36 | 0.04 | 0.0024 | C.0005 | -0.0036 | 0.3335 | -1.3376 | 0.9172 | 0.0127 | 0.3299 | 0.0139 | 0.3586 |
| 141 | 52.54 | 0.04 | 0.0017 | C.0007 | -0.0037 | 0.4120 | -2.1334 | 0.9252 | 0.0117 | 0.3328 | 0.0127 | 0.3596 |
| 142 | 52.69 | 0.03 | 0.0025 | C.0005 | -0.0024 | 0.3002 | -0.9031 | 0.9203 | 0.0123 | 0.3312 | 0.0134 | 0.3598 |
| 143 | 52.84 | 0.04 | 0.0054 | C.0013 | -0.0016 | 0.2409 | -0.2972 | 0.9214 | 0.0125 | 0.3322 | 0.0136 | 0.3605 |
| 144 | 53.02 | 0.03 | 0.0024 | 0.0010 | -0.0021 | 0.3335 | -0.6778 | 0.9232 | 0.0124 | 0.3335 | 0.0135 | 0.3612 |
| 145 | 53.18 | 0.04 | 0.0022 | C.0005 | -0.0037 | 1.5008 | -6.1804 | 0.9286 | 0.0120 | 0.3355 | 0.0125 | 0.3613 |
| 146 | 53.34 | 0.03 | 0.0054 | C.0010 | -0.0011 | 0.1112 | -0.2044 | 0.9305 | 0.0116 | 0.3371 | 0.0125 | 0.3622 |
| 147 | 53.51 | 0.03 | 0.0012 | C.0008 | -0.0013 | 0.0670 | -1.0368 | 0.9359 | 0.0117 | 0.3404 | 0.0125 | 0.3637 |
| 148 | 53.68 | 0.03 | 0.0021 | C.0005 | -0.0004 | 0.4208 | -0.1911 | 0.9389 | 0.0114 | 0.3423 | 0.0122 | 0.3648 |
| 149 | 53.84 | 0.02 | -0.0020 | C.0005 | -0.0035 | -0.2501 | 0.9753 | 0.9364 | 0.0116 | 0.3404 | 0.0124 | 0.3635 |
| 150 | 53.98 | 0.02 | -0.0010 | C.0011 | -0.0004 | -1.1000 | 0.9029 | 0.9384 | 0.0115 | 0.3419 | 0.0123 | 0.3644 |
| 151 | 54.14 | 0.01 | -0.0075 | C.0006 | -0.0025 | -0.0760 | 0.3683 | 0.9372 | 0.0110 | 0.3431 | 0.0118 | 0.3661 |
| 152 | 54.29 | 0.01 | -0.0062 | C.0001 | -0.0036 | -0.0119 | 0.4104 | 0.9265 | 0.0113 | 0.3385 | 0.0122 | 0.3653 |
| 153 | 54.44 | -0.01 | -0.0076 | 0.0007 | -0.0022 | -0.1001 | 0.3153 | 0.9434 | 0.0106 | 0.3470 | 0.0113 | 0.3675 |
| 154 | 54.60 | -0.00 | -0.0015 | C.0002 | -0.0052 | -0.0144 | 0.3753 | 0.9442 | 0.0103 | 0.3480 | 0.0109 | 0.3686 |
| 155 | 54.74 | 0.00 | -0.0168 | -0.0001 | -0.0073 | 0.0055 | 0.3695 | 0.9442 | 0.0100 | 0.3495 | 0.0106 | 0.3702 |
| 156 | 54.90 | -0.00 | -0.0150 | -0.0003 | -0.0050 | 0.0200 | 0.3344 | 0.9506 | 0.0097 | 0.3526 | 0.0102 | 0.3709 |
| 157 | 55.06 | -0.02 | -0.0182 | -0.0007 | -0.0051 | 0.0438 | 0.3198 | 0.9448 | 0.0098 | 0.3501 | 0.0104 | 0.3706 |
| 158 | 55.21 | -0.03 | -0.0201 | -0.0006 | -0.0066 | 0.0398 | 0.2993 | 0.9494 | 0.0089 | 0.3528 | 0.0094 | 0.3717 |
| 159 | 55.37 | 0.02 | -0.0160 | -0.0003 | -0.0057 | 0.0186 | 0.3574 | 0.9423 | 0.0095 | 0.3488 | 0.0101 | 0.3702 |
| 160 | 55.53 | -0.04 | -0.0171 | -0.0003 | -0.0054 | 0.0176 | 0.3166 | 0.9434 | 0.0095 | 0.3491 | 0.0101 | 0.3701 |
| 161 | 55.68 | -0.02 | -0.0112 | -0.0001 | -0.0026 | 0.0069 | 0.2329 | 0.9446 | 0.0090 | 0.3501 | 0.0095 | 0.3707 |
| 162 | 55.84 | -0.03 | -0.0151 | -0.0003 | -0.0041 | 0.0331 | 0.3123 | 0.9504 | 0.0086 | 0.3526 | 0.0091 | 0.3711 |
| 163 | 56.01 | -0.01 | -0.0178 | -0.0005 | -0.0073 | 0.0506 | 0.4114 | 0.9596 | 0.0078 | 0.3575 | 0.0081 | 0.3725 |
| 164 | 56.17 | -0.03 | -0.0163 | -0.0004 | -0.0019 | 0.0194 | 0.1851 | 0.9640 | 0.0073 | 0.3567 | 0.0076 | 0.3721 |
| 165 | 56.32 | 0.02 | -0.0130 | -0.0008 | -0.0043 | 0.0616 | 0.3318 | 0.9730 | 0.0064 | 0.3631 | 0.0066 | 0.3732 |
| 166 | 56.49 | -0.02 | -0.0173 | -0.0005 | -0.0044 | 0.0289 | 0.2341 | 0.9702 | 0.0062 | 0.3630 | 0.0064 | 0.3718 |
| 167 | 56.65 | -0.04 | -0.0082 | 0.0002 | -0.0021 | -0.0264 | 0.2569 | 0.9715 | 0.0071 | 0.3603 | 0.0073 | 0.3709 |
| 168 | 56.79 | -0.04 | -0.0081 | -0.0001 | -0.0024 | 0.0164 | 0.2972 | 0.9808 | 0.0059 | 0.3651 | 0.0060 | 0.3722 |
| 169 | 56.93 | -0.04 | 0.0057 | C.0028 | 0.0030 | 0.4564 | 0.5280 | 0.9945 | 0.0050 | 0.3721 | 0.0056 | 0.3742 |
| 170 | 57.11 | -0.06 | 0.0260 | C.0047 | 0.0000 | 0.2283 | 0.4280 | 1.0144 | 0.0059 | 0.3754 | 0.0035 | 0.3701 |
| 171 | 57.23 | -0.04 | -0.0088 | C.0005 | -0.0054 | -0.1023 | 0.6156 | 0.9571 | 0.0080 | 0.3533 | 0.0084 | 0.3692 |
| 172 | 57.40 | -0.02 | -0.0029 | 0.0019 | -0.0025 | -0.4036 | 0.8048 | 0.9706 | 0.0072 | 0.3579 | 0.0074 | 0.3689 |
| 173 | 57.55 | -0.01 | 0.0168 | C.0044 | 0.0067 | 0.2020 | 0.4001 | 1.0167 | 0.0032 | 0.3768 | 0.0032 | 0.3706 |
| 174 | 57.68 | -0.01 | 0.0012 | 0.0029 | -0.0016 | 2.0044 | -1.3376 | 0.9793 | 0.0060 | 0.3603 | 0.0061 | 0.3675 |
| 175 | 57.83 | -0.00 | -0.0030 | C.0011 | -0.0021 | -0.3665 | 0.8688 | 0.9711 | 0.0061 | 0.3592 | 0.0063 | 0.3699 |
| 176 | 57.99 | -0.03 | -0.0022 | 0.0014 | -0.0042 | -0.1429 | 0.9315 | 0.9769 | 0.0050 | 0.3617 | 0.0057 | 0.3702 |
| 177 | 58.12 | -0.04 | -0.0048 | C.0008 | -0.0048 | -0.1740 | 1.0032 | 0.9721 | 0.0059 | 0.3593 | 0.0061 | 0.3698 |
| 178 | 58.27 | -0.07 | 0.0054 | 0.0020 | -0.0004 | 0.3766 | -0.0743 | 0.9965 | 0.0048 | 0.3687 | 0.0048 | 0.3700 |
| 179 | 58.37 | -0.04 | -0.0025 | C.0008 | -0.0044 | -0.3202 | 1.7656 | 0.9811 | 0.0055 | 0.3620 | 0.0056 | 0.3696 |
| 180 | 58.37 | -0.05 | 0.0063 | 0.0030 | 0.0022 | 0.3616 | 0.0967 | 1.0000 | 0.0041 | 0.3687 | 0.0041 | 0.3687 |
| 181 | 57.90 | -0.11 | 0.0051 | C.0038 | 0.0024 | 0.4178 | 0.2848 | 1.0244 | 0.0038 | 0.3792 | 0.0035 | 0.3701 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MANTIA MISSILE TAILS EFFECTS DATA

TEST PART MACH AXIS-B PHA CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 453 1.10 1.7 0.0 0 INCF13 C.C 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.79 | 0.01 | 0.0277 | 0.0000 | 0.0085 | 0.0000 | 0.2368 | -1.3165 | -0.0063 | -0.5552 | 0.0348 | 0.4211 |
| 2 | -5.79 | 0.02 | 0.0287 | 0.0000 | 0.0086 | 0.0000 | 0.1965 | -1.3102 | -0.0065 | -0.5543 | 0.0349 | 0.4211 |
| 3 | -5.79 | 0.03 | 0.0307 | 0.0000 | 0.0081 | 0.0000 | 0.2214 | -1.3196 | -0.0065 | -0.5550 | 0.0345 | 0.4208 |
| 4 | -5.80 | 0.03 | 0.0287 | 0.0000 | 0.0081 | 0.0000 | 0.1816 | -1.3104 | -0.0066 | -0.5546 | 0.0350 | 0.4232 |
| 5 | -4.78 | 0.04 | 0.0285 | 0.0000 | 0.0068 | 0.0000 | 0.1888 | -1.2555 | -0.0108 | -0.5334 | 0.0086 | 0.4248 |
| 6 | -4.77 | 0.03 | 0.0283 | 0.0000 | 0.0063 | 0.0000 | 0.2218 | -1.2104 | -0.0141 | -0.5195 | 0.0117 | 0.4292 |
| 7 | -1.21 | 0.03 | 0.0228 | 0.0000 | 0.0048 | 0.0000 | 0.1735 | -1.1513 | -0.0115 | -0.5036 | 0.0100 | 0.4374 |
| 8 | 0.63 | 0.03 | 0.0287 | 0.0000 | 0.0042 | 0.0000 | 0.1908 | -1.0466 | -0.0106 | -0.4630 | 0.0101 | 0.4424 |
| 9 | 2.67 | 0.02 | 0.0308 | 0.0000 | 0.0040 | 0.0000 | 0.1503 | -0.9076 | -0.0163 | -0.4002 | 0.0180 | 0.4410 |
| 10 | 4.26 | 0.03 | 0.0306 | 0.0000 | 0.0047 | 0.0000 | 0.0879 | -0.7854 | -0.0266 | -0.3405 | 0.0263 | 0.4334 |
| 11 | 6.14 | 0.03 | 0.0155 | 0.0000 | -0.0032 | 0.0000 | -0.1013 | -0.6331 | -0.0210 | -0.2730 | 0.0332 | 0.4313 |
| 12 | 8.03 | 0.01 | 0.0210 | 0.0000 | -0.0045 | 0.0000 | -0.2150 | -0.4713 | -0.0164 | -0.2029 | 0.0348 | 0.4304 |
| 13 | 9.86 | 0.03 | 0.0292 | 0.0000 | -0.0038 | 0.0000 | -0.1306 | -0.3215 | -0.0074 | -0.1324 | 0.0231 | 0.4304 |
| 14 | 11.80 | 0.02 | 0.0313 | 0.0000 | -0.0040 | 0.0000 | -0.1682 | -0.1682 | 0.0000 | -0.0720 | -0.0214 | 0.4282 |
| 15 | 13.69 | 0.03 | 0.0232 | 0.0000 | -0.0065 | 0.0000 | -0.2511 | -0.0301 | 0.0150 | -0.0068 | -0.0316 | 0.2266 |
| 16 | 15.67 | 0.02 | 0.0203 | 0.0000 | -0.0066 | 0.0000 | -0.4230 | 0.0787 | 0.0327 | 0.0504 | 0.0103 | 0.0471 |
| 17 | 17.66 | 0.02 | 0.0325 | 0.0000 | -0.0052 | 0.0000 | -0.1605 | 0.2305 | 0.0453 | 0.1186 | 0.1564 | 0.5057 |
| 18 | 19.63 | 0.03 | 0.0233 | 0.0000 | -0.0075 | 0.0000 | -0.3401 | 0.3249 | 0.0567 | 0.1621 | 0.1560 | 0.4988 |
| 19 | 21.65 | 0.02 | 0.0263 | 0.0000 | -0.0055 | 0.0000 | -0.1950 | 0.4271 | 0.0536 | 0.2124 | 0.1255 | 0.4972 |
| 20 | 23.66 | 0.02 | 0.0354 | 0.0000 | -0.0027 | 0.0000 | -0.0765 | 0.5151 | 0.0541 | 0.2561 | 0.1054 | 0.4993 |
| 21 | 25.66 | 0.03 | 0.0230 | 0.0000 | -0.0038 | 0.0000 | -0.1570 | 0.5532 | 0.0554 | 0.2759 | 0.1001 | 0.4988 |
| 22 | 27.70 | 0.00 | 0.0534 | 0.0000 | 0.0003 | 0.0000 | 0.1164 | 0.5829 | 0.0573 | 0.2909 | 0.0983 | 0.5094 |
| 23 | 28.14 | 0.06 | 0.0555 | 0.0000 | 0.0027 | 0.0000 | 0.1469 | 0.5793 | 0.0577 | 0.2955 | 0.0956 | 0.5108 |
| 24 | 28.14 | 0.06 | 0.0475 | 0.0000 | 0.0022 | 0.0000 | 0.0965 | 0.5800 | 0.0577 | 0.2968 | 0.0994 | 0.5117 |
| 25 | 28.14 | 0.05 | 0.0434 | 0.0000 | 0.0020 | 0.0000 | 0.0462 | 0.5765 | 0.0569 | 0.2969 | 0.0983 | 0.5132 |
| 26 | 28.24 | 0.05 | 0.0444 | 0.0000 | 0.0026 | 0.0000 | 0.0567 | 0.6145 | 0.0590 | 0.3104 | 0.0878 | 0.5051 |
| 27 | 28.64 | 0.03 | 0.0302 | 0.0000 | -0.0018 | 0.0000 | -0.0531 | 0.6227 | 0.0537 | 0.3151 | 0.0862 | 0.5080 |
| 28 | 28.64 | 0.05 | 0.0297 | 0.0000 | 0.0006 | 0.0000 | 0.1380 | 0.6436 | 0.0524 | 0.3249 | 0.0814 | 0.5047 |
| 29 | 29.22 | 0.05 | 0.0755 | 0.0000 | 0.0151 | 0.0000 | 0.1965 | 0.6742 | 0.0520 | 0.3386 | 0.0771 | 0.5022 |
| 30 | 29.65 | 0.06 | 0.0668 | 0.0000 | 0.0116 | 0.0000 | 0.1745 | 0.6716 | 0.0526 | 0.3386 | 0.0766 | 0.5041 |
| 31 | 29.83 | 0.07 | 0.0668 | 0.0000 | 0.0123 | 0.0000 | 0.1762 | 0.6773 | 0.0530 | 0.3420 | 0.0782 | 0.5049 |
| 32 | 30.13 | 0.06 | 0.0618 | 0.0000 | 0.0104 | 0.0000 | 0.1366 | 0.6923 | 0.0536 | 0.3493 | 0.0774 | 0.5048 |
| 33 | 30.37 | 0.08 | 0.0718 | 0.0000 | 0.0143 | 0.0000 | 0.1967 | 0.6965 | 0.0546 | 0.3499 | 0.0764 | 0.5028 |
| 34 | 30.68 | 0.05 | 0.0479 | 0.0000 | 0.0044 | 0.0000 | 0.0931 | 0.7047 | 0.0515 | 0.3536 | 0.0682 | 0.4951 |
| 35 | 30.97 | 0.06 | 0.0615 | 0.0000 | 0.0127 | 0.0000 | 0.2055 | 0.7017 | 0.0506 | 0.3644 | 0.0647 | 0.4917 |
| 36 | 31.22 | 0.06 | 0.0534 | 0.0000 | 0.0075 | 0.0000 | 0.1404 | 0.7066 | 0.0485 | 0.3665 | 0.0612 | 0.4896 |
| 37 | 31.52 | 0.05 | 0.0574 | 0.0000 | 0.0113 | 0.0000 | 0.1978 | 0.8043 | 0.0494 | 0.3962 | 0.0614 | 0.4901 |
| 38 | 31.79 | 0.03 | 0.0482 | 0.0000 | 0.0050 | 0.0000 | 0.1161 | 0.8217 | 0.0485 | 0.4006 | 0.0578 | 0.4875 |
| 39 | 32.06 | 0.04 | 0.0473 | 0.0000 | 0.0060 | 0.0000 | 0.1273 | 0.8385 | 0.0483 | 0.4085 | 0.0552 | 0.4872 |
| 40 | 32.33 | 0.04 | 0.0483 | 0.0000 | 0.0080 | 0.0000 | 0.1628 | 0.8279 | 0.0485 | 0.4065 | 0.0561 | 0.4916 |
| 41 | 32.59 | 0.03 | 0.0421 | 0.0000 | 0.0065 | 0.0000 | 0.1549 | 0.8392 | 0.0473 | 0.4095 | 0.0563 | 0.4884 |
| 42 | 32.88 | 0.03 | 0.0431 | 0.0000 | 0.0066 | 0.0000 | 0.1563 | 0.8315 | 0.0459 | 0.4141 | 0.0539 | 0.4864 |
| 43 | 33.12 | 0.05 | 0.0452 | 0.0000 | 0.0072 | 0.0000 | 0.1598 | 0.8773 | 0.0450 | 0.4250 | 0.0513 | 0.4845 |
| 44 | 33.38 | 0.03 | 0.0514 | 0.0000 | 0.0105 | 0.0000 | 0.2057 | 0.9031 | 0.0442 | 0.4346 | 0.0489 | 0.4812 |
| 45 | 33.63 | 0.04 | 0.0309 | 0.0000 | 0.0063 | 0.0000 | 0.1396 | 0.9045 | 0.0434 | 0.4366 | 0.0479 | 0.4867 |
| 46 | 33.88 | 0.03 | 0.0465 | 0.0000 | 0.0111 | 0.0000 | 0.0410 | 0.9048 | 0.0438 | 0.4383 | 0.0484 | 0.4822 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST 7 | PART PACK 1.00 1.0 | RXIC=6 | PHI C.0 | CONF 0.0F13 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 36.14 | C.03 | 0.0330 | 5.5555 | 0.0025 | 5.5559 | 0.0760 | 0.9222 | 0.0439 | 0.4431 | 0.0476 | 0.4805 |
| 48 | 34.59 | 0.02 | C.C333 | 5.5555 | 0.0047 | 5.5559 | 0.1391 | 0.9351 | 0.0439 | 0.4426 | C.C465 | 0.4792 |
| 49 | 34.02 | 0.02 | 0.0226 | 5.5555 | -0.0006 | 5.5555 | -0.0386 | 0.9375 | 0.0436 | 0.4495 | 0.0465 | C.4795 |
| 50 | 34.88 | 0.04 | 0.0254 | 5.5555 | 0.0026 | 5.5559 | 0.0372 | 0.9426 | 0.0439 | 0.4535 | 0.0466 | C.4787 |
| 51 | 35.14 | C.03 | 0.0371 | 5.5555 | 0.0046 | 5.5559 | 0.1190 | 0.9546 | 0.0439 | 0.4556 | 0.0459 | C.4765 |
| 52 | 35.38 | 0.02 | 0.0230 | 5.5555 | -0.0017 | 5.5559 | -0.0741 | 0.9591 | 0.0416 | 0.4508 | 0.C433 | 0.4763 |
| 53 | 35.60 | 0.01 | C.0265 | 5.5555 | 0.0012 | 5.5559 | 0.0446 | 0.9718 | 0.0417 | 0.4616 | 0.C429 | 0.4750 |
| 54 | 35.87 | 0.02 | 0.0340 | 5.5555 | 0.0042 | 5.5559 | 0.1239 | 0.9805 | 0.0438 | 0.4673 | 0.C413 | 0.4737 |
| 55 | 36.12 | 0.00 | 0.0330 | 5.5555 | 0.0033 | 5.5559 | 0.1303 | 1.0046 | 0.0414 | 0.4737 | 0.C412 | C.4715 |
| 56 | 36.32 | 0.02 | 0.0334 | 5.5559 | 0.0047 | 5.5556 | 0.1391 | 1.0070 | 0.0416 | 0.4744 | 0.C413 | C.4711 |
| 57 | 36.63 | C.01 | 0.0265 | 5.5555 | C.0032 | 5.5559 | 0.1074 | 1.0179 | 0.0407 | 0.4796 | 0.C395 | C.4713 |
| 58 | 36.88 | 0.03 | 0.0336 | 5.5555 | 0.0036 | 5.5559 | 0.1094 | 1.0157 | 0.0404 | 0.4751 | 0.C357 | 0.4716 |
| 59 | 37.10 | C.03 | 0.0325 | 5.5555 | C.0030 | 5.5559 | 0.0974 | 1.0245 | 0.0405 | 0.4815 | 0.C395 | C.4698 |
| 60 | 37.36 | 0.02 | C.0326 | 5.5555 | 0.0058 | 5.5555 | 0.1774 | 1.0400 | 0.0419 | 0.4814 | 0.C4C8 | C.4689 |
| 61 | 37.59 | C.03 | 0.0461 | 5.5555 | 0.0111 | 5.5559 | 0.2315 | 1.0465 | 0.0420 | 0.4866 | 0.C401 | C.4669 |
| 62 | 37.82 | 0.03 | 0.0325 | 5.5555 | 0.0067 | 5.5555 | 0.1872 | 1.0464 | 0.0421 | 0.4860 | 0.C4C2 | C.4666 |
| 63 | 38.08 | 0.01 | 0.0333 | 5.5555 | -0.0026 | 5.5559 | -0.0512 | 1.0330 | 0.0409 | 0.4853 | 0.C356 | 0.4658 |
| 64 | 38.31 | 0.00 | 0.0356 | 5.5555 | 0.0083 | 5.5559 | 0.1720 | 1.0417 | 0.0421 | 0.4872 | 0.0404 | 0.4677 |
| 65 | 38.53 | 0.02 | 0.0356 | 5.5555 | 0.0055 | 5.5559 | 0.2495 | 1.0548 | 0.0415 | 0.4921 | 0.C353 | C.4666 |
| 66 | 38.78 | 0.00 | C.0337 | 5.5555 | 0.0065 | 5.5556 | 0.2530 | 1.0573 | 0.0417 | 0.4864 | 0.C4C2 | C.4689 |
| 67 | 39.01 | 0.00 | 0.0355 | 5.5555 | 0.0057 | 5.5555 | 0.1904 | 1.0486 | 0.0409 | 0.4905 | C.C356 | 0.4685 |
| 68 | 39.25 | 0.0 | 0.0365 | 5.5555 | 0.0068 | 5.5555 | 0.2574 | 1.0571 | 0.0415 | 0.4919 | 0.C352 | C.4654 |
| 69 | 39.47 | C.02 | 0.0328 | 5.5555 | C.0041 | 5.5555 | 0.1520 | 1.0563 | 0.0415 | 0.4926 | 0.C352 | 0.4645 |
| 70 | 39.68 | 0.02 | 0.0367 | 5.5555 | 0.0068 | 5.5559 | 0.2552 | 1.0583 | 0.0416 | 0.4937 | 0.C353 | 0.4665 |
| 71 | 39.88 | -0.01 | C.0265 | 5.5555 | 0.0021 | 5.5559 | 0.1066 | 1.0688 | 0.0418 | 0.4970 | 0.C351 | C.4651 |
| 72 | 40.12 | 0.01 | 0.0362 | 5.5555 | 0.0006 | 5.5559 | 0.0071 | 1.0770 | 0.0421 | 0.4961 | 0.C35C | 0.4598 |
| 73 | 40.32 | 0.02 | C.0224 | 5.5555 | 0.0068 | 5.5555 | 0.3045 | 1.0779 | 0.0421 | 0.4981 | 0.C356 | C.4621 |
| 74 | 40.52 | 0.02 | 0.0421 | 5.5555 | 0.0137 | 5.5559 | 0.3145 | 1.0767 | 0.0414 | 0.4865 | 0.0384 | C.4537 |
| 75 | 40.73 | 0.02 | 0.0203 | 5.5555 | 0.0070 | 5.5559 | 0.3459 | 1.0738 | 0.0352 | 0.4819 | 0.0363 | C.4488 |
| 76 | 40.94 | -0.01 | 0.0152 | 5.5555 | 0.0035 | 5.5559 | 0.2464 | 1.0758 | 0.0366 | 0.4795 | 0.0340 | 0.4457 |
| 77 | 41.14 | 0.02 | 0.0153 | 5.5555 | 0.0037 | 5.5559 | 0.2596 | 1.0783 | 0.0366 | 0.4795 | 0.0335 | 0.4456 |
| 78 | 41.36 | -0.01 | 0.0346 | 5.5555 | 0.0111 | 5.5555 | 0.3169 | 1.0817 | 0.0366 | 0.4815 | 0.C34C | 0.4451 |
| 79 | 41.55 | -0.01 | 0.0175 | 5.5555 | 0.0087 | 5.5559 | 0.3174 | 1.0753 | 0.0348 | 0.4746 | 0.0323 | 0.4414 |
| 80 | 41.77 | -0.02 | 0.0262 | 5.5555 | 0.0006 | 5.5559 | 0.0071 | 1.0784 | 0.0326 | 0.4723 | 0.C3C3 | 0.4386 |
| 81 | 41.96 | -0.01 | 0.0255 | 5.5555 | 0.0056 | 5.5555 | 0.3265 | 1.0836 | 0.0274 | 0.4656 | 0.0253 | 0.4336 |
| 82 | 42.16 | -0.02 | 0.0263 | 5.5555 | 0.0075 | 5.5559 | 0.3071 | 1.0778 | 0.0306 | 0.4704 | 0.0286 | 0.4365 |
| 83 | 42.36 | -0.03 | 0.0255 | 5.5555 | 0.0073 | 5.5559 | 0.2861 | 1.0823 | 0.0283 | 0.4652 | 0.0262 | 0.4339 |
| 84 | 42.53 | -0.01 | 0.0224 | 5.5555 | 0.0075 | 5.5559 | 0.3536 | 1.0804 | 0.0239 | 0.4655 | 0.0222 | 0.4312 |
| 85 | 42.73 | -0.01 | 0.0265 | 5.5555 | 0.0095 | 5.5559 | 0.3635 | 1.0906 | 0.0247 | 0.4656 | 0.0227 | 0.4308 |
| 86 | 35.58 | -0.37 | 0.0144 | 5.5555 | 0.0034 | 5.5559 | 0.2229 | 1.0804 | 0.0238 | 0.4651 | 0.0221 | C.4305 |
| 87 | 43.10 | -0.02 | C.0164 | 5.5555 | C.0056 | 5.5559 | 0.3053 | 1.0793 | 0.0202 | 0.4616 | 0.C187 | 0.4277 |
| 88 | 43.27 | -0.02 | 0.0254 | 5.5555 | 0.0113 | 5.5559 | 0.3856 | 1.0828 | 0.0233 | 0.4645 | 0.C215 | C.4294 |
| 89 | 43.45 | -0.02 | C.0203 | 5.5555 | C.0083 | 5.5559 | 0.4102 | 1.0777 | 0.0219 | 0.4613 | 0.C200 | C.4280 |
| 90 | 43.65 | -0.02 | 0.0265 | 5.5555 | 0.0121 | 5.5555 | 0.3986 | 1.0861 | 0.0215 | 0.4651 | 0.C196 | 0.4282 |
| 91 | 43.83 | -0.03 | C.0183 | 5.5555 | C.0072 | 5.5559 | 0.3947 | 1.0371 | 0.0169 | 0.4376 | 0.C163 | C.4219 |
| 92 | 43.99 | -0.04 | 0.0325 | 5.5555 | 0.0126 | 5.5559 | 0.3858 | 1.0835 | 0.0217 | 0.4638 | 0.C201 | C.4281 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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PARTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 155 | PACK 1.1C 1.7 | RN/D-6 | PHI 0.0 | CONF 0 1&2&F13 | L C.C | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| PLINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.19 | -0.02 | 0.0244 | 5.5555 | 0.0054 | 5.9999 | 0.3865 | 1.0933 | 0.0240 | 0.4705 | 0.0220 | 0.4304 |
| 94 | 44.36 | -0.02 | 0.0102 | 5.5555 | 0.0038 | 5.9999 | 0.2951 | 1.0781 | 0.0206 | 0.4609 | 0.0191 | 0.4275 |
| 95 | 44.55 | -0.04 | 0.0173 | 5.5555 | 0.0068 | 5.9999 | 0.3443 | 1.0775 | 0.0185 | 0.4562 | 0.0176 | 0.4252 |
| 96 | 44.75 | -0.03 | 0.0153 | 5.5555 | 0.0051 | 5.9999 | 0.3344 | 1.0833 | 0.0190 | 0.4613 | 0.0176 | 0.4258 |
| 97 | 44.93 | -0.04 | 0.0143 | 5.5555 | 0.0060 | 5.9999 | 0.4158 | 1.0748 | 0.0200 | 0.4584 | 0.0186 | 0.4265 |
| 98 | 45.11 | -0.04 | 0.0120 | 5.5555 | 0.0064 | 5.9999 | 0.4151 | 1.0834 | 0.0187 | 0.4613 | 0.0173 | 0.4258 |
| 99 | 45.28 | -0.04 | 0.0134 | 5.5555 | 0.0068 | 5.9999 | 0.3773 | 1.0722 | 0.0177 | 0.4548 | 0.0165 | 0.4241 |
| 100 | 45.46 | -0.04 | 0.0153 | 5.5555 | 0.0057 | 5.9999 | 0.3737 | 1.0556 | 0.0171 | 0.4456 | 0.0162 | 0.4220 |
| 101 | 45.65 | -0.03 | 0.0132 | 5.5555 | 0.0050 | 5.9999 | 0.3300 | 1.0564 | 0.0167 | 0.4465 | 0.0158 | 0.4215 |
| 102 | 45.81 | -0.03 | 0.0124 | 5.5555 | 0.0078 | 5.9999 | 0.3836 | 1.0456 | 0.0155 | 0.4396 | 0.0148 | 0.4205 |
| 103 | 46.00 | -0.03 | 0.0143 | 5.5555 | 0.0051 | 5.9999 | 0.3578 | 1.0339 | 0.0163 | 0.4356 | 0.0158 | 0.4213 |
| 104 | 46.17 | -0.04 | 0.0122 | 5.5555 | 0.0047 | 5.9999 | 0.3865 | 1.0377 | 0.0154 | 0.4365 | 0.0149 | 0.4206 |
| 105 | 46.36 | -0.04 | 0.0214 | 5.5555 | 0.0075 | 5.9999 | 0.3703 | 1.0543 | 0.0152 | 0.4439 | 0.0144 | 0.4211 |
| 106 | 46.53 | -0.04 | 0.0254 | 5.5555 | 0.0105 | 5.9999 | 0.4147 | 1.0461 | 0.0150 | 0.4404 | 0.0144 | 0.4210 |
| 107 | 46.69 | -0.02 | 0.0214 | 5.5555 | 0.0082 | 5.9999 | 0.3344 | 1.0316 | 0.0164 | 0.4348 | 0.0159 | 0.4214 |
| 108 | 46.88 | -0.03 | 0.0254 | 5.5555 | 0.0103 | 5.9999 | 0.4068 | 1.0220 | 0.0165 | 0.4305 | 0.0166 | 0.4216 |
| 109 | 47.04 | -0.02 | 0.0224 | 5.5555 | 0.0090 | 5.9999 | 0.4031 | 1.0151 | 0.0168 | 0.4283 | 0.0166 | 0.4219 |
| 110 | 47.21 | -0.04 | 0.0234 | 5.5555 | 0.0095 | 5.9999 | 0.4244 | 1.0018 | 0.0177 | 0.4227 | 0.0177 | 0.4220 |
| 111 | 47.39 | -0.03 | 0.0285 | 5.5555 | 0.0121 | 5.9999 | 0.4259 | 0.9992 | 0.0185 | 0.4219 | 0.0185 | 0.4223 |
| 112 | 47.57 | -0.02 | 0.0249 | 5.5555 | 0.0102 | 5.9999 | 0.4440 | 0.9994 | 0.0171 | 0.4224 | 0.0171 | 0.4227 |
| 113 | 47.75 | -0.02 | 0.0265 | 5.5555 | 0.0114 | 5.9999 | 0.4316 | 0.9835 | 0.0177 | 0.4154 | 0.0180 | 0.4222 |
| 114 | 47.92 | -0.02 | 0.0325 | 5.5555 | 0.0148 | 5.9999 | 0.4478 | 0.9734 | 0.0174 | 0.4111 | 0.0179 | 0.4223 |
| 115 | 48.08 | -0.02 | 0.0281 | 5.5555 | 0.0124 | 5.9999 | 0.4454 | 0.9702 | 0.0169 | 0.4106 | 0.0174 | 0.4232 |
| 116 | 48.28 | -0.02 | 0.0162 | 5.5555 | 0.0078 | 5.9999 | 0.4700 | 0.9715 | 0.0163 | 0.4107 | 0.0168 | 0.4227 |
| 117 | 48.43 | 0.01 | 0.0285 | 5.5555 | 0.0117 | 5.9999 | 0.4429 | 1.0025 | 0.0151 | 0.4234 | 0.0151 | 0.4224 |
| 118 | 48.61 | -0.01 | 0.0143 | 5.5555 | 0.0054 | 5.9999 | 0.4134 | 0.9956 | 0.0150 | 0.4214 | 0.0151 | 0.4233 |
| 119 | 48.77 | -0.00 | 0.0011 | 5.5555 | -0.0005 | 5.9999 | -0.4560 | 0.9956 | 0.0148 | 0.4205 | 0.0149 | 0.4224 |
| 120 | 48.93 | -0.02 | 0.0163 | 5.5555 | 0.0108 | 5.9999 | 0.4163 | 0.9847 | 0.0150 | 0.4163 | 0.0152 | 0.4229 |
| 121 | 49.12 | -0.02 | 0.0173 | 5.5555 | 0.0074 | 5.9999 | 0.4291 | 0.9881 | 0.0150 | 0.4163 | 0.0152 | 0.4222 |
| 122 | 49.28 | 0.00 | 0.0162 | 5.5555 | 0.0082 | 5.9999 | 0.4404 | 0.9765 | 0.0156 | 0.4118 | 0.0160 | 0.4217 |
| 123 | 49.46 | -0.01 | 0.0184 | 5.5555 | 0.0080 | 5.9999 | 0.3670 | 0.9457 | 0.0162 | 0.3989 | 0.0172 | 0.4219 |
| 124 | 49.64 | 0.01 | 0.0225 | 5.5555 | 0.0091 | 5.9999 | 0.4057 | 0.9396 | 0.0167 | 0.3966 | 0.0178 | 0.4221 |
| 125 | 49.81 | 0.00 | 0.0143 | 5.5555 | 0.0056 | 5.9999 | 0.4139 | 0.9560 | 0.0168 | 0.4030 | 0.0176 | 0.4215 |
| 126 | 49.98 | 0.01 | 0.0194 | 5.5555 | 0.0087 | 5.9999 | 0.4733 | 0.9176 | 0.0152 | 0.3860 | 0.0169 | 0.4228 |
| 127 | 50.13 | 0.01 | 0.0154 | 5.5555 | 0.0062 | 5.9999 | 0.4447 | 0.9205 | 0.0158 | 0.3922 | 0.0171 | 0.4233 |
| 128 | 50.31 | 0.02 | 0.0143 | 5.5555 | 0.0059 | 5.9999 | 0.4134 | 0.9190 | 0.0169 | 0.3887 | 0.0184 | 0.4229 |
| 129 | 50.50 | 0.02 | 0.0220 | 5.5555 | 0.0112 | 5.9999 | 0.4224 | 0.9103 | 0.0170 | 0.3846 | 0.0187 | 0.4225 |
| 130 | 50.67 | 0.03 | 0.0366 | 5.5555 | 0.0182 | 5.9999 | 0.4389 | 0.8835 | 0.0163 | 0.3747 | 0.0185 | 0.4241 |
| 131 | 50.84 | 0.03 | 0.0267 | 5.5555 | 0.0134 | 5.9999 | 0.3908 | 0.8938 | 0.0157 | 0.3788 | 0.0176 | 0.4237 |
| 132 | 50.97 | -0.38 | 0.0257 | 5.5555 | 0.0126 | 5.9999 | 0.4222 | 0.8889 | 0.0163 | 0.3762 | 0.0184 | 0.4233 |
| 133 | 51.18 | 0.03 | 0.0236 | 5.5555 | 0.0100 | 5.9999 | 0.4251 | 0.8612 | 0.0167 | 0.3665 | 0.0194 | 0.4256 |
| 134 | 51.34 | 0.04 | 0.0195 | 5.5555 | 0.0087 | 5.9999 | 0.4478 | 0.8551 | 0.0169 | 0.3630 | 0.0158 | 0.4245 |
| 135 | 51.52 | 0.03 | 0.0345 | 5.5555 | 0.0150 | 5.9999 | 0.4283 | 0.8516 | 0.0169 | 0.3626 | 0.0195 | 0.4258 |
| 136 | 51.70 | 0.02 | 0.0235 | 5.5555 | 0.0111 | 5.9999 | 0.4739 | 0.8401 | 0.0168 | 0.3604 | 0.0198 | 0.4246 |
| 137 | 51.88 | 0.04 | 0.0163 | 5.5555 | 0.0080 | 5.9999 | 0.4924 | 0.8516 | 0.0168 | 0.3614 | 0.0198 | 0.4246 |
| 138 | 52.01 | 0.03 | 0.0471 | 5.5555 | 0.0214 | 5.9999 | 0.4537 | 0.8515 | 0.0170 | 0.3608 | 0.0200 | 0.4237 |

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MARTIA MISSILE TAILS EFFECTS DATA

TEST 7 | PART 155 | MACH 1.10 | RX10-6 1.7 | PHI 0.0 | CONF 81&WF1S | L 0.0 | DEL1 0 | DEL2 -20 | DEL3 0 | DEL4 -20 | TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | ALPF3 | YCPF3 | CNF4 | CM4 | CA4 | ACPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.20 | 0.04 | 0.0156 | 0.0000 | 0.0056 | 0.9999 | 0.5068 | 0.8622 | 0.0165 | 0.3646 | 0.0192 | 0.4229 |
| 140 | 52.36 | 0.04 | 0.0164 | 0.0000 | 0.0064 | 0.9999 | 0.4900 | 0.8547 | 0.0166 | 0.3613 | 0.0195 | 0.4237 |
| 141 | 52.54 | 0.04 | 0.0175 | 0.0000 | 0.0105 | 0.9999 | 0.4447 | 0.8535 | 0.0169 | 0.3627 | 0.0197 | 0.4225 |
| 142 | 52.69 | 0.03 | 0.0164 | 0.0000 | 0.0072 | 0.9999 | 0.4404 | 0.8498 | 0.0168 | 0.3599 | 0.0198 | 0.4229 |
| 143 | 52.84 | 0.04 | 0.0307 | 0.0000 | 0.0146 | 0.9999 | 0.4736 | 0.8465 | 0.0171 | 0.3585 | 0.0202 | 0.4225 |
| 144 | 53.02 | 0.03 | 0.0203 | 0.0000 | 0.0101 | 0.9999 | 0.4743 | 0.8479 | 0.0171 | 0.3595 | 0.0202 | 0.4228 |
| 145 | 53.18 | 0.04 | 0.0288 | 0.0000 | 0.0125 | 0.9999 | 0.4455 | 0.8832 | 0.0161 | 0.3641 | 0.0187 | 0.4218 |
| 146 | 53.34 | 0.05 | 0.0185 | 0.0000 | 0.0106 | 0.9999 | 0.4626 | 0.8498 | 0.0159 | 0.3596 | 0.0187 | 0.4231 |
| 147 | 53.51 | 0.03 | 0.0226 | 0.0000 | 0.0114 | 0.9999 | 0.5060 | 0.8610 | 0.0163 | 0.3632 | 0.0190 | 0.4218 |
| 148 | 53.68 | 0.03 | 0.0237 | 0.0000 | 0.0107 | 0.9999 | 0.4977 | 0.8606 | 0.0163 | 0.3635 | 0.0190 | 0.4224 |
| 149 | 53.84 | 0.02 | 0.0272 | 0.0000 | 0.0178 | 0.9999 | 0.4773 | 0.8735 | 0.0154 | 0.3688 | 0.0177 | 0.4222 |
| 150 | 53.96 | 0.02 | 0.0382 | 0.0000 | 0.0187 | 0.9999 | 0.4865 | 0.8671 | 0.0153 | 0.3664 | 0.0177 | 0.4226 |
| 151 | 54.14 | 0.01 | 0.0227 | 0.0000 | 0.0120 | 0.9999 | 0.5303 | 0.8732 | 0.0150 | 0.3676 | 0.0172 | 0.4216 |
| 152 | 54.29 | 0.01 | 0.0342 | 0.0000 | 0.0157 | 0.9999 | 0.4976 | 0.8593 | 0.0157 | 0.3620 | 0.0183 | 0.4213 |
| 153 | 54.44 | -0.01 | 0.0188 | 0.0000 | 0.0093 | 0.9999 | 0.5016 | 0.8674 | 0.0152 | 0.3656 | 0.0175 | 0.4215 |
| 154 | 54.60 | -0.00 | 0.0256 | 0.0000 | 0.0110 | 0.9999 | 0.4914 | 0.8778 | 0.0151 | 0.3694 | 0.0172 | 0.4208 |
| 155 | 54.74 | 0.00 | 0.0374 | 0.0000 | 0.0176 | 0.9999 | 0.4654 | 0.8663 | 0.0145 | 0.3719 | 0.0164 | 0.4196 |
| 156 | 54.90 | -0.00 | 0.0292 | 0.0000 | 0.0130 | 0.9999 | 0.4932 | 0.8648 | 0.0145 | 0.3739 | 0.0164 | 0.4226 |
| 157 | 55.06 | -0.02 | 0.0240 | 0.0000 | 0.0113 | 0.9999 | 0.4723 | 0.8764 | 0.0144 | 0.3706 | 0.0164 | 0.4215 |
| 158 | 55.21 | -0.03 | 0.0206 | 0.0000 | 0.0106 | 0.9999 | 0.4823 | 0.8695 | 0.0138 | 0.3753 | 0.0155 | 0.4220 |
| 159 | 55.37 | 0.02 | 0.0188 | 0.0000 | 0.0087 | 0.9999 | 0.5258 | 0.8828 | 0.0143 | 0.3727 | 0.0162 | 0.4222 |
| 160 | 55.53 | -0.04 | 0.0281 | 0.0000 | 0.0126 | 0.9999 | 0.4812 | 0.8817 | 0.0140 | 0.3730 | 0.0159 | 0.4231 |
| 161 | 55.68 | -0.02 | 0.0250 | 0.0000 | 0.0115 | 0.9999 | 0.4775 | 0.8830 | 0.0137 | 0.3730 | 0.0155 | 0.4225 |
| 162 | 55.84 | -0.03 | 0.0279 | 0.0000 | 0.0141 | 0.9999 | 0.5083 | 0.8941 | 0.0132 | 0.3784 | 0.0148 | 0.4233 |
| 163 | 56.01 | -0.01 | 0.0293 | 0.0000 | 0.0126 | 0.9999 | 0.4946 | 0.9089 | 0.0122 | 0.3851 | 0.0134 | 0.4226 |
| 164 | 56.17 | -0.05 | 0.0269 | 0.0000 | 0.0096 | 0.9999 | 0.4704 | 0.9101 | 0.0114 | 0.3860 | 0.0125 | 0.4235 |
| 165 | 56.32 | 0.02 | 0.0367 | 0.0000 | 0.0171 | 0.9999 | 0.4647 | 0.9205 | 0.0116 | 0.3851 | 0.0126 | 0.4227 |
| 166 | 56.49 | -0.02 | 0.0294 | 0.0000 | 0.0137 | 0.9999 | 0.4841 | 0.9165 | 0.0116 | 0.3877 | 0.0125 | 0.4221 |
| 167 | 56.65 | -0.04 | 0.0284 | 0.0000 | 0.0134 | 0.9999 | 0.4698 | 0.9308 | 0.0115 | 0.3928 | 0.0126 | 0.4220 |
| 168 | 56.79 | -0.04 | 0.0264 | 0.0000 | 0.0105 | 0.9999 | 0.4842 | 0.9310 | 0.0106 | 0.3936 | 0.0116 | 0.4228 |
| 169 | 56.93 | -0.04 | 0.0243 | 0.0000 | 0.0103 | 0.9999 | 0.4252 | 0.9233 | 0.0112 | 0.3908 | 0.0121 | 0.4232 |
| 170 | 57.11 | -0.06 | 0.0275 | 0.0000 | 0.0115 | 0.9999 | 0.4341 | 0.9117 | 0.0118 | 0.3870 | 0.0130 | 0.4245 |
| 171 | 57.23 | -0.04 | 0.0281 | 0.0000 | 0.0084 | 0.9999 | 0.4192 | 0.9030 | 0.0108 | 0.4046 | 0.0112 | 0.4199 |
| 172 | 57.40 | -0.06 | 0.0307 | 0.0000 | 0.0130 | 0.9999 | 0.4215 | 0.9032 | 0.0105 | 0.4058 | 0.0106 | 0.4213 |
| 173 | 57.55 | -0.01 | 0.0265 | 0.0000 | 0.0110 | 0.9999 | 0.4104 | 0.9178 | 0.0111 | 0.3892 | 0.0121 | 0.4246 |
| 174 | 57.68 | -0.01 | 0.0216 | 0.0000 | 0.0093 | 0.9999 | 0.4001 | 0.9007 | 0.0109 | 0.3965 | 0.0116 | 0.4215 |
| 175 | 57.83 | -0.06 | 0.0257 | 0.0000 | 0.0127 | 0.9999 | 0.4256 | 0.9351 | 0.0117 | 0.4015 | 0.0123 | 0.4204 |
| 176 | 57.99 | -0.05 | 0.0319 | 0.0000 | 0.0137 | 0.9999 | 0.4277 | 0.9399 | 0.0118 | 0.4023 | 0.0123 | 0.4192 |
| 177 | 58.12 | -0.04 | 0.0258 | 0.0000 | 0.0121 | 0.9999 | 0.4073 | 0.9397 | 0.0116 | 0.4022 | 0.0121 | 0.4192 |
| 178 | 58.27 | -0.07 | 0.0207 | 0.0000 | 0.0095 | 0.9999 | 0.3720 | 0.9400 | 0.0116 | 0.3973 | 0.0123 | 0.4200 |
| 179 | 58.37 | -0.04 | 0.0320 | 0.0000 | 0.0140 | 0.9999 | 0.4358 | 0.9866 | 0.0114 | 0.4054 | 0.0118 | 0.4194 |
| 180 | 58.37 | -0.05 | 0.0278 | 0.0000 | 0.0120 | 0.9999 | 0.4350 | 0.9465 | 0.0116 | 0.3976 | 0.0125 | 0.4201 |
| 181 | 57.90 | -0.11 | 0.0171 | 0.0000 | 0.0065 | 0.9999 | 0.4046 | 0.9223 | 0.0130 | 0.3993 | 0.0141 | 0.4221 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FJDT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.10 | -0.02 | -1.9963 | 7.4143 | -0.0769 | 0.0645 | 0.0022 | 0.8157 | 0.1348 | 0.6810 | -3.7139 |
| 2 | -0.08 | 0.00 | -2.0004 | 7.4291 | 0.0226 | -0.0671 | 0.0025 | 0.8166 | 0.1360 | 0.6807 | -3.7137 |
| 3 | -0.09 | -0.00 | -2.0109 | 7.4442 | -0.0047 | 0.0099 | 0.0023 | 0.8192 | 0.1376 | 0.6817 | -3.7019 |
| 4 | -0.09 | -0.01 | -2.0267 | 7.4388 | -0.0648 | 0.0150 | 0.0027 | 0.8173 | 0.1362 | 0.6812 | -3.6705 |
| 5 | -0.08 | -0.00 | -1.9828 | 7.3870 | -0.0208 | -0.0004 | 0.0024 | 0.8150 | 0.1357 | 0.6794 | -3.7255 |
| 6 | -0.06 | -0.00 | -1.8641 | 7.0302 | -0.0524 | -0.0089 | 0.0024 | 0.8031 | 0.1343 | 0.6688 | -3.7714 |
| 7 | 1.67 | -0.00 | -1.5145 | 6.1237 | -0.0216 | -0.0131 | 0.0028 | 0.7193 | 0.1339 | 0.5854 | -4.0434 |
| 8 | 3.45 | -0.00 | -1.1067 | 5.1986 | -0.0516 | 0.0018 | 0.0034 | 0.6467 | 0.1337 | 0.5131 | -4.6975 |
| 9 | 5.26 | 0.00 | -0.7260 | 4.3211 | -0.0195 | -0.0038 | 0.0040 | 0.5680 | 0.1360 | 0.4320 | -5.9521 |
| 10 | 7.07 | -0.00 | -0.3728 | 3.5185 | -0.0390 | -0.0022 | 0.0046 | 0.4971 | 0.1389 | 0.3582 | -9.4381 |
| 11 | 8.99 | -0.00 | 0.0064 | 2.6793 | -0.0387 | -0.0370 | 0.0052 | 0.4267 | 0.1408 | 0.2859 | 418.4282 |
| 12 | 10.75 | -0.00 | 0.3766 | 1.9535 | -0.0358 | -0.0152 | 0.0059 | 0.3710 | 0.1426 | 0.2284 | 5.1871 |
| 13 | 12.61 | -0.01 | 0.6960 | 1.4313 | -0.0787 | 0.0635 | 0.0066 | 0.3206 | 0.1466 | 0.1740 | 2.0566 |
| 14 | 14.42 | 0.00 | 0.9949 | 1.1295 | -0.0648 | 0.0379 | 0.0004 | 0.2898 | 0.1562 | 0.1336 | 1.1353 |
| 15 | 16.26 | -0.01 | 1.2705 | 0.9558 | -0.1189 | 0.1920 | 0.0084 | 0.2702 | 0.1694 | 0.1009 | 0.7523 |
| 16 | 18.10 | -0.01 | 1.5827 | 0.6487 | -0.1309 | 0.2684 | 0.0091 | 0.2346 | 0.1793 | 0.0553 | 0.4099 |
| 17 | 19.95 | -0.02 | 1.9830 | 0.1695 | -0.2952 | 0.6958 | 0.0308 | 0.1827 | 0.1929 | -0.0102 | 0.0855 |
| 18 | 21.88 | -0.03 | 2.3568 | -0.4177 | -0.5574 | 1.3178 | 0.0881 | 0.1250 | 0.2065 | -0.0815 | -0.1772 |
| 19 | 23.79 | -0.05 | 2.8001 | -1.0913 | -0.8375 | 2.0167 | 0.1017 | 0.0649 | 0.2226 | -0.1577 | -0.3897 |
| 20 | 25.69 | -0.04 | 3.2566 | -1.6802 | -0.6734 | 1.7796 | 0.0452 | -0.0165 | 0.2268 | -0.2433 | -0.5159 |
| 21 | 27.61 | 0.03 | 3.7804 | -2.0380 | 0.5600 | -1.3320 | 0.0841 | -0.1069 | 0.2272 | -0.3341 | -0.5391 |
| 22 | 29.53 | 0.06 | 4.3077 | -2.5990 | 0.9182 | -1.8102 | 0.1232 | -0.1878 | 0.2315 | -0.4193 | -0.6033 |
| 23 | 31.42 | 0.04 | 4.8654 | -3.2301 | 0.4763 | -0.0019 | 0.0845 | -0.2567 | 0.2542 | -0.5110 | -0.6639 |
| 24 | 33.37 | 0.07 | 5.6743 | -3.3112 | 0.9848 | -1.0014 | 0.1054 | -0.3489 | 0.2562 | -0.6051 | -0.5836 |
| 25 | 33.65 | 0.04 | 5.6030 | -3.3426 | 0.9811 | -0.8295 | 0.1046 | -0.3486 | 0.2610 | -0.6096 | -0.5966 |
| 26 | 33.65 | 0.07 | 5.6991 | -3.5425 | 1.0084 | -0.6315 | 0.1114 | -0.3515 | 0.2648 | -0.6163 | -0.6216 |
| 27 | 33.96 | 0.08 | 5.8036 | -3.7273 | 1.0206 | -0.4706 | 0.1261 | -0.3591 | 0.2750 | -0.6341 | -0.6422 |
| 28 | 34.18 | 0.08 | 5.8819 | -3.6962 | 1.0917 | -0.6162 | 0.1195 | -0.3722 | 0.2745 | -0.6467 | -0.6284 |
| 29 | 34.41 | 0.08 | 6.0212 | -3.9288 | 1.1438 | -0.5591 | 0.1345 | -0.3751 | 0.2827 | -0.6578 | -0.6525 |
| 30 | 34.67 | 0.10 | 6.1681 | -4.0588 | 1.4027 | -0.7745 | 0.1355 | -0.3903 | 0.2906 | -0.6809 | -0.6580 |
| 31 | 34.91 | 0.10 | 6.1808 | -4.0296 | 1.3076 | -0.7913 | 0.1359 | -0.3923 | 0.2920 | -0.6843 | -0.6520 |
| 32 | 35.14 | 0.10 | 6.3425 | -3.9542 | 1.4677 | -1.3660 | 0.1386 | -0.4051 | 0.2934 | -0.6985 | -0.6238 |
| 33 | 35.38 | 0.09 | 6.3506 | -3.7604 | 1.4604 | -2.0719 | 0.1251 | -0.4220 | 0.2808 | -0.7029 | -0.5921 |
| 34 | 35.62 | 0.09 | 6.4277 | -3.7467 | 1.5409 | -2.8860 | 0.1118 | -0.4318 | 0.2794 | -0.7113 | -0.5829 |
| 35 | 35.85 | 0.08 | 6.5140 | -3.8279 | 1.5196 | -3.2452 | 0.0976 | -0.4382 | 0.2795 | -0.7178 | -0.5878 |
| 36 | 36.09 | 0.09 | 6.6982 | -4.1691 | 1.5334 | -2.9953 | 0.0976 | -0.4661 | 0.2886 | -0.7547 | -0.6224 |
| 37 | 36.32 | 0.08 | 6.8922 | -4.3355 | 1.4112 | -2.2841 | 0.0972 | -0.4749 | 0.3006 | -0.7755 | -0.6290 |
| 38 | 36.55 | 0.09 | 6.8931 | -4.2626 | 1.5029 | -2.5516 | 0.0977 | -0.4845 | 0.2958 | -0.7802 | -0.6184 |
| 39 | 36.81 | 0.09 | 6.9824 | -4.3319 | 1.4653 | -2.5784 | 0.0904 | -0.4952 | 0.2952 | -0.7903 | -0.6204 |
| 40 | 37.03 | 0.07 | 7.1228 | -4.3493 | 1.3201 | -1.9764 | 0.0975 | -0.5093 | 0.3015 | -0.8107 | -0.6106 |
| 41 | 37.26 | 0.09 | 7.3111 | -4.6394 | 1.3684 | -1.0992 | 0.1111 | -0.5038 | 0.3139 | -0.8176 | -0.6348 |
| 42 | 37.51 | 0.08 | 7.3831 | -4.6930 | 1.2335 | -0.9726 | 0.1111 | -0.5113 | 0.3202 | -0.8314 | -0.6358 |
| 43 | 37.74 | 0.09 | 7.6329 | -5.1096 | 1.1910 | 0.1107 | 0.1146 | -0.5204 | 0.3353 | -0.8556 | -0.6694 |
| 44 | 37.98 | 0.08 | 7.8105 | -5.3590 | 0.9808 | 1.2327 | 0.1185 | -0.5131 | 0.3439 | -0.8569 | -0.6861 |
| 45 | 38.22 | 0.08 | 7.9290 | -5.4493 | 1.0743 | 0.9066 | 0.1347 | -0.5319 | 0.3478 | -0.8797 | -0.6673 |
| 46 | 38.44 | 0.08 | 8.0979 | -5.5646 | 0.9252 | 1.6808 | 0.1325 | -0.5333 | 0.3487 | -0.8820 | -0.6878 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 38.65 | 0.08 | 8.2776 | -5.7405 | 0.9856 | 1.6365 | 0.1553 | -0.5366 | 0.3544 | -0.8910 | -0.6935 |
| 48 | 38.90 | 0.08 | 8.3661 | -5.8086 | 0.9142 | 2.0873 | 0.1392 | -0.5310 | 0.3630 | -0.8940 | -0.6943 |
| 49 | 39.11 | 0.09 | 8.4925 | -5.7420 | 0.9473 | 2.4425 | 0.0570 | -0.5054 | 0.3721 | -0.8775 | -0.6761 |
| 50 | 39.31 | 0.08 | 8.6316 | -5.7774 | 0.8246 | 2.8092 | 0.0416 | -0.4872 | 0.3826 | -0.8698 | -0.6693 |
| 51 | 39.53 | 0.09 | 8.7614 | -5.9297 | 0.8950 | 2.6510 | 0.0351 | -0.4923 | 0.3913 | -0.8836 | -0.6768 |
| 52 | 39.73 | 0.08 | 8.7801 | -5.9666 | 0.7744 | 2.4529 | 0.0729 | -0.5295 | 0.3847 | -0.9142 | -0.6791 |
| 53 | 39.93 | 0.08 | 8.8127 | -5.7522 | 0.9415 | 1.7279 | 0.1127 | -0.5546 | 0.3833 | -0.9379 | -0.6527 |
| 54 | 40.13 | 0.08 | 8.8391 | -5.7553 | 0.9434 | 1.8004 | 0.1051 | -0.5449 | 0.3802 | -0.9251 | -0.6511 |
| 55 | 40.33 | 0.09 | 8.8427 | -5.6489 | 1.0712 | 1.2317 | 0.1439 | -0.5682 | 0.3659 | -0.9341 | -0.6388 |
| 56 | 40.55 | 0.08 | 8.9084 | -5.5545 | 1.0587 | 0.9798 | 0.1600 | -0.5765 | 0.3688 | -0.9453 | -0.6235 |
| 57 | 40.75 | 0.10 | 9.1263 | -5.8679 | 1.1822 | 1.2723 | 0.1446 | -0.5459 | 0.3888 | -0.9347 | -0.6430 |
| 58 | 40.96 | 0.10 | 9.2489 | -5.8569 | 1.2315 | 1.3669 | 0.1223 | -0.5494 | 0.3909 | -0.9403 | -0.6333 |
| 59 | 41.17 | 0.09 | 9.2518 | -5.7126 | 1.1446 | 1.5026 | 0.0854 | -0.5237 | 0.4056 | -0.9293 | -0.6175 |
| 60 | 41.36 | 0.09 | 9.3688 | -5.8389 | 1.1708 | 1.7146 | 0.0775 | -0.5187 | 0.4133 | -0.9320 | -0.6232 |
| 61 | 41.56 | 0.09 | 9.4706 | -5.8847 | 1.1536 | 1.7245 | 0.0924 | -0.5276 | 0.4105 | -0.9341 | -0.6214 |
| 62 | 41.76 | 0.08 | 9.5586 | -5.9143 | 1.0632 | 1.7841 | 0.0708 | -0.5111 | 0.4228 | -0.9339 | -0.6187 |
| 63 | 41.96 | 0.09 | 9.6665 | -5.8945 | 1.1687 | 1.7581 | 0.0783 | -0.5256 | 0.4163 | -0.9419 | -0.6098 |
| 64 | 42.14 | 0.07 | 9.6292 | -5.3978 | 0.9791 | 1.0538 | 0.1110 | -0.6006 | 0.4059 | -1.0065 | -0.5606 |
| 65 | 42.30 | 0.05 | 9.4753 | -4.9206 | 0.7543 | 0.2987 | 0.1433 | -0.6650 | 0.3470 | -1.0120 | -0.5193 |
| 66 | 42.50 | 0.10 | 9.8968 | -6.0172 | 1.2150 | 1.8023 | 0.0350 | -0.4991 | 0.4382 | -0.9373 | -0.6088 |
| 67 | 42.68 | 0.10 | 9.9457 | -5.9659 | 1.2293 | 1.7753 | 0.0499 | -0.5102 | 0.4382 | -0.9484 | -0.5998 |
| 68 | 42.87 | 0.10 | 10.1279 | -6.0349 | 1.2583 | 1.7358 | 0.0361 | -0.5046 | 0.4421 | -0.9467 | -0.5959 |
| 69 | 43.05 | 0.10 | 10.0788 | -5.9268 | 1.1507 | 1.7922 | 0.0360 | -0.5037 | 0.4478 | -0.9515 | -0.5880 |
| 70 | 43.23 | 0.10 | 10.2754 | -6.0444 | 1.3167 | 1.7147 | 0.0367 | -0.4985 | 0.4492 | -0.9477 | -0.5882 |
| 71 | 43.41 | 0.10 | 10.2864 | -6.0502 | 1.2258 | 1.7478 | 0.0367 | -0.5263 | 0.4425 | -0.9638 | -0.5882 |
| 72 | 43.59 | 0.10 | 10.3562 | -6.0712 | 1.1804 | 1.8114 | 0.0296 | -0.5065 | 0.4465 | -0.9510 | -0.5862 |
| 73 | 43.75 | 0.10 | 10.3556 | -6.0341 | 1.1811 | 1.8236 | 0.0368 | -0.5194 | 0.4483 | -0.9677 | -0.5827 |
| 74 | 43.96 | 0.10 | 10.4670 | -5.9597 | 1.3037 | 1.5005 | 0.0385 | -0.4938 | 0.4512 | -0.9450 | -0.5694 |
| 75 | 44.13 | 0.10 | 10.5658 | -6.1257 | 1.3161 | 1.7484 | 0.0523 | -0.4830 | 0.4625 | -0.9455 | -0.5798 |
| 76 | 44.31 | 0.10 | 10.5254 | -6.1231 | 1.3054 | 1.5259 | 0.0021 | -0.4981 | 0.4497 | -0.9478 | -0.5818 |
| 77 | 44.50 | 0.10 | 10.6273 | -6.2008 | 1.4232 | 1.4155 | -0.0046 | -0.4948 | 0.4578 | -0.9526 | -0.5835 |
| 78 | 44.67 | 0.11 | 10.6758 | -6.1118 | 1.6205 | 1.0359 | -0.0251 | -0.4912 | 0.4578 | -0.9490 | -0.5725 |
| 79 | 44.85 | 0.10 | 10.7334 | -6.1747 | 1.4309 | 1.5047 | -0.0121 | -0.5076 | 0.4559 | -0.9635 | -0.5753 |
| 80 | 45.03 | 0.10 | 10.8310 | -6.3198 | 1.4116 | 1.4913 | 0.0030 | -0.5187 | 0.4596 | -0.9793 | -0.5835 |
| 81 | 45.22 | 0.10 | 10.8796 | -6.2501 | 1.4592 | 1.5120 | -0.0042 | -0.5244 | 0.4605 | -0.9849 | -0.5745 |
| 82 | 45.39 | 0.10 | 10.9482 | -6.3550 | 1.4065 | 1.6918 | -0.0119 | -0.5244 | 0.4610 | -0.9854 | -0.5805 |
| 83 | 45.55 | 0.10 | 10.9833 | -6.2572 | 1.4507 | 1.3503 | 0.0187 | -0.5289 | 0.4586 | -0.9875 | -0.5697 |
| 84 | 45.74 | 0.11 | 11.1765 | -6.4069 | 1.5075 | 1.2576 | 0.0342 | -0.5363 | 0.4639 | -1.0002 | -0.5732 |
| 85 | 45.91 | 0.11 | 11.1772 | -6.3347 | 1.5567 | 1.3295 | 0.0121 | -0.5234 | 0.4652 | -0.9896 | -0.5668 |
| 86 | 46.08 | 0.10 | 11.2334 | -6.3761 | 1.4925 | 1.2592 | 0.0199 | -0.5452 | 0.4624 | -1.0078 | -0.5676 |
| 87 | 46.26 | 0.11 | 11.3510 | -6.4476 | 1.6202 | 1.0356 | 0.0064 | -0.5415 | 0.4700 | -1.0115 | -0.5680 |
| 88 | 46.42 | 0.10 | 11.2896 | -6.3628 | 1.4724 | 1.1874 | 0.0205 | -0.5334 | 0.4672 | -1.0006 | -0.5636 |
| 89 | 46.59 | 0.09 | 11.4310 | -6.5973 | 1.3619 | 1.7330 | 0.0189 | -0.5388 | 0.4705 | -1.0093 | -0.5771 |
| 90 | 46.77 | 0.08 | 11.4328 | -6.4893 | 1.2137 | 1.8466 | 0.0043 | -0.5550 | 0.4671 | -1.0221 | -0.5676 |
| 91 | 46.94 | 0.09 | 11.5199 | -6.5556 | 1.2747 | 1.8287 | -0.0027 | -0.5512 | 0.4737 | -1.0249 | -0.5691 |
| 92 | 47.11 | 0.08 | 11.6144 | -6.6592 | 1.1563 | 2.1935 | 0.0035 | -0.5838 | 0.4719 | -1.0534 | -0.5734 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | 81W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.28 | 0.07 | 11.6063 | -6.2619 | 1.0392 | 1.7149 | 0.0716 | -0.5837 | 0.4657 | -1.0494 | -0.5395 |
| 94 | 47.45 | 0.05 | 11.6423 | -6.3578 | 0.8060 | 2.3002 | 0.0332 | -0.6389 | 0.4539 | -1.0929 | -0.5481 |
| 95 | 47.63 | 0.07 | 11.6499 | -5.9740 | 1.0478 | 1.9035 | 0.0567 | -0.5958 | 0.4638 | -1.0597 | -0.5128 |
| 96 | 47.80 | 0.06 | 11.7153 | -6.1109 | 0.9773 | 2.0220 | 0.0429 | -0.5935 | 0.4629 | -1.0564 | -0.5216 |
| 97 | 47.97 | 0.05 | 11.7477 | -6.0271 | 0.8493 | 2.2342 | 0.0196 | -0.6318 | 0.4545 | -1.0864 | -0.5130 |
| 98 | 48.12 | 0.00 | 11.6612 | -5.7765 | 0.2591 | 2.4759 | 0.0124 | -0.6798 | 0.4238 | -1.1036 | -0.4956 |
| 99 | 48.29 | -0.01 | 11.5709 | -5.5332 | 0.1288 | 2.6456 | 0.0046 | -0.7038 | 0.4056 | -1.1094 | -0.4782 |
| 100 | 48.46 | -0.02 | 11.5060 | -5.2312 | -0.0378 | 2.3984 | 0.0204 | -0.7394 | 0.3815 | -1.1209 | -0.4547 |
| 101 | 48.62 | -0.04 | 11.5754 | -5.2010 | -0.3273 | 3.3438 | -0.0696 | -0.7545 | 0.3794 | -1.1339 | -0.4493 |
| 102 | 48.79 | -0.03 | 11.6285 | -5.2935 | -0.2223 | 3.5841 | -0.1142 | -0.7217 | 0.3939 | -1.1156 | -0.4552 |
| 103 | 48.97 | -0.04 | 11.6642 | -5.1783 | -0.1904 | 3.0072 | -0.0537 | -0.7610 | 0.3737 | -1.1347 | -0.4440 |
| 104 | 49.16 | -0.05 | 11.7681 | -5.2964 | -0.3886 | 3.6057 | -0.1568 | -0.7583 | 0.3857 | -1.1440 | -0.4501 |
| 105 | 49.34 | -0.02 | 11.9643 | -5.4339 | -0.0890 | 3.4663 | -0.1270 | -0.6973 | 0.4138 | -1.1111 | -0.4542 |
| 106 | 49.49 | -0.01 | 12.0312 | -5.5920 | -0.0666 | 3.6130 | -0.1057 | -0.6967 | 0.4355 | -1.1322 | -0.4648 |
| 107 | 49.69 | -0.01 | 12.1509 | -5.7633 | -0.0628 | 3.6949 | -0.1205 | -0.6891 | 0.4330 | -1.1221 | -0.4743 |
| 108 | 49.87 | -0.03 | 12.3080 | -5.6876 | -0.2124 | 3.7718 | -0.1561 | -0.6882 | 0.4330 | -1.1212 | -0.4621 |
| 109 | 50.03 | -0.02 | 12.4161 | -5.9114 | -0.1612 | 3.8669 | -0.1709 | -0.6936 | 0.4430 | -1.1366 | -0.4761 |
| 110 | 50.19 | -0.02 | 12.3302 | -5.9293 | -0.1271 | 3.6269 | -0.1704 | -0.6894 | 0.4434 | -1.1328 | -0.4809 |
| 111 | 50.37 | 0.03 | 12.5413 | -6.3232 | 0.6209 | 2.6145 | -0.0075 | -0.6407 | 0.4656 | -1.1064 | -0.5042 |
| 112 | 50.53 | -0.00 | 12.4976 | -6.2205 | 0.1073 | 3.1058 | -0.1108 | -0.6855 | 0.4419 | -1.1274 | -0.4977 |
| 113 | 50.69 | 0.02 | 12.7298 | -6.5423 | 0.4545 | 2.9662 | -0.0081 | -0.6379 | 0.4735 | -1.1115 | -0.5139 |
| 114 | 50.86 | 0.01 | 12.8169 | -6.5891 | 0.3570 | 2.8749 | -0.0073 | -0.6481 | 0.4797 | -1.1279 | -0.5141 |
| 115 | 51.04 | 0.04 | 12.8892 | -6.6633 | 0.6527 | 2.8981 | -0.0223 | -0.6356 | 0.4926 | -1.1282 | -0.5170 |
| 116 | 51.20 | 0.03 | 12.9611 | -6.8340 | 0.4850 | 3.2334 | -0.0599 | -0.6419 | 0.5105 | -1.1524 | -0.5273 |
| 117 | 51.37 | 0.06 | 13.1449 | -6.9020 | 0.9289 | 3.0860 | -0.0377 | -0.6189 | 0.5287 | -1.1476 | -0.5251 |
| 118 | 51.55 | 0.05 | 13.2436 | -7.0108 | 0.7484 | 3.2035 | -0.0522 | -0.6369 | 0.5277 | -1.1648 | -0.5294 |
| 119 | 51.72 | 0.07 | 13.4085 | -7.1771 | 1.0216 | 3.3795 | -0.0455 | -0.6238 | 0.5449 | -1.1687 | -0.5353 |
| 120 | 51.89 | 0.07 | 13.3641 | -7.0318 | 0.9354 | 3.2113 | -0.0447 | -0.6228 | 0.5435 | -1.1663 | -0.5262 |
| 121 | 52.05 | 0.07 | 13.4516 | -7.1171 | 1.0418 | 3.1636 | -0.0372 | -0.6352 | 0.5482 | -1.1834 | -0.5291 |
| 122 | 52.22 | 0.09 | 13.6688 | -7.4102 | 1.1546 | 3.5311 | -0.0823 | -0.6522 | 0.5511 | -1.2033 | -0.5421 |
| 123 | 52.41 | 0.10 | 13.8119 | -7.5670 | 1.2576 | 3.6680 | -0.1051 | -0.6649 | 0.5508 | -1.2157 | -0.5479 |
| 124 | 52.57 | 0.10 | 13.9421 | -7.7202 | 1.1309 | 3.9316 | -0.1129 | -0.6902 | 0.5513 | -1.2414 | -0.5537 |
| 125 | 52.73 | 0.11 | 13.9841 | -7.7703 | 1.3159 | 3.8894 | -0.1130 | -0.7012 | 0.5513 | -1.2525 | -0.5557 |
| 126 | 52.91 | 0.10 | 14.1718 | -7.6795 | 1.3702 | 3.7329 | -0.1471 | -0.6892 | 0.5494 | -1.2385 | -0.5419 |
| 127 | 53.09 | 0.11 | 14.2830 | -7.8717 | 1.4349 | 3.7775 | -0.1545 | -0.6985 | 0.5536 | -1.2521 | -0.5511 |
| 128 | 53.25 | 0.10 | 14.3313 | -7.7803 | 1.4307 | 3.3873 | -0.1527 | -0.6895 | 0.5494 | -1.2388 | -0.5429 |
| 129 | 53.41 | 0.11 | 14.4112 | -7.7726 | 1.5461 | 3.5149 | -0.1310 | -0.6962 | 0.5503 | -1.2464 | -0.5393 |
| 130 | 53.55 | 0.10 | 14.3298 | -7.6862 | 1.3657 | 3.3428 | -0.1375 | -0.6701 | 0.5464 | -1.2165 | -0.5364 |
| 131 | 53.78 | 0.09 | 14.5800 | -7.9509 | 1.2769 | 3.4389 | -0.1223 | -0.6887 | 0.5517 | -1.2403 | -0.5453 |
| 132 | 53.93 | 0.09 | 14.5939 | -7.8823 | 1.3415 | 3.4398 | -0.1226 | -0.6853 | 0.5527 | -1.2379 | -0.5401 |
| 133 | 54.11 | 0.07 | 14.6196 | -7.8576 | 1.0576 | 3.6751 | -0.1009 | -0.6607 | 0.5548 | -1.2155 | -0.5375 |
| 134 | 54.26 | 0.07 | 14.5683 | -7.8519 | 1.0834 | 3.5711 | -0.0785 | -0.6766 | 0.5524 | -1.2299 | -0.5390 |
| 135 | 54.43 | 0.08 | 14.6353 | -7.9499 | 1.1964 | 3.3012 | -0.0555 | -0.6694 | 0.5645 | -1.2339 | -0.5432 |
| 136 | 54.60 | 0.09 | 14.7355 | -7.8663 | 1.3409 | 3.3640 | -0.0556 | -0.6686 | 0.5645 | -1.2331 | -0.5338 |
| 137 | 54.78 | 0.09 | 15.1397 | -8.2707 | 1.2910 | 3.5351 | -0.0404 | -0.6605 | 0.5917 | -1.2563 | -0.5466 |
| 138 | 54.93 | 0.09 | 15.2563 | -8.1806 | 1.3366 | 3.5055 | -0.0324 | -0.6496 | 0.6057 | -1.2554 | -0.5365 |

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | B1V0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 55.08 | 0.08 | 15.2914 | -8.2789 | 1.2159 | 3.3751 | -0.0614 | -0.6597 | 0.6091 | -1.2689 | -0.5414 |
| 140 | 55.23 | 0.09 | 15.3172 | -8.1197 | 1.3537 | 3.5297 | -0.0470 | -0.6415 | 0.6163 | -1.2579 | -0.5301 |
| 141 | 55.41 | 0.07 | 15.4358 | -8.1906 | 1.0931 | 3.6683 | -0.0467 | -0.6515 | 0.6230 | -1.2746 | -0.5306 |
| 142 | 55.58 | 0.09 | 15.5088 | -8.2647 | 1.2746 | 3.5243 | -0.0388 | -0.6414 | 0.6364 | -1.2779 | -0.5329 |
| 143 | 55.75 | 0.08 | 15.3247 | -8.5629 | 1.1559 | 3.6624 | -0.0456 | -0.6740 | 0.6336 | -1.3076 | -0.5411 |
| 144 | 55.89 | 0.07 | 15.6470 | -8.4818 | 1.0904 | 3.4574 | -0.0451 | -0.6675 | 0.6276 | -1.2932 | -0.5421 |
| 145 | 56.05 | 0.08 | 15.6252 | -8.2843 | 1.1607 | 3.4894 | -0.0305 | -0.6644 | 0.6410 | -1.3055 | -0.5302 |
| 146 | 56.22 | 0.07 | 15.7611 | -8.3499 | 1.1542 | 3.4378 | -0.0368 | -0.6435 | 0.6328 | -1.2764 | -0.5298 |
| 147 | 56.36 | 0.07 | 15.8227 | -8.5561 | 1.1414 | 3.1856 | -0.0284 | -0.6665 | 0.6438 | -1.3104 | -0.5407 |
| 148 | 56.53 | 0.06 | 15.8681 | -8.5425 | 1.0629 | 3.2119 | -0.0281 | -0.6958 | 0.6392 | -1.3350 | -0.5383 |
| 149 | 56.67 | 0.06 | 15.7555 | -8.2364 | 1.0589 | 2.9096 | 0.0026 | -0.6666 | 0.6330 | -1.2997 | -0.5228 |
| 150 | 56.83 | 0.04 | 15.7663 | -8.4521 | 0.9168 | 2.9234 | -0.0118 | -0.6703 | 0.6403 | -1.3107 | -0.5361 |
| 151 | 56.95 | 0.02 | 15.4817 | -8.0648 | 0.7077 | 2.7675 | -0.0261 | -0.6662 | 0.6295 | -1.2958 | -0.5209 |
| 152 | 57.10 | 0.04 | 15.5617 | -8.0579 | 0.9033 | 2.6610 | 0.0181 | -0.6540 | 0.6418 | -1.2959 | -0.5178 |
| 153 | 57.26 | 0.05 | 15.7515 | -8.5064 | 0.9334 | 2.9468 | -0.0047 | -0.6794 | 0.6450 | -1.3244 | -0.5400 |
| 154 | 57.39 | 0.04 | 15.6057 | -8.2112 | 0.9266 | 2.5088 | 0.0041 | -0.6680 | 0.6489 | -1.3170 | -0.5262 |
| 155 | 57.55 | 0.03 | 15.7870 | -8.5271 | 0.7809 | 2.3834 | 0.0199 | -0.6701 | 0.6423 | -1.3125 | -0.5401 |
| 156 | 57.70 | 0.04 | 15.8136 | -8.5207 | 0.9229 | 2.4011 | -0.0097 | -0.6817 | 0.6586 | -1.3403 | -0.5388 |
| 157 | 57.85 | 0.02 | 15.9150 | -8.4303 | 0.7850 | 2.4387 | -0.0022 | -0.6817 | 0.6520 | -1.3337 | -0.5331 |
| 158 | 57.97 | 0.03 | 15.7372 | -8.3605 | 0.8718 | 2.6511 | 0.0040 | -0.6901 | 0.6421 | -1.3322 | -0.5313 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSROC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | BIWOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.10 | -0.02 | 0.0018 | 0.0011 | 0.0031 | 0.6111 | 1.7222 | -0.6422 | -0.0226 | -0.3020 | 0.0353 | 0.4703 |
| 2 | -0.08 | 0.00 | 0.0032 | 0.0011 | 0.0040 | 0.3437 | 1.2500 | -0.6436 | -0.0223 | -0.3026 | 0.0347 | 0.4702 |
| 3 | -0.09 | -0.00 | 0.0026 | 0.0007 | 0.0031 | 0.2692 | 1.1923 | -0.6424 | -0.0223 | -0.3024 | 0.0348 | 0.4708 |
| 4 | -0.09 | -0.01 | 0.0032 | 0.0010 | 0.0039 | 0.3125 | 1.2187 | -0.6407 | -0.0225 | -0.3006 | 0.0352 | 0.4692 |
| 5 | -0.08 | -0.00 | 0.0026 | 0.0010 | 0.0032 | 0.3846 | 1.2308 | -0.6389 | -0.0227 | -0.3011 | 0.0356 | 0.4713 |
| 6 | -0.06 | -0.00 | 0.0018 | 0.0008 | 0.0031 | 0.4444 | 1.2222 | -0.6368 | -0.0218 | -0.2847 | 0.0366 | 0.4770 |
| 7 | 1.67 | -0.00 | 0.0026 | 0.0007 | 0.0028 | 0.2692 | 1.0769 | -0.5006 | -0.0210 | -0.2451 | 0.0420 | 0.4896 |
| 8 | 3.45 | -0.00 | 0.0027 | 0.0005 | 0.0028 | 0.1852 | 1.0370 | -0.4186 | -0.0166 | -0.2032 | 0.0397 | 0.4855 |
| 9 | 5.26 | 0.00 | 0.0025 | 0.0006 | 0.0038 | 0.2400 | 1.5200 | -0.3287 | -0.0118 | -0.1586 | 0.0360 | 0.4826 |
| 10 | 7.07 | -0.00 | -0.0007 | 0.0007 | 0.0051 | -1.0000 | -7.2857 | -0.2528 | -0.0084 | -0.1210 | 0.0333 | 0.4788 |
| 11 | 8.99 | -0.00 | 0.0007 | 0.0008 | 0.0059 | 1.1429 | 8.4286 | -0.1799 | -0.0062 | -0.0862 | 0.0345 | 0.4791 |
| 12 | 10.75 | -0.00 | 0.0027 | 0.0009 | 0.0082 | 0.3333 | 3.0370 | -0.1028 | -0.0038 | -0.0507 | 0.0370 | 0.4932 |
| 13 | 12.61 | -0.01 | -0.0011 | 0.0007 | 0.0077 | -0.6364 | -7.0000 | -0.0487 | -0.0010 | -0.0253 | 0.0206 | 0.5391 |
| 14 | 14.42 | 0.00 | -0.0013 | 0.0005 | 0.0099 | -0.3846 | -7.6154 | -0.0111 | 0.0044 | -0.0099 | -0.3964 | 0.8919 |
| 15 | 16.26 | -0.01 | -0.0080 | -0.0006 | 0.0089 | 0.0750 | -1.1125 | 0.0103 | 0.0128 | -0.0021 | 1.2427 | -0.2039 |
| 16 | 18.10 | -0.01 | -0.0084 | -0.0005 | 0.0122 | 0.0595 | -1.4524 | 0.0425 | 0.0194 | 0.0097 | 0.4575 | 0.2288 |
| 17 | 19.95 | -0.02 | -0.0134 | -0.0019 | 0.0170 | 0.1418 | -1.2687 | 0.0817 | 0.0252 | 0.0280 | 0.3080 | 0.3423 |
| 18 | 21.88 | -0.03 | -0.0177 | -0.0071 | 0.0341 | 0.4011 | -1.9209 | 0.0997 | 0.0307 | 0.0345 | 0.3075 | 0.3457 |
| 19 | 23.79 | -0.05 | -0.0490 | -0.0080 | 0.0225 | 0.1636 | -0.4601 | 0.1464 | 0.0365 | 0.0586 | 0.2491 | 0.3867 |
| 20 | 25.69 | -0.04 | -0.0703 | -0.0027 | -0.0029 | 0.0385 | 0.0413 | 0.2248 | 0.0413 | 0.0930 | 0.1837 | 0.4137 |
| 21 | 27.61 | 0.01 | 0.1408 | 0.0071 | 0.0850 | 0.0505 | 0.6036 | 0.3539 | 0.0458 | 0.1485 | 0.1294 | 0.4198 |
| 22 | 29.53 | 0.06 | 0.2274 | 0.0185 | 0.1180 | 0.0815 | 0.5192 | 0.4353 | 0.0495 | 0.1871 | 0.1137 | 0.4298 |
| 23 | 31.42 | 0.04 | 0.2717 | 0.0250 | 0.0463 | 0.3478 | 0.6453 | 0.4582 | 0.0531 | 0.1968 | 0.1159 | 0.4295 |
| 24 | 33.37 | 0.07 | 0.1437 | 0.0268 | 0.0760 | 0.1862 | 0.5286 | 0.5312 | 0.0557 | 0.2272 | 0.1049 | 0.4277 |
| 25 | 33.65 | 0.04 | 0.1273 | 0.0286 | 0.0659 | 0.2244 | 0.5181 | 0.5262 | 0.0555 | 0.2251 | 0.1059 | 0.4277 |
| 26 | 33.65 | 0.07 | 0.1547 | 0.0373 | 0.0758 | 0.2409 | 0.4896 | 0.5415 | 0.0561 | 0.2329 | 0.1036 | 0.4301 |
| 27 | 33.98 | 0.08 | 0.1404 | 0.0423 | 0.0686 | 0.3012 | 0.4889 | 0.5401 | 0.0569 | 0.2316 | 0.1054 | 0.4288 |
| 28 | 34.18 | 0.08 | 0.1388 | 0.0430 | 0.0670 | 0.3097 | 0.4830 | 0.5468 | 0.0576 | 0.2349 | 0.1054 | 0.4295 |
| 29 | 34.41 | 0.08 | 0.1519 | 0.0465 | 0.0742 | 0.3061 | 0.4881 | 0.5590 | 0.0579 | 0.2388 | 0.1036 | 0.4271 |
| 30 | 34.67 | 0.10 | 0.1815 | 0.0507 | 0.0837 | 0.2794 | 0.4611 | 0.5765 | 0.0585 | 0.2469 | 0.1015 | 0.4283 |
| 31 | 34.91 | 0.10 | 0.1868 | 0.0543 | 0.0869 | 0.2908 | 0.4651 | 0.5859 | 0.0587 | 0.2511 | 0.1002 | 0.4286 |
| 32 | 35.14 | 0.10 | 0.2117 | 0.0503 | 0.0973 | 0.2376 | 0.4595 | 0.6059 | 0.0582 | 0.2603 | 0.0961 | 0.4296 |
| 33 | 35.38 | 0.09 | 0.2514 | 0.0343 | 0.1153 | 0.1363 | 0.4587 | 0.6355 | 0.0574 | 0.2735 | 0.0904 | 0.4303 |
| 34 | 35.62 | 0.09 | 0.2492 | 0.0313 | 0.1176 | 0.1255 | 0.4721 | 0.6518 | 0.0576 | 0.2794 | 0.0884 | 0.4286 |
| 35 | 35.85 | 0.08 | 0.2671 | 0.0245 | 0.1294 | 0.0915 | 0.4842 | 0.6716 | 0.0568 | 0.2879 | 0.0846 | 0.4287 |
| 36 | 36.09 | 0.09 | 0.2585 | 0.0290 | 0.1238 | 0.1120 | 0.4787 | 0.6890 | 0.0574 | 0.2959 | 0.0833 | 0.4295 |
| 37 | 36.32 | 0.08 | 0.2049 | 0.0378 | 0.0992 | 0.1844 | 0.4841 | 0.6757 | 0.0590 | 0.2884 | 0.0873 | 0.4268 |
| 38 | 36.55 | 0.09 | 0.2369 | 0.0366 | 0.1131 | 0.1544 | 0.4776 | 0.6905 | 0.0584 | 0.2951 | 0.0846 | 0.4274 |
| 39 | 36.81 | 0.09 | 0.2106 | 0.0342 | 0.0997 | 0.1622 | 0.4734 | 0.6891 | 0.0587 | 0.2943 | 0.0852 | 0.4271 |
| 40 | 37.03 | 0.07 | 0.1834 | 0.0357 | 0.0867 | 0.1945 | 0.4727 | 0.6889 | 0.0594 | 0.2943 | 0.0863 | 0.4272 |
| 41 | 37.26 | 0.09 | 0.1343 | 0.0442 | 0.0662 | 0.3291 | 0.4933 | 0.6757 | 0.0612 | 0.2845 | 0.0906 | 0.4210 |
| 42 | 37.51 | 0.08 | 0.1210 | 0.0459 | 0.0613 | 0.3791 | 0.5066 | 0.6799 | 0.0614 | 0.2876 | 0.0903 | 0.4230 |
| 43 | 37.74 | 0.09 | 0.0799 | 0.0470 | 0.0440 | 0.5885 | 0.5508 | 0.6695 | 0.0631 | 0.2823 | 0.0943 | 0.4216 |
| 44 | 37.98 | 0.08 | 0.0241 | 0.0407 | 0.0225 | 1.6846 | 0.9336 | 0.6537 | 0.0642 | 0.2743 | 0.0983 | 0.4195 |
| 45 | 38.22 | 0.08 | 0.0330 | 0.0399 | 0.0294 | 1.2097 | 0.8906 | 0.6553 | 0.0647 | 0.2745 | 0.0988 | 0.4188 |
| 46 | 38.44 | 0.08 | 0.0191 | 0.0352 | 0.0256 | 1.8377 | 1.3351 | 0.6517 | 0.0653 | 0.2732 | 0.1002 | 0.4191 |

TEST 7 PART 156 MACH 0.80 RX10-6 1.7 PHI 0.0 CONF B1W0F31 L 0.0 DEL1 0 DEL2 -20 DEL3 0 DEL4 -20 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 38.65 | 0.08 | 0.0221 | 0.0304 | 0.0347 | 1.3710 | 1.5656 | 0.6465 | 0.0659 | 0.2694 | 0.1020 | 0.4166 |
| 48 | 38.90 | 0.08 | -0.0018 | 0.0271 | 0.0272 | -15.0000 | -15.0556 | 0.6463 | 0.0668 | 0.2677 | 0.1034 | 0.4143 |
| 49 | 39.11 | 0.09 | -0.0271 | 0.0259 | 0.0150 | -0.9556 | -0.5556 | 0.6454 | 0.0669 | 0.2669 | 0.1037 | 0.4138 |
| 50 | 39.31 | 0.08 | -0.0429 | 0.0242 | 0.0106 | -0.5654 | -0.2477 | 0.6490 | 0.0663 | 0.2696 | 0.1022 | 0.4153 |
| 51 | 39.53 | 0.09 | -0.0475 | 0.0261 | 0.0072 | -0.5435 | -0.1519 | 0.6601 | 0.0670 | 0.2727 | 0.1016 | 0.4131 |
| 52 | 39.73 | 0.08 | -0.0422 | 0.0255 | 0.0092 | -0.6033 | -0.2352 | 0.6621 | 0.0673 | 0.2735 | 0.1017 | 0.4130 |
| 53 | 39.93 | 0.08 | 0.0462 | 0.0371 | 0.0343 | 0.8026 | 0.7419 | 0.6835 | 0.0673 | 0.2846 | 0.0985 | 0.4164 |
| 54 | 40.13 | 0.08 | 0.0042 | 0.0329 | 0.0212 | 7.8095 | 5.0476 | 0.6763 | 0.0675 | 0.2784 | 0.0999 | 0.4116 |
| 55 | 40.33 | 0.09 | 0.0488 | 0.0379 | 0.0368 | 0.7762 | 0.7536 | 0.6855 | 0.0682 | 0.2817 | 0.0995 | 0.4109 |
| 56 | 40.55 | 0.08 | 0.0532 | 0.0403 | 0.0366 | 0.7571 | 0.6874 | 0.6942 | 0.0676 | 0.2858 | 0.0974 | 0.4117 |
| 57 | 40.75 | 0.10 | 0.0643 | 0.0436 | 0.0440 | 0.6776 | 0.6838 | 0.6856 | 0.0686 | 0.2790 | 0.1001 | 0.4054 |
| 58 | 40.96 | 0.10 | 0.0534 | 0.0406 | 0.0397 | 0.7598 | 0.7430 | 0.6885 | 0.0684 | 0.2795 | 0.0994 | 0.4059 |
| 59 | 41.17 | 0.09 | 0.0269 | 0.0405 | 0.0318 | 1.5131 | 1.1873 | 0.6866 | 0.0692 | 0.2774 | 0.1008 | 0.4048 |
| 60 | 41.36 | 0.09 | 0.0210 | 0.0410 | 0.0266 | 1.9476 | 1.2619 | 0.6868 | 0.0690 | 0.2760 | 0.1005 | 0.4018 |
| 61 | 41.56 | 0.09 | 0.0098 | 0.0376 | 0.0258 | 3.8265 | 2.6224 | 0.6846 | 0.0687 | 0.2743 | 0.1004 | 0.4006 |
| 62 | 41.76 | 0.08 | 0.0150 | 0.0386 | 0.0273 | 2.5667 | 1.8133 | 0.6946 | 0.0692 | 0.2803 | 0.0997 | 0.4035 |
| 63 | 41.96 | 0.09 | 0.0025 | 0.0376 | 0.0209 | 15.0000 | 8.3600 | 0.6891 | 0.0692 | 0.2751 | 0.1005 | 0.3992 |
| 64 | 42.14 | 0.07 | 0.0514 | 0.0333 | 0.0324 | 0.6472 | 0.6296 | 0.7128 | 0.0686 | 0.2947 | 0.0963 | 0.4135 |
| 65 | 42.30 | 0.05 | 0.0622 | 0.0266 | 0.0363 | 0.4267 | 0.5829 | 0.7374 | 0.0666 | 0.3056 | 0.0904 | 0.4145 |
| 66 | 42.50 | 0.10 | 0.0063 | 0.0364 | 0.0240 | 5.7619 | 3.8095 | 0.6991 | 0.0683 | 0.2774 | 0.0977 | 0.3967 |
| 67 | 42.68 | 0.10 | -0.0052 | 0.0354 | 0.0168 | -6.7685 | -3.2308 | 0.6956 | 0.0686 | 0.2768 | 0.0987 | 0.3979 |
| 68 | 42.87 | 0.10 | 0.0213 | 0.0342 | 0.0321 | 1.6009 | 1.5023 | 0.7111 | 0.0684 | 0.2835 | 0.0963 | 0.3987 |
| 69 | 43.05 | 0.10 | -0.0067 | 0.0342 | 0.0177 | -5.0896 | -2.6418 | 0.7071 | 0.0685 | 0.2804 | 0.0969 | 0.3965 |
| 70 | 43.23 | 0.10 | 0.0039 | 0.0330 | 0.0228 | 8.4359 | 5.8462 | 0.7099 | 0.0681 | 0.2803 | 0.0960 | 0.3948 |
| 71 | 43.41 | 0.10 | -0.0077 | 0.0321 | 0.0166 | -4.1558 | -2.1558 | 0.7065 | 0.0680 | 0.2776 | 0.0963 | 0.3929 |
| 72 | 43.59 | 0.10 | -0.0163 | 0.0314 | 0.0112 | -1.9202 | -0.6871 | 0.7011 | 0.0674 | 0.2733 | 0.0962 | 0.3897 |
| 73 | 43.75 | 0.10 | -0.0077 | 0.0332 | 0.0149 | -4.2997 | -1.9351 | 0.7095 | 0.0679 | 0.2775 | 0.0958 | 0.3911 |
| 74 | 43.96 | 0.10 | 0.0051 | 0.0315 | 0.0211 | 6.1569 | 4.1373 | 0.7080 | 0.0671 | 0.2752 | 0.0948 | 0.3886 |
| 75 | 44.13 | 0.10 | 0.0253 | 0.0311 | 0.0295 | 1.2302 | 1.1667 | 0.7135 | 0.0663 | 0.2749 | 0.0930 | 0.3853 |
| 76 | 44.31 | 0.10 | -0.0073 | 0.0449 | 0.0069 | -6.1370 | -0.9452 | 0.7177 | 0.0664 | 0.2773 | 0.0926 | 0.3863 |
| 77 | 44.50 | 0.10 | -0.0088 | 0.0456 | 0.0056 | -5.1705 | -0.6364 | 0.7179 | 0.0660 | 0.2749 | 0.0920 | 0.3829 |
| 78 | 44.67 | 0.11 | 0.0060 | 0.0439 | 0.0144 | 7.3000 | 2.4000 | 0.7231 | 0.0655 | 0.2773 | 0.0906 | 0.3835 |
| 79 | 44.85 | 0.10 | -0.0286 | 0.0423 | -0.0004 | -1.4807 | 0.0140 | 0.7236 | 0.0664 | 0.2792 | 0.0918 | 0.3858 |
| 80 | 45.03 | 0.10 | -0.0202 | 0.0452 | 0.0040 | -2.2327 | -0.1980 | 0.7296 | 0.0663 | 0.2820 | 0.0909 | 0.3865 |
| 81 | 45.22 | 0.10 | -0.0310 | 0.0438 | -0.0025 | -1.4142 | 0.0809 | 0.7155 | 0.0659 | 0.2723 | 0.0922 | 0.3805 |
| 82 | 45.39 | 0.10 | -0.0410 | 0.0408 | -0.0051 | -0.9951 | 0.1247 | 0.7232 | 0.0652 | 0.2760 | 0.0902 | 0.3816 |
| 83 | 45.55 | 0.10 | -0.0127 | 0.0449 | 0.0067 | -3.5276 | -0.5276 | 0.7191 | 0.0653 | 0.2712 | 0.0909 | 0.3771 |
| 84 | 45.74 | 0.11 | -0.0032 | 0.0439 | 0.0134 | -13.6875 | -4.1875 | 0.7345 | 0.0644 | 0.2792 | 0.0877 | 0.3801 |
| 85 | 45.91 | 0.11 | 0.0072 | 0.0455 | 0.0156 | 6.3056 | 2.1667 | 0.7361 | 0.0647 | 0.2800 | 0.0879 | 0.3803 |
| 86 | 46.08 | 0.10 | 0.0 | 0.0435 | 0.0133 | 0.0435 | 0.0133 | 0.7319 | 0.0649 | 0.2767 | 0.0887 | 0.3780 |
| 87 | 46.26 | 0.11 | 0.0106 | 0.0439 | 0.0155 | 4.1321 | 1.4623 | 0.7406 | 0.0640 | 0.2807 | 0.0865 | 0.3790 |
| 88 | 46.42 | 0.10 | 0.0074 | 0.0435 | 0.0167 | 5.8649 | 2.2568 | 0.7380 | 0.0645 | 0.2788 | 0.0874 | 0.3777 |
| 89 | 46.59 | 0.09 | -0.0043 | 0.0424 | 0.0080 | -4.5484 | -0.8502 | 0.7439 | 0.0641 | 0.2833 | 0.0862 | 0.3808 |
| 90 | 46.77 | 0.08 | -0.0340 | 0.0369 | 0.0003 | -1.0855 | -0.0088 | 0.7437 | 0.0648 | 0.2827 | 0.0872 | 0.3801 |
| 91 | 46.94 | 0.09 | -0.0382 | 0.0346 | -0.0002 | -0.9055 | 0.0052 | 0.7445 | 0.0651 | 0.2835 | 0.0875 | 0.3808 |
| 92 | 47.11 | 0.08 | -0.0559 | 0.0335 | -0.0077 | -0.5986 | 0.1380 | 0.7569 | 0.0655 | 0.2891 | 0.0868 | 0.3819 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.28 | 0.07 | 0.0345 | 0.0241 | 0.0413 | 0.7006 | 1.1977 | 0.7502 | 0.0655 | 0.2858 | 0.0874 | 0.3809 |
| 94 | 47.45 | 0.05 | -0.0321 | 0.0224 | -0.0005 | -0.7000 | 0.0156 | 0.7591 | 0.0669 | 0.2931 | 0.0882 | 0.3861 |
| 95 | 47.63 | 0.07 | 0.0152 | 0.0174 | 0.0294 | 1.1447 | 1.9276 | 0.7641 | 0.0667 | 0.2969 | 0.0873 | 0.3886 |
| 96 | 47.80 | 0.06 | -0.0253 | 0.0170 | 0.0090 | -0.6746 | -0.3571 | 0.7569 | 0.0682 | 0.2928 | 0.0902 | 0.3868 |
| 97 | 47.97 | 0.05 | -0.0479 | 0.0131 | 0.0015 | -0.2741 | -0.0314 | 0.7704 | 0.0686 | 0.3000 | 0.0891 | 0.3894 |
| 98 | 48.12 | 0.00 | -0.1027 | 0.0146 | -0.0300 | -0.1453 | 0.2975 | 0.7730 | 0.0707 | 0.3039 | 0.0918 | 0.3932 |
| 99 | 48.29 | -0.01 | -0.1380 | 0.0101 | -0.0428 | -0.0733 | 0.3101 | 0.7696 | 0.0716 | 0.3039 | 0.0931 | 0.3949 |
| 100 | 48.46 | -0.02 | -0.1746 | 0.0109 | -0.0646 | -0.0626 | 0.3703 | 0.7744 | 0.0730 | 0.3041 | 0.0943 | 0.3927 |
| 101 | 48.62 | -0.04 | -0.2354 | 0.0061 | -0.0999 | -0.0260 | 0.4244 | 0.7761 | 0.0735 | 0.3066 | 0.0946 | 0.3951 |
| 102 | 48.79 | -0.03 | -0.2484 | 0.0028 | -0.1031 | -0.0113 | 0.4151 | 0.7812 | 0.0731 | 0.3090 | 0.0936 | 0.3956 |
| 103 | 48.97 | -0.04 | -0.2292 | -0.0040 | -0.0914 | 0.0175 | 0.3988 | 0.7901 | 0.0717 | 0.3120 | 0.0908 | 0.3949 |
| 104 | 49.16 | -0.05 | -0.2766 | -0.0070 | -0.1156 | 0.0254 | 0.4181 | 0.7970 | 0.0715 | 0.3161 | 0.0898 | 0.3967 |
| 105 | 49.34 | -0.02 | -0.1960 | -0.0066 | -0.0682 | 0.0337 | 0.3482 | 0.7956 | 0.0707 | 0.3139 | 0.0889 | 0.3946 |
| 106 | 49.49 | -0.01 | -0.1903 | -0.0112 | -0.0639 | 0.0590 | 0.3360 | 0.7983 | 0.0703 | 0.3131 | 0.0881 | 0.3922 |
| 107 | 49.69 | -0.01 | -0.2028 | -0.0197 | -0.0670 | 0.0973 | 0.3305 | 0.8108 | 0.0682 | 0.3179 | 0.0842 | 0.3920 |
| 108 | 49.87 | -0.03 | -0.2414 | -0.0228 | -0.0850 | 0.0946 | 0.3520 | 0.8149 | 0.0687 | 0.3206 | 0.0844 | 0.3934 |
| 109 | 50.03 | -0.02 | -0.2165 | -0.0275 | -0.0706 | 0.1268 | 0.3262 | 0.8222 | 0.0669 | 0.3214 | 0.0814 | 0.3909 |
| 110 | 50.19 | -0.02 | -0.2190 | -0.0288 | -0.0740 | 0.1313 | 0.3376 | 0.8285 | 0.0658 | 0.3228 | 0.0795 | 0.3896 |
| 111 | 50.37 | 0.03 | -0.0986 | -0.0050 | -0.0206 | 0.0519 | 0.2137 | 0.7720 | 0.0697 | 0.2854 | 0.0903 | 0.3697 |
| 112 | 50.53 | -0.00 | -0.1738 | -0.0177 | -0.0586 | 0.1021 | 0.3374 | 0.7968 | 0.0627 | 0.2918 | 0.0787 | 0.3662 |
| 113 | 50.69 | 0.02 | -0.0725 | 0.0047 | -0.0100 | -0.0649 | 0.1381 | 0.7686 | 0.0718 | 0.2834 | 0.0935 | 0.3687 |
| 114 | 50.86 | 0.01 | -0.1004 | -0.0091 | -0.0188 | 0.0938 | 0.1876 | 0.7850 | 0.0683 | 0.2888 | 0.0871 | 0.3679 |
| 115 | 51.04 | 0.04 | -0.0901 | -0.0013 | -0.0185 | 0.0145 | 0.2058 | 0.7925 | 0.0685 | 0.2932 | 0.0865 | 0.3700 |
| 116 | 51.20 | 0.03 | -0.1073 | -0.0036 | -0.0298 | 0.0336 | 0.2773 | 0.8002 | 0.0677 | 0.2973 | 0.0846 | 0.3715 |
| 117 | 51.37 | 0.06 | -0.0706 | 0.0047 | -0.0152 | -0.0667 | 0.2156 | 0.8065 | 0.0671 | 0.2975 | 0.0833 | 0.3689 |
| 118 | 51.55 | 0.05 | -0.0780 | 0.0033 | -0.0184 | -0.0424 | 0.2365 | 0.8104 | 0.0682 | 0.2990 | 0.0842 | 0.3690 |
| 119 | 51.72 | 0.07 | -0.0633 | 0.0059 | -0.0128 | -0.0934 | 0.2025 | 0.8320 | 0.0671 | 0.3102 | 0.0807 | 0.3729 |
| 120 | 51.89 | 0.07 | -0.0720 | 0.0035 | -0.0147 | -0.0487 | 0.2045 | 0.8280 | 0.0661 | 0.3071 | 0.0799 | 0.3709 |
| 121 | 52.05 | 0.07 | -0.0630 | 0.0079 | -0.0115 | -0.1256 | 0.1828 | 0.8352 | 0.0677 | 0.3139 | 0.0811 | 0.3723 |
| 122 | 52.22 | 0.09 | -0.0966 | -0.0007 | -0.0269 | 0.0073 | 0.2780 | 0.8761 | 0.0648 | 0.3305 | 0.0740 | 0.3772 |
| 123 | 52.41 | 0.10 | -0.1053 | -0.0035 | -0.0310 | 0.0333 | 0.2940 | 0.8723 | 0.0640 | 0.3258 | 0.0734 | 0.3735 |
| 124 | 52.57 | 0.10 | -0.1101 | -0.0023 | -0.0318 | 0.0209 | 0.2884 | 0.8943 | 0.0644 | 0.3333 | 0.0720 | 0.3783 |
| 125 | 52.73 | 0.11 | -0.1264 | -0.0086 | -0.0386 | 0.0682 | 0.3053 | 0.9068 | 0.0631 | 0.3423 | 0.0696 | 0.3775 |
| 126 | 52.91 | 0.10 | -0.1157 | -0.0155 | -0.0350 | 0.1347 | 0.3032 | 0.9054 | 0.0594 | 0.3373 | 0.0656 | 0.3726 |
| 127 | 53.09 | 0.11 | -0.1139 | -0.0139 | -0.0354 | 0.1223 | 0.3105 | 0.9239 | 0.0607 | 0.3451 | 0.0657 | 0.3735 |
| 128 | 53.25 | 0.10 | -0.0693 | -0.0216 | -0.0143 | 0.3121 | 0.2066 | 0.9101 | 0.0556 | 0.3342 | 0.0611 | 0.3672 |
| 129 | 53.41 | 0.11 | -0.0986 | -0.0216 | -0.0272 | 0.2195 | 0.2754 | 0.9066 | 0.0559 | 0.3309 | 0.0617 | 0.3650 |
| 130 | 53.55 | 0.10 | -0.0790 | -0.0261 | -0.0199 | 0.3299 | 0.2525 | 0.8846 | 0.0553 | 0.3194 | 0.0625 | 0.3618 |
| 131 | 53.78 | 0.09 | -0.0843 | -0.0272 | -0.0197 | 0.3222 | 0.2342 | 0.8771 | 0.0547 | 0.3142 | 0.0624 | 0.3583 |
| 132 | 53.93 | 0.09 | -0.0718 | -0.0246 | -0.0170 | 0.3417 | 0.2371 | 0.8752 | 0.0522 | 0.3138 | 0.0597 | 0.3586 |
| 133 | 54.11 | 0.07 | -0.0906 | -0.0264 | -0.0242 | 0.2909 | 0.2677 | 0.8770 | 0.0518 | 0.3144 | 0.0591 | 0.3585 |
| 134 | 54.26 | 0.07 | -0.0622 | -0.0231 | -0.0143 | 0.3720 | 0.2303 | 0.8544 | 0.0495 | 0.3040 | 0.0579 | 0.3558 |
| 135 | 54.43 | 0.08 | -0.0383 | -0.0182 | -0.0047 | 0.4764 | 0.1230 | 0.8666 | 0.0458 | 0.3109 | 0.0528 | 0.3588 |
| 136 | 54.60 | 0.09 | -0.0473 | -0.0235 | -0.0071 | 0.4979 | 0.1504 | 0.8710 | 0.0452 | 0.3128 | 0.0519 | 0.3590 |
| 137 | 54.78 | 0.09 | -0.0388 | -0.0208 | -0.0048 | 0.5375 | 0.1240 | 0.8590 | 0.0426 | 0.3057 | 0.0496 | 0.3559 |
| 138 | 54.93 | 0.09 | -0.0242 | -0.0214 | 0.0014 | 0.8843 | -0.0579 | 0.8627 | 0.0415 | 0.3083 | 0.0481 | 0.3574 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 55.08 | 0.08 | -0.0083 | -0.0228 | 0.0104 | 2.7470 | -1.2530 | 0.8752 | 0.0398 | 0.3136 | 0.0455 | 0.3584 |
| 140 | 55.23 | 0.09 | -0.0166 | -0.0224 | 0.0063 | 1.3494 | -0.3795 | 0.8659 | 0.0389 | 0.3107 | 0.0449 | 0.3589 |
| 141 | 55.41 | 0.07 | -0.0347 | -0.0258 | 0.0018 | 0.7428 | -0.0520 | 0.8753 | 0.0395 | 0.3136 | 0.0451 | 0.3583 |
| 142 | 55.58 | 0.09 | -0.0196 | -0.0231 | 0.0051 | 1.1786 | -0.2602 | 0.8859 | 0.0388 | 0.3176 | 0.0438 | 0.3584 |
| 143 | 55.75 | 0.08 | -0.0173 | -0.0235 | 0.0069 | 1.3584 | -0.3988 | 0.8777 | 0.0371 | 0.3146 | 0.0422 | 0.3585 |
| 144 | 55.89 | 0.07 | -0.0242 | -0.0222 | 0.0035 | 0.9174 | -0.1446 | 0.9047 | 0.0396 | 0.3254 | 0.0438 | 0.3597 |
| 145 | 56.05 | 0.08 | -0.0199 | -0.0208 | 0.0047 | 1.0452 | -0.2362 | 0.8849 | 0.0360 | 0.3182 | 0.0407 | 0.3595 |
| 146 | 56.22 | 0.07 | -0.0088 | -0.0188 | 0.0090 | 2.1364 | -1.0227 | 0.8921 | 0.0372 | 0.3210 | 0.0417 | 0.3598 |
| 147 | 56.36 | 0.07 | -0.0098 | -0.0206 | 0.0071 | 2.1020 | -0.7245 | 0.9011 | 0.0362 | 0.3237 | 0.0401 | 0.3592 |
| 148 | 56.53 | 0.06 | -0.0288 | -0.0202 | -0.0002 | 0.7038 | 0.0070 | 0.9074 | 0.0384 | 0.3264 | 0.0423 | 0.3597 |
| 149 | 56.67 | 0.06 | -0.0039 | -0.0159 | 0.0099 | 4.0769 | -2.5385 | 0.8855 | 0.0363 | 0.3165 | 0.0410 | 0.3578 |
| 150 | 56.83 | 0.04 | -0.0115 | -0.0193 | 0.0075 | 1.6783 | -0.6522 | 0.9078 | 0.0353 | 0.3276 | 0.0389 | 0.3609 |
| 151 | 56.95 | 0.02 | -0.0068 | -0.0164 | 0.0091 | 2.4118 | -1.3382 | 0.8846 | 0.0361 | 0.3161 | 0.0408 | 0.3574 |
| 152 | 57.10 | 0.04 | 0.0001 | -0.0174 | 0.0116 | -174.0000 | 116.0000 | 0.8732 | 0.0341 | 0.3112 | 0.0390 | 0.3564 |
| 153 | 57.26 | 0.05 | -0.0124 | -0.0180 | 0.0064 | 1.4516 | -0.5161 | 0.8935 | 0.0345 | 0.3195 | 0.0386 | 0.3575 |
| 154 | 57.39 | 0.04 | -0.0099 | -0.0152 | 0.0074 | 1.5354 | -0.7475 | 0.8934 | 0.0347 | 0.3215 | 0.0388 | 0.3598 |
| 155 | 57.55 | 0.03 | 0.0012 | -0.0157 | 0.0131 | -13.0833 | 10.9167 | 0.9074 | 0.0339 | 0.3260 | 0.0373 | 0.3592 |
| 156 | 57.70 | 0.04 | 0.0028 | -0.0161 | 0.0135 | -5.7500 | 4.8214 | 0.9043 | 0.0329 | 0.3241 | 0.0363 | 0.3584 |
| 157 | 57.85 | 0.02 | -0.0093 | -0.0150 | 0.0086 | 1.6129 | -0.9247 | 0.9058 | 0.0337 | 0.3236 | 0.0372 | 0.3572 |
| 158 | 57.97 | 0.03 | -0.0070 | -0.0142 | 0.0080 | 2.0286 | -1.1429 | 0.8982 | 0.0353 | 0.3227 | 0.0393 | 0.3592 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | R1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.10 | -0.02 | 0.0005 | 9.9999 | 0.0071 | 9.9999 | 14.2000 | -0.6366 | -0.0285 | -0.2796 | 0.0447 | 0.4392 |
| 2 | -0.08 | 0.00 | 0.0012 | 9.9999 | 0.0072 | 9.9999 | 6.0000 | -0.6320 | -0.0283 | -0.2777 | 0.0447 | 0.4394 |
| 3 | -0.09 | -0.00 | 0.0012 | 9.9999 | 0.0071 | 9.9999 | 5.9167 | -0.6376 | -0.0285 | -0.2797 | 0.0446 | 0.4386 |
| 4 | -0.09 | -0.01 | -0.0003 | 9.9999 | 0.0070 | 9.9999 | -23.3333 | -0.6375 | -0.0287 | -0.2798 | 0.0450 | 0.4389 |
| 5 | -0.08 | -0.00 | -0.0011 | 9.9999 | 0.0067 | 9.9999 | -6.0909 | -0.6324 | -0.0285 | -0.2771 | 0.0450 | 0.4381 |
| 6 | -0.06 | -0.00 | -0.0011 | 9.9999 | 0.0057 | 9.9999 | -5.1818 | -0.5929 | -0.0275 | -0.2604 | 0.0463 | 0.4392 |
| 7 | 1.67 | -0.00 | -0.0011 | 9.9999 | 0.0060 | 9.9999 | -5.4545 | -0.4977 | -0.0259 | -0.2184 | 0.0519 | 0.4389 |
| 8 | 3.45 | -0.00 | -0.0019 | 9.9999 | 0.0075 | 9.9999 | -3.9474 | -0.4153 | -0.0202 | -0.1791 | 0.0487 | 0.4312 |
| 9 | 5.26 | 0.00 | -0.0027 | 9.9999 | 0.0072 | 9.9999 | -2.6667 | -0.3315 | -0.0149 | -0.1399 | 0.0450 | 0.4220 |
| 10 | 7.07 | -0.00 | -0.0004 | 9.9999 | 0.0089 | 9.9999 | -22.2500 | -0.2459 | -0.0106 | -0.1036 | 0.0432 | 0.4214 |
| 11 | 8.99 | -0.00 | 0.0027 | 9.9999 | 0.0097 | 9.9999 | 3.5926 | -0.1734 | -0.0080 | -0.0671 | 0.0462 | 0.3873 |
| 12 | 10.75 | -0.00 | 0.0028 | 9.9999 | 0.0067 | 9.9999 | 2.3929 | -0.0991 | -0.0047 | -0.0345 | 0.0475 | 0.3478 |
| 13 | 12.61 | -0.01 | 0.0069 | 9.9999 | 0.0055 | 9.9999 | 0.7971 | -0.0471 | -0.0013 | -0.0110 | 0.0277 | 0.2340 |
| 14 | 14.42 | 0.00 | 0.0108 | 9.9999 | 0.0052 | 9.9999 | 0.4815 | -0.0097 | 0.0054 | 0.0026 | -0.5567 | -0.2680 |
| 15 | 16.26 | -0.01 | 0.0109 | 9.9999 | 0.0042 | 9.9999 | 0.3853 | 0.0169 | 0.0131 | 0.0132 | 0.7751 | 0.7811 |
| 16 | 18.10 | -0.01 | 0.0109 | 9.9999 | 0.0024 | 9.9999 | 0.2202 | 0.0579 | 0.0197 | 0.0314 | 0.3408 | 0.5415 |
| 17 | 19.95 | -0.02 | 0.0079 | 9.9999 | 0.0 | 9.9999 | 0.0 | 0.1209 | 0.0259 | 0.0614 | 0.2138 | 0.5079 |
| 18 | 21.88 | -0.03 | -0.0014 | 9.9999 | -0.0047 | 9.9999 | 3.3571 | 0.2084 | 0.0322 | 0.1032 | 0.1543 | 0.4952 |
| 19 | 23.79 | -0.05 | -0.0005 | 9.9999 | -0.0053 | 9.9999 | 10.6000 | 0.2815 | 0.0379 | 0.1375 | 0.1346 | 0.4884 |
| 20 | 25.69 | -0.04 | 0.0056 | 9.9999 | -0.0017 | 9.9999 | -0.3036 | 0.3289 | 0.0425 | 0.1574 | 0.1292 | 0.4787 |
| 21 | 27.61 | 0.03 | 0.0319 | 9.9999 | 0.0155 | 9.9999 | 0.4874 | 0.3246 | 0.0446 | 0.1510 | 0.1374 | 0.4653 |
| 22 | 29.53 | 0.06 | 0.0357 | 9.9999 | 0.0192 | 9.9999 | 0.5393 | 0.3655 | 0.0463 | 0.1680 | 0.1266 | 0.4597 |
| 23 | 31.42 | 0.04 | 0.0218 | 9.9999 | 0.0107 | 9.9999 | 0.4908 | 0.4776 | 0.0497 | 0.2180 | 0.1041 | 0.4566 |
| 24 | 33.37 | 0.07 | 0.0344 | 9.9999 | 0.0179 | 9.9999 | 0.5219 | 0.5141 | 0.0508 | 0.2336 | 0.0988 | 0.4544 |
| 25 | 33.65 | 0.04 | 0.0281 | 9.9999 | 0.0149 | 9.9999 | 0.5321 | 0.5193 | 0.0509 | 0.2353 | 0.0980 | 0.4531 |
| 26 | 33.65 | 0.07 | 0.0344 | 9.9999 | 0.0192 | 9.9999 | 0.5598 | 0.5293 | 0.0509 | 0.2400 | 0.0962 | 0.4534 |
| 27 | 33.96 | 0.08 | 0.0346 | 9.9999 | 0.0180 | 9.9999 | 0.5217 | 0.5478 | 0.0518 | 0.2490 | 0.0946 | 0.4545 |
| 28 | 34.18 | 0.08 | 0.0306 | 9.9999 | 0.0171 | 9.9999 | 0.5607 | 0.5500 | 0.0514 | 0.2507 | 0.0935 | 0.4558 |
| 29 | 34.41 | 0.08 | 0.0322 | 9.9999 | 0.0176 | 9.9999 | 0.5483 | 0.5670 | 0.0526 | 0.2594 | 0.0928 | 0.4576 |
| 30 | 34.67 | 0.10 | 0.0409 | 9.9999 | 0.0230 | 9.9999 | 0.5637 | 0.5649 | 0.0525 | 0.2576 | 0.0930 | 0.4561 |
| 31 | 34.91 | 0.10 | 0.0330 | 9.9999 | 0.0189 | 9.9999 | 0.5745 | 0.5728 | 0.0535 | 0.2618 | 0.0934 | 0.4571 |
| 32 | 35.14 | 0.10 | 0.0473 | 9.9999 | 0.0251 | 9.9999 | 0.5297 | 0.5607 | 0.0529 | 0.2554 | 0.0944 | 0.4555 |
| 33 | 35.38 | 0.09 | 0.0425 | 9.9999 | 0.0237 | 9.9999 | 0.5590 | 0.5300 | 0.0531 | 0.2406 | 0.1002 | 0.4540 |
| 34 | 35.62 | 0.09 | 0.0456 | 9.9999 | 0.0266 | 9.9999 | 0.5824 | 0.5434 | 0.0541 | 0.2469 | 0.0996 | 0.4544 |
| 35 | 35.85 | 0.08 | 0.0473 | 9.9999 | 0.0271 | 9.9999 | 0.5720 | 0.5337 | 0.0542 | 0.2426 | 0.1016 | 0.4548 |
| 36 | 36.09 | 0.09 | 0.0455 | 9.9999 | 0.0275 | 9.9999 | 0.6035 | 0.5615 | 0.0548 | 0.2538 | 0.0976 | 0.4520 |
| 37 | 36.32 | 0.08 | 0.0480 | 9.9999 | 0.0271 | 9.9999 | 0.5637 | 0.6024 | 0.0544 | 0.2727 | 0.0903 | 0.4526 |
| 38 | 36.55 | 0.09 | 0.0458 | 9.9999 | 0.0260 | 9.9999 | 0.5692 | 0.5884 | 0.0549 | 0.2657 | 0.0933 | 0.4516 |
| 39 | 36.81 | 0.09 | 0.0471 | 9.9999 | 0.0267 | 9.9999 | 0.5660 | 0.6028 | 0.0554 | 0.2719 | 0.0919 | 0.4510 |
| 40 | 37.03 | 0.07 | 0.0377 | 9.9999 | 0.0208 | 9.9999 | 0.5532 | 0.6162 | 0.0556 | 0.2793 | 0.0903 | 0.4532 |
| 41 | 37.26 | 0.09 | 0.0417 | 9.9999 | 0.0208 | 9.9999 | 0.5300 | 0.6706 | 0.0568 | 0.3042 | 0.0847 | 0.4537 |
| 42 | 37.51 | 0.08 | 0.0393 | 9.9999 | 0.0203 | 9.9999 | 0.5179 | 0.6857 | 0.0570 | 0.3110 | 0.0832 | 0.4536 |
| 43 | 37.74 | 0.09 | 0.0322 | 9.9999 | 0.0163 | 9.9999 | 0.5078 | 0.7156 | 0.0589 | 0.3263 | 0.0823 | 0.4560 |
| 44 | 37.99 | 0.08 | 0.0307 | 9.9999 | 0.0155 | 9.9999 | 0.5065 | 0.7536 | 0.0603 | 0.3444 | 0.0800 | 0.4570 |
| 45 | 38.22 | 0.08 | 0.0330 | 9.9999 | 0.0167 | 9.9999 | 0.5076 | 0.7615 | 0.0605 | 0.3461 | 0.0795 | 0.4548 |
| 46 | 38.44 | 0.08 | 0.0228 | 9.9999 | 0.0105 | 9.9999 | 0.4605 | 0.7763 | 0.0609 | 0.3536 | 0.0785 | 0.4555 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 38.65 | 0.08 | 0.0330 | 9.9999 | 0.0167 | 9.9999 | 0.5076 | 0.7911 | 0.0585 | 0.3529 | 0.0740 | 0.4461 |
| 48 | 38.90 | 0.08 | 0.0291 | 9.9999 | 0.0148 | 9.9999 | 0.5103 | 0.7841 | 0.0536 | 0.3392 | 0.0684 | 0.4326 |
| 49 | 39.11 | 0.09 | 0.0345 | 9.9999 | 0.0183 | 9.9999 | 0.5320 | 0.7595 | 0.0476 | 0.3190 | 0.0627 | 0.4200 |
| 50 | 39.31 | 0.08 | 0.0331 | 9.9999 | 0.0160 | 9.9999 | 0.4848 | 0.7389 | 0.0430 | 0.3073 | 0.0582 | 0.4159 |
| 51 | 39.53 | 0.09 | 0.0345 | 9.9999 | 0.0187 | 9.9999 | 0.5436 | 0.7361 | 0.0396 | 0.3051 | 0.0538 | 0.4145 |
| 52 | 39.73 | 0.08 | 0.0298 | 9.9999 | 0.0167 | 9.9999 | 0.5623 | 0.7586 | 0.0443 | 0.3134 | 0.0584 | 0.4197 |
| 53 | 39.93 | 0.08 | 0.0345 | 9.9999 | 0.0180 | 9.9999 | 0.5233 | 0.7942 | 0.0572 | 0.3489 | 0.0720 | 0.4393 |
| 54 | 40.13 | 0.08 | 0.0266 | 9.9999 | 0.0136 | 9.9999 | 0.5132 | 0.7909 | 0.0534 | 0.3410 | 0.0675 | 0.4311 |
| 55 | 40.33 | 0.09 | 0.0336 | 9.9999 | 0.0182 | 9.9999 | 0.5433 | 0.8011 | 0.0575 | 0.3499 | 0.0718 | 0.4368 |
| 56 | 40.55 | 0.08 | 0.0290 | 9.9999 | 0.0150 | 9.9999 | 0.5190 | 0.8023 | 0.0573 | 0.3519 | 0.0714 | 0.4386 |
| 57 | 40.75 | 0.10 | 0.0391 | 9.9999 | 0.0205 | 9.9999 | 0.5256 | 0.8061 | 0.0552 | 0.3459 | 0.0685 | 0.4291 |
| 58 | 40.96 | 0.10 | 0.0406 | 9.9999 | 0.0221 | 9.9999 | 0.5457 | 0.7934 | 0.0510 | 0.3372 | 0.0643 | 0.4250 |
| 59 | 41.17 | 0.09 | 0.0367 | 9.9999 | 0.0190 | 9.9999 | 0.5191 | 0.7723 | 0.0470 | 0.3236 | 0.0609 | 0.4190 |
| 60 | 41.36 | 0.09 | 0.0390 | 9.9999 | 0.0208 | 9.9999 | 0.5347 | 0.7712 | 0.0464 | 0.3227 | 0.0602 | 0.4184 |
| 61 | 41.56 | 0.09 | 0.0413 | 9.9999 | 0.0222 | 9.9999 | 0.5388 | 0.7741 | 0.0435 | 0.3205 | 0.0562 | 0.4140 |
| 62 | 41.76 | 0.08 | 0.0320 | 9.9999 | 0.0162 | 9.9999 | 0.5078 | 0.7593 | 0.0423 | 0.3133 | 0.0557 | 0.4127 |
| 63 | 41.96 | 0.09 | 0.0366 | 9.9999 | 0.0190 | 9.9999 | 0.5205 | 0.7673 | 0.0425 | 0.3168 | 0.0554 | 0.4130 |
| 64 | 42.14 | 0.07 | 0.0335 | 9.9999 | 0.0169 | 9.9999 | 0.5060 | 0.8197 | 0.0570 | 0.3558 | 0.0696 | 0.4341 |
| 65 | 42.30 | 0.05 | 0.0319 | 9.9999 | 0.0161 | 9.9999 | 0.5063 | 0.8210 | 0.0603 | 0.3580 | 0.0735 | 0.4361 |
| 66 | 42.50 | 0.10 | 0.0427 | 9.9999 | 0.0225 | 9.9999 | 0.5282 | 0.7345 | 0.0392 | 0.2991 | 0.0533 | 0.4072 |
| 67 | 42.68 | 0.10 | 0.0450 | 9.9999 | 0.0236 | 9.9999 | 0.5256 | 0.7648 | 0.0408 | 0.3127 | 0.0533 | 0.4089 |
| 68 | 42.87 | 0.10 | 0.0496 | 9.9999 | 0.0278 | 9.9999 | 0.5596 | 0.7216 | 0.0432 | 0.2932 | 0.0599 | 0.4063 |
| 69 | 43.05 | 0.10 | 0.0388 | 9.9999 | 0.0197 | 9.9999 | 0.5090 | 0.7399 | 0.0411 | 0.3007 | 0.0555 | 0.4064 |
| 70 | 43.23 | 0.10 | 0.0434 | 9.9999 | 0.0228 | 9.9999 | 0.5266 | 0.7296 | 0.0435 | 0.2964 | 0.0596 | 0.4063 |
| 71 | 43.41 | 0.10 | 0.0418 | 9.9999 | 0.0221 | 9.9999 | 0.5300 | 0.7399 | 0.0420 | 0.3000 | 0.0567 | 0.4055 |
| 72 | 43.59 | 0.10 | 0.0402 | 9.9999 | 0.0207 | 9.9999 | 0.5162 | 0.7386 | 0.0427 | 0.2987 | 0.0578 | 0.4044 |
| 73 | 43.75 | 0.10 | 0.0334 | 9.9999 | 0.0155 | 9.9999 | 0.4655 | 0.7436 | 0.0430 | 0.3004 | 0.0578 | 0.4040 |
| 74 | 43.96 | 0.10 | 0.0417 | 9.9999 | 0.0227 | 9.9999 | 0.5457 | 0.7382 | 0.0466 | 0.2973 | 0.0631 | 0.4027 |
| 75 | 44.13 | 0.10 | 0.0394 | 9.9999 | 0.0206 | 9.9999 | 0.5242 | 0.7360 | 0.0487 | 0.2958 | 0.0662 | 0.4019 |
| 76 | 44.31 | 0.10 | 0.0447 | 9.9999 | 0.0255 | 9.9999 | 0.5695 | 0.7085 | 0.0289 | 0.2863 | 0.0406 | 0.4041 |
| 77 | 44.50 | 0.10 | 0.0409 | 9.9999 | 0.0223 | 9.9999 | 0.5466 | 0.7245 | 0.0286 | 0.2929 | 0.0394 | 0.4043 |
| 78 | 44.67 | 0.11 | 0.0509 | 9.9999 | 0.0281 | 9.9999 | 0.5512 | 0.6981 | 0.0294 | 0.2821 | 0.0421 | 0.4040 |
| 79 | 44.85 | 0.10 | 0.0479 | 9.9999 | 0.0263 | 9.9999 | 0.5481 | 0.7234 | 0.0288 | 0.2916 | 0.0398 | 0.4031 |
| 80 | 45.03 | 0.10 | 0.0463 | 9.9999 | 0.0262 | 9.9999 | 0.5649 | 0.7420 | 0.0288 | 0.3001 | 0.0388 | 0.4045 |
| 81 | 45.22 | 0.10 | 0.0510 | 9.9999 | 0.0272 | 9.9999 | 0.5324 | 0.7496 | 0.0282 | 0.3028 | 0.0376 | 0.4040 |
| 82 | 45.39 | 0.10 | 0.0448 | 9.9999 | 0.0238 | 9.9999 | 0.5324 | 0.7393 | 0.0279 | 0.2980 | 0.0377 | 0.4031 |
| 83 | 45.55 | 0.10 | 0.0487 | 9.9999 | 0.0261 | 9.9999 | 0.5350 | 0.7472 | 0.0288 | 0.3005 | 0.0385 | 0.4022 |
| 84 | 45.74 | 0.11 | 0.0479 | 9.9999 | 0.0251 | 9.9999 | 0.5230 | 0.7521 | 0.0283 | 0.3033 | 0.0376 | 0.4033 |
| 85 | 45.91 | 0.11 | 0.0440 | 9.9999 | 0.0238 | 9.9999 | 0.5421 | 0.7408 | 0.0282 | 0.2989 | 0.0380 | 0.4035 |
| 86 | 46.08 | 0.10 | 0.0479 | 9.9999 | 0.0263 | 9.9999 | 0.5481 | 0.7439 | 0.0286 | 0.2999 | 0.0384 | 0.4032 |
| 87 | 46.26 | 0.11 | 0.0524 | 9.9999 | 0.0301 | 9.9999 | 0.5736 | 0.7257 | 0.0283 | 0.2926 | 0.0389 | 0.4032 |
| 88 | 46.42 | 0.10 | 0.0525 | 9.9999 | 0.0285 | 9.9999 | 0.5420 | 0.7405 | 0.0285 | 0.2983 | 0.0384 | 0.4028 |
| 89 | 46.59 | 0.09 | 0.0432 | 9.9999 | 0.0237 | 9.9999 | 0.5499 | 0.7487 | 0.0273 | 0.3024 | 0.0364 | 0.4039 |
| 90 | 46.77 | 0.08 | 0.0371 | 9.9999 | 0.0205 | 9.9999 | 0.5541 | 0.7665 | 0.0272 | 0.3082 | 0.0354 | 0.4021 |
| 91 | 46.94 | 0.09 | 0.0401 | 9.9999 | 0.0228 | 9.9999 | 0.5700 | 0.7574 | 0.0275 | 0.3051 | 0.0363 | 0.4029 |
| 92 | 47.11 | 0.08 | 0.0340 | 9.9999 | 0.0193 | 9.9999 | 0.5693 | 0.7898 | 0.0260 | 0.3187 | 0.0329 | 0.4036 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | 81WOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 47.28 | 0.07 | 0.0364 | 9.9999 | 0.0204 | 9.9999 | 0.5620 | 0.7870 | 0.0530 | 0.3069 | 0.0674 | 0.3900 |
| 94 | 47.45 | 0.05 | 0.0271 | 9.9999 | 0.0145 | 9.9999 | 0.5370 | 0.8313 | 0.0434 | 0.3317 | 0.0522 | 0.3990 |
| 95 | 47.63 | 0.07 | 0.0349 | 9.9999 | 0.0188 | 9.9999 | 0.5402 | 0.7934 | 0.0564 | 0.3101 | 0.0711 | 0.3909 |
| 96 | 47.80 | 0.06 | 0.0364 | 9.9999 | 0.0195 | 9.9999 | 0.5372 | 0.8161 | 0.0549 | 0.3192 | 0.0673 | 0.3911 |
| 97 | 47.97 | 0.05 | 0.0272 | 9.9999 | 0.0139 | 9.9999 | 0.5129 | 0.8155 | 0.0546 | 0.3184 | 0.0670 | 0.3904 |
| 98 | 48.12 | 0.00 | 0.0217 | 9.9999 | 0.0110 | 9.9999 | 0.5069 | 0.8653 | 0.0553 | 0.3418 | 0.0639 | 0.3958 |
| 99 | 48.29 | -0.01 | 0.0186 | 9.9999 | 0.0085 | 9.9999 | 0.4570 | 0.9631 | 0.0558 | 0.3413 | 0.0647 | 0.3954 |
| 100 | 48.46 | -0.02 | 0.0193 | 9.9999 | 0.0089 | 9.9999 | 0.4611 | 0.8891 | 0.0563 | 0.3565 | 0.0633 | 0.4018 |
| 101 | 48.62 | -0.04 | 0.0140 | 9.9999 | 0.0051 | 9.9999 | 0.3643 | 0.8962 | 0.0588 | 0.3589 | 0.0656 | 0.4005 |
| 102 | 48.79 | -0.03 | 0.0132 | 9.9999 | 0.0047 | 9.9999 | 0.3561 | 0.8806 | 0.0558 | 0.3483 | 0.0634 | 0.3955 |
| 103 | 48.97 | -0.04 | 0.0131 | 9.9999 | 0.0060 | 9.9999 | 0.4580 | 0.9675 | 0.0584 | 0.3420 | 0.0673 | 0.3942 |
| 104 | 49.16 | -0.05 | 0.0140 | 9.9999 | 0.0045 | 9.9999 | 0.3214 | 0.8806 | 0.0576 | 0.3474 | 0.0654 | 0.3945 |
| 105 | 49.34 | -0.02 | 0.0132 | 9.9999 | 0.0047 | 9.9999 | 0.3561 | 0.8482 | 0.0547 | 0.3266 | 0.0645 | 0.3850 |
| 106 | 49.49 | -0.01 | 0.0155 | 9.9999 | 0.0055 | 9.9999 | 0.3548 | 0.8370 | 0.0544 | 0.3192 | 0.0650 | 0.3813 |
| 107 | 49.69 | -0.01 | 0.0124 | 9.9999 | 0.0050 | 9.9999 | 0.4032 | 0.8397 | 0.0544 | 0.3195 | 0.0648 | 0.3804 |
| 108 | 49.87 | -0.03 | 0.0125 | 9.9999 | 0.0037 | 9.9999 | 0.2960 | 0.8381 | 0.0550 | 0.3173 | 0.0656 | 0.3786 |
| 109 | 50.03 | -0.02 | 0.0125 | 9.9999 | 0.0037 | 9.9999 | 0.2960 | 0.8239 | 0.0544 | 0.3111 | 0.0660 | 0.3776 |
| 110 | 50.19 | -0.02 | 0.0140 | 9.9999 | 0.0048 | 9.9999 | 0.3429 | 0.8118 | 0.0540 | 0.3049 | 0.0665 | 0.3756 |
| 111 | 50.37 | 0.03 | 0.0210 | 9.9999 | 0.0084 | 9.9999 | 0.4000 | 0.8185 | 0.0492 | 0.3102 | 0.0601 | 0.3790 |
| 112 | 50.53 | -0.00 | 0.0194 | 9.9999 | 0.0089 | 9.9999 | 0.4588 | 0.8261 | 0.0494 | 0.3123 | 0.0598 | 0.3781 |
| 113 | 50.69 | 0.02 | 0.0233 | 9.9999 | 0.0108 | 9.9999 | 0.4635 | 0.8148 | 0.0466 | 0.3088 | 0.0572 | 0.3798 |
| 114 | 50.86 | 0.01 | 0.0281 | 9.9999 | 0.0124 | 9.9999 | 0.4429 | 0.8358 | 0.0494 | 0.3154 | 0.0591 | 0.3774 |
| 115 | 51.04 | 0.04 | 0.0241 | 9.9999 | 0.0118 | 9.9999 | 0.4896 | 0.8093 | 0.0476 | 0.3057 | 0.0588 | 0.3778 |
| 116 | 51.20 | 0.03 | 0.0218 | 9.9999 | 0.0104 | 9.9999 | 0.4771 | 0.8197 | 0.0459 | 0.3097 | 0.0580 | 0.3779 |
| 117 | 51.37 | 0.06 | 0.0335 | 9.9999 | 0.0175 | 9.9999 | 0.5240 | 0.8096 | 0.0489 | 0.3051 | 0.0604 | 0.3769 |
| 118 | 51.55 | 0.05 | 0.0336 | 9.9999 | 0.0169 | 9.9999 | 0.5045 | 0.8199 | 0.0475 | 0.3087 | 0.0579 | 0.3766 |
| 119 | 51.72 | 0.07 | 0.0343 | 9.9999 | 0.0191 | 9.9999 | 0.5585 | 0.8191 | 0.0492 | 0.3089 | 0.0601 | 0.3772 |
| 120 | 51.89 | 0.07 | 0.0327 | 9.9999 | 0.0184 | 9.9999 | 0.5644 | 0.8154 | 0.0484 | 0.3074 | 0.0594 | 0.3770 |
| 121 | 52.05 | 0.07 | 0.0336 | 9.9999 | 0.0169 | 9.9999 | 0.5045 | 0.8252 | 0.0475 | 0.3117 | 0.0576 | 0.3778 |
| 122 | 52.22 | 0.09 | 0.0343 | 9.9999 | 0.0185 | 9.9999 | 0.5409 | 0.8357 | 0.0468 | 0.3156 | 0.0560 | 0.3777 |
| 123 | 52.41 | 0.10 | 0.0405 | 9.9999 | 0.0237 | 9.9999 | 0.5866 | 0.8419 | 0.0469 | 0.3179 | 0.0557 | 0.3775 |
| 124 | 52.57 | 0.10 | 0.0358 | 9.9999 | 0.0212 | 9.9999 | 0.5938 | 0.8654 | 0.0449 | 0.3282 | 0.0519 | 0.3792 |
| 125 | 52.73 | 0.11 | 0.0428 | 9.9999 | 0.0259 | 9.9999 | 0.6042 | 0.8632 | 0.0452 | 0.3269 | 0.0524 | 0.3787 |
| 126 | 52.91 | 0.10 | 0.0420 | 9.9999 | 0.0252 | 9.9999 | 0.5990 | 0.8294 | 0.0461 | 0.3144 | 0.0556 | 0.3791 |
| 127 | 53.09 | 0.11 | 0.0420 | 9.9999 | 0.0255 | 9.9999 | 0.6062 | 0.8416 | 0.0454 | 0.3185 | 0.0539 | 0.3784 |
| 128 | 53.25 | 0.10 | 0.0404 | 9.9999 | 0.0254 | 9.9999 | 0.6278 | 0.7958 | 0.0476 | 0.3002 | 0.0598 | 0.3772 |
| 129 | 53.41 | 0.11 | 0.0382 | 9.9999 | 0.0229 | 9.9999 | 0.6010 | 0.8204 | 0.0470 | 0.3101 | 0.0573 | 0.3780 |
| 130 | 53.55 | 0.10 | 0.0389 | 9.9999 | 0.0236 | 9.9999 | 0.6082 | 0.7860 | 0.0510 | 0.2946 | 0.0649 | 0.3748 |
| 131 | 53.78 | 0.09 | 0.0413 | 9.9999 | 0.0245 | 9.9999 | 0.5922 | 0.7955 | 0.0540 | 0.2976 | 0.0679 | 0.3741 |
| 132 | 53.93 | 0.09 | 0.0405 | 9.9999 | 0.0254 | 9.9999 | 0.6262 | 0.7937 | 0.0521 | 0.2973 | 0.0656 | 0.3746 |
| 133 | 54.11 | 0.07 | 0.0305 | 9.9999 | 0.0180 | 9.9999 | 0.5921 | 0.8079 | 0.0547 | 0.3012 | 0.0677 | 0.3729 |
| 134 | 54.26 | 0.07 | 0.0344 | 9.9999 | 0.0205 | 9.9999 | 0.5977 | 0.7955 | 0.0537 | 0.2973 | 0.0675 | 0.3737 |
| 135 | 54.43 | 0.08 | 0.0368 | 9.9999 | 0.0217 | 9.9999 | 0.5913 | 0.8020 | 0.0507 | 0.3029 | 0.0632 | 0.3777 |
| 136 | 54.60 | 0.09 | 0.0360 | 9.9999 | 0.0219 | 9.9999 | 0.6100 | 0.8105 | 0.0539 | 0.3039 | 0.0665 | 0.3750 |
| 137 | 54.78 | 0.09 | 0.0354 | 9.9999 | 0.0213 | 9.9999 | 0.6034 | 0.8313 | 0.0535 | 0.3122 | 0.0644 | 0.3758 |
| 138 | 54.93 | 0.09 | 0.0393 | 9.9999 | 0.0229 | 9.9999 | 0.5842 | 0.8210 | 0.0540 | 0.3096 | 0.0658 | 0.3759 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 156 | 0.80 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 55.08 | 0.08 | 0.0401 | 9.9999 | 0.0239 | 9.9999 | 0.5975 | 0.8079 | 0.0546 | 0.3035 | 0.0676 | 0.3757 |
| 140 | 55.23 | 0.09 | 0.0370 | 9.9999 | 0.0214 | 9.9999 | 0.5799 | 0.7995 | 0.0512 | 0.3028 | 0.0640 | 0.3787 |
| 141 | 55.41 | 0.07 | 0.0393 | 9.9999 | 0.0229 | 9.9999 | 0.5842 | 0.8228 | 0.0549 | 0.3097 | 0.0667 | 0.3764 |
| 142 | 55.58 | 0.09 | 0.0386 | 9.9999 | 0.0216 | 9.9999 | 0.5610 | 0.8278 | 0.0535 | 0.3109 | 0.0646 | 0.3756 |
| 143 | 55.75 | 0.09 | 0.0410 | 9.9999 | 0.0227 | 9.9999 | 0.5550 | 0.8371 | 0.0567 | 0.3143 | 0.0678 | 0.3755 |
| 144 | 55.89 | 0.07 | 0.0346 | 9.9999 | 0.0187 | 9.9999 | 0.5420 | 0.8208 | 0.0517 | 0.3117 | 0.0630 | 0.3798 |
| 145 | 56.05 | 0.08 | 0.0338 | 9.9999 | 0.0190 | 9.9999 | 0.5638 | 0.8400 | 0.0531 | 0.3172 | 0.0632 | 0.3777 |
| 146 | 56.22 | 0.07 | 0.0439 | 9.9999 | 0.0237 | 9.9999 | 0.5411 | 0.8414 | 0.0508 | 0.3191 | 0.0604 | 0.3792 |
| 147 | 56.36 | 0.07 | 0.0361 | 9.9999 | 0.0188 | 9.9999 | 0.5222 | 0.8462 | 0.0540 | 0.3204 | 0.0638 | 0.3786 |
| 148 | 56.53 | 0.06 | 0.0345 | 9.9999 | 0.0167 | 9.9999 | 0.4855 | 0.8606 | 0.0531 | 0.3270 | 0.0617 | 0.3799 |
| 149 | 56.67 | 0.06 | 0.0359 | 9.9999 | 0.0174 | 9.9999 | 0.4860 | 0.8499 | 0.0539 | 0.3225 | 0.0634 | 0.3794 |
| 150 | 56.83 | 0.04 | 0.0343 | 9.9999 | 0.0157 | 9.9999 | 0.4591 | 0.8518 | 0.0529 | 0.3243 | 0.0621 | 0.3807 |
| 151 | 56.95 | 0.02 | 0.0342 | 9.9999 | 0.0166 | 9.9999 | 0.4868 | 0.8291 | 0.0509 | 0.3170 | 0.0614 | 0.3824 |
| 152 | 57.10 | 0.04 | 0.0374 | 9.9999 | 0.0181 | 9.9999 | 0.4853 | 0.8474 | 0.0520 | 0.3238 | 0.0614 | 0.3821 |
| 153 | 57.26 | 0.05 | 0.0296 | 9.9999 | 0.0132 | 9.9999 | 0.4475 | 0.8587 | 0.0515 | 0.3280 | 0.0600 | 0.3820 |
| 154 | 57.39 | 0.04 | 0.0266 | 9.9999 | 0.0098 | 9.9999 | 0.3698 | 0.8495 | 0.0499 | 0.3259 | 0.0587 | 0.3836 |
| 155 | 57.55 | 0.03 | 0.0305 | 9.9999 | 0.0129 | 9.9999 | 0.4243 | 0.8580 | 0.0486 | 0.3300 | 0.0566 | 0.3846 |
| 156 | 57.70 | 0.04 | 0.0375 | 9.9999 | 0.0157 | 9.9999 | 0.4198 | 0.8672 | 0.0526 | 0.3324 | 0.0607 | 0.3833 |
| 157 | 57.85 | 0.02 | 0.0305 | 9.9999 | 0.0132 | 9.9999 | 0.4342 | 0.8617 | 0.0475 | 0.3307 | 0.0551 | 0.3838 |
| 158 | 57.97 | 0.03 | 0.0343 | 9.9999 | 0.0148 | 9.9999 | 0.4327 | 0.8648 | 0.0505 | 0.3317 | 0.0584 | 0.3835 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.82 | 0.01 | -3.4307 | 11.4506 | 0.0740 | -0.0734 | 0.0015 | 1.1495 | 0.1705 | 0.9790 | -3.3377 |
| 2 | -5.83 | -0.01 | -3.4615 | 11.5213 | -0.0173 | 0.0123 | 0.0013 | 1.1536 | 0.1716 | 0.9820 | -3.3284 |
| 3 | -5.83 | -0.01 | -3.4603 | 11.5357 | 0.0601 | -0.0716 | 0.0015 | 1.1601 | 0.1721 | 0.9880 | -3.3337 |
| 4 | -5.81 | -0.01 | -3.2490 | 11.3076 | 0.0716 | -0.1051 | 0.0022 | 1.1466 | 0.1713 | 0.9753 | -3.4803 |
| 5 | -4.86 | -0.01 | -3.0294 | 10.3506 | 0.0065 | -0.0446 | 0.0018 | 1.0858 | 0.1583 | 0.9275 | -3.4187 |
| 6 | -3.11 | -0.00 | -2.6182 | 9.2739 | 0.1154 | -0.0791 | 0.0022 | 1.0087 | 0.1470 | 0.8617 | -3.5422 |
| 7 | -1.41 | -0.01 | -2.2030 | 8.1439 | 0.0044 | -0.0780 | 0.0026 | 0.9200 | 0.1376 | 0.7824 | -3.6967 |
| 8 | 0.38 | -0.01 | -1.7673 | 7.0487 | 0.0054 | -0.0451 | 0.0030 | 0.8302 | 0.1313 | 0.6990 | -3.9886 |
| 9 | 2.13 | -0.01 | -1.3814 | 6.0716 | -0.0097 | -0.0655 | 0.0034 | 0.7481 | 0.1271 | 0.6210 | -4.3952 |
| 10 | 3.91 | -0.01 | -0.9719 | 5.0234 | 0.0427 | -0.1268 | 0.0040 | 0.6594 | 0.1265 | 0.5330 | -5.1656 |
| 11 | 5.70 | -0.01 | -0.5971 | 4.1516 | 0.1079 | -0.1885 | 0.0047 | 0.5815 | 0.1265 | 0.4550 | -6.9528 |
| 12 | 7.55 | -0.01 | -0.2074 | 3.3163 | 0.0593 | -0.0751 | 0.0051 | 0.5060 | 0.1294 | 0.3766 | -15.9895 |
| 13 | 9.31 | -0.01 | 0.1802 | 2.4636 | 0.0171 | -0.0810 | 0.0057 | 0.4369 | 0.1321 | 0.3049 | 13.6722 |
| 14 | 11.18 | -0.01 | 0.5306 | 1.7401 | 0.0360 | -0.0316 | -0.0001 | 0.3829 | 0.1351 | 0.2478 | 3.2796 |
| 15 | 12.98 | -0.01 | 0.8898 | 1.1507 | 0.0109 | 0.0148 | 0.0007 | 0.3328 | 0.1384 | 0.1944 | 1.2932 |
| 16 | 14.83 | -0.02 | 1.1189 | 0.9618 | -0.0552 | 0.0538 | 0.0015 | 0.3050 | 0.1489 | 0.1561 | 0.8596 |
| 17 | 16.73 | -0.02 | 1.4362 | 0.9006 | -0.0512 | 0.1779 | 0.0087 | 0.2835 | 0.1626 | 0.1210 | 0.5574 |
| 18 | 18.62 | -0.03 | 1.7942 | 0.4650 | -0.2143 | 0.4815 | 0.0090 | 0.2377 | 0.1743 | 0.0634 | 0.2592 |
| 19 | 20.50 | -0.04 | 2.1964 | -0.0635 | -0.3720 | 0.8947 | 0.0347 | 0.1873 | 0.1868 | 0.0005 | -0.0289 |
| 20 | 22.38 | -0.03 | 2.5849 | -0.5482 | -0.3604 | 1.1266 | 0.0413 | 0.1325 | 0.2018 | -0.0693 | -0.2121 |
| 21 | 24.25 | -0.05 | 3.0360 | -1.1282 | -0.6521 | 1.8749 | 0.0401 | 0.0707 | 0.2157 | -0.1450 | -0.3716 |
| 22 | 26.17 | -0.05 | 3.5384 | -1.5681 | -0.5969 | 1.6294 | 0.0102 | -0.0079 | 0.2186 | -0.2265 | -0.4431 |
| 23 | 27.59 | 0.03 | 3.9692 | -1.5955 | 0.5821 | -0.9530 | 0.0512 | -0.0859 | 0.2140 | -0.3000 | -0.4020 |
| 24 | 27.90 | 0.02 | 3.9750 | -1.5711 | 0.5143 | -1.3211 | 0.0776 | -0.0790 | 0.2152 | -0.2933 | -0.3952 |
| 25 | 27.90 | 0.01 | 3.9359 | -1.5678 | 0.3732 | -0.9621 | 0.0575 | -0.0778 | 0.2151 | -0.2930 | -0.3983 |
| 26 | 27.90 | 0.01 | 3.9810 | -1.6317 | 0.4101 | -1.0431 | 0.0513 | -0.0862 | 0.2159 | -0.3022 | -0.4099 |
| 27 | 28.21 | 0.02 | 4.0920 | -1.6721 | 0.5579 | -1.5238 | 0.0784 | -0.0904 | 0.2180 | -0.3085 | -0.4084 |
| 28 | 28.48 | 0.04 | 4.2851 | -1.8037 | 0.7774 | -1.7892 | 0.0796 | -0.1205 | 0.2196 | -0.3401 | -0.4209 |
| 29 | 28.81 | 0.05 | 4.2898 | -1.9178 | 0.9754 | -2.3505 | 0.0933 | -0.1223 | 0.2234 | -0.3457 | -0.4471 |
| 30 | 29.12 | 0.05 | 4.4143 | -2.0101 | 0.9480 | -2.1674 | 0.0937 | -0.1297 | 0.2233 | -0.3530 | -0.4556 |
| 31 | 29.40 | 0.05 | 4.5219 | -2.0450 | 0.8726 | -1.8461 | 0.1068 | -0.1407 | 0.2250 | -0.3657 | -0.4522 |
| 32 | 29.68 | 0.07 | 4.6316 | -2.0671 | 1.1657 | -2.2470 | 0.1210 | -0.1661 | 0.2263 | -0.3924 | -0.4463 |
| 33 | 29.98 | 0.06 | 4.7320 | -2.2064 | 1.0655 | -2.0845 | 0.1210 | -0.1777 | 0.2263 | -0.4040 | -0.4663 |
| 34 | 30.25 | 0.08 | 4.8534 | -2.2690 | 1.1680 | -2.2154 | 0.1347 | -0.1939 | 0.2292 | -0.4231 | -0.4675 |
| 35 | 30.52 | 0.07 | 4.9899 | -2.3272 | 1.1476 | -2.3105 | 0.1418 | -0.1915 | 0.2306 | -0.4221 | -0.4664 |
| 36 | 30.80 | 0.08 | 5.1292 | -2.4215 | 1.2723 | -2.4942 | 0.1469 | -0.2079 | 0.2335 | -0.4414 | -0.4721 |
| 37 | 31.08 | 0.09 | 5.2070 | -2.4808 | 1.3833 | -2.7009 | 0.1495 | -0.2111 | 0.2340 | -0.4451 | -0.4764 |
| 38 | 31.35 | 0.08 | 5.3251 | -2.3492 | 1.2298 | -2.3155 | 0.1496 | -0.2264 | 0.2374 | -0.4638 | -0.4412 |
| 39 | 31.62 | 0.07 | 5.3308 | -2.3981 | 1.0873 | -1.9557 | 0.1425 | -0.2172 | 0.2361 | -0.4533 | -0.4499 |
| 40 | 31.90 | 0.09 | 5.5428 | -2.3996 | 1.3797 | -2.3782 | 0.1506 | -0.2504 | 0.2399 | -0.4904 | -0.4311 |
| 41 | 32.17 | 0.09 | 5.7216 | -2.4492 | 1.4146 | -2.8547 | 0.1453 | -0.2529 | 0.2429 | -0.4959 | -0.4281 |
| 42 | 32.44 | 0.09 | 5.8714 | -2.3950 | 1.3749 | -2.9973 | 0.1524 | -0.2712 | 0.2438 | -0.5151 | -0.4079 |
| 43 | 32.70 | 0.10 | 5.8332 | -2.4576 | 1.4866 | -2.9884 | 0.1523 | -0.2742 | 0.2450 | -0.5193 | -0.4213 |
| 44 | 32.96 | 0.10 | 6.0965 | -2.3613 | 1.6184 | -3.4983 | 0.1476 | -0.2829 | 0.2497 | -0.5327 | -0.3875 |
| 45 | 33.20 | 0.09 | 6.1891 | -2.3692 | 1.4357 | -3.3260 | 0.1280 | -0.2894 | 0.2501 | -0.5395 | -0.3628 |
| 46 | 33.48 | 0.10 | 6.3474 | -2.2701 | 1.4535 | -3.0700 | 0.1415 | -0.3116 | 0.2497 | -0.5613 | -0.3576 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.72 | 0.08 | 6.3891 | -2.2214 | 1.2563 | -2.7027 | 0.1412 | -0.3063 | 0.2471 | -0.5534 | -0.3477 |
| 48 | 33.95 | 0.08 | 6.4428 | -2.2306 | 1.2859 | -2.8784 | 0.1416 | -0.3015 | 0.2492 | -0.5507 | -0.3462 |
| 49 | 34.23 | 0.06 | 6.6069 | -2.0233 | 0.9317 | -2.1699 | 0.1283 | -0.3259 | 0.2496 | -0.5755 | -0.3062 |
| 50 | 34.48 | 0.06 | 6.7225 | -1.9715 | 1.0289 | -2.3754 | 0.1487 | -0.3479 | 0.2500 | -0.5979 | -0.2933 |
| 51 | 34.70 | 0.04 | 6.7187 | -1.9329 | 0.7361 | -1.7814 | 0.1283 | -0.3403 | 0.2505 | -0.5908 | -0.2877 |
| 52 | 34.96 | 0.03 | 6.8534 | -1.7833 | 0.5535 | -1.6095 | 0.1221 | -0.3466 | 0.2492 | -0.5958 | -0.2602 |
| 53 | 35.19 | 0.05 | 6.9040 | -1.7888 | 0.7675 | -1.7302 | 0.1096 | -0.3652 | 0.2449 | -0.6101 | -0.2591 |
| 54 | 35.42 | 0.03 | 6.9240 | -1.7492 | 0.3796 | -0.8971 | 0.0368 | -0.3705 | 0.2417 | -0.6122 | -0.2524 |
| 55 | 35.67 | 0.02 | 7.0592 | -1.7563 | 0.2124 | -0.3074 | 0.0235 | -0.3701 | 0.2395 | -0.6096 | -0.2488 |
| 56 | 35.90 | -0.00 | 7.1903 | -1.8227 | -0.0251 | 0.1005 | -0.0224 | -0.3880 | 0.2400 | -0.6280 | -0.2535 |
| 57 | 36.13 | 0.03 | 7.2071 | -1.8242 | 0.4449 | -0.7658 | 0.0638 | -0.3986 | 0.2379 | -0.6365 | -0.2531 |
| 58 | 36.38 | 0.03 | 7.3545 | -1.8560 | 0.3062 | -0.1533 | 0.0175 | -0.4116 | 0.2382 | -0.6498 | -0.2524 |
| 59 | 36.61 | 0.02 | 7.4652 | -1.8459 | 0.2610 | -0.2276 | 0.0313 | -0.4293 | 0.2412 | -0.6705 | -0.2473 |
| 60 | 36.85 | 0.02 | 7.5098 | -1.7691 | 0.2193 | -0.2231 | 0.0447 | -0.4192 | 0.2412 | -0.6604 | -0.2356 |
| 61 | 37.09 | 0.04 | 7.6232 | -1.9917 | 0.4555 | -0.4464 | 0.0842 | -0.4259 | 0.2467 | -0.6727 | -0.2613 |
| 62 | 37.32 | 0.01 | 7.7253 | -2.0342 | 0.0526 | 0.0146 | 0.0316 | -0.4512 | 0.2416 | -0.6929 | -0.2633 |
| 63 | 37.57 | 0.04 | 7.9235 | -2.0325 | 0.3998 | -0.4385 | 0.0658 | -0.4649 | 0.2437 | -0.7087 | -0.2585 |
| 64 | 37.81 | 0.02 | 7.9593 | -2.0744 | 0.2083 | -0.1795 | 0.0784 | -0.4662 | 0.2458 | -0.7121 | -0.2606 |
| 65 | 38.06 | 0.03 | 8.0355 | -2.1479 | 0.3053 | -0.3843 | 0.0791 | -0.4601 | 0.2484 | -0.7086 | -0.2673 |
| 66 | 38.27 | -0.13 | 8.1252 | -2.0272 | 0.3636 | -0.5408 | 0.0732 | -0.4858 | 0.2538 | -0.7396 | -0.2495 |
| 67 | 38.52 | 0.02 | 8.1568 | -2.0788 | 0.2831 | -0.3050 | 0.0340 | -0.4673 | 0.2509 | -0.7183 | -0.2569 |
| 68 | 38.73 | 0.02 | 8.2773 | -2.1903 | 0.3339 | -0.5589 | 0.0868 | -0.4686 | 0.2606 | -0.7293 | -0.2646 |
| 69 | 38.96 | 0.04 | 8.4436 | -2.2257 | 0.4735 | -0.6198 | 0.1135 | -0.5067 | 0.2534 | -0.7601 | -0.2636 |
| 70 | 39.18 | 0.03 | 8.5742 | -2.3418 | 0.4099 | -0.4950 | 0.1202 | -0.5093 | 0.2563 | -0.7656 | -0.2731 |
| 71 | 39.40 | 0.04 | 8.6292 | -2.5754 | 0.4922 | -0.2861 | 0.1585 | -0.4896 | 0.2648 | -0.7544 | -0.2985 |
| 72 | 39.61 | 0.02 | 8.7347 | -2.3522 | 0.3433 | -0.2366 | 0.0942 | -0.5125 | 0.2660 | -0.7785 | -0.2693 |
| 73 | 39.83 | 0.02 | 8.9076 | -2.5128 | 0.2861 | 0.2798 | 0.1186 | -0.5327 | 0.2626 | -0.7953 | -0.2821 |
| 74 | 40.03 | 0.03 | 8.9542 | -2.4060 | 0.4040 | -0.1096 | 0.1329 | -0.5121 | 0.2597 | -0.7718 | -0.2717 |
| 75 | 40.32 | 0.03 | 8.9762 | -2.4042 | 0.3868 | 0.0929 | 0.1130 | -0.5459 | 0.2610 | -0.8069 | -0.2678 |
| 76 | 40.53 | 0.03 | 9.0321 | -2.5554 | 0.3681 | -0.0055 | 0.1136 | -0.5485 | 0.2626 | -0.8111 | -0.2829 |
| 77 | 40.75 | 0.02 | 9.0813 | -2.4203 | 0.1507 | 0.3140 | 0.1325 | -0.5505 | 0.2568 | -0.8073 | -0.2665 |
| 78 | 40.94 | 0.02 | 9.1723 | -2.5399 | 0.1627 | 0.5568 | 0.1577 | -0.5398 | 0.2689 | -0.8087 | -0.2769 |
| 79 | 41.16 | 0.01 | 9.2955 | -2.6462 | 0.1424 | 0.4271 | 0.1066 | -0.5521 | 0.2576 | -0.8097 | -0.2859 |
| 80 | 41.36 | 0.01 | 9.3492 | -2.6701 | 0.1147 | 0.4184 | 0.1070 | -0.5723 | 0.2656 | -0.8379 | -0.2856 |
| 81 | 41.56 | 0.00 | 9.4862 | -2.6979 | 0.0896 | 0.7438 | 0.0932 | -0.5844 | 0.2676 | -0.8520 | -0.2844 |
| 82 | 41.75 | 0.02 | 9.4639 | -2.8073 | 0.2050 | 0.8551 | 0.1119 | -0.5822 | 0.2693 | -0.8515 | -0.2906 |
| 83 | 41.96 | 0.02 | 9.6236 | -2.8254 | 0.2936 | 0.4353 | 0.0943 | -0.5864 | 0.2575 | -0.8439 | -0.2936 |
| 84 | 42.15 | 0.00 | 9.6255 | -2.9004 | 0.0959 | 0.3203 | 0.0822 | -0.5978 | 0.2639 | -0.8617 | -0.3013 |
| 85 | 42.33 | -0.02 | 9.7343 | -2.9212 | -0.1546 | 0.5201 | 0.1019 | -0.5908 | 0.2580 | -0.8488 | -0.3001 |
| 86 | 42.52 | 0.01 | 9.8780 | -2.9279 | 0.1088 | 0.8508 | 0.1264 | -0.5935 | 0.2739 | -0.8675 | -0.2964 |
| 87 | 42.70 | 0.02 | 9.8697 | -2.9645 | 0.2859 | 0.2795 | 0.1218 | -0.6054 | 0.2605 | -0.8650 | -0.3004 |
| 88 | 42.87 | 0.01 | 9.9249 | -3.0303 | 0.2387 | -0.3310 | 0.0594 | -0.6227 | 0.2563 | -0.8791 | -0.3053 |
| 89 | 43.04 | 0.02 | 9.9532 | -3.0220 | 0.3592 | -0.1576 | 0.0783 | -0.6165 | 0.2605 | -0.8771 | -0.3036 |
| 90 | 43.24 | 0.03 | 10.2090 | -3.1572 | 0.4764 | -0.3024 | 0.0730 | -0.6366 | 0.2638 | -0.9005 | -0.3093 |
| 91 | 43.43 | 0.01 | 10.1629 | -3.0639 | 0.1874 | 0.7771 | 0.1276 | -0.6108 | 0.2735 | -0.8844 | -0.3015 |
| 92 | 43.61 | -0.01 | 10.2220 | -3.1114 | -0.0043 | 0.5078 | 0.0904 | -0.6208 | 0.2743 | -0.8952 | -0.3044 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.77 | -0.01 | 10.3393 | -3.2505 | 0.0974 | 0.3417 | 0.1237 | -0.6275 | 0.2713 | -0.8989 | -0.3144 |
| 94 | 43.97 | -0.00 | 10.4275 | -3.2983 | 0.3656 | -0.3379 | 0.0936 | -0.6344 | 0.2676 | -0.9021 | -0.3163 |
| 95 | 44.15 | -0.01 | 10.5772 | -3.2147 | 0.1707 | 0.4350 | 0.1306 | -0.6078 | 0.2701 | -0.8780 | -0.3039 |
| 96 | 44.33 | -0.01 | 10.5667 | -3.2980 | 0.2046 | 0.2874 | 0.1245 | -0.6346 | 0.2768 | -0.9115 | -0.3121 |
| 97 | 44.52 | 0.01 | 10.6487 | -3.2645 | 0.5281 | -0.3869 | 0.1204 | -0.6349 | 0.2676 | -0.9026 | -0.3066 |
| 98 | 44.72 | -0.02 | 10.8157 | -3.5372 | -0.1193 | 2.0481 | 0.1317 | -0.6164 | 0.2982 | -0.9146 | -0.3270 |
| 99 | 44.91 | -0.01 | 10.8595 | -3.5220 | 0.2077 | 0.6322 | 0.0915 | -0.6571 | 0.2751 | -0.9323 | -0.3234 |
| 100 | 45.06 | -0.03 | 10.8027 | -3.2627 | -0.0925 | 0.9381 | 0.0715 | -0.6180 | 0.2792 | -0.8973 | -0.3020 |
| 101 | 45.25 | -0.03 | 10.9519 | -3.5191 | -0.1677 | 1.0777 | 0.0778 | -0.6560 | 0.2796 | -0.9357 | -0.3213 |
| 102 | 45.44 | 0.02 | 10.9717 | -3.3448 | 0.4125 | 0.6239 | 0.0732 | -0.6282 | 0.2793 | -0.9076 | -0.3049 |
| 103 | 45.61 | -0.02 | 11.1122 | -3.5216 | -0.0200 | 1.0203 | 0.0599 | -0.6742 | 0.2801 | -0.9543 | -0.3169 |
| 104 | 45.77 | -0.03 | 11.1612 | -3.5227 | 0.0028 | 0.3735 | 0.0497 | -0.6715 | 0.2742 | -0.9458 | -0.3156 |
| 105 | 45.95 | 0.01 | 11.2575 | -3.6699 | 0.2666 | 1.8175 | 0.0503 | -0.6273 | 0.2995 | -0.9268 | -0.3260 |
| 106 | 46.13 | -0.05 | 11.3101 | -3.5600 | -0.3397 | 1.4951 | 0.0400 | -0.6580 | 0.2842 | -0.9423 | -0.3148 |
| 107 | 46.32 | 0.02 | 11.4213 | -3.6707 | 0.4179 | 0.7365 | 0.0161 | -0.6401 | 0.2846 | -0.9248 | -0.3214 |
| 108 | 46.49 | -0.04 | 11.5789 | -3.8588 | -0.3300 | 2.2242 | 0.0444 | -0.6621 | 0.2981 | -0.9602 | -0.3333 |
| 109 | 46.66 | -0.04 | 11.5442 | -3.7271 | -0.3475 | 2.1625 | 0.0382 | -0.6494 | 0.3044 | -0.9538 | -0.3229 |
| 110 | 46.84 | -0.00 | 11.6285 | -3.7314 | 0.0694 | 1.9911 | 0.0449 | -0.6420 | 0.3028 | -0.9448 | -0.3209 |
| 111 | 47.02 | -0.02 | 11.7615 | -3.9873 | -0.2130 | 1.8362 | 0.0593 | -0.6645 | 0.3044 | -0.9689 | -0.3309 |
| 112 | 47.19 | -0.01 | 11.8142 | -3.7088 | 0.0175 | 1.7700 | 0.0595 | -0.6596 | 0.3002 | -0.9598 | -0.3139 |
| 113 | 47.37 | -0.02 | 11.9861 | -4.1343 | -0.2021 | 2.5925 | 0.0569 | -0.6956 | 0.3165 | -1.0120 | -0.3449 |
| 114 | 47.56 | -0.01 | 11.9970 | -3.7344 | -0.1686 | 2.9903 | 0.0430 | -0.6390 | 0.3241 | -0.9631 | -0.3113 |
| 115 | 47.72 | -0.01 | 12.0312 | -3.9931 | -0.0315 | 2.1774 | 0.0716 | -0.6851 | 0.3178 | -1.0028 | -0.3319 |
| 116 | 47.88 | -0.00 | 12.0844 | -3.9524 | -0.0522 | 2.8403 | 0.0758 | -0.6343 | 0.3390 | -0.9733 | -0.3271 |
| 117 | 48.07 | -0.05 | 12.2073 | -3.8851 | -0.5551 | 3.1984 | 0.0371 | -0.6424 | 0.3562 | -0.9986 | -0.3183 |
| 118 | 48.24 | -0.05 | 12.2596 | -4.0971 | -0.6497 | 3.7740 | -0.0036 | -0.6193 | 0.3729 | -0.9922 | -0.3342 |
| 119 | 48.40 | -0.02 | 12.2673 | -4.0488 | -0.3212 | 3.4719 | -0.0095 | -0.6447 | 0.3518 | -0.9965 | -0.3301 |
| 120 | 48.58 | -0.02 | 12.3615 | -4.0747 | -0.2022 | 3.3947 | -0.0025 | -0.6052 | 0.3681 | -0.9733 | -0.3296 |
| 121 | 48.74 | -0.01 | 12.4403 | -4.1566 | -0.2223 | 3.7682 | -0.1066 | -0.5487 | 0.3945 | -0.9432 | -0.3341 |
| 122 | 48.91 | -0.02 | 12.4634 | -4.2261 | -0.3440 | 3.8071 | -0.1132 | -0.5687 | 0.3839 | -0.9526 | -0.3391 |
| 123 | 49.09 | -0.01 | 12.5878 | -4.4853 | -0.1431 | 3.4289 | -0.1374 | -0.5879 | 0.3961 | -0.9840 | -0.3563 |
| 124 | 49.25 | -0.01 | 12.6131 | -4.6752 | -0.0497 | 3.3877 | -0.1566 | -0.5125 | 0.4257 | -0.9382 | -0.3707 |
| 125 | 49.45 | 0.08 | 12.9643 | -5.0422 | 0.9276 | 2.7618 | -0.1034 | -0.5427 | 0.4408 | -0.9835 | -0.3889 |
| 126 | 49.65 | 0.03 | 13.0943 | -5.1616 | 0.4837 | 2.6079 | -0.0887 | -0.5387 | 0.4535 | -0.9922 | -0.3942 |
| 127 | 49.83 | 0.07 | 13.2496 | -5.4502 | 0.7614 | 2.7319 | -0.0635 | -0.5220 | 0.4627 | -0.9847 | -0.4113 |
| 128 | 49.99 | 0.04 | 13.2530 | -5.6477 | 0.6493 | 2.9694 | -0.0512 | -0.4813 | 0.4844 | -0.9658 | -0.4261 |
| 129 | 50.18 | -0.03 | 13.7595 | -6.6541 | -0.2802 | 3.9139 | -0.1999 | -0.5493 | 0.4582 | -1.0075 | -0.4836 |
| 130 | 50.38 | -0.00 | 13.8879 | -6.5700 | 0.0307 | 3.8731 | -0.1806 | -0.5804 | 0.4610 | -1.0414 | -0.4731 |
| 131 | 50.55 | 0.02 | 14.0538 | -6.7602 | 0.2542 | 3.7096 | -0.1992 | -0.5854 | 0.4622 | -1.0476 | -0.4810 |
| 132 | 50.72 | 0.02 | 14.0325 | -6.7580 | 0.2790 | 3.6626 | -0.2054 | -0.5687 | 0.4608 | -1.0295 | -0.4816 |
| 133 | 50.88 | -0.03 | 14.1322 | -6.8134 | -0.1949 | 3.4424 | -0.2032 | -0.5386 | 0.4725 | -1.0111 | -0.4821 |
| 134 | 51.05 | 0.03 | 14.1794 | -6.9500 | 0.4447 | 3.7123 | -0.1991 | -0.5875 | 0.4770 | -1.0646 | -0.4901 |
| 135 | 51.23 | -0.00 | 14.2907 | -7.0466 | 0.1634 | 3.5299 | -0.2166 | -0.5274 | 0.4903 | -1.0176 | -0.4931 |
| 136 | 51.42 | 0.02 | 14.6560 | -7.4466 | 0.3903 | 3.1842 | -0.2014 | -0.5458 | 0.5123 | -1.0581 | -0.5081 |
| 137 | 51.60 | 0.00 | 14.8517 | -7.3790 | 0.2249 | 2.8808 | -0.1670 | -0.5063 | 0.5318 | -1.0380 | -0.4968 |
| 138 | 51.77 | 0.03 | 14.9332 | -7.5695 | 0.5419 | 2.7189 | -0.1348 | -0.5064 | 0.5292 | -1.0355 | -0.5069 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.92 | 0.02 | 14.8087 | -7.5023 | 0.4365 | 2.7943 | -0.1159 | -0.4614 | 0.5249 | -0.9853 | -0.5066 |
| 140 | 52.10 | 0.02 | 14.7623 | -7.4656 | 0.5051 | 2.8093 | -0.1162 | -0.4596 | 0.5253 | -0.9849 | -0.5057 |
| 141 | 52.28 | 0.03 | 15.0300 | -7.6120 | 0.5773 | 2.8904 | -0.1159 | -0.5078 | 0.5249 | -1.0326 | -0.5065 |
| 142 | 52.43 | 0.04 | 14.8723 | -7.6113 | 0.6752 | 2.6838 | -0.1094 | -0.4913 | 0.5232 | -1.0144 | -0.5118 |
| 143 | 52.59 | 0.06 | 14.9280 | -7.7275 | 0.9289 | 2.8401 | -0.1171 | -0.5250 | 0.5248 | -1.0497 | -0.5177 |
| 144 | 52.76 | 0.04 | 14.9672 | -7.7313 | 0.6794 | 3.0220 | -0.1104 | -0.4918 | 0.5261 | -1.0179 | -0.5165 |
| 145 | 52.94 | 0.03 | 15.0249 | -7.9188 | 0.5264 | 2.9603 | -0.1225 | -0.4909 | 0.5281 | -1.0189 | -0.5204 |
| 146 | 53.10 | 0.04 | 15.0477 | -7.8342 | 0.7116 | 2.5919 | -0.1215 | -0.5377 | 0.5392 | -1.0679 | -0.5206 |
| 147 | 53.27 | 0.06 | 15.0686 | -7.9180 | 0.9195 | 2.4371 | -0.1273 | -0.5091 | 0.5388 | -1.0478 | -0.5255 |
| 148 | 53.43 | 0.03 | 15.0924 | -7.8352 | 0.6896 | 2.4399 | -0.1076 | -0.4706 | 0.5454 | -1.0160 | -0.5191 |
| 149 | 53.59 | 0.03 | 15.1508 | -7.9404 | 0.7436 | 2.4240 | -0.1268 | -0.5045 | 0.5450 | -1.0494 | -0.5241 |
| 150 | 53.76 | 0.03 | 15.2065 | -8.0739 | 0.6853 | 2.3417 | -0.1327 | -0.5102 | 0.5430 | -1.0531 | -0.5310 |
| 151 | 53.90 | 0.03 | 15.2616 | -8.0543 | 0.5870 | 2.5479 | -0.1203 | -0.5218 | 0.5451 | -1.0669 | -0.5278 |
| 152 | 54.06 | 0.04 | 15.2890 | -8.0343 | 0.7382 | 2.3437 | -0.1193 | -0.4795 | 0.5590 | -1.0395 | -0.5255 |
| 153 | 54.22 | 0.01 | 15.3392 | -8.1563 | 0.4453 | 2.4290 | -0.1321 | -0.5067 | 0.5639 | -1.0706 | -0.5317 |
| 154 | 54.38 | 0.04 | 15.3551 | -7.9554 | 0.8220 | 2.3828 | -0.0811 | -0.5094 | 0.5660 | -1.0754 | -0.5181 |
| 155 | 54.52 | 0.03 | 15.2085 | -7.8763 | 0.6360 | 2.1729 | -0.0934 | -0.5039 | 0.5618 | -1.0657 | -0.5179 |
| 156 | 54.69 | 0.03 | 15.3423 | -8.0855 | 0.6690 | 2.0054 | -0.1246 | -0.5327 | 0.5631 | -1.0958 | -0.5270 |
| 157 | 54.85 | 0.00 | 15.5053 | -8.1187 | 0.4137 | 2.3362 | -0.1056 | -0.5162 | 0.5627 | -1.0789 | -0.5236 |
| 158 | 55.00 | 0.01 | 15.5408 | -8.1601 | 0.5000 | 2.1636 | -0.1049 | -0.5022 | 0.5727 | -1.0749 | -0.5251 |
| 159 | 55.15 | -0.01 | 15.5295 | -8.0886 | 0.3353 | 2.1450 | -0.0532 | -0.5100 | 0.5591 | -1.0691 | -0.5209 |
| 160 | 55.32 | 0.01 | 15.6371 | -8.0928 | 0.5743 | 2.0247 | -0.0848 | -0.5294 | 0.5731 | -1.1025 | -0.5175 |
| 161 | 55.46 | -0.01 | 15.6099 | -7.9873 | 0.3616 | 2.1234 | -0.0337 | -0.5379 | 0.5649 | -1.1028 | -0.5117 |
| 162 | 55.62 | -0.00 | 15.5365 | -7.9643 | 0.4234 | 1.7407 | -0.0388 | -0.5263 | 0.5673 | -1.0936 | -0.5126 |
| 163 | 55.77 | 0.02 | 15.4416 | -7.9067 | 0.6428 | 1.7862 | -0.0269 | -0.5505 | 0.5660 | -1.1165 | -0.5120 |
| 164 | 55.93 | -0.00 | 15.6495 | -8.0824 | 0.4444 | 1.8922 | -0.0200 | -0.5618 | 0.5723 | -1.1341 | -0.5165 |
| 165 | 56.09 | -0.01 | 15.6814 | -8.0814 | 0.3294 | 1.7514 | -0.0256 | -0.5826 | 0.5689 | -1.1515 | -0.5153 |
| 166 | 56.23 | 0.02 | 15.6172 | -7.9859 | 0.6754 | 1.6098 | -0.0130 | -0.5577 | 0.5724 | -1.1301 | -0.5114 |
| 167 | 56.38 | -0.01 | 15.5625 | -8.0955 | 0.4102 | 1.7439 | -0.0133 | -0.5693 | 0.5670 | -1.1363 | -0.5202 |
| 168 | 56.55 | -0.03 | 15.6839 | -8.0606 | 0.1291 | 1.5636 | -0.0115 | -0.5557 | 0.5674 | -1.1231 | -0.5139 |
| 169 | 56.69 | -0.06 | 15.7328 | -8.0600 | -0.0264 | 1.7203 | 0.0012 | -0.5564 | 0.5741 | -1.1305 | -0.5123 |
| 170 | 56.85 | 0.01 | 15.6930 | -8.0477 | 0.6923 | 1.3897 | 0.0137 | -0.5705 | 0.5791 | -1.1496 | -0.5128 |
| 171 | 57.01 | -0.01 | 15.8590 | -8.0021 | 0.3467 | 1.5534 | 0.0144 | -0.5910 | 0.5775 | -1.1685 | -0.5046 |
| 172 | 57.14 | -0.03 | 15.5893 | -7.7732 | 0.2006 | 1.3564 | 0.0404 | -0.5618 | 0.5833 | -1.1451 | -0.4986 |
| 173 | 57.31 | -0.02 | 15.8057 | -7.8639 | 0.3890 | 1.3061 | 0.0408 | -0.6116 | 0.5696 | -1.1812 | -0.4975 |
| 174 | 57.43 | -0.04 | 15.6934 | -7.7718 | 0.2332 | 1.1885 | 0.0285 | -0.5917 | 0.5712 | -1.1629 | -0.4952 |
| 175 | 57.60 | -0.08 | 15.8688 | -6.8518 | -0.1114 | -0.0002 | -0.0039 | -0.7438 | 0.4939 | -1.2376 | -0.4318 |
| 176 | 57.74 | -0.14 | 15.7902 | -7.3953 | -0.7297 | -0.2276 | -0.0693 | -0.6877 | 0.5080 | -1.1956 | -0.4683 |
| 177 | 57.88 | -0.12 | 15.8260 | -7.6405 | -0.5489 | -0.3864 | -0.0624 | -0.6575 | 0.5550 | -1.2125 | -0.4828 |
| 178 | 58.02 | -0.13 | 15.7800 | -7.8307 | -0.7388 | -0.5358 | -0.0692 | -0.5854 | 0.6025 | -1.1879 | -0.4962 |
| 179 | 58.17 | -0.13 | 15.8572 | -7.9154 | -0.5417 | -0.8450 | -0.0301 | -0.6067 | 0.6065 | -1.2132 | -0.4992 |
| 180 | 58.22 | -0.15 | 15.9630 | -7.9967 | -0.7088 | -0.6796 | -0.0430 | -0.6169 | 0.6077 | -1.2246 | -0.5010 |
| 181 | 58.21 | -0.13 | 15.8418 | -7.9506 | -0.6871 | -0.9595 | -0.0301 | -0.5793 | 0.6173 | -1.1966 | -0.5019 |
| 182 | 58.22 | -0.09 | 15.9232 | -7.9189 | -0.1558 | -1.0407 | -0.0420 | -0.5965 | 0.6102 | -1.2067 | -0.4973 |
| 183 | 58.23 | -0.13 | 15.8999 | -7.8691 | -0.5695 | -0.6526 | -0.0365 | -0.6089 | 0.6193 | -1.2282 | -0.4949 |
| 184 | 58.22 | -0.13 | 15.9509 | -7.9725 | -0.6057 | -0.7766 | -0.0299 | -0.5891 | 0.6143 | -1.2034 | -0.4998 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 5 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 58.22 | -0.14 | 15.8566 | -7.9142 | -0.5884 | -0.9277 | -0.0428 | -0.5795 | 0.6195 | -1.1990 | -0.4991 |
| 186 | 58.22 | -0.14 | 15.9017 | -8.0369 | -0.8196 | -0.6683 | -0.0306 | -0.5817 | 0.6181 | -1.1998 | -0.5054 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | 31 OF 31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.82 | 0.01 | 0.0062 | 0.0012 | 0.0042 | 0.1935 | 0.6774 | -0.9626 | -0.0238 | -0.4473 | 0.0248 | 0.4647 |
| 2 | -5.93 | -0.01 | 0.0081 | 0.0015 | 0.0054 | 0.1852 | 0.6667 | -0.9613 | -0.0235 | -0.4472 | 0.0245 | 0.4652 |
| 3 | -5.83 | -0.01 | 0.0030 | 0.0007 | 0.0032 | 0.2333 | 1.0667 | -0.9642 | -0.0238 | -0.4487 | 0.0247 | 0.4654 |
| 4 | -5.91 | -0.01 | 0.0073 | 0.0018 | 0.0054 | 0.2466 | 0.7397 | -0.9539 | -0.0234 | -0.4433 | 0.0246 | 0.4648 |
| 5 | -4.86 | -0.01 | 0.0050 | 0.0010 | 0.0032 | 0.2000 | 0.6400 | -0.8678 | -0.0236 | -0.4107 | 0.0273 | 0.4733 |
| 6 | -3.11 | -0.00 | 0.0023 | 0.0008 | 0.0025 | 0.3478 | 1.0870 | -0.7772 | -0.0210 | -0.3755 | 0.0271 | 0.4831 |
| 7 | -1.41 | -0.01 | 0.0084 | 0.0013 | 0.0033 | 0.1548 | 0.3929 | -0.6777 | -0.0194 | -0.3367 | 0.0287 | 0.4968 |
| 8 | 0.38 | -0.01 | 0.0104 | 0.0014 | 0.0036 | 0.1346 | 0.3462 | -0.5749 | -0.0173 | -0.2949 | 0.0302 | 0.5130 |
| 9 | 2.13 | -0.01 | 0.0120 | 0.0007 | 0.0032 | 0.0583 | 0.2667 | -0.4783 | -0.0177 | -0.2497 | 0.0371 | 0.5221 |
| 10 | 3.91 | -0.01 | 0.0113 | 0.0007 | 0.0031 | 0.0619 | 0.2743 | -0.3855 | -0.0142 | -0.2030 | 0.0369 | 0.5268 |
| 11 | 5.70 | -0.01 | 0.0104 | 0.0005 | 0.0051 | 0.0481 | 0.4904 | -0.3055 | -0.0107 | -0.1582 | 0.0351 | 0.5179 |
| 12 | 7.55 | -0.01 | 0.0074 | 0.0006 | 0.0066 | 0.0811 | 0.8919 | -0.2266 | -0.0080 | -0.1211 | 0.0354 | 0.5347 |
| 13 | 9.31 | -0.01 | 0.0047 | 0.0007 | 0.0057 | 0.1489 | 1.2128 | -0.1494 | -0.0062 | -0.0831 | 0.0416 | 0.5560 |
| 14 | 11.18 | -0.01 | 0.0061 | 0.0006 | 0.0058 | 0.0984 | 0.9508 | -0.0745 | -0.0037 | -0.0431 | 0.0498 | 0.5787 |
| 15 | 12.98 | -0.01 | 0.0009 | 0.0001 | 0.0040 | 0.1111 | 4.4444 | -0.0240 | -0.0009 | -0.0216 | 0.0375 | 0.9000 |
| 16 | 14.83 | -0.02 | -0.0044 | -0.0008 | 0.0034 | 0.1818 | -0.7727 | 0.0050 | 0.0055 | -0.0098 | 1.1000 | -1.9600 |
| 17 | 16.73 | -0.02 | -0.0011 | -0.0006 | 0.0103 | 0.5455 | -9.3636 | 0.0238 | 0.0141 | -0.0034 | 0.5924 | -0.1429 |
| 18 | 18.62 | -0.03 | -0.0133 | -0.0022 | 0.0042 | 0.1654 | -0.3158 | 0.0565 | 0.0214 | 0.0110 | 0.3794 | 0.1950 |
| 19 | 20.50 | -0.04 | -0.0151 | -0.0037 | 0.0101 | 0.2450 | -0.6689 | 0.0992 | 0.0281 | 0.0289 | 0.2828 | 0.2909 |
| 20 | 22.38 | -0.03 | -0.0285 | -0.0059 | 0.0083 | 0.2077 | -0.2923 | 0.1378 | 0.0328 | 0.0462 | 0.2378 | 0.3353 |
| 21 | 24.25 | -0.05 | -0.0802 | -0.0069 | -0.0101 | 0.0862 | 0.1262 | 0.1733 | 0.0378 | 0.0623 | 0.2180 | 0.3597 |
| 22 | 26.17 | -0.05 | -0.1115 | -0.0010 | -0.0373 | 0.0090 | 0.3342 | 0.2372 | 0.0423 | 0.0907 | 0.1783 | 0.3823 |
| 23 | 27.89 | 0.03 | 0.1324 | 0.0034 | 0.0626 | 0.0257 | 0.4731 | 0.3639 | 0.0447 | 0.1486 | 0.1228 | 0.4063 |
| 24 | 27.90 | 0.02 | 0.1648 | 0.0037 | 0.0813 | 0.0225 | 0.4930 | 0.3640 | 0.0443 | 0.1492 | 0.1217 | 0.4099 |
| 25 | 27.90 | 0.01 | 0.0975 | 0.0027 | 0.0538 | 0.0277 | 0.5519 | 0.3495 | 0.0442 | 0.1421 | 0.1264 | 0.4065 |
| 26 | 27.90 | 0.01 | 0.1338 | 0.0043 | 0.0649 | 0.0322 | 0.4854 | 0.3531 | 0.0443 | 0.1430 | 0.1254 | 0.4072 |
| 27 | 28.21 | 0.02 | 0.2014 | 0.0059 | 0.0969 | 0.0294 | 0.4811 | 0.3846 | 0.0449 | 0.1610 | 0.1167 | 0.4187 |
| 28 | 28.48 | 0.04 | 0.1895 | 0.0052 | 0.0896 | 0.0275 | 0.4728 | 0.3972 | 0.0454 | 0.1666 | 0.1143 | 0.4195 |
| 29 | 28.81 | 0.05 | 0.2391 | 0.0059 | 0.1117 | 0.0247 | 0.4673 | 0.4122 | 0.0454 | 0.1770 | 0.1101 | 0.4293 |
| 30 | 29.12 | 0.05 | 0.2029 | 0.0063 | 0.0959 | 0.0311 | 0.4726 | 0.4160 | 0.0460 | 0.1764 | 0.1106 | 0.4240 |
| 31 | 29.40 | 0.05 | 0.2183 | 0.0114 | 0.1055 | 0.0523 | 0.4832 | 0.4261 | 0.0472 | 0.1828 | 0.1108 | 0.4290 |
| 32 | 29.68 | 0.07 | 0.2234 | 0.0128 | 0.1082 | 0.0574 | 0.4845 | 0.4285 | 0.0472 | 0.1824 | 0.1101 | 0.4256 |
| 33 | 29.98 | 0.06 | 0.2492 | 0.0144 | 0.1176 | 0.0579 | 0.4721 | 0.4457 | 0.0478 | 0.1918 | 0.1072 | 0.4303 |
| 34 | 30.25 | 0.08 | 0.2588 | 0.0162 | 0.1225 | 0.0627 | 0.4731 | 0.4562 | 0.0481 | 0.1967 | 0.1054 | 0.4311 |
| 35 | 30.52 | 0.07 | 0.2892 | 0.0258 | 0.1292 | 0.0891 | 0.4466 | 0.4720 | 0.0489 | 0.2042 | 0.1036 | 0.4327 |
| 36 | 30.80 | 0.08 | 0.3044 | 0.0309 | 0.1363 | 0.1014 | 0.4477 | 0.4794 | 0.0492 | 0.2079 | 0.1026 | 0.4337 |
| 37 | 31.08 | 0.09 | 0.3265 | 0.0324 | 0.1432 | 0.0991 | 0.4386 | 0.4991 | 0.0491 | 0.2177 | 0.0984 | 0.4363 |
| 38 | 31.35 | 0.08 | 0.2755 | 0.0264 | 0.1227 | 0.0957 | 0.4453 | 0.4854 | 0.0498 | 0.2097 | 0.1026 | 0.4321 |
| 39 | 31.62 | 0.07 | 0.2755 | 0.0273 | 0.1211 | 0.0989 | 0.4398 | 0.4945 | 0.0498 | 0.2135 | 0.1007 | 0.4318 |
| 40 | 31.90 | 0.09 | 0.2882 | 0.0277 | 0.1251 | 0.0960 | 0.4339 | 0.5080 | 0.0500 | 0.2195 | 0.0984 | 0.4321 |
| 41 | 32.17 | 0.09 | 0.3145 | 0.0259 | 0.1359 | 0.0822 | 0.4320 | 0.5346 | 0.0498 | 0.2330 | 0.0932 | 0.4358 |
| 42 | 32.44 | 0.09 | 0.3427 | 0.0285 | 0.1490 | 0.0830 | 0.4348 | 0.5520 | 0.0494 | 0.2408 | 0.0895 | 0.4362 |
| 43 | 32.70 | 0.10 | 0.3374 | 0.0303 | 0.1436 | 0.0897 | 0.4256 | 0.5497 | 0.0496 | 0.2398 | 0.0902 | 0.4344 |
| 44 | 32.96 | 0.10 | 0.3537 | 0.0273 | 0.1513 | 0.0771 | 0.4278 | 0.5672 | 0.0496 | 0.2475 | 0.0875 | 0.4364 |
| 45 | 33.20 | 0.09 | 0.3544 | 0.0232 | 0.1515 | 0.0656 | 0.4275 | 0.5816 | 0.0491 | 0.2547 | 0.0844 | 0.4380 |
| 46 | 33.48 | 0.10 | 0.3314 | 0.0262 | 0.1418 | 0.0789 | 0.4279 | 0.5784 | 0.0500 | 0.2506 | 0.0865 | 0.4333 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.72 | 0.08 | 0.3130 | 0.0241 | 0.1352 | 0.0771 | 0.4318 | 0.5724 | 0.0501 | 0.2477 | 0.0875 | 0.4328 |
| 48 | 33.95 | 0.08 | 0.3000 | 0.0223 | 0.1298 | 0.0745 | 0.4325 | 0.5783 | 0.0505 | 0.2507 | 0.0873 | 0.4335 |
| 49 | 34.23 | 0.06 | 0.2674 | 0.0186 | 0.1157 | 0.0697 | 0.4327 | 0.5676 | 0.0510 | 0.2462 | 0.0899 | 0.4338 |
| 50 | 34.48 | 0.06 | 0.2637 | 0.0124 | 0.1207 | 0.0471 | 0.4578 | 0.5692 | 0.0507 | 0.2457 | 0.0891 | 0.4317 |
| 51 | 34.70 | 0.04 | 0.2469 | 0.0134 | 0.1086 | 0.0544 | 0.4399 | 0.5736 | 0.0513 | 0.2479 | 0.0894 | 0.4322 |
| 52 | 34.96 | 0.03 | 0.2241 | 0.0047 | 0.1025 | 0.0210 | 0.4575 | 0.5737 | 0.0511 | 0.2470 | 0.0891 | 0.4306 |
| 53 | 35.19 | 0.05 | 0.2001 | 0.0059 | 0.0915 | 0.0295 | 0.4572 | 0.5660 | 0.0517 | 0.2431 | 0.0914 | 0.4295 |
| 54 | 35.42 | 0.03 | 0.0683 | -0.0008 | 0.0249 | -0.0117 | 0.3636 | 0.5594 | 0.0509 | 0.2391 | 0.0910 | 0.4274 |
| 55 | 35.67 | 0.02 | 0.0010 | -0.0006 | -0.0072 | -0.6000 | -7.2000 | 0.5677 | 0.0510 | 0.2438 | 0.0898 | 0.4295 |
| 56 | 35.90 | -0.00 | -0.0042 | -0.0001 | -0.0168 | 0.0238 | 4.0000 | 0.5714 | 0.0515 | 0.2444 | 0.0901 | 0.4277 |
| 57 | 36.13 | 0.03 | 0.1260 | 0.0028 | 0.0569 | 0.0223 | 0.4519 | 0.5788 | 0.0519 | 0.2487 | 0.0897 | 0.4297 |
| 58 | 36.38 | 0.03 | 0.0127 | 0.0013 | -0.0033 | 0.1024 | -0.2598 | 0.5728 | 0.0518 | 0.2455 | 0.0904 | 0.4286 |
| 59 | 36.61 | 0.02 | 0.0580 | 0.0039 | 0.0170 | 0.0674 | 0.2936 | 0.5817 | 0.0523 | 0.2493 | 0.0899 | 0.4286 |
| 60 | 36.85 | 0.02 | 0.0819 | 0.0053 | 0.0313 | 0.0649 | 0.3819 | 0.5868 | 0.0529 | 0.2513 | 0.0902 | 0.4283 |
| 61 | 37.09 | 0.04 | 0.0657 | 0.0041 | 0.0262 | 0.0625 | 0.3979 | 0.5918 | 0.0530 | 0.2529 | 0.0896 | 0.4274 |
| 62 | 37.32 | 0.01 | 0.0310 | 0.0036 | 0.0040 | 0.1165 | 0.1294 | 0.5935 | 0.0527 | 0.2536 | 0.0888 | 0.4273 |
| 63 | 37.57 | 0.04 | 0.0726 | 0.0042 | 0.0273 | 0.0579 | 0.3752 | 0.5978 | 0.0533 | 0.2550 | 0.0892 | 0.4266 |
| 64 | 37.81 | 0.02 | 0.1143 | 0.0081 | 0.0452 | 0.0710 | 0.3953 | 0.6030 | 0.0546 | 0.2593 | 0.0898 | 0.4265 |
| 65 | 38.06 | 0.03 | 0.1080 | 0.0059 | 0.0433 | 0.0547 | 0.4307 | 0.6181 | 0.0542 | 0.2634 | 0.0877 | 0.4262 |
| 66 | 38.27 | -0.13 | 0.0825 | 0.0027 | 0.0285 | 0.0328 | 0.3451 | 0.6236 | 0.0535 | 0.2653 | 0.0858 | 0.4255 |
| 67 | 38.52 | 0.02 | 0.0554 | 0.0014 | 0.0122 | 0.0253 | 0.2206 | 0.6343 | 0.0525 | 0.2710 | 0.0829 | 0.4272 |
| 68 | 38.73 | 0.02 | 0.0629 | 0.0022 | 0.0176 | 0.0350 | 0.2903 | 0.6395 | 0.0530 | 0.2721 | 0.0829 | 0.4254 |
| 69 | 38.96 | 0.04 | 0.1144 | 0.0050 | 0.0494 | 0.0438 | 0.4317 | 0.6377 | 0.0545 | 0.2706 | 0.0855 | 0.4243 |
| 70 | 39.18 | 0.03 | 0.1196 | 0.0056 | 0.0513 | 0.0469 | 0.4288 | 0.6397 | 0.0553 | 0.2706 | 0.0865 | 0.4229 |
| 71 | 39.40 | 0.04 | 0.1533 | 0.0138 | 0.0663 | 0.0902 | 0.4327 | 0.6353 | 0.0579 | 0.2671 | 0.0912 | 0.4205 |
| 72 | 39.61 | 0.02 | 0.0702 | 0.0047 | 0.0226 | 0.0670 | 0.3224 | 0.6511 | 0.0550 | 0.2754 | 0.0845 | 0.4229 |
| 73 | 39.53 | 0.02 | 0.0918 | 0.0119 | 0.0344 | 0.1299 | 0.3745 | 0.6424 | 0.0585 | 0.2677 | 0.0911 | 0.4168 |
| 74 | 40.03 | 0.03 | 0.1156 | 0.0138 | 0.0471 | 0.1196 | 0.4073 | 0.6362 | 0.0592 | 0.2654 | 0.0931 | 0.4172 |
| 75 | 40.32 | 0.03 | 0.0776 | 0.0099 | 0.0287 | 0.1279 | 0.3695 | 0.6410 | 0.0589 | 0.2678 | 0.0905 | 0.4179 |
| 76 | 40.53 | 0.03 | 0.0915 | 0.0096 | 0.0346 | 0.1051 | 0.3779 | 0.6495 | 0.0573 | 0.2713 | 0.0882 | 0.4176 |
| 77 | 40.75 | 0.02 | 0.0787 | 0.0098 | 0.0309 | 0.1248 | 0.3924 | 0.6441 | 0.0579 | 0.2684 | 0.0899 | 0.4168 |
| 78 | 40.94 | 0.02 | 0.0791 | 0.0123 | 0.0299 | 0.1559 | 0.3777 | 0.6483 | 0.0594 | 0.2693 | 0.0917 | 0.4153 |
| 79 | 41.16 | 0.01 | 0.0620 | 0.0078 | 0.0217 | 0.1260 | 0.3506 | 0.6656 | 0.0568 | 0.2777 | 0.0854 | 0.4172 |
| 80 | 41.36 | 0.01 | 0.0589 | 0.0107 | 0.0204 | 0.1820 | 0.3469 | 0.6583 | 0.0585 | 0.2742 | 0.0889 | 0.4164 |
| 81 | 41.56 | 0.00 | 0.0357 | 0.0064 | 0.0061 | 0.1798 | 0.1713 | 0.6839 | 0.0559 | 0.2866 | 0.0818 | 0.4190 |
| 82 | 41.75 | 0.02 | 0.0535 | 0.0124 | 0.0162 | 0.2322 | 0.3034 | 0.6641 | 0.0597 | 0.2758 | 0.0899 | 0.4153 |
| 83 | 41.96 | 0.02 | 0.0622 | 0.0106 | 0.0207 | 0.1707 | 0.3333 | 0.6793 | 0.0577 | 0.2825 | 0.0850 | 0.4158 |
| 84 | 42.15 | 0.00 | 0.0602 | 0.0102 | 0.0210 | 0.1697 | 0.3494 | 0.6754 | 0.0582 | 0.2816 | 0.0862 | 0.4169 |
| 85 | 42.33 | -0.02 | 0.0585 | 0.0063 | 0.0176 | 0.1079 | 0.3014 | 0.7041 | 0.0565 | 0.2944 | 0.0774 | 0.4181 |
| 86 | 42.52 | 0.01 | 0.0516 | 0.0142 | 0.0176 | 0.2757 | 0.3417 | 0.6627 | 0.0607 | 0.2757 | 0.0916 | 0.4160 |
| 87 | 42.70 | 0.02 | 0.0803 | 0.0088 | 0.0296 | 0.1099 | 0.3683 | 0.7055 | 0.0556 | 0.2929 | 0.0788 | 0.4151 |
| 88 | 42.87 | 0.01 | 0.0690 | 0.0088 | 0.0249 | 0.1277 | 0.3599 | 0.7071 | 0.0552 | 0.2935 | 0.0781 | 0.4158 |
| 89 | 43.04 | 0.02 | 0.0685 | 0.0085 | 0.0240 | 0.1243 | 0.3509 | 0.7025 | 0.0555 | 0.2911 | 0.0790 | 0.4143 |
| 90 | 43.24 | 0.03 | 0.0630 | 0.0083 | 0.0196 | 0.1386 | 0.3272 | 0.7192 | 0.0550 | 0.2997 | 0.0765 | 0.4167 |
| 91 | 43.43 | 0.01 | 0.0348 | 0.0131 | 0.0091 | 0.3775 | 0.2622 | 0.6726 | 0.0607 | 0.2756 | 0.0903 | 0.4097 |
| 92 | 43.61 | -0.01 | 0.0626 | 0.0102 | 0.0195 | 0.1632 | 0.3120 | 0.7077 | 0.0568 | 0.2941 | 0.0803 | 0.4155 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | 81#0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | C81 | XCPF1 | YCPF1 | CNF2 | CH2 | CH2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.77 | -0.01 | 0.0877 | 0.0109 | 0.0292 | 0.1246 | 0.3326 | 0.7200 | 0.0563 | 0.2975 | 0.0782 | 0.4132 |
| 94 | 43.97 | -0.00 | 0.0583 | 0.0138 | 0.0203 | 0.2371 | 0.3488 | 0.7051 | 0.0589 | 0.2869 | 0.0836 | 0.4068 |
| 95 | 44.15 | -0.01 | 0.0531 | 0.0146 | 0.0167 | 0.2755 | 0.3151 | 0.6963 | 0.0608 | 0.2833 | 0.0874 | 0.4068 |
| 96 | 44.33 | -0.01 | 0.0662 | 0.0118 | 0.0218 | 0.1785 | 0.3298 | 0.7153 | 0.0576 | 0.2930 | 0.0806 | 0.4096 |
| 97 | 44.52 | 0.01 | 0.0640 | 0.0161 | 0.0221 | 0.2520 | 0.3459 | 0.7087 | 0.0599 | 0.2879 | 0.0846 | 0.4062 |
| 98 | 44.72 | -0.02 | -0.0406 | 0.0180 | -0.0295 | -0.4444 | 0.7259 | 0.6737 | 0.0648 | 0.2734 | 0.0962 | 0.4058 |
| 99 | 44.91 | -0.01 | 0.0152 | 0.0144 | -0.0039 | 0.9474 | -0.2566 | 0.7151 | 0.0595 | 0.2910 | 0.0832 | 0.4070 |
| 100 | 45.06 | -0.03 | -0.0017 | 0.0139 | -0.0120 | -8.1765 | 7.0588 | 0.7089 | 0.0603 | 0.2882 | 0.0851 | 0.4066 |
| 101 | 45.25 | -0.03 | -0.0463 | 0.0167 | -0.0322 | -0.3615 | 0.6948 | 0.6877 | 0.0635 | 0.2771 | 0.0924 | 0.4029 |
| 102 | 45.44 | 0.02 | 0.0156 | 0.0119 | -0.0086 | 0.7628 | -0.5513 | 0.7374 | 0.0580 | 0.2972 | 0.0787 | 0.4038 |
| 103 | 45.61 | -0.02 | -0.0026 | 0.0129 | -0.0147 | -4.9615 | 5.6538 | 0.7299 | 0.0590 | 0.2968 | 0.0809 | 0.4066 |
| 104 | 45.77 | -0.03 | -0.0306 | 0.0121 | -0.0241 | -0.3967 | 0.7902 | 0.7282 | 0.0602 | 0.2919 | 0.0827 | 0.4009 |
| 105 | 45.95 | 0.01 | -0.0893 | 0.0163 | -0.0508 | -0.1929 | 0.5690 | 0.6905 | 0.0656 | 0.2755 | 0.0951 | 0.3989 |
| 106 | 46.13 | -0.05 | -0.0496 | 0.0110 | -0.0369 | -0.2222 | 0.7434 | 0.7318 | 0.0607 | 0.2950 | 0.0830 | 0.4031 |
| 107 | 46.32 | 0.02 | -0.0295 | 0.0130 | -0.0318 | -0.4377 | 1.0673 | 0.7435 | 0.0604 | 0.2962 | 0.0813 | 0.3984 |
| 108 | 46.49 | -0.04 | -0.1453 | 0.0143 | -0.0768 | -0.0996 | 0.5283 | 0.6844 | 0.0678 | 0.2689 | 0.0991 | 0.3928 |
| 109 | 46.66 | -0.04 | -0.0825 | 0.0130 | -0.0504 | -0.1580 | 0.6112 | 0.7213 | 0.0634 | 0.2865 | 0.0879 | 0.3972 |
| 110 | 46.84 | -0.00 | -0.0455 | 0.0139 | -0.0353 | -0.3062 | 0.7753 | 0.7349 | 0.0630 | 0.2915 | 0.0858 | 0.3966 |
| 111 | 47.02 | -0.02 | 0.0086 | 0.0150 | -0.0127 | 1.7442 | -1.4767 | 0.7545 | 0.0612 | 0.2983 | 0.0811 | 0.3954 |
| 112 | 47.19 | -0.01 | -0.0818 | 0.0153 | -0.0526 | -0.1875 | 0.6434 | 0.7138 | 0.0649 | 0.2794 | 0.0910 | 0.3914 |
| 113 | 47.37 | -0.02 | -0.1663 | 0.0132 | -0.0865 | -0.0795 | 0.5199 | 0.6725 | 0.0710 | 0.2593 | 0.1056 | 0.3856 |
| 114 | 47.56 | -0.01 | -0.0987 | 0.0179 | -0.0664 | -0.1817 | 0.6731 | 0.6967 | 0.0678 | 0.2704 | 0.0974 | 0.3880 |
| 115 | 47.72 | -0.01 | -0.1107 | 0.0164 | -0.0628 | -0.1484 | 0.5674 | 0.7035 | 0.0678 | 0.2728 | 0.0964 | 0.3877 |
| 116 | 47.88 | -0.00 | -0.1053 | 0.0171 | -0.0610 | -0.1627 | 0.5734 | 0.7019 | 0.0691 | 0.2725 | 0.0985 | 0.3882 |
| 117 | 48.07 | -0.05 | -0.1174 | 0.0144 | -0.0657 | -0.1229 | 0.5597 | 0.7022 | 0.0680 | 0.2727 | 0.0969 | 0.3883 |
| 118 | 48.24 | -0.05 | -0.1898 | 0.0145 | -0.0991 | -0.0766 | 0.5222 | 0.6756 | 0.0723 | 0.2582 | 0.1071 | 0.3822 |
| 119 | 48.40 | -0.02 | -0.2021 | 0.0072 | -0.1034 | -0.0357 | 0.5117 | 0.7100 | 0.0683 | 0.2753 | 0.0963 | 0.3891 |
| 120 | 48.58 | -0.02 | -0.2154 | 0.0062 | -0.1060 | -0.0258 | 0.4921 | 0.7058 | 0.0697 | 0.2728 | 0.0988 | 0.3864 |
| 121 | 48.74 | -0.01 | -0.2137 | -0.0002 | -0.1021 | 0.0009 | 0.4777 | 0.7300 | 0.0673 | 0.2844 | 0.0922 | 0.3896 |
| 122 | 48.91 | -0.02 | -0.2155 | -0.0046 | -0.1060 | 0.0214 | 0.4919 | 0.7559 | 0.0638 | 0.2985 | 0.0844 | 0.3949 |
| 123 | 49.09 | -0.01 | -0.1663 | -0.0089 | -0.0801 | 0.0536 | 0.4813 | 0.8157 | 0.0596 | 0.3276 | 0.0731 | 0.4016 |
| 124 | 49.25 | -0.01 | -0.1836 | -0.0109 | -0.0837 | 0.0595 | 0.4558 | 0.7990 | 0.0604 | 0.3177 | 0.0756 | 0.3975 |
| 125 | 49.45 | 0.08 | -0.1255 | -0.0061 | -0.0608 | 0.0487 | 0.4848 | 0.8152 | 0.0580 | 0.3158 | 0.0712 | 0.3875 |
| 126 | 49.65 | 0.03 | -0.1030 | -0.0048 | -0.0502 | 0.0467 | 0.4874 | 0.7973 | 0.0577 | 0.2991 | 0.0724 | 0.3751 |
| 127 | 49.83 | 0.07 | -0.0928 | -0.0057 | -0.0399 | 0.0616 | 0.4298 | 0.7856 | 0.0580 | 0.2903 | 0.0739 | 0.3695 |
| 128 | 49.99 | 0.04 | -0.0584 | -0.0001 | -0.0240 | 0.0017 | 0.4117 | 0.7832 | 0.0614 | 0.2928 | 0.0784 | 0.3738 |
| 129 | 50.18 | -0.03 | -0.1972 | -0.0374 | -0.0746 | 0.1895 | 0.3780 | 0.8364 | 0.0567 | 0.3237 | 0.0678 | 0.3870 |
| 130 | 50.38 | -0.00 | -0.1940 | -0.0332 | -0.0696 | 0.1803 | 0.3785 | 0.8392 | 0.0574 | 0.3210 | 0.0684 | 0.3824 |
| 131 | 50.55 | 0.02 | -0.1675 | -0.0358 | -0.0707 | 0.1908 | 0.3773 | 0.8658 | 0.0558 | 0.3323 | 0.0645 | 0.3938 |
| 132 | 50.72 | 0.02 | -0.1784 | -0.0389 | -0.0679 | 0.2180 | 0.3809 | 0.8806 | 0.0553 | 0.3405 | 0.0628 | 0.3967 |
| 133 | 50.88 | -0.01 | -0.1524 | -0.0370 | -0.0576 | 0.2426 | 0.3780 | 0.8845 | 0.0550 | 0.3393 | 0.0622 | 0.3836 |
| 134 | 51.05 | 0.03 | -0.1565 | -0.0382 | -0.0611 | 0.2439 | 0.3905 | 0.8878 | 0.0536 | 0.3379 | 0.0604 | 0.3806 |
| 135 | 51.23 | -0.00 | -0.1429 | -0.0394 | -0.0526 | 0.2756 | 0.3662 | 0.8957 | 0.0521 | 0.3408 | 0.0582 | 0.3805 |
| 136 | 51.42 | 0.02 | -0.1052 | -0.0361 | -0.0372 | 0.3429 | 0.3533 | 0.9056 | 0.0493 | 0.3400 | 0.0544 | 0.3755 |
| 137 | 51.60 | 0.00 | -0.0730 | -0.0295 | -0.0290 | 0.4033 | 0.3964 | 0.8880 | 0.0488 | 0.3295 | 0.0550 | 0.3710 |
| 138 | 51.77 | 0.03 | -0.0313 | -0.0223 | -0.0156 | 0.7147 | 0.5000 | 0.8670 | 0.0470 | 0.3134 | 0.0542 | 0.3615 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.92 | 0.02 | -0.0576 | -0.0265 | -0.0241 | 0.4591 | 0.4191 | 0.8595 | 0.0497 | 0.3119 | 0.0578 | 0.3629 |
| 140 | 52.10 | 0.02 | -0.0530 | -0.0237 | -0.0212 | 0.4480 | 0.4008 | 0.8662 | 0.0487 | 0.3147 | 0.0562 | 0.3634 |
| 141 | 52.28 | 0.03 | -0.0738 | -0.0262 | -0.0279 | 0.3546 | 0.3777 | 0.9561 | 0.0509 | 0.3084 | 0.0595 | 0.3603 |
| 142 | 52.43 | 0.04 | -0.0648 | -0.0240 | -0.0252 | 0.3709 | 0.3879 | 0.8586 | 0.0520 | 0.3123 | 0.0606 | 0.3638 |
| 143 | 52.59 | 0.06 | -0.0663 | -0.0247 | -0.0240 | 0.3716 | 0.3625 | 0.8599 | 0.0524 | 0.3093 | 0.0609 | 0.3597 |
| 144 | 52.76 | 0.04 | -0.0699 | -0.0210 | -0.0267 | 0.3009 | 0.3811 | 0.8724 | 0.0525 | 0.3187 | 0.0602 | 0.3653 |
| 145 | 52.94 | 0.03 | -0.0754 | -0.0255 | -0.0264 | 0.3378 | 0.3497 | 0.8729 | 0.0514 | 0.3149 | 0.0589 | 0.3608 |
| 146 | 53.10 | 0.04 | -0.0675 | -0.0239 | -0.0252 | 0.3546 | 0.3724 | 0.8720 | 0.0518 | 0.3146 | 0.0594 | 0.3608 |
| 147 | 53.27 | 0.06 | -0.0653 | -0.0222 | -0.0226 | 0.3405 | 0.3466 | 0.8832 | 0.0490 | 0.3182 | 0.0555 | 0.3602 |
| 148 | 53.43 | 0.03 | -0.0549 | -0.0221 | -0.0183 | 0.4033 | 0.3339 | 0.8817 | 0.0486 | 0.3171 | 0.0551 | 0.3597 |
| 149 | 53.59 | 0.03 | -0.0597 | -0.0237 | -0.0219 | 0.3977 | 0.3674 | 0.8845 | 0.0467 | 0.3159 | 0.0528 | 0.3572 |
| 150 | 53.76 | 0.03 | -0.0470 | -0.0221 | -0.0160 | 0.4712 | 0.3412 | 0.8957 | 0.0464 | 0.3220 | 0.0518 | 0.3594 |
| 151 | 53.90 | 0.03 | -0.0712 | -0.0254 | -0.0268 | 0.3558 | 0.3755 | 0.9041 | 0.0459 | 0.3265 | 0.0508 | 0.3611 |
| 152 | 54.06 | 0.04 | -0.0517 | -0.0243 | -0.0183 | 0.4709 | 0.3547 | 0.9064 | 0.0427 | 0.3265 | 0.0471 | 0.3602 |
| 153 | 54.22 | 0.01 | -0.0694 | -0.0245 | -0.0258 | 0.3521 | 0.3709 | 0.9128 | 0.0433 | 0.3284 | 0.0474 | 0.3598 |
| 154 | 54.38 | 0.04 | -0.0501 | -0.0221 | -0.0187 | 0.4420 | 0.3740 | 0.8857 | 0.0422 | 0.3137 | 0.0476 | 0.3542 |
| 155 | 54.52 | 0.03 | -0.0502 | -0.0227 | -0.0174 | 0.4531 | 0.3473 | 0.8993 | 0.0429 | 0.3228 | 0.0477 | 0.3589 |
| 156 | 54.69 | 0.03 | -0.0326 | -0.0230 | -0.0095 | 0.7077 | 0.2923 | 0.9210 | 0.0427 | 0.3320 | 0.0463 | 0.3605 |
| 157 | 54.85 | 0.00 | -0.0495 | -0.0237 | -0.0161 | 0.4798 | 0.3259 | 0.9249 | 0.0424 | 0.3326 | 0.0458 | 0.3596 |
| 158 | 55.00 | 0.01 | -0.0413 | -0.0219 | -0.0127 | 0.5316 | 0.3083 | 0.9143 | 0.0400 | 0.3265 | 0.0444 | 0.3571 |
| 159 | 55.15 | -0.01 | -0.0258 | -0.0213 | -0.0057 | 0.8288 | 0.2218 | 0.8997 | 0.0390 | 0.3215 | 0.0433 | 0.3573 |
| 160 | 55.32 | 0.01 | -0.0369 | -0.0216 | -0.0101 | 0.5870 | 0.2745 | 0.9121 | 0.0402 | 0.3259 | 0.0441 | 0.3573 |
| 161 | 55.46 | -0.01 | -0.0176 | -0.0177 | -0.0041 | 1.0057 | 0.2330 | 0.8913 | 0.0391 | 0.3169 | 0.0438 | 0.3556 |
| 162 | 55.62 | -0.00 | -0.0096 | -0.0161 | 0.0007 | 1.6771 | -0.0729 | 0.8914 | 0.0390 | 0.3159 | 0.0437 | 0.3544 |
| 163 | 55.77 | 0.02 | -0.0113 | -0.0170 | -0.0009 | 1.5044 | 0.0796 | 0.9003 | 0.0392 | 0.3197 | 0.0435 | 0.3550 |
| 164 | 55.93 | -0.00 | -0.0012 | -0.0143 | 0.0024 | 11.9167 | -2.0000 | 0.8900 | 0.0382 | 0.3172 | 0.0429 | 0.3565 |
| 165 | 56.09 | -0.01 | -0.0068 | -0.0160 | 0.0004 | 2.3529 | -0.0588 | 0.8837 | 0.0372 | 0.3149 | 0.0418 | 0.3544 |
| 166 | 56.23 | 0.02 | 0.0031 | -0.0128 | 0.0047 | -4.1290 | 1.5161 | 0.8942 | 0.0392 | 0.3162 | 0.0438 | 0.3537 |
| 167 | 56.38 | -0.01 | -0.0026 | -0.0137 | 0.0018 | 5.2692 | -0.6923 | 0.9018 | 0.0382 | 0.3210 | 0.0423 | 0.3559 |
| 168 | 56.55 | -0.03 | -0.0012 | -0.0135 | 0.0017 | 11.2500 | -1.4167 | 0.9020 | 0.0377 | 0.3204 | 0.0418 | 0.3551 |
| 169 | 56.69 | -0.06 | -0.0007 | -0.0128 | 0.0017 | 18.2857 | -2.4286 | 0.8992 | 0.0365 | 0.3189 | 0.0406 | 0.3546 |
| 170 | 56.85 | 0.01 | 0.0019 | -0.0115 | 0.0017 | -6.0526 | 0.8947 | 0.8963 | 0.0361 | 0.3183 | 0.0402 | 0.3551 |
| 171 | 57.01 | -0.01 | 0.0067 | -0.0093 | 0.0037 | -1.3881 | 0.5522 | 0.8932 | 0.0364 | 0.3168 | 0.0407 | 0.3547 |
| 172 | 57.14 | -0.03 | 0.0175 | -0.0076 | 0.0085 | -0.4343 | 0.4857 | 0.8748 | 0.0357 | 0.3089 | 0.0408 | 0.3531 |
| 173 | 57.31 | -0.02 | 0.0150 | -0.0067 | 0.0056 | -0.4467 | 0.3733 | 0.8920 | 0.0356 | 0.3157 | 0.0399 | 0.3540 |
| 174 | 57.43 | -0.04 | 0.0129 | -0.0066 | 0.0051 | -0.5116 | 0.3953 | 0.9034 | 0.0375 | 0.3202 | 0.0415 | 0.3544 |
| 175 | 57.60 | -0.08 | -0.0184 | -0.0066 | -0.0090 | 0.3587 | 0.4891 | 0.9540 | 0.0447 | 0.3402 | 0.0468 | 0.3566 |
| 176 | 57.74 | -0.14 | -0.0507 | -0.0099 | -0.0221 | 0.1957 | 0.4368 | 0.9415 | 0.0409 | 0.3351 | 0.0434 | 0.3559 |
| 177 | 57.88 | -0.12 | -0.0646 | -0.0105 | -0.0259 | 0.1628 | 0.4000 | 0.9401 | 0.0402 | 0.3352 | 0.0427 | 0.3565 |
| 178 | 58.02 | -0.13 | -0.0401 | -0.0079 | -0.0167 | 0.1975 | 0.4175 | 0.9404 | 0.0390 | 0.3343 | 0.0414 | 0.3555 |
| 179 | 58.17 | -0.13 | -0.0348 | -0.0068 | -0.0167 | 0.1960 | 0.4813 | 0.9189 | 0.0361 | 0.3254 | 0.0393 | 0.3541 |
| 180 | 58.22 | -0.15 | -0.0246 | -0.0048 | -0.0130 | 0.1959 | 0.5306 | 0.9393 | 0.0382 | 0.3336 | 0.0406 | 0.3551 |
| 181 | 58.21 | -0.13 | -0.0101 | -0.0050 | -0.0063 | 0.4950 | 0.6238 | 0.9277 | 0.0366 | 0.3289 | 0.0394 | 0.3545 |
| 182 | 58.22 | -0.09 | -0.0253 | -0.0056 | -0.0118 | 0.2222 | 0.4683 | 0.9188 | 0.0363 | 0.3251 | 0.0395 | 0.3538 |
| 183 | 58.23 | -0.13 | -0.0307 | -0.0069 | -0.0106 | 0.2255 | 0.5425 | 0.9259 | 0.0375 | 0.3289 | 0.0405 | 0.3552 |
| 184 | 58.22 | -0.13 | -0.0204 | -0.0048 | -0.0126 | 0.2353 | 0.6176 | 0.9260 | 0.0372 | 0.3282 | 0.0401 | 0.3544 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 58.22 | -0.14 | -0.0088 | -0.0040 | -0.0070 | 0.4545 | 0.7955 | 0.9260 | 0.0373 | 0.3294 | 0.0403 | 0.3557 |
| 186 | 58.22 | -0.14 | -0.0216 | -0.0058 | -0.0124 | 0.2695 | 0.5741 | 0.9376 | 0.0386 | 0.3327 | 0.0411 | 0.3548 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.82 | 0.01 | 0.0010 | 9.9999 | 0.0085 | 9.9999 | 8.5000 | -0.9945 | -0.0294 | -0.4168 | 0.0295 | 0.4190 |
| 2 | -5.93 | -0.01 | 0.0010 | 9.9999 | 0.0091 | 9.9999 | 9.1000 | -0.9951 | -0.0297 | -0.4173 | 0.0298 | 0.4193 |
| 3 | -5.83 | -0.01 | -0.0010 | 9.9999 | 0.0070 | 9.9999 | -7.0000 | -0.9965 | -0.0291 | -0.4175 | 0.0292 | 0.4189 |
| 4 | -5.81 | -0.01 | 0.0044 | 9.9999 | 0.0105 | 9.9999 | 2.3864 | -0.9887 | -0.0299 | -0.4144 | 0.0302 | 0.4192 |
| 5 | -4.86 | -0.01 | -0.0011 | 9.9999 | 0.0081 | 9.9999 | -7.3636 | -0.9020 | -0.0296 | -0.3831 | 0.0328 | 0.4247 |
| 6 | -3.11 | -0.00 | -0.0011 | 9.9999 | 0.0092 | 9.9999 | -8.3636 | -0.7996 | -0.0279 | -0.3460 | 0.0348 | 0.4327 |
| 7 | -1.41 | -0.01 | 0.0023 | 9.9999 | 0.0103 | 9.9999 | 4.4783 | -0.6977 | -0.0261 | -0.3099 | 0.0373 | 0.4442 |
| 8 | 0.38 | -0.01 | 0.0016 | 9.9999 | 0.0111 | 9.9999 | 6.9375 | -0.5941 | -0.0237 | -0.2697 | 0.0400 | 0.4539 |
| 9 | 2.13 | -0.01 | -0.0005 | 9.9999 | 0.0109 | 9.9999 | -21.8000 | -0.5014 | -0.0228 | -0.2292 | 0.0456 | 0.4570 |
| 10 | 3.91 | -0.01 | 0.0036 | 9.9999 | 0.0131 | 9.9999 | 3.6389 | -0.3988 | -0.0180 | -0.1827 | 0.0452 | 0.4580 |
| 11 | 5.70 | -0.01 | 0.0015 | 9.9999 | 0.0138 | 9.9999 | 9.2000 | -0.3101 | -0.0141 | -0.1462 | 0.0456 | 0.4714 |
| 12 | 7.55 | -0.01 | -0.0006 | 9.9999 | 0.0128 | 9.9999 | -21.3333 | -0.2234 | -0.0107 | -0.1089 | 0.0480 | 0.4877 |
| 13 | 9.31 | -0.01 | -0.0013 | 9.9999 | 0.0135 | 9.9999 | -10.3846 | -0.1555 | -0.0083 | -0.0898 | 0.0535 | 0.4978 |
| 14 | 11.18 | -0.01 | 0.0064 | 9.9999 | 0.0128 | 9.9999 | 2.0000 | -0.0799 | -0.0047 | -0.0346 | 0.0590 | 0.4329 |
| 15 | 12.98 | -0.01 | 0.0087 | 9.9999 | 0.0091 | 9.9999 | 1.0460 | -0.0247 | -0.0005 | -0.0133 | 0.0703 | 0.5407 |
| 16 | 14.83 | -0.02 | 0.0150 | 9.9999 | 0.0086 | 9.9999 | 0.5733 | 0.0090 | 0.0065 | -0.0002 | 0.7222 | -0.0222 |
| 17 | 16.73 | -0.02 | 0.0165 | 9.9999 | 0.0071 | 9.9999 | 0.4303 | 0.0411 | 0.0160 | 0.0118 | 0.3902 | 0.2878 |
| 18 | 18.62 | -0.03 | 0.0180 | 9.9999 | 0.0061 | 9.9999 | 0.3389 | 0.0879 | 0.0219 | 0.0337 | 0.2497 | 0.3831 |
| 19 | 20.50 | -0.04 | 0.0146 | 9.9999 | 0.0039 | 9.9999 | 0.2671 | 0.1597 | 0.0286 | 0.0677 | 0.1758 | 0.4241 |
| 20 | 22.38 | -0.03 | 0.0174 | 9.9999 | 0.0044 | 9.9999 | 0.2529 | 0.2209 | 0.0335 | 0.0972 | 0.1515 | 0.4401 |
| 21 | 24.25 | -0.05 | 0.0057 | 9.9999 | -0.0020 | 9.9999 | -0.3509 | 0.2859 | 0.0376 | 0.1295 | 0.1314 | 0.4529 |
| 22 | 26.17 | -0.05 | 0.0085 | 9.9999 | -0.0002 | 9.9999 | -0.0235 | 0.3441 | 0.0420 | 0.1553 | 0.1220 | 0.4514 |
| 23 | 27.89 | 0.03 | 0.0255 | 9.9999 | 0.0141 | 9.9999 | 0.5551 | 0.3119 | 0.0434 | 0.1371 | 0.1391 | 0.4394 |
| 24 | 27.90 | 0.02 | 0.0304 | 9.9999 | 0.0150 | 9.9999 | 0.4950 | 0.2979 | 0.0433 | 0.1314 | 0.1453 | 0.4410 |
| 25 | 27.90 | 0.01 | 0.0338 | 9.9999 | 0.0172 | 9.9999 | 0.5104 | 0.3189 | 0.0433 | 0.1421 | 0.1358 | 0.4456 |
| 26 | 27.90 | 0.01 | 0.0332 | 9.9999 | 0.0172 | 9.9999 | 0.5196 | 0.3039 | 0.0431 | 0.1344 | 0.1418 | 0.4421 |
| 27 | 28.21 | 0.02 | 0.0387 | 9.9999 | 0.0204 | 9.9999 | 0.5285 | 0.3029 | 0.0441 | 0.1335 | 0.1456 | 0.4408 |
| 28 | 28.48 | 0.04 | 0.0387 | 9.9999 | 0.0209 | 9.9999 | 0.5415 | 0.3166 | 0.0443 | 0.1406 | 0.1399 | 0.4440 |
| 29 | 28.81 | 0.05 | 0.0422 | 9.9999 | 0.0229 | 9.9999 | 0.5439 | 0.3098 | 0.0448 | 0.1373 | 0.1446 | 0.4431 |
| 30 | 29.12 | 0.05 | 0.0458 | 9.9999 | 0.0235 | 9.9999 | 0.5142 | 0.3391 | 0.0454 | 0.1509 | 0.1339 | 0.4450 |
| 31 | 29.40 | 0.05 | 0.0381 | 9.9999 | 0.0207 | 9.9999 | 0.5447 | 0.3516 | 0.0455 | 0.1560 | 0.1294 | 0.4437 |
| 32 | 29.68 | 0.07 | 0.0457 | 9.9999 | 0.0247 | 9.9999 | 0.5395 | 0.3594 | 0.0457 | 0.1601 | 0.1271 | 0.4455 |
| 33 | 29.98 | 0.06 | 0.0498 | 9.9999 | 0.0275 | 9.9999 | 0.5513 | 0.3671 | 0.0459 | 0.1636 | 0.1250 | 0.4458 |
| 34 | 30.25 | 0.08 | 0.0436 | 9.9999 | 0.0238 | 9.9999 | 0.5471 | 0.3747 | 0.0463 | 0.1666 | 0.1236 | 0.4448 |
| 35 | 30.52 | 0.07 | 0.0498 | 9.9999 | 0.0280 | 9.9999 | 0.5614 | 0.3841 | 0.0463 | 0.1709 | 0.1205 | 0.4451 |
| 36 | 30.80 | 0.08 | 0.0532 | 9.9999 | 0.0296 | 9.9999 | 0.5556 | 0.3926 | 0.0466 | 0.1750 | 0.1187 | 0.4456 |
| 37 | 31.08 | 0.09 | 0.0511 | 9.9999 | 0.0292 | 9.9999 | 0.5706 | 0.3933 | 0.0467 | 0.1760 | 0.1187 | 0.4474 |
| 38 | 31.35 | 0.08 | 0.0497 | 9.9999 | 0.0280 | 9.9999 | 0.5625 | 0.4142 | 0.0472 | 0.1858 | 0.1139 | 0.4485 |
| 39 | 31.62 | 0.07 | 0.0434 | 9.9999 | 0.0261 | 9.9999 | 0.6005 | 0.4198 | 0.0472 | 0.1877 | 0.1124 | 0.4471 |
| 40 | 31.90 | 0.09 | 0.0496 | 9.9999 | 0.0296 | 9.9999 | 0.5960 | 0.4273 | 0.0476 | 0.1909 | 0.1114 | 0.4468 |
| 41 | 32.17 | 0.09 | 0.0510 | 9.9999 | 0.0314 | 9.9999 | 0.6149 | 0.4258 | 0.0482 | 0.1899 | 0.1132 | 0.4460 |
| 42 | 32.44 | 0.09 | 0.0530 | 9.9999 | 0.0320 | 9.9999 | 0.6030 | 0.4250 | 0.0484 | 0.1902 | 0.1139 | 0.4478 |
| 43 | 32.70 | 0.10 | 0.0530 | 9.9999 | 0.0318 | 9.9999 | 0.5992 | 0.4312 | 0.0485 | 0.1933 | 0.1125 | 0.4483 |
| 44 | 32.96 | 0.10 | 0.0550 | 9.9999 | 0.0336 | 9.9999 | 0.6102 | 0.4196 | 0.0490 | 0.1880 | 0.1168 | 0.4481 |
| 45 | 33.20 | 0.09 | 0.0502 | 9.9999 | 0.0321 | 9.9999 | 0.6387 | 0.4252 | 0.0497 | 0.1913 | 0.1169 | 0.4499 |
| 46 | 33.48 | 0.10 | 0.0530 | 9.9999 | 0.0318 | 9.9999 | 0.5992 | 0.4563 | 0.0502 | 0.2056 | 0.1130 | 0.4506 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.72 | 0.08 | 0.0537 | 9.9999 | 0.0326 | 9.9999 | 0.6063 | 0.4610 | 0.0502 | 0.2077 | 0.1089 | 0.4506 |
| 48 | 33.95 | 0.08 | 0.0495 | 9.9999 | 0.0312 | 9.9999 | 0.6296 | 0.4776 | 0.0510 | 0.2147 | 0.1068 | 0.4496 |
| 49 | 34.23 | 0.06 | 0.0446 | 9.9999 | 0.0306 | 9.9999 | 0.6854 | 0.4852 | 0.0513 | 0.2183 | 0.1057 | 0.4500 |
| 50 | 34.48 | 0.06 | 0.0467 | 9.9999 | 0.0315 | 9.9999 | 0.6738 | 0.4929 | 0.0522 | 0.2222 | 0.1059 | 0.4507 |
| 51 | 34.70 | 0.04 | 0.0315 | 9.9999 | 0.0239 | 9.9999 | 0.7611 | 0.4967 | 0.0524 | 0.2236 | 0.1055 | 0.4501 |
| 52 | 34.96 | 0.03 | 0.0328 | 9.9999 | 0.0255 | 9.9999 | 0.7768 | 0.5052 | 0.0533 | 0.2275 | 0.1055 | 0.4502 |
| 53 | 35.19 | 0.05 | 0.0411 | 9.9999 | 0.0295 | 9.9999 | 0.7171 | 0.5239 | 0.0529 | 0.2360 | 0.1010 | 0.4505 |
| 54 | 35.42 | 0.03 | 0.0260 | 9.9999 | 0.0207 | 9.9999 | 0.7992 | 0.5314 | 0.0532 | 0.2396 | 0.1001 | 0.4509 |
| 55 | 35.67 | 0.02 | 0.0149 | 9.9999 | 0.0138 | 9.9999 | 0.9262 | 0.5501 | 0.0535 | 0.2480 | 0.0973 | 0.4508 |
| 56 | 35.90 | -0.00 | 0.0217 | 9.9999 | 0.0185 | 9.9999 | 0.8525 | 0.5664 | 0.0537 | 0.2551 | 0.0948 | 0.4505 |
| 57 | 36.13 | 0.03 | 0.0301 | 9.9999 | 0.0235 | 9.9999 | 0.7833 | 0.5548 | 0.0526 | 0.2490 | 0.0948 | 0.4488 |
| 58 | 36.38 | 0.03 | 0.0231 | 9.9999 | 0.0186 | 9.9999 | 0.8052 | 0.5792 | 0.0528 | 0.2607 | 0.0912 | 0.4502 |
| 59 | 36.61 | 0.02 | 0.0280 | 9.9999 | 0.0220 | 9.9999 | 0.7885 | 0.5771 | 0.0525 | 0.2596 | 0.0910 | 0.4499 |
| 60 | 36.85 | 0.02 | 0.0203 | 9.9999 | 0.0184 | 9.9999 | 0.9064 | 0.5773 | 0.0523 | 0.2595 | 0.0906 | 0.4496 |
| 61 | 37.09 | 0.04 | 0.0245 | 9.9999 | 0.0200 | 9.9999 | 0.8197 | 0.5919 | 0.0523 | 0.2661 | 0.0884 | 0.4496 |
| 62 | 37.32 | 0.01 | 0.0217 | 9.9999 | 0.0193 | 9.9999 | 0.8894 | 0.6054 | 0.0522 | 0.2724 | 0.0862 | 0.4499 |
| 63 | 37.57 | 0.04 | 0.0300 | 9.9999 | 0.0229 | 9.9999 | 0.7659 | 0.6133 | 0.0523 | 0.2759 | 0.0853 | 0.4498 |
| 64 | 37.81 | 0.02 | 0.0202 | 9.9999 | 0.0194 | 9.9999 | 0.9804 | 0.6144 | 0.0519 | 0.2752 | 0.0845 | 0.4479 |
| 65 | 38.06 | 0.03 | 0.0252 | 9.9999 | 0.0220 | 9.9999 | 0.8765 | 0.6228 | 0.0522 | 0.2794 | 0.0838 | 0.4484 |
| 66 | 38.27 | -0.13 | 0.0230 | 9.9999 | 0.0208 | 9.9999 | 0.9043 | 0.6187 | 0.0532 | 0.2774 | 0.0860 | 0.4483 |
| 67 | 38.52 | 0.02 | 0.0197 | 9.9999 | 0.0169 | 9.9999 | 0.8579 | 0.6178 | 0.0540 | 0.2773 | 0.0874 | 0.4488 |
| 68 | 38.73 | 0.02 | 0.0203 | 9.9999 | 0.0172 | 9.9999 | 0.8473 | 0.6300 | 0.0536 | 0.2816 | 0.0851 | 0.4470 |
| 69 | 38.96 | 0.04 | 0.0231 | 9.9999 | 0.0186 | 9.9999 | 0.8052 | 0.6402 | 0.0529 | 0.2864 | 0.0826 | 0.4473 |
| 70 | 39.18 | 0.03 | 0.0259 | 9.9999 | 0.0207 | 9.9999 | 0.8023 | 0.6562 | 0.0526 | 0.2936 | 0.0802 | 0.4474 |
| 71 | 39.40 | 0.04 | 0.0348 | 9.9999 | 0.0264 | 9.9999 | 0.7579 | 0.6821 | 0.0503 | 0.3062 | 0.0737 | 0.4489 |
| 72 | 39.61 | 0.02 | 0.0252 | 9.9999 | 0.0212 | 9.9999 | 0.8446 | 0.6706 | 0.0524 | 0.2993 | 0.0782 | 0.4464 |
| 73 | 39.83 | 0.02 | 0.0217 | 9.9999 | 0.0181 | 9.9999 | 0.8341 | 0.7076 | 0.0503 | 0.3154 | 0.0711 | 0.4458 |
| 74 | 40.03 | 0.03 | 0.0266 | 9.9999 | 0.0202 | 9.9999 | 0.7623 | 0.7016 | 0.0500 | 0.3126 | 0.0713 | 0.4456 |
| 75 | 40.32 | 0.03 | 0.0259 | 9.9999 | 0.0201 | 9.9999 | 0.7791 | 0.7075 | 0.0503 | 0.3131 | 0.0711 | 0.4426 |
| 76 | 40.53 | 0.03 | 0.0300 | 9.9999 | 0.0237 | 9.9999 | 0.7926 | 0.7074 | 0.0504 | 0.3123 | 0.0712 | 0.4415 |
| 77 | 40.75 | 0.02 | 0.0273 | 9.9999 | 0.0210 | 9.9999 | 0.7721 | 0.7209 | 0.0495 | 0.3165 | 0.0687 | 0.4391 |
| 78 | 40.94 | 0.02 | 0.0162 | 9.9999 | 0.0147 | 9.9999 | 0.9074 | 0.7314 | 0.0485 | 0.3208 | 0.0663 | 0.4386 |
| 79 | 41.16 | 0.01 | 0.0230 | 9.9999 | 0.0191 | 9.9999 | 0.8304 | 0.7291 | 0.0499 | 0.3179 | 0.0684 | 0.4360 |
| 80 | 41.36 | 0.01 | 0.0223 | 9.9999 | 0.0188 | 9.9999 | 0.8430 | 0.7392 | 0.0492 | 0.3221 | 0.0668 | 0.4357 |
| 81 | 41.56 | 0.00 | 0.0121 | 9.9999 | 0.0127 | 9.9999 | 1.0496 | 0.7316 | 0.0512 | 0.3172 | 0.0700 | 0.4336 |
| 82 | 41.75 | 0.02 | 0.0224 | 9.9999 | 0.0177 | 9.9999 | 0.7902 | 0.7696 | 0.0478 | 0.3332 | 0.0621 | 0.4329 |
| 83 | 41.96 | 0.02 | 0.0252 | 9.9999 | 0.0200 | 9.9999 | 0.7968 | 0.7594 | 0.0489 | 0.3289 | 0.0644 | 0.4331 |
| 84 | 42.15 | 0.00 | 0.0230 | 9.9999 | 0.0190 | 9.9999 | 0.8261 | 0.7602 | 0.0488 | 0.3284 | 0.0642 | 0.4320 |
| 85 | 42.33 | -0.02 | 0.0182 | 9.9999 | 0.0162 | 9.9999 | 0.8901 | 0.7461 | 0.0503 | 0.3223 | 0.0674 | 0.4319 |
| 86 | 42.52 | 0.01 | 0.0243 | 9.9999 | 0.0208 | 9.9999 | 0.8560 | 0.7900 | 0.0464 | 0.3385 | 0.0587 | 0.4285 |
| 87 | 42.70 | 0.02 | 0.0210 | 9.9999 | 0.0170 | 9.9999 | 0.8095 | 0.7550 | 0.0500 | 0.3249 | 0.0662 | 0.4303 |
| 88 | 42.87 | 0.01 | 0.0196 | 9.9999 | 0.0169 | 9.9999 | 0.8622 | 0.7634 | 0.0495 | 0.3282 | 0.0648 | 0.4298 |
| 89 | 43.04 | 0.02 | 0.0237 | 9.9999 | 0.0186 | 9.9999 | 0.7848 | 0.7618 | 0.0495 | 0.3272 | 0.0650 | 0.4295 |
| 90 | 43.24 | 0.03 | 0.0216 | 9.9999 | 0.0189 | 9.9999 | 0.8750 | 0.7652 | 0.0507 | 0.3264 | 0.0663 | 0.4265 |
| 91 | 43.43 | 0.01 | 0.0189 | 9.9999 | 0.0157 | 9.9999 | 0.8307 | 0.8016 | 0.0465 | 0.3422 | 0.0580 | 0.4269 |
| 92 | 43.61 | -0.01 | 0.0203 | 9.9999 | 0.0172 | 9.9999 | 0.8473 | 0.7752 | 0.0490 | 0.3308 | 0.0632 | 0.4267 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 3 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | 81 OF 31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.77 | -0.01 | 0.0231 | 9.9999 | 0.0183 | 9.9999 | 0.7922 | 0.7793 | 0.0497 | 0.3330 | 0.0638 | 0.4273 |
| 94 | 43.97 | -0.00 | 0.0176 | 9.9999 | 0.0143 | 9.9999 | 0.8125 | 0.7998 | 0.0495 | 0.3438 | 0.0619 | 0.4261 |
| 95 | 44.15 | -0.01 | 0.0190 | 9.9999 | 0.0149 | 9.9999 | 0.7842 | 0.8123 | 0.0481 | 0.3454 | 0.0592 | 0.4252 |
| 96 | 44.33 | -0.01 | 0.0231 | 9.9999 | 0.0174 | 9.9999 | 0.7532 | 0.7939 | 0.0492 | 0.3330 | 0.0620 | 0.4257 |
| 97 | 44.52 | 0.01 | 0.0238 | 9.9999 | 0.0183 | 9.9999 | 0.7689 | 0.8080 | 0.0492 | 0.3437 | 0.0609 | 0.4254 |
| 98 | 44.72 | -0.02 | 0.0115 | 9.9999 | 0.0097 | 9.9999 | 0.8435 | 0.8604 | 0.0448 | 0.3633 | 0.0521 | 0.4223 |
| 99 | 44.91 | -0.01 | 0.0204 | 9.9999 | 0.0153 | 9.9999 | 0.7500 | 0.8143 | 0.0493 | 0.3449 | 0.0605 | 0.4236 |
| 100 | 45.06 | -0.03 | 0.0189 | 9.9999 | 0.0163 | 9.9999 | 0.8624 | 0.8155 | 0.0488 | 0.3454 | 0.0598 | 0.4236 |
| 101 | 45.25 | -0.03 | 0.0149 | 9.9999 | 0.0113 | 9.9999 | 0.7584 | 0.8497 | 0.0468 | 0.3579 | 0.0551 | 0.4212 |
| 102 | 45.44 | 0.02 | 0.0223 | 9.9999 | 0.0179 | 9.9999 | 0.8027 | 0.8013 | 0.0519 | 0.3381 | 0.0648 | 0.4219 |
| 103 | 45.61 | -0.02 | 0.0204 | 9.9999 | 0.0145 | 9.9999 | 0.7108 | 0.8135 | 0.0505 | 0.3430 | 0.0621 | 0.4217 |
| 104 | 45.77 | -0.03 | 0.0184 | 9.9999 | 0.0138 | 9.9999 | 0.7500 | 0.8257 | 0.0509 | 0.3469 | 0.0617 | 0.4201 |
| 105 | 45.95 | 0.01 | 0.0211 | 9.9999 | 0.0159 | 9.9999 | 0.7536 | 0.8675 | 0.0475 | 0.3625 | 0.0548 | 0.4179 |
| 106 | 46.13 | -0.05 | 0.0142 | 9.9999 | 0.0123 | 9.9999 | 0.8662 | 0.8251 | 0.0514 | 0.3455 | 0.0623 | 0.4188 |
| 107 | 46.32 | 0.02 | 0.0238 | 9.9999 | 0.0177 | 9.9999 | 0.7437 | 0.9248 | 0.0533 | 0.3442 | 0.0646 | 0.4173 |
| 108 | 46.49 | -0.04 | 0.0108 | 9.9999 | 0.0088 | 9.9999 | 0.8148 | 0.8725 | 0.0495 | 0.3610 | 0.0567 | 0.4138 |
| 109 | 46.66 | -0.04 | 0.0232 | 9.9999 | 0.0158 | 9.9999 | 0.6810 | 0.8509 | 0.0512 | 0.3543 | 0.0602 | 0.4164 |
| 110 | 46.84 | -0.03 | 0.0217 | 9.9999 | 0.0168 | 9.9999 | 0.7742 | 0.8535 | 0.0510 | 0.3553 | 0.0598 | 0.4163 |
| 111 | 47.02 | -0.02 | 0.0204 | 9.9999 | 0.0150 | 9.9999 | 0.7353 | 0.8338 | 0.0528 | 0.3475 | 0.0633 | 0.4168 |
| 112 | 47.19 | -0.01 | 0.0218 | 9.9999 | 0.0151 | 9.9999 | 0.6927 | 0.8750 | 0.0500 | 0.3642 | 0.0571 | 0.4163 |
| 113 | 47.37 | -0.02 | 0.0218 | 9.9999 | 0.0140 | 9.9999 | 0.6422 | 0.8880 | 0.0492 | 0.3629 | 0.0554 | 0.4087 |
| 114 | 47.56 | -0.01 | 0.0157 | 9.9999 | 0.0103 | 9.9999 | 0.6561 | 0.8814 | 0.0504 | 0.3655 | 0.0572 | 0.4147 |
| 115 | 47.72 | -0.01 | 0.0184 | 9.9999 | 0.0129 | 9.9999 | 0.7011 | 0.9011 | 0.0495 | 0.3731 | 0.0549 | 0.4140 |
| 116 | 47.88 | -0.00 | 0.0040 | 9.9999 | 0.0039 | 9.9999 | 0.9750 | 0.8883 | 0.0504 | 0.3658 | 0.0567 | 0.4118 |
| 117 | 48.07 | -0.05 | 0.0211 | 9.9999 | 0.0137 | 9.9999 | 0.6493 | 0.8936 | 0.0506 | 0.3666 | 0.0566 | 0.4102 |
| 118 | 48.24 | -0.05 | 0.0170 | 9.9999 | 0.0115 | 9.9999 | 0.6765 | 0.9043 | 0.0501 | 0.3678 | 0.0554 | 0.4067 |
| 119 | 48.40 | -0.02 | 0.0115 | 9.9999 | 0.0091 | 9.9999 | 0.7913 | 0.8841 | 0.0545 | 0.3570 | 0.0617 | 0.4038 |
| 120 | 48.58 | -0.02 | 0.0225 | 9.9999 | 0.0138 | 9.9999 | 0.6133 | 0.8807 | 0.0515 | 0.3529 | 0.0585 | 0.4007 |
| 121 | 48.74 | -0.01 | 0.0176 | 9.9999 | 0.0123 | 9.9999 | 0.6989 | 0.8440 | 0.0522 | 0.3341 | 0.0619 | 0.3958 |
| 122 | 48.91 | -0.02 | 0.0177 | 9.9999 | 0.0115 | 9.9999 | 0.6497 | 0.8399 | 0.0537 | 0.3350 | 0.0639 | 0.3929 |
| 123 | 49.09 | -0.01 | 0.0224 | 9.9999 | 0.0138 | 9.9999 | 0.6161 | 0.8145 | 0.0518 | 0.3170 | 0.0636 | 0.3893 |
| 124 | 49.25 | -0.01 | 0.0232 | 9.9999 | 0.0133 | 9.9999 | 0.5733 | 0.8098 | 0.0502 | 0.3132 | 0.0620 | 0.3868 |
| 125 | 49.45 | 0.08 | 0.0279 | 9.9999 | 0.0177 | 9.9999 | 0.6367 | 0.8125 | 0.0524 | 0.3154 | 0.0645 | 0.3883 |
| 126 | 49.65 | 0.03 | 0.0321 | 9.9999 | 0.0191 | 9.9999 | 0.5969 | 0.8092 | 0.0514 | 0.3103 | 0.0635 | 0.3835 |
| 127 | 49.83 | 0.07 | 0.0354 | 9.9999 | 0.0210 | 9.9999 | 0.5949 | 0.8046 | 0.0520 | 0.3052 | 0.0646 | 0.3793 |
| 128 | 49.99 | 0.04 | 0.0353 | 9.9999 | 0.0226 | 9.9999 | 0.6420 | 0.8094 | 0.0512 | 0.3072 | 0.0633 | 0.3796 |
| 129 | 50.18 | -0.03 | 0.0273 | 9.9999 | 0.0154 | 9.9999 | 0.5662 | 0.7855 | 0.0541 | 0.2963 | 0.0689 | 0.3772 |
| 130 | 50.38 | -0.00 | 0.0299 | 9.9999 | 0.0189 | 9.9999 | 0.6342 | 0.7919 | 0.0537 | 0.2986 | 0.0678 | 0.3771 |
| 131 | 50.55 | 0.02 | 0.0306 | 9.9999 | 0.0181 | 9.9999 | 0.5934 | 0.7995 | 0.0531 | 0.3027 | 0.0664 | 0.3786 |
| 132 | 50.72 | 0.02 | 0.0252 | 9.9999 | 0.0139 | 9.9999 | 0.5538 | 0.7943 | 0.0526 | 0.2998 | 0.0662 | 0.3774 |
| 133 | 50.88 | -0.01 | 0.0368 | 9.9999 | 0.0205 | 9.9999 | 0.5586 | 0.7924 | 0.0529 | 0.2972 | 0.0668 | 0.3781 |
| 134 | 51.05 | 0.03 | 0.0306 | 9.9999 | 0.0184 | 9.9999 | 0.6033 | 0.7873 | 0.0525 | 0.2943 | 0.0667 | 0.3738 |
| 135 | 51.23 | -0.00 | 0.0279 | 9.9999 | 0.0152 | 9.9999 | 0.5468 | 0.7730 | 0.0527 | 0.2873 | 0.0682 | 0.3717 |
| 136 | 51.42 | 0.02 | 0.0367 | 9.9999 | 0.0210 | 9.9999 | 0.5738 | 0.7497 | 0.0490 | 0.2778 | 0.0654 | 0.3705 |
| 137 | 51.60 | 0.00 | 0.0393 | 9.9999 | 0.0239 | 9.9999 | 0.6097 | 0.7451 | 0.0474 | 0.2758 | 0.0636 | 0.3701 |
| 138 | 51.77 | 0.03 | 0.0407 | 9.9999 | 0.0235 | 9.9999 | 0.5788 | 0.7375 | 0.0479 | 0.2728 | 0.0649 | 0.3698 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F3I | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.92 | 0.02 | 0.0380 | 9.9999 | 0.0217 | 9.9999 | 0.5726 | 0.7626 | 0.0530 | 0.2819 | 0.0695 | 0.3696 |
| 140 | 52.10 | 0.02 | 0.0407 | 9.9999 | 0.0235 | 9.9999 | 0.5788 | 0.7593 | 0.0484 | 0.2811 | 0.0637 | 0.3702 |
| 141 | 52.28 | 0.03 | 0.0393 | 9.9999 | 0.0234 | 9.9999 | 0.5969 | 0.7762 | 0.0517 | 0.2865 | 0.0666 | 0.3691 |
| 142 | 52.43 | 0.04 | 0.0454 | 9.9999 | 0.0275 | 9.9999 | 0.6049 | 0.7775 | 0.0503 | 0.2876 | 0.0647 | 0.3699 |
| 143 | 52.59 | 0.06 | 0.0475 | 9.9999 | 0.0280 | 9.9999 | 0.5886 | 0.7797 | 0.0509 | 0.2877 | 0.0653 | 0.3690 |
| 144 | 52.76 | 0.04 | 0.0393 | 9.9999 | 0.0237 | 9.9999 | 0.6046 | 0.7809 | 0.0483 | 0.2900 | 0.0619 | 0.3714 |
| 145 | 52.94 | 0.03 | 0.0352 | 9.9999 | 0.0214 | 9.9999 | 0.6097 | 0.7890 | 0.0494 | 0.2910 | 0.0626 | 0.3688 |
| 146 | 53.10 | 0.04 | 0.0434 | 9.9999 | 0.0257 | 9.9999 | 0.5912 | 0.7817 | 0.0491 | 0.2892 | 0.0628 | 0.3708 |
| 147 | 53.27 | 0.06 | 0.0393 | 9.9999 | 0.0212 | 9.9999 | 0.5408 | 0.7887 | 0.0483 | 0.2917 | 0.0612 | 0.3698 |
| 148 | 53.43 | 0.03 | 0.0407 | 9.9999 | 0.0230 | 9.9999 | 0.5665 | 0.7826 | 0.0479 | 0.2885 | 0.0612 | 0.3686 |
| 149 | 53.59 | 0.03 | 0.0427 | 9.9999 | 0.0242 | 9.9999 | 0.5681 | 0.7844 | 0.0492 | 0.2897 | 0.0627 | 0.3693 |
| 150 | 53.76 | 0.03 | 0.0394 | 9.9999 | 0.0223 | 9.9999 | 0.5674 | 0.7828 | 0.0477 | 0.2888 | 0.0609 | 0.3689 |
| 151 | 53.90 | 0.03 | 0.0350 | 9.9999 | 0.0219 | 9.9999 | 0.5778 | 0.8033 | 0.0489 | 0.2955 | 0.0609 | 0.3678 |
| 152 | 54.06 | 0.04 | 0.0393 | 9.9999 | 0.0220 | 9.9999 | 0.5612 | 0.7939 | 0.0491 | 0.2922 | 0.0619 | 0.3680 |
| 153 | 54.22 | 0.01 | 0.0393 | 9.9999 | 0.0239 | 9.9999 | 0.6097 | 0.7952 | 0.0460 | 0.2937 | 0.0578 | 0.3693 |
| 154 | 54.38 | 0.04 | 0.0380 | 9.9999 | 0.0219 | 9.9999 | 0.5778 | 0.8080 | 0.0518 | 0.2953 | 0.0641 | 0.3655 |
| 155 | 54.52 | 0.03 | 0.0367 | 9.9999 | 0.0200 | 9.9999 | 0.5464 | 0.7999 | 0.0494 | 0.2934 | 0.0618 | 0.3668 |
| 156 | 54.69 | 0.03 | 0.0428 | 9.9999 | 0.0240 | 9.9999 | 0.5621 | 0.7911 | 0.0482 | 0.2901 | 0.0609 | 0.3687 |
| 157 | 54.85 | 0.00 | 0.0326 | 9.9999 | 0.0180 | 9.9999 | 0.5538 | 0.8063 | 0.0479 | 0.2965 | 0.0594 | 0.3678 |
| 158 | 55.00 | 0.01 | 0.0394 | 9.9999 | 0.0223 | 9.9999 | 0.5674 | 0.8113 | 0.0497 | 0.2981 | 0.0613 | 0.3675 |
| 159 | 55.15 | -0.01 | 0.0326 | 9.9999 | 0.0188 | 9.9999 | 0.5785 | 0.8203 | 0.0516 | 0.2999 | 0.0629 | 0.3656 |
| 160 | 55.32 | 0.01 | 0.0414 | 9.9999 | 0.0238 | 9.9999 | 0.5763 | 0.8257 | 0.0509 | 0.3029 | 0.0617 | 0.3669 |
| 161 | 55.46 | -0.01 | 0.0307 | 9.9999 | 0.0165 | 9.9999 | 0.5392 | 0.8392 | 0.0528 | 0.3065 | 0.0630 | 0.3657 |
| 162 | 55.62 | -0.00 | 0.0374 | 9.9999 | 0.0208 | 9.9999 | 0.5576 | 0.8243 | 0.0520 | 0.3008 | 0.0631 | 0.3649 |
| 163 | 55.77 | 0.02 | 0.0326 | 9.9999 | 0.0183 | 9.9999 | 0.5631 | 0.8314 | 0.0527 | 0.3024 | 0.0634 | 0.3637 |
| 164 | 55.93 | -0.00 | 0.0313 | 9.9999 | 0.0174 | 9.9999 | 0.5577 | 0.8346 | 0.0541 | 0.3042 | 0.0648 | 0.3645 |
| 165 | 56.09 | -0.01 | 0.0314 | 9.9999 | 0.0168 | 9.9999 | 0.5367 | 0.8415 | 0.0531 | 0.3068 | 0.0631 | 0.3646 |
| 166 | 56.23 | 0.02 | 0.0314 | 9.9999 | 0.0168 | 9.9999 | 0.5367 | 0.8401 | 0.0530 | 0.3058 | 0.0631 | 0.3640 |
| 167 | 56.38 | -0.01 | 0.0292 | 9.9999 | 0.0175 | 9.9999 | 0.6014 | 0.8514 | 0.0526 | 0.3114 | 0.0618 | 0.3658 |
| 168 | 56.55 | -0.03 | 0.0395 | 9.9999 | 0.0221 | 9.9999 | 0.5609 | 0.8630 | 0.0535 | 0.3151 | 0.0620 | 0.3652 |
| 169 | 56.69 | -0.06 | 0.0347 | 9.9999 | 0.0201 | 9.9999 | 0.5809 | 0.8718 | 0.0523 | 0.3204 | 0.0600 | 0.3675 |
| 170 | 56.85 | 0.01 | 0.0354 | 9.9999 | 0.0199 | 9.9999 | 0.5637 | 0.8770 | 0.0524 | 0.3214 | 0.0598 | 0.3664 |
| 171 | 57.01 | -0.01 | 0.0341 | 9.9999 | 0.0182 | 9.9999 | 0.5353 | 0.8782 | 0.0536 | 0.3221 | 0.0610 | 0.3667 |
| 172 | 57.14 | -0.03 | 0.0368 | 9.9999 | 0.0200 | 9.9999 | 0.5450 | 0.8755 | 0.0531 | 0.3206 | 0.0607 | 0.3661 |
| 173 | 57.31 | -0.02 | 0.0260 | 9.9999 | 0.0129 | 9.9999 | 0.4981 | 0.8917 | 0.0533 | 0.3279 | 0.0598 | 0.3677 |
| 174 | 57.43 | -0.04 | 0.0287 | 9.9999 | 0.0150 | 9.9999 | 0.5245 | 0.8740 | 0.0531 | 0.3205 | 0.0608 | 0.3667 |
| 175 | 57.60 | -0.08 | 0.0287 | 9.9999 | 0.0139 | 9.9999 | 0.4860 | 0.9099 | 0.0578 | 0.3350 | 0.0635 | 0.3682 |
| 176 | 57.74 | -0.14 | 0.0341 | 9.9999 | 0.0182 | 9.9999 | 0.5353 | 0.8928 | 0.0499 | 0.3290 | 0.0559 | 0.3685 |
| 177 | 57.88 | -0.12 | 0.0143 | 9.9999 | 0.0066 | 9.9999 | 0.4615 | 0.8674 | 0.0443 | 0.3207 | 0.0511 | 0.3697 |
| 178 | 58.02 | -0.13 | 0.0185 | 9.9999 | 0.0080 | 9.9999 | 0.4324 | 0.8539 | 0.0404 | 0.3168 | 0.0473 | 0.3710 |
| 179 | 58.17 | -0.13 | 0.0240 | 9.9999 | 0.0112 | 9.9999 | 0.4667 | 0.8691 | 0.0440 | 0.3218 | 0.0506 | 0.3702 |
| 180 | 58.22 | -0.15 | 0.0288 | 9.9999 | 0.0140 | 9.9999 | 0.4878 | 0.8811 | 0.0436 | 0.3269 | 0.0495 | 0.3710 |
| 181 | 58.21 | -0.13 | 0.0255 | 9.9999 | 0.0107 | 9.9999 | 0.4213 | 0.8617 | 0.0420 | 0.3201 | 0.0487 | 0.3714 |
| 182 | 58.22 | -0.09 | 0.0282 | 9.9999 | 0.0131 | 9.9999 | 0.4662 | 0.8680 | 0.0427 | 0.3231 | 0.0492 | 0.3722 |
| 183 | 58.23 | -0.13 | 0.0254 | 9.9999 | 0.0132 | 9.9999 | 0.5217 | 0.8626 | 0.0426 | 0.3204 | 0.0494 | 0.3714 |
| 184 | 58.22 | -0.13 | 0.0226 | 9.9999 | 0.0100 | 9.9999 | 0.4425 | 0.8609 | 0.0413 | 0.3207 | 0.0480 | 0.3728 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 157 | 0.90 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 58.22 | -0.14 | 0.0227 | 9.9999 | 0.0094 | 9.9999 | 0.4141 | 0.8502 | 0.0402 | 0.3174 | 0.0473 | 0.3734 |
| 186 | 58.22 | -0.14 | 0.0096 | 9.9999 | 0.0048 | 9.9999 | 0.5000 | 0.9574 | 0.0414 | 0.3188 | 0.0483 | 0.3718 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | BIWOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.59 | 0.01 | -3.5738 | 12.1621 | 0.0313 | -0.0426 | 0.0021 | 1.3179 | 0.2258 | 1.0921 | -3.4032 |
| 2 | -5.90 | -0.00 | -3.5966 | 12.2087 | 0.0426 | -0.0637 | 0.0021 | 1.3225 | 0.2261 | 1.0964 | -3.3945 |
| 3 | -5.89 | -0.00 | -3.5737 | 12.1619 | 0.0299 | -0.0622 | 0.0021 | 1.3195 | 0.2243 | 1.0952 | -3.4032 |
| 4 | -5.90 | -0.01 | -3.5933 | 12.2129 | 0.0186 | -0.0411 | 0.0021 | 1.3166 | 0.2231 | 1.0935 | -3.4083 |
| 5 | -5.09 | -0.00 | -3.2210 | 11.1924 | -0.0417 | 0.0045 | 0.0022 | 1.2538 | 0.2027 | 1.0510 | -3.4749 |
| 6 | -3.31 | -0.00 | -2.7802 | 9.9803 | -0.0157 | 0.0108 | -0.0033 | 1.1609 | 0.1877 | 0.9732 | -3.5897 |
| 7 | -1.62 | 0.00 | -2.3608 | 8.8424 | 0.0181 | -0.0530 | 0.0031 | 1.0732 | 0.1769 | 0.8963 | -3.7455 |
| 8 | 0.18 | -0.01 | -1.9112 | 7.5954 | -0.0547 | -0.0052 | 0.0033 | 0.9645 | 0.1592 | 0.8053 | -3.9742 |
| 9 | 1.95 | -0.00 | -1.4843 | 6.4245 | -0.0082 | -0.0715 | 0.0037 | 0.8595 | 0.1425 | 0.7171 | -4.3284 |
| 10 | 3.76 | 0.01 | -1.0417 | 5.2950 | 0.0184 | -0.0553 | 0.0042 | 0.7711 | 0.1378 | 0.6333 | -5.0829 |
| 11 | 5.58 | 0.00 | -0.6189 | 4.3028 | -0.0173 | -0.0224 | 0.0047 | 0.6928 | 0.1370 | 0.5558 | -6.9521 |
| 12 | 7.46 | 0.01 | -0.2525 | 3.4562 | 0.0132 | -0.1346 | 0.0054 | 0.6146 | 0.1355 | 0.4791 | -13.6861 |
| 13 | 9.26 | 0.01 | 0.1134 | 2.6368 | 0.0423 | -0.0792 | 0.0059 | 0.5458 | 0.1365 | 0.4093 | 23.2602 |
| 14 | 11.16 | 0.01 | 0.5169 | 1.8074 | 0.0417 | -0.0894 | 0.0067 | 0.4801 | 0.1408 | 0.3394 | 3.5028 |
| 15 | 12.99 | 0.01 | 0.9237 | 1.2631 | -0.0618 | 0.0704 | 0.0015 | 0.4364 | 0.1473 | 0.2892 | 1.3674 |
| 16 | 14.89 | 0.01 | 1.1709 | 1.0728 | -0.0867 | 0.0942 | 0.0024 | 0.4079 | 0.1555 | 0.2524 | 0.9162 |
| 17 | 16.95 | 0.00 | 1.5412 | 0.8041 | -0.0842 | 0.1559 | -0.0025 | 0.3638 | 0.1605 | 0.2033 | 0.5217 |
| 18 | 18.77 | -0.00 | 1.9439 | 0.4374 | -0.2200 | 0.4419 | 0.0099 | 0.3287 | 0.1736 | 0.1551 | 0.2250 |
| 19 | 20.71 | 0.01 | 2.4017 | 0.0135 | -0.0986 | 0.3494 | -0.0063 | 0.2780 | 0.1880 | 0.0900 | 0.0056 |
| 20 | 22.66 | -0.00 | 2.9363 | -0.1965 | -0.2545 | 0.7513 | -0.0352 | 0.2224 | 0.1928 | 0.0296 | -0.0669 |
| 21 | 24.63 | -0.00 | 3.6906 | -0.4472 | -0.2758 | 1.0474 | -0.0572 | 0.1510 | 0.1970 | -0.0460 | -0.1212 |
| 22 | 26.62 | 0.05 | 4.4553 | -0.6306 | 0.5483 | -1.3486 | 0.0460 | 0.0896 | 0.2109 | -0.1213 | -0.1415 |
| 23 | 28.05 | 0.09 | 4.8209 | -0.8587 | 1.0979 | -2.8885 | 0.1145 | 0.0666 | 0.2369 | -0.1703 | -0.1781 |
| 24 | 28.06 | 0.09 | 4.8079 | -0.8482 | 1.0809 | -2.7694 | 0.1143 | 0.0606 | 0.2304 | -0.1698 | -0.1764 |
| 25 | 28.07 | 0.08 | 4.8382 | -0.7658 | 0.9701 | -2.3758 | 0.0964 | 0.0537 | 0.2316 | -0.1779 | -0.1567 |
| 26 | 28.45 | 0.08 | 5.0143 | -0.7478 | 1.0153 | -2.4384 | 0.0970 | 0.0352 | 0.2323 | -0.1971 | -0.1491 |
| 27 | 28.71 | 0.08 | 5.0807 | -0.7291 | 0.9259 | -2.0850 | 0.0732 | 0.0288 | 0.2297 | -0.2009 | -0.1433 |
| 28 | 29.02 | 0.08 | 5.2182 | -0.8750 | 0.9794 | -2.4254 | 0.0917 | 0.0235 | 0.2342 | -0.2107 | -0.1677 |
| 29 | 29.36 | 0.07 | 5.3808 | -0.8546 | 0.8272 | -2.0540 | 0.0682 | -0.0007 | 0.2323 | -0.2330 | -0.1588 |
| 30 | 29.64 | 0.07 | 5.4589 | -0.9707 | 0.8390 | -2.0647 | 0.0566 | -0.0021 | 0.2331 | -0.2352 | -0.1778 |
| 31 | 29.92 | 0.08 | 5.5516 | -0.8689 | 0.9559 | -2.2152 | 0.0396 | -0.0078 | 0.2369 | -0.2447 | -0.1565 |
| 32 | 30.20 | 0.09 | 5.6446 | -0.9989 | 1.1161 | -2.6238 | 0.0523 | -0.0111 | 0.2404 | -0.2515 | -0.1770 |
| 33 | 30.48 | 0.09 | 5.7719 | -0.9524 | 1.0556 | -2.4012 | 0.0407 | -0.0328 | 0.2339 | -0.2667 | -0.1650 |
| 34 | 30.75 | 0.09 | 5.8597 | -1.1495 | 1.1222 | -2.5367 | 0.0588 | -0.0478 | 0.2361 | -0.2839 | -0.1962 |
| 35 | 31.02 | 0.09 | 5.9847 | -1.1443 | 1.0255 | -2.2938 | 0.0530 | -0.0603 | 0.2350 | -0.2954 | -0.1912 |
| 36 | 31.30 | 0.07 | 6.0498 | -1.0784 | 0.8433 | -2.0061 | 0.0529 | -0.0641 | 0.2316 | -0.2958 | -0.1783 |
| 37 | 31.57 | 0.08 | 6.1446 | -1.1208 | 0.8546 | -1.8406 | 0.0412 | -0.0769 | 0.2301 | -0.3071 | -0.1824 |
| 38 | 31.84 | 0.06 | 6.2851 | -1.0554 | 0.7331 | -1.4058 | 0.0294 | -0.0921 | 0.2286 | -0.3208 | -0.1679 |
| 39 | 32.13 | 0.05 | 6.3841 | -1.1036 | 0.6553 | -1.6222 | 0.0358 | -0.1024 | 0.2315 | -0.3339 | -0.1729 |
| 40 | 32.38 | 0.07 | 6.4947 | -1.1311 | 0.7515 | -1.6917 | 0.0364 | -0.1075 | 0.2293 | -0.3368 | -0.1742 |
| 41 | 32.64 | 0.06 | 6.5869 | -1.1961 | 0.7723 | -1.7747 | 0.0368 | -0.1099 | 0.2304 | -0.3403 | -0.1816 |
| 42 | 32.91 | 0.05 | 6.7163 | -1.2481 | 0.4949 | -0.8614 | -0.0054 | -0.1282 | 0.2307 | -0.3589 | -0.1858 |
| 43 | 33.16 | 0.04 | 6.8737 | -1.3396 | 0.3383 | -0.5692 | -0.0171 | -0.1402 | 0.2327 | -0.3729 | -0.1949 |
| 44 | 33.41 | 0.03 | 6.9656 | -1.3117 | 0.3695 | -0.8372 | 0.0131 | -0.1463 | 0.2316 | -0.3779 | -0.1883 |
| 45 | 33.66 | 0.04 | 6.9864 | -1.3566 | 0.5050 | -1.0685 | 0.0372 | -0.1442 | 0.2342 | -0.3784 | -0.1942 |
| 46 | 33.92 | 0.04 | 7.1659 | -1.3079 | 0.4490 | -0.7987 | 0.0317 | -0.1577 | 0.2350 | -0.3927 | -0.1825 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.16 | 0.05 | 7.2020 | -1.4423 | 0.5420 | -1.2698 | 0.0739 | -0.1644 | 0.2377 | -0.4021 | -0.1986 |
| 48 | 34.42 | 0.08 | 7.3309 | -1.5868 | 1.0407 | -2.2874 | 0.1113 | -0.1665 | 0.2472 | -0.4137 | -0.2162 |
| 49 | 34.67 | 0.03 | 7.4327 | -1.3753 | 0.2403 | -0.3443 | 0.0379 | -0.1809 | 0.2452 | -0.4261 | -0.1850 |
| 50 | 34.91 | 0.04 | 7.5611 | -1.6079 | 0.5859 | -1.1986 | 0.0868 | -0.2004 | 0.2445 | -0.4449 | -0.2127 |
| 51 | 35.15 | 0.05 | 7.6794 | -1.7581 | 0.6478 | -1.4025 | 0.1112 | -0.1919 | 0.2468 | -0.4397 | -0.2289 |
| 52 | 35.40 | 0.03 | 7.7893 | -1.7534 | 0.4552 | -0.8895 | 0.0871 | -0.2049 | 0.2464 | -0.4513 | -0.2251 |
| 53 | 35.65 | 0.03 | 7.9254 | -1.7552 | 0.3904 | -0.4029 | 0.0573 | -0.2135 | 0.2457 | -0.4592 | -0.2215 |
| 54 | 35.89 | 0.05 | 8.0500 | -1.8253 | 0.5965 | -1.0531 | 0.0943 | -0.2278 | 0.2467 | -0.4745 | -0.2267 |
| 55 | 36.12 | 0.05 | 8.1861 | -1.9029 | 0.6191 | -1.2717 | 0.1129 | -0.2383 | 0.2456 | -0.4840 | -0.2325 |
| 56 | 36.36 | 0.06 | 8.2590 | -1.9453 | 0.7962 | -1.6562 | 0.1255 | -0.2404 | 0.2502 | -0.4907 | -0.2355 |
| 57 | 36.59 | 0.03 | 8.3542 | -1.9422 | 0.4141 | -0.7574 | 0.0889 | -0.2526 | 0.2426 | -0.4953 | -0.2325 |
| 58 | 36.82 | 0.04 | 8.4105 | -2.0737 | 0.6396 | -1.3429 | 0.1196 | -0.2533 | 0.2445 | -0.4979 | -0.2466 |
| 59 | 37.07 | 0.03 | 8.5626 | -2.1870 | 0.4389 | -0.7699 | 0.0776 | -0.2784 | 0.2407 | -0.5192 | -0.2554 |
| 60 | 37.30 | 0.03 | 8.6244 | -2.1913 | 0.4703 | -0.8619 | 0.0999 | -0.2859 | 0.2406 | -0.5266 | -0.2541 |
| 61 | 37.54 | 0.03 | 8.7687 | -2.3172 | 0.5074 | -1.0729 | 0.0906 | -0.2966 | 0.2437 | -0.5403 | -0.2663 |
| 62 | 37.78 | 0.03 | 8.8421 | -2.3604 | 0.5819 | -1.2784 | 0.1149 | -0.2876 | 0.2441 | -0.5318 | -0.2670 |
| 63 | 37.99 | 0.03 | 8.9497 | -2.4277 | 0.5496 | -1.1958 | 0.1033 | -0.3005 | 0.2399 | -0.5404 | -0.2713 |
| 64 | 38.24 | 0.04 | 9.0604 | -2.4552 | 0.6322 | -1.2836 | 0.1039 | -0.3157 | 0.2422 | -0.5579 | -0.2710 |
| 65 | 38.47 | 0.04 | 9.1395 | -2.6326 | 0.7245 | -1.7855 | 0.1283 | -0.3237 | 0.2444 | -0.5681 | -0.2881 |
| 66 | 38.70 | 0.04 | 9.2455 | -2.6495 | 0.7672 | -1.5461 | 0.1108 | -0.3462 | 0.2420 | -0.5882 | -0.2866 |
| 67 | 38.91 | 0.04 | 9.3649 | -2.7401 | 0.6704 | -1.4647 | 0.0931 | -0.3466 | 0.2417 | -0.5883 | -0.2926 |
| 68 | 39.14 | 0.04 | 9.5092 | -2.8818 | 0.7927 | -1.7150 | 0.1177 | -0.3544 | 0.2409 | -0.5953 | -0.3031 |
| 69 | 39.36 | 0.06 | 9.5830 | -2.9561 | 0.9935 | -2.1128 | 0.1719 | -0.3470 | 0.2497 | -0.5967 | -0.3085 |
| 70 | 39.55 | 0.03 | 9.6208 | -2.8656 | 0.7492 | -1.6124 | 0.1299 | -0.3586 | 0.2406 | -0.5992 | -0.2979 |
| 71 | 39.77 | 0.06 | 9.7187 | -2.8941 | 1.0530 | -2.0031 | 0.1548 | -0.3531 | 0.2420 | -0.5951 | -0.2978 |
| 72 | 39.99 | 0.04 | 9.8894 | -2.9960 | 0.7528 | -1.5758 | 0.1486 | -0.3774 | 0.2377 | -0.6151 | -0.3029 |
| 73 | 40.21 | 0.07 | 10.0325 | -3.0918 | 1.0625 | -2.0662 | 0.1567 | -0.3915 | 0.2497 | -0.6412 | -0.3082 |
| 74 | 40.40 | 0.04 | 10.0882 | -3.1608 | 0.7051 | -1.5329 | 0.1440 | -0.4063 | 0.2343 | -0.6406 | -0.3133 |
| 75 | 40.60 | 0.05 | 10.1301 | -3.2754 | 0.8662 | -1.7901 | 0.1744 | -0.3959 | 0.2384 | -0.6343 | -0.3233 |
| 76 | 40.83 | 0.03 | 10.2317 | -3.1992 | 0.6780 | -1.5597 | 0.1445 | -0.4047 | 0.2399 | -0.6446 | -0.3127 |
| 77 | 41.02 | 0.03 | 10.3649 | -3.1302 | 0.7050 | -1.7195 | 0.1571 | -0.4215 | 0.2369 | -0.6584 | -0.3020 |
| 78 | 41.23 | 0.04 | 10.3864 | -3.3486 | 0.9523 | -1.9942 | 0.1814 | -0.4157 | 0.2519 | -0.6676 | -0.3224 |
| 79 | 41.44 | 0.03 | 10.4953 | -3.1797 | 0.8177 | -1.7537 | 0.1579 | -0.4267 | 0.2433 | -0.6700 | -0.3030 |
| 80 | 41.63 | 0.02 | 10.5336 | -3.2465 | 0.6974 | -1.4827 | 0.0862 | -0.4294 | 0.2384 | -0.6678 | -0.3082 |
| 81 | 41.84 | 0.04 | 10.6905 | -3.2662 | 0.7757 | -1.6431 | 0.1705 | -0.4354 | 0.2355 | -0.6709 | -0.3055 |
| 82 | 42.02 | 0.04 | 10.7013 | -3.4104 | 0.7957 | -1.7024 | 0.1762 | -0.4369 | 0.2364 | -0.6734 | -0.3187 |
| 83 | 42.22 | 0.02 | 10.7816 | -3.4229 | 0.5819 | -1.3015 | 0.0956 | -0.4576 | 0.2251 | -0.6828 | -0.3175 |
| 84 | 42.41 | 0.02 | 10.8511 | -3.4896 | 0.5918 | -1.3415 | 0.0869 | -0.4563 | 0.2302 | -0.6866 | -0.3216 |
| 85 | 42.59 | 0.04 | 10.9492 | -3.4051 | 0.7239 | -1.3033 | 0.1709 | -0.4557 | 0.2332 | -0.6890 | -0.3110 |
| 86 | 42.78 | 0.02 | 11.0212 | -3.3787 | 0.5772 | -1.3704 | 0.1293 | -0.4608 | 0.2236 | -0.6845 | -0.3066 |
| 87 | 42.95 | 0.03 | 11.0956 | -3.3928 | 0.6593 | -1.4685 | 0.1358 | -0.4609 | 0.2267 | -0.6877 | -0.3058 |
| 88 | 43.13 | 0.02 | 11.2575 | -3.4238 | 0.5292 | -1.1704 | 0.1241 | -0.4669 | 0.2250 | -0.6920 | -0.3041 |
| 89 | 43.32 | 0.04 | 11.2563 | -3.4950 | 0.7987 | -1.3433 | 0.2197 | -0.4471 | 0.2385 | -0.6857 | -0.3098 |
| 90 | 43.50 | 0.04 | 11.2734 | -3.4579 | 0.7498 | -1.4397 | 0.1603 | -0.4552 | 0.2274 | -0.6827 | -0.3067 |
| 91 | 43.70 | 0.01 | 11.4164 | -3.3568 | 0.5655 | -1.1933 | 0.1130 | -0.4717 | 0.2276 | -0.6994 | -0.2940 |
| 92 | 43.86 | 0.01 | 11.4957 | -3.4895 | 0.5284 | -1.1793 | 0.1131 | -0.4837 | 0.2246 | -0.7083 | -0.3035 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | 81 OF 31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.03 | 0.01 | 11.5453 | -3.5761 | 0.5853 | -1.1897 | 0.0834 | -0.4829 | 0.2231 | -0.7060 | -0.3097 |
| 94 | 44.24 | 0.00 | 11.6256 | -3.7339 | 0.5374 | -1.2285 | 0.0955 | -0.4886 | 0.2229 | -0.7115 | -0.3186 |
| 95 | 44.43 | 0.02 | 11.4139 | -3.5618 | 0.5741 | -1.0553 | 0.1142 | -0.4942 | 0.2222 | -0.7164 | -0.3015 |
| 96 | 44.60 | 0.01 | 11.7091 | -3.5665 | 0.5098 | -1.0735 | 0.1434 | -0.4885 | 0.2221 | -0.7106 | -0.3046 |
| 97 | 44.80 | 0.01 | 11.8931 | -3.6036 | 0.5164 | -1.1658 | 0.0869 | -0.4942 | 0.2237 | -0.7179 | -0.3030 |
| 98 | 44.97 | 0.02 | 11.9068 | -3.5793 | 0.6297 | -1.0248 | 0.1027 | -0.4797 | 0.2244 | -0.7042 | -0.3036 |
| 99 | 45.18 | -0.01 | 11.9843 | -3.6288 | 0.3380 | -1.1737 | 0.0373 | -0.4863 | 0.2344 | -0.7207 | -0.3028 |
| 100 | 45.35 | 0.01 | 12.0197 | -3.7104 | 0.5592 | -1.2915 | 0.1151 | -0.5044 | 0.2262 | -0.7306 | -0.3087 |
| 101 | 45.55 | 0.01 | 12.1072 | -3.6887 | 0.5291 | -1.5315 | 0.0680 | -0.4936 | 0.2312 | -0.7248 | -0.3047 |
| 102 | 45.72 | 0.01 | 12.1199 | -3.8111 | 0.5092 | -1.4499 | 0.0500 | -0.5011 | 0.2305 | -0.7316 | -0.3144 |
| 103 | 45.88 | 0.02 | 12.1889 | -3.6022 | 0.5297 | -0.8292 | 0.1631 | -0.4891 | 0.2346 | -0.7237 | -0.2955 |
| 104 | 46.07 | 0.03 | 12.2200 | -3.6529 | 0.7139 | -1.1157 | 0.1399 | -0.4926 | 0.2349 | -0.7275 | -0.2989 |
| 105 | 46.27 | 0.02 | 12.3327 | -3.4797 | 0.6133 | -0.9068 | 0.1520 | -0.4907 | 0.2390 | -0.7297 | -0.2822 |
| 106 | 46.46 | 0.03 | 12.3806 | -3.4611 | 0.6728 | -0.8180 | 0.1759 | -0.4769 | 0.2403 | -0.7173 | -0.2798 |
| 107 | 46.64 | 0.03 | 12.4545 | -3.3018 | 0.5999 | -0.3601 | 0.1812 | -0.4642 | 0.2542 | -0.7185 | -0.2651 |
| 108 | 46.80 | 0.02 | 12.4477 | -3.2267 | 0.4425 | 0.2762 | 0.2088 | -0.4565 | 0.2645 | -0.7211 | -0.2592 |
| 109 | 46.98 | 0.02 | 12.5695 | -3.2356 | 0.3661 | 0.5157 | 0.1906 | -0.4392 | 0.2818 | -0.7211 | -0.2574 |
| 110 | 47.17 | 0.02 | 12.6440 | -3.3907 | 0.3682 | 0.3046 | 0.1736 | -0.4739 | 0.2711 | -0.7451 | -0.2682 |
| 111 | 47.33 | 0.02 | 12.5969 | -3.2353 | 0.3805 | 0.8233 | 0.1715 | -0.4097 | 0.3161 | -0.7258 | -0.2568 |
| 112 | 47.50 | 0.01 | 12.7054 | -3.1011 | 0.2293 | 0.8166 | 0.1724 | -0.4069 | 0.3276 | -0.7345 | -0.2441 |
| 113 | 47.69 | 0.01 | 12.8445 | -3.7185 | 0.3351 | 0.9413 | 0.0984 | -0.3663 | 0.3803 | -0.7471 | -0.2895 |
| 114 | 47.88 | 0.01 | 12.8191 | -3.6080 | 0.2907 | 1.3198 | 0.0990 | -0.3221 | 0.3842 | -0.7063 | -0.2815 |
| 115 | 48.05 | 0.02 | 12.9613 | -3.9020 | 0.3230 | 1.2165 | 0.0640 | -0.3249 | 0.4117 | -0.7366 | -0.3011 |
| 116 | 48.21 | 0.02 | 12.9573 | -4.0581 | 0.3617 | 1.2429 | 0.0696 | -0.3159 | 0.4284 | -0.7443 | -0.3132 |
| 117 | 48.41 | 0.05 | 13.2823 | -5.0998 | 0.6955 | 1.4083 | -0.0140 | -0.2151 | 0.4683 | -0.6835 | -0.3840 |
| 118 | 48.58 | 0.05 | 13.5197 | -5.6502 | 0.6719 | 1.4588 | -0.0136 | -0.2237 | 0.4857 | -0.7094 | -0.4179 |
| 119 | 48.76 | 0.05 | 13.5116 | -5.6582 | 0.6522 | 1.5828 | -0.0200 | -0.2132 | 0.4996 | -0.7129 | -0.4188 |
| 120 | 48.93 | 0.05 | 13.6426 | -5.7885 | 0.6487 | 1.7443 | -0.0203 | -0.2354 | 0.4927 | -0.7281 | -0.4243 |
| 121 | 49.10 | 0.03 | 13.7064 | -5.6125 | 0.3385 | 1.8108 | -0.0194 | -0.2239 | 0.4966 | -0.7255 | -0.4095 |
| 122 | 49.27 | 0.05 | 13.7118 | -5.5325 | 0.5063 | 2.1599 | -0.0210 | -0.2398 | 0.4774 | -0.7173 | -0.4035 |
| 123 | 49.46 | 0.04 | 13.8497 | -5.8239 | 0.4020 | 2.0889 | -0.0380 | -0.2515 | 0.4765 | -0.7281 | -0.4205 |
| 124 | 49.64 | 0.00 | 13.9578 | -5.8980 | 0.0190 | 2.1658 | -0.0373 | -0.2806 | 0.4762 | -0.7529 | -0.4226 |
| 125 | 49.93 | 0.01 | 14.0645 | -5.8727 | 0.2040 | 2.1056 | -0.0546 | -0.2788 | 0.4684 | -0.7473 | -0.4176 |
| 126 | 50.01 | 0.01 | 14.1089 | -5.7492 | 0.2396 | 2.0720 | -0.0424 | -0.2647 | 0.4695 | -0.7343 | -0.4075 |
| 127 | 50.19 | 0.02 | 14.1546 | -5.6616 | 0.3894 | 1.8230 | -0.0473 | -0.2701 | 0.4749 | -0.7451 | -0.4000 |
| 128 | 50.37 | 0.00 | 14.3180 | -5.8792 | 0.1594 | 1.9577 | -0.0706 | -0.2787 | 0.4832 | -0.7619 | -0.4106 |
| 129 | 50.54 | 0.01 | 14.3194 | -5.9174 | 0.2338 | 2.0584 | -0.0475 | -0.2750 | 0.4847 | -0.7597 | -0.4132 |
| 130 | 50.70 | 0.02 | 14.3297 | -5.9455 | 0.3039 | 2.0958 | -0.0832 | -0.2663 | 0.4883 | -0.7546 | -0.4149 |
| 131 | 50.87 | 0.01 | 14.4290 | -6.1355 | 0.2152 | 2.0731 | -0.0710 | -0.2928 | 0.4783 | -0.7711 | -0.4252 |
| 132 | 51.04 | -0.00 | 14.3847 | -5.8989 | 0.1883 | 1.3167 | -0.0091 | -0.3494 | 0.4420 | -0.7914 | -0.4101 |
| 133 | 51.19 | -0.01 | 14.3219 | -5.9743 | -0.0215 | 1.5992 | -0.0572 | -0.3564 | 0.4287 | -0.7851 | -0.4171 |
| 134 | 51.36 | -0.01 | 14.3011 | -5.7814 | 0.1397 | 1.0851 | 0.0272 | -0.3235 | 0.4208 | -0.7443 | -0.4043 |
| 135 | 51.53 | -0.00 | 14.3420 | -5.8979 | 0.2558 | 0.9124 | 0.0395 | -0.3355 | 0.4231 | -0.7586 | -0.4112 |
| 136 | 51.70 | 0.01 | 14.4675 | -5.8201 | 0.4193 | 0.9278 | 0.0690 | -0.3460 | 0.4247 | -0.7707 | -0.4023 |
| 137 | 51.85 | 0.01 | 14.3169 | -5.7000 | 0.3833 | 0.7083 | 0.0814 | -0.3153 | 0.4289 | -0.7442 | -0.3981 |
| 138 | 52.03 | 0.01 | 14.3659 | -5.5735 | 0.4036 | 0.6243 | 0.0937 | -0.3111 | 0.4268 | -0.7379 | -0.3880 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.19 | 0.00 | 14.4442 | -5.6899 | 0.3365 | 0.7332 | 0.0816 | -0.3164 | 0.4409 | -0.7573 | -0.3939 |
| 140 | 52.35 | -0.02 | 14.3993 | -5.7894 | 0.1442 | 0.9323 | 0.0930 | -0.3401 | 0.4286 | -0.7689 | -0.4021 |
| 141 | 52.51 | -0.00 | 14.4748 | -5.7608 | 0.2595 | 0.7292 | 0.0880 | -0.3258 | 0.4402 | -0.7660 | -0.3980 |
| 142 | 52.68 | -0.02 | 14.4973 | -5.6924 | 0.1357 | 0.7609 | 0.1002 | -0.3292 | 0.4386 | -0.7678 | -0.3926 |
| 143 | 52.86 | -0.01 | 14.5417 | -5.7243 | 0.2181 | 0.6522 | 0.0828 | -0.3199 | 0.4393 | -0.7592 | -0.3936 |
| 144 | 53.02 | 0.00 | 14.5646 | -5.8072 | 0.3190 | 0.6635 | 0.0944 | -0.3410 | 0.4387 | -0.7797 | -0.3987 |
| 145 | 53.19 | -0.01 | 14.6623 | -5.8088 | 0.2642 | 0.5678 | 0.0835 | -0.3369 | 0.4391 | -0.7760 | -0.3962 |
| 146 | 53.35 | -0.02 | 14.6328 | -5.9585 | 0.1380 | 0.7908 | 0.1003 | -0.3589 | 0.4378 | -0.7967 | -0.4072 |
| 147 | 53.52 | -0.01 | 14.5721 | -5.8370 | 0.2427 | 0.6402 | 0.0888 | -0.3465 | 0.4404 | -0.7869 | -0.4006 |
| 148 | 53.67 | -0.03 | 14.6952 | -5.8441 | -0.0391 | 0.7469 | 0.0835 | -0.3265 | 0.4428 | -0.7693 | -0.3977 |
| 149 | 53.83 | -0.04 | 14.7001 | -5.9028 | -0.0401 | 0.7269 | 0.0777 | -0.3423 | 0.4493 | -0.7916 | -0.4016 |
| 150 | 53.99 | -0.01 | 14.7992 | -6.0178 | 0.2358 | 0.7644 | 0.0773 | -0.3308 | 0.4563 | -0.7871 | -0.4066 |
| 151 | 54.13 | -0.03 | 14.7213 | -5.9536 | -0.0800 | 0.9341 | 0.0770 | -0.3337 | 0.4563 | -0.7900 | -0.4044 |
| 152 | 54.30 | -0.03 | 14.8118 | -6.0641 | 0.0055 | 0.6430 | 0.0664 | -0.3464 | 0.4609 | -0.8073 | -0.4094 |
| 153 | 54.47 | -0.01 | 14.9076 | -6.1383 | 0.1803 | 0.6375 | 0.0605 | -0.3552 | 0.4696 | -0.8248 | -0.4118 |
| 154 | 54.61 | -0.03 | 14.8788 | -6.1779 | 0.0522 | 0.5899 | 0.0549 | -0.3543 | 0.4798 | -0.8341 | -0.4152 |
| 155 | 54.76 | -0.03 | 14.7862 | -6.0564 | 0.0880 | 0.7977 | 0.0598 | -0.3262 | 0.4883 | -0.8144 | -0.4096 |
| 156 | 54.93 | -0.02 | 14.9707 | -6.1916 | -0.0236 | 0.8301 | 0.0546 | -0.3148 | 0.5118 | -0.8265 | -0.4136 |
| 157 | 55.09 | -0.03 | 15.0919 | -6.4418 | 0.1640 | 0.5832 | 0.0436 | -0.3099 | 0.5209 | -0.8307 | -0.4268 |
| 158 | 55.23 | -0.01 | 15.0463 | -6.3350 | 0.2210 | 0.7057 | 0.0548 | -0.3151 | 0.5251 | -0.8401 | -0.4210 |
| 159 | 55.38 | -0.01 | 15.0044 | -6.2984 | 0.1496 | 0.5411 | 0.0436 | -0.3198 | 0.5405 | -0.8602 | -0.4198 |
| 160 | 55.53 | -0.07 | 15.1045 | -6.2580 | -0.2607 | 0.8315 | 0.0320 | -0.2980 | 0.5485 | -0.8464 | -0.4143 |
| 161 | 55.69 | -0.02 | 15.0050 | -6.2757 | 0.1170 | 0.6247 | 0.0552 | -0.3261 | 0.5422 | -0.8683 | -0.4182 |
| 162 | 55.86 | -0.03 | 15.0784 | -6.2583 | 0.0305 | 0.6644 | 0.0378 | -0.3052 | 0.5469 | -0.8520 | -0.4150 |
| 163 | 55.99 | -0.05 | 15.0798 | -6.2502 | -0.1509 | 0.7826 | 0.0318 | -0.3341 | 0.5490 | -0.8831 | -0.4145 |
| 164 | 56.16 | -0.03 | 15.1454 | -6.3966 | 0.1116 | 0.5150 | 0.0325 | -0.3204 | 0.5643 | -0.8847 | -0.4217 |
| 165 | 56.34 | -0.06 | 15.4443 | -6.3503 | -0.1524 | 0.4992 | 0.0222 | -0.3591 | 0.5566 | -0.9157 | -0.4112 |
| 166 | 56.51 | -0.05 | 15.5389 | -6.0635 | -0.0481 | 0.3271 | 0.0350 | -0.4075 | 0.5329 | -0.9404 | -0.3902 |
| 167 | 56.66 | -0.05 | 15.5134 | -6.0766 | 0.0307 | -0.0954 | 0.0361 | -0.4645 | 0.4754 | -0.9400 | -0.3917 |
| 168 | 56.81 | -0.07 | 15.6539 | -6.3001 | 0.0307 | -1.0275 | -0.0161 | -0.4836 | 0.4666 | -0.9502 | -0.4025 |
| 169 | 56.98 | -0.08 | 15.7542 | -6.3041 | -0.2189 | -0.7525 | -0.0222 | -0.5092 | 0.4948 | -0.9939 | -0.4002 |
| 170 | 57.13 | -0.09 | 15.7535 | -6.3678 | -0.1957 | -0.8166 | -0.0045 | -0.5089 | 0.4788 | -0.9877 | -0.4042 |
| 171 | 57.25 | -0.06 | 15.5850 | -6.4423 | -0.0639 | -0.7232 | -0.0049 | -0.4197 | 0.5177 | -0.9374 | -0.4134 |
| 172 | 57.40 | -0.06 | 15.5536 | -6.5543 | -0.0702 | -0.4486 | 0.0184 | -0.3966 | 0.5384 | -0.9350 | -0.4214 |
| 173 | 57.54 | -0.07 | 15.6604 | -6.6503 | -0.0686 | -0.4184 | 0.0127 | -0.4241 | 0.5376 | -0.9617 | -0.4247 |
| 174 | 57.67 | -0.06 | 15.6662 | -6.6622 | -0.0819 | -0.4377 | 0.0183 | -0.4427 | 0.5222 | -0.9649 | -0.4280 |
| 175 | 57.83 | -0.08 | 15.6023 | -6.6598 | -0.2022 | -0.3245 | 0.0182 | -0.4247 | 0.5153 | -0.9400 | -0.4268 |
| 176 | 57.98 | -0.05 | 15.7057 | -6.4711 | 0.0526 | -0.1474 | 0.0247 | -0.4680 | 0.4784 | -0.9465 | -0.4120 |
| 177 | 58.14 | -0.05 | 15.8296 | -6.5227 | 0.0323 | -0.2531 | 0.0191 | -0.5139 | 0.4859 | -0.9997 | -0.4121 |
| 178 | 58.27 | -0.05 | 15.7449 | -6.3676 | -0.0096 | -0.1195 | 0.0128 | -0.5139 | 0.4749 | -0.9888 | -0.4044 |
| 179 | 58.31 | -0.03 | 15.9216 | -6.5116 | 0.2424 | -0.3657 | -0.0161 | -0.5320 | 0.4656 | -0.9976 | -0.4090 |
| 180 | 58.18 | -0.06 | 15.4542 | -6.5188 | 0.0210 | -0.4103 | 0.0120 | -0.4409 | 0.5278 | -0.9687 | -0.4218 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1WOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.89 | 0.01 | -0.0028 | 0.0011 | 0.0057 | -0.3929 | -2.0357 | -0.9562 | 0.0040 | -0.4611 | -0.0042 | 0.4823 |
| 2 | -5.90 | -0.00 | -0.0034 | 0.0012 | 0.0057 | -0.3529 | -1.6765 | -0.9563 | 0.0044 | -0.4610 | -0.0046 | 0.4821 |
| 3 | -5.89 | -0.00 | -0.0010 | 0.0014 | 0.0065 | -1.4000 | -6.5000 | -0.9520 | 0.0044 | -0.4596 | -0.0046 | 0.4828 |
| 4 | -5.90 | -0.01 | -0.0040 | 0.0009 | 0.0052 | -0.2250 | -1.3000 | -0.9583 | 0.0042 | -0.4612 | -0.0044 | 0.4813 |
| 5 | -5.09 | -0.00 | -0.0040 | 0.0010 | 0.0053 | -0.2500 | -1.3250 | -0.8752 | 0.0024 | -0.4279 | -0.0027 | 0.4889 |
| 6 | -3.31 | -0.00 | -0.0015 | 0.0014 | 0.0051 | -0.9333 | -3.4000 | -0.7763 | 0.0014 | -0.3914 | -0.0018 | 0.5042 |
| 7 | -1.62 | 0.00 | -0.0038 | 0.0008 | 0.0042 | -0.2105 | -1.1053 | -0.6871 | 0.0 | -0.3552 | 0.0 | 0.5170 |
| 8 | 0.18 | -0.01 | -0.0019 | 0.0011 | 0.0036 | -0.5789 | -1.8947 | -0.5805 | -0.0022 | -0.3099 | 0.0038 | 0.5339 |
| 9 | 1.95 | -0.00 | 0.0017 | 0.0011 | 0.0051 | 0.6471 | 3.0000 | -0.4750 | -0.0059 | -0.2598 | 0.0124 | 0.5470 |
| 10 | 3.76 | 0.01 | 0.0031 | 0.0005 | 0.0051 | 0.1613 | 1.6452 | -0.3711 | -0.0071 | -0.2117 | 0.0192 | 0.5706 |
| 11 | 5.58 | 0.00 | -0.0012 | 0.0 | 0.0050 | 0.0 | -4.1667 | -0.2878 | -0.0066 | -0.1672 | 0.0230 | 0.5811 |
| 12 | 7.46 | 0.01 | -0.0015 | -0.0004 | 0.0073 | 0.2667 | -4.8667 | -0.2137 | -0.0047 | -0.1307 | 0.0220 | 0.6113 |
| 13 | 9.26 | 0.01 | 0.0014 | -0.0004 | 0.0101 | -0.2857 | 7.2143 | -0.1371 | -0.0025 | -0.0895 | 0.0183 | 0.6528 |
| 14 | 11.16 | 0.01 | 0.0027 | -0.0003 | 0.0097 | -0.1111 | 3.5926 | -0.0621 | -0.0007 | -0.0573 | 0.0113 | 0.9226 |
| 15 | 12.99 | 0.01 | -0.0005 | 0.0001 | 0.0092 | -0.2000 | -18.4000 | -0.0073 | 0.0028 | -0.0277 | -0.3836 | 3.7808 |
| 16 | 14.89 | 0.01 | -0.0041 | 0.0001 | 0.0077 | -0.0244 | -1.8780 | 0.0177 | 0.0094 | -0.0165 | 0.5311 | -0.9322 |
| 17 | 16.85 | 0.00 | -0.0120 | 0.0004 | 0.0042 | -0.0333 | -0.3500 | 0.0545 | 0.0167 | -0.0027 | 0.3070 | -0.0496 |
| 18 | 18.77 | -0.00 | -0.0160 | 0.0010 | 0.0048 | -0.0625 | -0.3000 | 0.0918 | 0.0219 | 0.0131 | 0.2391 | 0.1430 |
| 19 | 20.71 | 0.01 | -0.0203 | -0.0002 | -0.0046 | 0.0099 | 0.2266 | 0.1441 | 0.0269 | 0.0385 | 0.1864 | 0.2670 |
| 20 | 22.66 | -0.00 | -0.0748 | 0.0014 | -0.0303 | -0.0188 | 0.4048 | 0.1826 | 0.0314 | 0.0585 | 0.1718 | 0.3095 |
| 21 | 24.63 | -0.00 | -0.0953 | 0.0027 | -0.0459 | -0.0284 | 0.4816 | 0.2347 | 0.0348 | 0.0803 | 0.1482 | 0.3420 |
| 22 | 26.62 | 0.05 | 0.1374 | -0.0011 | 0.0706 | -0.0080 | 0.5142 | 0.3414 | 0.0359 | 0.1338 | 0.1051 | 0.3918 |
| 23 | 28.05 | 0.09 | 0.2883 | -0.0013 | 0.1389 | -0.0065 | 0.4818 | 0.4090 | 0.0344 | 0.1657 | 0.0840 | 0.4052 |
| 24 | 28.06 | 0.09 | 0.2838 | -0.0021 | 0.1403 | -0.0074 | 0.4944 | 0.4102 | 0.0350 | 0.1667 | 0.0852 | 0.4064 |
| 25 | 28.07 | 0.08 | 0.2425 | -0.0026 | 0.1207 | -0.0107 | 0.4979 | 0.4011 | 0.0358 | 0.1610 | 0.0892 | 0.4014 |
| 26 | 28.45 | 0.08 | 0.2419 | -0.0009 | 0.1184 | -0.0037 | 0.4896 | 0.4116 | 0.0352 | 0.1657 | 0.0854 | 0.4026 |
| 27 | 28.71 | 0.08 | 0.1976 | -0.0016 | 0.0976 | -0.0081 | 0.4939 | 0.4087 | 0.0358 | 0.1636 | 0.0875 | 0.4003 |
| 28 | 29.02 | 0.08 | 0.2077 | -0.0009 | 0.1021 | -0.0043 | 0.4916 | 0.4177 | 0.0358 | 0.1676 | 0.0857 | 0.4014 |
| 29 | 29.36 | 0.07 | 0.1959 | -0.0005 | 0.0940 | -0.0026 | 0.4798 | 0.4278 | 0.0365 | 0.1728 | 0.0853 | 0.4038 |
| 30 | 29.64 | 0.07 | 0.1991 | -0.0006 | 0.0940 | -0.0030 | 0.4721 | 0.4469 | 0.0367 | 0.1826 | 0.0821 | 0.4085 |
| 31 | 29.92 | 0.08 | 0.1698 | 0.0009 | 0.0776 | -0.0053 | 0.4566 | 0.4426 | 0.0374 | 0.1802 | 0.0844 | 0.4071 |
| 32 | 30.20 | 0.09 | 0.2365 | -0.0003 | 0.1040 | -0.0013 | 0.4398 | 0.4786 | 0.0367 | 0.1952 | 0.0766 | 0.4079 |
| 33 | 30.48 | 0.09 | 0.2103 | 0.0011 | 0.0935 | 0.0052 | 0.4445 | 0.4784 | 0.0374 | 0.1952 | 0.0781 | 0.4080 |
| 34 | 30.75 | 0.09 | 0.2254 | 0.0011 | 0.1002 | 0.0049 | 0.4446 | 0.4907 | 0.0375 | 0.2007 | 0.0764 | 0.4095 |
| 35 | 31.02 | 0.09 | 0.2026 | 0.0017 | 0.0883 | 0.0094 | 0.4357 | 0.4878 | 0.0391 | 0.1980 | 0.0781 | 0.4059 |
| 36 | 31.30 | 0.07 | 0.1801 | 0.0017 | 0.0805 | 0.0095 | 0.4469 | 0.4878 | 0.0384 | 0.1975 | 0.0787 | 0.4049 |
| 37 | 31.57 | 0.05 | 0.1713 | 0.0023 | 0.0744 | 0.0135 | 0.4342 | 0.4904 | 0.0386 | 0.1997 | 0.0787 | 0.4072 |
| 38 | 31.84 | 0.06 | 0.1430 | 0.0020 | 0.0618 | 0.0140 | 0.4324 | 0.4903 | 0.0391 | 0.1994 | 0.0797 | 0.4067 |
| 39 | 32.13 | 0.05 | 0.1528 | 0.0015 | 0.0651 | 0.0098 | 0.4262 | 0.5034 | 0.0388 | 0.2052 | 0.0770 | 0.4076 |
| 40 | 32.38 | 0.07 | 0.1754 | 0.0015 | 0.0776 | 0.0096 | 0.4423 | 0.5169 | 0.0375 | 0.2119 | 0.0725 | 0.4100 |
| 41 | 32.64 | 0.06 | 0.1982 | 0.0001 | 0.0870 | 0.0005 | 0.4388 | 0.5302 | 0.0367 | 0.2176 | 0.0692 | 0.4105 |
| 42 | 32.91 | 0.05 | 0.0819 | 0.0026 | 0.0278 | 0.0318 | 0.3390 | 0.5118 | 0.0386 | 0.2072 | 0.0754 | 0.4049 |
| 43 | 33.16 | 0.04 | 0.0397 | 0.0035 | 0.0079 | 0.0884 | 0.1995 | 0.5049 | 0.0386 | 0.2039 | 0.0764 | 0.4038 |
| 44 | 33.41 | 0.03 | 0.0752 | 0.0021 | 0.0259 | 0.0280 | 0.3440 | 0.5189 | 0.0382 | 0.2102 | 0.0736 | 0.4052 |
| 45 | 33.66 | 0.04 | 0.0987 | 0.0020 | 0.0418 | 0.0203 | 0.4234 | 0.5258 | 0.0379 | 0.2143 | 0.0720 | 0.4077 |
| 46 | 33.92 | 0.04 | 0.0791 | 0.0006 | 0.0331 | 0.0076 | 0.4183 | 0.5216 | 0.0384 | 0.2104 | 0.0736 | 0.4035 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.16 | 0.05 | 0.1491 | -0.0016 | 0.0707 | -0.0108 | 0.4745 | 0.5417 | 0.0376 | 0.2204 | 0.0694 | 0.4068 |
| 48 | 34.42 | 0.08 | 0.2179 | -0.0005 | 0.0983 | -0.0023 | 0.4510 | 0.5681 | 0.0367 | 0.2335 | 0.0646 | 0.4110 |
| 49 | 34.67 | 0.03 | 0.1117 | -0.0028 | 0.0470 | -0.0251 | 0.4206 | 0.5428 | 0.0389 | 0.2209 | 0.0716 | 0.4069 |
| 50 | 34.91 | 0.04 | 0.1330 | -0.0034 | 0.0666 | -0.0256 | 0.5011 | 0.5565 | 0.0389 | 0.2284 | 0.0699 | 0.4103 |
| 51 | 35.15 | 0.05 | 0.1682 | -0.0033 | 0.0851 | -0.0197 | 0.5057 | 0.5697 | 0.0389 | 0.2336 | 0.0682 | 0.4100 |
| 52 | 35.40 | 0.03 | 0.1265 | -0.0030 | 0.0623 | -0.0238 | 0.4929 | 0.5621 | 0.0392 | 0.2293 | 0.0697 | 0.4061 |
| 53 | 35.65 | 0.03 | 0.0969 | -0.0019 | 0.0425 | -0.0196 | 0.4385 | 0.5669 | 0.0394 | 0.2301 | 0.0695 | 0.4059 |
| 54 | 35.89 | 0.05 | 0.1245 | -0.0035 | 0.0636 | -0.0282 | 0.5113 | 0.5718 | 0.0390 | 0.2327 | 0.0682 | 0.4069 |
| 55 | 36.12 | 0.05 | 0.1725 | -0.0004 | 0.0823 | -0.0023 | 0.4770 | 0.5876 | 0.0389 | 0.2406 | 0.0662 | 0.4094 |
| 56 | 36.36 | 0.06 | 0.2111 | -0.0006 | 0.0995 | -0.0028 | 0.4713 | 0.5965 | 0.0388 | 0.2455 | 0.0650 | 0.4118 |
| 57 | 36.59 | 0.03 | 0.0980 | -0.0013 | 0.0484 | -0.0133 | 0.4939 | 0.5869 | 0.0392 | 0.2399 | 0.0668 | 0.4070 |
| 58 | 36.82 | 0.04 | 0.1961 | 0.0004 | 0.0961 | 0.0020 | 0.4900 | 0.6160 | 0.0383 | 0.2542 | 0.0621 | 0.4127 |
| 59 | 37.07 | 0.03 | 0.1173 | -0.0010 | 0.0557 | -0.0085 | 0.4748 | 0.6077 | 0.0384 | 0.2480 | 0.0631 | 0.4081 |
| 60 | 37.30 | 0.03 | 0.1622 | 0.0001 | 0.0773 | 0.0006 | 0.4762 | 0.6202 | 0.0385 | 0.2545 | 0.0620 | 0.4104 |
| 61 | 37.54 | 0.03 | 0.1095 | -0.0015 | 0.0526 | -0.0137 | 0.4803 | 0.6204 | 0.0378 | 0.2526 | 0.0609 | 0.4072 |
| 62 | 37.78 | 0.03 | 0.1775 | 0.0027 | 0.0791 | 0.0152 | 0.4455 | 0.6368 | 0.0381 | 0.2611 | 0.0598 | 0.4101 |
| 63 | 37.99 | 0.03 | 0.1406 | 0.0004 | 0.0664 | 0.0029 | 0.4726 | 0.6390 | 0.0378 | 0.2618 | 0.0591 | 0.4098 |
| 64 | 38.24 | 0.04 | 0.1708 | 0.0008 | 0.0784 | 0.0047 | 0.4587 | 0.6500 | 0.0378 | 0.2666 | 0.0581 | 0.4102 |
| 65 | 38.47 | 0.04 | 0.2353 | 0.0050 | 0.1066 | 0.0213 | 0.4532 | 0.6714 | 0.0374 | 0.2744 | 0.0557 | 0.4146 |
| 66 | 38.70 | 0.04 | 0.1903 | 0.0030 | 0.0846 | 0.0158 | 0.4444 | 0.6765 | 0.0369 | 0.2790 | 0.0545 | 0.4124 |
| 67 | 38.91 | 0.04 | 0.1850 | 0.0025 | 0.0818 | 0.0135 | 0.4420 | 0.6799 | 0.0370 | 0.2804 | 0.0544 | 0.4124 |
| 68 | 39.14 | 0.04 | 0.2046 | 0.0022 | 0.0938 | 0.0108 | 0.4584 | 0.6916 | 0.0371 | 0.2863 | 0.0536 | 0.4139 |
| 69 | 39.36 | 0.06 | 0.2322 | 0.0073 | 0.1054 | 0.0315 | 0.4540 | 0.6981 | 0.0385 | 0.2892 | 0.0551 | 0.4162 |
| 70 | 39.55 | 0.03 | 0.2074 | 0.0028 | 0.0959 | 0.0135 | 0.4623 | 0.7010 | 0.0377 | 0.2902 | 0.0537 | 0.4140 |
| 71 | 39.77 | 0.06 | 0.2405 | 0.0072 | 0.1077 | 0.0300 | 0.4479 | 0.7063 | 0.0392 | 0.2925 | 0.0555 | 0.4141 |
| 72 | 39.99 | 0.04 | 0.2263 | 0.0070 | 0.0993 | 0.0310 | 0.4389 | 0.7055 | 0.0397 | 0.2911 | 0.0562 | 0.4128 |
| 73 | 40.21 | 0.07 | 0.2407 | 0.0095 | 0.1026 | 0.0396 | 0.4263 | 0.7091 | 0.0404 | 0.2908 | 0.0570 | 0.4106 |
| 74 | 40.40 | 0.04 | 0.2265 | 0.0095 | 0.0990 | 0.0420 | 0.4372 | 0.7102 | 0.0407 | 0.2905 | 0.0573 | 0.4091 |
| 75 | 40.60 | 0.05 | 0.2514 | 0.0104 | 0.1100 | 0.0415 | 0.4376 | 0.7116 | 0.0416 | 0.2893 | 0.0584 | 0.4068 |
| 76 | 40.83 | 0.03 | 0.2152 | 0.0095 | 0.0907 | 0.0442 | 0.4213 | 0.7205 | 0.0403 | 0.2940 | 0.0559 | 0.4081 |
| 77 | 41.02 | 0.03 | 0.2485 | 0.0145 | 0.1035 | 0.0585 | 0.4165 | 0.7046 | 0.0432 | 0.2836 | 0.0613 | 0.4024 |
| 78 | 41.23 | 0.04 | 0.2498 | 0.0138 | 0.1040 | 0.0554 | 0.4164 | 0.7215 | 0.0420 | 0.2923 | 0.0582 | 0.4051 |
| 79 | 41.44 | 0.03 | 0.2479 | 0.0137 | 0.1014 | 0.0554 | 0.4091 | 0.7237 | 0.0425 | 0.2914 | 0.0587 | 0.4027 |
| 80 | 41.63 | 0.02 | 0.1551 | 0.0063 | 0.0629 | 0.0407 | 0.4057 | 0.7355 | 0.0394 | 0.2973 | 0.0535 | 0.4042 |
| 81 | 41.84 | 0.04 | 0.1994 | 0.0096 | 0.0833 | 0.0482 | 0.4176 | 0.7276 | 0.0415 | 0.2919 | 0.0570 | 0.4012 |
| 82 | 42.02 | 0.04 | 0.2162 | 0.0114 | 0.0922 | 0.0528 | 0.4263 | 0.7251 | 0.0418 | 0.2895 | 0.0576 | 0.3993 |
| 83 | 42.22 | 0.02 | 0.1674 | 0.0088 | 0.0676 | 0.0527 | 0.4039 | 0.7343 | 0.0409 | 0.2934 | 0.0557 | 0.3996 |
| 84 | 42.41 | 0.02 | 0.1427 | 0.0069 | 0.0533 | 0.0485 | 0.3736 | 0.7478 | 0.0394 | 0.2999 | 0.0527 | 0.4010 |
| 85 | 42.59 | 0.04 | 0.2212 | 0.0176 | 0.0867 | 0.0797 | 0.3919 | 0.7163 | 0.0447 | 0.2832 | 0.0624 | 0.3954 |
| 86 | 42.78 | 0.02 | 0.1767 | 0.0120 | 0.0700 | 0.0681 | 0.3965 | 0.7303 | 0.0425 | 0.2894 | 0.0582 | 0.3963 |
| 87 | 42.95 | 0.03 | 0.1590 | 0.0102 | 0.0654 | 0.0643 | 0.4115 | 0.7319 | 0.0417 | 0.2902 | 0.0570 | 0.3965 |
| 88 | 43.13 | 0.02 | 0.1653 | 0.0124 | 0.0643 | 0.0752 | 0.3891 | 0.7312 | 0.0426 | 0.2889 | 0.0582 | 0.3951 |
| 89 | 43.32 | 0.04 | 0.2003 | 0.0169 | 0.0799 | 0.0845 | 0.3987 | 0.7179 | 0.0455 | 0.2825 | 0.0634 | 0.3935 |
| 90 | 43.50 | 0.04 | 0.2151 | 0.0178 | 0.0852 | 0.0829 | 0.3959 | 0.7169 | 0.0457 | 0.2808 | 0.0637 | 0.3917 |
| 91 | 43.70 | 0.01 | 0.1338 | 0.0113 | 0.0479 | 0.0846 | 0.3581 | 0.7251 | 0.0438 | 0.2857 | 0.0604 | 0.3940 |
| 92 | 43.86 | 0.01 | 0.1636 | 0.0137 | 0.0610 | 0.0839 | 0.3729 | 0.7229 | 0.0446 | 0.2828 | 0.0617 | 0.3912 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.03 | 0.01 | 0.1265 | 0.0076 | 0.0483 | 0.0602 | 0.3819 | 0.7497 | 0.0410 | 0.2954 | 0.0547 | 0.3940 |
| 94 | 44.24 | 0.00 | 0.1374 | 0.0086 | 0.0527 | 0.0627 | 0.3837 | 0.7578 | 0.0401 | 0.2981 | 0.0529 | 0.3934 |
| 95 | 44.43 | 0.02 | 0.1444 | 0.0115 | 0.0542 | 0.0798 | 0.3754 | 0.7361 | 0.0435 | 0.2870 | 0.0591 | 0.3899 |
| 96 | 44.60 | 0.01 | 0.1553 | 0.0139 | 0.0599 | 0.0897 | 0.3858 | 0.7205 | 0.0454 | 0.2793 | 0.0630 | 0.3876 |
| 97 | 44.80 | 0.01 | 0.1093 | 0.0047 | 0.0376 | 0.0431 | 0.3437 | 0.7600 | 0.0400 | 0.2964 | 0.0526 | 0.3900 |
| 98 | 44.97 | 0.02 | 0.1334 | 0.0110 | 0.0484 | 0.0823 | 0.3615 | 0.7370 | 0.0441 | 0.2844 | 0.0598 | 0.3859 |
| 99 | 45.18 | -0.01 | 0.1304 | 0.0090 | 0.0464 | 0.0692 | 0.3559 | 0.7451 | 0.0432 | 0.2874 | 0.0580 | 0.3857 |
| 100 | 45.35 | 0.01 | 0.1390 | 0.0081 | 0.0522 | 0.0584 | 0.3756 | 0.7518 | 0.0424 | 0.2887 | 0.0564 | 0.3840 |
| 101 | 45.55 | 0.01 | 0.1343 | 0.0081 | 0.0490 | 0.0604 | 0.3649 | 0.7598 | 0.0413 | 0.2923 | 0.0543 | 0.3847 |
| 102 | 45.72 | 0.01 | 0.1290 | 0.0033 | 0.0472 | 0.0256 | 0.3660 | 0.7823 | 0.0394 | 0.3028 | 0.0503 | 0.3871 |
| 103 | 45.88 | 0.02 | 0.1453 | 0.0127 | 0.0526 | 0.0876 | 0.3621 | 0.7380 | 0.0457 | 0.2809 | 0.0619 | 0.3806 |
| 104 | 46.07 | 0.03 | 0.1454 | 0.0082 | 0.0535 | 0.0565 | 0.3680 | 0.7480 | 0.0446 | 0.2844 | 0.0596 | 0.3802 |
| 105 | 46.27 | 0.02 | 0.1396 | 0.0138 | 0.0509 | 0.0991 | 0.3647 | 0.7174 | 0.0481 | 0.2696 | 0.0670 | 0.3745 |
| 106 | 46.46 | 0.03 | 0.1485 | 0.0158 | 0.0524 | 0.1066 | 0.3529 | 0.7142 | 0.0492 | 0.2662 | 0.0689 | 0.3728 |
| 107 | 46.64 | 0.03 | 0.1306 | 0.0192 | 0.0433 | 0.1474 | 0.3315 | 0.6847 | 0.0533 | 0.2528 | 0.0779 | 0.3692 |
| 108 | 46.80 | 0.02 | 0.1120 | 0.0225 | 0.0333 | 0.2013 | 0.2970 | 0.6494 | 0.0579 | 0.2385 | 0.0892 | 0.3672 |
| 109 | 46.98 | 0.02 | 0.0793 | 0.0220 | 0.0196 | 0.2781 | 0.2478 | 0.6357 | 0.0597 | 0.2305 | 0.0939 | 0.3625 |
| 110 | 47.17 | 0.02 | 0.0728 | 0.0221 | 0.0192 | 0.3040 | 0.2641 | 0.6406 | 0.0593 | 0.2326 | 0.0926 | 0.3631 |
| 111 | 47.33 | 0.02 | 0.0486 | 0.0220 | 0.0067 | 0.4516 | 0.1794 | 0.6284 | 0.0605 | 0.2251 | 0.0963 | 0.3582 |
| 112 | 47.50 | 0.01 | 0.0466 | 0.0210 | 0.0053 | 0.4516 | 0.1140 | 0.6134 | 0.0598 | 0.2184 | 0.0975 | 0.3562 |
| 113 | 47.69 | 0.01 | 0.0224 | 0.0197 | -0.0041 | 0.8795 | -0.1830 | 0.6672 | 0.0565 | 0.2423 | 0.0847 | 0.3632 |
| 114 | 47.88 | 0.01 | 0.0076 | 0.0187 | -0.0065 | 2.4605 | -0.8553 | 0.6593 | 0.0568 | 0.2362 | 0.0862 | 0.3582 |
| 115 | 48.05 | 0.02 | -0.0157 | 0.0168 | -0.0159 | -1.0701 | 1.0127 | 0.6843 | 0.0566 | 0.2465 | 0.0827 | 0.3602 |
| 116 | 48.21 | 0.02 | -0.0164 | 0.0143 | -0.0164 | -0.8720 | 1.0000 | 0.7062 | 0.0564 | 0.2548 | 0.0799 | 0.3608 |
| 117 | 48.41 | 0.05 | -0.0273 | -0.0052 | -0.0086 | 0.1912 | 0.3162 | 0.6783 | 0.0524 | 0.2287 | 0.0773 | 0.3371 |
| 118 | 48.58 | 0.05 | -0.0184 | -0.0055 | -0.0024 | 0.2959 | 0.1304 | 0.6904 | 0.0520 | 0.2349 | 0.0753 | 0.3402 |
| 119 | 48.76 | 0.05 | -0.0144 | -0.0065 | -0.0022 | 0.4514 | 0.1528 | 0.6917 | 0.0519 | 0.2339 | 0.0750 | 0.3381 |
| 120 | 48.93 | 0.05 | -0.0314 | -0.0066 | -0.0086 | 0.2109 | 0.2748 | 0.6956 | 0.0524 | 0.2356 | 0.0753 | 0.3387 |
| 121 | 49.10 | 0.03 | -0.0192 | -0.0065 | -0.0039 | 0.3385 | 0.1979 | 0.6992 | 0.0510 | 0.2358 | 0.0729 | 0.3372 |
| 122 | 49.27 | 0.05 | -0.0301 | -0.0080 | -0.0067 | 0.2667 | 0.2233 | 0.7060 | 0.0509 | 0.2399 | 0.0721 | 0.3398 |
| 123 | 49.46 | 0.04 | -0.0350 | -0.0073 | -0.0089 | 0.2092 | 0.2550 | 0.7101 | 0.0507 | 0.2399 | 0.0714 | 0.3378 |
| 124 | 49.64 | 0.00 | -0.0376 | -0.0065 | -0.0098 | 0.1733 | 0.2613 | 0.7183 | 0.0509 | 0.2463 | 0.0709 | 0.3429 |
| 125 | 49.83 | 0.01 | -0.0349 | -0.0076 | -0.0088 | 0.2184 | 0.2529 | 0.7374 | 0.0498 | 0.2563 | 0.0675 | 0.3476 |
| 126 | 50.01 | 0.01 | -0.0330 | -0.0054 | -0.0071 | 0.1641 | 0.2158 | 0.7443 | 0.0496 | 0.2591 | 0.0666 | 0.3481 |
| 127 | 50.19 | 0.02 | -0.0268 | -0.0069 | -0.0039 | 0.2584 | 0.1461 | 0.7346 | 0.0511 | 0.2546 | 0.0696 | 0.3466 |
| 128 | 50.37 | 0.00 | -0.0308 | -0.0079 | -0.0057 | 0.2573 | 0.1857 | 0.7702 | 0.0496 | 0.2714 | 0.0644 | 0.3523 |
| 129 | 50.54 | 0.01 | -0.0241 | -0.0078 | -0.0028 | 0.3237 | 0.1162 | 0.7622 | 0.0500 | 0.2668 | 0.0656 | 0.3501 |
| 130 | 50.70 | 0.02 | -0.0390 | -0.0087 | -0.0098 | 0.2237 | 0.2519 | 0.7827 | 0.0504 | 0.2763 | 0.0644 | 0.3530 |
| 131 | 50.87 | 0.01 | -0.0519 | -0.0135 | -0.0167 | 0.2606 | 0.3224 | 0.7750 | 0.0470 | 0.2681 | 0.0606 | 0.3460 |
| 132 | 51.04 | -0.00 | -0.0091 | -0.0099 | 0.0014 | 1.0879 | -0.1538 | 0.7451 | 0.0478 | 0.2516 | 0.0641 | 0.3377 |
| 133 | 51.19 | -0.01 | -0.0385 | -0.0159 | -0.0087 | 0.4141 | 0.2266 | 0.7562 | 0.0470 | 0.2591 | 0.0621 | 0.3427 |
| 134 | 51.36 | -0.01 | 0.0051 | -0.0033 | 0.0047 | -0.6471 | 0.9216 | 0.7285 | 0.0473 | 0.2447 | 0.0649 | 0.3359 |
| 135 | 51.53 | -0.00 | 0.0159 | -0.0032 | 0.0088 | -0.2013 | 0.5535 | 0.7383 | 0.0463 | 0.2493 | 0.0627 | 0.3377 |
| 136 | 51.70 | 0.01 | 0.0308 | 0.0037 | 0.0121 | 0.1205 | 0.3941 | 0.7146 | 0.0462 | 0.2382 | 0.0648 | 0.3333 |
| 137 | 51.85 | 0.01 | 0.0498 | 0.0058 | 0.0184 | 0.1167 | 0.3702 | 0.7268 | 0.0464 | 0.2436 | 0.0638 | 0.3352 |
| 138 | 52.03 | 0.01 | 0.0486 | 0.0086 | 0.0185 | 0.1773 | 0.3814 | 0.7147 | 0.0468 | 0.2385 | 0.0655 | 0.3337 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 158 1.00 1.7 0.0 BIWOF31 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.19 | 0.00 | 0.0413 | 0.0057 | 0.0153 | 0.1383 | 0.3714 | 0.7214 | 0.0478 | 0.2392 | 0.0663 | 0.3318 |
| 140 | 52.35 | -0.02 | 0.0391 | 0.0060 | 0.0130 | 0.1538 | 0.3333 | 0.7212 | 0.0462 | 0.2414 | 0.0641 | 0.3347 |
| 141 | 52.51 | -0.00 | 0.0416 | 0.0042 | 0.0155 | 0.1012 | 0.3735 | 0.7278 | 0.0469 | 0.2442 | 0.0644 | 0.3355 |
| 142 | 52.68 | -0.02 | 0.0358 | 0.0037 | 0.0123 | 0.1036 | 0.3445 | 0.7237 | 0.0461 | 0.2432 | 0.0637 | 0.3361 |
| 143 | 52.86 | -0.01 | 0.0367 | 0.0053 | 0.0126 | 0.1448 | 0.3443 | 0.7305 | 0.0467 | 0.2441 | 0.0639 | 0.3342 |
| 144 | 53.02 | 0.00 | 0.0357 | 0.0048 | 0.0118 | 0.1348 | 0.3315 | 0.7167 | 0.0448 | 0.2394 | 0.0625 | 0.3340 |
| 145 | 53.19 | -0.01 | 0.0358 | 0.0035 | 0.0125 | 0.0990 | 0.3501 | 0.7339 | 0.0447 | 0.2463 | 0.0609 | 0.3356 |
| 146 | 53.35 | -0.02 | 0.0310 | 0.0045 | 0.0093 | 0.1456 | 0.3010 | 0.7296 | 0.0443 | 0.2453 | 0.0607 | 0.3362 |
| 147 | 53.52 | -0.01 | 0.0219 | 0.0039 | 0.0061 | 0.1781 | 0.2785 | 0.7263 | 0.0440 | 0.2433 | 0.0606 | 0.3350 |
| 148 | 53.67 | -0.03 | 0.0330 | 0.0042 | 0.0089 | 0.1277 | 0.2705 | 0.7373 | 0.0439 | 0.2475 | 0.0595 | 0.3357 |
| 149 | 53.83 | -0.04 | 0.0252 | 0.0041 | 0.0059 | 0.1633 | 0.2351 | 0.7342 | 0.0427 | 0.2469 | 0.0581 | 0.3363 |
| 150 | 53.99 | -0.01 | 0.0252 | 0.0040 | 0.0062 | 0.1594 | 0.2470 | 0.7431 | 0.0431 | 0.2520 | 0.0580 | 0.3391 |
| 151 | 54.13 | -0.03 | 0.0115 | 0.0026 | 0.0001 | 0.2251 | 0.0087 | 0.7355 | 0.0409 | 0.2491 | 0.0556 | 0.3373 |
| 152 | 54.30 | -0.03 | 0.0277 | 0.0037 | 0.0069 | 0.1341 | 0.2500 | 0.7469 | 0.0418 | 0.2524 | 0.0559 | 0.3379 |
| 153 | 54.47 | -0.01 | 0.0252 | 0.0037 | 0.0066 | 0.1474 | 0.2629 | 0.7472 | 0.0409 | 0.2532 | 0.0547 | 0.3389 |
| 154 | 54.61 | -0.03 | 0.0199 | 0.0026 | 0.0042 | 0.1307 | 0.2111 | 0.7483 | 0.0401 | 0.2529 | 0.0536 | 0.3380 |
| 155 | 54.76 | -0.03 | 0.0262 | 0.0021 | 0.0058 | 0.0505 | 0.2222 | 0.7618 | 0.0394 | 0.2597 | 0.0517 | 0.3410 |
| 156 | 54.93 | -0.02 | 0.0118 | 0.0010 | 0.0002 | 0.0847 | 0.0169 | 0.7583 | 0.0382 | 0.2573 | 0.0504 | 0.3394 |
| 157 | 55.09 | -0.03 | 0.0233 | 0.0004 | 0.0050 | 0.0172 | 0.2146 | 0.7759 | 0.0389 | 0.2657 | 0.0501 | 0.3425 |
| 158 | 55.23 | -0.01 | 0.0186 | 0.0004 | 0.0023 | 0.0215 | 0.1237 | 0.7719 | 0.0388 | 0.2626 | 0.0502 | 0.3403 |
| 159 | 55.38 | -0.01 | 0.0148 | 0.0009 | 0.0015 | 0.0608 | 0.1014 | 0.7707 | 0.0377 | 0.2637 | 0.0489 | 0.3422 |
| 160 | 55.53 | -0.07 | 0.0085 | -0.0004 | -0.0019 | -0.0471 | -0.2235 | 0.7697 | 0.0365 | 0.2633 | 0.0474 | 0.3421 |
| 161 | 55.69 | -0.02 | 0.0133 | -0.0002 | 0.0005 | -0.0150 | 0.0376 | 0.7858 | 0.0361 | 0.2707 | 0.0459 | 0.3444 |
| 162 | 55.86 | -0.03 | 0.0127 | -0.0002 | -0.0001 | -0.0157 | -0.0079 | 0.7843 | 0.0363 | 0.2706 | 0.0463 | 0.3450 |
| 163 | 55.99 | -0.05 | 0.0116 | -0.0006 | -0.0008 | -0.0517 | -0.0690 | 0.7807 | 0.0353 | 0.2679 | 0.0452 | 0.3431 |
| 164 | 56.16 | -0.03 | 0.0156 | 0.0006 | 0.0013 | 0.0385 | 0.0833 | 0.7774 | 0.0349 | 0.2664 | 0.0449 | 0.3427 |
| 165 | 56.34 | -0.06 | 0.0190 | -0.0011 | 0.0022 | -0.0579 | 0.1158 | 0.7954 | 0.0325 | 0.2770 | 0.0408 | 0.3482 |
| 166 | 56.51 | -0.05 | 0.0129 | -0.0010 | -0.0005 | -0.0775 | -0.0388 | 0.7923 | 0.0335 | 0.2758 | 0.0422 | 0.3480 |
| 167 | 56.66 | -0.05 | 0.0284 | 0.0012 | 0.0058 | 0.0424 | 0.2049 | 0.8147 | 0.0364 | 0.2832 | 0.0446 | 0.3476 |
| 168 | 56.81 | -0.07 | 0.0203 | -0.0015 | 0.0028 | -0.0739 | 0.1379 | 0.8567 | 0.0371 | 0.3019 | 0.0433 | 0.3524 |
| 169 | 56.98 | -0.08 | 0.0176 | 0.0 | 0.0013 | 0.0 | 0.0739 | 0.8572 | 0.0379 | 0.3018 | 0.0442 | 0.3521 |
| 170 | 57.13 | -0.09 | 0.0250 | -0.0004 | 0.0050 | -0.0161 | 0.2008 | 0.8502 | 0.0364 | 0.2997 | 0.0428 | 0.3525 |
| 171 | 57.25 | -0.06 | 0.0195 | -0.0007 | 0.0032 | -0.0359 | 0.1641 | 0.8270 | 0.0316 | 0.2926 | 0.0382 | 0.3538 |
| 172 | 57.40 | -0.06 | 0.0117 | -0.0014 | 0.0003 | -0.1197 | 0.0256 | 0.8216 | 0.0297 | 0.2908 | 0.0361 | 0.3539 |
| 173 | 57.54 | -0.07 | 0.0233 | -0.0024 | 0.0059 | -0.1030 | 0.2532 | 0.8230 | 0.0295 | 0.2909 | 0.0358 | 0.3535 |
| 174 | 57.67 | -0.06 | 0.0156 | -0.0037 | 0.0031 | -0.2372 | 0.1987 | 0.8147 | 0.0298 | 0.2863 | 0.0365 | 0.3514 |
| 175 | 57.83 | -0.08 | 0.0116 | -0.0013 | 0.0006 | -0.1121 | 0.0517 | 0.8135 | 0.0289 | 0.2878 | 0.0355 | 0.3538 |
| 176 | 57.98 | -0.05 | 0.0142 | -0.0024 | 0.0019 | -0.1690 | 0.1338 | 0.8122 | 0.0297 | 0.2861 | 0.0365 | 0.3523 |
| 177 | 58.14 | -0.05 | 0.0184 | -0.0031 | 0.0054 | -0.1685 | 0.2935 | 0.8172 | 0.0320 | 0.2867 | 0.0391 | 0.3508 |
| 178 | 58.27 | -0.05 | 0.0191 | -0.0033 | 0.0052 | -0.1728 | 0.2723 | 0.8307 | 0.0334 | 0.2908 | 0.0402 | 0.3501 |
| 179 | 58.31 | -0.03 | 0.0300 | -0.0060 | 0.0102 | -0.2007 | 0.3411 | 0.9700 | 0.0357 | 0.3074 | 0.0410 | 0.3534 |
| 180 | 58.18 | -0.06 | 0.0141 | -0.0008 | 0.0010 | -0.0567 | 0.0709 | 0.8247 | 0.0300 | 0.2927 | 0.0363 | 0.3549 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.89 | 0.01 | 0.0105 | 9.9999 | 0.0096 | 9.9999 | 0.9143 | -1.0112 | -0.0021 | -0.4235 | 0.0021 | 0.4188 |
| 2 | -5.90 | -0.00 | 0.0099 | 9.9999 | 0.0093 | 9.9999 | 0.9394 | -1.0132 | -0.0022 | -0.4239 | 0.0022 | 0.4184 |
| 3 | -5.99 | -0.00 | 0.0099 | 9.9999 | 0.0101 | 9.9999 | 1.0202 | -1.0120 | -0.0020 | -0.4240 | 0.0020 | 0.4190 |
| 4 | -5.90 | -0.01 | 0.0112 | 9.9999 | 0.0102 | 9.9999 | 0.9107 | -1.0107 | -0.0019 | -0.4231 | 0.0019 | 0.4186 |
| 5 | -5.09 | -0.00 | 0.0111 | 9.9999 | 0.0104 | 9.9999 | 0.9369 | -0.9334 | -0.0042 | -0.3943 | 0.0045 | 0.4224 |
| 6 | -3.31 | -0.00 | 0.0111 | 9.9999 | 0.0112 | 9.9999 | 1.0090 | -0.8341 | -0.0054 | -0.3567 | 0.0065 | 0.4277 |
| 7 | -1.62 | 0.00 | 0.0105 | 9.9999 | 0.0114 | 9.9999 | 1.0857 | -0.7355 | -0.0066 | -0.3181 | 0.0090 | 0.4324 |
| 8 | 0.18 | -0.01 | 0.0085 | 9.9999 | 0.0117 | 9.9999 | 1.3765 | -0.6264 | -0.0082 | -0.2751 | 0.0131 | 0.4391 |
| 9 | 1.95 | -0.00 | 0.0110 | 9.9999 | 0.0132 | 9.9999 | 1.2000 | -0.5212 | -0.0110 | -0.2325 | 0.0211 | 0.4461 |
| 10 | 3.76 | 0.01 | 0.0104 | 9.9999 | 0.0121 | 9.9999 | 1.1635 | -0.4229 | -0.0113 | -0.1880 | 0.0268 | 0.4445 |
| 11 | 5.58 | 0.00 | 0.0085 | 9.9999 | 0.0120 | 9.9999 | 1.4118 | -0.3277 | -0.0092 | -0.1479 | 0.0281 | 0.4486 |
| 12 | 7.46 | 0.01 | 0.0187 | 9.9999 | 0.0139 | 9.9999 | 0.7390 | -0.2413 | -0.0068 | -0.1071 | 0.0282 | 0.4439 |
| 13 | 9.26 | 0.01 | 0.0131 | 9.9999 | 0.0103 | 9.9999 | 0.7863 | -0.1768 | -0.0040 | -0.0723 | 0.0227 | 0.4093 |
| 14 | 11.16 | 0.01 | 0.0201 | 9.9999 | 0.0114 | 9.9999 | 0.5672 | -0.1025 | -0.0010 | -0.0385 | 0.0098 | 0.3754 |
| 15 | 12.99 | 0.01 | 0.0216 | 9.9999 | 0.0077 | 9.9999 | 0.3565 | -0.0466 | 0.0043 | -0.0143 | -0.0925 | 0.3075 |
| 16 | 14.89 | 0.01 | 0.0262 | 9.9999 | 0.0078 | 9.9999 | 0.2989 | -0.0122 | 0.0109 | -0.0001 | -0.8934 | 0.0082 |
| 17 | 16.85 | 0.00 | 0.0293 | 9.9999 | 0.0088 | 9.9999 | 0.3014 | 0.0297 | 0.0171 | 0.0171 | 0.5777 | 0.5777 |
| 18 | 18.77 | -0.00 | 0.0250 | 9.9999 | 0.0050 | 9.9999 | 0.2008 | 0.0857 | 0.0223 | 0.0431 | 0.2608 | 0.5029 |
| 19 | 20.71 | 0.01 | 0.0312 | 9.9999 | 0.0097 | 9.9999 | 0.3119 | 0.1294 | 0.0268 | 0.0644 | 0.2068 | 0.4981 |
| 20 | 22.66 | -0.00 | 0.0306 | 9.9999 | 0.0084 | 9.9999 | 0.2754 | 0.1879 | 0.0299 | 0.0938 | 0.1589 | 0.4992 |
| 21 | 24.63 | -0.00 | 0.0230 | 9.9999 | 0.0038 | 9.9999 | 0.1652 | 0.2380 | 0.0337 | 0.1172 | 0.1415 | 0.4926 |
| 22 | 26.62 | 0.05 | 0.0417 | 9.9999 | 0.0155 | 9.9999 | 0.3726 | 0.2357 | 0.0375 | 0.1159 | 0.1590 | 0.4919 |
| 23 | 28.05 | 0.09 | 0.0466 | 9.9999 | 0.0199 | 9.9999 | 0.4280 | 0.2235 | 0.0396 | 0.1099 | 0.1771 | 0.4919 |
| 24 | 28.06 | 0.09 | 0.0473 | 9.9999 | 0.0192 | 9.9999 | 0.4068 | 0.2256 | 0.0397 | 0.1119 | 0.1759 | 0.4962 |
| 25 | 28.07 | 0.08 | 0.0479 | 9.9999 | 0.0203 | 9.9999 | 0.4247 | 0.2430 | 0.0394 | 0.1205 | 0.1621 | 0.4961 |
| 26 | 28.45 | 0.08 | 0.0448 | 9.9999 | 0.0188 | 9.9999 | 0.4206 | 0.2460 | 0.0393 | 0.1226 | 0.1597 | 0.4982 |
| 27 | 28.71 | 0.08 | 0.0447 | 9.9999 | 0.0190 | 9.9999 | 0.4260 | 0.2619 | 0.0391 | 0.1301 | 0.1492 | 0.4966 |
| 28 | 29.02 | 0.09 | 0.0479 | 9.9999 | 0.0208 | 9.9999 | 0.4351 | 0.2719 | 0.0392 | 0.1348 | 0.1441 | 0.4958 |
| 29 | 29.36 | 0.07 | 0.0453 | 9.9999 | 0.0201 | 9.9999 | 0.4447 | 0.2797 | 0.0386 | 0.1378 | 0.1379 | 0.4927 |
| 30 | 29.64 | 0.07 | 0.0516 | 9.9999 | 0.0238 | 9.9999 | 0.4621 | 0.2901 | 0.0390 | 0.1424 | 0.1344 | 0.4908 |
| 31 | 29.92 | 0.08 | 0.0465 | 9.9999 | 0.0224 | 9.9999 | 0.4828 | 0.2901 | 0.0382 | 0.1435 | 0.1316 | 0.4946 |
| 32 | 30.20 | 0.09 | 0.0478 | 9.9999 | 0.0230 | 9.9999 | 0.4922 | 0.2838 | 0.0395 | 0.1400 | 0.1391 | 0.4933 |
| 33 | 30.48 | 0.09 | 0.0477 | 9.9999 | 0.0237 | 9.9999 | 0.4979 | 0.3004 | 0.0393 | 0.1473 | 0.1308 | 0.4903 |
| 34 | 30.75 | 0.09 | 0.0496 | 9.9999 | 0.0257 | 9.9999 | 0.5172 | 0.3092 | 0.0399 | 0.1510 | 0.1290 | 0.4883 |
| 35 | 31.02 | 0.09 | 0.0427 | 9.9999 | 0.0211 | 9.9999 | 0.4953 | 0.3215 | 0.0399 | 0.1574 | 0.1241 | 0.4897 |
| 36 | 31.30 | 0.07 | 0.0402 | 9.9999 | 0.0194 | 9.9999 | 0.4838 | 0.3342 | 0.0400 | 0.1642 | 0.1196 | 0.4915 |
| 37 | 31.57 | 0.08 | 0.0452 | 9.9999 | 0.0225 | 9.9999 | 0.4989 | 0.3439 | 0.0403 | 0.1687 | 0.1171 | 0.4907 |
| 38 | 31.84 | 0.06 | 0.0427 | 9.9999 | 0.0221 | 9.9999 | 0.5188 | 0.3573 | 0.0405 | 0.1757 | 0.1133 | 0.4916 |
| 39 | 32.13 | 0.05 | 0.0402 | 9.9999 | 0.0201 | 9.9999 | 0.5012 | 0.3588 | 0.0411 | 0.1755 | 0.1145 | 0.4890 |
| 40 | 32.38 | 0.07 | 0.0445 | 9.9999 | 0.0232 | 9.9999 | 0.5225 | 0.3610 | 0.0418 | 0.1759 | 0.1157 | 0.4899 |
| 41 | 32.64 | 0.06 | 0.0402 | 9.9999 | 0.0214 | 9.9999 | 0.5337 | 0.3627 | 0.0421 | 0.1779 | 0.1160 | 0.4903 |
| 42 | 32.91 | 0.05 | 0.0377 | 9.9999 | 0.0200 | 9.9999 | 0.5319 | 0.4011 | 0.0411 | 0.1949 | 0.1024 | 0.4859 |
| 43 | 33.16 | 0.04 | 0.0339 | 9.9999 | 0.0177 | 9.9999 | 0.5237 | 0.4197 | 0.0398 | 0.2035 | 0.0948 | 0.4850 |
| 44 | 33.41 | 0.03 | 0.0339 | 9.9999 | 0.0179 | 9.9999 | 0.5296 | 0.4260 | 0.0406 | 0.2066 | 0.0953 | 0.4851 |
| 45 | 33.66 | 0.04 | 0.0389 | 9.9999 | 0.0208 | 9.9999 | 0.5361 | 0.4242 | 0.0410 | 0.2058 | 0.0966 | 0.4852 |
| 46 | 33.92 | 0.04 | 0.0364 | 9.9999 | 0.0196 | 9.9999 | 0.5399 | 0.4413 | 0.0403 | 0.2132 | 0.0913 | 0.4832 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.16 | 0.05 | 0.0402 | 9.9999 | 0.0219 | 9.9999 | 0.5461 | 0.4409 | 0.0415 | 0.2130 | 0.0941 | 0.4832 |
| 48 | 34.42 | 0.08 | 0.0401 | 9.9999 | 0.0227 | 9.9999 | 0.5675 | 0.4294 | 0.0422 | 0.2074 | 0.0982 | 0.4831 |
| 49 | 34.67 | 0.03 | 0.0283 | 9.9999 | 0.0157 | 9.9999 | 0.5567 | 0.4580 | 0.0415 | 0.2202 | 0.0906 | 0.4806 |
| 50 | 34.91 | 0.04 | 0.0309 | 9.9999 | 0.0162 | 9.9999 | 0.5260 | 0.4657 | 0.0418 | 0.2232 | 0.0897 | 0.4792 |
| 51 | 35.15 | 0.05 | 0.0340 | 9.9999 | 0.0184 | 9.9999 | 0.5428 | 0.4753 | 0.0415 | 0.2273 | 0.0873 | 0.4782 |
| 52 | 35.40 | 0.03 | 0.0352 | 9.9999 | 0.0193 | 9.9999 | 0.5499 | 0.4876 | 0.0414 | 0.2332 | 0.0849 | 0.4782 |
| 53 | 35.65 | 0.03 | 0.0246 | 9.9999 | 0.0132 | 9.9999 | 0.5368 | 0.4959 | 0.0417 | 0.2363 | 0.0841 | 0.4765 |
| 54 | 35.89 | 0.05 | 0.0364 | 9.9999 | 0.0204 | 9.9999 | 0.5620 | 0.5006 | 0.0420 | 0.2383 | 0.0839 | 0.4760 |
| 55 | 36.12 | 0.05 | 0.0364 | 9.9999 | 0.0214 | 9.9999 | 0.5895 | 0.4988 | 0.0424 | 0.2364 | 0.0850 | 0.4739 |
| 56 | 36.36 | 0.06 | 0.0427 | 9.9999 | 0.0247 | 9.9999 | 0.5775 | 0.4965 | 0.0425 | 0.2355 | 0.0856 | 0.4743 |
| 57 | 36.59 | 0.03 | 0.0359 | 9.9999 | 0.0183 | 9.9999 | 0.5112 | 0.5342 | 0.0414 | 0.2512 | 0.0775 | 0.4703 |
| 58 | 36.82 | 0.04 | 0.0389 | 9.9999 | 0.0223 | 9.9999 | 0.5747 | 0.5200 | 0.0420 | 0.2448 | 0.0807 | 0.4708 |
| 59 | 37.07 | 0.03 | 0.0340 | 9.9999 | 0.0179 | 9.9999 | 0.5280 | 0.5444 | 0.0413 | 0.2551 | 0.0758 | 0.4686 |
| 60 | 37.30 | 0.03 | 0.0365 | 9.9999 | 0.0199 | 9.9999 | 0.5467 | 0.5392 | 0.0414 | 0.2521 | 0.0768 | 0.4676 |
| 61 | 37.54 | 0.03 | 0.0365 | 9.9999 | 0.0199 | 9.9999 | 0.5467 | 0.5601 | 0.0406 | 0.2616 | 0.0725 | 0.4671 |
| 62 | 37.78 | 0.03 | 0.0377 | 9.9999 | 0.0202 | 9.9999 | 0.5372 | 0.5453 | 0.0418 | 0.2545 | 0.0766 | 0.4667 |
| 63 | 37.99 | 0.03 | 0.0340 | 9.9999 | 0.0174 | 9.9999 | 0.5133 | 0.5587 | 0.0413 | 0.2609 | 0.0739 | 0.4670 |
| 64 | 38.24 | 0.04 | 0.0427 | 9.9999 | 0.0231 | 9.9999 | 0.5423 | 0.5681 | 0.0413 | 0.2651 | 0.0727 | 0.4667 |
| 65 | 38.47 | 0.04 | 0.0384 | 9.9999 | 0.0198 | 9.9999 | 0.5170 | 0.5492 | 0.0429 | 0.2557 | 0.0781 | 0.4656 |
| 66 | 38.70 | 0.04 | 0.0409 | 9.9999 | 0.0218 | 9.9999 | 0.5343 | 0.5710 | 0.0419 | 0.2649 | 0.0734 | 0.4640 |
| 67 | 38.91 | 0.04 | 0.0422 | 9.9999 | 0.0214 | 9.9999 | 0.5083 | 0.5796 | 0.0419 | 0.2691 | 0.0723 | 0.4642 |
| 68 | 39.14 | 0.04 | 0.0379 | 9.9999 | 0.0188 | 9.9999 | 0.4974 | 0.5793 | 0.0423 | 0.2685 | 0.0730 | 0.4636 |
| 69 | 39.36 | 0.06 | 0.0416 | 9.9999 | 0.0216 | 9.9999 | 0.5205 | 0.5889 | 0.0419 | 0.2716 | 0.0711 | 0.4611 |
| 70 | 39.55 | 0.03 | 0.0328 | 9.9999 | 0.0161 | 9.9999 | 0.4924 | 0.5864 | 0.0423 | 0.2713 | 0.0721 | 0.4626 |
| 71 | 39.77 | 0.06 | 0.0366 | 9.9999 | 0.0189 | 9.9999 | 0.5178 | 0.5882 | 0.0426 | 0.2715 | 0.0724 | 0.4615 |
| 72 | 39.99 | 0.04 | 0.0360 | 9.9999 | 0.0184 | 9.9999 | 0.5125 | 0.6076 | 0.0419 | 0.2799 | 0.0689 | 0.4606 |
| 73 | 40.21 | 0.07 | 0.0386 | 9.9999 | 0.0181 | 9.9999 | 0.4701 | 0.6053 | 0.0427 | 0.2789 | 0.0705 | 0.4607 |
| 74 | 40.40 | 0.04 | 0.0365 | 9.9999 | 0.0201 | 9.9999 | 0.5234 | 0.6206 | 0.0419 | 0.2851 | 0.0675 | 0.4594 |
| 75 | 40.60 | 0.05 | 0.0461 | 9.9999 | 0.0240 | 9.9999 | 0.5217 | 0.6326 | 0.0415 | 0.2906 | 0.0656 | 0.4594 |
| 76 | 40.83 | 0.03 | 0.0335 | 9.9999 | 0.0164 | 9.9999 | 0.4910 | 0.6296 | 0.0428 | 0.2878 | 0.0680 | 0.4571 |
| 77 | 41.02 | 0.03 | 0.0441 | 9.9999 | 0.0228 | 9.9999 | 0.5152 | 0.6367 | 0.0428 | 0.2910 | 0.0672 | 0.4570 |
| 78 | 41.23 | 0.04 | 0.0429 | 9.9999 | 0.0214 | 9.9999 | 0.5000 | 0.6416 | 0.0422 | 0.2922 | 0.0658 | 0.4554 |
| 79 | 41.44 | 0.03 | 0.0366 | 9.9999 | 0.0192 | 9.9999 | 0.5260 | 0.6357 | 0.0445 | 0.2888 | 0.0700 | 0.4543 |
| 80 | 41.63 | 0.02 | 0.0429 | 9.9999 | 0.0217 | 9.9999 | 0.5070 | 0.6448 | 0.0447 | 0.2930 | 0.0693 | 0.4544 |
| 81 | 41.84 | 0.04 | 0.0430 | 9.9999 | 0.0217 | 9.9999 | 0.5058 | 0.6530 | 0.0446 | 0.2954 | 0.0683 | 0.4524 |
| 82 | 42.02 | 0.04 | 0.0429 | 9.9999 | 0.0215 | 9.9999 | 0.5023 | 0.6572 | 0.0444 | 0.2966 | 0.0675 | 0.4513 |
| 83 | 42.22 | 0.02 | 0.0410 | 9.9999 | 0.0208 | 9.9999 | 0.5086 | 0.6633 | 0.0448 | 0.2990 | 0.0675 | 0.4508 |
| 84 | 42.41 | 0.02 | 0.0342 | 9.9999 | 0.0165 | 9.9999 | 0.4839 | 0.6606 | 0.0461 | 0.2958 | 0.0698 | 0.4478 |
| 85 | 42.59 | 0.04 | 0.0398 | 9.9999 | 0.0205 | 9.9999 | 0.5164 | 0.6759 | 0.0438 | 0.3026 | 0.0648 | 0.4477 |
| 86 | 42.78 | 0.02 | 0.0392 | 9.9999 | 0.0191 | 9.9999 | 0.4885 | 0.6700 | 0.0457 | 0.2990 | 0.0682 | 0.4463 |
| 87 | 42.95 | 0.03 | 0.0423 | 9.9999 | 0.0212 | 9.9999 | 0.5024 | 0.6711 | 0.0460 | 0.2991 | 0.0685 | 0.4457 |
| 88 | 43.13 | 0.02 | 0.0435 | 9.9999 | 0.0195 | 9.9999 | 0.4827 | 0.6803 | 0.0463 | 0.3017 | 0.0681 | 0.4435 |
| 89 | 43.32 | 0.04 | 0.0424 | 9.9999 | 0.0207 | 9.9999 | 0.4894 | 0.6931 | 0.0449 | 0.3060 | 0.0648 | 0.4415 |
| 90 | 43.50 | 0.04 | 0.0410 | 9.9999 | 0.0203 | 9.9999 | 0.4963 | 0.6834 | 0.0451 | 0.3034 | 0.0660 | 0.4440 |
| 91 | 43.70 | 0.01 | 0.0455 | 9.9999 | 0.0219 | 9.9999 | 0.4824 | 0.6810 | 0.0481 | 0.2986 | 0.0706 | 0.4385 |
| 92 | 43.86 | 0.01 | 0.0398 | 9.9999 | 0.0197 | 9.9999 | 0.4962 | 0.6853 | 0.0467 | 0.3016 | 0.0681 | 0.4401 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.03 | 0.01 | 0.0366 | 9.9999 | 0.0187 | 9.9999 | 0.5123 | 0.6730 | 0.0493 | 0.2943 | 0.0733 | 0.4373 |
| 94 | 44.24 | 0.00 | 0.0354 | 9.9999 | 0.0186 | 9.9999 | 0.4703 | 0.6839 | 0.0486 | 0.2997 | 0.0711 | 0.4382 |
| 95 | 44.43 | 0.02 | 0.0354 | 9.9999 | 0.0166 | 9.9999 | 0.4703 | 0.6928 | 0.0476 | 0.3029 | 0.0687 | 0.4372 |
| 96 | 44.60 | 0.01 | 0.0393 | 9.9999 | 0.0179 | 9.9999 | 0.4566 | 0.7000 | 0.0462 | 0.3054 | 0.0660 | 0.4363 |
| 97 | 44.80 | 0.01 | 0.0385 | 9.9999 | 0.0194 | 9.9999 | 0.5052 | 0.6731 | 0.0514 | 0.2918 | 0.0764 | 0.4335 |
| 98 | 44.97 | 0.02 | 0.0355 | 9.9999 | 0.0169 | 9.9999 | 0.4774 | 0.6922 | 0.0490 | 0.2996 | 0.0708 | 0.4328 |
| 99 | 45.18 | -0.01 | 0.0329 | 9.9999 | 0.0156 | 9.9999 | 0.4756 | 0.6803 | 0.0504 | 0.2948 | 0.0741 | 0.4333 |
| 100 | 45.35 | 0.01 | 0.0442 | 9.9999 | 0.0231 | 9.9999 | 0.5238 | 0.6887 | 0.0508 | 0.2972 | 0.0738 | 0.4315 |
| 101 | 45.55 | 0.01 | 0.0361 | 9.9999 | 0.0164 | 9.9999 | 0.4556 | 0.6756 | 0.0524 | 0.2911 | 0.0776 | 0.4309 |
| 102 | 45.72 | 0.01 | 0.0355 | 9.9999 | 0.0166 | 9.9999 | 0.4689 | 0.6694 | 0.0549 | 0.2858 | 0.0820 | 0.4269 |
| 103 | 45.88 | 0.02 | 0.0367 | 9.9999 | 0.0182 | 9.9999 | 0.4973 | 0.7039 | 0.0493 | 0.3010 | 0.0700 | 0.4276 |
| 104 | 46.07 | 0.03 | 0.0424 | 9.9999 | 0.0215 | 9.9999 | 0.5083 | 0.6874 | 0.0528 | 0.2937 | 0.0768 | 0.4273 |
| 105 | 46.27 | 0.02 | 0.0431 | 9.9999 | 0.0213 | 9.9999 | 0.4953 | 0.7112 | 0.0493 | 0.3018 | 0.0693 | 0.4244 |
| 106 | 46.46 | 0.03 | 0.0393 | 9.9999 | 0.0184 | 9.9999 | 0.4694 | 0.7036 | 0.0501 | 0.2977 | 0.0712 | 0.4231 |
| 107 | 46.64 | 0.03 | 0.0355 | 9.9999 | 0.0169 | 9.9999 | 0.4774 | 0.7147 | 0.0484 | 0.3014 | 0.0677 | 0.4218 |
| 108 | 46.80 | 0.02 | 0.0361 | 9.9999 | 0.0172 | 9.9999 | 0.4778 | 0.7383 | 0.0464 | 0.3094 | 0.0628 | 0.4191 |
| 109 | 46.98 | 0.02 | 0.0387 | 9.9999 | 0.0176 | 9.9999 | 0.4569 | 0.7422 | 0.0465 | 0.3081 | 0.0626 | 0.4151 |
| 110 | 47.17 | 0.02 | 0.0381 | 9.9999 | 0.0168 | 9.9999 | 0.4421 | 0.7423 | 0.0471 | 0.3070 | 0.0634 | 0.4136 |
| 111 | 47.33 | 0.02 | 0.0298 | 9.9999 | 0.0139 | 9.9999 | 0.4680 | 0.7440 | 0.0463 | 0.3052 | 0.0622 | 0.4102 |
| 112 | 47.50 | 0.01 | 0.0317 | 9.9999 | 0.0135 | 9.9999 | 0.4272 | 0.7383 | 0.0470 | 0.3026 | 0.0637 | 0.4099 |
| 113 | 47.69 | 0.01 | 0.0367 | 9.9999 | 0.0172 | 9.9999 | 0.4699 | 0.7445 | 0.0490 | 0.3052 | 0.0648 | 0.4100 |
| 114 | 47.88 | 0.01 | 0.0361 | 9.9999 | 0.0151 | 9.9999 | 0.4194 | 0.7386 | 0.0508 | 0.2983 | 0.0695 | 0.4039 |
| 115 | 48.05 | 0.02 | 0.0310 | 9.9999 | 0.0130 | 9.9999 | 0.4207 | 0.7493 | 0.0516 | 0.3039 | 0.0689 | 0.4056 |
| 116 | 48.21 | 0.02 | 0.0354 | 9.9999 | 0.0151 | 9.9999 | 0.4278 | 0.7262 | 0.0514 | 0.2906 | 0.0708 | 0.4002 |
| 117 | 48.41 | 0.05 | 0.0460 | 9.9999 | 0.0216 | 9.9999 | 0.4706 | 0.6421 | 0.0470 | 0.2459 | 0.0732 | 0.3830 |
| 118 | 48.58 | 0.05 | 0.0522 | 9.9999 | 0.0247 | 9.9999 | 0.4722 | 0.6461 | 0.0457 | 0.2473 | 0.0707 | 0.3828 |
| 119 | 48.76 | 0.05 | 0.0504 | 9.9999 | 0.0227 | 9.9999 | 0.4513 | 0.6407 | 0.0450 | 0.2451 | 0.0702 | 0.3825 |
| 120 | 48.93 | 0.05 | 0.0485 | 9.9999 | 0.0228 | 9.9999 | 0.4711 | 0.6619 | 0.0447 | 0.2532 | 0.0675 | 0.3826 |
| 121 | 49.10 | 0.03 | 0.0490 | 9.9999 | 0.0223 | 9.9999 | 0.4560 | 0.6559 | 0.0446 | 0.2495 | 0.0690 | 0.3804 |
| 122 | 49.27 | 0.05 | 0.0403 | 9.9999 | 0.0169 | 9.9999 | 0.4204 | 0.6597 | 0.0445 | 0.2508 | 0.0674 | 0.3802 |
| 123 | 49.46 | 0.04 | 0.0533 | 9.9999 | 0.0260 | 9.9999 | 0.4868 | 0.6721 | 0.0440 | 0.2552 | 0.0655 | 0.3798 |
| 124 | 49.64 | 0.00 | 0.0465 | 9.9999 | 0.0219 | 9.9999 | 0.4720 | 0.6759 | 0.0438 | 0.2564 | 0.0648 | 0.3794 |
| 125 | 49.83 | 0.01 | 0.0415 | 9.9999 | 0.0180 | 9.9999 | 0.4348 | 0.6665 | 0.0436 | 0.2512 | 0.0654 | 0.3769 |
| 126 | 50.01 | 0.01 | 0.0397 | 9.9999 | 0.0154 | 9.9999 | 0.3889 | 0.6648 | 0.0439 | 0.2501 | 0.0660 | 0.3762 |
| 127 | 50.19 | 0.02 | 0.0365 | 9.9999 | 0.0151 | 9.9999 | 0.4148 | 0.6558 | 0.0439 | 0.2457 | 0.0669 | 0.3766 |
| 128 | 50.37 | 0.00 | 0.0391 | 9.9999 | 0.0158 | 9.9999 | 0.4051 | 0.6693 | 0.0434 | 0.2505 | 0.0648 | 0.3743 |
| 129 | 50.54 | 0.01 | 0.0402 | 9.9999 | 0.0174 | 9.9999 | 0.4339 | 0.6667 | 0.0443 | 0.2490 | 0.0654 | 0.3735 |
| 130 | 50.70 | 0.02 | 0.0427 | 9.9999 | 0.0191 | 9.9999 | 0.4484 | 0.6730 | 0.0437 | 0.2510 | 0.0649 | 0.3730 |
| 131 | 50.87 | 0.01 | 0.0328 | 9.9999 | 0.0118 | 9.9999 | 0.3609 | 0.6843 | 0.0460 | 0.2552 | 0.0672 | 0.3738 |
| 132 | 51.04 | -0.00 | 0.0352 | 9.9999 | 0.0152 | 9.9999 | 0.4330 | 0.6935 | 0.0580 | 0.2580 | 0.0837 | 0.3721 |
| 133 | 51.19 | -0.01 | 0.0403 | 9.9999 | 0.0166 | 9.9999 | 0.4129 | 0.6944 | 0.0578 | 0.2588 | 0.0833 | 0.3727 |
| 134 | 51.36 | -0.01 | 0.0278 | 9.9999 | 0.0094 | 9.9999 | 0.3394 | 0.7037 | 0.0602 | 0.2637 | 0.0856 | 0.3748 |
| 135 | 51.53 | -0.00 | 0.0321 | 9.9999 | 0.0117 | 9.9999 | 0.3656 | 0.7107 | 0.0590 | 0.2651 | 0.0831 | 0.3731 |
| 136 | 51.70 | 0.01 | 0.0334 | 9.9999 | 0.0131 | 9.9999 | 0.3934 | 0.7333 | 0.0572 | 0.2758 | 0.0780 | 0.3761 |
| 137 | 51.85 | 0.01 | 0.0296 | 9.9999 | 0.0120 | 9.9999 | 0.4068 | 0.7327 | 0.0571 | 0.2746 | 0.0780 | 0.3747 |
| 138 | 52.03 | 0.01 | 0.0296 | 9.9999 | 0.0103 | 9.9999 | 0.3492 | 0.7375 | 0.0554 | 0.2757 | 0.0751 | 0.3738 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 158 | 1.00 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.19 | 0.00 | 0.0296 | 9.9999 | 0.0113 | 9.9999 | 0.3831 | 0.7336 | 0.0550 | 0.2724 | 0.0750 | 0.3713 |
| 140 | 52.35 | -0.02 | 0.0322 | 9.9999 | 0.0120 | 9.9999 | 0.3738 | 0.7462 | 0.0547 | 0.2788 | 0.0733 | 0.3736 |
| 141 | 52.51 | -0.00 | 0.0226 | 9.9999 | 0.0083 | 9.9999 | 0.3673 | 0.7320 | 0.0533 | 0.2720 | 0.0728 | 0.3715 |
| 142 | 52.68 | -0.02 | 0.0277 | 9.9999 | 0.0114 | 9.9999 | 0.4130 | 0.7590 | 0.0539 | 0.2855 | 0.0710 | 0.3762 |
| 143 | 52.86 | -0.01 | 0.0365 | 9.9999 | 0.0153 | 9.9999 | 0.4203 | 0.7502 | 0.0525 | 0.2786 | 0.0700 | 0.3713 |
| 144 | 53.02 | 0.00 | 0.0303 | 9.9999 | 0.0116 | 9.9999 | 0.3841 | 0.7555 | 0.0539 | 0.2807 | 0.0714 | 0.3715 |
| 145 | 53.19 | -0.01 | 0.0303 | 9.9999 | 0.0119 | 9.9999 | 0.3940 | 0.7578 | 0.0516 | 0.2807 | 0.0681 | 0.3704 |
| 146 | 53.35 | -0.02 | 0.0246 | 9.9999 | 0.0102 | 9.9999 | 0.4163 | 0.7701 | 0.0520 | 0.2864 | 0.0675 | 0.3719 |
| 147 | 53.52 | -0.01 | 0.0240 | 9.9999 | 0.0071 | 9.9999 | 0.2958 | 0.7631 | 0.0504 | 0.2827 | 0.0661 | 0.3705 |
| 148 | 53.67 | -0.03 | 0.0277 | 9.9999 | 0.0114 | 9.9999 | 0.4130 | 0.7661 | 0.0503 | 0.2829 | 0.0657 | 0.3693 |
| 149 | 53.83 | -0.04 | 0.0296 | 9.9999 | 0.0116 | 9.9999 | 0.3932 | 0.7680 | 0.0504 | 0.2828 | 0.0656 | 0.3682 |
| 150 | 53.99 | -0.01 | 0.0246 | 9.9999 | 0.0099 | 9.9999 | 0.4041 | 0.7676 | 0.0490 | 0.2826 | 0.0638 | 0.3681 |
| 151 | 54.13 | -0.03 | 0.0265 | 9.9999 | 0.0111 | 9.9999 | 0.4205 | 0.7731 | 0.0491 | 0.2841 | 0.0635 | 0.3675 |
| 152 | 54.30 | -0.03 | 0.0327 | 9.9999 | 0.0143 | 9.9999 | 0.4387 | 0.7756 | 0.0488 | 0.2847 | 0.0629 | 0.3671 |
| 153 | 54.47 | -0.01 | 0.0340 | 9.9999 | 0.0151 | 9.9999 | 0.4454 | 0.7784 | 0.0481 | 0.2860 | 0.0618 | 0.3674 |
| 154 | 54.61 | -0.03 | 0.0340 | 9.9999 | 0.0164 | 9.9999 | 0.4838 | 0.7819 | 0.0484 | 0.2871 | 0.0619 | 0.3672 |
| 155 | 54.76 | -0.03 | 0.0138 | 9.9999 | 0.0053 | 9.9999 | 0.3841 | 0.7662 | 0.0480 | 0.2802 | 0.0626 | 0.3657 |
| 156 | 54.93 | -0.02 | 0.0214 | 9.9999 | 0.0087 | 9.9999 | 0.4065 | 0.7696 | 0.0462 | 0.2818 | 0.0600 | 0.3661 |
| 157 | 55.09 | -0.03 | 0.0321 | 9.9999 | 0.0140 | 9.9999 | 0.4375 | 0.7767 | 0.0455 | 0.2842 | 0.0586 | 0.3659 |
| 158 | 55.23 | -0.01 | 0.0303 | 9.9999 | 0.0131 | 9.9999 | 0.4338 | 0.7606 | 0.0452 | 0.2779 | 0.0594 | 0.3653 |
| 159 | 55.38 | -0.01 | 0.0347 | 9.9999 | 0.0152 | 9.9999 | 0.4393 | 0.7780 | 0.0456 | 0.2838 | 0.0586 | 0.3648 |
| 160 | 55.53 | -0.07 | 0.0315 | 9.9999 | 0.0145 | 9.9999 | 0.4618 | 0.7617 | 0.0433 | 0.2782 | 0.0568 | 0.3652 |
| 161 | 55.69 | -0.02 | 0.0253 | 9.9999 | 0.0110 | 9.9999 | 0.4365 | 0.7823 | 0.0444 | 0.2864 | 0.0567 | 0.3661 |
| 162 | 55.86 | -0.03 | 0.0253 | 9.9999 | 0.0107 | 9.9999 | 0.4246 | 0.7606 | 0.0433 | 0.2781 | 0.0569 | 0.3656 |
| 163 | 55.99 | -0.05 | 0.0253 | 9.9999 | 0.0107 | 9.9999 | 0.4246 | 0.7711 | 0.0430 | 0.2811 | 0.0558 | 0.3645 |
| 164 | 56.16 | -0.03 | 0.0271 | 9.9999 | 0.0126 | 9.9999 | 0.4667 | 0.7783 | 0.0429 | 0.2845 | 0.0551 | 0.3655 |
| 165 | 56.34 | -0.06 | 0.0285 | 9.9999 | 0.0110 | 9.9999 | 0.3873 | 0.7687 | 0.0421 | 0.2801 | 0.0548 | 0.3644 |
| 166 | 56.51 | -0.05 | 0.0260 | 9.9999 | 0.0101 | 9.9999 | 0.3900 | 0.7796 | 0.0433 | 0.2842 | 0.0555 | 0.3645 |
| 167 | 56.66 | -0.05 | 0.0304 | 9.9999 | 0.0137 | 9.9999 | 0.4521 | 0.7949 | 0.0455 | 0.2881 | 0.0572 | 0.3624 |
| 168 | 56.81 | -0.07 | 0.0367 | 9.9999 | 0.0172 | 9.9999 | 0.4699 | 0.7892 | 0.0439 | 0.2861 | 0.0556 | 0.3625 |
| 169 | 56.98 | -0.05 | 0.0291 | 9.9999 | 0.0136 | 9.9999 | 0.4690 | 0.7879 | 0.0446 | 0.2852 | 0.0566 | 0.3619 |
| 170 | 57.13 | -0.09 | 0.0248 | 9.9999 | 0.0105 | 9.9999 | 0.4251 | 0.7948 | 0.0437 | 0.2894 | 0.0550 | 0.3641 |
| 171 | 57.25 | -0.06 | 0.0305 | 9.9999 | 0.0127 | 9.9999 | 0.4178 | 0.7762 | 0.0384 | 0.2859 | 0.0494 | 0.3683 |
| 172 | 57.40 | -0.06 | 0.0268 | 9.9999 | 0.0107 | 9.9999 | 0.4007 | 0.7959 | 0.0398 | 0.2923 | 0.0500 | 0.3672 |
| 173 | 57.54 | -0.07 | 0.0343 | 9.9999 | 0.0163 | 9.9999 | 0.4766 | 0.7943 | 0.0399 | 0.2906 | 0.0502 | 0.3658 |
| 174 | 57.67 | -0.06 | 0.0317 | 9.9999 | 0.0148 | 9.9999 | 0.4684 | 0.7949 | 0.0400 | 0.2904 | 0.0503 | 0.3653 |
| 175 | 57.83 | -0.08 | 0.0342 | 9.9999 | 0.0165 | 9.9999 | 0.4839 | 0.7959 | 0.0384 | 0.2929 | 0.0482 | 0.3680 |
| 176 | 57.98 | -0.05 | 0.0325 | 9.9999 | 0.0142 | 9.9999 | 0.4383 | 0.7912 | 0.0411 | 0.2886 | 0.0519 | 0.3647 |
| 177 | 58.14 | -0.05 | 0.0294 | 9.9999 | 0.0114 | 9.9999 | 0.3891 | 0.7897 | 0.0419 | 0.2858 | 0.0530 | 0.3619 |
| 178 | 58.27 | -0.05 | 0.0299 | 9.9999 | 0.0129 | 9.9999 | 0.4329 | 0.7841 | 0.0395 | 0.2863 | 0.0504 | 0.3651 |
| 179 | 58.31 | -0.03 | 0.0249 | 9.9999 | 0.0093 | 9.9999 | 0.3750 | 0.7803 | 0.0407 | 0.2845 | 0.0521 | 0.3648 |
| 180 | 58.18 | -0.06 | 0.0281 | 9.9999 | 0.0121 | 9.9999 | 0.4321 | 0.7877 | 0.0375 | 0.2905 | 0.0476 | 0.3688 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.86 | 0.00 | -3.4644 | 11.6618 | -0.0176 | -0.0141 | 0.0022 | 1.4501 | 0.3068 | 1.1433 | -3.3662 |
| 2 | -5.86 | 0.00 | -3.4772 | 11.6451 | 0.0368 | -0.0654 | 0.0077 | 1.4487 | 0.3075 | 1.1412 | -3.3490 |
| 3 | -5.87 | 0.00 | -3.4551 | 11.6283 | 0.0060 | -0.0078 | 0.0023 | 1.4461 | 0.3057 | 1.1404 | -3.3655 |
| 4 | -5.83 | 0.02 | -3.2723 | 11.1692 | 0.1714 | -0.1538 | 0.0027 | 1.4185 | 0.2983 | 1.1203 | -3.4133 |
| 5 | -4.06 | -0.00 | -2.9256 | 10.2919 | -0.0374 | 0.0323 | 0.0027 | 1.3500 | 0.2863 | 1.0637 | -3.5178 |
| 6 | -2.35 | -0.01 | -2.4963 | 9.2202 | -0.0476 | 0.0507 | 0.0032 | 1.2601 | 0.2772 | 0.9828 | -3.6906 |
| 7 | -0.57 | 0.01 | -2.1041 | 8.2009 | 0.0699 | -0.0981 | 0.0038 | 1.1835 | 0.2737 | 0.9098 | -3.8978 |
| 8 | 1.22 | -0.00 | -1.6504 | 7.0309 | 0.0038 | -0.0462 | 0.0042 | 1.0960 | 0.2757 | 0.8202 | -4.2602 |
| 9 | 3.12 | -0.01 | -1.2478 | 6.0068 | -0.0035 | 0.0171 | 0.0046 | 1.0224 | 0.2793 | 0.7431 | -4.8137 |
| 10 | 4.90 | -0.00 | -0.9461 | 4.9839 | 0.0294 | -0.0144 | 0.0051 | 0.9518 | 0.2863 | 0.6654 | -5.8901 |
| 11 | 6.79 | -0.01 | -0.6113 | 3.9492 | -0.0580 | 0.0671 | 0.0055 | 0.8735 | 0.2969 | 0.5766 | -9.6014 |
| 12 | 8.63 | 0.00 | -0.0150 | 2.9709 | 0.0985 | -0.0125 | 0.0062 | 0.8063 | 0.3041 | 0.5023 | 197.9599 |
| 13 | 10.52 | -0.00 | 0.4445 | 2.0872 | 0.0480 | -0.0809 | 0.0072 | 0.7492 | 0.3149 | 0.4343 | 4.6952 |
| 14 | 12.42 | -0.01 | 0.9646 | 1.2621 | -0.0564 | 0.1030 | 0.0076 | 0.6877 | 0.3209 | 0.3668 | 1.4596 |
| 15 | 14.35 | -0.00 | 1.2332 | 0.6990 | 0.0467 | 0.1033 | 0.0032 | 0.6584 | 0.3280 | 0.3305 | 0.7290 |
| 16 | 16.33 | -0.01 | 1.5509 | 0.6956 | -0.0602 | 0.2619 | 0.0040 | 0.6328 | 0.3398 | 0.2931 | 0.4485 |
| 17 | 18.32 | -0.01 | 1.9490 | 0.2983 | -0.1663 | 0.4595 | 0.0101 | 0.5939 | 0.3514 | 0.2425 | 0.1510 |
| 18 | 20.29 | -0.01 | 2.3956 | -0.0571 | -0.2034 | 0.6096 | 0.0002 | 0.5420 | 0.3606 | 0.1814 | -0.0238 |
| 19 | 22.31 | -0.01 | 3.1619 | -0.5035 | -0.1467 | 0.3538 | -0.0179 | 0.4717 | 0.3613 | 0.1105 | -0.1592 |
| 20 | 24.33 | -0.02 | 3.9151 | -0.9684 | -0.3101 | 1.1953 | -0.0669 | 0.4212 | 0.3764 | 0.0448 | -0.2474 |
| 21 | 26.36 | 0.03 | 4.5923 | -1.0371 | 0.4542 | -1.0578 | 0.0712 | 0.3867 | 0.3810 | 0.0057 | -0.2758 |
| 22 | 28.13 | 0.02 | 5.2570 | -1.3994 | 0.3664 | -0.8233 | 0.0570 | 0.3546 | 0.3904 | -0.0358 | -0.2643 |
| 23 | 28.16 | 0.02 | 5.3124 | -1.4096 | 0.3342 | -0.9536 | 0.0681 | 0.3635 | 0.3930 | -0.0295 | -0.2653 |
| 24 | 28.57 | 0.02 | 5.4286 | -1.5752 | 0.2090 | -0.4193 | 0.0299 | 0.3379 | 0.3926 | -0.0547 | -0.2902 |
| 25 | 28.84 | 0.02 | 5.5761 | -1.6240 | 0.2287 | -0.3153 | 0.0357 | 0.3316 | 0.3961 | -0.0645 | -0.2912 |
| 26 | 29.13 | 0.03 | 5.6817 | -1.6943 | 0.3230 | -0.6012 | 0.0311 | 0.3284 | 0.3996 | -0.0712 | -0.2982 |
| 27 | 29.47 | 0.06 | 5.8385 | -1.9007 | 0.7649 | -1.8857 | 0.1035 | 0.3259 | 0.4045 | -0.0786 | -0.3255 |
| 28 | 29.76 | 0.04 | 5.9148 | -2.0463 | 0.4778 | -1.2004 | 0.0648 | 0.3075 | 0.4056 | -0.0982 | -0.3460 |
| 29 | 30.03 | 0.05 | 6.0175 | -2.1262 | 0.6173 | -1.3392 | 0.0439 | 0.3060 | 0.4112 | -0.1053 | -0.3533 |
| 30 | 30.33 | 0.06 | 6.2324 | -2.3245 | 0.8448 | -2.0544 | 0.1156 | 0.2791 | 0.4143 | -0.1352 | -0.3730 |
| 31 | 30.58 | 0.05 | 6.3123 | -2.5963 | 0.7787 | -2.0012 | 0.1208 | 0.2820 | 0.4171 | -0.1351 | -0.4113 |
| 32 | 30.88 | 0.05 | 6.4698 | -2.5964 | 0.7100 | -1.4931 | 0.0885 | 0.2719 | 0.4175 | -0.1456 | -0.4014 |
| 33 | 31.16 | 0.04 | 6.6408 | -2.6773 | 0.5806 | -1.0321 | 0.0776 | 0.2576 | 0.4190 | -0.1614 | -0.4032 |
| 34 | 31.43 | 0.07 | 6.6830 | -2.8192 | 0.9018 | -2.0411 | 0.1437 | 0.2511 | 0.4221 | -0.1710 | -0.4218 |
| 35 | 31.71 | 0.03 | 6.8345 | -2.9039 | 0.3128 | -0.5730 | 0.0613 | 0.2437 | 0.4204 | -0.1767 | -0.4249 |
| 36 | 31.99 | 0.04 | 6.9937 | -3.0177 | 0.4623 | -1.0722 | 0.1109 | 0.2409 | 0.4235 | -0.1826 | -0.4315 |
| 37 | 32.26 | 0.02 | 7.1410 | -3.1399 | 0.2789 | -0.4097 | 0.0620 | 0.2393 | 0.4269 | -0.1876 | -0.4397 |
| 38 | 32.52 | 0.04 | 7.1830 | -3.2545 | 0.5582 | -1.1815 | 0.1224 | 0.2335 | 0.4263 | -0.1928 | -0.4531 |
| 39 | 32.78 | 0.04 | 7.3127 | -3.4077 | 0.5542 | -1.1939 | 0.1337 | 0.2286 | 0.4284 | -0.1998 | -0.4660 |
| 40 | 33.05 | 0.06 | 7.4296 | -3.5372 | 0.7208 | -1.4754 | 0.1451 | 0.2234 | 0.4326 | -0.2092 | -0.4761 |
| 41 | 33.31 | 0.02 | 7.5878 | -3.3801 | 0.1811 | -0.3096 | 0.1065 | 0.2263 | 0.4337 | -0.2074 | -0.4455 |
| 42 | 33.55 | 0.03 | 7.6918 | -3.5934 | 0.3241 | -0.7367 | 0.1449 | 0.2117 | 0.4376 | -0.2259 | -0.4672 |
| 43 | 33.82 | 0.02 | 7.8326 | -3.7529 | 0.2280 | -0.3069 | 0.1124 | 0.1963 | 0.4373 | -0.2410 | -0.4791 |
| 44 | 34.08 | 0.02 | 7.9755 | -3.8915 | 0.2454 | -0.5405 | 0.1454 | 0.1970 | 0.4387 | -0.2417 | -0.4879 |
| 45 | 34.31 | 0.01 | 8.0183 | -3.8969 | 0.2166 | -0.3165 | 0.1453 | 0.1915 | 0.4376 | -0.2461 | -0.4860 |
| 46 | 34.56 | 0.02 | 8.1746 | -4.1056 | 0.2822 | -0.3779 | 0.1351 | 0.1735 | 0.4413 | -0.2678 | -0.5022 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 2 OF 6

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | 81 OF 31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.83 | 0.02 | 8.3493 | -4.2673 | 0.2689 | -0.2532 | 0.1516 | 0.1565 | 0.4402 | -0.2837 | -0.5111 |
| 48 | 35.08 | 0.02 | 8.4944 | -4.3391 | 0.3281 | -0.5350 | 0.1742 | 0.1535 | 0.4448 | -0.2914 | -0.5108 |
| 49 | 35.31 | 0.05 | 8.5357 | -4.6363 | 0.6980 | -1.3366 | 0.2400 | 0.1724 | 0.4504 | -0.2780 | -0.5432 |
| 50 | 35.56 | -0.01 | 8.7199 | -4.4797 | 0.0192 | 0.2242 | 0.1032 | 0.1407 | 0.4453 | -0.3047 | -0.5137 |
| 51 | 35.80 | 0.01 | 8.7594 | -4.5883 | 0.3534 | -0.5214 | 0.1699 | 0.1479 | 0.4490 | -0.3012 | -0.5238 |
| 52 | 36.04 | -0.00 | 8.9197 | -4.6939 | 0.1202 | 0.1891 | 0.0659 | 0.1268 | 0.4497 | -0.3230 | -0.5262 |
| 53 | 36.27 | 0.01 | 9.0490 | -4.9558 | 0.3778 | -0.6787 | 0.2143 | 0.1204 | 0.4517 | -0.3314 | -0.5477 |
| 54 | 36.52 | 0.03 | 9.1655 | -4.9133 | 0.5691 | -0.9327 | 0.1882 | 0.1118 | 0.4506 | -0.3389 | -0.5361 |
| 55 | 36.75 | 0.01 | 9.1795 | -4.9870 | 0.3068 | -0.5352 | 0.1822 | 0.1290 | 0.4541 | -0.3252 | -0.5433 |
| 56 | 36.98 | 0.01 | 9.3041 | -5.0009 | 0.3252 | -0.4577 | 0.1719 | 0.1074 | 0.4487 | -0.3414 | -0.5375 |
| 57 | 37.24 | -0.01 | 9.4448 | -5.2358 | 0.1283 | -0.1192 | 0.1067 | 0.1063 | 0.4473 | -0.3411 | -0.5544 |
| 58 | 37.47 | 0.01 | 9.5551 | -5.3632 | 0.3648 | -0.5509 | 0.1510 | 0.0877 | 0.4462 | -0.3585 | -0.5613 |
| 59 | 37.70 | 0.00 | 9.6756 | -5.4672 | 0.2740 | -0.5139 | 0.1677 | 0.0840 | 0.4499 | -0.3659 | -0.5650 |
| 60 | 37.94 | 0.02 | 9.7609 | -5.6263 | 0.3661 | -0.6855 | 0.1734 | 0.0767 | 0.4541 | -0.3774 | -0.5764 |
| 61 | 38.18 | 0.00 | 9.9611 | -5.7680 | 0.1969 | -0.3001 | 0.1842 | 0.0512 | 0.4478 | -0.3966 | -0.5790 |
| 62 | 38.41 | -0.00 | 9.9934 | -5.7375 | 0.2004 | -0.2550 | 0.1573 | 0.0502 | 0.4471 | -0.3969 | -0.5741 |
| 63 | 38.65 | 0.00 | 10.0952 | -5.9476 | 0.2420 | -0.3231 | 0.1738 | 0.0430 | 0.4446 | -0.4016 | -0.5892 |
| 64 | 38.86 | -0.01 | 10.0913 | -5.9144 | 0.0764 | -0.0136 | 0.1353 | 0.0536 | 0.4432 | -0.3896 | -0.5861 |
| 65 | 39.09 | 0.00 | 10.2416 | -6.0933 | 0.2292 | -0.3281 | 0.1256 | 0.0303 | 0.4400 | -0.4097 | -0.5950 |
| 66 | 39.34 | 0.01 | 10.4395 | -6.3147 | 0.3206 | -0.3779 | 0.1696 | 0.0134 | 0.4410 | -0.4276 | -0.6049 |
| 67 | 39.56 | 0.00 | 10.5061 | -6.5237 | 0.2356 | -0.2611 | 0.1912 | 0.0192 | 0.4417 | -0.4225 | -0.6209 |
| 68 | 39.76 | 0.01 | 10.5949 | -6.5375 | 0.2939 | -0.2670 | 0.1589 | -0.0074 | 0.4396 | -0.4470 | -0.6170 |
| 69 | 40.00 | -0.02 | 10.7443 | -6.6618 | -0.0027 | 0.0036 | 0.1101 | -0.0229 | 0.4308 | -0.4537 | -0.6200 |
| 70 | 40.20 | -0.01 | 10.8502 | -6.8374 | 0.1424 | -0.2473 | 0.1379 | -0.0129 | 0.4312 | -0.4441 | -0.6302 |
| 71 | 40.41 | 0.01 | 10.9540 | -6.9758 | 0.2542 | -0.1232 | 0.1649 | -0.0237 | 0.4382 | -0.4619 | -0.6365 |
| 72 | 40.61 | -0.01 | 11.0438 | -7.0106 | 0.1532 | -0.0944 | 0.1110 | -0.0430 | 0.4316 | -0.4746 | -0.6348 |
| 73 | 40.82 | -0.01 | 11.2185 | -7.2550 | 0.1680 | 0.2001 | 0.1536 | -0.0524 | 0.4288 | -0.4813 | -0.6467 |
| 74 | 41.05 | -0.02 | 11.2787 | -7.3242 | 0.0957 | 0.1331 | 0.1325 | -0.0725 | 0.4334 | -0.5060 | -0.6494 |
| 75 | 41.23 | -0.01 | 11.3376 | -7.4751 | 0.0680 | 0.2850 | 0.1374 | -0.0605 | 0.4214 | -0.4820 | -0.6593 |
| 76 | 41.45 | -0.01 | 11.4460 | -7.5458 | 0.0819 | 0.3186 | 0.1277 | -0.0727 | 0.4228 | -0.4956 | -0.6592 |
| 77 | 41.67 | -0.01 | 11.6156 | -7.8233 | -0.0011 | 0.7256 | 0.1374 | -0.0862 | 0.4168 | -0.5031 | -0.6735 |
| 78 | 41.84 | -0.02 | 11.5220 | -7.7336 | -0.0135 | 0.4757 | 0.1328 | -0.0917 | 0.4134 | -0.5052 | -0.6712 |
| 79 | 42.06 | -0.01 | 11.7205 | -7.9268 | -0.0182 | 0.6264 | 0.1055 | -0.1239 | 0.4099 | -0.5338 | -0.6763 |
| 80 | 42.25 | -0.02 | 11.8051 | -8.0031 | -0.0868 | 0.6136 | 0.0896 | -0.1240 | 0.4043 | -0.5283 | -0.6779 |
| 81 | 42.45 | -0.02 | 11.9067 | -7.6590 | -0.1012 | 0.5704 | 0.0688 | -0.1496 | 0.3959 | -0.5415 | -0.6432 |
| 82 | 42.64 | -0.03 | 12.0058 | -8.1190 | -0.1711 | 0.9929 | 0.0989 | -0.1466 | 0.3952 | -0.5418 | -0.6763 |
| 83 | 42.83 | -0.02 | 12.1337 | -7.9281 | -0.1006 | 1.0246 | 0.0676 | -0.1712 | 0.3913 | -0.5625 | -0.6534 |
| 84 | 43.00 | -0.03 | 12.1073 | -7.7341 | -0.2185 | 0.9612 | 0.0683 | -0.1429 | 0.3903 | -0.5332 | -0.6388 |
| 85 | 43.17 | -0.02 | 11.9631 | -7.2140 | -0.1838 | 1.2005 | 0.0564 | -0.1276 | 0.4039 | -0.5315 | -0.6030 |
| 86 | 43.36 | -0.02 | 12.2911 | -8.2561 | -0.1161 | 0.9056 | 0.0630 | -0.1853 | 0.3822 | -0.5675 | -0.6717 |
| 87 | 43.55 | -0.02 | 12.2864 | -7.9081 | -0.2143 | 1.0454 | 0.0413 | -0.1820 | 0.3903 | -0.5723 | -0.6436 |
| 88 | 43.73 | -0.02 | 12.4614 | -8.4100 | -0.1596 | 0.7613 | 0.0425 | -0.2045 | 0.3752 | -0.5797 | -0.6749 |
| 89 | 43.91 | -0.02 | 12.5642 | -8.5939 | -0.1048 | 0.7099 | 0.0374 | -0.2213 | 0.3686 | -0.5899 | -0.6840 |
| 90 | 44.09 | -0.02 | 12.6295 | -8.6299 | -0.1613 | 0.7243 | 0.0377 | -0.2322 | 0.3706 | -0.6028 | -0.6833 |
| 91 | 44.25 | -0.03 | 12.6491 | -8.6576 | -0.2562 | 0.8907 | 0.0427 | -0.2374 | 0.3588 | -0.5962 | -0.6846 |
| 92 | 44.47 | -0.02 | 12.8010 | -8.6016 | -0.1797 | 0.5973 | 0.0226 | -0.2540 | 0.3573 | -0.6113 | -0.6719 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | B1#OF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.65 | -0.03 | 12.8725 | -8.5511 | -0.2226 | 0.6570 | 0.0228 | -0.2510 | 0.3573 | -0.6083 | -0.6643 |
| 94 | 44.83 | -0.01 | 12.9049 | -8.5617 | 0.1043 | -0.3045 | 0.0418 | -0.2514 | 0.3532 | -0.6046 | -0.6634 |
| 95 | 45.01 | -0.04 | 12.6926 | -7.4350 | -0.3154 | 0.8716 | 0.0010 | -0.1888 | 0.3802 | -0.5690 | -0.5858 |
| 96 | 45.18 | -0.02 | 12.8512 | -8.5419 | -0.0334 | 0.0623 | 0.0356 | -0.2705 | 0.3493 | -0.6198 | -0.6647 |
| 97 | 45.39 | -0.02 | 13.1444 | -8.6897 | -0.1237 | 0.3220 | 0.0248 | -0.3010 | 0.3499 | -0.6508 | -0.6611 |
| 98 | 45.56 | -0.02 | 13.1184 | -8.5245 | -0.0345 | 0.2496 | 0.0358 | -0.2869 | 0.3465 | -0.6334 | -0.6498 |
| 99 | 45.75 | -0.04 | 13.0952 | -7.9259 | -0.1786 | 0.6076 | 0.0028 | -0.2376 | 0.3577 | -0.5953 | -0.6052 |
| 100 | 45.92 | -0.04 | 13.0501 | -7.6789 | -0.1918 | 0.8146 | -0.0088 | -0.2306 | 0.3548 | -0.5854 | -0.5884 |
| 101 | 46.09 | -0.02 | 13.0899 | -7.9305 | -0.0673 | 0.7656 | -0.0090 | -0.2435 | 0.3604 | -0.6039 | -0.6059 |
| 102 | 46.27 | -0.04 | 13.1413 | -7.4428 | -0.3088 | 1.2168 | -0.0420 | -0.1860 | 0.3628 | -0.5488 | -0.5664 |
| 103 | 46.44 | -0.03 | 13.1820 | -7.6076 | -0.1795 | 1.0362 | -0.0469 | -0.1915 | 0.3712 | -0.5627 | -0.5771 |
| 104 | 46.60 | -0.04 | 13.1767 | -7.6553 | -0.2302 | 0.9472 | -0.0141 | -0.2268 | 0.3666 | -0.5934 | -0.5810 |
| 105 | 46.79 | -0.03 | 13.2168 | -7.3422 | -0.2029 | 1.0397 | -0.0572 | -0.1743 | 0.3800 | -0.5543 | -0.5555 |
| 106 | 46.96 | -0.04 | 13.2884 | -7.1070 | -0.2548 | 1.1276 | -0.0732 | -0.1653 | 0.3879 | -0.5532 | -0.5348 |
| 107 | 47.13 | -0.03 | 13.3603 | -7.1981 | -0.2754 | 1.1770 | -0.0841 | -0.1681 | 0.3935 | -0.5616 | -0.5388 |
| 108 | 47.30 | -0.05 | 13.3321 | -6.8584 | -0.3631 | 1.2599 | -0.0948 | -0.1369 | 0.4093 | -0.5462 | -0.5144 |
| 109 | 47.49 | -0.04 | 13.4633 | -6.9425 | -0.2713 | 1.0293 | -0.1047 | -0.1300 | 0.4180 | -0.5480 | -0.5157 |
| 110 | 47.66 | -0.04 | 13.5316 | -7.0988 | -0.2205 | 0.8944 | -0.1149 | -0.1177 | 0.4193 | -0.5370 | -0.5246 |
| 111 | 47.82 | -0.04 | 13.4947 | -6.9094 | -0.2859 | 1.1991 | -0.1107 | -0.1476 | 0.4151 | -0.5627 | -0.5120 |
| 112 | 48.02 | -0.03 | 13.7454 | -7.1679 | -0.2051 | 0.7444 | -0.1029 | -0.1570 | 0.4266 | -0.5836 | -0.5215 |
| 113 | 48.17 | -0.02 | 13.6356 | -7.0305 | -0.1324 | 0.8307 | -0.0764 | -0.1360 | 0.4256 | -0.5616 | -0.5196 |
| 114 | 48.35 | -0.03 | 13.7583 | -6.9556 | -0.2076 | 0.9491 | -0.0436 | -0.1156 | 0.4358 | -0.5514 | -0.5096 |
| 115 | 48.53 | -0.03 | 13.8565 | -7.1180 | -0.1631 | 0.9269 | -0.0325 | -0.1225 | 0.4292 | -0.5517 | -0.5126 |
| 116 | 48.68 | -0.02 | 13.8971 | -7.1105 | -0.1551 | 1.0947 | -0.0223 | -0.1083 | 0.4503 | -0.5586 | -0.5117 |
| 117 | 48.86 | -0.03 | 13.9202 | -7.0745 | -0.1782 | 1.0969 | -0.0166 | -0.1066 | 0.4516 | -0.5582 | -0.5082 |
| 118 | 49.04 | -0.03 | 14.0553 | -7.1502 | -0.1795 | 1.0787 | 0.0056 | -0.0992 | 0.4545 | -0.5537 | -0.5087 |
| 119 | 49.20 | -0.01 | 14.0489 | -7.0668 | 0.0137 | 0.7889 | 0.0445 | -0.1116 | 0.4499 | -0.5615 | -0.5030 |
| 120 | 49.37 | -0.01 | 14.0501 | -7.0141 | -0.0253 | 0.9325 | 0.0495 | -0.0975 | 0.4428 | -0.5403 | -0.4992 |
| 121 | 49.55 | -0.01 | 14.0593 | -7.0206 | -0.0216 | 1.0067 | 0.0547 | -0.1056 | 0.4383 | -0.5439 | -0.4998 |
| 122 | 49.73 | -0.00 | 14.0805 | -6.8771 | 0.0254 | 1.2548 | 0.0756 | -0.0889 | 0.4369 | -0.5259 | -0.4884 |
| 123 | 49.90 | -0.00 | 14.2192 | -7.0346 | 0.0229 | 0.9851 | 0.0662 | -0.1161 | 0.4362 | -0.5523 | -0.4947 |
| 124 | 50.06 | -0.00 | 14.0951 | -6.7259 | -0.0093 | 1.2689 | 0.0595 | -0.0863 | 0.4464 | -0.5328 | -0.4772 |
| 125 | 50.24 | -0.02 | 14.1343 | -6.8191 | -0.0210 | 1.2514 | 0.0599 | -0.0859 | 0.4502 | -0.5362 | -0.4683 |
| 126 | 50.41 | -0.00 | 14.2297 | -6.8328 | 0.0693 | 1.2270 | 0.0566 | -0.0832 | 0.4579 | -0.5412 | -0.4802 |
| 127 | 50.58 | 0.01 | 14.2517 | -6.6508 | 0.2075 | 1.2148 | 0.0491 | -0.0869 | 0.4674 | -0.5544 | -0.4667 |
| 128 | 50.74 | 0.00 | 14.1985 | -6.4871 | 0.0910 | 1.1975 | 0.0439 | -0.0777 | 0.4702 | -0.5480 | -0.4569 |
| 129 | 50.93 | 0.00 | 14.4060 | -6.5094 | 0.2016 | 0.8612 | 0.0240 | -0.0769 | 0.4803 | -0.5572 | -0.4519 |
| 130 | 51.09 | 0.00 | 14.3185 | -6.5330 | 0.2052 | 0.9357 | 0.0238 | -0.0685 | 0.4777 | -0.5463 | -0.4563 |
| 131 | 51.25 | 0.00 | 14.4059 | -6.5994 | 0.2390 | 0.9041 | 0.0182 | -0.0831 | 0.4794 | -0.5626 | -0.4581 |
| 132 | 51.43 | 0.01 | 14.6336 | -6.5468 | 0.2462 | 0.8201 | 0.0302 | -0.1144 | 0.4731 | -0.5875 | -0.4474 |
| 133 | 51.61 | 0.00 | 14.6131 | -6.4357 | 0.2467 | 0.8199 | 0.0194 | -0.0860 | 0.4730 | -0.5591 | -0.4404 |
| 134 | 51.78 | 0.00 | 14.7701 | -6.5548 | 0.2158 | 0.9078 | 0.0196 | -0.0965 | 0.4710 | -0.5675 | -0.4430 |
| 135 | 51.94 | 0.01 | 14.7908 | -6.5548 | 0.3153 | 0.7955 | 0.0199 | -0.0947 | 0.4734 | -0.5682 | -0.4432 |
| 136 | 52.11 | 0.01 | 14.7560 | -6.4859 | 0.2473 | 0.8400 | 0.0198 | -0.0997 | 0.4753 | -0.5750 | -0.4395 |
| 137 | 52.28 | 0.02 | 14.9373 | -6.6958 | 0.3569 | 0.7001 | 0.0206 | -0.1051 | 0.4816 | -0.5866 | -0.4483 |
| 138 | 52.44 | 0.01 | 14.8392 | -6.6702 | 0.3366 | 0.7586 | 0.0091 | -0.1146 | 0.4681 | -0.5827 | -0.4495 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | BINOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.60 | 0.01 | 14.8865 | -6.6487 | 0.3538 | 0.6151 | 0.0252 | -0.1363 | 0.4677 | -0.6040 | -0.4468 |
| 140 | 52.78 | 0.01 | 15.0032 | -6.6449 | 0.2214 | 0.7691 | 0.0263 | -0.1422 | 0.4649 | -0.6071 | -0.4429 |
| 141 | 52.95 | 0.00 | 14.9671 | -6.5970 | 0.2196 | 0.7325 | 0.0209 | -0.1209 | 0.4791 | -0.6000 | -0.4408 |
| 142 | 53.12 | 0.00 | 15.0417 | -6.6799 | 0.1943 | 0.6775 | 0.0214 | -0.1272 | 0.4888 | -0.6159 | -0.4441 |
| 143 | 53.28 | 0.01 | 14.9411 | -6.5428 | 0.2945 | 0.5840 | 0.0268 | -0.1285 | 0.4912 | -0.6196 | -0.4379 |
| 144 | 53.47 | 0.01 | 15.2315 | -6.9079 | 0.2288 | 0.6191 | 0.0219 | -0.1546 | 0.4979 | -0.6524 | -0.4535 |
| 145 | 53.64 | -0.00 | 15.1635 | -6.8088 | 0.2255 | 0.5915 | 0.0219 | -0.1444 | 0.5004 | -0.6447 | -0.4490 |
| 146 | 53.78 | -0.03 | 15.1680 | -6.8491 | -0.0498 | 0.6826 | 0.0221 | -0.1527 | 0.5058 | -0.6584 | -0.4515 |
| 147 | 53.97 | -0.01 | 15.1660 | -6.8560 | 0.1875 | 0.5393 | 0.0221 | -0.1658 | 0.5084 | -0.6742 | -0.4521 |
| 148 | 54.12 | -0.00 | 15.2019 | -6.9535 | 0.2376 | 0.5822 | 0.0272 | -0.2190 | 0.4516 | -0.6706 | -0.4574 |
| 149 | 54.28 | -0.01 | 15.1835 | -6.9993 | 0.1987 | 0.5009 | 0.0220 | -0.2326 | 0.4498 | -0.6825 | -0.4610 |
| 150 | 54.43 | 0.01 | 15.2280 | -7.0343 | 0.2297 | 0.6695 | 0.0270 | -0.2010 | 0.4642 | -0.6652 | -0.4619 |
| 151 | 54.59 | -0.01 | 15.2400 | -6.9233 | 0.1465 | 0.6207 | 0.0273 | -0.2510 | 0.4468 | -0.6979 | -0.4543 |
| 152 | 54.73 | -0.05 | 15.2480 | -7.0729 | -0.1702 | 0.6209 | 0.0223 | -0.2550 | 0.4411 | -0.6962 | -0.4639 |
| 153 | 54.90 | -0.02 | 15.0975 | -6.7814 | 0.0768 | 0.6365 | 0.0270 | -0.2579 | 0.4267 | -0.6847 | -0.4492 |
| 154 | 55.06 | -0.02 | 15.2032 | -6.9791 | 0.0985 | 0.5970 | 0.0273 | -0.2730 | 0.4336 | -0.7067 | -0.4591 |
| 155 | 55.22 | -0.02 | 15.1703 | -6.9716 | 0.0129 | 0.5393 | 0.0275 | -0.2880 | 0.4265 | -0.7146 | -0.4598 |
| 156 | 55.34 | -0.02 | 15.1079 | -6.8103 | 0.0093 | 0.6920 | 0.0269 | -0.2814 | 0.4237 | -0.7052 | -0.4508 |
| 157 | 55.50 | -0.03 | 15.1910 | -6.9763 | -0.0540 | 0.6029 | 0.0275 | -0.3006 | 0.4471 | -0.7477 | -0.4592 |
| 158 | 55.65 | -0.04 | 15.1539 | -6.9319 | -0.0439 | 0.5839 | 0.0219 | -0.2799 | 0.4450 | -0.7250 | -0.4574 |
| 159 | 55.83 | -0.01 | 15.2683 | -7.1462 | 0.2244 | 0.5121 | 0.0218 | -0.3007 | 0.4529 | -0.7536 | -0.4680 |
| 160 | 55.99 | -0.01 | 15.3093 | -7.2320 | 0.1877 | 0.7359 | 0.0267 | -0.2986 | 0.4514 | -0.7500 | -0.4724 |
| 161 | 56.15 | -0.08 | 15.2207 | -7.0022 | -0.4321 | 0.5709 | 0.0228 | -0.2817 | 0.4428 | -0.7246 | -0.4600 |
| 162 | 56.33 | -0.02 | 15.5154 | -7.4311 | 0.1993 | 0.2476 | 0.0291 | -0.3144 | 0.4604 | -0.7748 | -0.4789 |
| 163 | 56.50 | -0.07 | 15.5950 | -7.6240 | -0.2589 | 0.0725 | 0.0247 | -0.3097 | 0.4647 | -0.7744 | -0.4889 |
| 164 | 56.66 | -0.05 | 15.6393 | -7.5553 | -0.0723 | -0.3269 | 0.0144 | -0.3108 | 0.4589 | -0.7697 | -0.4832 |
| 165 | 56.80 | -0.10 | 15.5168 | -7.5023 | -0.4579 | -0.2193 | 0.0134 | -0.3178 | 0.4561 | -0.7739 | -0.4835 |
| 166 | 56.95 | -0.08 | 15.5397 | -7.4273 | -0.3103 | -0.1342 | 0.0248 | -0.3091 | 0.4538 | -0.7629 | -0.4780 |
| 167 | 57.09 | -0.06 | 15.4301 | -7.2506 | -0.0982 | -0.3538 | 0.0305 | -0.3234 | 0.4481 | -0.7715 | -0.4699 |
| 168 | 57.25 | -0.05 | 15.5454 | -7.4371 | -0.0349 | -0.1393 | 0.0362 | -0.3520 | 0.4491 | -0.8011 | -0.4784 |
| 169 | 57.40 | -0.07 | 15.6488 | -7.5674 | -0.1468 | -0.3659 | 0.0309 | -0.3569 | 0.4525 | -0.8094 | -0.4836 |
| 170 | 57.55 | -0.03 | 15.6612 | -7.6476 | 0.2477 | -0.2578 | 0.0481 | -0.3548 | 0.4571 | -0.8119 | -0.4883 |
| 171 | 57.69 | -0.02 | 15.7164 | -7.8663 | 0.2569 | -0.2955 | 0.0312 | -0.3652 | 0.4645 | -0.8297 | -0.5005 |
| 172 | 57.83 | -0.03 | 15.7336 | -7.9330 | 0.1367 | -0.1035 | 0.0365 | -0.3525 | 0.4707 | -0.8232 | -0.5042 |
| 173 | 57.99 | 0.00 | 15.8335 | -8.0655 | 0.4252 | -0.2459 | 0.0311 | -0.3738 | 0.4736 | -0.8474 | -0.5094 |
| 174 | 58.14 | -0.08 | 15.7974 | -8.1988 | -0.1010 | -0.2264 | 0.0363 | -0.4222 | 0.4791 | -0.9014 | -0.5190 |
| 175 | 58.29 | -0.08 | 15.8732 | -8.4654 | -0.4114 | 0.1832 | 0.0244 | -0.3843 | 0.4938 | -0.8781 | -0.5333 |
| 176 | 58.42 | -0.06 | 15.8604 | -8.2862 | -0.0655 | -0.2305 | 0.0252 | -0.4098 | 0.4877 | -0.8975 | -0.5224 |
| 177 | 58.42 | -0.09 | 15.8672 | -8.3508 | -0.2016 | 0.0847 | 0.0304 | -0.3976 | 0.4939 | -0.8915 | -0.5263 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | 81WOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.86 | 0.00 | -0.0027 | 0.0020 | 0.0050 | -0.7407 | -1.8519 | -0.9126 | 0.0088 | -0.4406 | -0.0097 | 0.4828 |
| 2 | -5.86 | 0.00 | -0.0028 | 0.0020 | 0.0057 | -0.7143 | -2.0357 | -0.9153 | 0.0093 | -0.4408 | -0.0102 | 0.4816 |
| 3 | -5.87 | 0.00 | -0.0039 | 0.0020 | 0.0051 | -0.5128 | -1.3077 | -0.9140 | 0.0091 | -0.4405 | -0.0100 | 0.4820 |
| 4 | -5.83 | 0.02 | -0.0017 | 0.0024 | 0.0059 | -1.4118 | -3.4706 | -0.8661 | 0.0078 | -0.4240 | -0.0090 | 0.4895 |
| 5 | -4.06 | -0.00 | -0.0011 | 0.0026 | 0.0053 | -2.3636 | -4.8182 | -0.7812 | 0.0073 | -0.3921 | -0.0094 | 0.5019 |
| 6 | -2.35 | -0.01 | -0.0009 | 0.0020 | 0.0044 | -2.2222 | -4.8889 | -0.6852 | 0.0058 | -0.3574 | -0.0085 | 0.5216 |
| 7 | -0.57 | 0.01 | -0.0018 | 0.0012 | 0.0038 | -0.6667 | -2.1111 | -0.5966 | 0.0033 | -0.3226 | -0.0055 | 0.5406 |
| 8 | 1.22 | -0.00 | 0.0005 | 0.0011 | 0.0041 | 2.2000 | 8.2000 | -0.4955 | -0.0002 | -0.2743 | 0.0004 | 0.5535 |
| 9 | 3.12 | -0.01 | 0.0015 | 0.0015 | 0.0043 | 1.0000 | 2.8667 | -0.4069 | -0.0018 | -0.2311 | 0.0044 | 0.5678 |
| 10 | 4.90 | -0.00 | -0.0034 | 0.0009 | 0.0029 | -0.2647 | -0.8529 | -0.3197 | -0.0029 | -0.1896 | 0.0091 | 0.5931 |
| 11 | 6.79 | -0.01 | -0.0094 | 0.0014 | 0.0038 | -0.1489 | -0.4043 | -0.2265 | -0.0027 | -0.1446 | 0.0119 | 0.6385 |
| 12 | 8.63 | 0.00 | -0.0101 | 0.0006 | 0.0058 | -0.0594 | -0.5743 | -0.1410 | -0.0018 | -0.1019 | 0.0128 | 0.7228 |
| 13 | 10.52 | -0.00 | -0.0119 | 0.0005 | 0.0065 | -0.0420 | -0.5462 | -0.0645 | -0.0010 | -0.0625 | 0.0155 | 0.9689 |
| 14 | 12.42 | -0.01 | -0.0188 | 0.0007 | 0.0061 | -0.0372 | -0.3245 | -0.0071 | 0.0003 | -0.0304 | -0.0423 | 4.2676 |
| 15 | 14.35 | -0.00 | -0.0215 | 0.0013 | 0.0082 | -0.0605 | -0.3814 | 0.0321 | 0.0065 | -0.0127 | 0.2031 | -0.3969 |
| 16 | 16.33 | -0.01 | -0.0320 | -0.0003 | 0.0054 | 0.0094 | -0.1693 | 0.0624 | 0.0133 | -0.0014 | 0.2135 | -0.0228 |
| 17 | 18.32 | -0.01 | -0.0330 | 0.0001 | 0.0081 | -0.0030 | -0.2462 | 0.1003 | 0.0199 | 0.0156 | 0.1988 | 0.1558 |
| 18 | 20.29 | -0.01 | -0.0555 | 0.0017 | -0.0091 | -0.0307 | 0.1643 | 0.1478 | 0.0258 | 0.0392 | 0.1742 | 0.2583 |
| 19 | 22.31 | -0.01 | -0.0549 | 0.0046 | -0.0186 | -0.0839 | 0.3394 | 0.2069 | 0.0333 | 0.0647 | 0.1462 | 0.3128 |
| 20 | 24.33 | -0.02 | -0.1437 | 0.0113 | -0.0664 | -0.0738 | 0.4623 | 0.2510 | 0.0345 | 0.0820 | 0.1373 | 0.3265 |
| 21 | 26.36 | 0.03 | 0.1530 | -0.0008 | 0.0873 | -0.0052 | 0.5704 | 0.3221 | 0.0307 | 0.1166 | 0.0952 | 0.3622 |
| 22 | 28.13 | 0.02 | 0.1133 | 0.0049 | 0.0619 | 0.0433 | 0.5464 | 0.3483 | 0.0312 | 0.1275 | 0.0895 | 0.3659 |
| 23 | 28.16 | 0.02 | 0.0958 | 0.0037 | 0.0548 | 0.0387 | 0.5722 | 0.3493 | 0.0314 | 0.1276 | 0.0898 | 0.3652 |
| 24 | 28.57 | 0.02 | 0.0689 | 0.0059 | 0.0429 | 0.0855 | 0.6221 | 0.3521 | 0.0316 | 0.1297 | 0.0896 | 0.3682 |
| 25 | 29.84 | 0.02 | 0.0688 | 0.0076 | 0.0419 | 0.1106 | 0.6084 | 0.3666 | 0.0315 | 0.1362 | 0.0858 | 0.3715 |
| 26 | 29.13 | 0.03 | 0.0499 | 0.0097 | 0.0323 | 0.1968 | 0.6466 | 0.3815 | 0.0306 | 0.1440 | 0.0801 | 0.3775 |
| 27 | 29.47 | 0.06 | 0.2044 | 0.0074 | 0.1061 | 0.0363 | 0.5191 | 0.4239 | 0.0266 | 0.1644 | 0.0626 | 0.3879 |
| 28 | 29.76 | 0.04 | 0.1976 | 0.0057 | 0.0966 | 0.0299 | 0.4883 | 0.4327 | 0.0264 | 0.1687 | 0.0609 | 0.3900 |
| 29 | 30.03 | 0.05 | 0.1766 | 0.0066 | 0.0835 | 0.0375 | 0.4728 | 0.4420 | 0.0260 | 0.1708 | 0.0587 | 0.3865 |
| 30 | 30.33 | 0.06 | 0.2106 | 0.0061 | 0.1083 | 0.0290 | 0.5143 | 0.4606 | 0.0239 | 0.1803 | 0.0520 | 0.3913 |
| 31 | 30.58 | 0.05 | 0.1998 | 0.0076 | 0.1031 | 0.0381 | 0.5160 | 0.4679 | 0.0233 | 0.1830 | 0.0510 | 0.3911 |
| 32 | 30.88 | 0.05 | 0.1913 | 0.0076 | 0.0973 | 0.0398 | 0.5086 | 0.4752 | 0.0242 | 0.1892 | 0.0510 | 0.3960 |
| 33 | 31.16 | 0.04 | 0.1383 | 0.0068 | 0.0772 | 0.0493 | 0.5580 | 0.4718 | 0.0262 | 0.1860 | 0.0554 | 0.3942 |
| 34 | 31.43 | 0.07 | 0.1871 | 0.0068 | 0.1034 | 0.0364 | 0.5528 | 0.4764 | 0.0256 | 0.1890 | 0.0536 | 0.3946 |
| 35 | 31.71 | 0.03 | 0.0897 | 0.0066 | 0.0545 | 0.0737 | 0.6078 | 0.4734 | 0.0284 | 0.1850 | 0.0599 | 0.3908 |
| 36 | 31.99 | 0.04 | 0.1039 | 0.0068 | 0.0651 | 0.0656 | 0.6268 | 0.4837 | 0.0272 | 0.1910 | 0.0561 | 0.3949 |
| 37 | 32.26 | 0.02 | 0.0729 | 0.0049 | 0.0478 | 0.0673 | 0.6552 | 0.4791 | 0.0280 | 0.1884 | 0.0584 | 0.3932 |
| 38 | 32.52 | 0.04 | 0.1526 | 0.0049 | 0.0845 | 0.0322 | 0.5935 | 0.4999 | 0.0271 | 0.1953 | 0.0541 | 0.3967 |
| 39 | 32.78 | 0.04 | 0.1422 | 0.0041 | 0.0859 | 0.0289 | 0.6039 | 0.4988 | 0.0268 | 0.1974 | 0.0536 | 0.3957 |
| 40 | 33.05 | 0.06 | 0.1692 | 0.0030 | 0.0978 | 0.0178 | 0.5779 | 0.5033 | 0.0265 | 0.1978 | 0.0526 | 0.3930 |
| 41 | 33.31 | 0.02 | 0.0963 | 0.0014 | 0.0651 | 0.0146 | 0.6764 | 0.4860 | 0.0289 | 0.1894 | 0.0594 | 0.3897 |
| 42 | 33.55 | 0.03 | 0.1265 | 0.0007 | 0.0789 | 0.0055 | 0.6236 | 0.5026 | 0.0275 | 0.1974 | 0.0546 | 0.3927 |
| 43 | 33.82 | 0.02 | 0.0687 | 0.0010 | 0.0495 | 0.0146 | 0.7201 | 0.4981 | 0.0291 | 0.1948 | 0.0583 | 0.3911 |
| 44 | 34.08 | 0.02 | 0.1231 | 0.0021 | 0.0752 | 0.0171 | 0.6107 | 0.5044 | 0.0287 | 0.1976 | 0.0568 | 0.3917 |
| 45 | 34.31 | 0.01 | 0.1153 | 0.0008 | 0.0745 | 0.0070 | 0.6455 | 0.5083 | 0.0283 | 0.1983 | 0.0556 | 0.3901 |
| 46 | 34.56 | 0.02 | 0.0983 | 0.0017 | 0.0627 | 0.0173 | 0.6381 | 0.5152 | 0.0285 | 0.2004 | 0.0552 | 0.3890 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | 81#OF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.83 | 0.02 | 0.0630 | 0.0022 | 0.0483 | 0.0350 | 0.7663 | 0.5215 | 0.0292 | 0.2039 | 0.0540 | 0.3910 |
| 48 | 35.08 | 0.02 | 0.1353 | 0.0028 | 0.0808 | 0.0207 | 0.5970 | 0.5338 | 0.0269 | 0.2074 | 0.0503 | 0.3886 |
| 49 | 35.31 | 0.05 | 0.2108 | 0.0066 | 0.1146 | 0.0314 | 0.5437 | 0.5494 | 0.0246 | 0.2150 | 0.0447 | 0.3914 |
| 50 | 35.56 | -0.01 | 0.0798 | 0.0011 | 0.0467 | 0.0138 | 0.5854 | 0.5466 | 0.0259 | 0.2131 | 0.0473 | 0.3899 |
| 51 | 35.80 | 0.01 | 0.1048 | 0.0017 | 0.0687 | 0.0163 | 0.6558 | 0.5441 | 0.0261 | 0.2116 | 0.0479 | 0.3890 |
| 52 | 36.04 | -0.00 | 0.0032 | -0.0002 | 0.0121 | -0.0625 | 3.7812 | 0.5442 | 0.0259 | 0.2101 | 0.0475 | 0.3861 |
| 53 | 36.27 | 0.01 | 0.1440 | 0.0053 | 0.0863 | 0.0369 | 0.5992 | 0.5582 | 0.0251 | 0.2176 | 0.0449 | 0.3899 |
| 54 | 36.52 | 0.03 | 0.1138 | 0.0027 | 0.0705 | 0.0238 | 0.6197 | 0.5643 | 0.0236 | 0.2203 | 0.0419 | 0.3903 |
| 55 | 36.75 | 0.01 | 0.1754 | 0.0058 | 0.0944 | 0.0331 | 0.5383 | 0.5757 | 0.0234 | 0.2255 | 0.0407 | 0.3916 |
| 56 | 36.98 | 0.01 | 0.1172 | 0.0045 | 0.0704 | 0.0385 | 0.6009 | 0.5699 | 0.0241 | 0.2221 | 0.0424 | 0.3897 |
| 57 | 37.24 | -0.01 | 0.0762 | 0.0039 | 0.0462 | 0.0513 | 0.6066 | 0.5846 | 0.0231 | 0.2270 | 0.0396 | 0.3917 |
| 58 | 37.47 | 0.01 | 0.1365 | 0.0064 | 0.0765 | 0.0470 | 0.5602 | 0.5910 | 0.0229 | 0.2313 | 0.0388 | 0.3913 |
| 59 | 37.70 | 0.00 | 0.1556 | 0.0082 | 0.0848 | 0.0528 | 0.5448 | 0.5960 | 0.0231 | 0.2334 | 0.0388 | 0.3916 |
| 60 | 37.94 | 0.02 | 0.1322 | 0.0068 | 0.0735 | 0.0516 | 0.5557 | 0.6086 | 0.0216 | 0.2354 | 0.0356 | 0.3917 |
| 61 | 38.18 | 0.00 | 0.0973 | 0.0059 | 0.0601 | 0.0608 | 0.6179 | 0.6103 | 0.0223 | 0.2332 | 0.0366 | 0.3902 |
| 62 | 38.41 | -0.00 | 0.1051 | 0.0059 | 0.0634 | 0.0562 | 0.6034 | 0.6169 | 0.0217 | 0.2407 | 0.0353 | 0.3902 |
| 63 | 38.65 | 0.00 | 0.1277 | 0.0101 | 0.0724 | 0.0793 | 0.5675 | 0.6275 | 0.0221 | 0.2444 | 0.0353 | 0.3895 |
| 64 | 38.86 | -0.01 | 0.0719 | 0.0060 | 0.0491 | 0.0836 | 0.6825 | 0.6314 | 0.0215 | 0.2454 | 0.0341 | 0.3887 |
| 65 | 39.09 | 0.00 | 0.0814 | 0.0046 | 0.0510 | 0.0567 | 0.6268 | 0.6419 | 0.0206 | 0.2498 | 0.0322 | 0.3885 |
| 66 | 39.34 | 0.01 | 0.0940 | 0.0071 | 0.0582 | 0.0757 | 0.6194 | 0.6435 | 0.0215 | 0.2501 | 0.0335 | 0.3887 |
| 67 | 39.56 | 0.00 | 0.1217 | 0.0128 | 0.0701 | 0.1053 | 0.5761 | 0.6501 | 0.0227 | 0.2528 | 0.0350 | 0.3889 |
| 68 | 39.76 | 0.01 | 0.0814 | 0.0083 | 0.0507 | 0.1022 | 0.6232 | 0.6628 | 0.0207 | 0.2574 | 0.0313 | 0.3884 |
| 69 | 40.00 | -0.02 | 0.0755 | 0.0082 | 0.0466 | 0.1089 | 0.6175 | 0.6729 | 0.0202 | 0.2628 | 0.0301 | 0.3906 |
| 70 | 40.20 | -0.01 | 0.0877 | 0.0098 | 0.0535 | 0.1120 | 0.6103 | 0.6766 | 0.0209 | 0.2626 | 0.0308 | 0.3882 |
| 71 | 40.41 | 0.01 | 0.0908 | 0.0117 | 0.0539 | 0.1291 | 0.5938 | 0.6803 | 0.0212 | 0.2645 | 0.0312 | 0.3889 |
| 72 | 40.61 | -0.01 | 0.0839 | 0.0092 | 0.0475 | 0.1099 | 0.5663 | 0.6940 | 0.0192 | 0.2703 | 0.0277 | 0.3894 |
| 73 | 40.82 | -0.01 | 0.0648 | 0.0146 | 0.0403 | 0.2264 | 0.6233 | 0.6877 | 0.0222 | 0.2655 | 0.0323 | 0.3861 |
| 74 | 41.05 | -0.02 | 0.0636 | 0.0139 | 0.0400 | 0.2189 | 0.6283 | 0.6942 | 0.0212 | 0.2695 | 0.0306 | 0.3865 |
| 75 | 41.23 | -0.01 | 0.0540 | 0.0147 | 0.0360 | 0.2727 | 0.6660 | 0.7090 | 0.0202 | 0.2750 | 0.0286 | 0.3878 |
| 76 | 41.45 | -0.01 | 0.0349 | 0.0148 | 0.0264 | 0.4253 | 0.7557 | 0.6999 | 0.0235 | 0.2700 | 0.0336 | 0.3857 |
| 77 | 41.67 | -0.01 | 0.0169 | 0.0170 | 0.0173 | 1.0059 | 1.0237 | 0.7090 | 0.0230 | 0.2733 | 0.0325 | 0.3854 |
| 78 | 41.84 | -0.02 | 0.0402 | 0.0158 | 0.0287 | 0.3940 | 0.7132 | 0.7132 | 0.0214 | 0.2752 | 0.0301 | 0.3858 |
| 79 | 42.06 | -0.01 | 0.0005 | 0.0160 | 0.0106 | 32.0000 | 21.2000 | 0.7188 | 0.0219 | 0.2776 | 0.0305 | 0.3862 |
| 80 | 42.25 | -0.02 | 0.0029 | 0.0157 | 0.0105 | 5.4138 | 3.6207 | 0.7285 | 0.0211 | 0.2808 | 0.0290 | 0.3854 |
| 81 | 42.45 | -0.02 | -0.0011 | 0.0056 | 0.0103 | -5.0909 | -9.3636 | 0.7506 | 0.0182 | 0.2922 | 0.0243 | 0.3893 |
| 82 | 42.64 | -0.03 | -0.0245 | 0.0109 | -0.0008 | -0.4467 | 0.0328 | 0.7175 | 0.0272 | 0.2735 | 0.0378 | 0.3818 |
| 83 | 42.83 | -0.02 | -0.0430 | 0.0102 | -0.0101 | -0.2378 | 0.2354 | 0.7386 | 0.0234 | 0.2847 | 0.0317 | 0.3854 |
| 84 | 43.00 | -0.03 | -0.0379 | 0.0083 | -0.0064 | -0.2196 | 0.1693 | 0.7319 | 0.0257 | 0.2773 | 0.0350 | 0.3788 |
| 85 | 43.17 | -0.02 | -0.0419 | 0.0091 | -0.0086 | -0.2177 | 0.2057 | 0.7313 | 0.0277 | 0.2785 | 0.0378 | 0.3808 |
| 86 | 43.36 | -0.02 | -0.0437 | 0.0098 | -0.0133 | -0.2248 | 0.3050 | 0.7628 | 0.0233 | 0.2897 | 0.0306 | 0.3798 |
| 87 | 43.55 | -0.02 | -0.0502 | 0.0053 | -0.0105 | -0.1058 | 0.2096 | 0.7392 | 0.0289 | 0.2795 | 0.0390 | 0.3781 |
| 88 | 43.73 | -0.02 | -0.0321 | 0.0050 | -0.0067 | -0.1562 | 0.2094 | 0.7976 | 0.0176 | 0.3079 | 0.0221 | 0.3861 |
| 89 | 43.91 | -0.02 | -0.0269 | 0.0032 | -0.0039 | -0.1194 | 0.1455 | 0.8102 | 0.0156 | 0.3130 | 0.0193 | 0.3864 |
| 90 | 44.09 | -0.02 | -0.0661 | 0.0063 | -0.0196 | -0.0955 | 0.2970 | 0.7768 | 0.0230 | 0.2951 | 0.0297 | 0.3799 |
| 91 | 44.25 | -0.03 | -0.0700 | 0.0080 | -0.0232 | -0.1144 | 0.3319 | 0.7922 | 0.0215 | 0.3031 | 0.0272 | 0.3828 |
| 92 | 44.47 | -0.02 | -0.0558 | 0.0045 | -0.0160 | -0.0808 | 0.2873 | 0.8117 | 0.0195 | 0.3110 | 0.0241 | 0.3832 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | 81 OF 31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.65 | -0.03 | -0.0141 | 0.0013 | -0.0001 | -0.0922 | 0.0071 | 0.8482 | 0.0144 | 0.3295 | 0.0170 | 0.3884 |
| 94 | 44.83 | -0.01 | 0.0232 | 0.0 | 0.0190 | 0.0 | 0.8190 | 0.8633 | 0.0126 | 0.3346 | 0.0146 | 0.3876 |
| 95 | 45.01 | -0.04 | -0.0411 | 0.0014 | -0.0084 | -0.0341 | 0.2049 | 0.8147 | 0.0242 | 0.3155 | 0.0298 | 0.3873 |
| 96 | 45.18 | -0.02 | 0.0164 | 0.0014 | 0.0159 | 0.0854 | 0.9695 | 0.8568 | 0.0159 | 0.3319 | 0.0136 | 0.3874 |
| 97 | 45.39 | -0.02 | 0.0019 | 0.0035 | 0.0076 | 1.8421 | 4.0000 | 0.8691 | 0.0170 | 0.3362 | 0.0196 | 0.3868 |
| 98 | 45.56 | -0.02 | -0.0250 | 0.0034 | -0.0059 | -0.1365 | 0.2369 | 0.8381 | 0.0226 | 0.3199 | 0.0270 | 0.3816 |
| 99 | 45.75 | -0.04 | -0.0553 | 0.0017 | -0.0165 | -0.0308 | 0.2989 | 0.7994 | 0.0300 | 0.3043 | 0.0375 | 0.3807 |
| 100 | 45.92 | -0.04 | -0.0841 | -0.0029 | -0.0313 | 0.0346 | 0.3719 | 0.7683 | 0.0338 | 0.2864 | 0.0440 | 0.3728 |
| 101 | 46.08 | -0.02 | -0.0753 | 0.0 | -0.0268 | 0.0 | 0.3595 | 0.7903 | 0.0316 | 0.2968 | 0.0399 | 0.3756 |
| 102 | 46.27 | -0.04 | -0.0870 | -0.0060 | -0.0324 | 0.0691 | 0.3721 | 0.7801 | 0.0346 | 0.2917 | 0.0443 | 0.3739 |
| 103 | 46.44 | -0.03 | -0.1041 | -0.0099 | -0.0378 | 0.0953 | 0.3628 | 0.7651 | 0.0356 | 0.2833 | 0.0465 | 0.3703 |
| 104 | 46.60 | -0.04 | -0.0765 | -0.0051 | -0.0233 | 0.0668 | 0.3054 | 0.7765 | 0.0349 | 0.2907 | 0.0449 | 0.3744 |
| 105 | 46.79 | -0.03 | -0.0904 | -0.0104 | -0.0300 | 0.1153 | 0.3315 | 0.7733 | 0.0355 | 0.2880 | 0.0459 | 0.3724 |
| 106 | 46.96 | -0.04 | -0.1116 | -0.0158 | -0.0387 | 0.1418 | 0.3465 | 0.7585 | 0.0372 | 0.2783 | 0.0490 | 0.3669 |
| 107 | 47.13 | -0.03 | -0.1113 | -0.0164 | -0.0366 | 0.1476 | 0.3285 | 0.7640 | 0.0375 | 0.2820 | 0.0491 | 0.3691 |
| 108 | 47.30 | -0.05 | -0.1102 | -0.0185 | -0.0378 | 0.1652 | 0.3427 | 0.7590 | 0.0375 | 0.2771 | 0.0494 | 0.3651 |
| 109 | 47.49 | -0.04 | -0.0807 | -0.0195 | -0.0215 | 0.2422 | 0.2671 | 0.7765 | 0.0354 | 0.2855 | 0.0456 | 0.3677 |
| 110 | 47.66 | -0.04 | -0.0507 | -0.0201 | -0.0082 | 0.3972 | 0.1621 | 0.8063 | 0.0327 | 0.2996 | 0.0405 | 0.3716 |
| 111 | 47.82 | -0.04 | -0.0891 | -0.0209 | -0.0276 | 0.2351 | 0.3093 | 0.7814 | 0.0362 | 0.2864 | 0.0463 | 0.3665 |
| 112 | 48.02 | -0.03 | -0.0250 | -0.0165 | -0.0003 | 0.6747 | 0.0120 | 0.8063 | 0.0355 | 0.2970 | 0.0440 | 0.3684 |
| 113 | 48.17 | -0.02 | -0.0443 | -0.0180 | -0.0074 | 0.4072 | 0.1674 | 0.7871 | 0.0364 | 0.2864 | 0.0462 | 0.3638 |
| 114 | 48.35 | -0.03 | -0.0303 | -0.0163 | -0.0050 | 0.5397 | 0.1656 | 0.7675 | 0.0374 | 0.2743 | 0.0487 | 0.3574 |
| 115 | 48.53 | -0.03 | -0.0246 | -0.0129 | -0.0044 | 0.5265 | 0.1796 | 0.7565 | 0.0360 | 0.2655 | 0.0475 | 0.3510 |
| 116 | 48.68 | -0.02 | -0.0283 | -0.0137 | -0.0065 | 0.4858 | 0.2305 | 0.7596 | 0.0364 | 0.2677 | 0.0479 | 0.3525 |
| 117 | 48.86 | -0.03 | -0.0329 | -0.0126 | -0.0059 | 0.3841 | 0.2713 | 0.7501 | 0.0364 | 0.2624 | 0.0485 | 0.3499 |
| 118 | 49.04 | -0.03 | -0.0142 | -0.0057 | -0.0029 | 0.4718 | 0.2042 | 0.7480 | 0.0375 | 0.2579 | 0.0501 | 0.3448 |
| 119 | 49.20 | -0.01 | 0.0044 | -0.0022 | 0.0051 | -0.5000 | 1.1591 | 0.7401 | 0.0366 | 0.2533 | 0.0494 | 0.3423 |
| 120 | 49.37 | -0.01 | 0.0107 | 0.0009 | 0.0068 | 0.0841 | 0.6355 | 0.7261 | 0.0347 | 0.2461 | 0.0478 | 0.3389 |
| 121 | 49.55 | -0.01 | 0.0122 | 0.0053 | 0.0070 | 0.4344 | 0.5738 | 0.7254 | 0.0350 | 0.2454 | 0.0482 | 0.3383 |
| 122 | 49.73 | -0.00 | -0.0041 | 0.0093 | -0.0036 | -2.2683 | 0.8780 | 0.7057 | 0.0348 | 0.2373 | 0.0493 | 0.3362 |
| 123 | 49.90 | -0.00 | 0.0044 | 0.0062 | 0.0029 | 1.4091 | 0.6391 | 0.7146 | 0.0350 | 0.2400 | 0.0489 | 0.3359 |
| 124 | 50.06 | -0.00 | -0.0115 | 0.0073 | -0.0071 | -0.6348 | 0.6174 | 0.6968 | 0.0348 | 0.2329 | 0.0499 | 0.3336 |
| 125 | 50.24 | -0.02 | -0.0203 | 0.0068 | -0.0110 | -0.3350 | 0.5419 | 0.6868 | 0.0342 | 0.2279 | 0.0498 | 0.3318 |
| 126 | 50.41 | -0.00 | -0.0111 | 0.0049 | -0.0068 | -0.4414 | 0.6126 | 0.7058 | 0.0325 | 0.2364 | 0.0460 | 0.3349 |
| 127 | 50.58 | 0.01 | -0.0131 | 0.0030 | -0.0070 | -0.2290 | 0.5344 | 0.7039 | 0.0327 | 0.2349 | 0.0464 | 0.3337 |
| 128 | 50.74 | 0.00 | 0.0 | 0.0013 | -0.0021 | 0.0013 | -0.0021 | 0.7116 | 0.0325 | 0.2391 | 0.0456 | 0.3360 |
| 129 | 50.93 | 0.00 | 0.0209 | -0.0002 | 0.0059 | -0.0096 | 0.2823 | 0.7352 | 0.0319 | 0.2490 | 0.0433 | 0.3387 |
| 130 | 51.09 | 0.00 | 0.0161 | -0.0003 | 0.0026 | -0.0186 | 0.1615 | 0.7263 | 0.0322 | 0.2443 | 0.0443 | 0.3364 |
| 131 | 51.25 | 0.00 | 0.0157 | -0.0009 | 0.0022 | -0.0573 | 0.1401 | 0.7295 | 0.0318 | 0.2465 | 0.0435 | 0.3379 |
| 132 | 51.43 | 0.01 | 0.0251 | 0.0002 | 0.0059 | 0.0080 | 0.2360 | 0.7391 | 0.0315 | 0.2505 | 0.0426 | 0.3389 |
| 133 | 51.61 | 0.00 | 0.0258 | -0.0006 | 0.0058 | -0.0233 | 0.2257 | 0.7309 | 0.0315 | 0.2467 | 0.0430 | 0.3375 |
| 134 | 51.78 | 0.00 | 0.0186 | -0.0012 | 0.0029 | -0.0645 | 0.1559 | 0.7399 | 0.0308 | 0.2512 | 0.0416 | 0.3395 |
| 135 | 51.94 | 0.01 | 0.0198 | -0.0015 | 0.0034 | -0.0758 | 0.1717 | 0.7342 | 0.0309 | 0.2481 | 0.0420 | 0.3379 |
| 136 | 52.11 | 0.01 | 0.0152 | -0.0014 | 0.0020 | -0.0921 | 0.1316 | 0.7373 | 0.0312 | 0.2492 | 0.0423 | 0.3380 |
| 137 | 52.28 | 0.02 | 0.0243 | -0.0018 | 0.0058 | -0.0741 | 0.2387 | 0.7434 | 0.0309 | 0.2508 | 0.0415 | 0.3374 |
| 138 | 52.44 | 0.01 | 0.0221 | -0.0022 | 0.0050 | -0.0995 | 0.2262 | 0.7408 | 0.0309 | 0.2501 | 0.0417 | 0.3376 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | 81W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.60 | 0.01 | 0.0300 | -0.0022 | 0.0083 | -0.0736 | 0.2776 | 0.7478 | 0.0307 | 0.2533 | 0.0410 | 0.3387 |
| 140 | 52.78 | 0.01 | 0.0237 | -0.0022 | 0.0062 | -0.0928 | 0.2616 | 0.7542 | 0.0305 | 0.2569 | 0.0404 | 0.3406 |
| 141 | 52.95 | 0.00 | 0.0192 | -0.0013 | 0.0039 | -0.0677 | 0.2031 | 0.7562 | 0.0300 | 0.2579 | 0.0396 | 0.3411 |
| 142 | 53.12 | 0.00 | 0.0175 | -0.0010 | 0.0028 | -0.0571 | 0.1600 | 0.7595 | 0.0301 | 0.2582 | 0.0396 | 0.3400 |
| 143 | 53.28 | 0.01 | 0.0242 | -0.0017 | 0.0066 | -0.0702 | 0.2727 | 0.7595 | 0.0303 | 0.2589 | 0.0398 | 0.3409 |
| 144 | 53.47 | 0.01 | 0.0173 | -0.0006 | 0.0032 | -0.0231 | 0.1850 | 0.7764 | 0.0299 | 0.2666 | 0.0385 | 0.3434 |
| 145 | 53.64 | -0.00 | 0.0185 | -0.0004 | 0.0036 | -0.0216 | 0.1946 | 0.7733 | 0.0297 | 0.2655 | 0.0384 | 0.3434 |
| 146 | 53.78 | -0.03 | 0.0151 | 0.0004 | 0.0017 | 0.0265 | 0.1126 | 0.7818 | 0.0291 | 0.2696 | 0.0372 | 0.3448 |
| 147 | 53.97 | -0.01 | 0.0162 | 0.0006 | 0.0016 | 0.0370 | 0.0988 | 0.7771 | 0.0298 | 0.2673 | 0.0383 | 0.3440 |
| 148 | 54.12 | -0.00 | 0.0145 | 0.0005 | 0.0019 | 0.0345 | 0.1310 | 0.7838 | 0.0300 | 0.2715 | 0.0382 | 0.3463 |
| 149 | 54.28 | -0.01 | 0.0111 | 0.0007 | 0.0004 | 0.0631 | 0.0360 | 0.7889 | 0.0299 | 0.2744 | 0.0379 | 0.3478 |
| 150 | 54.43 | 0.01 | 0.0104 | 0.0011 | 0.0001 | 0.1058 | 0.0096 | 0.7915 | 0.0299 | 0.2751 | 0.0377 | 0.3475 |
| 151 | 54.59 | -0.01 | 0.0048 | 0.0007 | -0.0013 | 0.1458 | -0.2708 | 0.7883 | 0.0314 | 0.2731 | 0.0398 | 0.3464 |
| 152 | 54.73 | -0.05 | 0.0037 | 0.0010 | -0.0026 | 0.2703 | -0.7027 | 0.7909 | 0.0310 | 0.2743 | 0.0391 | 0.3468 |
| 153 | 54.90 | -0.02 | -0.0004 | 0.0011 | -0.0035 | -2.7500 | 8.7500 | 0.7828 | 0.0325 | 0.2722 | 0.0415 | 0.3477 |
| 154 | 55.06 | -0.02 | -0.0004 | 0.0006 | -0.0027 | -1.5000 | 6.7500 | 0.7815 | 0.0327 | 0.2705 | 0.0418 | 0.3461 |
| 155 | 55.22 | -0.02 | 0.0003 | 0.0003 | -0.0032 | 1.0000 | -10.6667 | 0.7922 | 0.0322 | 0.2763 | 0.0406 | 0.3487 |
| 156 | 55.36 | -0.02 | -0.0027 | 0.0007 | -0.0034 | -0.2593 | 1.2593 | 0.7785 | 0.0329 | 0.2705 | 0.0422 | 0.3474 |
| 157 | 55.50 | -0.03 | 0.0029 | 0.0006 | -0.0005 | 0.2069 | -0.1724 | 0.7912 | 0.0317 | 0.2752 | 0.0400 | 0.3478 |
| 158 | 55.65 | -0.04 | -0.0033 | 0.0013 | -0.0043 | -0.3939 | 1.3030 | 0.7754 | 0.0326 | 0.2688 | 0.0420 | 0.3466 |
| 159 | 55.83 | -0.01 | -0.0045 | 0.0017 | -0.0051 | -0.3778 | 1.1333 | 0.7939 | 0.0325 | 0.2780 | 0.0409 | 0.3501 |
| 160 | 55.99 | -0.01 | -0.0107 | 0.0015 | -0.0078 | -0.1402 | 0.7290 | 0.7993 | 0.0318 | 0.2805 | 0.0397 | 0.3509 |
| 161 | 56.15 | -0.08 | -0.0039 | 0.0019 | -0.0052 | -0.4872 | 1.3333 | 0.7793 | 0.0319 | 0.2707 | 0.0409 | 0.3473 |
| 162 | 56.33 | -0.02 | 0.0024 | 0.0004 | -0.0009 | 0.1667 | -0.3750 | 0.8039 | 0.0307 | 0.2817 | 0.0381 | 0.3504 |
| 163 | 56.50 | -0.07 | 0.0084 | -0.0012 | 0.0011 | -0.1429 | 0.1310 | 0.8252 | 0.0287 | 0.2931 | 0.0347 | 0.3552 |
| 164 | 56.66 | -0.05 | 0.0153 | -0.0018 | 0.0049 | -0.1176 | 0.3203 | 0.8234 | 0.0286 | 0.2921 | 0.0347 | 0.3548 |
| 165 | 56.80 | -0.10 | 0.0122 | -0.0004 | 0.0032 | -0.0328 | 0.2623 | 0.8350 | 0.0287 | 0.2978 | 0.0343 | 0.3567 |
| 166 | 56.95 | -0.05 | 0.0246 | -0.0018 | 0.0085 | -0.0735 | 0.3469 | 0.8231 | 0.0292 | 0.2918 | 0.0354 | 0.3545 |
| 167 | 57.09 | -0.06 | 0.0413 | -0.0036 | 0.0169 | -0.0874 | 0.4102 | 0.8202 | 0.0285 | 0.2906 | 0.0347 | 0.3543 |
| 168 | 57.25 | -0.05 | 0.0420 | -0.0038 | 0.0172 | -0.0907 | 0.4105 | 0.8237 | 0.0291 | 0.2925 | 0.0353 | 0.3551 |
| 169 | 57.40 | -0.07 | 0.0414 | -0.0033 | 0.0171 | -0.0799 | 0.4140 | 0.8359 | 0.0278 | 0.2988 | 0.0332 | 0.3575 |
| 170 | 57.55 | -0.03 | 0.0342 | -0.0042 | 0.0138 | -0.1232 | 0.4047 | 0.8326 | 0.0277 | 0.2966 | 0.0332 | 0.3562 |
| 171 | 57.69 | -0.02 | 0.0328 | -0.0029 | 0.0132 | -0.0857 | 0.4037 | 0.8403 | 0.0281 | 0.3013 | 0.0334 | 0.3586 |
| 172 | 57.83 | -0.03 | 0.0376 | -0.0033 | 0.0146 | -0.0880 | 0.3893 | 0.8469 | 0.0277 | 0.3044 | 0.0327 | 0.3594 |
| 173 | 57.99 | 0.00 | 0.0258 | -0.0028 | 0.0114 | -0.1089 | 0.4436 | 0.8470 | 0.0277 | 0.3034 | 0.0327 | 0.3582 |
| 174 | 58.14 | -0.08 | 0.0237 | -0.0009 | 0.0100 | -0.0380 | 0.4219 | 0.8575 | 0.0276 | 0.3100 | 0.0321 | 0.3618 |
| 175 | 58.29 | -0.08 | 0.0293 | -0.0016 | 0.0114 | -0.0548 | 0.3904 | 0.8661 | 0.0273 | 0.3128 | 0.0315 | 0.3612 |
| 176 | 58.42 | -0.06 | 0.0260 | -0.0026 | 0.0100 | -0.1004 | 0.3861 | 0.8537 | 0.0270 | 0.3072 | 0.0316 | 0.3599 |
| 177 | 58.42 | -0.09 | 0.0277 | -0.0028 | 0.0120 | -0.1014 | 0.4348 | 0.8530 | 0.0271 | 0.3074 | 0.0317 | 0.3604 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | BIWOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.86 | 0.00 | 0.0125 | 9.9999 | 0.0099 | 9.9999 | 0.7920 | -0.9589 | 0.0020 | -0.4149 | -0.0021 | 0.4328 |
| 2 | -5.86 | 0.00 | 0.0136 | 9.9999 | 0.0105 | 9.9999 | 0.7721 | -0.9590 | 0.0022 | -0.4147 | -0.0023 | 0.4325 |
| 3 | -5.87 | 0.00 | 0.0131 | 9.9999 | 0.0102 | 9.9999 | 0.7786 | -0.9596 | 0.0021 | -0.4150 | -0.0022 | 0.4325 |
| 4 | -5.83 | 0.02 | 0.0136 | 9.9999 | 0.0105 | 9.9999 | 0.7721 | -0.9227 | 0.0013 | -0.4011 | -0.0014 | 0.4347 |
| 5 | -4.06 | -0.00 | 0.0136 | 9.9999 | 0.0109 | 9.9999 | 0.8015 | -0.8373 | 0.0 | -0.3708 | 0.0 | 0.4428 |
| 6 | -2.35 | -0.01 | 0.0119 | 9.9999 | 0.0094 | 9.9999 | 0.7499 | -0.7478 | -0.0008 | -0.3352 | 0.0011 | 0.4482 |
| 7 | -0.57 | 0.01 | 0.0183 | 9.9999 | 0.0122 | 9.9999 | 0.6667 | -0.6413 | -0.0021 | -0.2925 | 0.0033 | 0.4561 |
| 8 | 1.22 | -0.00 | 0.0178 | 9.9999 | 0.0106 | 9.9999 | 0.5955 | -0.5408 | -0.0041 | -0.2502 | 0.0076 | 0.4627 |
| 9 | 3.12 | -0.01 | 0.0242 | 9.9999 | 0.0109 | 9.9999 | 0.4504 | -0.4474 | -0.0060 | -0.2099 | 0.0134 | 0.4692 |
| 10 | 4.90 | -0.00 | 0.0226 | 9.9999 | 0.0082 | 9.9999 | 0.3628 | -0.3622 | -0.0057 | -0.1699 | 0.0158 | 0.4692 |
| 11 | 6.79 | -0.01 | 0.0274 | 9.9999 | 0.0090 | 9.9999 | 0.3297 | -0.2713 | -0.0045 | -0.1267 | 0.0168 | 0.4669 |
| 12 | 8.63 | 0.00 | 0.0280 | 9.9999 | 0.0068 | 9.9999 | 0.2437 | -0.1843 | -0.0025 | -0.0865 | 0.0136 | 0.4693 |
| 13 | 10.52 | -0.00 | 0.0298 | 9.9999 | 0.0074 | 9.9999 | 0.2492 | -0.1083 | -0.0008 | -0.0522 | 0.0074 | 0.4820 |
| 14 | 12.42 | -0.01 | 0.0280 | 9.9999 | 0.0070 | 9.9999 | 0.2509 | -0.0449 | 0.0009 | -0.0202 | -0.0201 | 0.4509 |
| 15 | 14.35 | -0.00 | 0.0338 | 9.9999 | 0.0086 | 9.9999 | 0.2552 | -0.0044 | 0.0083 | -0.0014 | -1.8864 | 0.3182 |
| 16 | 16.33 | -0.01 | 0.0320 | 9.9999 | 0.0089 | 9.9999 | 0.2790 | 0.0328 | 0.0151 | 0.0142 | 0.4618 | 0.4343 |
| 17 | 18.32 | -0.01 | 0.0285 | 9.9999 | 0.0091 | 9.9999 | 0.3206 | 0.0779 | 0.0219 | 0.0369 | 0.2819 | 0.4734 |
| 18 | 20.29 | -0.01 | 0.0278 | 9.9999 | 0.0109 | 9.9999 | 0.3935 | 0.1284 | 0.0255 | 0.0645 | 0.1983 | 0.5027 |
| 19 | 22.31 | -0.01 | 0.0277 | 9.9999 | 0.0120 | 9.9999 | 0.4348 | 0.1757 | 0.0305 | 0.0854 | 0.1734 | 0.4860 |
| 20 | 24.33 | -0.02 | 0.0248 | 9.9999 | 0.0106 | 9.9999 | 0.4291 | 0.2487 | 0.0315 | 0.1210 | 0.1265 | 0.4867 |
| 21 | 26.36 | 0.03 | 0.0356 | 9.9999 | 0.0177 | 9.9999 | 0.4956 | 0.2196 | 0.0360 | 0.1025 | 0.1638 | 0.4667 |
| 22 | 28.13 | 0.02 | 0.0356 | 9.9999 | 0.0181 | 9.9999 | 0.5099 | 0.2523 | 0.0341 | 0.1187 | 0.1430 | 0.4706 |
| 23 | 28.16 | 0.02 | 0.0276 | 9.9999 | 0.0138 | 9.9999 | 0.5018 | 0.2552 | 0.0356 | 0.1239 | 0.1394 | 0.4739 |
| 24 | 28.57 | 0.02 | 0.0395 | 9.9999 | 0.0220 | 9.9999 | 0.5584 | 0.2771 | 0.0351 | 0.1323 | 0.1266 | 0.4774 |
| 25 | 28.84 | 0.02 | 0.0310 | 9.9999 | 0.0163 | 9.9999 | 0.5275 | 0.2854 | 0.0353 | 0.1371 | 0.1236 | 0.4803 |
| 26 | 29.13 | 0.03 | 0.0309 | 9.9999 | 0.0181 | 9.9999 | 0.5877 | 0.2897 | 0.0348 | 0.1395 | 0.1200 | 0.4815 |
| 27 | 29.47 | 0.06 | 0.0411 | 9.9999 | 0.0237 | 9.9999 | 0.5780 | 0.2770 | 0.0370 | 0.1328 | 0.1335 | 0.4794 |
| 28 | 29.76 | 0.04 | 0.0383 | 9.9999 | 0.0217 | 9.9999 | 0.5681 | 0.2860 | 0.0371 | 0.1371 | 0.1298 | 0.4793 |
| 29 | 30.03 | 0.05 | 0.0428 | 9.9999 | 0.0246 | 9.9999 | 0.5738 | 0.2971 | 0.0369 | 0.1436 | 0.1241 | 0.4833 |
| 30 | 30.33 | 0.06 | 0.0434 | 9.9999 | 0.0237 | 9.9999 | 0.5473 | 0.3231 | 0.0364 | 0.1552 | 0.1126 | 0.4805 |
| 31 | 30.58 | 0.05 | 0.0377 | 9.9999 | 0.0207 | 9.9999 | 0.5505 | 0.3274 | 0.0364 | 0.1578 | 0.1111 | 0.4821 |
| 32 | 30.88 | 0.05 | 0.0462 | 9.9999 | 0.0267 | 9.9999 | 0.5770 | 0.3416 | 0.0353 | 0.1655 | 0.1033 | 0.4846 |
| 33 | 31.16 | 0.04 | 0.0423 | 9.9999 | 0.0224 | 9.9999 | 0.5308 | 0.3598 | 0.0344 | 0.1755 | 0.0955 | 0.4876 |
| 34 | 31.43 | 0.07 | 0.0456 | 9.9999 | 0.0253 | 9.9999 | 0.5538 | 0.3613 | 0.0342 | 0.1753 | 0.0946 | 0.4850 |
| 35 | 31.71 | 0.03 | 0.0320 | 9.9999 | 0.0168 | 9.9999 | 0.5266 | 0.3980 | 0.0325 | 0.1930 | 0.0816 | 0.4849 |
| 36 | 31.99 | 0.04 | 0.0331 | 9.9999 | 0.0181 | 9.9999 | 0.5485 | 0.3950 | 0.0328 | 0.1921 | 0.0830 | 0.4863 |
| 37 | 32.26 | 0.02 | 0.0348 | 9.9999 | 0.0191 | 9.9999 | 0.5504 | 0.4061 | 0.0321 | 0.1963 | 0.0790 | 0.4833 |
| 38 | 32.52 | 0.04 | 0.0354 | 9.9999 | 0.0196 | 9.9999 | 0.5552 | 0.4094 | 0.0321 | 0.1990 | 0.0783 | 0.4836 |
| 39 | 32.78 | 0.04 | 0.0365 | 9.9999 | 0.0195 | 9.9999 | 0.5357 | 0.4210 | 0.0316 | 0.2033 | 0.0750 | 0.4830 |
| 40 | 33.05 | 0.06 | 0.0382 | 9.9999 | 0.0207 | 9.9999 | 0.5433 | 0.4229 | 0.0317 | 0.2042 | 0.0749 | 0.4829 |
| 41 | 33.31 | 0.02 | 0.0349 | 9.9999 | 0.0182 | 9.9999 | 0.5230 | 0.4637 | 0.0282 | 0.2221 | 0.0607 | 0.4788 |
| 42 | 33.55 | 0.03 | 0.0331 | 9.9999 | 0.0178 | 9.9999 | 0.5394 | 0.4619 | 0.0286 | 0.2209 | 0.0618 | 0.4781 |
| 43 | 33.92 | 0.02 | 0.0308 | 9.9999 | 0.0163 | 9.9999 | 0.5309 | 0.4817 | 0.0268 | 0.2293 | 0.0555 | 0.4760 |
| 44 | 34.08 | 0.02 | 0.0359 | 9.9999 | 0.0192 | 9.9999 | 0.5363 | 0.4953 | 0.0262 | 0.2362 | 0.0528 | 0.4768 |
| 45 | 34.31 | 0.01 | 0.0354 | 9.9999 | 0.0182 | 9.9999 | 0.5156 | 0.4984 | 0.0257 | 0.2370 | 0.0515 | 0.4755 |
| 46 | 34.56 | 0.02 | 0.0349 | 9.9999 | 0.0178 | 9.9999 | 0.5115 | 0.5172 | 0.0245 | 0.2440 | 0.0473 | 0.4718 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | BIVOF31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.83 | 0.02 | 0.0275 | 9.9999 | 0.0138 | 9.9999 | 0.5036 | 0.5272 | 0.0236 | 0.2478 | 0.0449 | 0.4701 |
| 48 | 35.08 | 0.02 | 0.0377 | 9.9999 | 0.0214 | 9.9999 | 0.5691 | 0.5285 | 0.0235 | 0.2488 | 0.0446 | 0.4708 |
| 49 | 35.31 | 0.05 | 0.0372 | 9.9999 | 0.0189 | 9.9999 | 0.5094 | 0.5273 | 0.0241 | 0.2475 | 0.0458 | 0.4694 |
| 50 | 35.56 | -0.01 | 0.0287 | 9.9999 | 0.0139 | 9.9999 | 0.4860 | 0.5466 | 0.0223 | 0.2551 | 0.0409 | 0.4667 |
| 51 | 35.80 | 0.01 | 0.0356 | 9.9999 | 0.0176 | 9.9999 | 0.4958 | 0.5457 | 0.0226 | 0.2544 | 0.0415 | 0.4662 |
| 52 | 36.04 | -0.00 | 0.0333 | 9.9999 | 0.0170 | 9.9999 | 0.5120 | 0.5687 | 0.0206 | 0.2632 | 0.0363 | 0.4629 |
| 53 | 36.27 | 0.01 | 0.0362 | 9.9999 | 0.0188 | 9.9999 | 0.5208 | 0.5688 | 0.0211 | 0.2621 | 0.0372 | 0.4609 |
| 54 | 36.52 | 0.03 | 0.0419 | 9.9999 | 0.0209 | 9.9999 | 0.5000 | 0.5720 | 0.0205 | 0.2636 | 0.0359 | 0.4609 |
| 55 | 36.75 | 0.01 | 0.0344 | 9.9999 | 0.0185 | 9.9999 | 0.5394 | 0.5760 | 0.0205 | 0.2644 | 0.0357 | 0.4591 |
| 56 | 36.98 | 0.01 | 0.0390 | 9.9999 | 0.0211 | 9.9999 | 0.5424 | 0.5912 | 0.0190 | 0.2703 | 0.0322 | 0.4571 |
| 57 | 37.24 | -0.01 | 0.0379 | 9.9999 | 0.0201 | 9.9999 | 0.5317 | 0.6030 | 0.0184 | 0.2753 | 0.0306 | 0.4565 |
| 58 | 37.47 | 0.01 | 0.0425 | 9.9999 | 0.0223 | 9.9999 | 0.5259 | 0.6036 | 0.0184 | 0.2751 | 0.0305 | 0.4557 |
| 59 | 37.70 | 0.00 | 0.0368 | 9.9999 | 0.0192 | 9.9999 | 0.5232 | 0.6062 | 0.0179 | 0.2761 | 0.0296 | 0.4554 |
| 60 | 37.94 | 0.02 | 0.0334 | 9.9999 | 0.0177 | 9.9999 | 0.5315 | 0.6068 | 0.0180 | 0.2755 | 0.0297 | 0.4539 |
| 61 | 38.18 | 0.00 | 0.0334 | 9.9999 | 0.0173 | 9.9999 | 0.5195 | 0.6244 | 0.0162 | 0.2821 | 0.0260 | 0.4518 |
| 62 | 38.41 | -0.00 | 0.0334 | 9.9999 | 0.0175 | 9.9999 | 0.5255 | 0.6284 | 0.0162 | 0.2831 | 0.0258 | 0.4505 |
| 63 | 38.65 | 0.00 | 0.0305 | 9.9999 | 0.0152 | 9.9999 | 0.5000 | 0.6397 | 0.0153 | 0.2878 | 0.0240 | 0.4499 |
| 64 | 38.86 | -0.01 | 0.0322 | 9.9999 | 0.0165 | 9.9999 | 0.5140 | 0.6509 | 0.0146 | 0.2920 | 0.0225 | 0.4486 |
| 65 | 39.09 | 0.00 | 0.0414 | 9.9999 | 0.0218 | 9.9999 | 0.5278 | 0.6493 | 0.0157 | 0.2908 | 0.0242 | 0.4478 |
| 66 | 39.34 | 0.01 | 0.0380 | 9.9999 | 0.0193 | 9.9999 | 0.5092 | 0.6619 | 0.0143 | 0.2954 | 0.0217 | 0.4463 |
| 67 | 39.56 | 0.00 | 0.0323 | 9.9999 | 0.0161 | 9.9999 | 0.5000 | 0.6786 | 0.0126 | 0.3026 | 0.0186 | 0.4460 |
| 68 | 39.76 | 0.01 | 0.0346 | 9.9999 | 0.0176 | 9.9999 | 0.5101 | 0.6761 | 0.0138 | 0.3004 | 0.0205 | 0.4443 |
| 69 | 40.00 | -0.02 | 0.0254 | 9.9999 | 0.0123 | 9.9999 | 0.4862 | 0.6857 | 0.0134 | 0.3046 | 0.0196 | 0.4442 |
| 70 | 40.20 | -0.01 | 0.0334 | 9.9999 | 0.0175 | 9.9999 | 0.5255 | 0.6971 | 0.0125 | 0.3088 | 0.0180 | 0.4430 |
| 71 | 40.41 | 0.01 | 0.0358 | 9.9999 | 0.0172 | 9.9999 | 0.4818 | 0.7062 | 0.0113 | 0.3130 | 0.0160 | 0.4432 |
| 72 | 40.61 | -0.01 | 0.0352 | 9.9999 | 0.0167 | 9.9999 | 0.4758 | 0.7032 | 0.0129 | 0.3108 | 0.0184 | 0.4420 |
| 73 | 40.82 | -0.01 | 0.0369 | 9.9999 | 0.0173 | 9.9999 | 0.4701 | 0.7379 | 0.0085 | 0.3262 | 0.0115 | 0.4420 |
| 74 | 41.05 | -0.02 | 0.0409 | 9.9999 | 0.0206 | 9.9999 | 0.5049 | 0.7382 | 0.0089 | 0.3256 | 0.0121 | 0.4410 |
| 75 | 41.23 | -0.01 | 0.0277 | 9.9999 | 0.0132 | 9.9999 | 0.4783 | 0.7498 | 0.0083 | 0.3294 | 0.0111 | 0.4393 |
| 76 | 41.45 | -0.01 | 0.0335 | 9.9999 | 0.0150 | 9.9999 | 0.4491 | 0.7562 | 0.0104 | 0.3303 | 0.0138 | 0.4367 |
| 77 | 41.67 | -0.01 | 0.0323 | 9.9999 | 0.0156 | 9.9999 | 0.4845 | 0.7826 | 0.0057 | 0.3422 | 0.0073 | 0.4373 |
| 78 | 41.84 | -0.02 | 0.0363 | 9.9999 | 0.0175 | 9.9999 | 0.4834 | 0.7710 | 0.0068 | 0.3373 | 0.0088 | 0.4375 |
| 79 | 42.06 | -0.01 | 0.0420 | 9.9999 | 0.0216 | 9.9999 | 0.5155 | 0.7979 | 0.0042 | 0.3470 | 0.0053 | 0.4348 |
| 80 | 42.25 | -0.02 | 0.0266 | 9.9999 | 0.0124 | 9.9999 | 0.4679 | 0.7906 | 0.0049 | 0.3435 | 0.0062 | 0.4345 |
| 81 | 42.45 | -0.02 | 0.0312 | 9.9999 | 0.0144 | 9.9999 | 0.4630 | 0.7728 | 0.0115 | 0.3336 | 0.0149 | 0.4317 |
| 82 | 42.64 | -0.03 | 0.0306 | 9.9999 | 0.0141 | 9.9999 | 0.4623 | 0.7691 | 0.0185 | 0.3275 | 0.0241 | 0.4258 |
| 83 | 42.83 | -0.02 | 0.0329 | 9.9999 | 0.0154 | 9.9999 | 0.4695 | 0.8034 | 0.0104 | 0.3444 | 0.0130 | 0.4267 |
| 84 | 43.00 | -0.03 | 0.0358 | 9.9999 | 0.0159 | 9.9999 | 0.4454 | 0.7774 | 0.0154 | 0.3315 | 0.0199 | 0.4264 |
| 85 | 43.17 | -0.02 | 0.0363 | 9.9999 | 0.0171 | 9.9999 | 0.4724 | 0.7856 | 0.0178 | 0.3362 | 0.0227 | 0.4279 |
| 86 | 43.36 | -0.02 | 0.0277 | 9.9999 | 0.0125 | 9.9999 | 0.4529 | 0.8150 | 0.0107 | 0.3488 | 0.0132 | 0.4280 |
| 87 | 43.55 | -0.02 | 0.0334 | 9.9999 | 0.0166 | 9.9999 | 0.4985 | 0.7688 | 0.0226 | 0.3234 | 0.0295 | 0.4206 |
| 88 | 43.73 | -0.02 | 0.0323 | 9.9999 | 0.0154 | 9.9999 | 0.4783 | 0.8175 | 0.0095 | 0.3505 | 0.0116 | 0.4288 |
| 89 | 43.91 | -0.02 | 0.0363 | 9.9999 | 0.0173 | 9.9999 | 0.4779 | 0.8138 | 0.0106 | 0.3482 | 0.0131 | 0.4279 |
| 90 | 44.09 | -0.02 | 0.0425 | 9.9999 | 0.0226 | 9.9999 | 0.5330 | 0.8235 | 0.0139 | 0.3509 | 0.0169 | 0.4261 |
| 91 | 44.25 | -0.03 | 0.0312 | 9.9999 | 0.0141 | 9.9999 | 0.4534 | 0.8438 | 0.0093 | 0.3589 | 0.0110 | 0.4254 |
| 92 | 44.47 | -0.02 | 0.0300 | 9.9999 | 0.0143 | 9.9999 | 0.4783 | 0.8311 | 0.0122 | 0.3533 | 0.0147 | 0.4251 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.65 | -0.03 | 0.0277 | 9.9999 | 0.0129 | 9.9999 | 0.4674 | 0.8238 | 0.0140 | 0.3497 | 0.0171 | 0.4261 |
| 94 | 44.83 | -0.01 | 0.0329 | 9.9999 | 0.0147 | 9.9999 | 0.4482 | 0.8145 | 0.0164 | 0.3466 | 0.0202 | 0.4256 |
| 95 | 45.01 | -0.04 | 0.0213 | 9.9999 | 0.0088 | 9.9999 | 0.4131 | 0.7992 | 0.0239 | 0.3376 | 0.0288 | 0.4224 |
| 96 | 45.18 | -0.02 | 0.0323 | 9.9999 | 0.0147 | 9.9999 | 0.4565 | 0.8198 | 0.0175 | 0.3469 | 0.0214 | 0.4232 |
| 97 | 45.39 | -0.02 | 0.0312 | 9.9999 | 0.0146 | 9.9999 | 0.4695 | 0.8423 | 0.0167 | 0.3558 | 0.0199 | 0.4224 |
| 98 | 45.56 | -0.02 | 0.0277 | 9.9999 | 0.0143 | 9.9999 | 0.5181 | 0.8272 | 0.0199 | 0.3467 | 0.0241 | 0.4191 |
| 99 | 45.75 | -0.04 | 0.0368 | 9.9999 | 0.0194 | 9.9999 | 0.5286 | 0.8016 | 0.0271 | 0.3344 | 0.0337 | 0.4171 |
| 100 | 45.92 | -0.04 | 0.0260 | 9.9999 | 0.0117 | 9.9999 | 0.4517 | 0.7571 | 0.0321 | 0.3113 | 0.0424 | 0.4112 |
| 101 | 46.08 | -0.02 | 0.0427 | 9.9999 | 0.0210 | 9.9999 | 0.4930 | 0.7386 | 0.0281 | 0.3323 | 0.0351 | 0.4161 |
| 102 | 46.27 | -0.04 | 0.0196 | 9.9999 | 0.0082 | 9.9999 | 0.4184 | 0.7488 | 0.0344 | 0.3062 | 0.0459 | 0.4089 |
| 103 | 46.44 | -0.03 | 0.0306 | 9.9999 | 0.0136 | 9.9999 | 0.4459 | 0.7312 | 0.0347 | 0.2963 | 0.0474 | 0.4052 |
| 104 | 46.60 | -0.04 | 0.0249 | 9.9999 | 0.0102 | 9.9999 | 0.4113 | 0.7471 | 0.0338 | 0.3044 | 0.0452 | 0.4075 |
| 105 | 46.79 | -0.03 | 0.0324 | 9.9999 | 0.0138 | 9.9999 | 0.4272 | 0.7336 | 0.0368 | 0.2959 | 0.0501 | 0.4034 |
| 106 | 46.96 | -0.04 | 0.0346 | 9.9999 | 0.0162 | 9.9999 | 0.4696 | 0.7106 | 0.0387 | 0.2841 | 0.0544 | 0.3998 |
| 107 | 47.13 | -0.03 | 0.0364 | 9.9999 | 0.0171 | 9.9999 | 0.4711 | 0.7096 | 0.0390 | 0.2816 | 0.0549 | 0.3968 |
| 108 | 47.30 | -0.05 | 0.0290 | 9.9999 | 0.0117 | 9.9999 | 0.4048 | 0.6875 | 0.0412 | 0.2705 | 0.0599 | 0.3934 |
| 109 | 47.49 | -0.04 | 0.0319 | 9.9999 | 0.0126 | 9.9999 | 0.3962 | 0.6731 | 0.0404 | 0.2625 | 0.0600 | 0.3901 |
| 110 | 47.66 | -0.04 | 0.0359 | 9.9999 | 0.0143 | 9.9999 | 0.3994 | 0.6605 | 0.0385 | 0.2527 | 0.0583 | 0.3826 |
| 111 | 47.82 | -0.04 | 0.0319 | 9.9999 | 0.0133 | 9.9999 | 0.4182 | 0.6759 | 0.0408 | 0.2620 | 0.0603 | 0.3877 |
| 112 | 48.02 | -0.03 | 0.0313 | 9.9999 | 0.0128 | 9.9999 | 0.4103 | 0.6777 | 0.0370 | 0.2587 | 0.0546 | 0.3818 |
| 113 | 48.17 | -0.02 | 0.0353 | 9.9999 | 0.0152 | 9.9999 | 0.4318 | 0.6725 | 0.0375 | 0.2558 | 0.0557 | 0.3804 |
| 114 | 48.35 | -0.03 | 0.0325 | 9.9999 | 0.0140 | 9.9999 | 0.4321 | 0.6855 | 0.0376 | 0.2600 | 0.0548 | 0.3793 |
| 115 | 48.53 | -0.03 | 0.0336 | 9.9999 | 0.0144 | 9.9999 | 0.4299 | 0.6973 | 0.0389 | 0.2663 | 0.0558 | 0.3820 |
| 116 | 48.68 | -0.02 | 0.0233 | 9.9999 | 0.0076 | 9.9999 | 0.3262 | 0.6919 | 0.0390 | 0.2629 | 0.0563 | 0.3800 |
| 117 | 48.86 | -0.03 | 0.0325 | 9.9999 | 0.0136 | 9.9999 | 0.4198 | 0.7030 | 0.0396 | 0.2673 | 0.0563 | 0.3803 |
| 118 | 49.04 | -0.03 | 0.0290 | 9.9999 | 0.0140 | 9.9999 | 0.4844 | 0.7049 | 0.0403 | 0.2668 | 0.0571 | 0.3785 |
| 119 | 49.20 | -0.01 | 0.0285 | 9.9999 | 0.0112 | 9.9999 | 0.3944 | 0.7068 | 0.0403 | 0.2670 | 0.0570 | 0.3778 |
| 120 | 49.37 | -0.01 | 0.0290 | 9.9999 | 0.0126 | 9.9999 | 0.4160 | 0.7187 | 0.0397 | 0.2714 | 0.0552 | 0.3776 |
| 121 | 49.55 | -0.01 | 0.0308 | 9.9999 | 0.0125 | 9.9999 | 0.4072 | 0.7293 | 0.0389 | 0.2756 | 0.0533 | 0.3779 |
| 122 | 49.73 | -0.00 | 0.0314 | 9.9999 | 0.0126 | 9.9999 | 0.4025 | 0.7419 | 0.0382 | 0.2811 | 0.0515 | 0.3788 |
| 123 | 49.90 | -0.00 | 0.0320 | 9.9999 | 0.0124 | 9.9999 | 0.3887 | 0.7338 | 0.0390 | 0.2761 | 0.0531 | 0.3762 |
| 124 | 50.06 | -0.00 | 0.0349 | 9.9999 | 0.0140 | 9.9999 | 0.4023 | 0.7400 | 0.0380 | 0.2775 | 0.0513 | 0.3749 |
| 125 | 50.24 | -0.02 | 0.0337 | 9.9999 | 0.0151 | 9.9999 | 0.4494 | 0.7343 | 0.0378 | 0.2745 | 0.0514 | 0.3738 |
| 126 | 50.41 | -0.00 | 0.0373 | 9.9999 | 0.0156 | 9.9999 | 0.4194 | 0.7423 | 0.0373 | 0.2769 | 0.0502 | 0.3730 |
| 127 | 50.58 | 0.01 | 0.0413 | 9.9999 | 0.0185 | 9.9999 | 0.4490 | 0.7360 | 0.0369 | 0.2741 | 0.0501 | 0.3724 |
| 128 | 50.74 | 0.00 | 0.0280 | 9.9999 | 0.0112 | 9.9999 | 0.4014 | 0.7049 | 0.0363 | 0.2600 | 0.0515 | 0.3689 |
| 129 | 50.93 | 0.00 | 0.0361 | 9.9999 | 0.0160 | 9.9999 | 0.4444 | 0.6944 | 0.0355 | 0.2562 | 0.0511 | 0.3690 |
| 130 | 51.09 | 0.00 | 0.0362 | 9.9999 | 0.0151 | 9.9999 | 0.4183 | 0.6973 | 0.0352 | 0.2573 | 0.0504 | 0.3690 |
| 131 | 51.25 | 0.00 | 0.0321 | 9.9999 | 0.0131 | 9.9999 | 0.4094 | 0.6891 | 0.0362 | 0.2531 | 0.0525 | 0.3673 |
| 132 | 51.43 | 0.01 | 0.0258 | 9.9999 | 0.0092 | 9.9999 | 0.3580 | 0.6873 | 0.0365 | 0.2523 | 0.0531 | 0.3671 |
| 133 | 51.61 | 0.00 | 0.0356 | 9.9999 | 0.0157 | 9.9999 | 0.4423 | 0.6811 | 0.0368 | 0.2499 | 0.0540 | 0.3669 |
| 134 | 51.78 | 0.00 | 0.0321 | 9.9999 | 0.0141 | 9.9999 | 0.4406 | 0.6958 | 0.0365 | 0.2563 | 0.0526 | 0.3684 |
| 135 | 51.94 | 0.01 | 0.0396 | 9.9999 | 0.0179 | 9.9999 | 0.4532 | 0.6947 | 0.0370 | 0.2546 | 0.0532 | 0.3665 |
| 136 | 52.11 | 0.01 | 0.0391 | 9.9999 | 0.0174 | 9.9999 | 0.4462 | 0.7004 | 0.0372 | 0.2568 | 0.0531 | 0.3667 |
| 137 | 52.28 | 0.02 | 0.0351 | 9.9999 | 0.0153 | 9.9999 | 0.4371 | 0.6985 | 0.0366 | 0.2556 | 0.0524 | 0.3659 |
| 138 | 52.44 | 0.01 | 0.0432 | 9.9999 | 0.0203 | 9.9999 | 0.4710 | 0.6996 | 0.0368 | 0.2560 | 0.0526 | 0.3659 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 159 | 1.10 | 1.7 | 0.0 | B1W0F31 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.60 | 0.01 | 0.0340 | 9.9999 | 0.0145 | 9.9999 | 0.4277 | 0.6980 | 0.0364 | 0.2554 | 0.0521 | 0.3659 |
| 140 | 52.78 | 0.01 | 0.0293 | 9.9999 | 0.0120 | 9.9999 | 0.4110 | 0.7043 | 0.0361 | 0.2540 | 0.0512 | 0.3663 |
| 141 | 52.95 | 0.00 | 0.0317 | 9.9999 | 0.0127 | 9.9999 | 0.4019 | 0.7121 | 0.0356 | 0.2610 | 0.0509 | 0.3666 |
| 142 | 53.12 | 0.00 | 0.0398 | 9.9999 | 0.0187 | 9.9999 | 0.4710 | 0.7236 | 0.0354 | 0.2657 | 0.0489 | 0.3673 |
| 143 | 53.28 | 0.01 | 0.0370 | 9.9999 | 0.0152 | 9.9999 | 0.4119 | 0.7157 | 0.0359 | 0.2616 | 0.0501 | 0.3656 |
| 144 | 53.47 | 0.01 | 0.0329 | 9.9999 | 0.0140 | 9.9999 | 0.4268 | 0.7383 | 0.0349 | 0.2706 | 0.0472 | 0.3664 |
| 145 | 53.64 | -0.00 | 0.0335 | 9.9999 | 0.0147 | 9.9999 | 0.4401 | 0.7373 | 0.0346 | 0.2704 | 0.0469 | 0.3667 |
| 146 | 53.78 | -0.03 | 0.0315 | 9.9999 | 0.0130 | 9.9999 | 0.4101 | 0.7481 | 0.0344 | 0.2746 | 0.0459 | 0.3670 |
| 147 | 53.97 | -0.01 | 0.0376 | 9.9999 | 0.0169 | 9.9999 | 0.4507 | 0.7506 | 0.0345 | 0.2740 | 0.0459 | 0.3650 |
| 148 | 54.12 | -0.00 | 0.0336 | 9.9999 | 0.0148 | 9.9999 | 0.4418 | 0.7584 | 0.0344 | 0.2769 | 0.0453 | 0.3651 |
| 149 | 54.28 | -0.01 | 0.0330 | 9.9999 | 0.0140 | 9.9999 | 0.4255 | 0.7665 | 0.0350 | 0.2798 | 0.0456 | 0.3650 |
| 150 | 54.43 | 0.01 | 0.0266 | 9.9999 | 0.0112 | 9.9999 | 0.4226 | 0.7647 | 0.0341 | 0.2799 | 0.0446 | 0.3660 |
| 151 | 54.59 | -0.01 | 0.0355 | 9.9999 | 0.0152 | 9.9999 | 0.4294 | 0.7769 | 0.0350 | 0.2838 | 0.0450 | 0.3653 |
| 152 | 54.73 | -0.05 | 0.0325 | 9.9999 | 0.0143 | 9.9999 | 0.4414 | 0.7791 | 0.0347 | 0.2846 | 0.0445 | 0.3653 |
| 153 | 54.90 | -0.02 | 0.0284 | 9.9999 | 0.0114 | 9.9999 | 0.4028 | 0.7730 | 0.0355 | 0.2812 | 0.0459 | 0.3638 |
| 154 | 55.06 | -0.02 | 0.0302 | 9.9999 | 0.0134 | 9.9999 | 0.4452 | 0.7743 | 0.0362 | 0.2817 | 0.0467 | 0.3638 |
| 155 | 55.22 | -0.02 | 0.0291 | 9.9999 | 0.0117 | 9.9999 | 0.4034 | 0.7821 | 0.0361 | 0.2847 | 0.0461 | 0.3648 |
| 156 | 55.34 | -0.02 | 0.0337 | 9.9999 | 0.0163 | 9.9999 | 0.4851 | 0.7795 | 0.0361 | 0.2837 | 0.0463 | 0.3639 |
| 157 | 55.50 | -0.03 | 0.0274 | 9.9999 | 0.0104 | 9.9999 | 0.3810 | 0.7791 | 0.0359 | 0.2835 | 0.0459 | 0.3639 |
| 158 | 55.65 | -0.04 | 0.0285 | 9.9999 | 0.0123 | 9.9999 | 0.4331 | 0.7704 | 0.0358 | 0.2802 | 0.0464 | 0.3637 |
| 159 | 55.83 | -0.01 | 0.0297 | 9.9999 | 0.0136 | 9.9999 | 0.4595 | 0.7899 | 0.0355 | 0.2879 | 0.0449 | 0.3648 |
| 160 | 55.99 | -0.01 | 0.0219 | 9.9999 | 0.0097 | 9.9999 | 0.4429 | 0.7944 | 0.0358 | 0.2891 | 0.0450 | 0.3639 |
| 161 | 56.15 | -0.08 | 0.0339 | 9.9999 | 0.0149 | 9.9999 | 0.4408 | 0.7815 | 0.0359 | 0.2834 | 0.0459 | 0.3626 |
| 162 | 56.33 | -0.02 | 0.0310 | 9.9999 | 0.0126 | 9.9999 | 0.4078 | 0.7960 | 0.0353 | 0.2897 | 0.0443 | 0.3627 |
| 163 | 56.50 | -0.07 | 0.0299 | 9.9999 | 0.0111 | 9.9999 | 0.3725 | 0.8132 | 0.0350 | 0.2957 | 0.0430 | 0.3636 |
| 164 | 56.66 | -0.05 | 0.0334 | 9.9999 | 0.0142 | 9.9999 | 0.4264 | 0.8046 | 0.0354 | 0.2911 | 0.0440 | 0.3618 |
| 165 | 56.80 | -0.10 | 0.0269 | 9.9999 | 0.0111 | 9.9999 | 0.4142 | 0.8200 | 0.0343 | 0.2982 | 0.0418 | 0.3637 |
| 166 | 56.95 | -0.05 | 0.0257 | 9.9999 | 0.0110 | 9.9999 | 0.4297 | 0.8006 | 0.0358 | 0.2859 | 0.0447 | 0.3608 |
| 167 | 57.09 | -0.06 | 0.0306 | 9.9999 | 0.0124 | 9.9999 | 0.4066 | 0.7834 | 0.0355 | 0.2814 | 0.0453 | 0.3592 |
| 168 | 57.25 | -0.05 | 0.0348 | 9.9999 | 0.0149 | 9.9999 | 0.4294 | 0.7896 | 0.0359 | 0.2837 | 0.0454 | 0.3593 |
| 169 | 57.40 | -0.07 | 0.0301 | 9.9999 | 0.0124 | 9.9999 | 0.4133 | 0.8027 | 0.0358 | 0.2894 | 0.0446 | 0.3605 |
| 170 | 57.55 | -0.13 | 0.0240 | 9.9999 | 0.0100 | 9.9999 | 0.4167 | 0.8040 | 0.0356 | 0.2902 | 0.0442 | 0.3609 |
| 171 | 57.69 | -0.02 | 0.0350 | 9.9999 | 0.0140 | 9.9999 | 0.4011 | 0.8140 | 0.0353 | 0.2943 | 0.0433 | 0.3616 |
| 172 | 57.83 | -0.03 | 0.0344 | 9.9999 | 0.0137 | 9.9999 | 0.3994 | 0.8152 | 0.0341 | 0.2948 | 0.0418 | 0.3616 |
| 173 | 57.99 | 0.00 | 0.0373 | 9.9999 | 0.0172 | 9.9999 | 0.4624 | 0.8275 | 0.0347 | 0.2997 | 0.0419 | 0.3622 |
| 174 | 58.14 | -0.08 | 0.0301 | 9.9999 | 0.0121 | 9.9999 | 0.4033 | 0.8377 | 0.0341 | 0.3040 | 0.0407 | 0.3629 |
| 175 | 58.29 | -0.08 | 0.0326 | 9.9999 | 0.0138 | 9.9999 | 0.4246 | 0.8447 | 0.0338 | 0.3067 | 0.0400 | 0.3631 |
| 176 | 58.42 | -0.06 | 0.0428 | 9.9999 | 0.0189 | 9.9999 | 0.4426 | 0.8478 | 0.0342 | 0.3068 | 0.0403 | 0.3619 |
| 177 | 58.42 | -0.09 | 0.0375 | 9.9999 | 0.0154 | 9.9999 | 0.4118 | 0.8404 | 0.0353 | 0.3035 | 0.0420 | 0.3612 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.80 | 1.7 | 0.0 | BINOF34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | 0.01 | -3.0612 | 11.4203 | -0.0611 | 0.1050 | -0.0139 | 1.4269 | 0.4142 | 1.0127 | -3.7307 |
| 2 | -5.77 | 0.01 | -3.0911 | 11.5313 | -0.0314 | -0.1441 | 0.0185 | 1.4337 | 0.4110 | 1.0227 | -3.7305 |
| 3 | -5.78 | 0.01 | -3.0407 | 11.3688 | -0.0212 | 0.0023 | -0.0112 | 1.4224 | 0.4106 | 1.0118 | -3.7389 |
| 4 | -5.77 | 0.01 | -3.0799 | 11.4692 | 0.0285 | -0.2136 | 0.0112 | 1.4260 | 0.4110 | 1.0150 | -3.7239 |
| 5 | -5.87 | 0.01 | -3.0521 | 11.3931 | 0.0420 | -0.2263 | 0.0260 | 1.4176 | 0.4049 | 1.0127 | -3.7329 |
| 6 | -4.96 | 0.01 | -3.0174 | 11.6149 | 0.0285 | -0.2139 | 0.0264 | 1.3979 | 0.3661 | 1.0318 | -3.8493 |
| 7 | -3.22 | 0.01 | -3.0247 | 12.1559 | -0.0147 | -0.1333 | 0.0195 | 1.3497 | 0.2829 | 1.0668 | -4.0189 |
| 8 | -1.58 | 0.01 | -2.7894 | 11.6496 | 0.0125 | -0.1982 | 0.0199 | 1.2757 | 0.2404 | 1.0352 | -4.1765 |
| 9 | 0.17 | 0.00 | -2.5550 | 11.0535 | -0.0117 | -0.1114 | 0.0127 | 1.2107 | 0.2132 | 0.9975 | -4.3262 |
| 10 | 1.83 | -0.00 | -2.4775 | 11.2823 | -0.0838 | -0.0161 | -0.0312 | 1.1983 | 0.2032 | 0.9951 | -4.5539 |
| 11 | 3.52 | 0.01 | -2.3291 | 11.0935 | 0.0010 | -0.1350 | -0.0010 | 1.1393 | 0.1926 | 0.9467 | -4.7630 |
| 12 | 5.19 | -0.00 | -2.0968 | 10.5375 | -0.0136 | -0.1211 | -0.0155 | 1.0674 | 0.1797 | 0.8877 | -5.0255 |
| 13 | 6.94 | -0.00 | -1.7294 | 9.5172 | 0.0002 | -0.1737 | -0.0151 | 0.9701 | 0.1673 | 0.8028 | -5.5147 |
| 14 | 8.63 | 0.00 | -1.2533 | 8.0929 | -0.0296 | -0.1469 | -0.0302 | 0.8430 | 0.1587 | 0.6844 | -6.4576 |
| 15 | 10.37 | -0.01 | -0.5827 | 5.9784 | -0.0443 | -0.1351 | 0.0148 | 0.6894 | 0.1559 | 0.5335 | -10.2597 |
| 16 | 12.14 | -0.00 | 0.1175 | 3.8796 | 0.0015 | -0.1399 | 0.0078 | 0.5408 | 0.1545 | 0.3863 | 33.0199 |
| 17 | 13.92 | 0.00 | 0.7216 | 2.0328 | 0.0598 | -0.2353 | 0.0156 | 0.4034 | 0.1554 | 0.2480 | 2.8171 |
| 18 | 15.77 | -0.00 | 1.2348 | 0.7598 | 0.0141 | -0.1935 | 0.0384 | 0.3012 | 0.1611 | 0.1401 | 0.6153 |
| 19 | 17.63 | -0.00 | 1.7163 | -0.4691 | -0.0009 | -0.2070 | 0.0537 | 0.1918 | 0.1660 | 0.0258 | -0.2733 |
| 20 | 19.45 | -0.01 | 2.3043 | -1.9316 | -0.0740 | -0.1164 | 0.1429 | 0.0553 | 0.1741 | -0.1188 | -0.8383 |
| 21 | 21.30 | -0.01 | 2.9742 | -3.5779 | -0.1854 | 0.0424 | 0.3434 | -0.0955 | 0.1754 | -0.2709 | -1.2030 |
| 22 | 23.20 | -0.01 | 3.6915 | -5.4853 | -0.1554 | -0.0128 | 0.3068 | -0.2578 | 0.1768 | -0.4346 | -1.4859 |
| 23 | 25.06 | -0.02 | 4.3915 | -7.3778 | -0.2070 | 0.1251 | 0.2698 | -0.4031 | 0.1788 | -0.5819 | -1.6800 |
| 24 | 26.96 | 0.03 | 5.0542 | -8.5324 | 0.4195 | -0.9823 | 0.3210 | -0.5145 | 0.1807 | -0.6952 | -1.6882 |
| 25 | 27.88 | 0.03 | 5.2247 | -8.8279 | 0.4478 | -1.1165 | 0.3734 | -0.5548 | 0.1826 | -0.7374 | -1.6896 |
| 26 | 27.93 | 0.03 | 5.2959 | -8.9492 | 0.4778 | -1.1597 | 0.0586 | -0.5592 | 0.1845 | -0.7437 | -1.6898 |
| 27 | 28.33 | 0.04 | 5.3828 | -9.0335 | 0.6455 | -1.4858 | 0.0894 | -0.5533 | 0.1878 | -0.7411 | -1.6782 |
| 28 | 28.63 | 0.03 | 5.4414 | -9.1351 | 0.5755 | -1.3572 | 0.1414 | -0.5652 | 0.1912 | -0.7564 | -1.6788 |
| 29 | 28.89 | 0.04 | 5.5194 | -9.1985 | 0.7267 | -1.6959 | 0.2016 | -0.5464 | 0.1940 | -0.7404 | -1.6666 |
| 30 | 29.21 | 0.04 | 5.5987 | -9.3781 | 0.6770 | -1.5216 | 0.2393 | -0.5559 | 0.1988 | -0.7547 | -1.6750 |
| 31 | 29.51 | 0.04 | 5.6910 | -9.4513 | 0.7545 | -1.7783 | 0.2546 | -0.5641 | 0.2016 | -0.7657 | -1.6608 |
| 32 | 29.79 | 0.05 | 5.7682 | -9.4514 | 0.8485 | -1.8326 | 0.3452 | -0.5503 | 0.2088 | -0.7591 | -1.6385 |
| 33 | 30.05 | 0.06 | 5.8294 | -9.4621 | 1.0127 | -2.2216 | 0.3610 | -0.5386 | 0.2146 | -0.7532 | -1.6232 |
| 34 | 30.31 | 0.07 | 5.8517 | -9.3543 | 1.0416 | -2.2654 | 0.4657 | -0.5154 | 0.2223 | -0.7377 | -1.5986 |
| 35 | 30.60 | 0.06 | 5.8927 | -9.3454 | 0.9228 | -1.9057 | 0.4505 | -0.4943 | 0.2271 | -0.7214 | -1.5859 |
| 36 | 30.85 | 0.06 | 5.9401 | -9.3088 | 0.9219 | -1.9192 | 0.4883 | -0.4857 | 0.2358 | -0.7215 | -1.5671 |
| 37 | 31.13 | 0.05 | 6.0395 | -9.3611 | 0.8112 | -1.6692 | 0.4137 | -0.4712 | 0.2426 | -0.7139 | -1.5530 |
| 38 | 31.41 | 0.06 | 6.1014 | -9.3734 | 0.9407 | -1.8704 | 0.4591 | -0.4712 | 0.2464 | -0.7177 | -1.5363 |
| 39 | 31.66 | 0.07 | 6.1725 | -9.5012 | 0.9732 | -1.8622 | 0.4667 | -0.4819 | 0.2522 | -0.7341 | -1.5393 |
| 40 | 31.95 | 0.07 | 6.3175 | -9.4120 | 1.0694 | -2.0839 | 0.5126 | -0.4873 | 0.2541 | -0.7414 | -1.4898 |
| 41 | 32.20 | 0.08 | 6.3932 | -9.3948 | 1.1587 | -2.4012 | 0.4911 | -0.4786 | 0.2603 | -0.7390 | -1.4695 |
| 42 | 32.46 | 0.09 | 6.5032 | -9.3402 | 1.3304 | -2.6366 | 0.4687 | -0.4996 | 0.2642 | -0.7638 | -1.4362 |
| 43 | 32.73 | 0.09 | 6.5919 | -9.3314 | 1.3533 | -2.7604 | 0.4247 | -0.4928 | 0.2724 | -0.7652 | -1.4156 |
| 44 | 32.98 | 0.09 | 6.7180 | -9.4148 | 1.3658 | -2.8143 | 0.5145 | -0.4976 | 0.2752 | -0.7728 | -1.4014 |
| 45 | 33.22 | 0.08 | 6.7668 | -9.4807 | 1.2051 | -2.3737 | 0.4098 | -0.5198 | 0.2786 | -0.7984 | -1.4011 |
| 46 | 33.47 | 0.09 | 6.8337 | -9.5015 | 1.3153 | -2.6244 | 0.5296 | -0.4928 | 0.2873 | -0.7801 | -1.3904 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 2 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.80 | 1.7 | 0.0 | B1W | OF 34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.73 | 0.10 | 6.9571 | -9.6091 | 1.4442 | -2.5760 | 0.5810 | -0.5177 | 0.2893 | -0.8069 | -1.3812 |
| 48 | 33.97 | 0.10 | 7.0497 | -9.5691 | 1.3776 | -2.3988 | 0.5886 | -0.5233 | 0.2964 | -0.8196 | -1.3574 |
| 49 | 34.22 | 0.11 | 7.1556 | -9.6051 | 1.5386 | -2.5584 | 0.5881 | -0.5343 | 0.2996 | -0.8338 | -1.3423 |
| 50 | 34.47 | 0.11 | 7.2427 | -9.7079 | 1.5469 | -2.6509 | 0.5885 | -0.5367 | 0.3073 | -0.8439 | -1.3404 |
| 51 | 34.71 | 0.12 | 7.3314 | -9.8133 | 1.6739 | -2.4793 | 0.6109 | -0.5262 | 0.3197 | -0.8459 | -1.3385 |
| 52 | 34.96 | 0.12 | 7.4633 | -9.9597 | 1.4794 | -2.3654 | 0.5804 | -0.5443 | 0.3248 | -0.8691 | -1.3345 |
| 53 | 35.18 | 0.11 | 7.5558 | -9.9019 | 1.6263 | -2.6254 | 0.5812 | -0.5550 | 0.3234 | -0.8784 | -1.3105 |
| 54 | 35.44 | 0.11 | 7.6646 | -9.8011 | 1.6446 | -2.7968 | 0.5747 | -0.5553 | 0.3287 | -0.8840 | -1.2788 |
| 55 | 35.67 | 0.09 | 7.6712 | -9.7915 | 1.4054 | -2.9662 | 0.4950 | -0.5611 | 0.3313 | -0.8924 | -1.2764 |
| 56 | 35.90 | 0.11 | 7.8528 | -9.9338 | 1.6728 | -3.2055 | 0.5231 | -0.5765 | 0.3394 | -0.9159 | -1.2650 |
| 57 | 36.13 | 0.11 | 7.8360 | -9.8563 | 1.5455 | -3.1727 | 0.5147 | -0.5696 | 0.3421 | -0.9117 | -1.2578 |
| 58 | 36.36 | 0.11 | 7.9422 | -9.9847 | 1.6879 | -2.9603 | 0.5592 | -0.5622 | 0.3540 | -0.9162 | -1.2446 |
| 59 | 36.60 | 0.11 | 8.0710 | -10.0727 | 1.5504 | -2.6762 | 0.5370 | -0.5675 | 0.3612 | -0.9287 | -1.2480 |
| 60 | 36.85 | 0.11 | 8.1461 | -10.0379 | 1.5605 | -2.7499 | 0.5374 | -0.5771 | 0.3560 | -0.9331 | -1.2322 |
| 61 | 37.07 | 0.10 | 8.2561 | -10.2196 | 1.4552 | -2.8384 | 0.4557 | -0.6108 | 0.3515 | -0.9623 | -1.2378 |
| 62 | 37.30 | 0.10 | 8.3906 | -10.3988 | 1.4599 | -2.3702 | 0.5217 | -0.6183 | 0.3566 | -0.9749 | -1.2393 |
| 63 | 37.55 | 0.11 | 8.5187 | -10.5613 | 1.5882 | -2.1168 | 0.5134 | -0.6119 | 0.3668 | -0.9787 | -1.2398 |
| 64 | 37.77 | 0.12 | 8.6947 | -10.8439 | 1.6077 | -1.6749 | 0.5425 | -0.6080 | 0.3810 | -0.9890 | -1.2472 |
| 65 | 38.02 | 0.12 | 8.8759 | -10.9857 | 1.5094 | -1.2328 | 0.5713 | -0.6060 | 0.3910 | -0.9973 | -1.2377 |
| 66 | 38.25 | 0.12 | 8.9902 | -11.1071 | 1.5459 | -1.4359 | 0.5504 | -0.6189 | 0.3962 | -1.0151 | -1.2355 |
| 67 | 38.49 | 0.13 | 9.1253 | -11.1752 | 1.6374 | -1.4704 | 0.5581 | -0.6263 | 0.3962 | -1.0225 | -1.2246 |
| 68 | 38.68 | 0.13 | 9.1860 | -11.2430 | 1.5541 | -0.9605 | 0.5858 | -0.6237 | 0.4029 | -1.0266 | -1.2239 |
| 69 | 38.92 | 0.14 | 9.4180 | -11.5463 | 1.7119 | -1.2250 | 0.5357 | -0.6423 | 0.4077 | -1.0500 | -1.2260 |
| 70 | 39.14 | 0.13 | 9.4348 | -11.3751 | 1.6615 | -1.2956 | 0.5438 | -0.6281 | 0.4139 | -1.0420 | -1.2056 |
| 71 | 39.33 | 0.13 | 9.5226 | -11.4043 | 1.6583 | -1.3576 | 0.5298 | -0.6286 | 0.4205 | -1.0491 | -1.1976 |
| 72 | 39.56 | 0.14 | 9.6609 | -11.4640 | 1.8063 | -1.2590 | 0.5159 | -0.6241 | 0.4222 | -1.0463 | -1.1868 |
| 73 | 39.76 | 0.15 | 9.6404 | -11.4821 | 1.7717 | -1.3319 | 0.5234 | -0.6474 | 0.4184 | -1.0659 | -1.1918 |
| 74 | 39.95 | 0.16 | 9.7103 | -11.4794 | 1.9161 | -1.4009 | 0.5479 | -0.6265 | 0.4325 | -1.0590 | -1.1822 |
| 75 | 40.16 | 0.14 | 9.7925 | -11.6304 | 1.7619 | -1.3607 | 0.5187 | -0.6515 | 0.4300 | -1.0816 | -1.1877 |
| 76 | 40.35 | 0.13 | 9.7051 | -11.2659 | 1.6062 | -1.3460 | 0.5190 | -0.6739 | 0.4196 | -1.0935 | -1.1608 |
| 77 | 40.57 | 0.13 | 9.7586 | -11.3023 | 1.6876 | -1.7985 | 0.4760 | -0.6789 | 0.4177 | -1.0956 | -1.1582 |
| 78 | 40.77 | 0.12 | 9.8946 | -11.3327 | 1.5181 | -1.5105 | 0.4759 | -0.7203 | 0.4134 | -1.1337 | -1.1453 |
| 79 | 40.97 | 0.14 | 10.1186 | -11.7340 | 1.9620 | -1.8191 | 0.4704 | -0.6860 | 0.4324 | -1.1184 | -1.1597 |
| 80 | 41.18 | 0.14 | 10.0065 | -11.2803 | 1.8497 | -1.8236 | 0.5299 | -0.6733 | 0.4376 | -1.1109 | -1.1273 |
| 81 | 41.38 | 0.14 | 10.2722 | -11.6310 | 1.9063 | -1.6651 | 0.4782 | -0.6739 | 0.4462 | -1.1201 | -1.1323 |
| 82 | 41.57 | 0.14 | 10.2388 | -11.5472 | 1.8576 | -1.6935 | 0.4784 | -0.6743 | 0.4490 | -1.1233 | -1.1278 |
| 83 | 41.77 | 0.13 | 10.3496 | -11.4684 | 1.8138 | -1.6318 | 0.5085 | -0.6766 | 0.4485 | -1.1251 | -1.1081 |
| 84 | 41.96 | 0.14 | 10.4597 | -11.6931 | 1.9375 | -1.5894 | 0.4925 | -0.6987 | 0.4401 | -1.1388 | -1.1179 |
| 85 | 42.13 | 0.09 | 10.2968 | -11.0626 | 1.2712 | -1.1586 | 0.4330 | -0.7753 | 0.4077 | -1.1830 | -1.0744 |
| 86 | 42.33 | 0.13 | 10.6267 | -11.6746 | 1.7837 | -1.2208 | 0.4995 | -0.6953 | 0.4511 | -1.1464 | -1.0986 |
| 87 | 42.50 | 0.14 | 10.6535 | -11.6177 | 1.8871 | -1.6331 | 0.4789 | -0.6988 | 0.4597 | -1.1585 | -1.0905 |
| 88 | 42.68 | 0.14 | 10.6953 | -11.6479 | 1.8464 | -1.5287 | 0.4640 | -0.6989 | 0.4596 | -1.1585 | -1.0891 |
| 89 | 42.86 | 0.15 | 10.8202 | -11.6367 | 1.9469 | -1.3859 | 0.4786 | -0.6710 | 0.4768 | -1.1479 | -1.0755 |
| 90 | 43.06 | 0.14 | 10.9653 | -11.8194 | 1.9316 | -1.3838 | 0.4494 | -0.7090 | 0.4710 | -1.1800 | -1.0779 |
| 91 | 43.23 | 0.15 | 10.9350 | -11.6846 | 2.0514 | -1.4828 | 0.4497 | -0.6696 | 0.4759 | -1.1456 | -1.0686 |
| 92 | 43.41 | 0.15 | 11.0894 | -11.7134 | 1.9475 | -1.3730 | 0.4796 | -0.6900 | 0.4792 | -1.1692 | -1.0563 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.80 | 1.7 | 0.0 | B1W0F36 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.60 | 0.15 | 11.1823 | -11.9629 | 2.0795 | -1.5473 | 0.4063 | -0.7037 | 0.4846 | -1.1932 | -1.0698 |
| 94 | 43.77 | 0.15 | 11.2764 | -11.9457 | 2.1291 | -1.4892 | 0.4360 | -0.6886 | 0.4937 | -1.1822 | -1.0594 |
| 95 | 43.95 | 0.14 | 11.2790 | -11.7441 | 2.1065 | -1.6264 | 0.4516 | -0.6922 | 0.4970 | -1.1891 | -1.0412 |
| 96 | 44.14 | 0.14 | 11.2875 | -11.8403 | 2.0333 | -1.5315 | 0.4513 | -0.7000 | 0.4951 | -1.1950 | -1.0490 |
| 97 | 44.31 | 0.13 | 11.3309 | -11.7977 | 1.9933 | -1.7049 | 0.4523 | -0.7034 | 0.4916 | -1.1949 | -1.0412 |
| 98 | 44.50 | 0.13 | 11.4341 | -11.9143 | 1.9735 | -1.4753 | 0.4517 | -0.7038 | 0.5022 | -1.2059 | -1.0420 |
| 99 | 44.67 | 0.13 | 11.4652 | -11.8276 | 1.9715 | -1.1956 | 0.4361 | -0.6980 | 0.5055 | -1.2034 | -1.0316 |
| 100 | 44.86 | 0.13 | 11.5223 | -11.8700 | 2.0162 | -1.2373 | 0.4290 | -0.6963 | 0.5055 | -1.2017 | -1.0302 |
| 101 | 45.04 | 0.14 | 11.7334 | -12.1092 | 2.0360 | -0.8473 | 0.4354 | -0.7080 | 0.5136 | -1.2215 | -1.0320 |
| 102 | 45.21 | 0.13 | 11.7282 | -12.0638 | 1.9338 | -1.0145 | 0.4215 | -0.7225 | 0.5078 | -1.2302 | -1.0286 |
| 103 | 45.39 | 0.13 | 11.7381 | -12.0678 | 1.9548 | -1.2185 | 0.4076 | -0.7222 | 0.5121 | -1.2342 | -1.0281 |
| 104 | 45.56 | 0.13 | 11.8620 | -12.0543 | 1.9143 | -1.0884 | 0.4225 | -0.7142 | 0.5174 | -1.2315 | -1.0162 |
| 105 | 45.74 | 0.13 | 11.9488 | -12.1380 | 1.9354 | -0.9755 | 0.4001 | -0.7123 | 0.5189 | -1.2311 | -1.0158 |
| 106 | 45.91 | 0.12 | 11.9632 | -12.0179 | 1.9718 | -1.1806 | 0.3938 | -0.7026 | 0.5235 | -1.2260 | -1.0046 |
| 107 | 46.07 | 0.13 | 12.1287 | -12.2305 | 2.0144 | -0.8065 | 0.3644 | -0.7222 | 0.5228 | -1.2449 | -1.0084 |
| 108 | 46.25 | 0.11 | 12.0981 | -12.1326 | 1.8964 | -0.6568 | 0.3936 | -0.7295 | 0.5252 | -1.2547 | -1.0029 |
| 109 | 46.43 | 0.12 | 12.2365 | -12.3156 | 1.9238 | -0.8123 | 0.3730 | -0.7364 | 0.5285 | -1.2649 | -1.0065 |
| 110 | 46.59 | 0.12 | 12.3704 | -12.4747 | 1.9122 | -0.4160 | 0.3495 | -0.7532 | 0.5295 | -1.2827 | -1.0084 |
| 111 | 46.76 | 0.10 | 12.3223 | -12.3795 | 1.7350 | -0.5027 | 0.3798 | -0.7638 | 0.5252 | -1.2890 | -1.0048 |
| 112 | 46.94 | 0.09 | 12.3940 | -12.4702 | 1.6350 | -0.3025 | 0.3720 | -0.7635 | 0.5286 | -1.2921 | -1.0061 |
| 113 | 47.12 | 0.09 | 12.5273 | -12.4674 | 1.6511 | -0.0477 | 0.3424 | -0.7762 | 0.5287 | -1.3049 | -0.9952 |
| 114 | 47.28 | 0.09 | 12.6580 | -12.6582 | 1.6321 | -0.1091 | 0.3208 | -0.7585 | 0.5335 | -1.2920 | -1.0000 |
| 115 | 47.46 | 0.09 | 12.7746 | -12.8208 | 1.5842 | 0.1895 | 0.2902 | -0.7924 | 0.5262 | -1.3186 | -1.0036 |
| 116 | 47.63 | 0.07 | 12.7965 | -13.0590 | 1.3252 | 0.6708 | 0.3108 | -0.8263 | 0.5219 | -1.3482 | -1.0205 |
| 117 | 47.80 | 0.06 | 12.7915 | -13.0518 | 1.1389 | 0.7260 | 0.3110 | -0.8293 | 0.5186 | -1.3479 | -1.0204 |
| 118 | 47.97 | 0.06 | 12.8655 | -13.0895 | 1.0494 | 1.1432 | 0.2873 | -0.8440 | 0.5181 | -1.3621 | -1.0174 |
| 119 | 48.13 | 0.06 | 12.9091 | -13.2249 | 0.9032 | 1.3967 | 0.2564 | -0.8719 | 0.5037 | -1.3755 | -1.0245 |
| 120 | 48.30 | 0.04 | 12.9295 | -13.2519 | 0.6896 | 1.8263 | 0.1513 | -0.8860 | 0.5017 | -1.3876 | -1.0249 |
| 121 | 48.47 | 0.03 | 12.9270 | -13.0030 | 0.6054 | 2.0422 | 0.0469 | -0.8905 | 0.4959 | -1.3863 | -1.0059 |
| 122 | 48.64 | 0.01 | 12.9419 | -12.8701 | 0.2493 | 2.4414 | -0.0649 | -0.9238 | 0.4864 | -1.4101 | -0.9960 |
| 123 | 48.79 | -0.02 | 12.9718 | -12.8657 | -0.2221 | 2.8343 | -0.1106 | -1.0055 | 0.4414 | -1.4470 | -0.9995 |
| 124 | 48.98 | -0.04 | 12.9429 | -12.9073 | -0.3810 | 3.0069 | -0.2140 | -1.0716 | 0.4189 | -1.4905 | -0.9972 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.60 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | 0.01 | 0.0178 | 0.0034 | 0.0107 | 0.1930 | 0.6010 | -0.7131 | -0.0248 | -0.2952 | 0.0348 | 0.4140 |
| 2 | -5.77 | 0.01 | 0.0246 | 0.0038 | 0.0141 | 0.1561 | 0.5725 | -0.7342 | -0.0237 | -0.3054 | 0.0323 | 0.4160 |
| 3 | -5.78 | 0.01 | 0.0182 | 0.0033 | 0.0115 | 0.1829 | 0.6328 | -0.7040 | -0.0248 | -0.2914 | 0.0353 | 0.4139 |
| 4 | -5.77 | 0.01 | 0.0256 | 0.0045 | 0.0147 | 0.1748 | 0.5759 | -0.7144 | -0.0244 | -0.2952 | 0.0342 | 0.4133 |
| 5 | -5.87 | 0.01 | 0.0182 | 0.0032 | 0.0113 | 0.1771 | 0.6214 | -0.7220 | -0.0244 | -0.2995 | 0.0338 | 0.4148 |
| 6 | -4.96 | 0.01 | 0.0290 | 0.0046 | 0.0156 | 0.1577 | 0.5364 | -0.7476 | -0.0243 | -0.3110 | 0.0325 | 0.4160 |
| 7 | -3.22 | 0.01 | 0.0216 | 0.0042 | 0.0117 | 0.1923 | 0.5420 | -0.7599 | -0.0264 | -0.3171 | 0.0348 | 0.4173 |
| 8 | -1.58 | 0.01 | 0.0212 | 0.0051 | 0.0110 | 0.2402 | 0.5184 | -0.7283 | -0.0264 | -0.3026 | 0.0363 | 0.4155 |
| 9 | 0.17 | 0.00 | 0.0200 | 0.0059 | 0.0088 | 0.2969 | 0.4417 | -0.6792 | -0.0261 | -0.2865 | 0.0384 | 0.4219 |
| 10 | 1.83 | -0.00 | 0.0127 | 0.0051 | 0.0047 | 0.4016 | 0.3680 | -0.6765 | -0.0297 | -0.2878 | 0.0440 | 0.4254 |
| 11 | 3.52 | 0.01 | 0.0190 | 0.0067 | 0.0075 | 0.3497 | 0.3925 | -0.6652 | -0.0428 | -0.2857 | 0.0644 | 0.4295 |
| 12 | 5.19 | -0.00 | 0.0180 | 0.0064 | 0.0067 | 0.3534 | 0.3749 | -0.6276 | -0.0479 | -0.2732 | 0.0764 | 0.4354 |
| 13 | 6.94 | -0.00 | 0.0268 | 0.0073 | 0.0117 | 0.2713 | 0.4370 | -0.5562 | -0.0473 | -0.2476 | 0.0851 | 0.4452 |
| 14 | 8.63 | 0.00 | 0.0232 | 0.0064 | 0.0099 | 0.2730 | 0.4250 | -0.4707 | -0.0455 | -0.2166 | 0.0968 | 0.4602 |
| 15 | 10.37 | -0.01 | 0.0215 | 0.0057 | 0.0075 | 0.2657 | 0.3470 | -0.3408 | -0.0380 | -0.1598 | 0.1113 | 0.4660 |
| 16 | 12.14 | -0.00 | 0.0130 | 0.0048 | 0.0059 | 0.3680 | 0.4950 | -0.2082 | -0.0261 | -0.0950 | 0.1254 | 0.4565 |
| 17 | 13.92 | 0.00 | 0.0247 | 0.0058 | 0.0132 | 0.2353 | 0.5324 | -0.0851 | -0.0107 | -0.0412 | 0.1259 | 0.4842 |
| 18 | 15.77 | -0.00 | 0.0265 | 0.0072 | 0.0127 | 0.2706 | 0.4773 | 0.0015 | 0.0109 | -0.0046 | 7.5000 | -3.1357 |
| 19 | 17.63 | -0.00 | 0.0535 | 0.0094 | 0.0252 | 0.1748 | 0.4708 | 0.0891 | 0.0302 | 0.0307 | 0.3384 | 0.3448 |
| 20 | 19.45 | -0.01 | 0.0710 | 0.0099 | 0.0359 | 0.1391 | 0.5054 | 0.1840 | 0.0459 | 0.0720 | 0.2492 | 0.3912 |
| 21 | 21.30 | -0.01 | 0.1316 | 0.0146 | 0.0689 | 0.1106 | 0.5233 | 0.2746 | 0.0593 | 0.1129 | 0.2147 | 0.4118 |
| 22 | 23.20 | -0.01 | 0.1309 | 0.0125 | 0.0721 | 0.0953 | 0.5508 | 0.3984 | 0.0702 | 0.1695 | 0.1761 | 0.4254 |
| 23 | 25.06 | -0.02 | 0.1103 | 0.0090 | 0.0646 | 0.0820 | 0.5858 | 0.5156 | 0.0748 | 0.2216 | 0.1450 | 0.4298 |
| 24 | 26.96 | 0.03 | 0.0883 | 0.0215 | 0.0101 | 0.2438 | 0.1140 | 0.6544 | 0.0690 | 0.2745 | 0.1055 | 0.4194 |
| 25 | 27.90 | 0.03 | 0.1328 | 0.0210 | 0.0498 | 0.1582 | 0.3750 | 0.6587 | 0.0679 | 0.2739 | 0.1031 | 0.4158 |
| 26 | 27.93 | 0.03 | 0.1395 | 0.0218 | 0.0523 | 0.1565 | 0.3747 | 0.6654 | 0.0663 | 0.2786 | 0.0997 | 0.4156 |
| 27 | 28.33 | 0.04 | 0.1417 | 0.0245 | 0.0440 | 0.1731 | 0.3104 | 0.6698 | 0.0599 | 0.2768 | 0.0894 | 0.4132 |
| 28 | 28.63 | 0.03 | 0.1516 | 0.0259 | 0.0470 | 0.1708 | 0.3100 | 0.6711 | 0.0551 | 0.2768 | 0.0821 | 0.4124 |
| 29 | 28.89 | 0.04 | 0.1953 | 0.0307 | 0.0624 | 0.1571 | 0.3198 | 0.6495 | 0.0470 | 0.2645 | 0.0724 | 0.4073 |
| 30 | 29.21 | 0.04 | 0.1904 | 0.0283 | 0.0713 | 0.1486 | 0.3744 | 0.6651 | 0.0490 | 0.2728 | 0.0736 | 0.4102 |
| 31 | 29.51 | 0.04 | 0.2068 | 0.0291 | 0.0816 | 0.1408 | 0.3948 | 0.6642 | 0.0476 | 0.2708 | 0.0717 | 0.4076 |
| 32 | 29.79 | 0.05 | 0.2339 | 0.0331 | 0.0917 | 0.1413 | 0.3920 | 0.6565 | 0.0438 | 0.2672 | 0.0667 | 0.4071 |
| 33 | 30.05 | 0.06 | 0.2536 | 0.0377 | 0.0936 | 0.1488 | 0.3690 | 0.6593 | 0.0423 | 0.2685 | 0.0642 | 0.4072 |
| 34 | 30.31 | 0.07 | 0.2936 | 0.0413 | 0.1123 | 0.1436 | 0.3826 | 0.6337 | 0.0365 | 0.2580 | 0.0576 | 0.4071 |
| 35 | 30.60 | 0.06 | 0.2840 | 0.0388 | 0.1238 | 0.1366 | 0.4358 | 0.6193 | 0.0339 | 0.2509 | 0.0547 | 0.4052 |
| 36 | 30.85 | 0.06 | 0.2867 | 0.0361 | 0.1324 | 0.1259 | 0.4618 | 0.6085 | 0.0320 | 0.2479 | 0.0528 | 0.4075 |
| 37 | 31.13 | 0.05 | 0.2688 | 0.0361 | 0.1338 | 0.1343 | 0.4983 | 0.6420 | 0.0358 | 0.2627 | 0.0557 | 0.4091 |
| 38 | 31.41 | 0.06 | 0.3112 | 0.0412 | 0.1473 | 0.1323 | 0.4734 | 0.6195 | 0.0311 | 0.2538 | 0.0502 | 0.4098 |
| 39 | 31.66 | 0.07 | 0.2986 | 0.0386 | 0.1453 | 0.1292 | 0.4867 | 0.6311 | 0.0306 | 0.2591 | 0.0484 | 0.4106 |
| 40 | 31.95 | 0.07 | 0.3323 | 0.0442 | 0.1532 | 0.1330 | 0.4611 | 0.6307 | 0.0291 | 0.2588 | 0.0462 | 0.4104 |
| 41 | 32.20 | 0.08 | 0.3516 | 0.0466 | 0.1595 | 0.1325 | 0.4537 | 0.6352 | 0.0292 | 0.2612 | 0.0460 | 0.4112 |
| 42 | 32.46 | 0.09 | 0.3332 | 0.0448 | 0.1386 | 0.1345 | 0.4159 | 0.6392 | 0.0281 | 0.2633 | 0.0439 | 0.4119 |
| 43 | 32.73 | 0.09 | 0.3367 | 0.0457 | 0.1369 | 0.1359 | 0.4067 | 0.6483 | 0.0277 | 0.2669 | 0.0427 | 0.4117 |
| 44 | 32.98 | 0.09 | 0.3828 | 0.0533 | 0.1666 | 0.1393 | 0.4352 | 0.6509 | 0.0280 | 0.2683 | 0.0430 | 0.4122 |
| 45 | 33.22 | 0.08 | 0.3202 | 0.0421 | 0.1385 | 0.1315 | 0.4325 | 0.6656 | 0.0278 | 0.2747 | 0.0417 | 0.4127 |
| 46 | 33.47 | 0.09 | 0.3657 | 0.0496 | 0.1641 | 0.1356 | 0.4488 | 0.6572 | 0.0279 | 0.2714 | 0.0424 | 0.4129 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.80 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.73 | 0.10 | 0.3709 | 0.0497 | 0.1729 | 0.1340 | 0.4663 | 0.6617 | 0.0260 | 0.2735 | 0.0423 | 0.4133 |
| 48 | 33.97 | 0.10 | 0.3759 | 0.0511 | 0.1762 | 0.1358 | 0.4689 | 0.6675 | 0.0275 | 0.2763 | 0.0416 | 0.4139 |
| 49 | 34.22 | 0.11 | 0.3840 | 0.0529 | 0.1965 | 0.1378 | 0.4858 | 0.6751 | 0.0282 | 0.2794 | 0.0417 | 0.4138 |
| 50 | 34.47 | 0.11 | 0.3980 | 0.0555 | 0.1872 | 0.1395 | 0.4705 | 0.6763 | 0.0278 | 0.2805 | 0.0410 | 0.4147 |
| 51 | 34.71 | 0.12 | 0.3976 | 0.0543 | 0.1892 | 0.1365 | 0.4759 | 0.6788 | 0.0281 | 0.2813 | 0.0414 | 0.4144 |
| 52 | 34.96 | 0.12 | 0.3736 | 0.0526 | 0.1820 | 0.1408 | 0.4871 | 0.6940 | 0.0283 | 0.2894 | 0.0407 | 0.4170 |
| 53 | 35.18 | 0.11 | 0.3860 | 0.0531 | 0.1852 | 0.1377 | 0.4798 | 0.6968 | 0.0273 | 0.2879 | 0.0392 | 0.4181 |
| 54 | 35.44 | 0.11 | 0.3822 | 0.0554 | 0.1720 | 0.1450 | 0.4500 | 0.6969 | 0.0268 | 0.2902 | 0.0385 | 0.4163 |
| 55 | 35.67 | 0.09 | 0.3542 | 0.0508 | 0.1497 | 0.1435 | 0.4226 | 0.7116 | 0.0258 | 0.2966 | 0.0362 | 0.4168 |
| 56 | 35.90 | 0.11 | 0.3685 | 0.0551 | 0.1661 | 0.1495 | 0.4507 | 0.7051 | 0.0263 | 0.2938 | 0.0373 | 0.4166 |
| 57 | 36.13 | 0.11 | 0.3669 | 0.0545 | 0.1604 | 0.1485 | 0.4371 | 0.7148 | 0.0260 | 0.2964 | 0.0364 | 0.4146 |
| 58 | 36.36 | 0.11 | 0.3622 | 0.0554 | 0.1768 | 0.1530 | 0.4880 | 0.6968 | 0.0274 | 0.2876 | 0.0394 | 0.4127 |
| 59 | 36.60 | 0.11 | 0.3501 | 0.0529 | 0.1693 | 0.1512 | 0.4836 | 0.7136 | 0.0266 | 0.2946 | 0.0373 | 0.4129 |
| 60 | 36.85 | 0.11 | 0.3410 | 0.0509 | 0.1640 | 0.1494 | 0.4809 | 0.7212 | 0.0259 | 0.2990 | 0.0359 | 0.4146 |
| 61 | 37.07 | 0.10 | 0.3139 | 0.0475 | 0.1416 | 0.1514 | 0.4511 | 0.7281 | 0.0254 | 0.3022 | 0.0349 | 0.4150 |
| 62 | 37.30 | 0.10 | 0.3549 | 0.0480 | 0.1751 | 0.1354 | 0.4935 | 0.7379 | 0.0251 | 0.3054 | 0.0340 | 0.4139 |
| 63 | 37.55 | 0.11 | 0.3376 | 0.0381 | 0.1792 | 0.1127 | 0.5307 | 0.7502 | 0.0254 | 0.3115 | 0.0338 | 0.4153 |
| 64 | 37.77 | 0.12 | 0.3399 | 0.0333 | 0.1835 | 0.0979 | 0.5399 | 0.7611 | 0.0253 | 0.3148 | 0.0332 | 0.4137 |
| 65 | 38.02 | 0.12 | 0.3416 | 0.0269 | 0.1904 | 0.0788 | 0.5573 | 0.7542 | 0.0251 | 0.3114 | 0.0332 | 0.4129 |
| 66 | 38.25 | 0.12 | 0.3508 | 0.0207 | 0.1958 | 0.0590 | 0.5580 | 0.7796 | 0.0247 | 0.3227 | 0.0317 | 0.4140 |
| 67 | 38.49 | 0.13 | 0.3615 | 0.0215 | 0.1979 | 0.0595 | 0.5475 | 0.7786 | 0.0239 | 0.3214 | 0.0307 | 0.4128 |
| 68 | 38.68 | 0.13 | 0.3786 | 0.0139 | 0.2104 | 0.0368 | 0.5557 | 0.7838 | 0.0234 | 0.3237 | 0.0298 | 0.4130 |
| 69 | 38.92 | 0.14 | 0.3876 | 0.0160 | 0.2116 | 0.0413 | 0.5460 | 0.8099 | 0.0228 | 0.3352 | 0.0281 | 0.4139 |
| 70 | 39.14 | 0.13 | 0.3940 | 0.0139 | 0.2152 | 0.0354 | 0.5461 | 0.8069 | 0.0220 | 0.3326 | 0.0273 | 0.4122 |
| 71 | 39.33 | 0.13 | 0.3862 | 0.0154 | 0.2106 | 0.0398 | 0.5453 | 0.8043 | 0.0220 | 0.3320 | 0.0274 | 0.4127 |
| 72 | 39.56 | 0.14 | 0.4074 | 0.0157 | 0.2214 | 0.0385 | 0.5434 | 0.8137 | 0.0213 | 0.3353 | 0.0262 | 0.4120 |
| 73 | 39.76 | 0.15 | 0.3963 | 0.0172 | 0.2132 | 0.0433 | 0.5379 | 0.8244 | 0.0212 | 0.3411 | 0.0257 | 0.4137 |
| 74 | 39.95 | 0.16 | 0.4073 | 0.0210 | 0.2159 | 0.0516 | 0.5301 | 0.8258 | 0.0209 | 0.3415 | 0.0253 | 0.4136 |
| 75 | 40.16 | 0.14 | 0.3827 | 0.0225 | 0.2038 | 0.0587 | 0.5326 | 0.8221 | 0.0208 | 0.3384 | 0.0253 | 0.4116 |
| 76 | 40.35 | 0.13 | 0.3417 | 0.0302 | 0.1821 | 0.0883 | 0.5329 | 0.8105 | 0.0217 | 0.3336 | 0.0268 | 0.4116 |
| 77 | 40.57 | 0.13 | 0.3502 | 0.0317 | 0.1835 | 0.0906 | 0.5240 | 0.8156 | 0.0218 | 0.3357 | 0.0268 | 0.4116 |
| 78 | 40.77 | 0.12 | 0.3220 | 0.0322 | 0.1680 | 0.1001 | 0.5216 | 0.8341 | 0.0207 | 0.3455 | 0.0248 | 0.4143 |
| 79 | 40.97 | 0.14 | 0.3962 | 0.0192 | 0.2073 | 0.0485 | 0.5231 | 0.8655 | 0.0197 | 0.3576 | 0.0227 | 0.4132 |
| 80 | 41.18 | 0.14 | 0.3750 | 0.0231 | 0.1996 | 0.0615 | 0.5322 | 0.8333 | 0.0214 | 0.3417 | 0.0257 | 0.4100 |
| 81 | 41.38 | 0.14 | 0.3983 | 0.0189 | 0.2087 | 0.0475 | 0.5240 | 0.8656 | 0.0191 | 0.3565 | 0.0221 | 0.4119 |
| 82 | 41.57 | 0.14 | 0.3804 | 0.0184 | 0.2014 | 0.0484 | 0.5293 | 0.8579 | 0.0202 | 0.3526 | 0.0235 | 0.4110 |
| 83 | 41.77 | 0.13 | 0.3752 | 0.0210 | 0.1997 | 0.0560 | 0.5322 | 0.8611 | 0.0194 | 0.3542 | 0.0226 | 0.4113 |
| 84 | 41.96 | 0.14 | 0.3897 | 0.0247 | 0.2061 | 0.0635 | 0.5289 | 0.8710 | 0.0188 | 0.3590 | 0.0216 | 0.4122 |
| 85 | 42.13 | 0.09 | 0.2636 | 0.0324 | 0.1398 | 0.1231 | 0.5305 | 0.8560 | 0.0206 | 0.3532 | 0.0240 | 0.4126 |
| 86 | 42.33 | 0.13 | 0.3750 | 0.0261 | 0.1979 | 0.0696 | 0.5278 | 0.8609 | 0.0189 | 0.3537 | 0.0220 | 0.4109 |
| 87 | 42.50 | 0.14 | 0.3940 | 0.0207 | 0.2074 | 0.0525 | 0.5264 | 0.8698 | 0.0183 | 0.3580 | 0.0210 | 0.4116 |
| 88 | 42.68 | 0.14 | 0.3766 | 0.0241 | 0.1996 | 0.0641 | 0.5300 | 0.8699 | 0.0187 | 0.3572 | 0.0215 | 0.4106 |
| 89 | 42.86 | 0.15 | 0.3856 | 0.0236 | 0.2059 | 0.0612 | 0.5340 | 0.8643 | 0.0183 | 0.3533 | 0.0212 | 0.4088 |
| 90 | 43.06 | 0.14 | 0.3684 | 0.0262 | 0.1978 | 0.0711 | 0.5370 | 0.8713 | 0.0181 | 0.3573 | 0.0208 | 0.4100 |
| 91 | 43.23 | 0.15 | 0.3940 | 0.0264 | 0.2053 | 0.0670 | 0.5211 | 0.8739 | 0.0179 | 0.3587 | 0.0205 | 0.4105 |
| 92 | 43.41 | 0.15 | 0.3811 | 0.0266 | 0.2038 | 0.0698 | 0.5349 | 0.8662 | 0.0189 | 0.3537 | 0.0218 | 0.4084 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY



MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 100 | 0.80 | 1.7 | 0.0 | BIWOF34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.60 | 0.15 | 0.3813 | 0.0260 | 0.2014 | 0.0682 | 0.5281 | 0.8925 | 0.0175 | 0.3666 | 0.0196 | 0.4108 |
| 94 | 43.77 | 0.15 | 0.3838 | 0.0286 | 0.2022 | 0.0745 | 0.5268 | 0.8796 | 0.0179 | 0.3609 | 0.0203 | 0.4103 |
| 95 | 43.95 | 0.14 | 0.3820 | 0.0307 | 0.1995 | 0.0803 | 0.5222 | 0.8713 | 0.0183 | 0.3573 | 0.0210 | 0.4100 |
| 96 | 44.14 | 0.14 | 0.3814 | 0.0298 | 0.1996 | 0.0782 | 0.5233 | 0.8841 | 0.0178 | 0.3630 | 0.0201 | 0.4106 |
| 97 | 44.31 | 0.13 | 0.3759 | 0.0277 | 0.1984 | 0.0736 | 0.5250 | 0.8886 | 0.0179 | 0.3654 | 0.0201 | 0.4112 |
| 98 | 44.50 | 0.13 | 0.3704 | 0.0316 | 0.1934 | 0.0853 | 0.5221 | 0.8892 | 0.0178 | 0.3657 | 0.0200 | 0.4112 |
| 99 | 44.67 | 0.13 | 0.3554 | 0.0284 | 0.1898 | 0.0799 | 0.5342 | 0.8784 | 0.0181 | 0.3597 | 0.0206 | 0.4095 |
| 100 | 44.86 | 0.13 | 0.3719 | 0.0307 | 0.1966 | 0.0825 | 0.5286 | 0.8778 | 0.0175 | 0.3594 | 0.0199 | 0.4095 |
| 101 | 45.04 | 0.14 | 0.3617 | 0.0294 | 0.1923 | 0.0813 | 0.5317 | 0.8906 | 0.0174 | 0.3658 | 0.0195 | 0.4107 |
| 102 | 45.21 | 0.13 | 0.3604 | 0.0310 | 0.1904 | 0.0860 | 0.5282 | 0.8971 | 0.0172 | 0.3683 | 0.0191 | 0.4105 |
| 103 | 45.39 | 0.13 | 0.3496 | 0.0310 | 0.1859 | 0.0886 | 0.5318 | 0.8893 | 0.0175 | 0.3655 | 0.0196 | 0.4110 |
| 104 | 45.56 | 0.13 | 0.3575 | 0.0355 | 0.1863 | 0.0992 | 0.5212 | 0.8829 | 0.0178 | 0.3616 | 0.0201 | 0.4096 |
| 105 | 45.74 | 0.13 | 0.3465 | 0.0342 | 0.1827 | 0.0947 | 0.5272 | 0.8849 | 0.0177 | 0.3621 | 0.0200 | 0.4092 |
| 106 | 45.91 | 0.12 | 0.3529 | 0.0349 | 0.1814 | 0.0990 | 0.5141 | 0.8914 | 0.0168 | 0.3657 | 0.0189 | 0.4102 |
| 107 | 46.07 | 0.13 | 0.3410 | 0.0334 | 0.1781 | 0.0979 | 0.5165 | 0.9084 | 0.0162 | 0.3736 | 0.0179 | 0.4112 |
| 108 | 46.25 | 0.11 | 0.3227 | 0.0326 | 0.1724 | 0.1012 | 0.5342 | 0.8961 | 0.0171 | 0.3676 | 0.0190 | 0.4102 |
| 109 | 46.43 | 0.12 | 0.3321 | 0.0303 | 0.1771 | 0.0911 | 0.5332 | 0.9070 | 0.0162 | 0.3727 | 0.0179 | 0.4110 |
| 110 | 46.59 | 0.12 | 0.3143 | 0.0295 | 0.1672 | 0.0939 | 0.5320 | 0.9134 | 0.0160 | 0.3759 | 0.0175 | 0.4116 |
| 111 | 46.76 | 0.10 | 0.3111 | 0.0265 | 0.1690 | 0.0852 | 0.5432 | 0.9076 | 0.0165 | 0.3730 | 0.0182 | 0.4110 |
| 112 | 46.94 | 0.09 | 0.3154 | 0.0245 | 0.1718 | 0.0778 | 0.5448 | 0.9154 | 0.0157 | 0.3764 | 0.0172 | 0.4111 |
| 113 | 47.12 | 0.09 | 0.2744 | 0.0183 | 0.1583 | 0.0667 | 0.5769 | 0.9199 | 0.0155 | 0.3786 | 0.0168 | 0.4116 |
| 114 | 47.28 | 0.09 | 0.3023 | 0.0205 | 0.1664 | 0.0678 | 0.5505 | 0.9439 | 0.0141 | 0.3899 | 0.0150 | 0.4131 |
| 115 | 47.46 | 0.09 | 0.2560 | 0.0086 | 0.1556 | 0.0337 | 0.6079 | 0.9395 | 0.0140 | 0.3861 | 0.0149 | 0.4110 |
| 116 | 47.63 | 0.07 | 0.2363 | 0.0016 | 0.1501 | 0.0066 | 0.6352 | 0.9446 | 0.0140 | 0.3890 | 0.0149 | 0.4118 |
| 117 | 47.80 | 0.06 | 0.2138 | -0.0015 | 0.1451 | -0.0068 | 0.6789 | 0.9504 | 0.0138 | 0.3920 | 0.0145 | 0.4125 |
| 118 | 47.97 | 0.06 | 0.1401 | -0.0133 | 0.1155 | -0.0950 | 0.8244 | 0.9498 | 0.0140 | 0.3910 | 0.0148 | 0.4117 |
| 119 | 48.13 | 0.06 | 0.1622 | -0.0113 | 0.1275 | -0.0699 | 0.7860 | 0.9506 | 0.0137 | 0.3914 | 0.0144 | 0.4117 |
| 120 | 48.30 | 0.04 | 0.0717 | -0.0212 | 0.0862 | -0.2957 | 1.2016 | 0.9648 | 0.0130 | 0.3980 | 0.0135 | 0.4126 |
| 121 | 48.47 | 0.03 | 0.0015 | -0.0251 | 0.0423 | -17.2143 | 29.0765 | 0.9700 | 0.0126 | 0.4008 | 0.0130 | 0.4132 |
| 122 | 48.64 | 0.01 | -0.0921 | -0.0362 | -0.0087 | 0.3928 | 0.0946 | 0.9617 | 0.0131 | 0.3967 | 0.0136 | 0.4125 |
| 123 | 48.79 | -0.02 | -0.1508 | -0.0309 | -0.0449 | 0.2048 | 0.2979 | 0.9822 | 0.0126 | 0.4053 | 0.0128 | 0.4126 |
| 124 | 48.98 | -0.04 | -0.1779 | -0.0292 | -0.0682 | 0.1642 | 0.3831 | 1.0059 | 0.0116 | 0.4157 | 0.0116 | 0.4132 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.80 | 1.7 | 0.0 | B1WOF36 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | 0.01 | 0.0038 | 9.9999 | -0.0013 | 9.9999 | -0.3506 | -0.6475 | -0.0310 | -0.3242 | 0.0478 | 0.5006 |
| 2 | -5.77 | 0.01 | 0.0181 | 9.9999 | 0.0024 | 9.9999 | 0.1319 | -0.6448 | -0.0313 | -0.3225 | 0.0485 | 0.5003 |
| 3 | -5.78 | 0.01 | -0.0045 | 9.9999 | -0.0039 | 9.9999 | 0.8817 | -0.6548 | -0.0306 | -0.3270 | 0.0467 | 0.4993 |
| 4 | -5.77 | 0.01 | 0.0099 | 9.9999 | -0.0004 | 9.9999 | -0.0420 | -0.6496 | -0.0311 | -0.3245 | 0.0479 | 0.4995 |
| 5 | -5.87 | 0.01 | 0.0115 | 9.9999 | 0.0010 | 9.9999 | 0.0899 | -0.6394 | -0.0308 | -0.3194 | 0.0481 | 0.4998 |
| 6 | -4.96 | 0.01 | 0.0263 | 9.9999 | 0.0059 | 9.9999 | 0.2248 | -0.6375 | -0.0317 | -0.3182 | 0.0497 | 0.4991 |
| 7 | -3.22 | 0.01 | 0.0079 | 9.9999 | 0.0007 | 9.9999 | 0.0919 | -0.6751 | -0.0341 | -0.3381 | 0.0505 | 0.5008 |
| 8 | -1.58 | 0.01 | 0.0102 | 9.9999 | 0.0023 | 9.9999 | 0.2249 | -0.6471 | -0.0344 | -0.3250 | 0.0532 | 0.5022 |
| 9 | 0.17 | 0.00 | 0.0119 | 9.9999 | 0.0040 | 9.9999 | 0.3413 | -0.6116 | -0.0344 | -0.3055 | 0.0563 | 0.4995 |
| 10 | 1.83 | -0.00 | 0.0075 | 9.9999 | 0.0044 | 9.9999 | 0.5820 | -0.6232 | -0.0400 | -0.3144 | 0.0642 | 0.5045 |
| 11 | 3.52 | 0.01 | 0.0145 | 9.9999 | 0.0078 | 9.9999 | 0.5383 | -0.5964 | -0.0506 | -0.3045 | 0.0949 | 0.5105 |
| 12 | 5.19 | -0.00 | 0.0132 | 9.9999 | 0.0084 | 9.9999 | 0.6363 | -0.5593 | -0.0555 | -0.2934 | 0.0993 | 0.5246 |
| 13 | 6.94 | -0.00 | 0.0143 | 9.9999 | 0.0086 | 9.9999 | 0.6001 | -0.5007 | -0.0560 | -0.2744 | 0.1119 | 0.5480 |
| 14 | 8.63 | 0.00 | 0.0120 | 9.9999 | 0.0081 | 9.9999 | 0.6707 | -0.4130 | -0.0520 | -0.2343 | 0.1259 | 0.5674 |
| 15 | 10.37 | -0.01 | 0.0107 | 9.9999 | 0.0085 | 9.9999 | 0.7943 | -0.2953 | -0.0423 | -0.1708 | 0.1433 | 0.5783 |
| 16 | 12.14 | -0.00 | 0.0089 | 9.9999 | 0.0080 | 9.9999 | 0.8933 | -0.1743 | -0.0295 | -0.1020 | 0.1695 | 0.5852 |
| 17 | 13.92 | 0.00 | 0.0150 | 9.9999 | 0.0088 | 9.9999 | 0.5889 | -0.0681 | -0.0143 | -0.0444 | 0.2107 | 0.6519 |
| 18 | 15.77 | -0.00 | 0.0132 | 9.9999 | 0.0078 | 9.9999 | 0.5892 | 0.0137 | 0.0082 | -0.0006 | 0.5985 | -0.0454 |
| 19 | 17.63 | -0.00 | 0.0210 | 9.9999 | 0.0098 | 9.9999 | 0.4643 | 0.0926 | 0.0329 | 0.0389 | 0.3547 | 0.4199 |
| 20 | 19.45 | -0.01 | 0.0175 | 9.9999 | 0.0079 | 9.9999 | 0.4514 | 0.1866 | 0.0535 | 0.0869 | 0.2869 | 0.4764 |
| 21 | 21.30 | -0.01 | 0.0171 | 9.9999 | 0.0067 | 9.9999 | 0.3954 | 0.2966 | 0.0743 | 0.1491 | 0.2506 | 0.5025 |
| 22 | 23.20 | -0.01 | 0.0124 | 9.9999 | 0.0043 | 9.9999 | 0.3438 | 0.3954 | 0.0789 | 0.2062 | 0.1996 | 0.5216 |
| 23 | 25.06 | -0.02 | 0.0052 | 9.9999 | 0.0026 | 9.9999 | 0.4989 | 0.4850 | 0.0761 | 0.2560 | 0.1569 | 0.5278 |
| 24 | 26.96 | 0.03 | 0.0153 | 9.9999 | 0.0059 | 9.9999 | 0.3869 | 0.4959 | 0.0770 | 0.2680 | 0.1554 | 0.5404 |
| 25 | 27.88 | 0.03 | 0.0206 | 9.9999 | 0.0086 | 9.9999 | 0.4152 | 0.5251 | 0.0736 | 0.2827 | 0.1402 | 0.5384 |
| 26 | 27.93 | 0.03 | 0.0218 | 9.9999 | 0.0087 | 9.9999 | 0.3991 | 0.5344 | 0.0739 | 0.2884 | 0.1383 | 0.5398 |
| 27 | 28.33 | 0.04 | 0.0272 | 9.9999 | 0.0100 | 9.9999 | 0.3656 | 0.5374 | 0.0737 | 0.2903 | 0.1372 | 0.5401 |
| 28 | 28.63 | 0.03 | 0.0178 | 9.9999 | 0.0060 | 9.9999 | 0.3384 | 0.5323 | 0.0729 | 0.2886 | 0.1369 | 0.5421 |
| 29 | 28.89 | 0.04 | 0.0224 | 9.9999 | 0.0089 | 9.9999 | 0.3991 | 0.5374 | 0.0724 | 0.2902 | 0.1346 | 0.5399 |
| 30 | 29.21 | 0.04 | 0.0302 | 9.9999 | 0.0116 | 9.9999 | 0.3853 | 0.5478 | 0.0647 | 0.2955 | 0.1188 | 0.5395 |
| 31 | 29.51 | 0.04 | 0.0289 | 9.9999 | 0.0119 | 9.9999 | 0.4127 | 0.5558 | 0.0630 | 0.3001 | 0.1134 | 0.5399 |
| 32 | 29.79 | 0.05 | 0.0250 | 9.9999 | 0.0092 | 9.9999 | 0.3700 | 0.5553 | 0.0611 | 0.2998 | 0.1101 | 0.5399 |
| 33 | 30.05 | 0.06 | 0.0397 | 9.9999 | 0.0152 | 9.9999 | 0.3839 | 0.5526 | 0.0585 | 0.2989 | 0.1059 | 0.5408 |
| 34 | 30.31 | 0.07 | 0.0250 | 9.9999 | 0.0087 | 9.9999 | 0.3492 | 0.5563 | 0.0596 | 0.3007 | 0.1071 | 0.5406 |
| 35 | 30.60 | 0.06 | 0.0280 | 9.9999 | 0.0098 | 9.9999 | 0.3486 | 0.5392 | 0.0486 | 0.2896 | 0.0901 | 0.5371 |
| 36 | 30.85 | 0.06 | 0.0244 | 9.9999 | 0.0086 | 9.9999 | 0.3524 | 0.5441 | 0.0488 | 0.2923 | 0.0896 | 0.5373 |
| 37 | 31.13 | 0.05 | 0.0326 | 9.9999 | 0.0123 | 9.9999 | 0.3781 | 0.5145 | 0.0369 | 0.2792 | 0.0717 | 0.5408 |
| 38 | 31.41 | 0.06 | 0.0286 | 9.9999 | 0.0099 | 9.9999 | 0.3447 | 0.5178 | 0.0385 | 0.2799 | 0.0743 | 0.5405 |
| 39 | 31.66 | 0.07 | 0.0279 | 9.9999 | 0.0108 | 9.9999 | 0.3872 | 0.5313 | 0.0368 | 0.2859 | 0.0693 | 0.5381 |
| 40 | 31.95 | 0.07 | 0.0332 | 9.9999 | 0.0133 | 9.9999 | 0.4003 | 0.5292 | 0.0378 | 0.2851 | 0.0715 | 0.5387 |
| 41 | 32.20 | 0.08 | 0.0272 | 9.9999 | 0.0150 | 9.9999 | 0.4041 | 0.5305 | 0.0370 | 0.2866 | 0.0698 | 0.5403 |
| 42 | 32.46 | 0.09 | 0.0455 | 9.9999 | 0.0177 | 9.9999 | 0.3895 | 0.5428 | 0.0404 | 0.2925 | 0.0745 | 0.5389 |
| 43 | 32.73 | 0.09 | 0.0454 | 9.9999 | 0.0188 | 9.9999 | 0.4132 | 0.5358 | 0.0383 | 0.2897 | 0.0714 | 0.5408 |
| 44 | 32.98 | 0.09 | 0.0415 | 9.9999 | 0.0157 | 9.9999 | 0.3776 | 0.5392 | 0.0360 | 0.2923 | 0.0667 | 0.5421 |
| 45 | 33.22 | 0.08 | 0.0378 | 9.9999 | 0.0144 | 9.9999 | 0.3810 | 0.5450 | 0.0356 | 0.2948 | 0.0652 | 0.5409 |
| 46 | 33.47 | 0.09 | 0.0431 | 9.9999 | 0.0170 | 9.9999 | 0.3943 | 0.5479 | 0.0354 | 0.2962 | 0.0645 | 0.5405 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 2 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.80 | 1.7 | 0.0 | BIWOF34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.73 | 0.10 | 0.0365 | 9.9999 | 0.0150 | 9.9999 | 0.4122 | 0.5541 | 0.0348 | 0.2997 | 0.0629 | 0.5409 |
| 48 | 33.97 | 0.10 | 0.0405 | 9.9999 | 0.0173 | 9.9999 | 0.4272 | 0.5616 | 0.0341 | 0.3039 | 0.0607 | 0.5413 |
| 49 | 34.22 | 0.11 | 0.0394 | 9.9999 | 0.0158 | 9.9999 | 0.4001 | 0.5620 | 0.0324 | 0.3047 | 0.0577 | 0.5421 |
| 50 | 34.47 | 0.11 | 0.0477 | 9.9999 | 0.0188 | 9.9999 | 0.3934 | 0.5677 | 0.0334 | 0.3073 | 0.0588 | 0.5413 |
| 51 | 34.71 | 0.12 | 0.0383 | 9.9999 | 0.0146 | 9.9999 | 0.3823 | 0.5660 | 0.0328 | 0.3072 | 0.0579 | 0.5427 |
| 52 | 34.96 | 0.12 | 0.0428 | 9.9999 | 0.0172 | 9.9999 | 0.4020 | 0.5779 | 0.0308 | 0.3141 | 0.0533 | 0.5436 |
| 53 | 35.18 | 0.11 | 0.0416 | 9.9999 | 0.0174 | 9.9999 | 0.4190 | 0.5749 | 0.0314 | 0.3132 | 0.0546 | 0.5448 |
| 54 | 35.44 | 0.11 | 0.0435 | 9.9999 | 0.0171 | 9.9999 | 0.3938 | 0.5765 | 0.0331 | 0.3134 | 0.0573 | 0.5436 |
| 55 | 35.67 | 0.09 | 0.0305 | 9.9999 | 0.0119 | 9.9999 | 0.3916 | 0.5819 | 0.0337 | 0.3167 | 0.0579 | 0.5442 |
| 56 | 35.90 | 0.11 | 0.0527 | 9.9999 | 0.0212 | 9.9999 | 0.4015 | 0.5884 | 0.0322 | 0.3204 | 0.0548 | 0.5446 |
| 57 | 36.13 | 0.11 | 0.0439 | 9.9999 | 0.0177 | 9.9999 | 0.4043 | 0.5922 | 0.0333 | 0.3220 | 0.0562 | 0.5437 |
| 58 | 36.36 | 0.11 | 0.0530 | 9.9999 | 0.0230 | 9.9999 | 0.4343 | 0.5872 | 0.0312 | 0.3218 | 0.0531 | 0.5480 |
| 59 | 36.60 | 0.11 | 0.0462 | 9.9999 | 0.0189 | 9.9999 | 0.4090 | 0.6035 | 0.0307 | 0.3305 | 0.0508 | 0.5477 |
| 60 | 36.85 | 0.11 | 0.0415 | 9.9999 | 0.0167 | 9.9999 | 0.4026 | 0.6102 | 0.0308 | 0.3321 | 0.0504 | 0.5442 |
| 61 | 37.07 | 0.10 | 0.0525 | 9.9999 | 0.0215 | 9.9999 | 0.4090 | 0.6185 | 0.0313 | 0.3390 | 0.0506 | 0.5481 |
| 62 | 37.30 | 0.10 | 0.0472 | 9.9999 | 0.0196 | 9.9999 | 0.4154 | 0.6230 | 0.0296 | 0.3405 | 0.0476 | 0.5465 |
| 63 | 37.55 | 0.11 | 0.0540 | 9.9999 | 0.0235 | 9.9999 | 0.4364 | 0.6271 | 0.0286 | 0.3424 | 0.0456 | 0.5461 |
| 64 | 37.77 | 0.12 | 0.0436 | 9.9999 | 0.0187 | 9.9999 | 0.4286 | 0.6276 | 0.0277 | 0.3426 | 0.0441 | 0.5460 |
| 65 | 38.02 | 0.12 | 0.0418 | 9.9999 | 0.0178 | 9.9999 | 0.4269 | 0.6272 | 0.0283 | 0.3423 | 0.0451 | 0.5458 |
| 66 | 38.25 | 0.12 | 0.0459 | 9.9999 | 0.0201 | 9.9999 | 0.4389 | 0.6252 | 0.0282 | 0.3411 | 0.0451 | 0.5456 |
| 67 | 38.49 | 0.13 | 0.0464 | 9.9999 | 0.0206 | 9.9999 | 0.4452 | 0.6272 | 0.0285 | 0.3432 | 0.0454 | 0.5472 |
| 68 | 38.68 | 0.13 | 0.0355 | 9.9999 | 0.0149 | 9.9999 | 0.4213 | 0.6148 | 0.0295 | 0.3367 | 0.0480 | 0.5477 |
| 69 | 38.92 | 0.14 | 0.0422 | 9.9999 | 0.0198 | 9.9999 | 0.4694 | 0.6220 | 0.0291 | 0.3407 | 0.0468 | 0.5477 |
| 70 | 39.14 | 0.13 | 0.0404 | 9.9999 | 0.0192 | 9.9999 | 0.4745 | 0.6068 | 0.0304 | 0.3329 | 0.0500 | 0.5486 |
| 71 | 39.33 | 0.13 | 0.0502 | 9.9999 | 0.0243 | 9.9999 | 0.4834 | 0.6082 | 0.0303 | 0.3336 | 0.0497 | 0.5485 |
| 72 | 39.56 | 0.14 | 0.0504 | 9.9999 | 0.0238 | 9.9999 | 0.4711 | 0.6033 | 0.0313 | 0.3307 | 0.0519 | 0.5482 |
| 73 | 39.76 | 0.15 | 0.0493 | 9.9999 | 0.0230 | 9.9999 | 0.4673 | 0.6170 | 0.0303 | 0.3378 | 0.0490 | 0.5475 |
| 74 | 39.95 | 0.16 | 0.0377 | 9.9999 | 0.0179 | 9.9999 | 0.4755 | 0.6217 | 0.0300 | 0.3401 | 0.0483 | 0.5470 |
| 75 | 40.16 | 0.14 | 0.0469 | 9.9999 | 0.0219 | 9.9999 | 0.4763 | 0.6326 | 0.0291 | 0.3453 | 0.0460 | 0.5459 |
| 76 | 40.35 | 0.13 | 0.0437 | 9.9999 | 0.0203 | 9.9999 | 0.4656 | 0.6549 | 0.0276 | 0.3554 | 0.0421 | 0.5427 |
| 77 | 40.57 | 0.13 | 0.0518 | 9.9999 | 0.0241 | 9.9999 | 0.4648 | 0.6566 | 0.0272 | 0.3583 | 0.0419 | 0.5457 |
| 78 | 40.77 | 0.12 | 0.0471 | 9.9999 | 0.0226 | 9.9999 | 0.4801 | 0.6691 | 0.0272 | 0.3639 | 0.0407 | 0.5439 |
| 79 | 40.97 | 0.14 | 0.0529 | 9.9999 | 0.0255 | 9.9999 | 0.4822 | 0.6445 | 0.0287 | 0.3515 | 0.0445 | 0.5458 |
| 80 | 41.18 | 0.14 | 0.0461 | 9.9999 | 0.0215 | 9.9999 | 0.4662 | 0.6491 | 0.0281 | 0.3550 | 0.0432 | 0.5469 |
| 81 | 41.38 | 0.14 | 0.0507 | 9.9999 | 0.0232 | 9.9999 | 0.4580 | 0.6335 | 0.0297 | 0.3466 | 0.0469 | 0.5471 |
| 82 | 41.57 | 0.14 | 0.0477 | 9.9999 | 0.0232 | 9.9999 | 0.4869 | 0.6388 | 0.0290 | 0.3492 | 0.0454 | 0.5468 |
| 83 | 41.77 | 0.13 | 0.0496 | 9.9999 | 0.0231 | 9.9999 | 0.4664 | 0.6514 | 0.0288 | 0.3557 | 0.0442 | 0.5461 |
| 84 | 41.96 | 0.14 | 0.0428 | 9.9999 | 0.0217 | 9.9999 | 0.5061 | 0.6388 | 0.0293 | 0.3506 | 0.0459 | 0.5489 |
| 85 | 42.13 | 0.09 | 0.0324 | 9.9999 | 0.0164 | 9.9999 | 0.5053 | 0.7159 | 0.0255 | 0.3870 | 0.0356 | 0.5407 |
| 86 | 42.33 | 0.13 | 0.0400 | 9.9999 | 0.0194 | 9.9999 | 0.4846 | 0.6503 | 0.0288 | 0.3562 | 0.0443 | 0.5478 |
| 87 | 42.50 | 0.14 | 0.0470 | 9.9999 | 0.0227 | 9.9999 | 0.4934 | 0.6344 | 0.0297 | 0.3480 | 0.0469 | 0.5486 |
| 88 | 42.68 | 0.14 | 0.0558 | 9.9999 | 0.0259 | 9.9999 | 0.4645 | 0.6430 | 0.0294 | 0.3532 | 0.0458 | 0.5494 |
| 89 | 42.86 | 0.15 | 0.0504 | 9.9999 | 0.0250 | 9.9999 | 0.4958 | 0.6388 | 0.0293 | 0.3501 | 0.0459 | 0.5481 |
| 90 | 43.06 | 0.14 | 0.0528 | 9.9999 | 0.0255 | 9.9999 | 0.4831 | 0.6545 | 0.0296 | 0.3583 | 0.0437 | 0.5474 |
| 91 | 43.23 | 0.15 | 0.0557 | 9.9999 | 0.0272 | 9.9999 | 0.4877 | 0.6300 | 0.0302 | 0.3447 | 0.0479 | 0.5472 |
| 92 | 43.41 | 0.15 | 0.0474 | 9.9999 | 0.0247 | 9.9999 | 0.5207 | 0.6480 | 0.0291 | 0.3545 | 0.0449 | 0.5471 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 160 | 0.80 | 1.7 | 0.0 | B1W2F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.60 | 0.15 | 0.0498 | 9.9999 | 0.0252 | 9.9999 | 0.5062 | 0.6300 | 0.0303 | 0.3449 | 0.0480 | 0.5475 |
| 94 | 43.77 | 0.15 | 0.0505 | 9.9999 | 0.0244 | 9.9999 | 0.4824 | 0.6420 | 0.0297 | 0.3516 | 0.0463 | 0.5476 |
| 95 | 43.95 | 0.14 | 0.0506 | 9.9999 | 0.0239 | 9.9999 | 0.4712 | 0.6475 | 0.0298 | 0.3543 | 0.0461 | 0.5471 |
| 96 | 44.14 | 0.14 | 0.0528 | 9.9999 | 0.0261 | 9.9999 | 0.4949 | 0.6455 | 0.0297 | 0.3529 | 0.0461 | 0.5468 |
| 97 | 44.31 | 0.13 | 0.0535 | 9.9999 | 0.0251 | 9.9999 | 0.4688 | 0.6521 | 0.0291 | 0.3569 | 0.0446 | 0.5472 |
| 98 | 44.50 | 0.13 | 0.0494 | 9.9999 | 0.0238 | 9.9999 | 0.4810 | 0.6558 | 0.0288 | 0.3593 | 0.0439 | 0.5464 |
| 99 | 44.67 | 0.13 | 0.0518 | 9.9999 | 0.0243 | 9.9999 | 0.4688 | 0.6614 | 0.0285 | 0.3600 | 0.0431 | 0.5463 |
| 100 | 44.86 | 0.13 | 0.0446 | 9.9999 | 0.0228 | 9.9999 | 0.5117 | 0.6414 | 0.0295 | 0.3515 | 0.0460 | 0.5479 |
| 101 | 45.04 | 0.14 | 0.0422 | 9.9999 | 0.0218 | 9.9999 | 0.5161 | 0.6565 | 0.0286 | 0.3593 | 0.0436 | 0.5458 |
| 102 | 45.21 | 0.13 | 0.0534 | 9.9999 | 0.0255 | 9.9999 | 0.4775 | 0.6614 | 0.0285 | 0.3597 | 0.0431 | 0.5438 |
| 103 | 45.39 | 0.13 | 0.0500 | 9.9999 | 0.0231 | 9.9999 | 0.4626 | 0.6658 | 0.0280 | 0.3615 | 0.0420 | 0.5430 |
| 104 | 45.56 | 0.13 | 0.0459 | 9.9999 | 0.0221 | 9.9999 | 0.4819 | 0.6553 | 0.0282 | 0.3574 | 0.0430 | 0.5453 |
| 105 | 45.74 | 0.13 | 0.0581 | 9.9999 | 0.0273 | 9.9999 | 0.4694 | 0.6687 | 0.0279 | 0.3634 | 0.0417 | 0.5435 |
| 106 | 45.91 | 0.12 | 0.0534 | 9.9999 | 0.0258 | 9.9999 | 0.4833 | 0.6545 | 0.0285 | 0.3565 | 0.0435 | 0.5447 |
| 107 | 46.07 | 0.13 | 0.0496 | 9.9999 | 0.0234 | 9.9999 | 0.4727 | 0.6615 | 0.0282 | 0.3600 | 0.0426 | 0.5442 |
| 108 | 46.25 | 0.11 | 0.0472 | 9.9999 | 0.0233 | 9.9999 | 0.4945 | 0.6702 | 0.0277 | 0.3646 | 0.0413 | 0.5441 |
| 109 | 46.43 | 0.12 | 0.0531 | 9.9999 | 0.0258 | 9.9999 | 0.4862 | 0.6701 | 0.0276 | 0.3643 | 0.0411 | 0.5437 |
| 110 | 46.59 | 0.12 | 0.0496 | 9.9999 | 0.0242 | 9.9999 | 0.4874 | 0.6756 | 0.0274 | 0.3654 | 0.0406 | 0.5408 |
| 111 | 46.76 | 0.10 | 0.0456 | 9.9999 | 0.0213 | 9.9999 | 0.4659 | 0.6807 | 0.0272 | 0.3689 | 0.0400 | 0.5419 |
| 112 | 46.94 | 0.09 | 0.0508 | 9.9999 | 0.0248 | 9.9999 | 0.4876 | 0.6873 | 0.0267 | 0.3711 | 0.0389 | 0.5399 |
| 113 | 47.12 | 0.09 | 0.0475 | 9.9999 | 0.0219 | 9.9999 | 0.4607 | 0.7098 | 0.0253 | 0.3821 | 0.0356 | 0.5382 |
| 114 | 47.28 | 0.09 | 0.0415 | 9.9999 | 0.0210 | 9.9999 | 0.5051 | 0.6952 | 0.0260 | 0.3759 | 0.0373 | 0.5400 |
| 115 | 47.46 | 0.09 | 0.0367 | 9.9999 | 0.0194 | 9.9999 | 0.5285 | 0.7176 | 0.0250 | 0.3851 | 0.0348 | 0.5366 |
| 116 | 47.63 | 0.07 | 0.0393 | 9.9999 | 0.0183 | 9.9999 | 0.4645 | 0.7335 | 0.0240 | 0.3926 | 0.0327 | 0.5353 |
| 117 | 47.80 | 0.08 | 0.0239 | 9.9999 | 0.0123 | 9.9999 | 0.5162 | 0.7397 | 0.0231 | 0.3972 | 0.0312 | 0.5370 |
| 118 | 47.97 | 0.06 | 0.0299 | 9.9999 | 0.0133 | 9.9999 | 0.4434 | 0.7713 | 0.0216 | 0.4121 | 0.0280 | 0.5344 |
| 119 | 48.13 | 0.06 | 0.0314 | 9.9999 | 0.0165 | 9.9999 | 0.5253 | 0.7686 | 0.0212 | 0.4116 | 0.0276 | 0.5356 |
| 120 | 48.30 | 0.04 | 0.0264 | 9.9999 | 0.0121 | 9.9999 | 0.4596 | 0.7880 | 0.0204 | 0.4223 | 0.0259 | 0.5359 |
| 121 | 48.47 | 0.03 | 0.0251 | 9.9999 | 0.0127 | 9.9999 | 0.5051 | 0.7930 | 0.0203 | 0.4260 | 0.0256 | 0.5373 |
| 122 | 48.64 | 0.01 | 0.0174 | 9.9999 | 0.0092 | 9.9999 | 0.5317 | 0.8069 | 0.0189 | 0.4335 | 0.0235 | 0.5372 |
| 123 | 48.79 | -0.02 | -0.0007 | 9.9999 | 0.0006 | 9.9999 | -0.8552 | 0.8456 | 0.0171 | 0.4555 | 0.0202 | 0.5387 |
| 124 | 48.98 | -0.04 | 0.0063 | 9.9999 | 0.0034 | 9.9999 | 0.5398 | 0.8682 | 0.0173 | 0.4689 | 0.0199 | 0.5401 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 2

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 161 | 0.90 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -3.83 | -0.00 | -3.4226 | 13.5437 | 0.1082 | -0.5315 | -0.0203 | 1.5431 | 0.3463 | 1.1968 | -3.9572 |
| 2 | -3.83 | -0.00 | -3.3905 | 13.4856 | 0.1299 | -0.6082 | -0.0008 | 1.5424 | 0.3453 | 1.1971 | -3.9775 |
| 3 | -3.83 | 0.00 | -3.4256 | 13.5913 | 0.1055 | -0.5628 | -0.0008 | 1.5525 | 0.3478 | 1.2047 | -3.9676 |
| 4 | -3.85 | -0.00 | -3.2868 | 13.1554 | 0.0044 | -0.4340 | -0.0140 | 1.5182 | 0.3328 | 1.1854 | -4.0025 |
| 5 | -2.11 | -0.00 | -3.1287 | 12.9687 | 0.0207 | -0.4036 | -0.0330 | 1.4408 | 0.2689 | 1.1719 | -4.1450 |
| 6 | -0.44 | -0.01 | -2.8673 | 12.3569 | -0.0152 | -0.3251 | -0.0328 | 1.3697 | 0.2363 | 1.1334 | -4.2798 |
| 7 | 1.28 | -0.01 | -2.6207 | 11.7267 | -0.0322 | -0.3766 | -0.0518 | 1.3038 | 0.2184 | 1.0854 | -4.4747 |
| 8 | 2.98 | 0.00 | -2.5758 | 11.9611 | 0.0777 | -0.3876 | -0.0898 | 1.2633 | 0.1898 | 1.0735 | -4.6436 |
| 9 | 4.77 | -0.00 | -2.2962 | 11.3365 | 0.0128 | -0.3278 | -0.0638 | 1.1716 | 0.1627 | 1.0089 | -4.9371 |
| 10 | 6.46 | -0.00 | -2.0100 | 10.6466 | 0.0347 | -0.4160 | -0.0762 | 1.0789 | 0.1364 | 0.9425 | -5.2967 |
| 11 | 8.22 | 0.00 | -1.5631 | 9.3641 | 0.0526 | -0.3446 | -0.0180 | 0.9386 | 0.1179 | 0.8207 | -5.9907 |
| 12 | 10.03 | -0.00 | -0.9488 | 6.9852 | -0.0146 | -0.1258 | -0.0119 | 0.7699 | 0.1199 | 0.6500 | -8.2291 |
| 13 | 11.81 | -0.01 | -0.0711 | 4.4873 | -0.0548 | -0.1125 | 0.0075 | 0.5996 | 0.1297 | 0.4699 | -63.0793 |
| 14 | 13.69 | -0.01 | 0.6019 | 2.3779 | -0.0696 | -0.1339 | 0.0142 | 0.4544 | 0.1372 | 0.3173 | 3.9506 |
| 15 | 15.55 | 0.00 | 1.2111 | 0.9601 | 0.0781 | -0.3865 | 0.0219 | 0.3490 | 0.1516 | 0.1974 | 0.7927 |
| 16 | 17.48 | -0.00 | 1.7751 | -0.4736 | 0.0203 | -0.2312 | 0.0609 | 0.2269 | 0.1628 | 0.0641 | -0.2668 |
| 17 | 19.45 | -0.00 | 2.4567 | -2.1115 | -0.0305 | -0.1873 | 0.0744 | 0.0634 | 0.1700 | -0.1066 | -0.8595 |
| 18 | 21.38 | -0.00 | 3.1912 | -4.1223 | 0.0093 | -0.2551 | 0.2164 | -0.1146 | 0.1708 | -0.2853 | -1.2918 |
| 19 | 23.39 | -0.01 | 4.0335 | -6.3549 | -0.0475 | -0.1284 | 0.2810 | -0.3016 | 0.1729 | -0.4744 | -1.5755 |
| 20 | 25.38 | -0.01 | 4.6813 | -7.7625 | -0.1169 | -0.1521 | 0.1920 | -0.3995 | 0.1803 | -0.5798 | -1.6582 |
| 21 | 27.31 | 0.02 | 5.3987 | -8.7188 | 0.2937 | -0.7905 | 0.0143 | -0.4838 | 0.1857 | -0.6755 | -1.6150 |
| 22 | 29.25 | 0.03 | 5.9684 | -9.0030 | 0.5506 | -1.4653 | 0.1724 | -0.4912 | 0.2053 | -0.6965 | -1.5084 |
| 23 | 30.00 | 0.07 | 6.0034 | -9.0083 | 1.0967 | -2.3671 | 0.2907 | -0.4894 | 0.2224 | -0.7118 | -1.5005 |
| 24 | 30.12 | 0.07 | 6.0901 | -8.9931 | 1.1048 | -2.4826 | 0.4017 | -0.4619 | 0.2340 | -0.6960 | -1.4767 |
| 25 | 30.40 | 0.07 | 6.1697 | -9.1536 | 1.0300 | -2.1870 | 0.3697 | -0.4621 | 0.2381 | -0.7003 | -1.4836 |
| 26 | 30.73 | 0.08 | 6.3086 | -9.0856 | 1.1697 | -2.5678 | 0.3969 | -0.4533 | 0.2523 | -0.7057 | -1.4402 |
| 27 | 30.97 | 0.09 | 6.4311 | -9.0779 | 1.2950 | -2.7920 | 0.4697 | -0.4580 | 0.2590 | -0.7171 | -1.4116 |
| 28 | 31.24 | 0.08 | 6.4100 | -9.0650 | 1.2697 | -2.7926 | 0.4444 | -0.4598 | 0.2582 | -0.7181 | -1.4142 |
| 29 | 31.53 | 0.09 | 6.5470 | -9.0098 | 1.2629 | -2.6844 | 0.4646 | -0.4463 | 0.2720 | -0.7184 | -1.3762 |
| 30 | 31.79 | 0.08 | 6.5477 | -8.9626 | 1.2468 | -2.7162 | 0.5038 | -0.4357 | 0.2779 | -0.7137 | -1.3688 |
| 31 | 32.06 | 0.10 | 6.7224 | -8.8937 | 1.3885 | -2.7035 | 0.5186 | -0.4323 | 0.2851 | -0.7175 | -1.3230 |
| 32 | 32.32 | 0.10 | 6.9199 | -8.8077 | 1.4230 | -2.8044 | 0.5323 | -0.4246 | 0.2965 | -0.7211 | -1.2915 |
| 33 | 32.60 | 0.09 | 6.9585 | -8.8747 | 1.2852 | -2.5795 | 0.4151 | -0.4496 | 0.2966 | -0.7462 | -1.2754 |
| 34 | 32.86 | 0.09 | 7.1483 | -8.7583 | 1.3101 | -2.8151 | 0.3252 | -0.4645 | 0.3029 | -0.7674 | -1.2252 |
| 35 | 33.12 | 0.10 | 7.2832 | -8.8654 | 1.4747 | -3.0510 | 0.3782 | -0.4541 | 0.3105 | -0.7646 | -1.2172 |
| 36 | 33.36 | 0.09 | 7.3226 | -9.0830 | 1.2726 | -2.7566 | 0.2995 | -0.4739 | 0.3117 | -0.7856 | -1.2404 |
| 37 | 33.62 | 0.10 | 7.4940 | -8.8949 | 1.4267 | -2.9360 | 0.3398 | -0.4877 | 0.3164 | -0.8040 | -1.1869 |
| 38 | 33.87 | 0.09 | 7.5398 | -8.7705 | 1.3583 | -2.9190 | 0.3922 | -0.4616 | 0.3226 | -0.7842 | -1.1632 |
| 39 | 34.13 | 0.09 | 7.6721 | -8.5527 | 1.3610 | -2.8777 | 0.4581 | -0.4717 | 0.3244 | -0.7961 | -1.1148 |
| 40 | 34.36 | 0.08 | 7.7319 | -8.6764 | 1.1341 | -2.5388 | 0.4316 | -0.4631 | 0.3252 | -0.8082 | -1.1221 |
| 41 | 34.61 | 0.06 | 7.7919 | -8.6339 | 0.8809 | -2.1721 | 0.3271 | -0.4823 | 0.3231 | -0.8053 | -1.1081 |
| 42 | 34.86 | 0.06 | 7.8322 | -8.6113 | 0.9258 | -2.3027 | 0.3205 | -0.4953 | 0.3196 | -0.8148 | -1.0995 |
| 43 | 35.10 | 0.06 | 8.0340 | -8.6538 | 1.0024 | -2.3965 | 0.3085 | -0.5135 | 0.3209 | -0.8343 | -1.0772 |
| 44 | 35.32 | 0.03 | 8.0672 | -8.7279 | 0.5011 | -1.4189 | 0.0923 | -0.5494 | 0.3108 | -0.8601 | -1.0819 |
| 45 | 35.58 | 0.06 | 8.2072 | -8.8112 | 0.8678 | -1.9443 | 0.2172 | -0.5512 | 0.3158 | -0.8670 | -1.0736 |
| 46 | 35.82 | 0.01 | 8.2990 | -8.9556 | 0.0949 | -0.1650 | -0.1103 | -0.5925 | 0.3041 | -0.8968 | -1.0791 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 161 | 0.90 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 36.05 | -0.00 | 8.4825 | -9.0252 | 0.0551 | -0.0483 | -0.1743 | -0.5997 | 0.3006 | -0.9003 | -1.0640 |
| 48 | 36.31 | 0.00 | 8.6675 | -9.2347 | -0.0142 | 0.1349 | -0.1356 | -0.6346 | 0.3026 | -0.9372 | -1.0654 |
| 49 | 36.53 | 0.01 | 8.6607 | -9.0719 | 0.1156 | -0.2430 | -0.0307 | -0.6270 | 0.2976 | -0.9246 | -1.0675 |
| 50 | 36.76 | 0.03 | 8.7657 | -9.2528 | 0.3609 | -0.5324 | 0.0349 | -0.6403 | 0.3002 | -0.9405 | -1.0556 |
| 51 | 37.01 | 0.01 | 8.8069 | -9.2179 | 0.1489 | -0.4801 | 0.0931 | -0.6444 | 0.3009 | -0.9453 | -1.0467 |
| 52 | 37.24 | 0.01 | 8.9587 | -9.3958 | 0.2778 | -0.5803 | 0.0355 | -0.6589 | 0.3039 | -0.9628 | -1.0488 |
| 53 | 37.47 | -0.00 | 9.0656 | -9.3803 | 0.0808 | -0.3362 | 0.0290 | -0.6763 | 0.3030 | -0.9792 | -1.0347 |
| 54 | 37.74 | 0.03 | 9.2016 | -9.5565 | 0.4315 | -0.9149 | 0.1468 | -0.6965 | 0.3039 | -1.0003 | -1.0386 |
| 55 | 37.97 | 0.03 | 9.2158 | -9.6004 | 0.4619 | -1.1104 | 0.2504 | -0.7007 | 0.3079 | -1.0088 | -1.0417 |
| 56 | 38.21 | 0.04 | 9.4234 | -9.7007 | 0.6037 | -1.4563 | 0.3675 | -0.7051 | 0.3087 | -1.0137 | -1.0294 |
| 57 | 38.45 | 0.01 | 9.4293 | -9.7650 | 0.4330 | -1.3566 | 0.3285 | -0.7146 | 0.3088 | -1.0233 | -1.0356 |
| 58 | 38.68 | 0.00 | 9.5449 | -9.8404 | 0.1876 | -0.5975 | 0.1341 | -0.7341 | 0.3100 | -1.0440 | -1.0310 |
| 59 | 38.87 | 0.02 | 9.6509 | -9.8536 | 0.4188 | -1.0699 | 0.3226 | -0.7212 | 0.3138 | -1.0349 | -1.0210 |
| 60 | 39.13 | 0.03 | 9.6811 | -9.7701 | 0.4787 | -1.0626 | 0.2385 | -0.7313 | 0.3178 | -1.0490 | -1.0092 |
| 61 | 39.37 | 0.01 | 9.8307 | -9.8451 | 0.2768 | -0.7365 | 0.1096 | -0.7529 | 0.3153 | -1.0682 | -1.0015 |
| 62 | 39.56 | 0.03 | 9.8620 | -9.7563 | 0.5482 | -1.1343 | 0.3813 | -0.7403 | 0.3262 | -1.0665 | -0.9893 |
| 63 | 39.81 | 0.04 | 9.9215 | -9.9132 | 0.7564 | -1.4573 | 0.3820 | -0.7443 | 0.3203 | -1.0646 | -0.9992 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 2

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 161 | 0.90 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -3.83 | -0.00 | 0.0281 | 0.0084 | 0.0157 | 0.3000 | 0.5580 | -0.8100 | -0.0188 | -0.3597 | 0.0232 | 0.4330 |
| 2 | -3.83 | -0.00 | 0.0340 | 0.0085 | 0.0186 | 0.2508 | 0.5462 | -0.8104 | -0.0189 | -0.3513 | 0.0234 | 0.4334 |
| 3 | -3.83 | 0.00 | 0.0290 | 0.0082 | 0.0160 | 0.2832 | 0.5507 | -0.8122 | -0.0185 | -0.3511 | 0.0228 | 0.4323 |
| 4 | -3.85 | -0.00 | 0.0243 | 0.0076 | 0.0139 | 0.3120 | 0.5713 | -0.7951 | -0.0207 | -0.3443 | 0.0260 | 0.4330 |
| 5 | -2.11 | -0.00 | 0.0277 | 0.0088 | 0.0146 | 0.3195 | 0.5289 | -0.7700 | -0.0242 | -0.3330 | 0.0315 | 0.4324 |
| 6 | -0.44 | -0.01 | 0.0237 | 0.0104 | 0.0112 | 0.4386 | 0.4726 | -0.7307 | -0.0252 | -0.3162 | 0.0344 | 0.4327 |
| 7 | 1.28 | -0.01 | 0.0243 | 0.0123 | 0.0105 | 0.5043 | 0.4306 | -0.6794 | -0.0281 | -0.2999 | 0.0413 | 0.4414 |
| 8 | 2.98 | 0.00 | 0.0206 | 0.0114 | 0.0087 | 0.5556 | 0.4233 | -0.6730 | -0.0316 | -0.3014 | 0.0470 | 0.4478 |
| 9 | 4.77 | -0.00 | 0.0200 | 0.0109 | 0.0076 | 0.5469 | 0.3793 | -0.6372 | -0.0389 | -0.2871 | 0.0610 | 0.4507 |
| 10 | 6.46 | -0.00 | 0.0246 | 0.0116 | 0.0093 | 0.4726 | 0.3789 | -0.5870 | -0.0446 | -0.2727 | 0.0760 | 0.4646 |
| 11 | 8.22 | 0.00 | 0.0179 | 0.0108 | 0.0078 | 0.6047 | 0.4235 | -0.5147 | -0.0454 | -0.2480 | 0.0883 | 0.4819 |
| 12 | 10.03 | -0.00 | 0.0166 | 0.0107 | 0.0081 | 0.6437 | 0.4864 | -0.3660 | -0.0425 | -0.1748 | 0.1162 | 0.4776 |
| 13 | 11.81 | -0.01 | 0.0151 | 0.0097 | 0.0083 | 0.6414 | 0.5505 | -0.2259 | -0.0334 | -0.1100 | 0.1477 | 0.4867 |
| 14 | 13.69 | -0.01 | 0.0254 | 0.0097 | 0.0129 | 0.3811 | 0.5070 | -0.0942 | -0.0195 | -0.0493 | 0.2075 | 0.5231 |
| 15 | 15.55 | 0.00 | 0.0394 | 0.0096 | 0.0212 | 0.2427 | 0.5370 | -0.0021 | 0.0115 | -0.0088 | -5.5509 | 4.2403 |
| 16 | 17.48 | -0.00 | 0.0495 | 0.0104 | 0.0243 | 0.2101 | 0.4905 | 0.0935 | 0.0347 | 0.0293 | 0.3715 | 0.3130 |
| 17 | 19.45 | -0.00 | 0.0492 | 0.0080 | 0.0243 | 0.1628 | 0.4936 | 0.2152 | 0.0565 | 0.0802 | 0.2623 | 0.3726 |
| 18 | 21.38 | -0.00 | 0.1050 | 0.0107 | 0.0565 | 0.1020 | 0.5384 | 0.3273 | 0.0729 | 0.1317 | 0.2227 | 0.4025 |
| 19 | 23.39 | -0.01 | 0.1174 | 0.0091 | 0.0689 | 0.0779 | 0.5868 | 0.4495 | 0.0655 | 0.1877 | 0.1901 | 0.4175 |
| 20 | 25.38 | -0.01 | 0.1180 | 0.0102 | 0.0711 | 0.0863 | 0.6022 | 0.5657 | 0.0868 | 0.2428 | 0.1535 | 0.4293 |
| 21 | 27.31 | 0.02 | 0.0977 | 0.0175 | 0.0283 | 0.1787 | 0.2898 | 0.6690 | 0.0717 | 0.2768 | 0.1072 | 0.4137 |
| 22 | 29.25 | 0.03 | 0.1992 | 0.0305 | 0.0602 | 0.1529 | 0.3020 | 0.6565 | 0.0483 | 0.2628 | 0.0736 | 0.4003 |
| 23 | 30.00 | 0.07 | 0.2593 | 0.0383 | 0.0850 | 0.1476 | 0.3276 | 0.6648 | 0.0471 | 0.2672 | 0.0708 | 0.4020 |
| 24 | 30.12 | 0.07 | 0.2818 | 0.0411 | 0.0963 | 0.1458 | 0.3417 | 0.6449 | 0.0419 | 0.2585 | 0.0650 | 0.4008 |
| 25 | 30.40 | 0.07 | 0.2971 | 0.0424 | 0.1070 | 0.1428 | 0.3600 | 0.6638 | 0.0426 | 0.2665 | 0.0642 | 0.4015 |
| 26 | 30.73 | 0.08 | 0.3260 | 0.0504 | 0.1181 | 0.1547 | 0.3622 | 0.6517 | 0.0397 | 0.2628 | 0.0609 | 0.4032 |
| 27 | 30.97 | 0.09 | 0.3625 | 0.0554 | 0.1389 | 0.1529 | 0.3832 | 0.6416 | 0.0378 | 0.2589 | 0.0590 | 0.4036 |
| 28 | 31.24 | 0.09 | 0.3595 | 0.0520 | 0.1379 | 0.1446 | 0.3835 | 0.6522 | 0.0380 | 0.2643 | 0.0582 | 0.4053 |
| 29 | 31.53 | 0.09 | 0.3278 | 0.0469 | 0.1314 | 0.1430 | 0.4009 | 0.6540 | 0.0369 | 0.2661 | 0.0564 | 0.4069 |
| 30 | 31.79 | 0.09 | 0.3576 | 0.0525 | 0.1410 | 0.1468 | 0.3943 | 0.6417 | 0.0360 | 0.2609 | 0.0561 | 0.4066 |
| 31 | 32.06 | 0.10 | 0.3554 | 0.0567 | 0.1416 | 0.1594 | 0.3984 | 0.6327 | 0.0343 | 0.2585 | 0.0542 | 0.4086 |
| 32 | 32.32 | 0.10 | 0.3741 | 0.0603 | 0.1477 | 0.1612 | 0.3949 | 0.6389 | 0.0335 | 0.2619 | 0.0524 | 0.4100 |
| 33 | 32.60 | 0.09 | 0.3232 | 0.0528 | 0.1181 | 0.1634 | 0.3653 | 0.6552 | 0.0330 | 0.2697 | 0.0503 | 0.4116 |
| 34 | 32.86 | 0.09 | 0.2807 | 0.0467 | 0.0913 | 0.1663 | 0.3252 | 0.6700 | 0.0316 | 0.2772 | 0.0472 | 0.4137 |
| 35 | 33.12 | 0.10 | 0.3291 | 0.0574 | 0.1126 | 0.1744 | 0.3420 | 0.6725 | 0.0308 | 0.2772 | 0.0458 | 0.4122 |
| 36 | 33.36 | 0.09 | 0.2697 | 0.0470 | 0.0814 | 0.1742 | 0.3019 | 0.6928 | 0.0296 | 0.2878 | 0.0428 | 0.4154 |
| 37 | 33.62 | 0.10 | 0.3094 | 0.0525 | 0.1063 | 0.1697 | 0.3436 | 0.6930 | 0.0290 | 0.2869 | 0.0419 | 0.4141 |
| 38 | 33.87 | 0.09 | 0.3257 | 0.0575 | 0.1204 | 0.1765 | 0.3697 | 0.6918 | 0.0290 | 0.2866 | 0.0419 | 0.4143 |
| 39 | 34.13 | 0.09 | 0.3442 | 0.0595 | 0.1354 | 0.1728 | 0.3934 | 0.6890 | 0.0292 | 0.2848 | 0.0424 | 0.4133 |
| 40 | 34.36 | 0.08 | 0.3239 | 0.0554 | 0.1277 | 0.1711 | 0.3943 | 0.7003 | 0.0289 | 0.2900 | 0.0413 | 0.4142 |
| 41 | 34.61 | 0.06 | 0.2844 | 0.0476 | 0.1083 | 0.1675 | 0.3808 | 0.7066 | 0.0280 | 0.2930 | 0.0396 | 0.4146 |
| 42 | 34.86 | 0.06 | 0.2633 | 0.0414 | 0.0991 | 0.1572 | 0.3763 | 0.7077 | 0.0283 | 0.2942 | 0.0400 | 0.4157 |
| 43 | 35.10 | 0.06 | 0.2729 | 0.0445 | 0.1031 | 0.1630 | 0.3778 | 0.7224 | 0.0279 | 0.3006 | 0.0386 | 0.4161 |
| 44 | 35.32 | 0.03 | 0.1268 | 0.0229 | 0.0338 | 0.1803 | 0.2666 | 0.7414 | 0.0281 | 0.3091 | 0.0379 | 0.4169 |
| 45 | 35.58 | 0.06 | 0.2226 | 0.0375 | 0.0786 | 0.1686 | 0.3532 | 0.7517 | 0.0268 | 0.3136 | 0.0357 | 0.4172 |
| 46 | 35.82 | 0.01 | 0.0056 | 0.0093 | -0.0200 | 1.5893 | -3.4386 | 0.7652 | 0.0270 | 0.3198 | 0.0353 | 0.4179 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 161 | 0.90 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 36.05 | -0.00 | -0.0468 | 0.0026 | -0.0398 | -0.0556 | 0.8514 | 0.7862 | 0.0269 | 0.3205 | 0.0351 | 0.4184 |
| 48 | 36.31 | 0.00 | 0.0330 | 0.0114 | -0.0062 | 0.3470 | -0.1898 | 0.7802 | 0.0263 | 0.3267 | 0.0337 | 0.4187 |
| 49 | 36.53 | 0.01 | 0.0430 | 0.0115 | 0.0124 | 0.2681 | 0.2892 | 0.7775 | 0.0262 | 0.3254 | 0.0337 | 0.4185 |
| 50 | 36.76 | 0.03 | 0.0826 | 0.0119 | 0.0358 | 0.1436 | 0.4335 | 0.7923 | 0.0254 | 0.3315 | 0.0320 | 0.4185 |
| 51 | 37.01 | 0.01 | 0.0478 | 0.0119 | 0.0176 | 0.2478 | 0.3687 | 0.7926 | 0.0248 | 0.3322 | 0.0314 | 0.4191 |
| 52 | 37.24 | 0.01 | 0.0259 | 0.0064 | -0.0003 | 0.2490 | -0.0120 | 0.8078 | 0.0242 | 0.3395 | 0.0300 | 0.4203 |
| 53 | 37.47 | -0.00 | 0.0863 | 0.0129 | 0.0367 | 0.1494 | 0.4255 | 0.8039 | 0.0240 | 0.3370 | 0.0299 | 0.4192 |
| 54 | 37.74 | 0.03 | 0.0655 | 0.0138 | 0.0273 | 0.2111 | 0.4165 | 0.8220 | 0.0226 | 0.3453 | 0.0274 | 0.4201 |
| 55 | 37.97 | 0.03 | 0.1470 | 0.0190 | 0.0695 | 0.1294 | 0.4728 | 0.8201 | 0.0225 | 0.3443 | 0.0274 | 0.4198 |
| 56 | 38.21 | 0.04 | 0.2190 | 0.0255 | 0.1050 | 0.1163 | 0.4794 | 0.8381 | 0.0210 | 0.3519 | 0.0251 | 0.4198 |
| 57 | 38.45 | 0.01 | 0.1744 | 0.0200 | 0.0853 | 0.1145 | 0.4690 | 0.8337 | 0.0212 | 0.3503 | 0.0254 | 0.4202 |
| 58 | 38.68 | 0.00 | 0.1023 | 0.0163 | 0.0392 | 0.1596 | 0.3833 | 0.8584 | 0.0201 | 0.3615 | 0.0234 | 0.4212 |
| 59 | 38.87 | 0.02 | 0.1056 | 0.0132 | 0.0509 | 0.1250 | 0.4822 | 0.8575 | 0.0195 | 0.3599 | 0.0228 | 0.4197 |
| 60 | 39.13 | 0.03 | 0.1735 | 0.0212 | 0.0740 | 0.1222 | 0.4262 | 0.8604 | 0.0195 | 0.3618 | 0.0227 | 0.4206 |
| 61 | 39.37 | 0.01 | 0.1927 | 0.0206 | 0.0827 | 0.1069 | 0.4291 | 0.8516 | 0.0194 | 0.3560 | 0.0228 | 0.4180 |
| 62 | 39.56 | 0.03 | 0.2099 | 0.0225 | 0.1030 | 0.1070 | 0.4907 | 0.8515 | 0.0197 | 0.3569 | 0.0231 | 0.4191 |
| 63 | 39.81 | 0.04 | 0.2664 | 0.0235 | 0.1414 | 0.0882 | 0.5308 | 0.8519 | 0.0189 | 0.3550 | 0.0222 | 0.4167 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 151 0.90 1.7 0.0 81WOF34 0.0 0 -20 0 -20 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -3.83 | -0.00 | 0.0295 | 9.9999 | 0.0192 | 9.9999 | 0.6499 | -0.7449 | -0.0255 | -0.3732 | 0.0342 | 0.5011 |
| 2 | -3.83 | -0.00 | 0.0402 | 9.9999 | 0.0231 | 9.9999 | 0.5749 | -0.7219 | -0.0257 | -0.3618 | 0.0356 | 0.5012 |
| 3 | -3.83 | 0.00 | 0.0299 | 9.9999 | 0.0191 | 9.9999 | 0.6374 | -0.7466 | -0.0248 | -0.3744 | 0.0333 | 0.5014 |
| 4 | -3.85 | -0.00 | 0.0366 | 9.9999 | 0.0225 | 9.9999 | 0.6151 | -0.7137 | -0.0271 | -0.3578 | 0.0380 | 0.5013 |
| 5 | -2.11 | -0.00 | 0.0283 | 9.9999 | 0.0199 | 9.9999 | 0.7043 | -0.7089 | -0.0313 | -0.3551 | 0.0441 | 0.5009 |
| 6 | -0.44 | -0.01 | 0.0299 | 9.9999 | 0.0199 | 9.9999 | 0.6651 | -0.6772 | -0.0334 | -0.3371 | 0.0494 | 0.4979 |
| 7 | 1.28 | -0.01 | 0.0345 | 9.9999 | 0.0220 | 9.9999 | 0.6371 | -0.6333 | -0.0372 | -0.3167 | 0.0588 | 0.5001 |
| 8 | 2.98 | 0.00 | 0.0322 | 9.9999 | 0.0227 | 9.9999 | 0.7048 | -0.6456 | -0.0453 | -0.3280 | 0.0702 | 0.5081 |
| 9 | 4.77 | -0.00 | 0.0291 | 9.9999 | 0.0220 | 9.9999 | 0.7554 | -0.5976 | -0.0469 | -0.3081 | 0.0785 | 0.5158 |
| 10 | 6.46 | -0.00 | 0.0347 | 9.9999 | 0.0243 | 9.9999 | 0.6990 | -0.5512 | -0.0508 | -0.2957 | 0.0922 | 0.5384 |
| 11 | 8.22 | 0.00 | 0.0312 | 9.9999 | 0.0218 | 9.9999 | 0.6984 | -0.4587 | -0.0532 | -0.2595 | 0.1160 | 0.5638 |
| 12 | 10.03 | -0.00 | 0.0150 | 9.9999 | 0.0141 | 9.9999 | 0.9423 | -0.3333 | -0.0474 | -0.1868 | 0.1422 | 0.5605 |
| 13 | 11.81 | -0.01 | 0.0057 | 9.9999 | 0.0113 | 9.9999 | 1.9773 | -0.2025 | -0.0380 | -0.1138 | 0.1874 | 0.5619 |
| 14 | 13.69 | -0.01 | 0.0107 | 9.9999 | 0.0141 | 9.9999 | 1.3174 | -0.1847 | -0.0227 | -0.0500 | 0.2675 | 0.5901 |
| 15 | 15.55 | 0.00 | 0.0260 | 9.9999 | 0.0160 | 9.9999 | 0.6146 | -0.0015 | 0.0064 | -0.0046 | -4.4286 | 3.1357 |
| 16 | 17.48 | -0.00 | 0.0154 | 9.9999 | 0.0108 | 9.9999 | 0.7011 | 0.0814 | 0.0384 | 0.0379 | 0.4713 | 0.4651 |
| 17 | 19.45 | -0.00 | 0.0133 | 9.9999 | 0.0096 | 9.9999 | 0.7249 | 0.1880 | 0.0651 | 0.0959 | 0.3462 | 0.5099 |
| 18 | 21.38 | -0.00 | 0.0212 | 9.9999 | 0.0108 | 9.9999 | 0.5086 | 0.3129 | 0.0858 | 0.1675 | 0.2742 | 0.5355 |
| 19 | 23.39 | -0.01 | 0.0212 | 9.9999 | 0.0105 | 9.9999 | 0.4940 | 0.4472 | 0.0956 | 0.2493 | 0.2137 | 0.5574 |
| 20 | 25.38 | -0.01 | 0.0191 | 9.9999 | 0.0105 | 9.9999 | 0.5477 | 0.4889 | 0.0744 | 0.2646 | 0.1523 | 0.5413 |
| 21 | 27.31 | 0.02 | 0.0279 | 9.9999 | 0.0137 | 9.9999 | 0.4914 | 0.5157 | 0.0734 | 0.2817 | 0.1423 | 0.5463 |
| 22 | 29.25 | 0.03 | 0.0349 | 9.9999 | 0.0177 | 9.9999 | 0.5078 | 0.5402 | 0.0699 | 0.2964 | 0.1293 | 0.5486 |
| 23 | 30.00 | 0.07 | 0.0401 | 9.9999 | 0.0193 | 9.9999 | 0.4808 | 0.5355 | 0.0671 | 0.2939 | 0.1252 | 0.5488 |
| 24 | 30.12 | 0.07 | 0.0401 | 9.9999 | 0.0200 | 9.9999 | 0.4989 | 0.5381 | 0.0664 | 0.2954 | 0.1235 | 0.5491 |
| 25 | 30.40 | 0.07 | 0.0331 | 9.9999 | 0.0163 | 9.9999 | 0.4926 | 0.5388 | 0.0624 | 0.2953 | 0.1158 | 0.5482 |
| 26 | 30.73 | 0.08 | 0.0465 | 9.9999 | 0.0219 | 9.9999 | 0.4710 | 0.5358 | 0.0569 | 0.2943 | 0.1062 | 0.5493 |
| 27 | 30.97 | 0.09 | 0.0487 | 9.9999 | 0.0222 | 9.9999 | 0.4562 | 0.5354 | 0.0527 | 0.2950 | 0.0985 | 0.5511 |
| 28 | 31.24 | 0.08 | 0.0507 | 9.9999 | 0.0240 | 9.9999 | 0.4723 | 0.5417 | 0.0562 | 0.2983 | 0.1038 | 0.5508 |
| 29 | 31.53 | 0.09 | 0.0446 | 9.9999 | 0.0206 | 9.9999 | 0.4628 | 0.5364 | 0.0494 | 0.2951 | 0.0921 | 0.5502 |
| 30 | 31.79 | 0.08 | 0.0462 | 9.9999 | 0.0210 | 9.9999 | 0.4539 | 0.5356 | 0.0511 | 0.2962 | 0.0953 | 0.5530 |
| 31 | 32.06 | 0.10 | 0.0520 | 9.9999 | 0.0230 | 9.9999 | 0.4430 | 0.5513 | 0.0495 | 0.3035 | 0.0898 | 0.5506 |
| 32 | 32.32 | 0.10 | 0.0540 | 9.9999 | 0.0244 | 9.9999 | 0.4518 | 0.5522 | 0.0492 | 0.3051 | 0.0891 | 0.5525 |
| 33 | 32.60 | 0.09 | 0.0492 | 9.9999 | 0.0234 | 9.9999 | 0.4767 | 0.5536 | 0.0490 | 0.3063 | 0.0885 | 0.5534 |
| 34 | 32.86 | 0.09 | 0.0617 | 9.9999 | 0.0284 | 9.9999 | 0.4610 | 0.5549 | 0.0477 | 0.3081 | 0.0860 | 0.5552 |
| 35 | 33.12 | 0.10 | 0.0585 | 9.9999 | 0.0268 | 9.9999 | 0.4572 | 0.5649 | 0.0474 | 0.3135 | 0.0839 | 0.5550 |
| 36 | 33.36 | 0.09 | 0.0549 | 9.9999 | 0.0255 | 9.9999 | 0.4648 | 0.5647 | 0.0478 | 0.3135 | 0.0847 | 0.5552 |
| 37 | 33.62 | 0.10 | 0.0509 | 9.9999 | 0.0225 | 9.9999 | 0.4418 | 0.5604 | 0.0435 | 0.3114 | 0.0776 | 0.5557 |
| 38 | 33.87 | 0.09 | 0.0421 | 9.9999 | 0.0193 | 9.9999 | 0.4582 | 0.5449 | 0.0417 | 0.3041 | 0.0765 | 0.5580 |
| 39 | 34.13 | 0.09 | 0.0529 | 9.9999 | 0.0237 | 9.9999 | 0.4469 | 0.5609 | 0.0415 | 0.3124 | 0.0740 | 0.5568 |
| 40 | 34.36 | 0.08 | 0.0478 | 9.9999 | 0.0215 | 9.9999 | 0.4490 | 0.5690 | 0.0402 | 0.3164 | 0.0707 | 0.5560 |
| 41 | 34.61 | 0.06 | 0.0339 | 9.9999 | 0.0162 | 9.9999 | 0.4789 | 0.5581 | 0.0381 | 0.3120 | 0.0682 | 0.5591 |
| 42 | 34.86 | 0.06 | 0.0401 | 9.9999 | 0.0173 | 9.9999 | 0.4317 | 0.5727 | 0.0368 | 0.3198 | 0.0643 | 0.5585 |
| 43 | 35.10 | 0.06 | 0.0533 | 9.9999 | 0.0248 | 9.9999 | 0.4648 | 0.5763 | 0.0367 | 0.3214 | 0.0637 | 0.5576 |
| 44 | 35.32 | 0.03 | 0.0411 | 9.9999 | 0.0185 | 9.9999 | 0.4496 | 0.5839 | 0.0352 | 0.3264 | 0.0604 | 0.5589 |
| 45 | 35.58 | 0.06 | 0.0136 | 9.9999 | 0.0087 | 9.9999 | 0.6398 | 0.5807 | 0.0356 | 0.3244 | 0.0612 | 0.5586 |
| 46 | 35.82 | 0.01 | 0.0180 | 9.9999 | 0.0083 | 9.9999 | 0.4614 | 0.5988 | 0.0338 | 0.3336 | 0.0564 | 0.5572 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 161 | 0.90 | 1.7 | 0.0 | 81WGF34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 36.05 | -0.00 | 0.0384 | 9.9999 | 0.0175 | 9.9999 | 0.4570 | 0.6192 | 0.0328 | 0.3439 | 0.0529 | 0.5554 |
| 48 | 36.31 | 0.00 | 0.0167 | 9.9999 | 0.0089 | 9.9999 | 0.5329 | 0.6231 | 0.0320 | 0.3461 | 0.0514 | 0.5554 |
| 49 | 36.53 | 0.01 | 0.0183 | 9.9999 | 0.0096 | 9.9999 | 0.5272 | 0.6324 | 0.0319 | 0.3506 | 0.0505 | 0.5545 |
| 50 | 36.76 | 0.03 | 0.0313 | 9.9999 | 0.0141 | 9.9999 | 0.4508 | 0.6444 | 0.0312 | 0.3574 | 0.0484 | 0.5546 |
| 51 | 37.01 | 0.01 | 0.0229 | 9.9999 | 0.0116 | 9.9999 | 0.5079 | 0.6454 | 0.0308 | 0.3580 | 0.0477 | 0.5547 |
| 52 | 37.24 | 0.01 | 0.0398 | 9.9999 | 0.0186 | 9.9999 | 0.4663 | 0.6551 | 0.0308 | 0.3626 | 0.0470 | 0.5534 |
| 53 | 37.47 | -0.00 | 0.0217 | 9.9999 | 0.0119 | 9.9999 | 0.5490 | 0.6548 | 0.0300 | 0.3625 | 0.0459 | 0.5535 |
| 54 | 37.74 | 0.03 | 0.0142 | 9.9999 | 0.0076 | 9.9999 | 0.5316 | 0.6736 | 0.0292 | 0.3716 | 0.0436 | 0.5516 |
| 55 | 37.97 | 0.03 | 0.0192 | 9.9999 | 0.0102 | 9.9999 | 0.5255 | 0.6650 | 0.0295 | 0.3680 | 0.0444 | 0.5533 |
| 56 | 38.21 | 0.04 | 0.0071 | 9.9999 | 0.0040 | 9.9999 | 0.5722 | 0.6840 | 0.0285 | 0.3777 | 0.0416 | 0.5522 |
| 57 | 38.45 | 0.01 | 0.0209 | 9.9999 | 0.0094 | 9.9999 | 0.4517 | 0.6817 | 0.0285 | 0.3768 | 0.0418 | 0.5527 |
| 58 | 38.68 | 0.00 | -0.0012 | 9.9999 | 0.0017 | 9.9999 | -1.3303 | 0.6886 | 0.0280 | 0.3808 | 0.0406 | 0.5530 |
| 59 | 38.87 | 0.02 | 0.0198 | 9.9999 | 0.0105 | 9.9999 | 0.5304 | 0.6943 | 0.0274 | 0.3836 | 0.0395 | 0.5525 |
| 60 | 39.13 | 0.03 | 0.0063 | 9.9999 | 0.0058 | 9.9999 | 0.9159 | 0.6918 | 0.0278 | 0.3824 | 0.0401 | 0.5527 |
| 61 | 39.37 | 0.01 | 0.0195 | 9.9999 | 0.0113 | 9.9999 | 0.5785 | 0.6944 | 0.0274 | 0.3838 | 0.0395 | 0.5527 |
| 62 | 39.56 | 0.03 | 0.0212 | 9.9999 | 0.0111 | 9.9999 | 0.5233 | 0.7076 | 0.0264 | 0.3903 | 0.0373 | 0.5518 |
| 63 | 39.81 | 0.04 | 0.0441 | 9.9999 | 0.0220 | 9.9999 | 0.4989 | 0.7047 | 0.0264 | 0.3888 | 0.0375 | 0.5517 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 162 | 1.00 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.74 | -0.02 | -2.1403 | 11.3867 | 0.0138 | -0.2489 | 0.0084 | 1.4343 | 0.2654 | 1.1689 | -5.3201 |
| 2 | 6.73 | -0.02 | -2.1593 | 11.4863 | 0.1409 | -0.4090 | 0.0030 | 1.4552 | 0.2711 | 1.1840 | -5.3194 |
| 3 | 6.73 | -0.03 | -2.1642 | 11.4609 | 0.0480 | -0.3126 | 0.0143 | 1.4455 | 0.2662 | 1.1792 | -5.2956 |
| 4 | 6.88 | -0.04 | -1.9259 | 10.6674 | -0.0478 | -0.2427 | 0.0025 | 1.3967 | 0.2680 | 1.1287 | -5.5389 |
| 5 | 8.77 | -0.11 | -1.2294 | 8.4422 | 0.0427 | -0.3806 | 0.0146 | 1.2249 | 0.2608 | 0.9641 | -6.8667 |
| 6 | 10.66 | -0.03 | -0.5014 | 6.1509 | 0.1368 | -0.4706 | 0.0208 | 1.0414 | 0.2477 | 0.7937 | -12.2685 |
| 7 | 12.67 | -0.02 | 0.2665 | 3.8997 | 0.2074 | -0.5390 | 0.0388 | 0.8601 | 0.2326 | 0.6275 | 14.6308 |
| 8 | 14.69 | -0.04 | 0.9682 | 1.8444 | 0.0120 | -0.3058 | 0.0329 | 0.6841 | 0.2235 | 0.4605 | 1.9050 |
| 9 | 16.73 | -0.03 | 1.7220 | -0.1814 | 0.0255 | -0.2998 | 0.0452 | 0.5062 | 0.2204 | 0.2857 | -0.1054 |
| 10 | 18.86 | -0.04 | 2.5782 | -2.4673 | 0.0153 | -0.3034 | 0.0517 | 0.3153 | 0.2272 | 0.0880 | -0.9570 |
| 11 | 20.99 | -0.03 | 3.4216 | -4.5797 | 0.1138 | -0.3454 | 0.0057 | 0.1331 | 0.2408 | -0.1078 | -1.3385 |
| 12 | 23.17 | -0.05 | 4.5844 | -6.7480 | -0.2224 | 0.4275 | 0.1402 | -0.0677 | 0.2432 | -0.3110 | -1.4720 |
| 13 | 25.39 | -0.02 | 5.6501 | -8.3956 | 0.1992 | -0.3127 | -0.1422 | -0.2656 | 0.2461 | -0.4918 | -1.4959 |
| 14 | 27.65 | 0.03 | 6.8148 | -9.9046 | 0.8323 | -1.6906 | -0.2956 | -0.4159 | 0.2541 | -0.6700 | -1.4534 |
| 15 | 28.86 | 0.04 | 7.1862 | -10.3279 | 0.9486 | -2.0077 | -0.2300 | -0.4836 | 0.2505 | -0.7341 | -1.4372 |
| 16 | 27.20 | -0.00 | 6.0295 | -8.9594 | 0.4191 | -0.7839 | -0.2294 | -0.3365 | 0.2432 | -0.5797 | -1.4693 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 162 | 1.00 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.74 | -0.02 | 0.0085 | 0.0056 | 0.0150 | 0.6585 | 1.7643 | -0.6767 | -0.0109 | -0.3307 | 0.0161 | 0.4887 |
| 2 | 6.73 | -0.02 | 0.0084 | 0.0052 | 0.0155 | 0.6173 | 1.8353 | -0.6822 | -0.0108 | -0.3331 | 0.0159 | 0.4883 |
| 3 | 6.73 | -0.03 | 0.0025 | 0.0052 | 0.0129 | 2.0833 | 5.1549 | -0.6796 | -0.0109 | -0.3322 | 0.0159 | 0.4888 |
| 4 | 6.88 | -0.04 | -0.0006 | 0.0053 | 0.0106 | -8.5000 | -16.9613 | -0.6216 | -0.0114 | -0.3051 | 0.0184 | 0.4909 |
| 5 | 8.77 | -0.11 | 0.0146 | 0.0071 | 0.0186 | 0.4857 | 1.2757 | -0.4764 | -0.0086 | -0.2368 | 0.0181 | 0.4971 |
| 6 | 10.66 | -0.03 | 0.0234 | 0.0081 | 0.0273 | 0.7467 | 0.9534 | -0.3325 | -0.0031 | -0.1661 | 0.0094 | 0.4995 |
| 7 | 12.67 | -0.02 | 0.0260 | 0.0088 | 0.0230 | 0.3400 | 0.8860 | -0.2034 | 0.0033 | -0.1018 | -0.0164 | 0.5004 |
| 8 | 14.69 | -0.04 | 0.0184 | 0.0073 | 0.0183 | 0.3955 | 0.9921 | -0.0611 | 0.0116 | -0.0394 | -0.1905 | 0.6448 |
| 9 | 16.73 | -0.03 | 0.0122 | 0.0063 | 0.0188 | 0.5214 | 1.5435 | 0.0640 | 0.0215 | 0.0167 | 0.3360 | 0.2608 |
| 10 | 18.86 | -0.04 | 0.0238 | 0.0040 | 0.0242 | 0.1659 | 1.0152 | 0.2087 | 0.0383 | 0.0826 | 0.1834 | 0.3957 |
| 11 | 20.99 | -0.03 | 0.0033 | 0.0018 | 0.0114 | 0.5312 | 3.4297 | 0.3613 | 0.0479 | 0.1512 | 0.1327 | 0.4186 |
| 12 | 23.17 | -0.05 | 0.0083 | -0.0081 | 0.0326 | -0.9750 | 3.9161 | 0.4804 | 0.0476 | 0.2128 | 0.0991 | 0.4429 |
| 13 | 25.39 | -0.02 | -0.0251 | 0.0051 | -0.0181 | -0.2033 | 0.7203 | 0.6621 | 0.0426 | 0.3039 | 0.0544 | 0.4591 |
| 14 | 27.65 | 0.03 | 0.0566 | 0.0312 | -0.0094 | 0.5515 | -0.1669 | 0.8344 | 0.0346 | 0.3855 | 0.0415 | 0.4628 |
| 15 | 28.86 | 0.04 | 0.0973 | 0.0404 | 0.0076 | 0.4156 | 0.0778 | 0.8650 | 0.0328 | 0.3992 | 0.0379 | 0.4615 |
| 16 | 27.20 | -0.00 | -0.0054 | 0.0137 | -0.0196 | -2.5385 | 3.6263 | 0.7174 | 0.0417 | 0.3233 | 0.0581 | 0.4507 |

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 162 | 1.00 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.74 | -0.02 | 0.0355 | 9.9999 | 0.0118 | 9.9999 | 0.3335 | -0.6186 | -0.0188 | -0.3508 | 0.0304 | 0.5671 |
| 2 | 6.73 | -0.02 | 0.0373 | 9.9999 | 0.0126 | 9.9999 | 0.3363 | -0.6226 | -0.0195 | -0.3522 | 0.0314 | 0.5657 |
| 3 | 6.73 | -0.03 | 0.0355 | 9.9999 | 0.0123 | 9.9999 | 0.3482 | -0.6176 | -0.0193 | -0.3499 | 0.0313 | 0.5666 |
| 4 | 6.88 | -0.04 | 0.0313 | 9.9999 | 0.0107 | 9.9999 | 0.3414 | -0.5715 | -0.0189 | -0.3239 | 0.0331 | 0.5667 |
| 5 | 8.77 | -0.11 | 0.0396 | 9.9999 | 0.0139 | 9.9999 | 0.3509 | -0.4405 | -0.0153 | -0.2513 | 0.0347 | 0.5703 |
| 6 | 10.66 | -0.03 | 0.0438 | 9.9999 | 0.0158 | 9.9999 | 0.3602 | -0.3158 | -0.0095 | -0.1784 | 0.0286 | 0.5651 |
| 7 | 12.67 | -0.02 | 0.0474 | 9.9999 | 0.0172 | 9.9999 | 0.3632 | -0.1826 | -0.0004 | -0.1042 | 0.0023 | 0.5705 |
| 8 | 14.69 | -0.04 | 0.0383 | 9.9999 | 0.0127 | 9.9999 | 0.3308 | -0.0679 | 0.0089 | -0.0390 | -0.1317 | 0.5745 |
| 9 | 16.73 | -0.03 | 0.0448 | 9.9999 | 0.0154 | 9.9999 | 0.3426 | 0.0483 | 0.0223 | 0.0272 | 0.4602 | 0.5622 |
| 10 | 18.86 | -0.04 | 0.0472 | 9.9999 | 0.0161 | 9.9999 | 0.3406 | 0.1753 | 0.0402 | 0.0964 | 0.2295 | 0.5498 |
| 11 | 20.99 | -0.03 | 0.0490 | 9.9999 | 0.0172 | 9.9999 | 0.3516 | 0.2903 | 0.0489 | 0.1668 | 0.1683 | 0.5766 |
| 12 | 23.17 | -0.05 | 0.0356 | 9.9999 | 0.0118 | 9.9999 | 0.3326 | 0.4433 | 0.0460 | 0.2602 | 0.1037 | 0.5868 |
| 13 | 25.39 | -0.02 | 0.0453 | 9.9999 | 0.0157 | 9.9999 | 0.3455 | 0.4980 | 0.0485 | 0.3004 | 0.0973 | 0.6032 |
| 14 | 27.65 | 0.03 | 0.0661 | 9.9999 | 0.0252 | 9.9999 | 0.3812 | 0.5625 | 0.0517 | 0.3435 | 0.0919 | 0.6106 |
| 15 | 28.86 | 0.04 | 0.0713 | 9.9999 | 0.0270 | 9.9999 | 0.3781 | 0.5750 | 0.0525 | 0.3548 | 0.0913 | 0.6170 |
| 16 | 27.20 | -0.00 | 0.0525 | 9.9999 | 0.0185 | 9.9999 | 0.3517 | 0.5093 | 0.0507 | 0.3145 | 0.0996 | 0.6176 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 163 | 1.10 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.91 | -0.04 | -1.9539 | 10.5786 | -0.0060 | -0.3441 | -0.0132 | 1.4767 | 0.3233 | 1.1534 | -5.4140 |
| 2 | 6.93 | -0.01 | -1.9446 | 10.5721 | 0.0728 | -0.2011 | -0.0186 | 1.4845 | 0.3233 | 1.1612 | -5.4386 |
| 3 | 6.92 | -0.02 | -1.9495 | 10.7041 | 0.0037 | -0.2025 | -0.0132 | 1.4922 | 0.3269 | 1.1653 | -5.4906 |
| 4 | 6.92 | -0.01 | -1.9572 | 10.5921 | 0.0685 | -0.2636 | -0.0078 | 1.4865 | 0.3251 | 1.1614 | -5.4118 |
| 5 | 7.29 | -0.00 | -1.7041 | 9.9188 | 0.1708 | -0.4544 | -0.0074 | 1.4363 | 0.3237 | 1.1127 | -5.7619 |
| 6 | 9.30 | -0.02 | -0.9748 | 7.6295 | 0.0189 | -0.3038 | 0.0034 | 1.2657 | 0.3220 | 0.9437 | -7.8267 |
| 7 | 11.22 | -0.00 | -0.3047 | 5.6438 | 0.1800 | -0.4945 | 0.0098 | 1.1216 | 0.3258 | 0.7958 | -18.5251 |
| 8 | 13.31 | -0.00 | 0.4536 | 3.4341 | 0.1443 | -0.3495 | 0.0153 | 0.9553 | 0.3300 | 0.6253 | 7.5702 |
| 9 | 15.38 | -0.03 | 1.1860 | 1.5329 | -0.0958 | -0.1441 | 0.0209 | 0.8110 | 0.3411 | 0.4699 | 1.2925 |
| 10 | 17.46 | -0.01 | 1.9458 | -0.4417 | 0.0405 | -0.1795 | 0.0380 | 0.6442 | 0.3492 | 0.2951 | -0.2270 |
| 11 | 19.65 | -0.02 | 2.7642 | -2.5590 | -0.0269 | -0.0226 | -0.0047 | 0.4650 | 0.3517 | 0.1134 | -0.9258 |
| 12 | 21.87 | 0.00 | 3.9140 | -4.7368 | 0.1427 | -0.1161 | -0.0459 | 0.2704 | 0.3559 | -0.0853 | -1.2230 |
| 13 | 24.16 | -0.03 | 5.0316 | -6.5691 | -0.1976 | 0.3630 | 0.0414 | 0.1050 | 0.3558 | -0.2506 | -1.3056 |
| 14 | 26.42 | 0.00 | 6.1581 | -8.2371 | 0.2189 | -0.4167 | -0.0840 | -0.0586 | 0.3524 | -0.4110 | -1.3376 |
| 15 | 28.78 | 0.02 | 7.1451 | -9.4828 | 0.4921 | -1.1565 | -0.0482 | -0.2069 | 0.3465 | -0.5534 | -1.3272 |
| 16 | 27.89 | 0.03 | 6.3307 | -8.4302 | 0.5390 | -0.9705 | -0.1313 | -0.1094 | 0.3542 | -0.4635 | -1.3316 |
| 17 | 25.56 | -0.01 | 5.2180 | -6.8853 | -0.0278 | 0.3183 | 0.0686 | 0.0540 | 0.3517 | -0.2977 | -1.3195 |

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 163 | 1.10 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.91 | -0.04 | 0.0006 | 0.0059 | 0.0129 | 9.3333 | 20.6196 | -0.6118 | -0.0108 | -0.3041 | 0.0177 | 0.4970 |
| 2 | 6.93 | -0.01 | -0.0016 | 0.0055 | 0.0129 | -3.5333 | -8.2479 | -0.6067 | -0.0110 | -0.3015 | 0.0182 | 0.4969 |
| 3 | 6.92 | -0.02 | 0.0028 | 0.0061 | 0.0142 | 2.1852 | 5.0625 | -0.6191 | -0.0107 | -0.3076 | 0.0173 | 0.4969 |
| 4 | 6.92 | -0.01 | -0.0006 | 0.0057 | 0.0127 | -9.1667 | -20.2870 | -0.6121 | -0.0108 | -0.3043 | 0.0177 | 0.4971 |
| 5 | 7.29 | -0.00 | 0.0051 | 0.0069 | 0.0154 | 1.3469 | 3.0135 | -0.5532 | -0.0090 | -0.2759 | 0.0164 | 0.4988 |
| 6 | 9.30 | -0.02 | 0.0075 | 0.0074 | 0.0178 | 0.9861 | 2.3835 | -0.4083 | -0.0050 | -0.2050 | 0.0122 | 0.5020 |
| 7 | 11.22 | -0.00 | 0.0119 | 0.0085 | 0.0206 | 0.7193 | 1.7416 | -0.2777 | 0.0021 | -0.1421 | -0.0075 | 0.5117 |
| 8 | 13.31 | -0.00 | 0.0078 | 0.0078 | 0.0195 | 1.0000 | 2.5010 | -0.1363 | 0.0107 | -0.0772 | -0.0786 | 0.5662 |
| 9 | 15.38 | -0.03 | -0.0050 | 0.0062 | 0.0155 | -1.2500 | -3.0971 | -0.0237 | 0.0199 | -0.0227 | -0.8377 | 0.9583 |
| 10 | 17.46 | -0.01 | -0.0018 | 0.0042 | 0.0201 | -2.3529 | -11.3858 | 0.1157 | 0.0311 | 0.0376 | 0.2696 | 0.3245 |
| 11 | 19.65 | -0.02 | -0.0140 | 0.0012 | 0.0103 | -0.0889 | -0.7317 | 0.2671 | 0.0375 | 0.1044 | 0.1405 | 0.3907 |
| 12 | 21.87 | 0.00 | -0.0198 | -0.0006 | 0.0061 | 0.0316 | -0.3099 | 0.4181 | 0.0418 | 0.1775 | 0.1000 | 0.4245 |
| 13 | 24.16 | -0.03 | -0.0238 | -0.0079 | 0.0117 | 0.3319 | -0.4923 | 0.5326 | 0.0436 | 0.2359 | 0.0818 | 0.4430 |
| 14 | 26.42 | 0.00 | 0.0350 | 0.0191 | 0.0054 | 0.5460 | 0.1540 | 0.7033 | 0.0337 | 0.3217 | 0.0479 | 0.4574 |
| 15 | 28.78 | 0.02 | 0.0683 | 0.0154 | 0.0278 | 0.2253 | 0.4070 | 0.7896 | 0.0323 | 0.3655 | 0.0410 | 0.4667 |
| 16 | 27.89 | 0.03 | 0.0195 | 0.0127 | 0.0030 | 0.6489 | 0.1539 | 0.7098 | 0.0350 | 0.3223 | 0.0494 | 0.4541 |
| 17 | 25.56 | -0.01 | -0.0239 | -0.0133 | 0.0187 | 0.5565 | -0.7808 | 0.5433 | 0.0449 | 0.2344 | 0.0827 | 0.4316 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 163 | 1.10 | 1.7 | 0.0 | BIWOF34 | 0.0 | 0 | -20 | 0 | -20 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 6.91 | -0.04 | 0.0404 | 9.9999 | 0.0107 | 9.9999 | 0.2642 | -0.5753 | -0.0173 | -0.3236 | 0.0300 | 0.5624 |
| 2 | 6.93 | -0.01 | 0.0387 | 9.9999 | 0.0100 | 9.9999 | 0.2575 | -0.5712 | -0.0173 | -0.3217 | 0.0302 | 0.5631 |
| 3 | 6.92 | -0.02 | 0.0477 | 9.9999 | 0.0134 | 9.9999 | 0.2804 | -0.5788 | -0.0178 | -0.3257 | 0.0307 | 0.5628 |
| 4 | 6.92 | -0.01 | 0.0413 | 9.9999 | 0.0109 | 9.9999 | 0.2639 | -0.5703 | -0.0175 | -0.3209 | 0.0306 | 0.5628 |
| 5 | 7.29 | -0.00 | 0.0516 | 9.9999 | 0.0157 | 9.9999 | 0.3037 | -0.5124 | -0.0156 | -0.2897 | 0.0304 | 0.5655 |
| 6 | 9.30 | -0.02 | 0.0502 | 9.9999 | 0.0155 | 9.9999 | 0.3078 | -0.3826 | -0.0111 | -0.2176 | 0.0291 | 0.5688 |
| 7 | 11.22 | -0.00 | 0.0523 | 9.9999 | 0.0165 | 9.9999 | 0.3154 | -0.2586 | -0.0020 | -0.1450 | 0.0076 | 0.5725 |
| 8 | 13.31 | -0.00 | 0.0480 | 9.9999 | 0.0147 | 9.9999 | 0.3067 | -0.1360 | 0.0089 | -0.0777 | -0.0657 | 0.5713 |
| 9 | 15.38 | -0.03 | 0.0416 | 9.9999 | 0.0123 | 9.9999 | 0.2968 | -0.0259 | 0.0206 | -0.0130 | -0.7952 | 0.5009 |
| 10 | 17.46 | -0.01 | 0.0428 | 9.9999 | 0.0134 | 9.9999 | 0.3124 | 0.0933 | 0.0336 | 0.0520 | 0.3601 | 0.5573 |
| 11 | 19.65 | -0.02 | 0.0416 | 9.9999 | 0.0128 | 9.9999 | 0.3068 | 0.1954 | 0.0383 | 0.1187 | 0.1958 | 0.6074 |
| 12 | 21.87 | 0.00 | 0.0431 | 9.9999 | 0.0142 | 9.9999 | 0.3294 | 0.3097 | 0.0440 | 0.1927 | 0.1420 | 0.6223 |
| 13 | 24.16 | -0.03 | 0.0295 | 9.9999 | 0.0081 | 9.9999 | 0.2740 | 0.4365 | 0.0437 | 0.2698 | 0.1000 | 0.6158 |
| 14 | 26.42 | 0.00 | 0.0440 | 9.9999 | 0.0156 | 9.9999 | 0.3538 | 0.4982 | 0.0461 | 0.3134 | 0.0924 | 0.6290 |
| 15 | 28.78 | 0.02 | 0.0546 | 9.9999 | 0.0212 | 9.9999 | 0.3877 | 0.5819 | 0.0444 | 0.3640 | 0.0763 | 0.6255 |
| 16 | 27.89 | 0.03 | 0.0477 | 9.9999 | 0.0182 | 9.9999 | 0.3804 | 0.5123 | 0.0442 | 0.3247 | 0.0863 | 0.6338 |
| 17 | 25.56 | -0.01 | 0.0291 | 9.9999 | 0.0087 | 9.9999 | 0.2993 | 0.4517 | 0.0425 | 0.2829 | 0.0942 | 0.6263 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | 0.03 | -3.2542 | 12.1725 | 0.0998 | -0.2509 | 0.0095 | 0.7560 | 0.1525 | 0.6035 | -3.7406 |
| 2 | -5.78 | 0.01 | -3.2578 | 12.1409 | 0.0711 | -0.2104 | -0.0128 | 0.7599 | 0.1525 | 0.6074 | -3.7267 |
| 3 | -5.77 | 0.01 | -3.2421 | 12.1281 | 0.0441 | -0.1205 | 0.0019 | 0.7542 | 0.1511 | 0.6031 | -3.7408 |
| 4 | -5.20 | 0.01 | -3.0740 | 11.7275 | 0.0276 | -0.1308 | -0.0052 | 0.7460 | 0.1381 | 0.6079 | -3.8150 |
| 5 | -3.44 | 0.01 | -2.7871 | 10.9106 | 0.0306 | -0.1085 | -0.0123 | 0.6938 | 0.1238 | 0.5700 | -3.9148 |
| 6 | -1.80 | 0.01 | -2.3789 | 9.7669 | 0.0041 | -0.0327 | -0.0120 | 0.6356 | 0.1062 | 0.5295 | -4.1056 |
| 7 | -0.11 | 0.01 | -1.9858 | 8.4209 | -0.0156 | -0.0662 | -0.0119 | 0.5756 | 0.0950 | 0.4805 | -4.2405 |
| 8 | 1.58 | 0.02 | -1.3912 | 6.4788 | 0.0320 | -0.0860 | -0.0336 | 0.5026 | 0.0920 | 0.4105 | -4.6569 |
| 9 | 3.40 | 0.02 | -0.7535 | 4.3022 | 0.0447 | -0.1254 | -0.0260 | 0.4304 | 0.0915 | 0.3389 | -5.7097 |
| 10 | 5.07 | 0.01 | -0.1649 | 2.3799 | -0.0010 | -0.0831 | -0.0332 | 0.3671 | 0.0891 | 0.2779 | -14.4334 |
| 11 | 6.86 | 0.02 | 0.3548 | 0.8678 | 0.0280 | -0.1121 | -0.0105 | 0.3178 | 0.0978 | 0.2200 | 2.4460 |
| 12 | 8.60 | 0.02 | 0.7685 | -0.2741 | 0.0293 | -0.0885 | -0.0026 | 0.2759 | 0.1063 | 0.1697 | -0.3566 |
| 13 | 10.34 | 0.02 | 1.2956 | -1.7522 | 0.0585 | -0.1428 | -0.0242 | 0.2167 | 0.1125 | 0.1043 | -1.3524 |
| 14 | 12.15 | 0.02 | 1.9435 | -3.6795 | 0.0161 | -0.1058 | -0.0242 | 0.1260 | 0.1169 | 0.0091 | -1.8932 |
| 15 | 13.96 | 0.02 | 2.6630 | -5.8456 | -0.0426 | -0.0537 | -0.0239 | 0.0406 | 0.1202 | -0.0795 | -2.1951 |
| 16 | 15.84 | 0.02 | 3.3816 | -8.0292 | -0.0008 | -0.1219 | -0.0160 | -0.0335 | 0.1264 | -0.1599 | -2.3744 |
| 17 | 17.74 | 0.02 | 3.9989 | -9.8205 | -0.0555 | 0.0043 | -0.0156 | -0.0865 | 0.1359 | -0.2224 | -2.4558 |
| 18 | 19.58 | 0.02 | 4.4655 | -10.9287 | -0.0591 | -0.0465 | 0.0221 | -0.0949 | 0.1493 | -0.2442 | -2.4473 |
| 19 | 21.45 | 0.01 | 4.7373 | -11.2073 | -0.1184 | -0.2375 | 0.0674 | -0.0504 | 0.1821 | -0.2325 | -2.3658 |
| 20 | 23.31 | 0.01 | 4.9286 | -11.0224 | -0.1512 | -0.0163 | 0.1864 | -0.0025 | 0.2231 | -0.2256 | -2.2364 |
| 21 | 25.12 | 0.01 | 5.3098 | -11.6209 | -0.2199 | 0.0949 | 0.2835 | 0.0091 | 0.2708 | -0.2617 | -2.1886 |
| 22 | 27.00 | 0.04 | 5.8174 | -12.2914 | 0.1149 | -0.0852 | 0.1673 | -0.0007 | 0.3162 | -0.3169 | -2.1128 |
| 23 | 26.34 | 2.77 | 5.8360 | -12.0968 | 0.2949 | -0.3071 | 0.1688 | -0.2164 | 0.3412 | -0.5576 | -2.0728 |
| 24 | 28.21 | 0.05 | 6.0151 | -12.3247 | 0.3229 | -0.3336 | 0.1912 | 0.0099 | 0.3493 | -0.3394 | -2.0490 |
| 25 | 28.56 | 0.05 | 6.0693 | -12.3427 | 0.3818 | -0.4282 | 0.1919 | 0.0119 | 0.3548 | -0.3429 | -2.0336 |
| 26 | 28.89 | 0.05 | 6.1709 | -12.4363 | 0.4059 | -0.5429 | 0.2225 | 0.0030 | 0.3618 | -0.3588 | -2.0153 |
| 27 | 29.16 | 0.06 | 6.2636 | -12.5104 | 0.4698 | -0.5531 | 0.2823 | 0.0088 | 0.3732 | -0.3644 | -1.9973 |
| 28 | 29.46 | 0.06 | 6.3670 | -12.6459 | 0.5403 | -0.6851 | 0.3051 | 0.0025 | 0.3819 | -0.3794 | -1.9862 |
| 29 | 29.75 | 0.06 | 6.4697 | -12.7801 | 0.6218 | -0.8788 | 0.3132 | 0.0003 | 0.3901 | -0.3898 | -1.9754 |
| 30 | 30.03 | 0.07 | 6.5578 | -12.8451 | 0.6409 | -0.8593 | 0.3438 | 0.0041 | 0.3938 | -0.3897 | -1.9588 |
| 31 | 30.29 | 0.06 | 6.5626 | -12.7787 | 0.5593 | -0.6693 | 0.4478 | 0.0142 | 0.3990 | -0.3848 | -1.9472 |
| 32 | 30.55 | 0.06 | 6.6624 | -12.9459 | 0.6586 | -1.0478 | 0.4189 | 0.0072 | 0.4053 | -0.3981 | -1.9431 |
| 33 | 30.83 | 0.06 | 6.7660 | -13.1194 | 0.6674 | -0.9408 | 0.4636 | 0.0013 | 0.4115 | -0.4102 | -1.9398 |
| 34 | 31.09 | 0.05 | 6.8002 | -13.0575 | 0.6629 | -0.9634 | 0.5224 | 0.0058 | 0.4164 | -0.4106 | -1.9201 |
| 35 | 31.37 | 0.07 | 6.9508 | -13.2495 | 0.7400 | -1.0116 | 0.5675 | 0.0115 | 0.4299 | -0.4184 | -1.9062 |
| 36 | 31.64 | 0.06 | 7.0179 | -13.3323 | 0.7016 | -1.1031 | 0.4936 | -0.0027 | 0.4289 | -0.4316 | -1.8998 |
| 37 | 31.91 | 0.06 | 7.1235 | -13.3956 | 0.8176 | -1.2509 | 0.5091 | -0.0079 | 0.4380 | -0.4459 | -1.8805 |
| 38 | 32.17 | 0.07 | 7.2032 | -13.4076 | 0.8459 | -1.2794 | 0.5900 | -0.0036 | 0.4361 | -0.4397 | -1.8613 |
| 39 | 32.43 | 0.04 | 7.3792 | -13.5054 | 0.5430 | -1.0220 | 0.2714 | -0.0325 | 0.4376 | -0.4701 | -1.8302 |
| 40 | 32.69 | 0.05 | 7.3729 | -13.4350 | 0.6454 | -1.1101 | 0.4421 | -0.0213 | 0.4438 | -0.4651 | -1.8222 |
| 41 | 32.95 | 0.03 | 7.5214 | -13.5363 | 0.2364 | -0.5205 | 0.1819 | -0.0274 | 0.4430 | -0.4704 | -1.7997 |
| 42 | 33.20 | 0.04 | 7.6105 | -13.6080 | 0.3840 | -0.8912 | 0.1972 | -0.0340 | 0.4458 | -0.4798 | -1.7881 |
| 43 | 33.45 | 0.03 | 7.7144 | -13.5743 | 0.3005 | -0.7994 | 0.1459 | -0.0453 | 0.4516 | -0.4970 | -1.7596 |
| 44 | 33.70 | 0.02 | 7.8871 | -13.7567 | 0.2997 | -0.9531 | 0.0432 | -0.0642 | 0.4497 | -0.5140 | -1.7442 |
| 45 | 33.94 | 0.03 | 7.8836 | -13.5971 | 0.5114 | -1.3515 | 0.1992 | -0.0449 | 0.4592 | -0.5042 | -1.7247 |
| 46 | 34.20 | 0.04 | 8.0200 | -13.8443 | 0.4590 | -1.4260 | 0.0885 | -0.0733 | 0.4573 | -0.5307 | -1.7262 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | B1 | OF 34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.44 | 0.04 | 8.1121 | -13.8295 | 0.5251 | -1.3460 | 0.1403 | -0.0774 | 0.4621 | -0.5396 | -1.7048 |
| 48 | 34.68 | 0.04 | 8.1783 | -13.7939 | 0.5459 | -1.2924 | 0.2435 | -0.0835 | 0.4588 | -0.5424 | -1.6867 |
| 49 | 34.94 | 0.06 | 8.2998 | -13.8396 | 0.7181 | -1.5063 | 0.3174 | -0.0884 | 0.4664 | -0.5549 | -1.6675 |
| 50 | 35.17 | 0.05 | 8.3818 | -13.8584 | 0.6871 | -1.7026 | 0.1858 | -0.0766 | 0.4778 | -0.5545 | -1.6534 |
| 51 | 35.40 | 0.05 | 8.4880 | -13.8301 | 0.7098 | -1.7734 | 0.1791 | -0.0801 | 0.4912 | -0.5713 | -1.6294 |
| 52 | 35.65 | 0.04 | 8.5062 | -13.8710 | 0.6668 | -1.6666 | 0.0667 | -0.0758 | 0.4978 | -0.5736 | -1.6307 |
| 53 | 35.89 | 0.03 | 8.6083 | -13.7095 | 0.3157 | -1.5705 | -0.0994 | -0.0648 | 0.5106 | -0.5754 | -1.5926 |
| 54 | 36.12 | 0.02 | 8.6331 | -13.6499 | 0.1504 | -1.2596 | -0.1728 | -0.0516 | 0.5182 | -0.5698 | -1.5811 |
| 55 | 36.36 | 0.04 | 8.7722 | -13.8012 | 0.4040 | -1.6823 | -0.0252 | -0.0569 | 0.5230 | -0.5799 | -1.5733 |
| 56 | 36.60 | 0.04 | 8.7981 | -13.8187 | 0.4404 | -1.8569 | -0.0468 | -0.0499 | 0.5352 | -0.5851 | -1.5706 |
| 57 | 36.82 | 0.04 | 8.9337 | -13.8884 | 0.4313 | -1.7340 | -0.0026 | -0.0714 | 0.5381 | -0.6095 | -1.5546 |
| 58 | 37.06 | 0.03 | 8.9643 | -13.8768 | 0.3747 | -1.6576 | 0.0560 | -0.0583 | 0.5518 | -0.6101 | -1.5480 |
| 59 | 37.29 | 0.04 | 9.0368 | -13.8381 | 0.4140 | -1.7692 | 0.0054 | -0.0561 | 0.5532 | -0.6093 | -1.5313 |
| 60 | 37.51 | 0.04 | 9.1252 | -13.9811 | 0.4651 | -1.9343 | 0.0570 | -0.0690 | 0.5476 | -0.6166 | -1.5321 |
| 61 | 37.75 | 0.05 | 9.3033 | -14.2690 | 0.6826 | -1.9632 | 0.1802 | -0.0831 | 0.5532 | -0.6363 | -1.5338 |
| 62 | 37.98 | 0.04 | 9.3184 | -14.2251 | 0.6602 | -2.2875 | 0.1606 | -0.0848 | 0.5523 | -0.6371 | -1.5266 |
| 63 | 38.21 | 0.05 | 9.4558 | -14.3908 | 0.7731 | -2.4739 | 0.2565 | -0.1001 | 0.5551 | -0.6551 | -1.5219 |
| 64 | 38.45 | 0.06 | 9.5203 | -14.2787 | 0.8823 | -2.4757 | 0.3157 | -0.0966 | 0.5513 | -0.6478 | -1.4998 |
| 65 | 38.67 | 0.06 | 9.6512 | -14.4145 | 0.8904 | -2.5849 | 0.2943 | -0.1072 | 0.5646 | -0.6717 | -1.4935 |
| 66 | 38.86 | 0.07 | 9.7070 | -14.6618 | 0.9987 | -2.3842 | 0.4112 | -0.1294 | 0.5428 | -0.6721 | -1.5104 |
| 67 | 39.10 | 0.07 | 9.8265 | -14.6998 | 1.0837 | -2.2857 | 0.4409 | -0.1424 | 0.5442 | -0.6866 | -1.4959 |
| 68 | 39.31 | 0.07 | 9.8470 | -14.4606 | 1.0969 | -2.2977 | 0.4561 | -0.1301 | 0.5509 | -0.6810 | -1.4685 |
| 69 | 39.50 | 0.07 | 9.9179 | -14.5122 | 0.9960 | -2.1896 | 0.4268 | -0.1397 | 0.5428 | -0.6825 | -1.4632 |
| 70 | 39.73 | 0.07 | 10.0431 | -14.8074 | 1.0609 | -2.1612 | 0.4270 | -0.1639 | 0.5338 | -0.6977 | -1.4744 |
| 71 | 39.93 | 0.07 | 10.0570 | -14.6878 | 0.9805 | -1.9439 | 0.4122 | -0.1662 | 0.5239 | -0.6901 | -1.4604 |
| 72 | 40.13 | 0.08 | 10.1735 | -14.8506 | 1.1616 | -1.8719 | 0.4272 | -0.1673 | 0.5291 | -0.6964 | -1.4597 |
| 73 | 40.33 | 0.08 | 10.2387 | -14.7575 | 1.1266 | -1.7130 | 0.4861 | -0.1588 | 0.5361 | -0.6949 | -1.4413 |
| 74 | 40.53 | 0.09 | 10.2893 | -14.5599 | 1.2828 | -1.7442 | 0.4940 | -0.1389 | 0.5399 | -0.6788 | -1.4151 |
| 75 | 40.74 | 0.11 | 10.3248 | -14.4341 | 1.4712 | -2.0109 | 0.4810 | -0.1311 | 0.5627 | -0.6938 | -1.3980 |
| 76 | 40.94 | 0.09 | 10.3551 | -14.3468 | 1.4078 | -2.0028 | 0.4896 | -0.1223 | 0.5589 | -0.6812 | -1.3855 |
| 77 | 41.14 | 0.10 | 10.4206 | -14.1789 | 1.5070 | -1.9550 | 0.5038 | -0.1116 | 0.5674 | -0.6790 | -1.3607 |
| 78 | 41.35 | 0.11 | 10.5198 | -14.3636 | 1.5526 | -1.9852 | 0.5040 | -0.1334 | 0.5664 | -0.6998 | -1.3654 |
| 79 | 41.54 | 0.11 | 10.6137 | -14.3733 | 1.6040 | -2.3669 | 0.4839 | -0.1302 | 0.5657 | -0.6959 | -1.3542 |
| 80 | 41.74 | 0.09 | 10.6104 | -14.3687 | 1.4349 | -1.6958 | 0.5049 | -0.1288 | 0.5718 | -0.7006 | -1.3542 |
| 81 | 41.94 | 0.11 | 10.8040 | -14.5174 | 1.7116 | -2.0314 | 0.4767 | -0.1204 | 0.5803 | -0.7007 | -1.3437 |
| 82 | 42.11 | 0.11 | 10.8137 | -14.5591 | 1.6999 | -2.3794 | 0.4625 | -0.1243 | 0.5889 | -0.7132 | -1.3464 |
| 83 | 42.31 | 0.11 | 10.8767 | -14.4237 | 1.6620 | -2.0481 | 0.4625 | -0.1151 | 0.5903 | -0.7054 | -1.3281 |
| 84 | 42.50 | 0.13 | 10.9816 | -14.4682 | 1.8755 | -2.3769 | 0.4634 | -0.1233 | 0.5946 | -0.7179 | -1.3175 |
| 85 | 42.67 | 0.12 | 10.9998 | -14.2233 | 1.7328 | -1.7537 | 0.4408 | -0.1093 | 0.6013 | -0.7106 | -1.2931 |
| 86 | 42.84 | 0.12 | 11.0430 | -14.2373 | 1.6948 | -1.6283 | 0.4482 | -0.1129 | 0.6003 | -0.7132 | -1.2893 |
| 87 | 43.03 | 0.12 | 11.0727 | -14.1111 | 1.8198 | -1.8596 | 0.4121 | -0.1207 | 0.5984 | -0.7191 | -1.2784 |
| 88 | 43.22 | 0.12 | 11.1911 | -14.3759 | 1.8171 | -1.7417 | 0.4055 | -0.1251 | 0.6020 | -0.7271 | -1.2846 |
| 89 | 43.39 | 0.14 | 11.2849 | -14.3400 | 1.8641 | -1.4304 | 0.4046 | -0.1347 | 0.6072 | -0.7419 | -1.2707 |
| 90 | 43.56 | 0.14 | 11.4317 | -14.4881 | 1.8448 | -1.5038 | 0.3906 | -0.1325 | 0.6096 | -0.7421 | -1.2674 |
| 91 | 43.76 | 0.15 | 11.4471 | -14.3707 | 1.9260 | -1.1176 | 0.3450 | -0.1350 | 0.6120 | -0.7470 | -1.2554 |
| 92 | 43.93 | 0.14 | 11.7036 | -14.9695 | 1.8235 | -0.6778 | 0.2848 | -0.1427 | 0.6143 | -0.7570 | -1.2790 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | 81#OF34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.11 | 0.14 | 11.6755 | -14.6292 | 1.8424 | -1.3154 | 0.3694 | -0.1444 | 0.6176 | -0.7620 | -1.2538 |
| 94 | 44.30 | 0.14 | 11.7143 | -14.7489 | 1.8294 | -1.2636 | 0.3619 | -0.1374 | 0.6242 | -0.7606 | -1.2591 |
| 95 | 44.48 | 0.15 | 11.7889 | -14.6756 | 1.8349 | -0.8305 | 0.2967 | -0.1410 | 0.6209 | -0.7619 | -1.2449 |
| 96 | 44.66 | 0.14 | 11.7716 | -14.6420 | 1.8330 | -1.5041 | 0.3632 | -0.1558 | 0.6180 | -0.7738 | -1.2438 |
| 97 | 44.83 | 0.14 | 11.8753 | -14.7781 | 1.7434 | -1.1038 | 0.3695 | -0.1409 | 0.6276 | -0.7685 | -1.2444 |
| 98 | 45.02 | 0.15 | 12.0194 | -14.9591 | 1.9126 | -1.4724 | 0.3341 | -0.1562 | 0.6256 | -0.7818 | -1.2448 |
| 99 | 45.21 | 0.14 | 12.1286 | -14.9165 | 1.8150 | -0.9187 | 0.3252 | -0.1599 | 0.6252 | -0.7851 | -1.2299 |
| 100 | 45.38 | 0.14 | 12.1980 | -15.0221 | 1.8118 | -0.9809 | 0.3035 | -0.1577 | 0.6291 | -0.7868 | -1.2315 |
| 101 | 45.55 | 0.14 | 12.2700 | -15.0945 | 1.8200 | -0.8164 | 0.2808 | -0.1745 | 0.6314 | -0.8059 | -1.2308 |
| 102 | 45.72 | 0.12 | 12.3461 | -15.0418 | 1.7825 | -0.9394 | 0.2893 | -0.1625 | 0.6348 | -0.7973 | -1.2183 |
| 103 | 45.90 | 0.13 | 12.5376 | -15.2993 | 1.8544 | -0.7554 | 0.2592 | -0.1891 | 0.6382 | -0.8273 | -1.2203 |
| 104 | 46.08 | 0.13 | 12.6034 | -15.3024 | 1.8557 | -0.6530 | 0.2587 | -0.1775 | 0.6378 | -0.8153 | -1.2141 |
| 105 | 46.24 | 0.12 | 12.6394 | -15.2646 | 1.6912 | -0.1322 | 0.2420 | -0.1782 | 0.6443 | -0.8225 | -1.2077 |
| 106 | 46.43 | 0.12 | 12.6528 | -15.2786 | 1.6618 | -0.0279 | 0.2120 | -0.1872 | 0.6396 | -0.8268 | -1.2075 |
| 107 | 46.60 | 0.10 | 12.6390 | -15.1205 | 1.6206 | -0.2260 | 0.2424 | -0.1736 | 0.6425 | -0.8161 | -1.1963 |
| 108 | 46.77 | 0.11 | 12.7863 | -15.1951 | 1.6862 | -0.1542 | 0.1838 | -0.1917 | 0.6396 | -0.8313 | -1.1884 |
| 109 | 46.93 | 0.11 | 12.8409 | -15.3465 | 1.5474 | 0.4879 | 0.1596 | -0.1858 | 0.6421 | -0.8279 | -1.1951 |
| 110 | 47.12 | 0.11 | 12.8675 | -15.3275 | 1.6213 | 0.1038 | 0.1694 | -0.1895 | 0.6406 | -0.8301 | -1.1912 |
| 111 | 47.28 | 0.10 | 12.9230 | -15.4050 | 1.4366 | 0.4480 | 0.1529 | -0.1870 | 0.6478 | -0.8348 | -1.1921 |
| 112 | 47.44 | 0.10 | 13.0261 | -15.4277 | 1.5208 | 0.5808 | 0.1013 | -0.1995 | 0.6539 | -0.8534 | -1.1884 |
| 113 | 47.61 | 0.09 | 12.9736 | -15.4000 | 1.3647 | 0.2551 | 0.1101 | -0.2098 | 0.6454 | -0.8552 | -1.1870 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | BIWOF36 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | C81 | XCPF1 | YCPF1 | CNF2 | CH2 | C82 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | 0.03 | 0.0236 | 0.0064 | 0.0119 | 0.3568 | 0.5055 | -0.7153 | -0.0433 | -0.2969 | 0.0605 | 0.4150 |
| 2 | -5.78 | 0.01 | 0.0188 | 0.0072 | 0.0099 | 0.3812 | 0.5237 | -0.7129 | -0.0420 | -0.2958 | 0.0589 | 0.4148 |
| 3 | -5.77 | 0.01 | 0.0146 | 0.0069 | 0.0079 | 0.4714 | 0.5416 | -0.7211 | -0.0436 | -0.2996 | 0.0604 | 0.4155 |
| 4 | -5.20 | 0.01 | 0.0161 | 0.0071 | 0.0086 | 0.4387 | 0.5343 | -0.6969 | -0.0499 | -0.2907 | 0.0716 | 0.4171 |
| 5 | -3.44 | 0.01 | 0.0159 | 0.0073 | 0.0073 | 0.4575 | 0.4585 | -0.6455 | -0.0565 | -0.2748 | 0.0875 | 0.4257 |
| 6 | -1.00 | 0.01 | 0.0124 | 0.0068 | 0.0052 | 0.5462 | 0.4192 | -0.5778 | -0.0559 | -0.2528 | 0.0966 | 0.4375 |
| 7 | -0.11 | 0.01 | 0.0157 | 0.0070 | 0.0061 | 0.4437 | 0.3898 | -0.4922 | -0.0553 | -0.2212 | 0.1124 | 0.4493 |
| 8 | 1.58 | 0.02 | 0.0126 | 0.0068 | 0.0043 | 0.5372 | 0.3381 | -0.3696 | -0.0487 | -0.1693 | 0.1316 | 0.4580 |
| 9 | 3.40 | 0.02 | 0.0175 | 0.0074 | 0.0060 | 0.4226 | 0.3445 | -0.2278 | -0.0368 | -0.1045 | 0.1529 | 0.4584 |
| 10 | 5.07 | 0.01 | 0.0142 | 0.0059 | 0.0049 | 0.4161 | 0.3423 | -0.1065 | -0.0190 | -0.0509 | 0.1787 | 0.4784 |
| 11 | 6.86 | 0.02 | 0.0178 | 0.0067 | 0.0072 | 0.3743 | 0.4026 | -0.0099 | 0.0008 | -0.0092 | -0.0842 | 0.9347 |
| 12 | 8.60 | 0.02 | 0.0152 | 0.0056 | 0.0060 | 0.3699 | 0.3964 | 0.0717 | 0.0239 | 0.0243 | 0.3333 | 0.3384 |
| 13 | 10.34 | 0.02 | 0.0206 | 0.0063 | 0.0079 | 0.3081 | 0.3830 | 0.1762 | 0.0424 | 0.0691 | 0.2407 | 0.3920 |
| 14 | 12.15 | 0.02 | 0.0260 | 0.0068 | 0.0101 | 0.2600 | 0.3871 | 0.2988 | 0.0614 | 0.1247 | 0.2056 | 0.4173 |
| 15 | 13.96 | 0.02 | 0.0239 | 0.0054 | 0.0095 | 0.2261 | 0.3991 | 0.4243 | 0.0701 | 0.1815 | 0.1652 | 0.4278 |
| 16 | 15.84 | 0.02 | 0.0281 | 0.0054 | 0.0116 | 0.1926 | 0.4139 | 0.5428 | 0.0695 | 0.2350 | 0.1285 | 0.4328 |
| 17 | 17.74 | 0.02 | 0.0294 | 0.0058 | 0.0110 | 0.1979 | 0.3737 | 0.6355 | 0.0658 | 0.2727 | 0.1036 | 0.4292 |
| 18 | 19.58 | 0.02 | 0.0419 | 0.0072 | 0.0175 | 0.1712 | 0.4184 | 0.6714 | 0.0505 | 0.2838 | 0.0753 | 0.4228 |
| 19 | 21.45 | 0.01 | 0.1205 | 0.0187 | 0.0591 | 0.1553 | 0.4957 | 0.6917 | 0.0434 | 0.2914 | 0.0627 | 0.4213 |
| 20 | 23.31 | 0.01 | 0.1188 | 0.0141 | 0.0624 | 0.1190 | 0.5255 | 0.6379 | 0.0300 | 0.2641 | 0.0471 | 0.4141 |
| 21 | 25.12 | 0.01 | 0.1325 | 0.0116 | 0.0757 | 0.0879 | 0.5717 | 0.6572 | 0.0282 | 0.2737 | 0.0429 | 0.4164 |
| 22 | 27.00 | 0.04 | 0.0854 | 0.0168 | 0.0272 | 0.1973 | 0.3184 | 0.6945 | 0.0279 | 0.2880 | 0.0401 | 0.4146 |
| 23 | 36.34 | 2.77 | 0.1024 | 0.0234 | 0.0272 | 0.2284 | 0.2654 | 0.6946 | 0.0283 | 0.2867 | 0.0407 | 0.4128 |
| 24 | 28.21 | 0.05 | 0.0982 | 0.0241 | 0.0228 | 0.2458 | 0.2325 | 0.6953 | 0.0283 | 0.2866 | 0.0407 | 0.4122 |
| 25 | 28.56 | 0.05 | 0.1023 | 0.0264 | 0.0231 | 0.2581 | 0.2261 | 0.6935 | 0.0285 | 0.2852 | 0.0411 | 0.4112 |
| 26 | 28.89 | 0.05 | 0.1264 | 0.0305 | 0.0338 | 0.2410 | 0.2675 | 0.6987 | 0.0285 | 0.2871 | 0.0408 | 0.4110 |
| 27 | 29.16 | 0.06 | 0.1368 | 0.0285 | 0.0471 | 0.2082 | 0.3442 | 0.7045 | 0.0283 | 0.2893 | 0.0401 | 0.4107 |
| 28 | 29.46 | 0.06 | 0.1463 | 0.0318 | 0.0488 | 0.2175 | 0.3333 | 0.7117 | 0.0278 | 0.2925 | 0.0390 | 0.4110 |
| 29 | 29.75 | 0.06 | 0.1556 | 0.0313 | 0.0545 | 0.2011 | 0.3499 | 0.7246 | 0.0276 | 0.2982 | 0.0380 | 0.4116 |
| 30 | 30.03 | 0.07 | 0.1685 | 0.0324 | 0.0656 | 0.1925 | 0.3890 | 0.7208 | 0.0280 | 0.2956 | 0.0388 | 0.4099 |
| 31 | 30.29 | 0.06 | 0.1891 | 0.0344 | 0.0802 | 0.1820 | 0.4240 | 0.7236 | 0.0277 | 0.2963 | 0.0382 | 0.4095 |
| 32 | 30.55 | 0.06 | 0.2178 | 0.0383 | 0.0916 | 0.1757 | 0.4205 | 0.7346 | 0.0272 | 0.3010 | 0.0371 | 0.4098 |
| 33 | 30.83 | 0.06 | 0.2167 | 0.0357 | 0.1027 | 0.1646 | 0.4740 | 0.7402 | 0.0273 | 0.3044 | 0.0369 | 0.4112 |
| 34 | 31.09 | 0.05 | 0.2375 | 0.0385 | 0.1166 | 0.1620 | 0.4910 | 0.7323 | 0.0274 | 0.2999 | 0.0375 | 0.4095 |
| 35 | 31.37 | 0.07 | 0.2404 | 0.0393 | 0.1165 | 0.1635 | 0.4846 | 0.7504 | 0.0270 | 0.3081 | 0.0360 | 0.4106 |
| 36 | 31.64 | 0.06 | 0.2288 | 0.0362 | 0.1114 | 0.1581 | 0.4865 | 0.7613 | 0.0266 | 0.3133 | 0.0350 | 0.4115 |
| 37 | 31.91 | 0.06 | 0.2480 | 0.0412 | 0.1148 | 0.1660 | 0.4631 | 0.7626 | 0.0264 | 0.3132 | 0.0346 | 0.4107 |
| 38 | 32.17 | 0.07 | 0.2710 | 0.0470 | 0.1260 | 0.1734 | 0.4652 | 0.7567 | 0.0265 | 0.3089 | 0.0350 | 0.4082 |
| 39 | 32.43 | 0.04 | 0.1596 | 0.0228 | 0.0678 | 0.1427 | 0.4251 | 0.8090 | 0.0242 | 0.3319 | 0.0299 | 0.4102 |
| 40 | 32.69 | 0.05 | 0.2227 | 0.0343 | 0.1018 | 0.1561 | 0.4569 | 0.8071 | 0.0244 | 0.3299 | 0.0303 | 0.4087 |
| 41 | 32.95 | 0.03 | 0.1003 | 0.0133 | 0.0402 | 0.1326 | 0.4012 | 0.8275 | 0.0237 | 0.3383 | 0.0286 | 0.4088 |
| 42 | 33.20 | 0.04 | 0.1256 | 0.0178 | 0.0552 | 0.1416 | 0.4394 | 0.8361 | 0.0237 | 0.3416 | 0.0284 | 0.4086 |
| 43 | 33.45 | 0.03 | 0.0920 | 0.0098 | 0.0315 | 0.1062 | 0.3427 | 0.8527 | 0.0228 | 0.3498 | 0.0267 | 0.4102 |
| 44 | 33.70 | 0.02 | 0.0827 | 0.0076 | 0.0228 | 0.0918 | 0.2761 | 0.8684 | 0.0214 | 0.3551 | 0.0247 | 0.4089 |
| 45 | 33.94 | 0.03 | 0.1653 | 0.0206 | 0.0714 | 0.1245 | 0.4317 | 0.8567 | 0.0225 | 0.3503 | 0.0262 | 0.4089 |
| 46 | 34.20 | 0.04 | 0.1495 | 0.0181 | 0.0520 | 0.1218 | 0.3500 | 0.8806 | 0.0213 | 0.3614 | 0.0242 | 0.4104 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.44 | 0.04 | 0.1332 | 0.0172 | 0.0518 | 0.1288 | 0.3887 | 0.8847 | 0.0205 | 0.3634 | 0.0232 | 0.4107 |
| 48 | 34.68 | 0.04 | 0.1479 | 0.0184 | 0.0590 | 0.1245 | 0.3992 | 0.8808 | 0.0206 | 0.3624 | 0.0234 | 0.4114 |
| 49 | 34.94 | 0.06 | 0.2192 | 0.0333 | 0.0949 | 0.1518 | 0.4331 | 0.8643 | 0.0210 | 0.3550 | 0.0243 | 0.4107 |
| 50 | 35.17 | 0.05 | 0.1857 | 0.0251 | 0.0659 | 0.1349 | 0.3547 | 0.8867 | 0.0201 | 0.3643 | 0.0226 | 0.4100 |
| 51 | 35.40 | 0.05 | 0.1489 | 0.0205 | 0.0410 | 0.1376 | 0.2752 | 0.9104 | 0.0190 | 0.3740 | 0.0209 | 0.4108 |
| 52 | 35.65 | 0.04 | 0.1490 | 0.0204 | 0.0362 | 0.1368 | 0.2430 | 0.9053 | 0.0194 | 0.3717 | 0.0215 | 0.4106 |
| 53 | 35.89 | 0.03 | 0.0692 | 0.0151 | -0.0108 | 0.2177 | -0.1558 | 0.9010 | 0.0194 | 0.3698 | 0.0216 | 0.4104 |
| 54 | 36.12 | 0.02 | 0.0213 | 0.0120 | -0.0393 | 0.5610 | -1.8446 | 0.8949 | 0.0192 | 0.3656 | 0.0215 | 0.4085 |
| 55 | 36.36 | 0.04 | 0.0486 | 0.0165 | -0.0207 | 0.3405 | -0.4273 | 0.8948 | 0.0195 | 0.3658 | 0.0218 | 0.4088 |
| 56 | 36.60 | 0.04 | 0.0296 | 0.0187 | -0.0329 | 0.6316 | -1.1097 | 0.8966 | 0.0195 | 0.3624 | 0.0220 | 0.4087 |
| 57 | 36.82 | 0.04 | 0.0898 | 0.0197 | 0.0015 | 0.2188 | 0.0162 | 0.9172 | 0.0177 | 0.3767 | 0.0193 | 0.4107 |
| 58 | 37.06 | 0.03 | 0.1161 | 0.0233 | 0.0194 | 0.2005 | 0.1670 | 0.9015 | 0.0181 | 0.3683 | 0.0201 | 0.4085 |
| 59 | 37.29 | 0.04 | 0.0961 | 0.0225 | 0.0060 | 0.2338 | 0.0626 | 0.9114 | 0.0183 | 0.3733 | 0.0201 | 0.4096 |
| 60 | 37.51 | 0.04 | 0.1022 | 0.0217 | 0.0096 | 0.2126 | 0.0944 | 0.9256 | 0.0171 | 0.3799 | 0.0184 | 0.4104 |
| 61 | 37.75 | 0.05 | 0.1620 | 0.0276 | 0.0460 | 0.1791 | 0.2837 | 0.9358 | 0.0163 | 0.3850 | 0.0174 | 0.4114 |
| 62 | 37.98 | 0.04 | 0.1886 | 0.0334 | 0.0600 | 0.1770 | 0.3179 | 0.9435 | 0.0159 | 0.3882 | 0.0169 | 0.4114 |
| 63 | 38.21 | 0.05 | 0.1922 | 0.0333 | 0.0638 | 0.1731 | 0.3319 | 0.9443 | 0.0155 | 0.3869 | 0.0164 | 0.4098 |
| 64 | 38.45 | 0.06 | 0.2281 | 0.0381 | 0.0833 | 0.1668 | 0.3652 | 0.9397 | 0.0157 | 0.3858 | 0.0167 | 0.4105 |
| 65 | 38.67 | 0.06 | 0.2239 | 0.0390 | 0.0812 | 0.1742 | 0.3629 | 0.9487 | 0.0150 | 0.3901 | 0.0159 | 0.4112 |
| 66 | 38.86 | 0.07 | 0.2777 | 0.0457 | 0.1167 | 0.1647 | 0.4202 | 0.9518 | 0.0149 | 0.3919 | 0.0156 | 0.4118 |
| 67 | 39.10 | 0.07 | 0.2702 | 0.0471 | 0.1156 | 0.1743 | 0.4277 | 0.9473 | 0.0150 | 0.3903 | 0.0158 | 0.4120 |
| 68 | 39.31 | 0.07 | 0.2705 | 0.0456 | 0.1169 | 0.1687 | 0.4321 | 0.9525 | 0.0149 | 0.3916 | 0.0156 | 0.4111 |
| 69 | 39.50 | 0.07 | 0.2689 | 0.0431 | 0.1171 | 0.1605 | 0.4356 | 0.9665 | 0.0135 | 0.3955 | 0.0140 | 0.4122 |
| 70 | 39.73 | 0.07 | 0.2506 | 0.0426 | 0.1123 | 0.1701 | 0.4484 | 0.9614 | 0.0140 | 0.3954 | 0.0146 | 0.4113 |
| 71 | 39.93 | 0.07 | 0.2744 | 0.0433 | 0.1251 | 0.1576 | 0.4560 | 0.9653 | 0.0134 | 0.3956 | 0.0139 | 0.4129 |
| 72 | 40.13 | 0.08 | 0.2703 | 0.0416 | 0.1274 | 0.1538 | 0.4712 | 0.9692 | 0.0127 | 0.3999 | 0.0131 | 0.4126 |
| 73 | 40.33 | 0.08 | 0.2789 | 0.0361 | 0.1416 | 0.1294 | 0.5078 | 0.9514 | 0.0140 | 0.3911 | 0.0148 | 0.4111 |
| 74 | 40.53 | 0.09 | 0.3056 | 0.0328 | 0.1582 | 0.1072 | 0.5177 | 0.9546 | 0.0130 | 0.3930 | 0.0136 | 0.4117 |
| 75 | 40.74 | 0.11 | 0.3198 | 0.0316 | 0.1638 | 0.0958 | 0.5122 | 0.9540 | 0.0131 | 0.3923 | 0.0137 | 0.4113 |
| 76 | 40.94 | 0.09 | 0.3622 | 0.0290 | 0.1840 | 0.0801 | 0.5050 | 0.9629 | 0.0127 | 0.3958 | 0.0132 | 0.4110 |
| 77 | 41.14 | 0.10 | 0.3437 | 0.0307 | 0.1749 | 0.0892 | 0.5088 | 0.9695 | 0.0121 | 0.3980 | 0.0124 | 0.4106 |
| 78 | 41.35 | 0.11 | 0.3218 | 0.0318 | 0.1692 | 0.0989 | 0.5258 | 0.9534 | 0.0131 | 0.3903 | 0.0137 | 0.4099 |
| 79 | 41.54 | 0.11 | 0.3439 | 0.0293 | 0.1773 | 0.0852 | 0.5155 | 0.9807 | 0.0119 | 0.4041 | 0.0121 | 0.4120 |
| 80 | 41.74 | 0.09 | 0.3458 | 0.0278 | 0.1774 | 0.0803 | 0.5130 | 0.9695 | 0.0115 | 0.3972 | 0.0119 | 0.4097 |
| 81 | 41.94 | 0.11 | 0.3565 | 0.0258 | 0.1869 | 0.0723 | 0.5243 | 0.9810 | 0.0107 | 0.4028 | 0.0109 | 0.4106 |
| 82 | 42.11 | 0.11 | 0.3524 | 0.0278 | 0.1797 | 0.0788 | 0.5099 | 0.9951 | 0.0098 | 0.4092 | 0.0098 | 0.4112 |
| 83 | 42.31 | 0.11 | 0.3706 | 0.0236 | 0.1912 | 0.0637 | 0.5159 | 0.9824 | 0.0106 | 0.4021 | 0.0108 | 0.4093 |
| 84 | 42.50 | 0.13 | 0.3817 | 0.0263 | 0.1935 | 0.0699 | 0.5069 | 0.9849 | 0.0104 | 0.4036 | 0.0106 | 0.4098 |
| 85 | 42.67 | 0.12 | 0.3554 | 0.0231 | 0.1814 | 0.0650 | 0.5105 | 0.9786 | 0.0100 | 0.4013 | 0.0102 | 0.4100 |
| 86 | 42.84 | 0.12 | 0.3620 | 0.0248 | 0.1829 | 0.0686 | 0.5052 | 0.9824 | 0.0105 | 0.4026 | 0.0107 | 0.4098 |
| 87 | 43.03 | 0.12 | 0.3408 | 0.0216 | 0.1724 | 0.0635 | 0.5062 | 0.9712 | 0.0101 | 0.3959 | 0.0104 | 0.4076 |
| 88 | 43.22 | 0.12 | 0.3416 | 0.0232 | 0.1715 | 0.0679 | 0.5021 | 0.9858 | 0.0097 | 0.4029 | 0.0098 | 0.4087 |
| 89 | 43.39 | 0.14 | 0.3201 | 0.0215 | 0.1626 | 0.0672 | 0.5078 | 0.9767 | 0.0104 | 0.3993 | 0.0106 | 0.4088 |
| 90 | 43.56 | 0.14 | 0.3150 | 0.0211 | 0.1594 | 0.0670 | 0.5061 | 0.9776 | 0.0098 | 0.3989 | 0.0100 | 0.4080 |
| 91 | 43.76 | 0.15 | 0.2884 | 0.0198 | 0.1477 | 0.0685 | 0.5122 | 0.9647 | 0.0105 | 0.3936 | 0.0109 | 0.4080 |
| 92 | 43.93 | 0.14 | 0.2818 | 0.0185 | 0.1398 | 0.0657 | 0.4963 | 0.9962 | 0.0087 | 0.4073 | 0.0088 | 0.4088 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.11 | 0.14 | 0.3147 | 0.0237 | 0.1601 | 0.0753 | 0.5086 | 0.9854 | 0.0094 | 0.4025 | 0.0095 | 0.4085 |
| 94 | 44.30 | 0.14 | 0.2945 | 0.0216 | 0.1495 | 0.0734 | 0.5077 | 0.9855 | 0.0094 | 0.4018 | 0.0095 | 0.4077 |
| 95 | 44.48 | 0.15 | 0.2566 | 0.0183 | 0.1332 | 0.0713 | 0.5191 | 0.9829 | 0.0090 | 0.4015 | 0.0092 | 0.4085 |
| 96 | 44.66 | 0.14 | 0.3006 | 0.0232 | 0.1508 | 0.0771 | 0.5018 | 0.9907 | 0.0086 | 0.4037 | 0.0087 | 0.4076 |
| 97 | 44.83 | 0.14 | 0.2797 | 0.0219 | 0.1462 | 0.0794 | 0.5226 | 0.9933 | 0.0084 | 0.4052 | 0.0085 | 0.4079 |
| 98 | 45.02 | 0.15 | 0.2994 | 0.0217 | 0.1469 | 0.0726 | 0.4905 | 1.0176 | 0.0071 | 0.4170 | 0.0069 | 0.4098 |
| 99 | 45.21 | 0.14 | 0.2531 | 0.0213 | 0.1296 | 0.0842 | 0.5120 | 0.9918 | 0.0090 | 0.4054 | 0.0091 | 0.4088 |
| 100 | 45.38 | 0.14 | 0.2722 | 0.0221 | 0.1363 | 0.0814 | 0.5008 | 1.0086 | 0.0073 | 0.4123 | 0.0072 | 0.4087 |
| 101 | 45.55 | 0.14 | 0.2587 | 0.0201 | 0.1293 | 0.0776 | 0.4997 | 1.0137 | 0.0071 | 0.4152 | 0.0070 | 0.4095 |
| 102 | 45.72 | 0.12 | 0.2448 | 0.0188 | 0.1234 | 0.0769 | 0.5044 | 1.0150 | 0.0072 | 0.4158 | 0.0071 | 0.4096 |
| 103 | 45.90 | 0.13 | 0.2172 | 0.0183 | 0.1103 | 0.0843 | 0.5077 | 1.0198 | 0.0075 | 0.4171 | 0.0073 | 0.4094 |
| 104 | 46.08 | 0.13 | 0.2212 | 0.0169 | 0.1100 | 0.0766 | 0.4972 | 1.0183 | 0.0070 | 0.4160 | 0.0068 | 0.4085 |
| 105 | 46.24 | 0.12 | 0.1742 | 0.0145 | 0.0926 | 0.0830 | 0.5319 | 1.0068 | 0.0074 | 0.4115 | 0.0073 | 0.4088 |
| 106 | 46.43 | 0.12 | 0.1888 | 0.0148 | 0.0967 | 0.0782 | 0.5120 | 1.0180 | 0.0064 | 0.4173 | 0.0063 | 0.4100 |
| 107 | 46.60 | 0.10 | 0.1957 | 0.0147 | 0.1000 | 0.0749 | 0.5111 | 1.0150 | 0.0060 | 0.4154 | 0.0059 | 0.4092 |
| 108 | 46.77 | 0.11 | 0.1985 | 0.0139 | 0.0965 | 0.0702 | 0.4861 | 1.0323 | 0.0053 | 0.4228 | 0.0051 | 0.4096 |
| 109 | 46.93 | 0.11 | 0.1522 | 0.0098 | 0.0774 | 0.0642 | 0.5084 | 1.0316 | 0.0054 | 0.4225 | 0.0052 | 0.4096 |
| 110 | 47.12 | 0.11 | 0.1544 | 0.0099 | 0.0800 | 0.0640 | 0.5180 | 1.0297 | 0.0053 | 0.4220 | 0.0051 | 0.4098 |
| 111 | 47.28 | 0.10 | 0.1255 | 0.0073 | 0.0688 | 0.0580 | 0.5480 | 1.0234 | 0.0051 | 0.4183 | 0.0050 | 0.4087 |
| 112 | 47.44 | 0.10 | 0.1392 | 0.0064 | 0.0713 | 0.0463 | 0.5119 | 1.0425 | 0.0043 | 0.4271 | 0.0041 | 0.4097 |
| 113 | 47.61 | 0.09 | 0.1399 | 0.0038 | 0.0717 | 0.0275 | 0.5122 | 1.0541 | 0.0033 | 0.4331 | 0.0032 | 0.4109 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -10 | 0 | -10 | JNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.77 | 0.03 | 0.0072 | 9.9999 | 0.0067 | 9.9999 | 0.9399 | -0.7439 | -0.0433 | -0.3030 | 0.0581 | 0.4073 |
| 2 | -5.78 | 0.01 | 0.0095 | 9.9999 | 0.0082 | 9.9999 | 0.8662 | -0.7447 | -0.0433 | -0.3035 | 0.0581 | 0.4076 |
| 3 | -5.77 | 0.01 | 0.0036 | 9.9999 | 0.0062 | 9.9999 | 1.7104 | -0.7457 | -0.0439 | -0.3037 | 0.0588 | 0.4073 |
| 4 | -5.20 | 0.01 | 0.0048 | 9.9999 | 0.0068 | 9.9999 | 1.4315 | -0.7238 | -0.0499 | -0.2975 | 0.0690 | 0.4111 |
| 5 | -3.44 | 0.01 | 0.0018 | 9.9999 | 0.0062 | 9.9999 | 3.5214 | -0.6788 | -0.0553 | -0.2836 | 0.0815 | 0.4178 |
| 6 | -1.80 | 0.01 | -0.0029 | 9.9999 | 0.0046 | 9.9999 | -1.5679 | -0.6103 | -0.0572 | -0.2611 | 0.0937 | 0.4278 |
| 7 | -0.11 | 0.01 | 0.0011 | 9.9999 | 0.0061 | 9.9999 | 5.3514 | -0.5251 | -0.0570 | -0.2301 | 0.1085 | 0.4382 |
| 8 | 1.58 | 0.02 | 0.0011 | 9.9999 | 0.0065 | 9.9999 | 5.7142 | -0.4049 | -0.0505 | -0.1807 | 0.1248 | 0.4463 |
| 9 | 3.40 | 0.02 | 0.0028 | 9.9999 | 0.0073 | 9.9999 | 2.5867 | -0.2669 | -0.0380 | -0.1165 | 0.1422 | 0.4365 |
| 10 | 5.07 | 0.01 | 0.0022 | 9.9999 | 0.0079 | 9.9999 | 3.6108 | -0.1395 | -0.0216 | -0.0596 | 0.1550 | 0.4275 |
| 11 | 6.86 | 0.02 | -0.0014 | 9.9999 | 0.0071 | 9.9999 | -5.2189 | -0.0366 | -0.0048 | -0.0142 | 0.1307 | 0.3883 |
| 12 | 8.60 | 0.02 | -0.0016 | 9.9999 | 0.0064 | 9.9999 | -4.7584 | 0.0448 | 0.0195 | 0.0159 | 0.4362 | 0.4213 |
| 13 | 10.34 | 0.02 | 0.0052 | 9.9999 | 0.0078 | 9.9999 | 1.4966 | 0.1485 | 0.0409 | 0.0614 | 0.2752 | 0.4136 |
| 14 | 12.15 | 0.02 | 0.0047 | 9.9999 | 0.0074 | 9.9999 | 1.5742 | 0.2636 | 0.0593 | 0.1117 | 0.2249 | 0.4239 |
| 15 | 13.96 | 0.02 | 0.0006 | 9.9999 | 0.0054 | 9.9999 | 8.6469 | 0.3855 | 0.0697 | 0.1682 | 0.1807 | 0.4362 |
| 16 | 15.84 | 0.02 | 0.0042 | 9.9999 | 0.0061 | 9.9999 | 1.4716 | 0.5116 | 0.0704 | 0.2264 | 0.1376 | 0.4425 |
| 17 | 17.74 | 0.02 | 0.0031 | 9.9999 | 0.0049 | 9.9999 | 1.5631 | 0.6000 | 0.0639 | 0.2637 | 0.1066 | 0.4395 |
| 18 | 19.58 | 0.02 | 0.0098 | 9.9999 | 0.0055 | 9.9999 | 0.5625 | 0.6474 | 0.0493 | 0.2799 | 0.0761 | 0.4323 |
| 19 | 21.45 | 0.01 | 0.0044 | 9.9999 | 0.0044 | 9.9999 | 0.9977 | 0.6052 | 0.0332 | 0.2543 | 0.0548 | 0.4235 |
| 20 | 23.31 | 0.01 | 0.0009 | 9.9999 | 0.0024 | 9.9999 | 2.5497 | 0.6115 | 0.0311 | 0.2616 | 0.0508 | 0.4279 |
| 21 | 25.12 | 0.01 | -0.0073 | 9.9999 | -0.0006 | 9.9999 | 0.0855 | 0.6478 | 0.0302 | 0.2793 | 0.0465 | 0.4311 |
| 22 | 27.00 | 0.04 | 0.0003 | 9.9999 | 0.0027 | 9.9999 | 8.6469 | 0.6996 | 0.0280 | 0.3048 | 0.0400 | 0.4356 |
| 23 | 36.34 | 2.77 | 0.0023 | 9.9999 | 0.0018 | 9.9999 | 0.7710 | 0.7010 | 0.0282 | 0.3058 | 0.0402 | 0.4363 |
| 24 | 28.21 | 0.05 | 0.0093 | 9.9999 | 0.0046 | 9.9999 | 0.4933 | 0.7160 | 0.0274 | 0.3125 | 0.0383 | 0.4364 |
| 25 | 28.56 | 0.05 | 0.0058 | 9.9999 | 0.0030 | 9.9999 | 0.5167 | 0.7158 | 0.0278 | 0.3128 | 0.0388 | 0.4370 |
| 26 | 28.89 | 0.05 | 0.0099 | 9.9999 | 0.0057 | 9.9999 | 0.5776 | 0.7238 | 0.0273 | 0.3169 | 0.0378 | 0.4379 |
| 27 | 29.16 | 0.06 | 0.0082 | 9.9999 | 0.0034 | 9.9999 | 0.4168 | 0.7323 | 0.0268 | 0.3197 | 0.0366 | 0.4368 |
| 28 | 29.46 | 0.06 | 0.0035 | 9.9999 | 0.0010 | 9.9999 | 0.2934 | 0.7409 | 0.0265 | 0.3242 | 0.0358 | 0.4375 |
| 29 | 29.75 | 0.06 | 0.0047 | 9.9999 | 0.0019 | 9.9999 | 0.3991 | 0.7424 | 0.0264 | 0.3254 | 0.0356 | 0.4384 |
| 30 | 30.03 | 0.07 | 0.0064 | 9.9999 | 0.0027 | 9.9999 | 0.4184 | 0.7507 | 0.0265 | 0.3286 | 0.0353 | 0.4378 |
| 31 | 30.29 | 0.06 | -0.0052 | 9.9999 | -0.0031 | 9.9999 | 0.5986 | 0.7593 | 0.0261 | 0.3324 | 0.0344 | 0.4377 |
| 32 | 30.55 | 0.06 | 0.0095 | 9.9999 | 0.0040 | 9.9999 | 0.4276 | 0.7478 | 0.0268 | 0.3271 | 0.0359 | 0.4374 |
| 33 | 30.83 | 0.06 | 0.0042 | 9.9999 | 0.0013 | 9.9999 | 0.3243 | 0.7749 | 0.0256 | 0.3391 | 0.0330 | 0.4378 |
| 34 | 31.09 | 0.05 | 0.0083 | 9.9999 | 0.0030 | 9.9999 | 0.3617 | 0.7635 | 0.0257 | 0.3340 | 0.0336 | 0.4375 |
| 35 | 31.37 | 0.07 | 0.0094 | 9.9999 | 0.0046 | 9.9999 | 0.4878 | 0.7820 | 0.0251 | 0.3421 | 0.0320 | 0.4375 |
| 36 | 31.64 | 0.06 | 0.0153 | 9.9999 | 0.0061 | 9.9999 | 0.4004 | 0.7819 | 0.0251 | 0.3425 | 0.0320 | 0.4381 |
| 37 | 31.91 | 0.06 | 0.0100 | 9.9999 | 0.0040 | 9.9999 | 0.4053 | 0.7812 | 0.0253 | 0.3429 | 0.0323 | 0.4389 |
| 38 | 32.17 | 0.07 | 0.0101 | 9.9999 | 0.0036 | 9.9999 | 0.3600 | 0.7898 | 0.0243 | 0.3472 | 0.0308 | 0.4396 |
| 39 | 32.43 | 0.04 | 0.0123 | 9.9999 | 0.0056 | 9.9999 | 0.4566 | 0.7764 | 0.0246 | 0.3401 | 0.0317 | 0.4380 |
| 40 | 32.69 | 0.05 | 0.0077 | 9.9999 | 0.0028 | 9.9999 | 0.3640 | 0.7917 | 0.0245 | 0.3478 | 0.0310 | 0.4394 |
| 41 | 32.95 | 0.03 | -0.0116 | 9.9999 | -0.0055 | 9.9999 | 0.4721 | 0.7776 | 0.0247 | 0.3414 | 0.0318 | 0.4390 |
| 42 | 33.20 | 0.04 | -0.0023 | 9.9999 | -0.0018 | 9.9999 | 0.7710 | 0.7965 | 0.0238 | 0.3499 | 0.0299 | 0.4393 |
| 43 | 33.45 | 0.03 | 0.0042 | 9.9999 | 0.0011 | 9.9999 | 0.2744 | 0.7900 | 0.0242 | 0.3466 | 0.0307 | 0.4387 |
| 44 | 33.70 | 0.02 | 0.0216 | 9.9999 | 0.0092 | 9.9999 | 0.4269 | 0.8070 | 0.0235 | 0.3545 | 0.0291 | 0.4392 |
| 45 | 33.94 | 0.03 | 0.0246 | 9.9999 | 0.0100 | 9.9999 | 0.4041 | 0.8103 | 0.0239 | 0.3562 | 0.0295 | 0.4396 |
| 46 | 34.20 | 0.04 | 0.0269 | 9.9999 | 0.0106 | 9.9999 | 0.3929 | 0.8139 | 0.0230 | 0.3570 | 0.0282 | 0.4386 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.44 | 0.04 | 0.0321 | 9.9999 | 0.0127 | 9.9999 | 0.3939 | 0.8279 | 0.0224 | 0.3648 | 0.0270 | 0.4407 |
| 48 | 34.68 | 0.04 | 0.0228 | 9.9999 | 0.0093 | 9.9999 | 0.4100 | 0.8153 | 0.0229 | 0.3589 | 0.0281 | 0.4403 |
| 49 | 34.94 | 0.06 | 0.0272 | 9.9999 | 0.0117 | 9.9999 | 0.4303 | 0.8356 | 0.0215 | 0.3697 | 0.0258 | 0.4424 |
| 50 | 35.17 | 0.05 | 0.0300 | 9.9999 | 0.0139 | 9.9999 | 0.4626 | 0.8375 | 0.0217 | 0.3687 | 0.0259 | 0.4402 |
| 51 | 35.40 | 0.05 | 0.0168 | 9.9999 | 0.0075 | 9.9999 | 0.4434 | 0.8330 | 0.0223 | 0.3663 | 0.0267 | 0.4397 |
| 52 | 35.65 | 0.04 | 0.0179 | 9.9999 | 0.0091 | 9.9999 | 0.5105 | 0.8296 | 0.0224 | 0.3658 | 0.0269 | 0.4409 |
| 53 | 35.89 | 0.03 | 0.0247 | 9.9999 | 0.0123 | 9.9999 | 0.4989 | 0.8153 | 0.0218 | 0.3586 | 0.0268 | 0.4399 |
| 54 | 36.12 | 0.02 | 0.0162 | 9.9999 | 0.0073 | 9.9999 | 0.4477 | 0.8294 | 0.0210 | 0.3645 | 0.0253 | 0.4395 |
| 55 | 36.36 | 0.04 | 0.0219 | 9.9999 | 0.0101 | 9.9999 | 0.4587 | 0.8289 | 0.0208 | 0.3647 | 0.0251 | 0.4408 |
| 56 | 36.60 | 0.04 | 0.0265 | 9.9999 | 0.0124 | 9.9999 | 0.4695 | 0.8315 | 0.0211 | 0.3668 | 0.0254 | 0.4412 |
| 57 | 36.82 | 0.04 | 0.0283 | 9.9999 | 0.0131 | 9.9999 | 0.4622 | 0.8461 | 0.0206 | 0.3727 | 0.0243 | 0.4405 |
| 58 | 37.06 | 0.03 | 0.0218 | 9.9999 | 0.0107 | 9.9999 | 0.4894 | 0.8524 | 0.0205 | 0.3756 | 0.0240 | 0.4407 |
| 59 | 37.29 | 0.04 | 0.0225 | 9.9999 | 0.0114 | 9.9999 | 0.5081 | 0.8520 | 0.0200 | 0.3751 | 0.0234 | 0.4403 |
| 60 | 37.51 | 0.04 | 0.0203 | 9.9999 | 0.0087 | 9.9999 | 0.4298 | 0.8641 | 0.0192 | 0.3807 | 0.0223 | 0.4406 |
| 61 | 37.75 | 0.05 | 0.0306 | 9.9999 | 0.0141 | 9.9999 | 0.4615 | 0.8802 | 0.0186 | 0.3888 | 0.0211 | 0.4417 |
| 62 | 37.98 | 0.04 | 0.0179 | 9.9999 | 0.0087 | 9.9999 | 0.4873 | 0.8843 | 0.0186 | 0.3903 | 0.0210 | 0.4413 |
| 63 | 38.21 | 0.05 | 0.0283 | 9.9999 | 0.0130 | 9.9999 | 0.4585 | 0.8999 | 0.0178 | 0.3968 | 0.0198 | 0.4409 |
| 64 | 38.45 | 0.06 | 0.0306 | 9.9999 | 0.0143 | 9.9999 | 0.4683 | 0.8926 | 0.0185 | 0.3933 | 0.0207 | 0.4406 |
| 65 | 38.67 | 0.06 | 0.0318 | 9.9999 | 0.0145 | 9.9999 | 0.4565 | 0.8983 | 0.0181 | 0.3964 | 0.0201 | 0.4412 |
| 66 | 38.86 | 0.07 | 0.0330 | 9.9999 | 0.0150 | 9.9999 | 0.4564 | 0.9166 | 0.0174 | 0.4053 | 0.0189 | 0.4422 |
| 67 | 39.10 | 0.07 | 0.0271 | 9.9999 | 0.0122 | 9.9999 | 0.4511 | 0.9300 | 0.0166 | 0.4110 | 0.0179 | 0.4419 |
| 68 | 39.31 | 0.07 | 0.0300 | 9.9999 | 0.0133 | 9.9999 | 0.4419 | 0.9294 | 0.0165 | 0.4092 | 0.0178 | 0.4403 |
| 69 | 39.50 | 0.07 | 0.0318 | 9.9999 | 0.0142 | 9.9999 | 0.4467 | 0.9381 | 0.0159 | 0.4137 | 0.0170 | 0.4410 |
| 70 | 39.73 | 0.07 | 0.0324 | 9.9999 | 0.0143 | 9.9999 | 0.4413 | 0.9591 | 0.0150 | 0.4224 | 0.0156 | 0.4405 |
| 71 | 39.93 | 0.07 | 0.0370 | 9.9999 | 0.0166 | 9.9999 | 0.4484 | 0.9436 | 0.0157 | 0.4161 | 0.0166 | 0.4410 |
| 72 | 40.13 | 0.08 | 0.0376 | 9.9999 | 0.0168 | 9.9999 | 0.4465 | 0.9492 | 0.0154 | 0.4176 | 0.0162 | 0.4400 |
| 73 | 40.33 | 0.08 | 0.0307 | 9.9999 | 0.0132 | 9.9999 | 0.4295 | 0.9368 | 0.0154 | 0.4107 | 0.0164 | 0.4384 |
| 74 | 40.53 | 0.09 | 0.0307 | 9.9999 | 0.0132 | 9.9999 | 0.4295 | 0.9089 | 0.0160 | 0.3968 | 0.0176 | 0.4365 |
| 75 | 40.74 | 0.11 | 0.0504 | 9.9999 | 0.0226 | 9.9999 | 0.4485 | 0.9062 | 0.0168 | 0.3978 | 0.0186 | 0.4390 |
| 76 | 40.94 | 0.09 | 0.0405 | 9.9999 | 0.0185 | 9.9999 | 0.4554 | 0.8644 | 0.0188 | 0.3792 | 0.0218 | 0.4375 |
| 77 | 41.14 | 0.10 | 0.0389 | 9.9999 | 0.0167 | 9.9999 | 0.4295 | 0.8837 | 0.0176 | 0.3861 | 0.0199 | 0.4369 |
| 78 | 41.35 | 0.11 | 0.0367 | 9.9999 | 0.0149 | 9.9999 | 0.4070 | 0.9052 | 0.0161 | 0.3962 | 0.0178 | 0.4377 |
| 79 | 41.54 | 0.11 | 0.0425 | 9.9999 | 0.0174 | 9.9999 | 0.4098 | 0.8931 | 0.0173 | 0.3907 | 0.0193 | 0.4374 |
| 80 | 41.74 | 0.09 | 0.0355 | 9.9999 | 0.0158 | 9.9999 | 0.4447 | 0.8836 | 0.0182 | 0.3854 | 0.0206 | 0.4362 |
| 81 | 41.94 | 0.11 | 0.0423 | 9.9999 | 0.0192 | 9.9999 | 0.4535 | 0.8729 | 0.0190 | 0.3810 | 0.0218 | 0.4365 |
| 82 | 42.11 | 0.11 | 0.0466 | 9.9999 | 0.0197 | 9.9999 | 0.4231 | 0.8979 | 0.0173 | 0.3922 | 0.0192 | 0.4368 |
| 83 | 42.31 | 0.11 | 0.0453 | 9.9999 | 0.0198 | 9.9999 | 0.4371 | 0.8672 | 0.0191 | 0.3784 | 0.0221 | 0.4364 |
| 84 | 42.50 | 0.13 | 0.0540 | 9.9999 | 0.0242 | 9.9999 | 0.4479 | 0.8653 | 0.0189 | 0.3775 | 0.0219 | 0.4363 |
| 85 | 42.67 | 0.12 | 0.0436 | 9.9999 | 0.0194 | 9.9999 | 0.4453 | 0.8525 | 0.0195 | 0.3708 | 0.0229 | 0.4349 |
| 86 | 42.84 | 0.12 | 0.0365 | 9.9999 | 0.0168 | 9.9999 | 0.4605 | 0.8610 | 0.0191 | 0.3754 | 0.0222 | 0.4360 |
| 87 | 43.03 | 0.12 | 0.0442 | 9.9999 | 0.0196 | 9.9999 | 0.4437 | 0.8510 | 0.0197 | 0.3704 | 0.0231 | 0.4353 |
| 88 | 43.22 | 0.12 | 0.0460 | 9.9999 | 0.0206 | 9.9999 | 0.4492 | 0.8611 | 0.0193 | 0.3742 | 0.0225 | 0.4345 |
| 89 | 43.39 | 0.14 | 0.0465 | 9.9999 | 0.0213 | 9.9999 | 0.4576 | 0.8668 | 0.0190 | 0.3766 | 0.0220 | 0.4344 |
| 90 | 43.56 | 0.14 | 0.0507 | 9.9999 | 0.0218 | 9.9999 | 0.4293 | 0.8684 | 0.0188 | 0.3772 | 0.0217 | 0.4344 |
| 91 | 43.76 | 0.15 | 0.0530 | 9.9999 | 0.0232 | 9.9999 | 0.4382 | 0.8713 | 0.0183 | 0.3779 | 0.0210 | 0.4337 |
| 92 | 43.93 | 0.14 | 0.0472 | 9.9999 | 0.0206 | 9.9999 | 0.4373 | 0.8776 | 0.0181 | 0.3799 | 0.0206 | 0.4328 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 3

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 164 | 0.80 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.11 | 0.14 | 0.0496 | 9.9999 | 0.0222 | 9.9999 | 0.4476 | 0.8846 | 0.0177 | 0.3837 | 0.0200 | 0.4338 |
| 94 | 44.30 | 0.14 | 0.0473 | 9.9999 | 0.0200 | 9.9999 | 0.4232 | 0.8944 | 0.0175 | 0.3881 | 0.0195 | 0.4339 |
| 95 | 44.48 | 0.15 | 0.0549 | 9.9999 | 0.0237 | 9.9999 | 0.4308 | 0.9006 | 0.0174 | 0.3904 | 0.0193 | 0.4336 |
| 96 | 44.66 | 0.14 | 0.0491 | 9.9999 | 0.0210 | 9.9999 | 0.4270 | 0.8932 | 0.0171 | 0.3879 | 0.0191 | 0.4342 |
| 97 | 44.83 | 0.14 | 0.0467 | 9.9999 | 0.0206 | 9.9999 | 0.4422 | 0.9201 | 0.0160 | 0.3992 | 0.0174 | 0.4339 |
| 98 | 45.02 | 0.15 | 0.0502 | 9.9999 | 0.0219 | 9.9999 | 0.4359 | 0.9058 | 0.0168 | 0.3930 | 0.0186 | 0.4338 |
| 99 | 45.21 | 0.14 | 0.0485 | 9.9999 | 0.0209 | 9.9999 | 0.4303 | 0.9146 | 0.0161 | 0.3968 | 0.0176 | 0.4339 |
| 100 | 45.38 | 0.14 | 0.0520 | 9.9999 | 0.0219 | 9.9999 | 0.4210 | 0.9265 | 0.0153 | 0.4003 | 0.0165 | 0.4330 |
| 101 | 45.55 | 0.14 | 0.0541 | 9.9999 | 0.0256 | 9.9999 | 0.4739 | 0.9161 | 0.0156 | 0.3965 | 0.0170 | 0.4328 |
| 102 | 45.72 | 0.12 | 0.0543 | 9.9999 | 0.0233 | 9.9999 | 0.4301 | 0.9275 | 0.0150 | 0.4017 | 0.0161 | 0.4330 |
| 103 | 45.90 | 0.13 | 0.0566 | 9.9999 | 0.0248 | 9.9999 | 0.4383 | 0.9358 | 0.0151 | 0.4047 | 0.0161 | 0.4328 |
| 104 | 46.08 | 0.13 | 0.0543 | 9.9999 | 0.0229 | 9.9999 | 0.4224 | 0.9408 | 0.0141 | 0.4075 | 0.0150 | 0.4331 |
| 105 | 46.24 | 0.12 | 0.0460 | 9.9999 | 0.0194 | 9.9999 | 0.4221 | 0.9501 | 0.0137 | 0.4107 | 0.0144 | 0.4323 |
| 106 | 46.43 | 0.12 | 0.0527 | 9.9999 | 0.0233 | 9.9999 | 0.4428 | 0.9456 | 0.0133 | 0.4094 | 0.0141 | 0.4319 |
| 107 | 46.60 | 0.10 | 0.0528 | 9.9999 | 0.0231 | 9.9999 | 0.4380 | 0.9358 | 0.0137 | 0.4048 | 0.0147 | 0.4326 |
| 108 | 46.77 | 0.11 | 0.0499 | 9.9999 | 0.0214 | 9.9999 | 0.4282 | 0.9413 | 0.0136 | 0.4069 | 0.0145 | 0.4322 |
| 109 | 46.93 | 0.11 | 0.0412 | 9.9999 | 0.0184 | 9.9999 | 0.4460 | 0.9486 | 0.0130 | 0.4102 | 0.0137 | 0.4324 |
| 110 | 47.12 | 0.11 | 0.0469 | 9.9999 | 0.0212 | 9.9999 | 0.4513 | 0.9535 | 0.0127 | 0.4116 | 0.0133 | 0.4317 |
| 111 | 47.28 | 0.10 | 0.0424 | 9.9999 | 0.0183 | 9.9999 | 0.4304 | 0.9620 | 0.0121 | 0.4156 | 0.0125 | 0.4316 |
| 112 | 47.44 | 0.10 | 0.0465 | 9.9999 | 0.0193 | 9.9999 | 0.4152 | 0.9595 | 0.0120 | 0.4153 | 0.0125 | 0.4328 |
| 113 | 47.61 | 0.09 | 0.0494 | 9.9999 | 0.0211 | 9.9999 | 0.4264 | 0.9566 | 0.0122 | 0.4141 | 0.0127 | 0.4329 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 165 | 0.90 | 1.7 | 0.0 | B1W0F36 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | 0.03 | -3.3104 | 12.3513 | 0.0753 | -0.4610 | -0.0418 | 0.8550 | 0.1789 | 0.6762 | -3.7310 |
| 2 | -5.69 | 0.02 | -3.3109 | 12.3521 | 0.1025 | -0.4640 | -0.0481 | 0.8485 | 0.1772 | 0.6713 | -3.7307 |
| 3 | -5.69 | 0.02 | -3.3076 | 12.3043 | 0.0872 | -0.4826 | -0.0417 | 0.8538 | 0.1823 | 0.6715 | -3.7208 |
| 4 | -5.69 | 0.02 | -3.2851 | 12.2246 | 0.1154 | -0.4652 | -0.0291 | 0.8473 | 0.1762 | 0.6711 | -3.7212 |
| 5 | -5.69 | 0.02 | -3.2782 | 12.3271 | 0.1148 | -0.4753 | -0.0352 | 0.8474 | 0.1777 | 0.6697 | -3.7603 |
| 6 | -5.68 | 0.02 | -3.2322 | 12.1830 | 0.0919 | -0.4101 | -0.0226 | 0.8505 | 0.1799 | 0.6706 | -3.7693 |
| 7 | -5.68 | 0.02 | -3.2490 | 12.1505 | 0.1657 | -0.5233 | -0.0352 | 0.8421 | 0.1778 | 0.6643 | -3.7398 |
| 8 | -5.70 | 0.01 | -3.2736 | 12.2173 | 0.0578 | -0.3217 | -0.0546 | 0.8539 | 0.1803 | 0.6737 | -3.7321 |
| 9 | -5.81 | 0.02 | -3.2455 | 12.2096 | 0.2399 | -0.6259 | -0.0413 | 0.8565 | 0.1745 | 0.6821 | -3.7620 |
| 10 | -5.53 | 0.01 | -3.1715 | 12.0752 | 0.1341 | -0.3934 | -0.0478 | 0.8495 | 0.1663 | 0.6833 | -3.8074 |
| 11 | -3.81 | 0.00 | -2.9130 | 11.3489 | -0.0073 | -0.0837 | -0.0481 | 0.7883 | 0.1392 | 0.6491 | -3.8959 |
| 12 | -2.16 | 0.01 | -2.5757 | 10.3440 | 0.0488 | -0.0493 | -0.0098 | 0.7237 | 0.1162 | 0.6075 | -4.0159 |
| 13 | -0.46 | 0.02 | -2.2107 | 9.1981 | 0.1430 | -0.2595 | -0.0410 | 0.6503 | 0.0936 | 0.5567 | -4.1606 |
| 14 | 1.26 | 0.01 | -1.5761 | 7.1341 | 0.0339 | -0.0699 | -0.0348 | 0.5474 | 0.0726 | 0.4747 | -4.5264 |
| 15 | 3.09 | 0.01 | -0.9592 | 5.0006 | 0.1070 | -0.1845 | -0.0217 | 0.4743 | 0.0655 | 0.4088 | -5.2133 |
| 16 | 4.82 | 0.02 | -0.2872 | 2.7260 | 0.1778 | -0.3303 | -0.0149 | 0.4097 | 0.0705 | 0.3392 | -9.6899 |
| 17 | 6.65 | 0.02 | 0.2886 | 1.0957 | 0.1296 | -0.2419 | -0.0082 | 0.3530 | 0.0794 | 0.2735 | 3.7973 |
| 18 | 8.46 | 0.00 | 0.7136 | -0.1095 | -0.0290 | -0.1829 | 0.0047 | 0.3124 | 0.0905 | 0.2218 | -0.1535 |
| 19 | 10.27 | 0.02 | 1.3073 | -1.8160 | 0.1673 | -0.3020 | -0.0136 | 0.2413 | 0.0985 | 0.1429 | -1.3891 |
| 20 | 12.14 | 0.02 | 1.9445 | -3.8159 | 0.1518 | -0.3567 | -0.0072 | 0.1529 | 0.1023 | 0.0506 | -1.9621 |
| 21 | 14.04 | 0.02 | 2.7639 | -6.1475 | 0.1583 | -0.4657 | -0.0002 | 0.0429 | 0.1048 | -0.0618 | -2.2242 |
| 22 | 16.02 | 0.01 | 3.6610 | -8.9144 | 0.0383 | -0.2348 | -0.0128 | -0.0671 | 0.1118 | -0.1789 | -2.4350 |
| 23 | 18.05 | 0.01 | 4.3836 | -11.1024 | 0.0650 | -0.4380 | -0.0752 | -0.1043 | 0.1216 | -0.2258 | -2.5327 |
| 24 | 19.97 | 0.02 | 4.7500 | -11.7290 | 0.0324 | -0.3123 | 0.0332 | -0.0625 | 0.1604 | -0.2229 | -2.4693 |
| 25 | 21.91 | 0.02 | 4.9863 | -11.7976 | 0.0364 | -0.0748 | 0.1040 | 0.0021 | 0.2140 | -0.2119 | -2.3660 |
| 26 | 23.85 | 0.01 | 5.3282 | -12.0774 | -0.0731 | -0.1204 | 0.2255 | 0.0331 | 0.2763 | -0.2432 | -2.2667 |
| 27 | 25.73 | 0.02 | 5.7896 | -12.6376 | -0.0416 | -0.0700 | 0.1448 | 0.0651 | 0.3419 | -0.2767 | -2.1832 |
| 28 | 27.64 | 0.05 | 6.2520 | -12.7786 | 0.3311 | -0.2499 | 0.1025 | 0.0699 | 0.3816 | -0.3117 | -2.0439 |
| 29 | 28.15 | 0.05 | 6.3593 | -12.9345 | 0.3055 | -0.2377 | 0.1156 | 0.0405 | 0.3950 | -0.3545 | -2.0340 |
| 30 | 28.44 | 0.05 | 6.4034 | -13.0102 | 0.3267 | -0.3483 | 0.1163 | 0.0614 | 0.3943 | -0.3329 | -2.0318 |
| 31 | 28.70 | 0.06 | 6.5081 | -12.9618 | 0.4651 | -0.5209 | 0.0724 | 0.0361 | 0.4017 | -0.3656 | -1.9918 |
| 32 | 29.04 | 0.08 | 6.6224 | -13.0950 | 0.6129 | -0.6071 | 0.1564 | 0.0652 | 0.4174 | -0.3522 | -1.9774 |
| 33 | 29.35 | 0.09 | 6.7127 | -12.9318 | 0.7419 | -0.9100 | 0.2534 | 0.0513 | 0.4278 | -0.3765 | -1.9265 |
| 34 | 29.62 | 0.07 | 6.7520 | -13.0982 | 0.5932 | -0.6732 | 0.1699 | 0.0619 | 0.4286 | -0.3667 | -1.9399 |
| 35 | 29.90 | 0.08 | 6.8403 | -13.0133 | 0.7280 | -0.9087 | 0.2731 | 0.0681 | 0.4402 | -0.3721 | -1.9025 |
| 36 | 30.20 | 0.08 | 6.9111 | -13.1764 | 0.7586 | -1.0484 | 0.2478 | 0.0581 | 0.4426 | -0.3845 | -1.9068 |
| 37 | 30.46 | 0.07 | 6.9787 | -13.1316 | 0.7183 | -1.0468 | 0.3127 | 0.0654 | 0.4520 | -0.3866 | -1.8817 |
| 38 | 30.72 | 0.09 | 7.0606 | -13.1639 | 0.8706 | -1.0810 | 0.3906 | 0.0657 | 0.4565 | -0.3908 | -1.8644 |
| 39 | 31.01 | 0.10 | 7.2765 | -13.1565 | 1.0241 | -1.4265 | 0.3921 | 0.0560 | 0.4690 | -0.4130 | -1.8081 |
| 40 | 31.28 | 0.09 | 7.3143 | -13.1857 | 0.9802 | -1.4534 | 0.4179 | 0.0563 | 0.4710 | -0.4147 | -1.8027 |
| 41 | 31.56 | 0.07 | 7.3826 | -13.2626 | 0.8216 | -1.3229 | 0.3153 | 0.0559 | 0.4743 | -0.4184 | -1.7965 |
| 42 | 31.83 | 0.07 | 7.5681 | -13.3588 | 0.7973 | -1.2779 | 0.3287 | 0.0437 | 0.4785 | -0.4348 | -1.7651 |
| 43 | 32.11 | 0.06 | 7.7026 | -13.4214 | 0.5914 | -1.0685 | 0.1876 | 0.0191 | 0.4756 | -0.4565 | -1.7429 |
| 44 | 32.36 | 0.07 | 7.7746 | -13.3531 | 0.7945 | -1.1791 | 0.2524 | 0.0473 | 0.4793 | -0.4320 | -1.7179 |
| 45 | 32.62 | 0.04 | 7.9165 | -13.4650 | 0.4193 | -0.7736 | 0.0468 | 0.0238 | 0.4797 | -0.4559 | -1.7009 |
| 46 | 32.90 | 0.04 | 8.0799 | -13.4197 | 0.4580 | -0.7601 | -0.1832 | 0.0102 | 0.4802 | -0.4700 | -1.6609 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 165 | 0.90 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.15 | 0.03 | 8.1789 | -13.5397 | 0.2810 | -0.6065 | -0.2410 | 0.0095 | 0.4865 | -0.4769 | -1.6554 |
| 48 | 33.40 | 0.02 | 8.3250 | -13.5075 | 0.1392 | -0.2231 | -0.2537 | -0.0002 | 0.4881 | -0.4883 | -1.6225 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 165 | 0.90 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | 0.03 | 0.0267 | 0.0098 | 0.0104 | 0.3658 | 0.3882 | -0.7186 | -0.0352 | -0.3007 | 0.0491 | 0.4185 |
| 2 | -5.69 | 0.02 | 0.0285 | 0.0100 | 0.0113 | 0.3504 | 0.3969 | -0.7087 | -0.0356 | -0.2964 | 0.0502 | 0.4182 |
| 3 | -5.69 | 0.02 | 0.0289 | 0.0100 | 0.0115 | 0.3453 | 0.3984 | -0.7111 | -0.0343 | -0.2973 | 0.0483 | 0.4181 |
| 4 | -5.69 | 0.02 | 0.0210 | 0.0087 | 0.0088 | 0.4158 | 0.4198 | -0.7098 | -0.0351 | -0.2971 | 0.0495 | 0.4186 |
| 5 | -5.69 | 0.02 | 0.0215 | 0.0087 | 0.0087 | 0.4058 | 0.4049 | -0.7089 | -0.0344 | -0.2968 | 0.0485 | 0.4187 |
| 6 | -5.68 | 0.02 | 0.0239 | 0.0089 | 0.0095 | 0.3739 | 0.3991 | -0.7111 | -0.0348 | -0.2970 | 0.0493 | 0.4177 |
| 7 | -5.68 | 0.02 | 0.0304 | 0.0103 | 0.0118 | 0.3390 | 0.3895 | -0.7067 | -0.0344 | -0.2959 | 0.0487 | 0.4186 |
| 8 | -5.70 | 0.01 | 0.0211 | 0.0089 | 0.0083 | 0.4236 | 0.3932 | -0.7026 | -0.0329 | -0.2936 | 0.0468 | 0.4179 |
| 9 | -5.81 | 0.02 | 0.0266 | 0.0099 | 0.0106 | 0.3711 | 0.3975 | -0.7125 | -0.0358 | -0.2987 | 0.0502 | 0.4192 |
| 10 | -5.53 | 0.01 | 0.0243 | 0.0102 | 0.0094 | 0.4188 | 0.3880 | -0.7065 | -0.0414 | -0.2981 | 0.0586 | 0.4220 |
| 11 | -3.81 | 0.00 | 0.0244 | 0.0100 | 0.0074 | 0.4085 | 0.3014 | -0.6558 | -0.0546 | -0.2811 | 0.0832 | 0.4287 |
| 12 | -2.16 | 0.01 | 0.0257 | 0.0104 | 0.0062 | 0.4049 | 0.2424 | -0.6000 | -0.0594 | -0.2636 | 0.0989 | 0.4393 |
| 13 | -0.46 | 0.02 | 0.0266 | 0.0110 | 0.0065 | 0.4141 | 0.2455 | -0.5230 | -0.0602 | -0.2361 | 0.1151 | 0.4515 |
| 14 | 1.26 | 0.01 | 0.0236 | 0.0111 | 0.0045 | 0.4714 | 0.1890 | -0.3926 | -0.0577 | -0.1800 | 0.1470 | 0.4584 |
| 15 | 3.09 | 0.01 | 0.0205 | 0.0088 | 0.0032 | 0.4315 | 0.1570 | -0.2593 | -0.0453 | -0.1177 | 0.1748 | 0.4541 |
| 16 | 4.82 | 0.02 | 0.0276 | 0.0085 | 0.0059 | 0.3094 | 0.2146 | -0.1227 | -0.0286 | -0.0560 | 0.2331 | 0.4566 |
| 17 | 6.65 | 0.02 | 0.0288 | 0.0086 | 0.0066 | 0.2996 | 0.2305 | -0.0187 | -0.0003 | -0.0126 | 0.0167 | 0.6707 |
| 18 | 8.46 | 0.00 | 0.0315 | 0.0075 | 0.0070 | 0.2376 | 0.2206 | 0.0610 | 0.0266 | 0.0175 | 0.4361 | 0.2872 |
| 19 | 10.27 | 0.02 | 0.0469 | 0.0085 | 0.0127 | 0.1818 | 0.2699 | 0.1873 | 0.0523 | 0.0722 | 0.2793 | 0.3856 |
| 20 | 12.14 | 0.02 | 0.0413 | 0.0049 | 0.0116 | 0.1134 | 0.2815 | 0.3049 | 0.0726 | 0.1247 | 0.2381 | 0.4090 |
| 21 | 14.04 | 0.02 | 0.0604 | 0.0053 | 0.0203 | 0.0878 | 0.3366 | 0.4527 | 0.0906 | 0.1953 | 0.2000 | 0.4315 |
| 22 | 16.02 | 0.01 | 0.0483 | 0.0025 | 0.0164 | 0.0516 | 0.3390 | 0.6025 | 0.0954 | 0.2667 | 0.1584 | 0.4426 |
| 23 | 18.05 | 0.01 | 0.0599 | 0.0054 | 0.0221 | 0.0903 | 0.3690 | 0.6972 | 0.0771 | 0.2968 | 0.1106 | 0.4257 |
| 24 | 19.97 | 0.02 | 0.0797 | 0.0095 | 0.0333 | 0.1186 | 0.4176 | 0.7226 | 0.0505 | 0.3025 | 0.0699 | 0.4186 |
| 25 | 21.91 | 0.02 | 0.0934 | 0.0117 | 0.0428 | 0.1258 | 0.4589 | 0.7008 | 0.0314 | 0.2871 | 0.0448 | 0.4097 |
| 26 | 23.85 | 0.01 | 0.1422 | 0.0143 | 0.0761 | 0.1009 | 0.5353 | 0.6937 | 0.0267 | 0.2854 | 0.0385 | 0.4114 |
| 27 | 25.73 | 0.02 | 0.0949 | 0.0071 | 0.0471 | 0.0745 | 0.4961 | 0.7343 | 0.0241 | 0.3013 | 0.0329 | 0.4103 |
| 28 | 27.64 | 0.05 | 0.0621 | 0.0232 | 0.0022 | 0.3735 | 0.0351 | 0.7353 | 0.0230 | 0.2998 | 0.0312 | 0.4077 |
| 29 | 28.15 | 0.05 | 0.0677 | 0.0197 | 0.0059 | 0.2903 | 0.0874 | 0.7540 | 0.0220 | 0.3089 | 0.0292 | 0.4096 |
| 30 | 28.44 | 0.05 | 0.0759 | 0.0192 | 0.0124 | 0.2534 | 0.1640 | 0.7618 | 0.0223 | 0.3113 | 0.0292 | 0.4086 |
| 31 | 28.70 | 0.06 | 0.0708 | 0.0134 | 0.0120 | 0.1894 | 0.1700 | 0.7751 | 0.0213 | 0.3179 | 0.0275 | 0.4101 |
| 32 | 29.04 | 0.08 | 0.0888 | 0.0270 | 0.0075 | 0.3044 | 0.0841 | 0.7633 | 0.0218 | 0.3106 | 0.0286 | 0.4069 |
| 33 | 29.35 | 0.09 | 0.1338 | 0.0346 | 0.0303 | 0.2587 | 0.2264 | 0.7660 | 0.0217 | 0.3124 | 0.0284 | 0.4078 |
| 34 | 29.62 | 0.07 | 0.1176 | 0.0261 | 0.0243 | 0.2219 | 0.2064 | 0.7850 | 0.0210 | 0.3202 | 0.0268 | 0.4079 |
| 35 | 29.90 | 0.08 | 0.1777 | 0.0423 | 0.0590 | 0.2382 | 0.3322 | 0.7566 | 0.0223 | 0.3076 | 0.0294 | 0.4065 |
| 36 | 30.20 | 0.08 | 0.1746 | 0.0375 | 0.0535 | 0.2150 | 0.3066 | 0.7851 | 0.0207 | 0.3199 | 0.0264 | 0.4075 |
| 37 | 30.46 | 0.07 | 0.1901 | 0.0322 | 0.0772 | 0.1696 | 0.4061 | 0.7933 | 0.0203 | 0.3256 | 0.0256 | 0.4105 |
| 38 | 30.72 | 0.09 | 0.1914 | 0.0356 | 0.0780 | 0.1858 | 0.4075 | 0.7835 | 0.0210 | 0.3201 | 0.0268 | 0.4086 |
| 39 | 31.01 | 0.10 | 0.2293 | 0.0522 | 0.0868 | 0.2277 | 0.3787 | 0.7779 | 0.0215 | 0.3172 | 0.0277 | 0.4078 |
| 40 | 31.28 | 0.09 | 0.2457 | 0.0551 | 0.0964 | 0.2243 | 0.3922 | 0.7841 | 0.0216 | 0.3199 | 0.0276 | 0.4080 |
| 41 | 31.56 | 0.07 | 0.2243 | 0.0461 | 0.0824 | 0.2054 | 0.3673 | 0.8126 | 0.0194 | 0.3336 | 0.0239 | 0.4106 |
| 42 | 31.83 | 0.07 | 0.1814 | 0.0349 | 0.0656 | 0.1926 | 0.3614 | 0.8304 | 0.0188 | 0.3417 | 0.0227 | 0.4115 |
| 43 | 32.11 | 0.06 | 0.1603 | 0.0302 | 0.0549 | 0.1881 | 0.3423 | 0.8434 | 0.0177 | 0.3464 | 0.0210 | 0.4107 |
| 44 | 32.38 | 0.07 | 0.1564 | 0.0329 | 0.0530 | 0.2101 | 0.3390 | 0.8406 | 0.0155 | 0.3446 | 0.0220 | 0.4099 |
| 45 | 32.62 | 0.04 | 0.0383 | 0.0072 | -0.0044 | 0.1875 | -0.1139 | 0.8308 | 0.0168 | 0.3631 | 0.0191 | 0.4122 |
| 46 | 32.90 | 0.04 | -0.0248 | -0.0050 | -0.0674 | 0.2008 | 1.9078 | 0.8965 | 0.0159 | 0.3690 | 0.0177 | 0.4116 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXE0-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 165 | 0.90 | 1.7 | 0.0 | BIWOF34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.15 | 0.03 | -0.0287 | -0.0088 | -0.0510 | 0.3060 | 1.7786 | 0.9201 | 0.0143 | 0.3793 | 0.0156 | 0.4122 |
| 48 | 33.40 | 0.02 | -0.0596 | -0.0105 | -0.0691 | 0.1763 | 1.1597 | 0.9234 | 0.0142 | 0.3807 | 0.0154 | 0.4123 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RE10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 165 | 0.90 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.69 | 0.01 | 0.0184 | 9.9999 | 0.0296 | 9.9999 | 0.7706 | -0.7345 | -0.0335 | -0.3026 | 0.0456 | 0.4120 |
| 2 | -5.69 | 0.02 | 0.0273 | 9.9999 | 0.0245 | 9.9999 | 0.8953 | -0.7384 | -0.0348 | -0.3041 | 0.0472 | 0.4118 |
| 3 | -5.69 | 0.02 | 0.0333 | 9.9999 | 0.0272 | 9.9999 | 0.8169 | -0.7365 | -0.0332 | -0.3028 | 0.0450 | 0.4111 |
| 4 | -5.69 | 0.02 | 0.0263 | 9.9999 | 0.0238 | 9.9999 | 0.9031 | -0.7263 | -0.0335 | -0.2986 | 0.0461 | 0.4111 |
| 5 | -5.69 | 0.02 | 0.0237 | 9.9999 | 0.0230 | 9.9999 | 0.9715 | -0.7513 | -0.0354 | -0.3096 | 0.0471 | 0.4120 |
| 6 | -5.68 | 0.02 | 0.0213 | 9.9999 | 0.0215 | 9.9999 | 1.0075 | -0.7289 | -0.0332 | -0.3003 | 0.0455 | 0.4120 |
| 7 | -5.68 | 0.02 | 0.0348 | 9.9999 | 0.0276 | 9.9999 | 0.7922 | -0.7292 | -0.0326 | -0.3002 | 0.0448 | 0.4117 |
| 8 | -5.70 | 0.01 | 0.0262 | 9.9999 | 0.0244 | 9.9999 | 0.9304 | -0.7288 | -0.0332 | -0.2993 | 0.0455 | 0.4107 |
| 9 | -5.81 | 0.02 | 0.0368 | 9.9999 | 0.0285 | 9.9999 | 0.7751 | -0.7314 | -0.0339 | -0.3009 | 0.0463 | 0.4115 |
| 10 | -5.53 | 0.01 | 0.0284 | 9.9999 | 0.0242 | 9.9999 | 0.8515 | -0.7388 | -0.0408 | -0.3053 | 0.0552 | 0.4132 |
| 11 | -3.81 | 0.00 | 0.0097 | 9.9999 | 0.0127 | 9.9999 | 1.3088 | -0.7081 | -0.0535 | -0.2977 | 0.0756 | 0.4205 |
| 12 | -2.16 | 0.01 | 0.0054 | 9.9999 | 0.0078 | 9.9999 | 1.4390 | -0.6425 | -0.0587 | -0.2749 | 0.0914 | 0.4279 |
| 13 | -0.46 | 0.02 | 0.0164 | 9.9999 | 0.0127 | 9.9999 | 0.7704 | -0.5702 | -0.0612 | -0.2502 | 0.1074 | 0.4388 |
| 14 | 1.26 | 0.01 | 0.0054 | 9.9999 | 0.0082 | 9.9999 | 1.5158 | -0.4331 | -0.0603 | -0.1936 | 0.1393 | 0.4470 |
| 15 | 3.09 | 0.01 | 0.0018 | 9.9999 | 0.0080 | 9.9999 | 4.5191 | -0.2931 | -0.0469 | -0.1279 | 0.1600 | 0.4364 |
| 16 | 4.82 | 0.02 | 0.0056 | 9.9999 | 0.0109 | 9.9999 | 1.9400 | -0.1588 | -0.0317 | -0.0679 | 0.1997 | 0.4280 |
| 17 | 6.65 | 0.02 | 0.0096 | 9.9999 | 0.0130 | 9.9999 | 1.3556 | -0.0393 | -0.0083 | -0.0188 | 0.2116 | 0.4777 |
| 18 | 8.46 | 0.00 | 0.0024 | 9.9999 | 0.0113 | 9.9999 | 4.7283 | 0.0466 | 0.0209 | 0.0146 | 0.4487 | 0.3140 |
| 19 | 10.27 | 0.02 | 0.0016 | 9.9999 | 0.0100 | 9.9999 | 6.3854 | 0.1454 | 0.0493 | 0.0549 | 0.3391 | 0.3775 |
| 20 | 12.14 | 0.02 | 0.0142 | 9.9999 | 0.0131 | 9.9999 | 0.9176 | 0.2778 | 0.0736 | 0.1167 | 0.2650 | 0.4201 |
| 21 | 14.04 | 0.02 | 0.0210 | 9.9999 | 0.0143 | 9.9999 | 0.6816 | 0.4179 | 0.0926 | 0.1835 | 0.2217 | 0.4392 |
| 22 | 16.02 | 0.01 | 0.0140 | 9.9999 | 0.0104 | 9.9999 | 0.7391 | 0.5618 | 0.0978 | 0.2571 | 0.1742 | 0.4576 |
| 23 | 18.05 | 0.01 | 0.0130 | 9.9999 | 0.0106 | 9.9999 | 0.8141 | 0.6189 | 0.0669 | 0.2656 | 0.1080 | 0.4291 |
| 24 | 19.97 | 0.02 | 0.0182 | 9.9999 | 0.0110 | 9.9999 | 0.6043 | 0.6642 | 0.0465 | 0.2864 | 0.0700 | 0.4312 |
| 25 | 21.91 | 0.02 | 0.0153 | 9.9999 | 0.0088 | 9.9999 | 0.5769 | 0.6673 | 0.0334 | 0.2853 | 0.0500 | 0.4275 |
| 26 | 23.85 | 0.01 | 0.0133 | 9.9999 | 0.0076 | 9.9999 | 0.5690 | 0.6841 | 0.0280 | 0.2951 | 0.0409 | 0.4314 |
| 27 | 25.73 | 0.02 | 0.0142 | 9.9999 | 0.0087 | 9.9999 | 0.6117 | 0.7192 | 0.0257 | 0.3115 | 0.0357 | 0.4332 |
| 28 | 27.64 | 0.05 | 0.0188 | 9.9999 | 0.0110 | 9.9999 | 0.5843 | 0.7584 | 0.0230 | 0.3308 | 0.0303 | 0.4362 |
| 29 | 28.15 | 0.05 | 0.0143 | 9.9999 | 0.0089 | 9.9999 | 0.6218 | 0.7668 | 0.0227 | 0.3346 | 0.0298 | 0.4363 |
| 30 | 28.44 | 0.05 | 0.0214 | 9.9999 | 0.0118 | 9.9999 | 0.5521 | 0.7737 | 0.0223 | 0.3391 | 0.0288 | 0.4370 |
| 31 | 28.70 | 0.06 | 0.0315 | 9.9999 | 0.0158 | 9.9999 | 0.5005 | 0.7579 | 0.0228 | 0.3313 | 0.0300 | 0.4372 |
| 32 | 29.04 | 0.08 | 0.0261 | 9.9999 | 0.0130 | 9.9999 | 0.4969 | 0.7838 | 0.0215 | 0.3440 | 0.0275 | 0.4389 |
| 33 | 29.35 | 0.09 | 0.0337 | 9.9999 | 0.0165 | 9.9999 | 0.4896 | 0.7899 | 0.0214 | 0.3476 | 0.0271 | 0.4401 |
| 34 | 29.62 | 0.07 | 0.0312 | 9.9999 | 0.0156 | 9.9999 | 0.4989 | 0.7814 | 0.0215 | 0.3429 | 0.0275 | 0.4388 |
| 35 | 29.90 | 0.08 | 0.0337 | 9.9999 | 0.0169 | 9.9999 | 0.5019 | 0.7986 | 0.0208 | 0.3514 | 0.0260 | 0.4400 |
| 36 | 30.20 | 0.08 | 0.0316 | 9.9999 | 0.0162 | 9.9999 | 0.5120 | 0.7881 | 0.0212 | 0.3460 | 0.0269 | 0.4390 |
| 37 | 30.46 | 0.07 | 0.0282 | 9.9999 | 0.0145 | 9.9999 | 0.5154 | 0.7876 | 0.0211 | 0.3461 | 0.0268 | 0.4394 |
| 38 | 30.72 | 0.09 | 0.0286 | 9.9999 | 0.0156 | 9.9999 | 0.5442 | 0.7992 | 0.0210 | 0.3521 | 0.0263 | 0.4405 |
| 39 | 31.01 | 0.10 | 0.0348 | 9.9999 | 0.0172 | 9.9999 | 0.4944 | 0.8076 | 0.0202 | 0.3563 | 0.0250 | 0.4412 |
| 40 | 31.28 | 0.09 | 0.0410 | 9.9999 | 0.0196 | 9.9999 | 0.4786 | 0.8111 | 0.0203 | 0.3578 | 0.0250 | 0.4411 |
| 41 | 31.56 | 0.07 | 0.0378 | 9.9999 | 0.0183 | 9.9999 | 0.4824 | 0.8138 | 0.0199 | 0.3594 | 0.0244 | 0.4417 |
| 42 | 31.83 | 0.07 | 0.0328 | 9.9999 | 0.0167 | 9.9999 | 0.5099 | 0.8148 | 0.0190 | 0.3609 | 0.0236 | 0.4429 |
| 43 | 32.11 | 0.06 | 0.0368 | 9.9999 | 0.0184 | 9.9999 | 0.4989 | 0.8155 | 0.0190 | 0.3612 | 0.0233 | 0.4430 |
| 44 | 32.36 | 0.07 | 0.0187 | 9.9999 | 0.0089 | 9.9999 | 0.4767 | 0.8237 | 0.0185 | 0.3647 | 0.0225 | 0.4428 |
| 45 | 32.62 | 0.04 | 0.0221 | 9.9999 | 0.0112 | 9.9999 | 0.5059 | 0.8183 | 0.0182 | 0.3618 | 0.0222 | 0.4419 |
| 46 | 32.90 | 0.04 | 0.0288 | 9.9999 | 0.0138 | 9.9999 | 0.4791 | 0.7952 | 0.0197 | 0.3508 | 0.0247 | 0.4412 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 165 | 0.90 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.15 | 0.03 | 0.0241 | 9.9999 | 0.0123 | 9.9999 | 0.5118 | 0.7989 | 0.0185 | 0.1528 | 0.0232 | 0.4416 |
| 48 | 33.40 | 0.02 | 0.0110 | 9.9999 | 0.0064 | 9.9999 | 0.5836 | 0.8088 | 0.0181 | 0.3574 | 0.0224 | 0.4419 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 166 | 1.00 | 1.7 | 0.0 | B1W0F36 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.69 | 0.02 | -2.6995 | 11.1614 | 0.0424 | -0.2426 | -0.0245 | 0.9696 | 0.2049 | 0.7647 | -4.1346 |
| 2 | -0.69 | 0.03 | -2.6897 | 11.1115 | 0.0615 | -0.3211 | -0.0187 | 0.9651 | 0.2072 | 0.7579 | -4.1311 |
| 3 | -0.69 | 0.02 | -2.7186 | 11.2309 | 0.0087 | -0.1915 | -0.0016 | 0.9757 | 0.2075 | 0.7682 | -4.1311 |
| 4 | -0.69 | 0.04 | -2.6608 | 11.0451 | 0.1475 | -0.5027 | -0.0183 | 0.9778 | 0.2093 | 0.7685 | -4.1511 |
| 5 | 0.41 | 0.03 | -2.0385 | 8.8908 | 0.0952 | -0.3644 | -0.0127 | 0.9009 | 0.1879 | 0.7130 | -4.3615 |
| 6 | 2.24 | 0.03 | -1.3331 | 6.5421 | 0.0591 | -0.3521 | -0.0126 | 0.8058 | 0.1689 | 0.6369 | -4.9074 |
| 7 | 4.06 | 0.03 | -0.6621 | 4.2624 | 0.1021 | -0.4238 | -0.0066 | 0.7154 | 0.1489 | 0.5665 | -6.4373 |
| 8 | 5.95 | 0.03 | 0.0110 | 2.0376 | 0.1689 | -0.5389 | -0.0003 | 0.6366 | 0.1451 | 0.4916 | 185.1363 |
| 9 | 7.89 | 0.03 | 0.6259 | 0.0833 | 0.1466 | -0.5098 | -0.0001 | 0.5596 | 0.1539 | 0.4057 | 0.1331 |
| 10 | 9.79 | 0.03 | 1.3023 | -2.0283 | 0.1142 | -0.4511 | -0.0058 | 0.4766 | 0.1576 | 0.3191 | -1.5575 |
| 11 | 11.78 | 0.03 | 2.1081 | -4.5263 | 0.1411 | -0.4604 | 0.0002 | 0.3752 | 0.1610 | 0.2142 | -2.1471 |
| 12 | 13.80 | 0.03 | 3.0045 | -7.3234 | 0.1075 | -0.3819 | -0.0053 | 0.2761 | 0.1688 | 0.1074 | -2.4375 |
| 13 | 15.86 | 0.02 | 3.9010 | -10.0048 | 0.1360 | -0.3319 | -0.0105 | 0.1751 | 0.1807 | -0.0056 | -2.5647 |
| 14 | 17.96 | 0.02 | 4.7351 | -12.3235 | 0.1147 | -0.2758 | 0.0247 | 0.0847 | 0.1938 | -0.1091 | -2.6026 |
| 15 | 18.96 | 0.01 | 5.0391 | -13.1996 | 0.0676 | -0.2433 | 0.0307 | 0.0556 | 0.2019 | -0.1463 | -2.6194 |
| 16 | 17.44 | 0.01 | 4.1109 | -10.5881 | 0.0782 | -0.2787 | -0.0104 | 0.1214 | 0.1831 | -0.0817 | -2.5756 |
| 17 | 14.95 | 0.01 | 3.0139 | -7.3490 | 0.1293 | -0.4436 | 0.0005 | 0.2338 | 0.1661 | 0.0677 | -2.4384 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 166 | 1.00 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.69 | 0.02 | 0.0293 | 0.0035 | 0.0131 | 0.1296 | 0.4458 | -0.6423 | -0.0285 | -0.3045 | 0.0444 | 0.4740 |
| 2 | -0.69 | 0.03 | 0.0343 | 0.0042 | 0.0152 | 0.1212 | 0.4444 | -0.6364 | -0.0285 | -0.3015 | 0.0448 | 0.4737 |
| 3 | -0.69 | 0.02 | 0.0305 | 0.0036 | 0.0141 | 0.1195 | 0.4631 | -0.6503 | -0.0286 | -0.3080 | 0.0440 | 0.4737 |
| 4 | -0.69 | 0.04 | 0.0438 | 0.0058 | 0.0196 | 0.1330 | 0.4479 | -0.6245 | -0.0277 | -0.2962 | 0.0443 | 0.4743 |
| 5 | 0.41 | 0.03 | 0.0365 | 0.0051 | 0.0155 | 0.1396 | 0.4235 | -0.4887 | -0.0253 | -0.2320 | 0.0517 | 0.4747 |
| 6 | 2.24 | 0.03 | 0.0333 | 0.0046 | 0.0136 | 0.1375 | 0.4084 | -0.3471 | -0.0177 | -0.1639 | 0.0509 | 0.4723 |
| 7 | 4.06 | 0.03 | 0.0381 | 0.0042 | 0.0154 | 0.1093 | 0.4035 | -0.2041 | -0.0064 | -0.0994 | 0.0316 | 0.4869 |
| 8 | 5.95 | 0.03 | 0.0337 | 0.0032 | 0.0142 | 0.0957 | 0.4219 | -0.0673 | 0.0041 | -0.0397 | -0.0603 | 0.5906 |
| 9 | 7.89 | 0.03 | 0.0372 | 0.0033 | 0.0169 | 0.0894 | 0.4543 | 0.0521 | 0.0174 | 0.0138 | 0.3133 | 0.2649 |
| 10 | 9.79 | 0.03 | 0.0367 | 0.0037 | 0.0169 | 0.1020 | 0.4607 | 0.1797 | 0.0326 | 0.0722 | 0.1817 | 0.4019 |
| 11 | 11.78 | 0.03 | 0.0395 | 0.0032 | 0.0171 | 0.0916 | 0.4332 | 0.3290 | 0.0462 | 0.1398 | 0.1403 | 0.4251 |
| 12 | 13.80 | 0.03 | 0.0315 | 0.0019 | 0.0144 | 0.0594 | 0.4577 | 0.4869 | 0.0517 | 0.2165 | 0.1061 | 0.4446 |
| 13 | 15.86 | 0.02 | 0.0329 | 0.0012 | 0.0148 | 0.0380 | 0.4515 | 0.6488 | 0.0511 | 0.2988 | 0.0787 | 0.4605 |
| 14 | 17.96 | 0.02 | 0.0337 | -0.0004 | 0.0175 | -0.0123 | 0.5204 | 0.7748 | 0.0457 | 0.3590 | 0.0628 | 0.4638 |
| 15 | 16.96 | 0.01 | 0.0381 | -0.0005 | 0.0190 | -0.0137 | 0.4989 | 0.8200 | 0.0473 | 0.3785 | 0.0577 | 0.4616 |
| 16 | 17.44 | 0.01 | 0.0372 | 0.0004 | 0.0164 | 0.0112 | 0.4403 | 0.6781 | 0.0509 | 0.3072 | 0.0751 | 0.4538 |
| 17 | 14.95 | 0.01 | 0.0402 | 0.0023 | 0.0154 | 0.0568 | 0.3816 | 0.4954 | 0.0517 | 0.2108 | 0.1043 | 0.4255 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 166 | 1.00 | 1.7 | 0.0 | B1W0F34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -0.69 | 0.02 | 0.0154 | 9.9999 | 0.0117 | 9.9999 | 0.7618 | -0.6841 | -0.0297 | -0.3217 | 0.0438 | 0.4702 |
| 2 | -0.69 | 0.03 | 0.0154 | 9.9999 | 0.0117 | 9.9999 | 0.7615 | -0.6852 | -0.0299 | -0.3218 | 0.0437 | 0.4696 |
| 3 | -0.69 | 0.02 | 0.0123 | 9.9999 | 0.0102 | 9.9999 | 0.8286 | -0.6863 | -0.0296 | -0.3219 | 0.0432 | 0.4690 |
| 4 | -0.69 | 0.04 | 0.0223 | 9.9999 | 0.0141 | 9.9999 | 0.6341 | -0.6769 | -0.0300 | -0.3177 | 0.0444 | 0.4694 |
| 5 | 0.41 | 0.03 | 0.0167 | 9.9999 | 0.0121 | 9.9999 | 0.7251 | -0.5414 | -0.0267 | -0.2502 | 0.0494 | 0.4622 |
| 6 | 2.24 | 0.03 | 0.0223 | 9.9999 | 0.0140 | 9.9999 | 0.6294 | -0.3920 | -0.0197 | -0.1767 | 0.0501 | 0.4507 |
| 7 | 4.06 | 0.03 | 0.0240 | 9.9999 | 0.0155 | 9.9999 | 0.6436 | -0.2532 | -0.0094 | -0.1110 | 0.0370 | 0.4384 |
| 8 | 5.95 | 0.03 | 0.0276 | 9.9999 | 0.0142 | 9.9999 | 0.5158 | -0.1102 | 0.0016 | -0.0483 | -0.0142 | 0.4386 |
| 9 | 7.89 | 0.03 | 0.0304 | 9.9999 | 0.0143 | 9.9999 | 0.4715 | 0.0095 | 0.0157 | 0.0055 | 1.6593 | 0.5811 |
| 10 | 9.79 | 0.03 | 0.0328 | 9.9999 | 0.0148 | 9.9999 | 0.4529 | 0.1402 | 0.0314 | 0.0615 | 0.2240 | 0.4389 |
| 11 | 11.78 | 0.03 | 0.0296 | 9.9999 | 0.0128 | 9.9999 | 0.4306 | 0.2854 | 0.0476 | 0.1282 | 0.1668 | 0.4492 |
| 12 | 13.80 | 0.03 | 0.0315 | 9.9999 | 0.0133 | 9.9999 | 0.4215 | 0.4444 | 0.0538 | 0.2093 | 0.1210 | 0.4711 |
| 13 | 15.86 | 0.02 | 0.0316 | 9.9999 | 0.0123 | 9.9999 | 0.3906 | 0.5938 | 0.0531 | 0.2885 | 0.0895 | 0.4858 |
| 14 | 17.96 | 0.02 | 0.0330 | 9.9999 | 0.0127 | 9.9999 | 0.3840 | 0.7281 | 0.0501 | 0.3582 | 0.0698 | 0.4920 |
| 15 | 18.96 | 0.01 | 0.0317 | 9.9999 | 0.0115 | 9.9999 | 0.3631 | 0.7659 | 0.0488 | 0.3783 | 0.0637 | 0.4940 |
| 16 | 17.44 | 0.01 | 0.0317 | 9.9999 | 0.0112 | 9.9999 | 0.3533 | 0.6106 | 0.0527 | 0.2980 | 0.0863 | 0.4881 |
| 17 | 14.95 | 0.01 | 0.0381 | 9.9999 | 0.0143 | 9.9999 | 0.3762 | 0.4362 | 0.0542 | 0.2057 | 0.1242 | 0.4716 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 167 | 1.10 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -1.00 | 0.00 | -2.6894 | 10.9623 | 0.0532 | -0.3401 | -0.0116 | 1.0559 | 0.2504 | 0.8055 | -4.0761 |
| 2 | -1.00 | 0.02 | -2.7214 | 11.0264 | 0.1890 | -0.3652 | -0.0165 | 1.0638 | 0.2514 | 0.8123 | -4.0517 |
| 3 | -1.00 | 0.00 | -2.6829 | 10.9551 | 0.0665 | -0.3155 | -0.0169 | 1.0530 | 0.2517 | 0.8013 | -4.0833 |
| 4 | -1.02 | 0.01 | -2.9440 | 11.2367 | 0.1024 | -0.3030 | -0.0123 | 1.0682 | 0.2504 | 0.8177 | -3.8168 |
| 5 | -0.66 | 0.01 | -2.4204 | 10.0263 | 0.1511 | -0.4237 | -0.0167 | 1.0377 | 0.2507 | 0.7870 | -4.1425 |
| 6 | 0.31 | 0.01 | -2.3908 | 9.0446 | 0.1301 | -0.3956 | -0.0059 | 0.9955 | 0.2472 | 0.7443 | -4.3750 |
| 7 | 1.25 | 0.01 | -1.7885 | 8.0206 | 0.1143 | -0.4459 | -0.0164 | 0.9603 | 0.2465 | 0.7138 | -4.4845 |
| 8 | 2.10 | 0.01 | -1.4839 | 6.8654 | 0.1343 | -0.4841 | -0.0164 | 0.9174 | 0.2431 | 0.6743 | -4.6267 |
| 9 | 3.04 | 0.03 | -1.1378 | 5.8337 | 0.2921 | -0.5113 | -0.0266 | 0.8944 | 0.2396 | 0.6547 | -5.1272 |
| 10 | 3.97 | 0.02 | -0.7846 | 4.7024 | 0.1460 | -0.3098 | -0.0214 | 0.8482 | 0.2370 | 0.6112 | -5.9933 |
| 11 | 4.93 | 0.01 | -0.4434 | 3.5978 | 0.0878 | -0.1629 | -0.0215 | 0.8076 | 0.2350 | 0.5726 | -8.1134 |
| 12 | 5.86 | 0.01 | -0.1615 | 2.5741 | 0.0089 | -0.1460 | -0.0002 | 0.7867 | 0.2394 | 0.5473 | -18.1949 |
| 13 | 6.83 | 0.02 | 0.1596 | 1.5785 | 0.2050 | -0.4420 | -0.0155 | 0.7493 | 0.2443 | 0.5050 | 9.8915 |
| 14 | 7.85 | 0.02 | 0.5147 | 0.5012 | 0.1400 | -0.3915 | 0.0006 | 0.7144 | 0.2605 | 0.4538 | 0.9738 |
| 15 | 8.75 | 0.02 | 0.7975 | -0.4157 | 0.2057 | -0.4259 | 0.0009 | 0.6965 | 0.2708 | 0.4256 | -0.5212 |
| 16 | 9.75 | 0.01 | 1.1905 | -1.6149 | 0.0576 | -0.2792 | 0.0007 | 0.6580 | 0.2839 | 0.3741 | -1.3565 |
| 17 | 10.75 | 0.01 | 1.6064 | -2.9817 | -0.0627 | -0.0659 | 0.0003 | 0.6165 | 0.2919 | 0.3247 | -1.8561 |
| 18 | 11.79 | 0.02 | 1.9874 | -4.0447 | 0.1091 | -0.3961 | 0.0010 | 0.5780 | 0.2943 | 0.2837 | -2.0351 |
| 19 | 12.92 | 0.04 | 2.4284 | -5.3924 | 0.3032 | -0.4033 | 0.0014 | 0.5258 | 0.2937 | 0.2321 | -2.2206 |
| 20 | 13.81 | 0.02 | 2.8997 | -6.8691 | 0.0742 | -0.2277 | 0.0012 | 0.4616 | 0.2933 | 0.1684 | -2.3689 |
| 21 | 14.84 | 0.02 | 3.3200 | -8.1205 | 0.1292 | -0.2530 | 0.0016 | 0.4019 | 0.2877 | 0.1142 | -2.4459 |
| 22 | 15.95 | 0.01 | 3.7821 | -9.4701 | 0.0035 | -0.0902 | 0.0016 | 0.3450 | 0.2849 | 0.0600 | -2.5039 |
| 23 | 17.00 | 0.01 | 4.2300 | -10.6847 | -0.0261 | -0.0268 | -0.0035 | 0.2912 | 0.2863 | 0.0048 | -2.5259 |
| 24 | 18.06 | 0.02 | 4.7493 | -11.9871 | 0.0548 | -0.1787 | -0.0079 | 0.2448 | 0.2883 | -0.0435 | -2.5240 |
| 25 | 18.42 | 0.02 | 4.6493 | -11.8690 | 0.1204 | -0.2126 | 0.0079 | 0.2450 | 0.2846 | -0.0366 | -2.5529 |
| 26 | 17.74 | 0.02 | 4.2465 | -10.6536 | 0.0466 | -0.1404 | -0.0405 | 0.2739 | 0.2866 | -0.0127 | -2.5088 |
| 27 | 16.55 | 0.02 | 3.7000 | -9.2402 | 0.0903 | -0.3208 | 0.0018 | 0.3408 | 0.2838 | 0.0569 | -2.4973 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 167 | 1.10 | 1.7 | 0.0 | 81WOF34 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -1.00 | 0.00 | 0.0312 | 0.0045 | 0.0143 | 0.1433 | 0.4590 | -0.6254 | -0.0250 | -0.2968 | 0.0399 | 0.4748 |
| 2 | -1.00 | 0.02 | 0.0208 | 0.0030 | 0.0102 | 0.1450 | 0.4889 | -0.6346 | -0.0253 | -0.3015 | 0.0398 | 0.4751 |
| 3 | -1.00 | 0.00 | 0.0251 | 0.0033 | 0.0118 | 0.1328 | 0.4720 | -0.6260 | -0.0250 | -0.2983 | 0.0397 | 0.4751 |
| 4 | -1.02 | 0.01 | 0.0236 | 0.0031 | 0.0111 | 0.1322 | 0.4703 | -0.6303 | -0.0248 | -0.2995 | 0.0394 | 0.4752 |
| 5 | -0.66 | 0.01 | 0.0283 | 0.0036 | 0.0127 | 0.1287 | 0.4475 | -0.5605 | -0.0248 | -0.2650 | 0.0443 | 0.4729 |
| 6 | 0.31 | 0.01 | 0.0340 | 0.0046 | 0.0151 | 0.1346 | 0.4455 | -0.5033 | -0.0234 | -0.2372 | 0.0465 | 0.4713 |
| 7 | 1.25 | 0.01 | 0.0334 | 0.0043 | 0.0146 | 0.1277 | 0.4393 | -0.4358 | -0.0208 | -0.2050 | 0.0477 | 0.4704 |
| 8 | 2.10 | 0.01 | 0.0358 | 0.0042 | 0.0152 | 0.1163 | 0.4264 | -0.3582 | -0.0175 | -0.1667 | 0.0488 | 0.4654 |
| 9 | 3.04 | 0.03 | 0.0304 | 0.0035 | 0.0130 | 0.1164 | 0.4271 | -0.2936 | -0.0126 | -0.1356 | 0.0428 | 0.4618 |
| 10 | 3.97 | 0.02 | 0.0285 | 0.0032 | 0.0120 | 0.1131 | 0.4224 | -0.2223 | -0.0071 | -0.1044 | 0.0318 | 0.4695 |
| 11 | 4.93 | 0.01 | 0.0178 | 0.0018 | 0.0089 | 0.0994 | 0.5018 | -0.1541 | -0.0022 | -0.0769 | 0.0142 | 0.4989 |
| 12 | 5.86 | 0.01 | 0.0195 | 0.0021 | 0.0102 | 0.1064 | 0.5201 | -0.0852 | 0.0027 | -0.0480 | -0.0317 | 0.5640 |
| 13 | 6.83 | 0.02 | 0.0221 | 0.0016 | 0.0136 | 0.0704 | 0.6136 | -0.0214 | 0.0083 | -0.0196 | -0.3883 | 0.9194 |
| 14 | 7.85 | 0.02 | 0.0214 | 0.0019 | 0.0145 | 0.0874 | 0.6781 | 0.0415 | 0.0150 | 0.0092 | 0.3609 | 0.2225 |
| 15 | 8.75 | 0.02 | 0.0172 | 0.0017 | 0.0141 | 0.0970 | 0.8224 | 0.0961 | 0.0203 | 0.0323 | 0.2110 | 0.3358 |
| 16 | 9.75 | 0.01 | 0.0254 | 0.0014 | 0.0176 | 0.0533 | 0.6951 | 0.1742 | 0.0288 | 0.0665 | 0.1654 | 0.3818 |
| 17 | 10.75 | 0.01 | 0.0159 | 0.0014 | 0.0123 | 0.0850 | 0.7760 | 0.2533 | 0.0357 | 0.1012 | 0.1408 | 0.3997 |
| 18 | 11.79 | 0.02 | 0.0358 | 0.0021 | 0.0206 | 0.0581 | 0.5772 | 0.3163 | 0.0388 | 0.1307 | 0.1226 | 0.4133 |
| 19 | 12.82 | 0.04 | 0.0258 | 0.0008 | 0.0164 | 0.0323 | 0.6356 | 0.3956 | 0.0413 | 0.1709 | 0.1043 | 0.4319 |
| 20 | 13.81 | 0.02 | 0.0223 | -0.0005 | 0.0140 | -0.0234 | 0.6294 | 0.4769 | 0.0425 | 0.2127 | 0.0892 | 0.4459 |
| 21 | 14.84 | 0.02 | 0.0153 | -0.0007 | 0.0124 | -0.0476 | 0.8145 | 0.5499 | 0.0421 | 0.2488 | 0.0766 | 0.4524 |
| 22 | 15.95 | 0.01 | 0.0100 | -0.0003 | 0.0093 | -0.0313 | 0.9354 | 0.6316 | 0.0417 | 0.2878 | 0.0660 | 0.4556 |
| 23 | 17.00 | 0.01 | 0.0158 | 0.0005 | 0.0104 | 0.0329 | 0.6564 | 0.7019 | 0.0410 | 0.3216 | 0.0584 | 0.4581 |
| 24 | 18.06 | 0.02 | 0.0133 | -0.0002 | 0.0086 | -0.0156 | 0.6470 | 0.7734 | 0.0408 | 0.3552 | 0.0527 | 0.4593 |
| 25 | 18.42 | 0.02 | 0.0269 | -0.0010 | 0.0174 | -0.0386 | 0.6472 | 0.7600 | 0.0408 | 0.3475 | 0.0536 | 0.4572 |
| 26 | 17.74 | 0.02 | 0.0156 | -0.0007 | 0.0100 | -0.0467 | 0.6385 | 0.6967 | 0.0414 | 0.3150 | 0.0594 | 0.4522 |
| 27 | 16.55 | 0.02 | 0.0167 | 0.0003 | 0.0115 | 0.0186 | 0.6879 | 0.6091 | 0.0417 | 0.2715 | 0.0685 | 0.4457 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 167 | 1.10 | 1.7 | 0.0 | 81W0F36 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -1.00 | 0.00 | 0.0303 | 9.9999 | 0.0096 | 9.9999 | 0.3159 | -0.6644 | -0.0269 | -0.3182 | 0.0405 | 0.4789 |
| 2 | -1.00 | 0.02 | 0.0303 | 9.9999 | 0.0096 | 9.9999 | 0.3189 | -0.6604 | -0.0268 | -0.3166 | 0.0406 | 0.4794 |
| 3 | -1.00 | 0.00 | 0.0308 | 9.9999 | 0.0098 | 9.9999 | 0.3168 | -0.6583 | -0.0268 | -0.3153 | 0.0408 | 0.4789 |
| 4 | -1.02 | 0.01 | 0.0329 | 9.9999 | 0.0109 | 9.9999 | 0.3315 | -0.6543 | -0.0267 | -0.3126 | 0.0408 | 0.4777 |
| 5 | -0.66 | 0.01 | 0.0333 | 9.9999 | 0.0107 | 9.9999 | 0.3211 | -0.5971 | -0.0268 | -0.2839 | 0.0449 | 0.4755 |
| 6 | 0.31 | 0.01 | 0.0350 | 9.9999 | 0.0112 | 9.9999 | 0.3197 | -0.5376 | -0.0257 | -0.2537 | 0.0478 | 0.4719 |
| 7 | 1.25 | 0.01 | 0.0371 | 9.9999 | 0.0120 | 9.9999 | 0.3242 | -0.4761 | -0.0229 | -0.2226 | 0.0480 | 0.4676 |
| 8 | 2.10 | 0.01 | 0.0355 | 9.9999 | 0.0113 | 9.9999 | 0.3189 | -0.4029 | -0.0195 | -0.1865 | 0.0485 | 0.4629 |
| 9 | 3.04 | 0.03 | 0.0355 | 9.9999 | 0.0109 | 9.9999 | 0.3072 | -0.3325 | -0.0149 | -0.1532 | 0.0447 | 0.4608 |
| 10 | 3.97 | 0.02 | 0.0346 | 9.9999 | 0.0104 | 9.9999 | 0.2996 | -0.2651 | -0.0098 | -0.1216 | 0.0369 | 0.4586 |
| 11 | 4.93 | 0.01 | 0.0279 | 9.9999 | 0.0078 | 9.9999 | 0.2792 | -0.1926 | -0.0041 | -0.0903 | 0.0211 | 0.4687 |
| 12 | 5.86 | 0.01 | 0.0266 | 9.9999 | 0.0068 | 9.9999 | 0.2572 | -0.1246 | 0.0009 | -0.0604 | -0.0075 | 0.4847 |
| 13 | 6.83 | 0.02 | 0.0350 | 9.9999 | 0.0104 | 9.9999 | 0.2961 | -0.0697 | 0.0055 | -0.0337 | -0.0791 | 0.4840 |
| 14 | 7.85 | 0.02 | 0.0321 | 9.9999 | 0.0091 | 9.9999 | 0.2841 | -0.0019 | 0.0127 | -0.0025 | -6.7778 | 1.3303 |
| 15 | 8.75 | 0.02 | 0.0356 | 9.9999 | 0.0105 | 9.9999 | 0.2946 | 0.0590 | 0.0191 | 0.0255 | 0.3245 | 0.4329 |
| 16 | 9.75 | 0.01 | 0.0296 | 9.9999 | 0.0079 | 9.9999 | 0.2661 | 0.1281 | 0.0283 | 0.0546 | 0.2208 | 0.4260 |
| 17 | 10.75 | 0.01 | 0.0280 | 9.9999 | 0.0068 | 9.9999 | 0.2448 | 0.2060 | 0.0364 | 0.0927 | 0.1767 | 0.4503 |
| 18 | 11.79 | 0.02 | 0.0351 | 9.9999 | 0.0102 | 9.9999 | 0.2893 | 0.2661 | 0.0407 | 0.1213 | 0.1528 | 0.4558 |
| 19 | 12.82 | 0.04 | 0.0321 | 9.9999 | 0.0092 | 9.9999 | 0.2874 | 0.3461 | 0.0434 | 0.1619 | 0.1253 | 0.4678 |
| 20 | 13.81 | 0.02 | 0.0321 | 9.9999 | 0.0088 | 9.9999 | 0.2745 | 0.4311 | 0.0438 | 0.2052 | 0.1015 | 0.4760 |
| 21 | 14.84 | 0.02 | 0.0279 | 9.9999 | 0.0076 | 9.9999 | 0.2719 | 0.5021 | 0.0430 | 0.2421 | 0.0857 | 0.4822 |
| 22 | 15.95 | 0.01 | 0.0271 | 9.9999 | 0.0060 | 9.9999 | 0.2217 | 0.5771 | 0.0433 | 0.2801 | 0.0750 | 0.4854 |
| 23 | 17.00 | 0.01 | 0.0276 | 9.9999 | 0.0065 | 9.9999 | 0.2372 | 0.6488 | 0.0436 | 0.3170 | 0.0671 | 0.4886 |
| 24 | 19.06 | 0.02 | 0.0300 | 9.9999 | 0.0079 | 9.9999 | 0.2624 | 0.7154 | 0.0428 | 0.3513 | 0.0599 | 0.4910 |
| 25 | 18.42 | 0.02 | 0.0326 | 9.9999 | 0.0083 | 9.9999 | 0.2542 | 0.7120 | 0.0426 | 0.3490 | 0.0599 | 0.4901 |
| 26 | 17.74 | 0.02 | 0.0331 | 9.9999 | 0.0089 | 9.9999 | 0.2698 | 0.6369 | 0.0431 | 0.3094 | 0.0677 | 0.4858 |
| 27 | 16.55 | 0.02 | 0.0331 | 9.9999 | 0.0092 | 9.9999 | 0.2792 | 0.5545 | 0.0435 | 0.2672 | 0.0784 | 0.4819 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | BIWOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.04 | -1.5236 | 5.3524 | 0.1465 | -0.3093 | -0.0062 | 0.4451 | 0.1547 | 0.2905 | -3.5130 |
| 2 | -5.70 | 0.02 | -1.5096 | 5.3242 | 0.0736 | -0.2535 | -0.0063 | 0.4453 | 0.1556 | 0.2898 | -3.5269 |
| 3 | -5.71 | 0.03 | -1.4772 | 5.2911 | 0.1311 | -0.3071 | -0.0061 | 0.4446 | 0.1562 | 0.2885 | -3.5819 |
| 4 | -5.71 | 0.02 | -1.5066 | 5.3137 | 0.1166 | -0.2937 | 0.0009 | 0.4446 | 0.1562 | 0.2885 | -3.5270 |
| 5 | -5.83 | 0.01 | -1.4769 | 5.2908 | 0.0303 | -0.2127 | 0.0009 | 0.4484 | 0.1530 | 0.2955 | -3.5824 |
| 6 | -5.64 | 0.02 | -1.4210 | 5.1772 | 0.0007 | -0.1975 | 0.0009 | 0.4482 | 0.1456 | 0.3027 | -3.6433 |
| 7 | -3.97 | 0.01 | -1.2232 | 4.7939 | 0.0190 | -0.1525 | 0.0085 | 0.4190 | 0.1294 | 0.2897 | -3.9191 |
| 8 | -2.24 | 0.01 | -0.9962 | 4.2225 | 0.0204 | -0.1290 | 0.0017 | 0.3866 | 0.1153 | 0.2713 | -4.2385 |
| 9 | -0.46 | 0.02 | -0.7611 | 3.7189 | 0.0507 | -0.1323 | -0.0049 | 0.3550 | 0.1058 | 0.2492 | -4.8863 |
| 10 | 1.31 | 0.01 | -0.4573 | 2.8905 | 0.0321 | -0.1780 | -0.0045 | 0.3206 | 0.1002 | 0.2204 | -6.3204 |
| 11 | 3.16 | 0.01 | -0.1580 | 2.0318 | 0.0310 | -0.1901 | -0.0041 | 0.2907 | 0.1052 | 0.1905 | -12.8610 |
| 12 | 4.87 | 0.02 | 0.1167 | 1.2971 | 0.1058 | -0.2108 | 0.0036 | 0.2708 | 0.1039 | 0.1670 | 11.1189 |
| 13 | 6.68 | 0.02 | 0.3685 | 0.7190 | 0.0608 | -0.1936 | -0.0031 | 0.2480 | 0.1102 | 0.1379 | 1.9511 |
| 14 | 8.45 | 0.02 | 0.6888 | 0.0209 | 0.0748 | -0.2071 | -0.0024 | 0.2287 | 0.1176 | 0.1112 | 0.0303 |
| 15 | 10.21 | 0.02 | 0.9892 | -0.7128 | 0.0747 | -0.2075 | -0.0019 | 0.1952 | 0.1231 | 0.0721 | -0.7206 |
| 16 | 12.01 | 0.02 | 1.3201 | -1.4994 | 0.1175 | -0.2615 | 0.0059 | 0.1613 | 0.1280 | 0.0333 | -1.1359 |
| 17 | 13.81 | 0.02 | 1.7355 | -2.4228 | 0.0894 | -0.2362 | -0.0007 | 0.1253 | 0.1344 | -0.0091 | -1.3960 |
| 18 | 15.63 | 0.02 | 2.1040 | -3.3452 | 0.1068 | -0.2165 | 0.0141 | 0.0927 | 0.1418 | -0.0490 | -1.5899 |
| 19 | 17.51 | 0.01 | 2.4761 | -4.0909 | 0.0233 | -0.1018 | 0.0218 | 0.0685 | 0.1516 | -0.0830 | -1.6522 |
| 20 | 19.31 | 0.01 | 2.7658 | -4.5049 | -0.0031 | -0.0398 | 0.0227 | 0.0674 | 0.1636 | -0.0961 | -1.6288 |
| 21 | 21.15 | 0.01 | 3.0045 | -4.9573 | -0.0659 | -0.0551 | 0.0095 | 0.0810 | 0.1915 | -0.1105 | -1.5169 |
| 22 | 22.98 | 0.00 | 3.2494 | -4.6014 | -0.1194 | 0.0700 | 0.0249 | 0.0901 | 0.2262 | -0.1361 | -1.4161 |
| 23 | 24.77 | 0.01 | 3.5128 | -4.7617 | -0.1268 | 0.2431 | 0.0256 | 0.1081 | 0.2680 | -0.1600 | -1.3555 |
| 24 | 26.61 | 0.03 | 3.9854 | -4.9384 | 0.2128 | -0.4443 | 0.0860 | 0.0951 | 0.2880 | -0.1929 | -1.2710 |
| 25 | 27.89 | 0.06 | 4.1004 | -5.0877 | 0.6905 | -1.3104 | 0.1888 | 0.0767 | 0.3067 | -0.2299 | -1.2408 |
| 26 | 27.97 | 0.05 | 4.1232 | -5.0540 | 0.5683 | -1.0959 | 0.1746 | 0.0846 | 0.3046 | -0.2199 | -1.2257 |
| 27 | 28.35 | 0.05 | 4.1966 | -5.0020 | 0.5853 | -1.0741 | 0.1822 | 0.0674 | 0.3092 | -0.2417 | -1.1919 |
| 28 | 28.66 | 0.05 | 4.2384 | -5.0336 | 0.5417 | -1.0339 | 0.2039 | 0.0741 | 0.3181 | -0.2439 | -1.1876 |
| 29 | 28.92 | 0.05 | 4.3085 | -5.0858 | 0.5567 | -1.0219 | 0.1898 | 0.0784 | 0.3241 | -0.2456 | -1.1804 |
| 30 | 29.25 | 0.04 | 4.3735 | -5.0831 | 0.5462 | -0.9876 | 0.1760 | 0.0704 | 0.3238 | -0.2533 | -1.1623 |
| 31 | 29.53 | 0.05 | 4.3962 | -5.0956 | 0.4652 | -0.6072 | 0.1322 | 0.0598 | 0.3295 | -0.2696 | -1.1591 |
| 32 | 29.81 | 0.04 | 4.4839 | -5.1270 | 0.4809 | -0.6224 | 0.1398 | 0.0676 | 0.3360 | -0.2683 | -1.1434 |
| 33 | 30.07 | 0.04 | 4.5123 | -5.0962 | 0.5007 | -0.7672 | 0.1475 | 0.0683 | 0.3402 | -0.2718 | -1.1290 |
| 34 | 30.33 | 0.05 | 4.6024 | -5.0741 | 0.5506 | -0.7131 | 0.1622 | 0.0579 | 0.3415 | -0.2835 | -1.1025 |
| 35 | 30.62 | 0.05 | 4.6694 | -5.0739 | 0.6008 | -0.8869 | 0.1631 | 0.0617 | 0.3502 | -0.2885 | -1.0866 |
| 36 | 30.87 | 0.06 | 4.7296 | -5.0302 | 0.6285 | -0.7495 | 0.1778 | 0.0664 | 0.3544 | -0.2879 | -1.0638 |
| 37 | 31.15 | 0.05 | 4.7533 | -4.9891 | 0.4520 | -0.3520 | 0.1193 | 0.0637 | 0.3586 | -0.2949 | -1.0496 |
| 38 | 31.43 | 0.05 | 4.8132 | -4.9493 | 0.5012 | -0.3520 | 0.1418 | 0.0605 | 0.3647 | -0.3042 | -1.0274 |
| 39 | 31.67 | 0.03 | 4.8613 | -5.0360 | 0.3760 | -0.3584 | 0.1274 | 0.0620 | 0.3659 | -0.3039 | -1.0359 |
| 40 | 31.96 | 0.04 | 4.9235 | -4.9404 | 0.4624 | -0.6551 | 0.1500 | 0.0641 | 0.3758 | -0.3117 | -1.0036 |
| 41 | 32.21 | 0.04 | 5.0389 | -4.9909 | 0.4614 | -0.8508 | 0.1146 | 0.0524 | 0.3682 | -0.3158 | -0.9905 |
| 42 | 32.48 | 0.02 | 5.1596 | -4.8644 | 0.3102 | -0.8249 | 0.0570 | 0.0505 | 0.3734 | -0.3229 | -0.9428 |
| 43 | 32.73 | 0.04 | 5.2326 | -4.8662 | 0.3747 | -0.7846 | 0.0719 | 0.0479 | 0.3730 | -0.3251 | -0.9300 |
| 44 | 32.98 | 0.03 | 5.2348 | -4.6865 | 0.3567 | -0.8179 | 0.0722 | 0.0530 | 0.3785 | -0.3255 | -0.8952 |
| 45 | 33.22 | 0.02 | 5.3444 | -4.6659 | 0.3529 | -1.0811 | 0.1169 | 0.0618 | 0.3903 | -0.3285 | -0.8730 |
| 46 | 33.47 | 0.03 | 5.4720 | -4.7276 | 0.4217 | -1.2355 | 0.0955 | 0.0484 | 0.3953 | -0.3469 | -0.8640 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.73 | 0.03 | 5.5347 | -4.5948 | 0.3875 | -1.2791 | 0.0960 | 0.0554 | 0.3981 | -0.3427 | -0.8302 |
| 48 | 33.96 | 0.02 | 5.5624 | -4.5972 | 0.3601 | -1.2285 | 0.1107 | 0.0442 | 0.3962 | -0.3520 | -0.8265 |
| 49 | 34.21 | 0.03 | 5.6194 | -4.6037 | 0.4179 | -1.2696 | 0.1110 | 0.0454 | 0.3972 | -0.3518 | -0.8192 |
| 50 | 34.46 | 0.04 | 5.7701 | -4.4849 | 0.4419 | -1.3818 | 0.0976 | 0.0325 | 0.3999 | -0.3674 | -0.7773 |
| 51 | 34.71 | 0.03 | 5.8551 | -4.6036 | 0.5108 | -1.5101 | 0.0981 | 0.0319 | 0.4059 | -0.3740 | -0.7863 |
| 52 | 34.94 | 0.04 | 5.9168 | -4.5245 | 0.4572 | -1.3841 | 0.1201 | 0.0284 | 0.4073 | -0.3789 | -0.7647 |
| 53 | 35.17 | 0.04 | 5.9369 | -4.4160 | 0.5789 | -1.6645 | 0.1425 | 0.0373 | 0.4120 | -0.3747 | -0.7438 |
| 54 | 35.42 | 0.05 | 6.0387 | -4.4399 | 0.6427 | -1.6630 | 0.1432 | 0.0223 | 0.4139 | -0.3916 | -0.7352 |
| 55 | 35.65 | 0.04 | 6.0818 | -4.4725 | 0.6027 | -1.7912 | 0.1508 | 0.0352 | 0.4309 | -0.3957 | -0.7354 |
| 56 | 35.87 | 0.02 | 6.1671 | -4.4350 | 0.5259 | -2.4583 | 0.1737 | 0.0873 | 0.4727 | -0.3854 | -0.7191 |
| 57 | 36.12 | 0.01 | 6.2600 | -4.3818 | 0.3494 | -2.5696 | 0.1966 | 0.0971 | 0.4917 | -0.3946 | -0.7000 |
| 58 | 36.34 | 0.02 | 6.3032 | -4.3591 | 0.4545 | -2.6291 | 0.1751 | 0.0916 | 0.4912 | -0.3995 | -0.6916 |
| 59 | 36.57 | -0.01 | 6.3730 | -4.4662 | 0.5548 | -2.7623 | 0.1974 | 0.0747 | 0.4813 | -0.4065 | -0.7008 |
| 60 | 36.82 | 0.03 | 6.4100 | -4.3340 | 0.5963 | -2.8398 | 0.2052 | 0.0763 | 0.4818 | -0.4054 | -0.6781 |
| 61 | 37.04 | 0.02 | 6.4857 | -4.3191 | 0.4831 | -2.6699 | 0.1906 | 0.0733 | 0.4809 | -0.4075 | -0.6659 |
| 62 | 37.27 | 0.01 | 6.5949 | -4.4707 | 0.4366 | -2.6985 | 0.1916 | 0.0775 | 0.4885 | -0.4109 | -0.6779 |
| 63 | 37.50 | 0.02 | 6.6578 | -4.4108 | 0.5750 | -2.7383 | 0.1921 | 0.0682 | 0.4828 | -0.4145 | -0.6625 |
| 64 | 37.72 | 0.04 | 6.6832 | -4.3909 | 0.5720 | -2.3242 | 0.1771 | 0.0334 | 0.4684 | -0.4350 | -0.6570 |
| 65 | 37.97 | 0.04 | 6.7898 | -4.3625 | 0.6561 | -2.2650 | 0.1705 | 0.0167 | 0.4704 | -0.4537 | -0.6425 |
| 66 | 38.20 | 0.04 | 6.9090 | -4.4541 | 0.7025 | -2.5319 | 0.2010 | 0.0259 | 0.4712 | -0.4453 | -0.6447 |
| 67 | 38.41 | 0.05 | 6.8917 | -4.3280 | 0.7559 | -2.1935 | 0.1639 | 0.0024 | 0.4526 | -0.4502 | -0.6280 |
| 68 | 38.62 | 0.05 | 6.9919 | -4.2264 | 0.7620 | -2.1226 | 0.1792 | 0.0016 | 0.4527 | -0.4511 | -0.6045 |
| 69 | 38.86 | 0.06 | 7.0878 | -4.3502 | 0.7094 | -1.7241 | 0.1568 | -0.0223 | 0.4474 | -0.4697 | -0.6138 |
| 70 | 39.07 | 0.07 | 7.1151 | -4.2957 | 0.8609 | -1.5349 | 0.1276 | -0.0253 | 0.4450 | -0.4703 | -0.6037 |
| 71 | 39.26 | 0.07 | 7.1651 | -4.2651 | 0.7951 | -1.6092 | 0.1423 | -0.0202 | 0.4484 | -0.4686 | -0.5953 |
| 72 | 39.48 | 0.07 | 7.2115 | -4.1903 | 0.7684 | -1.3261 | 0.1202 | -0.0287 | 0.4545 | -0.4833 | -0.5811 |
| 73 | 39.69 | 0.07 | 7.2979 | -4.2734 | 0.8206 | -1.2719 | 0.1130 | -0.0352 | 0.4612 | -0.4965 | -0.5858 |
| 74 | 39.89 | 0.07 | 7.3677 | -4.3233 | 0.8657 | -0.9010 | 0.0686 | -0.0002 | 0.4669 | -0.4671 | -0.5868 |
| 75 | 40.09 | 0.07 | 7.5041 | -4.4116 | 0.7072 | -1.0745 | 0.0987 | -0.0346 | 0.4706 | -0.5053 | -0.5879 |
| 76 | 40.29 | 0.06 | 7.5631 | -4.4219 | 0.7642 | -0.4526 | 0.0532 | 0.0021 | 0.4988 | -0.4967 | -0.5847 |
| 77 | 40.52 | 0.07 | 7.6213 | -4.4479 | 0.8347 | -0.2819 | 0.0379 | 0.0115 | 0.5206 | -0.5091 | -0.5938 |
| 78 | 40.71 | 0.07 | 7.8114 | -4.6855 | 0.7831 | 0.2666 | 0.0145 | 0.0480 | 0.5429 | -0.4949 | -0.5998 |
| 79 | 40.92 | 0.09 | 7.9291 | -4.7943 | 0.8821 | 0.3573 | 0.0069 | 0.0505 | 0.5515 | -0.5010 | -0.6046 |
| 80 | 41.13 | 0.09 | 7.9554 | -4.5814 | 0.9339 | 0.1509 | 0.0226 | 0.0369 | 0.5515 | -0.5146 | -0.5759 |
| 81 | 41.32 | 0.09 | 8.1320 | -4.7753 | 0.9188 | 0.5042 | 0.0072 | 0.0528 | 0.5608 | -0.5080 | -0.5872 |
| 82 | 41.52 | 0.09 | 8.1775 | -4.7364 | 0.9090 | 0.3039 | 0.0082 | 0.0245 | 0.5537 | -0.5292 | -0.5792 |
| 83 | 41.73 | 0.12 | 8.4260 | -5.0592 | 1.1806 | 0.5046 | 0.0003 | 0.0412 | 0.5697 | -0.5285 | -0.6004 |
| 84 | 41.91 | 0.08 | 8.3062 | -4.6061 | 0.8854 | 0.4815 | -0.0064 | 0.0255 | 0.5659 | -0.5404 | -0.5545 |
| 85 | 42.11 | 0.10 | 8.4924 | -4.9790 | 1.0135 | 0.6066 | -0.0066 | 0.0392 | 0.5695 | -0.5303 | -0.5745 |
| 86 | 42.29 | 0.08 | 8.4973 | -4.7004 | 0.8302 | 0.3353 | -0.0123 | 0.0028 | 0.5695 | -0.5667 | -0.5532 |
| 87 | 42.46 | 0.09 | 8.5708 | -4.7622 | 0.9594 | 0.4853 | -0.0055 | 0.0320 | 0.5807 | -0.5487 | -0.5556 |
| 88 | 42.64 | 0.09 | 8.7774 | -4.9768 | 0.9711 | 0.7215 | 0.0015 | 0.0262 | 0.5826 | -0.5564 | -0.5670 |
| 89 | 42.84 | 0.10 | 8.9251 | -5.0470 | 1.0792 | 0.8083 | 0.0088 | 0.0348 | 0.5940 | -0.5592 | -0.5655 |
| 90 | 43.03 | 0.10 | 9.0764 | -5.3079 | 1.0848 | 0.9550 | 0.0013 | 0.0211 | 0.5929 | -0.5718 | -0.5848 |
| 91 | 43.21 | 0.10 | 9.1380 | -5.2654 | 1.0787 | 0.8316 | -0.0051 | 0.0250 | 0.6017 | -0.5767 | -0.5762 |
| 92 | 43.38 | 0.09 | 9.1095 | -5.0917 | 1.0145 | 0.8585 | 0.0095 | 0.0272 | 0.6012 | -0.5740 | -0.5589 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | -CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.56 | 0.10 | 9.2225 | -5.2309 | 1.1290 | 0.9970 | -0.0198 | 0.0318 | 0.6031 | -0.5713 | -0.5672 |
| 94 | 43.73 | 0.10 | 9.2806 | -5.2574 | 1.0685 | 1.0148 | -0.0051 | 0.0268 | 0.6087 | -0.5819 | -0.5665 |
| 95 | 43.94 | 0.09 | 9.3323 | -5.0893 | 0.9595 | 1.0193 | 0.0028 | 0.0139 | 0.6168 | -0.6029 | -0.5453 |
| 96 | 44.12 | 0.10 | 9.4369 | -5.2659 | 1.0680 | 1.1193 | -0.0047 | 0.0114 | 0.6135 | -0.6021 | -0.5580 |
| 97 | 44.28 | 0.09 | 9.4109 | -5.1212 | 1.0037 | 1.0515 | -0.0042 | 0.0102 | 0.6196 | -0.6094 | -0.5442 |
| 98 | 44.49 | 0.09 | 9.5838 | -5.2560 | 1.0391 | 1.1476 | -0.0134 | 0.0169 | 0.6192 | -0.6023 | -0.5403 |
| 99 | 44.67 | 0.10 | 9.7822 | -5.5361 | 1.1439 | 1.4542 | -0.0193 | -0.0056 | 0.6254 | -0.6310 | -0.5659 |
| 100 | 44.85 | 0.08 | 9.7904 | -5.5075 | 0.8893 | 1.5486 | -0.0333 | 0.0041 | 0.6298 | -0.6257 | -0.5625 |
| 101 | 45.01 | 0.07 | 9.7489 | -5.3044 | 0.9076 | 1.3479 | -0.0181 | 0.0083 | 0.6285 | -0.6202 | -0.5441 |
| 102 | 45.20 | 0.07 | 9.8694 | -5.5536 | 0.8817 | 1.7295 | -0.0336 | -0.0068 | 0.6267 | -0.6335 | -0.5627 |
| 103 | 45.37 | 0.07 | 9.8974 | -5.2953 | 0.9254 | 1.3955 | -0.0320 | -0.0025 | 0.6341 | -0.6366 | -0.5350 |
| 104 | 45.54 | 0.05 | 9.9469 | -5.3706 | 0.6777 | 1.8920 | -0.0517 | -0.0148 | 0.6347 | -0.6495 | -0.5399 |
| 105 | 45.72 | 0.05 | 10.0520 | -5.3641 | 0.6326 | 1.8962 | -0.0612 | -0.0235 | 0.6352 | -0.6587 | -0.5336 |
| 106 | 45.89 | 0.05 | 10.0224 | -5.4011 | 0.6931 | 1.9440 | -0.0613 | -0.0127 | 0.6315 | -0.6442 | -0.5389 |
| 107 | 46.06 | 0.04 | 10.1569 | -5.4182 | 0.5060 | 2.3997 | -0.0906 | -0.0230 | 0.6374 | -0.6604 | -0.5334 |
| 108 | 46.24 | 0.04 | 10.1877 | -5.3538 | 0.4611 | 2.4038 | -0.0903 | -0.0264 | 0.6370 | -0.6634 | -0.5255 |
| 109 | 46.40 | 0.03 | 10.1586 | -5.1947 | 0.4558 | 2.0111 | -0.0814 | -0.0435 | 0.6344 | -0.6780 | -0.5114 |
| 110 | 46.58 | 0.03 | 10.1991 | -5.1601 | 0.3322 | 2.2373 | -0.1030 | -0.0520 | 0.6259 | -0.6780 | -0.5059 |
| 111 | 46.75 | 0.01 | 10.1673 | -4.8570 | 0.1896 | 2.0838 | -0.1019 | -0.0636 | 0.6058 | -0.6694 | -0.4777 |
| 112 | 46.92 | -0.01 | 10.0876 | -4.6642 | -0.0552 | 1.9502 | -0.1148 | -0.1447 | 0.5593 | -0.7040 | -0.4626 |
| 113 | 47.08 | -0.03 | 10.0980 | -4.4285 | -0.0195 | 0.3015 | 0.0186 | -0.2242 | 0.4582 | -0.6825 | -0.4366 |
| 114 | 47.26 | -0.01 | 10.2126 | -4.5181 | 0.0598 | 0.9842 | -0.0402 | -0.2000 | 0.4691 | -0.6691 | -0.4426 |
| 115 | 47.42 | -0.02 | 10.1795 | -4.4451 | 0.0599 | 0.6924 | -0.0109 | -0.2239 | 0.4610 | -0.6850 | -0.4367 |
| 116 | 47.60 | -0.02 | 10.3213 | -4.5534 | 0.0335 | 0.7553 | -0.0247 | -0.2272 | 0.4646 | -0.6919 | -0.4412 |
| 117 | 47.77 | -0.02 | 10.3610 | -4.5562 | 0.0787 | 0.7738 | -0.0105 | -0.2175 | 0.4747 | -0.6923 | -0.4397 |
| 118 | 47.96 | -0.03 | 10.3083 | -4.5841 | -0.0830 | 1.1019 | -0.0250 | -0.2242 | 0.4894 | -0.7136 | -0.4362 |
| 119 | 48.10 | -0.02 | 10.5176 | -4.6241 | -0.1041 | 1.5619 | -0.0688 | -0.2170 | 0.4903 | -0.7073 | -0.4397 |
| 120 | 48.29 | -0.02 | 10.5465 | -4.6754 | -0.1002 | 1.6279 | -0.0687 | -0.2108 | 0.5247 | -0.7355 | -0.4433 |
| 121 | 48.46 | -0.02 | 10.6218 | -4.6303 | -0.0188 | 1.1853 | -0.0398 | -0.2207 | 0.4893 | -0.7100 | -0.4359 |
| 122 | 48.62 | -0.02 | 10.6861 | -4.7030 | -0.0440 | 1.8479 | -0.0969 | -0.2063 | 0.5003 | -0.7066 | -0.4401 |
| 123 | 48.80 | -0.01 | 10.8063 | -4.6770 | -0.1026 | 1.8651 | -0.0823 | -0.2019 | 0.4999 | -0.7018 | -0.4328 |
| 124 | 48.98 | -0.01 | 10.8644 | -4.8109 | 0.0205 | 1.6595 | -0.0884 | -0.2177 | 0.5071 | -0.7248 | -0.4028 |
| 125 | 49.16 | -0.01 | 10.8667 | -4.7091 | -0.1181 | 2.1269 | -0.1247 | -0.1945 | 0.5316 | -0.7261 | -0.4334 |
| 126 | 49.33 | -0.01 | 10.9263 | -4.6878 | -0.0731 | 2.0341 | -0.1465 | -0.1393 | 0.5630 | -0.7023 | -0.4290 |
| 127 | 49.50 | -0.01 | 11.0448 | -4.6771 | -0.1325 | 2.0274 | -0.1389 | -0.1473 | 0.5739 | -0.7212 | -0.4235 |
| 128 | 49.68 | -0.01 | 11.0800 | -4.7701 | -0.0852 | 2.0831 | -0.1531 | -0.1439 | 0.5857 | -0.7295 | -0.4305 |
| 129 | 49.85 | -0.01 | 11.1261 | -4.7026 | -0.0079 | 2.7609 | -0.1452 | -0.1574 | 0.5740 | -0.7314 | -0.4227 |
| 130 | 50.02 | 0.00 | 11.2423 | -4.7599 | 0.1081 | 2.5135 | -0.1529 | -0.1325 | 0.5975 | -0.7300 | -0.4234 |
| 131 | 50.19 | 0.00 | 11.3080 | -4.8605 | 0.0090 | 2.6198 | -0.1391 | -0.1460 | 0.5975 | -0.7435 | -0.4298 |
| 132 | 50.37 | 0.02 | 11.3801 | -4.9755 | 0.1547 | 2.5618 | -0.1462 | -0.1339 | 0.6091 | -0.7430 | -0.4372 |
| 133 | 50.54 | 0.02 | 11.4938 | -5.3021 | 0.1761 | 2.9906 | -0.1478 | -0.1252 | 0.6159 | -0.7411 | -0.4613 |
| 134 | 50.69 | 0.03 | 11.5988 | -5.1587 | 0.3070 | 2.6480 | -0.1327 | -0.1388 | 0.6146 | -0.7535 | -0.4520 |
| 135 | 50.86 | 0.03 | 11.7288 | -5.4254 | 0.2342 | 2.9665 | -0.1404 | -0.1488 | 0.6129 | -0.7617 | -0.4626 |
| 136 | 51.04 | 0.04 | 11.8021 | -5.7810 | 0.3685 | 2.9836 | -0.1270 | -0.1388 | 0.6150 | -0.7539 | -0.4870 |
| 137 | 51.23 | 0.05 | 12.3067 | -6.8390 | 0.4038 | 3.3883 | -0.1348 | -0.1573 | 0.5980 | -0.7553 | -0.5595 |
| 138 | 51.38 | 0.04 | 12.2405 | -6.7606 | 0.3320 | 3.1362 | -0.1271 | -0.1707 | 0.5962 | -0.7669 | -0.5525 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.59 | 0.07 | 12.7569 | -7.3040 | 0.4846 | 4.0845 | -0.1507 | -0.1858 | 0.5992 | -0.7850 | -0.5726 |
| 140 | 51.75 | 0.04 | 12.7034 | -7.2348 | 0.3374 | 3.8172 | -0.1569 | -0.1742 | 0.5963 | -0.7705 | -0.5695 |
| 141 | 51.94 | 0.06 | 12.9111 | -7.5515 | 0.4421 | 4.1205 | -0.1507 | -0.1869 | 0.6018 | -0.7887 | -0.5849 |
| 142 | 52.09 | 0.06 | 12.8962 | -7.2654 | 0.4238 | 4.3396 | -0.1724 | -0.1983 | 0.6000 | -0.7983 | -0.5834 |
| 143 | 52.26 | 0.07 | 13.1083 | -7.5928 | 0.4784 | 4.8103 | -0.1746 | -0.1990 | 0.6082 | -0.8072 | -0.5792 |
| 144 | 52.44 | 0.09 | 13.1074 | -7.5384 | 0.6896 | 4.2585 | -0.1516 | -0.1968 | 0.6155 | -0.8123 | -0.5751 |
| 145 | 52.60 | 0.09 | 13.2272 | -7.6729 | 0.7766 | 4.2105 | -0.1232 | -0.1996 | 0.6166 | -0.8162 | -0.5650 |
| 146 | 52.75 | 0.08 | 13.1424 | -7.4495 | 0.7512 | 4.2571 | -0.1451 | -0.2030 | 0.6086 | -0.8116 | -0.5668 |
| 147 | 52.93 | 0.09 | 13.4021 | -7.7994 | 1.0222 | 3.3635 | -0.0992 | -0.2045 | 0.6171 | -0.8216 | -0.5820 |
| 148 | 53.09 | 0.09 | 13.2399 | -7.4144 | 1.0238 | 3.6919 | -0.1008 | -0.2037 | 0.6116 | -0.8153 | -0.5600 |
| 149 | 53.24 | 0.09 | 13.3266 | -7.5380 | 1.0488 | 3.2393 | -0.0565 | -0.2266 | 0.6167 | -0.8433 | -0.5656 |
| 150 | 53.40 | 0.11 | 13.3605 | -7.5741 | 1.2249 | 3.0950 | -0.0777 | -0.2067 | 0.6160 | -0.8227 | -0.5669 |
| 151 | 53.56 | 0.10 | 13.5232 | -7.7584 | 1.2207 | 2.6524 | -0.0115 | -0.2095 | 0.6142 | -0.8237 | -0.5737 |
| 152 | 53.72 | 0.11 | 13.5796 | -7.7266 | 1.2218 | 2.9282 | -0.0268 | -0.2237 | 0.6168 | -0.8405 | -0.5690 |
| 153 | 53.88 | 0.10 | 13.7316 | -7.8306 | 1.2096 | 2.6077 | -0.0180 | -0.2233 | 0.6257 | -0.8490 | -0.5703 |
| 154 | 54.03 | 0.11 | 13.6723 | -7.7307 | 1.2271 | 2.6646 | -0.0112 | -0.2351 | 0.6220 | -0.8571 | -0.5654 |
| 155 | 54.20 | 0.10 | 13.8454 | -7.8985 | 1.1320 | 2.5898 | 0.0042 | -0.2245 | 0.6219 | -0.8464 | -0.5705 |
| 156 | 54.35 | 0.10 | 13.8229 | -7.9741 | 1.0165 | 2.9893 | -0.0116 | -0.2277 | 0.6320 | -0.8597 | -0.5696 |
| 157 | 54.52 | 0.11 | 14.0508 | -8.0970 | 1.2506 | 2.7498 | -0.0021 | -0.2277 | 0.6310 | -0.8557 | -0.5763 |
| 158 | 54.67 | 0.10 | 13.9718 | -7.9565 | 1.1625 | 2.8015 | -0.0097 | -0.2546 | 0.6289 | -0.8836 | -0.5695 |
| 159 | 54.81 | 0.11 | 14.1202 | -8.0723 | 1.1137 | 3.0411 | -0.0027 | -0.2309 | 0.6346 | -0.8656 | -0.5717 |
| 160 | 54.97 | 0.11 | 14.1425 | -8.0815 | 1.1154 | 3.0345 | -0.0100 | -0.2508 | 0.6311 | -0.8820 | -0.5714 |
| 161 | 55.11 | 0.12 | 14.2288 | -8.1842 | 1.3587 | 2.9746 | -0.0100 | -0.2575 | 0.6402 | -0.8978 | -0.5752 |
| 162 | 55.30 | 0.11 | 14.4059 | -8.3321 | 1.1490 | 3.0936 | -0.0022 | -0.2414 | 0.6472 | -0.8887 | -0.5763 |
| 163 | 55.45 | 0.12 | 14.3422 | -8.2316 | 1.3731 | 2.6497 | -0.0083 | -0.2628 | 0.6373 | -0.9002 | -0.5739 |
| 164 | 55.63 | 0.11 | 14.1701 | -7.8590 | 1.2305 | 2.8309 | -0.0092 | -0.2586 | 0.6340 | -0.8927 | -0.5546 |
| 165 | 55.79 | 0.10 | 14.1376 | -7.9661 | 1.1815 | 2.7408 | -0.0017 | -0.2656 | 0.6413 | -0.9070 | -0.5635 |
| 166 | 55.98 | 0.11 | 14.5588 | -8.5434 | 1.4185 | 2.8438 | -0.0015 | -0.2618 | 0.6451 | -0.9070 | -0.5868 |
| 167 | 56.13 | 0.11 | 14.5556 | -8.2909 | 1.3256 | 2.8398 | 0.0062 | -0.2712 | 0.6437 | -0.9150 | -0.5696 |
| 168 | 56.28 | 0.09 | 14.4861 | -8.4966 | 1.1476 | 2.6815 | -0.0078 | -0.2662 | 0.6499 | -0.9162 | -0.5865 |
| 169 | 56.45 | 0.11 | 14.7414 | -8.4852 | 1.3398 | 2.8134 | 0.0068 | -0.2894 | 0.6513 | -0.9407 | -0.5756 |
| 170 | 56.61 | 0.11 | 14.5962 | -8.4213 | 1.3335 | 2.6893 | -0.0004 | -0.2886 | 0.6465 | -0.9351 | -0.5770 |
| 171 | 56.78 | 0.09 | 14.7009 | -8.4473 | 1.1795 | 2.7033 | 0.0076 | -0.2668 | 0.6471 | -0.9080 | -0.5746 |
| 172 | 56.92 | 0.09 | 14.6828 | -8.4128 | 1.0874 | 2.7117 | 0.0076 | -0.2908 | 0.6566 | -0.9474 | -0.5730 |
| 173 | 57.08 | 0.08 | 14.8580 | -8.6014 | 0.9964 | 2.7441 | 0.0300 | -0.2987 | 0.6566 | -0.9553 | -0.5789 |
| 174 | 57.23 | 0.08 | 14.9078 | -8.4957 | 1.0645 | 2.5636 | 0.0164 | -0.2858 | 0.6614 | -0.9473 | -0.5699 |
| 175 | 57.36 | 0.07 | 14.7483 | -8.1912 | 0.9223 | 2.5016 | 0.0238 | -0.2856 | 0.6524 | -0.9381 | -0.5554 |
| 176 | 57.50 | 0.03 | 14.7826 | -8.4946 | 0.5045 | 2.4901 | 0.0100 | -0.2890 | 0.6625 | -0.9515 | -0.5748 |
| 177 | 57.67 | 0.07 | 14.9300 | -8.4537 | 0.9132 | 2.6273 | 0.0239 | -0.2889 | 0.6681 | -0.9570 | -0.5662 |
| 178 | 57.81 | 0.06 | 14.7810 | -8.4209 | 0.8112 | 2.1365 | 0.0254 | -0.3057 | 0.6615 | -0.9672 | -0.5698 |
| 179 | 57.96 | 0.07 | 15.0094 | -8.5454 | 0.9911 | 2.3331 | 0.0105 | -0.3082 | 0.6625 | -0.9707 | -0.5693 |
| 180 | 57.98 | 0.05 | 14.9986 | -8.6379 | 0.7688 | 2.2159 | 0.0112 | -0.3062 | 0.6695 | -0.9757 | -0.5772 |
| 181 | 57.98 | 0.07 | 14.9733 | -8.6056 | 0.8860 | 2.3920 | 0.0248 | -0.3085 | 0.6654 | -0.9739 | -0.5747 |
| 182 | 57.97 | 0.04 | 14.7571 | -8.2024 | 0.7153 | 2.0709 | 0.0114 | -0.3132 | 0.6549 | -0.9681 | -0.5558 |
| 183 | 58.00 | 0.07 | 15.0588 | -8.7428 | 0.9634 | 2.3981 | 0.0103 | -0.3108 | 0.6668 | -0.9776 | -0.5806 |
| 184 | 58.00 | 0.06 | 14.9028 | -8.4617 | 0.9713 | 2.2469 | 0.0251 | -0.2978 | 0.6634 | -0.9612 | -0.5678 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | BIWOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.99 | 0.05 | 14.9988 | -8.6584 | 0.7656 | 2.1664 | 0.0260 | -0.2953 | 0.6763 | -0.9715 | -0.5773 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | B1WDF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.04 | 0.0416 | 0.0079 | 0.0240 | 0.1900 | 0.5764 | -0.7014 | -0.0454 | -0.2938 | 0.0647 | 0.4189 |
| 2 | -5.70 | 0.02 | 0.0342 | 0.0059 | 0.0203 | 0.1726 | 0.5925 | -0.7015 | -0.0450 | -0.2937 | 0.0641 | 0.4187 |
| 3 | -5.71 | 0.03 | 0.0364 | 0.0067 | 0.0224 | 0.1842 | 0.6146 | -0.7003 | -0.0445 | -0.2924 | 0.0635 | 0.4175 |
| 4 | -5.71 | 0.02 | 0.0453 | 0.0084 | 0.0251 | 0.1855 | 0.5536 | -0.7001 | -0.0455 | -0.2932 | 0.0649 | 0.4188 |
| 5 | -5.83 | 0.01 | 0.0378 | 0.0067 | 0.0221 | 0.1773 | 0.5839 | -0.7000 | -0.0466 | -0.2940 | 0.0665 | 0.4200 |
| 6 | -5.64 | 0.02 | 0.0366 | 0.0063 | 0.0212 | 0.1722 | 0.5783 | -0.6790 | -0.0489 | -0.2878 | 0.0720 | 0.4238 |
| 7 | -3.97 | 0.01 | 0.0275 | 0.0067 | 0.0191 | 0.2438 | 0.6931 | -0.6248 | -0.0575 | -0.2735 | 0.0920 | 0.4378 |
| 8 | -2.24 | 0.01 | 0.0264 | 0.0062 | 0.0178 | 0.2350 | 0.6726 | -0.5274 | -0.0563 | -0.2377 | 0.1061 | 0.4507 |
| 9 | -0.46 | 0.02 | 0.0304 | 0.0073 | 0.0178 | 0.2403 | 0.5841 | -0.4508 | -0.0572 | -0.2141 | 0.1268 | 0.4749 |
| 10 | 1.31 | 0.01 | 0.0303 | 0.0070 | 0.0181 | 0.2311 | 0.5960 | -0.3345 | -0.0474 | -0.1623 | 0.1416 | 0.4851 |
| 11 | 3.16 | 0.01 | 0.0279 | 0.0060 | 0.0168 | 0.2152 | 0.6005 | -0.1939 | -0.0313 | -0.1006 | 0.1617 | 0.5189 |
| 12 | 4.87 | 0.02 | 0.0269 | 0.0042 | 0.0154 | 0.1562 | 0.5706 | -0.0859 | -0.0143 | -0.0487 | 0.1668 | 0.5671 |
| 13 | 6.68 | 0.02 | 0.0294 | 0.0049 | 0.0164 | 0.1668 | 0.5562 | 0.0060 | 0.0049 | -0.0078 | 0.8171 | -1.3042 |
| 14 | 8.45 | 0.02 | 0.0371 | 0.0056 | 0.0185 | 0.1510 | 0.4975 | 0.0992 | 0.0255 | 0.0315 | 0.2575 | 0.3179 |
| 15 | 10.21 | 0.02 | 0.0332 | 0.0047 | 0.0178 | 0.1416 | 0.5348 | 0.2027 | 0.0447 | 0.0764 | 0.2204 | 0.3770 |
| 16 | 12.01 | 0.02 | 0.0416 | 0.0048 | 0.0246 | 0.1154 | 0.5908 | 0.3100 | 0.0621 | 0.1226 | 0.2003 | 0.3955 |
| 17 | 13.81 | 0.02 | 0.0364 | 0.0039 | 0.0234 | 0.1072 | 0.6422 | 0.4292 | 0.0708 | 0.1776 | 0.1650 | 0.4139 |
| 18 | 15.63 | 0.02 | 0.0464 | 0.0056 | 0.0277 | 0.1208 | 0.5967 | 0.5291 | 0.0704 | 0.2196 | 0.1331 | 0.4151 |
| 19 | 17.51 | 0.01 | 0.0584 | 0.0060 | 0.0334 | 0.1966 | 0.5934 | 0.6048 | 0.0637 | 0.2501 | 0.1053 | 0.4136 |
| 20 | 19.31 | 0.01 | 0.0793 | 0.0046 | 0.0505 | 0.0581 | 0.4371 | 0.6559 | 0.0527 | 0.2697 | 0.0303 | 0.4112 |
| 21 | 21.15 | 0.01 | 0.1185 | 0.0053 | 0.0823 | 0.0448 | 0.6948 | 0.6758 | 0.0464 | 0.2757 | 0.0686 | 0.4080 |
| 22 | 22.98 | 0.00 | 0.1060 | 0.0020 | 0.0783 | 0.0189 | 0.7389 | 0.6636 | 0.0383 | 0.2654 | 0.0576 | 0.3999 |
| 23 | 24.77 | 0.01 | 0.0814 | -0.0029 | 0.0654 | -0.0357 | 0.8033 | 0.6609 | 0.0357 | 0.2637 | 0.0539 | 0.3990 |
| 24 | 26.61 | 0.03 | 0.2261 | 0.0299 | 0.0995 | 0.1324 | 0.4401 | 0.6804 | 0.0332 | 0.2698 | 0.0489 | 0.3965 |
| 25 | 27.59 | 0.06 | 0.3092 | 0.0429 | 0.1424 | 0.1386 | 0.4605 | 0.6821 | 0.0325 | 0.2691 | 0.0477 | 0.3945 |
| 26 | 27.97 | 0.05 | 0.3193 | 0.0448 | 0.1501 | 0.1402 | 0.4702 | 0.6819 | 0.0328 | 0.2695 | 0.0482 | 0.3952 |
| 27 | 28.35 | 0.05 | 0.3092 | 0.0407 | 0.1545 | 0.1315 | 0.4998 | 0.6952 | 0.0320 | 0.2754 | 0.0461 | 0.3962 |
| 28 | 28.66 | 0.05 | 0.3011 | 0.0416 | 0.1532 | 0.1380 | 0.5089 | 0.6893 | 0.0323 | 0.2735 | 0.0469 | 0.3968 |
| 29 | 28.92 | 0.05 | 0.3264 | 0.0451 | 0.1679 | 0.1372 | 0.5112 | 0.6864 | 0.0326 | 0.2702 | 0.0476 | 0.3936 |
| 30 | 29.25 | 0.04 | 0.3057 | 0.0426 | 0.1614 | 0.1392 | 0.5279 | 0.7040 | 0.0322 | 0.2791 | 0.0458 | 0.3965 |
| 31 | 29.53 | 0.05 | 0.2343 | 0.0310 | 0.1353 | 0.1325 | 0.5772 | 0.7293 | 0.0315 | 0.2897 | 0.0433 | 0.3972 |
| 32 | 29.81 | 0.04 | 0.2477 | 0.0325 | 0.1441 | 0.1314 | 0.5817 | 0.7307 | 0.0316 | 0.2914 | 0.0433 | 0.3988 |
| 33 | 30.07 | 0.04 | 0.2646 | 0.0353 | 0.1482 | 0.1332 | 0.5600 | 0.7278 | 0.0317 | 0.2885 | 0.0436 | 0.3964 |
| 34 | 30.33 | 0.05 | 0.2872 | 0.0376 | 0.1593 | 0.1308 | 0.5546 | 0.7234 | 0.0316 | 0.2866 | 0.0437 | 0.3962 |
| 35 | 30.62 | 0.05 | 0.2926 | 0.0365 | 0.1638 | 0.1246 | 0.5598 | 0.7293 | 0.0314 | 0.2891 | 0.0431 | 0.3964 |
| 36 | 30.87 | 0.06 | 0.2699 | 0.0357 | 0.1527 | 0.1321 | 0.5658 | 0.7338 | 0.0316 | 0.2897 | 0.0431 | 0.3948 |
| 37 | 31.15 | 0.05 | 0.2182 | 0.0295 | 0.1291 | 0.1354 | 0.5918 | 0.7307 | 0.0319 | 0.2903 | 0.0437 | 0.3973 |
| 38 | 31.43 | 0.05 | 0.2273 | 0.0303 | 0.1318 | 0.1335 | 0.5800 | 0.7367 | 0.0317 | 0.2915 | 0.0431 | 0.3957 |
| 39 | 31.67 | 0.03 | 0.2140 | 0.0283 | 0.1247 | 0.1324 | 0.5828 | 0.7517 | 0.0313 | 0.2964 | 0.0417 | 0.3943 |
| 40 | 31.96 | 0.04 | 0.2398 | 0.0305 | 0.1337 | 0.1274 | 0.5577 | 0.7443 | 0.0314 | 0.2932 | 0.0422 | 0.3939 |
| 41 | 32.21 | 0.04 | 0.1957 | 0.0243 | 0.1055 | 0.1244 | 0.5393 | 0.7742 | 0.0303 | 0.3036 | 0.0392 | 0.3922 |
| 42 | 32.48 | 0.02 | 0.1336 | 0.0164 | 0.0705 | 0.1229 | 0.5275 | 0.7950 | 0.0299 | 0.3120 | 0.0377 | 0.3924 |
| 43 | 32.73 | 0.04 | 0.1475 | 0.0194 | 0.0767 | 0.1317 | 0.5200 | 0.7922 | 0.0299 | 0.3086 | 0.0378 | 0.3895 |
| 44 | 32.98 | 0.03 | 0.1530 | 0.0194 | 0.0767 | 0.1269 | 0.5013 | 0.7922 | 0.0297 | 0.3090 | 0.0375 | 0.3900 |
| 45 | 33.22 | 0.02 | 0.2060 | 0.0257 | 0.1016 | 0.1249 | 0.4933 | 0.7952 | 0.0297 | 0.3096 | 0.0374 | 0.3893 |
| 46 | 33.47 | 0.03 | 0.1634 | 0.0225 | 0.0850 | 0.1229 | 0.4638 | 0.8088 | 0.0292 | 0.3141 | 0.0362 | 0.3883 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.73 | 0.03 | 0.1896 | 0.0237 | 0.0888 | 0.1252 | 0.4682 | 0.9089 | 0.0290 | 0.3129 | 0.0359 | 0.3868 |
| 48 | 33.96 | 0.02 | 0.2322 | 0.0302 | 0.1103 | 0.1302 | 0.4748 | 0.8149 | 0.0283 | 0.3152 | 0.0348 | 0.3868 |
| 49 | 34.21 | 0.03 | 0.2177 | 0.0302 | 0.1064 | 0.1389 | 0.4889 | 0.8090 | 0.0286 | 0.3117 | 0.0354 | 0.3852 |
| 50 | 34.46 | 0.04 | 0.2301 | 0.0307 | 0.1095 | 0.1336 | 0.4761 | 0.8272 | 0.0283 | 0.3158 | 0.0343 | 0.3854 |
| 51 | 34.71 | 0.03 | 0.2375 | 0.0327 | 0.1058 | 0.1379 | 0.4456 | 0.8363 | 0.0278 | 0.3213 | 0.0333 | 0.3842 |
| 52 | 34.94 | 0.04 | 0.2296 | 0.0344 | 0.1110 | 0.1500 | 0.4832 | 0.8227 | 0.0284 | 0.3169 | 0.0346 | 0.3852 |
| 53 | 35.17 | 0.04 | 0.2720 | 0.0384 | 0.1271 | 0.1410 | 0.4673 | 0.8167 | 0.0284 | 0.3142 | 0.0348 | 0.3847 |
| 54 | 35.42 | 0.05 | 0.2775 | 0.0408 | 0.1303 | 0.1469 | 0.4698 | 0.8306 | 0.0274 | 0.3105 | 0.0330 | 0.3847 |
| 55 | 35.65 | 0.04 | 0.2856 | 0.0424 | 0.1313 | 0.1483 | 0.4599 | 0.8126 | 0.0282 | 0.3105 | 0.0348 | 0.3821 |
| 56 | 35.87 | 0.02 | 0.3112 | 0.0486 | 0.1328 | 0.1561 | 0.4269 | 0.8036 | 0.0288 | 0.3068 | 0.0359 | 0.3817 |
| 57 | 36.12 | 0.01 | 0.3151 | 0.0511 | 0.1333 | 0.1621 | 0.4232 | 0.7948 | 0.0292 | 0.3017 | 0.0368 | 0.3796 |
| 58 | 36.34 | 0.02 | 0.3379 | 0.0524 | 0.1453 | 0.1550 | 0.4300 | 0.8083 | 0.0285 | 0.3085 | 0.0353 | 0.3816 |
| 59 | 36.57 | -0.01 | 0.3527 | 0.0554 | 0.1544 | 0.1570 | 0.4378 | 0.8189 | 0.0277 | 0.3127 | 0.0339 | 0.3818 |
| 60 | 36.82 | 0.03 | 0.3501 | 0.0552 | 0.1534 | 0.1576 | 0.4382 | 0.8069 | 0.0286 | 0.3069 | 0.0355 | 0.3803 |
| 61 | 37.04 | 0.02 | 0.3376 | 0.0534 | 0.1465 | 0.1581 | 0.4339 | 0.8219 | 0.0275 | 0.3137 | 0.0335 | 0.3816 |
| 62 | 37.27 | 0.01 | 0.3317 | 0.0555 | 0.1400 | 0.1673 | 0.4220 | 0.8255 | 0.0273 | 0.3129 | 0.0331 | 0.3798 |
| 63 | 37.50 | 0.02 | 0.3300 | 0.0529 | 0.1429 | 0.1602 | 0.4333 | 0.8405 | 0.0266 | 0.3210 | 0.0317 | 0.3819 |
| 64 | 37.72 | 0.04 | 0.3139 | 0.0490 | 0.1407 | 0.1560 | 0.4482 | 0.8616 | 0.0259 | 0.3290 | 0.0301 | 0.3819 |
| 65 | 37.97 | 0.04 | 0.2933 | 0.0465 | 0.1357 | 0.1584 | 0.4626 | 0.8664 | 0.0254 | 0.3320 | 0.0294 | 0.3832 |
| 66 | 38.20 | 0.04 | 0.3310 | 0.0512 | 0.1536 | 0.1546 | 0.4641 | 0.8683 | 0.0250 | 0.3302 | 0.0288 | 0.3802 |
| 67 | 38.41 | 0.05 | 0.3178 | 0.0505 | 0.1494 | 0.1588 | 0.4702 | 0.8712 | 0.0250 | 0.3332 | 0.0287 | 0.3824 |
| 68 | 38.62 | 0.05 | 0.3114 | 0.0511 | 0.1459 | 0.1640 | 0.4685 | 0.8668 | 0.0255 | 0.3292 | 0.0295 | 0.3798 |
| 69 | 38.86 | 0.06 | 0.2839 | 0.0488 | 0.1358 | 0.1718 | 0.4783 | 0.9016 | 0.0239 | 0.3442 | 0.0265 | 0.3818 |
| 70 | 39.07 | 0.07 | 0.2564 | 0.0442 | 0.1259 | 0.1722 | 0.4910 | 0.9017 | 0.0238 | 0.3433 | 0.0264 | 0.3807 |
| 71 | 39.26 | 0.07 | 0.2482 | 0.0447 | 0.1216 | 0.1799 | 0.4899 | 0.9029 | 0.0234 | 0.3449 | 0.0260 | 0.3820 |
| 72 | 39.48 | 0.07 | 0.2427 | 0.0438 | 0.1216 | 0.1803 | 0.5010 | 0.9060 | 0.0237 | 0.3442 | 0.0262 | 0.3799 |
| 73 | 39.69 | 0.07 | 0.2360 | 0.0419 | 0.1206 | 0.1774 | 0.5110 | 0.9242 | 0.0228 | 0.3517 | 0.0247 | 0.3808 |
| 74 | 39.89 | 0.07 | 0.1785 | 0.0316 | 0.0939 | 0.1773 | 0.5261 | 0.9273 | 0.0226 | 0.3527 | 0.0244 | 0.3804 |
| 75 | 40.09 | 0.07 | 0.1817 | 0.0302 | 0.0996 | 0.1665 | 0.5483 | 0.9395 | 0.0218 | 0.3575 | 0.0232 | 0.3805 |
| 76 | 40.29 | 0.06 | 0.1414 | 0.0217 | 0.0837 | 0.1537 | 0.5921 | 0.9558 | 0.0208 | 0.3658 | 0.0218 | 0.3827 |
| 77 | 40.52 | 0.07 | 0.0988 | 0.0076 | 0.0694 | 0.0770 | 0.7323 | 0.9363 | 0.0211 | 0.3555 | 0.0226 | 0.3797 |
| 78 | 40.71 | 0.07 | 0.0942 | -0.0113 | 0.0710 | -0.1201 | 0.7537 | 0.9636 | 0.0197 | 0.3658 | 0.0205 | 0.3796 |
| 79 | 40.92 | 0.09 | 0.1006 | -0.0062 | 0.0728 | -0.0816 | 0.7237 | 0.9710 | 0.0199 | 0.3703 | 0.0205 | 0.3814 |
| 80 | 41.13 | 0.09 | 0.0823 | -0.0039 | 0.0643 | -0.0475 | 0.7811 | 0.9515 | 0.0208 | 0.3599 | 0.0219 | 0.3782 |
| 81 | 41.32 | 0.09 | 0.0890 | -0.0096 | 0.0671 | -0.1080 | 0.7538 | 0.9664 | 0.0194 | 0.3658 | 0.0201 | 0.3785 |
| 82 | 41.52 | 0.09 | 0.0775 | -0.0079 | 0.0604 | -0.1021 | 0.7803 | 0.9798 | 0.0188 | 0.3730 | 0.0192 | 0.3807 |
| 83 | 41.73 | 0.12 | 0.1043 | -0.0170 | 0.0776 | -0.1572 | 0.7167 | 0.9962 | 0.0175 | 0.3789 | 0.0176 | 0.3803 |
| 84 | 41.91 | 0.08 | 0.0717 | -0.0133 | 0.0555 | -0.1859 | 0.7748 | 0.9871 | 0.0184 | 0.3739 | 0.0187 | 0.3788 |
| 85 | 42.11 | 0.10 | 0.0789 | -0.0163 | 0.0621 | -0.2070 | 0.7968 | 1.0063 | 0.0171 | 0.3817 | 0.0170 | 0.3793 |
| 86 | 42.29 | 0.08 | 0.0572 | -0.0061 | 0.0474 | -0.1069 | 0.8293 | 1.0063 | 0.0175 | 0.3813 | 0.0177 | 0.3789 |
| 87 | 42.46 | 0.09 | 0.0660 | -0.0148 | 0.0548 | -0.2247 | 0.8312 | 1.0060 | 0.0171 | 0.3799 | 0.0170 | 0.3776 |
| 88 | 42.64 | 0.09 | 0.0873 | -0.0175 | 0.0684 | -0.2008 | 0.7835 | 1.0136 | 0.0169 | 0.3823 | 0.0166 | 0.3771 |
| 89 | 42.84 | 0.10 | 0.0911 | -0.0225 | 0.0700 | -0.2474 | 0.7684 | 1.0125 | 0.0168 | 0.3825 | 0.0166 | 0.3777 |
| 90 | 43.03 | 0.10 | 0.0857 | -0.0209 | 0.0677 | -0.2443 | 0.7899 | 1.0151 | 0.0167 | 0.3833 | 0.0165 | 0.3776 |
| 91 | 43.21 | 0.10 | 0.0923 | -0.0225 | 0.0700 | -0.2442 | 0.7584 | 1.0389 | 0.0153 | 0.3941 | 0.0147 | 0.3793 |
| 92 | 43.38 | 0.09 | 0.0547 | -0.0213 | 0.0547 | -0.3896 | 0.9995 | 1.0084 | 0.0163 | 0.3783 | 0.0162 | 0.3752 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.56 | 0.10 | 0.0301 | -0.0266 | 0.0409 | -0.6842 | 1.3565 | 1.0336 | 0.0147 | 0.3897 | 0.0142 | 0.3770 |
| 94 | 43.73 | 0.10 | 0.0373 | -0.0258 | 0.0461 | -0.6921 | 1.2345 | 1.0321 | 0.0150 | 0.3885 | 0.0146 | 0.3764 |
| 95 | 43.94 | 0.09 | 0.0471 | -0.0180 | 0.0492 | -0.3824 | 1.0437 | 1.0273 | 0.0150 | 0.3852 | 0.0146 | 0.3749 |
| 96 | 44.12 | 0.10 | 0.0347 | -0.0240 | 0.0435 | -0.6920 | 1.2518 | 1.0426 | 0.0139 | 0.3922 | 0.0134 | 0.3762 |
| 97 | 44.28 | 0.09 | 0.0051 | -0.0209 | 0.0322 | -4.1002 | 6.3143 | 1.0441 | 0.0138 | 0.3919 | 0.0132 | 0.3753 |
| 98 | 44.49 | 0.09 | 0.0040 | -0.0271 | 0.0329 | -6.7786 | 8.2262 | 1.0440 | 0.0145 | 0.3923 | 0.0142 | 0.3758 |
| 99 | 44.67 | 0.10 | -0.0184 | -0.0297 | 0.0222 | 1.6150 | -1.2049 | 1.0570 | 0.0133 | 0.3967 | 0.0126 | 0.3753 |
| 100 | 44.85 | 0.08 | -0.0348 | -0.0292 | 0.0153 | 0.8395 | -0.4382 | 1.0610 | 0.0131 | 0.3979 | 0.0124 | 0.3751 |
| 101 | 45.01 | 0.07 | -0.0107 | -0.0270 | 0.0313 | 2.5247 | -2.9252 | 1.0473 | 0.0131 | 0.3910 | 0.0125 | 0.3734 |
| 102 | 45.20 | 0.07 | -0.0544 | -0.0322 | 0.0120 | 0.5922 | -0.2213 | 1.0663 | 0.0126 | 0.3995 | 0.0118 | 0.3747 |
| 103 | 45.37 | 0.07 | -0.0433 | -0.0295 | 0.0177 | 0.6817 | -0.4078 | 1.0604 | 0.0129 | 0.3964 | 0.0122 | 0.3739 |
| 104 | 45.54 | 0.05 | -0.1077 | -0.0330 | -0.0149 | 0.3069 | 0.1380 | 1.0702 | 0.0126 | 0.4003 | 0.0118 | 0.3741 |
| 105 | 45.72 | 0.05 | -0.1243 | -0.0346 | -0.0200 | 0.2787 | 0.1607 | 1.0746 | 0.0117 | 0.4037 | 0.0109 | 0.3756 |
| 106 | 45.89 | 0.05 | -0.1078 | -0.0366 | -0.0108 | 0.3391 | 0.1006 | 1.0750 | 0.0114 | 0.4027 | 0.0106 | 0.3747 |
| 107 | 46.06 | 0.04 | -0.1644 | -0.0410 | -0.0398 | 0.2491 | 0.2418 | 1.0706 | 0.0120 | 0.4005 | 0.0112 | 0.3741 |
| 108 | 46.24 | 0.04 | -0.2165 | -0.0439 | -0.0644 | 0.2026 | 0.2973 | 1.0736 | 0.0120 | 0.4007 | 0.0112 | 0.3733 |
| 109 | 46.40 | 0.03 | -0.1723 | -0.0375 | -0.0408 | 0.2174 | 0.2367 | 1.0805 | 0.0110 | 0.4029 | 0.0102 | 0.3728 |
| 110 | 46.58 | 0.03 | -0.2285 | -0.0411 | -0.0687 | 0.1797 | 0.3006 | 1.0872 | 0.0108 | 0.4061 | 0.0099 | 0.3735 |
| 111 | 46.75 | 0.01 | -0.2204 | -0.0378 | -0.0702 | 0.1713 | 0.3185 | 1.1106 | 0.0093 | 0.4152 | 0.0084 | 0.3738 |
| 112 | 46.92 | -0.01 | -0.2427 | -0.0353 | -0.0839 | 0.1452 | 0.3458 | 1.1267 | 0.0091 | 0.4213 | 0.0081 | 0.3739 |
| 113 | 47.08 | -0.03 | -0.0432 | -0.0003 | 0.0019 | 0.0069 | -0.0441 | 1.1498 | 0.0085 | 0.4308 | 0.0074 | 0.3746 |
| 114 | 47.26 | -0.01 | -0.0776 | -0.0061 | -0.0215 | 0.0788 | 0.2770 | 1.1673 | 0.0084 | 0.4376 | 0.0072 | 0.3749 |
| 115 | 47.42 | -0.02 | -0.1236 | -0.0144 | -0.0368 | 0.1167 | 0.2973 | 1.1596 | 0.0078 | 0.4330 | 0.0067 | 0.3734 |
| 116 | 47.60 | -0.02 | -0.1057 | -0.0098 | -0.0339 | 0.0929 | 0.3211 | 1.1653 | 0.0079 | 0.4360 | 0.0068 | 0.3742 |
| 117 | 47.77 | -0.02 | -0.0935 | -0.0099 | -0.0266 | 0.1061 | 0.2846 | 1.1676 | 0.0074 | 0.4366 | 0.0063 | 0.3739 |
| 118 | 47.96 | -0.03 | -0.1125 | -0.0115 | -0.0315 | 0.1024 | 0.2803 | 1.1677 | 0.0072 | 0.4355 | 0.0062 | 0.3732 |
| 119 | 48.10 | -0.02 | -0.1267 | -0.0163 | -0.0469 | 0.1288 | 0.3701 | 1.1734 | 0.0069 | 0.4392 | 0.0059 | 0.3743 |
| 120 | 48.29 | -0.02 | -0.1895 | -0.0284 | -0.0686 | 0.1501 | 0.3620 | 1.1677 | 0.0064 | 0.4364 | 0.0055 | 0.3737 |
| 121 | 48.46 | -0.02 | -0.1515 | -0.0188 | -0.0536 | 0.1242 | 0.3538 | 1.1649 | 0.0065 | 0.4347 | 0.0056 | 0.3732 |
| 122 | 48.62 | -0.02 | -0.1749 | -0.0244 | -0.0676 | 0.1397 | 0.3865 | 1.1873 | 0.0053 | 0.4433 | 0.0045 | 0.3734 |
| 123 | 48.80 | -0.01 | -0.2084 | -0.0316 | -0.0780 | 0.1519 | 0.3744 | 1.1786 | 0.0057 | 0.4402 | 0.0048 | 0.3735 |
| 124 | 48.98 | -0.01 | -0.2151 | -0.0335 | -0.0822 | 0.1560 | 0.3823 | 1.1808 | 0.0052 | 0.4427 | 0.0044 | 0.3749 |
| 125 | 49.16 | -0.01 | -0.2536 | -0.0432 | -0.0992 | 0.1700 | 0.3908 | 1.1723 | 0.0050 | 0.4384 | 0.0043 | 0.3740 |
| 126 | 49.33 | -0.01 | -0.2528 | -0.0476 | -0.1032 | 0.1881 | 0.4083 | 1.1552 | 0.0054 | 0.4302 | 0.0047 | 0.3724 |
| 127 | 49.50 | -0.01 | -0.2589 | -0.0435 | -0.1004 | 0.1679 | 0.3878 | 1.1536 | 0.0054 | 0.4301 | 0.0047 | 0.3728 |
| 128 | 49.68 | -0.01 | -0.2636 | -0.0471 | -0.1021 | 0.1785 | 0.3873 | 1.1610 | 0.0045 | 0.4324 | 0.0039 | 0.3724 |
| 129 | 49.85 | -0.01 | -0.2485 | -0.0435 | -0.0989 | 0.1749 | 0.3980 | 1.1552 | 0.0048 | 0.4305 | 0.0042 | 0.3726 |
| 130 | 50.02 | 0.00 | -0.2681 | -0.0438 | -0.1078 | 0.1632 | 0.4022 | 1.1323 | 0.0055 | 0.4200 | 0.0049 | 0.3709 |
| 131 | 50.19 | 0.00 | -0.2436 | -0.0431 | -0.0970 | 0.1768 | 0.3981 | 1.1423 | 0.0047 | 0.4247 | 0.0041 | 0.3718 |
| 132 | 50.37 | 0.02 | -0.2414 | -0.0409 | -0.0983 | 0.1692 | 0.4072 | 1.1503 | 0.0047 | 0.4283 | 0.0041 | 0.3723 |
| 133 | 50.54 | 0.02 | -0.2466 | -0.0386 | -0.0997 | 0.1563 | 0.4043 | 1.1387 | 0.0053 | 0.4237 | 0.0047 | 0.3721 |
| 134 | 50.69 | 0.03 | -0.2199 | -0.0363 | -0.0888 | 0.1649 | 0.4037 | 1.1479 | 0.0046 | 0.4284 | 0.0040 | 0.3731 |
| 135 | 50.86 | 0.03 | -0.2347 | -0.0340 | -0.0960 | 0.1451 | 0.4090 | 1.1335 | 0.0056 | 0.4218 | 0.0049 | 0.3721 |
| 136 | 51.04 | 0.04 | -0.2196 | -0.0279 | -0.0891 | 0.1272 | 0.4056 | 1.1273 | 0.0055 | 0.4171 | 0.0049 | 0.3700 |
| 137 | 51.23 | 0.05 | -0.2284 | -0.0455 | -0.0704 | 0.1991 | 0.3082 | 1.1778 | 0.0033 | 0.4380 | 0.0028 | 0.3719 |
| 138 | 51.38 | 0.04 | -0.2480 | -0.0436 | -0.0835 | 0.1756 | 0.3368 | 1.1758 | 0.0029 | 0.4347 | 0.0025 | 0.3697 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | 81W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.59 | 0.07 | -0.2440 | -0.0434 | -0.0835 | 0.1777 | 0.3424 | 1.1989 | 0.0015 | 0.4441 | 0.0015 | 0.3704 |
| 140 | 51.75 | 0.04 | -0.2324 | -0.0406 | -0.0777 | 0.1745 | 0.3344 | 1.1898 | 0.0024 | 0.4385 | 0.0020 | 0.3686 |
| 141 | 51.94 | 0.06 | -0.2775 | -0.0472 | -0.0924 | 0.1700 | 0.3330 | 1.2043 | 0.0017 | 0.4443 | 0.0014 | 0.3689 |
| 142 | 52.09 | 0.06 | -0.2562 | -0.0398 | -0.0867 | 0.1552 | 0.3382 | 1.1985 | 0.0017 | 0.4417 | 0.0014 | 0.3684 |
| 143 | 52.26 | 0.07 | -0.2862 | -0.0477 | -0.0949 | 0.1666 | 0.3316 | 1.2248 | 0.0 | 0.4539 | 0.0 | 0.3706 |
| 144 | 52.44 | 0.09 | -0.2325 | -0.0355 | -0.0765 | 0.1525 | 0.3291 | 1.2379 | -0.0004 | 0.4577 | -0.0003 | 0.3697 |
| 145 | 52.60 | 0.09 | -0.2384 | -0.0307 | -0.0778 | 0.1290 | 0.3264 | 1.1980 | 0.0013 | 0.4402 | 0.0011 | 0.3675 |
| 146 | 52.75 | 0.08 | -0.2460 | -0.0320 | -0.0831 | 0.1303 | 0.3379 | 1.2164 | 0.0005 | 0.4486 | 0.0004 | 0.3688 |
| 147 | 52.93 | 0.09 | -0.2020 | -0.0270 | -0.0618 | 0.1339 | 0.3057 | 1.2419 | -0.0010 | 0.4601 | -0.0008 | 0.3705 |
| 148 | 53.09 | 0.09 | -0.1696 | -0.0196 | -0.0498 | 0.1158 | 0.2937 | 1.2172 | 0.0001 | 0.4489 | 0.0001 | 0.3688 |
| 149 | 53.24 | 0.09 | -0.1235 | -0.0106 | -0.0264 | 0.0859 | 0.2138 | 1.2204 | -0.0006 | 0.4497 | -0.0005 | 0.3685 |
| 150 | 53.40 | 0.11 | -0.0903 | -0.0130 | -0.0150 | 0.1442 | 0.1657 | 1.2580 | -0.0026 | 0.4647 | -0.0021 | 0.3694 |
| 151 | 53.56 | 0.10 | -0.0104 | 0.0059 | 0.0256 | -0.4810 | -2.4598 | 1.2450 | -0.0020 | 0.4608 | -0.0016 | 0.3701 |
| 152 | 53.72 | 0.11 | -0.0249 | 0.0031 | 0.0156 | -0.1246 | -0.6245 | 1.2341 | -0.0015 | 0.4550 | -0.0012 | 0.3687 |
| 153 | 53.88 | 0.10 | -0.0023 | 0.0090 | 0.0320 | -3.9151 | -13.9139 | 1.2420 | -0.0025 | 0.4577 | -0.0020 | 0.3685 |
| 154 | 54.03 | 0.11 | -0.0250 | 0.0051 | 0.0224 | -0.2041 | -0.8949 | 1.2375 | -0.0018 | 0.4555 | -0.0015 | 0.3680 |
| 155 | 54.20 | 0.10 | -0.0050 | 0.0073 | 0.0399 | -1.4698 | -7.9654 | 1.2419 | -0.0020 | 0.4577 | -0.0016 | 0.3685 |
| 156 | 54.35 | 0.10 | -0.0244 | 0.0032 | 0.0274 | -0.1312 | -1.1224 | 1.2516 | -0.0025 | 0.4625 | -0.0020 | 0.3695 |
| 157 | 54.52 | 0.11 | -0.0078 | 0.0093 | 0.0393 | -1.1929 | -5.0289 | 1.2483 | -0.0024 | 0.4604 | -0.0019 | 0.3688 |
| 158 | 54.67 | 0.10 | -0.0248 | 0.0061 | 0.0277 | -0.2461 | -1.1165 | 1.2386 | -0.0024 | 0.4575 | -0.0019 | 0.3696 |
| 159 | 54.81 | 0.11 | -0.0262 | 0.0057 | 0.0279 | -0.2177 | -1.0645 | 1.2476 | -0.0025 | 0.4606 | -0.0020 | 0.3692 |
| 160 | 54.97 | 0.11 | -0.0465 | 0.0017 | 0.0196 | -0.0366 | -0.4207 | 1.2454 | -0.0019 | 0.4593 | -0.0015 | 0.3688 |
| 161 | 55.11 | 0.12 | -0.0309 | 0.0052 | 0.0237 | -0.1684 | -0.7662 | 1.2530 | -0.0032 | 0.4625 | -0.0026 | 0.3691 |
| 162 | 55.30 | 0.11 | -0.0371 | 0.0027 | 0.0207 | -0.0728 | -0.5570 | 1.2651 | -0.0041 | 0.4675 | -0.0032 | 0.3696 |
| 163 | 55.45 | 0.12 | -0.0324 | 0.0040 | 0.0169 | -0.1235 | -0.5202 | 1.2634 | -0.0038 | 0.4674 | -0.0030 | 0.3700 |
| 164 | 55.63 | 0.11 | -0.0279 | 0.0034 | 0.0148 | -0.1219 | -0.5286 | 1.2436 | -0.0025 | 0.4580 | -0.0020 | 0.3683 |
| 165 | 55.79 | 0.10 | -0.0364 | 0.0034 | 0.0079 | -0.0935 | -0.2177 | 1.2520 | -0.0035 | 0.4615 | -0.0028 | 0.3688 |
| 166 | 55.98 | 0.11 | -0.0232 | 0.0043 | 0.0116 | -0.1854 | -0.5016 | 1.2882 | -0.0055 | 0.4764 | -0.0043 | 0.3698 |
| 167 | 56.13 | 0.11 | -0.0328 | 0.0051 | 0.0106 | -0.1556 | -0.3242 | 1.2580 | -0.0039 | 0.4643 | -0.0031 | 0.3691 |
| 168 | 56.28 | 0.09 | -0.0277 | 0.0017 | 0.0064 | -0.0614 | -0.2318 | 1.2822 | -0.0056 | 0.4736 | -0.0044 | 0.3694 |
| 169 | 56.45 | 0.11 | -0.0567 | 0.0003 | -0.0020 | -0.0053 | 0.0354 | 1.2551 | -0.0038 | 0.4621 | -0.0030 | 0.3682 |
| 170 | 56.61 | 0.11 | -0.0198 | 0.0058 | 0.0076 | -0.2931 | -0.3851 | 1.2731 | -0.0054 | 0.4715 | -0.0042 | 0.3704 |
| 171 | 56.78 | 0.09 | -0.0282 | 0.0048 | 0.0062 | -0.1703 | -0.2917 | 1.2672 | -0.0048 | 0.4679 | -0.0038 | 0.3693 |
| 172 | 56.92 | 0.09 | -0.0253 | 0.0046 | 0.0076 | -0.1819 | -0.3014 | 1.2611 | -0.0045 | 0.4652 | -0.0036 | 0.3689 |
| 173 | 57.08 | 0.08 | -0.0337 | 0.0053 | 0.0078 | -0.1574 | -0.2322 | 1.2687 | -0.0052 | 0.4684 | -0.0041 | 0.3692 |
| 174 | 57.23 | 0.08 | -0.0463 | 0.0040 | 0.0013 | -0.0864 | -0.0282 | 1.2581 | -0.0045 | 0.4635 | -0.0036 | 0.3684 |
| 175 | 57.36 | 0.07 | -0.0171 | 0.0073 | 0.0151 | -0.4271 | -0.8800 | 1.2597 | -0.0049 | 0.4635 | -0.0039 | 0.3679 |
| 176 | 57.50 | 0.03 | -0.0205 | 0.0048 | 0.0118 | -0.2343 | -0.5775 | 1.2777 | -0.0062 | 0.4729 | -0.0049 | 0.3702 |
| 177 | 57.67 | 0.07 | -0.0490 | 0.0028 | 0.0015 | -0.0572 | -0.0307 | 1.2475 | -0.0037 | 0.4601 | -0.0030 | 0.3688 |
| 178 | 57.81 | 0.06 | 0.0134 | 0.0108 | 0.0293 | 0.8064 | 2.1861 | 1.2777 | -0.0060 | 0.4729 | -0.0047 | 0.3702 |
| 179 | 57.96 | 0.07 | -0.0365 | 0.0048 | 0.0084 | -0.1316 | -0.2309 | 1.2701 | -0.0058 | 0.4713 | -0.0046 | 0.3711 |
| 180 | 57.98 | 0.05 | -0.0446 | 0.0060 | 0.0067 | -0.1346 | -0.1507 | 1.2687 | -0.0057 | 0.4700 | -0.0045 | 0.3705 |
| 181 | 57.98 | 0.07 | -0.0269 | 0.0060 | 0.0163 | -0.2232 | -0.6042 | 1.2732 | -0.0061 | 0.4714 | -0.0048 | 0.3703 |
| 182 | 57.97 | 0.04 | -0.0046 | 0.0100 | 0.0217 | -2.1751 | -4.7107 | 1.2687 | -0.0057 | 0.4700 | -0.0045 | 0.3705 |
| 183 | 58.00 | 0.07 | -0.0213 | 0.0080 | 0.0152 | -0.3758 | -0.7112 | 1.2793 | -0.0065 | 0.4730 | -0.0051 | 0.3698 |
| 184 | 58.00 | 0.06 | -0.0147 | 0.0081 | 0.0169 | -0.5513 | -1.1465 | 1.2883 | -0.0068 | 0.4772 | -0.0053 | 0.3704 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | BIWOFI3 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.99 | 0.05 | -0.0265 | 0.0063 | 0.0140 | -0.2379 | -0.5262 | 1.2867 | -0.0070 | 3.4775 | -0.0054 | 0.3711 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.04 | 0.0137 | 9.9999 | 0.0216 | 9.9999 | 1.5744 | -0.7344 | -0.0436 | -0.3009 | 0.0593 | 0.4098 |
| 2 | -5.70 | 0.02 | 0.0056 | 9.9999 | 0.0183 | 9.9999 | 3.2604 | -0.7356 | -0.0446 | -0.3007 | 0.0606 | 0.4088 |
| 3 | -5.71 | 0.03 | 0.0137 | 9.9999 | 0.0216 | 9.9999 | 1.5744 | -0.7345 | -0.0439 | -0.3009 | 0.0597 | 0.4097 |
| 4 | -5.71 | 0.02 | 0.0164 | 9.9999 | 0.0221 | 9.9999 | 1.3458 | -0.7285 | -0.0433 | -0.2986 | 0.0594 | 0.4099 |
| 5 | -5.83 | 0.01 | 0.0110 | 9.9999 | 0.0207 | 9.9999 | 1.8787 | -0.7308 | -0.0455 | -0.2993 | 0.0622 | 0.4096 |
| 6 | -5.64 | 0.02 | 0.0124 | 9.9999 | 0.0204 | 9.9999 | 1.6473 | -0.7141 | -0.0434 | -0.2930 | 0.0677 | 0.4103 |
| 7 | -3.97 | 0.01 | 0.0110 | 9.9999 | 0.0200 | 9.9999 | 1.8149 | -0.6559 | -0.0553 | -0.2709 | 0.0843 | 0.4130 |
| 8 | -2.24 | 0.01 | 0.0016 | 9.9999 | 0.0159 | 9.9999 | 9.9066 | -0.5775 | -0.0573 | -0.2426 | 0.0992 | 0.4201 |
| 9 | -0.46 | 0.02 | 0.0083 | 9.9999 | 0.0198 | 9.9999 | 2.3911 | -0.4977 | -0.0571 | -0.2158 | 0.1147 | 0.4336 |
| 10 | 1.31 | 0.01 | 0.0164 | 9.9999 | 0.0228 | 9.9999 | 1.3886 | -0.3775 | -0.0469 | -0.1646 | 0.1241 | 0.4359 |
| 11 | 3.16 | 0.01 | 0.0109 | 9.9999 | 0.0218 | 9.9999 | 1.9972 | -0.2428 | -0.0296 | -0.0995 | 0.1221 | 0.4098 |
| 12 | 4.87 | 0.02 | 0.0082 | 9.9999 | 0.0209 | 9.9999 | 2.5447 | -0.1311 | -0.0132 | -0.0486 | 0.1008 | 0.3706 |
| 13 | 6.68 | 0.02 | 0.0082 | 9.9999 | 0.0205 | 9.9999 | 2.4958 | -0.0276 | 0.0040 | -0.0075 | -0.1450 | 0.2726 |
| 14 | 8.45 | 0.02 | 0.0109 | 9.9999 | 0.0217 | 9.9999 | 1.9880 | 0.0709 | 0.0257 | 0.0355 | 0.3632 | 0.5016 |
| 15 | 10.21 | 0.02 | 0.0095 | 9.9999 | 0.0224 | 9.9999 | 2.3549 | 0.1779 | 0.0455 | 0.0818 | 0.2556 | 0.4601 |
| 16 | 12.01 | 0.02 | 0.0261 | 9.9999 | 0.0219 | 9.9999 | 0.8379 | 0.2860 | 0.0647 | 0.1337 | 0.2262 | 0.4677 |
| 17 | 13.81 | 0.02 | 0.0304 | 9.9999 | 0.0203 | 9.9999 | 0.6666 | 0.3929 | 0.0736 | 0.1854 | 0.1874 | 0.4718 |
| 18 | 15.63 | 0.02 | 0.0358 | 9.9999 | 0.0224 | 9.9999 | 0.6249 | 0.5031 | 0.0733 | 0.2334 | 0.1457 | 0.4639 |
| 19 | 17.51 | 0.01 | 0.0358 | 9.9999 | 0.0220 | 9.9999 | 0.6137 | 0.5840 | 0.0643 | 0.2732 | 0.1101 | 0.4678 |
| 20 | 19.31 | 0.01 | 0.0308 | 9.9999 | 0.0146 | 9.9999 | 0.4723 | 0.5949 | 0.0519 | 0.2765 | 0.0872 | 0.4648 |
| 21 | 21.15 | 0.01 | 0.0307 | 9.9999 | 0.0153 | 9.9999 | 0.4967 | 0.5401 | 0.0411 | 0.2509 | 0.0760 | 0.4644 |
| 22 | 22.98 | 0.00 | 0.0376 | 9.9999 | 0.0164 | 9.9999 | 0.4349 | 0.5499 | 0.0391 | 0.2601 | 0.0710 | 0.4729 |
| 23 | 24.77 | 0.01 | 0.0284 | 9.9999 | 0.0094 | 9.9999 | 0.3320 | 0.5613 | 0.0378 | 0.2686 | 0.0673 | 0.4785 |
| 24 | 26.61 | 0.03 | 0.0406 | 9.9999 | 0.0144 | 9.9999 | 0.3533 | 0.6246 | 0.0352 | 0.2989 | 0.0563 | 0.4786 |
| 25 | 27.59 | 0.06 | 0.0460 | 9.9999 | 0.0158 | 9.9999 | 0.3424 | 0.6404 | 0.0346 | 0.3096 | 0.0541 | 0.4834 |
| 26 | 27.97 | 0.05 | 0.0529 | 9.9999 | 0.0173 | 9.9999 | 0.3262 | 0.6467 | 0.0341 | 0.3135 | 0.0528 | 0.4848 |
| 27 | 28.35 | 0.05 | 0.0503 | 9.9999 | 0.0160 | 9.9999 | 0.3171 | 0.6357 | 0.0345 | 0.3111 | 0.0544 | 0.4894 |
| 28 | 28.66 | 0.05 | 0.0395 | 9.9999 | 0.0103 | 9.9999 | 0.2816 | 0.6451 | 0.0343 | 0.3138 | 0.0532 | 0.4864 |
| 29 | 28.92 | 0.05 | 0.0504 | 9.9999 | 0.0142 | 9.9999 | 0.2807 | 0.6484 | 0.0339 | 0.3185 | 0.0524 | 0.4912 |
| 30 | 29.25 | 0.04 | 0.0587 | 9.9999 | 0.0176 | 9.9999 | 0.2996 | 0.6451 | 0.0339 | 0.3178 | 0.0526 | 0.4926 |
| 31 | 29.53 | 0.05 | 0.0561 | 9.9999 | 0.0156 | 9.9999 | 0.2777 | 0.6467 | 0.0339 | 0.3190 | 0.0525 | 0.4933 |
| 32 | 29.81 | 0.04 | 0.0504 | 9.9999 | 0.0153 | 9.9999 | 0.3026 | 0.6420 | 0.0340 | 0.3176 | 0.0530 | 0.4947 |
| 33 | 30.07 | 0.04 | 0.0505 | 9.9999 | 0.0139 | 9.9999 | 0.2741 | 0.6577 | 0.0337 | 0.3253 | 0.0513 | 0.4947 |
| 34 | 30.33 | 0.05 | 0.0491 | 9.9999 | 0.0146 | 9.9999 | 0.2963 | 0.6533 | 0.0335 | 0.3257 | 0.0509 | 0.4941 |
| 35 | 30.62 | 0.05 | 0.0588 | 9.9999 | 0.0176 | 9.9999 | 0.2991 | 0.6432 | 0.0345 | 0.3202 | 0.0537 | 0.4979 |
| 36 | 30.87 | 0.06 | 0.0424 | 9.9999 | 0.0124 | 9.9999 | 0.2910 | 0.6574 | 0.0341 | 0.3270 | 0.0519 | 0.4975 |
| 37 | 31.15 | 0.05 | 0.0518 | 9.9999 | 0.0169 | 9.9999 | 0.3254 | 0.6639 | 0.0335 | 0.3297 | 0.0505 | 0.4965 |
| 38 | 31.43 | 0.05 | 0.0546 | 9.9999 | 0.0175 | 9.9999 | 0.3105 | 0.6638 | 0.0338 | 0.3305 | 0.0510 | 0.4978 |
| 39 | 31.67 | 0.03 | 0.0452 | 9.9999 | 0.0137 | 9.9999 | 0.3018 | 0.6669 | 0.0335 | 0.3316 | 0.0503 | 0.4972 |
| 40 | 31.96 | 0.04 | 0.0479 | 9.9999 | 0.0142 | 9.9999 | 0.2953 | 0.6779 | 0.0334 | 0.3363 | 0.0493 | 0.4960 |
| 41 | 32.21 | 0.04 | 0.0465 | 9.9999 | 0.0138 | 9.9999 | 0.2956 | 0.6907 | 0.0327 | 0.3438 | 0.0474 | 0.4977 |
| 42 | 32.48 | 0.02 | 0.0561 | 9.9999 | 0.0189 | 9.9999 | 0.3368 | 0.6796 | 0.0331 | 0.3394 | 0.0488 | 0.4994 |
| 43 | 32.73 | 0.04 | 0.0465 | 9.9999 | 0.0148 | 9.9999 | 0.3171 | 0.6860 | 0.0326 | 0.3424 | 0.0476 | 0.4991 |
| 44 | 32.98 | 0.03 | 0.0451 | 9.9999 | 0.0148 | 9.9999 | 0.3270 | 0.6749 | 0.0333 | 0.3385 | 0.0494 | 0.5015 |
| 45 | 33.22 | 0.02 | 0.0397 | 9.9999 | 0.0118 | 9.9999 | 0.2982 | 0.6874 | 0.0334 | 0.3433 | 0.0487 | 0.4994 |
| 46 | 33.47 | 0.03 | 0.0492 | 9.9999 | 0.0165 | 9.9999 | 0.3344 | 0.7048 | 0.0324 | 0.3516 | 0.0460 | 0.4989 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 33.73 | 0.03 | 0.0464 | 9.9999 | 0.0167 | 9.9999 | 0.3589 | 0.6857 | 0.0333 | 0.3438 | 0.0486 | 0.5014 |
| 48 | 33.96 | 0.02 | 0.0464 | 9.9999 | 0.0174 | 9.9999 | 0.3740 | 0.7001 | 0.0327 | 0.3502 | 0.0468 | 0.5002 |
| 49 | 34.21 | 0.03 | 0.0464 | 9.9999 | 0.0167 | 9.9999 | 0.3589 | 0.7099 | 0.0317 | 0.3557 | 0.0447 | 0.5010 |
| 50 | 34.46 | 0.04 | 0.0478 | 9.9999 | 0.0186 | 9.9999 | 0.3853 | 0.7018 | 0.0320 | 0.3524 | 0.0457 | 0.5022 |
| 51 | 34.71 | 0.03 | 0.0519 | 9.9999 | 0.0206 | 9.9999 | 0.3963 | 0.7179 | 0.0313 | 0.3598 | 0.0437 | 0.5012 |
| 52 | 34.94 | 0.04 | 0.0533 | 9.9999 | 0.0207 | 9.9999 | 0.3877 | 0.7131 | 0.0313 | 0.3586 | 0.0440 | 0.5025 |
| 53 | 35.17 | 0.04 | 0.0531 | 9.9999 | 0.0225 | 9.9999 | 0.4232 | 0.7274 | 0.0311 | 0.3645 | 0.0428 | 0.5011 |
| 54 | 35.42 | 0.05 | 0.0546 | 9.9999 | 0.0230 | 9.9999 | 0.4208 | 0.7242 | 0.0312 | 0.3635 | 0.0431 | 0.5019 |
| 55 | 35.65 | 0.04 | 0.0505 | 9.9999 | 0.0213 | 9.9999 | 0.4211 | 0.7464 | 0.0306 | 0.3714 | 0.0411 | 0.4976 |
| 56 | 35.87 | 0.02 | 0.0561 | 9.9999 | 0.0238 | 9.9999 | 0.4246 | 0.7368 | 0.0312 | 0.3683 | 0.0424 | 0.4999 |
| 57 | 36.12 | 0.01 | 0.0465 | 9.9999 | 0.0204 | 9.9999 | 0.4380 | 0.7367 | 0.0310 | 0.3685 | 0.0421 | 0.5002 |
| 58 | 36.34 | 0.02 | 0.0507 | 9.9999 | 0.0217 | 9.9999 | 0.4274 | 0.7415 | 0.0309 | 0.3714 | 0.0417 | 0.5009 |
| 59 | 36.57 | -0.01 | 0.0547 | 9.9999 | 0.0245 | 9.9999 | 0.4475 | 0.7543 | 0.0303 | 0.3766 | 0.0402 | 0.4993 |
| 60 | 36.82 | 0.03 | 0.0604 | 9.9999 | 0.0263 | 9.9999 | 0.4359 | 0.7432 | 0.0305 | 0.3718 | 0.0411 | 0.5003 |
| 61 | 37.04 | 0.02 | 0.0506 | 9.9999 | 0.0232 | 9.9999 | 0.4580 | 0.7495 | 0.0303 | 0.3729 | 0.0405 | 0.4976 |
| 62 | 37.27 | 0.01 | 0.0425 | 9.9999 | 0.0199 | 9.9999 | 0.4674 | 0.7670 | 0.0299 | 0.3806 | 0.0390 | 0.4962 |
| 63 | 37.50 | 0.02 | 0.0453 | 9.9999 | 0.0204 | 9.9999 | 0.4496 | 0.7735 | 0.0294 | 0.3828 | 0.0381 | 0.4948 |
| 64 | 37.72 | 0.04 | 0.0439 | 9.9999 | 0.0211 | 9.9999 | 0.4799 | 0.7753 | 0.0289 | 0.3836 | 0.0373 | 0.4947 |
| 65 | 37.97 | 0.04 | 0.0509 | 9.9999 | 0.0237 | 9.9999 | 0.4651 | 0.7930 | 0.0284 | 0.3910 | 0.0359 | 0.4931 |
| 66 | 38.20 | 0.04 | 0.0552 | 9.9999 | 0.0262 | 9.9999 | 0.4752 | 0.7992 | 0.0287 | 0.3932 | 0.0360 | 0.4920 |
| 67 | 38.41 | 0.05 | 0.0649 | 9.9999 | 0.0300 | 9.9999 | 0.4629 | 0.7880 | 0.0287 | 0.3883 | 0.0365 | 0.4927 |
| 68 | 38.62 | 0.05 | 0.0522 | 9.9999 | 0.0264 | 9.9999 | 0.5054 | 0.7881 | 0.0284 | 0.3875 | 0.0361 | 0.4917 |
| 69 | 38.86 | 0.06 | 0.0494 | 9.9999 | 0.0251 | 9.9999 | 0.5077 | 0.8171 | 0.0275 | 0.3990 | 0.0337 | 0.4883 |
| 70 | 39.07 | 0.07 | 0.0453 | 9.9999 | 0.0227 | 9.9999 | 0.5005 | 0.7913 | 0.0282 | 0.3873 | 0.0357 | 0.4894 |
| 71 | 39.26 | 0.07 | 0.0383 | 9.9999 | 0.0208 | 9.9999 | 0.5422 | 0.8124 | 0.0273 | 0.3965 | 0.0337 | 0.4881 |
| 72 | 39.48 | 0.07 | 0.0507 | 9.9999 | 0.0266 | 9.9999 | 0.5244 | 0.8140 | 0.0272 | 0.3962 | 0.0335 | 0.4867 |
| 73 | 39.69 | 0.07 | 0.0493 | 9.9999 | 0.0258 | 9.9999 | 0.5230 | 0.8077 | 0.0271 | 0.3928 | 0.0336 | 0.4863 |
| 74 | 39.89 | 0.07 | 0.0520 | 9.9999 | 0.0271 | 9.9999 | 0.5209 | 0.7963 | 0.0275 | 0.3872 | 0.0346 | 0.4862 |
| 75 | 40.09 | 0.07 | 0.0452 | 9.9999 | 0.0241 | 9.9999 | 0.5327 | 0.8092 | 0.0270 | 0.3917 | 0.0334 | 0.4840 |
| 76 | 40.29 | 0.06 | 0.0478 | 9.9999 | 0.0257 | 9.9999 | 0.5373 | 0.8044 | 0.0270 | 0.3881 | 0.0336 | 0.4824 |
| 77 | 40.52 | 0.07 | 0.0451 | 9.9999 | 0.0241 | 9.9999 | 0.5339 | 0.7788 | 0.0275 | 0.3774 | 0.0357 | 0.4846 |
| 78 | 40.71 | 0.07 | 0.0506 | 9.9999 | 0.0255 | 9.9999 | 0.5036 | 0.7686 | 0.0294 | 0.3728 | 0.0383 | 0.4851 |
| 79 | 40.92 | 0.09 | 0.0423 | 9.9999 | 0.0236 | 9.9999 | 0.5573 | 0.7733 | 0.0295 | 0.3738 | 0.0382 | 0.4834 |
| 80 | 41.13 | 0.09 | 0.0533 | 9.9999 | 0.0275 | 9.9999 | 0.5157 | 0.7977 | 0.0280 | 0.3835 | 0.0352 | 0.4807 |
| 81 | 41.32 | 0.09 | 0.0518 | 9.9999 | 0.0273 | 9.9999 | 0.5268 | 0.7927 | 0.0285 | 0.3796 | 0.0360 | 0.4788 |
| 82 | 41.52 | 0.09 | 0.0505 | 9.9999 | 0.0254 | 9.9999 | 0.5026 | 0.8056 | 0.0279 | 0.3852 | 0.0347 | 0.4781 |
| 83 | 41.73 | 0.12 | 0.0601 | 9.9999 | 0.0306 | 9.9999 | 0.5100 | 0.7908 | 0.0293 | 0.3776 | 0.0371 | 0.4775 |
| 84 | 41.91 | 0.08 | 0.0476 | 9.9999 | 0.0256 | 9.9999 | 0.5374 | 0.7990 | 0.0295 | 0.3812 | 0.0357 | 0.4778 |
| 85 | 42.11 | 0.10 | 0.0502 | 9.9999 | 0.0268 | 9.9999 | 0.5336 | 0.8055 | 0.0283 | 0.3835 | 0.0352 | 0.4768 |
| 86 | 42.29 | 0.08 | 0.0502 | 9.9999 | 0.0268 | 9.9999 | 0.5336 | 0.8442 | 0.0259 | 0.3972 | 0.0307 | 0.4706 |
| 87 | 42.46 | 0.09 | 0.0475 | 9.9999 | 0.0244 | 9.9999 | 0.5132 | 0.8295 | 0.0272 | 0.3917 | 0.0328 | 0.4722 |
| 88 | 42.64 | 0.09 | 0.0571 | 9.9999 | 0.0289 | 9.9999 | 0.5069 | 0.8325 | 0.0275 | 0.3903 | 0.0331 | 0.4689 |
| 89 | 42.84 | 0.10 | 0.0472 | 9.9999 | 0.0258 | 9.9999 | 0.5462 | 0.8257 | 0.0283 | 0.3856 | 0.0343 | 0.4670 |
| 90 | 43.03 | 0.10 | 0.0527 | 9.9999 | 0.0264 | 9.9999 | 0.5006 | 0.8369 | 0.0273 | 0.3877 | 0.0327 | 0.4633 |
| 91 | 43.21 | 0.10 | 0.0513 | 9.9999 | 0.0259 | 9.9999 | 0.5045 | 0.8417 | 0.0271 | 0.3902 | 0.0322 | 0.4636 |
| 92 | 43.38 | 0.09 | 0.0607 | 9.9999 | 0.0296 | 9.9999 | 0.4884 | 0.8543 | 0.0260 | 0.3936 | 0.0305 | 0.4608 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | BIWOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 43.56 | 0.10 | 0.0593 | 9.9999 | 0.0295 | 9.9999 | 0.4982 | 0.8559 | 0.0260 | 0.3941 | 0.0304 | 0.4605 |
| 94 | 43.73 | 0.10 | 0.0498 | 9.9999 | 0.0251 | 9.9999 | 0.5036 | 0.8638 | 0.0256 | 0.3971 | 0.0297 | 0.4598 |
| 95 | 43.94 | 0.09 | 0.0579 | 9.9999 | 0.0276 | 9.9999 | 0.4773 | 0.8889 | 0.0247 | 0.4057 | 0.0278 | 0.4564 |
| 96 | 44.12 | 0.10 | 0.0534 | 9.9999 | 0.0276 | 9.9999 | 0.5166 | 0.8745 | 0.0248 | 0.3975 | 0.0284 | 0.4566 |
| 97 | 44.28 | 0.09 | 0.0508 | 9.9999 | 0.0257 | 9.9999 | 0.5055 | 0.9046 | 0.0232 | 0.4110 | 0.0257 | 0.4543 |
| 98 | 44.49 | 0.09 | 0.0576 | 9.9999 | 0.0289 | 9.9999 | 0.5025 | 0.9014 | 0.0234 | 0.4079 | 0.0260 | 0.4525 |
| 99 | 44.67 | 0.10 | 0.0520 | 9.9999 | 0.0264 | 9.9999 | 0.5074 | 0.9092 | 0.0228 | 0.4106 | 0.0251 | 0.4516 |
| 100 | 44.85 | 0.08 | 0.0506 | 9.9999 | 0.0260 | 9.9999 | 0.5135 | 0.9232 | 0.0221 | 0.4154 | 0.0240 | 0.4499 |
| 101 | 45.01 | 0.07 | 0.0596 | 9.9999 | 0.0292 | 9.9999 | 0.4990 | 0.9135 | 0.0224 | 0.4128 | 0.0246 | 0.4519 |
| 102 | 45.20 | 0.07 | 0.0412 | 9.9999 | 0.0215 | 9.9999 | 0.5211 | 0.9279 | 0.0210 | 0.4175 | 0.0227 | 0.4499 |
| 103 | 45.37 | 0.07 | 0.0545 | 9.9999 | 0.0272 | 9.9999 | 0.4988 | 0.9339 | 0.0215 | 0.4193 | 0.0231 | 0.4490 |
| 104 | 45.54 | 0.05 | 0.0438 | 9.9999 | 0.0223 | 9.9999 | 0.5085 | 0.9453 | 0.0196 | 0.4243 | 0.0208 | 0.4489 |
| 105 | 45.72 | 0.05 | 0.0384 | 9.9999 | 0.0206 | 9.9999 | 0.5356 | 0.9656 | 0.0187 | 0.4319 | 0.0194 | 0.4472 |
| 106 | 45.89 | 0.05 | 0.0462 | 9.9999 | 0.0238 | 9.9999 | 0.5146 | 0.9448 | 0.0194 | 0.4244 | 0.0206 | 0.4493 |
| 107 | 46.06 | 0.04 | 0.0409 | 9.9999 | 0.0214 | 9.9999 | 0.5224 | 0.9574 | 0.0183 | 0.4284 | 0.0191 | 0.4476 |
| 108 | 46.24 | 0.04 | 0.0383 | 9.9999 | 0.0198 | 9.9999 | 0.5160 | 0.9780 | 0.0167 | 0.4368 | 0.0171 | 0.4466 |
| 109 | 46.40 | 0.03 | 0.0410 | 9.9999 | 0.0199 | 9.9999 | 0.4845 | 0.9763 | 0.0165 | 0.4367 | 0.0169 | 0.4473 |
| 110 | 46.58 | 0.03 | 0.0382 | 9.9999 | 0.0190 | 9.9999 | 0.4963 | 0.9886 | 0.0153 | 0.4403 | 0.0155 | 0.4454 |
| 111 | 46.75 | 0.01 | 0.0316 | 9.9999 | 0.0169 | 9.9999 | 0.5333 | 0.9980 | 0.0146 | 0.4437 | 0.0147 | 0.4446 |
| 112 | 46.92 | -0.01 | 0.0222 | 9.9999 | 0.0125 | 9.9999 | 0.5603 | 1.0346 | 0.0129 | 0.4604 | 0.0125 | 0.4459 |
| 113 | 47.08 | -0.03 | 0.0249 | 9.9999 | 0.0134 | 9.9999 | 0.5358 | 1.0584 | 0.0144 | 0.4698 | 0.0136 | 0.4439 |
| 114 | 47.26 | -0.01 | 0.0248 | 9.9999 | 0.0144 | 9.9999 | 0.5785 | 1.0801 | 0.0133 | 0.4780 | 0.0123 | 0.4425 |
| 115 | 47.42 | -0.02 | 0.0261 | 9.9999 | 0.0148 | 9.9999 | 0.5650 | 1.0861 | 0.0132 | 0.4723 | 0.0124 | 0.4431 |
| 116 | 47.60 | -0.02 | 0.0221 | 9.9999 | 0.0135 | 9.9999 | 0.6083 | 1.0797 | 0.0132 | 0.4783 | 0.0122 | 0.4430 |
| 117 | 47.77 | -0.02 | 0.0300 | 9.9999 | 0.0164 | 9.9999 | 0.5451 | 1.0859 | 0.0119 | 0.4807 | 0.0119 | 0.4427 |
| 118 | 47.96 | -0.03 | 0.0247 | 9.9999 | 0.0147 | 9.9999 | 0.5930 | 1.0875 | 0.0117 | 0.4819 | 0.0108 | 0.4431 |
| 119 | 48.10 | -0.02 | 0.0220 | 9.9999 | 0.0142 | 9.9999 | 0.6430 | 1.0831 | 0.0113 | 0.4806 | 0.0104 | 0.4437 |
| 120 | 48.29 | -0.02 | 0.0259 | 9.9999 | 0.0151 | 9.9999 | 0.5810 | 1.0701 | 0.0109 | 0.4765 | 0.0102 | 0.4435 |
| 121 | 48.46 | -0.02 | 0.0311 | 9.9999 | 0.0155 | 9.9999 | 0.5935 | 1.0869 | 0.0107 | 0.4828 | 0.0099 | 0.4442 |
| 122 | 48.62 | -0.02 | 0.0246 | 9.9999 | 0.0146 | 9.9999 | 0.5913 | 1.0835 | 0.0106 | 0.4804 | 0.0098 | 0.4434 |
| 123 | 48.80 | -0.01 | 0.0220 | 9.9999 | 0.0124 | 9.9999 | 0.5509 | 1.0870 | 0.0092 | 0.4831 | 0.0085 | 0.4444 |
| 124 | 48.98 | -0.01 | 0.0140 | 9.9999 | 0.0105 | 9.9999 | 0.7524 | 1.0697 | 0.0102 | 0.4755 | 0.0095 | 0.4446 |
| 125 | 49.16 | -0.01 | 0.0233 | 9.9999 | 0.0135 | 9.9999 | 0.5769 | 1.0516 | 0.0104 | 0.4658 | 0.0099 | 0.4458 |
| 126 | 49.33 | -0.01 | 0.0167 | 9.9999 | 0.0113 | 9.9999 | 0.6788 | 1.0011 | 0.0121 | 0.4450 | 0.0121 | 0.4445 |
| 127 | 49.50 | -0.01 | 0.0140 | 9.9999 | 0.0108 | 9.9999 | 0.7739 | 1.0290 | 0.0103 | 0.4599 | 0.0100 | 0.4469 |
| 128 | 49.68 | -0.01 | 0.0192 | 9.9999 | 0.0136 | 9.9999 | 0.7054 | 1.0151 | 0.0111 | 0.4530 | 0.0110 | 0.4462 |
| 129 | 49.85 | -0.01 | 0.0180 | 9.9999 | 0.0117 | 9.9999 | 0.6521 | 1.0089 | 0.0115 | 0.4497 | 0.0114 | 0.4458 |
| 130 | 50.02 | 0.00 | 0.0232 | 9.9999 | 0.0142 | 9.9999 | 0.6097 | 1.0026 | 0.0121 | 0.4465 | 0.0121 | 0.4454 |
| 131 | 50.19 | 0.00 | 0.0140 | 9.9999 | 0.0115 | 9.9999 | 0.8241 | 0.9846 | 0.0122 | 0.4397 | 0.0124 | 0.4466 |
| 132 | 50.37 | 0.02 | 0.0154 | 9.9999 | 0.0106 | 9.9999 | 0.6905 | 0.9835 | 0.0120 | 0.4393 | 0.0122 | 0.4467 |
| 133 | 50.54 | 0.02 | 0.0192 | 9.9999 | 0.0140 | 9.9999 | 0.7263 | 0.9867 | 0.0115 | 0.4398 | 0.0117 | 0.4457 |
| 134 | 50.69 | 0.03 | 0.0232 | 9.9999 | 0.0149 | 9.9999 | 0.6400 | 0.9884 | 0.0116 | 0.4417 | 0.0118 | 0.4469 |
| 135 | 50.86 | 0.03 | 0.0181 | 9.9999 | 0.0114 | 9.9999 | 0.6318 | 1.0007 | 0.0111 | 0.4457 | 0.0111 | 0.4464 |
| 136 | 51.04 | 0.04 | 0.0219 | 9.9999 | 0.0152 | 9.9999 | 0.6917 | 1.0045 | 0.0101 | 0.4472 | 0.0101 | 0.4452 |
| 137 | 51.23 | 0.05 | 0.0350 | 9.9999 | 0.0212 | 9.9999 | 0.6048 | 1.0433 | 0.0078 | 0.4648 | 0.0075 | 0.4453 |
| 138 | 51.38 | 0.04 | 0.0285 | 9.9999 | 0.0181 | 9.9999 | 0.6336 | 1.0459 | 0.0064 | 0.4690 | 0.0061 | 0.4485 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RK10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 51.59 | 0.07 | 0.0324 | 9.9999 | 0.0214 | 9.9999 | 0.6595 | 1.0325 | 0.0088 | 0.4567 | 0.0085 | 0.4423 |
| 140 | 51.75 | 0.04 | 0.0272 | 9.9999 | 0.0184 | 9.9999 | 0.6749 | 1.0238 | 0.0092 | 0.4541 | 0.0090 | 0.4435 |
| 141 | 51.94 | 0.06 | 0.0258 | 9.9999 | 0.0194 | 9.9999 | 0.7505 | 1.0378 | 0.0082 | 0.4607 | 0.0079 | 0.4439 |
| 142 | 52.09 | 0.06 | 0.0298 | 9.9999 | 0.0203 | 9.9999 | 0.6800 | 1.0270 | 0.0087 | 0.4561 | 0.0085 | 0.4441 |
| 143 | 52.26 | 0.07 | 0.0312 | 9.9999 | 0.0215 | 9.9999 | 0.6881 | 1.0558 | 0.0075 | 0.4671 | 0.0071 | 0.4424 |
| 144 | 52.44 | 0.09 | 0.0312 | 9.9999 | 0.0218 | 9.9999 | 0.6977 | 1.0465 | 0.0078 | 0.4617 | 0.0075 | 0.4431 |
| 145 | 52.60 | 0.09 | 0.0325 | 9.9999 | 0.0223 | 9.9999 | 0.6853 | 1.0501 | 0.0075 | 0.4657 | 0.0072 | 0.4435 |
| 146 | 52.75 | 0.08 | 0.0379 | 9.9999 | 0.0251 | 9.9999 | 0.6617 | 1.0570 | 0.0070 | 0.4702 | 0.0066 | 0.4449 |
| 147 | 52.93 | 0.09 | 0.0380 | 9.9999 | 0.0251 | 9.9999 | 0.6600 | 1.0727 | 0.0068 | 0.4747 | 0.0063 | 0.4426 |
| 148 | 53.09 | 0.09 | 0.0379 | 9.9999 | 0.0262 | 9.9999 | 0.6909 | 1.0574 | 0.0068 | 0.4699 | 0.0064 | 0.4444 |
| 149 | 53.24 | 0.09 | 0.0340 | 9.9999 | 0.0243 | 9.9999 | 0.7140 | 1.0739 | 0.0064 | 0.4761 | 0.0060 | 0.4433 |
| 150 | 53.40 | 0.11 | 0.0435 | 9.9999 | 0.0277 | 9.9999 | 0.6365 | 1.0601 | 0.0074 | 0.4716 | 0.0070 | 0.4449 |
| 151 | 53.56 | 0.10 | 0.0383 | 9.9999 | 0.0261 | 9.9999 | 0.6810 | 1.0642 | 0.0072 | 0.4726 | 0.0068 | 0.4441 |
| 152 | 53.72 | 0.11 | 0.0397 | 9.9999 | 0.0269 | 9.9999 | 0.6772 | 1.0600 | 0.0073 | 0.4709 | 0.0069 | 0.4443 |
| 153 | 53.88 | 0.10 | 0.0438 | 9.9999 | 0.0294 | 9.9999 | 0.6711 | 1.0673 | 0.0070 | 0.4740 | 0.0066 | 0.4442 |
| 154 | 54.03 | 0.11 | 0.0384 | 9.9999 | 0.0269 | 9.9999 | 0.7001 | 1.0737 | 0.0065 | 0.4763 | 0.0061 | 0.4436 |
| 155 | 54.20 | 0.10 | 0.0358 | 9.9999 | 0.0243 | 9.9999 | 0.6781 | 1.0768 | 0.0065 | 0.4788 | 0.0060 | 0.4446 |
| 156 | 54.35 | 0.10 | 0.0331 | 9.9999 | 0.0249 | 9.9999 | 0.7516 | 1.0819 | 0.0068 | 0.4806 | 0.0063 | 0.4442 |
| 157 | 54.52 | 0.11 | 0.0319 | 9.9999 | 0.0234 | 9.9999 | 0.7327 | 1.0936 | 0.0062 | 0.4843 | 0.0057 | 0.4428 |
| 158 | 54.67 | 0.10 | 0.0359 | 9.9999 | 0.0262 | 9.9999 | 0.7293 | 1.0831 | 0.0063 | 0.4803 | 0.0058 | 0.4434 |
| 159 | 54.81 | 0.11 | 0.0359 | 9.9999 | 0.0266 | 9.9999 | 0.7405 | 1.0974 | 0.0060 | 0.4872 | 0.0055 | 0.4440 |
| 160 | 54.97 | 0.11 | 0.0388 | 9.9999 | 0.0268 | 9.9999 | 0.6903 | 1.0994 | 0.0060 | 0.4881 | 0.0055 | 0.4440 |
| 161 | 55.11 | 0.12 | 0.0387 | 9.9999 | 0.0275 | 9.9999 | 0.7103 | 1.1011 | 0.0058 | 0.4885 | 0.0053 | 0.4436 |
| 162 | 55.30 | 0.11 | 0.0306 | 9.9999 | 0.0238 | 9.9999 | 0.7770 | 1.0980 | 0.0056 | 0.4868 | 0.0051 | 0.4433 |
| 163 | 55.45 | 0.12 | 0.0374 | 9.9999 | 0.0264 | 9.9999 | 0.7055 | 1.1076 | 0.0051 | 0.4922 | 0.0046 | 0.4444 |
| 164 | 55.63 | 0.11 | 0.0388 | 9.9999 | 0.0276 | 9.9999 | 0.7110 | 1.0814 | 0.0059 | 0.4823 | 0.0055 | 0.4460 |
| 165 | 55.79 | 0.10 | 0.0334 | 9.9999 | 0.0248 | 9.9999 | 0.7419 | 1.0963 | 0.0054 | 0.4907 | 0.0049 | 0.4476 |
| 166 | 55.98 | 0.11 | 0.0279 | 9.9999 | 0.0234 | 9.9999 | 0.8378 | 1.1155 | 0.0043 | 0.4970 | 0.0039 | 0.4456 |
| 167 | 56.13 | 0.11 | 0.0307 | 9.9999 | 0.0235 | 9.9999 | 0.7647 | 1.1189 | 0.0039 | 0.5002 | 0.0035 | 0.4471 |
| 168 | 56.28 | 0.09 | 0.0280 | 9.9999 | 0.0220 | 9.9999 | 0.7846 | 1.1028 | 0.0048 | 0.4941 | 0.0044 | 0.4481 |
| 169 | 56.45 | 0.11 | 0.0307 | 9.9999 | 0.0235 | 9.9999 | 0.7647 | 1.1141 | 0.0040 | 0.4977 | 0.0036 | 0.4468 |
| 170 | 56.61 | 0.11 | 0.0320 | 9.9999 | 0.0247 | 9.9999 | 0.7712 | 1.1111 | 0.0037 | 0.4979 | 0.0033 | 0.4481 |
| 171 | 56.78 | 0.09 | 0.0225 | 9.9999 | 0.0198 | 9.9999 | 0.8784 | 1.1191 | 0.0034 | 0.5011 | 0.0030 | 0.4477 |
| 172 | 56.92 | 0.09 | 0.0239 | 9.9999 | 0.0199 | 9.9999 | 0.8311 | 1.1063 | 0.0039 | 0.4957 | 0.0035 | 0.4481 |
| 173 | 57.08 | 0.08 | 0.0266 | 9.9999 | 0.0215 | 9.9999 | 0.8071 | 1.1137 | 0.0023 | 0.5075 | 0.0020 | 0.4476 |
| 174 | 57.23 | 0.08 | 0.0198 | 9.9999 | 0.0182 | 9.9999 | 0.9171 | 1.1288 | 0.0028 | 0.5061 | 0.0025 | 0.4483 |
| 175 | 57.36 | 0.07 | 0.0281 | 9.9999 | 0.0205 | 9.9999 | 0.7283 | 1.1210 | 0.0027 | 0.5026 | 0.0024 | 0.4483 |
| 176 | 57.50 | 0.03 | 0.0212 | 9.9999 | 0.0190 | 9.9999 | 0.8944 | 1.1129 | 0.0031 | 0.4995 | 0.0028 | 0.4489 |
| 177 | 57.67 | 0.07 | 0.0226 | 9.9999 | 0.0188 | 9.9999 | 0.8301 | 1.1356 | 0.0014 | 0.5094 | 0.0012 | 0.4485 |
| 178 | 57.81 | 0.06 | 0.0322 | 9.9999 | 0.0222 | 9.9999 | 0.6885 | 1.1035 | 0.0031 | 0.4955 | 0.0028 | 0.4491 |
| 179 | 57.96 | 0.07 | 0.0253 | 9.9999 | 0.0196 | 9.9999 | 0.7732 | 1.1357 | 0.0012 | 0.5102 | 0.0011 | 0.4492 |
| 180 | 57.98 | 0.05 | 0.0322 | 9.9999 | 0.0225 | 9.9999 | 0.6979 | 1.1420 | 0.0012 | 0.5120 | 0.0011 | 0.4483 |
| 181 | 57.98 | 0.07 | 0.0226 | 9.9999 | 0.0188 | 9.9999 | 0.8301 | 1.1259 | 0.0021 | 0.5051 | 0.0019 | 0.4486 |
| 182 | 57.97 | 0.04 | 0.0240 | 9.9999 | 0.0192 | 9.9999 | 0.7984 | 1.0972 | 0.0032 | 0.4945 | 0.0029 | 0.4507 |
| 183 | 58.00 | 0.07 | 0.0267 | 9.9999 | 0.0204 | 9.9999 | 0.7627 | 1.1245 | 0.0019 | 0.5031 | 0.0017 | 0.4491 |
| 184 | 58.00 | 0.06 | 0.0267 | 9.9999 | 0.0208 | 9.9999 | 0.7778 | 1.1259 | 0.0023 | 0.5067 | 0.0020 | 0.4500 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 168 | 0.80 | 1.7 | 0.0 | 81W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 57.99 | 0.05 | 0.0226 | 9.9999 | 0.0180 | 9.9999 | 0.7946 | 1.1356 | 0.0017 | 0.5106 | 0.0015 | 0.4496 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.00 | -1.5847 | 5.5739 | 0.0618 | -0.2654 | -0.0052 | 0.5282 | 0.1774 | 0.3508 | -3.5172 |
| 2 | -5.70 | 0.01 | -1.5576 | 5.5687 | 0.0111 | -0.2175 | -0.0180 | 0.5249 | 0.1766 | 0.3483 | -3.5752 |
| 3 | -5.80 | 0.01 | -1.5615 | 5.5098 | 0.3216 | -0.2699 | -0.0116 | 0.5276 | 0.1713 | 0.3563 | -3.5285 |
| 4 | -4.59 | 0.01 | -1.3314 | 4.9737 | 0.1016 | -0.2805 | -0.0111 | 0.5021 | 0.1504 | 0.3517 | -3.7357 |
| 5 | -2.81 | 0.01 | -1.1169 | 4.4193 | 0.1067 | -0.2074 | -0.0236 | 0.4580 | 0.1256 | 0.3325 | -3.9568 |
| 6 | -1.02 | 0.01 | -0.8720 | 3.8867 | 0.2149 | -0.1554 | -0.0106 | 0.4210 | 0.1104 | 0.3107 | -4.4575 |
| 7 | 0.81 | 0.02 | -0.5541 | 3.0522 | 0.0673 | -0.1627 | -0.0169 | 0.3773 | 0.1021 | 0.2752 | -5.5085 |
| 8 | 2.65 | 0.02 | -0.2546 | 2.1708 | 0.1214 | -0.1895 | -0.0161 | 0.3429 | 0.0942 | 0.2486 | -8.5253 |
| 9 | 4.44 | 0.02 | 0.0599 | 1.3246 | 0.1565 | -0.2675 | -0.0155 | 0.3196 | 0.1005 | 0.2191 | 22.1025 |
| 10 | 6.28 | 0.01 | 0.2650 | 0.9193 | -0.0155 | -0.1953 | -0.0153 | 0.2978 | 0.0954 | 0.2023 | 3.4686 |
| 11 | 8.12 | 0.01 | 0.5528 | 0.3426 | -0.0746 | -0.0622 | -0.0148 | 0.2855 | 0.1050 | 0.1806 | 0.6197 |
| 12 | 9.90 | 0.01 | 0.9178 | -0.4953 | 0.0250 | -0.1895 | -0.0075 | 0.2512 | 0.1143 | 0.1370 | -0.5396 |
| 13 | 11.77 | 0.01 | 1.2387 | -1.3515 | -0.0284 | -0.1847 | -0.0072 | 0.2107 | 0.1217 | 0.0690 | -1.0911 |
| 14 | 13.62 | 0.01 | 1.7439 | -2.5455 | -0.0388 | -0.1546 | -0.0003 | 0.1549 | 0.1262 | 0.0287 | -1.4597 |
| 15 | 15.53 | 0.01 | 2.1053 | -3.4996 | -0.0354 | -0.1146 | 0.0001 | 0.1381 | 0.1381 | 0.0 | -1.6623 |
| 16 | 17.48 | 0.01 | 2.5126 | -4.2687 | -0.0833 | -0.0284 | 0.0135 | 0.1264 | 0.1512 | -0.0248 | -1.6989 |
| 17 | 19.35 | 0.01 | 2.8084 | -4.6818 | -0.1562 | 0.0969 | 0.0206 | 0.1222 | 0.1697 | -0.0475 | -1.6671 |
| 18 | 21.26 | -0.00 | 3.0843 | -4.7942 | -0.1666 | 0.1516 | 0.0155 | 0.1390 | 0.2157 | -0.0767 | -1.5544 |
| 19 | 23.17 | 0.01 | 3.4107 | -4.9611 | -0.1371 | 0.2382 | 0.0039 | 0.1335 | 0.2474 | -0.1140 | -1.4546 |
| 20 | 25.03 | -0.01 | 3.7194 | -5.0220 | -0.3400 | 0.4753 | -0.0144 | 0.1452 | 0.2869 | -0.1418 | -1.3502 |
| 21 | 26.94 | 0.02 | 4.1678 | -4.9225 | 0.0493 | -0.0485 | -0.0045 | 0.1271 | 0.3015 | -0.1744 | -1.1811 |
| 22 | 27.96 | 0.04 | 4.2842 | -4.9025 | 0.3565 | -0.7179 | 0.0737 | 0.1320 | 0.3167 | -0.1847 | -1.1443 |
| 23 | 28.08 | 0.05 | 4.3169 | -4.8986 | 0.4476 | -0.7931 | 0.0805 | 0.1408 | 0.3226 | -0.1818 | -1.1347 |
| 24 | 28.46 | 0.04 | 4.4216 | -4.8666 | 0.4170 | -0.6523 | 0.0743 | 0.1179 | 0.3250 | -0.2071 | -1.1007 |
| 25 | 28.77 | 0.04 | 4.5190 | -4.8787 | 0.3868 | -0.6905 | 0.0558 | 0.1177 | 0.3313 | -0.2136 | -1.0796 |
| 26 | 29.05 | 0.05 | 4.6395 | -4.7217 | 0.5020 | -0.8223 | 0.0952 | 0.1182 | 0.3380 | -0.2198 | -1.0177 |
| 27 | 29.36 | 0.06 | 4.7365 | -4.7047 | 0.6975 | -1.1646 | 0.1604 | 0.1301 | 0.3521 | -0.2220 | -0.9933 |
| 28 | 29.64 | 0.06 | 4.7359 | -4.6235 | 0.5816 | -1.0450 | 0.1731 | 0.1402 | 0.3579 | -0.2177 | -0.9763 |
| 29 | 29.92 | 0.07 | 4.8063 | -4.8022 | 0.6903 | -1.0739 | 0.1413 | 0.1353 | 0.3678 | -0.2325 | -0.9992 |
| 30 | 30.19 | 0.06 | 4.8615 | -4.6096 | 0.7259 | -1.1703 | 0.1871 | 0.1541 | 0.3800 | -0.2259 | -0.9482 |
| 31 | 30.45 | 0.06 | 4.9703 | -4.5177 | 0.6983 | -0.9871 | 0.1874 | 0.1649 | 0.3887 | -0.2238 | -0.9089 |
| 32 | 30.74 | 0.07 | 5.0777 | -4.5224 | 0.8535 | -1.3129 | 0.2141 | 0.1663 | 0.3991 | -0.2328 | -0.8906 |
| 33 | 30.99 | 0.07 | 5.1228 | -4.6166 | 0.8393 | -1.1412 | 0.1690 | 0.1364 | 0.3900 | -0.2536 | -0.9012 |
| 34 | 31.28 | 0.06 | 5.1910 | -4.5257 | 0.7239 | -1.0107 | 0.1885 | 0.1614 | 0.4024 | -0.2410 | -0.8718 |
| 35 | 31.56 | 0.07 | 5.3804 | -4.5142 | 0.8874 | -1.2315 | 0.2025 | 0.1569 | 0.4057 | -0.2488 | -0.8390 |
| 36 | 31.83 | 0.07 | 5.5154 | -4.4261 | 0.8646 | -1.1645 | 0.1902 | 0.1353 | 0.4054 | -0.2701 | -0.8025 |
| 37 | 32.10 | 0.07 | 5.6376 | -4.3453 | 0.8881 | -1.2315 | 0.1974 | 0.1327 | 0.4095 | -0.2768 | -0.7708 |
| 38 | 32.35 | 0.08 | 5.6620 | -4.3639 | 1.0279 | -1.3853 | 0.2106 | 0.1464 | 0.4166 | -0.2702 | -0.7707 |
| 39 | 32.63 | 0.07 | 5.8599 | -4.2673 | 0.9126 | -1.4335 | 0.2116 | 0.1379 | 0.4194 | -0.2815 | -0.7282 |
| 40 | 32.88 | 0.08 | 5.9037 | -4.1912 | 1.0801 | -1.7838 | 0.2060 | 0.1387 | 0.4198 | -0.2811 | -0.7099 |
| 41 | 33.12 | 0.09 | 5.9454 | -4.1773 | 1.1397 | -1.5578 | 0.2380 | 0.1496 | 0.4286 | -0.2790 | -0.7026 |
| 42 | 33.38 | 0.07 | 6.1123 | -4.0850 | 0.9262 | -1.6130 | 0.1874 | 0.1173 | 0.4161 | -0.2989 | -0.6683 |
| 43 | 33.62 | 0.07 | 6.1451 | -3.9858 | 0.8738 | -1.3965 | 0.2131 | 0.1336 | 0.4236 | -0.2901 | -0.6486 |
| 44 | 33.88 | 0.06 | 6.2732 | -4.0334 | 0.8223 | -1.5136 | 0.1431 | 0.1155 | 0.4265 | -0.3111 | -0.6430 |
| 45 | 34.13 | 0.06 | 6.3999 | -3.8064 | 0.7926 | -1.3635 | 0.1821 | 0.1139 | 0.4265 | -0.3127 | -0.5948 |
| 46 | 34.37 | 0.06 | 6.4522 | -3.7816 | 0.7662 | -1.1696 | 0.1564 | 0.0959 | 0.4293 | -0.3294 | -0.5861 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.62 | 0.06 | 6.4987 | -3.6770 | 0.7350 | -0.8608 | 0.1756 | 0.1187 | 0.4277 | -0.3091 | -0.5658 |
| 48 | 34.87 | 0.04 | 6.5485 | -3.6813 | 0.5216 | -0.7381 | 0.1563 | 0.1123 | 0.4311 | -0.3189 | -0.5622 |
| 49 | 35.11 | 0.04 | 6.6011 | -3.5511 | 0.5303 | -0.9818 | 0.1701 | 0.1010 | 0.4286 | -0.3277 | -0.5315 |
| 50 | 35.33 | 0.04 | 6.7010 | -3.5947 | 0.4477 | -0.7916 | 0.1506 | 0.0966 | 0.4244 | -0.3279 | -0.5364 |
| 51 | 35.60 | 0.04 | 6.8847 | -3.6707 | 0.4809 | -1.1001 | 0.0810 | 0.0521 | 0.4074 | -0.3553 | -0.5332 |
| 52 | 35.83 | 0.03 | 6.9274 | -3.5930 | 0.3759 | -0.8334 | 0.0809 | 0.0640 | 0.4124 | -0.3484 | -0.5187 |
| 53 | 36.04 | 0.04 | 6.9627 | -3.6180 | 0.4729 | -0.8231 | 0.0682 | 0.0545 | 0.4041 | -0.3496 | -0.5196 |
| 54 | 36.30 | 0.03 | 7.0973 | -3.5773 | 0.2685 | -0.4162 | 0.0104 | 0.0271 | 0.3942 | -0.3671 | -0.5040 |
| 55 | 36.53 | 0.03 | 7.1657 | -3.5683 | 0.3468 | -0.6582 | 0.0303 | 0.0192 | 0.3996 | -0.3804 | -0.4980 |
| 56 | 36.76 | 0.03 | 7.2726 | -3.5873 | 0.1511 | -0.1385 | 0.0363 | 0.0020 | 0.3917 | -0.3897 | -0.4933 |
| 57 | 37.01 | 0.01 | 7.3030 | -3.4179 | 0.0082 | -0.0241 | -0.0469 | 0.0082 | 0.3933 | -0.3851 | -0.4680 |
| 58 | 37.23 | 0.03 | 7.3666 | -3.5659 | 0.1770 | -0.1639 | 0.0689 | 0.0199 | 0.3925 | -0.3726 | -0.4840 |
| 59 | 37.45 | 0.03 | 7.5034 | -3.4959 | 0.1241 | -0.1341 | -0.0011 | 0.0010 | 0.3896 | -0.3886 | -0.4659 |
| 60 | 37.70 | 0.05 | 7.4911 | -3.4565 | 0.3403 | -0.1550 | 0.0306 | 0.0004 | 0.3951 | -0.3947 | -0.4614 |
| 61 | 37.93 | 0.05 | 7.6567 | -3.4607 | 0.2982 | -0.1850 | 0.0571 | -0.0072 | 0.3908 | -0.3980 | -0.4520 |
| 62 | 38.16 | 0.04 | 7.6552 | -3.3678 | 0.2079 | -0.0885 | 0.0440 | -0.0151 | 0.3962 | -0.4113 | -0.4659 |
| 63 | 38.40 | 0.03 | 7.8003 | -3.4579 | 0.1286 | -0.0475 | 0.0255 | -0.0145 | 0.3958 | -0.4103 | -0.4433 |
| 64 | 38.62 | 0.05 | 7.8592 | -3.4119 | 0.2897 | -0.0851 | 0.0576 | -0.0175 | 0.4016 | -0.4191 | -0.4341 |
| 65 | 38.81 | 0.06 | 7.9287 | -3.5569 | 0.4171 | -0.2500 | 0.0389 | -0.0218 | 0.3950 | -0.4168 | -0.4486 |
| 66 | 39.05 | 0.05 | 7.9588 | -3.4865 | 0.3295 | -0.0996 | 0.0580 | -0.0036 | 0.4108 | -0.4144 | -0.4381 |
| 67 | 39.27 | 0.05 | 8.0813 | -3.3515 | 0.3502 | 0.0398 | 0.1094 | 0.0084 | 0.4181 | -0.4097 | -0.4147 |
| 68 | 39.49 | 0.05 | 8.1463 | -3.3200 | 0.2983 | 0.0904 | 0.0647 | -0.0020 | 0.4169 | -0.4189 | -0.4075 |
| 69 | 39.74 | 0.03 | 8.2292 | -3.3069 | 0.2415 | 0.3150 | 0.0835 | 0.0029 | 0.4232 | -0.4203 | -0.4018 |
| 70 | 39.94 | 0.05 | 8.3051 | -3.3810 | 0.4620 | 0.3841 | 0.0574 | 0.0113 | 0.4405 | -0.4292 | -0.4071 |
| 71 | 40.14 | 0.02 | 8.3860 | -3.3472 | 0.0788 | 0.5949 | 0.0577 | 0.0053 | 0.4290 | -0.4237 | -0.3991 |
| 72 | 40.34 | 0.02 | 8.4011 | -3.2798 | 0.0335 | 0.7753 | 0.0508 | 0.0014 | 0.4311 | -0.4297 | -0.3904 |
| 73 | 40.55 | 0.00 | 8.5581 | -3.1663 | -0.0617 | 0.7738 | 0.0389 | 0.0179 | 0.4518 | -0.4339 | -0.3700 |
| 74 | 40.77 | 0.03 | 8.5555 | -3.1803 | 0.2469 | 0.7015 | 0.0450 | 0.0157 | 0.4559 | -0.4402 | -0.3717 |
| 75 | 40.96 | 0.02 | 8.5359 | -3.0254 | 0.0 | 1.4727 | 0.0298 | 0.0515 | 0.4704 | -0.4189 | -0.3544 |
| 76 | 41.18 | 0.02 | 8.6526 | -3.2623 | 0.0795 | 0.8833 | 0.0385 | -0.0018 | 0.4528 | -0.4546 | -0.3770 |
| 77 | 41.43 | 0.02 | 8.7215 | -3.4066 | 0.0667 | 0.8956 | 0.0257 | -0.0246 | 0.4441 | -0.4687 | -0.3906 |
| 78 | 41.63 | 0.00 | 8.8492 | -3.3668 | -0.0615 | 1.3257 | 0.0377 | -0.0168 | 0.4404 | -0.4572 | -0.3805 |
| 79 | 41.85 | -0.01 | 8.9350 | -3.4110 | -0.1934 | 0.8534 | 0.0145 | -0.0317 | 0.4465 | -0.4782 | -0.3818 |
| 80 | 42.06 | 0.01 | 9.0236 | -3.5437 | 0.0670 | 0.8955 | 0.0267 | -0.0659 | 0.4217 | -0.4877 | -0.3927 |
| 81 | 42.24 | 0.01 | 9.0832 | -3.4493 | 0.0277 | 1.1971 | 0.0068 | -0.0236 | 0.4420 | -0.4656 | -0.3797 |
| 82 | 42.44 | 0.01 | 9.1876 | -3.5306 | 0.0217 | 1.0166 | -0.0137 | -0.0082 | 0.4469 | -0.4551 | -0.3843 |
| 83 | 42.62 | 0.02 | 9.3139 | -3.6398 | 0.1405 | 0.9890 | -0.0240 | -0.0621 | 0.4158 | -0.4779 | -0.3908 |
| 84 | 42.78 | -0.01 | 9.2674 | -3.6313 | -0.1389 | 1.1134 | -0.0241 | -0.0696 | 0.4113 | -0.4810 | -0.3918 |
| 85 | 42.97 | 0.00 | 9.4222 | -3.7986 | -0.0188 | 1.3341 | -0.0440 | -0.0656 | 0.4158 | -0.4815 | -0.4032 |
| 86 | 43.15 | -0.01 | 9.4143 | -3.6669 | -0.1084 | 1.4524 | -0.0314 | -0.0587 | 0.4192 | -0.4779 | -0.3895 |
| 87 | 43.35 | 0.02 | 9.5364 | -3.8349 | 0.1506 | 0.6356 | -0.0413 | -0.1086 | 0.3984 | -0.5070 | -0.4021 |
| 88 | 43.51 | 0.00 | 9.6111 | -3.7541 | 0.0183 | 1.2537 | -0.0495 | -0.1001 | 0.4224 | -0.5225 | -0.3906 |
| 89 | 43.69 | -0.01 | 9.7204 | -3.8959 | -0.0103 | 0.6723 | -0.0533 | -0.1372 | 0.3984 | -0.5356 | -0.4008 |
| 90 | 43.87 | -0.01 | 9.6674 | -3.8573 | -0.1215 | 1.4536 | -0.0434 | -0.0985 | 0.4220 | -0.5205 | -0.3990 |
| 91 | 44.04 | 0.02 | 9.8542 | -3.9382 | 0.2357 | 0.7051 | -0.0406 | -0.1230 | 0.4129 | -0.5359 | -0.3996 |
| 92 | 44.24 | -0.03 | 9.8724 | -3.9786 | -0.2737 | 1.1190 | -0.0604 | -0.1372 | 0.4100 | -0.5472 | -0.4030 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | Rx10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.44 | -0.01 | 10.0021 | -3.9096 | -0.3294 | 1.9031 | -0.0948 | -0.1069 | 0.4087 | -0.5156 | -0.3909 |
| 94 | 44.60 | 0.01 | 9.9963 | -3.9669 | 0.0292 | 1.1977 | -0.0480 | -0.1331 | 0.4029 | -0.5360 | -0.3968 |
| 95 | 44.81 | -0.01 | 10.1555 | -4.0261 | -0.2428 | 1.7299 | -0.0874 | -0.1283 | 0.4016 | -0.5299 | -0.3964 |
| 96 | 44.97 | 0.00 | 10.1679 | -4.0367 | -0.1729 | 2.0430 | -0.0887 | -0.1040 | 0.4170 | -0.5210 | -0.3970 |
| 97 | 45.16 | 0.02 | 10.1883 | -4.0809 | 0.0038 | 1.4979 | -0.0741 | -0.1320 | 0.4078 | -0.5398 | -0.4005 |
| 98 | 45.33 | 0.01 | 10.2939 | -4.1226 | -0.0210 | 1.0056 | -0.0526 | -0.1625 | 0.3964 | -0.5589 | -0.4005 |
| 99 | 45.52 | -0.01 | 10.3756 | -4.1243 | -0.4348 | 2.5228 | -0.1281 | -0.0892 | 0.4350 | -0.5243 | -0.3975 |
| 100 | 45.69 | -0.01 | 10.3728 | -4.1210 | -0.4180 | 2.5874 | -0.1284 | -0.0859 | 0.4363 | -0.5223 | -0.3973 |
| 101 | 45.85 | -0.02 | 10.4830 | -4.2470 | -0.2834 | 0.6649 | -0.0244 | -0.1624 | 0.3818 | -0.5442 | -0.4051 |
| 102 | 46.04 | 0.00 | 10.5318 | -4.1721 | -0.1766 | 1.7070 | -0.0929 | -0.1330 | 0.4132 | -0.5462 | -0.3961 |
| 103 | 46.22 | -0.03 | 10.6726 | -4.2769 | -0.5180 | 1.6939 | -0.0983 | -0.1630 | 0.4090 | -0.5720 | -0.4007 |
| 104 | 46.38 | 0.01 | 10.7319 | -4.2648 | -0.2060 | 2.2071 | -0.1070 | -0.1293 | 0.4348 | -0.5641 | -0.3974 |
| 105 | 46.56 | -0.00 | 10.7275 | -4.2589 | -0.3641 | 2.5866 | -0.1403 | -0.0932 | 0.4570 | -0.5503 | -0.3970 |
| 106 | 46.74 | -0.02 | 10.8209 | -4.2494 | -0.3536 | 1.4464 | -0.0582 | -0.1605 | 0.4073 | -0.5678 | -0.3927 |
| 107 | 46.91 | -0.00 | 10.8886 | -4.2549 | -0.1741 | 1.4856 | -0.0714 | -0.1738 | 0.3941 | -0.5679 | -0.3908 |
| 108 | 47.07 | -0.01 | 10.9092 | -4.2829 | -0.2076 | 1.3564 | -0.0900 | -0.1522 | 0.3912 | -0.5434 | -0.3926 |
| 109 | 47.26 | -0.00 | 11.0284 | -4.3601 | -0.0837 | 1.3782 | -0.0836 | -0.1819 | 0.3973 | -0.5792 | -0.3954 |
| 110 | 47.44 | -0.02 | 11.1241 | -4.3791 | -0.2670 | 1.2747 | -0.0568 | -0.1827 | 0.4013 | -0.5840 | -0.3937 |
| 111 | 47.61 | 0.01 | 11.2384 | -4.3612 | 0.0873 | 1.2646 | -0.0441 | -0.1765 | 0.4117 | -0.5982 | -0.3881 |
| 112 | 47.78 | 0.00 | 11.2828 | -4.4716 | -0.0486 | 1.8088 | -0.0976 | -0.1718 | 0.4134 | -0.5892 | -0.3963 |
| 113 | 47.95 | 0.00 | 11.3305 | -4.5209 | -0.0208 | 1.2748 | -0.0760 | -0.1907 | 0.4222 | -0.6129 | -0.3990 |
| 114 | 48.11 | 0.01 | 11.3625 | -4.4534 | 0.0567 | 1.7328 | -0.0906 | -0.1612 | 0.4338 | -0.5950 | -0.3919 |
| 115 | 48.31 | -0.02 | 11.4750 | -4.4878 | -0.2859 | 2.2621 | -0.1487 | -0.1135 | 0.4616 | -0.5751 | -0.3911 |
| 116 | 48.45 | -0.03 | 11.5294 | -4.4655 | -0.3272 | 1.7229 | -0.0946 | -0.1560 | 0.4419 | -0.5979 | -0.3873 |
| 117 | 48.62 | -0.01 | 11.5087 | -4.3408 | -0.0094 | 1.7938 | -0.1020 | -0.1435 | 0.4721 | -0.6156 | -0.3772 |
| 118 | 48.81 | -0.02 | 11.6171 | -4.5882 | -0.2715 | 2.2974 | -0.1356 | -0.0679 | 0.5362 | -0.6041 | -0.3950 |
| 119 | 48.96 | 0.01 | 11.7024 | -4.5778 | 0.0836 | 2.0210 | -0.1090 | -0.0842 | 0.5006 | -0.5948 | -0.3912 |
| 120 | 49.15 | 0.07 | 11.8463 | -4.7038 | 0.8294 | 2.1815 | -0.1103 | -0.0433 | 0.5512 | -0.5945 | -0.3971 |
| 121 | 49.32 | 0.02 | 11.8855 | -4.8378 | 0.3579 | 2.0476 | -0.0959 | -0.0548 | 0.5645 | -0.6193 | -0.4070 |
| 122 | 49.53 | 0.04 | 12.1532 | -5.2191 | 0.4550 | 2.3485 | -0.1095 | -0.0391 | 0.5707 | -0.6098 | -0.4294 |
| 123 | 49.69 | 0.07 | 12.2456 | -5.5110 | 0.8337 | 2.0035 | -0.0830 | -0.0886 | 0.5616 | -0.6502 | -0.4500 |
| 124 | 49.89 | 0.03 | 12.9002 | -6.5821 | 0.3223 | 2.6915 | -0.1091 | -0.1061 | 0.5592 | -0.6652 | -0.5102 |
| 125 | 50.07 | 0.02 | 12.8252 | -6.8708 | 0.2116 | 2.9399 | -0.1229 | -0.0719 | 0.5573 | -0.6292 | -0.5357 |
| 126 | 50.26 | 0.03 | 12.9186 | -6.4734 | 0.2846 | 2.7682 | -0.1216 | -0.0364 | 0.5704 | -0.6068 | -0.5011 |
| 127 | 50.43 | 0.04 | 13.0629 | -6.7070 | 0.3580 | 3.1298 | -0.1167 | -0.0873 | 0.5767 | -0.6640 | -0.5134 |
| 128 | 50.59 | 0.03 | 12.9930 | -6.4144 | 0.2848 | 2.7719 | -0.0957 | -0.0728 | 0.5834 | -0.6562 | -0.4937 |
| 129 | 50.76 | 0.06 | 13.2164 | -6.8734 | 0.5440 | 3.3005 | -0.1107 | -0.0705 | 0.5872 | -0.6577 | -0.5201 |
| 130 | 50.94 | 0.04 | 13.0915 | -6.4186 | 0.5269 | 2.7117 | -0.0824 | -0.0656 | 0.5820 | -0.6476 | -0.4903 |
| 131 | 51.08 | 0.05 | 13.0694 | -6.5106 | 0.5804 | 2.9605 | -0.0900 | -0.0587 | 0.5855 | -0.6442 | -0.4982 |
| 132 | 51.26 | 0.05 | 13.2397 | -6.6251 | 0.6181 | 2.6259 | -0.0819 | -0.0842 | 0.5896 | -0.6739 | -0.5004 |
| 133 | 51.51 | 0.05 | 14.3345 | -8.0244 | 0.4397 | 3.2593 | -0.0426 | -0.0989 | 0.5984 | -0.6973 | -0.5598 |
| 134 | 51.65 | 0.08 | 13.9359 | -7.6699 | 0.7313 | 3.0951 | -0.0693 | -0.0745 | 0.5998 | -0.6744 | -0.5504 |
| 135 | 51.83 | 0.06 | 14.2453 | -8.1707 | 0.5491 | 2.4607 | -0.0529 | -0.1109 | 0.6032 | -0.7141 | -0.5736 |
| 136 | 52.02 | 0.06 | 14.3825 | -8.2365 | 0.5093 | 2.7681 | -0.0406 | -0.1019 | 0.5977 | -0.6996 | -0.5727 |
| 137 | 52.16 | 0.08 | 14.2067 | -8.1485 | 0.7909 | 2.9624 | -0.0295 | -0.0562 | 0.6002 | -0.6564 | -0.5736 |
| 138 | 52.36 | 0.06 | 14.2964 | -8.3063 | 0.5474 | 2.7318 | -0.0409 | -0.1095 | 0.6013 | -0.7108 | -0.5810 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | B1#0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.51 | 0.07 | 14.3004 | -8.2157 | 0.6200 | 2.8244 | -0.0412 | -0.0923 | 0.6038 | -0.6962 | -0.5745 |
| 140 | 52.67 | 0.09 | 14.3429 | -8.4245 | 0.8291 | 2.6792 | -0.0345 | -0.0726 | 0.6003 | -0.6730 | -0.5874 |
| 141 | 52.86 | 0.08 | 14.4285 | -8.6224 | 0.6764 | 2.5872 | -0.0531 | -0.1213 | 0.5970 | -0.7183 | -0.5976 |
| 142 | 53.01 | 0.10 | 14.3781 | -8.5214 | 0.8527 | 2.5819 | -0.0407 | -0.1044 | 0.5966 | -0.7010 | -0.5927 |
| 143 | 53.17 | 0.08 | 14.3472 | -8.3279 | 0.6170 | 2.5220 | -0.0141 | -0.0909 | 0.5981 | -0.6891 | -0.5805 |
| 144 | 53.34 | 0.07 | 14.5003 | -8.4758 | 0.6636 | 2.3640 | -0.0259 | -0.0886 | 0.6010 | -0.6897 | -0.5845 |
| 145 | 53.50 | 0.06 | 14.3820 | -8.2700 | 0.5864 | 1.9093 | -0.0115 | -0.1199 | 0.6002 | -0.7201 | -0.5750 |
| 146 | 53.65 | 0.06 | 14.3613 | -8.3666 | 0.5091 | 2.2754 | -0.0256 | -0.0881 | 0.5983 | -0.6865 | -0.5826 |
| 147 | 53.82 | 0.04 | 14.4901 | -8.4646 | 0.3521 | 2.1248 | 0.0012 | -0.1224 | 0.6041 | -0.7265 | -0.5842 |
| 148 | 53.97 | 0.09 | 14.6455 | -8.6500 | 0.8465 | 1.9806 | 0.0013 | -0.1064 | 0.6050 | -0.7114 | -0.5906 |
| 149 | 54.13 | 0.06 | 14.5599 | -8.5327 | 0.7639 | 1.6452 | 0.0026 | -0.1019 | 0.6086 | -0.7105 | -0.5860 |
| 150 | 54.28 | 0.05 | 14.5325 | -8.4456 | 0.6295 | 1.6340 | -0.0099 | -0.1135 | 0.6028 | -0.7163 | -0.5812 |
| 151 | 54.45 | 0.06 | 14.5657 | -8.3314 | 0.7593 | 1.5233 | 0.0033 | -0.0981 | 0.6090 | -0.7071 | -0.5720 |
| 152 | 54.60 | 0.06 | 14.6218 | -8.4820 | 0.7584 | 1.5012 | 0.0034 | -0.1380 | 0.6135 | -0.7515 | -0.5801 |
| 153 | 54.75 | 0.06 | 14.6705 | -8.4017 | 0.7031 | 1.7540 | 0.0221 | -0.1154 | 0.6150 | -0.7304 | -0.5727 |
| 154 | 54.90 | 0.05 | 14.7066 | -8.5957 | 0.8112 | 1.2306 | 0.0112 | -0.1032 | 0.6217 | -0.7249 | -0.5845 |
| 155 | 55.07 | 0.04 | 14.6302 | -8.5170 | 0.7511 | 1.3581 | 0.0305 | -0.1086 | 0.6206 | -0.7292 | -0.5743 |
| 156 | 55.21 | 0.05 | 14.7943 | -8.6165 | 0.7757 | 1.3314 | 0.0303 | -0.1238 | 0.6216 | -0.7454 | -0.5824 |
| 157 | 55.35 | 0.01 | 14.7837 | -8.4636 | 0.3566 | 1.3369 | 0.0312 | -0.1165 | 0.6245 | -0.7410 | -0.5725 |
| 158 | 55.52 | 0.07 | 14.9160 | -8.6017 | 0.9751 | 1.2579 | 0.0434 | -0.1303 | 0.6263 | -0.7566 | -0.5767 |
| 159 | 55.67 | 0.01 | 14.8157 | -8.7047 | 0.3150 | 1.0538 | 0.0324 | -0.1291 | 0.6272 | -0.7563 | -0.5875 |
| 160 | 55.85 | 0.05 | 14.9539 | -8.6893 | 0.9335 | 1.2396 | 0.0373 | -0.1432 | 0.6224 | -0.7656 | -0.5811 |
| 161 | 56.01 | 0.04 | 15.1138 | -8.9353 | 0.7634 | 1.3538 | 0.0311 | -0.1581 | 0.6286 | -0.7867 | -0.5912 |
| 162 | 56.14 | 0.02 | 14.9907 | -8.8035 | 0.5740 | 1.0866 | 0.0323 | -0.1236 | 0.6295 | -0.7531 | -0.5873 |
| 163 | 56.31 | 0.01 | 14.9867 | -8.5968 | 0.4653 | 1.0742 | 0.0455 | -0.1433 | 0.6279 | -0.7712 | -0.5736 |
| 164 | 56.46 | 0.04 | 15.0569 | -8.7761 | 0.7723 | 0.9913 | 0.0453 | -0.1481 | 0.6337 | -0.7818 | -0.5829 |
| 165 | 56.61 | 0.02 | 15.0424 | -8.9204 | 0.5860 | 1.0728 | 0.0261 | -0.1465 | 0.6333 | -0.7795 | -0.5930 |
| 166 | 56.76 | 0.02 | 14.9504 | -8.6205 | 0.5583 | 1.0731 | 0.0388 | -0.1545 | 0.6349 | -0.7894 | -0.5766 |
| 167 | 56.91 | 0.02 | 15.0819 | -8.7932 | 0.5527 | 0.9440 | 0.0332 | -0.1795 | 0.6292 | -0.8087 | -0.5830 |
| 168 | 57.06 | 0.01 | 15.0086 | -8.5625 | 0.4413 | 0.8781 | 0.0274 | -0.1502 | 0.6297 | -0.7799 | -0.5705 |
| 169 | 57.20 | -0.01 | 15.0215 | -8.5286 | 0.2430 | 0.9831 | 0.0211 | -0.1368 | 0.6328 | -0.7696 | -0.5678 |
| 170 | 57.37 | 0.03 | 15.1455 | -8.3498 | 0.6942 | 0.8206 | 0.0341 | -0.2011 | 0.6377 | -0.8388 | -0.5513 |
| 171 | 57.50 | 0.01 | 15.0706 | -7.9157 | 0.4839 | 0.6548 | 0.0226 | -0.1855 | 0.6370 | -0.8225 | -0.5252 |
| 172 | 57.62 | -0.08 | 14.7475 | -7.2058 | -0.3314 | 0.2171 | 0.0186 | -0.2005 | 0.6193 | -0.8198 | -0.4886 |
| 173 | 57.80 | -0.10 | 14.9515 | -7.2747 | -0.4080 | -0.7114 | 0.0138 | -0.2123 | 0.6212 | -0.8335 | -0.4866 |
| 174 | 57.94 | -0.10 | 14.9253 | -7.4387 | -0.4536 | -0.9801 | 0.0138 | -0.1937 | 0.6348 | -0.8285 | -0.4984 |
| 175 | 58.09 | -0.11 | 15.1033 | -8.0864 | -0.6012 | -1.1536 | 0.0209 | -0.1882 | 0.6442 | -0.8324 | -0.5354 |
| 176 | 58.22 | -0.12 | 15.1136 | -8.0919 | -0.6770 | -1.2707 | -0.0051 | -0.2060 | 0.6418 | -0.8478 | -0.5350 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.00 | 0.0486 | 0.0106 | 0.0286 | 0.2182 | 0.5883 | -0.7166 | -0.0455 | -0.2970 | 0.0635 | 0.4145 |
| 2 | -5.70 | 0.01 | 0.0555 | 0.0124 | 0.0302 | 0.2239 | 0.5451 | -0.7152 | -0.0465 | -0.2966 | 0.0650 | 0.4148 |
| 3 | -5.80 | 0.01 | 0.0498 | 0.0112 | 0.0283 | 0.2250 | 0.5681 | -0.7037 | -0.0474 | -0.2949 | 0.0667 | 0.4155 |
| 4 | -4.59 | 0.01 | 0.0506 | 0.0109 | 0.0243 | 0.2155 | 0.4798 | -0.6381 | -0.0552 | -0.2722 | 0.0865 | 0.4266 |
| 5 | -2.81 | 0.01 | 0.0439 | 0.0132 | 0.0199 | 0.3008 | 0.4525 | -0.5534 | -0.0633 | -0.2445 | 0.1144 | 0.4418 |
| 6 | -1.02 | 0.01 | 0.0417 | 0.0133 | 0.0187 | 0.3191 | 0.4475 | -0.4737 | -0.0682 | -0.2255 | 0.1440 | 0.4761 |
| 7 | 0.81 | 0.02 | 0.0364 | 0.0117 | 0.0154 | 0.3216 | 0.4217 | -0.3493 | -0.0626 | -0.1710 | 0.1792 | 0.4895 |
| 8 | 2.65 | 0.02 | 0.0363 | 0.0099 | 0.0167 | 0.2729 | 0.4588 | -0.2002 | -0.0464 | -0.1012 | 0.2316 | 0.5056 |
| 9 | 4.44 | 0.02 | 0.0489 | 0.0119 | 0.0198 | 0.2435 | 0.4042 | -0.0802 | -0.0244 | -0.0459 | 0.3048 | 0.5724 |
| 10 | 6.28 | 0.01 | 0.0491 | 0.0094 | 0.0193 | 0.1915 | 0.3923 | -0.0047 | 0.0023 | -0.0143 | -0.4896 | 3.0309 |
| 11 | 8.12 | 0.01 | 0.0536 | 0.0093 | 0.0213 | 0.1736 | 0.3968 | 0.0719 | 0.0313 | 0.0179 | 0.4362 | 0.2487 |
| 12 | 9.90 | 0.01 | 0.0557 | 0.0096 | 0.0231 | 0.1728 | 0.4150 | 0.1758 | 0.0561 | 0.0653 | 0.3191 | 0.3713 |
| 13 | 11.77 | 0.01 | 0.0661 | 0.0103 | 0.0256 | 0.1561 | 0.3876 | 0.2904 | 0.0794 | 0.1172 | 0.2735 | 0.4036 |
| 14 | 13.62 | 0.01 | 0.0637 | 0.0077 | 0.0266 | 0.1211 | 0.4180 | 0.4392 | 0.0974 | 0.1856 | 0.2219 | 0.4225 |
| 15 | 15.53 | 0.01 | 0.0745 | 0.0099 | 0.0327 | 0.1331 | 0.4396 | 0.5390 | 0.0872 | 0.2297 | 0.1618 | 0.4262 |
| 16 | 17.48 | 0.01 | 0.0923 | 0.0083 | 0.0486 | 0.0901 | 0.5266 | 0.6210 | 0.0773 | 0.2603 | 0.1245 | 0.4191 |
| 17 | 19.35 | 0.01 | 0.1086 | 0.0055 | 0.0664 | 0.0507 | 0.6112 | 0.6633 | 0.0596 | 0.2751 | 0.0998 | 0.4148 |
| 18 | 21.26 | -0.00 | 0.1107 | 0.0046 | 0.0747 | 0.0416 | 0.6748 | 0.6954 | 0.0414 | 0.2824 | 0.0595 | 0.4060 |
| 19 | 23.17 | 0.01 | 0.0802 | 0.0005 | 0.0582 | 0.0062 | 0.7264 | 0.7174 | 0.0349 | 0.2849 | 0.0486 | 0.3971 |
| 20 | 25.03 | -0.01 | 0.0565 | -0.0111 | 0.0534 | -0.1969 | 0.9463 | 0.7528 | 0.0327 | 0.2984 | 0.0435 | 0.3964 |
| 21 | 26.94 | 0.02 | 0.1025 | 0.0111 | 0.0466 | 0.1085 | 0.4546 | 0.7608 | 0.0309 | 0.2984 | 0.0407 | 0.3923 |
| 22 | 27.96 | 0.04 | 0.2382 | 0.0376 | 0.1045 | 0.1576 | 0.4388 | 0.7572 | 0.0300 | 0.2930 | 0.0397 | 0.3870 |
| 23 | 28.08 | 0.05 | 0.1970 | 0.0284 | 0.0894 | 0.1444 | 0.4537 | 0.7766 | 0.0294 | 0.3021 | 0.0379 | 0.3898 |
| 24 | 28.46 | 0.04 | 0.2196 | 0.0314 | 0.1046 | 0.1432 | 0.4765 | 0.7662 | 0.0295 | 0.2956 | 0.0386 | 0.3858 |
| 25 | 28.77 | 0.04 | 0.2230 | 0.0332 | 0.1009 | 0.1491 | 0.4525 | 0.7886 | 0.0288 | 0.3039 | 0.0366 | 0.3854 |
| 26 | 29.05 | 0.05 | 0.2395 | 0.0354 | 0.1118 | 0.1476 | 0.4664 | 0.7846 | 0.0285 | 0.3009 | 0.0364 | 0.3835 |
| 27 | 29.36 | 0.06 | 0.2820 | 0.0392 | 0.1386 | 0.1389 | 0.4915 | 0.7716 | 0.0285 | 0.2945 | 0.0370 | 0.3817 |
| 28 | 29.64 | 0.06 | 0.3291 | 0.0490 | 0.1640 | 0.1488 | 0.4982 | 0.7400 | 0.0295 | 0.2812 | 0.0399 | 0.3799 |
| 29 | 29.92 | 0.07 | 0.3074 | 0.0454 | 0.1504 | 0.1476 | 0.4893 | 0.7834 | 0.0279 | 0.2997 | 0.0357 | 0.3826 |
| 30 | 30.19 | 0.06 | 0.3126 | 0.0459 | 0.1586 | 0.1467 | 0.5075 | 0.7676 | 0.0285 | 0.2937 | 0.0372 | 0.3826 |
| 31 | 30.45 | 0.06 | 0.3384 | 0.0527 | 0.1686 | 0.1557 | 0.4982 | 0.7399 | 0.0294 | 0.2830 | 0.0398 | 0.3824 |
| 32 | 30.74 | 0.07 | 0.3684 | 0.0543 | 0.1844 | 0.1473 | 0.5064 | 0.7544 | 0.0286 | 0.2891 | 0.0380 | 0.3832 |
| 33 | 30.99 | 0.07 | 0.3124 | 0.0456 | 0.1597 | 0.1459 | 0.5111 | 0.7822 | 0.0271 | 0.2994 | 0.0347 | 0.3828 |
| 34 | 31.28 | 0.06 | 0.2993 | 0.0437 | 0.1517 | 0.1459 | 0.5070 | 0.7809 | 0.0270 | 0.2982 | 0.0346 | 0.3819 |
| 35 | 31.56 | 0.07 | 0.3404 | 0.0525 | 0.1708 | 0.1542 | 0.5017 | 0.7849 | 0.0271 | 0.2995 | 0.0346 | 0.3816 |
| 36 | 31.83 | 0.07 | 0.3306 | 0.0503 | 0.1651 | 0.1521 | 0.4993 | 0.7994 | 0.0262 | 0.3064 | 0.0328 | 0.3832 |
| 37 | 32.10 | 0.07 | 0.3475 | 0.0527 | 0.1720 | 0.1516 | 0.4950 | 0.7956 | 0.0263 | 0.3022 | 0.0331 | 0.3799 |
| 38 | 32.35 | 0.08 | 0.3370 | 0.0522 | 0.1629 | 0.1548 | 0.4833 | 0.8101 | 0.0253 | 0.3080 | 0.0313 | 0.3801 |
| 39 | 32.63 | 0.07 | 0.3758 | 0.0582 | 0.1758 | 0.1548 | 0.4678 | 0.8274 | 0.0245 | 0.3146 | 0.0297 | 0.3808 |
| 40 | 32.88 | 0.08 | 0.3921 | 0.0612 | 0.1795 | 0.1561 | 0.4579 | 0.8182 | 0.0249 | 0.3095 | 0.0305 | 0.3782 |
| 41 | 33.12 | 0.09 | 0.4192 | 0.0662 | 0.1964 | 0.1579 | 0.4685 | 0.8156 | 0.0249 | 0.3083 | 0.0306 | 0.3779 |
| 42 | 33.38 | 0.07 | 0.3622 | 0.0587 | 0.1628 | 0.1620 | 0.4493 | 0.8501 | 0.0229 | 0.3211 | 0.0270 | 0.3778 |
| 43 | 33.62 | 0.07 | 0.3381 | 0.0563 | 0.1553 | 0.1665 | 0.4594 | 0.8527 | 0.0229 | 0.3226 | 0.0269 | 0.3784 |
| 44 | 33.88 | 0.06 | 0.3175 | 0.0508 | 0.1431 | 0.1599 | 0.4507 | 0.8790 | 0.0214 | 0.3347 | 0.0244 | 0.3807 |
| 45 | 34.13 | 0.06 | 0.3176 | 0.0517 | 0.1490 | 0.1627 | 0.4692 | 0.8658 | 0.0225 | 0.3293 | 0.0260 | 0.3804 |
| 46 | 34.37 | 0.06 | 0.3141 | 0.0502 | 0.1487 | 0.1597 | 0.4735 | 0.8830 | 0.0216 | 0.3357 | 0.0245 | 0.3802 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | BIxOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.62 | 0.06 | 0.3068 | 0.0469 | 0.1497 | 0.1528 | 0.4880 | 0.8527 | 0.0230 | 0.3226 | 0.0270 | 0.3784 |
| 48 | 34.87 | 0.04 | 0.2900 | 0.0439 | 0.1424 | 0.1513 | 0.4910 | 0.8685 | 0.0223 | 0.3291 | 0.0257 | 0.3790 |
| 49 | 35.11 | 0.04 | 0.2828 | 0.0392 | 0.1371 | 0.1385 | 0.4847 | 0.9002 | 0.0208 | 0.3419 | 0.0231 | 0.3798 |
| 50 | 35.33 | 0.04 | 0.2957 | 0.0418 | 0.1458 | 0.1412 | 0.4931 | 0.8963 | 0.0211 | 0.3385 | 0.0236 | 0.3776 |
| 51 | 35.60 | 0.04 | 0.2343 | 0.0334 | 0.1096 | 0.1428 | 0.4680 | 0.9399 | 0.0194 | 0.3572 | 0.0207 | 0.3800 |
| 52 | 35.83 | 0.03 | 0.2169 | 0.0333 | 0.0960 | 0.1538 | 0.4510 | 0.9517 | 0.0195 | 0.3631 | 0.0200 | 0.3815 |
| 53 | 36.04 | 0.04 | 0.1601 | 0.0245 | 0.0775 | 0.1532 | 0.4840 | 0.9662 | 0.0187 | 0.3685 | 0.0194 | 0.3814 |
| 54 | 36.30 | 0.03 | 0.1040 | 0.0177 | 0.0464 | 0.1704 | 0.4461 | 0.9755 | 0.0187 | 0.3708 | 0.0192 | 0.3801 |
| 55 | 36.53 | 0.03 | 0.0950 | 0.0172 | 0.0422 | 0.1813 | 0.4440 | 0.9887 | 0.0185 | 0.3764 | 0.0187 | 0.3807 |
| 56 | 36.76 | 0.03 | 0.1322 | 0.0190 | 0.0720 | 0.1439 | 0.5445 | 0.9847 | 0.0186 | 0.3741 | 0.0189 | 0.3799 |
| 57 | 37.01 | 0.01 | -0.0208 | 0.0044 | -0.0282 | -0.2117 | 1.3553 | 1.0046 | 0.0178 | 0.3806 | 0.0177 | 0.3788 |
| 58 | 37.23 | 0.03 | 0.0767 | 0.0129 | 0.0438 | 0.1685 | 0.5710 | 1.0166 | 0.0170 | 0.3847 | 0.0167 | 0.3784 |
| 59 | 37.45 | 0.03 | 0.0907 | 0.0118 | 0.0478 | 0.1303 | 0.5271 | 1.0126 | 0.0174 | 0.3835 | 0.0172 | 0.3787 |
| 60 | 37.70 | 0.05 | 0.1118 | 0.0113 | 0.0596 | 0.1012 | 0.5335 | 1.0139 | 0.0171 | 0.3839 | 0.0169 | 0.3786 |
| 61 | 37.93 | 0.05 | 0.1326 | 0.0118 | 0.0791 | 0.0891 | 0.5966 | 1.0141 | 0.0172 | 0.3811 | 0.0170 | 0.3758 |
| 62 | 38.16 | 0.04 | 0.1099 | 0.0125 | 0.0627 | 0.1139 | 0.5701 | 1.0219 | 0.0168 | 0.3864 | 0.0165 | 0.3781 |
| 63 | 38.40 | 0.03 | 0.1216 | 0.0125 | 0.0656 | 0.1029 | 0.5392 | 1.0351 | 0.0159 | 0.3914 | 0.0154 | 0.3781 |
| 64 | 38.62 | 0.05 | 0.1185 | 0.0110 | 0.0698 | 0.0930 | 0.5889 | 1.0194 | 0.0167 | 0.3835 | 0.0164 | 0.3762 |
| 65 | 38.81 | 0.06 | 0.1211 | 0.0139 | 0.0678 | 0.1149 | 0.5596 | 1.0538 | 0.0148 | 0.3980 | 0.0141 | 0.3777 |
| 66 | 39.05 | 0.05 | 0.1428 | 0.0143 | 0.0828 | 0.1033 | 0.5800 | 1.0313 | 0.0158 | 0.3857 | 0.0153 | 0.3769 |
| 67 | 39.27 | 0.05 | 0.1502 | 0.0155 | 0.0883 | 0.1033 | 0.5875 | 1.0142 | 0.0161 | 0.3818 | 0.0159 | 0.3764 |
| 68 | 39.49 | 0.05 | 0.1149 | 0.0096 | 0.0701 | 0.0837 | 0.6100 | 1.0431 | 0.0148 | 0.3946 | 0.0142 | 0.3783 |
| 69 | 39.74 | 0.03 | 0.1088 | 0.0103 | 0.0763 | 0.0948 | 0.7014 | 0.9983 | 0.0159 | 0.3765 | 0.0159 | 0.3772 |
| 70 | 39.94 | 0.05 | 0.0948 | 0.0096 | 0.0663 | 0.1014 | 0.6992 | 1.0261 | 0.0148 | 0.3877 | 0.0144 | 0.3778 |
| 71 | 40.14 | 0.02 | 0.0824 | 0.0081 | 0.0545 | 0.0985 | 0.6619 | 1.0340 | 0.0143 | 0.3902 | 0.0138 | 0.3774 |
| 72 | 40.34 | 0.02 | 0.0602 | 0.0044 | 0.0506 | 0.0733 | 0.5413 | 1.0195 | 0.0148 | 0.3841 | 0.0145 | 0.3767 |
| 73 | 40.55 | 0.00 | 0.0423 | 0.0030 | 0.0417 | 0.0710 | 0.9842 | 1.0235 | 0.0143 | 0.3868 | 0.0140 | 0.3779 |
| 74 | 40.77 | 0.03 | 0.0320 | 0.0021 | 0.0378 | 0.0657 | 1.1789 | 1.0063 | 0.0150 | 0.3799 | 0.0149 | 0.3775 |
| 75 | 40.96 | 0.02 | -0.0128 | -0.0010 | 0.0171 | 0.0782 | -1.3324 | 0.9906 | 0.0151 | 0.3726 | 0.0153 | 0.3762 |
| 76 | 41.18 | 0.02 | 0.0379 | 0.0021 | 0.0397 | 0.0554 | 1.0456 | 1.0527 | 0.0132 | 0.3998 | 0.0126 | 0.3798 |
| 77 | 41.43 | 0.02 | 0.0147 | -0.0016 | 0.0273 | -0.1059 | 1.8563 | 1.0713 | 0.0127 | 0.4066 | 0.0119 | 0.3795 |
| 78 | 41.63 | 0.00 | 0.0132 | -0.0010 | 0.0286 | -0.0758 | 2.1660 | 1.0595 | 0.0127 | 0.4012 | 0.0120 | 0.3787 |
| 79 | 41.85 | -0.01 | -0.0030 | -0.0029 | 0.0177 | 0.9872 | -5.8854 | 1.0911 | 0.0114 | 0.4150 | 0.0105 | 0.3804 |
| 80 | 42.06 | 0.01 | 0.0061 | -0.0009 | 0.0205 | -0.1476 | 3.3550 | 1.1084 | 0.0107 | 0.4209 | 0.0097 | 0.3798 |
| 81 | 42.24 | 0.01 | -0.0221 | -0.0050 | 0.0088 | 0.2264 | -0.3995 | 1.0925 | 0.0112 | 0.4144 | 0.0103 | 0.3793 |
| 82 | 42.44 | 0.01 | -0.1239 | -0.0166 | -0.0321 | 0.1342 | 0.2593 | 1.0398 | 0.0119 | 0.3920 | 0.0115 | 0.3778 |
| 83 | 42.62 | 0.02 | -0.0551 | -0.0102 | -0.0094 | 0.1856 | 0.1715 | 1.1099 | 0.0100 | 0.4196 | 0.0090 | 0.3781 |
| 84 | 42.78 | -0.01 | -0.0381 | -0.0103 | -0.0017 | 0.2705 | 0.0448 | 1.1481 | 0.0088 | 0.4362 | 0.0077 | 0.3799 |
| 85 | 42.97 | 0.00 | -0.1415 | -0.0227 | -0.0411 | 0.1606 | 0.2902 | 1.0955 | 0.0101 | 0.4124 | 0.0092 | 0.3764 |
| 86 | 43.15 | -0.01 | -0.1142 | -0.0204 | -0.0303 | 0.1789 | 0.2655 | 1.1099 | 0.0101 | 0.4189 | 0.0091 | 0.3774 |
| 87 | 43.35 | 0.02 | -0.0806 | -0.0137 | -0.0230 | 0.1703 | 0.2854 | 1.1590 | 0.0083 | 0.4375 | 0.0072 | 0.3775 |
| 88 | 43.51 | 0.00 | -0.0879 | -0.0139 | -0.0297 | 0.1584 | 0.3382 | 1.1589 | 0.0078 | 0.4393 | 0.0067 | 0.3791 |
| 89 | 43.69 | -0.01 | -0.0470 | -0.0066 | -0.0215 | 0.1405 | 0.4568 | 1.1854 | 0.0070 | 0.4488 | 0.0059 | 0.3786 |
| 90 | 43.87 | -0.01 | -0.0857 | -0.0137 | -0.0285 | 0.1601 | 0.3328 | 1.1747 | 0.0072 | 0.4465 | 0.0061 | 0.3801 |
| 91 | 44.04 | 0.02 | -0.1129 | -0.0167 | -0.0390 | 0.1491 | 0.3451 | 1.1721 | 0.0071 | 0.4446 | 0.0061 | 0.3793 |
| 92 | 44.24 | -0.03 | -0.0723 | -0.0085 | -0.0300 | 0.1178 | 0.4155 | 1.1934 | 0.0063 | 0.4507 | 0.0053 | 0.3777 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 1&9 | 0.90 | 1.7 | 0.0 | BIWOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.44 | -0.01 | -0.1530 | -0.0240 | -0.0646 | 0.1570 | 0.4219 | 1.1723 | 0.0068 | 0.4418 | 0.0058 | 0.3769 |
| 94 | 44.60 | 0.01 | -0.1193 | -0.0193 | -0.0431 | 0.1620 | 0.3611 | 1.1789 | 0.0066 | 0.4453 | 0.0056 | 0.3778 |
| 95 | 44.81 | -0.01 | -0.2193 | -0.0365 | -0.0857 | 0.1662 | 0.3906 | 1.1645 | 0.0063 | 0.4381 | 0.0054 | 0.3762 |
| 96 | 44.97 | 0.00 | -0.1762 | -0.0266 | -0.0709 | 0.1512 | 0.4024 | 1.1633 | 0.0068 | 0.4356 | 0.0059 | 0.3745 |
| 97 | 45.16 | 0.02 | -0.0839 | -0.0127 | -0.0318 | 0.1516 | 0.3795 | 1.1950 | 0.0053 | 0.4496 | 0.0044 | 0.3754 |
| 98 | 45.33 | 0.01 | -0.0945 | -0.0167 | -0.0335 | 0.1770 | 0.3549 | 1.2113 | 0.0047 | 0.4562 | 0.0039 | 0.3766 |
| 99 | 45.52 | -0.01 | -0.2277 | -0.0377 | -0.0948 | 0.1654 | 0.4163 | 1.1731 | 0.0059 | 0.4374 | 0.0050 | 0.3729 |
| 100 | 45.69 | -0.01 | -0.2365 | -0.0374 | -0.0937 | 0.1579 | 0.3961 | 1.1743 | 0.0058 | 0.4396 | 0.0049 | 0.3744 |
| 101 | 45.85 | -0.02 | 0.0072 | 0.0038 | 0.0060 | 0.5281 | 0.8360 | 1.2379 | 0.0037 | 0.4647 | 0.0030 | 0.3754 |
| 102 | 46.04 | 0.00 | -0.2111 | -0.0349 | -0.0810 | 0.1651 | 0.3839 | 1.2028 | 0.0047 | 0.4484 | 0.0039 | 0.3728 |
| 103 | 46.22 | -0.03 | -0.1051 | -0.0156 | -0.0440 | 0.1487 | 0.4185 | 1.2372 | 0.0035 | 0.4621 | 0.0028 | 0.3735 |
| 104 | 46.38 | 0.01 | -0.2452 | -0.0393 | -0.0942 | 0.1601 | 0.3841 | 1.1976 | 0.0045 | 0.4449 | 0.0038 | 0.3715 |
| 105 | 46.56 | -0.00 | -0.2401 | -0.0396 | -0.0956 | 0.1647 | 0.3981 | 1.2109 | 0.0039 | 0.4499 | 0.0032 | 0.3716 |
| 106 | 46.74 | -0.02 | -0.0973 | -0.0153 | -0.0330 | 0.1575 | 0.3396 | 1.2387 | 0.0032 | 0.4611 | 0.0026 | 0.3722 |
| 107 | 46.91 | -0.00 | -0.2030 | -0.0335 | -0.0793 | 0.1653 | 0.3908 | 1.2163 | 0.0037 | 0.4498 | 0.0030 | 0.3698 |
| 108 | 47.07 | -0.01 | -0.1769 | -0.0299 | -0.0758 | 0.1693 | 0.4286 | 1.2388 | 0.0026 | 0.4596 | 0.0021 | 0.3710 |
| 109 | 47.26 | -0.00 | -0.1594 | -0.0279 | -0.0641 | 0.1752 | 0.4018 | 1.2454 | 0.0023 | 0.4625 | 0.0018 | 0.3714 |
| 110 | 47.44 | -0.02 | -0.1255 | -0.0220 | -0.0515 | 0.1755 | 0.4104 | 1.2512 | 0.0022 | 0.4651 | 0.0018 | 0.3717 |
| 111 | 47.61 | 0.01 | -0.0864 | -0.0141 | -0.0266 | 0.1635 | 0.3081 | 1.2646 | 0.0015 | 0.4701 | 0.0012 | 0.3717 |
| 112 | 47.78 | 0.00 | -0.2138 | -0.0383 | -0.0875 | 0.1789 | 0.4091 | 1.2396 | 0.0021 | 0.4571 | 0.0017 | 0.3687 |
| 113 | 47.95 | 0.00 | -0.1058 | -0.0173 | -0.0470 | 0.1638 | 0.4442 | 1.2713 | 0.0011 | 0.4730 | 0.0009 | 0.3721 |
| 114 | 48.11 | 0.01 | -0.1463 | -0.0257 | -0.0574 | 0.1759 | 0.3925 | 1.2661 | 0.0008 | 0.4691 | 0.0006 | 0.3705 |
| 115 | 48.31 | -0.02 | -0.2310 | -0.0463 | -0.0976 | 0.2003 | 0.4225 | 1.2185 | 0.0009 | 0.4494 | 0.0007 | 0.3688 |
| 116 | 48.45 | -0.03 | -0.1770 | -0.0329 | -0.0758 | 0.1862 | 0.4284 | 1.2503 | 0.0009 | 0.4608 | 0.0007 | 0.3685 |
| 117 | 48.62 | -0.01 | -0.1627 | -0.0343 | -0.0724 | 0.2111 | 0.4448 | 1.2425 | 0.0 | 0.4568 | 0.0 | 0.3676 |
| 118 | 48.81 | -0.02 | -0.1944 | -0.0424 | -0.0865 | 0.2179 | 0.4448 | 1.2258 | -0.0006 | 0.4507 | -0.0003 | 0.3677 |
| 119 | 48.96 | 0.01 | -0.1726 | -0.0373 | -0.0797 | 0.2159 | 0.4620 | 1.2285 | -0.0004 | 0.4505 | -0.0003 | 0.3667 |
| 120 | 49.15 | 0.07 | -0.1744 | -0.0378 | -0.0811 | 0.2165 | 0.4653 | 1.2370 | -0.0005 | 0.4553 | -0.0004 | 0.3680 |
| 121 | 49.32 | 0.02 | -0.1282 | -0.0321 | -0.0600 | 0.2507 | 0.4683 | 1.2305 | -0.0019 | 0.4521 | -0.0015 | 0.3674 |
| 122 | 49.53 | 0.04 | -0.2162 | -0.0370 | -0.0905 | 0.1694 | 0.4146 | 1.2263 | -0.0002 | 0.4511 | -0.0002 | 0.3679 |
| 123 | 49.69 | 0.07 | -0.1505 | -0.0309 | -0.0594 | 0.2056 | 0.3949 | 1.2491 | -0.0022 | 0.4592 | -0.0018 | 0.3676 |
| 124 | 49.89 | 0.03 | -0.1615 | -0.0330 | -0.0657 | 0.2046 | 0.4085 | 1.2665 | -0.0029 | 0.4651 | -0.0023 | 0.3673 |
| 125 | 50.07 | 0.02 | -0.1964 | -0.0364 | -0.0800 | 0.1851 | 0.4075 | 1.2459 | -0.0021 | 0.4544 | -0.0017 | 0.3647 |
| 126 | 50.26 | 0.03 | -0.1854 | -0.0352 | -0.0736 | 0.1896 | 0.3971 | 1.2406 | -0.0026 | 0.4534 | -0.0021 | 0.3654 |
| 127 | 50.43 | 0.04 | -0.2086 | -0.0365 | -0.0824 | 0.1748 | 0.3952 | 1.2491 | -0.0025 | 0.4552 | -0.0020 | 0.3644 |
| 128 | 50.59 | 0.03 | -0.1641 | -0.0266 | -0.0671 | 0.1623 | 0.4086 | 1.2451 | -0.0031 | 0.4546 | -0.0025 | 0.3651 |
| 129 | 50.78 | 0.08 | -0.1644 | -0.0298 | -0.0639 | 0.1815 | 0.3863 | 1.2651 | -0.0037 | 0.4624 | -0.0029 | 0.3655 |
| 130 | 50.94 | 0.04 | -0.1591 | -0.0239 | -0.0598 | 0.1498 | 0.3760 | 1.2484 | -0.0028 | 0.4545 | -0.0022 | 0.3640 |
| 131 | 51.08 | 0.05 | -0.1522 | -0.0243 | -0.0573 | 0.1598 | 0.3766 | 1.2536 | -0.0037 | 0.4579 | -0.0030 | 0.3652 |
| 132 | 51.26 | 0.05 | -0.1063 | -0.0175 | -0.0428 | 0.1649 | 0.4024 | 1.2658 | -0.0048 | 0.4621 | -0.0038 | 0.3651 |
| 133 | 51.51 | 0.05 | -0.1201 | -0.0089 | -0.0519 | 0.0742 | 0.4322 | 1.2515 | -0.0020 | 0.4542 | -0.0016 | 0.3629 |
| 134 | 51.65 | 0.08 | -0.1659 | -0.0156 | -0.0667 | 0.0942 | 0.4020 | 1.2494 | -0.0020 | 0.4534 | -0.0016 | 0.3628 |
| 135 | 51.83 | 0.06 | -0.0416 | -0.0019 | -0.0129 | 0.0457 | 0.3087 | 1.2972 | -0.0051 | 0.4737 | -0.0039 | 0.3652 |
| 136 | 52.02 | 0.06 | -0.1173 | -0.0064 | -0.0455 | 0.0546 | 0.3878 | 1.2552 | -0.0025 | 0.4562 | -0.0020 | 0.3634 |
| 137 | 52.16 | 0.08 | -0.0849 | -0.0028 | -0.0305 | 0.0330 | 0.3596 | 1.2673 | -0.0042 | 0.4622 | -0.0033 | 0.3647 |
| 138 | 52.36 | 0.06 | -0.0863 | -0.0063 | -0.0280 | 0.0731 | 0.3247 | 1.2804 | -0.0049 | 0.4656 | -0.0038 | 0.3637 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | 8IWOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.51 | 0.07 | -0.0821 | -0.0045 | -0.0245 | 0.0549 | 0.2985 | 1.2857 | -0.0049 | 0.4666 | -0.0038 | 0.3629 |
| 140 | 52.67 | 0.09 | -0.0665 | -0.0050 | -0.0155 | 0.0753 | 0.2327 | 1.3204 | -0.0074 | 0.4827 | -0.0056 | 0.3656 |
| 141 | 52.86 | 0.08 | -0.0736 | -0.0082 | -0.0231 | 0.1116 | 0.3139 | 1.3358 | -0.0086 | 0.4873 | -0.0064 | 0.3648 |
| 142 | 53.01 | 0.10 | -0.0692 | -0.0053 | -0.0147 | 0.0767 | 0.2120 | 1.3159 | -0.0077 | 0.4792 | -0.0059 | 0.3641 |
| 143 | 53.17 | 0.08 | -0.0489 | -0.0034 | -0.0051 | 0.0696 | 0.1046 | 1.3165 | -0.0080 | 0.4781 | -0.0061 | 0.3631 |
| 144 | 53.34 | 0.07 | -0.0532 | -0.0011 | -0.0021 | 0.0207 | 0.0396 | 1.3111 | -0.0075 | 0.4772 | -0.0057 | 0.3639 |
| 145 | 53.50 | 0.06 | -0.0308 | 0.0013 | 0.0076 | -0.0422 | -0.2475 | 1.3098 | -0.0073 | 0.4764 | -0.0056 | 0.3637 |
| 146 | 53.65 | 0.06 | -0.0411 | 0.0001 | 0.0050 | -0.0024 | -0.1220 | 1.3209 | -0.0085 | 0.4802 | -0.0064 | 0.3635 |
| 147 | 53.82 | 0.04 | -0.0358 | 0.0030 | 0.0084 | -0.0838 | -0.2354 | 1.3163 | -0.0087 | 0.4786 | -0.0066 | 0.3630 |
| 148 | 53.97 | 0.09 | -0.0414 | 0.0034 | 0.0121 | -0.0822 | -0.2932 | 1.3222 | -0.0085 | 0.4802 | -0.0064 | 0.3632 |
| 149 | 54.13 | 0.06 | -0.0085 | 0.0075 | 0.0238 | -0.8828 | -2.7972 | 1.3391 | -0.0100 | 0.4870 | -0.0075 | 0.3637 |
| 150 | 54.28 | 0.05 | -0.0092 | 0.0055 | 0.0284 | -0.5951 | -3.0859 | 1.3339 | -0.0100 | 0.4843 | -0.0075 | 0.3631 |
| 151 | 54.45 | 0.06 | -0.0176 | 0.0067 | 0.0276 | -0.3809 | -1.5675 | 1.3208 | -0.0091 | 0.4779 | -0.0069 | 0.3618 |
| 152 | 54.60 | 0.06 | -0.0420 | 0.0020 | 0.0159 | -0.0476 | -0.3774 | 1.3366 | -0.0102 | 0.4848 | -0.0076 | 0.3627 |
| 153 | 54.75 | 0.06 | -0.0106 | 0.0100 | 0.0344 | -0.9439 | -3.2462 | 1.3185 | -0.0095 | 0.4792 | -0.0072 | 0.3634 |
| 154 | 54.90 | 0.05 | -0.0197 | 0.0084 | 0.0316 | -0.4266 | -1.6041 | 1.3343 | -0.0102 | 0.4850 | -0.0077 | 0.3635 |
| 155 | 55.07 | 0.04 | -0.0225 | 0.0080 | 0.0338 | -0.3557 | -1.5026 | 1.3362 | -0.0100 | 0.4857 | -0.0075 | 0.3635 |
| 156 | 55.21 | 0.05 | -0.0225 | 0.0085 | 0.0338 | -0.3780 | -1.5026 | 1.3379 | -0.0101 | 0.4859 | -0.0076 | 0.3639 |
| 157 | 55.35 | 0.01 | -0.0259 | 0.0102 | 0.0386 | -0.3940 | -1.4874 | 1.3287 | -0.0096 | 0.4832 | -0.0072 | 0.3636 |
| 159 | 55.52 | 0.07 | -0.0252 | 0.0082 | 0.0350 | -0.3256 | -1.3894 | 1.3301 | -0.0101 | 0.4829 | -0.0076 | 0.3630 |
| 159 | 55.67 | 0.01 | -0.0082 | 0.0100 | 0.0415 | -1.2202 | -5.0527 | 1.3475 | -0.0110 | 0.4905 | -0.0082 | 0.3640 |
| 160 | 55.85 | 0.05 | -0.0342 | 0.0101 | 0.0307 | -0.2955 | -0.8976 | 1.3390 | -0.0098 | 0.4855 | -0.0073 | 0.3626 |
| 161 | 56.01 | 0.04 | -0.0224 | 0.0091 | 0.0328 | -0.4065 | -1.4645 | 1.3547 | -0.0115 | 0.4943 | -0.0085 | 0.3649 |
| 162 | 56.14 | 0.02 | -0.0213 | 0.0096 | 0.0336 | -0.4509 | -1.5778 | 1.3469 | -0.0114 | 0.4904 | -0.0085 | 0.3641 |
| 163 | 56.31 | 0.01 | -0.0137 | 0.0095 | 0.0387 | -0.6936 | -2.8192 | 1.3456 | -0.0113 | 0.4893 | -0.0084 | 0.3636 |
| 164 | 56.46 | 0.04 | -0.0145 | 0.0091 | 0.0361 | -0.6279 | -2.4907 | 1.3575 | -0.0120 | 0.4938 | -0.0089 | 0.3638 |
| 165 | 56.61 | 0.02 | -0.0312 | 0.0073 | 0.0289 | -0.2341 | -0.9260 | 1.3474 | -0.0120 | 0.4890 | -0.0089 | 0.3629 |
| 166 | 56.76 | 0.02 | -0.0326 | 0.0071 | 0.0302 | -0.2179 | -0.9263 | 1.3555 | -0.0120 | 0.4930 | -0.0089 | 0.3637 |
| 167 | 56.91 | 0.02 | -0.0179 | 0.0101 | 0.0349 | -0.5645 | -1.9504 | 1.3549 | -0.0124 | 0.4928 | -0.0092 | 0.3637 |
| 168 | 57.06 | 0.01 | -0.0231 | 0.0091 | 0.0373 | -0.3941 | -1.6112 | 1.3471 | -0.0119 | 0.4893 | -0.0088 | 0.3632 |
| 169 | 57.20 | -0.01 | -0.0139 | 0.0094 | 0.0399 | -0.6766 | -2.7653 | 1.3737 | -0.0139 | 0.5039 | -0.0101 | 0.3646 |
| 170 | 57.37 | 0.03 | -0.0305 | 0.0084 | 0.0380 | -0.2756 | -1.2433 | 1.3711 | -0.0136 | 0.4986 | -0.0099 | 0.3637 |
| 171 | 57.50 | 0.01 | -0.0346 | 0.0077 | 0.0411 | -0.2227 | -1.1859 | 1.3606 | -0.0132 | 0.4945 | -0.0097 | 0.3635 |
| 172 | 57.62 | -0.08 | -0.0333 | 0.0092 | 0.0399 | -0.2764 | -1.1960 | 1.3607 | -0.0136 | 0.4945 | -0.0100 | 0.3634 |
| 173 | 57.80 | -0.10 | -0.0301 | 0.0106 | 0.0416 | -0.3523 | -1.3798 | 1.3734 | -0.0144 | 0.5004 | -0.0105 | 0.3644 |
| 174 | 57.94 | -0.10 | -0.0386 | 0.0092 | 0.0357 | -0.2385 | -0.9252 | 1.3797 | -0.0141 | 0.5029 | -0.0102 | 0.3647 |
| 175 | 58.09 | -0.11 | -0.0441 | 0.0081 | 0.0332 | -0.1838 | -0.7530 | 1.3616 | -0.0129 | 0.4952 | -0.0095 | 0.3637 |
| 176 | 58.22 | -0.12 | -0.0472 | 0.0052 | 0.0314 | -0.1102 | -0.6653 | 1.3733 | -0.0135 | 0.5004 | -0.0098 | 0.3644 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | 0.00 | -0.0139 | 9.9999 | 0.0232 | 9.9999 | -1.6672 | -0.7457 | -0.0400 | -0.3175 | 0.0536 | 0.4258 |
| 2 | -5.70 | 0.01 | -0.0104 | 9.9999 | 0.0246 | 9.9999 | -2.3633 | -0.7482 | -0.0405 | -0.3186 | 0.0541 | 0.4258 |
| 3 | -5.80 | 0.01 | -0.0056 | 9.9999 | 0.0265 | 9.9999 | -4.7294 | -0.7367 | -0.0419 | -0.3141 | 0.0568 | 0.4264 |
| 4 | -4.59 | 0.01 | -0.0116 | 9.9999 | 0.0246 | 9.9999 | -2.1188 | -0.6755 | -0.0508 | -0.2875 | 0.0752 | 0.4256 |
| 5 | -2.81 | 0.01 | -0.0066 | 9.9999 | 0.0242 | 9.9999 | -3.6632 | -0.6031 | -0.0608 | -0.2635 | 0.1008 | 0.4368 |
| 6 | -1.02 | 0.01 | -0.0055 | 9.9999 | 0.0252 | 9.9999 | -4.5787 | -0.5108 | -0.0671 | -0.2399 | 0.1216 | 0.4522 |
| 7 | 0.81 | 0.02 | -0.0044 | 9.9999 | 0.0269 | 9.9999 | -6.1104 | -0.3875 | -0.0608 | -0.1778 | 0.1569 | 0.4590 |
| 8 | 2.65 | 0.02 | -0.0045 | 9.9999 | 0.0281 | 9.9999 | -6.2421 | -0.2391 | -0.0413 | -0.1079 | 0.1725 | 0.4514 |
| 9 | 4.44 | 0.02 | -0.0010 | 9.9999 | 0.0312 | 9.9999 | -31.1995 | -0.1164 | -0.0235 | -0.0525 | 0.2022 | 0.4511 |
| 10 | 6.28 | 0.01 | -0.0071 | 9.9999 | 0.0305 | 9.9999 | -4.2954 | -0.0281 | 0.0046 | -0.0196 | -0.1638 | 0.6962 |
| 11 | 8.12 | 0.01 | -0.0119 | 9.9999 | 0.0293 | 9.9999 | -2.4615 | 0.0551 | 0.0321 | 0.0171 | 0.5839 | 0.3101 |
| 12 | 9.90 | 0.01 | -0.0157 | 9.9999 | 0.0310 | 9.9999 | -1.9745 | 0.1632 | 0.0583 | 0.0646 | 0.3570 | 0.3955 |
| 13 | 11.77 | 0.01 | 0.0064 | 9.9999 | 0.0309 | 9.9999 | 4.3279 | 0.2741 | 0.0813 | 0.1150 | 0.2966 | 0.4194 |
| 14 | 13.62 | 0.01 | 0.0235 | 9.9999 | 0.0315 | 9.9999 | 1.3404 | 0.4184 | 0.1004 | 0.1870 | 0.2401 | 0.4469 |
| 15 | 15.53 | 0.01 | 0.0233 | 9.9999 | 0.0343 | 9.9999 | 1.4725 | 0.5342 | 0.0887 | 0.2394 | 0.1661 | 0.4462 |
| 16 | 17.48 | 0.01 | 0.0176 | 9.9999 | 0.0289 | 9.9999 | 1.6416 | 0.5960 | 0.0706 | 0.2669 | 0.1185 | 0.4478 |
| 17 | 19.35 | 0.01 | 0.0128 | 9.9999 | 0.0265 | 9.9999 | 2.0691 | 0.6197 | 0.0520 | 0.2791 | 0.0839 | 0.4505 |
| 18 | 21.26 | -0.00 | 0.0142 | 9.9999 | 0.0240 | 9.9999 | 1.6885 | 0.6129 | 0.0444 | 0.2755 | 0.0724 | 0.4496 |
| 19 | 23.17 | 0.01 | 0.0264 | 9.9999 | 0.0256 | 9.9999 | 0.9690 | 0.6357 | 0.0388 | 0.2963 | 0.0610 | 0.4503 |
| 20 | 25.03 | -0.01 | 0.0147 | 9.9999 | 0.0183 | 9.9999 | 1.2421 | 0.6284 | 0.0358 | 0.2875 | 0.0569 | 0.4575 |
| 21 | 26.94 | 0.02 | 0.0241 | 9.9999 | 0.0236 | 9.9999 | 0.9782 | 0.6773 | 0.0331 | 0.3144 | 0.0489 | 0.4642 |
| 22 | 27.96 | 0.04 | 0.0385 | 9.9999 | 0.0295 | 9.9999 | 0.7661 | 0.6939 | 0.0332 | 0.3233 | 0.0479 | 0.4649 |
| 23 | 28.08 | 0.05 | 0.0387 | 9.9999 | 0.0279 | 9.9999 | 0.7206 | 0.6854 | 0.0331 | 0.3230 | 0.0484 | 0.4713 |
| 24 | 28.46 | 0.04 | 0.0493 | 9.9999 | 0.0336 | 9.9999 | 0.6817 | 0.6925 | 0.0328 | 0.3277 | 0.0474 | 0.4733 |
| 25 | 28.77 | 0.04 | 0.0542 | 9.9999 | 0.0358 | 9.9999 | 0.6608 | 0.6981 | 0.0323 | 0.3336 | 0.0463 | 0.4778 |
| 26 | 29.05 | 0.05 | 0.0435 | 9.9999 | 0.0315 | 9.9999 | 0.7241 | 0.6949 | 0.0325 | 0.3336 | 0.0468 | 0.4800 |
| 27 | 29.36 | 0.06 | 0.0508 | 9.9999 | 0.0331 | 9.9999 | 0.6517 | 0.6893 | 0.0329 | 0.3333 | 0.0478 | 0.4835 |
| 28 | 29.64 | 0.06 | 0.0507 | 9.9999 | 0.0344 | 9.9999 | 0.6787 | 0.7008 | 0.0320 | 0.3403 | 0.0457 | 0.4856 |
| 29 | 29.92 | 0.07 | 0.0506 | 9.9999 | 0.0350 | 9.9999 | 0.6919 | 0.7064 | 0.0318 | 0.3422 | 0.0451 | 0.4844 |
| 30 | 30.19 | 0.06 | 0.0531 | 9.9999 | 0.0362 | 9.9999 | 0.6820 | 0.6866 | 0.0324 | 0.3337 | 0.0473 | 0.4860 |
| 31 | 30.45 | 0.06 | 0.0472 | 9.9999 | 0.0330 | 9.9999 | 0.6993 | 0.6992 | 0.0322 | 0.3357 | 0.0461 | 0.4858 |
| 32 | 30.74 | 0.07 | 0.0592 | 9.9999 | 0.0395 | 9.9999 | 0.6671 | 0.7149 | 0.0311 | 0.3454 | 0.0436 | 0.4832 |
| 33 | 30.99 | 0.07 | 0.0529 | 9.9999 | 0.0352 | 9.9999 | 0.6772 | 0.7165 | 0.0306 | 0.3472 | 0.0428 | 0.4846 |
| 34 | 31.28 | 0.06 | 0.0459 | 9.9999 | 0.0332 | 9.9999 | 0.7234 | 0.7306 | 0.0299 | 0.3539 | 0.0410 | 0.4845 |
| 35 | 31.56 | 0.07 | 0.0604 | 9.9999 | 0.0392 | 9.9999 | 0.6488 | 0.7334 | 0.0300 | 0.3552 | 0.0410 | 0.4843 |
| 36 | 31.83 | 0.07 | 0.0448 | 9.9999 | 0.0316 | 9.9999 | 0.7054 | 0.7293 | 0.0299 | 0.3539 | 0.0411 | 0.4854 |
| 37 | 32.10 | 0.07 | 0.0543 | 9.9999 | 0.0370 | 9.9999 | 0.6799 | 0.7349 | 0.0296 | 0.3563 | 0.0403 | 0.4848 |
| 38 | 32.35 | 0.08 | 0.0556 | 9.9999 | 0.0374 | 9.9999 | 0.6724 | 0.7532 | 0.0288 | 0.3645 | 0.0393 | 0.4839 |
| 39 | 32.63 | 0.07 | 0.0540 | 9.9999 | 0.0413 | 9.9999 | 0.6453 | 0.7504 | 0.0290 | 0.3644 | 0.0387 | 0.4856 |
| 40 | 32.88 | 0.08 | 0.0604 | 9.9999 | 0.0399 | 9.9999 | 0.6605 | 0.7477 | 0.0289 | 0.3639 | 0.0387 | 0.4867 |
| 41 | 33.12 | 0.09 | 0.0555 | 9.9999 | 0.0390 | 9.9999 | 0.7026 | 0.7534 | 0.0287 | 0.3666 | 0.0381 | 0.4866 |
| 42 | 33.38 | 0.07 | 0.0530 | 9.9999 | 0.0382 | 9.9999 | 0.7193 | 0.7619 | 0.0282 | 0.3703 | 0.0371 | 0.4860 |
| 43 | 33.62 | 0.07 | 0.0505 | 9.9999 | 0.0377 | 9.9999 | 0.7450 | 0.7577 | 0.0282 | 0.3691 | 0.0373 | 0.4872 |
| 44 | 33.88 | 0.06 | 0.0554 | 9.9999 | 0.0405 | 9.9999 | 0.7311 | 0.7493 | 0.0284 | 0.3653 | 0.0380 | 0.4875 |
| 45 | 34.13 | 0.06 | 0.0554 | 9.9999 | 0.0402 | 9.9999 | 0.7256 | 0.7592 | 0.0278 | 0.3695 | 0.0367 | 0.4867 |
| 46 | 34.37 | 0.06 | 0.0421 | 9.9999 | 0.0343 | 9.9999 | 0.8150 | 0.7761 | 0.0272 | 0.3771 | 0.0351 | 0.4859 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | B1WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.62 | 0.06 | 0.0409 | 9.9999 | 0.0342 | 9.9999 | 0.9364 | 0.7874 | 0.0265 | 0.3811 | 0.0337 | 0.4839 |
| 48 | 34.87 | 0.04 | 0.0300 | 9.9999 | 0.0302 | 9.9999 | 1.0065 | 0.7859 | 0.0268 | 0.3807 | 0.0341 | 0.4844 |
| 49 | 35.11 | 0.04 | 0.0384 | 9.9999 | 0.0338 | 9.9999 | 0.8804 | 0.7861 | 0.0265 | 0.3807 | 0.0338 | 0.4842 |
| 50 | 35.33 | 0.04 | 0.0360 | 9.9999 | 0.0330 | 9.9999 | 0.9168 | 0.8029 | 0.0260 | 0.3882 | 0.0324 | 0.4835 |
| 51 | 35.60 | 0.04 | 0.0336 | 9.9999 | 0.0319 | 9.9999 | 0.9495 | 0.7960 | 0.0260 | 0.3852 | 0.0327 | 0.4839 |
| 52 | 35.83 | 0.03 | 0.0348 | 9.9999 | 0.0330 | 9.9999 | 0.9484 | 0.8059 | 0.0254 | 0.3890 | 0.0316 | 0.4827 |
| 53 | 36.04 | 0.04 | 0.0347 | 9.9999 | 0.0336 | 9.9999 | 0.9685 | 0.8184 | 0.0252 | 0.3930 | 0.0308 | 0.4802 |
| 54 | 36.30 | 0.03 | 0.0323 | 9.9999 | 0.0332 | 9.9999 | 1.0280 | 0.8311 | 0.0247 | 0.3983 | 0.0298 | 0.4793 |
| 55 | 36.53 | 0.03 | 0.0311 | 9.9999 | 0.0331 | 9.9999 | 1.0645 | 0.8325 | 0.0247 | 0.3994 | 0.0297 | 0.4786 |
| 56 | 36.76 | 0.03 | 0.0286 | 9.9999 | 0.0326 | 9.9999 | 1.1400 | 0.8537 | 0.0235 | 0.4076 | 0.0275 | 0.4774 |
| 57 | 37.01 | 0.01 | 0.0299 | 9.9999 | 0.0327 | 9.9999 | 1.0938 | 0.8355 | 0.0241 | 0.4002 | 0.0289 | 0.4791 |
| 58 | 37.23 | 0.03 | 0.0311 | 9.9999 | 0.0325 | 9.9999 | 1.0451 | 0.8594 | 0.0230 | 0.4088 | 0.0268 | 0.4757 |
| 59 | 37.45 | 0.03 | 0.0334 | 9.9999 | 0.0345 | 9.9999 | 1.0332 | 0.8566 | 0.0233 | 0.4084 | 0.0272 | 0.4767 |
| 60 | 37.70 | 0.05 | 0.0310 | 9.9999 | 0.0337 | 9.9999 | 1.0873 | 0.8552 | 0.0233 | 0.4076 | 0.0273 | 0.4766 |
| 61 | 37.93 | 0.05 | 0.0274 | 9.9999 | 0.0319 | 9.9999 | 1.1643 | 0.8721 | 0.0225 | 0.4142 | 0.0258 | 0.4749 |
| 62 | 38.16 | 0.04 | 0.0263 | 9.9999 | 0.0309 | 9.9999 | 1.1748 | 0.8803 | 0.0225 | 0.4163 | 0.0256 | 0.4729 |
| 63 | 38.40 | 0.03 | 0.0311 | 9.9999 | 0.0321 | 9.9999 | 1.0322 | 0.8846 | 0.0224 | 0.4198 | 0.0254 | 0.4746 |
| 64 | 38.62 | 0.05 | 0.0287 | 9.9999 | 0.0317 | 9.9999 | 1.1046 | 0.8833 | 0.0220 | 0.4187 | 0.0249 | 0.4740 |
| 65 | 38.81 | 0.06 | 0.0335 | 9.9999 | 0.0332 | 9.9999 | 0.9912 | 0.9043 | 0.0215 | 0.4268 | 0.0238 | 0.4720 |
| 66 | 39.05 | 0.05 | 0.0287 | 9.9999 | 0.0310 | 9.9999 | 1.0801 | 0.8888 | 0.0221 | 0.4200 | 0.0249 | 0.4726 |
| 67 | 39.27 | 0.05 | 0.0311 | 9.9999 | 0.0325 | 9.9999 | 1.0451 | 0.8901 | 0.0222 | 0.4201 | 0.0250 | 0.4720 |
| 68 | 39.49 | 0.05 | 0.0312 | 9.9999 | 0.0312 | 9.9999 | 1.0000 | 0.9015 | 0.0215 | 0.4254 | 0.0239 | 0.4719 |
| 69 | 39.74 | 0.03 | 0.0227 | 9.9999 | 0.0285 | 9.9999 | 1.2551 | 0.8875 | 0.0217 | 0.4186 | 0.0245 | 0.4717 |
| 70 | 39.94 | 0.05 | 0.0276 | 9.9999 | 0.0300 | 9.9999 | 1.0868 | 0.9015 | 0.0213 | 0.4240 | 0.0237 | 0.4704 |
| 71 | 40.14 | 0.02 | 0.0190 | 9.9999 | 0.0283 | 9.9999 | 1.4890 | 0.9112 | 0.0214 | 0.4283 | 0.0235 | 0.4700 |
| 72 | 40.34 | 0.02 | 0.0167 | 9.9999 | 0.0263 | 9.9999 | 1.5739 | 0.9140 | 0.0211 | 0.4284 | 0.0231 | 0.4686 |
| 73 | 40.55 | 0.00 | 0.0119 | 9.9999 | 0.0238 | 9.9999 | 1.9980 | 0.9099 | 0.0211 | 0.4257 | 0.0232 | 0.4679 |
| 74 | 40.77 | 0.03 | 0.0240 | 9.9999 | 0.0276 | 9.9999 | 1.1495 | 0.9183 | 0.0206 | 0.4276 | 0.0225 | 0.4658 |
| 75 | 40.96 | 0.02 | 0.0035 | 9.9999 | 0.0204 | 9.9999 | 5.8186 | 0.9002 | 0.0207 | 0.4178 | 0.0230 | 0.4641 |
| 76 | 41.18 | 0.02 | 0.0084 | 9.9999 | 0.0211 | 9.9999 | 2.5080 | 0.9408 | 0.0198 | 0.4356 | 0.0211 | 0.4630 |
| 77 | 41.43 | 0.02 | 0.0157 | 9.9999 | 0.0237 | 9.9999 | 1.5080 | 0.9490 | 0.0200 | 0.4374 | 0.0211 | 0.4609 |
| 78 | 41.63 | 0.00 | 0.0023 | 9.9999 | 0.0194 | 9.9999 | 8.4182 | 0.9602 | 0.0195 | 0.4399 | 0.0203 | 0.4581 |
| 79 | 41.85 | -0.01 | 0.0145 | 9.9999 | 0.0230 | 9.9999 | 1.5844 | 0.9799 | 0.0185 | 0.4462 | 0.0189 | 0.4554 |
| 80 | 42.06 | 0.01 | 0.0096 | 9.9999 | 0.0214 | 9.9999 | 2.2253 | 0.9855 | 0.0185 | 0.4485 | 0.0188 | 0.4551 |
| 81 | 42.24 | 0.01 | 0.0145 | 9.9999 | 0.0233 | 9.9999 | 1.6051 | 0.9924 | 0.0184 | 0.4485 | 0.0186 | 0.4520 |
| 82 | 42.44 | 0.01 | 0.0036 | 9.9999 | 0.0186 | 9.9999 | 5.1553 | 0.9662 | 0.0179 | 0.4384 | 0.0186 | 0.4537 |
| 83 | 42.62 | 0.02 | 0.0241 | 9.9999 | 0.0276 | 9.9999 | 1.1447 | 0.9969 | 0.0175 | 0.4518 | 0.0176 | 0.4532 |
| 84 | 42.78 | -0.01 | 0.0108 | 9.9999 | 0.0228 | 9.9999 | 2.1086 | 1.0137 | 0.0171 | 0.4577 | 0.0169 | 0.4515 |
| 85 | 42.97 | 0.00 | 0.0156 | 9.9999 | 0.0240 | 9.9999 | 1.5370 | 1.0014 | 0.0166 | 0.4523 | 0.0166 | 0.4516 |
| 86 | 43.15 | -0.01 | 0.0120 | 9.9999 | 0.0225 | 9.9999 | 1.8726 | 1.0111 | 0.0166 | 0.4562 | 0.0164 | 0.4512 |
| 87 | 43.35 | 0.02 | 0.0241 | 9.9999 | 0.0276 | 9.9999 | 1.1447 | 1.0308 | 0.0157 | 0.4646 | 0.0153 | 0.4507 |
| 88 | 43.51 | 0.00 | 0.0060 | 9.9999 | 0.0203 | 9.9999 | 3.3774 | 1.0282 | 0.0155 | 0.4644 | 0.0151 | 0.4516 |
| 89 | 43.69 | -0.01 | 0.0264 | 9.9999 | 0.0290 | 9.9999 | 1.0982 | 1.0395 | 0.0149 | 0.4690 | 0.0144 | 0.4512 |
| 90 | 43.87 | -0.01 | 0.0120 | 9.9999 | 0.0225 | 9.9999 | 1.8726 | 1.0494 | 0.0146 | 0.4728 | 0.0139 | 0.4506 |
| 91 | 44.04 | 0.02 | 0.0181 | 9.9999 | 0.0244 | 9.9999 | 1.3468 | 1.0466 | 0.0146 | 0.4720 | 0.0140 | 0.4510 |
| 92 | 44.24 | -0.03 | 0.0143 | 9.9999 | 0.0249 | 9.9999 | 1.7398 | 1.0496 | 0.0139 | 0.4728 | 0.0133 | 0.4505 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.44 | -0.01 | 0.0143 | 9.9999 | 0.0258 | 9.9999 | 1.8030 | 1.0552 | 0.0138 | 0.4744 | 0.0131 | 0.4496 |
| 94 | 44.60 | 0.01 | 0.0108 | 9.9999 | 0.0218 | 9.9999 | 2.0157 | 1.0596 | 0.0133 | 0.4767 | 0.0126 | 0.4499 |
| 95 | 44.81 | -0.01 | 0.0048 | 9.9999 | 0.0202 | 9.9999 | 4.2009 | 1.0554 | 0.0133 | 0.4751 | 0.0126 | 0.4502 |
| 96 | 44.97 | 0.00 | 0.0071 | 9.9999 | 0.0216 | 9.9999 | 3.0379 | 1.0569 | 0.0129 | 0.4751 | 0.0122 | 0.4496 |
| 97 | 45.16 | 0.02 | 0.0192 | 9.9999 | 0.0261 | 9.9999 | 1.3585 | 1.0639 | 0.0129 | 0.4796 | 0.0121 | 0.4508 |
| 98 | 45.33 | 0.01 | 0.0168 | 9.9999 | 0.0260 | 9.9999 | 1.5466 | 1.0738 | 0.0129 | 0.4838 | 0.0120 | 0.4505 |
| 99 | 45.52 | -0.01 | 0.0012 | 9.9999 | 0.0185 | 9.9999 | 15.3824 | 1.0616 | 0.0121 | 0.4780 | 0.0114 | 0.4502 |
| 100 | 45.69 | -0.01 | 0.0036 | 9.9999 | 0.0199 | 9.9999 | 5.5176 | 1.0685 | 0.0120 | 0.4797 | 0.0112 | 0.4489 |
| 101 | 45.85 | -0.02 | 0.0168 | 9.9999 | 0.0254 | 9.9999 | 1.5108 | 1.0812 | 0.0118 | 0.4878 | 0.0109 | 0.4512 |
| 102 | 46.04 | 0.00 | 0.0109 | 9.9999 | 0.0216 | 9.9999 | 1.9788 | 1.0829 | 0.0115 | 0.4868 | 0.0106 | 0.4495 |
| 103 | 46.22 | -0.03 | 0.0036 | 9.9999 | 0.0196 | 9.9999 | 5.4340 | 1.0872 | 0.0111 | 0.4894 | 0.0102 | 0.4502 |
| 104 | 46.38 | 0.01 | 0.0001 | 9.9999 | 0.0162 | 9.9999 | 161.9151 | 1.0735 | 0.0108 | 0.4843 | 0.0101 | 0.4511 |
| 105 | 46.56 | -0.00 | -0.0060 | 9.9999 | 0.0139 | 9.9999 | -2.3074 | 1.0721 | 0.0107 | 0.4838 | 0.0100 | 0.4513 |
| 106 | 46.74 | -0.02 | 0.0180 | 9.9999 | 0.0264 | 9.9999 | 1.4658 | 1.0875 | 0.0105 | 0.4907 | 0.0097 | 0.4512 |
| 107 | 46.91 | -0.00 | 0.0109 | 9.9999 | 0.0222 | 9.9999 | 2.0340 | 1.0848 | 0.0102 | 0.4892 | 0.0094 | 0.4510 |
| 108 | 47.07 | -0.01 | 0.0157 | 9.9999 | 0.0244 | 9.9999 | 1.5527 | 1.0862 | 0.0102 | 0.4896 | 0.0094 | 0.4508 |
| 109 | 47.26 | -0.00 | 0.0120 | 9.9999 | 0.0232 | 9.9999 | 1.9312 | 1.0975 | 0.0097 | 0.4942 | 0.0089 | 0.4503 |
| 110 | 47.44 | -0.02 | 0.0168 | 9.9999 | 0.0258 | 9.9999 | 1.5347 | 1.0908 | 0.0097 | 0.4918 | 0.0089 | 0.4509 |
| 111 | 47.61 | 0.01 | 0.0216 | 9.9999 | 0.0286 | 9.9999 | 1.3237 | 1.1345 | 0.0082 | 0.5100 | 0.0072 | 0.4495 |
| 112 | 47.78 | 0.00 | 0.0048 | 9.9999 | 0.0197 | 9.9999 | 4.0964 | 1.0857 | 0.0084 | 0.4891 | 0.0077 | 0.4505 |
| 113 | 47.95 | 0.00 | 0.0170 | 9.9999 | 0.0242 | 9.9999 | 1.4222 | 1.1008 | 0.0091 | 0.4960 | 0.0083 | 0.4508 |
| 114 | 48.11 | 0.01 | 0.0156 | 9.9999 | 0.0251 | 9.9999 | 1.6077 | 1.0941 | 0.0085 | 0.4932 | 0.0078 | 0.4508 |
| 115 | 48.31 | -0.02 | 0.0145 | 9.9999 | 0.0234 | 9.9999 | 1.6120 | 1.0380 | 0.0091 | 0.4693 | 0.0088 | 0.4521 |
| 116 | 48.45 | -0.03 | 0.0133 | 9.9999 | 0.0224 | 9.9999 | 1.6821 | 1.0871 | 0.0083 | 0.4891 | 0.0076 | 0.4499 |
| 117 | 48.62 | -0.01 | 0.0074 | 9.9999 | 0.0185 | 9.9999 | 2.4944 | 1.0477 | 0.0095 | 0.4742 | 0.0091 | 0.4527 |
| 118 | 48.81 | -0.02 | 0.0098 | 9.9999 | 0.0206 | 9.9999 | 2.0995 | 1.0240 | 0.0094 | 0.4631 | 0.0092 | 0.4522 |
| 119 | 48.96 | 0.01 | 0.0098 | 9.9999 | 0.0200 | 9.9999 | 2.0371 | 1.0481 | 0.0088 | 0.4734 | 0.0084 | 0.4517 |
| 120 | 49.15 | 0.07 | 0.0170 | 9.9999 | 0.0238 | 9.9999 | 1.3986 | 1.0298 | 0.0082 | 0.4670 | 0.0080 | 0.4535 |
| 121 | 49.32 | 0.02 | 0.0207 | 9.9999 | 0.0247 | 9.9999 | 1.1922 | 1.0139 | 0.0096 | 0.4595 | 0.0095 | 0.4532 |
| 122 | 49.53 | 0.04 | 0.0218 | 9.9999 | 0.0263 | 9.9999 | 1.2057 | 1.0556 | 0.0064 | 0.4785 | 0.0061 | 0.4533 |
| 123 | 49.69 | 0.07 | 0.0291 | 9.9999 | 0.0287 | 9.9999 | 0.9860 | 1.0597 | 0.0067 | 0.4780 | 0.0063 | 0.4510 |
| 124 | 49.89 | 0.03 | 0.0266 | 9.9999 | 0.0279 | 9.9999 | 1.0485 | 1.0587 | 0.0057 | 0.4782 | 0.0054 | 0.4517 |
| 125 | 50.07 | 0.02 | 0.0242 | 9.9999 | 0.0271 | 9.9999 | 1.1193 | 1.0525 | 0.0060 | 0.4744 | 0.0057 | 0.4508 |
| 126 | 50.26 | 0.03 | 0.0289 | 9.9999 | 0.0299 | 9.9999 | 1.0344 | 1.0527 | 0.0054 | 0.4740 | 0.0051 | 0.4503 |
| 127 | 50.43 | 0.04 | 0.0278 | 9.9999 | 0.0289 | 9.9999 | 1.0393 | 1.0671 | 0.0048 | 0.4812 | 0.0045 | 0.4509 |
| 128 | 50.59 | 0.03 | 0.0278 | 9.9999 | 0.0289 | 9.9999 | 1.0393 | 1.0457 | 0.0061 | 0.4723 | 0.0058 | 0.4517 |
| 129 | 50.76 | 0.06 | 0.0218 | 9.9999 | 0.0260 | 9.9999 | 1.1919 | 1.0672 | 0.0044 | 0.4812 | 0.0041 | 0.4509 |
| 130 | 50.94 | 0.04 | 0.0240 | 9.9999 | 0.0290 | 9.9999 | 1.2080 | 1.0666 | 0.0051 | 0.4818 | 0.0048 | 0.4517 |
| 131 | 51.08 | 0.05 | 0.0277 | 9.9999 | 0.0295 | 9.9999 | 1.0648 | 1.0570 | 0.0047 | 0.4779 | 0.0045 | 0.4521 |
| 132 | 51.26 | 0.05 | 0.0241 | 9.9999 | 0.0277 | 9.9999 | 1.1489 | 1.0542 | 0.0048 | 0.4764 | 0.0046 | 0.4519 |
| 133 | 51.51 | 0.05 | 0.0123 | 9.9999 | 0.0200 | 9.9999 | 1.6231 | 1.0785 | 0.0035 | 0.4870 | 0.0032 | 0.4516 |
| 134 | 51.65 | 0.08 | 0.0146 | 9.9999 | 0.0224 | 9.9999 | 1.5123 | 1.0810 | 0.0032 | 0.4884 | 0.0030 | 0.4518 |
| 135 | 51.83 | 0.06 | 0.0267 | 9.9999 | 0.0269 | 9.9999 | 1.0070 | 1.0623 | 0.0047 | 0.4791 | 0.0044 | 0.4510 |
| 136 | 52.02 | 0.06 | 0.0230 | 9.9999 | 0.0250 | 9.9999 | 1.0861 | 1.0890 | 0.0029 | 0.4915 | 0.0027 | 0.4513 |
| 137 | 52.16 | 0.08 | 0.0025 | 9.9999 | 0.0166 | 9.9999 | 6.6211 | 1.0849 | 0.0027 | 0.4899 | 0.0025 | 0.4518 |
| 138 | 52.36 | 0.06 | 0.0098 | 9.9999 | 0.0189 | 9.9999 | 1.9245 | 1.0890 | 0.0023 | 0.4906 | 0.0021 | 0.4505 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 169 | 0.90 | 1.7 | 0.0 | BIWCF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.51 | 0.07 | 0.0195 | 9.9999 | 0.0226 | 9.9999 | 1.1575 | 1.0791 | 0.0026 | 0.4861 | 0.0024 | 0.4505 |
| 140 | 52.67 | 0.09 | 0.0026 | 9.9999 | 0.0159 | 9.9999 | 6.0964 | 1.0913 | 0.0020 | 0.4907 | 0.0018 | 0.4497 |
| 141 | 52.86 | 0.06 | 0.0171 | 9.9999 | 0.0215 | 9.9999 | 1.2555 | 1.0930 | 0.0020 | 0.4914 | 0.0018 | 0.4496 |
| 142 | 53.01 | 0.10 | 0.0207 | 9.9999 | 0.0227 | 9.9999 | 1.0953 | 1.1000 | 0.0018 | 0.4944 | 0.0016 | 0.4495 |
| 143 | 53.17 | 0.08 | 0.0183 | 9.9999 | 0.0212 | 9.9999 | 1.1567 | 1.0983 | 0.0014 | 0.4943 | 0.0013 | 0.4501 |
| 144 | 53.34 | 0.07 | 0.0160 | 9.9999 | 0.0182 | 9.9999 | 1.1349 | 1.0969 | 0.0015 | 0.4952 | 0.0014 | 0.4515 |
| 145 | 53.50 | 0.06 | 0.0184 | 9.9999 | 0.0193 | 9.9999 | 1.0468 | 1.0842 | 0.0020 | 0.4889 | 0.0018 | 0.4509 |
| 146 | 53.65 | 0.06 | 0.0219 | 9.9999 | 0.0220 | 9.9999 | 1.0032 | 1.1033 | 0.0015 | 0.4968 | 0.0014 | 0.4503 |
| 147 | 53.82 | 0.04 | 0.0124 | 9.9999 | 0.0174 | 9.9999 | 1.3996 | 1.1119 | 0.0007 | 0.4999 | 0.0006 | 0.4496 |
| 148 | 53.97 | 0.09 | 0.0161 | 9.9999 | 0.0172 | 9.9999 | 1.0655 | 1.1191 | 0.0001 | 0.5044 | 0.0001 | 0.4507 |
| 149 | 54.13 | 0.06 | 0.0244 | 9.9999 | 0.0218 | 9.9999 | 0.8922 | 1.1020 | 0.0008 | 0.4969 | 0.0007 | 0.4509 |
| 150 | 54.28 | 0.05 | 0.0303 | 9.9999 | 0.0250 | 9.9999 | 0.8244 | 1.1019 | 0.0009 | 0.4970 | 0.0008 | 0.4511 |
| 151 | 54.45 | 0.06 | 0.0339 | 9.9999 | 0.0274 | 9.9999 | 0.8079 | 1.1119 | 0.0002 | 0.5019 | 0.0002 | 0.4513 |
| 152 | 54.60 | 0.06 | 0.0279 | 9.9999 | 0.0242 | 9.9999 | 0.8666 | 1.1146 | 0.0003 | 0.5030 | 0.0003 | 0.4512 |
| 153 | 54.75 | 0.06 | 0.0291 | 9.9999 | 0.0246 | 9.9999 | 0.8446 | 1.1240 | -0.0003 | 0.5057 | -0.0003 | 0.4499 |
| 154 | 54.90 | 0.05 | 0.0303 | 9.9999 | 0.0250 | 9.9999 | 0.8244 | 1.1255 | -0.0005 | 0.5085 | -0.0004 | 0.4518 |
| 155 | 55.07 | 0.04 | 0.0220 | 9.9999 | 0.0210 | 9.9999 | 0.9530 | 1.1355 | -0.0006 | 0.5120 | -0.0005 | 0.4509 |
| 156 | 55.21 | 0.05 | 0.0243 | 9.9999 | 0.0218 | 9.9999 | 0.8959 | 1.1197 | -0.0005 | 0.5047 | -0.0004 | 0.4507 |
| 157 | 55.35 | 0.01 | 0.0243 | 9.9999 | 0.0227 | 9.9999 | 0.9330 | 1.1380 | -0.0015 | 0.5123 | -0.0013 | 0.4502 |
| 158 | 55.52 | 0.07 | 0.0267 | 9.9999 | 0.0232 | 9.9999 | 0.8679 | 1.1395 | -0.0015 | 0.5141 | -0.0013 | 0.4512 |
| 159 | 55.67 | 0.01 | 0.0290 | 9.9999 | 0.0242 | 9.9999 | 0.8337 | 1.1237 | -0.0014 | 0.5072 | -0.0012 | 0.4513 |
| 160 | 55.85 | 0.05 | 0.0243 | 9.9999 | 0.0224 | 9.9999 | 0.9206 | 1.1477 | -0.0023 | 0.5157 | -0.0020 | 0.4493 |
| 161 | 56.01 | 0.04 | 0.0220 | 9.9999 | 0.0204 | 9.9999 | 0.9257 | 1.1423 | -0.0024 | 0.5157 | -0.0021 | 0.4515 |
| 162 | 56.14 | 0.02 | 0.0243 | 9.9999 | 0.0224 | 9.9999 | 0.9206 | 1.1438 | -0.0026 | 0.5165 | -0.0023 | 0.4516 |
| 163 | 56.31 | 0.01 | 0.0196 | 9.9999 | 0.0196 | 9.9999 | 0.9981 | 1.1394 | -0.0021 | 0.5133 | -0.0018 | 0.4505 |
| 164 | 56.46 | 0.04 | 0.0219 | 9.9999 | 0.0220 | 9.9999 | 1.0032 | 1.1436 | -0.0023 | 0.5156 | -0.0020 | 0.4510 |
| 165 | 56.61 | 0.02 | 0.0219 | 9.9999 | 0.0210 | 9.9999 | 0.9574 | 1.1547 | -0.0039 | 0.5232 | -0.0034 | 0.4505 |
| 166 | 56.76 | 0.02 | 0.0170 | 9.9999 | 0.0197 | 9.9999 | 1.1566 | 1.1526 | -0.0035 | 0.5197 | -0.0030 | 0.4509 |
| 167 | 56.91 | 0.02 | 0.0217 | 9.9999 | 0.0229 | 9.9999 | 1.0541 | 1.1403 | -0.0028 | 0.5151 | -0.0025 | 0.4517 |
| 168 | 57.06 | 0.01 | 0.0230 | 9.9999 | 0.0226 | 9.9999 | 0.9814 | 1.1390 | -0.0032 | 0.5140 | -0.0028 | 0.4513 |
| 169 | 57.20 | -0.01 | 0.0242 | 9.9999 | 0.0230 | 9.9999 | 0.9493 | 1.1440 | -0.0032 | 0.5161 | -0.0028 | 0.4511 |
| 170 | 57.37 | 0.03 | 0.0195 | 9.9999 | 0.0192 | 9.9999 | 0.9826 | 1.1497 | -0.0036 | 0.5187 | -0.0031 | 0.4512 |
| 171 | 57.50 | 0.01 | 0.0242 | 9.9999 | 0.0226 | 9.9999 | 0.9327 | 1.1371 | -0.0030 | 0.5138 | -0.0026 | 0.4518 |
| 172 | 57.62 | -0.08 | 0.0135 | 9.9999 | 0.0176 | 9.9999 | 1.3004 | 1.1375 | -0.0041 | 0.5137 | -0.0036 | 0.4516 |
| 173 | 57.80 | -0.10 | 0.0183 | 9.9999 | 0.0188 | 9.9999 | 1.0251 | 1.1497 | -0.0044 | 0.5186 | -0.0038 | 0.4511 |
| 174 | 57.94 | -0.10 | 0.0147 | 9.9999 | 0.0171 | 9.9999 | 1.1602 | 1.1581 | -0.0044 | 0.5213 | -0.0038 | 0.4502 |
| 175 | 58.09 | -0.11 | 0.0123 | 9.9999 | 0.0173 | 9.9999 | 1.4028 | 1.1442 | -0.0042 | 0.5156 | -0.0037 | 0.4506 |
| 176 | 58.22 | -0.12 | 0.0112 | 9.9999 | 0.0156 | 9.9999 | 1.3884 | 1.1317 | -0.0038 | 0.5120 | -0.0034 | 0.4524 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.68 | 0.03 | -1.9120 | 7.0899 | 0.1008 | -0.3272 | -0.0040 | 0.6570 | 0.1865 | 0.4704 | -3.7081 |
| 2 | -5.69 | 0.00 | -1.8859 | 7.0687 | -0.0220 | -0.2744 | 0.0077 | 0.6574 | 0.1862 | 0.4712 | -3.7482 |
| 3 | -5.80 | 0.02 | -1.8769 | 6.9838 | 0.0966 | -0.3854 | 0.0079 | 0.6604 | 0.1821 | 0.4783 | -3.7210 |
| 4 | -4.40 | 0.01 | -1.5967 | 6.3194 | 0.0865 | -0.3450 | -0.0035 | 0.6412 | 0.1680 | 0.4732 | -3.9577 |
| 5 | -2.65 | 0.01 | -1.2704 | 5.1743 | 0.0995 | -0.3373 | 0.0087 | 0.6041 | 0.1535 | 0.4506 | -4.2305 |
| 6 | -0.82 | 0.02 | -0.9477 | 4.4045 | 0.1461 | -0.3921 | 0.0091 | 0.5677 | 0.1435 | 0.4242 | -4.6476 |
| 7 | 0.99 | 0.01 | -0.5919 | 3.3666 | 0.1077 | -0.3980 | 0.0094 | 0.5319 | 0.1324 | 0.3995 | -5.6877 |
| 8 | 2.89 | 0.02 | -0.2363 | 2.3583 | 0.1549 | -0.4430 | 0.0099 | 0.4924 | 0.1232 | 0.3692 | -9.9792 |
| 9 | 4.68 | 0.01 | 0.0931 | 1.3719 | 0.0948 | -0.3972 | -0.0017 | 0.4557 | 0.1171 | 0.3387 | 14.7278 |
| 10 | 6.56 | 0.01 | 0.4084 | 0.5685 | 0.0815 | -0.4059 | -0.0013 | 0.4217 | 0.1228 | 0.2990 | 1.3920 |
| 11 | 8.41 | 0.02 | 0.7308 | -0.2824 | 0.1348 | -0.3635 | -0.0008 | 0.3945 | 0.1342 | 0.2603 | -0.3864 |
| 12 | 10.26 | 0.01 | 1.1232 | -1.2391 | 0.0983 | -0.3508 | -0.0003 | 0.3511 | 0.1343 | 0.2168 | -1.1032 |
| 13 | 12.18 | 0.01 | 1.5349 | -2.2316 | 0.0659 | -0.2806 | 0.0060 | 0.3077 | 0.1427 | 0.1650 | -1.4539 |
| 14 | 14.07 | 0.01 | 2.0051 | -3.3280 | 0.0443 | -0.2412 | 0.0125 | 0.2728 | 0.1590 | 0.1139 | -1.6597 |
| 15 | 16.04 | 0.01 | 2.4283 | -4.2394 | 0.0459 | -0.2125 | 0.0132 | 0.2349 | 0.1674 | 0.0675 | -1.7459 |
| 16 | 18.02 | 0.00 | 2.8890 | -5.1512 | -0.0722 | 0.0613 | 0.0432 | 0.1932 | 0.1874 | 0.0058 | -1.7830 |
| 17 | 19.98 | -0.00 | 3.3611 | -6.0114 | -0.1389 | 0.2289 | 0.0377 | 0.1587 | 0.2080 | -0.0493 | -1.7885 |
| 18 | 21.95 | 0.01 | 3.7817 | -6.4177 | 0.0245 | -0.0078 | 0.0043 | 0.1142 | 0.2088 | -0.0946 | -1.6971 |
| 19 | 23.92 | 0.02 | 4.2660 | -5.7176 | 0.1542 | -0.3033 | 0.0080 | 0.1067 | 0.2187 | -0.1121 | -1.3403 |
| 20 | 25.87 | 0.04 | 4.7551 | -5.3170 | 0.3648 | -0.6971 | 0.0646 | 0.0981 | 0.2383 | -0.1403 | -1.1182 |
| 21 | 27.84 | 0.06 | 5.2791 | -4.8030 | 0.7112 | -1.5216 | 0.2169 | 0.1298 | 0.2938 | -0.1640 | -0.9098 |
| 22 | 28.10 | 0.08 | 5.3295 | -4.8152 | 0.8403 | -1.6978 | 0.2476 | 0.1453 | 0.2844 | -0.1392 | -0.9035 |
| 23 | 28.48 | 0.08 | 5.4314 | -4.7032 | 0.8983 | -1.7734 | 0.2720 | 0.1467 | 0.2988 | -0.1521 | -0.8659 |
| 24 | 28.74 | 0.07 | 5.5476 | -4.7734 | 0.7643 | -1.5105 | 0.2068 | 0.1102 | 0.2965 | -0.1863 | -0.8604 |
| 25 | 29.05 | 0.07 | 5.6022 | -4.7314 | 0.7976 | -1.7620 | 0.2845 | 0.1530 | 0.3030 | -0.1500 | -0.8446 |
| 26 | 29.38 | 0.07 | 5.6915 | -4.5938 | 0.8681 | -1.8383 | 0.2913 | 0.1508 | 0.3164 | -0.1656 | -0.8071 |
| 27 | 29.66 | 0.07 | 5.7890 | -4.5889 | 0.8407 | -1.6960 | 0.1967 | 0.0998 | 0.2934 | -0.2035 | -0.7927 |
| 28 | 29.94 | 0.08 | 5.8277 | -4.7371 | 0.6662 | -1.8984 | 0.2150 | 0.1080 | 0.3029 | -0.1949 | -0.8129 |
| 29 | 30.22 | 0.07 | 5.9855 | -4.7531 | 0.7781 | -1.7000 | 0.1797 | 0.0846 | 0.2879 | -0.2033 | -0.7941 |
| 30 | 30.50 | 0.07 | 6.0411 | -4.6965 | 0.6502 | -1.1620 | 0.1139 | 0.0586 | 0.2790 | -0.2204 | -0.7758 |
| 31 | 30.76 | 0.08 | 6.1983 | -4.7583 | 0.9394 | -1.9362 | 0.2404 | 0.0943 | 0.2918 | -0.1974 | -0.7677 |
| 32 | 31.05 | 0.09 | 6.3113 | -4.6823 | 0.9256 | -1.7649 | 0.1755 | 0.0831 | 0.2991 | -0.2159 | -0.7419 |
| 33 | 31.33 | 0.09 | 6.4166 | -4.6496 | 0.9275 | -1.9231 | 0.1998 | 0.0804 | 0.3076 | -0.2271 | -0.7246 |
| 34 | 31.61 | 0.07 | 6.5064 | -4.5411 | 0.7621 | -1.5579 | 0.1404 | 0.0666 | 0.3002 | -0.2335 | -0.6979 |
| 35 | 31.87 | 0.10 | 6.5292 | -4.4783 | 1.0345 | -2.2117 | 0.2426 | 0.1193 | 0.3141 | -0.1948 | -0.6859 |
| 36 | 32.15 | 0.09 | 6.6443 | -4.4202 | 1.0007 | -2.3338 | 0.1956 | 0.0974 | 0.3202 | -0.2228 | -0.6653 |
| 37 | 32.41 | 0.07 | 6.6930 | -4.3217 | 0.6860 | -1.5584 | 0.1354 | 0.0662 | 0.3049 | -0.2386 | -0.6457 |
| 38 | 32.66 | 0.10 | 6.7787 | -4.3750 | 0.9963 | -2.0271 | 0.1603 | 0.0678 | 0.3117 | -0.2438 | -0.6454 |
| 39 | 32.93 | 0.06 | 6.8511 | -4.1821 | 0.5550 | -1.4348 | 0.1240 | 0.0549 | 0.2976 | -0.2426 | -0.6104 |
| 40 | 33.19 | 0.07 | 7.0185 | -4.3403 | 0.6721 | -1.5759 | 0.1248 | 0.0526 | 0.3110 | -0.2583 | -0.6184 |
| 41 | 33.42 | 0.05 | 7.0027 | -4.3103 | 0.4411 | -1.2443 | 0.1064 | 0.0499 | 0.3053 | -0.2553 | -0.6155 |
| 42 | 33.69 | 0.08 | 7.1143 | -4.2133 | 0.8006 | -1.7396 | 0.1732 | 0.0469 | 0.3168 | -0.2698 | -0.5922 |
| 43 | 33.94 | 0.07 | 7.1894 | -4.1960 | 0.6253 | -1.3230 | 0.1193 | 0.0291 | 0.2976 | -0.2684 | -0.5838 |
| 44 | 34.17 | 0.08 | 7.2550 | -4.1912 | 0.7469 | -1.5837 | 0.1615 | 0.0439 | 0.3072 | -0.2632 | -0.5777 |
| 45 | 34.44 | 0.06 | 7.3886 | -4.1735 | 0.5513 | -1.1070 | 0.0901 | 0.0184 | 0.2995 | -0.2810 | -0.5649 |
| 46 | 34.69 | 0.05 | 7.4705 | -4.2952 | 0.4436 | -1.0177 | 0.1257 | 0.0105 | 0.3018 | -0.2913 | -0.5750 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.91 | 0.06 | 7.4629 | -3.9711 | 0.5145 | -1.0939 | 0.1203 | 0.0033 | 0.2891 | -0.2857 | -0.5321 |
| 48 | 35.17 | 0.07 | 7.6269 | -4.1551 | 0.6041 | -1.2627 | 0.1508 | 0.0041 | 0.2983 | -0.2942 | -0.5448 |
| 49 | 35.41 | 0.07 | 7.6888 | -4.1292 | 0.6779 | -1.3109 | 0.1394 | -0.0005 | 0.2995 | -0.3000 | -0.5378 |
| 50 | 35.63 | 0.09 | 7.7132 | -4.1344 | 0.8289 | -1.5161 | 0.1696 | 0.0218 | 0.3080 | -0.2861 | -0.5360 |
| 51 | 35.89 | 0.08 | 7.9335 | -4.0582 | 0.7286 | -1.3167 | 0.1405 | 0.0164 | 0.3057 | -0.2893 | -0.5115 |
| 52 | 36.12 | 0.06 | 7.9142 | -3.9419 | 0.5556 | -1.0494 | 0.1281 | -0.0042 | 0.3018 | -0.3060 | -0.4981 |
| 53 | 36.35 | 0.07 | 8.0389 | -3.9811 | 0.6379 | -1.1477 | 0.1406 | 0.0033 | 0.3115 | -0.3082 | -0.4952 |
| 54 | 36.58 | 0.06 | 8.1174 | -3.9108 | 0.5578 | -1.0203 | 0.1349 | -0.0067 | 0.3080 | -0.3147 | -0.4818 |
| 55 | 36.82 | 0.06 | 8.1428 | -3.8260 | 0.5272 | -0.9176 | 0.0993 | -0.0109 | 0.3007 | -0.3116 | -0.4699 |
| 56 | 37.07 | 0.05 | 8.3264 | -3.9543 | 0.4393 | -0.8980 | 0.1176 | -0.0170 | 0.3068 | -0.3238 | -0.4749 |
| 57 | 37.31 | 0.06 | 8.3779 | -3.7195 | 0.3943 | -0.8140 | 0.1180 | 0.0003 | 0.3122 | -0.3119 | -0.4448 |
| 58 | 37.53 | 0.06 | 8.4646 | -3.7132 | 0.5206 | -0.8386 | 0.1065 | -0.0131 | 0.3088 | -0.3219 | -0.4387 |
| 59 | 37.77 | 0.05 | 8.5893 | -3.8780 | 0.3078 | -0.5961 | 0.0708 | -0.0125 | 0.3172 | -0.3297 | -0.4515 |
| 60 | 38.00 | 0.04 | 8.7162 | -3.9765 | 0.2198 | -0.3983 | 0.0472 | -0.0312 | 0.3019 | -0.3331 | -0.4447 |
| 61 | 38.24 | 0.06 | 8.7975 | -3.8313 | 0.4774 | -0.7139 | 0.0955 | -0.0076 | 0.3214 | -0.3290 | -0.4355 |
| 62 | 38.46 | 0.05 | 8.7213 | -3.6163 | 0.3844 | -0.5852 | 0.1070 | -0.0160 | 0.3072 | -0.3232 | -0.4146 |
| 63 | 38.71 | 0.07 | 9.0549 | -3.9908 | 0.5435 | -0.8484 | 0.1143 | -0.0343 | 0.3118 | -0.3461 | -0.4407 |
| 64 | 38.91 | 0.05 | 9.0986 | -4.0365 | 0.4231 | -0.7451 | 0.0965 | -0.0317 | 0.3103 | -0.3420 | -0.4436 |
| 65 | 39.14 | 0.07 | 9.0928 | -3.8777 | 0.5651 | -0.8981 | 0.0968 | -0.0255 | 0.3144 | -0.3399 | -0.4265 |
| 66 | 39.36 | 0.06 | 9.2262 | -3.9666 | 0.4412 | -0.8343 | 0.1148 | -0.0277 | 0.3102 | -0.3379 | -0.4299 |
| 67 | 39.56 | 0.08 | 9.2713 | -3.8443 | 0.7427 | -1.0761 | 0.1215 | -0.0169 | 0.3182 | -0.3351 | -0.4146 |
| 68 | 39.79 | 0.08 | 9.4160 | -3.9260 | 0.6563 | -0.8708 | 0.1099 | -0.0340 | 0.3079 | -0.3419 | -0.4169 |
| 69 | 39.99 | 0.07 | 9.4688 | -3.8810 | 0.6206 | -0.8381 | 0.1337 | -0.0391 | 0.3052 | -0.3443 | -0.4099 |
| 70 | 40.21 | 0.07 | 9.6164 | -3.9376 | 0.6183 | -0.8668 | 0.1343 | -0.0232 | 0.3156 | -0.3388 | -0.4095 |
| 71 | 40.38 | 0.07 | 9.6356 | -3.9790 | 0.6237 | -0.7992 | 0.1224 | -0.0445 | 0.3030 | -0.3475 | -0.4129 |
| 72 | 40.60 | 0.06 | 9.6808 | -4.0123 | 0.4938 | -0.6565 | 0.1223 | -0.0166 | 0.3087 | -0.3253 | -0.4145 |
| 73 | 40.82 | 0.06 | 9.6696 | -3.7208 | 0.5841 | -0.8021 | 0.1108 | -0.0517 | 0.3029 | -0.3546 | -0.3848 |
| 74 | 41.00 | 0.04 | 9.9512 | -3.9716 | 0.2578 | -0.3912 | 0.0633 | -0.0646 | 0.3075 | -0.3721 | -0.4032 |
| 75 | 41.22 | 0.05 | 9.8313 | -3.8557 | 0.3988 | -0.3902 | 0.0812 | -0.0432 | 0.3102 | -0.3534 | -0.3922 |
| 76 | 41.42 | 0.06 | 9.8370 | -3.7153 | 0.4964 | -0.4501 | 0.0696 | -0.0723 | 0.3044 | -0.3767 | -0.3777 |
| 77 | 41.61 | 0.03 | 9.9840 | -3.9531 | 0.3412 | -0.3155 | 0.0816 | -0.0576 | 0.2994 | -0.3570 | -0.3959 |
| 78 | 41.81 | 0.02 | 10.1223 | -4.1301 | 0.2538 | -0.2846 | 0.0701 | -0.0684 | 0.3021 | -0.3705 | -0.4080 |
| 79 | 42.01 | 0.03 | 10.1752 | -3.8998 | 0.3208 | -0.2225 | 0.0580 | -0.0446 | 0.3162 | -0.3608 | -0.3833 |
| 80 | 42.21 | 0.03 | 10.2285 | -3.9961 | 0.3583 | -0.4240 | 0.0767 | -0.0813 | 0.3032 | -0.3845 | -0.3907 |
| 81 | 42.40 | 0.03 | 10.4181 | -3.9992 | 0.2588 | -0.2163 | 0.0711 | -0.0884 | 0.2968 | -0.3852 | -0.3839 |
| 82 | 42.57 | 0.03 | 10.2961 | -3.8599 | 0.2710 | -0.2174 | 0.0768 | -0.0495 | 0.3124 | -0.3619 | -0.3749 |
| 83 | 42.76 | 0.03 | 10.4714 | -4.0226 | 0.3304 | -0.2855 | 0.0723 | -0.1046 | 0.2814 | -0.3860 | -0.3841 |
| 84 | 42.94 | 0.01 | 10.6153 | -4.1486 | 0.1804 | -0.0288 | 0.0780 | -0.0668 | 0.3181 | -0.3849 | -0.3908 |
| 85 | 43.12 | 0.01 | 10.6850 | -4.0147 | 0.1939 | -0.0090 | 0.0606 | -0.0634 | 0.3006 | -0.3640 | -0.3757 |
| 86 | 43.30 | 0.01 | 10.7380 | -4.1254 | 0.1885 | -0.1291 | 0.0611 | -0.0952 | 0.2914 | -0.3866 | -0.3842 |
| 87 | 43.47 | 0.02 | 10.7020 | -3.7128 | 0.2058 | 0.2326 | 0.0778 | -0.0334 | 0.3246 | -0.3580 | -0.3469 |
| 88 | 43.67 | 0.02 | 10.7308 | -3.8933 | 0.2694 | -0.2482 | 0.0498 | -0.1297 | 0.2646 | -0.3943 | -0.3628 |
| 89 | 43.82 | 0.02 | 10.7831 | -3.8783 | 0.2047 | 0.2128 | 0.0543 | -0.0828 | 0.3016 | -0.3844 | -0.3597 |
| 90 | 44.01 | 0.02 | 10.9424 | -4.1139 | 0.2404 | -0.0736 | 0.0499 | -0.0875 | 0.2852 | -0.3728 | -0.3760 |
| 91 | 44.23 | 0.01 | 11.0372 | -3.8155 | 0.1656 | 0.1762 | 0.0497 | -0.0874 | 0.2928 | -0.3802 | -0.3457 |
| 92 | 44.37 | 0.00 | 10.9304 | -3.8153 | 0.1464 | 0.0360 | 0.0498 | -0.1291 | 0.2779 | -0.4070 | -0.3491 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.57 | 0.00 | 11.0990 | -4.1108 | 0.1271 | -0.1041 | 0.0508 | -0.1251 | 0.2729 | -0.3980 | -0.3704 |
| 94 | 44.75 | 0.00 | 11.1492 | -4.0863 | 0.1297 | -0.0536 | 0.0508 | -0.1208 | 0.2927 | -0.4134 | -0.3665 |
| 95 | 44.94 | -0.01 | 11.3116 | -4.2968 | 0.0743 | -0.1162 | 0.0456 | -0.1296 | 0.2690 | -0.3986 | -0.3799 |
| 96 | 45.10 | -0.00 | 11.2640 | -4.0708 | 0.1137 | 0.1305 | 0.0507 | -0.0964 | 0.2762 | -0.3726 | -0.3579 |
| 97 | 45.29 | -0.00 | 11.4695 | -4.3606 | 0.1854 | -0.3448 | 0.0525 | -0.1207 | 0.2877 | -0.4084 | -0.3502 |
| 98 | 45.49 | 0.00 | 11.4893 | -4.0316 | 0.2120 | 0.0916 | 0.0397 | -0.1296 | 0.2693 | -0.3989 | -0.3509 |
| 99 | 45.65 | 0.00 | 11.4810 | -4.0878 | 0.1622 | -0.1572 | 0.0406 | -0.1563 | 0.2719 | -0.4282 | -0.3561 |
| 100 | 45.80 | 0.01 | 11.5321 | -4.0855 | 0.1733 | 0.0645 | 0.0518 | -0.1305 | 0.2811 | -0.4116 | -0.3543 |
| 101 | 45.99 | -0.00 | 11.6272 | -4.1585 | 0.0442 | 0.4929 | 0.0330 | -0.1139 | 0.2904 | -0.4042 | -0.3577 |
| 102 | 46.18 | 0.00 | 11.7645 | -3.9918 | 0.0932 | 0.4684 | 0.0277 | -0.1284 | 0.2915 | -0.4198 | -0.3393 |
| 103 | 46.34 | 0.01 | 11.6476 | -3.9409 | 0.2377 | 0.1001 | 0.0285 | -0.1360 | 0.2704 | -0.4064 | -0.3383 |
| 104 | 46.49 | 0.01 | 11.5571 | -3.6963 | 0.1550 | 0.1993 | 0.0223 | -0.1323 | 0.2799 | -0.4122 | -0.3198 |
| 105 | 46.68 | 0.02 | 11.7633 | -3.8496 | 0.2163 | 0.4185 | -0.0136 | -0.1251 | 0.2975 | -0.4225 | -0.3273 |
| 106 | 46.85 | 0.02 | 11.6666 | -3.5374 | 0.2705 | 0.4955 | -0.0082 | -0.1296 | 0.2959 | -0.4254 | -0.3032 |
| 107 | 47.03 | 0.02 | 11.8183 | -3.7259 | 0.2075 | 0.7154 | -0.0323 | -0.1130 | 0.2929 | -0.4058 | -0.3153 |
| 108 | 47.18 | 0.02 | 11.8022 | -3.7262 | 0.1762 | 0.8605 | -0.0446 | -0.1006 | 0.3243 | -0.4248 | -0.3187 |
| 109 | 47.36 | 0.03 | 11.9128 | -3.8064 | 0.1795 | 0.9322 | -0.0209 | -0.1049 | 0.3293 | -0.4341 | -0.3195 |
| 110 | 47.53 | 0.05 | 11.8219 | -3.5914 | 0.3681 | 0.9355 | -0.0213 | -0.0794 | 0.3434 | -0.4228 | -0.3038 |
| 111 | 47.72 | 0.05 | 11.9328 | -3.6493 | 0.3586 | 1.0075 | 0.0025 | -0.0580 | 0.3867 | -0.4447 | -0.3058 |
| 112 | 47.88 | 0.06 | 12.2755 | -5.4270 | 0.3686 | 1.6989 | -0.0715 | -0.0244 | 0.4332 | -0.4576 | -0.4421 |
| 113 | 48.09 | 0.05 | 12.7153 | -6.1819 | 0.3491 | 1.8045 | -0.0828 | 0.0052 | 0.4494 | -0.4442 | -0.4862 |
| 114 | 48.26 | 0.05 | 12.7731 | -6.2007 | 0.2647 | 1.8813 | -0.0827 | -0.0215 | 0.4260 | -0.4455 | -0.4854 |
| 115 | 48.41 | 0.03 | 12.6422 | -5.9906 | 0.0376 | 2.1057 | -0.0952 | -0.0656 | 0.4053 | -0.4709 | -0.4720 |
| 116 | 48.62 | 0.04 | 13.0871 | -6.8165 | 0.1088 | 2.2720 | -0.1071 | -0.0365 | 0.4088 | -0.4453 | -0.5209 |
| 117 | 48.75 | 0.02 | 12.7663 | -5.9837 | -0.1110 | 2.4068 | -0.0959 | -0.0543 | 0.4008 | -0.4551 | -0.4687 |
| 118 | 48.94 | 0.02 | 13.1119 | -6.2249 | -0.0579 | 2.4629 | -0.0832 | -0.0642 | 0.4033 | -0.4675 | -0.4747 |
| 119 | 49.13 | 0.02 | 13.0926 | -6.0633 | -0.1175 | 2.2848 | -0.0645 | -0.0681 | 0.4060 | -0.4741 | -0.4631 |
| 120 | 49.30 | 0.02 | 13.2053 | -6.2264 | -0.1555 | 2.2753 | -0.0581 | -0.0615 | 0.4034 | -0.4649 | -0.4715 |
| 121 | 49.46 | 0.02 | 13.1132 | -6.0092 | -0.1237 | 2.1695 | -0.0460 | -0.0745 | 0.3991 | -0.4736 | -0.4583 |
| 122 | 49.65 | -0.00 | 13.1513 | -6.1905 | -0.2638 | 2.3793 | -0.0526 | -0.0760 | 0.4007 | -0.4767 | -0.4707 |
| 123 | 49.83 | 0.01 | 13.2279 | -6.2705 | -0.1653 | 2.0455 | -0.0335 | -0.0878 | 0.4059 | -0.4938 | -0.4687 |
| 124 | 49.99 | -0.00 | 13.2816 | -6.3129 | -0.1867 | 2.1711 | -0.0457 | -0.0678 | 0.4090 | -0.4768 | -0.4753 |
| 125 | 50.15 | -0.01 | 13.1891 | -6.0946 | -0.2931 | 2.3245 | -0.0463 | -0.0897 | 0.4010 | -0.4908 | -0.4621 |
| 126 | 50.34 | -0.02 | 13.1682 | -5.9608 | -0.3238 | 2.2039 | -0.0338 | -0.0786 | 0.4040 | -0.4827 | -0.4527 |
| 127 | 50.51 | -0.02 | 13.3816 | -6.4380 | -0.3367 | 2.2076 | -0.0453 | -0.0604 | 0.4157 | -0.4761 | -0.4811 |
| 128 | 50.67 | 0.01 | 13.2197 | -5.8904 | 0.0141 | 1.1644 | -0.0003 | -0.0653 | 0.4173 | -0.4827 | -0.4456 |
| 129 | 50.85 | -0.01 | 13.3699 | -5.9498 | -0.1524 | 1.6186 | 0.0047 | -0.0494 | 0.4192 | -0.4686 | -0.4450 |
| 130 | 50.99 | 0.01 | 13.1862 | -5.7629 | 0.1120 | 1.1030 | 0.0414 | -0.0447 | 0.4266 | -0.4713 | -0.4370 |
| 131 | 51.15 | 0.02 | 12.9403 | -4.7249 | 0.1896 | 1.1353 | 0.0529 | -0.0858 | 0.4037 | -0.4896 | -0.3651 |
| 132 | 51.35 | 0.02 | 13.3779 | -5.4975 | 0.2795 | 0.9229 | 0.0546 | -0.0632 | 0.4059 | -0.4691 | -0.4109 |
| 133 | 51.53 | 0.03 | 13.2418 | -5.3466 | 0.3093 | 1.0120 | 0.0538 | -0.0754 | 0.4021 | -0.4775 | -0.4038 |
| 134 | 51.72 | 0.03 | 13.2302 | -5.3417 | 0.2975 | 0.7876 | 0.0548 | -0.0461 | 0.4132 | -0.4593 | -0.4038 |
| 135 | 51.88 | 0.02 | 13.3959 | -5.5424 | 0.2105 | 1.0603 | 0.0543 | -0.0484 | 0.4266 | -0.4750 | -0.4137 |
| 136 | 52.06 | 0.02 | 13.2441 | -5.2347 | 0.1986 | 1.0716 | 0.0540 | -0.0585 | 0.4093 | -0.4678 | -0.3952 |
| 137 | 52.23 | 0.01 | 13.3744 | -5.5349 | 0.1799 | 0.9515 | 0.0428 | -0.0640 | 0.4344 | -0.4985 | -0.4138 |
| 138 | 52.36 | 0.01 | 13.0930 | -4.8679 | 0.1841 | 1.0325 | 0.0480 | -0.0688 | 0.4102 | -0.4790 | -0.3718 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.54 | 0.01 | 13.2275 | -5.1515 | 0.1781 | 0.9122 | 0.0428 | -0.0594 | 0.4330 | -0.4925 | -0.3895 |
| 140 | 52.71 | 0.02 | 13.3004 | -5.4288 | 0.2744 | 0.8316 | 0.0133 | -0.0743 | 0.4213 | -0.4957 | -0.4082 |
| 141 | 52.90 | 0.01 | 13.6993 | -5.8477 | 0.2180 | 0.7049 | 0.0210 | -0.0938 | 0.4541 | -0.5088 | -0.4269 |
| 142 | 53.07 | 0.02 | 13.6365 | -5.8052 | 0.2499 | 0.5802 | 0.0212 | -0.0762 | 0.4458 | -0.5221 | -0.4257 |
| 143 | 53.21 | 0.01 | 13.5716 | -5.7003 | 0.2135 | 0.6137 | 0.0151 | -0.0645 | 0.4491 | -0.5137 | -0.4200 |
| 144 | 53.42 | 0.00 | 13.9693 | -6.1418 | 0.1560 | 0.9751 | 0.0327 | -0.0597 | 0.4594 | -0.5192 | -0.4397 |
| 145 | 53.55 | 0.01 | 13.5955 | -5.6294 | 0.2475 | 0.5391 | 0.0215 | -0.0693 | 0.4553 | -0.5247 | -0.4141 |
| 146 | 53.75 | -0.01 | 13.5294 | -5.4978 | 0.0968 | 0.7957 | 0.0384 | -0.0764 | 0.4311 | -0.5076 | -0.4064 |
| 147 | 53.91 | 0.01 | 13.8315 | -5.7600 | 0.3444 | 0.4686 | 0.0164 | -0.0817 | 0.4635 | -0.5453 | -0.4164 |
| 148 | 54.06 | 0.00 | 13.6481 | -5.5582 | 0.2659 | 0.6588 | 0.0212 | -0.0959 | 0.4552 | -0.5512 | -0.4072 |
| 149 | 54.25 | 0.00 | 14.0604 | -6.1877 | 0.2509 | 0.6183 | 0.0225 | -0.0712 | 0.4609 | -0.5322 | -0.4401 |
| 150 | 54.39 | -0.02 | 13.9017 | -5.7878 | 0.1011 | 0.6321 | 0.0225 | -0.0741 | 0.4632 | -0.5374 | -0.4183 |
| 151 | 54.56 | -0.00 | 14.0424 | -6.1038 | 0.2705 | 0.5143 | 0.0229 | -0.0678 | 0.4505 | -0.5184 | -0.4347 |
| 152 | 54.69 | -0.01 | 13.8051 | -5.6067 | 0.1398 | 0.4037 | 0.0232 | -0.0991 | 0.4437 | -0.5428 | -0.4061 |
| 153 | 54.84 | -0.01 | 13.6785 | -5.3192 | 0.2584 | 0.2717 | 0.0114 | -0.1148 | 0.4430 | -0.5578 | -0.3869 |
| 154 | 55.01 | -0.01 | 14.0255 | -5.5913 | 0.2404 | 0.4148 | 0.0235 | -0.0900 | 0.4545 | -0.5446 | -0.4209 |
| 155 | 55.18 | -0.02 | 14.2698 | -6.1011 | 0.1515 | 0.3920 | 0.0187 | -0.0900 | 0.4611 | -0.5512 | -0.4276 |
| 156 | 55.31 | -0.02 | 13.9065 | -5.5151 | 0.1298 | 0.4549 | 0.0176 | -0.1115 | 0.4440 | -0.5555 | -0.3966 |
| 157 | 55.48 | -0.02 | 14.0921 | -6.0075 | 0.1180 | 0.2227 | 0.0130 | -0.0987 | 0.4455 | -0.5442 | -0.4263 |
| 158 | 55.62 | -0.03 | 13.9349 | -5.5749 | 0.0634 | 0.3790 | 0.0123 | -0.1227 | 0.4336 | -0.5563 | -0.4001 |
| 159 | 55.81 | -0.01 | 14.1978 | -6.0351 | 0.2191 | 0.2630 | 0.0131 | -0.1147 | 0.4352 | -0.5499 | -0.4251 |
| 160 | 55.96 | -0.02 | 14.2468 | -6.1328 | 0.1362 | 0.0990 | 0.0141 | -0.1028 | 0.4381 | -0.5409 | -0.4305 |
| 161 | 56.13 | -0.02 | 14.2628 | -6.1237 | 0.1588 | 0.3080 | 0.0133 | -0.1125 | 0.4503 | -0.5628 | -0.4293 |
| 162 | 56.27 | -0.04 | 14.1542 | -5.8988 | -0.0763 | 0.3086 | 0.0135 | -0.1626 | 0.4155 | -0.5781 | -0.4168 |
| 163 | 56.41 | 0.01 | 14.0031 | -5.7619 | 0.4374 | 0.1916 | 0.0126 | -0.1465 | 0.4091 | -0.5556 | -0.4115 |
| 164 | 56.66 | -0.04 | 14.8022 | -6.1113 | -0.0399 | -0.1499 | 0.0228 | -0.1733 | 0.4193 | -0.5926 | -0.4129 |
| 165 | 56.78 | -0.07 | 14.5267 | -5.6833 | -0.1606 | -0.8224 | 0.0051 | -0.1780 | 0.3993 | -0.5773 | -0.3912 |
| 166 | 56.96 | -0.06 | 14.6386 | -5.8684 | -0.1416 | -0.9119 | 0.0054 | -0.2056 | 0.4167 | -0.6223 | -0.4009 |
| 167 | 57.06 | -0.09 | 13.9977 | -5.3091 | -0.4706 | -0.6132 | 0.0029 | -0.1716 | 0.4077 | -0.5793 | -0.3793 |
| 168 | 57.24 | -0.06 | 14.3559 | -5.8354 | -0.1208 | -0.6038 | 0.0102 | -0.1726 | 0.4154 | -0.5880 | -0.4065 |
| 169 | 57.40 | -0.07 | 14.3530 | -5.8166 | -0.1986 | -0.4694 | 0.0040 | -0.1983 | 0.3988 | -0.5971 | -0.4053 |
| 170 | 57.57 | -0.01 | 14.7618 | -6.4451 | 0.3268 | -0.4527 | 0.0056 | -0.1893 | 0.4064 | -0.5957 | -0.4366 |
| 171 | 57.71 | -0.07 | 14.6169 | -6.2801 | -0.1323 | -0.5920 | -0.0009 | -0.1873 | 0.3958 | -0.5831 | -0.4296 |
| 172 | 57.87 | -0.09 | 14.7875 | -6.3683 | -0.4011 | -0.3584 | 0.0049 | -0.2323 | 0.3865 | -0.6188 | -0.4307 |
| 173 | 58.03 | -0.03 | 14.8556 | -6.4810 | 0.2661 | -0.2428 | 0.0058 | -0.1966 | 0.3809 | -0.5775 | -0.4363 |
| 174 | 58.20 | -0.01 | 15.0322 | -6.5083 | 0.2961 | 0.1019 | 0.0339 | -0.2550 | 0.3873 | -0.6423 | -0.4330 |
| 175 | 58.33 | -0.00 | 14.8991 | -6.5415 | 0.5022 | -0.1749 | 0.0167 | -0.2536 | 0.3767 | -0.6303 | -0.4391 |
| 176 | 58.40 | -0.01 | 15.1376 | -6.7565 | 0.3513 | -0.0029 | 0.0402 | -0.2334 | 0.4051 | -0.6385 | -0.4463 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | H1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.68 | 0.03 | 0.0191 | 0.0040 | 0.0420 | 0.2095 | 2.1955 | -0.8888 | -0.0508 | -0.4297 | 0.0571 | 0.4834 |
| 2 | -5.69 | 0.00 | 0.0275 | 0.0038 | 0.0457 | 0.1383 | 1.6598 | -0.0923 | -0.0507 | -0.4341 | 0.0560 | 0.4865 |
| 3 | -5.80 | 0.02 | 0.0254 | 0.0037 | 0.0449 | 0.1457 | 1.7655 | -0.8779 | -0.0501 | -0.4293 | 0.0570 | 0.4890 |
| 4 | -4.40 | 0.01 | 0.0381 | 0.0043 | 0.0487 | 0.1129 | 1.2770 | -0.7737 | -0.0473 | -0.3901 | 0.0611 | 0.5042 |
| 5 | -2.65 | 0.01 | 0.0237 | 0.0032 | 0.0419 | 0.1351 | 1.7651 | -0.6386 | -0.0434 | -0.3316 | 0.0679 | 0.5192 |
| 6 | -0.62 | 0.02 | 0.0326 | 0.0031 | 0.0422 | 0.0951 | 1.2925 | -0.5038 | -0.0376 | -0.2701 | 0.0745 | 0.5362 |
| 7 | 0.99 | 0.01 | 0.0391 | 0.0039 | 0.0433 | 0.0998 | 1.1058 | -0.3416 | -0.0257 | -0.1987 | 0.0753 | 0.5817 |
| 8 | 2.89 | 0.02 | 0.0238 | 0.0028 | 0.0354 | 0.1177 | 1.4879 | -0.2135 | -0.0147 | -0.1395 | 0.0690 | 0.6533 |
| 9 | 4.68 | 0.01 | 0.0273 | 0.0010 | 0.0349 | 0.0660 | 1.2788 | -0.0616 | -0.0021 | -0.0655 | 0.0342 | 1.0636 |
| 10 | 6.56 | 0.01 | 0.0253 | 0.0017 | 0.0335 | 0.0672 | 1.3244 | 0.0470 | 0.0063 | -0.0266 | 0.1341 | -0.1609 |
| 11 | 8.41 | 0.02 | 0.0197 | 0.0039 | 0.0388 | 0.1981 | 1.9657 | 0.1705 | 0.0209 | 0.0434 | 0.1229 | 0.2545 |
| 12 | 10.26 | 0.01 | 0.0137 | 0.0053 | 0.0339 | 0.3871 | 2.4750 | 0.3014 | 0.0398 | 0.1043 | 0.1319 | 0.3462 |
| 13 | 12.18 | 0.01 | 0.0241 | 0.0046 | 0.0388 | 0.1910 | 1.6068 | 0.4304 | 0.0536 | 0.1654 | 0.1245 | 0.3842 |
| 14 | 14.07 | 0.01 | 0.0229 | 0.0044 | 0.0394 | 0.1922 | 1.7173 | 0.5710 | 0.0590 | 0.2340 | 0.1033 | 0.4097 |
| 15 | 16.04 | 0.01 | 0.0179 | 0.0062 | 0.0355 | 0.3466 | 1.9840 | 0.6929 | 0.0604 | 0.2904 | 0.0871 | 0.4191 |
| 16 | 18.02 | 0.00 | 0.0216 | 0.0016 | 0.0477 | 0.0741 | 2.2061 | 0.7971 | 0.0596 | 0.3341 | 0.0748 | 0.4191 |
| 17 | 19.98 | -0.00 | 0.0110 | -0.0042 | 0.0465 | -0.3820 | 4.2226 | 0.9294 | 0.0558 | 0.3915 | 0.0600 | 0.4212 |
| 18 | 21.95 | 0.01 | -0.0132 | -0.0046 | 0.0249 | 0.3487 | -1.8848 | 1.0270 | 0.0548 | 0.4246 | 0.0533 | 0.4135 |
| 19 | 23.92 | 0.02 | -0.0257 | 0.0002 | 0.0052 | -0.0078 | -0.2030 | 0.9829 | 0.0378 | 0.3934 | 0.0384 | 0.3902 |
| 20 | 25.87 | 0.04 | 0.1481 | 0.0316 | 0.0718 | 0.2136 | 0.4847 | 0.9616 | 0.0252 | 0.3667 | 0.0262 | 0.3814 |
| 21 | 27.84 | 0.06 | 0.3243 | 0.0540 | 0.1538 | 0.1664 | 0.4744 | 0.9258 | 0.0227 | 0.3464 | 0.0246 | 0.3742 |
| 22 | 28.10 | 0.08 | 0.3384 | 0.0582 | 0.1666 | 0.1719 | 0.4923 | 0.9224 | 0.0226 | 0.3411 | 0.0245 | 0.3698 |
| 23 | 28.48 | 0.05 | 0.3587 | 0.0606 | 0.1781 | 0.1689 | 0.4966 | 0.9395 | 0.0218 | 0.3492 | 0.0232 | 0.3717 |
| 24 | 28.74 | 0.07 | 0.3767 | 0.0567 | 0.1632 | 0.1735 | 0.4994 | 0.9785 | 0.0205 | 0.3641 | 0.0210 | 0.3721 |
| 25 | 29.05 | 0.07 | 0.3877 | 0.0647 | 0.1914 | 0.1669 | 0.4937 | 0.9520 | 0.0210 | 0.3498 | 0.0221 | 0.3675 |
| 26 | 29.36 | 0.07 | 0.4004 | 0.0700 | 0.1942 | 0.1746 | 0.4850 | 0.9289 | 0.0210 | 0.3398 | 0.0226 | 0.3658 |
| 27 | 29.66 | 0.07 | 0.3001 | 0.0564 | 0.1565 | 0.1879 | 0.5217 | 0.9921 | 0.0190 | 0.3675 | 0.0192 | 0.3704 |
| 28 | 29.94 | 0.08 | 0.3760 | 0.0674 | 0.1850 | 0.1792 | 0.4919 | 1.0018 | 0.0185 | 0.3719 | 0.0185 | 0.3713 |
| 29 | 30.22 | 0.07 | 0.3044 | 0.0516 | 0.1619 | 0.1694 | 0.5318 | 1.0287 | 0.0175 | 0.3813 | 0.0170 | 0.3708 |
| 30 | 30.50 | 0.07 | 0.2401 | 0.0400 | 0.1337 | 0.1664 | 0.5570 | 1.0472 | 0.0168 | 0.3895 | 0.0161 | 0.3710 |
| 31 | 30.76 | 0.08 | 0.3595 | 0.0608 | 0.1847 | 0.1691 | 0.5136 | 1.0302 | 0.0170 | 0.3750 | 0.0165 | 0.3670 |
| 32 | 31.05 | 0.09 | 0.3016 | 0.0516 | 0.1523 | 0.1710 | 0.5051 | 1.0523 | 0.0159 | 0.3881 | 0.0151 | 0.3688 |
| 33 | 31.33 | 0.09 | 0.3389 | 0.0593 | 0.1683 | 0.1749 | 0.4966 | 1.0500 | 0.0154 | 0.3860 | 0.0147 | 0.3676 |
| 34 | 31.61 | 0.07 | 0.2949 | 0.0527 | 0.1452 | 0.1786 | 0.4924 | 1.0670 | 0.0146 | 0.3941 | 0.0137 | 0.3694 |
| 35 | 31.87 | 0.10 | 0.4333 | 0.0725 | 0.2045 | 0.1673 | 0.4721 | 1.0243 | 0.0151 | 0.3763 | 0.0148 | 0.3674 |
| 36 | 32.15 | 0.09 | 0.3657 | 0.0657 | 0.1739 | 0.1796 | 0.4755 | 1.0587 | 0.0139 | 0.3888 | 0.0131 | 0.3672 |
| 37 | 32.41 | 0.07 | 0.2563 | 0.0537 | 0.1265 | 0.2094 | 0.4936 | 1.0650 | 0.0138 | 0.3858 | 0.0130 | 0.3651 |
| 38 | 32.66 | 0.10 | 0.3162 | 0.0602 | 0.1555 | 0.1904 | 0.4919 | 1.0893 | 0.0127 | 0.4002 | 0.0117 | 0.3674 |
| 39 | 32.93 | 0.06 | 0.1512 | 0.0377 | 0.0816 | 0.2490 | 0.5398 | 1.1015 | 0.0128 | 0.4056 | 0.0116 | 0.3682 |
| 40 | 33.19 | 0.07 | 0.2342 | 0.0463 | 0.1138 | 0.1975 | 0.4857 | 1.1163 | 0.0118 | 0.4103 | 0.0106 | 0.3675 |
| 41 | 33.42 | 0.05 | 0.2208 | 0.0465 | 0.1064 | 0.2104 | 0.4820 | 1.1066 | 0.0117 | 0.4055 | 0.0106 | 0.3664 |
| 42 | 33.69 | 0.08 | 0.2309 | 0.0423 | 0.1210 | 0.1830 | 0.5240 | 1.1212 | 0.0114 | 0.4122 | 0.0102 | 0.3676 |
| 43 | 33.94 | 0.07 | 0.2381 | 0.0430 | 0.1230 | 0.1804 | 0.5166 | 1.1346 | 0.0108 | 0.4164 | 0.0095 | 0.3670 |
| 44 | 34.17 | 0.08 | 0.2960 | 0.0485 | 0.1570 | 0.1630 | 0.5306 | 1.1370 | 0.0103 | 0.4188 | 0.0091 | 0.3683 |
| 45 | 34.44 | 0.06 | 0.2427 | 0.0404 | 0.1299 | 0.1663 | 0.5353 | 1.1481 | 0.0097 | 0.4220 | 0.0085 | 0.3676 |
| 46 | 34.69 | 0.05 | 0.2343 | 0.0399 | 0.1267 | 0.1701 | 0.5408 | 1.1505 | 0.0097 | 0.4228 | 0.0084 | 0.3675 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | C81 | XCPF1 | YCPF1 | CNF2 | CH2 | C82 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.91 | 0.06 | 0.2322 | 0.0349 | 0.1336 | 0.1501 | 0.5755 | 1.1274 | 0.0100 | 0.4134 | 0.0089 | 0.3667 |
| 48 | 35.17 | 0.07 | 0.2457 | 0.0393 | 0.1402 | 0.1598 | 0.5705 | 1.1507 | 0.0092 | 0.4229 | 0.0080 | 0.3675 |
| 49 | 35.41 | 0.07 | 0.2580 | 0.0399 | 0.1472 | 0.1545 | 0.5705 | 1.1569 | 0.0089 | 0.4252 | 0.0077 | 0.3676 |
| 50 | 35.63 | 0.09 | 0.3062 | 0.0467 | 0.1661 | 0.1524 | 0.5424 | 1.1593 | 0.0086 | 0.4266 | 0.0074 | 0.3680 |
| 51 | 35.89 | 0.08 | 0.2478 | 0.0384 | 0.1415 | 0.1548 | 0.5709 | 1.1802 | 0.0078 | 0.4331 | 0.0066 | 0.3670 |
| 52 | 36.12 | 0.06 | 0.2764 | 0.0418 | 0.1555 | 0.1511 | 0.5428 | 1.1558 | 0.0083 | 0.4231 | 0.0072 | 0.3661 |
| 53 | 36.35 | 0.07 | 0.2242 | 0.0353 | 0.1276 | 0.1572 | 0.5692 | 1.1801 | 0.0078 | 0.4340 | 0.0066 | 0.3678 |
| 54 | 36.58 | 0.06 | 0.2289 | 0.0349 | 0.1333 | 0.1522 | 0.5825 | 1.1837 | 0.0075 | 0.4355 | 0.0066 | 0.3679 |
| 55 | 36.82 | 0.06 | 0.1819 | 0.0278 | 0.1087 | 0.1531 | 0.5979 | 1.1922 | 0.0075 | 0.4392 | 0.0063 | 0.3684 |
| 56 | 37.07 | 0.05 | 0.2246 | 0.0325 | 0.1329 | 0.1449 | 0.5919 | 1.1862 | 0.0075 | 0.4359 | 0.0063 | 0.3675 |
| 57 | 37.31 | 0.06 | 0.2239 | 0.0278 | 0.1384 | 0.1243 | 0.6180 | 1.1764 | 0.0079 | 0.4318 | 0.0067 | 0.3670 |
| 58 | 37.53 | 0.06 | 0.2195 | 0.0270 | 0.1383 | 0.1232 | 0.6299 | 1.1863 | 0.0072 | 0.4349 | 0.0061 | 0.3666 |
| 59 | 37.77 | 0.05 | 0.1779 | 0.0211 | 0.1144 | 0.1188 | 0.6430 | 1.2094 | 0.0066 | 0.4450 | 0.0055 | 0.3680 |
| 60 | 38.00 | 0.04 | 0.1043 | 0.0130 | 0.0800 | 0.1248 | 0.7673 | 1.2094 | 0.0063 | 0.4436 | 0.0052 | 0.3668 |
| 61 | 38.24 | 0.06 | 0.1904 | 0.0200 | 0.1239 | 0.1052 | 0.6509 | 1.2076 | 0.0061 | 0.4436 | 0.0051 | 0.3674 |
| 62 | 38.46 | 0.05 | 0.1942 | 0.0181 | 0.1268 | 0.0933 | 0.6531 | 1.1808 | 0.0069 | 0.4326 | 0.0058 | 0.3663 |
| 63 | 38.71 | 0.07 | 0.2245 | 0.0256 | 0.1369 | 0.1142 | 0.6096 | 1.2063 | 0.0058 | 0.4437 | 0.0048 | 0.3678 |
| 64 | 38.91 | 0.05 | 0.1877 | 0.0206 | 0.1182 | 0.1099 | 0.6297 | 1.2209 | 0.0055 | 0.4484 | 0.0045 | 0.3673 |
| 65 | 39.14 | 0.07 | 0.1937 | 0.0198 | 0.1210 | 0.1024 | 0.6247 | 1.2238 | 0.0054 | 0.4537 | 0.0044 | 0.3707 |
| 66 | 39.36 | 0.06 | 0.2254 | 0.0257 | 0.1364 | 0.1142 | 0.6049 | 1.2106 | 0.0058 | 0.4448 | 0.0048 | 0.3674 |
| 67 | 39.56 | 0.08 | 0.2253 | 0.0235 | 0.1375 | 0.1045 | 0.6101 | 1.2069 | 0.0057 | 0.4449 | 0.0047 | 0.3686 |
| 68 | 39.79 | 0.05 | 0.2151 | 0.0221 | 0.1325 | 0.1029 | 0.6162 | 1.2143 | 0.0053 | 0.4462 | 0.0044 | 0.3675 |
| 69 | 39.99 | 0.07 | 0.2348 | 0.0253 | 0.1406 | 0.1079 | 0.5987 | 1.1974 | 0.0056 | 0.4388 | 0.0047 | 0.3665 |
| 70 | 40.21 | 0.07 | 0.2465 | 0.0265 | 0.1437 | 0.1078 | 0.5829 | 1.1781 | 0.0058 | 0.4300 | 0.0049 | 0.3650 |
| 71 | 40.38 | 0.07 | 0.2146 | 0.0214 | 0.1357 | 0.0999 | 0.6321 | 1.2023 | 0.0046 | 0.4413 | 0.0038 | 0.3671 |
| 72 | 40.60 | 0.06 | 0.2215 | 0.0224 | 0.1342 | 0.1013 | 0.6061 | 1.1926 | 0.0049 | 0.4366 | 0.0041 | 0.3661 |
| 73 | 40.82 | 0.06 | 0.2110 | 0.0212 | 0.1285 | 0.1006 | 0.6092 | 1.2029 | 0.0049 | 0.4425 | 0.0041 | 0.3679 |
| 74 | 41.00 | 0.04 | 0.1438 | 0.0173 | 0.0920 | 0.1205 | 0.6395 | 1.2344 | 0.0044 | 0.4553 | 0.0036 | 0.3688 |
| 75 | 41.22 | 0.05 | 0.1507 | 0.0128 | 0.1049 | 0.0850 | 0.6961 | 1.2294 | 0.0042 | 0.4554 | 0.0034 | 0.3704 |
| 76 | 41.42 | 0.06 | 0.1527 | 0.0106 | 0.1071 | 0.0695 | 0.7015 | 1.1944 | 0.0049 | 0.4397 | 0.0041 | 0.3681 |
| 77 | 41.61 | 0.03 | 0.1654 | 0.0115 | 0.1127 | 0.0696 | 0.6813 | 1.2127 | 0.0041 | 0.4476 | 0.0034 | 0.3691 |
| 78 | 41.81 | 0.02 | 0.1419 | 0.0110 | 0.0998 | 0.0776 | 0.7032 | 1.2141 | 0.0038 | 0.4461 | 0.0031 | 0.3675 |
| 79 | 42.01 | 0.03 | 0.1525 | 0.0110 | 0.1091 | 0.0722 | 0.7155 | 1.1826 | 0.0048 | 0.4327 | 0.0041 | 0.3659 |
| 80 | 42.21 | 0.03 | 0.1132 | 0.0153 | 0.0764 | 0.1354 | 0.6750 | 1.2286 | 0.0031 | 0.4541 | 0.0025 | 0.3696 |
| 81 | 42.40 | 0.03 | 0.1231 | 0.0115 | 0.0854 | 0.0935 | 0.6941 | 1.2274 | 0.0034 | 0.4531 | 0.0028 | 0.3691 |
| 82 | 42.57 | 0.03 | 0.1387 | 0.0083 | 0.0997 | 0.0599 | 0.7187 | 1.1789 | 0.0046 | 0.4328 | 0.0039 | 0.3671 |
| 83 | 42.76 | 0.03 | 0.1224 | 0.0106 | 0.0898 | 0.0867 | 0.7333 | 1.2287 | 0.0031 | 0.4514 | 0.0025 | 0.3674 |
| 84 | 42.94 | 0.01 | 0.1234 | 0.0083 | 0.0913 | 0.0674 | 0.7396 | 1.1995 | 0.0036 | 0.4420 | 0.0030 | 0.3685 |
| 85 | 43.12 | 0.01 | 0.1143 | 0.0080 | 0.0856 | 0.0701 | 0.7484 | 1.2263 | 0.0029 | 0.4513 | 0.0024 | 0.3681 |
| 86 | 43.30 | 0.01 | 0.1007 | 0.0113 | 0.0730 | 0.1124 | 0.7250 | 1.2445 | 0.0022 | 0.4592 | 0.0018 | 0.3690 |
| 87 | 43.47 | 0.02 | 0.1142 | 0.0048 | 0.0875 | 0.0421 | 0.7658 | 1.1632 | 0.0040 | 0.4277 | 0.0034 | 0.3677 |
| 88 | 43.67 | 0.02 | 0.0868 | 0.0123 | 0.0618 | 0.1419 | 0.7116 | 1.2174 | 0.0034 | 0.4457 | 0.0028 | 0.3661 |
| 89 | 43.82 | 0.02 | 0.0895 | 0.0052 | 0.0742 | 0.0582 | 0.8293 | 1.2195 | 0.0025 | 0.4517 | 0.0021 | 0.3704 |
| 90 | 44.01 | 0.02 | 0.0913 | 0.0122 | 0.0675 | 0.1338 | 0.7392 | 1.2343 | 0.0022 | 0.4538 | 0.0018 | 0.3676 |
| 91 | 44.23 | 0.01 | 0.0857 | 0.0032 | 0.0709 | 0.0374 | 0.8274 | 1.2028 | 0.0029 | 0.4420 | 0.0024 | 0.3675 |
| 92 | 44.37 | 0.00 | 0.0856 | 0.0066 | 0.0702 | 0.0772 | 0.8202 | 1.2173 | 0.0028 | 0.4480 | 0.0023 | 0.3681 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.57 | 0.00 | 0.0594 | 0.0164 | 0.0385 | 0.2767 | 0.6479 | 1.2320 | 0.0024 | 0.4532 | 0.0020 | 0.3678 |
| 94 | 44.75 | 0.00 | 0.0890 | 0.0132 | 0.0625 | 0.1486 | 0.7019 | 1.2370 | 0.0019 | 0.4561 | 0.0015 | 0.3687 |
| 95 | 44.94 | -0.01 | 0.0684 | 0.0140 | 0.0460 | 0.2051 | 0.6727 | 1.2372 | 0.0015 | 0.4548 | 0.0012 | 0.3676 |
| 96 | 45.10 | -0.00 | 0.0841 | 0.0059 | 0.0677 | 0.0703 | 0.8049 | 1.2347 | 0.0016 | 0.4547 | 0.0013 | 0.3682 |
| 97 | 45.29 | -0.00 | 0.0764 | 0.0155 | 0.0508 | 0.2033 | 0.6653 | 1.2408 | 0.0018 | 0.4554 | 0.0015 | 0.3670 |
| 98 | 45.49 | 0.00 | 0.0544 | 0.0060 | 0.0509 | 0.1104 | 0.9350 | 1.2250 | 0.0021 | 0.4492 | 0.0017 | 0.3667 |
| 99 | 45.65 | 0.00 | 0.0701 | 0.0192 | 0.0415 | 0.2744 | 0.5919 | 1.2325 | 0.0027 | 0.4507 | 0.0022 | 0.3657 |
| 100 | 45.80 | 0.01 | 0.0789 | 0.0122 | 0.0575 | 0.1549 | 0.7295 | 1.2385 | 0.0020 | 0.4550 | 0.0016 | 0.3673 |
| 101 | 45.99 | -0.00 | 0.0664 | 0.0067 | 0.0537 | 0.1011 | 0.8095 | 1.2409 | 0.0010 | 0.4581 | 0.0008 | 0.3691 |
| 102 | 46.18 | 0.00 | 0.0451 | 0.0032 | 0.0482 | 0.0710 | 1.0677 | 1.2312 | 0.0024 | 0.4524 | 0.0020 | 0.3674 |
| 103 | 46.34 | 0.01 | 0.0478 | 0.0053 | 0.0447 | 0.1109 | 0.9339 | 1.2300 | 0.0024 | 0.4520 | 0.0020 | 0.3674 |
| 104 | 46.49 | 0.01 | 0.0323 | 0.0039 | 0.0374 | 0.1208 | 1.1554 | 1.2119 | 0.0023 | 0.4434 | 0.0019 | 0.3659 |
| 105 | 46.68 | 0.02 | 0.0210 | 0.0007 | 0.0332 | 0.0334 | 1.5812 | 1.2424 | 0.0016 | 0.4573 | 0.0013 | 0.3680 |
| 106 | 46.85 | 0.02 | 0.0008 | 0.0009 | 0.0203 | 1.1256 | 25.3398 | 1.2171 | 0.0020 | 0.4458 | 0.0016 | 0.3663 |
| 107 | 47.03 | 0.02 | -0.0145 | -0.0015 | 0.0120 | 0.1035 | -0.8302 | 1.2464 | 0.0004 | 0.4586 | 0.0003 | 0.3679 |
| 108 | 47.18 | 0.02 | -0.0387 | -0.0051 | 0.0036 | 0.1319 | -0.0933 | 1.2342 | 0.0002 | 0.4543 | 0.0002 | 0.3681 |
| 109 | 47.36 | 0.03 | -0.0037 | 0.0057 | 0.0119 | -1.5414 | -3.2265 | 1.1920 | 0.0008 | 0.4331 | 0.0007 | 0.3633 |
| 110 | 47.53 | 0.05 | -0.0328 | 0.0 | 0.0002 | 0.0 | -0.0061 | 1.1919 | 0.0004 | 0.4357 | 0.0003 | 0.3658 |
| 111 | 47.72 | 0.05 | -0.0221 | 0.0049 | 0.0020 | -0.2218 | -0.0908 | 1.1699 | 0.0004 | 0.4286 | 0.0003 | 0.3663 |
| 112 | 47.88 | 0.06 | -0.0339 | -0.0166 | 0.0061 | 0.4899 | -0.1805 | 1.1494 | -0.0003 | 0.4166 | -0.0003 | 0.3626 |
| 113 | 48.09 | 0.05 | -0.1005 | -0.0231 | -0.0299 | 0.2302 | 0.2978 | 1.2107 | -0.0020 | 0.4410 | -0.0017 | 0.3643 |
| 114 | 48.26 | 0.05 | -0.1012 | -0.0228 | -0.0257 | 0.2256 | 0.2540 | 1.2081 | -0.0025 | 0.4401 | -0.0021 | 0.3643 |
| 115 | 48.41 | 0.03 | -0.0912 | -0.0257 | -0.0300 | 0.2823 | 0.3293 | 1.1949 | -0.0014 | 0.4313 | -0.0012 | 0.3609 |
| 116 | 48.62 | 0.04 | -0.0768 | -0.0254 | -0.0159 | 0.3313 | 0.2067 | 1.2850 | -0.0043 | 0.4721 | -0.0034 | 0.3674 |
| 117 | 48.75 | 0.02 | -0.0927 | -0.0252 | -0.0288 | 0.2723 | 0.3109 | 1.2377 | -0.0040 | 0.4510 | -0.0032 | 0.3644 |
| 118 | 48.94 | 0.02 | -0.0913 | -0.0254 | -0.0300 | 0.2797 | 0.3289 | 1.2184 | -0.0038 | 0.4404 | -0.0031 | 0.3615 |
| 119 | 49.13 | 0.02 | -0.0683 | -0.0204 | -0.0213 | 0.2993 | 0.3118 | 1.2331 | -0.0048 | 0.4474 | -0.0039 | 0.3628 |
| 120 | 49.30 | 0.02 | -0.0537 | -0.0196 | -0.0145 | 0.3652 | 0.2690 | 1.2366 | -0.0053 | 0.4485 | -0.0043 | 0.3627 |
| 121 | 49.46 | 0.02 | -0.0507 | -0.0194 | -0.0123 | 0.3828 | 0.2414 | 1.2256 | -0.0051 | 0.4443 | -0.0042 | 0.3625 |
| 122 | 49.65 | -0.00 | -0.0425 | -0.0181 | -0.0084 | 0.4261 | 0.1983 | 1.2294 | -0.0051 | 0.4459 | -0.0042 | 0.3627 |
| 123 | 49.83 | 0.01 | -0.0749 | -0.0130 | -0.0014 | 0.5224 | 0.0564 | 1.2126 | -0.0045 | 0.4392 | -0.0037 | 0.3614 |
| 124 | 49.99 | -0.00 | -0.0207 | -0.0166 | 0.0016 | 0.8024 | -0.0775 | 1.2456 | -0.0061 | 0.4525 | -0.0049 | 0.3632 |
| 125 | 50.15 | -0.01 | -0.0727 | -0.0209 | -0.0223 | 0.2880 | 0.3068 | 1.2212 | -0.0051 | 0.4416 | -0.0042 | 0.3616 |
| 126 | 50.34 | -0.02 | -0.0508 | -0.0131 | -0.0145 | 0.2580 | 0.2844 | 1.1883 | -0.0044 | 0.4274 | -0.0037 | 0.3596 |
| 127 | 50.51 | -0.02 | -0.0661 | -0.0179 | -0.0233 | 0.2714 | 0.3526 | 1.2349 | -0.0063 | 0.4477 | -0.0051 | 0.3626 |
| 128 | 50.67 | 0.01 | 0.0176 | 0.0009 | 0.0149 | 0.0512 | 0.8436 | 1.1945 | -0.0051 | 0.4314 | -0.0043 | 0.3611 |
| 129 | 50.85 | -0.01 | -0.0177 | -0.0027 | -0.0014 | 0.1526 | 0.0793 | 1.1846 | -0.0041 | 0.4273 | -0.0035 | 0.3607 |
| 130 | 50.99 | 0.01 | 0.0307 | 0.0040 | 0.0227 | 0.1334 | 0.7385 | 1.1834 | -0.0049 | 0.4279 | -0.0041 | 0.3616 |
| 131 | 51.15 | 0.02 | 0.0152 | 0.0060 | 0.0202 | 0.3949 | 1.3266 | 1.1036 | -0.0003 | 0.3939 | -0.0003 | 0.3569 |
| 132 | 51.35 | 0.02 | 0.0231 | 0.0070 | 0.0262 | 0.3032 | 1.1335 | 1.1476 | -0.0029 | 0.4140 | -0.0025 | 0.3607 |
| 133 | 51.53 | 0.03 | 0.0148 | 0.0063 | 0.0224 | 0.4259 | 1.5116 | 1.1414 | -0.0022 | 0.4117 | -0.0019 | 0.3607 |
| 134 | 51.72 | 0.03 | 0.0315 | 0.0074 | 0.0294 | 0.2350 | 0.9331 | 1.1496 | -0.0035 | 0.4152 | -0.0030 | 0.3612 |
| 135 | 51.88 | 0.02 | -0.0097 | 0.0051 | 0.0145 | -0.5261 | -1.4893 | 1.1201 | -0.0001 | 0.4025 | -0.0001 | 0.3594 |
| 136 | 52.06 | 0.02 | -0.0147 | 0.0035 | 0.0172 | -0.2392 | -1.1670 | 1.1177 | -0.0017 | 0.4040 | -0.0015 | 0.3614 |
| 137 | 52.23 | 0.01 | -0.0124 | 0.0046 | 0.0168 | -0.3712 | -1.3511 | 1.1274 | -0.0017 | 0.4081 | -0.0015 | 0.3619 |
| 138 | 52.36 | 0.01 | -0.0229 | 0.0015 | 0.0133 | -0.0655 | -0.5783 | 1.1078 | -0.0006 | 0.4008 | -0.0005 | 0.3618 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.54 | 0.01 | -0.0244 | 0.0016 | 0.0151 | -0.0656 | -0.6167 | 1.1091 | -0.0010 | 0.4012 | -0.0009 | 0.3618 |
| 140 | 52.71 | 0.02 | -0.0033 | 0.0035 | 0.0199 | -0.9215 | -5.2272 | 1.1566 | -0.0044 | 0.4204 | -0.0038 | 0.3635 |
| 141 | 52.90 | 0.01 | -0.0052 | 0.0051 | 0.0206 | -0.9813 | -3.9549 | 1.1825 | -0.0051 | 0.4301 | -0.0043 | 0.3637 |
| 142 | 53.07 | 0.02 | 0.0017 | 0.0067 | 0.0254 | 3.9433 | 14.9300 | 1.1716 | -0.0054 | 0.4269 | -0.0046 | 0.3644 |
| 143 | 53.21 | 0.01 | 0.0113 | 0.0060 | 0.0288 | 0.5313 | 2.5479 | 1.1788 | -0.0054 | 0.4292 | -0.0046 | 0.3641 |
| 144 | 53.42 | 0.00 | -0.0419 | 0.0009 | 0.0126 | -0.0215 | -0.2993 | 1.1686 | -0.0045 | 0.4247 | -0.0039 | 0.3651 |
| 145 | 53.55 | 0.01 | -0.0062 | 0.0046 | 0.0259 | -0.7423 | -4.1746 | 1.1641 | -0.0049 | 0.4231 | -0.0042 | 0.3635 |
| 146 | 53.75 | -0.01 | -0.0179 | 0.0049 | 0.0283 | -0.2739 | -1.5805 | 1.1524 | -0.0042 | 0.4200 | -0.0036 | 0.3645 |
| 147 | 53.91 | 0.01 | -0.0012 | 0.0051 | 0.0298 | -4.2523 | -24.8292 | 1.1746 | -0.0047 | 0.4279 | -0.0040 | 0.3643 |
| 148 | 54.05 | 0.00 | -0.0059 | 0.0051 | 0.0307 | -0.8669 | -5.2030 | 1.1611 | -0.0040 | 0.4228 | -0.0035 | 0.3642 |
| 149 | 54.25 | 0.00 | -0.0184 | 0.0038 | 0.0255 | -0.2066 | -1.3849 | 1.1937 | -0.0067 | 0.4365 | -0.0056 | 0.3657 |
| 150 | 54.39 | -0.02 | -0.0130 | 0.0042 | 0.0263 | -0.3232 | -2.0218 | 1.1669 | -0.0048 | 0.4229 | -0.0041 | 0.3625 |
| 151 | 54.56 | -0.00 | -0.0089 | 0.0042 | 0.0291 | -0.4722 | -3.2689 | 1.1898 | -0.0063 | 0.4359 | -0.0053 | 0.3664 |
| 152 | 54.69 | -0.01 | -0.0208 | 0.0037 | 0.0263 | -0.1790 | -1.2636 | 1.1491 | -0.0045 | 0.4178 | -0.0039 | 0.3636 |
| 153 | 54.84 | -0.01 | -0.0134 | 0.0035 | 0.0293 | -0.2613 | -2.1861 | 1.1346 | -0.0039 | 0.4101 | -0.0034 | 0.3614 |
| 154 | 55.01 | -0.01 | -0.0260 | 0.0030 | 0.0246 | -0.1154 | -0.9453 | 1.1747 | -0.0053 | 0.4290 | -0.0045 | 0.3652 |
| 155 | 55.18 | -0.02 | -0.0199 | 0.0037 | 0.0279 | -0.1860 | -1.4015 | 1.1790 | -0.0054 | 0.4310 | -0.0046 | 0.3655 |
| 156 | 55.31 | -0.02 | -0.0315 | 0.0025 | 0.0241 | -0.0794 | -0.7643 | 1.1413 | -0.0038 | 0.4149 | -0.0033 | 0.3635 |
| 157 | 55.48 | -0.02 | -0.0222 | 0.0032 | 0.0293 | -0.1442 | -1.2743 | 1.1883 | -0.0064 | 0.4352 | -0.0054 | 0.3662 |
| 158 | 55.62 | -0.03 | -0.0284 | 0.0023 | 0.0272 | -0.0872 | -1.0298 | 1.1397 | -0.0043 | 0.4136 | -0.0038 | 0.3629 |
| 159 | 55.81 | -0.01 | -0.0086 | 0.0034 | 0.0339 | -0.3956 | -3.9428 | 1.1875 | -0.0067 | 0.4360 | -0.0057 | 0.3672 |
| 160 | 55.96 | -0.02 | -0.0164 | 0.0024 | 0.0342 | -0.1664 | -2.0859 | 1.1971 | -0.0073 | 0.4393 | -0.0061 | 0.3670 |
| 161 | 56.13 | -0.02 | -0.0234 | 0.0033 | 0.0296 | -0.1411 | -1.2647 | 1.1846 | -0.0067 | 0.4330 | -0.0057 | 0.3658 |
| 162 | 56.27 | -0.04 | -0.0192 | 0.0030 | 0.0311 | -0.1563 | -1.6197 | 1.1543 | -0.0056 | 0.4209 | -0.0047 | 0.3641 |
| 163 | 56.41 | 0.01 | -0.0234 | 0.0030 | 0.0298 | -0.1283 | -1.2733 | 1.1695 | -0.0061 | 0.4280 | -0.0052 | 0.3659 |
| 164 | 56.66 | -0.04 | -0.0307 | 0.0035 | 0.0268 | -0.1141 | -0.8725 | 1.2153 | -0.0090 | 0.4465 | -0.0074 | 0.3674 |
| 165 | 56.78 | -0.07 | -0.0171 | 0.0043 | 0.0325 | -0.2437 | -1.8788 | 1.1997 | -0.0086 | 0.4399 | -0.0072 | 0.3667 |
| 166 | 56.96 | -0.06 | -0.0178 | 0.0030 | 0.0296 | -0.1656 | -1.6626 | 1.1842 | -0.0077 | 0.4320 | -0.0065 | 0.3648 |
| 167 | 57.06 | -0.09 | -0.0182 | 0.0037 | 0.0315 | -0.2034 | -1.7308 | 1.1625 | -0.0071 | 0.4243 | -0.0061 | 0.3650 |
| 168 | 57.24 | -0.06 | -0.0080 | 0.0048 | 0.0360 | -0.6003 | -4.5019 | 1.1896 | -0.0090 | 0.4356 | -0.0067 | 0.3662 |
| 169 | 57.40 | -0.07 | -0.0243 | 0.0027 | 0.0290 | -0.1112 | -1.1931 | 1.1633 | -0.0068 | 0.4235 | -0.0059 | 0.3641 |
| 170 | 57.57 | -0.01 | -0.0226 | 0.0035 | 0.0314 | -0.1682 | -1.3894 | 1.2065 | -0.0091 | 0.4429 | -0.0078 | 0.3671 |
| 171 | 57.71 | -0.07 | -0.0183 | 0.0032 | 0.0326 | -0.1750 | -1.7818 | 1.2218 | -0.0097 | 0.4504 | -0.0080 | 0.3687 |
| 172 | 57.87 | -0.09 | -0.0242 | 0.0032 | 0.0283 | -0.1323 | -1.1690 | 1.1855 | -0.0091 | 0.4331 | -0.0077 | 0.3653 |
| 173 | 58.03 | -0.03 | -0.0180 | 0.0042 | 0.0304 | -0.2315 | -1.6887 | 1.2294 | -0.0115 | 0.4556 | -0.0094 | 0.3706 |
| 174 | 58.20 | -0.01 | -0.0240 | 0.0042 | 0.0271 | -0.1751 | -1.1286 | 1.2175 | -0.0108 | 0.4504 | -0.0089 | 0.3700 |
| 175 | 58.33 | -0.00 | -0.0209 | 0.0048 | 0.0283 | -0.2298 | -1.3536 | 1.2180 | -0.0110 | 0.4507 | -0.0090 | 0.3701 |
| 176 | 58.40 | -0.01 | -0.0250 | 0.0051 | 0.0264 | -0.2041 | -1.0554 | 1.1884 | -0.0096 | 0.4361 | -0.0081 | 0.3670 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.68 | 0.03 | 0.0521 | 9.9999 | 0.0229 | 9.9999 | 0.4390 | -1.0041 | -0.0489 | -0.4275 | 0.0487 | 0.4257 |
| 2 | -5.69 | 0.00 | 0.0498 | 9.9999 | 0.0222 | 9.9999 | 0.4452 | -1.0039 | -0.0492 | -0.4262 | 0.0490 | 0.4246 |
| 3 | -5.80 | 0.02 | 0.0520 | 9.9999 | 0.0232 | 9.9999 | 0.4457 | -0.9799 | -0.0493 | -0.4190 | 0.0503 | 0.4276 |
| 4 | -4.40 | 0.01 | 0.0498 | 9.9999 | 0.0222 | 9.9999 | 0.4452 | -0.9069 | -0.0434 | -0.3942 | 0.0478 | 0.4347 |
| 5 | -2.65 | 0.01 | 0.0454 | 9.9999 | 0.0193 | 9.9999 | 0.4243 | -0.7571 | -0.0403 | -0.3260 | 0.0532 | 0.4306 |
| 6 | -0.82 | 0.02 | 0.0510 | 9.9999 | 0.0214 | 9.9999 | 0.4190 | -0.6215 | -0.0364 | -0.2591 | 0.0585 | 0.4169 |
| 7 | 0.99 | 0.01 | 0.0509 | 9.9999 | 0.0223 | 9.9999 | 0.4316 | -0.4685 | -0.0274 | -0.1856 | 0.0586 | 0.3981 |
| 8 | 2.89 | 0.02 | 0.0519 | 9.9999 | 0.0241 | 9.9999 | 0.4639 | -0.3247 | -0.0146 | -0.1132 | 0.0450 | 0.3485 |
| 9 | 4.68 | 0.01 | 0.0633 | 9.9999 | 0.0264 | 9.9999 | 0.4175 | -0.1780 | -0.0034 | -0.0473 | 0.0191 | 0.2658 |
| 10 | 6.56 | 0.01 | 0.0658 | 9.9999 | 0.0224 | 9.9999 | 0.3405 | -0.0588 | 0.0095 | 0.0054 | -0.1619 | -0.0923 |
| 11 | 8.41 | 0.02 | 0.0782 | 9.9999 | 0.0246 | 9.9999 | 0.3147 | 0.0684 | 0.0249 | 0.0606 | 0.3648 | 0.8872 |
| 12 | 10.26 | 0.01 | 0.0751 | 9.9999 | 0.0209 | 9.9999 | 0.2782 | 0.1992 | 0.0444 | 0.1194 | 0.2227 | 0.5994 |
| 13 | 12.18 | 0.01 | 0.0707 | 9.9999 | 0.0183 | 9.9999 | 0.2586 | 0.3237 | 0.0581 | 0.1895 | 0.1794 | 0.5854 |
| 14 | 14.07 | 0.01 | 0.0708 | 9.9999 | 0.0162 | 9.9999 | 0.2285 | 0.4647 | 0.0620 | 0.2670 | 0.1334 | 0.5745 |
| 15 | 16.04 | 0.01 | 0.0752 | 9.9999 | 0.0188 | 9.9999 | 0.2498 | 0.5953 | 0.0626 | 0.3357 | 0.1051 | 0.5638 |
| 16 | 18.02 | 0.00 | 0.0687 | 9.9999 | 0.0146 | 9.9999 | 0.2120 | 0.7269 | 0.0600 | 0.3975 | 0.0825 | 0.5469 |
| 17 | 19.98 | -0.00 | 0.0721 | 9.9999 | 0.0142 | 9.9999 | 0.1965 | 0.8363 | 0.0550 | 0.4477 | 0.0657 | 0.5354 |
| 18 | 21.95 | 0.01 | 0.0755 | 9.9999 | 0.0150 | 9.9999 | 0.1982 | 0.9020 | 0.0508 | 0.4808 | 0.0563 | 0.5330 |
| 19 | 23.92 | 0.02 | 0.0821 | 9.9999 | 0.0180 | 9.9999 | 0.2190 | 0.8453 | 0.0430 | 0.4328 | 0.0508 | 0.5120 |
| 20 | 25.87 | 0.04 | 0.0823 | 9.9999 | 0.0151 | 9.9999 | 0.1831 | 0.8463 | 0.0337 | 0.4333 | 0.0399 | 0.5128 |
| 21 | 27.84 | 0.06 | 0.0888 | 9.9999 | 0.0201 | 9.9999 | 0.2262 | 0.8665 | 0.0274 | 0.4410 | 0.0317 | 0.5090 |
| 22 | 28.10 | 0.08 | 0.0935 | 9.9999 | 0.0222 | 9.9999 | 0.2374 | 0.8641 | 0.0262 | 0.4409 | 0.0304 | 0.5103 |
| 23 | 28.48 | 0.08 | 0.0857 | 9.9999 | 0.0191 | 9.9999 | 0.2227 | 0.8743 | 0.0264 | 0.4458 | 0.0302 | 0.5099 |
| 24 | 28.74 | 0.07 | 0.0901 | 9.9999 | 0.0211 | 9.9999 | 0.2341 | 0.8773 | 0.0254 | 0.4491 | 0.0290 | 0.5108 |
| 25 | 29.05 | 0.07 | 0.0912 | 9.9999 | 0.0221 | 9.9999 | 0.2423 | 0.8813 | 0.0251 | 0.4518 | 0.0285 | 0.5126 |
| 26 | 29.38 | 0.07 | 0.0967 | 9.9999 | 0.0256 | 9.9999 | 0.2648 | 0.8702 | 0.0239 | 0.4448 | 0.0275 | 0.5112 |
| 27 | 29.66 | 0.07 | 0.0957 | 9.9999 | 0.0241 | 9.9999 | 0.2518 | 0.8615 | 0.0221 | 0.4393 | 0.0257 | 0.5099 |
| 28 | 29.94 | 0.08 | 0.1091 | 9.9999 | 0.0313 | 9.9999 | 0.2872 | 0.8753 | 0.0224 | 0.4483 | 0.0256 | 0.5122 |
| 29 | 30.22 | 0.07 | 0.1024 | 9.9999 | 0.0286 | 9.9999 | 0.2795 | 0.8797 | 0.0211 | 0.4500 | 0.0240 | 0.5116 |
| 30 | 30.50 | 0.07 | 0.0870 | 9.9999 | 0.0201 | 9.9999 | 0.2309 | 0.8850 | 0.0207 | 0.4529 | 0.0234 | 0.5117 |
| 31 | 30.76 | 0.08 | 0.0935 | 9.9999 | 0.0252 | 9.9999 | 0.2696 | 0.8823 | 0.0211 | 0.4524 | 0.0239 | 0.5127 |
| 32 | 31.05 | 0.09 | 0.0968 | 9.9999 | 0.0265 | 9.9999 | 0.2770 | 0.8992 | 0.0206 | 0.4601 | 0.0229 | 0.5116 |
| 33 | 31.33 | 0.09 | 0.0968 | 9.9999 | 0.0268 | 9.9999 | 0.2770 | 0.8969 | 0.0199 | 0.4593 | 0.0222 | 0.5121 |
| 34 | 31.61 | 0.07 | 0.1000 | 9.9999 | 0.0297 | 9.9999 | 0.2972 | 0.8995 | 0.0197 | 0.4613 | 0.0219 | 0.5128 |
| 35 | 31.87 | 0.10 | 0.0978 | 9.9999 | 0.0290 | 9.9999 | 0.2968 | 0.8841 | 0.0198 | 0.4543 | 0.0224 | 0.5138 |
| 36 | 32.15 | 0.09 | 0.1078 | 9.9999 | 0.0339 | 9.9999 | 0.3148 | 0.8818 | 0.0190 | 0.4526 | 0.0216 | 0.5132 |
| 37 | 32.41 | 0.07 | 0.0866 | 9.9999 | 0.0248 | 9.9999 | 0.2865 | 0.8806 | 0.0189 | 0.4519 | 0.0215 | 0.5131 |
| 38 | 32.66 | 0.10 | 0.0933 | 9.9999 | 0.0275 | 9.9999 | 0.2949 | 0.8948 | 0.0184 | 0.4579 | 0.0206 | 0.5117 |
| 39 | 32.93 | 0.06 | 0.0766 | 9.9999 | 0.0210 | 9.9999 | 0.2741 | 0.9002 | 0.0177 | 0.4596 | 0.0197 | 0.5105 |
| 40 | 33.19 | 0.07 | 0.0866 | 9.9999 | 0.0248 | 9.9999 | 0.2865 | 0.9275 | 0.0170 | 0.4726 | 0.0184 | 0.5096 |
| 41 | 33.42 | 0.05 | 0.0743 | 9.9999 | 0.0215 | 9.9999 | 0.2893 | 0.9108 | 0.0169 | 0.4648 | 0.0186 | 0.5103 |
| 42 | 33.69 | 0.08 | 0.0755 | 9.9999 | 0.0207 | 9.9999 | 0.2741 | 0.9173 | 0.0168 | 0.4667 | 0.0183 | 0.5088 |
| 43 | 33.94 | 0.07 | 0.0664 | 9.9999 | 0.0175 | 9.9999 | 0.2633 | 0.9254 | 0.0162 | 0.4706 | 0.0175 | 0.5085 |
| 44 | 34.17 | 0.08 | 0.0864 | 9.9999 | 0.0269 | 9.9999 | 0.3115 | 0.9358 | 0.0159 | 0.4736 | 0.0170 | 0.5062 |
| 45 | 34.44 | 0.06 | 0.0797 | 9.9999 | 0.0235 | 9.9999 | 0.2949 | 0.9476 | 0.0153 | 0.4780 | 0.0162 | 0.5044 |
| 46 | 34.69 | 0.05 | 0.0653 | 9.9999 | 0.0175 | 9.9999 | 0.2677 | 0.9607 | 0.0146 | 0.4836 | 0.0152 | 0.5034 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.00 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.91 | 0.06 | 0.0774 | 9.9999 | 0.0237 | 9.9999 | 0.3063 | 0.9113 | 0.0158 | 0.4602 | 0.0174 | 0.5050 |
| 48 | 35.17 | 0.07 | 0.0742 | 9.9999 | 0.0224 | 9.9999 | 0.3019 | 0.9410 | 0.0152 | 0.4740 | 0.0162 | 0.5038 |
| 49 | 35.41 | 0.07 | 0.0798 | 9.9999 | 0.0239 | 9.9999 | 0.2996 | 0.9447 | 0.0153 | 0.4751 | 0.0162 | 0.5030 |
| 50 | 35.63 | 0.09 | 0.0786 | 9.9999 | 0.0247 | 9.9999 | 0.3144 | 0.9539 | 0.0149 | 0.4791 | 0.0156 | 0.5022 |
| 51 | 35.89 | 0.08 | 0.0819 | 9.9999 | 0.0275 | 9.9999 | 0.3360 | 0.9721 | 0.0142 | 0.4856 | 0.0146 | 0.4995 |
| 52 | 36.12 | 0.06 | 0.0674 | 9.9999 | 0.0199 | 9.9999 | 0.2951 | 0.9465 | 0.0143 | 0.4728 | 0.0151 | 0.4996 |
| 53 | 36.35 | 0.07 | 0.0684 | 9.9999 | 0.0215 | 9.9999 | 0.3143 | 0.9763 | 0.0135 | 0.4871 | 0.0138 | 0.4989 |
| 54 | 36.58 | 0.06 | 0.0662 | 9.9999 | 0.0202 | 9.9999 | 0.3051 | 0.9762 | 0.0138 | 0.4859 | 0.0142 | 0.4977 |
| 55 | 36.82 | 0.06 | 0.0762 | 9.9999 | 0.0257 | 9.9999 | 0.3375 | 0.9751 | 0.0133 | 0.4845 | 0.0137 | 0.4969 |
| 56 | 37.07 | 0.05 | 0.0628 | 9.9999 | 0.0203 | 9.9999 | 0.3232 | 0.9818 | 0.0125 | 0.4873 | 0.0128 | 0.4963 |
| 57 | 37.31 | 0.06 | 0.0739 | 9.9999 | 0.0250 | 9.9999 | 0.3385 | 0.9377 | 0.0136 | 0.4666 | 0.0145 | 0.4976 |
| 58 | 37.53 | 0.06 | 0.0706 | 9.9999 | 0.0239 | 9.9999 | 0.3387 | 0.9496 | 0.0128 | 0.4712 | 0.0135 | 0.4963 |
| 59 | 37.77 | 0.05 | 0.0639 | 9.9999 | 0.0209 | 9.9999 | 0.3271 | 0.9689 | 0.0123 | 0.4798 | 0.0127 | 0.4941 |
| 60 | 38.00 | 0.04 | 0.0582 | 9.9999 | 0.0194 | 9.9999 | 0.3332 | 0.9601 | 0.0124 | 0.4737 | 0.0129 | 0.4934 |
| 61 | 38.24 | 0.06 | 0.0615 | 9.9999 | 0.0205 | 9.9999 | 0.3333 | 0.9523 | 0.0124 | 0.4699 | 0.0130 | 0.4935 |
| 62 | 38.46 | 0.05 | 0.0525 | 9.9999 | 0.0164 | 9.9999 | 0.3115 | 0.9382 | 0.0129 | 0.4626 | 0.0138 | 0.4931 |
| 63 | 38.71 | 0.07 | 0.0558 | 9.9999 | 0.0193 | 9.9999 | 0.3458 | 0.9692 | 0.0119 | 0.4752 | 0.0123 | 0.4904 |
| 64 | 38.91 | 0.05 | 0.0545 | 9.9999 | 0.0195 | 9.9999 | 0.3571 | 0.9821 | 0.0114 | 0.4791 | 0.0116 | 0.4878 |
| 65 | 39.14 | 0.07 | 0.0657 | 9.9999 | 0.0233 | 9.9999 | 0.3548 | 0.9794 | 0.0114 | 0.4777 | 0.0117 | 0.4877 |
| 66 | 39.36 | 0.06 | 0.0568 | 9.9999 | 0.0202 | 9.9999 | 0.3556 | 0.9716 | 0.0116 | 0.4722 | 0.0120 | 0.4860 |
| 67 | 39.58 | 0.05 | 0.0612 | 9.9999 | 0.0216 | 9.9999 | 0.3530 | 0.9676 | 0.0119 | 0.4683 | 0.0123 | 0.4840 |
| 68 | 39.79 | 0.08 | 0.0656 | 9.9999 | 0.0242 | 9.9999 | 0.3691 | 0.9817 | 0.0115 | 0.4724 | 0.0117 | 0.4812 |
| 69 | 39.99 | 0.07 | 0.0521 | 9.9999 | 0.0199 | 9.9999 | 0.3813 | 0.9739 | 0.0119 | 0.4674 | 0.0122 | 0.4799 |
| 70 | 40.21 | 0.07 | 0.0589 | 9.9999 | 0.0221 | 9.9999 | 0.3753 | 0.9739 | 0.0116 | 0.4655 | 0.0119 | 0.4780 |
| 71 | 40.38 | 0.07 | 0.0488 | 9.9999 | 0.0183 | 9.9999 | 0.3741 | 0.9817 | 0.0112 | 0.4674 | 0.0114 | 0.4761 |
| 72 | 40.60 | 0.06 | 0.0500 | 9.9999 | 0.0181 | 9.9999 | 0.3612 | 0.9855 | 0.0112 | 0.4679 | 0.0114 | 0.4748 |
| 73 | 40.82 | 0.06 | 0.0588 | 9.9999 | 0.0232 | 9.9999 | 0.3948 | 0.9750 | 0.0114 | 0.4627 | 0.0117 | 0.4748 |
| 74 | 41.00 | 0.04 | 0.0555 | 9.9999 | 0.0215 | 9.9999 | 0.3875 | 1.0175 | 0.0104 | 0.4807 | 0.0102 | 0.4724 |
| 75 | 41.22 | 0.05 | 0.0466 | 9.9999 | 0.0170 | 9.9999 | 0.3638 | 1.0008 | 0.0105 | 0.4723 | 0.0105 | 0.4720 |
| 76 | 41.42 | 0.06 | 0.0531 | 9.9999 | 0.0208 | 9.9999 | 0.3911 | 0.9736 | 0.0114 | 0.4583 | 0.0117 | 0.4707 |
| 77 | 41.61 | 0.03 | 0.0477 | 9.9999 | 0.0176 | 9.9999 | 0.3681 | 0.9967 | 0.0105 | 0.4679 | 0.0105 | 0.4695 |
| 78 | 41.81 | 0.02 | 0.0532 | 9.9999 | 0.0206 | 9.9999 | 0.3866 | 0.9981 | 0.0100 | 0.4673 | 0.0100 | 0.4682 |
| 79 | 42.01 | 0.03 | 0.0543 | 9.9999 | 0.0215 | 9.9999 | 0.3954 | 0.9929 | 0.0102 | 0.4636 | 0.0103 | 0.4669 |
| 80 | 42.21 | 0.03 | 0.0532 | 9.9999 | 0.0212 | 9.9999 | 0.3979 | 1.0344 | 0.0087 | 0.4838 | 0.0084 | 0.4677 |
| 81 | 42.40 | 0.03 | 0.0510 | 9.9999 | 0.0199 | 9.9999 | 0.3895 | 1.0225 | 0.0095 | 0.4761 | 0.0093 | 0.4656 |
| 82 | 42.57 | 0.03 | 0.0444 | 9.9999 | 0.0166 | 9.9999 | 0.3728 | 0.9840 | 0.0102 | 0.4595 | 0.0104 | 0.4670 |
| 83 | 42.76 | 0.03 | 0.0432 | 9.9999 | 0.0171 | 9.9999 | 0.3948 | 1.0188 | 0.0094 | 0.4748 | 0.0092 | 0.4681 |
| 84 | 42.94 | 0.01 | 0.0410 | 9.9999 | 0.0167 | 9.9999 | 0.4062 | 1.0111 | 0.0091 | 0.4701 | 0.0090 | 0.4658 |
| 85 | 43.12 | 0.01 | 0.0566 | 9.9999 | 0.0219 | 9.9999 | 0.3871 | 1.0214 | 0.0090 | 0.4753 | 0.0088 | 0.4654 |
| 86 | 43.30 | 0.01 | 0.0443 | 9.9999 | 0.0180 | 9.9999 | 0.4054 | 1.0474 | 0.0080 | 0.4868 | 0.0076 | 0.4648 |
| 87 | 43.47 | 0.02 | 0.0332 | 9.9999 | 0.0133 | 9.9999 | 0.3989 | 0.9712 | 0.0101 | 0.4512 | 0.0104 | 0.4646 |
| 88 | 43.67 | 0.02 | 0.0486 | 9.9999 | 0.0200 | 9.9999 | 0.4108 | 1.0135 | 0.0092 | 0.4712 | 0.0091 | 0.4649 |
| 89 | 43.82 | 0.02 | 0.0366 | 9.9999 | 0.0138 | 9.9999 | 0.3755 | 1.0250 | 0.0089 | 0.4745 | 0.0087 | 0.4630 |
| 90 | 44.01 | 0.02 | 0.0453 | 9.9999 | 0.0187 | 9.9999 | 0.4119 | 1.0357 | 0.0077 | 0.4800 | 0.0079 | 0.4634 |
| 91 | 44.23 | 0.01 | 0.0464 | 9.9999 | 0.0187 | 9.9999 | 0.4021 | 1.0044 | 0.0094 | 0.4648 | 0.0094 | 0.4628 |
| 92 | 44.37 | 0.00 | 0.0309 | 9.9999 | 0.0129 | 9.9999 | 0.4156 | 1.0006 | 0.0094 | 0.4624 | 0.0094 | 0.4621 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.30 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.57 | 0.00 | 0.0209 | 9.9999 | 0.0105 | 9.9999 | 0.5040 | 1.0614 | 0.0073 | 0.4914 | 0.0069 | 0.4630 |
| 94 | 44.75 | 0.00 | 0.0409 | 9.9999 | 0.0188 | 9.9999 | 0.4587 | 1.0471 | 0.0075 | 0.4828 | 0.0072 | 0.4611 |
| 95 | 44.94 | -0.01 | 0.0365 | 9.9999 | 0.0162 | 9.9999 | 0.4425 | 1.0484 | 0.0073 | 0.4841 | 0.0070 | 0.4618 |
| 96 | 45.10 | -0.00 | 0.0298 | 9.9999 | 0.0135 | 9.9999 | 0.4511 | 1.0160 | 0.0082 | 0.4684 | 0.0081 | 0.4610 |
| 97 | 45.29 | -0.00 | 0.0464 | 9.9999 | 0.0211 | 9.9999 | 0.4540 | 1.0638 | 0.0071 | 0.4898 | 0.0067 | 0.4604 |
| 98 | 45.49 | 0.00 | 0.0431 | 9.9999 | 0.0195 | 9.9999 | 0.4515 | 1.0262 | 0.0083 | 0.4720 | 0.0081 | 0.4600 |
| 99 | 45.65 | 0.00 | 0.0409 | 9.9999 | 0.0186 | 9.9999 | 0.4587 | 1.0522 | 0.0074 | 0.4857 | 0.0070 | 0.4616 |
| 100 | 45.80 | 0.01 | 0.0275 | 9.9999 | 0.0139 | 9.9999 | 0.5034 | 1.0443 | 0.0075 | 0.4800 | 0.0072 | 0.4596 |
| 101 | 45.99 | -0.00 | 0.0264 | 9.9999 | 0.0136 | 9.9999 | 0.5130 | 1.0523 | 0.0067 | 0.4828 | 0.0064 | 0.4588 |
| 102 | 46.18 | 0.00 | 0.0353 | 9.9999 | 0.0176 | 9.9999 | 0.4973 | 1.0235 | 0.0083 | 0.4708 | 0.0081 | 0.4600 |
| 103 | 46.34 | 0.01 | 0.0408 | 9.9999 | 0.0200 | 9.9999 | 0.4893 | 1.0213 | 0.0075 | 0.4700 | 0.0074 | 0.4602 |
| 104 | 46.49 | 0.01 | 0.0420 | 9.9999 | 0.0157 | 9.9999 | 0.4891 | 1.0004 | 0.0086 | 0.4603 | 0.0086 | 0.4601 |
| 105 | 46.68 | 0.02 | 0.0320 | 9.9999 | 0.0157 | 9.9999 | 0.4891 | 1.0145 | 0.0081 | 0.4658 | 0.0080 | 0.4591 |
| 106 | 46.85 | 0.02 | 0.0387 | 9.9999 | 0.0187 | 9.9999 | 0.4822 | 0.9874 | 0.0092 | 0.4537 | 0.0083 | 0.4594 |
| 107 | 47.03 | 0.02 | 0.0386 | 9.9999 | 0.0205 | 9.9999 | 0.5302 | 1.0031 | 0.0078 | 0.4616 | 0.0076 | 0.4602 |
| 108 | 47.18 | 0.02 | 0.0376 | 9.9999 | 0.0183 | 9.9999 | 0.4856 | 1.0054 | 0.0071 | 0.4620 | 0.0071 | 0.4599 |
| 109 | 47.36 | 0.01 | 0.0342 | 9.9999 | 0.0179 | 9.9999 | 0.5221 | 1.0059 | 0.0062 | 0.4594 | 0.0062 | 0.4590 |
| 110 | 47.53 | 0.05 | 0.0420 | 9.9999 | 0.0216 | 9.9999 | 0.5135 | 1.0170 | 0.0058 | 0.4632 | 0.0058 | 0.4586 |
| 111 | 47.72 | 0.05 | 0.0319 | 9.9999 | 0.0184 | 9.9999 | 0.5755 | 1.0126 | 0.0050 | 0.4646 | 0.0049 | 0.4587 |
| 112 | 47.88 | 0.06 | 0.0431 | 9.9999 | 0.0222 | 9.9999 | 0.5144 | 0.9954 | 0.0064 | 0.4506 | 0.0069 | 0.4603 |
| 113 | 48.09 | 0.05 | 0.0387 | 9.9999 | 0.0208 | 9.9999 | 0.5366 | 0.9837 | 0.0035 | 0.4505 | 0.0036 | 0.4589 |
| 114 | 48.26 | 0.05 | 0.0342 | 9.9999 | 0.0185 | 9.9999 | 0.5397 | 0.9852 | 0.0035 | 0.4518 | 0.0036 | 0.4585 |
| 115 | 48.41 | 0.03 | 0.0265 | 9.9999 | 0.0145 | 9.9999 | 0.5451 | 0.9184 | 0.0067 | 0.4216 | 0.0073 | 0.4591 |
| 116 | 48.62 | 0.04 | 0.0409 | 9.9999 | 0.0206 | 9.9999 | 0.5028 | 0.9930 | 0.0030 | 0.4524 | 0.0030 | 0.4555 |
| 117 | 48.75 | 0.02 | 0.0365 | 9.9999 | 0.0192 | 9.9999 | 0.5250 | 0.9669 | 0.0039 | 0.4428 | 0.0040 | 0.4580 |
| 118 | 48.94 | 0.02 | 0.0231 | 9.9999 | 0.0138 | 9.9999 | 0.5950 | 0.9822 | 0.0039 | 0.4476 | 0.0040 | 0.4557 |
| 119 | 49.13 | 0.02 | 0.0220 | 9.9999 | 0.0128 | 9.9999 | 0.5791 | 0.9938 | 0.0039 | 0.4543 | 0.0039 | 0.4571 |
| 120 | 49.30 | 0.02 | 0.0298 | 9.9999 | 0.0156 | 9.9999 | 0.5218 | 1.0007 | 0.0029 | 0.4569 | 0.0029 | 0.4565 |
| 121 | 49.46 | 0.02 | 0.0343 | 9.9999 | 0.0173 | 9.9999 | 0.5031 | 0.9903 | 0.0033 | 0.4526 | 0.0033 | 0.4570 |
| 122 | 49.65 | -0.00 | 0.0175 | 9.9999 | 0.0113 | 9.9999 | 0.6478 | 0.9837 | 0.0035 | 0.4489 | 0.0034 | 0.4564 |
| 123 | 49.83 | 0.01 | 0.0288 | 9.9999 | 0.0144 | 9.9999 | 0.4981 | 0.9954 | 0.0027 | 0.4544 | 0.0027 | 0.4565 |
| 124 | 49.99 | -0.00 | 0.0276 | 9.9999 | 0.0149 | 9.9999 | 0.5379 | 0.9969 | 0.0023 | 0.4560 | 0.0023 | 0.4574 |
| 125 | 50.15 | -0.01 | 0.0288 | 9.9999 | 0.0153 | 9.9999 | 0.5295 | 0.9942 | 0.0027 | 0.4550 | 0.0027 | 0.4576 |
| 126 | 50.34 | -0.02 | 0.0255 | 9.9999 | 0.0127 | 9.9999 | 0.4957 | 0.9957 | 0.0020 | 0.4556 | 0.0020 | 0.4585 |
| 127 | 50.51 | -0.02 | 0.0221 | 9.9999 | 0.0123 | 9.9999 | 0.5538 | 1.0099 | 0.0015 | 0.4631 | 0.0015 | 0.4585 |
| 128 | 50.67 | 0.01 | 0.0333 | 9.9999 | 0.0170 | 9.9999 | 0.5091 | 0.9929 | 0.0024 | 0.4557 | 0.0024 | 0.4589 |
| 129 | 50.85 | -0.01 | 0.0299 | 9.9999 | 0.0153 | 9.9999 | 0.5100 | 1.0020 | 0.0022 | 0.4589 | 0.0022 | 0.4580 |
| 130 | 50.99 | 0.01 | 0.0343 | 9.9999 | 0.0182 | 9.9999 | 0.5294 | 1.0201 | 0.0019 | 0.4667 | 0.0019 | 0.4575 |
| 131 | 51.15 | 0.02 | 0.0455 | 9.9999 | 0.0227 | 9.9999 | 0.4983 | 0.9917 | 0.0024 | 0.4539 | 0.0024 | 0.4577 |
| 132 | 51.35 | 0.02 | 0.0366 | 9.9999 | 0.0175 | 9.9999 | 0.4769 | 1.0060 | 0.0020 | 0.4605 | 0.0020 | 0.4577 |
| 133 | 51.53 | 0.03 | 0.0287 | 9.9999 | 0.0156 | 9.9999 | 0.5419 | 1.0033 | 0.0024 | 0.4582 | 0.0024 | 0.4567 |
| 134 | 51.72 | 0.03 | 0.0332 | 9.9999 | 0.0167 | 9.9999 | 0.5016 | 1.0018 | 0.0024 | 0.4569 | 0.0024 | 0.4560 |
| 135 | 51.88 | 0.02 | 0.0342 | 9.9999 | 0.0185 | 9.9999 | 0.5397 | 1.0495 | -0.0011 | 0.4795 | -0.0010 | 0.4569 |
| 136 | 52.06 | 0.02 | 0.0221 | 9.9999 | 0.0118 | 9.9999 | 0.5156 | 1.0222 | -0.0006 | 0.4674 | -0.0006 | 0.4573 |
| 137 | 52.23 | 0.01 | 0.0287 | 9.9999 | 0.0161 | 9.9999 | 0.5593 | 1.0235 | -0.0006 | 0.4678 | -0.0006 | 0.4571 |
| 138 | 52.36 | 0.01 | 0.0297 | 9.9999 | 0.0171 | 9.9999 | 0.5742 | 1.0026 | 0.0002 | 0.4568 | 0.0002 | 0.4556 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 170 | 1.50 | 1.7 | 0.0 | BLWOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.54 | 0.01 | 0.0321 | 9.9999 | 0.0163 | 9.9999 | 0.5063 | 0.9881 | 0.0008 | 0.4519 | 0.0008 | 0.4573 |
| 140 | 52.71 | 0.02 | 0.0309 | 9.9999 | 0.0168 | 9.9999 | 0.5422 | 0.9785 | 0.0022 | 0.4465 | 0.0023 | 0.4563 |
| 141 | 52.90 | 0.01 | 0.0366 | 9.9999 | 0.0183 | 9.9999 | 0.4989 | 0.9980 | 0.0011 | 0.4567 | 0.0011 | 0.4576 |
| 142 | 53.07 | 0.02 | 0.0344 | 9.9999 | 0.0174 | 9.9999 | 0.5045 | 0.9912 | 0.0019 | 0.4534 | 0.0019 | 0.4574 |
| 143 | 53.21 | 0.01 | 0.0321 | 9.9999 | 0.0166 | 9.9999 | 0.5157 | 0.9849 | 0.0018 | 0.4494 | 0.0018 | 0.4563 |
| 144 | 53.42 | 0.00 | 0.0310 | 9.9999 | 0.0157 | 9.9999 | 0.5048 | 1.0244 | -0.0008 | 0.4666 | -0.0008 | 0.4555 |
| 145 | 53.55 | 0.01 | 0.0321 | 9.9999 | 0.0160 | 9.9999 | 0.4969 | 0.9823 | 0.0018 | 0.4483 | 0.0018 | 0.4564 |
| 146 | 53.75 | -0.01 | 0.0365 | 9.9999 | 0.0180 | 9.9999 | 0.4920 | 1.0016 | 0.0013 | 0.4563 | 0.0013 | 0.4555 |
| 147 | 53.91 | 0.01 | 0.0278 | 9.9999 | 0.0125 | 9.9999 | 0.4475 | 0.9739 | 0.0033 | 0.4434 | 0.0034 | 0.4553 |
| 148 | 54.06 | 0.00 | 0.0399 | 9.9999 | 0.0185 | 9.9999 | 0.4626 | 0.9767 | 0.0025 | 0.4441 | 0.0026 | 0.4547 |
| 149 | 54.25 | 0.00 | 0.0410 | 9.9999 | 0.0188 | 9.9999 | 0.4576 | 1.0261 | 0.0 | 0.4640 | 0.0 | 0.4522 |
| 150 | 54.39 | -0.02 | 0.0288 | 9.9999 | 0.0134 | 9.9999 | 0.4633 | 0.9885 | 0.0013 | 0.4468 | 0.0013 | 0.4520 |
| 151 | 54.56 | -0.00 | 0.0294 | 9.9999 | 0.0120 | 9.9999 | 0.4740 | 1.0043 | 0.0006 | 0.4556 | 0.0006 | 0.4536 |
| 152 | 54.69 | -0.01 | 0.0275 | 9.9999 | 0.0139 | 9.9999 | 0.5034 | 0.9742 | 0.0019 | 0.4420 | 0.0020 | 0.4537 |
| 153 | 54.84 | -0.01 | 0.0409 | 9.9999 | 0.0194 | 9.9999 | 0.4746 | 0.9479 | 0.0039 | 0.4302 | 0.0041 | 0.4538 |
| 154 | 55.01 | -0.01 | 0.0287 | 9.9999 | 0.0131 | 9.9999 | 0.4544 | 1.0001 | 0.0013 | 0.4539 | 0.0013 | 0.4538 |
| 155 | 55.18 | -0.02 | 0.0332 | 9.9999 | 0.0145 | 9.9999 | 0.4351 | 0.9960 | 0.0014 | 0.4506 | 0.0014 | 0.4525 |
| 156 | 55.31 | -0.02 | 0.0309 | 9.9999 | 0.0147 | 9.9999 | 0.4740 | 0.9636 | 0.0027 | 0.4363 | 0.0028 | 0.4528 |
| 157 | 55.48 | -0.02 | 0.0287 | 9.9999 | 0.0128 | 9.9999 | 0.4439 | 1.0103 | 0.0002 | 0.4563 | 0.0002 | 0.4516 |
| 158 | 55.62 | -0.03 | 0.0275 | 9.9999 | 0.0133 | 9.9999 | 0.4815 | 0.9520 | 0.0032 | 0.4313 | 0.0034 | 0.4530 |
| 159 | 55.81 | -0.01 | 0.0219 | 9.9999 | 0.0108 | 9.9999 | 0.4947 | 0.9805 | 0.0018 | 0.4435 | 0.0018 | 0.4523 |
| 160 | 55.96 | -0.02 | 0.0383 | 9.9999 | 0.0191 | 9.9999 | 0.4977 | 1.0024 | 0.0013 | 0.4522 | 0.0013 | 0.4511 |
| 161 | 56.13 | -0.02 | 0.0427 | 9.9999 | 0.0199 | 9.9999 | 0.4652 | 0.9988 | 0.0005 | 0.4513 | 0.0005 | 0.4519 |
| 162 | 56.27 | -0.04 | 0.0284 | 9.9999 | 0.0133 | 9.9999 | 0.4663 | 0.9565 | 0.0024 | 0.4325 | 0.0025 | 0.4522 |
| 163 | 56.41 | 0.01 | 0.0349 | 9.9999 | 0.0165 | 9.9999 | 0.4714 | 0.9860 | 0.0010 | 0.4454 | 0.0010 | 0.4518 |
| 164 | 56.66 | -0.04 | 0.0261 | 9.9999 | 0.0134 | 9.9999 | 0.5112 | 1.0298 | -0.0014 | 0.4638 | -0.0014 | 0.4504 |
| 165 | 56.78 | -0.07 | 0.0327 | 9.9999 | 0.0161 | 9.9999 | 0.4909 | 0.9976 | 0.0003 | 0.4505 | 0.0003 | 0.4516 |
| 166 | 56.96 | -0.06 | 0.0316 | 9.9999 | 0.0152 | 9.9999 | 0.4794 | 0.9862 | 0.0003 | 0.4438 | 0.0003 | 0.4500 |
| 167 | 57.06 | -0.09 | 0.0261 | 9.9999 | 0.0134 | 9.9999 | 0.5112 | 0.9669 | 0.0012 | 0.4358 | 0.0012 | 0.4507 |
| 168 | 57.24 | -0.06 | 0.0283 | 9.9999 | 0.0135 | 9.9999 | 0.4750 | 0.9844 | 0.0013 | 0.4426 | 0.0013 | 0.4496 |
| 169 | 57.40 | -0.07 | 0.0250 | 9.9999 | 0.0128 | 9.9999 | 0.5096 | 0.9667 | 0.0015 | 0.4353 | 0.0016 | 0.4503 |
| 170 | 57.57 | -0.01 | 0.0251 | 9.9999 | 0.0118 | 9.9999 | 0.4716 | 1.0130 | -0.0009 | 0.4554 | -0.0009 | 0.4495 |
| 171 | 57.71 | -0.07 | 0.0250 | 9.9999 | 0.0130 | 9.9999 | 0.5177 | 1.0068 | -0.0007 | 0.4534 | -0.0007 | 0.4503 |
| 172 | 57.87 | -0.09 | 0.0259 | 9.9999 | 0.0142 | 9.9999 | 0.5461 | 0.9865 | -0.0004 | 0.4433 | -0.0004 | 0.4494 |
| 173 | 58.03 | -0.03 | 0.0314 | 9.9999 | 0.0157 | 9.9999 | 0.4984 | 1.0456 | -0.0032 | 0.4696 | -0.0031 | 0.4492 |
| 174 | 58.20 | -0.01 | 0.0248 | 9.9999 | 0.0139 | 9.9999 | 0.5582 | 1.0486 | -0.0044 | 0.4706 | -0.0042 | 0.4488 |
| 175 | 58.33 | -0.00 | 0.0269 | 9.9999 | 0.0151 | 9.9999 | 0.5594 | 1.0395 | -0.0040 | 0.4664 | -0.0039 | 0.4487 |
| 176 | 58.40 | -0.01 | 0.0161 | 9.9999 | 0.0098 | 9.9999 | 0.6106 | 1.0281 | -0.0039 | 0.4594 | -0.0038 | 0.4468 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.71 | 0.03 | -1.9596 | 7.1486 | 0.0132 | -0.2499 | -0.0139 | 0.8164 | 0.2543 | 0.5621 | -3.6479 |
| 2 | -5.71 | 0.01 | -1.9375 | 7.1314 | -0.0183 | -0.2100 | -0.0139 | 0.8193 | 0.2536 | 0.5657 | -3.6807 |
| 3 | -5.71 | 0.02 | -1.9676 | 7.2063 | 0.1408 | -0.3779 | -0.0135 | 0.8285 | 0.2543 | 0.5742 | -3.6624 |
| 4 | -5.69 | 0.02 | -1.9239 | 7.0869 | 0.1338 | -0.3153 | -0.0189 | 0.8158 | 0.2523 | 0.5635 | -3.6722 |
| 5 | -5.71 | 0.02 | -1.9463 | 7.1768 | 0.1100 | -0.3303 | -0.0136 | 0.8232 | 0.2533 | 0.5699 | -3.6874 |
| 6 | -5.74 | 0.02 | -1.9477 | 6.9190 | 0.1004 | -0.3028 | -0.0135 | 0.8222 | 0.2492 | 0.5730 | -3.7447 |
| 7 | -3.94 | 0.01 | -1.5678 | 6.1914 | 0.0063 | -0.1781 | -0.0027 | 0.7881 | 0.2412 | 0.5469 | -3.9427 |
| 8 | -2.19 | 0.02 | -1.2493 | 5.3632 | 0.1310 | -0.3511 | -0.0126 | 0.7570 | 0.2323 | 0.5247 | -4.2928 |
| 9 | -0.36 | 0.02 | -0.8976 | 4.3643 | 0.1521 | -0.3715 | -0.0122 | 0.7339 | 0.2330 | 0.5039 | -4.8624 |
| 10 | 1.47 | 0.02 | -0.5600 | 3.3355 | 0.0574 | -0.2552 | -0.0121 | 0.6976 | 0.2316 | 0.4659 | -5.9564 |
| 11 | 3.42 | 0.02 | -0.1901 | 2.3117 | 0.1307 | -0.3431 | -0.0114 | 0.6799 | 0.2394 | 0.4404 | -12.1605 |
| 12 | 5.21 | 0.01 | 0.1664 | 1.2854 | 0.0918 | -0.2421 | -0.0112 | 0.6543 | 0.2530 | 0.4013 | 7.7257 |
| 13 | 7.14 | 0.01 | 0.5078 | 0.3989 | 0.0353 | -0.2362 | -0.0055 | 0.6214 | 0.2688 | 0.3526 | 0.7659 |
| 14 | 9.00 | 0.02 | 0.9387 | -0.6930 | 0.1766 | -0.3232 | 0.0008 | 0.6101 | 0.2899 | 0.3203 | -0.7383 |
| 15 | 10.94 | 0.02 | 1.1374 | -1.7528 | 0.1252 | -0.2581 | 0.0117 | 0.5730 | 0.3054 | 0.2676 | -1.3106 |
| 16 | 12.86 | 0.02 | 1.8218 | -2.9047 | 0.1242 | -0.2864 | 0.0123 | 0.5307 | 0.3144 | 0.2163 | -1.5944 |
| 17 | 14.83 | 0.01 | 2.2279 | -3.8450 | -0.0135 | 0.0097 | 0.0124 | 0.4863 | 0.3154 | 0.1709 | -1.7259 |
| 18 | 16.87 | 0.01 | 2.6864 | -4.6717 | -0.0767 | 0.0668 | 0.0238 | 0.4406 | 0.3203 | 0.1204 | -1.7390 |
| 19 | 18.58 | 0.00 | 3.2103 | -5.4956 | -0.0955 | 0.1409 | 0.0195 | 0.4110 | 0.3333 | 0.0777 | -1.7119 |
| 20 | 20.89 | 0.02 | 3.6324 | -5.8421 | 0.0874 | -0.0114 | 0.0053 | 0.3683 | 0.3372 | 0.0311 | -1.6083 |
| 21 | 22.92 | 0.02 | 4.3701 | -6.1983 | 0.0540 | -0.0160 | -0.0342 | 0.3217 | 0.3331 | -0.0114 | -1.4184 |
| 22 | 24.92 | 0.02 | 4.9358 | -6.3514 | -0.0107 | 0.2634 | -0.0539 | 0.2957 | 0.3325 | -0.0368 | -1.2868 |
| 23 | 27.01 | 0.06 | 5.7766 | -6.4955 | 0.5345 | -1.2175 | 0.0688 | 0.2654 | 0.3465 | -0.0810 | -1.1245 |
| 24 | 30.20 | 0.66 | 5.9535 | -6.4376 | 0.5767 | -1.2569 | 0.0751 | 0.2130 | 0.3554 | -0.1424 | -1.0804 |
| 25 | 28.36 | 0.03 | 6.1350 | -6.5140 | 0.1960 | -0.3801 | 0.0268 | 0.2519 | 0.3507 | -0.0988 | -1.0618 |
| 26 | 28.75 | 0.02 | 6.3048 | -6.6321 | 0.1164 | -0.3891 | 0.0537 | 0.2487 | 0.3582 | -0.1095 | -1.0519 |
| 27 | 29.06 | 0.04 | 6.3277 | -6.7619 | 0.2947 | -0.4266 | 0.0380 | 0.2552 | 0.3562 | -0.1010 | -1.0656 |
| 28 | 29.35 | 0.04 | 6.4903 | -6.7306 | 0.3182 | -0.5592 | 0.0547 | 0.2500 | 0.3631 | -0.1131 | -1.0370 |
| 29 | 29.66 | 0.06 | 6.5768 | -6.7570 | 0.4721 | -0.9154 | 0.0871 | 0.2541 | 0.3661 | -0.1120 | -1.0274 |
| 30 | 29.95 | 0.05 | 6.6652 | -6.8749 | 0.4157 | -0.9170 | 0.0767 | 0.2500 | 0.3666 | -0.1166 | -1.0315 |
| 31 | 30.24 | 0.06 | 6.8005 | -6.8785 | 0.5547 | -1.3424 | 0.1200 | 0.2537 | 0.3747 | -0.1210 | -1.0115 |
| 32 | 30.52 | 0.07 | 6.9878 | -6.8142 | 0.5814 | -1.2750 | 0.1099 | 0.2623 | 0.3777 | -0.1154 | -0.9893 |
| 33 | 30.78 | 0.09 | 7.0104 | -6.9094 | 0.6877 | -1.5125 | 0.1421 | 0.2556 | 0.3780 | -0.1224 | -0.9856 |
| 34 | 31.08 | 0.06 | 7.2006 | -7.0540 | 0.4459 | -0.9568 | 0.1209 | 0.2470 | 0.3807 | -0.1337 | -0.9796 |
| 35 | 31.34 | 0.05 | 7.2790 | -7.1254 | 0.3819 | -0.9032 | 0.1157 | 0.2369 | 0.3819 | -0.1449 | -0.9789 |
| 36 | 31.62 | 0.08 | 7.3222 | -7.1204 | 0.6013 | -1.2929 | 0.1323 | 0.2474 | 0.3848 | -0.1374 | -0.9724 |
| 37 | 31.90 | 0.07 | 7.4269 | -6.9989 | 0.3976 | -0.5301 | 0.0426 | 0.2463 | 0.3851 | -0.1388 | -0.9424 |
| 38 | 32.16 | 0.07 | 7.5105 | -7.1697 | 0.5458 | -0.9638 | 0.0801 | 0.2276 | 0.3811 | -0.1535 | -0.9546 |
| 39 | 32.44 | 0.06 | 7.6979 | -7.2735 | 0.3989 | -0.8066 | 0.0647 | 0.2311 | 0.3839 | -0.1528 | -0.9449 |
| 40 | 32.70 | 0.05 | 7.8075 | -7.2272 | 0.2505 | -0.5206 | 0.0648 | 0.2325 | 0.3859 | -0.1534 | -0.9257 |
| 41 | 32.97 | 0.04 | 7.9096 | -7.2104 | 0.1260 | -0.0439 | 0.0329 | 0.2278 | 0.3872 | -0.1594 | -0.9116 |
| 42 | 33.23 | 0.05 | 8.0045 | -7.2832 | 0.2543 | -0.3027 | 0.0339 | 0.2324 | 0.3912 | -0.1598 | -0.9099 |
| 43 | 33.49 | 0.04 | 8.1383 | -7.3871 | 0.1612 | -0.1934 | 0.0655 | 0.2319 | 0.3916 | -0.1597 | -0.9077 |
| 44 | 33.73 | 0.06 | 8.1917 | -7.4426 | 0.3688 | -0.5765 | 0.0923 | 0.2323 | 0.3916 | -0.1593 | -0.9086 |
| 45 | 33.98 | 0.05 | 8.3578 | -7.4703 | 0.2823 | -0.5339 | 0.1452 | 0.2309 | 0.3917 | -0.1608 | -0.8938 |
| 46 | 34.23 | 0.05 | 8.3538 | -7.4245 | 0.2204 | -0.1443 | 0.1080 | 0.2281 | 0.3902 | -0.1621 | -0.8887 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | 81 OF 13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.04 | 8.5435 | -7.6589 | 0.1486 | -0.2069 | 0.1348 | 0.2236 | 0.3953 | -0.1717 | -0.9000 |
| 48 | 34.73 | 0.07 | 8.5985 | -7.6271 | 0.4456 | -0.4669 | 0.1251 | 0.2152 | 0.3940 | -0.1788 | -0.8870 |
| 49 | 34.99 | 0.04 | 8.7886 | -7.7720 | 0.1649 | -0.1479 | 0.1043 | 0.2222 | 0.3947 | -0.1725 | -0.8843 |
| 50 | 35.25 | 0.07 | 8.8765 | -7.7366 | 0.4509 | -0.3975 | 0.1051 | 0.2147 | 0.3993 | -0.1846 | -0.8716 |
| 51 | 35.47 | 0.03 | 8.9375 | -7.8081 | 0.1680 | -0.0852 | 0.1046 | 0.2087 | 0.4017 | -0.1930 | -0.8736 |
| 52 | 35.71 | 0.06 | 9.0221 | -7.8738 | 0.3036 | -0.0254 | 0.0938 | 0.2044 | 0.4031 | -0.1987 | -0.8727 |
| 53 | 35.96 | 0.06 | 9.1264 | -7.9793 | 0.3608 | -0.2100 | 0.1001 | 0.2066 | 0.4013 | -0.1947 | -0.8743 |
| 54 | 36.29 | 0.05 | 9.2099 | -7.9695 | 0.2574 | -0.0564 | 0.0842 | 0.2094 | 0.3999 | -0.1905 | -0.8662 |
| 55 | 36.42 | 0.05 | 9.3097 | -8.0029 | 0.2288 | 0.0350 | 0.1053 | 0.1978 | 0.3962 | -0.1984 | -0.8596 |
| 56 | 36.69 | 0.07 | 9.4874 | -7.9872 | 0.4060 | -0.1789 | 0.1430 | 0.1906 | 0.3988 | -0.2082 | -0.8419 |
| 57 | 36.92 | 0.05 | 9.5638 | -8.1586 | 0.2298 | 0.0726 | 0.0850 | 0.1911 | 0.3966 | -0.2055 | -0.8531 |
| 58 | 37.14 | 0.03 | 9.6047 | -8.0561 | 0.1095 | 0.0847 | 0.0386 | 0.1896 | 0.3949 | -0.2053 | -0.8388 |
| 59 | 37.38 | 0.05 | 9.5955 | -8.0918 | 0.2995 | -0.0970 | 0.1276 | 0.2030 | 0.4013 | -0.1983 | -0.8433 |
| 60 | 37.62 | 0.03 | 9.8177 | -8.2485 | 0.0401 | 0.2693 | 0.0856 | 0.1960 | 0.3996 | -0.2036 | -0.8402 |
| 61 | 37.83 | 0.03 | 9.8284 | -8.2314 | 0.0325 | 0.3129 | 0.1117 | 0.2063 | 0.4013 | -0.1930 | -0.8375 |
| 62 | 38.10 | 0.03 | 9.9126 | -8.2295 | 0.0751 | 0.2831 | 0.0911 | 0.1814 | 0.3925 | -0.2111 | -0.8302 |
| 63 | 38.34 | 0.04 | 10.0962 | -8.2540 | 0.1428 | 0.3143 | 0.0603 | 0.1804 | 0.3877 | -0.2073 | -0.8175 |
| 64 | 38.55 | 0.04 | 10.0349 | -7.9976 | 0.1100 | 0.3267 | 0.0656 | 0.1746 | 0.3848 | -0.2102 | -0.7970 |
| 65 | 38.80 | 0.04 | 10.1692 | -8.1780 | 0.0836 | 0.4839 | 0.0446 | 0.1837 | 0.3884 | -0.2047 | -0.8042 |
| 66 | 39.03 | 0.03 | 10.2526 | -8.2280 | 0.0673 | 0.3581 | 0.0453 | 0.1776 | 0.3945 | -0.2169 | -0.8025 |
| 67 | 39.24 | 0.02 | 10.3661 | -8.3523 | -0.0277 | 0.4387 | 0.0194 | 0.1584 | 0.3912 | -0.2328 | -0.8057 |
| 68 | 39.48 | 0.01 | 10.4314 | -8.3252 | -0.0082 | 0.4109 | 0.0407 | 0.1733 | 0.3956 | -0.2223 | -0.7981 |
| 69 | 39.70 | 0.02 | 10.4390 | -8.3965 | 0.0080 | 0.7217 | 0.0394 | 0.1893 | 0.3935 | -0.2042 | -0.8043 |
| 70 | 39.90 | 0.00 | 10.6551 | -8.3788 | -0.1305 | 0.5921 | 0.0046 | 0.1603 | 0.4002 | -0.2399 | -0.7864 |
| 71 | 40.13 | 0.01 | 10.7103 | -8.3579 | -0.0533 | 0.8191 | 0.0090 | 0.1763 | 0.3959 | -0.2196 | -0.7804 |
| 72 | 40.35 | -0.01 | 10.6849 | -8.3089 | -0.1657 | 0.7937 | -0.0011 | 0.1837 | 0.4037 | -0.2200 | -0.7776 |
| 73 | 40.56 | 0.01 | 10.8996 | -8.3958 | -0.0216 | 0.5475 | -0.0310 | 0.1471 | 0.4053 | -0.2582 | -0.7703 |
| 74 | 40.76 | 0.01 | 10.7532 | -8.1674 | -0.0636 | 0.8399 | -0.0323 | 0.2008 | 0.3979 | -0.1971 | -0.7595 |
| 75 | 40.99 | -0.00 | 10.9457 | -8.2763 | -0.1612 | 0.8661 | -0.0576 | 0.1868 | 0.4120 | -0.2252 | -0.7561 |
| 76 | 41.21 | 0.01 | 11.0498 | -8.3817 | 0.0101 | 0.5368 | -0.0408 | 0.1648 | 0.4077 | -0.2429 | -0.7585 |
| 77 | 41.42 | 0.01 | 11.1947 | -8.3414 | -0.0114 | 0.7638 | -0.0671 | 0.1815 | 0.4214 | -0.2399 | -0.7451 |
| 78 | 41.60 | -0.01 | 11.0807 | -7.9732 | -0.2932 | 1.3083 | -0.0688 | 0.1912 | 0.4278 | -0.2366 | -0.7196 |
| 79 | 41.81 | -0.01 | 11.1734 | -8.1948 | -0.1416 | 0.5562 | -0.0245 | 0.1353 | 0.4012 | -0.2659 | -0.7334 |
| 80 | 42.00 | -0.00 | 11.2994 | -8.3416 | -0.0793 | 0.3037 | -0.0075 | 0.1259 | 0.3979 | -0.2720 | -0.7382 |
| 81 | 42.20 | -0.01 | 11.3262 | -8.0697 | -0.1187 | 0.8191 | -0.0614 | 0.1505 | 0.4033 | -0.2528 | -0.7125 |
| 82 | 42.40 | -0.01 | 11.3894 | -7.8882 | -0.1845 | 1.0508 | -0.0879 | 0.1797 | 0.3901 | -0.2104 | -0.6926 |
| 83 | 42.58 | -0.03 | 11.5372 | -8.1532 | -0.3070 | 1.0445 | -0.0822 | 0.1640 | 0.4019 | -0.2379 | -0.7067 |
| 84 | 42.78 | 0.00 | 11.5273 | -8.0694 | -0.0957 | 0.8634 | -0.0758 | 0.1499 | 0.3934 | -0.2435 | -0.7000 |
| 85 | 42.97 | -0.02 | 11.7191 | -8.4218 | -0.1617 | 0.4359 | -0.0055 | 0.1253 | 0.3968 | -0.2715 | -0.7186 |
| 86 | 43.14 | -0.01 | 11.7984 | -8.2154 | -0.2058 | 1.0885 | -0.0807 | 0.1581 | 0.4031 | -0.2450 | -0.6963 |
| 87 | 43.31 | -0.00 | 11.5432 | -8.3635 | -0.1616 | 0.8684 | -0.0590 | 0.1422 | 0.3978 | -0.2556 | -0.7062 |
| 88 | 43.50 | -0.02 | 11.8741 | -8.3668 | -0.2193 | 1.0360 | -0.0960 | 0.1698 | 0.4120 | -0.2422 | -0.7029 |
| 89 | 43.70 | -0.00 | 11.9537 | -8.3584 | -0.0778 | 0.7615 | -0.0687 | 0.1309 | 0.3880 | -0.2571 | -0.6992 |
| 90 | 43.87 | -0.01 | 12.0072 | -8.5383 | -0.0888 | 0.3305 | -0.0251 | 0.1235 | 0.3755 | -0.2520 | -0.7111 |
| 91 | 44.04 | -0.01 | 12.0784 | -8.2874 | -0.1489 | 0.6691 | -0.0624 | 0.1157 | 0.3707 | -0.2550 | -0.6961 |
| 92 | 44.22 | 0.01 | 12.0514 | -8.2904 | 0.0801 | 0.1629 | -0.0243 | 0.1316 | 0.3758 | -0.2442 | -0.6879 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CA8 | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.40 | -0.01 | 12.1877 | -8.2553 | -0.1392 | 0.6626 | -0.0568 | 0.1147 | 0.3754 | -0.2607 | -0.6773 |
| 94 | 44.59 | -0.02 | 12.2852 | -8.2918 | -0.2582 | 0.9222 | -0.0677 | 0.1039 | 0.3690 | -0.2651 | -0.6749 |
| 95 | 44.78 | -0.02 | 12.2922 | -8.3218 | -0.1972 | 0.6017 | -0.0299 | 0.1000 | 0.3764 | -0.2764 | -0.6770 |
| 96 | 44.95 | -0.01 | 12.3229 | -8.2913 | -0.0763 | 0.1321 | -0.0229 | 0.1030 | 0.3695 | -0.2665 | -0.6728 |
| 97 | 45.14 | -0.01 | 12.3559 | -8.2785 | -0.1313 | 0.5615 | -0.0453 | 0.1093 | 0.3641 | -0.2548 | -0.6700 |
| 98 | 45.31 | -0.03 | 12.4418 | -8.3051 | -0.3340 | 1.1823 | -0.0995 | 0.1212 | 0.3733 | -0.2521 | -0.6675 |
| 99 | 45.52 | -0.01 | 12.6446 | -8.1441 | -0.1671 | 0.7443 | -0.0814 | 0.0977 | 0.3669 | -0.2692 | -0.6441 |
| 100 | 45.69 | -0.02 | 12.6654 | -8.1202 | -0.2745 | 1.2591 | -0.1095 | 0.1110 | 0.3722 | -0.2612 | -0.6411 |
| 101 | 45.85 | 0.00 | 12.5790 | -8.0938 | 0.1458 | -0.5756 | 0.0580 | 0.0926 | 0.3593 | -0.2663 | -0.6434 |
| 102 | 46.04 | -0.02 | 12.6263 | -7.9202 | -0.1736 | 0.6285 | -0.0495 | 0.0973 | 0.3681 | -0.2708 | -0.6273 |
| 103 | 46.20 | -0.01 | 12.6526 | -7.8240 | -0.0765 | 0.3682 | -0.0223 | 0.0832 | 0.3650 | -0.2847 | -0.6184 |
| 104 | 46.39 | -0.02 | 12.7881 | -7.7724 | -0.2941 | 1.1202 | -0.0980 | 0.0898 | 0.3707 | -0.2808 | -0.6078 |
| 105 | 46.56 | -0.02 | 12.8050 | -7.7958 | -0.3269 | 1.3307 | -0.1407 | 0.1204 | 0.3864 | -0.2660 | -0.6088 |
| 106 | 46.71 | -0.01 | 12.7889 | -7.5157 | -0.1787 | 0.7479 | -0.0701 | 0.0977 | 0.3755 | -0.2778 | -0.5877 |
| 107 | 46.91 | -0.03 | 12.9404 | -7.5801 | -0.3468 | 1.1610 | -0.1182 | 0.1243 | 0.3915 | -0.2672 | -0.5858 |
| 108 | 47.08 | -0.02 | 12.9692 | -7.8062 | -0.1684 | 0.7290 | -0.0901 | 0.1083 | 0.3868 | -0.2785 | -0.6019 |
| 109 | 47.25 | -0.01 | 12.9621 | -7.3191 | -0.1269 | 0.8872 | -0.0854 | 0.1356 | 0.3859 | -0.2503 | -0.5648 |
| 110 | 47.42 | -0.03 | 13.0545 | -7.6064 | -0.2954 | 0.9458 | -0.0534 | 0.1322 | 0.3846 | -0.2524 | -0.5827 |
| 111 | 47.61 | -0.02 | 13.0951 | -7.3330 | -0.1960 | [illegible] | -0.0322 | 0.1421 | 0.3732 | -0.2311 | -0.5600 |
| 112 | 47.78 | -0.02 | 13.1136 | -7.3591 | -0.2340 | 0.9463 | -0.0325 | 0.1423 | 0.3980 | -0.2557 | -0.5612 |
| 113 | 47.95 | -0.02 | 13.2853 | -7.6242 | -0.1735 | 0.8713 | -0.0002 | 0.1545 | 0.4053 | -0.2508 | -0.5739 |
| 114 | 48.12 | -0.01 | 13.2921 | -7.5292 | -0.1044 | 0.9177 | 0.0363 | 0.1558 | 0.3979 | -0.2421 | -0.5664 |
| 115 | 48.29 | -0.01 | 13.2701 | -7.1554 | -0.1861 | 1.0695 | 0.0518 | 0.1393 | 0.3944 | -0.2551 | -0.5392 |
| 116 | 48.47 | -0.00 | 13.3025 | -7.0031 | -0.1257 | 1.1527 | 0.0673 | 0.1312 | 0.4077 | -0.2695 | -0.5264 |
| 117 | 48.64 | -0.03 | 13.2142 | -6.7128 | -0.1470 | 1.1742 | 0.0557 | 0.1402 | 0.4018 | -0.2616 | -0.5080 |
| 118 | 48.80 | -0.02 | 13.4256 | -7.2710 | -0.1118 | 0.9904 | 0.0630 | 0.1469 | 0.4063 | -0.2594 | -0.5416 |
| 119 | 48.96 | 0.00 | 13.3048 | -6.6541 | 0.0317 | 0.9785 | 0.0576 | 0.1356 | 0.3994 | -0.2638 | -0.5001 |
| 120 | 49.15 | -0.01 | 13.4480 | -7.0315 | -0.1301 | 1.0639 | 0.0682 | 0.1237 | 0.4022 | -0.2795 | -0.5229 |
| 121 | 49.31 | 0.01 | 13.4758 | -7.0294 | 0.0516 | 1.1563 | 0.0571 | 0.1357 | 0.4126 | -0.2769 | -0.5216 |
| 122 | 49.49 | 0.01 | 13.4503 | -6.6766 | 0.0985 | 1.1880 | 0.0414 | 0.1231 | 0.4157 | -0.2927 | -0.4964 |
| 123 | 49.65 | 0.01 | 13.5403 | -7.1520 | 0.0136 | 1.0511 | 0.0526 | 0.1417 | 0.4174 | -0.2757 | -0.5282 |
| 124 | 49.87 | 0.02 | 13.7258 | -7.0659 | 0.0921 | 1.0626 | 0.0373 | 0.1193 | 0.4205 | -0.3013 | -0.5148 |
| 125 | 50.02 | 0.01 | 13.6393 | -6.9708 | 0.0861 | 1.3852 | 0.0411 | 0.1276 | 0.4249 | -0.2974 | -0.5111 |
| 126 | 50.18 | -0.01 | 13.7109 | -7.1297 | -0.0953 | 1.3128 | 0.0471 | 0.1190 | 0.4193 | -0.3004 | -0.5200 |
| 127 | 50.38 | 0.03 | 13.9732 | -7.1042 | 0.2237 | 1.0233 | 0.0329 | 0.1071 | 0.4327 | -0.3257 | -0.5084 |
| 128 | 50.56 | 0.03 | 14.0573 | -7.4435 | 0.1707 | 1.3047 | 0.0267 | 0.1228 | 0.4380 | -0.3153 | -0.5295 |
| 129 | 50.72 | 0.03 | 13.9981 | -7.1733 | 0.1950 | 1.1300 | 0.0222 | 0.1155 | 0.4311 | -0.3157 | -0.5125 |
| 130 | 50.90 | 0.03 | 13.9987 | -6.7955 | 0.2498 | 1.1152 | 0.0224 | 0.0829 | 0.4183 | -0.3354 | -0.4854 |
| 131 | 51.06 | 0.03 | 14.0595 | -6.9335 | 0.1580 | 1.0508 | 0.0178 | 0.0862 | 0.4135 | -0.3273 | -0.4932 |
| 132 | 51.25 | 0.03 | 14.0089 | -6.8182 | 0.1847 | 1.1550 | 0.0329 | 0.0915 | 0.4220 | -0.3305 | -0.4867 |
| 133 | 51.40 | 0.01 | 14.0535 | -7.0138 | 0.0577 | 1.2562 | 0.0328 | 0.0817 | 0.4271 | -0.3454 | -0.4980 |
| 134 | 51.56 | 0.04 | 14.0662 | -6.7340 | 0.2746 | 1.1839 | 0.0224 | 0.0688 | 0.4167 | -0.3479 | -0.4787 |
| 135 | 51.77 | 0.02 | 14.4282 | -7.3781 | 0.1635 | 1.1581 | 0.0235 | 0.0770 | 0.4322 | -0.3552 | -0.5114 |
| 136 | 51.94 | 0.05 | 14.4360 | -7.0674 | 0.3672 | 1.0420 | 0.0239 | 0.0709 | 0.4269 | -0.3560 | -0.4896 |
| 137 | 52.09 | 0.04 | 14.3519 | -6.9211 | 0.2742 | 1.1676 | 0.0286 | 0.0597 | 0.4238 | -0.3641 | -0.4822 |
| 138 | 52.28 | 0.04 | 14.4667 | -7.1859 | 0.2786 | 1.0230 | 0.0294 | 0.0611 | 0.4255 | -0.3644 | -0.4967 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | BIWOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.44 | 0.03 | 14.4987 | -7.1847 | 0.1871 | 1.1930 | 0.0342 | 0.0460 | 0.4259 | -0.3799 | -0.4955 |
| 140 | 52.62 | 0.02 | 14.4585 | -7.2111 | 0.2150 | 1.0743 | 0.0292 | 0.0515 | 0.4109 | -0.3794 | -0.4987 |
| 141 | 52.77 | 0.01 | 14.5252 | -7.1713 | 0.0681 | 1.0258 | 0.0247 | 0.0317 | 0.4209 | -0.3892 | -0.4937 |
| 142 | 52.93 | 0.03 | 14.4614 | -6.9155 | 0.2691 | 1.0436 | 0.0242 | 0.0333 | 0.4242 | -0.3909 | -0.4782 |
| 143 | 53.12 | 0.02 | 14.5952 | -7.1467 | 0.1567 | 1.0264 | 0.0249 | 0.0404 | 0.4217 | -0.3813 | -0.4898 |
| 144 | 53.28 | 0.02 | 14.6247 | -7.[illegible]1 | 0.1058 | 1.1016 | 0.0352 | 0.0344 | 0.4167 | -0.3823 | -0.4918 |
| 145 | 53.44 | 0.00 | 14.6317 | -7.1468 | 0.0599 | 1.0710 | 0.0302 | 0.0339 | 0.4193 | -0.3854 | -0.4919 |
| 146 | 53.60 | 0.02 | 14.5948 | -7.2054 | 0.2231 | 1.0112 | 0.0300 | 0.0233 | 0.4156 | -0.3923 | -0.4937 |
| 147 | 53.79 | 0.02 | 14.7324 | -7.3108 | 0.1332 | 0.9833 | 0.0359 | 0.0241 | 0.4200 | -0.3959 | -0.4962 |
| 148 | 53.94 | 0.02 | 14.6806 | -7.1894 | 0.1761 | 0.9534 | 0.0306 | 0.0182 | 0.4193 | -0.4008 | -0.4897 |
| 149 | 54.07 | 0.03 | 14.5674 | -6.9325 | 0.3221 | 0.9457 | 0.0160 | 0.0085 | 0.3891 | -0.3806 | -0.4759 |
| 150 | 54.22 | 0.00 | 14.5212 | -6.8502 | 0.1179 | 0.4483 | 0.0010 | -0.0008 | 0.3942 | -0.3948 | -0.4717 |
| 151 | 54.39 | 0.01 | 14.6549 | -7.0434 | 0.1558 | 0.5436 | 0.0061 | 0.0064 | 0.3932 | -0.3868 | -0.4806 |
| 152 | 54.55 | 0.01 | 14.6243 | -6.9415 | 0.2049 | 0.4132 | 0.0065 | -0.0101 | 0.3939 | -0.4040 | -0.4747 |
| 153 | 54.69 | -0.00 | 14.5641 | -6.9167 | 0.0960 | 0.3339 | 0.0016 | -0.0183 | 0.3871 | -0.4054 | -0.4749 |
| 154 | 54.85 | 0.00 | 14.6506 | -6.9581 | 0.1237 | 0.3396 | 0.0070 | -0.0255 | 0.3861 | -0.4116 | -0.4749 |
| 155 | 55.00 | -0.00 | 14.5899 | -6.9597 | 0.1034 | 0.3776 | 0.0015 | -0.0196 | 0.3851 | -0.4047 | -0.4770 |
| 156 | 55.15 | 0.00 | 14.6041 | -6.8903 | 0.1367 | 0.3747 | 0.0057 | -0.0294 | 0.3871 | -0.4165 | -0.4718 |
| 157 | 55.32 | -0.01 | 14.7790 | -7.3010 | 0.0570 | 0.3370 | 0.0073 | -0.0262 | 0.4023 | -0.4285 | -0.4940 |
| 158 | 55.47 | -0.02 | 14.8246 | -7.2449 | -0.0026 | 0.2526 | 0.0027 | -0.0435 | 0.3915 | -0.4350 | -0.4887 |
| 159 | 55.63 | -0.01 | 14.8124 | -7.3191 | 0.0761 | 0.2726 | 0.0076 | -0.0379 | 0.3941 | -0.4320 | -0.4941 |
| 160 | 55.78 | -0.01 | 14.8196 | -7.3223 | 0.0698 | 0.1472 | 0.0029 | -0.0342 | 0.3978 | -0.4320 | -0.4941 |
| 161 | 55.96 | -0.02 | 14.8415 | -7.4384 | -0.0430 | 0.1218 | 0.0032 | -0.0657 | 0.3923 | -0.4580 | -0.5012 |
| 162 | 56.11 | -0.01 | 14.7376 | -7.2783 | 0.0900 | 0.3256 | 0.0070 | -0.0682 | 0.3842 | -0.4524 | -0.4939 |
| 163 | 56.30 | 0.01 | 14.9423 | -7.5639 | 0.2653 | 0.2737 | 0.0071 | -0.0443 | 0.4067 | -0.4510 | -0.5096 |
| 164 | 56.44 | -0.05 | 14.7790 | -7.3807 | -0.1446 | 0.0776 | -0.0074 | -0.0621 | 0.4111 | -0.4732 | -0.4994 |
| 165 | 56.62 | -0.05 | 15.0910 | -7.8374 | -0.1308 | 0.1191 | 0.0091 | -0.0628 | 0.4138 | -0.4766 | -0.5193 |
| 166 | 56.79 | -0.05 | 15.2956 | -8.0226 | -0.0481 | -0.1520 | 0.0206 | -0.0648 | 0.4275 | -0.4924 | -0.5245 |
| 167 | 56.96 | -0.08 | 15.2650 | -7.9726 | -0.2821 | -0.4562 | 0.0100 | -0.0718 | 0.4320 | -0.5039 | -0.5223 |
| 168 | 57.11 | -0.09 | 15.4163 | -8.2556 | -0.4275 | -0.2835 | 0.0205 | -0.0761 | 0.4299 | -0.5061 | -0.5355 |
| 169 | 57.25 | -0.09 | 15.2547 | -8.0649 | -0.4082 | -0.3202 | 0.0307 | -0.0646 | 0.4348 | -0.4995 | -0.5287 |
| 170 | 57.40 | -0.05 | 15.1904 | -7.8848 | -0.1693 | 0.2382 | 0.0511 | -0.1001 | 0.4138 | -0.5139 | -0.5191 |
| 171 | 57.51 | -0.07 | 14.9165 | -7.4512 | -0.3269 | 0.2098 | 0.0554 | -0.1068 | 0.3943 | -0.5011 | -0.5029 |
| 172 | 57.69 | -0.09 | 15.2287 | -7.9687 | -0.3552 | -0.0394 | 0.0251 | -0.1006 | 0.4186 | -0.5192 | -0.5233 |
| 173 | 57.82 | -0.05 | 15.1847 | -8.0217 | -0.0545 | -0.0819 | 0.0200 | -0.1150 | 0.4213 | -0.5363 | -0.5283 |
| 174 | 57.98 | -0.01 | 15.2332 | -8.1100 | 0.1732 | -0.2695 | 0.0099 | -0.1109 | 0.4272 | -0.5381 | -0.5324 |
| 175 | 58.13 | -0.05 | 15.3084 | -8.3343 | -0.0667 | 0.3025 | 0.0349 | -0.1376 | 0.4225 | -0.5601 | -0.5444 |
| 176 | 58.27 | -0.03 | 15.2498 | -8.3974 | 0.1746 | -0.0041 | 0.0195 | -0.1495 | 0.4052 | -0.5547 | -0.5507 |
| 177 | 58.40 | -0.04 | 15.0704 | -8.0875 | -0.0064 | -0.1909 | -0.0014 | -0.1156 | 0.4305 | -0.5461 | -0.5366 |
| 178 | 58.53 | -0.06 | 15.2684 | -8.3918 | -0.0863 | -0.2179 | -0.0063 | -0.1305 | 0.4363 | -0.5668 | -0.5496 |
| 179 | 58.54 | 0.03 | 15.2445 | -8.3432 | 0.5945 | 0.3527 | 0.0331 | -0.1287 | 0.4350 | -0.5637 | -0.5473 |
| 180 | 58.54 | -0.05 | 15.2108 | -8.2421 | 0.0212 | -0.2823 | 0.0096 | -0.1160 | 0.4343 | -0.5503 | -0.5419 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 171 1.10 1.7 0.0 81WOF13 0.0 0 -10 0 -10 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.71 | 0.03 | 0.0229 | 0.0044 | 0.0400 | 0.1922 | 1.7436 | -0.9351 | -0.0287 | -0.4402 | 0.0307 | 0.4708 |
| 2 | -5.71 | 0.01 | 0.0247 | 0.0047 | 0.0410 | 0.1904 | 1.6571 | -0.9328 | -0.0283 | -0.4400 | 0.0304 | 0.4717 |
| 3 | -5.71 | .0.02 | 0.0133 | 0.0037 | 0.0370 | 0.2783 | 2.7758 | -0.9548 | -0.0272 | -0.4506 | 0.0285 | 0.4720 |
| 4 | -5.69 | 0.02 | 0.0099 | 0.0038 | 0.0332 | 0.3840 | 3.3541 | -0.9362 | -0.0287 | -0.4414 | 0.0307 | 0.4718 |
| 5 | -5.71 | 0.02 | 0.0172 | 0.0042 | 0.0378 | 0.2443 | 2.1930 | -0.9362 | -0.0279 | -0.4414 | 0.0298 | 0.4715 |
| 6 | -5.74 | 0.02 | 0.0155 | 0.0044 | 0.0356 | 0.2840 | 2.2977 | -0.9000 | -0.0297 | -0.4259 | 0.0330 | 0.4733 |
| 7 | -3.94 | 0.01 | -0.0032 | 0.0026 | 0.0276 | -0.8129 | -8.6212 | -0.7929 | -0.0315 | -0.3795 | 0.0398 | 0.4786 |
| 8 | -2.19 | 0.02 | 0.0184 | 0.0060 | 0.0359 | 0.3263 | 1.9519 | -0.6514 | -0.0284 | -0.3197 | 0.0437 | 0.4908 |
| 9 | -0.36 | 0.02 | 0.0233 | 0.0055 | 0.0369 | 0.2362 | 1.5801 | -0.5045 | -0.0253 | -0.2507 | 0.0562 | 0.4970 |
| 10 | 1.47 | 0.02 | 0.0236 | 0.0056 | 0.0354 | 0.2374 | 1.5005 | -0.3445 | -0.0243 | -0.1754 | 0.0706 | 0.5092 |
| 11 | 3.42 | 0.02 | 0.0140 | 0.0039 | 0.0329 | 0.2797 | 2.3504 | -0.1932 | -0.0145 | -0.1062 | 0.0752 | 0.5499 |
| 12 | 5.21 | 0.01 | 0.0001 | 0.0026 | 0.0321 | 26.0138 | 321.0237 | -0.0502 | -0.0027 | -0.0492 | 0.0538 | 0.9792 |
| 13 | 7.14 | 0.01 | -0.0003 | 0.0021 | 0.0340 | -7.0037 | -113.3616 | 0.0801 | 0.0111 | 0.0065 | 0.1388 | 0.0815 |
| 14 | 9.00 | 0.02 | 0.0094 | 0.0021 | 0.0364 | 0.2235 | 3.8741 | 0.2219 | 0.0279 | 0.0712 | 0.1259 | 0.3205 |
| 15 | 10.94 | 0.02 | 0.0281 | 0.0012 | 0.0452 | 0.0427 | 1.6065 | 0.3618 | 0.0405 | 0.1312 | 0.1121 | 0.3635 |
| 16 | 12.86 | 0.02 | 0.0232 | 0.0018 | 0.0440 | 0.0776 | 1.8940 | 0.4999 | 0.0463 | 0.2008 | 0.0976 | 0.4018 |
| 17 | 14.83 | 0.01 | 0.0045 | 0.0019 | 0.0356 | 0.4224 | 7.9141 | 0.6560 | 0.0467 | 0.2727 | 0.0711 | 0.4157 |
| 18 | 16.87 | 0.01 | 0.0100 | 0.0018 | 0.0444 | 0.1801 | 4.4341 | 0.7641 | 0.0476 | 0.3240 | 0.0623 | 0.4241 |
| 19 | 18.98 | 0.00 | 0.0027 | -0.0029 | 0.0473 | -1.0746 | 17.5002 | 0.8749 | 0.0460 | 0.3737 | 0.0525 | 0.4272 |
| 20 | 20.89 | 0.02 | -0.0269 | -0.0032 | 0.0271 | 0.1190 | -1.0069 | 0.9667 | 0.0440 | 0.4125 | 0.0455 | 0.4287 |
| 21 | 22.92 | 0.02 | -0.0313 | 0.0042 | 0.0098 | -0.1343 | -0.3141 | 1.0632 | 0.0339 | 0.4541 | 0.0319 | 0.4271 |
| 22 | 24.92 | 0.02 | -0.0843 | -0.0064 | -0.0106 | 0.0760 | 0.1263 | 1.1221 | 0.0306 | 0.4782 | 0.0273 | 0.4281 |
| 23 | 27.01 | 0.06 | 0.1288 | 0.0171 | 0.0771 | 0.1329 | 0.5986 | 1.2199 | 0.0199 | 0.5150 | 0.0163 | 0.4222 |
| 24 | 30.20 | 0.66 | 0.1822 | 0.0165 | 0.0497 | 0.0907 | 0.5473 | 1.2320 | 0.0177 | 0.5200 | 0.0144 | 0.4221 |
| 25 | 28.36 | 0.03 | 0.1355 | 0.0095 | 0.0871 | 0.0702 | 0.6424 | 1.2364 | 0.0189 | 0.5208 | 0.0153 | 0.4212 |
| 26 | 28.75 | 0.02 | 0.1181 | 0.0064 | 0.0890 | 0.0543 | 0.7532 | 1.2409 | 0.0184 | 0.5222 | 0.0148 | 0.4208 |
| 27 | 29.06 | 0.04 | 0.1084 | 0.0060 | 0.0807 | 0.0554 | 0.7448 | 1.2473 | 0.0174 | 0.5239 | 0.0140 | 0.4201 |
| 28 | 29.35 | 0.04 | 0.1211 | 0.0068 | 0.0813 | 0.0562 | 0.6716 | 1.2552 | 0.0153 | 0.5270 | 0.0122 | 0.4198 |
| 29 | 29.66 | 0.06 | 0.1803 | 0.0112 | 0.1055 | 0.0622 | 0.5854 | 1.2748 | 0.0136 | 0.5323 | 0.0107 | 0.4176 |
| 30 | 29.95 | 0.05 | 0.1837 | 0.0106 | 0.1079 | 0.0578 | 0.5877 | 1.2782 | 0.0126 | 0.5336 | 0.0099 | 0.4175 |
| 31 | 30.24 | 0.06 | 0.1734 | 0.0120 | 0.1095 | 0.0693 | 0.6319 | 1.2871 | 0.0122 | 0.5332 | 0.0095 | 0.4143 |
| 32 | 30.52 | 0.07 | 0.2341 | 0.0159 | 0.1314 | 0.0680 | 0.5614 | 1.2928 | 0.0099 | 0.5349 | 0.0077 | 0.4138 |
| 33 | 30.78 | 0.08 | 0.2206 | 0.0106 | 0.1402 | 0.0481 | 0.6354 | 1.2955 | 0.0113 | 0.5343 | 0.0087 | 0.4126 |
| 34 | 31.08 | 0.06 | 0.3016 | 0.0112 | 0.1723 | 0.0372 | 0.5714 | 1.3140 | 0.0110 | 0.5393 | 0.0084 | 0.4104 |
| 35 | 31.34 | 0.05 | 0.1846 | 0.0089 | 0.1235 | 0.0483 | 0.6692 | 1.3260 | 0.0111 | 0.5419 | 0.0084 | 0.4087 |
| 36 | 31.62 | 0.08 | 0.1846 | 0.0082 | 0.1238 | 0.0445 | 0.6708 | 1.3326 | 0.0105 | 0.5440 | 0.0079 | 0.4082 |
| 37 | 31.90 | 0.07 | 0.0282 | 0.0015 | 0.0418 | 0.0532 | 1.4799 | 1.3238 | 0.0114 | 0.5413 | 0.0086 | 0.4089 |
| 38 | 32.16 | 0.07 | 0.2371 | 0.0080 | 0.1425 | 0.0338 | 0.6009 | 1.3456 | 0.0092 | 0.5432 | 0.0068 | 0.4074 |
| 39 | 32.44 | 0.06 | 0.1344 | 0.0107 | 0.0909 | 0.0797 | 0.6760 | 1.3511 | 0.0091 | 0.5505 | 0.0067 | 0.4074 |
| 40 | 32.70 | 0.05 | 0.1011 | 0.0071 | 0.0832 | 0.0703 | 0.8234 | 1.3490 | 0.0091 | 0.5489 | 0.0068 | 0.4069 |
| 41 | 32.97 | 0.04 | 0.1283 | 0.0071 | 0.0910 | 0.0554 | 0.7090 | 1.3444 | 0.0087 | 0.5463 | 0.0065 | 0.4064 |
| 42 | 33.23 | 0.05 | 0.0193 | 0.0035 | 0.0349 | 0.1814 | 1.8089 | 1.3454 | 0.0087 | 0.5469 | 0.0065 | 0.4065 |
| 43 | 33.49 | 0.04 | 0.0730 | 0.0037 | 0.0681 | 0.0538 | 0.9330 | 1.3660 | 0.0079 | 0.5535 | 0.0058 | 0.4052 |
| 44 | 33.73 | 0.06 | 0.1834 | 0.0079 | 0.1211 | 0.0431 | 0.6604 | 1.3586 | 0.0068 | 0.5514 | 0.0050 | 0.4058 |
| 45 | 33.98 | 0.05 | 0.2074 | 0.0057 | 0.1376 | 0.0275 | 0.6633 | 1.3673 | 0.0068 | 0.5530 | 0.0050 | 0.4044 |
| 46 | 34.23 | 0.05 | 0.1752 | 0.0034 | 0.1300 | 0.0194 | 0.7424 | 1.3609 | 0.0067 | 0.5503 | 0.0049 | 0.4043 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CBI | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.04 | 0.2094 | 0.0063 | 0.1372 | 0.0301 | 0.6551 | 1.3836 | 0.0062 | 0.5576 | 0.0045 | 0.4030 |
| 48 | 34.73 | 0.07 | 0.2143 | 0.0052 | 0.1440 | 0.0243 | 0.6719 | 1.3805 | 0.0062 | 0.5554 | 0.0045 | 0.4023 |
| 49 | 34.99 | 0.04 | 0.2166 | 0.0066 | 0.1417 | 0.0305 | 0.6541 | 1.3848 | 0.0059 | 0.5574 | 0.0043 | 0.4025 |
| 50 | 35.25 | 0.07 | 0.1210 | 0.0037 | 0.0991 | 0.0306 | 0.8190 | 1.3783 | 0.0063 | 0.5553 | 0.0046 | 0.4029 |
| 51 | 35.47 | 0.03 | 0.1910 | 0.0051 | 0.1353 | 0.0267 | 0.7082 | 1.3805 | 0.0063 | 0.5554 | 0.0046 | 0.4023 |
| 52 | 35.71 | 0.06 | 0.1999 | 0.0055 | 0.1354 | 0.0276 | 0.6772 | 1.3892 | 0.0054 | 0.5582 | 0.0039 | 0.4018 |
| 53 | 35.96 | 0.06 | 0.1894 | 0.0061 | 0.1383 | 0.0323 | 0.7301 | 1.3979 | 0.0063 | 0.5581 | 0.0045 | 0.3992 |
| 54 | 36.20 | 0.05 | 0.1703 | 0.0058 | 0.1275 | 0.0341 | 0.7490 | 1.3833 | 0.0054 | 0.5559 | 0.0039 | 0.4019 |
| 55 | 36.42 | 0.05 | 0.1439 | 0.0048 | 0.1137 | 0.0334 | 0.7897 | 1.4060 | 0.0063 | 0.5603 | 0.0045 | 0.3985 |
| 56 | 36.69 | 0.07 | 0.2353 | 0.0118 | 0.1607 | 0.0502 | 0.6827 | 1.3997 | 0.0066 | 0.5545 | 0.0047 | 0.3981 |
| 57 | 36.92 | 0.05 | 0.1650 | 0.0068 | 0.1288 | 0.0413 | 0.7810 | 1.4029 | 0.0061 | 0.5573 | 0.0044 | 0.3972 |
| 58 | 37.14 | 0.03 | 0.1093 | 0.0054 | 0.0913 | 0.0495 | 0.8351 | 1.4114 | 0.0050 | 0.5632 | 0.0035 | 0.3990 |
| 59 | 37.38 | 0.05 | 0.2298 | 0.0121 | 0.1580 | 0.0527 | 0.6877 | 1.4008 | 0.0063 | 0.5552 | 0.0045 | 0.3963 |
| 60 | 37.62 | 0.03 | 0.1428 | 0.0068 | 0.1141 | 0.0477 | 0.7986 | 1.4245 | 0.0059 | 0.5622 | 0.0041 | 0.3947 |
| 61 | 37.83 | 0.03 | 0.1890 | 0.0116 | 0.1369 | 0.0615 | 0.7242 | 1.4225 | 0.0060 | 0.5601 | 0.0042 | 0.3937 |
| 62 | 38.10 | 0.03 | 0.1806 | 0.0121 | 0.1339 | 0.0671 | 0.7418 | 1.4118 | 0.0063 | 0.5540 | 0.0045 | 0.3924 |
| 63 | 38.34 | 0.04 | 0.1466 | 0.0090 | 0.1193 | 0.0615 | 0.8135 | 1.4182 | 0.0060 | 0.5573 | 0.0042 | 0.3930 |
| 64 | 38.55 | 0.04 | 0.1390 | 0.0106 | 0.1113 | 0.0764 | 0.8002 | 1.4139 | 0.0064 | 0.5511 | 0.0045 | 0.3906 |
| 65 | 38.80 | 0.04 | 0.1243 | 0.0075 | 0.1060 | 0.0604 | 0.8530 | 1.4217 | 0.0057 | 0.5557 | 0.0040 | 0.3909 |
| 66 | 39.03 | 0.03 | 0.1246 | 0.0088 | 0.1041 | 0.0707 | 0.8356 | 1.4176 | 0.0049 | 0.5518 | 0.0035 | 0.3892 |
| 67 | 39.24 | 0.02 | 0.0895 | 0.0052 | 0.0850 | 0.0582 | 0.9505 | 1.4358 | 0.0044 | 0.5605 | 0.0031 | 0.3904 |
| 68 | 39.48 | 0.01 | 0.1145 | 0.0077 | 0.1000 | 0.0673 | 0.8734 | 1.4316 | 0.0036 | 0.5574 | 0.0025 | 0.3893 |
| 69 | 39.70 | 0.02 | 0.1203 | 0.0078 | 0.1060 | 0.0649 | 0.8813 | 1.4298 | 0.0020 | 0.5552 | 0.0014 | 0.3883 |
| 70 | 39.90 | 0.00 | 0.0682 | 0.0026 | 0.0721 | 0.0382 | 1.0577 | 1.4405 | 0.0019 | 0.5587 | 0.0013 | 0.3878 |
| 71 | 40.13 | 0.01 | 0.0728 | 0.0026 | 0.0797 | 0.0358 | 1.0957 | 1.4429 | -0.0002 | 0.5593 | -0.0001 | 0.3876 |
| 72 | 40.35 | -0.01 | 0.0775 | 0.0038 | 0.0807 | 0.0491 | 1.0421 | 1.4292 | -0.0008 | 0.5522 | -0.0006 | 0.3863 |
| 73 | 40.56 | 0.01 | 0.0402 | 0.0002 | 0.0572 | 0.0050 | 1.4224 | 1.4409 | -0.0013 | 0.5580 | -0.0009 | 0.3872 |
| 74 | 40.76 | 0.01 | 0.0458 | -0.0021 | 0.0657 | -0.0459 | 1.4325 | 1.4031 | -0.0044 | 0.5368 | -0.0031 | 0.3826 |
| 75 | 40.99 | -0.00 | 0.0238 | -0.0011 | 0.0495 | -0.0462 | 2.0781 | 1.4413 | -0.0038 | 0.5551 | -0.0026 | 0.3851 |
| 76 | 41.21 | 0.01 | 0.0227 | -0.0015 | 0.0506 | -0.0661 | 2.2274 | 1.4351 | -0.0047 | 0.5519 | -0.0033 | 0.3845 |
| 77 | 41.42 | 0.01 | -0.0089 | -0.0051 | 0.0345 | 0.5733 | -3.8775 | 1.4309 | -0.0056 | 0.5487 | -0.0039 | 0.3835 |
| 78 | 41.60 | -0.01 | -0.0123 | -0.0085 | 0.0327 | 0.6914 | -2.6589 | 1.3821 | -0.0065 | 0.5253 | -0.0047 | 0.3801 |
| 79 | 41.81 | -0.01 | 0.0038 | -0.0030 | 0.0348 | -3.7520 | 43.5138 | 1.4014 | -0.0068 | 0.5322 | -0.0049 | 0.3798 |
| 80 | 42.00 | -0.00 | -0.0054 | -0.0048 | 0.0315 | 0.8894 | -5.8334 | 1.3914 | -0.0079 | 0.5255 | -0.0057 | 0.3777 |
| 81 | 42.20 | -0.01 | -0.0379 | -0.0109 | 0.0206 | 0.2878 | -0.5426 | 1.3903 | -0.0071 | 0.5248 | -0.0051 | 0.3775 |
| 82 | 42.40 | -0.01 | -0.0504 | -0.0156 | 0.0144 | 0.3097 | -0.2846 | 1.3835 | -0.0074 | 0.5121 | -0.0054 | 0.3756 |
| 83 | 42.58 | -0.03 | -0.0490 | -0.0127 | 0.0109 | 0.2593 | -0.2232 | 1.3840 | -0.0082 | 0.5202 | -0.0059 | 0.3759 |
| 84 | 42.78 | 0.00 | -0.0747 | -0.0187 | 0.0002 | 0.2598 | -0.0027 | 1.3732 | -0.0083 | 0.5153 | -0.0061 | 0.3752 |
| 85 | 42.97 | -0.02 | 0.0054 | 0.0031 | 0.0241 | 0.5744 | 4.4587 | 1.3908 | -0.0094 | 0.5197 | -0.0068 | 0.3737 |
| 86 | 43.14 | -0.01 | -0.0857 | -0.0195 | -0.0099 | 0.2279 | 0.1160 | 1.3886 | -0.0094 | 0.5204 | -0.0068 | 0.3748 |
| 87 | 43.31 | -0.00 | -0.0628 | -0.0128 | -0.0016 | 0.2043 | 0.0256 | 1.3865 | -0.0097 | 0.5180 | -0.0070 | 0.3736 |
| 88 | 43.50 | -0.02 | -0.0334 | -0.0060 | 0.0051 | 0.1797 | -0.1532 | 1.3823 | -0.0102 | 0.5155 | -0.0074 | 0.3729 |
| 89 | 43.70 | -0.00 | -0.0786 | -0.0159 | -0.0114 | 0.2027 | 0.1457 | 1.3899 | -0.0102 | 0.5184 | -0.0073 | 0.3730 |
| 90 | 43.87 | -0.01 | -0.0027 | 0.0033 | 0.0137 | -1.2229 | -5.0532 | 1.3825 | -0.0102 | 0.5137 | -0.0074 | 0.3716 |
| 91 | 44.04 | -0.01 | -0.0866 | -0.0177 | -0.0164 | 0.2047 | 0.1890 | 1.3695 | -0.0100 | 0.5084 | -0.0073 | 0.3712 |
| 92 | 44.22 | 0.01 | -0.1104 | -0.0223 | -0.0269 | 0.2023 | 0.2438 | 1.3674 | -0.0104 | 0.5077 | -0.0076 | 0.3713 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | 81WOF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.40 | -0.01 | -0.1007 | -0.0197 | -0.0260 | 0.1959 | 0.2583 | 1.3737 | -0.0102 | 0.5112 | -0.0074 | 0.3721 |
| 94 | 44.59 | -0.02 | -0.0671 | -0.0118 | -0.0163 | 0.1762 | 0.2426 | 1.3589 | -0.0102 | 0.5024 | -0.0075 | 0.3697 |
| 95 | 44.78 | -0.02 | -0.0220 | -0.0029 | 0.0070 | 0.1319 | -0.3192 | 1.3514 | -0.0098 | 0.4984 | -0.0073 | 0.3688 |
| 96 | 44.95 | -0.01 | 0.0341 | 0.0061 | 0.0295 | 0.1790 | 0.8649 | 1.3395 | -0.0095 | 0.4926 | -0.0071 | 0.3678 |
| 97 | 45.14 | -0.01 | -0.0604 | -0.0113 | -0.0101 | 0.1875 | 0.1680 | 1.3577 | -0.0096 | 0.5015 | -0.0071 | 0.3693 |
| 98 | 45.31 | -0.03 | -0.0716 | -0.0130 | -0.0193 | 0.1819 | 0.2694 | 1.3427 | -0.0098 | 0.4948 | -0.0073 | 0.3685 |
| 99 | 45.52 | -0.01 | -0.1200 | -0.0194 | -0.0413 | 0.1619 | 0.3439 | 1.3191 | -0.0089 | 0.4843 | -0.0068 | 0.3671 |
| 100 | 45.69 | -0.02 | -0.1256 | -0.0200 | -0.0437 | 0.1594 | 0.3477 | 1.3211 | -0.0089 | 0.4853 | -0.0067 | 0.3673 |
| 101 | 45.85 | 0.00 | 0.0083 | 0.0033 | 0.0190 | 0.3978 | 2.2844 | 1.3125 | -0.0098 | 0.4802 | -0.0067 | 0.3658 |
| 102 | 46.04 | -0.02 | -0.0503 | -0.0067 | -0.0119 | 0.1333 | 0.2373 | 1.3124 | -0.0086 | 0.4814 | -0.0066 | 0.3668 |
| 103 | 46.20 | -0.01 | -0.0717 | -0.0093 | -0.0154 | 0.1300 | 0.2144 | 1.3091 | -0.0082 | 0.4798 | -0.0063 | 0.3665 |
| 104 | 46.38 | -0.02 | -0.0807 | -0.0108 | -0.0260 | 0.1341 | 0.3224 | 1.2907 | -0.0078 | 0.4715 | -0.0061 | 0.3653 |
| 105 | 46.56 | -0.02 | -0.1398 | -0.0235 | -0.0541 | 0.1683 | 0.3871 | 1.3112 | -0.0086 | 0.4811 | -0.0066 | 0.3669 |
| 106 | 46.71 | -0.01 | -0.0614 | -0.0077 | -0.0180 | 0.1257 | 0.2929 | 1.2863 | -0.0073 | 0.4706 | -0.0057 | 0.3659 |
| 107 | 46.91 | -0.03 | -0.1210 | -0.0219 | -0.0479 | 0.1812 | 0.3958 | 1.2712 | -0.0085 | 0.4650 | -0.0067 | 0.3664 |
| 108 | 47.08 | -0.02 | -0.1053 | -0.0159 | -0.0376 | 0.1512 | 0.3567 | 1.3014 | -0.0087 | 0.4758 | -0.0067 | 0.3679 |
| 109 | 47.25 | -0.01 | -0.0799 | -0.0180 | -0.0327 | 0.2257 | 0.4098 | 1.2394 | -0.0084 | 0.4554 | -0.0068 | 0.3674 |
| 110 | 47.42 | -0.03 | -0.0488 | -0.0154 | -0.0176 | 0.3157 | 0.3598 | 1.2331 | -0.0087 | 0.4504 | -0.0071 | 0.3653 |
| 111 | 47.61 | -0.02 | -0.0415 | -0.0110 | -0.0154 | 0.2652 | 0.3699 | 1.2017 | -0.0069 | 0.4386 | -0.0058 | 0.3650 |
| 112 | 47.78 | -0.02 | -0.0446 | -0.0146 | -0.0187 | 0.3275 | 0.4184 | 1.2048 | -0.0078 | 0.4425 | -0.0065 | 0.3673 |
| 113 | 47.95 | -0.02 | -0.0097 | -0.0088 | -0.0036 | 0.9077 | 0.3723 | 1.2013 | -0.0077 | 0.4413 | -0.0064 | 0.3674 |
| 114 | 48.12 | -0.01 | -0.0066 | 0.0008 | 0.0030 | -0.1213 | -0.4560 | 1.1308 | -0.0025 | 0.4123 | -0.0022 | 0.3646 |
| 115 | 48.29 | -0.01 | -0.0258 | -0.0046 | -0.0047 | 0.1784 | 0.1828 | 1.1362 | -0.0028 | 0.4146 | -0.0025 | 0.3649 |
| 116 | 48.47 | -0.00 | -0.0245 | 0.0019 | -0.0033 | -0.0776 | 0.1351 | 1.0866 | 0.0002 | 0.3917 | 0.0002 | 0.3605 |
| 117 | 48.64 | -0.03 | -0.0226 | 0.0041 | 0.0018 | -0.1815 | -0.0799 | 1.0785 | 0.0013 | 0.3912 | 0.0012 | 0.3627 |
| 118 | 48.80 | -0.02 | -0.0179 | 0.0041 | 0.0035 | -0.2292 | -0.1962 | 1.1045 | -0.0005 | 0.4019 | -0.0005 | 0.3639 |
| 119 | 48.96 | 0.00 | -0.0257 | 0.0037 | 0.0024 | -0.1440 | -0.0937 | 1.0807 | 0.0010 | 0.3922 | 0.0009 | 0.3629 |
| 120 | 49.13 | -0.01 | -0.0092 | 0.0042 | 0.0107 | -0.4568 | -1.1668 | 1.0958 | -0.0004 | 0.3996 | -0.0004 | 0.3647 |
| 121 | 49.31 | 0.01 | -0.0262 | 0.0043 | 0.0052 | -0.1642 | -0.1991 | 1.0997 | -0.0004 | 0.4020 | -0.0004 | 0.3656 |
| 122 | 49.48 | 0.01 | -0.0354 | 0.0025 | 0.0014 | -0.0707 | -0.0397 | 1.0890 | -0.0007 | 0.3965 | -0.0006 | 0.3641 |
| 123 | 49.65 | 0.01 | -0.0425 | 0.0029 | 0.0020 | -0.0683 | -0.0472 | 1.1084 | -0.0011 | 0.4049 | -0.0010 | 0.3653 |
| 124 | 49.87 | 0.02 | -0.0379 | 0.0023 | 0.0043 | -0.0607 | -0.1138 | 1.1063 | -0.0016 | 0.4045 | -0.0014 | 0.3656 |
| 125 | 50.02 | 0.01 | -0.0584 | 0.0028 | -0.0045 | -0.0481 | 0.0774 | 1.0963 | -0.0010 | 0.4001 | -0.0009 | 0.3650 |
| 126 | 50.18 | -0.01 | -0.0392 | 0.0025 | 0.0062 | -0.0638 | -0.1587 | 1.1187 | -0.0025 | 0.4111 | -0.0022 | 0.3675 |
| 127 | 50.38 | 0.03 | -0.0349 | 0.0038 | 0.0094 | -0.1089 | -0.2702 | 1.1220 | -0.0025 | 0.4113 | -0.0022 | 0.3666 |
| 128 | 50.56 | 0.03 | -0.0563 | 0.0025 | 0.0010 | -0.0445 | -0.0179 | 1.1317 | -0.0032 | 0.4160 | -0.0028 | 0.3676 |
| 129 | 50.72 | 0.03 | -0.0521 | 0.0033 | 0.0064 | -0.0634 | -0.1232 | 1.1295 | -0.0034 | 0.4163 | -0.0030 | 0.3684 |
| 130 | 50.90 | 0.03 | -0.0470 | 0.0035 | 0.0113 | -0.0745 | -0.2412 | 1.1179 | -0.0021 | 0.4103 | -0.0019 | 0.3670 |
| 131 | 51.06 | 0.03 | -0.0545 | 0.0031 | 0.0093 | -0.0569 | -0.1712 | 1.1070 | -0.0024 | 0.4070 | -0.0022 | 0.3676 |
| 132 | 51.25 | 0.03 | -0.0567 | 0.0034 | 0.0094 | -0.0601 | -0.1666 | 1.1209 | -0.0030 | 0.4132 | -0.0027 | 0.3686 |
| 133 | 51.40 | 0.01 | -0.0511 | 0.0031 | 0.0121 | -0.0607 | -0.2375 | 1.1199 | -0.0036 | 0.4120 | -0.0032 | 0.3679 |
| 134 | 51.56 | 0.04 | -0.0586 | 0.0026 | 0.0095 | -0.0445 | -0.1629 | 1.1231 | -0.0031 | 0.4130 | -0.0028 | 0.3677 |
| 135 | 51.77 | 0.02 | -0.0555 | 0.0029 | 0.0138 | -0.0524 | -0.2481 | 1.1433 | -0.0047 | 0.4218 | -0.0041 | 0.3689 |
| 136 | 51.94 | 0.05 | -0.0592 | 0.0029 | 0.0127 | -0.0491 | -0.2139 | 1.1411 | -0.0044 | 0.4214 | -0.0039 | 0.3693 |
| 137 | 52.09 | 0.04 | -0.0652 | 0.0029 | 0.0126 | -0.0446 | -0.1926 | 1.1302 | -0.0037 | 0.4160 | -0.0033 | 0.3681 |
| 138 | 52.28 | 0.04 | -0.0560 | 0.0033 | 0.0164 | -0.0591 | -0.2925 | 1.1463 | -0.0053 | 0.4240 | -0.0046 | 0.3699 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.44 | 0.03 | -0.0617 | 0.0029 | 0.0154 | -0.0471 | -0.2492 | 1.1420 | -0.0048 | 0.4217 | -0.0042 | 0.3693 |
| 140 | 52.62 | 0.02 | -0.0599 | 0.0031 | 0.0161 | -0.0519 | -0.2684 | 1.1494 | -0.0051 | 0.4233 | -0.0044 | 0.3683 |
| 141 | 52.77 | 0.01 | -0.0675 | 0.0029 | 0.0141 | -0.0430 | -0.2084 | 1.1515 | -0.0051 | 0.4248 | -0.0044 | 0.3689 |
| 142 | 52.93 | 0.03 | -0.0742 | 0.0029 | 0.0123 | -0.0392 | -0.1652 | 1.1460 | -0.0045 | 0.4217 | -0.0039 | 0.3680 |
| 143 | 53.12 | 0.02 | -0.0771 | 0.0031 | 0.0123 | -0.0403 | -0.1589 | 1.1512 | -0.0052 | 0.4238 | -0.0045 | 0.3682 |
| 144 | 53.28 | 0.02 | -0.0688 | 0.0021 | 0.0157 | -0.0335 | -0.2278 | 1.1577 | -0.0061 | 0.4283 | -0.0053 | 0.3699 |
| 145 | 53.44 | 0.00 | -0.0747 | 0.0020 | 0.0153 | -0.0268 | -0.2044 | 1.1639 | -0.0059 | 0.4303 | -0.0051 | 0.3697 |
| 146 | 53.60 | 0.02 | -0.0806 | 0.0020 | 0.0149 | -0.0249 | -0.1844 | 1.1607 | -0.0059 | 0.4290 | -0.0051 | 0.3696 |
| 147 | 53.79 | 0.02 | -0.0796 | 0.0014 | 0.0152 | -0.0176 | -0.1905 | 1.1682 | -0.0063 | 0.4323 | -0.0054 | 0.3700 |
| 148 | 53.94 | 0.02 | -0.0778 | 0.0014 | 0.0159 | -0.0180 | -0.2040 | 1.1691 | -0.0063 | 0.4326 | -0.0054 | 0.3700 |
| 149 | 54.07 | 0.03 | -0.0119 | 0.0010 | 0.0320 | -0.0841 | -2.6892 | 1.1928 | -0.0077 | 0.4431 | -0.0065 | 0.3715 |
| 150 | 54.22 | 0.00 | -0.0076 | 0.0 | 0.0306 | 0.0 | -4.0260 | 1.2122 | -0.0092 | 0.4502 | -0.0076 | 0.3714 |
| 151 | 54.39 | 0.01 | -0.0139 | 0.0014 | 0.0266 | -0.1008 | -1.9126 | 1.2111 | -0.0092 | 0.4496 | -0.0076 | 0.3713 |
| 152 | 54.55 | 0.01 | -0.0019 | 0.0006 | 0.0322 | -0.3160 | -16.9488 | 1.2230 | -0.0099 | 0.4540 | -0.0081 | 0.3712 |
| 153 | 54.69 | -0.00 | 0.0019 | 0.0 | 0.0335 | 0.0 | 17.6352 | 1.2101 | -0.0096 | 0.4486 | -0.0079 | 0.3707 |
| 154 | 54.85 | 0.00 | -0.0083 | 0.0020 | 0.0287 | -0.2411 | -3.4568 | 1.1993 | -0.0094 | 0.4454 | -0.0078 | 0.3714 |
| 155 | 55.00 | -0.00 | -0.0081 | 0.0008 | 0.0281 | -0.0988 | -3.4678 | 1.2102 | -0.0099 | 0.4486 | -0.0082 | 0.3707 |
| 156 | 55.15 | 0.00 | -0.0083 | 0.0015 | 0.0287 | -0.1808 | -3.4568 | 1.2003 | -0.0097 | 0.4452 | -0.0081 | 0.3709 |
| 157 | 55.32 | -0.01 | -0.0159 | 0.0025 | 0.0265 | -0.1259 | -1.6657 | 1.2207 | -0.0106 | 0.4542 | -0.0087 | 0.3720 |
| 158 | 55.47 | -0.02 | -0.0063 | 0.0023 | 0.0283 | -0.3653 | -4.4905 | 1.2174 | -0.0104 | 0.4529 | -0.0086 | 0.3720 |
| 159 | 55.63 | -0.01 | -0.0056 | 0.0023 | 0.0301 | -0.4109 | -5.3743 | 1.2307 | -0.0115 | 0.4592 | -0.0094 | 0.3731 |
| 160 | 55.78 | -0.01 | -0.0189 | 0.0027 | 0.0261 | -0.1429 | -1.3801 | 1.2091 | -0.0095 | 0.4490 | -0.0079 | 0.3714 |
| 161 | 55.96 | -0.02 | -0.0060 | 0.0023 | 0.0321 | -0.3835 | -5.3504 | 1.2350 | -0.0114 | 0.4603 | -0.0092 | 0.3727 |
| 162 | 56.11 | -0.01 | -0.0142 | 0.0021 | 0.0278 | -0.1480 | -1.9569 | 1.2188 | -0.0108 | 0.4531 | -0.0089 | 0.3717 |
| 163 | 56.30 | 0.01 | -0.0191 | 0.0027 | 0.0272 | -0.1414 | -1.4234 | 1.2242 | -0.0112 | 0.4554 | -0.0092 | 0.3728 |
| 164 | 56.44 | -0.05 | -0.0044 | 0.0026 | 0.0342 | -0.5912 | -7.7748 | 1.2340 | -0.0124 | 0.4591 | -0.0101 | 0.3720 |
| 165 | 56.62 | -0.05 | -0.0259 | 0.0024 | 0.0259 | -0.0927 | -0.9993 | 1.2306 | -0.0117 | 0.4578 | -0.0095 | 0.3720 |
| 166 | 56.79 | -0.05 | -0.0280 | 0.0029 | 0.0264 | -0.1036 | -0.9423 | 1.2458 | -0.0129 | 0.4644 | -0.0104 | 0.3728 |
| 167 | 56.96 | -0.05 | -0.0265 | 0.0036 | 0.0288 | -0.1359 | -1.0865 | 1.2317 | -0.0116 | 0.4582 | -0.0094 | 0.3720 |
| 168 | 57.11 | -0.09 | -0.0340 | 0.0027 | 0.0265 | -0.0795 | -0.7790 | 1.2457 | -0.0127 | 0.4653 | -0.0102 | 0.3735 |
| 169 | 57.25 | -0.09 | -0.0269 | 0.0039 | 0.0302 | -0.1456 | -1.1267 | 1.2491 | -0.0127 | 0.4637 | -0.0102 | 0.3712 |
| 170 | 57.40 | -0.05 | -0.0909 | 0.0011 | 0.0090 | -0.0121 | -0.0994 | 1.1787 | -0.0091 | 0.4352 | -0.0077 | 0.3692 |
| 171 | 57.51 | -0.07 | -0.0731 | 0.0002 | 0.0102 | -0.0022 | -0.1100 | 1.1374 | -0.0066 | 0.4182 | -0.0058 | 0.3677 |
| 172 | 57.69 | -0.09 | -0.0337 | 0.0022 | 0.0302 | -0.0653 | -0.5960 | 1.2283 | -0.0122 | 0.4574 | -0.0099 | 0.3728 |
| 173 | 57.82 | -0.05 | -0.0407 | 0.0037 | 0.0293 | -0.0910 | -0.7197 | 1.2369 | -0.0126 | 0.4616 | -0.0102 | 0.3732 |
| 174 | 57.98 | -0.01 | -0.0308 | 0.0034 | 0.0305 | -0.1104 | -0.9902 | 1.2456 | -0.0135 | 0.4650 | -0.0109 | 0.3733 |
| 175 | 58.13 | -0.05 | -0.0757 | 0.0010 | 0.0184 | -0.0132 | -0.2428 | 1.2046 | -0.0119 | 0.4462 | -0.0099 | 0.3708 |
| 176 | 58.27 | -0.03 | -0.0423 | 0.0024 | 0.0277 | -0.0568 | -0.6546 | 1.2395 | -0.0140 | 0.4637 | -0.0113 | 0.3741 |
| 177 | 58.40 | -0.04 | -0.0291 | 0.0032 | 0.0321 | -0.1100 | -1.1032 | 1.2385 | -0.0139 | 0.4619 | -0.0112 | 0.3729 |
| 178 | 58.53 | -0.06 | -0.0280 | 0.0022 | 0.0315 | -0.0786 | -1.1250 | 1.2515 | -0.0144 | 0.4667 | -0.0115 | 0.3729 |
| 179 | 58.54 | 0.03 | -0.0460 | 0.0019 | 0.0260 | -0.0413 | -0.5648 | 1.2395 | -0.0137 | 0.4620 | -0.0111 | 0.3727 |
| 180 | 58.54 | -0.05 | -0.0290 | 0.0023 | 0.0315 | -0.0794 | -1.0862 | 1.2514 | -0.0141 | 0.4664 | -0.0113 | 0.3727 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | 81=OF13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.71 | 0.03 | 0.0683 | 9.9999 | 0.0247 | 9.9999 | 0.3619 | -0.9818 | -0.0242 | -0.4613 | 0.0247 | 0.4698 |
| 2 | -5.71 | 0.01 | 0.0703 | 9.9999 | 0.0253 | 9.9999 | 0.3601 | -0.9842 | -0.0239 | -0.4622 | 0.0243 | 0.4696 |
| 3 | -5.71 | 0.02 | 0.0751 | 9.9999 | 0.0264 | 9.9999 | 0.3509 | -0.9867 | -0.0236 | -0.4637 | 0.0240 | 0.4700 |
| 4 | -5.69 | 0.02 | 0.0683 | 9.9999 | 0.0247 | 9.9999 | 0.3619 | -0.9809 | -0.0236 | -0.4603 | 0.0241 | 0.4693 |
| 5 | -5.71 | 0.02 | 0.0703 | 9.9999 | 0.0248 | 9.9999 | 0.3530 | -0.9786 | -0.0236 | -0.4596 | 0.0242 | 0.4696 |
| 6 | -5.74 | 0.02 | 0.0662 | 9.9999 | 0.0248 | 9.9999 | 0.3749 | -0.9847 | -0.0249 | -0.4644 | 0.0264 | 0.4705 |
| 7 | -3.94 | 0.01 | 0.0450 | 9.9999 | 0.0176 | 9.9999 | 0.3901 | -0.8237 | -0.0274 | -0.3881 | 0.0333 | 0.4711 |
| 8 | -2.19 | 0.02 | 0.0571 | 9.9999 | 0.0228 | 9.9999 | 0.3995 | -0.7084 | -0.0273 | -0.3332 | 0.0386 | 0.4703 |
| 9 | -0.36 | 0.02 | 0.0571 | 9.9999 | 0.0228 | 9.9999 | 0.3995 | -0.5651 | -0.0277 | -0.2631 | 0.0491 | 0.4655 |
| 10 | 1.47 | 0.02 | 0.0671 | 9.9999 | 0.0254 | 9.9999 | 0.3788 | -0.4112 | -0.0241 | -0.1855 | 0.0587 | 0.4510 |
| 11 | 3.42 | 0.02 | 0.0602 | 9.9999 | 0.0216 | 9.9999 | 0.3589 | -0.2625 | -0.0148 | -0.1136 | 0.0565 | 0.4328 |
| 12 | 5.21 | 0.01 | 0.0622 | 9.9999 | 0.0211 | 9.9999 | 0.3392 | -0.1229 | -0.0025 | -0.0424 | 0.0204 | 0.3447 |
| 13 | 7.14 | 0.01 | 0.0594 | 9.9999 | 0.0181 | 9.9999 | 0.3045 | 0.0126 | 0.0130 | 0.0130 | 1.0323 | 1.0271 |
| 14 | 9.00 | 0.02 | 0.0604 | 9.9999 | 0.0176 | 9.9999 | 0.2911 | 0.1632 | 0.0314 | 0.0802 | 0.1926 | 0.4918 |
| 15 | 10.94 | 0.02 | 0.0595 | 9.9999 | 0.0157 | 9.9999 | 0.2635 | 0.2761 | 0.0444 | 0.1422 | 0.1607 | 0.5151 |
| 16 | 12.86 | 0.02 | 0.0694 | 9.9999 | 0.0204 | 9.9999 | 0.2939 | 0.4421 | 0.0494 | 0.2254 | 0.1117 | 0.5099 |
| 17 | 14.83 | 0.01 | 0.0394 | 9.9999 | 0.0071 | 9.9999 | 0.1808 | 0.5610 | 0.0492 | 0.2922 | 0.0876 | 0.5208 |
| 18 | 16.87 | 0.01 | 0.0522 | 9.9999 | 0.0137 | 9.9999 | 0.2614 | 0.6809 | 0.0487 | 0.3558 | 0.0715 | 0.5225 |
| 19 | 18.88 | 0.00 | 0.0534 | 9.9999 | 0.0118 | 9.9999 | 0.2217 | 0.7959 | 0.0456 | 0.4144 | 0.0572 | 0.5206 |
| 20 | 20.89 | 0.02 | 0.0612 | 9.9999 | 0.0181 | 9.9999 | 0.2955 | 0.8515 | 0.0429 | 0.4453 | 0.0503 | 0.5230 |
| 21 | 22.92 | 0.02 | 0.0643 | 9.9999 | 0.0180 | 9.9999 | 0.2797 | 0.9140 | 0.0360 | 0.4808 | 0.0393 | 0.5260 |
| 22 | 24.92 | 0.02 | 0.0641 | 9.9999 | 0.0190 | 9.9999 | 0.2963 | 0.9750 | 0.0304 | 0.5117 | 0.0312 | 0.5248 |
| 23 | 27.01 | 0.06 | 0.0759 | 9.9999 | 0.0249 | 9.9999 | 0.3282 | 1.0121 | 0.0292 | 0.5309 | 0.0289 | 0.5245 |
| 24 | 30.20 | 0.66 | 0.0878 | 9.9999 | 0.0303 | 9.9999 | 0.3455 | 1.0261 | 0.0287 | 0.5386 | 0.0290 | 0.5249 |
| 25 | 28.36 | 0.03 | 0.0609 | 9.9999 | 0.0196 | 9.9999 | 0.3217 | 1.0442 | 0.0270 | 0.5459 | 0.0259 | 0.5228 |
| 26 | 28.75 | 0.02 | 0.0669 | 9.9999 | 0.0210 | 9.9999 | 0.3139 | 1.0645 | 0.0256 | 0.5543 | 0.0241 | 0.5207 |
| 27 | 29.06 | 0.04 | 0.0687 | 9.9999 | 0.0221 | 9.9999 | 0.3217 | 1.0694 | 0.0254 | 0.5561 | 0.0238 | 0.5200 |
| 28 | 29.35 | 0.04 | 0.0824 | 9.9999 | 0.0294 | 9.9999 | 0.3572 | 1.0919 | 0.0237 | 0.5650 | 0.0217 | 0.5175 |
| 29 | 29.66 | 0.06 | 0.0675 | 9.9999 | 0.0217 | 9.9999 | 0.3215 | 1.0896 | 0.0243 | 0.5649 | 0.0223 | 0.5184 |
| 30 | 29.95 | 0.05 | 0.0772 | 9.9999 | 0.0270 | 9.9999 | 0.3500 | 1.1048 | 0.0238 | 0.5707 | 0.0216 | 0.5166 |
| 31 | 30.24 | 0.06 | 0.0831 | 9.9999 | 0.0304 | 9.9999 | 0.3662 | 1.1160 | 0.0240 | 0.5739 | 0.0215 | 0.5142 |
| 32 | 30.52 | 0.07 | 0.0929 | 9.9999 | 0.0341 | 9.9999 | 0.3676 | 1.1144 | 0.0253 | 0.5724 | 0.0227 | 0.5137 |
| 33 | 30.78 | 0.08 | 0.0899 | 9.9999 | 0.0323 | 9.9999 | 0.3597 | 1.1373 | 0.0236 | 0.5771 | 0.0208 | 0.5074 |
| 34 | 31.08 | 0.06 | 0.0723 | 9.9999 | 0.0246 | 9.9999 | 0.3404 | 1.1360 | 0.0237 | 0.5727 | 0.0209 | 0.5042 |
| 35 | 31.34 | 0.05 | 0.0761 | 9.9999 | 0.0266 | 9.9999 | 0.3498 | 1.1505 | 0.0220 | 0.5777 | 0.0191 | 0.5021 |
| 36 | 31.62 | 0.08 | 0.0761 | 9.9999 | 0.0269 | 9.9999 | 0.3538 | 1.1525 | 0.0221 | 0.5773 | 0.0192 | 0.4975 |
| 37 | 31.90 | 0.07 | 0.0800 | 9.9999 | 0.0291 | 9.9999 | 0.3641 | 1.1701 | 0.0206 | 0.5788 | 0.0176 | 0.4945 |
| 38 | 32.16 | 0.07 | 0.0770 | 9.9999 | 0.0277 | 9.9999 | 0.3601 | 1.1594 | 0.0217 | 0.5709 | 0.0187 | 0.4917 |
| 39 | 32.44 | 0.06 | 0.0662 | 9.9999 | 0.0232 | 9.9999 | 0.3506 | 1.1712 | 0.0189 | 0.5839 | 0.0162 | 0.4986 |
| 40 | 32.70 | 0.05 | 0.0652 | 9.9999 | 0.0229 | 9.9999 | 0.3514 | 1.1801 | 0.0189 | 0.5818 | 0.0160 | 0.4930 |
| 41 | 32.97 | 0.04 | 0.0601 | 9.9999 | 0.0218 | 9.9999 | 0.3628 | 1.1822 | 0.0187 | 0.5779 | 0.0158 | 0.4888 |
| 42 | 33.23 | 0.05 | 0.0718 | 9.9999 | 0.0273 | 9.9999 | 0.3806 | 1.1939 | 0.0175 | 0.5800 | 0.0147 | 0.4958 |
| 43 | 33.49 | 0.04 | 0.0482 | 9.9999 | 0.0165 | 9.9999 | 0.3413 | 1.2013 | 0.0166 | 0.5835 | 0.0138 | 0.4857 |
| 44 | 33.73 | 0.06 | 0.0659 | 9.9999 | 0.0239 | 9.9999 | 0.3629 | 1.1989 | 0.0161 | 0.5756 | 0.0134 | 0.4801 |
| 45 | 33.98 | 0.05 | 0.0590 | 9.9999 | 0.0222 | 9.9999 | 0.3764 | 1.2060 | 0.0118 | 0.5736 | 0.0098 | 0.4757 |
| 46 | 34.23 | 0.05 | 0.0717 | 9.9999 | 0.0284 | 9.9999 | 0.3965 | 1.2101 | 0.0098 | 0.5731 | 0.0081 | 0.4736 |

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MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 171 1.10 1.7 0.0 R1W0F13 0.0 0 -10 0 -10 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.04 | 0.0423 | 9.9999 | 0.0148 | 9.9999 | 0.3486 | 1.2183 | 0.0123 | 0.5790 | 0.0101 | 0.4752 |
| 48 | 34.73 | 0.07 | 0.0520 | 9.9999 | 0.0206 | 9.9999 | 0.3955 | 1.2190 | 0.0099 | 0.5753 | 0.0081 | 0.4719 |
| 49 | 34.99 | 0.04 | 0.0598 | 9.9999 | 0.0246 | 9.9999 | 0.4117 | 1.2330 | 0.0087 | 0.5789 | 0.0071 | 0.4695 |
| 50 | 35.25 | 0.07 | 0.0754 | 9.9999 | 0.0322 | 9.9999 | 0.4277 | 1.2336 | 0.0069 | 0.5771 | 0.0056 | 0.4678 |
| 51 | 35.47 | 0.03 | 0.0628 | 9.9999 | 0.0261 | 9.9999 | 0.4160 | 1.2342 | 0.0050 | 0.5748 | 0.0041 | 0.4657 |
| 52 | 35.71 | 0.06 | 0.0588 | 9.9999 | 0.0246 | 9.9999 | 0.4187 | 1.2434 | 0.0047 | 0.5791 | 0.0038 | 0.4657 |
| 53 | 35.96 | 0.06 | 0.0441 | 9.9999 | 0.0178 | 9.9999 | 0.4028 | 1.2447 | 0.0041 | 0.5783 | 0.0033 | 0.4646 |
| 54 | 36.20 | 0.05 | 0.0723 | 9.9999 | 0.0320 | 9.9999 | 0.4432 | 1.2418 | 0.0014 | 0.5712 | 0.0011 | 0.4600 |
| 55 | 36.42 | 0.05 | 0.0440 | 9.9999 | 0.0180 | 9.9999 | 0.4081 | 1.2478 | 0.0038 | 0.5795 | 0.0030 | 0.4644 |
| 56 | 36.69 | 0.07 | 0.0499 | 9.9999 | 0.0212 | 9.9999 | 0.4242 | 1.2355 | 0.0001 | 0.5675 | 0.0001 | 0.4593 |
| 57 | 36.92 | 0.05 | 0.0557 | 9.9999 | 0.0246 | 9.9999 | 0.4421 | 1.2380 | -0.0005 | 0.5675 | -0.0004 | 0.4584 |
| 58 | 37.14 | 0.03 | 0.0578 | 9.9999 | 0.0247 | 9.9999 | 0.4277 | 1.2485 | 0.0017 | 0.5761 | 0.0014 | 0.4614 |
| 59 | 37.38 | 0.05 | 0.0479 | 9.9999 | 0.0198 | 9.9999 | 0.4126 | 1.2259 | -0.0016 | 0.5616 | -0.0013 | 0.4581 |
| 60 | 37.62 | 0.03 | 0.0341 | 9.9999 | 0.0160 | 9.9999 | 0.4678 | 1.2503 | 0.0 | 0.5763 | 0.0 | 0.4609 |
| 61 | 37.83 | 0.03 | 0.0244 | 9.9999 | 0.0114 | 9.9999 | 0.4687 | 1.2360 | -0.0013 | 0.5677 | -0.0011 | 0.4593 |
| 62 | 38.10 | 0.03 | 0.0361 | 9.9999 | 0.0161 | 9.9999 | 0.4446 | 1.2204 | -0.0020 | 0.5569 | -0.0016 | 0.4563 |
| 63 | 38.34 | 0.04 | 0.0498 | 9.9999 | 0.0220 | 9.9999 | 0.4412 | 1.2209 | -0.0035 | 0.5552 | -0.0029 | 0.4555 |
| 64 | 38.55 | 0.04 | 0.0420 | 9.9999 | 0.0182 | 9.9999 | 0.4323 | 1.2067 | -0.0017 | 0.5505 | -0.0014 | 0.4562 |
| 65 | 38.80 | 0.04 | 0.0400 | 9.9999 | 0.0178 | 9.9999 | 0.4439 | 1.2092 | -0.0025 | 0.5502 | -0.0021 | 0.4550 |
| 66 | 39.03 | 0.03 | 0.0449 | 9.9999 | 0.0204 | 9.9999 | 0.4536 | 1.2035 | -0.0022 | 0.5471 | -0.0018 | 0.4546 |
| 67 | 39.24 | 0.02 | 0.0459 | 9.9999 | 0.0207 | 9.9999 | 0.4502 | 1.2241 | -0.0031 | 0.5559 | -0.0025 | 0.4541 |
| 68 | 39.48 | 0.01 | 0.0361 | 9.9999 | 0.0163 | 9.9999 | 0.4502 | 1.1949 | -0.0034 | 0.5438 | -0.0028 | 0.4551 |
| 69 | 39.70 | 0.02 | 0.0272 | 9.9999 | 0.0138 | 9.9999 | 0.5053 | 1.1725 | -0.0038 | 0.5319 | -0.0032 | 0.4536 |
| 70 | 39.90 | 0.00 | 0.0391 | 9.9999 | 0.0173 | 9.9999 | 0.4413 | 1.1949 | -0.0034 | 0.5427 | -0.0028 | 0.4542 |
| 71 | 40.13 | 0.01 | 0.0193 | 9.9999 | 0.0112 | 9.9999 | 0.5022 | 1.1654 | -0.0032 | 0.5275 | -0.0027 | 0.4526 |
| 72 | 40.35 | -0.01 | 0.0243 | 9.9999 | 0.0128 | 9.9999 | 0.5243 | 1.1368 | -0.0024 | 0.5137 | -0.0021 | 0.4519 |
| 73 | 40.56 | 0.01 | 0.0419 | 9.9999 | 0.0192 | 9.9999 | 0.4573 | 1.1789 | -0.0034 | 0.5315 | -0.0029 | 0.4508 |
| 74 | 40.76 | 0.01 | 0.0253 | 9.9999 | 0.0129 | 9.9999 | 0.5075 | 1.0867 | -0.0016 | 0.4891 | -0.0015 | 0.4501 |
| 75 | 40.99 | -0.00 | 0.0380 | 9.9999 | 0.0185 | 9.9999 | 0.4858 | 1.1675 | -0.0030 | 0.5262 | -0.0026 | 0.4507 |
| 76 | 41.21 | 0.01 | 0.0380 | 9.9999 | 0.0177 | 9.9999 | 0.4646 | 1.1528 | -0.0032 | 0.5142 | -0.0028 | 0.4495 |
| 77 | 41.42 | 0.01 | 0.0332 | 9.9999 | 0.0151 | 9.9999 | 0.4533 | 1.1353 | -0.0026 | 0.5100 | -0.0023 | 0.4492 |
| 78 | 41.60 | -0.01 | 0.0175 | 9.9999 | 0.0095 | 9.9999 | 0.5446 | 1.0601 | -0.0007 | 0.4743 | -0.0007 | 0.4475 |
| 79 | 41.81 | -0.01 | 0.0320 | 9.9999 | 0.0174 | 9.9999 | 0.5424 | 1.1483 | -0.0024 | 0.5145 | -0.0021 | 0.4488 |
| 80 | 42.00 | -0.00 | 0.0361 | 9.9999 | 0.0182 | 9.9999 | 0.5030 | 1.1477 | -0.0030 | 0.5142 | -0.0026 | 0.4488 |
| 81 | 42.20 | -0.01 | 0.0322 | 9.9999 | 0.0161 | 9.9999 | 0.4985 | 1.1282 | -0.0024 | 0.5039 | -0.0021 | 0.4468 |
| 82 | 42.40 | -0.01 | 0.0420 | 9.9999 | 0.0206 | 9.9999 | 0.4897 | 1.0823 | -0.0015 | 0.4823 | -0.0014 | 0.4456 |
| 83 | 42.58 | -0.03 | 0.0322 | 9.9999 | 0.0164 | 9.9999 | 0.5078 | 1.1209 | -0.0025 | 0.4997 | -0.0022 | 0.4458 |
| 84 | 42.78 | 0.00 | 0.0381 | 9.9999 | 0.0183 | 9.9999 | 0.4792 | 1.1004 | -0.0023 | 0.4904 | -0.0021 | 0.4457 |
| 85 | 42.97 | -0.02 | 0.0380 | 9.9999 | 0.0199 | 9.9999 | 0.5227 | 1.1964 | -0.0042 | 0.5350 | -0.0035 | 0.4472 |
| 86 | 43.14 | -0.01 | 0.0302 | 9.9999 | 0.0161 | 9.9999 | 0.5315 | 1.1369 | -0.0031 | 0.5061 | -0.0027 | 0.4451 |
| 87 | 43.31 | -0.00 | 0.0253 | 9.9999 | 0.0140 | 9.9999 | 0.5512 | 1.1646 | -0.0039 | 0.5193 | -0.0034 | 0.4459 |
| 88 | 43.50 | -0.02 | 0.0498 | 9.9999 | 0.0244 | 9.9999 | 0.4895 | 1.1680 | -0.0040 | 0.5205 | -0.0034 | 0.4457 |
| 89 | 43.70 | -0.00 | 0.0322 | 9.9999 | 0.0164 | 9.9999 | 0.5078 | 1.1591 | -0.0039 | 0.5148 | -0.0034 | 0.4442 |
| 90 | 43.87 | -0.01 | 0.0302 | 9.9999 | 0.0158 | 9.9999 | 0.5215 | 1.1979 | -0.0047 | 0.5353 | -0.0039 | 0.4469 |
| 91 | 44.04 | -0.01 | 0.0281 | 9.9999 | 0.0165 | 9.9999 | 0.5855 | 1.1453 | -0.0036 | 0.5089 | -0.0031 | 0.4443 |
| 92 | 44.22 | 0.01 | 0.0322 | 9.9999 | 0.0164 | 9.9999 | 0.5078 | 1.1211 | -0.0031 | 0.4985 | -0.0028 | 0.4447 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | B1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.40 | -0.01 | 0.0341 | 9.9999 | 0.0186 | 9.9999 | 0.5443 | 1.1351 | -0.0035 | 0.5050 | -0.0031 | 0.4437 |
| 94 | 44.59 | -0.02 | 0.0135 | 9.9999 | 0.0099 | 9.9999 | 0.7357 | 1.1623 | -0.0042 | 0.5161 | -0.0036 | 0.4441 |
| 95 | 44.78 | -0.02 | 0.0184 | 9.9999 | 0.0114 | 9.9999 | 0.6215 | 1.1760 | -0.0045 | 0.5231 | -0.0038 | 0.4449 |
| 96 | 44.95 | -0.01 | 0.0527 | 9.9999 | 0.0277 | 9.9999 | 0.5254 | 1.1642 | -0.0039 | 0.5179 | -0.0034 | 0.4449 |
| 97 | 45.14 | -0.01 | 0.0331 | 9.9999 | 0.0183 | 9.9999 | 0.5516 | 1.1642 | -0.0039 | 0.5157 | -0.0034 | 0.4439 |
| 98 | 45.31 | -0.03 | 0.0223 | 9.9999 | 0.0138 | 9.9999 | 0.6163 | 1.1427 | -0.0042 | 0.5071 | -0.0037 | 0.4437 |
| 99 | 45.52 | -0.01 | 0.0311 | 9.9999 | 0.0182 | 9.9999 | 0.5839 | 1.1241 | -0.0030 | 0.4976 | -0.0027 | 0.4427 |
| 100 | 45.69 | -0.02 | 0.0281 | 9.9999 | 0.0183 | 9.9999 | 0.6498 | 1.1204 | -0.0030 | 0.4967 | -0.0027 | 0.4433 |
| 101 | 45.85 | 0.00 | 0.0252 | 9.9999 | 0.0156 | 9.9999 | 0.6170 | 1.1371 | -0.0029 | 0.5049 | -0.0026 | 0.4440 |
| 102 | 46.04 | -0.02 | 0.0203 | 9.9999 | 0.0145 | 9.9999 | 0.7116 | 1.1224 | -0.0031 | 0.4982 | -0.0028 | 0.4439 |
| 103 | 46.20 | -0.01 | 0.0301 | 9.9999 | 0.0185 | 9.9999 | 0.6133 | 1.1267 | -0.0031 | 0.4993 | -0.0028 | 0.4432 |
| 104 | 46.38 | -0.02 | 0.0203 | 9.9999 | 0.0143 | 9.9999 | 0.7017 | 1.1034 | -0.0025 | 0.4891 | -0.0023 | 0.4433 |
| 105 | 46.56 | -0.02 | 0.0223 | 9.9999 | 0.0141 | 9.9999 | 0.6298 | 1.0530 | -0.0012 | 0.4677 | -0.0011 | 0.4442 |
| 106 | 46.71 | -0.01 | 0.0273 | 9.9999 | 0.0162 | 9.9999 | 0.5918 | 1.0905 | -0.0014 | 0.4838 | -0.0013 | 0.4436 |
| 107 | 46.91 | -0.03 | 0.0282 | 9.9999 | 0.0171 | 9.9999 | 0.6048 | 1.0312 | -0.0010 | 0.4581 | -0.0010 | 0.4442 |
| 108 | 47.08 | -0.02 | 0.0233 | 9.9999 | 0.0152 | 9.9999 | 0.6501 | 1.0969 | -0.0032 | 0.4873 | -0.0029 | 0.4442 |
| 109 | 47.25 | -0.01 | 0.0379 | 9.9999 | 0.0228 | 9.9999 | 0.6009 | 1.0229 | -0.0002 | 0.4556 | -0.0002 | 0.4454 |
| 110 | 47.42 | -0.03 | 0.0252 | 9.9999 | 0.0158 | 9.9999 | 0.6250 | 1.0311 | -0.0010 | 0.4579 | -0.0010 | 0.4440 |
| 111 | 47.61 | -0.02 | 0.0282 | 9.9999 | 0.0168 | 9.9999 | 0.5941 | 1.0405 | -0.0015 | 0.4633 | -0.0014 | 0.4452 |
| 112 | 47.78 | -0.02 | 0.0261 | 9.9999 | 0.0175 | 9.9999 | 0.6688 | 1.0392 | -0.0013 | 0.4627 | -0.0013 | 0.4452 |
| 113 | 47.95 | -0.02 | 0.0311 | 9.9999 | 0.0182 | 9.9999 | 0.5839 | 1.0472 | -0.0013 | 0.4662 | -0.0012 | 0.4452 |
| 114 | 48.12 | -0.01 | 0.0282 | 9.9999 | 0.0162 | 9.9999 | 0.5727 | 1.0636 | -0.0025 | 0.4744 | -0.0024 | 0.4461 |
| 115 | 48.29 | -0.01 | 0.0252 | 9.9999 | 0.0161 | 9.9999 | 0.6370 | 1.0532 | -0.0020 | 0.4692 | -0.0019 | 0.4455 |
| 116 | 48.47 | -0.00 | 0.0301 | 9.9999 | 0.0179 | 9.9999 | 0.5933 | 1.0603 | -0.0027 | 0.4734 | -0.0026 | 0.4465 |
| 117 | 48.64 | -0.03 | 0.0282 | 9.9999 | 0.0170 | 9.9999 | 0.6012 | 1.0506 | -0.0022 | 0.4677 | -0.0021 | 0.4452 |
| 118 | 48.80 | -0.02 | 0.0301 | 9.9999 | 0.0179 | 9.9999 | 0.5933 | 1.0831 | -0.0042 | 0.4815 | -0.0039 | 0.4445 |
| 119 | 48.96 | 0.00 | 0.0301 | 9.9999 | 0.0185 | 9.9999 | 0.6133 | 1.0471 | -0.0021 | 0.4645 | -0.0020 | 0.4436 |
| 120 | 49.15 | -0.01 | 0.0184 | 9.9999 | 0.0115 | 9.9999 | 0.6270 | 1.0484 | -0.0024 | 0.4651 | -0.0023 | 0.4437 |
| 121 | 49.31 | 0.01 | 0.0173 | 9.9999 | 0.0125 | 9.9999 | 0.7191 | 1.0689 | -0.0037 | 0.4750 | -0.0035 | 0.4444 |
| 122 | 49.48 | 0.01 | 0.0418 | 9.9999 | 0.0243 | 9.9999 | 0.5808 | 1.0421 | -0.0022 | 0.4622 | -0.0021 | 0.4435 |
| 123 | 49.65 | 0.01 | 0.0359 | 9.9999 | 0.0224 | 9.9999 | 0.6232 | 1.0783 | -0.0045 | 0.4802 | -0.0042 | 0.4453 |
| 124 | 49.87 | 0.02 | 0.0282 | 9.9999 | 0.0168 | 9.9999 | 0.5941 | 1.0458 | -0.0025 | 0.4645 | -0.0024 | 0.4442 |
| 125 | 50.02 | 0.01 | 0.0291 | 9.9999 | 0.0187 | 9.9999 | 0.6412 | 1.0478 | -0.0027 | 0.4663 | -0.0026 | 0.4451 |
| 126 | 50.18 | -0.01 | 0.0124 | 9.9999 | 0.0106 | 9.9999 | 0.8576 | 1.0478 | -0.0029 | 0.4656 | -0.0028 | 0.4444 |
| 127 | 50.38 | 0.03 | 0.0262 | 9.9999 | 0.0167 | 9.9999 | 0.6356 | 1.0312 | -0.0010 | 0.4596 | -0.0010 | 0.4457 |
| 128 | 50.56 | 0.03 | 0.0222 | 9.9999 | 0.0149 | 9.9999 | 0.6688 | 1.0478 | -0.0022 | 0.4679 | -0.0021 | 0.4466 |
| 129 | 50.72 | 0.03 | 0.0339 | 9.9999 | 0.0199 | 9.9999 | 0.5859 | 1.0434 | -0.0019 | 0.4669 | -0.0018 | 0.4475 |
| 130 | 50.90 | 0.03 | 0.0357 | 9.9999 | 0.0220 | 9.9999 | 0.6154 | 1.0311 | -0.0012 | 0.4611 | -0.0012 | 0.4472 |
| 131 | 51.06 | 0.03 | 0.0445 | 9.9999 | 0.0259 | 9.9999 | 0.5816 | 1.0345 | -0.0014 | 0.4632 | -0.0014 | 0.4477 |
| 132 | 51.25 | 0.03 | 0.0328 | 9.9999 | 0.0198 | 9.9999 | 0.6025 | 1.0393 | -0.0022 | 0.4651 | -0.0021 | 0.4475 |
| 133 | 51.40 | 0.01 | 0.0240 | 9.9999 | 0.0165 | 9.9999 | 0.6855 | 1.0290 | -0.0018 | 0.4593 | -0.0018 | 0.4463 |
| 134 | 51.56 | 0.04 | 0.0377 | 9.9999 | 0.0219 | 9.9999 | 0.5801 | 1.0357 | -0.0017 | 0.4624 | -0.0016 | 0.4464 |
| 135 | 51.77 | 0.02 | 0.0279 | 9.9999 | 0.0182 | 9.9999 | 0.6508 | 1.0447 | -0.0024 | 0.4662 | -0.0023 | 0.4462 |
| 136 | 51.94 | 0.05 | 0.0426 | 9.9999 | 0.0245 | 9.9999 | 0.5746 | 1.0493 | -0.0024 | 0.4703 | -0.0023 | 0.4482 |
| 137 | 52.09 | 0.04 | 0.0260 | 9.9999 | 0.0166 | 9.9999 | 0.6366 | 1.0420 | -0.0021 | 0.4666 | -0.0020 | 0.4478 |
| 138 | 52.28 | 0.04 | 0.0348 | 9.9999 | 0.0210 | 9.9999 | 0.6025 | 1.0526 | -0.0030 | 0.4701 | -0.0029 | 0.4467 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 171 | 1.10 | 1.7 | 0.0 | R1W0F13 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.44 | 0.03 | 0.0260 | 9.9999 | 0.0176 | 9.9999 | 0.6752 | 1.0502 | -0.0027 | 0.4689 | -0.0026 | 0.4465 |
| 140 | 52.62 | 0.02 | 0.0388 | 9.9999 | 0.0225 | 9.9999 | 0.5792 | 1.0569 | -0.0034 | 0.4720 | -0.0032 | 0.4466 |
| 141 | 52.77 | 0.01 | 0.0261 | 9.9999 | 0.0166 | 9.9999 | 0.6342 | 1.0592 | -0.0035 | 0.4732 | -0.0033 | 0.4468 |
| 142 | 52.93 | 0.03 | 0.0329 | 9.9999 | 0.0206 | 9.9999 | 0.6251 | 1.0564 | -0.0030 | 0.4715 | -0.0028 | 0.4464 |
| 143 | 53.12 | 0.02 | 0.0349 | 9.9999 | 0.0199 | 9.9999 | 0.5692 | 1.0690 | -0.0037 | 0.4767 | -0.0035 | 0.4459 |
| 144 | 53.28 | 0.02 | 0.0173 | 9.9999 | 0.0121 | 9.9999 | 0.7017 | 1.0645 | -0.0039 | 0.4736 | -0.0037 | 0.4450 |
| 145 | 53.44 | 0.00 | 0.0281 | 9.9999 | 0.0165 | 9.9999 | 0.5855 | 1.0711 | -0.0042 | 0.4773 | -0.0039 | 0.4456 |
| 146 | 53.60 | 0.02 | 0.0320 | 9.9999 | 0.0185 | 9.9999 | 0.5768 | 1.0769 | -0.0045 | 0.4806 | -0.0042 | 0.4453 |
| 147 | 53.7% | 0.02 | 0.0290 | 9.9999 | 0.0175 | 9.9999 | 0.6019 | 1.0861 | -0.0048 | 0.4838 | -0.0044 | 0.4454 |
| 148 | 53.9% | 0.02 | 0.0301 | 9.9999 | 0.0179 | 9.9999 | 0.5933 | 1.0730 | -0.0041 | 0.4772 | -0.0038 | 0.4447 |
| 149 | 54.07 | 0.03 | 0.0261 | 9.9999 | 0.0171 | 9.9999 | 0.6534 | 1.0129 | -0.0012 | 0.4491 | -0.0012 | 0.4434 |
| 150 | 54.22 | 0.00 | 0.0359 | 9.9999 | 0.0213 | 9.9999 | 0.5924 | 1.0206 | -0.0014 | 0.4521 | -0.0014 | 0.4429 |
| 151 | 54.39 | 0.01 | 0.0193 | 9.9999 | 0.0129 | 9.9999 | 0.6653 | 1.0277 | -0.0022 | 0.4557 | -0.0021 | 0.4434 |
| 152 | 54.55 | 0.01 | 0.0202 | 9.9999 | 0.0142 | 9.9999 | 0.7003 | 1.0228 | -0.0013 | 0.4522 | -0.0013 | 0.4421 |
| 153 | 54.69 | -0.00 | 0.0389 | 9.9999 | 0.0215 | 9.9999 | 0.5519 | 1.0101 | -0.0008 | 0.4468 | -0.0008 | 0.4424 |
| 154 | 54.85 | 0.00 | 0.0252 | 9.9999 | 0.0153 | 9.9999 | 0.6051 | 1.0173 | -0.0017 | 0.4499 | -0.0017 | 0.4423 |
| 155 | 55.00 | -0.00 | 0.0359 | 9.9999 | 0.0219 | 9.9999 | 0.6092 | 1.0220 | -0.0022 | 0.4512 | -0.0022 | 0.4415 |
| 156 | 55.15 | 0.00 | 0.0242 | 9.9999 | 0.0152 | 9.9999 | 0.6260 | 1.0135 | -0.0017 | 0.4479 | -0.0017 | 0.4419 |
| 157 | 55.32 | -0.01 | 0.0301 | 9.9999 | 0.0177 | 9.9999 | 0.5866 | 1.0432 | -0.0031 | 0.4615 | -0.0030 | 0.4424 |
| 158 | 55.47 | -0.02 | 0.0438 | 9.9999 | 0.0254 | 9.9999 | 0.5795 | 1.0316 | -0.0025 | 0.4568 | -0.0024 | 0.4428 |
| 159 | 55.63 | -0.01 | 0.0301 | 9.9999 | 0.0185 | 9.9999 | 0.6133 | 1.0351 | -0.0026 | 0.4577 | -0.0025 | 0.4421 |
| 160 | 55.78 | -0.01 | 0.0312 | 9.9999 | 0.0175 | 9.9999 | 0.5595 | 1.0399 | -0.0031 | 0.4595 | -0.0030 | 0.4418 |
| 161 | 55.96 | -0.02 | 0.0292 | 9.9999 | 0.0171 | 9.9999 | 0.5841 | 1.0387 | -0.0031 | 0.4592 | -0.0030 | 0.4421 |
| 162 | 56.1% | -0.01 | 0.0184 | 9.9999 | 0.0123 | 9.9999 | 0.6652 | 1.0245 | -0.0025 | 0.4530 | -0.0024 | 0.4421 |
| 163 | 56.30 | 0.01 | 0.0174 | 9.9999 | 0.0126 | 9.9999 | 0.7207 | 1.0446 | -0.0046 | 0.4603 | -0.0044 | 0.4406 |
| 164 | 56.44 | -0.05 | 0.0303 | 9.9999 | 0.0166 | 9.9999 | 0.5463 | 1.0198 | -0.0022 | 0.4486 | -0.0022 | 0.4399 |
| 165 | 56.62 | -0.05 | 0.0225 | 9.9999 | 0.0126 | 9.9999 | 0.5573 | 1.0628 | -0.0050 | 0.4692 | -0.0047 | 0.4415 |
| 166 | 56.79 | -0.05 | 0.0264 | 9.9999 | 0.0144 | 9.9999 | 0.5434 | 1.0840 | -0.0069 | 0.4788 | -0.0064 | 0.4417 |
| 167 | 56.96 | -0.08 | 0.0303 | 9.9999 | 0.0164 | 9.9999 | 0.5397 | 1.0770 | -0.0064 | 0.4751 | -0.0060 | 0.4412 |
| 168 | 57.11 | -0.09 | 0.0206 | 9.9999 | 0.0105 | 9.9999 | 0.5113 | 1.0933 | -0.0075 | 0.4817 | -0.0069 | 0.4406 |
| 169 | 57.25 | -0.09 | 0.0283 | 9.9999 | 0.0155 | 9.9999 | 0.5459 | 1.0842 | -0.0077 | 0.4777 | -0.0071 | 0.4406 |
| 170 | 57.40 | -0.05 | 0.0264 | 9.9999 | 0.0146 | 9.9999 | 0.5510 | 1.1272 | -0.0101 | 0.4966 | -0.0090 | 0.4406 |
| 171 | 57.51 | -0.07 | 0.0343 | 9.9999 | 0.0182 | 9.9999 | 0.5294 | 1.0968 | -0.0085 | 0.4817 | -0.0078 | 0.4400 |
| 172 | 57.69 | -0.09 | 0.0294 | 9.9999 | 0.0156 | 9.9999 | 0.5289 | 1.0788 | -0.0070 | 0.4741 | -0.0065 | 0.4395 |
| 173 | 57.82 | -0.05 | 0.0245 | 9.9999 | 0.0137 | 9.9999 | 0.5569 | 1.0788 | -0.0069 | 0.4736 | -0.0064 | 0.4391 |
| 174 | 57.98 | -0.01 | 0.0303 | 9.9999 | 0.0177 | 9.9999 | 0.5827 | 1.0741 | -0.0065 | 0.4717 | -0.0061 | 0.4392 |
| 175 | 58.13 | -0.05 | 0.0194 | 9.9999 | 0.0130 | 9.9999 | 0.6671 | 1.1091 | -0.0087 | 0.4867 | -0.0079 | 0.4388 |
| 176 | 58.27 | -0.03 | 0.0284 | 9.9999 | 0.0163 | 9.9999 | 0.5722 | 1.0893 | -0.0073 | 0.4786 | -0.0067 | 0.4393 |
| 177 | 58.40 | -0.04 | 0.0224 | 9.9999 | 0.0144 | 9.9999 | 0.6404 | 1.0638 | -0.0062 | 0.4661 | -0.0058 | 0.4382 |
| 178 | 58.53 | -0.06 | 0.0304 | 9.9999 | 0.0170 | 9.9999 | 0.5577 | 1.0703 | -0.0061 | 0.4693 | -0.0057 | 0.4385 |
| 179 | 58.54 | 0.03 | 0.0294 | 9.9999 | 0.0172 | 9.9999 | 0.5835 | 1.0810 | -0.0071 | 0.4745 | -0.0066 | 0.4390 |
| 180 | 58.54 | -0.05 | 0.0304 | 9.9999 | 0.0175 | 9.9999 | 0.5742 | 1.0679 | -0.0064 | 0.4692 | -0.0060 | 0.4394 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 1 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | BIWOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.01 | -1.4709 | 4.6688 | 0.0291 | -0.0374 | -0.0002 | 0.3737 | 0.1121 | 0.2616 | -3.1742 |
| 2 | -5.72 | -0.01 | -1.4870 | 4.6639 | 0.0137 | -0.0355 | -0.0003 | 0.3736 | 0.1125 | 0.2611 | -3.1365 |
| 3 | -5.72 | -0.01 | -1.4859 | 4.6806 | 0.0 | -0.0130 | -0.0003 | 0.3737 | 0.1126 | 0.2611 | -3.1501 |
| 4 | -4.85 | -0.01 | -1.2019 | 3.7909 | 0.0451 | -0.0273 | 0.0002 | 0.3684 | 0.1044 | 0.2640 | -3.3204 |
| 5 | -2.98 | -0.01 | -0.9439 | 3.3137 | 0.0133 | -0.0360 | 0.0006 | 0.3401 | 0.0992 | 0.2409 | -3.5107 |
| 6 | -1.21 | -0.01 | -0.6713 | 2.6435 | -0.0014 | -0.0227 | 0.0011 | 0.3203 | 0.0944 | 0.2258 | -3.9376 |
| 7 | 0.63 | -0.01 | -0.3837 | 1.9767 | -0.0009 | -0.0108 | 0.0016 | 0.2976 | 0.0948 | 0.2027 | -5.1518 |
| 8 | 2.44 | -0.01 | -0.1547 | 1.4310 | -0.0010 | -0.0109 | -0.0051 | 0.2765 | 0.0952 | 0.1813 | -9.2512 |
| 9 | 4.24 | -0.01 | 0.0642 | 0.9806 | 0.0432 | -0.0403 | 0.0027 | 0.2616 | 0.0981 | 0.1636 | 15.2667 |
| 10 | 6.05 | -0.00 | 0.2761 | 0.6946 | 0.0423 | -0.0259 | -0.0039 | 0.2574 | 0.1051 | 0.1524 | 2.5152 |
| 11 | 7.89 | -0.01 | 0.4868 | 0.4101 | -0.0165 | 0.0290 | 0.0040 | 0.2531 | 0.1214 | 0.1318 | 0.8425 |
| 12 | 9.65 | -0.01 | 0.7356 | 0.0087 | -0.0167 | 0.0288 | 0.0119 | 0.2399 | 0.1284 | 0.1116 | 0.0119 |
| 13 | 11.51 | -0.01 | 1.0183 | -0.5394 | -0.0191 | -0.0071 | 0.0055 | 0.2147 | 0.1359 | 0.0788 | -0.5297 |
| 14 | 13.29 | -0.01 | 1.3154 | -1.1188 | -0.0170 | 0.0024 | 0.0134 | 0.1881 | 0.1426 | 0.0455 | -0.8505 |
| 15 | 15.16 | -0.01 | 1.6487 | -1.7659 | -0.0744 | 0.0815 | 0.0139 | 0.1600 | 0.1501 | 0.0099 | -1.0711 |
| 16 | 17.08 | -0.01 | 2.0400 | -2.4950 | -0.1268 | 0.2579 | 0.0358 | 0.1306 | 0.1570 | -0.0264 | -1.2230 |
| 17 | 18.95 | -0.02 | 2.4141 | -3.2271 | -0.1798 | 0.4093 | 0.0504 | 0.1015 | 0.1650 | -0.0635 | -1.3368 |
| 18 | 20.83 | -0.02 | 2.8483 | -4.0259 | -0.4335 | 1.1217 | 0.0850 | 0.0723 | 0.1799 | -0.1076 | -1.4135 |
| 19 | 22.70 | -0.03 | 3.2045 | -4.5585 | -0.4517 | 1.0633 | 0.0287 | 0.0523 | 0.1920 | -0.1397 | -1.4225 |
| 20 | 24.56 | -0.03 | 3.5930 | -5.0824 | -0.6413 | 1.8355 | -0.0448 | 0.0529 | 0.2143 | -0.1614 | -1.4146 |
| 21 | 26.46 | 0.00 | 3.9691 | -5.4889 | 0.0885 | -0.0368 | 0.0344 | -0.0071 | 0.2023 | -0.2094 | -1.3829 |
| 22 | 27.91 | 0.02 | 4.2871 | -5.9242 | 0.2672 | -0.5848 | 0.0580 | -0.0382 | 0.2046 | -0.2428 | -1.3585 |
| 23 | 27.98 | 0.02 | 4.3484 | -5.8371 | 0.4546 | -0.7995 | 0.0732 | -0.0367 | 0.2055 | -0.2422 | -1.3424 |
| 24 | 28.36 | 0.01 | 4.4125 | -5.9528 | 0.2043 | -0.1976 | 0.0363 | -0.0497 | 0.2093 | -0.2590 | -1.3491 |
| 25 | 28.67 | 0.01 | 4.5091 | -5.9779 | 0.2635 | -0.4298 | 0.0443 | -0.0578 | 0.2101 | -0.2679 | -1.3257 |
| 26 | 28.95 | 0.02 | 4.5521 | -5.9742 | 0.3210 | -0.4965 | 0.0519 | -0.0577 | 0.2101 | -0.2678 | -1.3124 |
| 27 | 29.25 | 0.01 | 4.6487 | -6.1729 | 0.2684 | -0.3846 | 0.0519 | -0.0600 | 0.2138 | -0.2738 | -1.3279 |
| 28 | 29.55 | 0.03 | 4.7059 | -6.1983 | 0.4020 | -0.4850 | 0.0595 | -0.0735 | 0.2133 | -0.2868 | -1.3171 |
| 29 | 29.83 | 0.03 | 4.7789 | -6.1911 | 0.3938 | -0.3884 | 0.0525 | -0.0767 | 0.2148 | -0.2916 | -1.2934 |
| 30 | 30.08 | 0.04 | 4.9256 | -6.3310 | 0.6048 | -0.7005 | 0.0607 | -0.0872 | 0.2148 | -0.3021 | -1.2853 |
| 31 | 30.35 | 0.03 | 4.9238 | -6.2742 | 0.4867 | -0.6130 | 0.0751 | -0.0793 | 0.2190 | -0.2984 | -1.2743 |
| 32 | 30.64 | 0.04 | 4.9935 | -6.3071 | 0.4867 | -0.3455 | 0.0385 | -0.0827 | 0.2199 | -0.3027 | -1.2631 |
| 33 | 30.89 | 0.04 | 5.0514 | -6.3152 | 0.5244 | -0.2259 | 0.0310 | -0.0929 | 0.2222 | -0.3152 | -1.2502 |
| 34 | 31.18 | 0.03 | 5.1308 | -6.3965 | 0.4307 | -0.2532 | 0.0244 | -0.0872 | 0.2315 | -0.3188 | -1.2467 |
| 35 | 31.44 | 0.04 | 5.2057 | -6.3639 | 0.4617 | -0.2436 | 0.0319 | -0.0901 | 0.2287 | -0.3189 | -1.2225 |
| 36 | 31.71 | 0.05 | 5.3231 | -6.4358 | 0.6186 | -0.5081 | 0.0403 | -0.1098 | 0.2213 | -0.3311 | -1.2090 |
| 37 | 31.98 | 0.06 | 5.3822 | -6.4089 | 0.7481 | -0.6552 | 0.0482 | -0.1094 | 0.2237 | -0.3331 | -1.1907 |
| 38 | 32.23 | 0.06 | 5.5036 | -6.4137 | 0.8753 | -1.0552 | 0.0784 | -0.1160 | 0.2278 | -0.3438 | -1.1654 |
| 39 | 32.51 | 0.05 | 5.6239 | -6.3429 | 0.7717 | -0.9827 | 0.0644 | -0.1147 | 0.2325 | -0.3472 | -1.1278 |
| 40 | 32.75 | 0.06 | 5.6878 | -6.2498 | 0.9500 | -1.3158 | 0.1017 | -0.1285 | 0.2274 | -0.3559 | -1.0988 |
| 41 | 33.01 | 0.05 | 5.7725 | -6.2940 | 0.8538 | -1.1357 | 0.0727 | -0.1326 | 0.2344 | -0.3670 | -1.0903 |
| 42 | 33.26 | 0.06 | 5.8446 | -6.3120 | 0.8683 | -1.1358 | 0.0657 | -0.1330 | 0.2373 | -0.3703 | -1.0800 |
| 43 | 33.49 | 0.06 | 5.8482 | -6.0238 | 0.9035 | -1.0786 | 0.0372 | -0.0866 | 0.2565 | -0.3432 | -1.0300 |
| 44 | 33.76 | 0.08 | 5.9414 | -5.8418 | 1.0961 | -1.0430 | 0.0090 | -0.0580 | 0.2921 | -0.3501 | -0.9832 |
| 45 | 33.99 | 0.07 | 6.0123 | -5.9320 | 1.0709 | -0.9160 | 0.0160 | -0.0675 | 0.3052 | -0.3727 | -0.9666 |
| 46 | 34.24 | 0.07 | 6.1050 | -5.7675 | 1.1013 | -0.9436 | -0.0121 | -0.0308 | 0.3263 | -0.3571 | -0.9447 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.06 | 6.2982 | -6.0291 | 1.1148 | -1.4047 | 0.0831 | -0.1294 | 0.2812 | -0.4106 | -0.9573 |
| 48 | 34.74 | 0.07 | 6.4038 | -6.0210 | 1.0753 | -1.5076 | 0.1055 | -0.1554 | 0.2653 | -0.4207 | -0.9402 |
| 49 | 34.98 | 0.08 | 6.4308 | -5.9672 | 1.2461 | -1.7300 | 0.0771 | -0.1336 | 0.2728 | -0.4064 | -0.9279 |
| 50 | 35.19 | 0.06 | 6.4549 | -6.0744 | 1.0562 | -1.7293 | 0.0915 | -0.1498 | 0.2652 | -0.4150 | -0.9411 |
| 51 | 35.45 | 0.06 | 6.5994 | -6.2762 | 1.0263 | -1.7278 | 0.1136 | -0.1671 | 0.2705 | -0.4376 | -0.9518 |
| 52 | 35.69 | 0.05 | 6.6085 | -6.0303 | 1.0477 | -1.8231 | 0.1501 | -0.1619 | 0.2732 | -0.4345 | -0.9125 |
| 53 | 35.90 | 0.05 | 6.7066 | -6.1387 | 1.0515 | -1.7749 | 0.1142 | -0.1773 | 0.2685 | -0.4458 | -0.9153 |
| 54 | 36.15 | 0.05 | 6.7543 | -5.9217 | 0.9688 | -1.6204 | 0.1001 | -0.1346 | 0.2887 | -0.4232 | -0.8787 |
| 55 | 36.38 | 0.07 | 6.7853 | -5.6138 | 1.1343 | -1.2646 | -0.0224 | -0.0438 | 0.3483 | -0.3921 | -0.8273 |
| 56 | 36.60 | 0.06 | 6.8290 | -5.5376 | 1.0778 | -1.1856 | -0.0366 | -0.0268 | 0.3820 | -0.4088 | -0.8109 |
| 57 | 36.85 | 0.07 | 6.8725 | -5.4614 | 1.1283 | -1.1572 | -0.0507 | -0.0089 | 0.4034 | -0.4123 | -0.7947 |
| 58 | 37.08 | 0.08 | 6.9898 | -5.5155 | 1.2425 | -1.0465 | -0.0651 | -0.0125 | 0.3955 | -0.4080 | -0.7891 |
| 59 | 37.30 | 0.06 | 7.1128 | -5.4324 | 1.0051 | -0.3071 | -0.0813 | 0.0321 | 0.4481 | -0.4160 | -0.7637 |
| 60 | 37.55 | 0.07 | 7.2157 | -5.4571 | 1.0571 | -0.4850 | -0.0730 | 0.0286 | 0.4557 | -0.4271 | -0.7563 |
| 61 | 37.77 | 0.07 | 7.2446 | -5.4435 | 1.1283 | -0.2669 | -0.0955 | 0.0486 | 0.4799 | -0.4313 | -0.7514 |
| 62 | 38.01 | 0.08 | 7.3675 | -5.4706 | 1.1450 | 0.0783 | -0.0819 | 0.0762 | 0.5090 | -0.4327 | -0.7425 |
| 63 | 38.24 | 0.07 | 7.5032 | -5.5239 | 1.0719 | 0.4302 | -0.0754 | 0.0819 | 0.5150 | -0.4330 | -0.7362 |
| 64 | 38.47 | 0.07 | 7.5994 | -5.4584 | 1.0778 | 0.5537 | -0.0682 | 0.0953 | 0.5257 | -0.4303 | -0.7183 |
| 65 | 38.68 | 0.08 | 7.7675 | -5.5019 | 1.1617 | 0.7206 | -0.0757 | 0.0740 | 0.5178 | -0.4437 | -0.7083 |
| 66 | 38.91 | 0.07 | 7.7966 | -5.4887 | 1.1719 | 0.9043 | -0.0763 | 0.0832 | 0.5257 | -0.4424 | -0.7048 |
| 67 | 39.13 | 0.07 | 7.9946 | -5.5554 | 1.1524 | 1.1289 | -0.0692 | 0.0821 | 0.5299 | -0.4477 | -0.6949 |
| 68 | 39.33 | 0.09 | 8.0836 | -5.6076 | 1.3703 | 1.2217 | -0.0841 | 0.0788 | 0.5322 | -0.4533 | -0.6937 |
| 69 | 39.55 | 0.09 | 8.1706 | -5.6560 | 1.3293 | 1.2985 | -0.0839 | 0.0904 | 0.5421 | -0.4516 | -0.6922 |
| 70 | 39.75 | 0.10 | 8.2507 | -5.5953 | 1.3825 | 1.4423 | -0.0914 | 0.0840 | 0.5421 | -0.4580 | -0.6782 |
| 71 | 39.95 | 0.11 | 8.3578 | -5.6088 | 1.4826 | 1.6066 | -0.0992 | 0.0939 | 0.5434 | -0.4494 | -0.6711 |
| 72 | 40.16 | 0.12 | 8.4650 | -5.6224 | 1.5788 | 1.6967 | -0.0920 | 0.0892 | 0.5472 | -0.4579 | -0.6642 |
| 73 | 40.36 | 0.10 | 8.5913 | -5.7887 | 1.4220 | 1.9214 | -0.0995 | 0.0813 | 0.5490 | -0.4676 | -0.6738 |
| 74 | 40.59 | 0.10 | 8.6690 | -5.7427 | 1.4186 | 1.8598 | -0.0843 | 0.0931 | 0.5505 | -0.4573 | -0.6624 |
| 75 | 40.79 | 0.11 | 8.7569 | -5.7890 | 1.5433 | 1.9685 | -0.0905 | 0.0925 | 0.5595 | -0.4669 | -0.6611 |
| 76 | 40.98 | 0.11 | 8.7774 | -5.6441 | 1.5263 | 1.2354 | -0.0745 | 0.0963 | 0.5637 | -0.4674 | -0.6438 |
| 77 | 41.20 | 0.09 | 8.9117 | -5.6943 | 1.4382 | 1.2918 | -0.0666 | 0.0826 | 0.5627 | -0.4800 | -0.6390 |
| 78 | 41.39 | 0.10 | 9.0169 | -5.7224 | 1.5248 | 1.1847 | -0.0661 | 0.0840 | 0.5604 | -0.4763 | -0.6346 |
| 79 | 41.58 | 0.10 | 8.9399 | -5.6246 | 1.4666 | 1.2658 | -0.0737 | 0.0908 | 0.5590 | -0.4681 | -0.6292 |
| 80 | 41.77 | 0.08 | 8.9575 | -5.5307 | 1.4017 | 1.1974 | -0.0659 | 0.0870 | 0.5646 | -0.4775 | -0.6174 |
| 81 | 41.96 | 0.09 | 9.0477 | -5.5660 | 1.4291 | 1.4169 | -0.0665 | 0.0773 | 0.5687 | -0.4914 | -0.6152 |
| 82 | 42.16 | 0.09 | 9.1693 | -5.5521 | 1.5035 | 1.0632 | -0.0720 | 0.0770 | 0.5682 | -0.4711 | -0.6055 |
| 83 | 42.31 | 0.06 | 8.9324 | -4.9566 | 1.1514 | 0.7482 | -0.0778 | -0.0133 | 0.5009 | -0.5142 | -0.5549 |
| 84 | 42.50 | 0.04 | 8.9911 | -4.9842 | 1.0533 | 0.9565 | -0.0638 | -0.0188 | 0.5322 | -0.5513 | -0.5544 |
| 85 | 42.69 | 0.09 | 9.3929 | -5.5999 | 1.4001 | 1.4448 | -0.0796 | 0.0805 | 0.5725 | -0.4920 | -0.5962 |
| 86 | 42.87 | 0.08 | 9.4323 | -5.6642 | 1.3157 | 1.6148 | -0.0800 | 0.0805 | 0.5749 | -0.4944 | -0.6005 |
| 87 | 43.06 | 0.09 | 9.5693 | -5.6506 | 1.4879 | 1.4352 | -0.0789 | 0.0687 | 0.5718 | -0.5031 | -0.5985 |
| 88 | 43.23 | 0.09 | 9.5738 | -5.5487 | 1.4136 | 1.7625 | -0.0799 | 0.0744 | 0.5700 | -0.4956 | -0.5796 |
| 89 | 43.41 | 0.10 | 9.6935 | -5.6068 | 1.4512 | 1.9211 | -0.0802 | 0.0760 | 0.5821 | -0.5061 | -0.5704 |
| 90 | 43.59 | 0.09 | 9.7201 | -5.5882 | 1.4345 | 1.5888 | -0.0859 | 0.0671 | 0.5798 | -0.5127 | -0.5749 |
| 91 | 43.76 | 0.09 | 9.7647 | -5.5872 | 1.4661 | 1.6106 | -0.0786 | 0.0764 | 0.5774 | -0.5010 | -0.5722 |
| 92 | 43.95 | 0.07 | 9.8191 | -5.4174 | 1.2859 | 1.6764 | -0.0638 | 0.0548 | 0.5821 | -0.5273 | -0.5517 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.13 | 0.08 | 9.9316 | -5.5744 | 1.4381 | 1.6626 | -0.0709 | 0.0580 | 0.5864 | -0.5284 | -0.5613 |
| 94 | 44.32 | 0.10 | 10.1125 | -5.6818 | 1.6049 | 1.9184 | -0.0716 | 0.0646 | 0.5929 | -0.5283 | -0.5619 |
| 95 | 44.50 | 0.09 | 9.9898 | -5.5098 | 1.5851 | 1.2410 | -0.0692 | 0.0595 | 0.5924 | -0.5329 | -0.5515 |
| 96 | 44.67 | 0.09 | 10.1218 | -5.6307 | 1.5596 | 1.6256 | -0.0703 | 0.0576 | 0.5952 | -0.5376 | -0.5563 |
| 97 | 44.86 | 0.09 | 10.1830 | -5.6072 | 1.5452 | 1.6652 | -0.0629 | 0.0558 | 0.6022 | -0.5464 | -0.5506 |
| 98 | 45.03 | 0.09 | 10.1383 | -5.4996 | 1.5669 | 1.4901 | -0.0623 | 0.0524 | 0.6004 | -0.5480 | -0.5425 |
| 99 | 45.21 | 0.09 | 10.2584 | -5.5397 | 1.5148 | 1.6651 | -0.0625 | 0.0508 | 0.6074 | -0.5566 | -0.5400 |
| 100 | 45.39 | 0.09 | 10.3652 | -5.5525 | 1.5812 | 1.7735 | -0.0626 | 0.0524 | 0.6107 | -0.5583 | -0.5357 |
| 101 | 45.56 | 0.09 | 10.4346 | -5.6028 | 1.5100 | 1.5697 | -0.0686 | 0.0437 | 0.6116 | -0.5679 | -0.5369 |
| 102 | 45.73 | 0.09 | 10.5085 | -5.6614 | 1.6001 | 1.8460 | -0.0624 | 0.0473 | 0.6135 | -0.5662 | -0.5388 |
| 103 | 45.92 | 0.09 | 10.6023 | -5.6759 | 1.6060 | 1.9431 | -0.0550 | 0.0365 | 0.6191 | -0.5826 | -0.5323 |
| 104 | 46.08 | 0.09 | 10.6434 | -5.6588 | 1.4870 | 2.0296 | -0.0552 | 0.0408 | 0.6229 | -0.5821 | -0.5317 |
| 105 | 46.25 | 0.09 | 10.5905 | -5.5485 | 1.4672 | 1.6679 | -0.0608 | 0.0302 | 0.6198 | -0.5896 | -0.5239 |
| 106 | 46.42 | 0.07 | 10.6199 | -5.5169 | 1.3223 | 1.8430 | -0.0611 | 0.0289 | 0.6171 | -0.5882 | -0.5195 |
| 107 | 46.60 | 0.09 | 10.7961 | -5.6908 | 1.4885 | 2.1116 | -0.0620 | 0.0248 | 0.6235 | -0.5987 | -0.5271 |
| 108 | 46.77 | 0.09 | 10.8187 | -5.7585 | 1.5876 | 1.9543 | -0.0687 | 0.0139 | 0.6278 | -0.6139 | -0.5323 |
| 109 | 46.94 | 0.07 | 10.7621 | -5.5703 | 1.2133 | 2.1000 | -0.0685 | 0.0243 | 0.6245 | -0.6002 | -0.5176 |
| 110 | 47.12 | 0.07 | 10.8474 | -5.6343 | 1.2149 | 2.1247 | -0.0828 | -0.0013 | 0.6152 | -0.6165 | -0.5194 |
| 111 | 47.27 | 0.06 | 10.9460 | -5.5963 | 1.0532 | 2.2505 | -0.0757 | 0.0015 | 0.6227 | -0.6212 | -0.5160 |
| 112 | 47.44 | 0.05 | 10.8743 | -5.5810 | 1.0357 | 2.2027 | -0.0754 | -0.0218 | 0.6106 | -0.6324 | -0.5132 |
| 113 | 47.62 | 0.04 | 10.9188 | -5.5430 | 0.9200 | 2.3247 | -0.0898 | -0.0178 | 0.5923 | -0.6101 | -0.5077 |
| 114 | 47.79 | 0.04 | 10.9594 | -5.5721 | 0.8298 | 2.3319 | -0.0896 | -0.0428 | 0.6003 | -0.6431 | -0.5084 |
| 115 | 47.95 | 0.01 | 10.7631 | -5.0980 | 0.4418 | 2.1945 | -0.0887 | -0.1033 | 0.5583 | -0.6615 | -0.4737 |
| 116 | 48.11 | 0.02 | 10.8880 | -5.0912 | 0.5693 | 2.3197 | -0.0889 | -0.1047 | 0.5662 | -0.6708 | -0.4676 |
| 117 | 48.28 | 0.00 | 10.7986 | -5.0566 | 0.4167 | 2.0214 | -0.1020 | -0.1239 | 0.5042 | -0.6280 | -0.4683 |
| 118 | 48.45 | -0.01 | 10.7949 | -4.9560 | 0.1988 | 2.2260 | -0.1024 | -0.1560 | 0.4968 | -0.6527 | -0.4595 |
| 119 | 48.61 | -0.03 | 10.8018 | -4.8799 | 0.0907 | 2.1986 | -0.0875 | -0.1877 | 0.5061 | -0.6938 | -0.4518 |
| 120 | 48.78 | -0.02 | 10.8256 | -4.9312 | 0.1621 | 2.0799 | -0.0873 | -0.2314 | 0.4357 | -0.6671 | -0.4555 |
| 121 | 48.95 | -0.02 | 10.8863 | -4.7530 | 0.1780 | 2.1164 | -0.0727 | -0.2253 | 0.4580 | -0.6834 | -0.4374 |
| 122 | 49.15 | -0.01 | 11.0795 | -4.8153 | 0.2566 | 2.4540 | -0.0876 | -0.1486 | 0.5354 | -0.6840 | -0.4346 |
| 123 | 49.31 | -0.03 | 10.9983 | -4.6851 | -0.0258 | 2.3035 | -0.0650 | -0.2016 | 0.5079 | -0.7095 | -0.4260 |
| 124 | 49.48 | -0.01 | 11.1451 | -4.7997 | 0.1380 | 2.5352 | -0.0872 | -0.1615 | 0.5234 | -0.6849 | -0.4307 |
| 125 | 49.66 | -0.02 | 11.2093 | -4.7094 | 0.0330 | 2.5692 | -0.0724 | -0.1477 | 0.5591 | -0.7068 | -0.4201 |
| 126 | 49.84 | -0.02 | 11.2828 | -4.7481 | 0.0404 | 2.7161 | -0.0656 | -0.1803 | 0.5517 | -0.7320 | -0.4208 |
| 127 | 50.02 | 0.01 | 11.5337 | -5.4148 | 0.3755 | 2.7213 | -0.0658 | -0.1067 | 0.5925 | -0.6992 | -0.4695 |
| 128 | 50.16 | -0.02 | 11.3507 | -5.0055 | 0.1035 | 2.4641 | -0.0575 | -0.1666 | 0.5442 | -0.7108 | -0.4410 |
| 129 | 50.34 | -0.00 | 11.5891 | -5.6089 | 0.3144 | 2.4325 | -0.0574 | -0.1325 | 0.5866 | -0.7191 | -0.4840 |
| 130 | 50.54 | 0.02 | 11.9539 | -6.3243 | 0.5846 | 2.6329 | -0.0653 | -0.1211 | 0.6031 | -0.7242 | -0.5291 |
| 131 | 50.70 | 0.01 | 12.0995 | -6.4361 | 0.4031 | 2.9577 | -0.0729 | -0.1274 | 0.6048 | -0.7322 | -0.5319 |
| 132 | 50.86 | 0.03 | 12.2196 | -6.5937 | 0.5621 | 3.0724 | -0.0879 | -0.1202 | 0.6033 | -0.7235 | -0.5396 |
| 133 | 51.04 | 0.02 | 12.2367 | -6.5182 | 0.4891 | 3.1406 | -0.0735 | -0.1323 | 0.6046 | -0.7369 | -0.5327 |
| 134 | 51.19 | 0.02 | 12.2162 | -6.5395 | 0.4803 | 2.9432 | -0.0732 | -0.1320 | 0.6047 | -0.7367 | -0.5353 |
| 135 | 51.36 | 0.03 | 12.3642 | -6.6742 | 0.5656 | 3.4320 | -0.0821 | -0.1337 | 0.6055 | -0.7392 | -0.5398 |
| 136 | 51.54 | 0.03 | 12.4644 | -6.7683 | 0.6012 | 3.5280 | -0.0894 | -0.1353 | 0.6051 | -0.7404 | -0.5430 |
| 137 | 51.71 | 0.05 | 12.6117 | -6.9014 | 0.7239 | 3.8131 | -0.0976 | -0.1351 | 0.6093 | -0.7444 | -0.5472 |
| 138 | 51.88 | 0.05 | 12.6449 | -6.9369 | 0.7622 | 3.6430 | -0.0898 | -0.1385 | 0.6142 | -0.7527 | -0.5486 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.05 | 0.07 | 12.7984 | -6.7782 | 0.9211 | 4.0503 | -0.0838 | -0.1453 | 0.6113 | -0.7566 | -0.5296 |
| 140 | 52.21 | 0.05 | 12.8526 | -7.0442 | 0.7765 | 3.9437 | -0.0976 | -0.1407 | 0.6147 | -0.7554 | -0.5481 |
| 141 | 52.40 | 0.05 | 12.9934 | -7.2403 | 0.7275 | 4.1809 | -0.1054 | -0.1626 | 0.6142 | -0.7768 | -0.5572 |
| 142 | 52.57 | 0.06 | 13.0793 | -6.9242 | 1.0358 | 4.2142 | -0.0692 | -0.1617 | 0.6188 | -0.7805 | -0.5294 |
| 143 | 52.73 | 0.07 | 13.1034 | -6.9763 | 0.9911 | 4.2430 | -0.0620 | -0.1682 | 0.6230 | -0.7912 | -0.5324 |
| 144 | 52.90 | 0.06 | 13.2422 | -6.7686 | 0.9915 | 4.2416 | -0.0251 | -0.1813 | 0.6244 | -0.8057 | -0.5111 |
| 145 | 53.07 | 0.06 | 13.1702 | -6.8146 | 1.0457 | 4.1137 | -0.0394 | -0.1719 | 0.6169 | -0.7889 | -0.5174 |
| 146 | 53.24 | 0.08 | 13.4277 | -6.8731 | 1.1462 | 3.9782 | -0.0153 | -0.1985 | 0.6214 | -0.8199 | -0.5119 |
| 147 | 53.42 | 0.06 | 13.4404 | -6.7492 | 1.0358 | 3.6112 | 0.0155 | -0.1865 | 0.6179 | -0.8044 | -0.5022 |
| 148 | 53.58 | 0.06 | 13.4872 | -6.9055 | 1.0014 | 3.5402 | 0.0014 | -0.1856 | 0.6174 | -0.8030 | -0.5120 |
| 149 | 53.75 | 0.07 | 13.5739 | -6.9711 | 1.1601 | 3.3131 | 0.0022 | -0.2146 | 0.6198 | -0.8344 | -0.5136 |
| 150 | 53.91 | 0.07 | 13.6429 | -6.8483 | 1.0884 | 3.4323 | 0.0168 | -0.1929 | 0.6235 | -0.8164 | -0.5020 |
| 151 | 54.07 | 0.07 | 13.6702 | -6.8498 | 1.1299 | 3.3414 | 0.0172 | -0.1939 | 0.6245 | -0.8184 | -0.5011 |
| 152 | 54.24 | 0.06 | 13.7793 | -6.8093 | 1.0695 | 3.3461 | 0.0178 | -0.1938 | 0.6316 | -0.8224 | -0.4942 |
| 153 | 54.40 | 0.07 | 13.9503 | -7.0911 | 1.2889 | 3.1829 | 0.0256 | -0.1992 | 0.6237 | -0.8229 | -0.5083 |
| 154 | 54.56 | 0.08 | 13.9057 | -6.7745 | 1.2391 | 3.4107 | 0.0322 | -0.2108 | 0.6191 | -0.8299 | -0.4872 |
| 155 | 54.73 | 0.08 | 14.0648 | -7.1226 | 1.2705 | 3.1231 | 0.0119 | -0.1989 | 0.6247 | -0.8236 | -0.5064 |
| 156 | 54.88 | 0.07 | 14.0592 | -6.9491 | 1.1229 | 3.2786 | 0.0190 | -0.1949 | 0.6183 | -0.8132 | -0.4943 |
| 157 | 55.03 | 0.07 | 14.0533 | -7.0188 | 1.1183 | 3.2237 | 0.0046 | -0.1953 | 0.6238 | -0.8191 | -0.4994 |
| 158 | 55.19 | 0.09 | 14.1001 | -7.0474 | 1.3629 | 3.2678 | 0.0187 | -0.2056 | 0.6122 | -0.8178 | -0.4998 |
| 159 | 55.42 | 0.07 | 14.3127 | -7.2786 | 1.1662 | 3.2852 | 0.0124 | -0.2177 | 0.6192 | -0.8369 | -0.5085 |
| 160 | 55.57 | 0.06 | 14.1570 | -6.9628 | 0.9924 | 3.4872 | 0.0189 | -0.2071 | 0.6276 | -0.8147 | -0.4918 |
| 161 | 55.73 | 0.07 | 14.3096 | -7.2093 | 1.1961 | 3.0304 | 0.0135 | -0.2095 | 0.6134 | -0.8229 | -0.5038 |
| 162 | 55.86 | 0.06 | 14.2523 | -7.0569 | 1.0402 | 2.9554 | 0.0212 | -0.2130 | 0.6102 | -0.8232 | -0.4951 |
| 163 | 56.02 | 0.06 | 14.2361 | -7.0076 | 1.0358 | 2.8722 | 0.0359 | -0.2138 | 0.6116 | -0.8254 | -0.4922 |
| 164 | 56.19 | 0.06 | 14.2960 | -6.9826 | 1.0737 | 3.0172 | 0.0139 | -0.2292 | 0.6079 | -0.8371 | -0.4889 |
| 165 | 56.33 | 0.07 | 14.3838 | -7.2173 | 1.1783 | 2.9385 | 0.0285 | -0.2362 | 0.6072 | -0.8434 | -0.5018 |
| 166 | 56.49 | 0.06 | 14.3277 | -7.1969 | 1.0117 | 2.9352 | 0.0215 | -0.2205 | 0.6069 | -0.8274 | -0.5023 |
| 167 | 56.63 | 0.07 | 14.3280 | -7.1203 | 1.1698 | 3.0002 | 0.0354 | -0.2163 | 0.6138 | -0.8301 | -0.4978 |
| 168 | 56.81 | 0.03 | 14.5021 | -7.1961 | 0.8171 | 2.6864 | 0.0235 | -0.2322 | 0.6194 | -0.8516 | -0.4962 |
| 169 | 56.95 | 0.06 | 14.5322 | -7.2028 | 1.0960 | 2.7342 | 0.0229 | -0.2316 | 0.6185 | -0.8501 | -0.4956 |
| 170 | 57.10 | 0.06 | 14.5894 | -7.2278 | 1.0463 | 2.6776 | 0.0307 | -0.2228 | 0.6227 | -0.8455 | -0.4954 |
| 171 | 57.25 | 0.06 | 14.7167 | -7.3771 | 1.1997 | 2.3788 | 0.0246 | -0.2290 | 0.6312 | -0.8602 | -0.5013 |
| 172 | 57.39 | 0.05 | 14.6800 | -7.1719 | 1.0396 | 2.5417 | 0.0388 | -0.2380 | 0.6435 | -0.8816 | -0.4885 |
| 173 | 57.54 | 0.04 | 14.6798 | -7.0988 | 0.8654 | 2.7315 | 0.0313 | -0.2326 | 0.6430 | -0.8757 | -0.4836 |
| 174 | 57.68 | 0.05 | 14.6184 | -7.0136 | 1.0010 | 2.3843 | 0.0395 | -0.2276 | 0.6554 | -0.8831 | -0.4798 |
| 175 | 57.85 | 0.03 | 14.8329 | -7.0381 | 0.7641 | 2.5421 | 0.0473 | -0.2402 | 0.6704 | -0.9107 | -0.4745 |
| 176 | 57.97 | 0.06 | 14.6183 | -6.9566 | 1.1361 | 2.0900 | 0.0404 | -0.2404 | 0.6622 | -0.9027 | -0.4759 |
| 177 | 57.99 | 0.04 | 14.6945 | -6.9808 | 0.8643 | 2.4612 | 0.0397 | -0.2438 | 0.6560 | -0.8999 | -0.4751 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | B1W0F1S | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | C81 | XCPF1 | YCPF1 | CNF2 | CH2 | C82 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.01 | -0.0120 | 0.0014 | 0.0088 | -0.1167 | -0.7333 | -0.6980 | -0.0664 | -0.3213 | 0.0951 | 0.4603 |
| 2 | -5.72 | -0.01 | -0.0123 | 0.0018 | 0.0108 | -0.1464 | -0.8780 | -0.6996 | -0.0665 | -0.3235 | 0.0951 | 0.4624 |
| 3 | -5.72 | -0.01 | -0.0079 | 0.0025 | 0.0127 | -0.3166 | -1.6076 | -0.6963 | -0.0662 | -0.3218 | 0.0951 | 0.4622 |
| 4 | -4.85 | -0.01 | -0.0077 | 0.0021 | 0.0107 | -0.2728 | -1.3896 | -0.5554 | -0.0608 | -0.2838 | 0.1039 | 0.4849 |
| 5 | -2.98 | -0.01 | -0.0013 | 0.0030 | 0.0088 | -2.3086 | -6.7692 | -0.4651 | -0.0531 | -0.2410 | 0.1141 | 0.5182 |
| 6 | -1.21 | -0.01 | -0.0023 | 0.0021 | 0.0047 | -0.9134 | -2.0435 | -0.3458 | -0.0420 | -0.1846 | 0.1214 | 0.5339 |
| 7 | 0.63 | -0.01 | -0.0006 | 0.0023 | 0.0035 | -3.8349 | -5.8333 | -0.2294 | -0.0314 | -0.1278 | 0.1367 | 0.5570 |
| 8 | 2.44 | -0.01 | -0.0003 | 0.0021 | 0.0009 | -7.0028 | -3.0000 | -0.1272 | -0.0208 | -0.0749 | 0.1638 | 0.5890 |
| 9 | 4.24 | -0.01 | -0.0001 | 0.0019 | -0.0004 | -19.0076 | 4.0000 | -0.0517 | -0.0110 | -0.0358 | 0.2133 | 0.6938 |
| 10 | 6.05 | -0.00 | 0.0026 | 0.0026 | 0.0020 | 1.0004 | 0.7692 | 0.0121 | 0.0016 | -0.0090 | 0.1323 | -0.7438 |
| 11 | 7.89 | -0.01 | -0.0001 | 0.0019 | -0.0004 | -19.0076 | 4.0000 | 0.0572 | 0.0152 | 0.0123 | 0.2663 | 0.2154 |
| 12 | 9.65 | -0.01 | 0.0114 | 0.0035 | 0.0056 | 0.3071 | 0.4912 | 0.1222 | 0.0285 | 0.0468 | 0.2337 | 0.3828 |
| 13 | 11.51 | -0.01 | 0.0129 | 0.0033 | 0.0058 | 0.2559 | 0.4496 | 0.1939 | 0.0408 | 0.0863 | 0.2102 | 0.4450 |
| 14 | 13.29 | -0.01 | 0.0087 | 0.0029 | 0.0026 | 0.3335 | 0.2989 | 0.2923 | 0.0526 | 0.1346 | 0.1799 | 0.4604 |
| 15 | 15.16 | -0.01 | 0.0081 | 0.0020 | 0.0064 | 0.2470 | 1.0370 | 0.3862 | 0.0624 | 0.1792 | 0.1616 | 0.4641 |
| 16 | 17.08 | -0.01 | 0.0215 | 0.0001 | 0.0259 | 0.0047 | 1.2047 | 0.4624 | 0.0682 | 0.2134 | 0.1475 | 0.4615 |
| 17 | 18.95 | -0.02 | 0.0195 | -0.0039 | 0.0330 | -0.2001 | 1.6923 | 0.5470 | 0.0745 | 0.2477 | 0.1362 | 0.4529 |
| 18 | 20.83 | -0.02 | -0.0054 | -0.0133 | 0.0417 | 2.4639 | -7.7037 | 0.5987 | 0.0785 | 0.2622 | 0.1312 | 0.4380 |
| 19 | 22.70 | -0.03 | -0.0488 | -0.0126 | 0.0167 | 0.2588 | -0.3429 | 0.6955 | 0.0820 | 0.3021 | 0.1180 | 0.4344 |
| 20 | 24.56 | -0.03 | -0.1568 | -0.0185 | -0.0303 | 0.1182 | 0.1935 | 0.7544 | 0.0829 | 0.3145 | 0.1099 | 0.4169 |
| 21 | 26.46 | 0.00 | 0.0557 | 0.0065 | 0.0456 | 0.1170 | 0.8183 | 0.8898 | 0.0564 | 0.3459 | 0.0634 | 0.3887 |
| 22 | 27.91 | 0.02 | 0.1538 | 0.0134 | 0.0873 | 0.0873 | 0.5677 | 0.9469 | 0.0485 | 0.3600 | 0.0512 | 0.3802 |
| 23 | 27.98 | 0.02 | 0.1623 | 0.0156 | 0.0917 | 0.0963 | 0.5651 | 0.9488 | 0.0474 | 0.3581 | 0.0499 | 0.3775 |
| 24 | 28.36 | 0.01 | 0.0824 | 0.0099 | 0.0529 | 0.1203 | 0.6416 | 0.9684 | 0.0512 | 0.3681 | 0.0529 | 0.3801 |
| 25 | 28.67 | 0.01 | 0.1323 | 0.0139 | 0.0753 | 0.1045 | 0.5693 | 0.9757 | 0.0489 | 0.3678 | 0.0501 | 0.3769 |
| 26 | 28.95 | 0.02 | 0.1262 | 0.0142 | 0.0740 | 0.1127 | 0.5865 | 0.9891 | 0.0495 | 0.3717 | 0.0500 | 0.3757 |
| 27 | 29.25 | 0.01 | 0.1754 | 0.0182 | 0.0996 | 0.1039 | 0.5679 | 1.0029 | 0.0479 | 0.3747 | 0.0477 | 0.3736 |
| 28 | 29.55 | 0.03 | 0.1842 | 0.0187 | 0.1032 | 0.1017 | 0.5603 | 1.0131 | 0.0473 | 0.3783 | 0.0467 | 0.3734 |
| 29 | 29.83 | 0.03 | 0.1334 | 0.0151 | 0.0782 | 0.1134 | 0.5863 | 1.0197 | 0.0487 | 0.3809 | 0.0477 | 0.3735 |
| 30 | 30.08 | 0.04 | 0.1551 | 0.0169 | 0.0887 | 0.1091 | 0.5720 | 1.0365 | 0.0492 | 0.3864 | 0.0474 | 0.3728 |
| 31 | 30.35 | 0.03 | 0.1488 | 0.0174 | 0.0894 | 0.1171 | 0.6009 | 1.0367 | 0.0485 | 0.3850 | 0.0469 | 0.3714 |
| 32 | 30.64 | 0.04 | 0.1049 | 0.0178 | 0.0677 | 0.1699 | 0.6450 | 1.0400 | 0.0489 | 0.3846 | 0.0470 | 0.3698 |
| 33 | 30.89 | 0.04 | 0.1021 | 0.0182 | 0.0648 | 0.1785 | 0.6343 | 1.0501 | 0.0493 | 0.3882 | 0.0469 | 0.3697 |
| 34 | 31.18 | 0.03 | 0.0994 | 0.0194 | 0.0628 | 0.1954 | 0.6314 | 1.0540 | 0.0487 | 0.3891 | 0.0462 | 0.3691 |
| 35 | 31.44 | 0.04 | 0.0901 | 0.0201 | 0.0619 | 0.2234 | 0.6867 | 1.0558 | 0.0488 | 0.3886 | 0.0462 | 0.3680 |
| 36 | 31.71 | 0.05 | 0.1493 | 0.0233 | 0.0838 | 0.1563 | 0.5614 | 1.0661 | 0.0473 | 0.3914 | 0.0443 | 0.3671 |
| 37 | 31.98 | 0.06 | 0.1726 | 0.0270 | 0.0940 | 0.1567 | 0.5447 | 1.0765 | 0.0462 | 0.3922 | 0.0429 | 0.3643 |
| 38 | 32.23 | 0.06 | 0.2242 | 0.0276 | 0.1161 | 0.1233 | 0.5181 | 1.0935 | 0.0460 | 0.3976 | 0.0420 | 0.3636 |
| 39 | 32.51 | 0.05 | 0.2405 | 0.0312 | 0.1196 | 0.1295 | 0.4975 | 1.0989 | 0.0441 | 0.3960 | 0.0401 | 0.3603 |
| 40 | 32.75 | 0.06 | 0.2640 | 0.0319 | 0.1309 | 0.1206 | 0.4956 | 1.1009 | 0.0431 | 0.3954 | 0.0391 | 0.3592 |
| 41 | 33.01 | 0.05 | 0.2372 | 0.0343 | 0.1190 | 0.1444 | 0.5019 | 1.1174 | 0.0450 | 0.4036 | 0.0402 | 0.3612 |
| 42 | 33.26 | 0.06 | 0.2163 | 0.0344 | 0.1129 | 0.1589 | 0.5222 | 1.1208 | 0.0452 | 0.4053 | 0.0403 | 0.3616 |
| 43 | 33.49 | 0.06 | 0.2085 | 0.0387 | 0.1093 | 0.1855 | 0.5245 | 1.1043 | 0.0434 | 0.3944 | 0.0393 | 0.3571 |
| 44 | 33.76 | 0.08 | 0.2014 | 0.0386 | 0.1033 | 0.1914 | 0.5129 | 1.1110 | 0.0436 | 0.3990 | 0.0392 | 0.3591 |
| 45 | 33.99 | 0.07 | 0.1893 | 0.0408 | 0.0997 | 0.2153 | 0.5267 | 1.1044 | 0.0431 | 0.3943 | 0.0390 | 0.3570 |
| 46 | 34.24 | 0.07 | 0.1861 | 0.0425 | 0.0989 | 0.2282 | 0.5315 | 1.1111 | 0.0431 | 0.3983 | 0.0388 | 0.3585 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | 81WOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNUWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | C81 | XCPF1 | YCPF1 | CNF2 | CH2 | C82 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.06 | 0.2717 | 0.0431 | 0.1359 | 0.1585 | 0.5000 | 1.1331 | 0.0424 | 0.4055 | 0.0374 | 0.3579 |
| 48 | 34.74 | 0.07 | 0.2867 | 0.0447 | 0.1390 | 0.1558 | 0.4848 | 1.1417 | 0.0415 | 0.4082 | 0.0363 | 0.3575 |
| 49 | 34.98 | 0.08 | 0.2935 | 0.0422 | 0.1367 | 0.1437 | 0.4657 | 1.1257 | 0.0370 | 0.3971 | 0.0328 | 0.3526 |
| 50 | 35.19 | 0.06 | 0.2891 | 0.0405 | 0.1354 | 0.1400 | 0.4683 | 1.1360 | 0.0363 | 0.3980 | 0.0319 | 0.3503 |
| 51 | 35.45 | 0.06 | 0.2813 | 0.0414 | 0.1347 | 0.1470 | 0.4786 | 1.1445 | 0.0363 | 0.4007 | 0.0317 | 0.3501 |
| 52 | 35.69 | 0.05 | 0.2875 | 0.0377 | 0.1333 | 0.1310 | 0.4636 | 1.1076 | 0.0319 | 0.3854 | 0.0288 | 0.3479 |
| 53 | 35.90 | 0.05 | 0.2870 | 0.0415 | 0.1344 | 0.1445 | 0.4682 | 1.1507 | 0.0369 | 0.4027 | 0.0320 | 0.3500 |
| 54 | 36.15 | 0.05 | 0.2310 | 0.0404 | 0.1111 | 0.1748 | 0.4811 | 1.1342 | 0.0353 | 0.3932 | 0.0311 | 0.3467 |
| 55 | 36.38 | 0.07 | 0.0776 | 0.0359 | 0.0481 | 0.4621 | 0.6194 | 1.1013 | 0.0369 | 0.3832 | 0.0335 | 0.3479 |
| 56 | 36.60 | 0.06 | 0.0895 | 0.0363 | 0.0520 | 0.4051 | 0.5805 | 1.1263 | 0.0379 | 0.3954 | 0.0336 | 0.3511 |
| 57 | 36.85 | 0.07 | 0.0882 | 0.0343 | 0.0516 | 0.3884 | 0.5846 | 1.1179 | 0.0376 | 0.3927 | 0.0336 | 0.3513 |
| 58 | 37.08 | 0.08 | 0.0067 | 0.0196 | 0.0192 | 2.9265 | 2.8657 | 1.1044 | 0.0376 | 0.3858 | 0.0340 | 0.3520 |
| 59 | 37.30 | 0.06 | -0.0041 | 0.0061 | 0.0162 | -1.4884 | -3.9512 | 1.1045 | 0.0371 | 0.3888 | 0.0336 | 0.3520 |
| 60 | 37.55 | 0.07 | -0.0028 | 0.0065 | 0.0184 | -2.3224 | -6.5714 | 1.0979 | 0.0360 | 0.3835 | 0.0328 | 0.3493 |
| 61 | 37.77 | 0.07 | -0.0241 | -0.0021 | 0.0090 | 0.0872 | -0.3734 | 1.1214 | 0.0376 | 0.3916 | 0.0335 | 0.3492 |
| 62 | 38.01 | 0.08 | -0.0077 | -0.0102 | 0.0201 | 1.3252 | -2.6104 | 1.1053 | 0.0344 | 0.3787 | 0.0311 | 0.3426 |
| 63 | 38.24 | 0.07 | -0.0015 | -0.0203 | 0.0273 | 13.5397 | -18.2000 | 1.1123 | 0.0325 | 0.3798 | 0.0292 | 0.3414 |
| 64 | 38.47 | 0.07 | 0.0133 | -0.0224 | 0.0338 | -1.6849 | 2.5414 | 1.1025 | 0.0309 | 0.3749 | 0.0280 | 0.3400 |
| 65 | 38.68 | 0.08 | -0.0056 | -0.0219 | 0.0240 | 3.9123 | -4.2857 | 1.1061 | 0.0302 | 0.3738 | 0.0273 | 0.3379 |
| 66 | 38.91 | 0.07 | 0.0064 | -0.0226 | 0.0278 | -3.5327 | 4.3438 | 1.1195 | 0.0296 | 0.3803 | 0.0265 | 0.3397 |
| 67 | 39.13 | 0.07 | -0.0011 | -0.0238 | 0.0268 | 21.6450 | -24.3636 | 1.1032 | 0.0274 | 0.3708 | 0.0249 | 0.3361 |
| 68 | 39.33 | 0.09 | -0.0287 | -0.0228 | 0.0116 | 0.7947 | -0.4042 | 1.1188 | 0.0287 | 0.3745 | 0.0239 | 0.3353 |
| 69 | 39.55 | 0.09 | -0.0172 | -0.0230 | 0.0187 | 1.3377 | -1.0872 | 1.1169 | 0.0258 | 0.3732 | 0.0231 | 0.3341 |
| 70 | 39.75 | 0.10 | -0.0521 | -0.0257 | 0.0021 | 0.4944 | -0.0404 | 1.1071 | 0.0241 | 0.3696 | 0.0218 | 0.3338 |
| 71 | 39.95 | 0.11 | -0.0535 | -0.0250 | 0.0001 | 0.4684 | -0.0019 | 1.1205 | 0.0236 | 0.3760 | 0.0211 | 0.3355 |
| 72 | 40.16 | 0.12 | -0.0493 | -0.0255 | 0.0038 | 0.5185 | -0.0772 | 1.1041 | 0.0217 | 0.3695 | 0.0197 | 0.3337 |
| 73 | 40.36 | 0.10 | -0.0569 | -0.0233 | 0.0013 | 0.4104 | -0.0229 | 1.1242 | 0.0213 | 0.3782 | 0.0190 | 0.3364 |
| 74 | 40.59 | 0.10 | -0.0230 | -0.0182 | 0.0121 | 0.7916 | -0.5261 | 1.1294 | 0.0200 | 0.3793 | 0.0177 | 0.3358 |
| 75 | 40.79 | 0.11 | -0.0023 | -0.0172 | 0.0185 | 7.4812 | -8.0435 | 1.1435 | 0.0188 | 0.3849 | 0.0165 | 0.3366 |
| 76 | 40.98 | 0.11 | 0.0221 | -0.0117 | 0.0310 | -0.5296 | 1.4027 | 1.1201 | 0.0170 | 0.3768 | 0.0152 | 0.3364 |
| 77 | 41.20 | 0.09 | 0.0397 | -0.0099 | 0.0371 | -0.2495 | 0.9345 | 1.1235 | 0.0168 | 0.3791 | 0.0150 | 0.3374 |
| 78 | 41.39 | 0.10 | 0.0338 | -0.0098 | 0.0345 | -0.2931 | 1.0207 | 1.1236 | 0.0162 | 0.3791 | 0.0144 | 0.3374 |
| 79 | 41.58 | 0.10 | 0.0223 | -0.0117 | 0.0291 | -0.5249 | 1.3049 | 1.1236 | 0.0162 | 0.3791 | 0.0144 | 0.3374 |
| 80 | 41.77 | 0.08 | 0.0222 | -0.0113 | 0.0291 | -0.5092 | 1.3108 | 1.1237 | 0.0150 | 0.3804 | 0.0134 | 0.3385 |
| 81 | 41.96 | 0.09 | 0.0075 | -0.0134 | 0.0246 | -1.7874 | 3.2800 | 1.1338 | 0.0152 | 0.3839 | 0.0134 | 0.3386 |
| 82 | 42.16 | 0.09 | -0.0015 | -0.0122 | 0.0212 | 8.1366 | -14.1333 | 1.1371 | 0.0153 | 0.3855 | 0.0135 | 0.3390 |
| 83 | 42.31 | 0.06 | -0.0728 | -0.0045 | -0.0096 | 0.0619 | 0.1320 | 1.1712 | 0.0251 | 0.3963 | 0.0215 | 0.3383 |
| 84 | 42.50 | 0.04 | -0.0744 | -0.0021 | -0.0115 | 0.0283 | 0.1548 | 1.1863 | 0.0261 | 0.4010 | 0.0220 | 0.3380 |
| 85 | 42.69 | 0.09 | -0.0192 | -0.0198 | 0.0071 | 1.0317 | -0.3698 | 1.1138 | 0.0136 | 0.3754 | 0.0122 | 0.3370 |
| 86 | 42.87 | 0.08 | -0.0133 | -0.0192 | 0.0091 | 1.4442 | -0.6842 | 1.1306 | 0.0134 | 0.3836 | 0.0119 | 0.3393 |
| 87 | 43.06 | 0.09 | -0.0343 | -0.0190 | 0.0036 | 0.5542 | -0.1050 | 1.1184 | 0.0138 | 0.3773 | 0.0124 | 0.3373 |
| 88 | 43.23 | 0.09 | -0.0364 | -0.0236 | -0.0012 | 0.6486 | 0.0330 | 1.1186 | 0.0128 | 0.3773 | 0.0115 | 0.3373 |
| 89 | 43.41 | 0.10 | -0.0437 | -0.0257 | -0.0036 | 0.5897 | 0.0826 | 1.1202 | 0.0127 | 0.3788 | 0.0114 | 0.3381 |
| 90 | 43.59 | 0.09 | -0.0411 | -0.0223 | -0.0021 | 0.5441 | 0.0512 | 1.1386 | 0.0132 | 0.3857 | 0.0116 | 0.3387 |
| 91 | 43.76 | 0.09 | -0.0395 | -0.0227 | -0.0014 | 0.5749 | 0.0354 | 1.1153 | 0.0127 | 0.3750 | 0.0114 | 0.3362 |
| 92 | 43.95 | 0.07 | -0.0542 | -0.0231 | -0.0083 | 0.4272 | 0.1534 | 1.0950 | 0.0130 | 0.3666 | 0.0119 | 0.3347 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSHDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 3 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | BIWOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.13 | 0.08 | -0.0569 | -0.0246 | -0.0101 | 0.4333 | 0.1778 | 1.1136 | 0.0125 | 0.3742 | 0.0112 | 0.3360 |
| 94 | 44.32 | 0.10 | -0.0571 | -0.0236 | -0.0093 | 0.4142 | 0.1632 | 1.1136 | 0.0125 | 0.3755 | 0.0112 | 0.3372 |
| 95 | 44.50 | 0.09 | -0.0457 | -0.0200 | -0.0043 | 0.4388 | 0.0943 | 1.1169 | 0.0125 | 0.3765 | 0.0112 | 0.3371 |
| 96 | 44.67 | 0.09 | -0.0517 | -0.0212 | -0.0051 | 0.4110 | 0.0988 | 1.1356 | 0.0114 | 0.3833 | 0.0101 | 0.3375 |
| 97 | 44.86 | 0.09 | -0.0515 | -0.0214 | -0.0064 | 0.4165 | 0.1245 | 1.1138 | 0.0115 | 0.3741 | 0.0103 | 0.3359 |
| 98 | 45.03 | 0.09 | -0.0605 | -0.0205 | -0.0092 | 0.3395 | 0.1523 | 1.1087 | 0.0119 | 0.3724 | 0.0108 | 0.3359 |
| 99 | 45.21 | 0.09 | -0.0663 | -0.0226 | -0.0108 | 0.3415 | 0.1631 | 1.1070 | 0.0119 | 0.3709 | 0.0108 | 0.3350 |
| 100 | 45.39 | 0.09 | -0.0764 | -0.0231 | -0.0165 | 0.3029 | 0.2163 | 1.0952 | 0.0119 | 0.3666 | 0.0109 | 0.3347 |
| 101 | 45.56 | 0.09 | -0.0688 | -0.0231 | -0.0157 | 0.3364 | 0.2285 | 1.1322 | 0.0113 | 0.3824 | 0.0100 | 0.3377 |
| 102 | 45.73 | 0.09 | -0.0720 | -0.0232 | -0.0148 | 0.3228 | 0.2058 | 1.1154 | 0.0119 | 0.3756 | 0.0107 | 0.3367 |
| 103 | 45.92 | 0.09 | -0.0839 | -0.0244 | -0.0175 | 0.2913 | 0.2088 | 1.1054 | 0.0108 | 0.3714 | 0.0098 | 0.3360 |
| 104 | 46.08 | 0.09 | -0.0956 | -0.0258 | -0.0216 | 0.2703 | 0.2262 | 1.1087 | 0.0109 | 0.3743 | 0.0098 | 0.3376 |
| 105 | 46.25 | 0.09 | -0.0822 | -0.0238 | -0.0179 | 0.2900 | 0.2180 | 1.1217 | 0.0106 | 0.3769 | 0.0095 | 0.3360 |
| 106 | 46.42 | 0.07 | -0.0911 | -0.0254 | -0.0197 | 0.2792 | 0.2165 | 1.1334 | 0.0101 | 0.3832 | 0.0089 | 0.3381 |
| 107 | 46.60 | 0.09 | -0.0939 | -0.0261 | -0.0208 | 0.2784 | 0.2217 | 1.1301 | 0.0103 | 0.3796 | 0.0091 | 0.3359 |
| 108 | 46.77 | 0.09 | -0.0983 | -0.0271 | -0.0220 | 0.2761 | 0.2240 | 1.1302 | 0.0098 | 0.3795 | 0.0087 | 0.3358 |
| 109 | 46.94 | 0.07 | -0.1245 | -0.0299 | -0.0337 | 0.2406 | 0.2711 | 1.1335 | 0.0105 | 0.3805 | 0.0093 | 0.3357 |
| 110 | 47.12 | 0.07 | -0.1421 | -0.0311 | -0.0410 | 0.2186 | 0.2882 | 1.1604 | 0.0102 | 0.3901 | 0.0088 | 0.3362 |
| 111 | 47.27 | 0.06 | -0.1378 | -0.0315 | -0.0379 | 0.2283 | 0.2754 | 1.1520 | 0.0097 | 0.3874 | 0.0084 | 0.3363 |
| 112 | 47.44 | 0.05 | -0.1639 | -0.0349 | -0.0485 | 0.2127 | 0.2957 | 1.1504 | 0.0098 | 0.3852 | 0.0085 | 0.3348 |
| 113 | 47.62 | 0.04 | -0.1914 | -0.0410 | -0.0594 | 0.2140 | 0.3101 | 1.1370 | 0.0099 | 0.3788 | 0.0087 | 0.3331 |
| 114 | 47.79 | 0.04 | -0.2149 | -0.0391 | -0.0708 | 0.1818 | 0.3295 | 1.1605 | 0.0098 | 0.3888 | 0.0085 | 0.3350 |
| 115 | 47.95 | 0.01 | -0.2266 | -0.0355 | -0.0788 | 0.1565 | 0.3478 | 1.2005 | 0.0127 | 0.4023 | 0.0106 | 0.3351 |
| 116 | 48.11 | 0.02 | -0.2307 | -0.0379 | -0.0815 | 0.1641 | 0.3533 | 1.1906 | 0.0117 | 0.3981 | 0.0098 | 0.3344 |
| 117 | 48.28 | 0.00 | -0.2348 | -0.0351 | -0.0841 | 0.1493 | 0.3582 | 1.2300 | 0.0137 | 0.4123 | 0.0112 | 0.3352 |
| 118 | 48.45 | -0.01 | -0.2591 | -0.0423 | -0.0942 | 0.1631 | 0.3636 | 1.2168 | 0.0132 | 0.4038 | 0.0109 | 0.3319 |
| 119 | 48.61 | -0.03 | -0.2514 | -0.0393 | -0.0963 | 0.1562 | 0.3831 | 1.2253 | 0.0123 | 0.4072 | 0.0101 | 0.3323 |
| 120 | 48.78 | -0.02 | -0.2662 | -0.0373 | -0.1028 | 0.1400 | 0.3862 | 1.2352 | 0.0135 | 0.4094 | 0.0109 | 0.3314 |
| 121 | 48.95 | -0.02 | -0.2458 | -0.0352 | -0.0951 | 0.1430 | 0.3870 | 1.2420 | 0.0127 | 0.4126 | 0.0102 | 0.3322 |
| 122 | 49.15 | -0.01 | -0.2632 | -0.0411 | -0.0997 | 0.1560 | 0.3789 | 1.2037 | 0.0115 | 0.3966 | 0.0096 | 0.3295 |
| 123 | 49.31 | -0.03 | -0.2448 | -0.0420 | -0.0939 | 0.1714 | 0.3836 | 1.1851 | 0.0094 | 0.3891 | 0.0079 | 0.3283 |
| 124 | 49.48 | -0.01 | -0.2728 | -0.0408 | -0.1052 | 0.1494 | 0.3857 | 1.2298 | 0.0120 | 0.4076 | 0.0098 | 0.3314 |
| 125 | 49.66 | -0.02 | -0.2433 | -0.0447 | -0.0921 | 0.1836 | 0.3786 | 1.1700 | 0.0089 | 0.3858 | 0.0076 | 0.3297 |
| 126 | 49.84 | -0.02 | -0.2332 | -0.0391 | -0.0909 | 0.1675 | 0.3899 | 1.2098 | 0.0110 | 0.4012 | 0.0091 | 0.3316 |
| 127 | 50.02 | 0.01 | -0.2208 | -0.0349 | -0.0819 | 0.1579 | 0.3710 | 1.1597 | 0.0108 | 0.3817 | 0.0093 | 0.3291 |
| 128 | 50.16 | -0.02 | -0.2243 | -0.0407 | -0.0869 | 0.1813 | 0.3875 | 1.1467 | 0.0090 | 0.3745 | 0.0079 | 0.3268 |
| 129 | 50.34 | -0.00 | -0.1719 | -0.0335 | -0.0549 | 0.1946 | 0.3192 | 1.2029 | 0.0133 | 0.3968 | 0.0111 | 0.3299 |
| 130 | 50.54 | 0.02 | -0.1539 | -0.0359 | -0.0389 | 0.2330 | 0.2531 | 1.2253 | 0.0125 | 0.4052 | 0.0105 | 0.3307 |
| 131 | 50.70 | 0.01 | -0.1608 | -0.0377 | -0.0446 | 0.2342 | 0.2771 | 1.2270 | 0.0128 | 0.4040 | 0.0104 | 0.3293 |
| 132 | 50.86 | 0.03 | -0.1584 | -0.0374 | -0.0417 | 0.2359 | 0.2630 | 1.2512 | 0.0126 | 0.4126 | 0.0101 | 0.3298 |
| 133 | 51.04 | 0.02 | -0.1541 | -0.0345 | -0.0408 | 0.2236 | 0.2645 | 1.2313 | 0.0114 | 0.4028 | 0.0093 | 0.3271 |
| 134 | 51.19 | 0.02 | -0.1649 | -0.0352 | -0.0461 | 0.2132 | 0.2793 | 1.2494 | 0.0120 | 0.4109 | 0.0096 | 0.3289 |
| 135 | 51.36 | 0.03 | -0.1737 | -0.0394 | -0.0469 | 0.2266 | 0.2697 | 1.2665 | 0.0114 | 0.4163 | 0.0090 | 0.3287 |
| 136 | 51.54 | 0.03 | -0.1545 | -0.0378 | -0.0406 | 0.2444 | 0.2631 | 1.2935 | 0.0100 | 0.4279 | 0.0077 | 0.3308 |
| 137 | 51.71 | 0.05 | -0.1842 | -0.0410 | -0.0483 | 0.2224 | 0.2620 | 1.2986 | 0.0101 | 0.4284 | 0.0078 | 0.3299 |
| 138 | 51.88 | 0.05 | -0.1757 | -0.0409 | -0.0448 | 0.2326 | 0.2547 | 1.3146 | 0.0100 | 0.4337 | 0.0076 | 0.3299 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | BIWOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.05 | 0.07 | -0.1886 | -0.0429 | -0.0523 | 0.2273 | 0.2771 | 1.2882 | 0.0063 | 0.4218 | 0.0049 | 0.3275 |
| 140 | 52.21 | 0.05 | -0.1934 | -0.0424 | -0.0515 | 0.2190 | 0.2669 | 1.3150 | 0.0072 | 0.4322 | 0.0055 | 0.3287 |
| 141 | 52.40 | 0.05 | -0.1902 | -0.0419 | -0.0524 | 0.2201 | 0.2753 | 1.3237 | 0.0056 | 0.4362 | 0.0042 | 0.3296 |
| 142 | 52.57 | 0.06 | -0.1593 | -0.0319 | -0.0464 | 0.2000 | 0.2910 | 1.2652 | 0.0025 | 0.4103 | 0.0020 | 0.3243 |
| 143 | 52.73 | 0.07 | -0.1844 | -0.0340 | -0.0553 | 0.1841 | 0.2997 | 1.2498 | 0.0032 | 0.4057 | 0.0026 | 0.3246 |
| 144 | 52.90 | 0.06 | -0.1608 | -0.0270 | -0.0499 | 0.1682 | 0.3101 | 1.2145 | 0.0030 | 0.3918 | 0.0025 | 0.3221 |
| 145 | 53.07 | 0.06 | -0.1551 | -0.0258 | -0.0471 | 0.1666 | 0.3034 | 1.2297 | 0.0025 | 0.3985 | 0.0020 | 0.3241 |
| 146 | 53.24 | 0.08 | -0.1110 | -0.0177 | -0.0320 | 0.1597 | 0.2885 | 1.2043 | 0.0028 | 0.3890 | 0.0023 | 0.3230 |
| 147 | 53.42 | 0.06 | -0.0719 | -0.0097 | -0.0162 | 0.1352 | 0.2256 | 1.1880 | 0.0024 | 0.3848 | 0.0020 | 0.3239 |
| 148 | 53.58 | 0.06 | -0.0686 | -0.0108 | -0.0167 | 0.1577 | 0.2438 | 1.2083 | 0.0016 | 0.3932 | 0.0013 | 0.3256 |
| 149 | 53.75 | 0.07 | -0.0468 | -0.0079 | -0.0067 | 0.1692 | 0.1435 | 1.2269 | 0.0010 | 0.4022 | 0.0008 | 0.3278 |
| 150 | 53.91 | 0.07 | -0.0440 | -0.0067 | -0.0049 | 0.1527 | 0.1116 | 1.1981 | 0.0017 | 0.3910 | 0.0014 | 0.3263 |
| 151 | 54.07 | 0.07 | -0.0445 | -0.0036 | -0.0032 | 0.0811 | 0.0721 | 1.1846 | 0.0022 | 0.3845 | 0.0019 | 0.3246 |
| 152 | 54.24 | 0.06 | -0.0395 | -0.0041 | -0.0041 | 0.1038 | 0.1038 | 1.2184 | 0.0011 | 0.4001 | 0.0009 | 0.3284 |
| 153 | 54.40 | 0.07 | -0.0296 | -0.0029 | 0.0031 | 0.0980 | -0.1047 | 1.2245 | 0.0005 | 0.4000 | 0.0007 | 0.3267 |
| 154 | 54.56 | 0.08 | -0.0648 | -0.0068 | -0.0111 | 0.1051 | 0.1716 | 1.1924 | 0.0016 | 0.3859 | 0.0013 | 0.3236 |
| 155 | 54.73 | 0.08 | -0.0561 | -0.0067 | -0.0062 | 0.1197 | 0.1107 | 1.2363 | 0.0004 | 0.4057 | 0.0003 | 0.3282 |
| 156 | 54.88 | 0.07 | -0.0769 | -0.0092 | -0.0107 | 0.1198 | 0.1393 | 1.2187 | 0.0006 | 0.3969 | 0.0005 | 0.3257 |
| 157 | 55.03 | 0.07 | -0.0606 | -0.0076 | -0.0048 | 0.1257 | 0.0793 | 1.2281 | 0.0006 | 0.4025 | 0.0005 | 0.3277 |
| 158 | 55.19 | 0.09 | -0.0676 | -0.0100 | -0.0079 | 0.1482 | 0.1170 | 1.2258 | 0.0003 | 0.3990 | 0.0002 | 0.3255 |
| 159 | 55.42 | 0.07 | -0.0724 | -0.0100 | -0.0064 | 0.1384 | 0.0885 | 1.2325 | -0.0002 | 0.4015 | -0.0002 | 0.3258 |
| 160 | 55.57 | 0.06 | -0.0814 | -0.0110 | -0.0075 | 0.1354 | 0.0923 | 1.2258 | 0.0 | 0.4003 | 0.0 | 0.3266 |
| 161 | 55.73 | 0.07 | -0.0594 | -0.0076 | -0.0001 | 0.1282 | 0.0017 | 1.2502 | -0.0009 | 0.4097 | -0.0007 | 0.3277 |
| 162 | 55.86 | 0.06 | -0.0540 | -0.0041 | 0.0035 | 0.9761 | -0.0649 | 1.2367 | -0.0003 | 0.4046 | -0.0002 | 0.3272 |
| 163 | 56.02 | 0.06 | -0.0676 | -0.0039 | 0.0015 | 0.0578 | -0.0222 | 1.2132 | 0.0006 | 0.3947 | 0.0005 | 0.3253 |
| 164 | 56.19 | 0.06 | -0.1034 | -0.0109 | -0.0157 | 0.1056 | 0.1520 | 1.2202 | -0.0014 | 0.3978 | -0.0011 | 0.3260 |
| 165 | 56.33 | 0.07 | -0.0699 | -0.0078 | -0.0032 | 0.1118 | 0.0458 | 1.2325 | -0.0016 | 0.4027 | -0.0013 | 0.3267 |
| 166 | 56.49 | 0.06 | -0.0546 | -0.0030 | 0.0063 | 0.0531 | -0.1156 | 1.2347 | -0.0005 | 0.4029 | -0.0004 | 0.3263 |
| 167 | 56.63 | 0.07 | -0.0827 | -0.0060 | -0.0030 | 0.0727 | 0.0363 | 1.2235 | -0.0005 | 0.3991 | -0.0004 | 0.3262 |
| 168 | 56.81 | 0.03 | -0.0415 | -0.0025 | 0.0117 | 0.0604 | -0.2526 | 1.2505 | -0.0016 | 0.4101 | -0.0013 | 0.3279 |
| 169 | 56.95 | 0.06 | -0.0518 | -0.0049 | 0.0090 | 0.0948 | -0.1741 | 1.2388 | -0.0017 | 0.4057 | -0.0014 | 0.3275 |
| 170 | 57.10 | 0.06 | -0.0548 | -0.0029 | 0.0070 | 0.0530 | -0.1280 | 1.2320 | -0.0017 | 0.4045 | -0.0014 | 0.3283 |
| 171 | 57.25 | 0.06 | -0.0522 | -0.0024 | 0.0106 | 0.0461 | -0.2035 | 1.2370 | -0.0018 | 0.4062 | -0.0015 | 0.3284 |
| 172 | 57.39 | 0.05 | -0.0539 | -0.0020 | 0.0111 | 0.0372 | -0.2063 | 1.2471 | -0.0017 | 0.4111 | -0.0014 | 0.3296 |
| 173 | 57.54 | 0.04 | -0.0716 | -0.0036 | 0.0051 | 0.0504 | -0.0713 | 1.2066 | -0.0007 | 0.3943 | -0.0006 | 0.3268 |
| 174 | 57.68 | 0.05 | -0.0647 | -0.0001 | 0.0096 | 0.0015 | -0.1496 | 1.2218 | -0.0016 | 0.4009 | -0.0013 | 0.3281 |
| 175 | 57.85 | 0.03 | -0.0586 | -0.0010 | 0.0108 | 0.0171 | -0.1846 | 1.2319 | -0.0015 | 0.4051 | -0.0012 | 0.3288 |
| 176 | 57.97 | 0.06 | -0.0423 | 0.0001 | 0.0178 | -0.0024 | -0.4218 | 1.2289 | -0.0021 | 0.4044 | -0.0017 | 0.3291 |
| 177 | 57.99 | 0.04 | -0.0556 | -0.0005 | 0.0131 | 0.0090 | -0.2360 | 1.2356 | -0.0022 | 0.4058 | -0.0018 | 0.3283 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSROC) 7 BY 10 FJOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.01 | -0.0211 | 9.9999 | 0.0148 | 9.9999 | -0.7914 | -0.7250 | -0.0670 | -0.3211 | 0.0924 | 0.4429 |
| 2 | -5.72 | -0.01 | -0.0195 | 9.9999 | 0.0155 | 9.9999 | -0.7949 | -0.7266 | -0.0673 | -0.3225 | 0.0926 | 0.4438 |
| 3 | -5.72 | -0.01 | -0.0180 | 9.9999 | 0.0156 | 9.9999 | -0.8667 | -0.7266 | -0.0674 | -0.3238 | 0.0928 | 0.4456 |
| 4 | -4.85 | -0.01 | -0.0211 | 9.9999 | 0.0148 | 9.9999 | -0.7014 | -0.6194 | -0.0608 | -0.2791 | 0.0982 | 0.4507 |
| 5 | -2.98 | -0.01 | -0.0196 | 9.9999 | 0.0155 | 9.9999 | -0.7908 | -0.5005 | -0.0538 | -0.2350 | 0.1075 | 0.4695 |
| 6 | -1.21 | -0.01 | -0.0228 | 9.9999 | 0.0165 | 9.9999 | -0.7237 | -0.3779 | -0.0434 | -0.1797 | 0.1148 | 0.4756 |
| 7 | 0.63 | -0.01 | -0.0212 | 9.9999 | 0.0172 | 9.9999 | -0.8113 | -0.2655 | -0.0321 | -0.1242 | 0.1207 | 0.4678 |
| 8 | 2.44 | -0.01 | -0.0273 | 9.9999 | 0.0149 | 9.9999 | -0.5458 | -0.1706 | -0.0219 | -0.0664 | 0.1266 | 0.3891 |
| 9 | 4.24 | -0.01 | -0.0212 | 9.9999 | 0.0172 | 9.9999 | -0.8113 | -0.0699 | -0.0105 | -0.0300 | 0.1505 | 0.4298 |
| 10 | 6.05 | -0.00 | -0.0211 | 9.9999 | 0.0160 | 9.9999 | -0.7583 | -0.0113 | 0.0016 | -0.0077 | -0.1416 | 0.6814 |
| 11 | 7.89 | -0.01 | -0.0179 | 9.9999 | 0.0138 | 9.9999 | -0.7709 | 0.0577 | 0.0171 | 0.0159 | 0.2970 | 0.2760 |
| 12 | 9.65 | -0.01 | -0.0179 | 9.9999 | 0.0138 | 9.9999 | -0.7709 | 0.1231 | 0.0297 | 0.0467 | 0.2418 | 0.3792 |
| 13 | 11.51 | -0.01 | -0.0101 | 9.9999 | 0.0150 | 9.9999 | -1.4851 | 0.2024 | 0.0424 | 0.0858 | 0.2093 | 0.4387 |
| 14 | 13.29 | -0.01 | -0.0116 | 9.9999 | 0.0137 | 9.9999 | -1.1810 | 0.2589 | 0.0543 | 0.1401 | 0.1879 | 0.4849 |
| 15 | 15.16 | -0.01 | -0.0085 | 9.9999 | 0.0133 | 9.9999 | -1.5547 | 0.3870 | 0.0644 | 0.1915 | 0.1664 | 0.4950 |
| 16 | 17.08 | -0.01 | -0.0114 | 9.9999 | 0.0100 | 9.9999 | -0.8772 | 0.5066 | 0.0729 | 0.2442 | 0.1439 | 0.4820 |
| 17 | 18.95 | -0.02 | -0.0144 | 9.9999 | 0.0068 | 9.9999 | -0.4722 | 0.6128 | 0.0804 | 0.2920 | 0.1313 | 0.4765 |
| 18 | 20.83 | -0.02 | -0.0204 | 9.9999 | 0.0020 | 9.9999 | -0.0980 | 0.7508 | 0.0833 | 0.3509 | 0.1110 | 0.4674 |
| 19 | 22.70 | -0.03 | -0.0173 | 9.9999 | 0.0023 | 9.9999 | -0.1329 | 0.7618 | 0.0837 | 0.3236 | 0.0836 | 0.4313 |
| 20 | 24.56 | -0.03 | -0.0110 | 9.9999 | 0.0016 | 9.9999 | -0.1455 | 0.7862 | 0.0387 | 0.3206 | 0.0492 | 0.4078 |
| 21 | 26.46 | 0.00 | -0.0017 | 9.9999 | 0.0029 | 9.9999 | -1.7059 | 0.8372 | 0.0522 | 0.3549 | 0.0623 | 0.4239 |
| 22 | 27.91 | 0.02 | 0.0012 | 9.9999 | 0.0068 | 9.9999 | 5.6667 | 0.8682 | 0.0533 | 0.3722 | 0.0614 | 0.4287 |
| 23 | 27.98 | 0.02 | 0.0059 | 9.9999 | 0.0078 | 9.9999 | 1.3220 | 0.8732 | 0.0540 | 0.3791 | 0.0618 | 0.4341 |
| 24 | 28.36 | 0.01 | 0.0044 | 9.9999 | 0.0071 | 9.9999 | 1.6136 | 0.8845 | 0.0490 | 0.3844 | 0.0554 | 0.4346 |
| 25 | 28.67 | 0.01 | 0.0090 | 9.9999 | 0.0080 | 9.9999 | 0.8889 | 0.8836 | 0.0507 | 0.3871 | 0.0574 | 0.4381 |
| 26 | 28.95 | 0.02 | 0.0060 | 9.9999 | 0.0054 | 9.9999 | 0.9000 | 0.8862 | 0.0493 | 0.3903 | 0.0556 | 0.4404 |
| 27 | 29.25 | 0.01 | 0.0154 | 9.9999 | 0.0073 | 9.9999 | 0.4740 | 0.9005 | 0.0487 | 0.3977 | 0.0541 | 0.4416 |
| 28 | 29.55 | 0.03 | 0.0122 | 9.9999 | 0.0083 | 9.9999 | 0.6803 | 0.8966 | 0.0496 | 0.3989 | 0.0553 | 0.4449 |
| 29 | 29.83 | 0.03 | 0.0091 | 9.9999 | 0.0062 | 9.9999 | 0.6913 | 0.9064 | 0.0475 | 0.4038 | 0.0524 | 0.4455 |
| 30 | 30.08 | 0.04 | 0.0308 | 9.9999 | 0.0134 | 9.9999 | 0.4351 | 0.9225 | 0.0468 | 0.4101 | 0.0507 | 0.4445 |
| 31 | 30.35 | 0.03 | 0.0155 | 9.9999 | 0.0049 | 9.9999 | 0.3161 | 0.9144 | 0.0456 | 0.4080 | 0.0498 | 0.4462 |
| 32 | 30.64 | 0.04 | 0.0155 | 9.9999 | 0.0049 | 9.9999 | 0.3161 | 0.8974 | 0.0410 | 0.3989 | 0.0457 | 0.4445 |
| 33 | 30.89 | 0.04 | 0.0170 | 9.9999 | 0.0056 | 9.9999 | 0.3294 | 0.9049 | 0.0401 | 0.4025 | 0.0443 | 0.4448 |
| 34 | 31.18 | 0.03 | 0.0155 | 9.9999 | 0.0049 | 9.9999 | 0.3161 | 0.8938 | 0.0378 | 0.3975 | 0.0422 | 0.4447 |
| 35 | 31.44 | 0.04 | 0.0202 | 9.9999 | 0.0047 | 9.9999 | 0.2327 | 0.8860 | 0.0362 | 0.3960 | 0.0408 | 0.4469 |
| 36 | 31.71 | 0.05 | 0.0248 | 9.9999 | 0.0087 | 9.9999 | 0.3508 | 0.9174 | 0.0400 | 0.4106 | 0.0436 | 0.4476 |
| 37 | 31.98 | 0.06 | 0.0247 | 9.9999 | 0.0093 | 9.9999 | 0.3765 | 0.9092 | 0.0389 | 0.4085 | 0.0427 | 0.4493 |
| 38 | 32.23 | 0.06 | 0.0324 | 9.9999 | 0.0130 | 9.9999 | 0.4012 | 0.9458 | 0.0439 | 0.4268 | 0.0454 | 0.4513 |
| 39 | 32.51 | 0.05 | 0.0248 | 9.9999 | 0.0081 | 9.9999 | 0.3266 | 0.9306 | 0.0417 | 0.4196 | 0.0448 | 0.4509 |
| 40 | 32.75 | 0.06 | 0.0278 | 9.9999 | 0.0120 | 9.9999 | 0.4317 | 0.9470 | 0.0442 | 0.4283 | 0.0466 | 0.4523 |
| 41 | 33.01 | 0.05 | 0.0308 | 9.9999 | 0.0147 | 9.9999 | 0.4773 | 0.9277 | 0.0369 | 0.4167 | 0.0397 | 0.4492 |
| 42 | 33.26 | 0.06 | 0.0370 | 9.9999 | 0.0158 | 9.9999 | 0.4270 | 0.9143 | 0.0357 | 0.4123 | 0.0390 | 0.4509 |
| 43 | 33.49 | 0.06 | 0.0277 | 9.9999 | 0.0138 | 9.9999 | 0.4982 | 0.8057 | 0.0284 | 0.3669 | 0.0353 | 0.4553 |
| 44 | 33.76 | 0.08 | 0.0399 | 9.9999 | 0.0203 | 9.9999 | 0.5088 | 0.8391 | 0.0283 | 0.3816 | 0.0338 | 0.4547 |
| 45 | 33.99 | 0.07 | 0.0260 | 9.9999 | 0.0149 | 9.9999 | 0.5731 | 0.8063 | 0.0273 | 0.3681 | 0.0339 | 0.4565 |
| 46 | 34.24 | 0.07 | 0.0399 | 9.9999 | 0.0209 | 9.9999 | 0.5238 | 0.7825 | 0.0257 | 0.3575 | 0.0329 | 0.4569 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | WINGFIN | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.50 | 0.06 | 0.0399 | 9.9999 | 0.0203 | 9.9999 | 0.5088 | 0.8902 | 0.0315 | 0.4040 | 0.0353 | 0.4538 |
| 48 | 34.74 | 0.07 | 0.0353 | 9.9999 | 0.0187 | 9.9999 | 0.5297 | 0.9267 | 0.0357 | 0.4216 | 0.0385 | 0.4549 |
| 49 | 34.98 | 0.08 | 0.0431 | 9.9999 | 0.0218 | 9.9999 | 0.5070 | 0.9432 | 0.0379 | 0.4297 | 0.0401 | 0.4556 |
| 50 | 35.19 | 0.06 | 0.0338 | 9.9999 | 0.0180 | 9.9999 | 0.5325 | 0.9702 | 0.0400 | 0.4424 | 0.0412 | 0.4560 |
| 51 | 35.45 | 0.06 | 0.0368 | 9.9999 | 0.0201 | 9.9999 | 0.5462 | 0.9971 | 0.0387 | 0.4514 | 0.0388 | 0.4527 |
| 52 | 35.69 | 0.05 | 0.0368 | 9.9999 | 0.0194 | 9.9999 | 0.5272 | 1.0223 | 0.0442 | 0.4631 | 0.0432 | 0.4530 |
| 53 | 35.90 | 0.05 | 0.0367 | 9.9999 | 0.0212 | 9.9999 | 0.5777 | 1.0098 | 0.0410 | 0.4585 | 0.0406 | 0.4520 |
| 54 | 36.15 | 0.05 | 0.0335 | 9.9999 | 0.0122 | 9.9999 | 0.6627 | 0.9331 | 0.0332 | 0.4224 | 0.0355 | 0.4527 |
| 55 | 36.38 | 0.07 | 0.0428 | 9.9999 | 0.0247 | 9.9999 | 0.5785 | 0.7833 | 0.0249 | 0.3582 | 0.0318 | 0.4574 |
| 56 | 36.60 | 0.06 | 0.0365 | 9.9999 | 0.0236 | 9.9999 | 0.6466 | 0.7904 | 0.0245 | 0.3574 | 0.0310 | 0.4522 |
| 57 | 36.85 | 0.07 | 0.0428 | 9.9999 | 0.0253 | 9.9999 | 0.5925 | 0.7936 | 0.0250 | 0.3571 | 0.0316 | 0.4500 |
| 58 | 37.08 | 0.08 | 0.0363 | 9.9999 | 0.0236 | 9.9999 | 0.6466 | 0.7660 | 0.0242 | 0.3465 | 0.0316 | 0.4524 |
| 59 | 37.30 | 0.06 | 0.0335 | 9.9999 | 0.0209 | 9.9999 | 0.6239 | 0.7554 | 0.0244 | 0.3393 | 0.0324 | 0.4492 |
| 60 | 37.55 | 0.07 | 0.0397 | 9.9999 | 0.0226 | 9.9999 | 0.5693 | 0.7696 | 0.0238 | 0.3448 | 0.0310 | 0.4488 |
| 61 | 37.77 | 0.07 | 0.0335 | 9.9999 | 0.0209 | 9.9999 | 0.6239 | 0.7536 | 0.0244 | 0.3360 | 0.0324 | 0.4459 |
| 62 | 38.01 | 0.08 | 0.0365 | 9.9999 | 0.0224 | 9.9999 | 0.6137 | 0.7430 | 0.0246 | 0.3326 | 0.0332 | 0.4476 |
| 63 | 38.24 | 0.07 | 0.0304 | 9.9999 | 0.0195 | 9.9999 | 0.6414 | 0.7373 | 0.0256 | 0.3291 | 0.0348 | 0.4464 |
| 64 | 38.47 | 0.07 | 0.0397 | 9.9999 | 0.0214 | 9.9999 | 0.5390 | 0.7249 | 0.0258 | 0.3237 | 0.0356 | 0.4465 |
| 65 | 38.68 | 0.08 | 0.0351 | 9.9999 | 0.0205 | 9.9999 | 0.5840 | 0.7373 | 0.0254 | 0.3265 | 0.0345 | 0.4428 |
| 66 | 38.91 | 0.07 | 0.0366 | 9.9999 | 0.0212 | 9.9999 | 0.5792 | 0.7280 | 0.0265 | 0.3202 | 0.0345 | 0.4398 |
| 67 | 39.13 | 0.07 | 0.0459 | 9.9999 | 0.0250 | 9.9999 | 0.5459 | 0.7385 | 0.0264 | 0.3242 | 0.0358 | 0.4396 |
| 68 | 39.33 | 0.09 | 0.0366 | 9.9999 | 0.0212 | 9.9999 | 0.5792 | 0.7444 | 0.0251 | 0.3263 | 0.0338 | 0.4383 |
| 69 | 39.55 | 0.09 | 0.0429 | 9.9999 | 0.0235 | 9.9999 | 0.5491 | 0.7405 | 0.0257 | 0.3229 | 0.0348 | 0.4360 |
| 70 | 39.75 | 0.10 | 0.0397 | 9.9999 | 0.0214 | 9.9999 | 0.5390 | 0.7407 | 0.0252 | 0.3209 | 0.0341 | 0.4332 |
| 71 | 39.95 | 0.11 | 0.0444 | 9.9999 | 0.0236 | 9.9999 | 0.5327 | 0.7476 | 0.0254 | 0.3214 | 0.0348 | 0.4299 |
| 72 | 40.16 | 0.12 | 0.0521 | 9.9999 | 0.0261 | 9.9999 | 0.5019 | 0.7526 | 0.0257 | 0.3199 | 0.0342 | 0.4258 |
| 73 | 40.36 | 0.10 | 0.0459 | 9.9999 | 0.0250 | 9.9999 | 0.5459 | 0.7617 | 0.0249 | 0.3237 | 0.0327 | 0.4249 |
| 74 | 40.59 | 0.10 | 0.0459 | 9.9999 | 0.0250 | 9.9999 | 0.5459 | 0.7526 | 0.0256 | 0.3192 | 0.0341 | 0.4241 |
| 75 | 40.79 | 0.11 | 0.0507 | 9.9999 | 0.0254 | 9.9999 | 0.5020 | 0.7427 | 0.0273 | 0.3141 | 0.0368 | 0.4229 |
| 76 | 40.98 | 0.11 | 0.0491 | 9.9999 | 0.0250 | 9.9999 | 0.5286 | 0.7462 | 0.0273 | 0.3157 | 0.0366 | 0.4231 |
| 77 | 41.20 | 0.09 | 0.0460 | 9.9999 | 0.0250 | 9.9999 | 0.5447 | 0.7425 | 0.0276 | 0.3135 | 0.0372 | 0.4222 |
| 78 | 41.39 | 0.10 | 0.0521 | 9.9999 | 0.0285 | 9.9999 | 0.5481 | 0.7547 | 0.0275 | 0.3163 | 0.0365 | 0.4191 |
| 79 | 41.58 | 0.10 | 0.0537 | 9.9999 | 0.0293 | 9.9999 | 0.5466 | 0.7569 | 0.0267 | 0.3163 | 0.0351 | 0.4179 |
| 80 | 41.77 | 0.08 | 0.0459 | 9.9999 | 0.0268 | 9.9999 | 0.5852 | 0.7605 | 0.0265 | 0.3166 | 0.0349 | 0.4163 |
| 81 | 41.96 | 0.09 | 0.0382 | 9.9999 | 0.0220 | 9.9999 | 0.5759 | 0.7729 | 0.0261 | 0.3206 | 0.0338 | 0.4148 |
| 82 | 42.16 | 0.09 | 0.0521 | 9.9999 | 0.0292 | 9.9999 | 0.5615 | 0.7949 | 0.0241 | 0.3278 | 0.0304 | 0.4124 |
| 83 | 42.31 | 0.06 | 0.0336 | 9.9999 | 0.0198 | 9.9999 | 0.5893 | 0.8848 | 0.0192 | 0.3601 | 0.0217 | 0.4078 |
| 84 | 42.50 | 0.04 | 0.0337 | 9.9999 | 0.0185 | 9.9999 | 0.5490 | 0.9219 | 0.0183 | 0.3738 | 0.0199 | 0.4054 |
| 85 | 42.69 | 0.09 | 0.0506 | 9.9999 | 0.0272 | 9.9999 | 0.5386 | 0.7947 | 0.0244 | 0.3258 | 0.0308 | 0.4109 |
| 86 | 42.87 | 0.08 | 0.0429 | 9.9999 | 0.0235 | 9.9999 | 0.5491 | 0.7962 | 0.0248 | 0.3267 | 0.0312 | 0.4103 |
| 87 | 43.06 | 0.09 | 0.0491 | 9.9999 | 0.0246 | 9.9999 | 0.5020 | 0.8183 | 0.0230 | 0.3346 | 0.0282 | 0.4089 |
| 88 | 43.23 | 0.09 | 0.0505 | 9.9999 | 0.0272 | 9.9999 | 0.5397 | 0.8054 | 0.0244 | 0.3281 | 0.0303 | 0.4074 |
| 89 | 43.41 | 0.10 | 0.0368 | 9.9999 | 0.0175 | 9.9999 | 0.4755 | 0.8070 | 0.0247 | 0.3289 | 0.0307 | 0.4078 |
| 90 | 43.59 | 0.09 | 0.0521 | 9.9999 | 0.0273 | 9.9999 | 0.5250 | 0.8234 | 0.0232 | 0.3337 | 0.0282 | 0.4053 |
| 91 | 43.76 | 0.09 | 0.0490 | 9.9999 | 0.0258 | 9.9999 | 0.5276 | 0.8161 | 0.0238 | 0.3314 | 0.0292 | 0.4061 |
| 92 | 43.95 | 0.07 | 0.0505 | 9.9999 | 0.0272 | 9.9999 | 0.5397 | 0.8305 | 0.0229 | 0.3368 | 0.0276 | 0.4058 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | BIWOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.13 | 0.08 | 0.0490 | 9.9999 | 0.0258 | 9.9999 | 0.5276 | 0.8340 | 0.0228 | 0.3364 | 0.0274 | 0.4034 |
| 94 | 44.32 | 0.10 | 0.0460 | 9.9999 | 0.0231 | 9.9999 | 0.5033 | 0.8446 | 0.0226 | 0.3397 | 0.0268 | 0.4022 |
| 95 | 44.50 | 0.09 | 0.0552 | 9.9999 | 0.0287 | 9.9999 | 0.5209 | 0.8500 | 0.0223 | 0.3420 | 0.0263 | 0.4024 |
| 96 | 44.67 | 0.09 | 0.0475 | 9.9999 | 0.0251 | 9.9999 | 0.5295 | 0.8591 | 0.0216 | 0.3445 | 0.0252 | 0.4010 |
| 97 | 44.86 | 0.09 | 0.0551 | 9.9999 | 0.0294 | 9.9999 | 0.5345 | 0.8621 | 0.0225 | 0.3448 | 0.0261 | 0.4000 |
| 98 | 45.03 | 0.09 | 0.0520 | 9.9999 | 0.0285 | 9.9999 | 0.5491 | 0.8714 | 0.0214 | 0.3473 | 0.0246 | 0.3986 |
| 99 | 45.21 | 0.09 | 0.0552 | 9.9999 | 0.0287 | 9.9999 | 0.5209 | 0.8764 | 0.0219 | 0.3483 | 0.0249 | 0.3975 |
| 100 | 45.39 | 0.09 | 0.0520 | 9.9999 | 0.0285 | 9.9999 | 0.5491 | 0.8887 | 0.0214 | 0.3518 | 0.0241 | 0.3959 |
| 101 | 45.56 | 0.09 | 0.0582 | 9.9999 | 0.0308 | 9.9999 | 0.5301 | 0.8935 | 0.0215 | 0.3501 | 0.0244 | 0.3963 |
| 102 | 45.73 | 0.09 | 0.0490 | 9.9999 | 0.0258 | 9.9999 | 0.5276 | 0.8853 | 0.0213 | 0.3496 | 0.0241 | 0.3949 |
| 103 | 45.92 | 0.09 | 0.0490 | 9.9999 | 0.0264 | 9.9999 | 0.5399 | 0.9013 | 0.0207 | 0.3558 | 0.0230 | 0.3948 |
| 104 | 46.08 | 0.09 | 0.0428 | 9.9999 | 0.0241 | 9.9999 | 0.5644 | 0.9085 | 0.0201 | 0.3569 | 0.0222 | 0.3929 |
| 105 | 46.25 | 0.09 | 0.0520 | 9.9999 | 0.0272 | 9.9999 | 0.5241 | 0.9028 | 0.0209 | 0.3560 | 0.0232 | 0.3944 |
| 106 | 46.42 | 0.07 | 0.0520 | 9.9999 | 0.0260 | 9.9999 | 0.5010 | 0.9204 | 0.0204 | 0.3605 | 0.0222 | 0.3917 |
| 107 | 46.60 | 0.09 | 0.0489 | 9.9999 | 0.0258 | 9.9999 | 0.5287 | 0.9207 | 0.0195 | 0.3610 | 0.0215 | 0.3921 |
| 108 | 46.77 | 0.09 | 0.0489 | 9.9999 | 0.0258 | 9.9999 | 0.5287 | 0.9224 | 0.0200 | 0.3605 | 0.0217 | 0.3909 |
| 109 | 46.94 | 0.07 | 0.0413 | 9.9999 | 0.0209 | 9.9999 | 0.5073 | 0.9384 | 0.0193 | 0.3661 | 0.0206 | 0.3902 |
| 110 | 47.12 | 0.07 | 0.0367 | 9.9999 | 0.0175 | 9.9999 | 0.4768 | 0.9514 | 0.0178 | 0.3714 | 0.0187 | 0.3903 |
| 111 | 47.27 | 0.06 | 0.0367 | 9.9999 | 0.0175 | 9.9999 | 0.4768 | 0.9566 | 0.0178 | 0.3725 | 0.0186 | 0.3894 |
| 112 | 47.44 | 0.05 | 0.0398 | 9.9999 | 0.0190 | 9.9999 | 0.4774 | 0.9693 | 0.0167 | 0.3771 | 0.0173 | 0.3890 |
| 113 | 47.62 | 0.04 | 0.0398 | 9.9999 | 0.0190 | 9.9999 | 0.4774 | 0.9728 | 0.0167 | 0.3773 | 0.0172 | 0.3878 |
| 114 | 47.79 | 0.04 | 0.0367 | 9.9999 | 0.0175 | 9.9999 | 0.4768 | 0.9927 | 0.0152 | 0.3850 | 0.0153 | 0.3878 |
| 115 | 47.95 | 0.01 | 0.0275 | 9.9999 | 0.0143 | 9.9999 | 0.5203 | 1.0373 | 0.0131 | 0.3989 | 0.0126 | 0.3846 |
| 116 | 48.11 | 0.02 | 0.0123 | 9.9999 | 0.0052 | 9.9999 | 0.4228 | 1.0194 | 0.0141 | 0.3919 | 0.0139 | 0.3844 |
| 117 | 48.28 | 0.00 | 0.0244 | 9.9999 | 0.0117 | 9.9999 | 0.4795 | 1.0594 | 0.0136 | 0.4077 | 0.0129 | 0.3848 |
| 118 | 48.45 | -0.01 | 0.0107 | 9.9999 | 0.0039 | 9.9999 | 0.3645 | 1.0675 | 0.0148 | 0.4104 | 0.0139 | 0.3844 |
| 119 | 48.61 | -0.03 | 0.0183 | 9.9999 | 0.0081 | 9.9999 | 0.4426 | 1.0913 | 0.0158 | 0.4194 | 0.0149 | 0.3843 |
| 120 | 48.78 | -0.02 | 0.0138 | 9.9999 | 0.0053 | 9.9999 | 0.3841 | 1.1245 | 0.0157 | 0.4334 | 0.0140 | 0.3855 |
| 121 | 48.95 | -0.02 | 0.0137 | 9.9999 | 0.0066 | 9.9999 | 0.4818 | 1.1107 | 0.0154 | 0.4272 | 0.0139 | 0.3847 |
| 122 | 49.15 | -0.01 | 0.0215 | 9.9999 | 0.0078 | 9.9999 | 0.3628 | 1.0752 | 0.0133 | 0.4146 | 0.0124 | 0.3856 |
| 123 | 49.31 | -0.03 | 0.0153 | 9.9999 | 0.0061 | 9.9999 | 0.3987 | 1.0660 | 0.0139 | 0.4128 | 0.0131 | 0.3872 |
| 124 | 49.48 | -0.01 | 0.0183 | 9.9999 | 0.0075 | 9.9999 | 0.4098 | 1.1009 | 0.0137 | 0.4269 | 0.0125 | 0.3860 |
| 125 | 49.66 | -0.02 | 0.0184 | 9.9999 | 0.0069 | 9.9999 | 0.3750 | 1.0561 | 0.0129 | 0.4087 | 0.0122 | 0.3870 |
| 126 | 49.84 | -0.02 | 0.0091 | 9.9999 | 0.0044 | 9.9999 | 0.4835 | 1.0935 | 0.0144 | 0.4232 | 0.0132 | 0.3870 |
| 127 | 50.02 | 0.01 | 0.0153 | 9.9999 | 0.0055 | 9.9999 | 0.3595 | 1.0551 | 0.0114 | 0.4097 | 0.0108 | 0.3883 |
| 128 | 50.16 | -0.02 | 0.0169 | 9.9999 | 0.0056 | 9.9999 | 0.3314 | 1.0569 | 0.0113 | 0.4111 | 0.0107 | 0.3890 |
| 129 | 50.34 | -0.00 | 0.0306 | 9.9999 | 0.0127 | 9.9999 | 0.4150 | 1.0353 | 0.0129 | 0.4014 | 0.0125 | 0.3877 |
| 130 | 50.54 | 0.02 | 0.0277 | 9.9999 | 0.0095 | 9.9999 | 0.3430 | 1.0301 | 0.0133 | 0.4023 | 0.0129 | 0.3906 |
| 131 | 50.70 | 0.01 | 0.0275 | 9.9999 | 0.0119 | 9.9999 | 0.4327 | 1.0336 | 0.0133 | 0.4026 | 0.0129 | 0.3895 |
| 132 | 50.86 | 0.03 | 0.0276 | 9.9999 | 0.0107 | 9.9999 | 0.3977 | 1.0265 | 0.0139 | 0.3995 | 0.0136 | 0.3892 |
| 133 | 51.04 | 0.02 | 0.0277 | 9.9999 | 0.0095 | 9.9999 | 0.3430 | 1.0213 | 0.0138 | 0.3966 | 0.0135 | 0.3883 |
| 134 | 51.19 | 0.02 | 0.0324 | 9.9999 | 0.0117 | 9.9999 | 0.3611 | 1.0434 | 0.0126 | 0.4051 | 0.0121 | 0.3883 |
| 135 | 51.36 | 0.03 | 0.0308 | 9.9999 | 0.0122 | 9.9999 | 0.3961 | 1.0397 | 0.0130 | 0.4035 | 0.0125 | 0.3881 |
| 136 | 51.54 | 0.03 | 0.0370 | 9.9999 | 0.0151 | 9.9999 | 0.4081 | 1.0414 | 0.0132 | 0.4037 | 0.0127 | 0.3877 |
| 137 | 51.71 | 0.05 | 0.0278 | 9.9999 | 0.0107 | 9.9999 | 0.3849 | 1.0613 | 0.0118 | 0.4114 | 0.0111 | 0.3876 |
| 138 | 51.88 | 0.05 | 0.0277 | 9.9999 | 0.0120 | 9.9999 | 0.4332 | 1.0617 | 0.0114 | 0.4101 | 0.0108 | 0.3863 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 172 | 0.80 | 1.7 | 0.0 | B1W0F1S | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.05 | 0.07 | 0.0309 | 9.9999 | 0.0128 | 9.9999 | 0.4142 | 1.0835 | 0.0113 | 0.4102 | 0.0106 | 0.3857 |
| 140 | 52.21 | 0.05 | 0.0324 | 9.9999 | 0.0124 | 9.9999 | 0.3827 | 1.0831 | 0.0105 | 0.4180 | 0.0097 | 0.3859 |
| 141 | 52.40 | 0.05 | 0.0355 | 9.9999 | 0.0144 | 9.9999 | 0.4056 | 1.0833 | 0.0101 | 0.4166 | 0.0093 | 0.3848 |
| 142 | 52.57 | 0.06 | 0.0370 | 9.9999 | 0.0164 | 9.9999 | 0.4432 | 1.0573 | 0.0097 | 0.4075 | 0.0092 | 0.3854 |
| 143 | 52.73 | 0.07 | 0.0370 | 9.9999 | 0.0152 | 9.9999 | 0.4108 | 1.0841 | 0.0085 | 0.4177 | 0.0079 | 0.3853 |
| 144 | 52.90 | 0.06 | 0.0355 | 9.9999 | 0.0144 | 9.9999 | 0.4056 | 1.0805 | 0.0088 | 0.4169 | 0.0082 | 0.3858 |
| 145 | 53.07 | 0.08 | 0.0355 | 9.9999 | 0.0144 | 9.9999 | 0.4056 | 1.0769 | 0.0088 | 0.4140 | 0.0082 | 0.3844 |
| 146 | 53.24 | 0.08 | 0.0385 | 9.9999 | 0.0177 | 9.9999 | 0.4597 | 1.0645 | 0.0091 | 0.4080 | 0.0086 | 0.3833 |
| 147 | 53.42 | 0.06 | 0.0340 | 9.9999 | 0.0137 | 9.9999 | 0.4029 | 1.0699 | 0.0095 | 0.4103 | 0.0089 | 0.3835 |
| 148 | 53.58 | 0.06 | 0.0370 | 9.9999 | 0.0164 | 9.9999 | 0.4432 | 1.0766 | 0.0099 | 0.4122 | 0.0092 | 0.3829 |
| 149 | 53.75 | 0.07 | 0.0418 | 9.9999 | 0.0174 | 9.9999 | 0.4173 | 1.0767 | 0.0097 | 0.4128 | 0.0090 | 0.3834 |
| 150 | 53.91 | 0.07 | 0.0433 | 9.9999 | 0.0194 | 9.9999 | 0.4491 | 1.0801 | 0.0101 | 0.4151 | 0.0094 | 0.3843 |
| 151 | 54.07 | 0.07 | 0.0402 | 9.9999 | 0.0173 | 9.9999 | 0.4303 | 1.0660 | 0.0102 | 0.4088 | 0.0096 | 0.3835 |
| 152 | 54.24 | 0.06 | 0.0433 | 9.9999 | 0.0188 | 9.9999 | 0.4352 | 1.0806 | 0.0090 | 0.4149 | 0.0083 | 0.3840 |
| 153 | 54.40 | 0.07 | 0.0402 | 9.9999 | 0.0142 | 9.9999 | 0.3532 | 1.0798 | 0.0097 | 0.4137 | 0.0090 | 0.3831 |
| 154 | 54.56 | 0.08 | 0.0481 | 9.9999 | 0.0166 | 9.9999 | 0.3458 | 1.0957 | 0.0094 | 0.4200 | 0.0086 | 0.3833 |
| 155 | 54.73 | 0.08 | 0.0481 | 9.9999 | 0.0166 | 9.9999 | 0.3458 | 1.0905 | 0.0094 | 0.4196 | 0.0086 | 0.3848 |
| 156 | 54.58 | 0.07 | 0.0464 | 9.9999 | 0.0171 | 9.9999 | 0.3693 | 1.1063 | 0.0084 | 0.4251 | 0.0078 | 0.3843 |
| 157 | 55.03 | 0.07 | 0.0464 | 9.9999 | 0.0146 | 9.9999 | 0.3153 | 1.0811 | 0.0092 | 0.4156 | 0.0085 | 0.3844 |
| 158 | 55.19 | 0.09 | 0.0448 | 9.9999 | 0.0139 | 9.9999 | 0.3110 | 1.1019 | 0.0085 | 0.4241 | 0.0077 | 0.3849 |
| 159 | 55.42 | 0.07 | 0.0417 | 9.9999 | 0.0124 | 9.9999 | 0.2981 | 1.1144 | 0.0081 | 0.4301 | 0.0073 | 0.3860 |
| 160 | 55.57 | 0.06 | 0.0463 | 9.9999 | 0.0158 | 9.9999 | 0.3420 | 1.1212 | 0.0083 | 0.4319 | 0.0076 | 0.3852 |
| 161 | 55.73 | 0.07 | 0.0432 | 9.9999 | 0.0131 | 9.9999 | 0.3039 | 1.1175 | 0.0077 | 0.4315 | 0.0069 | 0.3862 |
| 162 | 55.86 | 0.06 | 0.0416 | 9.9999 | 0.0130 | 9.9999 | 0.3133 | 1.0984 | 0.0076 | 0.4236 | 0.0069 | 0.3857 |
| 163 | 56.02 | 0.08 | 0.0400 | 9.9999 | 0.0123 | 9.9999 | 0.3075 | 1.1125 | 0.0073 | 0.4291 | 0.0066 | 0.3857 |
| 164 | 56.19 | 0.06 | 0.0477 | 9.9999 | 0.0153 | 9.9999 | 0.3214 | 1.1179 | 0.0071 | 0.4320 | 0.0064 | 0.3848 |
| 165 | 56.33 | 0.07 | 0.0401 | 9.9999 | 0.0111 | 9.9999 | 0.2768 | 1.1197 | 0.0076 | 0.4323 | 0.0068 | 0.3861 |
| 166 | 56.49 | 0.08 | 0.0401 | 9.9999 | 0.0129 | 9.9999 | 0.3217 | 1.1131 | 0.0074 | 0.4298 | 0.0067 | 0.3862 |
| 167 | 56.63 | 0.07 | 0.0402 | 9.9999 | 0.0123 | 9.9999 | 0.3060 | 1.1330 | 0.0067 | 0.4363 | 0.0059 | 0.3851 |
| 168 | 56.81 | 0.03 | 0.0434 | 9.9999 | 0.0144 | 9.9999 | 0.3326 | 1.1049 | 0.0071 | 0.4279 | 0.0064 | 0.3873 |
| 169 | 56.95 | 0.06 | 0.0465 | 9.9999 | 0.0147 | 9.9999 | 0.3168 | 1.1241 | 0.0071 | 0.4351 | 0.0063 | 0.3871 |
| 170 | 57.10 | 0.06 | 0.0434 | 9.9999 | 0.0144 | 9.9999 | 0.3326 | 1.1297 | 0.0064 | 0.4367 | 0.0057 | 0.3866 |
| 171 | 57.25 | 0.06 | 0.0434 | 9.9999 | 0.0144 | 9.9999 | 0.3326 | 1.1161 | 0.0057 | 0.4311 | 0.0051 | 0.3863 |
| 172 | 57.39 | 0.05 | 0.0372 | 9.9999 | 0.0091 | 9.9999 | 0.2446 | 1.1406 | 0.0055 | 0.4408 | 0.0048 | 0.3863 |
| 173 | 57.54 | 0.04 | 0.0357 | 9.9999 | 0.0089 | 9.9999 | 0.2493 | 1.1353 | 0.0057 | 0.4383 | 0.0050 | 0.3861 |
| 174 | 57.68 | 0.05 | 0.0402 | 9.9999 | 0.0129 | 9.9999 | 0.3209 | 1.1342 | 0.0043 | 0.4373 | 0.0038 | 0.3856 |
| 175 | 57.85 | 0.03 | 0.0372 | 9.9999 | 0.0103 | 9.9999 | 0.2769 | 1.1392 | 0.0044 | 0.4404 | 0.0042 | 0.3866 |
| 176 | 57.97 | 0.06 | 0.0325 | 9.9999 | 0.0074 | 9.9999 | 0.2277 | 1.1226 | 0.0048 | 0.4339 | 0.0043 | 0.3866 |
| 177 | 57.99 | 0.04 | 0.0385 | 9.9999 | 0.0122 | 9.9999 | 0.3169 | 1.1330 | 0.0050 | 0.4379 | 0.0044 | 0.3865 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RE10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | JNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | -0.03 | -1.5443 | 4.9744 | 0.0103 | -0.0516 | 0.0064 | 0.4208 | 0.1162 | 0.3047 | -3.2211 |
| 2 | -5.70 | -0.02 | -1.5444 | 4.9744 | 0.0639 | -0.0686 | 0.0064 | 0.4173 | 0.1142 | 0.3032 | -3.2209 |
| 3 | -5.69 | -0.02 | -1.5332 | 4.9788 | 0.0245 | -0.0427 | 0.0065 | 0.4205 | 0.1145 | 0.3061 | -3.2537 |
| 4 | -5.70 | -0.03 | -1.5345 | 4.9578 | 0.0089 | -0.0727 | 0.0064 | 0.4215 | 0.1144 | 0.3072 | -3.2307 |
| 5 | -5.70 | -0.03 | -1.5345 | 4.9579 | 0.0118 | -0.0308 | 0.0064 | 0.4181 | 0.1143 | 0.3039 | -3.2303 |
| 6 | -5.59 | -0.03 | -1.3826 | 4.5297 | 0.0117 | -0.0310 | 0.0066 | 0.4184 | 0.1032 | 0.3103 | -3.2762 |
| 7 | -3.67 | -0.02 | -1.0703 | 3.7261 | 0.1179 | -0.0747 | 0.0070 | 0.3868 | 0.0991 | 0.2877 | -3.4815 |
| 8 | -1.87 | -0.02 | -0.7591 | 2.9405 | 0.1289 | -0.1196 | 0.0077 | 0.3552 | 0.0695 | 0.2656 | -3.8737 |
| 9 | -0.01 | -0.03 | -0.4580 | 2.2227 | 0.0492 | -0.0560 | 0.0081 | 0.3350 | 0.0849 | 0.2500 | -4.8526 |
| 10 | 1.83 | -0.03 | -0.2064 | 1.6402 | -0.0012 | -0.0094 | 0.0085 | 0.3125 | 0.0836 | 0.2288 | -7.9463 |
| 11 | 3.69 | -0.04 | 0.0582 | 1.0617 | -0.0270 | 0.0145 | 0.0090 | 0.2926 | 0.0853 | 0.2072 | 18.2666 |
| 12 | 5.55 | -0.03 | 0.2937 | 0.6957 | 0.0253 | -0.0123 | 0.0097 | 0.2827 | 0.0947 | 0.1880 | 2.3690 |
| 13 | 7.45 | -0.04 | 0.4908 | 0.4051 | -0.0275 | 0.0147 | 0.0104 | 0.2802 | 0.1071 | 0.1732 | 0.8255 |
| 14 | 9.28 | -0.04 | 0.7610 | -0.0197 | -0.0133 | 0.0350 | 0.0111 | 0.2702 | 0.1186 | 0.1537 | -0.0252 |
| 15 | 11.18 | -0.03 | 1.0501 | -0.5503 | -0.0248 | 0.0796 | 0.0180 | 0.2500 | 0.1265 | 0.1236 | -0.5240 |
| 16 | 13.03 | -0.04 | 1.3503 | -1.1367 | -0.0543 | 0.0279 | 0.0125 | 0.2252 | 0.1373 | 0.0879 | -0.8418 |
| 17 | 14.95 | -0.05 | 1.7218 | -1.8641 | -0.1178 | 0.0863 | 0.0195 | 0.1907 | 0.1459 | 0.0448 | -1.0827 |
| 18 | 16.94 | -0.04 | 2.1567 | -2.6892 | -0.0567 | 0.2320 | 0.0389 | 0.1628 | 0.1549 | 0.0079 | -1.2469 |
| 19 | 18.87 | -0.05 | 2.5537 | -3.3887 | -0.1761 | 0.5596 | 0.0514 | 0.1371 | 0.1644 | -0.0273 | -1.3270 |
| 20 | 20.89 | -0.06 | 3.0086 | -4.2861 | -0.2704 | 0.8073 | 0.0452 | 0.1055 | 0.1799 | -0.0744 | -1.4284 |
| 21 | 22.74 | -0.06 | 3.3234 | -4.5796 | -0.3316 | 1.2087 | -0.0124 | 0.1138 | 0.2015 | -0.0877 | -1.3768 |
| 22 | 24.64 | -0.05 | 3.7468 | -5.0197 | -0.2787 | 1.1612 | -0.0874 | 0.1083 | 0.2303 | -0.1221 | -1.3397 |
| 23 | 26.58 | -0.04 | 4.2415 | -5.4336 | 0.0037 | 0.3372 | -0.0386 | 0.0470 | 0.2203 | -0.1733 | -1.2811 |
| 24 | 27.96 | -0.00 | 4.5139 | -5.4540 | 0.4916 | -0.8129 | 0.0484 | 0.0 | 0.2045 | -0.2045 | -1.2149 |
| 25 | 28.04 | -0.00 | 4.5974 | -5.5986 | 0.4796 | -0.6230 | 0.0428 | -0.0001 | 0.2053 | -0.2054 | -1.2178 |
| 26 | 28.43 | -0.00 | 4.6973 | -5.6156 | 0.4749 | -0.8924 | 0.0621 | -0.0074 | 0.2036 | -0.2110 | -1.1953 |
| 27 | 28.74 | -0.00 | 4.7918 | -5.6264 | 46 | -1.1012 | 0.1014 | -0.0164 | 0.2065 | -0.2229 | -1.1742 |
| 28 | 29.02 | 0.00 | 4.9014 | -5.7618 | 18 | -1.0560 | 0.1147 | -0.0230 | 0.2059 | -0.2289 | -1.1755 |
| 29 | 29.33 | 0.01 | 4.9635 | -5.8568 | 7155 | -1.1958 | 0.1215 | -0.0238 | 0.2089 | -0.2327 | -1.1800 |
| 30 | 29.62 | 0.02 | 5.0494 | -5.8441 | 0.7560 | -1.0536 | 0.0960 | -0.0352 | 0.2093 | -0.2445 | -1.1574 |
| 31 | 29.91 | 0.01 | 5.1128 | -5.8752 | 0.6159 | -0.8770 | 0.0968 | -0.0364 | 0.2121 | -0.2485 | -1.1481 |
| 32 | 30.15 | 0.00 | 5.1875 | -5.9791 | 0.5786 | -0.8190 | 0.0834 | -0.0500 | 0.2155 | -0.2655 | -1.1526 |
| 33 | 30.42 | 0.01 | 5.2289 | -5.8661 | 0.6812 | -0.7575 | 0.0835 | -0.0300 | 0.2171 | -0.2471 | -1.1219 |
| 34 | 30.72 | 0.04 | 5.4252 | -5.7334 | 1.0129 | -1.1598 | 0.1240 | -0.0450 | 0.2243 | -0.2693 | -1.0568 |
| 35 | 30.98 | 0.04 | 5.4885 | -5.7975 | 0.9695 | -1.1639 | 0.1306 | -0.0525 | 0.2267 | -0.2792 | -1.0563 |
| 36 | 31.27 | 0.04 | 5.5768 | -5.8807 | 0.9373 | -1.0313 | 0.1248 | -0.0253 | 0.2359 | -0.2612 | -0.9828 |
| 37 | 31.54 | 0.02 | 5.6475 | -5.6768 | 0.7910 | -0.9504 | 0.1119 | -0.0362 | 0.2313 | -0.2675 | -1.0052 |
| 38 | 31.81 | 0.04 | 5.7928 | -5.3620 | 1.0004 | -1.1235 | 0.1133 | -0.0122 | 0.2401 | -0.2523 | -0.9222 |
| 39 | 32.09 | 0.04 | 5.8823 | -5.4260 | 0.9945 | -1.1852 | 0.1137 | -0.0216 | 0.2408 | -0.2624 | -0.9224 |
| 40 | 32.35 | 0.04 | 6.0188 | -5.3887 | 0.9808 | -1.1957 | 0.1400 | -0.0549 | 0.2413 | -0.2963 | -0.8953 |
| 41 | 32.61 | 0.06 | 6.0901 | -5.2033 | 1.2147 | -1.4030 | 0.1345 | -0.0394 | 0.2550 | -0.2945 | -0.8544 |
| 42 | 32.87 | 0.05 | 6.1560 | -5.1240 | 1.1762 | -1.3566 | 0.1156 | -0.0218 | 0.2567 | -0.2785 | -0.8324 |
| 43 | 33.13 | 0.05 | 6.2767 | -5.1871 | 1.1364 | -1.5217 | 0.1612 | -0.0667 | 0.2539 | -0.3206 | -0.8264 |
| 44 | 33.39 | 0.04 | 6.5166 | -5.2600 | 1.0679 | -1.5016 | 0.1492 | -0.0914 | 0.2496 | -0.3411 | -0.8072 |
| 45 | 33.62 | 0.02 | 6.5708 | -5.1234 | 0.8154 | -1.1512 | 0.1362 | -0.0858 | 0.2596 | -0.3455 | -0.7797 |
| 46 | 33.90 | 0.03 | 6.6693 | -5.0717 | 0.9547 | -1.3147 | 0.1304 | -0.0867 | 0.2600 | -0.3468 | -0.7605 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CA8 | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.14 | 0.06 | 8.7338 | -4.8694 | 1.2142 | -1.2083 | 0.0922 | -0.0410 | 0.2676 | -0.3087 | -0.7231 |
| 48 | 34.38 | 0.03 | 8.8680 | -4.9101 | 0.9200 | -1.0447 | 0.1053 | -0.0750 | 0.2642 | -0.3393 | -0.7149 |
| 49 | 34.63 | 0.04 | 8.9219 | -4.9370 | 0.9899 | -1.2006 | 0.1248 | -0.1082 | 0.2584 | -0.3666 | -0.7132 |
| 50 | 34.88 | 0.02 | 8.9731 | -4.9601 | 0.7706 | -1.1524 | 0.1441 | -0.1165 | 0.2484 | -0.3649 | -0.7113 |
| 51 | 35.12 | 0.02 | 7.1496 | -5.0034 | 0.6186 | -1.1218 | 0.1574 | -0.1391 | 0.2538 | -0.3899 | -0.6998 |
| 52 | 35.35 | 0.01 | 7.2540 | -4.8821 | 0.6918 | -1.2696 | 0.1711 | -0.1388 | 0.2566 | -0.3954 | -0.6730 |
| 53 | 35.60 | 0.01 | 7.2613 | -4.9003 | 0.7299 | -1.3159 | 0.1519 | -0.1475 | 0.2508 | -0.3983 | -0.6749 |
| 54 | 35.84 | -0.01 | 7.3744 | -4.9666 | 0.4123 | -0.9251 | 0.0808 | -0.1726 | 0.2417 | -0.4143 | -0.6735 |
| 55 | 36.06 | -0.01 | 7.4912 | -4.8539 | 0.4391 | -0.7472 | 0.0619 | -0.1733 | 0.2384 | -0.4117 | -0.6480 |
| 56 | 36.30 | -0.00 | 7.4869 | -4.8480 | 0.3858 | -0.5286 | 0.0552 | -0.1749 | 0.2389 | -0.4138 | -0.6475 |
| 57 | 36.54 | -0.01 | 7.5788 | -4.8708 | 0.4435 | -0.5154 | 0.0428 | -0.1716 | 0.2413 | -0.4129 | -0.6427 |
| 58 | 36.77 | -0.02 | 7.7070 | -4.7659 | 0.2181 | -0.3587 | 0.0302 | -0.1933 | 0.2376 | -0.4309 | -0.6184 |
| 59 | 37.02 | -0.01 | 7.7706 | -4.7979 | 0.2636 | -0.0836 | 0.0104 | -0.2086 | 0.2402 | -0.4458 | -0.6174 |
| 60 | 37.25 | -0.00 | 7.8325 | -4.6581 | 0.3539 | -0.1794 | 0.0047 | -0.1920 | 0.2526 | -0.4446 | -0.5947 |
| 61 | 37.47 | -0.01 | 7.8876 | -4.6054 | 0.2421 | -0.2347 | 0.0118 | -0.1863 | 0.2500 | -0.4363 | -0.5839 |
| 62 | 37.71 | -0.00 | 7.9151 | -4.5470 | 0.3091 | -0.2630 | -0.0008 | -0.1866 | 0.2529 | -0.4395 | -0.5745 |
| 63 | 37.95 | -0.02 | 8.0319 | -4.4387 | 0.1857 | -0.0220 | 0.0120 | -0.1561 | 0.2699 | -0.4260 | -0.5526 |
| 64 | 38.17 | -0.01 | 8.0922 | -4.5312 | 0.2526 | -0.0157 | 0.0120 | -0.1578 | 0.2645 | -0.4223 | -0.5599 |
| 65 | 38.41 | 0.01 | 8.1712 | -4.5442 | 0.3947 | -0.1836 | 0.0062 | -0.1970 | 0.2633 | -0.4603 | -0.5561 |
| 66 | 38.64 | 0.02 | 8.2355 | -4.1918 | 0.4244 | 0.1670 | -0.0309 | -0.1232 | 0.2927 | -0.4158 | -0.5090 |
| 67 | 38.84 | 0.02 | 8.2496 | -4.1392 | 0.4903 | 0.1284 | -0.0071 | -0.1176 | 0.2944 | -0.4123 | -0.5017 |
| 68 | 39.07 | 0.01 | [illegible] | -4.1440 | 0.3943 | 0.1042 | -0.01[illegible] | -0.1204 | 0.[illegible] | -0.4279 | -0.4993 |
| 69 | 39.34 | -0.0[illegible] | [illegible]4 | -4.2274 | 0.0984 | 0.3726 | -0.[illegible] | -0.1753 | 0.2[illegible] | -0.4742 | -0.4991 |
| 70 | 39.54 | 0.0[illegible] | [illegible]81 | -4.1280 | 0.2183 | 0.0474 | -0.0[illegible] | -0.1307 | 0.3159 | -0.4457 | -0.4822 |
| 71 | 39.82 | -0.00 | [illegible]44 | -4.1426 | 0.1726 | 0.5418 | -0.02[illegible] | -0.1624 | 0.3056 | -0.4679 | -0.4860 |
| 72 | 40.03 | 0.00 | 8.6081 | -3.8959 | 0.1306 | 0.7878 | -0.0392 | [illegible].043 | 0.3511 | -0.4553 | -0.4527 |
| 73 | 40.23 | -0.00 | 8.7369 | -4.0117 | 0.0815 | 0.8911 | -0.0391 | -0.1064 | 0.3382 | -0.4445 | -0.4392 |
| 74 | 40.43 | 0.01 | 8.7682 | -3.9104 | 0.1547 | 0.7308 | -0.0319 | -0.0922 | 0.3416 | -0.4338 | -0.4460 |
| 75 | 40.62 | -0.02 | 8.8307 | -3.9302 | -0.1650 | 1.0994 | -0.0452 | -0.1311 | 0.3187 | -0.4497 | -0.4451 |
| 76 | 40.84 | -0.00 | 8.8200 | -4.0449 | 0.1317 | 0.8032 | -0.0385 | -0.1525 | 0.3105 | -0.4629 | -0.4586 |
| 77 | 41.05 | -0.01 | 9.0587 | -4.2002 | 0.0571 | 0.9460 | -0.0126 | -0.1739 | 0.3199 | -0.4938 | -0.4637 |
| 78 | 41.24 | 0.01 | 9.0013 | -3.9848 | 0.3546 | 0.9416 | -0.0386 | -0.1183 | 0.3274 | -0.4456 | -0.4427 |
| 79 | 41.47 | -0.01 | 9.2229 | -4.2975 | 0.1250 | 0.6756 | -0.0175 | -0.2074 | 0.3111 | -0.5185 | -0.4660 |
| 80 | 41.65 | -0.01 | 9.2517 | -4.2465 | 0.0646 | 1.0729 | -0.0377 | -0.1589 | 0.3301 | -0.4890 | -0.4590 |
| 81 | 41.86 | -0.03 | 9.3704 | -4.2580 | -0.2044 | 1.0983 | -0.0369 | -0.2089 | 0.3066 | -0.5155 | -0.4544 |
| 82 | 42.07 | 0.01 | 9.5755 | -4.2710 | 0.2013 | 1.1254 | -0.0432 | -0.1939 | 0.3118 | -0.5057 | -0.4460 |
| 83 | 42.23 | -0.00 | 9.3695 | -3.9860 | 0.0617 | 1.5752 | -0.0640 | -0.0677 | 0.3715 | -0.4392 | -0.4254 |
| 84 | 42.44 | -0.02 | 9.5756 | -4.1428 | 0.0481 | 1.0075 | -0.0359 | -0.1954 | 0.2991 | -0.4945 | -0.4326 |
| 85 | 42.62 | -0.02 | 9.6034 | -4.2610 | 0.0270 | 1.1394 | -0.0427 | -0.2035 | 0.3093 | -0.5128 | -0.4437 |
| 86 | 42.80 | -0.01 | 9.6031 | -4.2294 | 0.0662 | 1.1249 | -0.0299 | -0.1714 | 0.3092 | -0.4805 | -0.4404 |
| 87 | 42.97 | -0.04 | 9.7569 | -4.3135 | -0.1897 | 1.0820 | -0.0541 | -0.2094 | 0.2936 | -0.5030 | -0.4421 |
| 88 | 43.15 | -0.04 | 9.7660 | -4.1275 | -0.2128 | 1.4421 | -0.0424 | -0.1832 | 0.3362 | -0.5194 | -0.4228 |
| 89 | 43.34 | -0.02 | 9.8562 | -4.3642 | 0.1052 | 0.5419 | -0.0077 | -0.2159 | 0.2904 | -0.5063 | -0.4428 |
| 90 | 43.53 | -0.02 | 10.0102 | -4.2990 | 0.1831 | 0.5033 | -0.0072 | -0.2611 | 0.2812 | -0.5424 | -0.4295 |
| 91 | 43.70 | -0.06 | 9.9890 | -4.3518 | -0.2853 | 1.3421 | -0.0476 | -0.1933 | 0.3064 | -0.4997 | -0.4357 |
| 92 | 43.89 | -0.03 | 10.0893 | -4.2930 | -0.0253 | 1.4394 | -0.0480 | -0.1797 | 0.3264 | -0.5061 | -0.4255 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FJDT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 3 OF 8

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | 81WOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.06 | -0.02 | 10.1399 | -4.3091 | 0.0091 | 1.8567 | -0.0494 | -0.1715 | 0.3516 | -0.5231 | -0.4250 |
| 94 | 44.26 | -0.03 | 10.3361 | -4.3809 | 0.0171 | 1.4530 | -0.0599 | -0.2004 | 0.3095 | -0.5099 | -0.4238 |
| 95 | 44.44 | -0.05 | 10.1604 | -4.2234 | -0.1402 | 0.7501 | -0.0067 | -0.2219 | 0.2919 | -0.5138 | -0.4157 |
| 96 | 44.63 | -0.05 | 10.3390 | -4.3914 | -0.0360 | 0.4142 | 0.0075 | -0.2815 | 0.2755 | -0.5571 | -0.4247 |
| 97 | 44.81 | -0.06 | 10.4193 | -4.3203 | -0.0279 | 0.0433 | 0.0410 | -0.2851 | 0.2807 | -0.5659 | -0.4148 |
| 98 | 44.99 | -0.03 | 10.5022 | -4.3682 | 0.0595 | 1.5031 | -0.0405 | -0.2068 | 0.3213 | -0.5281 | -0.4159 |
| 99 | 45.17 | -0.02 | 10.5454 | -4.4754 | 0.2887 | 0.4599 | 0.0138 | -0.2564 | 0.2952 | -0.5417 | -0.4244 |
| 100 | 45.36 | -0.04 | 10.7036 | -4.5192 | 0.0977 | 0.6742 | -0.0350 | -0.2528 | 0.2856 | -0.5385 | -0.4222 |
| 101 | 45.53 | -0.03 | 10.8087 | -4.4997 | 0.1913 | 0.6525 | 0.0015 | -0.3183 | 0.2782 | -0.5965 | -0.4163 |
| 102 | 45.71 | -0.01 | 10.7669 | -4.2843 | 0.2849 | 1.4479 | -0.0585 | -0.2291 | 0.3028 | -0.5319 | -0.3979 |
| 103 | 45.89 | -0.07 | 10.8713 | -4.4504 | -0.1531 | 0.7274 | -0.0040 | -0.2946 | 0.2897 | -0.5842 | -0.4094 |
| 104 | 46.09 | -0.04 | 10.9079 | -4.2790 | 0.1815 | -0.0513 | 0.0493 | -0.2834 | 0.2929 | -0.5763 | -0.3923 |
| 105 | 46.26 | -0.02 | 11.0107 | -4.4160 | 0.3172 | 0.7512 | -0.0109 | -0.2899 | 0.2955 | -0.5848 | -0.4011 |
| 106 | 46.44 | -0.05 | 11.0870 | -4.3886 | 0.1997 | 0.5767 | 0.0220 | -0.3028 | 0.2978 | -0.6005 | -0.3958 |
| 107 | 46.61 | -0.07 | 11.0545 | -4.3581 | -0.0273 | 0.3033 | 0.0299 | -0.2922 | 0.2826 | -0.5748 | -0.3942 |
| 108 | 46.79 | -0.07 | 11.1462 | -4.3828 | -0.1820 | 1.2307 | -0.0426 | -0.2604 | 0.3003 | -0.5607 | -0.3932 |
| 109 | 46.97 | -0.03 | 11.3244 | -4.2693 | 0.4112 | 0.2618 | 0.0312 | -0.2858 | 0.2825 | -0.5684 | -0.3778 |
| 110 | 47.12 | -0.03 | 11.2663 | -4.4915 | 0.1906 | 1.4673 | -0.0682 | -0.2404 | 0.3022 | -0.5426 | -0.3987 |
| 111 | 47.31 | -0.01 | 11.2943 | -4.2519 | 0.5205 | 0.2900 | 0.0244 | -0.2879 | 0.2870 | -0.5750 | -0.3765 |
| 112 | 47.49 | -0.02 | 11.3684 | -4.3392 | 0.5434 | 0.2175 | 0.0376 | -0.2861 | 0.2896 | -0.5757 | -0.3817 |
| 113 | 47.66 | -0.04 | 11.4293 | -4.3678 | 0.1136 | 1.0072 | -0.0150 | -0.2883 | 0.2937 | -0.5820 | -0.3822 |
| 114 | 47.84 | -0.02 | 11.4521 | -4.1497 | 0.4072 | 0.9887 | -0.0025 | -0.2848 | 0.3256 | -0.6134 | -0.3624 |
| 115 | 48.02 | -0.03 | 11.6394 | -4.2250 | 0.3900 | 0.3614 | 0.0448 | -0.2941 | 0.2977 | -0.5917 | -0.3630 |
| 116 | 48.18 | -0.03 | 11.7070 | -4.1841 | 0.2280 | 1.1368 | -0.0165 | -0.2920 | 0.3062 | -0.5981 | -0.3574 |
| 117 | 48.36 | -0.04 | 11.6613 | -4.1083 | 0.1486 | 1.6838 | -0.0544 | -0.2503 | 0.3196 | -0.5699 | -0.3696 |
| 118 | 48.51 | -0.05 | 11.7116 | -4.2978 | 0.0039 | 1.7189 | -0.0793 | -0.2719 | 0.3359 | -0.6069 | -0.3670 |
| 119 | 48.69 | -0.05 | 11.8801 | -4.4514 | -0.0196 | 2.0494 | -0.1180 | -0.2113 | 0.3547 | -0.5660 | -0.3747 |
| 120 | 48.87 | -0.04 | 11.8762 | -4.2797 | 0.0568 | 1.9769 | -0.0862 | -0.2526 | 0.3515 | -0.6041 | -0.3604 |
| 121 | 49.04 | -0.04 | 11.9481 | -4.2804 | 0.1270 | 1.7728 | -0.0977 | -0.2308 | 0.3651 | -0.5959 | -0.3582 |
| 122 | 49.21 | -0.00 | 12.0150 | -4.3201 | 0.4620 | 2.0672 | -0.1053 | -0.1530 | 0.4002 | -0.5532 | -0.3596 |
| 123 | 49.38 | -0.01 | 11.9895 | -4.2538 | 0.3986 | 2.1602 | -0.0803 | -0.1572 | 0.4063 | -0.5635 | -0.3548 |
| 124 | 49.58 | -0.03 | 12.1200 | -4.3591 | 0.1150 | 2.0961 | -0.0852 | -0.1721 | 0.4256 | -0.5977 | -0.3597 |
| 125 | 49.78 | 0.01 | 12.7997 | -5.1150 | 0.5486 | 2.2278 | -0.0954 | -0.0976 | 0.4869 | -0.5844 | -0.4777 |
| 126 | 49.95 | -0.04 | 12.9126 | -5.5567 | 0.0103 | 2.4218 | -0.0720 | -0.0967 | 0.4950 | -0.5916 | -0.4536 |
| 127 | 50.12 | -0.00 | 12.7491 | -5.8888 | 0.2992 | 2.3148 | -0.0663 | -0.1070 | 0.4732 | -0.5802 | -0.4619 |
| 128 | 50.31 | -0.01 | 12.9154 | -5.8514 | 0.2782 | 2.6944 | -0.0608 | -0.1097 | 0.4868 | -0.5964 | -0.4531 |
| 129 | 50.48 | 0.01 | 12.9732 | -5.7900 | 0.4883 | 2.6436 | -0.0544 | -0.0999 | 0.4994 | -0.5992 | -0.4483 |
| 130 | 50.63 | 0.01 | 12.8551 | -5.6215 | 0.4711 | 2.5681 | -0.0291 | -0.0636 | 0.5193 | -0.5829 | -0.4373 |
| 131 | 50.81 | 0.04 | 13.0106 | -5.5615 | 0.8355 | 2.3941 | -0.0033 | -0.0843 | 0.5263 | -0.6106 | -0.4275 |
| 132 | 50.99 | 0.00 | 13.1513 | -5.6048 | 0.4318 | 2.3234 | -0.0017 | -0.0729 | 0.5344 | -0.6073 | -0.4262 |
| 133 | 51.15 | 0.03 | 13.3106 | -5.8794 | 0.7715 | 2.7023 | -0.0287 | -0.0914 | 0.5425 | -0.6339 | -0.4432 |
| 134 | 51.32 | 0.02 | 13.3151 | -6.1147 | 0.5988 | 2.7401 | -0.0286 | -0.0558 | 0.5468 | -0.5976 | -0.4592 |
| 135 | 51.52 | 0.01 | 13.8798 | -6.7103 | 0.4560 | 3.5932 | -0.0299 | -0.0392 | 0.5546 | -0.5938 | -0.4835 |
| 136 | 51.69 | 0.02 | 13.8919 | -6.8696 | 0.4694 | 3.3331 | -0.0228 | -0.0547 | 0.5635 | -0.6182 | -0.4945 |
| 137 | 51.87 | -0.02 | 14.1926 | -7.1256 | 0.1534 | 3.4099 | -0.0154 | -0.0982 | 0.5704 | -0.6685 | -0.5021 |
| 138 | 52.03 | 0.03 | 14.1184 | -7.2076 | 0.6919 | 3.2533 | -0.0098 | -0.0559 | 0.5689 | -0.6248 | -0.5105 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.18 | 0.09 | 14.0383 | -6.8872 | 1.2348 | 2.8782 | -0.0032 | -0.0897 | 0.5684 | -0.6581 | -0.4904 |
| 140 | 52.36 | 0.02 | 14.0387 | -6.9029 | 0.6654 | 2.6975 | -0.0140 | -0.0606 | 0.5725 | -0.6331 | -0.4917 |
| 141 | 52.51 | 0.00 | 14.0127 | -7.0343 | 0.5830 | 2.9215 | -0.0211 | -0.0343 | 0.5701 | -0.6044 | -0.5020 |
| 142 | 52.65 | 0.04 | 13.9380 | -6.9162 | 1.0013 | 2.7314 | -0.0088 | -0.0520 | 0.5669 | -0.6189 | -0.4962 |
| 143 | 52.85 | 0.02 | 14.0781 | -7.0435 | 0.7871 | 2.7465 | -0.0143 | -0.0575 | 0.5675 | -0.6250 | -0.5003 |
| 144 | 53.01 | 0.03 | 14.0917 | -7.0074 | 0.8529 | 2.7276 | -0.0079 | -0.0631 | 0.5651 | -0.6282 | -0.4973 |
| 145 | 53.17 | 0.01 | 14.1651 | -6.9957 | 0.7073 | 2.7356 | 0.0114 | -0.0973 | 0.5720 | -0.6692 | -0.4939 |
| 146 | 53.34 | -0.01 | 14.2717 | -7.1508 | 0.5368 | 2.5581 | 0.0002 | -0.0477 | 0.5749 | -0.6226 | -0.5010 |
| 147 | 53.53 | -0.00 | 14.3812 | -7.0961 | 0.5951 | 2.3679 | 0.0012 | -0.0920 | 0.5769 | -0.6659 | -0.4934 |
| 148 | 53.67 | -0.01 | 14.3650 | -7.0816 | 0.5292 | 2.3845 | 0.0075 | -0.1119 | 0.5757 | -0.6876 | -0.4930 |
| 149 | 53.83 | 0.01 | 14.4705 | -7.4335 | 0.7034 | 2.3947 | 0.0009 | -0.0910 | 0.5758 | -0.6668 | -0.5137 |
| 150 | 53.98 | 0.03 | 14.3770 | -7.1447 | 0.9260 | 2.0274 | 0.0145 | -0.0855 | 0.5789 | -0.6644 | -0.4978 |
| 151 | 54.15 | 0.04 | 14.4481 | -7.2598 | 1.0316 | 1.9848 | 0.0019 | -0.0996 | 0.5839 | -0.6835 | -0.5025 |
| 152 | 54.29 | 0.05 | 14.3299 | -6.9533 | 1.1728 | 1.8743 | 0.0272 | -0.0955 | 0.5778 | -0.6774 | -0.4852 |
| 153 | 54.45 | 0.00 | 14.4438 | -7.1896 | 0.6471 | 2.0747 | 0.0151 | -0.0837 | 0.5875 | -0.6763 | -0.4978 |
| 154 | 54.61 | 0.01 | 14.3826 | -7.0336 | 0.8780 | 1.8578 | 0.0154 | -0.0850 | 0.5863 | -0.6713 | -0.4890 |
| 155 | 54.75 | -0.01 | 14.3484 | -7.0491 | 0.4995 | 2.0606 | 0.0152 | -0.0879 | 0.5896 | -0.6776 | -0.4913 |
| 156 | 54.91 | -0.03 | 14.5288 | -7.2885 | 0.4160 | 1.9796 | 0.0161 | -0.1078 | 0.5913 | -0.6991 | -0.5017 |
| 157 | 55.07 | -0.01 | 14.5627 | -7.2849 | 0.6819 | 1.9326 | 0.0160 | -0.1060 | 0.5975 | -0.7035 | -0.4996 |
| 158 | 55.2 | 0.02 | 14.3738 | -7.0590 | 0.8716 | 1.7093 | 0.0159 | -0.0956 | 0.5959 | -0.6866 | -0.4911 |
| 159 | 55.37 | 0.02 | 14.5571 | -6.9547 | 0.8760 | 1.5240 | 0.0300 | -0.1215 | 0.5951 | -0.7166 | -0.4778 |
| 160 | 55.51 | -0.01 | 14.5641 | -7.1546 | 0.6542 | 1.3819 | 0.0183 | -0.1151 | 0.5934 | -0.7085 | -0.4913 |
| 161 | 55.68 | 0.03 | 14.5572 | -7.0759 | 1.0275 | 1.6077 | 0.0293 | -0.1107 | 0.5954 | -0.7061 | -0.4861 |
| 162 | 55.85 | 0.00 | 14.5302 | -7.1401 | 0.7789 | 1.2082 | 0.0249 | -0.1268 | 0.5991 | -0.7259 | -0.4914 |
| 163 | 56.00 | -0.00 | 14.6002 | -7.0701 | 0.6425 | 1.4271 | 0.0183 | -0.1391 | 0.5987 | -0.7368 | -0.4842 |
| 164 | 56.13 | -0.00 | 14.4360 | -7.0019 | 0.7294 | 1.2887 | 0.0245 | -0.1373 | 0.5925 | -0.7298 | -0.4850 |
| 165 | 56.30 | -0.01 | 14.6324 | -7.2691 | 0.5865 | 1.3692 | 0.0314 | -0.0815 | 0.6010 | -0.6826 | -0.4960 |
| 166 | 56.46 | -0.02 | 14.5829 | -7.1040 | 0.4737 | 1.2600 | 0.0320 | -0.1059 | 0.6063 | -0.7122 | -0.4871 |
| 167 | 56.61 | -0.05 | 14.6579 | -6.9276 | 0.2275 | 1.1511 | 0.0333 | -0.1132 | 0.5949 | -0.7081 | -0.4726 |
| 168 | 56.76 | -0.03 | 14.6187 | -7.0822 | 0.5348 | 1.1231 | 0.0325 | -0.1181 | 0.5916 | -0.7097 | -0.4845 |
| 169 | 56.90 | -0.02 | 14.6369 | -7.1716 | 0.5477 | 1.1109 | 0.0325 | -0.1381 | 0.5916 | -0.7297 | -0.4900 |
| 170 | 57.06 | -0.02 | 14.6106 | -6.8876 | 0.5312 | 1.0473 | 0.0330 | -0.1382 | 0.5920 | -0.7302 | -0.4716 |
| 171 | 57.20 | -0.03 | 14.8407 | -7.2601 | 0.3944 | 1.2568 | 0.0456 | -0.1274 | 0.5914 | -0.7188 | -0.4862 |
| 172 | 57.36 | -0.04 | 14.8637 | -7.0208 | 0.3715 | 1.0539 | 0.0468 | -0.1373 | 0.6086 | -0.7459 | -0.4723 |
| 173 | 57.51 | -0.06 | 14.8685 | -6.3998 | 0.2101 | 0.2515 | 0.0444 | -0.1727 | 0.6071 | -0.7798 | -0.4304 |
| 174 | 57.65 | -0.08 | 14.8158 | -6.0933 | 0.1083 | -0.3525 | 0.0591 | -0.1981 | 0.5952 | -0.7933 | -0.4113 |
| 175 | 57.80 | -0.11 | 14.8283 | -6.1179 | -0.1408 | -0.6187 | 0.0528 | -0.1692 | 0.6035 | -0.7727 | -0.4126 |
| 176 | 57.94 | -0.15 | 14.8235 | -6.6381 | -0.5740 | -1.0012 | 0.0395 | -0.1681 | 0.6143 | -0.7824 | -0.4478 |
| 177 | 58.09 | -0.16 | 14.8424 | -6.7128 | -0.5614 | -1.0131 | 0.0395 | -0.1574 | 0.6122 | -0.7696 | -0.4523 |
| 178 | 58.23 | -0.12 | 15.0576 | -7.1181 | -0.2288 | -1.0940 | 0.0405 | -0.1489 | 0.6261 | -0.7750 | -0.4727 |
| 179 | 58.23 | -0.16 | 14.9350 | -6.8457 | -0.6[illegible] | -1.0296 | 0.0397 | -0.1419 | 0.6295 | -0.7714 | -0.4586 |
| 180 | 58.24 | -0.15 | 15.0812 | -6.9287 | -0.5205 | -0.9895 | 0.0403 | -0.1549 | 0.6291 | -0.7840 | -0.4594 |
| 181 | 58.24 | -0.16 | 15.0642 | -6.9772 | -0.5972 | -0.9176 | 0.0400 | -0.1581 | 0.6283 | -0.7864 | -0.4632 |
| 182 | 58.24 | -0.15 | 15.1364 | -6.9576 | -0.4359 | -1.1473 | 0.0534 | -0.1664 | 0.6291 | -0.7955 | -0.4596 |
| 183 | 58.23 | -0.13 | 15.0279 | -6.8717 | -0.2910 | -1.0156 | 0.0468 | -0.1601 | 0.6246 | -0.7847 | -0.4573 |
| 184 | 58.23 | -0.11 | 15.0115 | -6.8899 | -0.0528 | -1.1167 | 0.0535 | -0.1525 | 0.6270 | -0.7795 | -0.4590 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 58.23 | -0.14 | 15.0324 | -6.9909 | -0.1955 | -0.9421 | 0.0465 | -0.1425 | 0.6285 | -0.7710 | -0.4691 |
| 186 | 58.22 | -0.14 | 14.9492 | -6.9880 | -0.1599 | -1.0202 | 0.0463 | -0.1476 | 0.6289 | -0.7765 | -0.4674 |
| 187 | 58.22 | -0.15 | 14.9737 | -6.8370 | -0.3584 | -0.9993 | 0.0529 | -0.1604 | 0.6285 | -0.7889 | -0.4566 |
| 188 | 58.23 | -0.16 | 14.9890 | -6.9336 | -0.7346 | -0.9341 | 0.0459 | -0.1677 | 0.6292 | -0.7969 | -0.4628 |
| 189 | 58.22 | -0.17 | 14.9869 | -6.9238 | -0.5906 | -1.0050 | 0.0462 | -0.1617 | 0.6307 | -0.7924 | -0.4620 |
| 193 | 58.22 | -0.15 | 14.9724 | -6.9123 | -0.3842 | -1.1761 | 0.0402 | -0.1442 | 0.6253 | -0.7695 | -0.4617 |

TEST 7 PART 173 MACH 0.90 RX10-6 1.7 PHI 0.0 CONF 81WOF15 L 0.0 DEL1 0 DEL2 -10 DEL3 0 DEL4 -10 TRANSITION UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | -0.03 | -0.0123 | 0.0045 | 0.0190 | -0.3660 | -1.5447 | -0.7007 | -0.0617 | -0.3340 | 0.0881 | 0.4767 |
| 2 | -5.70 | -0.02 | -0.0175 | 0.0038 | 0.0184 | -0.2058 | -1.0514 | -0.7006 | -0.0620 | -0.3364 | 0.0885 | 0.4802 |
| 3 | -5.69 | -0.02 | -0.0148 | 0.0040 | 0.0181 | -0.2704 | -1.2230 | -0.7035 | -0.0619 | -0.3384 | 0.0880 | 0.4811 |
| 4 | -5.70 | -0.03 | -0.0123 | 0.0046 | 0.0191 | -0.3741 | -1.5528 | -0.6929 | -0.0617 | -0.3332 | 0.0891 | 0.4809 |
| 5 | -5.70 | -0.03 | -0.0200 | 0.0028 | 0.0169 | -0.1401 | -0.8450 | -0.6929 | -0.0617 | -0.3332 | 0.0891 | 0.4809 |
| 6 | -5.59 | -0.03 | -0.0121 | 0.0040 | 0.0179 | -0.3307 | -1.4793 | -0.6156 | -0.0603 | -0.3089 | 0.0980 | 0.5018 |
| 7 | -3.67 | -0.02 | -0.0064 | 0.0046 | 0.0156 | -0.7190 | -2.4375 | -0.4880 | -0.0574 | -0.2653 | 0.1176 | 0.5437 |
| 8 | -1.87 | -0.02 | -0.0018 | 0.0043 | 0.0114 | -2.3878 | -6.3333 | -0.3591 | -0.0458 | -0.2095 | 0.1275 | 0.5832 |
| 9 | -0.01 | -0.03 | -0.0071 | 0.0044 | 0.0103 | -0.6200 | -1.4507 | -0.2390 | -0.0352 | -0.1496 | 0.1471 | 0.6251 |
| 10 | 1.83 | -0.03 | -0.0082 | 0.0043 | 0.0079 | -0.5246 | -0.9634 | -0.1490 | -0.0260 | -0.0992 | 0.1748 | 0.6660 |
| 11 | 3.69 | -0.04 | -0.0052 | 0.0039 | 0.0064 | -0.7503 | -1.2308 | -0.0380 | -0.0147 | -0.0491 | 0.3870 | 1.2895 |
| 12 | 5.55 | -0.03 | -0.0011 | 0.0033 | 0.0067 | -3.0012 | -6.0909 | 0.0355 | -0.0018 | -0.0143 | -0.0507 | -0.4028 |
| 13 | 7.45 | -0.04 | -0.0024 | 0.0029 | 0.0065 | -1.2088 | -2.7083 | 0.0852 | 0.0146 | 0.0038 | 0.1716 | 0.0447 |
| 14 | 9.28 | -0.04 | -0.0014 | 0.0030 | 0.0090 | -2.1437 | -6.4286 | 0.1438 | 0.0288 | 0.0343 | 0.2006 | 0.2389 |
| 15 | 11.18 | -0.03 | -0.0015 | 0.0032 | 0.0101 | -2.1342 | -6.7333 | 0.2203 | 0.0422 | 0.0729 | 0.1914 | 0.3309 |
| 16 | 13.03 | -0.04 | -0.0025 | 0.0021 | 0.0076 | -0.8403 | -3.0400 | 0.3114 | 0.0545 | 0.1228 | 0.1750 | 0.3942 |
| 17 | 14.95 | -0.05 | -0.0021 | 0.0009 | 0.0057 | -0.4287 | -2.7143 | 0.4072 | 0.0657 | 0.1728 | 0.1614 | 0.4244 |
| 18 | 16.94 | -0.04 | 0.0058 | -0.0019 | 0.0207 | -0.3277 | 3.5690 | 0.4908 | 0.0715 | 0.2093 | 0.1457 | 0.4264 |
| 19 | 18.87 | -0.05 | -0.0152 | -0.0084 | 0.0187 | 0.5529 | -1.2303 | 0.5733 | 0.0794 | 0.2424 | 0.1316 | 0.4228 |
| 20 | 20.80 | -0.06 | -0.0443 | -0.0129 | 0.0133 | 0.2920 | -0.3009 | 0.6806 | 0.0787 | 0.2876 | 0.1157 | 0.4225 |
| 21 | 22.74 | -0.06 | -0.1005 | -0.0133 | -0.0066 | 0.1325 | 0.0657 | 0.7420 | 0.0793 | 0.3005 | 0.1069 | 0.4049 |
| 22 | 24.64 | -0.05 | -0.1568 | -0.0118 | -0.0403 | 0.0754 | 0.2573 | 0.8407 | 0.0770 | 0.3300 | 0.0916 | 0.3925 |
| 23 | 26.58 | -0.04 | -0.0223 | -0.0006 | 0.0040 | 0.0269 | -0.1794 | 0.9251 | 0.0533 | 0.3393 | 0.0576 | 0.3657 |
| 24 | 27.96 | -0.00 | 0.1327 | 0.0085 | 0.0765 | 0.0642 | 0.5766 | 0.9603 | 0.0391 | 0.3429 | 0.0407 | 0.3571 |
| 25 | 20.04 | -0.00 | 0.1327 | 0.0090 | 0.0773 | 0.0680 | 0.5826 | 0.9765 | 0.0398 | 0.3488 | 0.0407 | 0.3572 |
| 26 | 28.43 | -0.00 | 0.1876 | 0.0132 | 0.0996 | 0.0705 | 0.5309 | 0.9923 | 0.0364 | 0.3510 | 0.0386 | 0.3537 |
| 27 | 28.74 | -0.00 | 0.1979 | 0.0155 | 0.1039 | 0.0784 | 0.5250 | 1.0015 | 0.0351 | 0.3523 | 0.0350 | 0.3518 |
| 28 | 29.02 | 0.00 | 0.2602 | 0.0210 | 0.1343 | 0.0808 | 0.5160 | 0.9991 | 0.0316 | 0.3475 | 0.0316 | 0.3478 |
| 29 | 29.33 | 0.01 | 0.2683 | 0.0219 | 0.1347 | 0.0817 | 0.5019 | 1.0185 | 0.0312 | 0.3533 | 0.0306 | 0.3468 |
| 30 | 29.62 | 0.02 | 0.2111 | 0.0192 | 0.1125 | 0.0911 | 0.5332 | 1.0335 | 0.0348 | 0.3606 | 0.0336 | 0.3490 |
| 31 | 29.91 | 0.01 | 0.2216 | 0.0204 | 0.1161 | 0.0922 | 0.5242 | 1.0338 | 0.0331 | 0.3581 | 0.0320 | 0.3484 |
| 32 | 30.15 | 0.00 | 0.2213 | 0.0219 | 0.1175 | 0.0991 | 0.5312 | 1.0430 | 0.0324 | 0.3595 | 0.0310 | 0.3447 |
| 33 | 30.42 | 0.01 | 0.2040 | 0.0237 | 0.1106 | 0.1164 | 0.5425 | 1.0460 | 0.0324 | 0.3603 | 0.0309 | 0.3445 |
| 34 | 30.72 | 0.04 | 0.2470 | 0.0271 | 0.1292 | 0.1099 | 0.5229 | 1.0492 | 0.0313 | 0.3605 | 0.0298 | 0.3438 |
| 35 | 30.98 | 0.04 | 0.2863 | 0.0334 | 0.1424 | 0.1165 | 0.4974 | 1.0406 | 0.0293 | 0.3537 | 0.0282 | 0.3399 |
| 36 | 31.27 | 0.04 | 0.2648 | 0.0338 | 0.1361 | 0.1275 | 0.5138 | 1.0377 | 0.0292 | 0.3511 | 0.0282 | 0.3384 |
| 37 | 31.54 | 0.02 | 0.2512 | 0.0293 | 0.1270 | 0.1168 | 0.5054 | 1.0646 | 0.0295 | 0.3629 | 0.0278 | 0.3409 |
| 38 | 31.81 | 0.04 | 0.2781 | 0.0389 | 0.1365 | 0.1397 | 0.4906 | 1.0350 | 0.0279 | 0.3460 | 0.0270 | 0.3343 |
| 39 | 32.09 | 0.04 | 0.2884 | 0.0395 | 0.1435 | 0.1369 | 0.4976 | 1.0530 | 0.0279 | 0.3529 | 0.0265 | 0.3352 |
| 40 | 32.35 | 0.04 | 0.3002 | 0.0412 | 0.1467 | 0.1371 | 0.4887 | 1.0591 | 0.0273 | 0.3557 | 0.0258 | 0.3359 |
| 41 | 32.61 | 0.06 | 0.3224 | 0.0452 | 0.1538 | 0.1401 | 0.4770 | 1.0622 | 0.0266 | 0.3566 | 0.0251 | 0.3358 |
| 42 | 32.87 | 0.05 | 0.3094 | 0.0463 | 0.1458 | 0.1560 | 0.4712 | 1.0593 | 0.0265 | 0.3533 | 0.0251 | 0.3336 |
| 43 | 33.13 | 0.05 | 0.3383 | 0.0461 | 0.1591 | 0.1362 | 0.4703 | 1.0759 | 0.0262 | 0.3601 | 0.0244 | 0.3368 |
| 44 | 33.39 | 0.04 | 0.3153 | 0.0410 | 0.1477 | 0.1299 | 0.4684 | 1.1087 | 0.0271 | 0.3738 | 0.0245 | 0.3371 |
| 45 | 33.62 | 0.02 | 0.2943 | 0.0398 | 0.1395 | 0.1351 | 0.4740 | 1.1280 | 0.0273 | 0.3838 | 0.0242 | 0.3402 |
| 46 | 33.90 | 0.03 | 0.2959 | 0.0435 | 0.1423 | 0.1469 | 0.4809 | 1.1057 | 0.0264 | 0.3719 | 0.0239 | 0.3363 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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NAVY HSSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.14 | 0.06 | 0.2759 | 0.0469 | 0.1342 | 0.1699 | 0.4862 | 1.0834 | 0.0256 | 0.3597 | 0.0237 | 0.3320 |
| 48 | 34.38 | 0.03 | 0.2789 | 0.0391 | 0.1376 | 0.1400 | 0.4932 | 1.1327 | 0.0266 | 0.3801 | 0.0235 | 0.3358 |
| 49 | 34.63 | 0.04 | 0.2643 | 0.0339 | 0.1328 | 0.1251 | 0.5023 | 1.1366 | 0.0272 | 0.3830 | 0.0240 | 0.3369 |
| 50 | 34.88 | 0.02 | 0.2817 | 0.0278 | 0.1414 | 0.0988 | 0.5018 | 1.1663 | 0.0281 | 0.3945 | 0.0241 | 0.3382 |
| 51 | 35.12 | 0.00 | 0.3211 | 0.0320 | 0.1544 | 0.0995 | 0.4808 | 1.1623 | 0.0260 | 0.3904 | 0.0224 | 0.3359 |
| 52 | 35.35 | 0.01 | 0.3301 | 0.0320 | 0.1594 | 0.0968 | 0.4829 | 1.1593 | 0.0259 | 0.3884 | 0.0224 | 0.3350 |
| 53 | 35.60 | 0.01 | 0.2964 | 0.0265 | 0.1463 | 0.0896 | 0.4936 | 1.1905 | 0.0271 | 0.4024 | 0.0228 | 0.3380 |
| 54 | 35.84 | -0.01 | 0.1802 | 0.0143 | 0.0919 | 0.0795 | 0.5100 | 1.2374 | 0.0322 | 0.4269 | 0.0260 | 0.3458 |
| 55 | 36.06 | -0.01 | 0.1594 | 0.0143 | 0.0802 | 0.0899 | 0.5031 | 1.2445 | 0.0327 | 0.4276 | 0.0262 | 0.3436 |
| 56 | 36.30 | -0.00 | 0.1064 | 0.0111 | 0.0549 | 0.1045 | 0.5155 | 1.2577 | 0.0346 | 0.4336 | 0.0275 | 0.3448 |
| 57 | 36.54 | -0.01 | 0.1061 | 0.0107 | 0.0572 | 0.1010 | 0.5397 | 1.2800 | 0.0348 | 0.4444 | 0.0272 | 0.3472 |
| 58 | 36.77 | -0.02 | 0.0760 | 0.0094 | 0.0462 | 0.1239 | 0.6074 | 1.2766 | 0.0383 | 0.4419 | 0.0300 | 0.3462 |
| 59 | 37.02 | -0.01 | 0.0547 | 0.0086 | 0.0303 | 0.1576 | 0.5549 | 1.2886 | 0.0377 | 0.4465 | 0.0292 | 0.3465 |
| 60 | 37.25 | -0.00 | 0.0236 | 0.0054 | 0.0167 | 0.2289 | 0.7076 | 1.2884 | 0.0388 | 0.4465 | 0.0301 | 0.3466 |
| 61 | 37.47 | -0.01 | 0.0676 | 0.0082 | 0.0487 | 0.1215 | 0.7203 | 1.2796 | 0.0386 | 0.4410 | 0.0301 | 0.3447 |
| 62 | 37.71 | -0.00 | 0.0372 | 0.0052 | 0.0286 | 0.1398 | 0.7688 | 1.3002 | 0.0401 | 0.4507 | 0.0308 | 0.3466 |
| 63 | 37.95 | -0.02 | 0.0741 | 0.0093 | 0.0500 | 0.1257 | 0.6743 | 1.2659 | 0.0372 | 0.4333 | 0.0294 | 0.3423 |
| 64 | 38.17 | -0.01 | 0.0417 | 0.0062 | 0.0367 | 0.1491 | 0.8822 | 1.2833 | 0.0402 | 0.4409 | 0.0313 | 0.3436 |
| 65 | 38.41 | 0.01 | 0.0358 | 0.0062 | 0.0280 | 0.1733 | 0.7821 | 1.3069 | 0.0404 | 0.4537 | 0.0309 | 0.3471 |
| 66 | 38.64 | 0.02 | 0.0312 | 0.0056 | 0.0326 | 0.1796 | 1.0449 | 1.2731 | 0.0386 | 0.4369 | 0.0303 | 0.3432 |
| 67 | 38.84 | 0.02 | 0.0309 | 0.0065 | 0.0339 | 0.2104 | 1.0971 | 1.2540 | 0.0370 | 0.4263 | 0.0295 | 0.3400 |
| 68 | 39.07 | 0.01 | 0.0155 | 0.0059 | 0.0264 | 0.3808 | 1.7032 | 1.2632 | 0.0355 | 0.4306 | 0.0281 | 0.3409 |
| 69 | 39.34 | -0.01 | 0.0080 | 0.0058 | 0.0203 | 0.7253 | 2.5375 | 1.2779 | 0.0364 | 0.4378 | 0.0285 | 0.3426 |
| 70 | 39.54 | 0.01 | -0.0154 | 0.0039 | 0.0112 | -0.2533 | -0.7273 | 1.2588 | 0.0349 | 0.4260 | 0.0277 | 0.3384 |
| 71 | 39.82 | -0.00 | -0.0217 | 0.0038 | 0.0064 | -0.1752 | -0.2949 | 1.2515 | 0.0342 | 0.4218 | 0.0273 | 0.3370 |
| 72 | 40.03 | 0.00 | -0.0387 | 0.0039 | -0.0001 | -0.1008 | 0.0026 | 1.2503 | 0.0332 | 0.4187 | 0.0265 | 0.3349 |
| 73 | 40.23 | -0.00 | -0.0528 | 0.0013 | -0.0066 | -0.0247 | 0.1252 | 1.2711 | 0.0343 | 0.4270 | 0.0270 | 0.3360 |
| 74 | 40.43 | 0.01 | -0.0428 | 0.0031 | -0.0006 | -0.0726 | 0.0141 | 1.2609 | 0.0325 | 0.4207 | 0.0257 | 0.3337 |
| 75 | 40.62 | -0.02 | -0.0748 | 0.0028 | -0.0174 | -0.0375 | 0.2329 | 1.2321 | 0.0320 | 0.4039 | 0.0259 | 0.3319 |
| 76 | 40.84 | -0.00 | -0.0643 | 0.0007 | -0.0125 | -0.0109 | 0.1947 | 1.2834 | 0.0366 | 0.4336 | 0.0285 | 0.3379 |
| 77 | 41.05 | -0.01 | -0.0557 | 0.0035 | -0.0066 | -0.0630 | 0.1187 | 1.2677 | 0.0333 | 0.4220 | 0.0262 | 0.3329 |
| 78 | 41.24 | 0.01 | -0.0903 | 0.0011 | -0.0240 | -0.0122 | 0.2661 | 1.2398 | 0.0313 | 0.4069 | 0.0252 | 0.3298 |
| 79 | 41.47 | -0.01 | -0.0521 | -0.0006 | -0.0097 | 0.0115 | 0.1865 | 1.3510 | 0.0380 | 0.4567 | 0.0281 | 0.3380 |
| 80 | 41.65 | -0.01 | -0.0872 | -0.0011 | -0.0233 | 0.0126 | 0.2675 | 1.3035 | 0.0356 | 0.4342 | 0.0271 | 0.3331 |
| 81 | 41.86 | -0.03 | -0.1112 | -0.0046 | -0.0362 | 0.0414 | 0.3258 | 1.3137 | 0.0373 | 0.4381 | 0.0284 | 0.3335 |
| 82 | 42.07 | 0.01 | -0.1163 | -0.0052 | -0.0368 | 0.0448 | 0.3167 | 1.3131 | 0.0368 | 0.4357 | 0.0280 | 0.3318 |
| 83 | 42.23 | -0.00 | -0.1472 | -0.0061 | -0.0518 | 0.0415 | 0.3517 | 1.2663 | 0.0319 | 0.4203 | 0.0252 | 0.3319 |
| 84 | 42.44 | -0.02 | -0.1446 | -0.0089 | -0.0485 | 0.0617 | 0.3352 | 1.3261 | 0.0387 | 0.4428 | 0.0292 | 0.3339 |
| 85 | 42.62 | -0.02 | -0.0833 | -0.0029 | -0.0289 | 0.0349 | 0.3474 | 1.3535 | 0.0391 | 0.4526 | 0.0289 | 0.3342 |
| 86 | 42.80 | -0.01 | -0.1468 | -0.0061 | -0.0529 | 0.0416 | 0.3602 | 1.2776 | 0.0334 | 0.4185 | 0.0261 | 0.3276 |
| 87 | 42.97 | -0.04 | -0.1102 | -0.0052 | -0.0408 | 0.0472 | 0.3697 | 1.3358 | 0.0394 | 0.4425 | 0.0295 | 0.3313 |
| 88 | 43.15 | -0.04 | -0.1286 | -0.0070 | -0.0435 | 0.0545 | 0.3380 | 1.3190 | 0.0376 | 0.4381 | 0.0285 | 0.3322 |
| 89 | 43.34 | -0.02 | -0.0436 | -0.0002 | -0.0104 | 0.0046 | 0.2391 | 1.3387 | 0.0346 | 0.4414 | 0.0258 | 0.3297 |
| 90 | 43.53 | -0.02 | -0.1002 | -0.0056 | -0.0322 | 0.0560 | 0.3217 | 1.3498 | 0.0398 | 0.4473 | 0.0295 | 0.3314 |
| 91 | 43.70 | -0.06 | -0.1124 | -0.0061 | -0.0446 | 0.0543 | 0.3963 | 1.3327 | 0.0382 | 0.4410 | 0.0286 | 0.3309 |
| 92 | 43.89 | -0.03 | -0.1855 | -0.0111 | -0.0658 | 0.0599 | 0.3546 | 1.3125 | 0.0350 | 0.4314 | 0.0266 | 0.3287 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.06 | -0.02 | -0.1949 | -0.0118 | -0.0749 | 0.0606 | 0.3842 | 1.3188 | 0.0370 | 0.4362 | 0.0280 | 0.3308 |
| 94 | 44.26 | -0.03 | -0.1695 | -0.0099 | -0.0731 | 0.0585 | 0.4312 | 1.3292 | 0.0371 | 0.4383 | 0.0279 | 0.3298 |
| 95 | 44.44 | -0.05 | -0.0151 | 0.0011 | 0.0003 | -0.0729 | -0.0199 | 1.3648 | 0.0372 | 0.4496 | 0.0272 | 0.3296 |
| 96 | 44.63 | -0.05 | -0.0198 | 0.0009 | -0.0054 | -0.0455 | 0.2727 | 1.3723 | 0.0357 | 0.4543 | 0.0260 | 0.3318 |
| 97 | 44.81 | -0.06 | 0.0831 | 0.0128 | 0.0435 | 0.1543 | 0.5229 | 1.3672 | 0.0346 | 0.4521 | 0.0253 | 0.3306 |
| 98 | 44.99 | -0.03 | -0.1999 | -0.0134 | -0.0768 | 0.0671 | 0.3841 | 1.3737 | 0.0359 | 0.4359 | 0.0271 | 0.3294 |
| 99 | 45.17 | -0.02 | 0.0005 | 0.0053 | 0.0031 | 10.6042 | 0.2000 | 1.3616 | 0.0360 | 0.4492 | 0.0269 | 0.3299 |
| 100 | 45.36 | -0.04 | -0.0622 | -0.0021 | -0.0340 | 0.0338 | 0.5475 | 1.3503 | 0.0327 | 0.4445 | 0.0242 | 0.3292 |
| 101 | 45.53 | -0.03 | -0.0245 | 0.0008 | -0.0105 | -0.0327 | 0.4286 | 1.3752 | 0.0382 | 0.4564 | 0.0278 | 0.3319 |
| 102 | 45.71 | -0.01 | -0.1508 | -0.0111 | -0.0677 | 0.0737 | 0.4489 | 1.3430 | 0.0369 | 0.4424 | 0.0274 | 0.3294 |
| 103 | 45.89 | -0.07 | -0.0352 | 0.0007 | -0.0117 | -0.0199 | 0.3324 | 1.3664 | 0.0384 | 0.4521 | 0.0281 | 0.3308 |
| 104 | 46.09 | -0.04 | 0.1012 | 0.0145 | 0.0491 | 0.1435 | 0.4847 | 1.3526 | 0.0317 | 0.4458 | 0.0234 | 0.3296 |
| 105 | 46.26 | -0.02 | -0.0542 | -0.0033 | -0.0212 | 0.0610 | 0.3919 | 1.3728 | 0.0360 | 0.4549 | 0.0277 | 0.3313 |
| 106 | 46.44 | -0.05 | 0.0095 | 0.0066 | 0.0059 | 0.6950 | 0.6211 | 1.3663 | 0.0375 | 0.4508 | 0.0274 | 0.3299 |
| 107 | 46.61 | -0.07 | 0.0045 | 0.0059 | 0.0030 | 1.3116 | 0.6667 | 1.3489 | 0.0353 | 0.4444 | 0.0261 | 0.3295 |
| 108 | 46.79 | -0.07 | -0.0597 | -0.0028 | -0.0309 | 0.0470 | 0.5185 | 1.3517 | 0.0357 | 0.4471 | 0.0264 | 0.3308 |
| 109 | 46.97 | -0.03 | -0.0510 | -0.0053 | -0.0222 | 0.1042 | 0.4361 | 1.3553 | 0.0366 | 0.4474 | 0.0270 | 0.3302 |
| 110 | 47.12 | -0.03 | -0.2400 | -0.0254 | -0.1136 | 0.1060 | 0.4735 | 1.3382 | 0.0344 | 0.4440 | 0.0257 | 0.3318 |
| 111 | 47.31 | -0.01 | -0.0832 | -0.0067 | -0.0351 | 0.0807 | 0.4224 | 1.3508 | 0.0394 | 0.4496 | 0.0291 | 0.3328 |
| 112 | 47.49 | -0.02 | -0.0959 | -0.0088 | -0.0401 | 0.0919 | 0.4186 | 1.3480 | 0.0392 | 0.4483 | 0.0290 | 0.3311 |
| 113 | 47.66 | -0.04 | -0.1259 | -0.0139 | -0.0579 | 0.1106 | 0.4598 | 1.3540 | 0.0381 | 0.4486 | 0.0281 | 0.3313 |
| 114 | 47.84 | -0.02 | -0.1022 | -0.0121 | -0.0401 | 0.1186 | 0.3928 | 1.3477 | 0.0360 | 0.4455 | 0.0267 | 0.3306 |
| 115 | 48.02 | -0.03 | -0.0528 | -0.0060 | -0.0185 | 0.1139 | 0.3510 | 1.3488 | 0.0332 | 0.4442 | 0.0246 | 0.3294 |
| 116 | 48.18 | -0.03 | -0.1033 | -0.0105 | -0.0453 | 0.1018 | 0.4380 | 1.3434 | 0.0372 | 0.4445 | 0.0277 | 0.3309 |
| 117 | 48.36 | -0.04 | -0.1890 | -0.0229 | -0.0859 | 0.1213 | 0.4544 | 1.3375 | 0.0325 | 0.4415 | 0.0243 | 0.3301 |
| 118 | 48.51 | -0.05 | -0.1865 | -0.0221 | -0.0849 | 0.1187 | 0.4552 | 1.3318 | 0.0306 | 0.4403 | 0.0230 | 0.3306 |
| 119 | 48.69 | -0.05 | -0.2316 | -0.0391 | -0.1054 | 0.1687 | 0.4553 | 1.3527 | 0.0213 | 0.4498 | 0.0158 | 0.3325 |
| 120 | 48.87 | -0.04 | -0.1734 | -0.0268 | -0.0803 | 0.1548 | 0.4630 | 1.3431 | 0.0261 | 0.4456 | 0.0195 | 0.3318 |
| 121 | 49.04 | -0.04 | -0.1805 | -0.0351 | -0.0803 | 0.1942 | 0.4448 | 1.3403 | 0.0200 | 0.4439 | 0.0149 | 0.3312 |
| 122 | 49.21 | -0.00 | -0.2082 | -0.0413 | -0.0927 | 0.1983 | 0.4454 | 1.3422 | 0.0162 | 0.4456 | 0.0121 | 0.3320 |
| 123 | 49.38 | -0.01 | -0.1659 | -0.0367 | -0.0767 | 0.2210 | 0.4623 | 1.2949 | 0.0093 | 0.4237 | 0.0072 | 0.3272 |
| 124 | 49.58 | -0.03 | -0.1821 | -0.0386 | -0.0838 | 0.2117 | 0.4601 | 1.3289 | 0.0115 | 0.4408 | 0.0087 | 0.3317 |
| 125 | 49.78 | 0.01 | -0.1584 | -0.0370 | -0.0695 | 0.2333 | 0.4387 | 1.2765 | 0.0097 | 0.4181 | 0.0076 | 0.3276 |
| 126 | 49.95 | -0.04 | -0.1548 | -0.0314 | -0.0719 | 0.2025 | 0.4644 | 1.2581 | 0.0075 | 0.4099 | 0.0060 | 0.3258 |
| 127 | 50.12 | -0.00 | -0.1381 | -0.0310 | -0.0631 | 0.2242 | 0.4569 | 1.2691 | 0.0079 | 0.4168 | 0.0062 | 0.3284 |
| 128 | 50.31 | -0.01 | -0.1405 | -0.0356 | -0.0623 | 0.2531 | 0.4433 | 1.2621 | 0.0043 | 0.4166 | 0.0034 | 0.3301 |
| 129 | 50.48 | 0.01 | -0.1395 | -0.0325 | -0.0618 | 0.2327 | 0.4429 | 1.2519 | 0.0045 | 0.4105 | 0.0036 | 0.3279 |
| 130 | 50.63 | 0.01 | -0.0861 | -0.0245 | -0.0394 | 0.2850 | 0.4581 | 1.2474 | 0.0034 | 0.4094 | 0.0027 | 0.3282 |
| 131 | 50.81 | 0.04 | -0.0639 | -0.0181 | -0.0276 | 0.2838 | 0.4326 | 1.2183 | 0.0020 | 0.3975 | 0.0016 | 0.3263 |
| 132 | 50.99 | 0.03 | -0.0967 | -0.0234 | -0.0417 | 0.2423 | 0.4306 | 1.2036 | 0.0020 | 0.3928 | 0.0017 | 0.3263 |
| 133 | 51.15 | 0.03 | -0.1168 | -0.0262 | -0.0522 | 0.2246 | 0.4464 | 1.2110 | 0.0007 | 0.3974 | 0.0006 | 0.3282 |
| 134 | 51.32 | 0.02 | -0.1245 | -0.0277 | -0.0549 | 0.2229 | 0.4409 | 1.2253 | 0.0005 | 0.4055 | 0.0004 | 0.3309 |
| 135 | 51.52 | 0.01 | -0.1552 | -0.0330 | -0.0641 | 0.2123 | 0.4129 | 1.2034 | 0.0011 | 0.3950 | 0.0009 | 0.3282 |
| 136 | 51.69 | 0.02 | -0.0997 | -0.0253 | -0.0375 | 0.2541 | 0.3765 | 1.2325 | 0.0010 | 0.4091 | 0.0008 | 0.3319 |
| 137 | 51.87 | -0.02 | -0.1048 | -0.0236 | -0.0426 | 0.2255 | 0.4059 | 1.2138 | 0.0005 | 0.4021 | 0.0004 | 0.3313 |
| 138 | 52.03 | 0.03 | -0.0693 | -0.0188 | -0.0271 | 0.2718 | 0.3916 | 1.2300 | 0.0005 | 0.4081 | 0.0004 | 0.3318 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSROC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 2 OF 3
SHEET 4 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | B1W0F1S | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.18 | 0.08 | -0.0617 | -0.0191 | -0.0235 | 0.3102 | 0.3815 | 1.2389 | 0.0002 | 0.4106 | 0.0002 | 0.3314 |
| 140 | 52.36 | 0.02 | -0.0519 | -0.0175 | -0.0171 | 0.3380 | 0.3301 | 1.2582 | 0.0008 | 0.4174 | 0.0006 | 0.3317 |
| 141 | 52.51 | 0.00 | -0.0734 | -0.0181 | -0.0281 | 0.2470 | 0.3834 | 1.2450 | 0.0007 | 0.4128 | 0.0006 | 0.3316 |
| 142 | 52.65 | 0.04 | -0.0623 | -0.0156 | -0.0220 | 0.2509 | 0.3537 | 1.2479 | 0.0014 | 0.4125 | 0.0011 | 0.3306 |
| 143 | 52.85 | 0.02 | -0.0588 | -0.0150 | -0.0163 | 0.2556 | 0.2777 | 1.2561 | 0.0008 | 0.4161 | 0.0006 | 0.3313 |
| 144 | 53.01 | 0.03 | -0.0536 | -0.0127 | -0.0166 | 0.2375 | 0.3103 | 1.2488 | 0.0014 | 0.4120 | 0.0011 | 0.3299 |
| 145 | 53.17 | 0.01 | -0.0411 | -0.0112 | -0.0099 | 0.2733 | 0.2415 | 1.2625 | 0.0008 | 0.4171 | 0.0006 | 0.3304 |
| 146 | 53.34 | -0.01 | -0.0476 | -0.0115 | -0.0118 | 0.2422 | 0.2484 | 1.2655 | -0.0004 | 0.4208 | -0.0003 | 0.3325 |
| 147 | 53.53 | -0.00 | -0.0324 | -0.0074 | -0.0056 | 0.2285 | 0.1728 | 1.2537 | 0.0004 | 0.4122 | 0.0003 | 0.3288 |
| 148 | 53.67 | -0.01 | -0.0199 | -0.0067 | 0.0016 | 0.3368 | -0.0804 | 1.2656 | -0.0003 | 0.4179 | -0.0002 | 0.3302 |
| 149 | 53.83 | 0.01 | -0.0275 | -0.0083 | -0.0018 | 0.3019 | 0.0655 | 1.2779 | -0.0012 | 0.4240 | -0.0009 | 0.3318 |
| 150 | 53.98 | 0.03 | -0.0342 | -0.0060 | -0.0033 | 0.1755 | 0.0965 | 1.2763 | -0.0003 | 0.4216 | -0.0002 | 0.3304 |
| 151 | 54.15 | 0.04 | -0.0318 | -0.0059 | -0.0007 | 0.1856 | 0.0220 | 1.2646 | -0.0005 | 0.4165 | -0.0004 | 0.3294 |
| 152 | 54.29 | 0.05 | -0.0206 | -0.0029 | 0.0049 | 0.1408 | -0.2379 | 1.2586 | -0.0003 | 0.4125 | -0.0002 | 0.3277 |
| 153 | 54.45 | 0.00 | -0.0202 | -0.0042 | 0.0025 | 0.2080 | -0.1238 | 1.2603 | -0.0020 | 0.4149 | -0.0016 | 0.3292 |
| 154 | 54.61 | 0.01 | -0.0255 | -0.0035 | 0.0008 | 0.1373 | -0.0314 | 1.2706 | -0.0018 | 0.4193 | -0.0014 | 0.3300 |
| 155 | 54.75 | -0.01 | -0.0280 | -0.0033 | -0.0006 | 0.1179 | 0.0214 | 1.2559 | -0.0021 | 0.4133 | -0.0017 | 0.3291 |
| 156 | 54.91 | -0.03 | -0.0153 | -0.0019 | 0.0050 | 0.1742 | -0.3268 | 1.2673 | -0.0030 | 0.4258 | -0.0023 | 0.3308 |
| 157 | 55.07 | -0.01 | -0.0207 | -0.0028 | 0.0049 | 0.1353 | -0.2367 | 1.2887 | -0.0021 | 0.4253 | -0.0016 | 0.3300 |
| 158 | 55.20 | 0.02 | -0.0208 | -0.0019 | 0.0056 | 0.0914 | -0.2692 | 1.2726 | -0.0024 | 0.4187 | -0.0019 | 0.3290 |
| 159 | 55.37 | 0.02 | -0.0020 | 0.0014 | 0.0155 | -0.7003 | -7.7500 | 1.2816 | -0.0035 | 0.4217 | -0.0027 | 0.3291 |
| 160 | 55.51 | -0.01 | -0.0033 | 0.0009 | 0.0153 | -0.2728 | -4.6364 | 1.2845 | -0.0033 | 0.4237 | -0.0026 | 0.3299 |
| 161 | 55.68 | 0.03 | -0.0239 | -0.0006 | 0.0078 | 0.0251 | -0.3264 | 1.2815 | -0.0029 | 0.4212 | -0.0023 | 0.3287 |
| 162 | 55.85 | 0.00 | -0.0099 | 0.0016 | 0.0136 | -0.1617 | -1.3737 | 1.2801 | -0.0036 | 0.4210 | -0.0028 | 0.3289 |
| 163 | 56.00 | -0.00 | -0.0088 | 0.0028 | 0.0144 | -0.3183 | -1.6364 | 1.2844 | -0.0024 | 0.4232 | -0.0019 | 0.3295 |
| 164 | 56.13 | -0.00 | -0.0087 | 0.0018 | 0.0149 | -0.2070 | -1.7126 | 1.2742 | -0.0030 | 0.4170 | -0.0024 | 0.3273 |
| 165 | 56.30 | -0.01 | -0.0038 | 0.0048 | 0.0170 | -1.2637 | -4.4737 | 1.2765 | -0.0048 | 0.4206 | -0.0038 | 0.3295 |
| 166 | 56.46 | -0.02 | -0.0260 | 0.0025 | 0.0109 | -0.0962 | -0.4192 | 1.2676 | -0.0043 | 0.4157 | -0.0034 | 0.3288 |
| 167 | 56.61 | -0.05 | -0.0175 | 0.0043 | 0.0184 | -0.2458 | -1.0514 | 1.2659 | -0.0023 | 0.4139 | -0.0018 | 0.3270 |
| 168 | 56.76 | -0.03 | -0.0138 | 0.0051 | 0.0206 | -0.3697 | -1.4928 | 1.2690 | -0.0035 | 0.4153 | -0.0028 | 0.3273 |
| 169 | 56.90 | -0.02 | -0.0140 | 0.0052 | 0.0223 | -0.3716 | -1.5929 | 1.2706 | -0.0042 | 0.4160 | -0.0033 | 0.3274 |
| 170 | 57.06 | -0.02 | -0.0270 | 0.0038 | 0.0185 | -0.1408 | -0.6852 | 1.2780 | -0.0040 | 0.4184 | -0.0031 | 0.3274 |
| 171 | 57.20 | -0.03 | -0.0315 | 0.0055 | 0.0200 | -0.1747 | -0.6349 | 1.2739 | -0.0042 | 0.4185 | -0.0033 | 0.3285 |
| 172 | 57.36 | -0.04 | -0.0525 | 0.0039 | 0.0135 | -0.0745 | -0.2576 | 1.2566 | -0.0034 | 0.4099 | -0.0027 | 0.3262 |
| 173 | 57.51 | -0.06 | -0.0260 | 0.0082 | 0.0285 | -0.3155 | -1.0962 | 1.2907 | -0.0032 | 0.4246 | -0.0025 | 0.3290 |
| 174 | 57.65 | -0.08 | -0.0287 | 0.0087 | 0.0283 | -0.3033 | -0.9861 | 1.2849 | -0.0040 | 0.4211 | -0.0031 | 0.3277 |
| 175 | 57.80 | -0.11 | -0.0405 | 0.0085 | 0.0247 | -0.2100 | -0.6099 | 1.2879 | -0.0043 | 0.4237 | -0.0033 | 0.3290 |
| 176 | 57.94 | -0.15 | -0.0427 | 0.0024 | 0.0236 | -0.0564 | -0.5540 | 1.2820 | -0.0053 | 0.4220 | -0.0041 | 0.3292 |
| 177 | 58.09 | -0.16 | -0.0560 | 0.0024 | 0.0211 | -0.0430 | -0.3775 | 1.2612 | -0.0053 | 0.4143 | -0.0042 | 0.3285 |
| 178 | 58.23 | -0.12 | -0.0610 | -0.0006 | 0.0190 | 0.0099 | -0.3120 | 1.2829 | -0.0066 | 0.4225 | -0.0052 | 0.3296 |
| 179 | 58.23 | -0.16 | -0.0694 | -0.0006 | 0.0205 | 0.0087 | -0.2958 | 1.2743 | -0.0057 | 0.4187 | -0.0045 | 0.3286 |
| 180 | 58.24 | -0.15 | -0.0564 | -0.0002 | 0.0248 | 0.0036 | -0.4405 | 1.2803 | -0.0057 | 0.4198 | -0.0045 | 0.3279 |
| 181 | 58.24 | -0.16 | -0.0916 | -0.0036 | 0.0137 | 0.0394 | -0.1497 | 1.2548 | -0.0044 | 0.4089 | -0.0035 | 0.3259 |
| 182 | 58.24 | -0.15 | -0.0864 | -0.0034 | 0.0160 | 0.0394 | -0.1854 | 1.2653 | -0.0050 | 0.4139 | -0.0040 | 0.3271 |
| 183 | 58.23 | -0.13 | -0.0686 | -0.0003 | 0.0247 | 0.0044 | -0.3606 | 1.2801 | -0.0054 | 0.4216 | -0.0042 | 0.3294 |
| 184 | 58.23 | -0.11 | -0.0774 | -0.0022 | 0.0200 | 0.0285 | -0.2587 | 1.2653 | -0.0054 | 0.4156 | -0.0043 | 0.3285 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | 81#0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 58.23 | -0.14 | -0.0815 | -0.0017 | 0.0185 | 0.0209 | -0.2273 | 1.2823 | -0.0057 | 0.4235 | -0.0045 | 0.3303 |
| 186 | 58.22 | -0.14 | -0.0712 | -0.0002 | 0.0227 | 0.0026 | -0.3193 | 1.2764 | -0.0055 | 0.4183 | -0.0043 | 0.3277 |
| 187 | 58.22 | -0.15 | -0.0857 | -0.0017 | 0.0192 | 0.0199 | -0.2243 | 1.2690 | -0.0053 | 0.4141 | -0.0042 | 0.3263 |
| 188 | 58.23 | -0.18 | -0.0779 | -0.0015 | 0.0230 | 0.0193 | -0.2956 | 1.2746 | -0.0054 | 0.4177 | -0.0042 | 0.3277 |
| 189 | 58.22 | -0.17 | -0.0803 | -0.0019 | 0.0198 | 0.0237 | -0.2469 | 1.2648 | -0.0054 | 0.4144 | -0.0043 | 0.3277 |
| 190 | 58.22 | -0.15 | -0.0778 | -0.0013 | 0.0213 | 0.0167 | -0.2741 | 1.2722 | -0.0054 | 0.4174 | -0.0043 | 0.3281 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 1 OF 8

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | B1WOF1S | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.70 | -0.03 | -0.0036 | 9.9999 | 0.0169 | 9.9999 | -4.6944 | -0.7535 | -0.0631 | -0.3437 | 0.0837 | 0.4522 |
| 2 | -5.70 | -0.02 | -0.0035 | 9.9999 | 0.0158 | 9.9999 | -4.5143 | -0.7565 | -0.0631 | -0.3415 | 0.0834 | 0.4514 |
| 3 | -5.69 | -0.02 | -0.0022 | 9.9999 | 0.0165 | 9.9999 | -7.5000 | -0.7618 | -0.0634 | -0.3425 | 0.0833 | 0.4501 |
| 4 | -5.70 | -0.03 | -0.0049 | 9.9999 | 0.0163 | 9.9999 | -3.3265 | -0.7530 | -0.0635 | -0.3395 | 0.0843 | 0.4509 |
| 5 | -5.70 | -0.03 | -0.0049 | 9.9999 | 0.0158 | 9.9999 | -3.2245 | -0.7472 | -0.0628 | -0.3373 | 0.0840 | 0.4514 |
| 6 | -5.69 | -0.03 | -0.0049 | 9.9999 | 0.0158 | 9.9999 | -3.2245 | -0.6818 | -0.0609 | -0.3122 | 0.0893 | 0.4579 |
| 7 | -3.67 | -0.02 | -0.0035 | 9.9999 | 0.0159 | 9.9999 | -4.5429 | -0.5588 | -0.0570 | -0.2620 | 0.1020 | 0.4689 |
| 8 | -1.87 | -0.02 | -0.0036 | 9.9999 | 0.0169 | 9.9999 | -4.6944 | -0.4350 | -0.0480 | -0.2052 | 0.1103 | 0.4716 |
| 9 | -0.01 | -0.03 | -0.0063 | 9.9999 | 0.0156 | 9.9999 | -2.4762 | -0.3118 | -0.0369 | -0.1445 | 0.1182 | 0.4634 |
| 10 | 1.83 | -0.03 | -0.0010 | 9.9999 | 0.0209 | 9.9999 | -20.9000 | -0.2102 | -0.0269 | -0.0938 | 0.1282 | 0.4464 |
| 11 | 3.69 | -0.04 | -0.0077 | 9.9999 | 0.0171 | 9.9999 | -2.2208 | -0.0971 | -0.0156 | -0.0461 | 0.1609 | 0.4742 |
| 12 | 5.55 | -0.03 | -0.0050 | 9.9999 | 0.0179 | 9.9999 | -3.5800 | -0.0207 | -0.0019 | -0.0149 | 0.0918 | 0.7198 |
| 13 | 7.45 | -0.04 | -0.0022 | 9.9999 | 0.0165 | 9.9999 | -7.5000 | 0.0353 | 0.0152 | 0.0061 | 0.4308 | 0.1728 |
| 14 | 9.28 | -0.04 | 0.0076 | 9.9999 | 0.0157 | 9.9999 | 2.0658 | 0.1051 | 0.0297 | 0.0352 | 0.2830 | 0.3352 |
| 15 | 11.18 | -0.03 | 0.0048 | 9.9999 | 0.0144 | 9.9999 | 3.0000 | 0.1905 | 0.0445 | 0.0803 | 0.2334 | 0.4214 |
| 16 | 13.03 | -0.04 | 0.0172 | 9.9999 | 0.0164 | 9.9999 | 0.9535 | 0.2833 | 0.0568 | 0.1313 | 0.2004 | 0.4633 |
| 17 | 14.95 | -0.05 | 0.0131 | 9.9999 | 0.0145 | 9.9999 | 1.1069 | 0.3858 | 0.0682 | 0.1845 | 0.1768 | 0.4783 |
| 18 | 16.94 | -0.04 | 0.0146 | 9.9999 | 0.0119 | 9.9999 | 0.8151 | 0.5068 | 0.0763 | 0.2415 | 0.1506 | 0.4765 |
| 19 | 18.87 | -0.05 | 0.0134 | 9.9999 | 0.0081 | 9.9999 | 0.6045 | 0.6253 | 0.0799 | 0.2942 | 0.1278 | 0.4705 |
| 20 | 20.80 | -0.06 | 0.0108 | 9.9999 | 0.0052 | 9.9999 | 0.4815 | 0.7346 | 0.0797 | 0.3380 | 0.1085 | 0.4601 |
| 21 | 22.74 | -0.06 | 0.0245 | 9.9999 | 0.0084 | 9.9999 | 0.3429 | 0.7065 | 0.0447 | 0.2892 | 0.0632 | 0.4093 |
| 22 | 24.64 | -0.05 | 0.0287 | 9.9999 | 0.0087 | 9.9999 | 0.3031 | 0.7082 | 0.0351 | 0.2873 | 0.0495 | 0.4056 |
| 23 | 26.58 | -0.04 | 0.0384 | 9.9999 | 0.0111 | 9.9999 | 0.2891 | 0.8057 | 0.0372 | 0.3356 | 0.0461 | 0.4168 |
| 24 | 27.96 | -0.00 | 0.0328 | 9.9999 | 0.0112 | 9.9999 | 0.3415 | 0.5390 | 0.0419 | 0.3565 | 0.0499 | 0.4249 |
| 25 | 28.04 | -0.00 | 0.0494 | 9.9999 | 0.0158 | 9.9999 | 0.3205 | 0.8494 | 0.0394 | 0.3625 | 0.0463 | 0.4268 |
| 26 | 28.43 | -0.00 | 0.0523 | 9.9999 | 0.0171 | 9.9999 | 0.3276 | 0.8533 | 0.0408 | 0.3698 | 0.0478 | 0.4321 |
| 27 | 28.74 | -0.00 | 0.0496 | 9.9999 | 0.0137 | 9.9999 | 0.2768 | 0.8590 | 0.0424 | 0.3769 | 0.0493 | 0.4387 |
| 28 | 29.02 | 0.00 | 0.0525 | 9.9999 | 0.0139 | 9.9999 | 0.2653 | 0.8759 | 0.0423 | 0.3861 | 0.0483 | 0.4406 |
| 29 | 29.33 | 0.01 | 0.0553 | 9.9999 | 0.0141 | 9.9999 | 0.2554 | 0.8876 | 0.0412 | 0.3937 | 0.0464 | 0.4436 |
| 30 | 29.62 | 0.02 | 0.0629 | 9.9999 | 0.0162 | 9.9999 | 0.2664 | 0.8828 | 0.0379 | 0.3928 | 0.0429 | 0.4449 |
| 31 | 29.91 | 0.01 | 0.0499 | 9.9999 | 0.0116 | 9.9999 | 0.2329 | 0.8863 | 0.0373 | 0.3941 | 0.0420 | 0.4446 |
| 32 | 30.15 | 0.00 | 0.0568 | 9.9999 | 0.0132 | 9.9999 | 0.2328 | 0.8857 | 0.0354 | 0.3955 | 0.0399 | 0.4465 |
| 33 | 30.42 | 0.01 | 0.0581 | 9.9999 | 0.0149 | 9.9999 | 0.2569 | 0.8697 | 0.0331 | 0.3878 | 0.0350 | 0.4457 |
| 34 | 30.72 | 0.04 | 0.0609 | 9.9999 | 0.0162 | 9.9999 | 0.2664 | 0.8909 | 0.0344 | 0.4021 | 0.0386 | 0.4513 |
| 35 | 30.98 | 0.04 | 0.0608 | 9.9999 | 0.0179 | 9.9999 | 0.2949 | 0.8940 | 0.0345 | 0.4034 | 0.0385 | 0.4512 |
| 36 | 31.27 | 0.04 | 0.0540 | 9.9999 | 0.0130 | 9.9999 | 0.2412 | 0.8686 | 0.0325 | 0.3938 | 0.0374 | 0.4534 |
| 37 | 31.54 | 0.02 | 0.0540 | 9.9999 | 0.0141 | 9.9999 | 0.2616 | 0.8881 | 0.0339 | 0.4035 | 0.0381 | 0.4543 |
| 38 | 31.81 | 0.04 | 0.0663 | 9.9999 | 0.0188 | 9.9999 | 0.2840 | 0.8501 | 0.0319 | 0.3877 | 0.0375 | 0.4560 |
| 39 | 32.09 | 0.04 | 0.0635 | 9.9999 | 0.0192 | 9.9999 | 0.3028 | 0.8472 | 0.0315 | 0.3875 | 0.0371 | 0.4573 |
| 40 | 32.35 | 0.04 | 0.0580 | 9.9999 | 0.0171 | 9.9999 | 0.2953 | 0.8483 | 0.0324 | 0.4109 | 0.0360 | 0.4574 |
| 41 | 32.61 | 0.06 | 0.0634 | 9.9999 | 0.0208 | 9.9999 | 0.3286 | 0.8708 | 0.0312 | 0.3989 | 0.0358 | 0.4581 |
| 42 | 32.87 | 0.05 | 0.0620 | 9.9999 | 0.0212 | 9.9999 | 0.3425 | 0.8448 | 0.0300 | 0.3876 | 0.0356 | 0.4588 |
| 43 | 33.13 | 0.05 | 0.0620 | 9.9999 | 0.0212 | 9.9999 | 0.3425 | 0.9308 | 0.0329 | 0.4272 | 0.0353 | 0.4590 |
| 44 | 33.39 | 0.04 | 0.0634 | 9.9999 | 0.0224 | 9.9999 | 0.3539 | 0.9599 | 0.0342 | 0.4417 | 0.0354 | 0.4602 |
| 45 | 33.62 | 0.02 | 0.0579 | 9.9999 | 0.0198 | 9.9999 | 0.3426 | 0.9636 | 0.0330 | 0.4435 | 0.0347 | 0.4603 |
| 46 | 33.90 | 0.03 | 0.0700 | 9.9999 | 0.0267 | 9.9999 | 0.3820 | 0.9064 | 0.0302 | 0.4163 | 0.0335 | 0.4604 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RE10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 173 0.90 1.7 0.0 A1W0F15 0.0 0 -10 0 -10 UNKNOWN

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.14 | 0.06 | 0.0578 | 9.9999 | 0.0203 | 9.9999 | 0.3518 | 0.8277 | 0.0276 | 0.3827 | 0.0334 | 0.4623 |
| 48 | 34.38 | 0.03 | 0.0632 | 9.9999 | 0.0240 | 9.9999 | 0.3803 | 0.9370 | 0.0302 | 0.4291 | 0.0323 | 0.4580 |
| 49 | 34.63 | 0.04 | 0.0631 | 9.9999 | 0.0245 | 9.9999 | 0.3989 | 0.9581 | 0.0315 | 0.4388 | 0.0328 | 0.4580 |
| 50 | 34.88 | 0.02 | 0.0590 | 9.9999 | 0.0215 | 9.9999 | 0.3650 | 1.0115 | 0.0367 | 0.4655 | 0.0362 | 0.4602 |
| 51 | 35.12 | 0.00 | 0.0522 | 9.9999 | 0.0188 | 9.9999 | 0.3608 | 1.0239 | 0.0370 | 0.4699 | 0.0361 | 0.4589 |
| 52 | 35.35 | 0.01 | 0.0577 | 9.9999 | 0.0208 | 9.9999 | 0.3611 | 1.0238 | 0.0371 | 0.4716 | 0.0362 | 0.4606 |
| 53 | 35.60 | 0.01 | 0.0550 | 9.9999 | 0.0190 | 9.9999 | 0.3661 | 1.0298 | 0.0377 | 0.4744 | 0.0366 | 0.4607 |
| 54 | 35.84 | -0.01 | 0.0535 | 9.9999 | 0.0200 | 9.9999 | 0.3745 | 1.0423 | 0.0374 | 0.4793 | 0.0358 | 0.4598 |
| 55 | 36.06 | -0.01 | 0.0493 | 9.9999 | 0.0191 | 9.9999 | 0.3882 | 1.0306 | 0.0360 | 0.4748 | 0.0349 | 0.4607 |
| 56 | 36.30 | -0.00 | 0.0369 | 9.9999 | 0.0138 | 9.9999 | 0.3740 | 1.0405 | 0.0348 | 0.4782 | 0.0334 | 0.4596 |
| 57 | 36.54 | -0.01 | 0.0438 | 9.9999 | 0.0175 | 9.9999 | 0.4005 | 1.0514 | 0.0346 | 0.4813 | 0.0329 | 0.4578 |
| 58 | 36.77 | -0.02 | 0.0520 | 9.9999 | 0.0204 | 9.9999 | 0.3931 | 1.0385 | 0.0325 | 0.4754 | 0.0313 | 0.4578 |
| 59 | 37.02 | -0.01 | 0.0452 | 9.9999 | 0.0171 | 9.9999 | 0.3792 | 1.0625 | 0.0340 | 0.4814 | 0.0320 | 0.4531 |
| 60 | 37.25 | -0.00 | 0.0424 | 9.9999 | 0.0180 | 9.9999 | 0.4255 | 1.0580 | 0.0336 | 0.4793 | 0.0317 | 0.4530 |
| 61 | 37.47 | -0.01 | 0.0479 | 9.9999 | 0.0195 | 9.9999 | 0.4079 | 1.0204 | 0.0278 | 0.4573 | 0.0273 | 0.4481 |
| 62 | 37.71 | -0.00 | 0.0382 | 9.9999 | 0.0171 | 9.9999 | 0.4476 | 1.0456 | 0.0302 | 0.4681 | 0.0289 | 0.4477 |
| 63 | 37.95 | -0.02 | 0.0437 | 9.9999 | 0.0191 | 9.9999 | 0.4381 | 1.0012 | 0.0251 | 0.4438 | 0.0251 | 0.4433 |
| 64 | 38.17 | -0.01 | 0.0491 | 9.9999 | 0.0217 | 9.9999 | 0.4429 | 1.0257 | 0.0258 | 0.4521 | 0.0252 | 0.4407 |
| 65 | 38.41 | 0.01 | 0.0464 | 9.9999 | 0.0210 | 9.9999 | 0.4536 | 1.0699 | 0.0303 | 0.4721 | 0.0284 | 0.4412 |
| 66 | 38.64 | 0.02 | 0.0423 | 9.9999 | 0.0179 | 9.9999 | 0.4242 | 1.0235 | 0.0237 | 0.4452 | 0.0232 | 0.4358 |
| 67 | 38.84 | 0.02 | 0.0450 | 9.9999 | 0.0198 | 9.9999 | 0.4410 | 0.9824 | 0.0221 | 0.4277 | 0.0225 | 0.4354 |
| 68 | 39.07 | 0.01 | 0.0518 | 9.9999 | 0.0225 | 9.9999 | 0.4352 | 1.0056 | 0.0221 | 0.4351 | 0.0220 | 0.4327 |
| 69 | 39.34 | -0.01 | 0.0422 | 9.9999 | 0.0206 | 9.9999 | 0.4893 | 1.0217 | 0.0242 | 0.4423 | 0.0237 | 0.4338 |
| 70 | 39.54 | 0.01 | 0.0313 | 9.9999 | 0.0149 | 9.9999 | 0.4700 | 1.0091 | 0.0213 | 0.4352 | 0.0211 | 0.4313 |
| 71 | 39.82 | -0.00 | 0.0353 | 9.9999 | 0.0169 | 9.9999 | 0.4788 | 1.0043 | 0.0216 | 0.4320 | 0.0215 | 0.4302 |
| 72 | 40.03 | 0.00 | 0.0450 | 9.9999 | 0.0192 | 9.9999 | 0.4276 | 1.0092 | 0.0208 | 0.4323 | 0.0206 | 0.4284 |
| 73 | 40.23 | -0.00 | 0.0410 | 9.9999 | 0.0173 | 9.9999 | 0.4230 | 1.0266 | 0.0202 | 0.4386 | 0.0197 | 0.4273 |
| 74 | 40.43 | 0.01 | 0.0410 | 9.9999 | 0.0162 | 9.9999 | 0.3961 | 1.0159 | 0.0198 | 0.4332 | 0.0195 | 0.4264 |
| 75 | 40.62 | -0.02 | 0.0409 | 9.9999 | 0.0173 | 9.9999 | 0.4240 | 0.9895 | 0.0197 | 0.4215 | 0.0199 | 0.4260 |
| 76 | 40.84 | -0.00 | 0.0340 | 9.9999 | 0.0140 | 9.9999 | 0.4118 | 1.0381 | 0.0216 | 0.4425 | 0.0208 | 0.4263 |
| 77 | 41.05 | -0.01 | 0.0354 | 9.9999 | 0.0141 | 9.9999 | 0.3983 | 1.0386 | 0.0205 | 0.4395 | 0.0198 | 0.4232 |
| 78 | 41.24 | 0.01 | 0.0354 | 9.9999 | 0.0141 | 9.9999 | 0.3983 | 1.0082 | 0.0193 | 0.4273 | 0.0192 | 0.4238 |
| 79 | 41.47 | -0.01 | 0.0367 | 9.9999 | 0.0142 | 9.9999 | 0.3869 | 1.1229 | 0.0275 | 0.4771 | 0.0245 | 0.4249 |
| 80 | 41.65 | -0.01 | 0.0436 | 9.9999 | 0.0153 | 9.9999 | 0.3517 | 1.0663 | 0.0200 | 0.4501 | 0.0188 | 0.4221 |
| 81 | 41.86 | -0.03 | 0.0286 | 9.9999 | 0.0103 | 9.9999 | 0.3601 | 1.0873 | 0.0211 | 0.4575 | 0.0194 | 0.4207 |
| 82 | 42.07 | 0.01 | 0.0299 | 9.9999 | 0.0099 | 9.9999 | 0.3311 | 1.0877 | 0.0197 | 0.4573 | 0.0181 | 0.4204 |
| 83 | 42.23 | -0.00 | 0.0286 | 9.9999 | 0.0082 | 9.9999 | 0.2867 | 1.0267 | 0.0188 | 0.4321 | 0.0183 | 0.4209 |
| 84 | 42.44 | -0.02 | 0.0299 | 9.9999 | 0.0099 | 9.9999 | 0.3311 | 1.0974 | 0.0219 | 0.4612 | 0.0200 | 0.4202 |
| 85 | 42.62 | -0.02 | 0.0379 | 9.9999 | 0.0137 | 9.9999 | 0.3615 | 1.1416 | 0.0251 | 0.4796 | 0.0220 | 0.4201 |
| 86 | 42.80 | -0.01 | 0.0299 | 9.9999 | 0.0093 | 9.9999 | 0.3110 | 1.0710 | 0.0187 | 0.4496 | 0.0175 | 0.4197 |
| 87 | 42.97 | -0.04 | 0.0353 | 9.9999 | 0.0114 | 9.9999 | 0.3229 | 1.1244 | 0.0226 | 0.4711 | 0.0201 | 0.4190 |
| 88 | 43.15 | -0.04 | 0.0338 | 9.9999 | 0.0118 | 9.9999 | 0.3491 | 1.1172 | 0.0210 | 0.4675 | 0.0188 | 0.4184 |
| 89 | 43.34 | -0.02 | 0.0312 | 9.9999 | 0.0105 | 9.9999 | 0.3365 | 1.1381 | 0.0282 | 0.4764 | 0.0248 | 0.4186 |
| 90 | 43.53 | -0.02 | 0.0406 | 9.9999 | 0.0145 | 9.9999 | 0.3571 | 1.1477 | 0.0243 | 0.4793 | 0.0212 | 0.4178 |
| 91 | 43.70 | -0.06 | 0.0380 | 9.9999 | 0.0132 | 9.9999 | 0.3474 | 1.1451 | 0.0237 | 0.4784 | 0.0207 | 0.4178 |
| 92 | 43.89 | -0.03 | 0.0273 | 9.9999 | 0.0064 | 9.9999 | 0.2344 | 1.0974 | 0.0174 | 0.4563 | 0.0159 | 0.4157 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 3 OF 5

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | B1W0F1S | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.06 | -0.02 | 0.0298 | 9.9999 | 0.0093 | 9.9999 | 0.3121 | 1.1254 | 0.0192 | 0.4671 | 0.0171 | 0.4158 |
| 94 | 44.26 | -0.03 | 0.0299 | 9.9999 | 0.0077 | 9.9999 | 0.2575 | 1.1314 | 0.0194 | 0.4699 | 0.0172 | 0.4153 |
| 95 | 44.44 | -0.05 | 0.0408 | 9.9999 | 0.0118 | 9.9999 | 0.2899 | 1.1729 | 0.0317 | 0.4890 | 0.0270 | 0.4169 |
| 96 | 44.63 | -0.05 | 0.0298 | 9.9999 | 0.0086 | 9.9999 | 0.2953 | 1.1843 | 0.0336 | 0.4941 | 0.0283 | 0.4172 |
| 97 | 44.81 | -0.06 | 0.0420 | 9.9999 | 0.0140 | 9.9999 | 0.3341 | 1.1964 | 0.0392 | 0.4997 | 0.0327 | 0.4177 |
| 98 | 44.99 | -0.03 | 0.0232 | 9.9999 | 0.0045 | 9.9999 | 0.1940 | 1.1406 | 0.0188 | 0.4709 | 0.0165 | 0.4128 |
| 99 | 45.17 | -0.02 | 0.0352 | 9.9999 | 0.0114 | 9.9999 | 0.3239 | 1.1873 | 0.0299 | 0.4914 | 0.0252 | 0.4139 |
| 100 | 45.36 | -0.04 | 0.0339 | 9.9999 | 0.0112 | 9.9999 | 0.3304 | 1.1889 | 0.0297 | 0.4915 | 0.0250 | 0.4134 |
| 101 | 45.53 | -0.03 | 0.0324 | 9.9999 | 0.0111 | 9.9999 | 0.3426 | 1.1970 | 0.0311 | 0.4961 | 0.0259 | 0.4145 |
| 102 | 45.71 | -0.01 | 0.0338 | 9.9999 | 0.0107 | 9.9999 | 0.3166 | 1.1650 | 0.0244 | 0.4797 | 0.0210 | 0.4117 |
| 103 | 45.89 | -0.07 | 0.0378 | 9.9999 | 0.0126 | 9.9999 | 0.3333 | 1.1875 | 0.0285 | 0.4899 | 0.0240 | 0.4126 |
| 104 | 46.09 | -0.04 | 0.0460 | 9.9999 | 0.0165 | 9.9999 | 0.3595 | 1.1924 | 0.0340 | 0.4934 | 0.0285 | 0.4138 |
| 105 | 46.26 | -0.02 | 0.0312 | 9.9999 | 0.0100 | 9.9999 | 0.3205 | 1.1924 | 0.0251 | 0.4915 | 0.0211 | 0.4122 |
| 106 | 46.44 | -0.05 | 0.0351 | 9.9999 | 0.0124 | 9.9999 | 0.3533 | 1.1978 | 0.0287 | 0.4935 | 0.0240 | 0.4120 |
| 107 | 46.61 | -0.07 | 0.0351 | 9.9999 | 0.0124 | 9.9999 | 0.3533 | 1.1972 | 0.0300 | 0.4936 | 0.0251 | 0.4123 |
| 108 | 46.79 | -0.07 | 0.0405 | 9.9999 | 0.0144 | 9.9999 | 0.3556 | 1.1941 | 0.0268 | 0.4895 | 0.0225 | 0.4099 |
| 109 | 46.97 | -0.03 | 0.0390 | 9.9999 | 0.0148 | 9.9999 | 0.3795 | 1.1965 | 0.0272 | 0.4902 | 0.0228 | 0.4097 |
| 110 | 47.12 | -0.03 | 0.0284 | 9.9999 | 0.0081 | 9.9999 | 0.2852 | 1.1695 | 0.0190 | 0.4793 | 0.0163 | 0.4074 |
| 111 | 47.31 | -0.01 | 0.0391 | 9.9999 | 0.0143 | 9.9999 | 0.3657 | 1.2109 | 0.0263 | 0.4951 | 0.0218 | 0.4089 |
| 112 | 47.49 | -0.02 | 0.0447 | 9.9999 | 0.0153 | 9.9999 | 0.3439 | 1.2065 | 0.0228 | 0.4937 | 0.0189 | 0.4092 |
| 113 | 47.66 | -0.04 | 0.0297 | 9.9999 | 0.0098 | 9.9999 | 0.3300 | 1.2048 | 0.0231 | 0.4919 | 0.0192 | 0.4083 |
| 114 | 47.84 | -0.02 | 0.0432 | 9.9999 | 0.0157 | 9.9999 | 0.3643 | 1.1823 | 0.0246 | 0.4847 | 0.0208 | 0.4100 |
| 115 | 48.02 | -0.03 | 0.0324 | 9.9999 | 0.0122 | 9.9999 | 0.3765 | 1.1885 | 0.0277 | 0.4951 | 0.0233 | 0.4082 |
| 116 | 48.18 | -0.03 | 0.0350 | 9.9999 | 0.0135 | 9.9999 | 0.3857 | 1.201_ | 0.0231 | 0.4999 | 0.0193 | 0.4078 |
| 117 | 48.36 | -0.04 | 0.0243 | 9.9999 | 0.0073 | 9.9999 | 0.3054 | 1.1627 | 0.0201 | 0.4718 | 0.0173 | 0.4056 |
| 118 | 48.51 | -0.05 | 0.0324 | 9.9999 | 0.0100 | 9.9999 | 0.3086 | 1.1579 | 0.0205 | 0.4698 | 0.0177 | 0.4057 |
| 119 | 48.69 | -0.05 | 0.0271 | 9.9999 | 0.0084 | 9.9999 | 0.2362 | 1.1117 | 0.0186 | 0.4519 | 0.0160 | 0.4065 |
| 120 | 48.87 | -0.04 | 0.0257 | 9.9999 | 0.0074 | 9.9999 | 0.2879 | 1.1284 | 0.0218 | 0.4576 | 0.0194 | 0.4055 |
| 121 | 49.04 | -0.04 | 0.0377 | 9.9999 | 0.0131 | 9.9999 | 0.3479 | 1.1209 | 0.0196 | 0.4549 | 0.0175 | 0.4061 |
| 122 | 49.21 | -0.00 | 0.0324 | 9.9999 | 0.0095 | 9.9999 | 0.2932 | 1.0918 | 0.0149 | 0.4439 | 0.0137 | 0.4058 |
| 123 | 49.38 | -0.01 | 0.0230 | 9.9999 | 0.0056 | 9.9999 | 0.2435 | 1.0979 | 0.0149 | 0.4463 | 0.0136 | 0.4065 |
| 124 | 49.58 | -0.03 | 0.0310 | 9.9999 | 0.0094 | 9.9999 | 0.3332 | 1.0966 | 0.0138 | 0.4448 | 0.0126 | 0.4056 |
| 125 | 49.78 | 0.01 | 0.0485 | 9.9999 | 0.0182 | 9.9999 | 0.3760 | 1.0597 | 0.0116 | 0.4322 | 0.0110 | 0.4079 |
| 126 | 49.95 | -0.04 | 0.0445 | 9.9999 | 0.0158 | 9.9999 | 0.3559 | 1.0827 | 0.0112 | 0.4411 | 0.0104 | 0.4074 |
| 127 | 50.12 | -0.00 | 0.0390 | 9.9999 | 0.0127 | 9.9999 | 0.3256 | 1.0654 | 0.0119 | 0.4337 | 0.0112 | 0.4071 |
| 128 | 50.31 | -0.01 | 0.0403 | 9.9999 | 0.0149 | 9.9999 | 0.3697 | 1.0559 | 0.0095 | 0.4315 | 0.0090 | 0.4087 |
| 129 | 50.48 | 0.01 | 0.0484 | 9.9999 | 0.0198 | 9.9999 | 0.4099 | 1.0769 | 0.0101 | 0.4388 | 0.0094 | 0.4075 |
| 130 | 50.63 | 0.01 | 0.0431 | 9.9999 | 0.0162 | 9.9999 | 0.3767 | 1.0484 | 0.0089 | 0.4285 | 0.0085 | 0.4087 |
| 131 | 50.81 | 0.04 | 0.0445 | 9.9999 | 0.0157 | 9.9999 | 0.3536 | 1.0592 | 0.0087 | 0.4332 | 0.0082 | 0.4090 |
| 132 | 50.99 | 0.00 | 0.0592 | 9.9999 | 0.0228 | 9.9999 | 0.3598 | 1.0626 | 0.0080 | 0.4351 | 0.0075 | 0.4095 |
| 133 | 51.15 | 0.03 | 0.0538 | 9.9999 | 0.0197 | 9.9999 | 0.3669 | 1.0525 | 0.0068 | 0.4308 | 0.0065 | 0.4093 |
| 134 | 51.32 | 0.02 | 0.0403 | 9.9999 | 0.0149 | 9.9999 | 0.3697 | 1.0536 | 0.0072 | 0.4314 | 0.0068 | 0.4095 |
| 135 | 51.52 | 0.01 | 0.0417 | 9.9999 | 0.0155 | 9.9999 | 0.3726 | 1.0688 | 0.0072 | 0.4359 | 0.0067 | 0.4079 |
| 136 | 51.69 | 0.02 | 0.0471 | 9.9999 | 0.0170 | 9.9999 | 0.3617 | 1.0487 | 0.0078 | 0.4295 | 0.0074 | 0.4096 |
| 137 | 51.87 | -0.02 | 0.0498 | 9.9999 | 0.0188 | 9.9999 | 0.3783 | 1.0401 | 0.0068 | 0.4258 | 0.0065 | 0.4094 |
| 138 | 52.03 | 0.03 | 0.0525 | 9.9999 | 0.0196 | 9.9999 | 0.3740 | 1.0489 | 0.0075 | 0.4299 | 0.0072 | 0.4099 |

MANTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | 81W3F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.18 | 0.08 | 0.0579 | 9.9999 | 0.0211 | 9.9999 | 0.3651 | 1.0493 | 0.0067 | 0.4293 | 0.0064 | 0.4092 |
| 140 | 52.36 | 0.02 | 0.0554 | 9.9999 | 0.0188 | 9.9999 | 0.3400 | 1.0470 | 0.0082 | 0.4264 | 0.0078 | 0.4073 |
| 141 | 52.51 | 0.00 | 0.0540 | 9.9999 | 0.0197 | 9.9999 | 0.3655 | 1.0418 | 0.0063 | 0.4241 | 0.0061 | 0.4071 |
| 142 | 52.65 | 0.04 | 0.0461 | 9.9999 | 0.0132 | 9.9999 | 0.2070 | 1.0352 | 0.0072 | 0.4209 | 0.0070 | 0.4066 |
| 143 | 52.85 | 0.02 | 0.0540 | 9.9999 | 0.0181 | 9.9999 | 0.3358 | 1.0447 | 0.0062 | 0.4248 | 0.0059 | 0.4067 |
| 144 | 53.01 | 0.03 | 0.0606 | 9.9999 | 0.0224 | 9.9999 | 0.3709 | 1.0416 | 0.0067 | 0.4246 | 0.0060 | 0.4077 |
| 145 | 53.17 | 0.01 | 0.0501 | 9.9999 | 0.0152 | 9.9999 | 0.3040 | 1.0351 | 0.0070 | 0.4197 | 0.0068 | 0.4055 |
| 146 | 53.34 | -0.01 | 0.0527 | 9.9999 | 0.0175 | 9.9999 | 0.3327 | 1.0538 | 0.0062 | 0.4265 | 0.0059 | 0.4048 |
| 147 | 53.53 | -0.00 | 0.0541 | 9.9999 | 0.0176 | 9.9999 | 0.3259 | 1.0479 | 0.0057 | 0.4235 | 0.0054 | 0.4045 |
| 148 | 53.67 | -0.01 | 0.0541 | 9.9999 | 0.0171 | 9.9999 | 0.3167 | 1.0479 | 0.0057 | 0.4238 | 0.0054 | 0.4045 |
| 149 | 53.83 | 0.01 | 0.0595 | 9.9999 | 0.0212 | 9.9999 | 0.3569 | 1.0707 | 0.0058 | 0.4316 | 0.0054 | 0.4031 |
| 150 | 53.98 | 0.03 | 0.0541 | 9.9999 | 0.0192 | 9.9999 | 0.3556 | 1.0662 | 0.0056 | 0.4284 | 0.0053 | 0.4018 |
| 151 | 54.15 | 0.04 | 0.0622 | 9.9999 | 0.0220 | 9.9999 | 0.3543 | 1.0690 | 0.0061 | 0.4281 | 0.0057 | 0.4005 |
| 152 | 54.29 | 0.05 | 0.0500 | 9.9999 | 0.0173 | 9.9999 | 0.3467 | 1.0693 | 0.0054 | 0.4286 | 0.0051 | 0.4008 |
| 153 | 54.45 | 0.00 | 0.0621 | 9.9999 | 0.0236 | 9.9999 | 0.3806 | 1.0678 | 0.0053 | 0.4268 | 0.0050 | 0.3997 |
| 154 | 54.61 | 0.01 | 0.0474 | 9.9999 | 0.0160 | 9.9999 | 0.3383 | 1.0803 | 0.0048 | 0.4316 | 0.0045 | 0.3995 |
| 155 | 54.75 | -0.01 | 0.0487 | 9.9999 | 0.0167 | 9.9999 | 0.3436 | 1.0831 | 0.0053 | 0.4337 | 0.0049 | 0.3977 |
| 156 | 54.91 | -0.03 | 0.0568 | 9.9999 | 0.0205 | 9.9999 | 0.3616 | 1.0930 | 0.0039 | 0.4352 | 0.0036 | 0.3982 |
| 157 | 55.07 | -0.01 | 0.0542 | 9.9999 | 0.0182 | 9.9999 | 0.3364 | 1.0896 | 0.0045 | 0.4333 | 0.0041 | 0.3977 |
| 158 | 55.20 | 0.02 | 0.0475 | 9.9999 | 0.0155 | 9.9999 | 0.3270 | 1.0880 | 0.0045 | 0.4309 | 0.0041 | 0.3961 |
| 159 | 55.37 | 0.02 | 0.0488 | 9.9999 | 0.0156 | 9.9999 | 0.3203 | 1.0820 | 0.0043 | 0.4293 | 0.0040 | 0.3968 |
| 160 | 55.51 | -0.01 | 0.0596 | 9.9999 | 0.0202 | 9.9999 | 0.3395 | 1.0898 | 0.0041 | 0.4304 | 0.0038 | 0.3949 |
| 161 | 55.68 | 0.03 | 0.0461 | 9.9999 | 0.0143 | 9.9999 | 0.3109 | 1.1037 | 0.0039 | 0.4359 | 0.0035 | 0.3950 |
| 162 | 55.85 | 0.00 | 0.0595 | 9.9999 | 0.0223 | 9.9999 | 0.3754 | 1.1126 | 0.0044 | 0.4378 | 0.0040 | 0.3935 |
| 163 | 56.00 | -0.00 | 0.0529 | 9.9999 | 0.0175 | 9.9999 | 0.3314 | 1.0945 | 0.0036 | 0.4313 | 0.0033 | 0.3941 |
| 164 | 56.13 | -0.00 | 0.0542 | 9.9999 | 0.0187 | 9.9999 | 0.3457 | 1.0881 | 0.0042 | 0.4286 | 0.0039 | 0.3939 |
| 165 | 56.30 | -0.01 | 0.0421 | 9.9999 | 0.0140 | 9.9999 | 0.3333 | 1.1089 | 0.0033 | 0.4379 | 0.0030 | 0.3949 |
| 166 | 56.46 | -0.02 | 0.0503 | 9.9999 | 0.0163 | 9.9999 | 0.3247 | 1.1088 | 0.0034 | 0.4368 | 0.0031 | 0.3940 |
| 167 | 56.61 | -0.05 | 0.0597 | 9.9999 | 0.0208 | 9.9999 | 0.3490 | 1.1028 | 0.0032 | 0.4335 | 0.0029 | 0.3931 |
| 168 | 56.76 | -0.03 | 0.0542 | 9.9999 | 0.0193 | 9.9999 | 0.3567 | 1.0966 | 0.0032 | 0.4313 | 0.0029 | 0.3933 |
| 169 | 56.90 | -0.02 | 0.0542 | 9.9999 | 0.0193 | 9.9999 | 0.3567 | 1.0997 | 0.0032 | 0.4310 | 0.0029 | 0.3920 |
| 170 | 57.06 | -0.02 | 0.0529 | 9.9999 | 0.0186 | 9.9999 | 0.3523 | 1.1122 | 0.0027 | 0.4364 | 0.0024 | 0.3924 |
| 171 | 57.20 | -0.03 | 0.0449 | 9.9999 | 0.0137 | 9.9999 | 0.3058 | 1.1281 | 0.0018 | 0.4442 | 0.0016 | 0.3938 |
| 172 | 57.36 | -0.04 | 0.0492 | 9.9999 | 0.0136 | 9.9999 | 0.2770 | 1.1533 | 0.0014 | 0.4535 | 0.0012 | 0.3932 |
| 173 | 57.51 | -0.06 | 0.0532 | 9.9999 | 0.0160 | 9.9999 | 0.3013 | 1.1550 | 0.0010 | 0.4547 | 0.0009 | 0.3936 |
| 174 | 57.65 | -0.08 | 0.0492 | 9.9999 | 0.0136 | 9.9999 | 0.2770 | 1.1646 | 0.0002 | 0.4575 | 0.0002 | 0.3928 |
| 175 | 57.80 | -0.11 | 0.0437 | 9.9999 | 0.0115 | 9.9999 | 0.2638 | 1.1941 | -0.0002 | 0.4676 | -0.0002 | 0.3916 |
| 176 | 57.94 | -0.15 | 0.0438 | 9.9999 | 0.0110 | 9.9999 | 0.2517 | 1.1555 | -0.0001 | 0.4523 | -0.0001 | 0.3914 |
| 177 | 58.09 | -0.16 | 0.0423 | 9.9999 | 0.0125 | 9.9999 | 0.2962 | 1.1544 | -0.0010 | 0.4526 | -0.0009 | 0.3920 |
| 178 | 58.23 | -0.12 | 0.0438 | 9.9999 | 0.0121 | 9.9999 | 0.2769 | 1.1465 | 0.0002 | 0.4483 | 0.0002 | 0.3910 |
| 179 | 58.23 | -0.16 | 0.0396 | 9.9999 | 0.0112 | 9.9999 | 0.2828 | 1.1564 | -0.0008 | 0.4517 | -0.0007 | 0.3906 |
| 180 | 58.24 | -0.15 | 0.0439 | 9.9999 | 0.0110 | 9.9999 | 0.2511 | 1.1513 | 0.0002 | 0.4503 | 0.0002 | 0.3911 |
| 181 | 58.24 | -0.16 | 0.0412 | 9.9999 | 0.0097 | 9.9999 | 0.2360 | 1.1671 | -0.0005 | 0.4559 | -0.0004 | 0.3906 |
| 182 | 58.24 | -0.15 | 0.0466 | 9.9999 | 0.0118 | 9.9999 | 0.2538 | 1.1701 | -0.0005 | 0.4567 | -0.0004 | 0.3903 |
| 183 | 58.23 | -0.13 | 0.0384 | 9.9999 | 0.0074 | 9.9999 | 0.1927 | 1.1513 | 0.0002 | 0.4492 | 0.0002 | 0.3901 |
| 184 | 58.23 | -0.11 | 0.0356 | 9.9999 | 0.0077 | 9.9999 | 0.2163 | 1.1528 | 0.0002 | 0.4498 | 0.0002 | 0.3901 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 173 | 0.90 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 185 | 58.23 | -0.14 | 0.0453 | 9.9999 | 0.0117 | 9.9999 | 0.2588 | 1.1656 | 0.0001 | 0.4542 | 0.0001 | 0.3896 |
| 186 | 58.22 | -0.14 | 0.0413 | 9.9999 | 0.0092 | 9.9999 | 0.2233 | 1.1423 | 0.0005 | 0.4451 | 0.0004 | 0.3897 |
| 187 | 58.22 | -0.15 | 0.0426 | 9.9999 | 0.0115 | 9.9999 | 0.2706 | 1.1568 | -0.0008 | 0.4517 | -0.0007 | 0.3904 |
| 188 | 58.23 | -0.18 | 0.0412 | 9.9999 | 0.0103 | 9.9999 | 0.2506 | 1.1501 | -0.0002 | 0.4485 | -0.0002 | 0.3899 |
| 189 | 58.22 | -0.17 | 0.0466 | 9.9999 | 0.0139 | 9.9999 | 0.2989 | 1.1599 | -0.0005 | 0.4504 | -0.0004 | 0.3883 |
| 190 | 58.22 | -0.15 | 0.0467 | 9.9999 | 0.0123 | 9.9999 | 0.2639 | 1.1599 | -0.0004 | 0.4515 | -0.0003 | 0.3892 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | B1WOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | -0.02 | -1.5978 | 5.2980 | 0.0335 | -0.0594 | 0.0005 | 0.5001 | 0.1507 | 0.3494 | -3.3197 |
| 2 | -5.75 | -0.04 | -1.5961 | 5.3256 | 0.0575 | -0.0817 | -0.0054 | 0.5063 | 0.1541 | 0.3522 | -3.3366 |
| 3 | -5.75 | -0.04 | -1.6093 | 5.3216 | 0.0204 | -0.0677 | -0.0055 | 0.5032 | 0.1521 | 0.3511 | -3.3067 |
| 4 | -5.84 | -0.03 | -1.5752 | 5.2517 | 0.0590 | -0.0627 | 0.0005 | 0.5054 | 0.1507 | 0.3547 | -3.3339 |
| 5 | -4.60 | -0.03 | -1.3115 | 4.5276 | 0.0701 | -0.0838 | -0.0051 | 0.4792 | 0.1353 | 0.3440 | -3.4523 |
| 6 | -2.78 | -0.03 | -0.9678 | 3.6401 | -0.0027 | -0.0155 | -0.0047 | 0.4416 | 0.1184 | 0.3232 | -3.7612 |
| 7 | -0.92 | -0.03 | -0.7041 | 2.9304 | 0.0687 | -0.0830 | -0.0042 | 0.4127 | 0.1089 | 0.3039 | -4.1621 |
| 8 | 0.94 | -0.02 | -0.4041 | 2.1908 | 0.0664 | -0.1232 | 0.0022 | 0.3814 | 0.1003 | 0.2811 | -5.4213 |
| 9 | 2.87 | -0.02 | -0.1270 | 1.5448 | 0.0652 | -0.1218 | -0.0032 | 0.3582 | 0.0987 | 0.2595 | -12.1667 |
| 10 | 4.70 | -0.03 | 0.1542 | 0.9675 | 0.0198 | -0.0595 | 0.0033 | 0.3453 | 0.1037 | 0.2416 | 6.2749 |
| 11 | 6.60 | -0.03 | 0.3895 | 0.5133 | 0.0192 | -0.0482 | -0.0021 | 0.3396 | 0.1167 | 0.2229 | 1.3188 |
| 12 | 8.48 | -0.03 | 0.6616 | 0.0452 | 0.0089 | -0.0288 | -0.0013 | 0.3305 | 0.1279 | 0.2026 | 0.0683 |
| 13 | 10.36 | -0.02 | 0.9360 | -0.5636 | 0.0321 | -0.0402 | -0.0305 | 0.3162 | 0.1392 | 0.1770 | -0.3716 |
| 14 | 12.27 | -0.02 | 1.3026 | -1.1839 | 0.0249 | 0.0393 | 0.0058 | 0.2961 | 0.1471 | 0.1490 | -0.9089 |
| 15 | 14.20 | -0.03 | 1.7421 | -1.9762 | -0.0339 | 0.1256 | 0.0065 | 0.2603 | 0.1546 | 0.1058 | -1.1344 |
| 16 | 16.20 | -0.03 | 2.1072 | -2.7394 | -0.1031 | 0.2314 | 0.0187 | 0.2358 | 0.1649 | 0.0709 | -1.3008 |
| 17 | 18.18 | -0.03 | 2.5935 | -3.5968 | -0.1185 | 0.4138 | 0.0191 | 0.2046 | 0.1753 | 0.0293 | -1.3668 |
| 18 | 20.14 | -0.03 | 3.0441 | -4.3220 | -0.1380 | 0.4946 | 0.0140 | 0.1714 | 0.1863 | -0.0149 | -1.4198 |
| 19 | 22.13 | -0.02 | 3.5780 | -4.7165 | -0.0522 | 0.4572 | -0.0078 | 0.1268 | 0.1894 | -0.0626 | -1.3179 |
| 20 | 24.11 | -0.01 | 4.1841 | -4.7975 | 0.0613 | -0.0173 | -0.0153 | 0.0750 | 0.1807 | -0.1057 | -1.1466 |
| 21 | 26.10 | 0.01 | 4.8952 | -4.8799 | 0.5405 | -1.0867 | 0.0367 | 0.0411 | 0.1871 | -0.1460 | -0.9969 |
| 22 | 28.06 | 0.04 | 5.4306 | -4.9125 | 0.8824 | -1.6551 | 0.0814 | 0.0096 | 0.1976 | -0.1880 | -0.9046 |
| 23 | 28.09 | 0.06 | 5.42[illegible] | -4.9670 | 0.9207 | -1.8399 | 0.0875 | 0.0102 | 0.1936 | -0.1834 | -0.9158 |
| 24 | 28.11 | 0.05 | 5.47[illegible] | -4.9479 | 0.9457 | -1.8425 | 0.0878 | 0.0041 | 0.1971 | -0.1930 | -0.9039 |
| 25 | 28.47 | 0.04 | 5.59[illegible] | 4.9643 | 0.9450 | -1.8849 | 0.0943 | 0.0010 | 0.1965 | -0.1955 | -0.8880 |
| 26 | 28.72 | 0.05 | 5.6870 | 5.0594 | 0.9982 | -1.8790 | 0.1009 | -0.0014 | 0.1975 | -0.1989 | -0.8888 |
| 27 | 29.03 | 0.04 | 5.7371 | 4.9739 | 0.8732 | -1.6746 | 0.1009 | -0.0059 | 0.1963 | -0.2022 | -0.8670 |
| 28 | 29.37 | 0.03 | 5.8863 | -4.9107 | 0.8165 | -1.3919 | 0.0951 | -0.0305 | 0.1932 | -0.2237 | -0.8343 |
| 29 | 29.65 | 0.04 | 6.0159 | -4.9525 | 0.9270 | -1.6420 | 0.1022 | -0.0351 | 0.1931 | -0.2282 | -0.8232 |
| 30 | 29.93 | 0.04 | 6.0797 | -4.8535 | 0.8974 | -1.6868 | 0.1086 | -0.0270 | 0.1985 | -0.2258 | -0.7983 |
| 31 | 30.21 | 0.03 | 6.2107 | -4.8917 | 0.7926 | -1.2230 | 0.0608 | -0.0353 | 0.2003 | -0.2356 | -0.7876 |
| 32 | 30.48 | 0.03 | 6.2356 | -4.8826 | 0.8784 | -1.5955 | 0.0973 | -0.0292 | 0.2045 | -0.2337 | -0.7830 |
| 33 | 30.75 | 0.03 | 6.4030 | -4.9074 | 0.8452 | -1.3878 | 0.0797 | -0.0449 | 0.2001 | -0.2450 | -0.7604 |
| 34 | 31.04 | 0.04 | 6.4956 | -4.8489 | 0.8799 | -1.4414 | 0.0922 | -0.0461 | 0.2029 | -0.2490 | -0.7465 |
| 35 | 31.31 | 0.05 | 6.5738 | -4.9694 | 1.0537 | -2.0334 | 0.1471 | -0.0326 | 0.2136 | -0.2462 | -0.7407 |
| 36 | 31.58 | 0.01 | 6.6398 | -4.9144 | 0.7089 | -1.3121 | 0.0925 | -0.0614 | 0.1994 | -0.2608 | -0.7401 |
| 37 | 31.85 | 0.03 | 6.7379 | -4.7581 | 0.7686 | -1.2115 | 0.0870 | -0.0590 | 0.2010 | -0.2600 | -0.7062 |
| 38 | 32.13 | 0.03 | 6.8416 | -4.7360 | 0.8722 | -1.5382 | 0.1059 | -0.0633 | 0.2079 | -0.2712 | -0.6925 |
| 39 | 32.39 | 0.02 | 6.9263 | -4.5854 | 0.7400 | -1.4138 | 0.1002 | -0.0678 | 0.2079 | -0.2757 | -0.6620 |
| 40 | 32.65 | 0.01 | 7.0496 | -4.6061 | 0.7047 | -1.2026 | 0.0764 | -0.0864 | 0.2048 | -0.2913 | -0.6534 |
| 41 | 32.92 | -0.00 | 7.1111 | -4.5632 | 0.4895 | -0.8120 | 0.0463 | -0.0804 | 0.2028 | -0.2832 | -0.6417 |
| 42 | 33.16 | 0.00 | 7.1733 | -4.5982 | 0.5807 | -1.1382 | 0.0768 | -0.0842 | 0.2056 | -0.2899 | -0.6418 |
| 43 | 33.41 | -0.01 | 7.2584 | -4.5570 | 0.2973 | -0.2972 | 0.0164 | -0.0851 | 0.2074 | -0.2926 | -0.6278 |
| 44 | 33.67 | 0.00 | 7.3575 | -4.4798 | 0.5700 | -0.9291 | 0.0654 | -0.0906 | 0.2102 | -0.3009 | -0.6089 |
| 45 | 33.92 | 0.01 | 7.4530 | -4.4113 | 0.7036 | -1.2011 | 0.1022 | -0.0775 | 0.2164 | -0.2940 | -0.5919 |
| 46 | 34.16 | 0.00 | 7.5279 | -4.3495 | 0.5421 | -0.7769 | 0.0542 | -0.0784 | 0.2206 | -0.2991 | -0.5778 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.43 | -0.01 | 7.6688 | -4.2972 | 0.3056 | -0.3357 | 0.0362 | -0.0918 | 0.2206 | -0.3125 | -0.5603 |
| 48 | 34.67 | 0.01 | 7.6549 | -4.3030 | 0.5355 | -0.6869 | 0.0486 | -0.0942 | 0.2218 | -0.3161 | -0.5621 |
| 49 | 34.91 | -0.01 | 7.7627 | -4.2433 | 0.3700 | -0.5004 | 0.0488 | -0.0875 | 0.2276 | -0.3152 | -0.5466 |
| 50 | 35.15 | -0.01 | 7.8111 | -4.2204 | 0.2944 | -0.3039 | 0.0309 | -0.0966 | 0.2291 | -0.3257 | -0.5403 |
| 51 | 35.40 | -0.00 | 7.9451 | -4.1713 | 0.4770 | -0.7561 | 0.0578 | -0.0923 | 0.2373 | -0.3297 | -0.5250 |
| 52 | 35.63 | 0.01 | 8.0156 | -4.2092 | 0.5253 | -0.6350 | 0.0501 | -0.0969 | 0.2350 | -0.3319 | -0.5251 |
| 53 | 35.87 | 0.03 | 8.1201 | -4.2399 | 0.7348 | -1.2267 | 0.1166 | -0.0838 | 0.2488 | -0.3327 | -0.5221 |
| 54 | 36.12 | 0.02 | 8.3269 | -4.1690 | 0.7614 | -1.2302 | 0.0937 | -0.1122 | 0.2423 | -0.3545 | -0.5007 |
| 55 | 36.36 | 0.00 | 8.3258 | -4.1106 | 0.5175 | -0.8755 | 0.0754 | -0.1069 | 0.2385 | -0.3454 | -0.4937 |
| 56 | 36.57 | -0.02 | 8.3137 | -4.1822 | 0.3073 | -0.4603 | 0.0333 | -0.1046 | 0.2386 | -0.3432 | -0.5031 |
| 57 | 36.83 | -0.01 | 8.4943 | -4.1202 | 0.3437 | -0.3286 | 0.0161 | -0.1091 | 0.2362 | -0.3453 | -0.4851 |
| 58 | 37.07 | -0.01 | 8.5672 | -4.1513 | 0.2979 | -0.3991 | 0.0342 | -0.1147 | 0.2356 | -0.3503 | -0.4846 |
| 59 | 37.30 | -0.02 | 8.7067 | -4.1143 | 0.2725 | -0.2910 | 0.0110 | -0.1264 | 0.2321 | -0.3585 | -0.4725 |
| 60 | 37.55 | -0.03 | 8.8145 | -4.1864 | 0.0929 | -0.2471 | 0.0171 | -0.1258 | 0.2310 | -0.3568 | -0.4749 |
| 61 | 37.78 | -0.01 | 8.9386 | -4.2264 | 0.3199 | -0.4401 | 0.0415 | -0.1304 | 0.2326 | -0.3630 | -0.4728 |
| 62 | 38.00 | -0.00 | 8.9378 | -4.1854 | 0.3679 | -0.4852 | 0.0417 | -0.1269 | 0.2303 | -0.3572 | -0.4683 |
| 63 | 38.25 | -0.03 | 9.0361 | -4.1582 | -0.0236 | 0.3119 | -0.0129 | -0.1459 | 0.2250 | -0.3709 | -0.4602 |
| 64 | 38.48 | -0.02 | 9.1451 | -4.2136 | 0.1885 | -0.1720 | 0.0184 | -0.1456 | 0.2284 | -0.3740 | -0.4608 |
| 65 | 38.71 | 0.03 | 9.2608 | -4.2206 | 0.7296 | -0.7633 | 0.0552 | -0.1493 | 0.2314 | -0.3807 | -0.4557 |
| 66 | 38.94 | 0.01 | 9.2450 | -4.1660 | 0.5326 | -0.6595 | 0.0314 | -0.1709 | 0.2227 | -0.3936 | -0.4506 |
| 67 | 39.18 | 0.00 | 9.4028 | -4.2599 | 0.4767 | -0.5457 | 0.0493 | -0.1749 | 0.2152 | -0.3901 | -0.4530 |
| 68 | 39.41 | 0.00 | 9.5552 | -4.2200 | 0.4350 | -0.5880 | 0.0383 | -0.1726 | 0.2155 | -0.3881 | -0.4416 |
| 69 | 39.61 | -0.03 | 9.5115 | -4.2256 | 0.0730 | -0.1660 | 0.0316 | -0.1518 | 0.2261 | -0.3779 | -0.4443 |
| 70 | 39.82 | 0.01 | 9.5732 | -4.1891 | 0.4888 | -0.3588 | 0.0262 | -0.1579 | 0.2193 | -0.3772 | -0.4376 |
| 71 | 40.04 | -0.01 | 9.6185 | -4.2075 | 0.2771 | -0.3371 | 0.0265 | -0.1553 | 0.2178 | -0.3731 | -0.4374 |
| 72 | 40.25 | -0.01 | 9.7524 | -4.2678 | 0.3055 | -0.2915 | 0.0269 | -0.1725 | 0.2196 | -0.3921 | -0.4376 |
| 73 | 40.45 | -0.01 | 9.8010 | -4.2441 | 0.4609 | -0.5915 | 0.0276 | -0.1721 | 0.2195 | -0.3916 | -0.4330 |
| 74 | 40.67 | -0.01 | 9.9493 | -4.2792 | 0.3591 | -0.5786 | 0.0574 | -0.1827 | 0.2188 | -0.4015 | -0.4301 |
| 75 | 40.89 | 0.04 | 10.0226 | -4.2779 | 0.8708 | -0.6963 | 0.0225 | -0.1848 | 0.2279 | -0.4127 | -0.4268 |
| 76 | 41.13 | -0.00 | 10.0679 | -4.2812 | 0.3165 | -0.3119 | 0.0340 | -0.1906 | 0.2188 | -0.4094 | -0.4252 |
| 77 | 41.35 | -0.01 | 10.0929 | -4.2423 | 0.3119 | -0.3799 | 0.0401 | -0.1795 | 0.2226 | -0.4021 | -0.4203 |
| 78 | 41.57 | -0.03 | 10.2353 | -4.1961 | 0.0385 | -0.3080 | 0.0521 | -0.1914 | 0.2280 | -0.4194 | -0.4100 |
| 79 | 41.76 | 0.01 | 10.2784 | -4.2005 | 0.4702 | -0.2354 | 0.0109 | -0.1883 | 0.2252 | -0.4135 | -0.4087 |
| 80 | 41.95 | -0.01 | 10.3796 | -4.1635 | 0.2049 | -0.0706 | 0.0230 | -0.1759 | 0.2225 | -0.3984 | -0.4011 |
| 81 | 42.15 | 0.00 | 10.4066 | -4.2504 | 0.3997 | -0.3797 | 0.0414 | -0.1943 | 0.2256 | -0.4199 | -0.4094 |
| 82 | 42.35 | -0.01 | 10.5423 | -4.2208 | 0.2032 | -0.0919 | 0.0244 | -0.1990 | 0.2215 | -0.4205 | -0.4004 |
| 83 | 42.54 | -0.00 | 10.5868 | -4.2313 | 0.3001 | -0.1301 | 0.0129 | -0.2037 | 0.2242 | -0.4279 | -0.3997 |
| 84 | 42.72 | -0.01 | 10.6536 | -4.1551 | 0.2021 | 0.1291 | 0.0125 | -0.1722 | 0.2404 | -0.4126 | -0.3900 |
| 85 | 42.92 | -0.03 | 10.7944 | -4.2204 | 0.0799 | -0.0701 | 0.0198 | -0.1838 | 0.2309 | -0.4147 | -0.3910 |
| 86 | 43.10 | -0.02 | 10.9132 | -4.0918 | 0.2504 | -0.1253 | 0.0145 | -0.1910 | 0.2257 | -0.4167 | -0.3749 |
| 87 | 43.27 | -0.03 | 10.8945 | -4.2802 | 0.1433 | -0.0359 | 0.0258 | -0.1939 | 0.2359 | -0.4298 | -0.3929 |
| 88 | 43.45 | -0.04 | 10.9503 | -4.1517 | 0.0556 | -0.0576 | 0.0263 | -0.2098 | 0.2243 | -0.4341 | -0.3791 |
| 89 | 43.65 | -0.04 | 11.1046 | -4.0960 | 0.0753 | -0.3115 | 0.0623 | -0.2097 | 0.2390 | -0.4487 | -0.3689 |
| 90 | 43.85 | -0.05 | 11.1945 | -4.2063 | 0.0014 | -0.1196 | 0.0564 | -0.2187 | 0.2315 | -0.4502 | -0.3757 |
| 91 | 44.01 | -0.04 | 11.2468 | -4.0975 | 0.1499 | -0.3200 | 0.0571 | -0.1945 | 0.2296 | -0.4241 | -0.3643 |
| 92 | 44.19 | -0.04 | 11.2659 | -4.1333 | 0.1903 | -0.2762 | 0.0513 | -0.2187 | 0.2276 | -0.4463 | -0.3669 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | 81WOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.39 | -0.05 | 11.3043 | -4.0858 | 0.1127 | -0.6713 | 0.0635 | -0.1979 | 0.2348 | -0.4327 | -0.3614 |
| 94 | 44.56 | -0.03 | 11.3824 | -4.1584 | 0.2746 | -0.3252 | 0.0635 | -0.2187 | 0.2333 | -0.4520 | -0.3653 |
| 95 | 44.76 | -0.02 | 11.5147 | -4.1625 | 0.3517 | -0.4690 | 0.0526 | -0.2128 | 0.2212 | -0.4340 | -0.3615 |
| 96 | 44.93 | -0.03 | 11.4578 | -4.0179 | 0.1950 | 0.0192 | 0.0454 | -0.2007 | 0.2313 | -0.4320 | -0.3507 |
| 97 | 45.13 | -0.03 | 11.5931 | -4.1717 | 0.2588 | -0.5232 | 0.0645 | -0.2126 | 0.2307 | -0.4433 | -0.3598 |
| 98 | 45.31 | -0.05 | 11.6986 | -4.0691 | 0.0902 | -0.2839 | 0.0646 | -0.2147 | 0.2303 | -0.4450 | -0.3478 |
| 99 | 45.49 | -0.05 | 11.6351 | -4.1310 | 0.0848 | 0.0182 | 0.0463 | -0.2001 | 0.2283 | -0.4284 | -0.3551 |
| 100 | 45.69 | -0.02 | 11.8186 | -4.2188 | 0.3839 | -0.1488 | 0.0586 | -0.2097 | 0.2317 | -0.4414 | -0.3570 |
| 101 | 45.86 | -0.03 | 11.7904 | -4.0113 | 0.2726 | -0.3430 | 0.0653 | -0.2030 | 0.2366 | -0.4396 | -0.3402 |
| 102 | 46.03 | -0.02 | 11.9029 | -3.7553 | 0.2113 | 0.5953 | 0.0163 | -0.1402 | 0.2558 | -0.3960 | -0.3195 |
| 103 | 46.21 | -0.00 | 11.9879 | -3.9759 | 0.4350 | 0.1456 | 0.0523 | -0.2411 | 0.2531 | -0.4943 | -0.3317 |
| 104 | 46.38 | -0.02 | 11.9577 | -3.9377 | 0.3575 | 0.0728 | 0.0586 | -0.1934 | 0.2452 | -0.4386 | -0.3293 |
| 105 | 46.57 | -0.03 | 12.0171 | -3.9252 | 0.2419 | 0.2235 | 0.0412 | -0.1518 | 0.2512 | -0.4030 | -0.3268 |
| 106 | 46.74 | -0.02 | 12.2096 | -3.8870 | 0.2562 | 0.5011 | 0.0408 | -0.1780 | 0.2477 | -0.4257 | -0.3184 |
| 107 | 46.91 | -0.02 | 12.1644 | -3.6750 | 0.1626 | 0.8431 | 0.0107 | -0.1506 | 0.2706 | -0.4212 | -0.3021 |
| 108 | 47.09 | -0.03 | 12.1332 | -3.7046 | 0.0159 | 0.8718 | 0.0223 | -0.1843 | 0.2732 | -0.4575 | -0.3053 |
| 109 | 47.24 | -0.00 | 12.0800 | -3.5743 | 0.3666 | 0.9998 | 0.0153 | -0.1379 | 0.2890 | -0.4268 | -0.2959 |
| 110 | 47.42 | -0.02 | 12.2695 | -3.6904 | 0.1135 | 1.0927 | 0.0044 | -0.1618 | 0.2920 | -0.4537 | -0.3008 |
| 111 | 47.59 | -0.04 | 12.4029 | -3.7899 | -0.0045 | 1.4426 | 0.0270 | -0.1144 | 0.3344 | -0.4487 | -0.3055 |
| 112 | 47.77 | -0.01 | 12.3467 | -3.8290 | 0.3854 | 1.1239 | 0.0157 | -0.0902 | 0.3373 | -0.4275 | -0.3101 |
| 113 | 47.94 | -0.01 | 12.4292 | -3.8695 | 0.4052 | 0.7794 | 0.0173 | -0.0705 | 0.3580 | -0.4285 | -0.3113 |
| 114 | 48.10 | 0.02 | 12.5905 | -4.9631 | 0.6199 | 1.4068 | -0.0262 | 0.0397 | 0.4190 | -0.3793 | -0.3942 |
| 115 | 48.28 | 0.01 | 12.7087 | -5.3753 | 0.4598 | 1.4018 | -0.0431 | 0.0574 | 0.4700 | -0.4128 | -0.4230 |
| 116 | 48.46 | 0.03 | 12.9254 | -5.7517 | 0.6738 | 1.4832 | -0.0435 | 0.0302 | 0.4626 | -0.4324 | -0.4450 |
| 117 | 48.62 | 0.03 | 13.0112 | -5.9292 | 0.6194 | 1.6177 | -0.0612 | 0.0069 | 0.4488 | -0.4419 | -0.4557 |
| 118 | 48.82 | 0.02 | 13.1843 | -6.0030 | 0.5587 | 1.6852 | -0.0559 | 0.0042 | 0.4425 | -0.4383 | -0.4553 |
| 119 | 49.00 | -0.00 | 13.4468 | -6.2062 | 0.3626 | 2.1314 | -0.0558 | -0.0511 | 0.4353 | -0.4865 | -0.4615 |
| 120 | 49.15 | -0.02 | 13.3608 | -6.1310 | 0.1449 | 2.2139 | -0.0618 | -0.0384 | 0.4211 | -0.4595 | -0.4589 |
| 121 | 49.32 | 0.02 | 13.3876 | -6.1112 | 0.5594 | 2.1267 | -0.0564 | -0.0643 | 0.4054 | -0.4697 | -0.4565 |
| 122 | 49.53 | -0.06 | 13.6178 | -6.1422 | -0.0044 | 1.9377 | -0.0538 | -0.0903 | 0.3857 | -0.4780 | -0.4510 |
| 123 | 49.70 | -0.05 | 13.6551 | -6.1657 | -0.0785 | 2.1864 | -0.0487 | -0.0929 | 0.3848 | -0.4777 | -0.4515 |
| 124 | 49.87 | -0.05 | 13.6474 | -6.2135 | -0.0170 | 1.9519 | -0.0538 | -0.0779 | 0.3896 | -0.4675 | -0.4553 |
| 125 | 50.05 | -0.07 | 13.7079 | -6.0855 | -0.1590 | 2.3167 | -0.0488 | -0.0594 | 0.4033 | -0.4627 | -0.4439 |
| 126 | 50.22 | -0.07 | 13.8486 | -6.2737 | -0.1915 | 2.4122 | -0.0489 | -0.1008 | 0.4015 | -0.5023 | -0.4530 |
| 127 | 50.39 | -0.07 | 13.8684 | -6.1325 | -0.1937 | 2.3722 | -0.0310 | -0.0999 | 0.4106 | -0.5105 | -0.4422 |
| 128 | 50.57 | -0.03 | 14.0055 | -6.1696 | 0.1693 | 2.2088 | -0.0247 | -0.0734 | 0.4204 | -0.4939 | -0.4405 |
| 129 | 50.72 | -0.02 | 13.8458 | -6.0596 | 0.3110 | 2.0854 | 0.0043 | -0.0390 | 0.4328 | -0.4718 | -0.4376 |
| 130 | 50.89 | -0.02 | 13.8547 | -5.8802 | 0.4053 | 1.4942 | 0.0417 | -0.0367 | 0.4322 | -0.4689 | -0.4244 |
| 131 | 51.05 | -0.06 | 13.8333 | -5.9270 | 0.0722 | 1.2708 | 0.0431 | -0.0409 | 0.4296 | -0.4705 | -0.4285 |
| 132 | 51.19 | -0.03 | 13.6503 | -5.4318 | 0.4491 | 0.9059 | 0.0669 | -0.0259 | 0.4246 | -0.4505 | -0.3979 |
| 133 | 51.37 | -0.01 | 13.7028 | -5.3882 | 0.5783 | 1.0137 | 0.0721 | -0.0792 | 0.4247 | -0.5040 | -0.3932 |
| 134 | 51.52 | -0.03 | 13.5269 | -5.0620 | 0.4373 | 0.6671 | 0.0677 | -0.0304 | 0.4292 | -0.4596 | -0.3742 |
| 135 | 51.68 | -0.03 | 13.6240 | -5.3080 | 0.4574 | 0.8353 | 0.0846 | -0.0480 | 0.4262 | -0.4742 | -0.3896 |
| 136 | 51.85 | -0.03 | 13.5793 | -5.0124 | 0.4546 | 0.7655 | 0.0675 | -0.0398 | 0.4323 | -0.4719 | -0.3692 |
| 137 | 52.03 | -0.04 | 13.8017 | -5.1723 | 0.3885 | 0.6927 | 0.0629 | -0.0327 | 0.4349 | -0.4676 | -0.3748 |
| 138 | 52.20 | -0.05 | 13.7918 | -5.0882 | 0.2798 | 0.7428 | 0.0570 | -0.0216 | 0.4401 | -0.4617 | -0.3700 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.37 | -0.03 | 13.7540 | -5.0334 | 0.4983 | 0.6520 | 0.0628 | -0.0274 | 0.4390 | -0.4664 | -0.3660 |
| 140 | 52.52 | -0.03 | 13.7652 | -4.9476 | 0.3475 | 0.6552 | 0.0508 | -0.0054 | 0.4476 | -0.4530 | -0.3594 |
| 141 | 52.70 | -0.02 | 13.8149 | -4.9143 | 0.4539 | 0.7650 | 0.0454 | 0.0039 | 0.4430 | -0.4391 | -0.3557 |
| 142 | 52.87 | -0.04 | 13.8738 | -4.8803 | 0.4148 | 0.7284 | 0.0516 | -0.0190 | 0.4448 | -0.4638 | -0.3518 |
| 143 | 53.02 | -0.05 | 13.9039 | -4.9289 | 0.3012 | 0.6689 | 0.0463 | -0.0474 | 0.4448 | -0.4923 | -0.3545 |
| 144 | 53.20 | -0.04 | 13.9402 | -4.8989 | 0.2794 | 0.7313 | 0.0405 | -0.0296 | 0.4490 | -0.4780 | -0.3514 |
| 145 | 53.35 | -0.02 | 13.8881 | -4.8362 | 0.4211 | 0.6177 | 0.0464 | -0.0123 | 0.4534 | -0.4657 | -0.3482 |
| 146 | 53.52 | -0.05 | 13.9072 | -4.8474 | 0.1863 | 0.6099 | 0.0470 | -0.0125 | 0.4526 | -0.4651 | -0.3486 |
| 147 | 53.68 | -0.06 | 14.0026 | -4.8772 | 0.1489 | 0.5827 | 0.0416 | -0.0380 | 0.4505 | -0.4886 | -0.3483 |
| 148 | 53.85 | -0.06 | 14.0099 | -4.9249 | 0.2973 | 0.5992 | 0.0413 | -0.0262 | 0.4542 | -0.4805 | -0.3515 |
| 149 | 54.00 | -0.06 | 14.0532 | -4.9550 | 0.1580 | 0.5226 | 0.0304 | -0.0157 | 0.4584 | -0.4741 | -0.3528 |
| 150 | 54.14 | -0.06 | 14.0631 | -4.9621 | 0.1503 | 0.6127 | 0.0359 | -0.0253 | 0.4564 | -0.4818 | -0.3528 |
| 151 | 54.32 | -0.08 | 14.0960 | -5.1539 | -0.0306 | 0.6890 | 0.0360 | -0.0127 | 0.4591 | -0.4718 | -0.3636 |
| 152 | 54.47 | -0.05 | 14.1028 | -5.2155 | 0.2789 | 0.4813 | 0.0361 | -0.0260 | 0.4588 | -0.4849 | -0.3698 |
| 153 | 54.63 | -0.08 | 14.2003 | -5.2038 | -0.1157 | 0.7063 | 0.0422 | -0.0373 | 0.4670 | -0.5044 | -0.3665 |
| 154 | 54.79 | -0.02 | 14.2606 | -5.2529 | 0.3956 | 0.6111 | 0.0359 | -0.0541 | 0.4666 | -0.5208 | -0.3683 |
| 155 | 54.94 | -0.06 | 14.2198 | -5.2175 | 0.0833 | 0.7482 | 0.0358 | -0.0672 | 0.4693 | -0.5366 | -0.3689 |
| 156 | 55.09 | -0.07 | 14.1887 | -5.2174 | 0.0777 | 0.3930 | 0.0314 | -0.0572 | 0.4652 | -0.5225 | -0.3677 |
| 157 | 55.23 | -0.05 | 14.1652 | -5.1712 | 0.1243 | 0.5851 | 0.0363 | -0.0447 | 0.4667 | -0.5115 | -0.3651 |
| 158 | 55.41 | -0.06 | 14.3361 | -5.5201 | -0.0538 | 0.7324 | 0.0422 | -0.0395 | 0.4760 | -0.5156 | -0.3850 |
| 159 | 55.55 | -0.04 | 14.3565 | -5.4301 | 0.1393 | 0.6459 | 0.0365 | -0.0610 | 0.4751 | -0.5362 | -0.3782 |
| 160 | 55.71 | -0.06 | 14.3378 | -5.4403 | 0.0935 | 0.4596 | 0.0315 | -0.0556 | 0.4619 | -0.5378 | -0.3794 |
| 161 | 55.85 | -0.07 | 14.4145 | -5.5693 | -0.0450 | 0.6628 | 0.0311 | -0.0946 | 0.4873 | -0.5819 | -0.3864 |
| 162 | 56.02 | -0.08 | 14.4178 | -5.5207 | -0.1192 | 0.6495 | 0.0314 | -0.0808 | 0.4885 | -0.5693 | -0.3929 |
| 163 | 56.18 | -0.07 | 14.4695 | -5.5946 | -0.0208 | 0.6414 | 0.0313 | -0.0618 | 0.4870 | -0.5489 | -0.3866 |
| 164 | 56.33 | -0.06 | 14.4262 | -5.4468 | 0.1790 | 0.4328 | 0.0376 | -0.0547 | 0.4869 | -0.5436 | -0.3778 |
| 165 | 56.51 | -0.08 | 14.7410 | -5.2353 | -0.0603 | 0.3448 | 0.0396 | -0.1105 | 0.4657 | -0.5762 | -0.3552 |
| 166 | 56.68 | -0.09 | 14.8889 | -5.2484 | -0.1946 | 0.1073 | 0.0352 | -0.1312 | 0.4603 | -0.5915 | -0.3525 |
| 167 | 56.81 | -0.09 | 14.7927 | -5.1720 | -0.0981 | -0.3003 | 0.0354 | -0.1173 | 0.4585 | -0.5758 | -0.3499 |
| 168 | 56.98 | -0.11 | 14.9190 | -5.2354 | -0.2341 | -0.6525 | 0.0301 | -0.1414 | 0.4639 | -0.6052 | -0.3509 |
| 169 | 57.14 | -0.10 | 14.9828 | -5.3688 | -0.1620 | -0.6897 | 0.0304 | -0.1237 | 0.4763 | -0.6050 | -0.3583 |
| 170 | 57.29 | -0.11 | 15.0004 | -5.3595 | -0.1689 | -0.6108 | 0.0305 | -0.1215 | 0.4799 | -0.6014 | -0.3573 |
| 171 | 57.42 | -0.09 | 14.8372 | -5.6119 | -0.0441 | -0.4219 | 0.0296 | -0.1287 | 0.4780 | -0.6067 | -0.3782 |
| 172 | 57.55 | -0.10 | 14.8498 | -5.5634 | -0.0738 | -0.3123 | 0.0295 | -0.1480 | 0.4641 | -0.6121 | -0.3746 |
| 173 | 57.69 | -0.09 | 14.9164 | -5.6205 | 0.0008 | -0.3110 | 0.0295 | -0.1383 | 0.4626 | -0.6009 | -0.3793 |
| 174 | 57.85 | -0.08 | 14.9726 | -5.6321 | 0.0440 | -0.2288 | 0.0183 | -0.1610 | 0.4495 | -0.6105 | -0.3762 |
| 175 | 57.99 | -0.08 | 14.8758 | -5.6332 | 0.0134 | -0.1289 | 0.0295 | -0.1597 | 0.4423 | -0.6020 | -0.3787 |
| 176 | 58.15 | -0.09 | 14.9892 | -5.6006 | -0.0566 | -0.0527 | 0.0298 | -0.1717 | 0.4351 | -0.6068 | -0.3740 |
| 177 | 58.31 | -0.06 | 15.1800 | -5.7546 | 0.2238 | -0.3467 | 0.0309 | -0.1918 | 0.4362 | -0.6280 | -0.3791 |
| 178 | 58.35 | -0.08 | 15.1089 | -5.6703 | 0.0220 | -0.1881 | 0.0362 | -0.1786 | 0.4359 | -0.6145 | -0.3753 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | 81 | 0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | -0.02 | -0.0361 | 0.0002 | 0.0259 | -0.0055 | -0.7175 | -0.6927 | -0.0461 | -0.3725 | 0.0665 | 0.5377 |
| 2 | -5.75 | -0.04 | -0.0303 | 0.0011 | 0.0293 | -0.0363 | -0.9670 | -0.6900 | -0.0452 | -0.3722 | 0.0655 | 0.5393 |
| 3 | -5.75 | -0.04 | -0.0351 | 0.0004 | 0.0276 | -0.0114 | -0.7863 | -0.6956 | -0.0455 | -0.3738 | 0.0654 | 0.5374 |
| 4 | -5.84 | -0.03 | -0.0424 | -0.0002 | 0.0246 | 0.0047 | -0.5816 | -0.6844 | -0.0460 | -0.3685 | 0.0672 | 0.5383 |
| 5 | -4.60 | -0.03 | -0.0267 | 0.0026 | 0.0304 | -0.0974 | -1.1386 | -0.5693 | -0.0423 | -0.3195 | 0.0742 | 0.5612 |
| 6 | -2.78 | -0.03 | -0.0279 | 0.0024 | 0.0297 | -0.0861 | -1.0645 | -0.4298 | -0.0351 | -0.2605 | 0.0816 | 0.6061 |
| 7 | -0.92 | -0.03 | -0.0227 | 0.0022 | 0.0287 | -0.0970 | -1.2643 | -0.2999 | -0.0274 | -0.2090 | 0.0915 | 0.6968 |
| 8 | 0.94 | -0.02 | -0.0212 | 0.0020 | 0.0271 | -0.0944 | -1.2783 | -0.1757 | -0.0191 | -0.1517 | 0.1089 | 0.8632 |
| 9 | 2.87 | -0.02 | -0.0099 | 0.0022 | 0.0278 | -0.2223 | -2.8081 | -0.0688 | -0.0096 | -0.0965 | 0.1398 | 1.4032 |
| 10 | 4.70 | -0.03 | -0.0197 | 0.0005 | 0.0260 | -0.0254 | -1.3198 | 0.0151 | -0.0014 | -0.0550 | -0.0928 | -3.6358 |
| 11 | 6.60 | -0.03 | -0.0172 | 0.0003 | 0.0268 | -0.0174 | -1.5581 | 0.0938 | 0.0063 | -0.0204 | 0.0673 | -0.2177 |
| 12 | 8.48 | -0.03 | -0.0135 | 0.0003 | 0.0272 | -0.0222 | -2.0148 | 0.1394 | 0.0174 | 0.0231 | 0.1250 | 0.1659 |
| 13 | 10.36 | -0.02 | -0.0242 | 0.0005 | 0.0223 | -0.0207 | -0.9215 | 0.2256 | 0.0300 | 0.0574 | 0.1332 | 0.2543 |
| 14 | 12.27 | -0.02 | -0.0321 | 0.0013 | 0.0237 | -0.0495 | -0.7383 | 0.3257 | 0.0410 | 0.1034 | 0.1258 | 0.3003 |
| 15 | 14.20 | -0.03 | -0.0390 | -0.0009 | 0.0199 | 0.0231 | -0.5103 | 0.4252 | 0.0500 | 0.1532 | 0.1175 | 0.3603 |
| 16 | 16.20 | -0.03 | -0.0343 | -0.0014 | 0.0236 | 0.0408 | -0.6880 | 0.5160 | 0.0573 | 0.1946 | 0.1110 | 0.3772 |
| 17 | 18.18 | -0.03 | -0.0582 | -0.0081 | 0.0164 | 0.1395 | -0.2823 | 0.6281 | 0.0613 | 0.2416 | 0.0976 | 0.3847 |
| 18 | 20.14 | -0.03 | -0.0737 | -0.0118 | 0.0110 | 0.1604 | -0.1495 | 0.7381 | 0.0610 | 0.2837 | 0.0826 | 0.3844 |
| 19 | 22.13 | -0.02 | -0.0688 | -0.0051 | -0.0031 | 0.0743 | 0.0451 | 0.8568 | 0.0584 | 0.3282 | 0.0682 | 0.3831 |
| 20 | 24.11 | -0.01 | -0.0593 | -0.0029 | 0.0003 | 0.0490 | -0.0051 | 0.9255 | 0.0589 | 0.3539 | 0.0636 | 0.3792 |
| 21 | 26.10 | 0.01 | 0.1951 | 0.0258 | 0.1239 | 0.1324 | 0.6347 | 1.0478 | 0.0507 | 0.3932 | 0.0484 | 0.3753 |
| 22 | 28.06 | 0.04 | 0.2843 | 0.0355 | 0.1597 | 0.1247 | 0.5616 | 1.1065 | 0.0459 | 0.4118 | 0.0415 | 0.3722 |
| 23 | 28.09 | 0.06 | 0.3276 | 0.0399 | 0.1796 | 0.1217 | 0.5483 | 1.1140 | 0.0449 | 0.4137 | 0.0401 | 0.3697 |
| 24 | 28.11 | 0.05 | 0.3263 | 0.0406 | 0.1795 | 0.1243 | 0.5502 | 1.1205 | 0.0445 | 0.4133 | 0.0397 | 0.3689 |
| 25 | 28.47 | 0.04 | 0.3635 | 0.0477 | 0.1949 | 0.1311 | 0.5362 | 1.1262 | 0.0437 | 0.4108 | 0.0388 | 0.3648 |
| 26 | 28.72 | 0.05 | 0.3318 | 0.0435 | 0.1843 | 0.1310 | 0.5555 | 1.1360 | 0.0445 | 0.4141 | 0.0391 | 0.3648 |
| 27 | 29.03 | 0.04 | 0.3400 | 0.0455 | 0.1887 | 0.1337 | 0.5551 | 1.1361 | 0.0439 | 0.4133 | 0.0386 | 0.3638 |
| 28 | 29.37 | 0.03 | 0.2587 | 0.0343 | 0.1531 | 0.1324 | 0.5917 | 1.1427 | 0.0454 | 0.4180 | 0.0397 | 0.3658 |
| 29 | 29.65 | 0.04 | 0.3019 | 0.0393 | 0.1752 | 0.1301 | 0.5804 | 1.1525 | 0.0447 | 0.4192 | 0.0388 | 0.3637 |
| 30 | 29.93 | 0.04 | 0.3188 | 0.0396 | 0.1825 | 0.1241 | 0.5726 | 1.1706 | 0.0442 | 0.4267 | 0.0377 | 0.3645 |
| 31 | 30.21 | 0.03 | 0.2047 | 0.0279 | 0.1277 | 0.1366 | 0.5993 | 1.1716 | 0.0458 | 0.4264 | 0.0391 | 0.3639 |
| 32 | 30.48 | 0.03 | 0.2905 | 0.0359 | 0.1665 | 0.1235 | 0.5733 | 1.1761 | 0.0443 | 0.4293 | 0.0376 | 0.3642 |
| 33 | 30.75 | 0.03 | 0.2369 | 0.0317 | 0.1404 | 0.1336 | 0.5926 | 1.1830 | 0.0450 | 0.4310 | 0.0380 | 0.3644 |
| 34 | 31.04 | 0.04 | 0.2648 | 0.0330 | 0.1511 | 0.1244 | 0.5705 | 1.1876 | 0.0431 | 0.4285 | 0.0353 | 0.3608 |
| 35 | 31.31 | 0.05 | 0.3583 | 0.0435 | 0.1934 | 0.1213 | 0.5398 | 1.1829 | 0.0385 | 0.4223 | 0.0325 | 0.3570 |
| 36 | 31.58 | 0.01 | 0.2487 | 0.0322 | 0.1482 | 0.1293 | 0.5958 | 1.2015 | 0.0431 | 0.4335 | 0.0358 | 0.3608 |
| 37 | 31.85 | 0.03 | 0.2235 | 0.0286 | 0.1374 | 0.1282 | 0.6147 | 1.2070 | 0.0436 | 0.4362 | 0.0361 | 0.3614 |
| 38 | 32.13 | 0.03 | 0.2596 | 0.0339 | 0.1512 | 0.1304 | 0.5823 | 1.2130 | 0.0410 | 0.4355 | 0.0338 | 0.3591 |
| 39 | 32.39 | 0.02 | 0.2625 | 0.0332 | 0.1492 | 0.1263 | 0.5683 | 1.2226 | 0.0416 | 0.4391 | 0.0340 | 0.3592 |
| 40 | 32.65 | 0.01 | 0.2097 | 0.0278 | 0.1250 | 0.1328 | 0.5960 | 1.2265 | 0.0427 | 0.4433 | 0.0348 | 0.3615 |
| 41 | 32.92 | -0.00 | 0.0803 | 0.0150 | 0.0644 | 0.1871 | 0.8017 | 1.2261 | 0.0455 | 0.4446 | 0.0371 | 0.3626 |
| 42 | 33.16 | 0.00 | 0.1205 | 0.0195 | 0.0872 | 0.1620 | 0.7234 | 1.2347 | 0.0437 | 0.4452 | 0.0354 | 0.3606 |
| 43 | 33.41 | -0.01 | 0.0027 | 0.0060 | 0.0255 | 2.2231 | 9.4444 | 1.2315 | 0.0462 | 0.4467 | 0.0375 | 0.3628 |
| 44 | 33.67 | 0.00 | 0.0816 | 0.0136 | 0.0740 | 0.1669 | 0.9067 | 1.2355 | 0.0451 | 0.4454 | 0.0365 | 0.3609 |
| 45 | 33.92 | 0.01 | 0.1632 | 0.0180 | 0.1136 | 0.1105 | 0.6963 | 1.2302 | 0.0441 | 0.4410 | 0.0358 | 0.3585 |
| 46 | 34.16 | 0.00 | 0.0227 | 0.0030 | 0.0419 | 0.1322 | 1.8414 | 1.2358 | 0.0465 | 0.4449 | 0.0376 | 0.3602 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | BIWGFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.43 | -0.01 | 0.0688 | 0.0096 | 0.0564 | 0.1398 | 0.8195 | 1.2491 | 0.0470 | 0.4506 | 0.0376 | 0.3607 |
| 48 | 34.67 | 0.01 | 0.0920 | 0.0106 | 0.0735 | 0.1154 | 0.7987 | 1.2449 | 0.0459 | 0.4452 | 0.0368 | 0.3576 |
| 49 | 34.91 | -0.01 | 0.1028 | 0.0126 | 0.0765 | 0.1227 | 0.7439 | 1.2573 | 0.0457 | 0.4498 | 0.0363 | 0.3577 |
| 50 | 35.15 | -0.01 | 0.0707 | 0.0075 | 0.0616 | 0.1063 | 0.8711 | 1.2598 | 0.0469 | 0.4517 | 0.0372 | 0.3585 |
| 51 | 35.40 | -0.00 | 0.1796 | 0.0153 | 0.1098 | 0.0853 | 0.6115 | 1.2641 | 0.0444 | 0.4503 | 0.0351 | 0.3562 |
| 52 | 35.63 | 0.01 | 0.1377 | 0.0089 | 0.0942 | 0.0648 | 0.6844 | 1.2737 | 0.0451 | 0.4539 | 0.0354 | 0.3563 |
| 53 | 35.87 | 0.03 | 0.2074 | 0.0173 | 0.1291 | 0.0836 | 0.6224 | 1.2749 | 0.0444 | 0.4502 | 0.0348 | 0.3531 |
| 54 | 36.12 | 0.02 | 0.2065 | 0.0126 | 0.1294 | 0.0611 | 0.6266 | 1.2843 | 0.0451 | 0.4549 | 0.0351 | 0.3542 |
| 55 | 36.36 | 0.00 | 0.1793 | 0.0109 | 0.1218 | 0.0609 | 0.6795 | 1.2837 | 0.0462 | 0.4550 | 0.0360 | 0.3544 |
| 56 | 36.57 | -0.02 | 0.0560 | 0.0047 | 0.0528 | 0.0872 | 0.9777 | 1.2866 | 0.0459 | 0.4546 | 0.0357 | 0.3533 |
| 57 | 36.83 | -0.01 | 0.0329 | 0.0008 | 0.0408 | 0.0243 | 1.2371 | 1.2964 | 0.0447 | 0.4585 | 0.0345 | 0.3521 |
| 58 | 37.07 | -0.01 | 0.0518 | 0.0030 | 0.0506 | 0.0581 | 0.9768 | 1.2960 | 0.0449 | 0.4560 | 0.0345 | 0.3518 |
| 59 | 37.30 | -0.02 | 0.0111 | -0.0002 | 0.0334 | -0.0180 | 3.0090 | 1.2933 | 0.0439 | 0.4551 | 0.0339 | 0.3519 |
| 60 | 37.55 | -0.03 | 0.0921 | -0.0004 | 0.0737 | -0.0043 | 0.8030 | 1.3054 | 0.0428 | 0.4594 | 0.0328 | 0.3519 |
| 61 | 37.78 | -0.01 | 0.1156 | -0.0026 | 0.0914 | -0.0226 | 0.7918 | 1.3149 | 0.0428 | 0.4635 | 0.0325 | 0.3525 |
| 62 | 38.00 | -0.00 | 0.1669 | -0.0006 | 0.1109 | -0.0036 | 0.6647 | 1.3078 | 0.0419 | 0.4586 | 0.0320 | 0.3506 |
| 63 | 38.25 | -0.03 | -0.0177 | -0.0010 | 0.0119 | 0.0565 | -0.6723 | 1.3092 | 0.0414 | 0.4597 | 0.0316 | 0.3511 |
| 64 | 38.48 | -0.02 | 0.0567 | -0.0012 | 0.0536 | -0.0212 | 0.9452 | 1.3160 | 0.0428 | 0.4604 | 0.0325 | 0.3498 |
| 65 | 38.71 | 0.03 | 0.1083 | 0.0002 | 0.0840 | 0.0018 | 0.7754 | 1.3160 | 0.0429 | 0.4588 | 0.0326 | 0.3486 |
| 66 | 38.94 | 0.01 | 0.0776 | -0.0022 | 0.0680 | -0.0284 | 0.8761 | 1.3140 | 0.0436 | 0.4592 | 0.0332 | 0.3494 |
| 67 | 39.18 | 0.00 | 0.1166 | -0.0017 | 0.0882 | -0.0146 | 0.7562 | 1.3247 | 0.0452 | 0.4646 | 0.0341 | 0.3507 |
| 68 | 39.41 | 0.00 | 0.1273 | -0.0027 | 0.0951 | -0.0213 | 0.7474 | 1.3205 | 0.0451 | 0.4637 | 0.0341 | 0.3511 |
| 69 | 39.61 | -0.03 | 0.0849 | -0.0046 | 0.0721 | -0.0543 | 0.8491 | 1.3220 | 0.0453 | 0.4611 | 0.0342 | 0.3488 |
| 70 | 39.82 | 0.01 | 0.0650 | 0.0008 | 0.0558 | 0.0123 | 0.8582 | 1.3217 | 0.0451 | 0.4588 | 0.0341 | 0.3471 |
| 71 | 40.04 | -0.01 | 0.1081 | 0.0018 | 0.0830 | 0.0167 | 0.7878 | 1.3274 | 0.0438 | 0.4613 | 0.0330 | 0.3475 |
| 72 | 40.25 | -0.01 | 0.0689 | 0.0 | 0.0652 | 0.0 | 0.9462 | 1.3274 | 0.0438 | 0.4613 | 0.0330 | 0.3478 |
| 73 | 40.45 | -0.01 | 0.0800 | 0.0042 | 0.0649 | 0.0526 | 0.8110 | 1.3184 | 0.0413 | 0.4548 | 0.0313 | 0.3449 |
| 74 | 40.67 | -0.01 | 0.1045 | 0.0092 | 0.0756 | 0.0882 | 0.7232 | 1.3281 | 0.0376 | 0.4544 | 0.0283 | 0.3421 |
| 75 | 40.89 | 0.04 | 0.1008 | 0.0038 | 0.0792 | 0.0378 | 0.7855 | 1.3387 | 0.0398 | 0.4587 | 0.0297 | 0.3426 |
| 76 | 41.13 | -0.00 | 0.0655 | 0.0105 | 0.0545 | 0.1606 | 0.8318 | 1.3379 | 0.0362 | 0.4568 | 0.0270 | 0.3414 |
| 77 | 41.35 | -0.01 | 0.0960 | 0.0049 | 0.0767 | 0.0511 | 0.7987 | 1.3459 | 0.0383 | 0.4606 | 0.0284 | 0.3424 |
| 78 | 41.57 | -0.03 | 0.0617 | 0.0139 | 0.0417 | 0.2257 | 0.6753 | 1.3212 | 0.0303 | 0.4441 | 0.0230 | 0.3362 |
| 79 | 41.76 | 0.01 | 0.0513 | 0.0047 | 0.0511 | 0.0918 | 0.9961 | 1.3415 | 0.0373 | 0.4571 | 0.0278 | 0.3407 |
| 80 | 41.95 | -0.01 | 0.0561 | 0.0032 | 0.0541 | 0.0572 | 0.9643 | 1.3444 | 0.0377 | 0.4562 | 0.0280 | 0.3393 |
| 81 | 42.15 | 0.00 | 0.0337 | 0.0138 | 0.0226 | 0.4097 | 0.6706 | 1.3192 | 0.0291 | 0.4405 | 0.0221 | 0.3339 |
| 82 | 42.35 | -0.01 | 0.0202 | 0.0065 | 0.0255 | 0.3219 | 1.2624 | 1.3389 | 0.0345 | 0.4507 | 0.0257 | 0.3368 |
| 83 | 42.54 | -0.00 | 0.0272 | 0.0057 | 0.0298 | 0.2096 | 1.0956 | 1.3438 | 0.0353 | 0.4513 | 0.0262 | 0.3358 |
| 84 | 42.72 | -0.01 | 0.0372 | 0.0009 | 0.0442 | 0.0242 | 1.1855 | 1.3392 | 0.0376 | 0.4521 | 0.0280 | 0.3375 |
| 85 | 42.92 | -0.03 | 0.0589 | 0.0055 | 0.0481 | 0.0936 | 0.8163 | 1.3351 | 0.0355 | 0.4494 | 0.0266 | 0.3368 |
| 86 | 43.10 | -0.02 | 0.0454 | 0.0084 | 0.0326 | 0.1855 | 0.7196 | 1.3121 | 0.0317 | 0.4358 | 0.0241 | 0.3322 |
| 87 | 43.27 | -0.03 | 0.0351 | 0.0014 | 0.0395 | 0.0399 | 1.1254 | 1.3231 | 0.0358 | 0.4441 | 0.0270 | 0.3357 |
| 88 | 43.45 | -0.04 | 0.0308 | 0.0036 | 0.0319 | 0.1169 | 1.0357 | 1.3367 | 0.0364 | 0.4486 | 0.0272 | 0.3356 |
| 89 | 43.65 | -0.04 | 0.0613 | 0.0153 | 0.0293 | 0.2501 | 0.4788 | 1.2797 | 0.0242 | 0.4209 | 0.0189 | 0.3289 |
| 90 | 43.85 | -0.05 | 0.0653 | 0.0114 | 0.0403 | 0.1749 | 0.6181 | 1.3127 | 0.0304 | 0.4360 | 0.0232 | 0.3322 |
| 91 | 44.01 | -0.04 | 0.0648 | 0.0132 | 0.0320 | 0.2041 | 0.4946 | 1.2804 | 0.0259 | 0.4207 | 0.0203 | 0.3286 |
| 92 | 44.19 | -0.04 | 0.0923 | 0.0157 | 0.0508 | 0.1703 | 0.5499 | 1.3001 | 0.0313 | 0.4289 | 0.0240 | 0.3299 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.39 | -0.05 | 0.0729 | 0.0156 | 0.0353 | 0.2144 | 0.4849 | 1.2918 | 0.0294 | 0.4244 | 0.0228 | 0.3286 |
| 94 | 44.56 | -0.03 | 0.0803 | 0.0091 | 0.0507 | 0.1135 | 0.6309 | 1.3138 | 0.0359 | 0.4358 | 0.0273 | 0.3317 |
| 95 | 44.76 | -0.02 | 0.0834 | 0.0106 | 0.0448 | 0.1273 | 0.5366 | 1.3070 | 0.0340 | 0.4312 | 0.0260 | 0.3299 |
| 96 | 44.93 | -0.03 | 0.0897 | 0.0067 | 0.0420 | 0.0741 | 0.8448 | 1.2959 | 0.0387 | 0.4259 | 0.0301 | 0.3312 |
| 97 | 45.13 | -0.03 | 0.0934 | 0.0106 | 0.0538 | 0.1137 | 0.5756 | 1.3019 | 0.0378 | 0.4306 | 0.0290 | 0.3308 |
| 98 | 45.31 | -0.05 | 0.1041 | 0.0133 | 0.0558 | 0.1279 | 0.5356 | 1.2874 | 0.0350 | 0.4243 | 0.0272 | 0.3296 |
| 99 | 45.49 | -0.05 | 0.0744 | 0.0065 | 0.0485 | 0.0875 | 0.6514 | 1.2944 | 0.0393 | 0.4299 | 0.0303 | 0.3321 |
| 100 | 45.69 | -0.02 | 0.0946 | 0.0139 | 0.0512 | 0.1471 | 0.5407 | 1.2946 | 0.0383 | 0.4299 | 0.0296 | 0.3321 |
| 101 | 45.86 | -0.03 | 0.1003 | 0.0122 | 0.0563 | 0.1218 | 0.5609 | 1.2849 | 0.0398 | 0.4265 | 0.0309 | 0.3320 |
| 102 | 46.03 | -0.02 | -0.0219 | 0.0025 | 0.0044 | -0.1142 | -0.2009 | 1.1917 | 0.0356 | 0.3932 | 0.0298 | 0.3299 |
| 103 | 46.21 | -0.00 | 0.0776 | 0.0104 | 0.0494 | 0.1342 | 0.6361 | 1.2614 | 0.0393 | 0.4192 | 0.0311 | 0.3323 |
| 104 | 46.38 | -0.02 | 0.0532 | 0.0085 | 0.0369 | 0.1601 | 0.6949 | 1.2409 | 0.0391 | 0.4109 | 0.0315 | 0.3311 |
| 105 | 46.57 | -0.03 | 0.0144 | 0.0039 | 0.0216 | 0.2709 | 1.5000 | 1.2119 | 0.0365 | 0.4013 | 0.0301 | 0.3312 |
| 106 | 46.74 | -0.02 | 0.0110 | 0.0049 | 0.0182 | 0.4456 | 1.6545 | 1.2056 | 0.0403 | 0.3976 | 0.0334 | 0.3298 |
| 107 | 46.91 | -0.02 | -0.0193 | 0.0021 | 0.0046 | -0.1089 | -0.2383 | 1.2024 | 0.0402 | 0.4006 | 0.0334 | 0.3332 |
| 108 | 47.09 | -0.03 | -0.0065 | 0.0049 | 0.0090 | -0.7541 | -1.3846 | 1.2210 | 0.0416 | 0.4087 | 0.0340 | 0.3347 |
| 109 | 47.24 | -0.00 | -0.0301 | 0.0036 | -0.0006 | -0.1196 | 0.0199 | 1.2307 | 0.0397 | 0.4141 | 0.0322 | 0.3365 |
| 110 | 47.42 | -0.02 | -0.0456 | -0.0001 | -0.0094 | 0.0021 | 0.1938 | 1.2337 | 0.0378 | 0.4132 | 0.0306 | 0.3349 |
| 111 | 47.59 | -0.04 | -0.0430 | 0.0097 | -0.0122 | -0.2262 | 0.2844 | 1.1881 | 0.0164 | 0.3939 | 0.0138 | 0.3315 |
| 112 | 47.77 | -0.01 | -0.0417 | 0.0104 | -0.0130 | -0.2649 | 0.3125 | 1.1892 | 0.0156 | 0.3859 | 0.0134 | 0.3300 |
| 113 | 47.94 | -0.01 | -0.0297 | 0.0064 | -0.0060 | -0.2156 | 0.2020 | 1.2011 | 0.0192 | 0.4015 | 0.0160 | 0.3343 |
| 114 | 48.10 | 0.02 | -0.0608 | -0.0136 | -0.0125 | 0.2241 | 0.2059 | 1.1224 | 0.0101 | 0.3680 | 0.0090 | 0.3278 |
| 115 | 48.28 | 0.01 | -0.0665 | -0.0169 | -0.0136 | 0.2546 | 0.2048 | 1.1837 | 0.0164 | 0.3919 | 0.0139 | 0.3311 |
| 116 | 48.46 | 0.03 | -0.0512 | -0.0144 | -0.0090 | 0.2819 | 0.1761 | 1.1877 | 0.0169 | 0.3920 | 0.0143 | 0.3300 |
| 117 | 48.62 | 0.03 | -0.0650 | -0.0198 | -0.0144 | 0.3052 | 0.2219 | 1.2237 | 0.0205 | 0.4071 | 0.0169 | 0.3327 |
| 118 | 48.82 | 0.02 | -0.0768 | -0.0203 | -0.0199 | 0.2648 | 0.2595 | 1.2186 | 0.0183 | 0.4042 | 0.0150 | 0.3317 |
| 119 | 49.00 | -0.00 | -0.0700 | -0.0198 | -0.0149 | 0.2834 | 0.2132 | 1.2255 | 0.0178 | 0.4053 | 0.0145 | 0.3307 |
| 120 | 49.15 | -0.02 | -0.0815 | -0.0259 | -0.0196 | 0.3183 | 0.2408 | 1.2353 | 0.0151 | 0.4156 | 0.0122 | 0.3324 |
| 121 | 49.32 | 0.02 | -0.0532 | -0.0239 | -0.0073 | 0.4503 | 0.1375 | 1.2570 | 0.0150 | 0.4200 | 0.0120 | 0.3341 |
| 122 | 49.53 | -0.06 | -0.0605 | -0.0238 | -0.0091 | 0.3942 | 0.1507 | 1.2669 | 0.0126 | 0.4234 | 0.0100 | 0.3342 |
| 123 | 49.70 | -0.05 | -0.0602 | -0.0244 | -0.0113 | 0.4062 | 0.1980 | 1.2524 | 0.0094 | 0.4151 | 0.0075 | 0.3338 |
| 124 | 49.87 | -0.05 | -0.0533 | -0.0244 | -0.0069 | 0.4588 | 0.1297 | 1.2634 | 0.0088 | 0.4222 | 0.0070 | 0.3342 |
| 125 | 50.05 | -0.07 | -0.0698 | -0.0262 | -0.0137 | 0.3760 | 0.1966 | 1.2511 | 0.0099 | 0.4156 | 0.0079 | 0.3322 |
| 126 | 50.22 | -0.07 | -0.0915 | -0.0291 | -0.0195 | 0.3185 | 0.2133 | 1.2460 | 0.0079 | 0.4144 | 0.0064 | 0.3326 |
| 127 | 50.39 | -0.07 | -0.0879 | -0.0260 | -0.0203 | 0.2962 | 0.2312 | 1.2081 | 0.0067 | 0.3981 | 0.0056 | 0.3295 |
| 128 | 50.57 | -0.03 | -0.0867 | -0.0228 | -0.0224 | 0.2634 | 0.2587 | 1.2003 | 0.0046 | 0.3940 | 0.0038 | 0.3282 |
| 129 | 50.72 | -0.02 | -0.0624 | -0.0145 | -0.0118 | 0.2328 | 0.1894 | 1.1715 | 0.0047 | 0.3851 | 0.0040 | 0.3287 |
| 130 | 50.89 | -0.02 | -0.0010 | -0.0054 | 0.0119 | 5.4022 | -11.9000 | 1.1744 | 0.0036 | 0.3869 | 0.0031 | 0.3294 |
| 131 | 51.05 | -0.06 | 0.0105 | -0.0022 | 0.0183 | -0.2096 | 1.7429 | 1.1550 | 0.0041 | 0.3803 | 0.0036 | 0.3292 |
| 132 | 51.19 | -0.03 | 0.0316 | 0.0022 | 0.0260 | 0.0696 | 0.8228 | 1.1361 | 0.0037 | 0.3732 | 0.0033 | 0.3285 |
| 133 | 51.37 | -0.01 | 0.0302 | 0.0050 | 0.0251 | 0.1656 | 0.8311 | 1.1142 | 0.0048 | 0.3660 | 0.0043 | 0.3285 |
| 134 | 51.52 | -0.03 | 0.0126 | 0.0048 | 0.0163 | 0.3811 | 1.2936 | 1.0897 | 0.0043 | 0.3574 | 0.0040 | 0.3280 |
| 135 | 51.68 | -0.03 | 0.0242 | 0.0057 | 0.0230 | 0.2356 | 0.9504 | 1.0990 | 0.0054 | 0.3620 | 0.0049 | 0.3294 |
| 136 | 51.85 | -0.03 | 0.0244 | 0.0057 | 0.0214 | 0.2337 | 0.8770 | 1.0949 | 0.0045 | 0.3633 | 0.0041 | 0.3318 |
| 137 | 52.03 | -0.04 | 0.0033 | 0.0052 | 0.0101 | 1.5764 | 3.0696 | 1.0868 | 0.0043 | 0.3604 | 0.0040 | 0.3316 |
| 138 | 52.20 | -0.05 | 0.0011 | 0.0029 | 0.0095 | 2.6374 | 8.6364 | 1.0922 | 0.0045 | 0.3630 | 0.0041 | 0.3324 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.37 | -0.03 | 0.0106 | 0.0036 | 0.0128 | 0.3398 | 1.2075 | 1.1004 | 0.0045 | 0.3665 | 0.0041 | 0.3330 |
| 140 | 52.52 | -0.03 | 0.0070 | 0.0042 | 0.0114 | 0.6002 | 1.6286 | 1.0977 | 0.0038 | 0.3676 | 0.0035 | 0.3348 |
| 141 | 52.70 | -0.02 | -0.0022 | 0.0030 | 0.0060 | -1.3642 | -2.7273 | 1.0828 | 0.0038 | 0.3614 | 0.0035 | 0.3338 |
| 142 | 52.87 | -0.04 | 0.0059 | 0.0037 | 0.0101 | 0.6274 | 1.7119 | 1.0898 | 0.0033 | 0.3648 | 0.0030 | 0.3348 |
| 143 | 53.02 | -0.05 | -0.0010 | 0.0026 | 0.0066 | -2.6010 | -6.6000 | 1.0816 | 0.0037 | 0.3609 | 0.0034 | 0.3337 |
| 144 | 53.20 | -0.04 | 0.0 | 0.0034 | 0.0079 | 0.0034 | 0.0079 | 1.0870 | 0.0037 | 0.3646 | 0.0034 | 0.3355 |
| 145 | 53.35 | -0.02 | -0.0020 | 0.0028 | 0.0044 | -1.4036 | -2.2000 | 1.0885 | 0.0029 | 0.3660 | 0.0027 | 0.3343 |
| 146 | 53.52 | -0.05 | -0.0009 | 0.0032 | 0.0051 | -3.5570 | -5.6667 | 1.0804 | 0.0034 | 0.3632 | 0.0032 | 0.3362 |
| 147 | 53.68 | -0.06 | -0.0009 | 0.0032 | 0.0051 | -3.5570 | -5.6667 | 1.0967 | 0.0027 | 0.3690 | 0.0025 | 0.3364 |
| 148 | 53.85 | -0.06 | -0.0068 | 0.0030 | 0.0023 | -0.4414 | -0.3382 | 1.0912 | 0.0024 | 0.3696 | 0.0022 | 0.3387 |
| 149 | 54.00 | -0.06 | 0.0002 | 0.0036 | 0.0058 | 18.0072 | 29.0000 | 1.1049 | 0.0025 | 0.3740 | 0.0023 | 0.3389 |
| 150 | 54.14 | -0.06 | -0.0008 | 0.0026 | 0.0045 | -3.2513 | -5.6250 | 1.0954 | 0.0024 | 0.3694 | 0.0022 | 0.3372 |
| 151 | 54.32 | -0.08 | -0.0020 | 0.0034 | 0.0040 | -1.7007 | -2.0000 | 1.1049 | 0.0024 | 0.3729 | 0.0022 | 0.3375 |
| 152 | 54.47 | -0.05 | -0.0011 | 0.0041 | 0.0063 | -3.7288 | -5.7273 | 1.1212 | 0.0015 | 0.3807 | 0.0013 | 0.3395 |
| 153 | 54.63 | -0.09 | -0.0117 | 0.0028 | 0.0018 | -0.2394 | -0.1538 | 1.1050 | 0.0015 | 0.3734 | 0.0014 | 0.3379 |
| 154 | 54.79 | -0.02 | -0.0119 | 0.0045 | 0.0025 | -0.3783 | -0.2101 | 1.1103 | 0.0019 | 0.3765 | 0.0017 | 0.3391 |
| 155 | 54.94 | -0.06 | -0.0166 | 0.0040 | 0.0006 | -0.2411 | -0.0241 | 1.1105 | 0.0008 | 0.3765 | 0.0007 | 0.3390 |
| 156 | 55.09 | -0.07 | -0.0167 | 0.0033 | 0.0024 | -0.1977 | -0.1437 | 1.1077 | 0.0017 | 0.3741 | 0.0015 | 0.3377 |
| 157 | 55.23 | -0.05 | -0.0239 | 0.0034 | -0.0005 | -0.1423 | 0.0209 | 1.1064 | 0.0015 | 0.3735 | 0.0014 | 0.3376 |
| 158 | 55.41 | -0.06 | -0.0286 | 0.0026 | -0.0027 | -0.0909 | 0.0944 | 1.1122 | 0.0003 | 0.3759 | 0.0003 | 0.3380 |
| 159 | 55.55 | -0.04 | -0.0381 | 0.0012 | -0.0055 | -0.0315 | 0.1444 | 1.1066 | 0.0002 | 0.3747 | 0.0002 | 0.3386 |
| 160 | 55.71 | -0.06 | -0.0299 | 0.0032 | -0.0027 | -0.1071 | 0.0903 | 1.1134 | 0.0001 | 0.3774 | 0.0001 | 0.3389 |
| 161 | 55.88 | -0.07 | -0.0356 | 0.0017 | -0.0062 | -0.0478 | 0.1742 | 1.1189 | -0.0001 | 0.3789 | -0.0001 | 0.3386 |
| 162 | 56.02 | -0.08 | -0.0218 | 0.0037 | 0.0019 | -0.1698 | -0.0872 | 1.1297 | -0.0009 | 0.3828 | -0.0008 | 0.3388 |
| 163 | 56.18 | -0.07 | -0.0469 | 0.0011 | -0.0064 | -0.0235 | 0.1368 | 1.1163 | -0.0009 | 0.3789 | -0.0008 | 0.3394 |
| 164 | 56.33 | -0.06 | -0.0350 | 0.0014 | -0.0008 | -0.0400 | 0.0229 | 1.1163 | -0.0007 | 0.3794 | -0.0006 | 0.3399 |
| 165 | 56.51 | -0.08 | -0.0316 | 0.0032 | 0.0008 | -0.1013 | -0.0253 | 1.1355 | -0.0008 | 0.3837 | -0.0007 | 0.3379 |
| 166 | 56.68 | -0.09 | -0.0401 | 0.0037 | -0.0016 | -0.0923 | 0.0399 | 1.1477 | -0.0010 | 0.3886 | -0.0009 | 0.3386 |
| 167 | 56.81 | -0.09 | -0.0237 | 0.0044 | 0.0066 | -0.1857 | -0.2785 | 1.1587 | -0.0021 | 0.3919 | -0.0018 | 0.3382 |
| 168 | 56.98 | -0.11 | -0.0246 | 0.0038 | 0.0043 | -0.1585 | -0.1748 | 1.1669 | -0.0023 | 0.3942 | -0.0020 | 0.3378 |
| 169 | 57.14 | -0.10 | -0.0249 | 0.0040 | 0.0059 | -0.1607 | -0.2369 | 1.1724 | -0.0026 | 0.3974 | -0.0022 | 0.3389 |
| 170 | 57.29 | -0.11 | -0.0177 | 0.0039 | 0.0093 | -0.2204 | -0.5254 | 1.1821 | -0.0030 | 0.4021 | -0.0031 | 0.3402 |
| 171 | 57.42 | -0.09 | -0.0238 | 0.0039 | 0.0076 | -0.1639 | -0.3193 | 1.1642 | -0.0022 | 0.3937 | -0.0019 | 0.3381 |
| 172 | 57.55 | -0.10 | -0.0273 | 0.0034 | 0.0061 | -0.1246 | -0.2234 | 1.1602 | -0.0026 | 0.3928 | -0.0022 | 0.3385 |
| 173 | 57.69 | -0.09 | -0.0369 | 0.0031 | 0.0034 | -0.0840 | -0.0921 | 1.1642 | -0.0021 | 0.3931 | -0.0018 | 0.3376 |
| 174 | 57.85 | -0.08 | -0.0346 | 0.0029 | 0.0047 | -0.0818 | -0.1358 | 1.1727 | -0.0019 | 0.3964 | -0.0016 | 0.3390 |
| 175 | 57.99 | -0.08 | -0.0420 | 0.0020 | 0.0038 | -0.0478 | -0.0907 | 1.1633 | -0.0028 | 0.3926 | -0.0024 | 0.3375 |
| 176 | 58.15 | -0.09 | -0.0396 | 0.0027 | 0.0052 | -0.0682 | -0.1313 | 1.1673 | -0.0019 | 0.3940 | -0.0016 | 0.3375 |
| 177 | 58.31 | -0.06 | -0.0161 | 0.0040 | 0.0164 | -0.2485 | -1.0196 | 1.1961 | -0.0039 | 0.4051 | -0.0033 | 0.3395 |
| 178 | 58.35 | -0.08 | -0.0255 | 0.0040 | 0.0117 | -0.1569 | -0.4588 | 1.1796 | -0.0031 | 0.3993 | -0.0025 | 0.3385 |

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | BIWOF15 | 0.0 | 0 | -10 | 0 | -10 | JNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.74 | -0.02 | 0.0436 | 9.9999 | 0.0044 | 9.9999 | 0.1011 | -0.8368 | -0.0489 | -0.3390 | 0.0584 | 0.4039 |
| 2 | -5.75 | -0.04 | 0.0436 | 9.9999 | 0.0035 | 9.9999 | 0.0805 | -0.8439 | -0.0490 | -0.3407 | 0.0580 | 0.4037 |
| 3 | -5.75 | -0.04 | 0.0436 | 9.9999 | 0.0044 | 9.9999 | 0.1011 | -0.8366 | -0.0493 | -0.3386 | 0.0589 | 0.4047 |
| 4 | -5.84 | -0.03 | 0.0397 | 9.9999 | 0.0026 | 9.9999 | 0.0655 | -0.8199 | -0.0482 | -0.3308 | 0.0588 | 0.4035 |
| 5 | -4.60 | -0.03 | 0.0436 | 9.9999 | 0.0040 | 9.9999 | 0.0920 | -0.7142 | -0.0447 | -0.2876 | 0.0626 | 0.4026 |
| 6 | -2.78 | -0.03 | 0.0385 | 9.9999 | 0.0011 | 9.9999 | 0.0286 | -0.5745 | -0.0374 | -0.2284 | 0.0650 | 0.3978 |
| 7 | -0.92 | -0.03 | 0.0397 | 9.9999 | 0.0026 | 9.9999 | 0.0655 | -0.4490 | -0.0274 | -0.1741 | 0.0611 | 0.3878 |
| 8 | 0.94 | -0.02 | 0.0358 | 9.9999 | 0.0028 | 9.9999 | 0.0782 | -0.3261 | -0.0196 | -0.1133 | 0.0602 | 0.3476 |
| 9 | 2.87 | -0.02 | 0.0474 | 9.9999 | 0.0052 | 9.9999 | 0.1099 | -0.2160 | -0.0103 | -0.0556 | 0.0478 | 0.2573 |
| 10 | 4.70 | -0.03 | 0.0500 | 9.9999 | 0.0030 | 9.9999 | 0.0601 | -0.1094 | -0.0004 | -0.0154 | 0.0037 | 0.1409 |
| 11 | 6.60 | -0.03 | 0.0552 | 9.9999 | 0.0019 | 9.9999 | 0.0345 | -0.0427 | 0.0070 | 0.0224 | -0.1644 | -0.5258 |
| 12 | 8.48 | -0.03 | 0.0541 | 9.9999 | -0.0012 | 9.9999 | -0.0222 | 0.0375 | 0.0182 | 0.0523 | 0.4855 | 1.3920 |
| 13 | 10.36 | -0.02 | 0.0643 | 9.9999 | -0.0019 | 9.9999 | -0.0296 | 0.1281 | 0.0320 | 0.0970 | 0.2495 | 0.7576 |
| 14 | 12.27 | -0.02 | 0.0733 | 9.9999 | -0.0007 | 9.9999 | -0.0096 | 0.2245 | 0.0425 | 0.1471 | 0.1892 | 0.6552 |
| 15 | 14.20 | -0.03 | 0.0695 | 9.9999 | -0.0035 | 9.9999 | -0.0504 | 0.3344 | 0.0511 | 0.2034 | 0.1528 | 0.6084 |
| 16 | 16.20 | -0.03 | 0.0719 | 9.9999 | -0.0018 | 9.9999 | -0.0251 | 0.4465 | 0.0587 | 0.2567 | 0.1314 | 0.5749 |
| 17 | 18.18 | -0.03 | 0.0633 | 9.9999 | -0.0084 | 9.9999 | -0.1329 | 0.5778 | 0.0591 | 0.3167 | 0.1023 | 0.5481 |
| 18 | 20.14 | -0.03 | 0.0671 | 9.9999 | -0.0071 | 9.9999 | -0.1060 | 0.6793 | 0.0562 | 0.3596 | 0.0827 | 0.5294 |
| 19 | 22.13 | -0.02 | 0.0773 | 9.9999 | -0.0058 | 9.9999 | -0.0751 | 0.7650 | 0.0561 | 0.3851 | 0.0753 | 0.5169 |
| 20 | 24.11 | -0.01 | 0.0810 | 9.9999 | -0.0040 | 9.9999 | -0.0494 | 0.7924 | 0.0587 | 0.4043 | 0.0741 | 0.5102 |
| 21 | 26.10 | 0.01 | 0.0947 | 9.9999 | 0.0045 | 9.9999 | 0.0476 | 0.8049 | 0.0620 | 0.4068 | 0.0770 | 0.5054 |
| 22 | 28.06 | 0.04 | 0.0923 | 9.9999 | 0.0053 | 9.9999 | 0.0575 | 0.8446 | 0.0583 | 0.4206 | 0.0690 | 0.4980 |
| 23 | 28.09 | 0.06 | 0.0912 | 9.9999 | 0.0047 | 9.9999 | 0.0516 | 0.8354 | 0.0587 | 0.4187 | 0.0703 | 0.5012 |
| 24 | 28.11 | 0.05 | 0.0988 | 9.9999 | 0.0073 | 9.9999 | 0.0740 | 0.8418 | 0.0574 | 0.4222 | 0.0682 | 0.5015 |
| 25 | 28.47 | 0.04 | 0.1015 | 9.9999 | 0.0075 | 9.9999 | 0.0740 | 0.8414 | 0.0574 | 0.4242 | 0.0682 | 0.5042 |
| 26 | 28.72 | 0.05 | 0.1005 | 9.9999 | 0.0070 | 9.9999 | 0.0697 | 0.8662 | 0.0556 | 0.4335 | 0.0642 | 0.5005 |
| 27 | 29.03 | 0.04 | 0.1030 | 9.9999 | 0.0062 | 9.9999 | 0.0797 | 0.8630 | 0.0562 | 0.4328 | 0.0651 | 0.5016 |
| 28 | 29.37 | 0.03 | 0.0916 | 9.9999 | 0.0032 | 9.9999 | 0.0350 | 0.8960 | 0.0535 | 0.4460 | 0.0597 | 0.4978 |
| 29 | 29.65 | 0.04 | 0.1056 | 9.9999 | 0.0094 | 9.9999 | 0.0891 | 0.9029 | 0.0532 | 0.4491 | 0.0589 | 0.4973 |
| 30 | 29.93 | 0.04 | 0.0981 | 9.9999 | 0.0038 | 9.9999 | 0.0388 | 0.8999 | 0.0536 | 0.4479 | 0.0595 | 0.4977 |
| 31 | 30.21 | 0.03 | 0.0965 | 9.9999 | 0.0041 | 9.9999 | 0.0424 | 0.9461 | 0.0505 | 0.4641 | 0.0534 | 0.4905 |
| 32 | 30.48 | 0.03 | 0.0993 | 9.9999 | 0.0064 | 9.9999 | 0.0645 | 0.9296 | 0.0515 | 0.4572 | 0.0554 | 0.4918 |
| 33 | 30.75 | 0.03 | 0.0982 | 9.9999 | 0.0053 | 9.9999 | 0.0540 | 0.9429 | 0.0504 | 0.4622 | 0.0534 | 0.4902 |
| 34 | 31.04 | 0.04 | 0.0994 | 9.9999 | 0.0059 | 9.9999 | 0.0594 | 0.9573 | 0.0503 | 0.4670 | 0.0525 | 0.4878 |
| 35 | 31.31 | 0.05 | 0.0982 | 9.9999 | 0.0058 | 9.9999 | 0.0591 | 0.9466 | 0.0514 | 0.4621 | 0.0543 | 0.4882 |
| 36 | 31.58 | 0.01 | 0.0957 | 9.9999 | 0.0025 | 9.9999 | 0.0262 | 0.9750 | 0.0495 | 0.4724 | 0.0507 | 0.4845 |
| 37 | 31.85 | 0.03 | 0.0982 | 9.9999 | 0.0048 | 9.9999 | 0.0489 | 0.9855 | 0.0486 | 0.4773 | 0.0493 | 0.4843 |
| 38 | 32.13 | 0.03 | 0.0956 | 9.9999 | 0.0056 | 9.9999 | 0.0586 | 0.9837 | 0.0493 | 0.4762 | 0.0501 | 0.4841 |
| 39 | 32.39 | 0.02 | 0.0969 | 9.9999 | 0.0052 | 9.9999 | 0.0537 | 0.9897 | 0.0490 | 0.4809 | 0.0495 | 0.4859 |
| 40 | 32.65 | 0.01 | 0.0956 | 9.9999 | 0.0046 | 9.9999 | 0.0482 | 1.0082 | 0.0492 | 0.4870 | 0.0488 | 0.4830 |
| 41 | 32.92 | -0.00 | 0.0981 | 9.9999 | 0.0068 | 9.9999 | 0.0694 | 1.0342 | 0.0493 | 0.4964 | 0.0477 | 0.4800 |
| 42 | 33.16 | 0.00 | 0.0956 | 9.9999 | 0.0061 | 9.9999 | 0.0539 | 1.0330 | 0.0488 | 0.4968 | 0.0472 | 0.4810 |
| 43 | 33.41 | -0.01 | 0.0955 | 9.9999 | 0.0076 | 9.9999 | 0.0797 | 1.0531 | 0.0489 | 0.5025 | 0.0464 | 0.4772 |
| 44 | 33.67 | 0.00 | 0.0916 | 9.9999 | 0.0047 | 9.9999 | 0.0514 | 1.0487 | 0.0489 | 0.4995 | 0.0468 | 0.4763 |
| 45 | 33.92 | 0.01 | 0.1029 | 9.9999 | 0.0122 | 9.9999 | 0.1187 | 1.0546 | 0.0494 | 0.4998 | 0.0459 | 0.4739 |
| 46 | 34.16 | 0.00 | 0.0928 | 9.9999 | 0.0073 | 9.9999 | 0.0787 | 1.0695 | 0.0472 | 0.5029 | 0.0441 | 0.4702 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.43 | -0.01 | 0.0902 | 9.9999 | 0.0061 | 9.9999 | 0.0677 | 1.0748 | 0.0482 | 0.5071 | 0.0448 | 0.4718 |
| 48 | 34.67 | 0.01 | 0.0989 | 9.9999 | 0.0113 | 9.9999 | 0.1144 | 1.0709 | 0.0470 | 0.5023 | 0.0439 | 0.4691 |
| 49 | 34.91 | -0.01 | 0.0924 | 9.9999 | 0.0108 | 9.9999 | 0.1170 | 1.0784 | 0.0466 | 0.5023 | 0.0432 | 0.4658 |
| 50 | 35.15 | -0.01 | 0.0898 | 9.9999 | 0.0096 | 9.9999 | 0.1070 | 1.0815 | 0.0460 | 0.5019 | 0.0425 | 0.4641 |
| 51 | 35.40 | -0.00 | 0.0935 | 9.9999 | 0.0119 | 9.9999 | 0.1274 | 1.0748 | 0.0446 | 0.4943 | 0.0415 | 0.4599 |
| 52 | 35.63 | 0.01 | 0.0821 | 9.9999 | 0.0070 | 9.9999 | 0.0854 | 1.0748 | 0.0444 | 0.4900 | 0.0413 | 0.4559 |
| 53 | 35.87 | 0.03 | 0.0920 | 9.9999 | 0.0123 | 9.9999 | 0.1338 | 1.0819 | 0.0443 | 0.4947 | 0.0409 | 0.4572 |
| 54 | 36.12 | 0.02 | 0.0945 | 9.9999 | 0.0140 | 9.9999 | 0.1483 | 1.0890 | 0.0443 | 0.4936 | 0.0407 | 0.4532 |
| 55 | 36.36 | 0.00 | 0.0893 | 9.9999 | 0.0131 | 9.9999 | 0.1469 | 1.0817 | 0.0442 | 0.4882 | 0.0405 | 0.4513 |
| 56 | 36.57 | -0.02 | 0.0855 | 9.9999 | 0.0123 | 9.9999 | 0.1440 | 1.1025 | 0.0456 | 0.4968 | 0.0413 | 0.4506 |
| 57 | 36.83 | -0.01 | 0.0805 | 9.9999 | 0.0099 | 9.9999 | 0.1231 | 1.1015 | 0.0445 | 0.4913 | 0.0404 | 0.4461 |
| 58 | 37.07 | -0.01 | 0.0853 | 9.9999 | 0.0132 | 9.9999 | 0.1549 | 1.1014 | 0.0443 | 0.4917 | 0.0402 | 0.4465 |
| 59 | 37.30 | -0.02 | 0.0803 | 9.9999 | 0.0118 | 9.9999 | 0.1471 | 1.0985 | 0.0442 | 0.4884 | 0.0402 | 0.4446 |
| 60 | 37.55 | -0.03 | 0.0776 | 9.9999 | 0.0116 | 9.9999 | 0.1497 | 1.0934 | 0.0424 | 0.4834 | 0.0387 | 0.4421 |
| 61 | 37.78 | -0.01 | 0.0776 | 9.9999 | 0.0116 | 9.9999 | 0.1497 | 1.0932 | 0.0401 | 0.4820 | 0.0366 | 0.4409 |
| 62 | 38.00 | -0.00 | 0.0787 | 9.9999 | 0.0122 | 9.9999 | 0.1552 | 1.0644 | 0.0317 | 0.4675 | 0.0297 | 0.4392 |
| 63 | 38.25 | -0.03 | 0.0587 | 9.9999 | 0.0037 | 9.9999 | 0.0631 | 1.1035 | 0.0420 | 0.4846 | 0.0380 | 0.4392 |
| 64 | 38.48 | -0.02 | 0.0725 | 9.9999 | 0.0092 | 9.9999 | 0.1271 | 1.1029 | 0.0402 | 0.4837 | 0.0364 | 0.4386 |
| 65 | 38.71 | 0.03 | 0.0762 | 9.9999 | 0.0110 | 9.9999 | 0.1445 | 1.0902 | 0.0370 | 0.4770 | 0.0339 | 0.4375 |
| 66 | 38.94 | 0.01 | 0.0735 | 9.9999 | 0.0118 | 9.9999 | 0.1608 | 1.0779 | 0.0383 | 0.4788 | 0.0348 | 0.4361 |
| 67 | 39.18 | 0.00 | 0.0710 | 9.9999 | 0.0116 | 9.9999 | 0.1636 | 1.1048 | 0.0388 | 0.4820 | 0.0351 | 0.4363 |
| 68 | 39.41 | 0.00 | 0.0810 | 9.9999 | 0.0158 | 9.9999 | 0.1953 | 1.0986 | 0.0339 | 0.4771 | 0.0308 | 0.4342 |
| 69 | 39.61 | -0.03 | 0.0684 | 9.9999 | 0.0119 | 9.9999 | 0.1742 | 1.0934 | 0.0329 | 0.4750 | 0.0300 | 0.4344 |
| 70 | 39.82 | 0.01 | 0.0760 | 9.9999 | 0.0130 | 9.9999 | 0.1713 | 1.1206 | 0.0406 | 0.4870 | 0.0362 | 0.4346 |
| 71 | 40.04 | -0.01 | 0.0672 | 9.9999 | 0.0108 | 9.9999 | 0.1610 | 1.0907 | 0.0320 | 0.4730 | 0.0293 | 0.4336 |
| 72 | 40.25 | -0.01 | 0.0759 | 9.9999 | 0.0149 | 9.9999 | 0.1966 | 1.1077 | 0.0350 | 0.4789 | 0.0316 | 0.4323 |
| 73 | 40.45 | -0.01 | 0.0772 | 9.9999 | 0.0170 | 9.9999 | 0.2205 | 1.1115 | 0.0357 | 0.4813 | 0.0321 | 0.4330 |
| 74 | 40.67 | -0.01 | 0.0634 | 9.9999 | 0.0090 | 9.9999 | 0.1422 | 1.1330 | 0.0407 | 0.4910 | 0.0359 | 0.4334 |
| 75 | 40.89 | 0.04 | 0.0833 | 9.9999 | 0.0200 | 9.9999 | 0.2404 | 1.1095 | 0.0334 | 0.4760 | 0.0301 | 0.4298 |
| 76 | 41.13 | -0.00 | 0.0634 | 9.9999 | 0.0105 | 9.9999 | 0.1659 | 1.1447 | 0.0400 | 0.4949 | 0.0349 | 0.4323 |
| 77 | 41.35 | -0.01 | 0.0658 | 9.9999 | 0.0131 | 9.9999 | 0.1994 | 1.1202 | 0.0349 | 0.4807 | 0.0311 | 0.4291 |
| 78 | 41.57 | -0.03 | 0.0608 | 9.9999 | 0.0113 | 9.9999 | 0.1862 | 1.1624 | 0.0414 | 0.5022 | 0.0356 | 0.4320 |
| 79 | 41.76 | 0.01 | 0.0708 | 9.9999 | 0.0140 | 9.9999 | 0.1980 | 1.1317 | 0.0336 | 0.4823 | 0.0296 | 0.4262 |
| 80 | 41.95 | -0.01 | 0.0558 | 9.9999 | 0.0084 | 9.9999 | 0.1508 | 1.1265 | 0.0327 | 0.4807 | 0.0290 | 0.4267 |
| 81 | 42.15 | 0.00 | 0.0732 | 9.9999 | 0.0157 | 9.9999 | 0.2148 | 1.1794 | 0.0401 | 0.5062 | 0.0340 | 0.4292 |
| 82 | 42.35 | -0.01 | 0.0557 | 9.9999 | 0.0094 | 9.9999 | 0.1691 | 1.1598 | 0.0366 | 0.4948 | 0.0315 | 0.4266 |
| 83 | 42.54 | -0.00 | 0.0693 | 9.9999 | 0.0139 | 9.9999 | 0.2009 | 1.1559 | 0.0355 | 0.4922 | 0.0307 | 0.4256 |
| 84 | 42.72 | -0.01 | 0.0555 | 9.9999 | 0.0103 | 9.9999 | 0.1859 | 1.1173 | 0.0274 | 0.4724 | 0.0246 | 0.4228 |
| 85 | 42.92 | -0.03 | 0.0531 | 9.9999 | 0.0086 | 9.9999 | 0.1623 | 1.1307 | 0.0311 | 0.4785 | 0.0275 | 0.4232 |
| 86 | 43.10 | -0.02 | 0.0607 | 9.9999 | 0.0132 | 9.9999 | 0.1982 | 1.1438 | 0.0356 | 0.4843 | 0.0311 | 0.4234 |
| 87 | 43.27 | -0.03 | 0.0516 | 9.9999 | 0.0085 | 9.9999 | 0.1650 | 1.1231 | 0.0285 | 0.4738 | 0.0254 | 0.4219 |
| 88 | 43.45 | -0.04 | 0.0553 | 9.9999 | 0.0113 | 9.9999 | 0.2047 | 1.1439 | 0.0320 | 0.4816 | 0.0279 | 0.4210 |
| 89 | 43.65 | -0.04 | 0.0454 | 9.9999 | 0.0051 | 9.9999 | 0.1126 | 1.1514 | 0.0421 | 0.4884 | 0.0365 | 0.4242 |
| 90 | 43.85 | -0.05 | 0.0479 | 9.9999 | 0.0058 | 9.9999 | 0.1213 | 1.1402 | 0.0362 | 0.4810 | 0.0317 | 0.4218 |
| 91 | 44.01 | -0.04 | 0.0527 | 9.9999 | 0.0096 | 9.9999 | 0.1825 | 1.1317 | 0.0388 | 0.4781 | 0.0343 | 0.4225 |
| 92 | 44.19 | -0.04 | 0.0677 | 9.9999 | 0.0152 | 9.9999 | 0.2249 | 1.1460 | 0.0380 | 0.4826 | 0.0331 | 0.4211 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | WINGFIN | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.39 | -0.05 | 0.0651 | 9.9999 | 0.0150 | 9.9999 | 0.2308 | 1.1604 | 0.0398 | 0.4886 | 0.0343 | 0.4211 |
| 94 | 44.56 | -0.03 | 0.0503 | 9.9999 | 0.0079 | 9.9999 | 0.1574 | 1.1398 | 0.0330 | 0.4782 | 0.0289 | 0.4195 |
| 95 | 44.76 | -0.02 | 0.0552 | 9.9999 | 0.0103 | 9.9999 | 0.1869 | 1.1494 | 0.0384 | 0.4817 | 0.0334 | 0.4191 |
| 96 | 44.93 | -0.03 | 0.0428 | 9.9999 | 0.0044 | 9.9999 | 0.1030 | 1.0966 | 0.0256 | 0.4576 | 0.0234 | 0.4172 |
| 97 | 45.13 | -0.03 | 0.0625 | 9.9999 | 0.0138 | 9.9999 | 0.2212 | 1.1399 | 0.0344 | 0.4751 | 0.0301 | 0.4168 |
| 98 | 45.31 | -0.05 | 0.0427 | 9.9999 | 0.0049 | 9.9999 | 0.1150 | 1.1282 | 0.0355 | 0.4724 | 0.0314 | 0.4187 |
| 99 | 45.49 | -0.05 | 0.0464 | 9.9999 | 0.0071 | 9.9999 | 0.1533 | 1.1234 | 0.0293 | 0.4669 | 0.0267 | 0.4158 |
| 100 | 45.69 | -0.02 | 0.0513 | 9.9999 | 0.0099 | 9.9999 | 0.1934 | 1.1483 | 0.0365 | 0.4791 | 0.0318 | 0.4172 |
| 101 | 45.86 | -0.03 | 0.0513 | 9.9999 | 0.0104 | 9.9999 | 0.2031 | 1.1329 | 0.0336 | 0.4713 | 0.0296 | 0.4160 |
| 102 | 46.03 | -0.02 | 0.0549 | 9.9999 | 0.0127 | 9.9999 | 0.2318 | 1.0592 | 0.0176 | 0.4368 | 0.0166 | 0.4124 |
| 103 | 46.21 | -0.00 | 0.0488 | 9.9999 | 0.0092 | 9.9999 | 0.1889 | 1.1129 | 0.0281 | 0.4612 | 0.0253 | 0.4144 |
| 104 | 46.38 | -0.02 | 0.0451 | 9.9999 | 0.0065 | 9.9999 | 0.1444 | 1.0990 | 0.0270 | 0.4552 | 0.0246 | 0.4141 |
| 105 | 46.57 | -0.03 | 0.0400 | 9.9999 | 0.0051 | 9.9999 | 0.1275 | 1.0715 | 0.0204 | 0.4422 | 0.0191 | 0.4127 |
| 106 | 46.74 | -0.02 | 0.0476 | 9.9999 | 0.0082 | 9.9999 | 0.1726 | 1.0749 | 0.0215 | 0.4420 | 0.0200 | 0.4112 |
| 107 | 46.91 | -0.02 | 0.0487 | 9.9999 | 0.0092 | 9.9999 | 0.1893 | 1.0675 | 0.0191 | 0.4385 | 0.0179 | 0.4108 |
| 108 | 47.09 | -0.01 | 0.0426 | 9.9999 | 0.0058 | 9.9999 | 0.1365 | 1.0817 | 0.0217 | 0.4446 | 0.0201 | 0.4111 |
| 109 | 47.24 | -0.00 | 0.0377 | 9.9999 | 0.0025 | 9.9999 | 0.0863 | 1.0978 | 0.0226 | 0.4506 | 0.0206 | 0.4104 |
| 110 | 47.42 | -0.02 | 0.0339 | 9.9999 | 0.0022 | 9.9999 | 0.0849 | 1.0954 | 0.0247 | 0.4497 | 0.0226 | 0.4105 |
| 111 | 47.59 | -0.04 | 0.0389 | 9.9999 | 0.0036 | 9.9999 | 0.1925 | 1.0991 | 0.0168 | 0.4502 | 0.0153 | 0.4095 |
| 112 | 47.77 | -0.01 | 0.0451 | 9.9999 | 0.0075 | 9.9999 | 0.1667 | 1.0815 | 0.0128 | 0.4440 | 0.0119 | 0.4106 |
| 113 | 47.94 | -0.01 | 0.0552 | 9.9999 | 0.0103 | 9.9999 | 0.1869 | 1.0799 | 0.0157 | 0.4431 | 0.0146 | 0.4103 |
| 114 | 48.10 | 0.02 | 0.0599 | 9.9999 | 0.0155 | 9.9999 | 0.2592 | 0.9358 | 0.0074 | 0.3840 | 0.0079 | 0.4106 |
| 115 | 48.28 | 0.01 | 0.0599 | 9.9999 | 0.0150 | 9.9999 | 0.2508 | 0.9532 | 0.0075 | 0.3916 | 0.0079 | 0.4108 |
| 116 | 48.46 | 0.03 | 0.0599 | 9.9999 | 0.0165 | 9.9999 | 0.2759 | 0.9472 | 0.0076 | 0.3878 | 0.0080 | 0.4094 |
| 117 | 48.62 | 0.03 | 0.0562 | 9.9999 | 0.0148 | 9.9999 | 0.2638 | 0.9570 | 0.0091 | 0.3930 | 0.0096 | 0.4086 |
| 118 | 48.82 | 0.02 | 0.0624 | 9.9999 | 0.0177 | 9.9999 | 0.2841 | 0.9570 | 0.0097 | 0.3913 | 0.0102 | 0.4089 |
| 119 | 49.00 | -0.00 | 0.0525 | 9.9999 | 0.0130 | 9.9999 | 0.2481 | 0.9529 | 0.0095 | 0.3884 | 0.0100 | 0.4076 |
| 120 | 49.15 | -0.02 | 0.0539 | 9.9999 | 0.0116 | 9.9999 | 0.2156 | 0.9655 | 0.0116 | 0.3926 | 0.0120 | 0.4066 |
| 121 | 49.32 | 0.02 | 0.0453 | 9.9999 | 0.0065 | 9.9999 | 0.1438 | 0.9610 | 0.0124 | 0.3914 | 0.0129 | 0.4073 |
| 122 | 49.53 | -0.06 | 0.0440 | 9.9999 | 0.0069 | 9.9999 | 0.1572 | 0.9809 | 0.0120 | 0.3995 | 0.0123 | 0.4073 |
| 123 | 49.70 | -0.05 | 0.0490 | 9.9999 | 0.0093 | 9.9999 | 0.1902 | 0.9853 | 0.0111 | 0.4022 | 0.0113 | 0.4082 |
| 124 | 49.87 | -0.05 | 0.0565 | 9.9999 | 0.0123 | 9.9999 | 0.2181 | 1.0033 | 0.0116 | 0.4083 | 0.0116 | 0.4069 |
| 125 | 50.05 | -0.07 | 0.0404 | 9.9999 | 0.0042 | 9.9999 | 0.1040 | 0.9766 | 0.0109 | 0.3977 | 0.0112 | 0.4072 |
| 126 | 50.22 | -0.07 | 0.0417 | 9.9999 | 0.0053 | 9.9999 | 0.1274 | 0.9991 | 0.0104 | 0.4064 | 0.0104 | 0.4068 |
| 127 | 50.39 | -0.07 | 0.0492 | 9.9999 | 0.0093 | 9.9999 | 0.1894 | 0.9889 | 0.0112 | 0.4027 | 0.0113 | 0.4072 |
| 128 | 50.57 | -0.03 | 0.0480 | 9.9999 | 0.0068 | 9.9999 | 0.1420 | 1.0049 | 0.0102 | 0.4084 | 0.0102 | 0.4064 |
| 129 | 50.72 | -0.02 | 0.0379 | 9.9999 | 0.0030 | 9.9999 | 0.0792 | 1.0134 | 0.0101 | 0.4121 | 0.0100 | 0.4066 |
| 130 | 50.89 | -0.02 | 0.0404 | 9.9999 | 0.0052 | 9.9999 | 0.1287 | 1.0341 | 0.0113 | 0.4196 | 0.0109 | 0.4058 |
| 131 | 51.05 | -0.06 | 0.0515 | 9.9999 | 0.0105 | 9.9999 | 0.2043 | 1.0305 | 0.0105 | 0.4188 | 0.0102 | 0.4064 |
| 132 | 51.19 | -0.03 | 0.0478 | 9.9999 | 0.0092 | 9.9999 | 0.1929 | 1.0292 | 0.0102 | 0.4182 | 0.0099 | 0.4064 |
| 133 | 51.37 | -0.01 | 0.0378 | 9.9999 | 0.0045 | 9.9999 | 0.1190 | 1.0444 | 0.0107 | 0.4241 | 0.0103 | 0.4061 |
| 134 | 51.52 | -0.03 | 0.0502 | 9.9999 | 0.0114 | 9.9999 | 0.2275 | 1.0199 | 0.0091 | 0.4142 | 0.0089 | 0.4061 |
| 135 | 51.68 | -0.03 | 0.0428 | 9.9999 | 0.0073 | 9.9999 | 0.1710 | 1.0508 | 0.0093 | 0.4264 | 0.0089 | 0.4058 |
| 136 | 51.85 | -0.03 | 0.0427 | 9.9999 | 0.0083 | 9.9999 | 0.1945 | 1.0215 | 0.0085 | 0.4137 | 0.0083 | 0.4050 |
| 137 | 52.03 | -0.04 | 0.0477 | 9.9999 | 0.0107 | 9.9999 | 0.2248 | 1.0232 | 0.0080 | 0.4158 | 0.0078 | 0.4064 |
| 138 | 52.20 | -0.05 | 0.0526 | 9.9999 | 0.0140 | 9.9999 | 0.2667 | 1.0193 | 0.0073 | 0.4128 | 0.0072 | 0.4050 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 174 | 1.00 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.37 | -0.03 | 0.0477 | 9.9999 | 0.0107 | 9.9999 | 0.2248 | 1.0105 | 0.0078 | 0.4091 | 0.0077 | 0.4048 |
| 140 | 52.52 | -0.03 | 0.0463 | 9.9999 | 0.0120 | 9.9999 | 0.2597 | 0.9913 | 0.0073 | 0.4015 | 0.0074 | 0.4050 |
| 141 | 52.70 | -0.02 | 0.0464 | 9.9999 | 0.0110 | 9.9999 | 0.2376 | 0.9957 | 0.0071 | 0.4034 | 0.0071 | 0.4051 |
| 142 | 52.87 | -0.04 | 0.0475 | 9.9999 | 0.0126 | 9.9999 | 0.2658 | 0.9860 | 0.0072 | 0.3982 | 0.0073 | 0.4038 |
| 143 | 53.02 | -0.05 | 0.0500 | 9.9999 | 0.0128 | 9.9999 | 0.2565 | 0.9846 | 0.0073 | 0.3976 | 0.0074 | 0.4038 |
| 144 | 53.20 | -0.04 | 0.0487 | 9.9999 | 0.0132 | 9.9999 | 0.2716 | 0.9834 | 0.0068 | 0.3964 | 0.0069 | 0.4031 |
| 145 | 53.35 | -0.02 | 0.0490 | 9.9999 | 0.0114 | 9.9999 | 0.2539 | 0.9897 | 0.0061 | 0.3989 | 0.0062 | 0.4030 |
| 146 | 53.52 | -0.05 | 0.0413 | 9.9999 | 0.0092 | 9.9999 | 0.2233 | 0.9781 | 0.0067 | 0.3919 | 0.0069 | 0.4007 |
| 147 | 53.68 | -0.06 | 0.0363 | 9.9999 | 0.0068 | 9.9999 | 0.1873 | 0.9868 | 0.0061 | 0.3951 | 0.0062 | 0.4014 |
| 148 | 53.85 | -0.06 | 0.0487 | 9.9999 | 0.0127 | 9.9999 | 0.2613 | 0.9954 | 0.0058 | 0.3998 | 0.0058 | 0.4016 |
| 149 | 54.00 | -0.06 | 0.0387 | 9.9999 | 0.0080 | 9.9999 | 0.2067 | 0.9939 | 0.0060 | 0.3992 | 0.0060 | 0.4016 |
| 150 | 54.14 | -0.06 | 0.0375 | 9.9999 | 0.0079 | 9.9999 | 0.2107 | 0.9850 | 0.0068 | 0.3940 | 0.0069 | 0.4000 |
| 151 | 54.32 | -0.08 | 0.0412 | 9.9999 | 0.0106 | 9.9999 | 0.2579 | 0.9951 | 0.0063 | 0.3978 | 0.0063 | 0.3997 |
| 152 | 54.47 | -0.05 | 0.0413 | 9.9999 | 0.0096 | 9.9999 | 0.2330 | 1.0097 | 0.0052 | 0.4018 | 0.0052 | 0.3979 |
| 153 | 54.63 | -0.08 | 0.0386 | 9.9999 | 0.0104 | 9.9999 | 0.2694 | 1.0213 | 0.0046 | 0.4046 | 0.0045 | 0.3962 |
| 154 | 54.79 | -0.02 | 0.0461 | 9.9999 | 0.0135 | 9.9999 | 0.2935 | 1.0153 | 0.0050 | 0.4022 | 0.0049 | 0.3961 |
| 155 | 54.94 | -0.06 | 0.0449 | 9.9999 | 0.0134 | 9.9999 | 0.2991 | 1.0312 | 0.0043 | 0.4079 | 0.0042 | 0.3956 |
| 156 | 55.09 | -0.07 | 0.0425 | 9.9999 | 0.0107 | 9.9999 | 0.2524 | 1.0225 | 0.0047 | 0.4027 | 0.0046 | 0.3939 |
| 157 | 55.23 | -0.05 | 0.0413 | 9.9999 | 0.0096 | 9.9999 | 0.2330 | 1.0312 | 0.0043 | 0.4058 | 0.0042 | 0.3935 |
| 158 | 55.41 | -0.06 | 0.0325 | 9.9999 | 0.0065 | 9.9999 | 0.2000 | 1.0409 | 0.0045 | 0.4070 | 0.0043 | 0.3910 |
| 159 | 55.55 | -0.04 | 0.0363 | 9.9999 | 0.0078 | 9.9999 | 0.2149 | 1.0451 | 0.0043 | 0.4108 | 0.0041 | 0.3931 |
| 160 | 55.71 | -0.06 | 0.0451 | 9.9999 | 0.0114 | 9.9999 | 0.2533 | 1.0383 | 0.0037 | 0.4076 | 0.0036 | 0.3926 |
| 161 | 55.88 | -0.07 | 0.0451 | 9.9999 | 0.0119 | 9.9999 | 0.2644 | 1.0436 | 0.0043 | 0.4081 | 0.0041 | 0.3911 |
| 162 | 56.02 | -0.08 | 0.0401 | 9.9999 | 0.0091 | 9.9999 | 0.2269 | 1.0320 | 0.0045 | 0.4045 | 0.0045 | 0.3920 |
| 163 | 56.18 | -0.07 | 0.0415 | 9.9999 | 0.0097 | 9.9999 | 0.2343 | 1.0450 | 0.0037 | 0.4139 | 0.0035 | 0.3923 |
| 164 | 56.33 | -0.06 | 0.0440 | 9.9999 | 0.0104 | 9.9999 | 0.2369 | 1.0406 | 0.0043 | 0.4077 | 0.0041 | 0.3918 |
| 165 | 56.51 | -0.09 | 0.0428 | 9.9999 | 0.0093 | 9.9999 | 0.2178 | 1.0430 | 0.0050 | 0.4064 | 0.0048 | 0.3897 |
| 166 | 56.68 | -0.09 | 0.0390 | 9.9999 | 0.0061 | 9.9999 | 0.1564 | 1.0604 | 0.0041 | 0.4133 | 0.0039 | 0.3898 |
| 167 | 56.81 | -0.09 | 0.0365 | 9.9999 | 0.0059 | 9.9999 | 0.1616 | 1.0505 | 0.0038 | 0.4092 | 0.0036 | 0.3895 |
| 168 | 56.98 | -0.11 | 0.0429 | 9.9999 | 0.0083 | 9.9999 | 0.1939 | 1.0592 | 0.0034 | 0.4114 | 0.0032 | 0.3884 |
| 169 | 57.14 | -0.10 | 0.0466 | 9.9999 | 0.0101 | 9.9999 | 0.2172 | 1.0621 | 0.0031 | 0.4126 | 0.0029 | 0.3885 |
| 170 | 57.29 | -0.11 | 0.0390 | 9.9999 | 0.0065 | 9.9999 | 0.1667 | 1.0555 | 0.0027 | 0.4106 | 0.0026 | 0.3890 |
| 171 | 57.42 | -0.09 | 0.0390 | 9.9999 | 0.0061 | 9.9999 | 0.1564 | 1.0481 | 0.0034 | 0.4065 | 0.0032 | 0.3878 |
| 172 | 57.55 | -0.10 | 0.0490 | 9.9999 | 0.0108 | 9.9999 | 0.2209 | 1.0538 | 0.0032 | 0.4090 | 0.0030 | 0.3881 |
| 173 | 57.69 | -0.09 | 0.0402 | 9.9999 | 0.0076 | 9.9999 | 0.1891 | 1.0523 | 0.0034 | 0.4073 | 0.0032 | 0.3871 |
| 174 | 57.85 | -0.08 | 0.0503 | 9.9999 | 0.0119 | 9.9999 | 0.2371 | 1.0567 | 0.0032 | 0.4091 | 0.0030 | 0.3872 |
| 175 | 57.99 | -0.08 | 0.0453 | 9.9999 | 0.0090 | 9.9999 | 0.1991 | 1.0612 | 0.0029 | 0.4101 | 0.0027 | 0.3865 |
| 176 | 58.15 | -0.09 | 0.0428 | 9.9999 | 0.0088 | 9.9999 | 0.2061 | 1.0510 | 0.0036 | 0.4048 | 0.0034 | 0.3852 |
| 177 | 58.31 | -0.06 | 0.0490 | 9.9999 | 0.0113 | 9.9999 | 0.2311 | 1.0646 | 0.0018 | 0.4097 | 0.0017 | 0.3848 |
| 178 | 59.35 | -0.08 | 0.0454 | 9.9999 | 0.0085 | 9.9999 | 0.1876 | 1.0644 | 0.0022 | 0.4097 | 0.0021 | 0.3849 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | BIMOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.04 | -1.5796 | 5.2028 | -0.0917 | 0.0320 | 0.0061 | 0.6716 | 0.2468 | 0.4248 | -3.2937 |
| 2 | -5.73 | -0.02 | -1.6067 | 5.1579 | 0.1844 | -0.1799 | 0.0064 | 0.6753 | 0.2468 | 0.4284 | -3.2102 |
| 3 | -5.72 | -0.04 | -1.5698 | 5.1821 | -0.0121 | 0.0141 | 0.0063 | 0.6715 | 0.2444 | 0.4271 | -3.3011 |
| 4 | -5.72 | -0.02 | -1.5936 | 5.1738 | 0.2064 | -0.2005 | 0.0065 | 0.6709 | 0.2465 | 0.4244 | -3.2466 |
| 5 | -5.20 | -0.04 | -1.4404 | 4.7887 | -0.0339 | 0.0345 | 0.0009 | 0.6674 | 0.2362 | 0.4312 | -3.3244 |
| 6 | -3.28 | -0.03 | -1.0722 | 4.0518 | 0.0538 | -0.0397 | 0.0072 | 0.6283 | 0.2288 | 0.3995 | -3.7792 |
| 7 | -1.48 | -0.04 | -0.8429 | 3.3993 | -0.0059 | -0.0588 | 0.0021 | 0.6155 | 0.2206 | 0.3949 | -4.0326 |
| 8 | 0.43 | -0.03 | -0.5278 | 2.6267 | 0.1501 | -0.1536 | 0.0082 | 0.5940 | 0.2262 | 0.3678 | -4.9769 |
| 9 | 2.32 | -0.04 | -0.2313 | 1.9625 | 0.0160 | -0.0797 | 0.0032 | 0.5700 | 0.2312 | 0.3389 | -8.4839 |
| 10 | 4.20 | -0.02 | 0.0892 | 1.3048 | 0.1538 | -0.0857 | 0.0092 | 0.5578 | 0.2442 | 0.3136 | 14.6202 |
| 11 | 6.12 | -0.04 | 0.3551 | 0.7581 | -0.0388 | -0.0179 | 0.0044 | 0.5623 | 0.2571 | 0.3052 | 2.1351 |
| 12 | 8.05 | -0.03 | 0.6201 | 0.2115 | 0.1413 | -0.0936 | 0.0052 | 0.5603 | 0.2799 | 0.2803 | 0.3410 |
| 13 | 9.92 | -0.02 | 0.9412 | -0.3913 | 0.1522 | -0.1045 | 0.0168 | 0.5498 | 0.2947 | 0.2551 | -0.4157 |
| 14 | 11.88 | -0.04 | 1.3348 | -1.1439 | -0.0019 | 0.0300 | 0.0175 | 0.5359 | 0.3032 | 0.2327 | -0.9570 |
| 15 | 13.83 | -0.04 | 1.7589 | -2.0230 | -0.0204 | 0.1042 | 0.0233 | 0.4917 | 0.3029 | 0.1998 | -1.1502 |
| 16 | 15.84 | -0.05 | 2.1604 | -2.8300 | -0.1004 | 0.3532 | 0.0233 | 0.4644 | 0.3046 | 0.1599 | -1.3099 |
| 17 | 17.87 | -0.04 | 2.5771 | -3.4728 | -0.0205 | 0.3162 | 0.0243 | 0.4265 | 0.3081 | 0.1195 | -1.3475 |
| 18 | 19.85 | -0.02 | 3.0406 | -4.0434 | 0.0358 | 0.3121 | 0.0147 | 0.3985 | 0.3131 | 0.0954 | -1.3298 |
| 19 | 21.88 | -0.03 | 3.6656 | -4.2608 | 0.0652 | -0.0241 | -0.0387 | 0.3414 | 0.2983 | 0.0431 | -1.1678 |
| 20 | 23.92 | -0.04 | 4.2679 | -4.4198 | -0.0316 | 0.1164 | -0.0121 | 0.2954 | 0.2849 | 0.0104 | -1.0356 |
| 21 | 25.94 | -0.02 | 5.0085 | -4.6423 | 0.2245 | -0.5724 | 0.0247 | 0.2640 | 0.2906 | -0.0265 | -0.9269 |
| 22 | 28.03 | 0.00 | 5.7239 | -4.6045 | 0.4825 | -1.1951 | 0.0995 | 0.2538 | 0.3211 | -0.0672 | -0.8044 |
| 23 | 28.19 | 0.01 | 5.6853 | -4.5988 | 0.5263 | -1.0650 | 0.0828 | 0.2217 | 0.3098 | -0.0880 | -0.8089 |
| 24 | 28.55 | -0.01 | 5.7727 | -4.5415 | 0.3264 | -0.5816 | 0.0555 | 0.2529 | 0.3092 | -0.0562 | -0.7867 |
| 25 | 28.82 | 0.02 | 5.9969 | -4.6374 | 0.5402 | -1.0210 | 0.0896 | 0.2310 | 0.3102 | -0.0791 | -0.7733 |
| 26 | 29.13 | 0.00 | 6.0192 | -4.6513 | 0.4280 | -0.8013 | 0.0676 | 0.2173 | 0.3133 | -0.0959 | -0.7727 |
| 27 | 29.46 | 0.00 | 6.1394 | -4.7568 | 0.3669 | -0.6774 | 0.0679 | 0.2222 | 0.3102 | -0.0879 | -0.7748 |
| 28 | 29.74 | 0.03 | 6.2636 | -4.7607 | 0.6042 | -0.9868 | 0.0798 | 0.2112 | 0.3208 | -0.1096 | -0.7601 |
| 29 | 30.03 | 0.03 | 6.2936 | -4.8381 | 0.7106 | -1.2879 | 0.1186 | 0.2231 | 0.3249 | -0.1018 | -0.7687 |
| 30 | 30.31 | 0.03 | 6.4559 | -4.8578 | 0.6555 | -1.2361 | 0.1192 | 0.2252 | 0.3317 | -0.1065 | -0.7525 |
| 31 | 30.58 | 0.03 | 6.5682 | -4.9183 | 0.7186 | -1.3216 | 0.1251 | 0.2144 | 0.3320 | -0.1176 | -0.7488 |
| 32 | 30.86 | 0.01 | 6.7326 | -5.0567 | 0.4041 | -0.5143 | 0.1189 | 0.2101 | 0.3300 | -0.1199 | -0.7511 |
| 33 | 31.16 | 0.01 | 6.8469 | -5.0785 | 0.4392 | -0.5187 | 0.1194 | 0.2185 | 0.3370 | -0.1185 | -0.7417 |
| 34 | 31.43 | 0.02 | 6.9647 | -5.0503 | 0.4471 | -0.4311 | 0.1198 | 0.2137 | 0.3384 | -0.1247 | -0.7251 |
| 35 | 31.70 | -0.00 | 7.0633 | -5.0437 | 0.1692 | -0.0610 | 0.0812 | 0.2179 | 0.3409 | -0.1230 | -0.7141 |
| 36 | 31.97 | -0.00 | 7.1535 | -5.1806 | 0.2075 | 0.0771 | 0.0916 | 0.2028 | 0.3449 | -0.1421 | -0.7242 |
| 37 | 32.23 | 0.01 | 7.3018 | -5.2289 | .2487 | -0.0200 | 0.0925 | 0.2106 | 0.3469 | -0.1353 | -0.7161 |
| 38 | 32.51 | -0.00 | 7.3793 | -5.2473 | 0.2032 | -0.0059 | 0.0820 | 0.2168 | 0.3530 | -0.1362 | -0.7111 |
| 39 | 32.77 | -0.01 | 7.5301 | -5.3656 | 0.1642 | 0.1370 | 0.0984 | 0.2035 | 0.3544 | -0.1509 | -0.7125 |
| 40 | 33.04 | -0.03 | 7.6190 | -5.2733 | -0.0409 | 0.4195 | 0.0599 | 0.2074 | 0.3559 | -0.1485 | -0.6921 |
| 41 | 33.29 | 0.00 | 7.7037 | -5.4194 | 0.3010 | -0.1181 | 0.1052 | 0.2131 | 0.3605 | -0.1474 | -0.7035 |
| 42 | 33.54 | 0.00 | 7.8736 | -5.5780 | 0.1578 | 0.2498 | 0.0935 | 0.2252 | 0.3690 | -0.1438 | -0.7084 |
| 43 | 33.81 | 0.00 | 7.9549 | -5.5475 | 0.2164 | 0.2732 | 0.0774 | 0.2190 | 0.3721 | -0.1531 | -0.6974 |
| 44 | 34.06 | -0.01 | 8.1094 | -5.7321 | 0.0057 | 0.4518 | 0.0721 | 0.2218 | 0.3747 | -0.1529 | -0.7068 |
| 45 | 34.30 | 0.01 | 8.2609 | -5.7583 | 0.2950 | 0.0042 | 0.1011 | 0.2116 | 0.3774 | -0.1658 | -0.6971 |
| 46 | 34.57 | -0.01 | 8.3767 | -5.7416 | 0.0638 | 0.4452 | 0.0839 | 0.2239 | 0.3817 | -0.1578 | -0.6856 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 1 OF 3
SHEET 2 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.83 | -0.01 | 8.4712 | -5.8524 | 0.0016 | 0.5821 | 0.0621 | 0.2167 | 0.3837 | -0.1670 | -0.6909 |
| 48 | 35.04 | 0.01 | 8.5063 | -5.9342 | 0.3026 | 0.1616 | 0.1066 | 0.2091 | 0.3828 | -0.1737 | -0.6976 |
| 49 | 35.31 | -0.02 | 8.6440 | -5.9060 | 0.0496 | 0.3908 | 0.0742 | 0.2109 | 0.3842 | -0.1733 | -0.6832 |
| 50 | 35.57 | -0.01 | 8.7402 | -6.0199 | 0.1419 | 0.4011 | 0.0743 | 0.2308 | 0.3911 | -0.1603 | -0.6888 |
| 51 | 35.82 | -0.01 | 8.8637 | -6.0752 | 0.1777 | 0.2123 | 0.0862 | 0.2156 | 0.3940 | -0.1784 | -0.6854 |
| 52 | 36.05 | -0.03 | 8.9290 | -6.0978 | -0.0849 | 0.6921 | 0.0634 | 0.2230 | 0.3971 | -0.1741 | -0.6829 |
| 53 | 36.30 | -0.02 | 9.0787 | -6.1212 | 0.0601 | 0.3714 | 0.0758 | 0.1953 | 0.3950 | -0.1997 | -0.6742 |
| 54 | 36.54 | -0.02 | 9.1496 | -6.2682 | 0.1584 | 0.2688 | 0.0924 | 0.2085 | 0.3946 | -0.1861 | -0.6851 |
| 55 | 36.78 | -0.04 | 9.2997 | -6.2368 | -0.0240 | 0.5291 | 0.0490 | 0.1860 | 0.3887 | -0.2027 | -0.6706 |
| 56 | 37.02 | -0.02 | 9.4214 | -6.3452 | 0.1220 | 0.4594 | 0.0656 | 0.1812 | 0.3890 | -0.2078 | -0.6735 |
| 57 | 37.27 | -0.03 | 9.4515 | -6.3386 | 0.0680 | 0.3169 | 0.0501 | 0.1829 | 0.3830 | -0.2001 | -0.6706 |
| 58 | 37.51 | -0.02 | 9.6000 | -6.3881 | 0.2765 | 0.1014 | 0.0565 | 0.1633 | 0.3774 | -0.2141 | -0.6654 |
| 59 | 37.76 | -0.03 | 9.7212 | -6.4660 | 0.1002 | 0.2480 | 0.0567 | 0.1610 | 0.3744 | -0.2134 | -0.6651 |
| 60 | 37.99 | -0.03 | 9.7431 | -6.4484 | 0.1417 | 0.3930 | 0.0616 | 0.1733 | 0.3786 | -0.2053 | -0.6615 |
| 61 | 38.21 | -0.03 | 9.7593 | -6.3884 | 0.1148 | 0.3120 | 0.0512 | 0.1531 | 0.3636 | -0.2105 | -0.6546 |
| 62 | 38.46 | -0.05 | 9.9548 | -6.5915 | -0.0308 | 0.3904 | 0.0518 | 0.1549 | 0.3681 | -0.2132 | -0.6621 |
| 63 | 38.68 | -0.04 | 9.9549 | -6.5355 | 0.0510 | 0.1879 | 0.0417 | 0.1594 | 0.3615 | -0.2021 | -0.6566 |
| 64 | 38.96 | -0.03 | 10.0065 | -6.6170 | 0.0684 | 0.5398 | 0.0512 | 0.1693 | 0.3681 | -0.1988 | -0.6613 |
| 65 | 39.18 | -0.05 | 10.0985 | -6.6079 | -0.0637 | 0.6543 | 0.0514 | 0.1564 | 0.3540 | -0.1976 | -0.6543 |
| 66 | 39.42 | -0.04 | 10.1337 | -6.7217 | 0.0483 | 0.3562 | 0.0206 | 0.1305 | 0.3530 | -0.2225 | -0.6505 |
| 67 | 39.64 | -0.04 | 10.3852 | -6.8149 | 0.0035 | 0.6311 | 0.0305 | 0.1158 | 0.3534 | -0.2376 | -0.6562 |
| 68 | 39.83 | -0.04 | 10.3727 | -6.7489 | -0.0402 | 0.4396 | 0.0205 | 0.1113 | 0.3446 | -0.2333 | -0.6506 |
| 69 | 40.05 | -0.02 | 10.4912 | -6.9078 | 0.1679 | 0.4674 | 0.0203 | 0.1236 | 0.3410 | -0.2174 | -0.6584 |
| 70 | 40.25 | -0.05 | 10.5144 | -6.8437 | -0.1559 | 0.6550 | 0.0204 | 0.1031 | 0.3376 | -0.2345 | -0.6509 |
| 71 | 40.46 | -0.05 | 10.6677 | -6.9994 | -0.1072 | 0.4836 | 0.0214 | 0.1040 | 0.3327 | -0.2287 | -0.6561 |
| 72 | 40.66 | -0.03 | 10.7192 | -6.9072 | 0.0955 | 0.3909 | 0.0108 | 0.1018 | 0.3349 | -0.2330 | -0.6444 |
| 73 | 40.88 | -0.05 | 10.8757 | -6.9732 | -0.0329 | 0.3467 | 0.0009 | 0.0834 | 0.3215 | -0.2380 | -0.6412 |
| 74 | 41.09 | -0.04 | 10.9137 | -7.0815 | -0.0068 | 0.4092 | 0.0114 | 0.0534 | 0.3197 | -0.2662 | -0.6489 |
| 75 | 41.28 | -0.04 | 10.9130 | -6.9212 | -0.0222 | 0.7942 | -0.0008 | 0.0835 | 0.3201 | -0.2365 | -0.6342 |
| 76 | 41.51 | -0.02 | 11.1158 | -7.1957 | 0.1637 | 0.3470 | 0.0012 | 0.0768 | 0.3180 | -0.2411 | -0.6473 |
| 77 | 41.70 | -0.04 | 11.1518 | -7.1288 | -0.0067 | 0.3913 | 0.0015 | 0.0465 | 0.3099 | -0.2633 | -0.6393 |
| 78 | 41.90 | -0.04 | 11.2030 | -7.1932 | 0.0034 | 0.3617 | -0.0091 | 0.0709 | 0.3152 | -0.2442 | -0.6421 |
| 79 | 42.10 | -0.05 | 11.2269 | -7.1586 | -0.0115 | 0.5414 | -0.0097 | 0.0565 | 0.3053 | -0.2497 | -0.6376 |
| 80 | 42.29 | -0.07 | 11.3906 | -7.3478 | -0.2078 | 0.5212 | 0.0020 | 0.0265 | 0.3109 | -0.2843 | -0.6451 |
| 81 | 42.49 | -0.05 | 11.4517 | -7.2495 | -0.0065 | 0.4088 | -0.0076 | 0.0395 | 0.3089 | -0.2693 | -0.6331 |
| 82 | 42.68 | -0.06 | 11.5147 | -7.3091 | -0.0986 | 0.1832 | 0.0046 | 0.0287 | 0.3088 | -0.2800 | -0.6348 |
| 83 | 42.86 | -0.07 | 11.5953 | -7.3327 | -0.1224 | 0.4000 | 0.0149 | 0.0257 | 0.3029 | -0.2770 | -0.6324 |
| 84 | 43.06 | -0.06 | 11.7661 | -7.4353 | -0.1295 | 0.2708 | 0.0159 | -0.0062 | 0.3021 | -0.3093 | -0.6319 |
| 85 | 43.22 | -0.06 | 11.7574 | -7.3206 | -0.1111 | 0.6452 | -0.0181 | 0.0491 | 0.3059 | -0.2567 | -0.6226 |
| 86 | 43.39 | -0.05 | 11.7653 | -7.3382 | 0.0188 | 0.0047 | 0.0223 | 0.0229 | 0.2999 | -0.2769 | -0.6237 |
| 87 | 43.59 | -0.05 | 11.8703 | -7.3537 | 0.0234 | -0.1153 | 0.0392 | 0.0047 | 0.2981 | -0.2934 | -0.6195 |
| 88 | 43.77 | -0.06 | 11.8972 | -7.4117 | -0.0985 | 0.2029 | 0.0168 | 0.0201 | 0.3073 | -0.2871 | -0.6230 |
| 89 | 43.96 | -0.06 | 12.0359 | -7.4395 | -0.0654 | 0.1519 | 0.0229 | 0.0130 | 0.2974 | -0.2843 | -0.6181 |
| 90 | 44.12 | -0.04 | 12.0188 | -7.3846 | 0.1955 | -0.4868 | 0.0404 | 0.0196 | 0.2949 | -0.2752 | -0.6144 |
| 91 | 44.30 | -0.06 | 12.1189 | -7.4058 | -0.0909 | 0.0883 | 0.0180 | -0.0129 | 0.2911 | -0.3040 | -0.6111 |
| 92 | 44.50 | -0.06 | 12.1642 | -7.4283 | 0.0192 | -0.1783 | 0.0404 | 0.0059 | 0.2925 | -0.2865 | -0.6107 |

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 175 1.10 1.7 0.0 SIWOFIS 0.0 0 -10 0 -10 UNKNOWN

| POINT | ALPHA | BETA | CN | CLM | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.68 | -0.07 | 12.2856 | -7.4335 | -0.0426 | 0.1609 | 0.0373 | -0.0075 | 0.2957 | -0.3032 | -0.6099 |
| 94 | 44.86 | -0.07 | 12.2925 | -7.3375 | -0.1142 | 0.5707 | -0.0350 | 0.0007 | 0.2991 | -0.2984 | -0.5969 |
| 95 | 45.05 | -0.06 | 12.3475 | -7.3797 | 0.0776 | -0.1658 | 0.0413 | 0.0018 | 0.2917 | -0.2899 | -0.5977 |
| 96 | 45.23 | -0.06 | 12.3930 | -7.2380 | 0.0771 | -0.0137 | 0.0302 | -0.0160 | 0.2941 | -0.3101 | -0.5840 |
| 97 | 45.40 | -0.04 | 12.4691 | -7.1652 | 0.2700 | -0.4425 | 0.0534 | 0.0007 | 0.2994 | -0.2977 | -0.5746 |
| 98 | 45.59 | -0.08 | 12.5281 | -7.2464 | -0.1915 | 0.8706 | -0.0488 | 0.0148 | 0.3055 | -0.2907 | -0.5784 |
| 99 | 45.77 | -0.07 | 12.4593 | -7.1650 | -0.0413 | 0.4054 | -0.0391 | -0.0018 | 0.2970 | -0.2988 | -0.5751 |
| 100 | 45.95 | -0.06 | 12.6431 | -7.2409 | 0.0160 | 0.1752 | 0.0087 | -0.0182 | 0.3069 | -0.3251 | -0.5727 |
| 101 | 46.11 | -0.08 | 12.6138 | -7.0830 | -0.1751 | 0.7378 | -0.0423 | 0.0171 | 0.3126 | -0.2955 | -0.5615 |
| 102 | 46.29 | -0.05 | 12.6634 | -7.1454 | 0.0939 | 0.0920 | 0.0201 | 0.0073 | 0.3069 | -0.2996 | -0.5634 |
| 103 | 46.47 | -0.06 | 12.7873 | -7.1587 | 0.0187 | 0.4491 | -0.0027 | 0.0020 | 0.3111 | -0.3091 | -0.5598 |
| 104 | 46.65 | -0.07 | 12.7825 | -6.9787 | -0.1542 | 0.6998 | -0.0361 | 0.0121 | 0.3143 | -0.3022 | -0.5460 |
| 105 | 46.81 | -0.07 | 12.8756 | -6.9699 | -0.2416 | 1.0480 | -0.0698 | 0.0277 | 0.3260 | -0.2953 | -0.5413 |
| 106 | 46.99 | -0.06 | 12.8972 | -6.7860 | -0.1703 | 1.0796 | -0.0307 | 0.0558 | 0.3455 | -0.2900 | -0.5262 |
| 107 | 47.17 | -0.07 | 13.0166 | -6.9334 | -0.1641 | 0.9550 | -0.0703 | 0.0616 | 0.3417 | -0.2800 | -0.5327 |
| 108 | 47.35 | -0.08 | 13.0212 | -6.8013 | -0.3073 | 0.8936 | -0.0691 | 0.0624 | 0.3565 | -0.2941 | -0.5223 |
| 109 | 47.50 | -0.06 | 12.9677 | -6.5232 | -0.1202 | 0.9036 | -0.0738 | 0.0807 | 0.3626 | -0.2818 | -0.5030 |
| 110 | 47.67 | -0.07 | 12.9749 | -6.1951 | -0.1727 | 0.7362 | -0.0565 | 0.1056 | 0.3778 | -0.2722 | -0.4778 |
| 111 | 47.87 | -0.06 | 13.1060 | -6.0197 | -0.0949 | 0.7318 | -0.0119 | 0.1230 | 0.3679 | -0.2449 | -0.4593 |
| 112 | 48.04 | -0.06 | 13.1801 | -6.1584 | -0.2085 | 1.0234 | 0.0203 | 0.1651 | 0.4001 | -0.2350 | -0.4672 |
| 113 | 48.19 | -0.07 | 13.1332 | -6.0792 | -0.2580 | 0.9726 | 0.0095 | 0.1463 | 0.3920 | -0.2457 | -0.4629 |
| 114 | 48.38 | -0.07 | 13.3167 | -6.3698 | -0.2290 | 1.0912 | 0.0369 | 0.1572 | 0.4143 | -0.2571 | -0.4783 |
| 115 | 48.55 | -0.06 | 13.2494 | -6.2913 | -0.1971 | 1.2664 | 0.0523 | 0.1752 | 0.4295 | -0.2543 | -0.4748 |
| 116 | 48.70 | -0.05 | 13.2567 | -6.2941 | -0.1322 | 0.9411 | 0.0481 | 0.1842 | 0.4320 | -0.2478 | -0.4748 |
| 117 | 48.89 | -0.05 | 13.2888 | -6.2072 | -0.0842 | 0.9755 | 0.0536 | 0.1859 | 0.4350 | -0.2491 | -0.4671 |
| 118 | 49.04 | -0.05 | 13.3760 | -6.1281 | -0.0721 | 0.9837 | 0.0594 | 0.1811 | 0.4322 | -0.2511 | -0.4581 |
| 119 | 49.20 | -0.05 | 13.3276 | -5.9162 | -0.0027 | 0.9776 | 0.0538 | 0.1788 | 0.4304 | -0.2516 | -0.4439 |
| 120 | 49.38 | -0.03 | 13.2865 | -5.6324 | 0.0901 | 1.2040 | 0.0637 | 0.1524 | 0.4216 | -0.2692 | -0.4239 |
| 121 | 49.56 | -0.05 | 13.4017 | -5.9854 | -0.0090 | 1.0812 | 0.0645 | 0.1568 | 0.4229 | -0.2661 | -0.4466 |
| 122 | 49.75 | -0.03 | 13.6498 | -6.3513 | 0.1279 | 1.0311 | 0.0596 | 0.1581 | 0.4280 | -0.2699 | -0.4653 |
| 123 | 49.92 | -0.02 | 13.5482 | -5.8722 | 0.2242 | 1.0981 | 0.0537 | 0.1544 | 0.4215 | -0.2671 | -0.4334 |
| 124 | 50.09 | -0.01 | 13.5510 | -5.6172 | 0.2214 | 1.2636 | 0.0537 | 0.1481 | 0.4205 | -0.2724 | -0.4145 |
| 125 | 50.26 | -0.02 | 13.5834 | -5.6137 | 0.1975 | 1.2420 | 0.0535 | 0.1403 | 0.4183 | -0.2780 | -0.4133 |
| 126 | 50.41 | -0.01 | 13.5050 | -5.3955 | 0.2059 | 1.4228 | 0.0582 | 0.1439 | 0.4135 | -0.2696 | -0.3995 |
| 127 | 50.61 | -0.02 | 13.6527 | -5.4506 | 0.1588 | 1.3909 | 0.0535 | 0.1375 | 0.4174 | -0.2799 | -0.3992 |
| 128 | 50.59 | -0.03 | 13.6812 | -5.3929 | 0.2461 | 1.2696 | 0.0539 | 0.1308 | 0.4145 | -0.2837 | -0.3942 |
| 129 | 50.94 | -0.01 | 13.6927 | -5.4931 | 0.2496 | 1.3548 | 0.0590 | 0.1256 | 0.4203 | -0.2948 | -0.4012 |
| 130 | 51.10 | -0.00 | 13.8199 | -5.5100 | 0.3810 | 1.1529 | 0.0434 | 0.1234 | 0.4139 | -0.2906 | -0.3987 |
| 131 | 51.26 | 0.00 | 13.7885 | -5.2756 | 0.3721 | 0.9966 | 0.0387 | 0.1176 | 0.4111 | -0.2936 | -0.3826 |
| 132 | 51.43 | -0.00 | 13.8159 | -5.3724 | 0.3922 | 1.1459 | 0.0436 | 0.1177 | 0.4097 | -0.2921 | -0.3889 |
| 133 | 51.60 | 0.01 | 13.8673 | -5.4652 | 0.4494 | 1.1215 | 0.0492 | 0.1095 | 0.4041 | -0.2947 | -0.3941 |
| 134 | 51.77 | 0.01 | 13.9196 | -5.5309 | 0.4923 | 1.0470 | 0.0441 | 0.1044 | 0.4041 | -0.2998 | -0.3973 |
| 135 | 51.94 | -0.00 | 14.0100 | -5.0530 | 0.4079 | 0.5220 | 0.0305 | 0.0898 | 0.4018 | -0.3120 | -0.3607 |
| 136 | 52.11 | -0.00 | 14.0812 | -5.3748 | 0.3607 | 0.5849 | 0.0304 | 0.0971 | 0.4057 | -0.3087 | -0.3817 |
| 137 | 52.27 | 0.00 | 14.0170 | -5.0228 | 0.4703 | 0.3455 | 0.0256 | 0.0825 | 0.4000 | -0.3175 | -0.3583 |
| 138 | 52.45 | -0.01 | 14.1105 | -5.1876 | 0.3567 | 0.4126 | 0.0258 | 0.0746 | 0.3987 | -0.3221 | -0.3676 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | B1W0F15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CN | CLN | CY | CLN | CLL | CA | CAB | CAF | XCP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.60 | -0.01 | 14.0960 | -5.0004 | 0.3095 | 0.4176 | 0.0315 | 0.0729 | 0.3993 | -0.3284 | -0.3547 |
| 140 | 52.76 | -0.01 | 14.0577 | -4.9766 | 0.3197 | 0.3690 | 0.0260 | 0.0706 | 0.4003 | -0.3297 | -0.3540 |
| 141 | 52.94 | -0.02 | 14.1840 | -5.1290 | 0.3091 | 0.3799 | 0.0374 | 0.0769 | 0.4009 | -0.3240 | -0.3616 |
| 142 | 53.11 | -0.02 | 14.2978 | -5.1835 | 0.2944 | 0.3152 | 0.0325 | 0.0722 | 0.4048 | -0.3326 | -0.3625 |
| 143 | 53.26 | -0.01 | 14.1446 | -5.0760 | 0.3293 | 0.3223 | 0.0319 | 0.0682 | 0.3994 | -0.3312 | -0.3589 |
| 144 | 53.43 | -0.02 | 14.3156 | -5.2522 | 0.2978 | 0.3828 | 0.0377 | 0.0563 | 0.4038 | -0.3475 | -0.3668 |
| 145 | 53.59 | -0.02 | 14.2812 | -5.2156 | 0.3188 | 0.3138 | 0.0323 | 0.0569 | 0.4045 | -0.3476 | -0.3652 |
| 146 | 53.74 | -0.01 | 14.2319 | -5.1897 | 0.4111 | 0.2769 | 0.0321 | 0.0546 | 0.4067 | -0.3521 | -0.3647 |
| 147 | 53.92 | -0.03 | 14.3948 | -5.3262 | 0.2348 | 0.2743 | 0.0329 | 0.0501 | 0.4090 | -0.3589 | -0.3701 |
| 148 | 54.06 | -0.02 | 14.4115 | -5.4162 | 0.3066 | 0.2873 | 0.0271 | 0.0394 | 0.4112 | -0.3718 | -0.3758 |
| 149 | 54.19 | -0.03 | 14.2437 | -5.1626 | 0.2746 | 0.3569 | 0.0376 | 0.0262 | 0.4073 | -0.3811 | -0.3624 |
| 150 | 54.35 | -0.04 | 14.3092 | -5.3063 | 0.1858 | 0.2419 | 0.0328 | 0.0343 | 0.4125 | -0.3782 | -0.3708 |
| 151 | 54.51 | -0.06 | 14.3378 | -5.3894 | 0.0970 | 0.3454 | 0.0326 | 0.0266 | 0.4154 | -0.3888 | -0.3759 |
| 152 | 35.23 | 18.86 | 14.4531 | -5.7580 | 0.0490 | 0.3301 | 0.0384 | 0.3453 | 0.4114 | -0.0661 | -0.3930 |
| 153 | 54.82 | -0.04 | 14.3563 | -5.4100 | 0.1698 | 0.3776 | 0.0324 | 0.0194 | 0.4133 | -0.3939 | -0.3768 |
| 154 | 54.97 | -0.04 | 14.4455 | -5.5791 | 0.1887 | 0.2907 | 0.0273 | 0.0173 | 0.4141 | -0.3968 | -0.3862 |
| 155 | 55.11 | -0.06 | 14.3427 | -5.4296 | 0.1118 | 0.4027 | 0.0323 | 0.0227 | 0.4077 | -0.3850 | -0.3786 |
| 156 | 55.28 | -0.06 | 14.5790 | -5.7166 | 0.1894 | 0.3002 | 0.0332 | 0.0206 | 0.4135 | -0.3929 | -0.3921 |
| 157 | 55.47 | 0.13 | 14.4736 | -5.7397 | 0.0671 | 0.2342 | 0.0333 | 0.0066 | 0.4072 | -0.4006 | -0.3966 |
| 158 | 55.58 | -0.03 | 14.5623 | -5.8033 | 0.4200 | 0.1446 | 0.0332 | 0.0072 | 0.4110 | -0.4038 | -0.3985 |
| 159 | 55.77 | -0.07 | 14.7085 | -5.8989 | 0.1305 | 0.0544 | 0.0290 | 0.0031 | 0.4121 | -0.4090 | -0.4011 |
| 160 | 55.93 | -0.09 | 14.7134 | -5.9181 | -0.0709 | 0.0626 | 0.0294 | -0.0070 | 0.4070 | -0.4140 | -0.4022 |
| 161 | 56.11 | -0.05 | 14.9100 | -5.9558 | 0.3625 | 0.1779 | 0.0340 | -0.0018 | 0.4095 | -0.4114 | -0.4021 |
| 162 | 56.26 | -0.10 | 14.7352 | -6.0411 | -0.1579 | 0.2243 | 0.0289 | -0.0070 | 0.4205 | -0.4275 | -0.4100 |
| 163 | 56.42 | -0.11 | 14.7001 | -5.9717 | -0.1338 | 0.2417 | 0.0343 | -0.0219 | 0.4096 | -0.4315 | -0.4062 |
| 164 | 56.60 | -0.10 | 15.0464 | -6.2684 | -0.1686 | 0.0359 | 0.0414 | -0.0136 | 0.4249 | -0.4385 | -0.4166 |
| 165 | 56.76 | -0.05 | 14.9849 | -6.2332 | 0.0961 | -0.4776 | 0.0365 | -0.0235 | 0.4179 | -0.4414 | -0.4160 |
| 166 | 56.90 | -0.08 | 15.0327 | -6.1756 | 0.0375 | -0.4629 | 0.0422 | -0.0394 | 0.4217 | -0.4611 | -0.4108 |
| 167 | 57.03 | -0.11 | 14.8462 | -6.1646 | -0.2341 | -0.0411 | 0.0519 | -0.0640 | 0.4134 | -0.4774 | -0.4152 |
| 168 | 57.20 | -0.05 | 14.9375 | -6.2292 | 0.0765 | -0.4212 | 0.0417 | -0.0767 | 0.4035 | -0.4802 | -0.4170 |
| 169 | 57.33 | -0.09 | 14.7633 | -6.1156 | -0.0090 | -0.2623 | 0.0410 | -0.0613 | 0.4017 | -0.4630 | -0.4137 |
| 170 | 57.49 | -0.10 | 14.9097 | -6.3012 | -0.1096 | 0.0289 | 0.0465 | -0.0732 | 0.4029 | -0.4761 | -0.4226 |
| 171 | 57.62 | -0.09 | 14.9197 | -6.2941 | 0.0074 | -0.1992 | 0.0413 | -0.0664 | 0.4052 | -0.4718 | -0.4219 |
| 172 | 57.79 | -0.10 | 15.1202 | -6.5725 | -0.1172 | -0.0824 | 0.0416 | -0.0724 | 0.4043 | -0.4772 | -0.4347 |
| 173 | 57.93 | -0.06 | 14.9751 | -6.4864 | 0.2451 | -0.0635 | 0.0465 | -0.0984 | 0.4062 | -0.5046 | -0.4331 |
| 174 | 58.07 | -0.07 | 15.0807 | -6.5413 | 0.1191 | 0.2869 | 0.0513 | -0.1028 | 0.3952 | -0.4980 | -0.4338 |
| 175 | 58.21 | -0.11 | 14.9302 | -6.5238 | -0.1577 | 0.0345 | 0.0407 | -0.0682 | 0.4030 | -0.4913 | -0.4370 |
| 176 | 58.37 | -0.07 | 15.1088 | -6.7788 | 0.2217 | 0.4146 | 0.0505 | -0.1349 | 0.4004 | -0.5355 | -0.4487 |
| 177 | 58.39 | -0.09 | 14.8803 | -6.2902 | -0.0107 | 0.2892 | 0.0511 | -0.0825 | 0.3962 | -0.4787 | -0.4227 |
| 178 | 57.51 | -0.11 | 14.8311 | -6.0222 | -0.1149 | -0.3839 | 0.0412 | -0.0741 | 0.4074 | -0.4816 | -0.4061 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | BIWOFIS | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.04 | -0.0425 | 0.0020 | 0.0229 | -0.0472 | -0.5401 | -0.7139 | -0.0332 | -0.3652 | 0.0464 | 0.5116 |
| 2 | -5.73 | -0.02 | -0.0391 | 0.0017 | 0.0242 | -0.0435 | -0.6189 | -0.7013 | -0.0332 | -0.3591 | 0.0473 | 0.5121 |
| 3 | -5.72 | -0.04 | -0.0358 | 0.0026 | 0.0252 | -0.0727 | -0.7039 | -0.7037 | -0.0340 | -0.3604 | 0.0483 | 0.5122 |
| 4 | -5.72 | -0.02 | -0.0391 | 0.0019 | 0.0248 | -0.0486 | -0.6343 | -0.7063 | -0.0340 | -0.3606 | 0.0481 | 0.5108 |
| 5 | -5.20 | -0.04 | -0.0345 | 0.0029 | 0.0244 | -0.0841 | -0.7072 | -0.6317 | -0.0319 | -0.3293 | 0.0504 | 0.5213 |
| 6 | -3.28 | -0.03 | -0.0354 | 0.0019 | 0.0227 | -0.0537 | -0.6412 | -0.5163 | -0.0290 | -0.2771 | 0.0563 | 0.5367 |
| 7 | -1.48 | -0.04 | -0.0320 | 0.0021 | 0.0231 | -0.0657 | -0.7219 | -0.3886 | -0.0249 | -0.2184 | 0.0642 | 0.5620 |
| 8 | 0.43 | -0.03 | -0.0306 | 0.0014 | 0.0221 | -0.0458 | -0.7222 | -0.2722 | -0.0217 | -0.1596 | 0.0798 | 0.5862 |
| 9 | 2.32 | -0.04 | -0.0228 | 0.0022 | 0.0236 | -0.0965 | -1.0351 | -0.1511 | -0.0167 | -0.1017 | 0.1107 | 0.6733 |
| 10 | 4.20 | -0.02 | -0.0308 | 0.0015 | 0.0231 | -0.0487 | -0.7500 | -0.0399 | -0.0078 | -0.0597 | 0.1956 | 1.4937 |
| 11 | 6.12 | -0.04 | -0.0390 | 0.0012 | 0.0246 | -0.0338 | -0.6308 | 0.0532 | 0.0025 | -0.0236 | 0.0528 | -0.4444 |
| 12 | 8.05 | -0.03 | -0.0427 | 0.0008 | 0.0252 | -0.0188 | -0.5915 | 0.1217 | 0.0155 | 0.0120 | 0.1275 | 0.0987 |
| 13 | 9.92 | -0.02 | -0.0409 | 0.0013 | 0.0295 | -0.0319 | -0.7230 | 0.2082 | 0.0294 | 0.0409 | 0.1415 | 0.2395 |
| 14 | 11.88 | -0.04 | -0.0446 | 0.0005 | 0.0319 | -0.0112 | -0.7169 | 0.3152 | 0.0399 | 0.0952 | 0.1265 | 0.3021 |
| 15 | 13.83 | -0.04 | -0.0481 | -0.0012 | 0.0328 | 0.0250 | -0.6833 | 0.4276 | 0.0469 | 0.1459 | 0.1094 | 0.3411 |
| 16 | 15.84 | -0.05 | -0.0506 | -0.0025 | 0.0353 | 0.0495 | -0.6990 | 0.5427 | 0.0507 | 0.2047 | 0.0934 | 0.3771 |
| 17 | 17.87 | -0.04 | -0.0660 | -0.0095 | 0.0337 | 0.1442 | -0.5114 | 0.6331 | 0.0532 | 0.2437 | 0.0840 | 0.3849 |
| 18 | 19.85 | -0.02 | -0.0886 | -0.0095 | 0.0185 | 0.1074 | -0.2090 | 0.7266 | 0.0515 | 0.2837 | 0.0709 | 0.3905 |
| 19 | 21.88 | -0.03 | -0.0867 | 0.0020 | 0.0110 | -0.0300 | -0.1052 | 0.8192 | 0.0452 | 0.3237 | 0.0551 | 0.3951 |
| 20 | 23.92 | -0.04 | -0.0847 | -0.0016 | -0.0003 | 0.0199 | 0.0095 | 0.8907 | 0.0409 | 0.3517 | 0.0458 | 0.3949 |
| 21 | 25.94 | -0.02 | 0.0997 | 0.0055 | 0.0856 | 0.0552 | 0.8584 | 0.9728 | 0.0322 | 0.3824 | 0.0331 | 0.3931 |
| 22 | 28.03 | 0.00 | 0.2528 | 0.0128 | 0.1612 | 0.0507 | 0.6376 | 1.0067 | 0.0258 | 0.3970 | 0.0257 | 0.3894 |
| 23 | 28.19 | 0.01 | 0.2092 | 0.0115 | 0.1377 | 0.0551 | 0.6582 | 1.0078 | 0.0249 | 0.3926 | 0.0267 | 0.3895 |
| 24 | 28.55 | -0.01 | 0.1019 | 0.0072 | 0.0846 | 0.0708 | 0.8301 | 1.0051 | 0.0254 | 0.3890 | 0.0283 | 0.3870 |
| 25 | 28.82 | 0.02 | 0.2103 | 0.0114 | 0.1409 | 0.0543 | 0.6700 | 1.0259 | 0.0251 | 0.3969 | 0.0245 | 0.3869 |
| 26 | 29.13 | 0.00 | 0.1528 | 0.0085 | 0.1101 | 0.0558 | 0.7218 | 1.0317 | 0.0257 | 0.3982 | 0.0250 | 0.3860 |
| 27 | 29.46 | 0.00 | 0.1430 | 0.0076 | 0.1040 | 0.0532 | 0.7276 | 1.0344 | 0.0250 | 0.3989 | 0.0242 | 0.3856 |
| 28 | 29.74 | 0.03 | 0.1582 | 0.0052 | 0.1163 | 0.0329 | 0.7354 | 1.0335 | 0.0230 | 0.3950 | 0.0273 | 0.3822 |
| 29 | 30.03 | 0.03 | 0.2439 | 0.0091 | 0.1577 | 0.0374 | 0.6466 | 1.0640 | 0.0219 | 0.4072 | 0.0206 | 0.3827 |
| 30 | 30.31 | 0.03 | 0.2492 | 0.0078 | 0.1615 | 0.0315 | 0.6507 | 1.0452 | 0.0208 | 0.3989 | 0.0199 | 0.3816 |
| 31 | 30.58 | 0.03 | 0.2439 | 0.0069 | 0.1594 | 0.0293 | 0.6535 | 1.0592 | 0.0211 | 0.4032 | 0.0200 | 0.3807 |
| 32 | 30.86 | 0.01 | 0.1837 | 0.0010 | 0.1398 | 0.0055 | 0.7608 | 1.0643 | 0.0216 | 0.4026 | 0.0201 | 0.3783 |
| 33 | 31.16 | 0.01 | 0.1489 | -0.0007 | 0.1204 | -0.0047 | 0.8090 | 1.0642 | 0.0225 | 0.4006 | 0.0212 | 0.3764 |
| 34 | 31.43 | 0.02 | 0.1737 | -0.0002 | 0.1311 | -0.0012 | 0.7566 | 1.0644 | 0.0216 | 0.4001 | 0.0203 | 0.3759 |
| 35 | 31.70 | -0.00 | 0.0599 | -0.0032 | 0.0770 | -0.0535 | 1.2860 | 1.0642 | 0.0237 | 0.3990 | 0.0223 | 0.3749 |
| 36 | 31.97 | -0.00 | 0.0584 | -0.0033 | 0.0798 | -0.0566 | 1.3671 | 1.0748 | 0.0231 | 0.4017 | 0.0215 | 0.3737 |
| 37 | 32.23 | 0.01 | 0.0756 | -0.0013 | 0.0898 | -0.0172 | 1.1881 | 1.0812 | 0.0225 | 0.4047 | 0.0208 | 0.3743 |
| 38 | 32.51 | -0.00 | 0.0746 | -0.0014 | 0.0892 | -0.0198 | 1.1960 | 1.0927 | 0.0224 | 0.4052 | 0.0205 | 0.3736 |
| 39 | 32.77 | -0.01 | 0.0911 | -0.0004 | 0.0960 | -0.0044 | 1.0538 | 1.1072 | 0.0221 | 0.4127 | 0.0200 | 0.3728 |
| 40 | 33.04 | -0.03 | 0.0087 | -0.0029 | 0.0551 | -0.3335 | 6.3218 | 1.1099 | 0.0234 | 0.4127 | 0.0211 | 0.3719 |
| 41 | 33.29 | 0.00 | 0.0921 | -0.0026 | 0.0977 | -0.0253 | 1.0609 | 1.1228 | 0.0216 | 0.4177 | 0.0193 | 0.3720 |
| 42 | 33.54 | 0.00 | 0.0696 | -0.0039 | 0.0921 | -0.0561 | 1.3237 | 1.1320 | 0.0219 | 0.4208 | 0.0194 | 0.3717 |
| 43 | 33.81 | 0.00 | 0.0703 | -0.0025 | 0.0854 | -0.0356 | 1.2151 | 1.1397 | 0.0215 | 0.4229 | 0.0189 | 0.3711 |
| 44 | 34.06 | -0.01 | 0.0600 | -0.0004 | 0.0816 | -0.0067 | 1.3606 | 1.1578 | 0.0214 | 0.4297 | 0.0185 | 0.3712 |
| 45 | 34.30 | 0.01 | 0.1034 | -0.0005 | 0.1074 | -0.0048 | 1.0387 | 1.1580 | 0.0201 | 0.4287 | 0.0174 | 0.3702 |
| 46 | 34.57 | -0.01 | 0.0729 | -0.0014 | 0.0912 | -0.0192 | 1.2514 | 1.1655 | 0.0208 | 0.4319 | 0.0179 | 0.3706 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | 81WOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CM1 | CB1 | XCPF1 | YCPF1 | CNF2 | CM2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.83 | -0.01 | 0.0270 | -0.0025 | 0.0669 | -0.0926 | 2.4741 | 1.1780 | 0.0210 | 0.4375 | 0.0179 | 0.3714 |
| 48 | 35.04 | 0.01 | 0.1253 | -0.0005 | 0.1186 | -0.0040 | 0.9472 | 1.1660 | 0.0194 | 0.4326 | 0.0167 | 0.3710 |
| 49 | 35.31 | -0.02 | 0.0374 | -0.0002 | 0.0747 | -0.0053 | 1.9947 | 1.1721 | 0.0208 | 0.4337 | 0.0178 | 0.3700 |
| 50 | 35.57 | -0.01 | 0.0458 | 0.0001 | 0.0831 | 0.0022 | 1.8162 | 1.1798 | 0.0200 | 0.4363 | 0.0170 | 0.3698 |
| 51 | 35.82 | -0.01 | 0.0737 | 0.0013 | 0.0916 | 0.0177 | 1.2432 | 1.1826 | 0.0187 | 0.4385 | 0.0158 | 0.3708 |
| 52 | 36.05 | -0.03 | 0.0220 | 0.0010 | 0.0673 | 0.0455 | 3.0545 | 1.1850 | 0.0197 | 0.4392 | 0.0167 | 0.3707 |
| 53 | 36.30 | -0.02 | 0.0560 | 0.0022 | 0.0835 | 0.0394 | 1.4919 | 1.1853 | 0.0182 | 0.4376 | 0.0154 | 0.3692 |
| 54 | 36.54 | -0.02 | 0.0785 | 0.0032 | 0.0983 | 0.0408 | 1.2526 | 1.1892 | 0.0167 | 0.4394 | 0.0141 | 0.3695 |
| 55 | 36.78 | -0.04 | 0.0179 | 0.0022 | 0.0616 | 0.1230 | 3.4358 | 1.1981 | 0.0168 | 0.4427 | 0.0140 | 0.3695 |
| 56 | 37.02 | -0.02 | 0.0647 | 0.0043 | 0.0866 | 0.0666 | 1.3390 | 1.1958 | 0.0149 | 0.4424 | 0.0125 | 0.3700 |
| 57 | 37.27 | -0.03 | 0.0335 | 0.0038 | 0.0660 | 0.1135 | 1.9672 | 1.2160 | 0.0153 | 0.4492 | 0.0126 | 0.3694 |
| 58 | 37.51 | -0.02 | 0.0506 | 0.0061 | 0.0770 | 0.1208 | 1.5228 | 1.2110 | 0.0141 | 0.4488 | 0.0117 | 0.3706 |
| 59 | 37.76 | -0.03 | 0.0268 | 0.0055 | 0.0631 | 0.2053 | 2.3507 | 1.2213 | 0.0147 | 0.4506 | 0.0121 | 0.3689 |
| 60 | 37.99 | -0.03 | 0.0502 | 0.0066 | 0.0711 | 0.1318 | 1.4172 | 1.2229 | 0.0150 | 0.4504 | 0.0123 | 0.3683 |
| 61 | 38.21 | -0.03 | 0.0198 | 0.0048 | 0.0533 | 0.2425 | 2.6969 | 1.2355 | 0.0148 | 0.4555 | 0.0120 | 0.3686 |
| 62 | 38.46 | -0.05 | 0.0460 | 0.0081 | 0.0664 | 0.1765 | 1.4444 | 1.2370 | 0.0141 | 0.4541 | 0.0114 | 0.3671 |
| 63 | 38.68 | -0.04 | 0.0146 | 0.0034 | 0.0501 | 0.2330 | 3.4247 | 1.2394 | 0.0150 | 0.4549 | 0.0121 | 0.3670 |
| 64 | 38.96 | -0.03 | 0.0361 | 0.0062 | 0.0617 | 0.1718 | 1.7064 | 1.2407 | 0.0148 | 0.4549 | 0.0119 | 0.3666 |
| 65 | 39.18 | -0.05 | 0.0384 | 0.0062 | 0.0619 | 0.1615 | 1.6094 | 1.2520 | 0.0159 | 0.4575 | 0.0127 | 0.3654 |
| 66 | 39.42 | -0.04 | -0.0054 | 0.0016 | 0.0338 | -0.2964 | -6.2593 | 1.2605 | 0.0185 | 0.4588 | 0.0149 | 0.3639 |
| 67 | 39.64 | -0.04 | 0.0017 | 0.0021 | 0.0416 | 1.2358 | 24.4118 | 1.2619 | 0.0180 | 0.4594 | 0.0143 | 0.3648 |
| 68 | 39.83 | -0.04 | -0.0024 | -0.0006 | 0.0397 | 0.2501 | -16.5417 | 1.2618 | 0.0187 | 0.4579 | 0.0148 | 0.3629 |
| 69 | 40.05 | -0.02 | -0.0013 | 0.0007 | 0.0385 | -0.5387 | -29.6154 | 1.2784 | 0.0184 | 0.4633 | 0.0144 | 0.3624 |
| 70 | 40.25 | -0.05 | -0.0110 | 0.0002 | 0.0330 | -0.0182 | -3.0000 | 1.2820 | 0.0207 | 0.4623 | 0.0162 | 0.3606 |
| 71 | 40.46 | -0.05 | -0.0103 | 0.0006 | 0.0272 | -0.0533 | -2.6408 | 1.3048 | 0.0221 | 0.4717 | 0.0170 | 0.3615 |
| 72 | 40.66 | -0.03 | -0.0183 | -0.0033 | 0.0283 | 0.1804 | -1.5464 | 1.2873 | 0.0212 | 0.4647 | 0.0165 | 0.3610 |
| 73 | 40.88 | -0.05 | -0.0160 | -0.0021 | 0.0282 | 0.1313 | -1.7625 | 1.3050 | 0.0216 | 0.4702 | 0.0166 | 0.3603 |
| 74 | 41.09 | -0.04 | -0.0202 | -0.0027 | 0.0242 | 0.1337 | -1.1980 | 1.3086 | 0.0227 | 0.4716 | 0.0174 | 0.3604 |
| 75 | 41.28 | -0.04 | -0.0402 | -0.0050 | 0.0179 | 0.1244 | -0.4453 | 1.3023 | 0.0251 | 0.4666 | 0.0193 | 0.3583 |
| 76 | 41.51 | -0.02 | -0.0295 | -0.0024 | 0.0149 | 0.0814 | -0.5051 | 1.3276 | 0.0251 | 0.4773 | 0.0189 | 0.3595 |
| 77 | 41.70 | -0.04 | -0.0285 | -0.0029 | 0.0164 | 0.1018 | -0.5754 | 1.3275 | 0.0267 | 0.4753 | 0.0201 | 0.3580 |
| 78 | 41.90 | -0.04 | -0.0475 | -0.0068 | 0.0114 | 0.1435 | -0.2405 | 1.3341 | 0.0249 | 0.4763 | 0.0187 | 0.3570 |
| 79 | 42.10 | -0.05 | -0.0496 | -0.0066 | 0.0097 | 0.1334 | -0.1960 | 1.3378 | 0.0258 | 0.4732 | 0.0193 | 0.3574 |
| 80 | 42.29 | -0.07 | -0.0439 | -0.0058 | 0.0099 | 0.1325 | -0.2260 | 1.3470 | 0.0268 | 0.4815 | 0.0199 | 0.3575 |
| 81 | 42.49 | -0.05 | -0.0416 | -0.0059 | 0.0102 | 0.1422 | -0.2458 | 1.3495 | 0.0273 | 0.4817 | 0.0203 | 0.3570 |
| 82 | 42.68 | -0.06 | -0.0394 | -0.0045 | 0.0106 | 0.1143 | -0.2690 | 1.3416 | 0.0295 | 0.4751 | 0.0220 | 0.3541 |
| 83 | 42.86 | -0.07 | -0.0278 | -0.0036 | 0.0105 | 0.1295 | -0.3777 | 1.3519 | 0.0296 | 0.4770 | 0.0219 | 0.3528 |
| 84 | 43.06 | -0.06 | -0.0117 | -0.0004 | 0.0196 | 0.0342 | -1.6752 | 1.3438 | 0.0283 | 0.4695 | 0.0211 | 0.3494 |
| 85 | 43.22 | -0.06 | -0.0809 | -0.0100 | -0.0104 | 0.1238 | 0.1287 | 1.3446 | 0.0299 | 0.4710 | 0.0223 | 0.3503 |
| 86 | 43.39 | -0.05 | -0.0299 | -0.0025 | 0.0074 | 0.0836 | -0.2475 | 1.3426 | 0.0262 | 0.4666 | 0.0195 | 0.3475 |
| 87 | 43.59 | -0.05 | 0.0021 | 0.0016 | 0.0203 | 0.7622 | 9.6667 | 1.3440 | 0.0260 | 0.4662 | 0.0194 | 0.3469 |
| 88 | 43.77 | -0.06 | -0.0506 | -0.0059 | 0.0063 | 0.1169 | -0.1248 | 1.3601 | 0.0281 | 0.4752 | 0.0207 | 0.3494 |
| 89 | 43.96 | -0.06 | -0.0300 | -0.0027 | 0.0084 | 0.0900 | -0.2800 | 1.3530 | 0.0259 | 0.4684 | 0.0192 | 0.3462 |
| 90 | 44.12 | -0.04 | 0.0301 | 0.0039 | 0.0286 | 0.1296 | 0.9502 | 1.3375 | 0.0213 | 0.4597 | 0.0160 | 0.3437 |
| 91 | 44.30 | -0.06 | -0.0111 | 0.0002 | 0.0143 | -0.0190 | -1.2983 | 1.3474 | 0.0233 | 0.4617 | 0.0171 | 0.3441 |
| 92 | 44.50 | -0.06 | 0.0334 | 0.0052 | 0.0292 | 0.1558 | 0.8743 | 1.3455 | 0.0195 | 0.4618 | 0.0145 | 0.3432 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | 81%OF1S | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.68 | -0.07 | -0.0299 | -0.0026 | 0.0069 | 0.0870 | -0.2308 | 1.3677 | 0.0235 | 0.4720 | 0.0172 | 0.3451 |
| 94 | 44.86 | -0.07 | -0.0332 | -0.0023 | 0.0051 | 0.0693 | -0.1536 | 1.3689 | 0.0213 | 0.4635 | 0.0158 | 0.3436 |
| 95 | 45.05 | -0.06 | 0.0397 | 0.0057 | 0.0354 | 0.1436 | 0.8917 | 1.3393 | 0.0167 | 0.4563 | 0.0125 | 0.3407 |
| 96 | 45.23 | -0.06 | 0.0577 | 0.0085 | 0.0408 | 0.1476 | 0.7066 | 1.3159 | 0.0147 | 0.4439 | 0.0112 | 0.3374 |
| 97 | 45.40 | -0.04 | 0.0703 | 0.0097 | 0.0523 | 0.1382 | 0.7436 | 1.3122 | 0.0141 | 0.4420 | 0.0108 | 0.3369 |
| 98 | 45.59 | -0.08 | -0.1180 | -0.0131 | -0.0332 | 0.1112 | 0.2816 | 1.3406 | 0.0198 | 0.4565 | 0.0148 | 0.3405 |
| 99 | 45.77 | -0.07 | -0.0359 | -0.0032 | -0.0017 | 0.0892 | 0.0474 | 1.3330 | 0.0192 | 0.4533 | 0.0144 | 0.3400 |
| 100 | 45.95 | -0.06 | -0.0854 | -0.0078 | -0.0161 | 0.0915 | 0.1887 | 1.3129 | 0.0177 | 0.4428 | 0.0135 | 0.3373 |
| 101 | 46.11 | -0.08 | -0.1169 | -0.0122 | -0.0335 | 0.1045 | 0.2868 | 1.3202 | 0.0196 | 0.4487 | 0.0149 | 0.3398 |
| 102 | 46.29 | -0.05 | -0.0144 | 0.0010 | 0.0111 | -0.0695 | -0.7708 | 1.3112 | 0.0134 | 0.4405 | 0.0102 | 0.3360 |
| 103 | 46.47 | -0.06 | -0.0797 | -0.0081 | -0.0156 | 0.1018 | 0.1960 | 1.3211 | 0.0144 | 0.4475 | 0.0109 | 0.3388 |
| 104 | 46.65 | -0.07 | -0.1323 | -0.0150 | -0.0427 | 0.1136 | 0.3225 | 1.2982 | 0.0143 | 0.4380 | 0.0110 | 0.3374 |
| 105 | 46.81 | -0.07 | -0.1409 | -0.0203 | -0.0458 | 0.1443 | 0.3248 | 1.3039 | 0.0132 | 0.4376 | 0.0102 | 0.3364 |
| 106 | 46.99 | -0.06 | -0.1454 | -0.0224 | -0.0456 | 0.1543 | 0.3134 | 1.2848 | 0.0103 | 0.4305 | 0.0080 | 0.3351 |
| 107 | 47.17 | -0.07 | -0.1471 | -0.0264 | -0.0468 | 0.1798 | 0.3179 | 1.2942 | 0.0080 | 0.4350 | 0.0062 | 0.3361 |
| 108 | 47.35 | -0.08 | -0.1094 | -0.0222 | -0.0306 | 0.2032 | 0.2800 | 1.2780 | 0.0059 | 0.4269 | 0.0046 | 0.3341 |
| 109 | 47.50 | -0.06 | -0.1033 | -0.0255 | -0.0299 | 0.2472 | 0.2897 | 1.2490 | 0.0043 | 0.4149 | 0.0034 | 0.3322 |
| 110 | 47.67 | -0.07 | -0.0858 | -0.0226 | -0.0217 | 0.2638 | 0.2532 | 1.2339 | 0.0037 | 0.4070 | 0.0030 | 0.3298 |
| 111 | 47.87 | -0.06 | -0.0149 | -0.0161 | 0.0087 | 1.0810 | -0.5839 | 1.1542 | -0.0004 | 0.3731 | -0.0003 | 0.3232 |
| 112 | 48.04 | -0.06 | -0.0241 | -0.0116 | 0.0043 | 0.4815 | -0.1784 | 1.1159 | -0.0007 | 0.3601 | -0.0006 | 0.3227 |
| 113 | 48.19 | -0.07 | -0.0164 | -0.0120 | 0.0086 | 0.7320 | -0.5244 | 1.1223 | -0.0011 | 0.3632 | -0.0010 | 0.3237 |
| 114 | 48.38 | -0.07 | -0.0066 | -0.0060 | 0.0105 | 0.9095 | -1.5909 | 1.1119 | -0.0001 | 0.3603 | -0.0001 | 0.3241 |
| 115 | 48.55 | -0.06 | -0.0114 | -0.0042 | 0.0102 | 0.3666 | -0.8947 | 1.0965 | 0.0003 | 0.3540 | 0.0003 | 0.3229 |
| 116 | 48.70 | -0.05 | 0.0050 | -0.0029 | 0.0186 | -0.5802 | 3.7250 | 1.0991 | -0.0002 | 0.3552 | -0.0002 | 0.3232 |
| 117 | 48.89 | -0.05 | 0.0141 | -0.0011 | 0.0203 | -0.0780 | 1.4397 | 1.1043 | -0.0007 | 0.3595 | -0.0006 | 0.3256 |
| 118 | 49.04 | -0.05 | 0.0016 | 0.0022 | 0.0145 | 1.3755 | 9.0625 | 1.0695 | 0.0023 | 0.3435 | 0.0022 | 0.3212 |
| 119 | 49.20 | -0.05 | -0.0028 | 0.0017 | 0.0119 | -0.6074 | -4.2500 | 1.0341 | 0.0028 | 0.3381 | 0.0027 | 0.3208 |
| 120 | 49.38 | -0.03 | -0.0193 | 0.0022 | 0.0028 | -0.1140 | -0.1451 | 1.0411 | 0.0037 | 0.3351 | 0.0036 | 0.3219 |
| 121 | 49.56 | -0.05 | -0.0095 | 0.0033 | 0.0079 | -0.3475 | -0.8316 | 1.0578 | 0.0028 | 0.3415 | 0.0027 | 0.3229 |
| 122 | 49.75 | -0.03 | -0.0140 | 0.0032 | 0.0065 | -0.2257 | -0.4643 | 1.0642 | 0.0024 | 0.3446 | 0.0023 | 0.3238 |
| 123 | 49.92 | -0.02 | -0.0263 | 0.0026 | 0.0016 | -0.0949 | -0.0508 | 1.0269 | 0.0052 | 0.3289 | 0.0051 | 0.3203 |
| 124 | 50.09 | -0.01 | -0.0477 | 0.0008 | -0.0054 | -0.0168 | 0.1134 | 1.0018 | 0.0067 | 0.3209 | 0.0067 | 0.3203 |
| 125 | 50.26 | -0.02 | -0.0298 | 0.0022 | 0.0021 | -0.0739 | -0.0705 | 1.0303 | 0.0050 | 0.3319 | 0.0049 | 0.3222 |
| 126 | 50.41 | -0.01 | -0.0446 | 0.0008 | -0.0031 | -0.0180 | 0.0697 | 1.0037 | 0.0071 | 0.3241 | 0.0071 | 0.3229 |
| 127 | 50.61 | -0.02 | -0.0503 | 0.0015 | -0.0051 | -0.0299 | 0.1016 | 1.0124 | 0.0065 | 0.3266 | 0.0064 | 0.3228 |
| 128 | 50.59 | -0.03 | -0.0448 | 0.0008 | -0.0016 | -0.0179 | 0.0358 | 1.0111 | 0.0061 | 0.3280 | 0.0060 | 0.3244 |
| 129 | 50.94 | -0.01 | -0.0504 | 0.0010 | -0.0042 | -0.0139 | 0.0535 | 1.0085 | 0.0063 | 0.3267 | 0.0063 | 0.3239 |
| 130 | 51.10 | -0.00 | -0.0391 | 0.0010 | 0.0005 | -0.0256 | -0.0128 | 1.0189 | 0.0055 | 0.3306 | 0.0054 | 0.3245 |
| 131 | 51.26 | 0.00 | -0.0235 | 0.0016 | 0.0073 | -0.0681 | -0.3106 | 1.0176 | 0.0055 | 0.3293 | 0.0054 | 0.3236 |
| 132 | 51.43 | -0.00 | -0.0235 | 0.0015 | 0.0078 | -0.0639 | -0.3319 | 1.0274 | 0.0050 | 0.3359 | 0.0049 | 0.3270 |
| 133 | 51.60 | 0.01 | -0.0381 | 0.0006 | 0.0021 | -0.0158 | -0.0551 | 1.0145 | 0.0056 | 0.3298 | 0.0055 | 0.3251 |
| 134 | 51.77 | 0.01 | -0.0041 | 0.0026 | 0.0125 | -0.6344 | -3.0488 | 1.0366 | 0.0032 | 0.3402 | 0.0031 | 0.3282 |
| 135 | 51.94 | -0.00 | 0.0448 | 0.0024 | 0.0292 | 0.0537 | 0.6532 | 1.0665 | 0.0015 | 0.3486 | 0.0014 | 0.3269 |
| 136 | 52.11 | -0.00 | 0.0285 | 0.0037 | 0.0257 | 0.1299 | 0.9018 | 1.0639 | 0.0016 | 0.3489 | 0.0015 | 0.3280 |
| 137 | 52.27 | 0.00 | 0.0443 | 0.0015 | 0.0305 | 0.0311 | 0.6128 | 1.0777 | 0.0011 | 0.3548 | 0.0010 | 0.3292 |
| 138 | 52.45 | -0.01 | 0.0452 | 0.0018 | 0.0272 | 0.0399 | 0.6031 | 1.0751 | 0.0012 | 0.3541 | 0.0011 | 0.3294 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

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SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

TEST PART MACH RX10-6 PHI CONF L DEL1 DEL2 DEL3 DEL4 TRANSITION
7 175 1.10 1.7 0.0 81WOF15 0.0 0 -10 0 -10 UNKNOWN

| POINT | ALPHA | BETA | CNF1 | CH1 | CB1 | XCPF1 | YCPF1 | CNF2 | CH2 | CB2 | XCPF2 | YCPF2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.60 | -0.01 | 0.0417 | 0.0006 | 0.0277 | 0.0144 | 0.6659 | 1.0672 | 0.0026 | 0.3520 | 0.0024 | 0.3299 |
| 140 | 52.76 | -0.01 | 0.0359 | 0.0012 | 0.0251 | 0.0334 | 0.6992 | 1.0733 | 0.0022 | 0.3527 | 0.0021 | 0.3286 |
| 141 | 52.94 | -0.02 | 0.0279 | 0.0012 | 0.0233 | 0.0430 | 0.5351 | 1.0832 | 0.0022 | 0.3592 | 0.0020 | 0.3316 |
| 142 | 53.11 | -0.02 | 0.0338 | 0.0014 | 0.0240 | 0.0414 | 0.7101 | 1.0893 | 0.0021 | 0.3615 | 0.0019 | 0.3319 |
| 143 | 53.26 | -0.01 | 0.0327 | 0.0010 | 0.0233 | 0.0306 | 0.7125 | 1.0893 | 0.0024 | 0.3610 | 0.0022 | 0.3314 |
| 144 | 53.43 | -0.02 | 0.0293 | 0.0010 | 0.0225 | 0.0341 | 0.7679 | 1.0941 | 0.0026 | 0.3641 | 0.0024 | 0.3328 |
| 145 | 53.59 | -0.02 | 0.0260 | 0.0008 | 0.0206 | 0.0308 | 0.7923 | 1.0873 | 0.0027 | 0.3611 | 0.0025 | 0.3321 |
| 146 | 53.74 | -0.01 | 0.0328 | 0.0003 | 0.0243 | 0.0091 | 0.7409 | 1.0886 | 0.0025 | 0.3623 | 0.0023 | 0.3328 |
| 147 | 53.92 | -0.03 | 0.0169 | 0.0006 | 0.0176 | 0.0355 | 1.0414 | 1.0896 | 0.0029 | 0.3624 | 0.0027 | 0.3326 |
| 148 | 54.06 | -0.02 | 0.0216 | 0.0010 | 0.0182 | 0.0463 | 0.8426 | 1.1038 | 0.0020 | 0.3670 | 0.0018 | 0.3325 |
| 149 | 54.19 | -0.03 | 0.0259 | 0.0 | 0.0226 | 0.0 | 0.9726 | 1.0906 | 0.0027 | 0.3607 | 0.0025 | 0.3308 |
| 150 | 54.35 | -0.04 | 0.0123 | 0.0005 | 0.0172 | 0.0407 | 1.3984 | 1.1035 | 0.0019 | 0.3676 | 0.0017 | 0.3331 |
| 151 | 54.51 | -0.06 | 0.0193 | 0.0001 | 0.0189 | 0.0052 | 0.9793 | 1.1097 | 0.0013 | 0.3714 | 0.0012 | 0.3347 |
| 152 | 35.23 | 19.86 | 0.0054 | 0.0009 | 0.0140 | 0.1667 | 2.5926 | 1.1045 | 0.0015 | 0.3684 | 0.0014 | 0.3335 |
| 153 | 54.82 | -0.04 | 0.0190 | 0.0005 | 0.0159 | 0.0500 | 1.5900 | 1.1108 | 0.0015 | 0.3702 | 0.0014 | 0.3332 |
| 154 | 54.97 | -0.04 | 0.0168 | 0.0001 | 0.0197 | 0.0060 | 1.1726 | 1.1174 | 0.0011 | 0.3732 | 0.0010 | 0.3340 |
| 155 | 55.11 | -0.06 | 0.0042 | 0.0006 | 0.0143 | 0.1429 | 3.4048 | 1.1057 | 0.0013 | 0.3691 | 0.0012 | 0.3329 |
| 156 | 55.28 | -0.06 | -0.0018 | 0.0011 | 0.0138 | -0.6114 | -7.6667 | 1.1172 | 0.0005 | 0.3724 | 0.0004 | 0.3333 |
| 157 | 55.47 | 0.13 | 0.0005 | 0.0010 | 0.0150 | 2.0008 | 30.0000 | 1.1212 | 0.0 | 0.3742 | 0.0 | 0.3337 |
| 158 | 55.58 | -0.03 | -0.0030 | 0.0018 | 0.0138 | -0.6002 | -4.6000 | 1.1279 | -0.0005 | 0.3783 | -0.0004 | 0.3354 |
| 159 | 55.77 | -0.07 | -0.0020 | 0.0012 | 0.0153 | -0.6002 | -7.6500 | 1.1266 | -0.0005 | 0.3771 | -0.0004 | 0.3347 |
| 160 | 55.93 | -0.09 | -0.0065 | 0.0014 | 0.0128 | -0.2155 | -1.9692 | 1.1230 | -0.0007 | 0.3760 | -0.0006 | 0.3348 |
| 161 | 56.11 | -0.05 | -0.0100 | 0.0011 | 0.0119 | -0.1100 | -1.1900 | 1.1243 | -0.0009 | 0.3766 | -0.0008 | 0.3349 |
| 162 | 56.26 | -0.10 | -0.0100 | 0.0019 | 0.0115 | -0.1901 | -1.1500 | 1.1269 | -0.0015 | 0.3800 | -0.0013 | 0.3372 |
| 163 | 56.42 | -0.11 | -0.0101 | 0.0021 | 0.0125 | -0.2080 | -1.2376 | 1.1335 | -0.0020 | 0.3820 | -0.0018 | 0.3378 |
| 164 | 56.60 | -0.10 | -0.0264 | 0.0019 | 0.0077 | -0.0720 | -0.2917 | 1.1428 | -0.0030 | 0.3859 | -0.0026 | 0.3377 |
| 165 | 56.76 | -0.08 | -0.0312 | 0.0030 | 0.0073 | -0.0962 | -0.2340 | 1.1480 | -0.0032 | 0.3884 | -0.0028 | 0.3383 |
| 166 | 56.90 | -0.08 | -0.0290 | 0.0029 | 0.0086 | -0.1000 | -0.2366 | 1.1322 | -0.0027 | 0.3810 | -0.0024 | 0.3365 |
| 167 | 57.03 | -0.11 | -0.0349 | 0.0032 | 0.0070 | -0.0917 | -0.2006 | 1.1230 | -0.0024 | 0.3765 | -0.0021 | 0.3352 |
| 168 | 57.20 | -0.08 | -0.0304 | 0.0039 | 0.0091 | -0.1283 | -0.2993 | 1.1280 | -0.0021 | 0.3778 | -0.0019 | 0.3349 |
| 169 | 57.33 | -0.09 | -0.0411 | 0.0033 | 0.0069 | -0.0805 | -0.1681 | 1.1238 | -0.0026 | 0.3766 | -0.0023 | 0.3351 |
| 170 | 57.49 | -0.10 | -0.0364 | 0.0034 | 0.0095 | -0.0934 | -0.2335 | 1.1331 | -0.0032 | 0.3835 | -0.0028 | 0.3384 |
| 171 | 57.62 | -0.09 | -0.0364 | 0.0030 | 0.0089 | -0.0825 | -0.2445 | 1.1371 | -0.0036 | 0.3838 | -0.0032 | 0.3375 |
| 172 | 57.79 | -0.10 | -0.0329 | 0.0031 | 0.0099 | -0.0943 | -0.2979 | 1.1490 | -0.0045 | 0.3905 | -0.0039 | 0.3398 |
| 173 | 57.93 | -0.06 | -0.0377 | 0.0033 | 0.0093 | -0.0876 | -0.2467 | 1.1332 | -0.0038 | 0.3824 | -0.0034 | 0.3374 |
| 174 | 58.07 | -0.07 | -0.0495 | 0.0024 | 0.0069 | -0.0496 | -0.1397 | 1.1239 | -0.0035 | 0.3795 | -0.0031 | 0.3376 |
| 175 | 58.21 | -0.11 | -0.0427 | 0.0030 | 0.0093 | -0.0705 | -0.2183 | 1.1396 | -0.0045 | 0.3858 | -0.0040 | 0.3385 |
| 176 | 58.37 | -0.07 | -0.0392 | 0.0017 | 0.0116 | -0.0434 | -0.2959 | 1.1500 | -0.0050 | 0.3904 | -0.0044 | 0.3395 |
| 177 | 58.39 | -0.09 | -0.0465 | 0.0020 | 0.0103 | -0.0431 | -0.2220 | 1.1312 | -0.0038 | 0.3823 | -0.0034 | 0.3379 |
| 178 | 57.51 | -0.11 | -0.0442 | 0.0032 | 0.0098 | -0.0726 | -0.2222 | 1.1200 | -0.0019 | 0.3777 | -0.0017 | 0.3372 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | 81WOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -5.72 | -0.04 | 0.0614 | 9.9999 | -0.0011 | 9.9999 | -0.0179 | -0.7891 | -0.0345 | -0.3557 | 0.0437 | 0.4509 |
| 2 | -5.73 | -0.02 | 0.0613 | 9.9999 | -0.0006 | 9.9999 | -0.0098 | -0.7799 | -0.0343 | -0.3516 | 0.0442 | 0.4509 |
| 3 | -5.72 | -0.04 | 0.0601 | 9.9999 | -0.0003 | 9.9999 | -0.0050 | -0.7902 | -0.0348 | -0.3563 | 0.0440 | 0.4510 |
| 4 | -5.72 | -0.02 | 0.0625 | 9.9999 | -0.0005 | 9.9999 | -0.0080 | -0.7836 | -0.0345 | -0.3529 | 0.0440 | 0.4503 |
| 5 | -5.20 | -0.04 | 0.0577 | 9.9999 | 0.0009 | 9.9999 | 0.0156 | -0.7146 | -0.0326 | -0.3240 | 0.0456 | 0.4534 |
| 6 | -3.28 | -0.03 | 0.0517 | 9.9999 | 0.0023 | 9.9999 | 0.0446 | -0.5898 | -0.0303 | -0.2703 | 0.0515 | 0.4583 |
| 7 | -1.48 | -0.04 | 0.0541 | 9.9999 | 0.0015 | 9.9999 | 0.0278 | -0.4668 | -0.0269 | -0.2125 | 0.0577 | 0.4558 |
| 8 | 0.43 | -0.03 | 0.0588 | 9.9999 | 0.0019 | 9.9999 | 0.0324 | -0.3351 | -0.0225 | -0.1500 | 0.0676 | 0.4476 |
| 9 | 2.32 | -0.04 | 0.0636 | 9.9999 | 0.0 | 9.9999 | 0.0 | -0.2291 | -0.0166 | -0.0985 | 0.0726 | 0.4301 |
| 10 | 4.20 | -0.02 | 0.0614 | 9.9999 | -0.0034 | 9.9999 | -0.0555 | -0.1155 | -0.0075 | -0.0466 | 0.0650 | 0.4029 |
| 11 | 6.12 | -0.04 | 0.0638 | 9.9999 | -0.0050 | 9.9999 | -0.0785 | -0.0164 | 0.0039 | -0.0103 | -0.2379 | 0.6280 |
| 12 | 8.05 | -0.03 | 0.0628 | 9.9999 | -0.0069 | 9.9999 | -0.1100 | 0.0554 | 0.0176 | 0.0233 | 0.3184 | 0.4213 |
| 13 | 9.92 | -0.02 | 0.0652 | 9.9999 | -0.0081 | 9.9999 | -0.1244 | 0.1470 | 0.0318 | 0.0673 | 0.2160 | 0.4578 |
| 14 | 11.88 | -0.04 | 0.0676 | 9.9999 | -0.0084 | 9.9999 | -0.1244 | 0.2484 | 0.0422 | 0.1245 | 0.1698 | 0.5010 |
| 15 | 13.83 | -0.04 | 0.0687 | 9.9999 | -0.0069 | 9.9999 | -0.1006 | 0.3734 | 0.0476 | 0.1869 | 0.1274 | 0.5007 |
| 16 | 15.84 | -0.05 | 0.0595 | 9.9999 | -0.0104 | 9.9999 | -0.1751 | 0.5076 | 0.0498 | 0.2516 | 0.0981 | 0.4957 |
| 17 | 17.87 | -0.04 | 0.0663 | 9.9999 | -0.0057 | 9.9999 | -0.0861 | 0.6088 | 0.0498 | 0.3004 | 0.0818 | 0.4933 |
| 18 | 19.85 | -0.02 | 0.0639 | 9.9999 | -0.0041 | 9.9999 | -0.0643 | 0.6756 | 0.0474 | 0.3331 | 0.0701 | 0.4929 |
| 19 | 21.88 | -0.03 | 0.0663 | 9.9999 | -0.0039 | 9.9999 | -0.0589 | 0.7120 | 0.0451 | 0.3488 | 0.0633 | 0.4899 |
| 20 | 23.92 | -0.04 | 0.0546 | 9.9999 | -0.0058 | 9.9999 | -0.1064 | 0.7725 | 0.0399 | 0.3768 | 0.0516 | 0.4877 |
| 21 | 25.94 | -0.02 | 0.0753 | 9.9999 | 0.0046 | 9.9999 | 0.0612 | 0.8171 | 0.0400 | 0.3942 | 0.0489 | 0.4824 |
| 22 | 28.03 | 0.00 | 0.0764 | 9.9999 | 0.0065 | 9.9999 | 0.0952 | 0.9252 | 0.0395 | 0.3967 | 0.0478 | 0.4807 |
| 23 | 28.19 | 0.01 | 0.0730 | 9.9999 | 0.0049 | 9.9999 | 0.0672 | 0.8335 | 0.0388 | 0.4010 | 0.0465 | 0.4811 |
| 24 | 28.55 | -0.01 | 0.0729 | 9.9999 | 0.0062 | 9.9999 | 0.0852 | 0.8628 | 0.0353 | 0.4128 | 0.0409 | 0.4785 |
| 25 | 28.82 | 0.02 | 0.0822 | 9.9999 | 0.0106 | 9.9999 | 0.1291 | 0.9630 | 0.0371 | 0.4140 | 0.0429 | 0.4798 |
| 26 | 29.13 | 0.00 | 0.0638 | 9.9999 | 0.0018 | 9.9999 | 0.0283 | 0.8762 | 0.0358 | 0.4190 | 0.0408 | 0.4782 |
| 27 | 29.46 | 0.00 | 0.0719 | 9.9999 | 0.0057 | 9.9999 | 0.0794 | 0.9925 | 0.0349 | 0.4273 | 0.0391 | 0.4788 |
| 28 | 29.74 | 0.03 | 0.0882 | 9.9999 | 0.0130 | 9.9999 | 0.1476 | 0.9212 | 0.0349 | 0.4386 | 0.0378 | 0.4761 |
| 29 | 30.03 | 0.03 | 0.0674 | 9.9999 | 0.0030 | 9.9999 | 0.0446 | 0.9116 | 0.0358 | 0.4351 | 0.0392 | 0.4773 |
| 30 | 30.31 | 0.03 | 0.0846 | 9.9999 | 0.0127 | 9.9999 | 0.1503 | 0.9211 | 0.0351 | 0.4382 | 0.0381 | 0.4758 |
| 31 | 30.58 | 0.03 | 0.0778 | 9.9999 | 0.0085 | 9.9999 | 0.1094 | 0.9372 | 0.0348 | 0.4451 | 0.0371 | 0.4750 |
| 32 | 30.86 | 0.01 | 0.0743 | 9.9999 | 0.0068 | 9.9999 | 0.0916 | 0.9822 | 0.0317 | 0.4632 | 0.0322 | 0.4716 |
| 33 | 31.16 | 0.01 | 0.0708 | 9.9999 | 0.0047 | 9.9999 | 0.0665 | 0.9903 | 0.0311 | 0.4646 | 0.0314 | 0.4691 |
| 34 | 31.43 | 0.02 | 0.0743 | 9.9999 | 0.0073 | 9.9999 | 0.0984 | 0.9996 | 0.0309 | 0.4672 | 0.0309 | 0.4673 |
| 35 | 31.70 | -0.00 | 0.0731 | 9.9999 | 0.0076 | 9.9999 | 0.1041 | 1.0241 | 0.0292 | 0.4746 | 0.0286 | 0.4636 |
| 36 | 31.97 | -0.00 | 0.0603 | 9.9999 | 0.0025 | 9.9999 | 0.0415 | 1.0246 | 0.0290 | 0.4733 | 0.0284 | 0.4619 |
| 37 | 32.23 | 0.01 | 0.0661 | 9.9999 | 0.0052 | 9.9999 | 0.0788 | 1.0260 | 0.0289 | 0.4724 | 0.0282 | 0.4604 |
| 38 | 32.51 | -0.00 | 0.0683 | 9.9999 | 0.0082 | 9.9999 | 0.1202 | 1.0366 | 0.0285 | 0.4741 | 0.0275 | 0.4574 |
| 39 | 32.77 | -0.01 | 0.0568 | 9.9999 | 0.0008 | 9.9999 | 0.0141 | 1.0436 | 0.0285 | 0.4753 | 0.0274 | 0.4556 |
| 40 | 33.04 | -0.03 | 0.0601 | 9.9999 | 0.0052 | 9.9999 | 0.0867 | 1.0563 | 0.0277 | 0.4777 | 0.0263 | 0.4522 |
| 41 | 33.29 | 0.00 | 0.0660 | 9.9999 | 0.0061 | 9.9999 | 0.0926 | 1.0732 | 0.0280 | 0.4819 | 0.0261 | 0.4490 |
| 42 | 33.54 | 0.00 | 0.0578 | 9.9999 | 0.0037 | 9.9999 | 0.0641 | 1.0840 | 0.0281 | 0.4836 | 0.0260 | 0.4469 |
| 43 | 33.81 | 0.00 | 0.0531 | 9.9999 | 0.0028 | 9.9999 | 0.0528 | 1.0822 | 0.0290 | 0.4805 | 0.0268 | 0.4449 |
| 44 | 34.06 | -0.01 | 0.0554 | 9.9999 | 0.0030 | 9.9999 | 0.0542 | 1.0877 | 0.0293 | 0.4811 | 0.0270 | 0.4423 |
| 45 | 34.30 | 0.01 | 0.0705 | 9.9999 | 0.0083 | 9.9999 | 0.1179 | 1.1052 | 0.0312 | 0.4831 | 0.0282 | 0.4371 |
| 46 | 34.57 | -0.01 | 0.0542 | 9.9999 | 0.0034 | 9.9999 | 0.0628 | 1.1076 | 0.0314 | 0.4819 | 0.0283 | 0.4351 |

| TEST | PART | MACH | RX10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | 81WOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CA3 | XCPF3 | YCPF3 | CNF4 | CM4 | CA4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 47 | 34.41 | -0.01 | 0.0542 | 9.9999 | 0.0034 | 9.9999 | 0.0628 | 1.1165 | 0.0320 | 0.4821 | 0.0286 | 0.4318 |
| 48 | 35.04 | 0.01 | 0.0518 | 9.9999 | 0.0023 | 9.9999 | 0.0445 | 1.1016 | 0.0334 | 0.4702 | 0.0303 | 0.4268 |
| 49 | 35.31 | -0.02 | 0.0633 | 9.9999 | 0.0082 | 9.9999 | 0.1297 | 1.1254 | 0.0330 | 0.4806 | 0.0293 | 0.4270 |
| 50 | 35.57 | -0.01 | 0.0518 | 9.9999 | 0.0041 | 9.9999 | 0.0793 | 1.1241 | 0.0328 | 0.4766 | 0.0291 | 0.4240 |
| 51 | 35.82 | -0.01 | 0.0599 | 9.9999 | 0.0066 | 9.9999 | 0.1104 | 1.1185 | 0.0334 | 0.4695 | 0.0298 | 0.4197 |
| 52 | 36.05 | -0.03 | 0.0483 | 9.9999 | 0.0029 | 9.9999 | 0.0602 | 1.1185 | 0.0335 | 0.4715 | 0.0299 | 0.4215 |
| 53 | 36.30 | -0.02 | 0.0552 | 9.9999 | 0.0067 | 9.9999 | 0.1216 | 1.1155 | 0.0341 | 0.4665 | 0.0305 | 0.4182 |
| 54 | 36.54 | -0.02 | 0.0494 | 9.9999 | 0.0030 | 9.9999 | 0.0609 | 1.1058 | 0.0322 | 0.4577 | 0.0291 | 0.4139 |
| 55 | 36.78 | -0.04 | 0.0656 | 9.9999 | 0.0098 | 9.9999 | 0.1496 | 1.1245 | 0.0343 | 0.4696 | 0.0305 | 0.4176 |
| 56 | 37.02 | -0.02 | 0.0586 | 9.9999 | 0.0078 | 9.9999 | 0.1333 | 1.1226 | 0.0328 | 0.4648 | 0.0292 | 0.4140 |
| 57 | 37.27 | -0.03 | 0.0506 | 9.9999 | 0.0045 | 9.9999 | 0.0891 | 1.1198 | 0.0334 | 0.4681 | 0.0298 | 0.4180 |
| 58 | 37.51 | -0.02 | 0.0598 | 9.9999 | 0.0075 | 9.9999 | 0.1256 | 1.1205 | 0.0341 | 0.4625 | 0.0304 | 0.4127 |
| 59 | 37.76 | -0.03 | 0.0622 | 9.9999 | 0.0095 | 9.9999 | 0.1530 | 1.1269 | 0.0348 | 0.4674 | 0.0308 | 0.4147 |
| 60 | 37.99 | -0.03 | 0.0471 | 9.9999 | 0.0024 | 9.9999 | 0.0511 | 1.1133 | 0.0338 | 0.4606 | 0.0303 | 0.4137 |
| 61 | 38.21 | -0.03 | 0.0621 | 9.9999 | 0.0100 | 9.9999 | 0.1613 | 1.1305 | 0.0364 | 0.4720 | 0.0322 | 0.4175 |
| 62 | 38.46 | -0.05 | 0.0574 | 9.9999 | 0.0087 | 9.9999 | 0.1518 | 1.1189 | 0.0329 | 0.4579 | 0.0294 | 0.4092 |
| 63 | 38.68 | -0.04 | 0.0621 | 9.9999 | 0.0109 | 9.9999 | 0.1759 | 1.1285 | 0.0348 | 0.4657 | 0.0308 | 0.4127 |
| 64 | 38.96 | -0.03 | 0.0563 | 9.9999 | 0.0077 | 9.9999 | 0.1370 | 1.1149 | 0.0303 | 0.4553 | 0.0272 | 0.4084 |
| 65 | 39.18 | -0.05 | 0.0354 | 9.9999 | 0.0001 | 9.9999 | 0.0029 | 1.1061 | 0.0322 | 0.4530 | 0.0291 | 0.4095 |
| 66 | 39.42 | -0.04 | 0.0632 | 9.9999 | 0.0114 | 9.9999 | 0.1807 | 1.1375 | 0.0326 | 0.4690 | 0.0286 | 0.4123 |
| 67 | 39.64 | -0.04 | 0.0482 | 9.9999 | 0.0052 | 9.9999 | 0.1081 | 1.1269 | 0.0328 | 0.4624 | 0.0291 | 0.4103 |
| 68 | 39.93 | -0.04 | 0.0494 | 9.9999 | 0.0053 | 9.9999 | 0.1075 | 1.1162 | 0.0330 | 0.4563 | 0.0295 | 0.4088 |
| 69 | 40.05 | -0.02 | 0.0516 | 9.9999 | 0.0073 | 9.9999 | 0.1417 | 1.1248 | 0.0315 | 0.4596 | 0.0280 | 0.4086 |
| 70 | 40.25 | -0.05 | 0.0516 | 9.9999 | 0.0068 | 9.9999 | 0.1320 | 1.1373 | 0.0330 | 0.4680 | 0.0290 | 0.4115 |
| 71 | 40.46 | -0.05 | 0.0436 | 9.9999 | 0.0034 | 9.9999 | 0.0782 | 1.1572 | 0.0355 | 0.4796 | 0.0306 | 0.4144 |
| 72 | 40.66 | -0.03 | 0.0621 | 9.9999 | 0.0109 | 9.9999 | 0.1758 | 1.1351 | 0.0293 | 0.4644 | 0.0259 | 0.4091 |
| 73 | 40.98 | -0.05 | 0.0563 | 9.9999 | 0.0086 | 9.9999 | 0.1530 | 1.1323 | 0.0271 | 0.4623 | 0.0240 | 0.4083 |
| 74 | 41.09 | -0.04 | 0.0517 | 9.9999 | 0.0078 | 9.9999 | 0.1512 | 1.1493 | 0.0328 | 0.4713 | 0.0285 | 0.4101 |
| 75 | 41.28 | -0.04 | 0.0320 | 9.9999 | -0.0016 | 9.9999 | -0.0500 | 1.1198 | 0.0258 | 0.4558 | 0.0231 | 0.4070 |
| 76 | 41.51 | -0.02 | 0.0505 | 9.9999 | 0.0077 | 9.9999 | 0.1528 | 1.1800 | 0.0320 | 0.4861 | 0.0271 | 0.4119 |
| 77 | 41.70 | -0.04 | 0.0425 | 9.9999 | 0.0038 | 9.9999 | 0.0496 | 1.1740 | 0.0334 | 0.4834 | 0.0284 | 0.4117 |
| 78 | 41.90 | -0.04 | 0.0551 | 9.9999 | 0.0103 | 9.9999 | 0.1873 | 1.1709 | 0.0289 | 0.4785 | 0.0247 | 0.4087 |
| 79 | 42.10 | -0.05 | 0.0459 | 9.9999 | 0.0059 | 9.9999 | 0.1288 | 1.1580 | 0.0284 | 0.4717 | 0.0246 | 0.4073 |
| 80 | 42.29 | -0.07 | 0.0400 | 9.9999 | 0.0050 | 9.9999 | 0.1250 | 1.1889 | 0.0330 | 0.4878 | 0.0277 | 0.4103 |
| 81 | 42.49 | -0.05 | 0.0448 | 9.9999 | 0.0049 | 9.9999 | 0.1096 | 1.1846 | 0.0311 | 0.4857 | 0.0262 | 0.4100 |
| 82 | 42.68 | -0.06 | 0.0587 | 9.9999 | 0.0115 | 9.9999 | 0.1962 | 1.1874 | 0.0280 | 0.4864 | 0.0236 | 0.4096 |
| 83 | 42.86 | -0.07 | 0.0460 | 9.9999 | 0.0055 | 9.9999 | 0.1199 | 1.2009 | 0.0328 | 0.4940 | 0.0273 | 0.4114 |
| 84 | 43.06 | -0.06 | 0.0518 | 9.9999 | 0.0078 | 9.9999 | 0.1509 | 1.2071 | 0.0312 | 0.4962 | 0.0258 | 0.4111 |
| 85 | 43.22 | -0.06 | 0.0425 | 9.9999 | 0.0061 | 9.9999 | 0.1439 | 1.1678 | 0.0214 | 0.4735 | 0.0184 | 0.4054 |
| 86 | 43.39 | -0.05 | 0.0437 | 9.9999 | 0.0053 | 9.9999 | 0.1216 | 1.2002 | 0.0282 | 0.4911 | 0.0235 | 0.4092 |
| 87 | 43.59 | -0.05 | 0.0472 | 9.9999 | 0.0070 | 9.9999 | 0.1486 | 1.2204 | 0.0329 | 0.5017 | 0.0269 | 0.4111 |
| 88 | 43.77 | -0.06 | 0.0495 | 9.9999 | 0.0081 | 9.9999 | 0.1640 | 1.2049 | 0.0242 | 0.4928 | 0.0201 | 0.4090 |
| 89 | 43.96 | -0.06 | 0.0400 | 9.9999 | 0.0055 | 9.9999 | 0.1375 | 1.2038 | 0.0263 | 0.4916 | 0.0219 | 0.4084 |
| 90 | 44.12 | -0.04 | 0.0566 | 9.9999 | 0.0105 | 9.9999 | 0.1858 | 1.2198 | 0.0292 | 0.5005 | 0.0240 | 0.4103 |
| 91 | 44.30 | -0.06 | 0.0437 | 9.9999 | 0.0062 | 9.9999 | 0.1422 | 1.2181 | 0.0271 | 0.4981 | 0.0223 | 0.4089 |
| 92 | 44.50 | -0.06 | 0.0507 | 9.9999 | 0.0091 | 9.9999 | 0.1798 | 1.2217 | 0.0279 | 0.5000 | 0.0229 | 0.4093 |

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RXI0-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | BIWOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CH3 | CB3 | XCPF3 | YCPF3 | CNF4 | CH4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 93 | 44.68 | -0.07 | 0.0379 | 9.9999 | 0.0025 | 9.9999 | 0.0660 | 1.2091 | 0.0239 | 0.4936 | 0.0198 | 0.4082 |
| 94 | 44.86 | -0.07 | 0.0402 | 9.9999 | 0.0041 | 9.9999 | 0.1020 | 1.1994 | 0.0208 | 0.4872 | 0.0174 | 0.4066 |
| 95 | 45.05 | -0.06 | 0.0438 | 9.9999 | 0.0053 | 9.9999 | 0.1215 | 1.2104 | 0.0211 | 0.4939 | 0.0193 | 0.4081 |
| 96 | 45.23 | -0.06 | 0.0450 | 9.9999 | 0.0063 | 9.9999 | 0.1403 | 1.1997 | 0.0235 | 0.4892 | 0.0199 | 0.4078 |
| 97 | 45.40 | -0.04 | 0.0497 | 9.9999 | 0.0081 | 9.9999 | 0.1633 | 1.1931 | 0.0211 | 0.4844 | 0.0177 | 0.4060 |
| 98 | 45.59 | -0.08 | 0.0426 | 9.9999 | 0.0061 | 9.9999 | 0.1435 | 1.1579 | 0.0117 | 0.4661 | 0.0101 | 0.4025 |
| 99 | 45.77 | -0.07 | 0.0473 | 9.9999 | 0.0074 | 9.9999 | 0.1568 | 1.1691 | 0.0159 | 0.4730 | 0.0136 | 0.4046 |
| 100 | 45.95 | -0.06 | 0.0485 | 9.9999 | 0.0080 | 9.9999 | 0.1653 | 1.1416 | 0.0125 | 0.4607 | 0.0110 | 0.4035 |
| 101 | 46.11 | -0.08 | 0.0450 | 9.9999 | 0.0063 | 9.9999 | 0.1403 | 1.1308 | 0.0104 | 0.4561 | 0.0092 | 0.4033 |
| 102 | 46.29 | -0.05 | 0.0462 | 9.9999 | 0.0069 | 9.9999 | 0.1497 | 1.1787 | 0.0147 | 0.4773 | 0.0125 | 0.4049 |
| 103 | 46.47 | -0.06 | 0.0368 | 9.9999 | 0.0020 | 9.9999 | 0.0543 | 1.1549 | 0.0120 | 0.4662 | 0.0104 | 0.4036 |
| 104 | 46.65 | -0.07 | 0.0475 | 9.9999 | 0.0065 | 9.9999 | 0.1371 | 1.1267 | 0.0099 | 0.4540 | 0.0088 | 0.4029 |
| 105 | 46.81 | -0.07 | 0.0463 | 9.9999 | 0.0060 | 9.9999 | 0.1299 | 1.0851 | 0.0080 | 0.4373 | 0.0074 | 0.4030 |
| 106 | 46.99 | -0.06 | 0.0404 | 9.9999 | 0.0032 | 9.9999 | 0.0792 | 1.0612 | 0.0079 | 0.4272 | 0.0075 | 0.4026 |
| 107 | 47.17 | -0.07 | 0.0463 | 9.9999 | 0.0060 | 9.9999 | 0.1299 | 1.0270 | 0.0059 | 0.4138 | 0.0055 | 0.4029 |
| 108 | 47.35 | -0.08 | 0.0439 | 9.9999 | 0.0044 | 9.9999 | 0.1005 | 1.0330 | 0.0069 | 0.4139 | 0.0067 | 0.4007 |
| 109 | 47.50 | -0.06 | 0.0357 | 9.9999 | 0.0005 | 9.9999 | 0.0140 | 0.9691 | 0.0057 | 0.3877 | 0.0059 | 0.4000 |
| 110 | 47.67 | -0.07 | 0.0497 | 9.9999 | 0.0067 | 9.9999 | 0.1351 | 0.9845 | 0.0067 | 0.3939 | 0.0068 | 0.4001 |
| 111 | 47.87 | -0.06 | 0.0497 | 9.9999 | 0.0067 | 9.9999 | 0.1351 | 0.9448 | 0.0065 | 0.3772 | 0.0069 | 0.3992 |
| 112 | 48.04 | -0.06 | 0.0520 | 9.9999 | 0.0087 | 9.9999 | 0.1676 | 0.9580 | 0.0049 | 0.3968 | 0.0050 | 0.4015 |
| 113 | 48.19 | -0.07 | 0.0403 | 9.9999 | 0.0027 | 9.9999 | 0.0670 | 0.9757 | 0.0055 | 0.3891 | 0.0056 | 0.3988 |
| 114 | 48.38 | -0.07 | 0.0427 | 9.9999 | 0.0038 | 9.9999 | 0.0892 | 1.0092 | 0.0049 | 0.4042 | 0.0049 | 0.4005 |
| 115 | 48.55 | -0.06 | 0.0322 | 9.9999 | -0.0021 | 9.9999 | -0.0652 | 1.0175 | 0.0042 | 0.4072 | 0.0041 | 0.4002 |
| 116 | 48.70 | -0.05 | 0.0427 | 9.9999 | 0.0038 | 9.9999 | 0.0892 | 1.0111 | 0.0037 | 0.4047 | 0.0037 | 0.4002 |
| 117 | 48.89 | -0.05 | 0.0475 | 9.9999 | 0.0056 | 9.9999 | 0.1181 | 1.0178 | 0.0034 | 0.4060 | 0.0033 | 0.3989 |
| 118 | 49.04 | -0.05 | 0.0464 | 9.9999 | 0.0032 | 9.9999 | 0.0691 | 1.0071 | 0.0035 | 0.4018 | 0.0035 | 0.3989 |
| 119 | 49.20 | -0.05 | 0.0452 | 9.9999 | 0.0036 | 9.9999 | 0.0798 | 0.9977 | 0.0037 | 0.3972 | 0.0037 | 0.3981 |
| 120 | 49.38 | -0.03 | 0.0464 | 9.9999 | 0.0041 | 9.9999 | 0.0896 | 1.0181 | 0.0029 | 0.4054 | 0.0028 | 0.3982 |
| 121 | 49.56 | -0.05 | 0.0429 | 9.9999 | 0.0025 | 9.9999 | 0.0584 | 1.0153 | 0.0029 | 0.4033 | 0.0029 | 0.3972 |
| 122 | 49.75 | -0.03 | 0.0428 | 9.9999 | 0.0034 | 9.9999 | 0.0796 | 1.0277 | 0.0022 | 0.4095 | 0.0021 | 0.3985 |
| 123 | 49.92 | -0.02 | 0.0498 | 9.9999 | 0.0067 | 9.9999 | 0.1348 | 0.9936 | 0.0038 | 0.3935 | 0.0038 | 0.3960 |
| 124 | 50.09 | -0.01 | 0.0545 | 9.9999 | 0.0085 | 9.9999 | 0.1562 | 1.0158 | 0.0035 | 0.4037 | 0.0035 | 0.3974 |
| 125 | 50.26 | -0.02 | 0.0452 | 9.9999 | 0.0045 | 9.9999 | 0.0998 | 0.9973 | 0.0035 | 0.3944 | 0.0035 | 0.3956 |
| 126 | 50.41 | -0.01 | 0.0522 | 9.9999 | 0.0088 | 9.9999 | 0.1689 | 1.0082 | 0.0042 | 0.3990 | 0.0042 | 0.3957 |
| 127 | 50.61 | -0.02 | 0.0405 | 9.9999 | 0.0023 | 9.9999 | 0.0568 | 0.9983 | 0.0045 | 0.3951 | 0.0045 | 0.3957 |
| 128 | 50.59 | -0.03 | 0.0499 | 9.9999 | 0.0081 | 9.9999 | 0.1627 | 0.9982 | 0.0046 | 0.3951 | 0.0046 | 0.3958 |
| 129 | 50.94 | -0.01 | 0.0500 | 9.9999 | 0.0067 | 9.9999 | 0.1343 | 1.0160 | 0.0038 | 0.4017 | 0.0037 | 0.3953 |
| 130 | 51.10 | -0.00 | 0.0499 | 9.9999 | 0.0077 | 9.9999 | 0.1546 | 0.9918 | 0.0042 | 0.3921 | 0.0042 | 0.3953 |
| 131 | 51.26 | 0.00 | 0.0547 | 9.9999 | 0.0099 | 9.9999 | 0.1813 | 0.9601 | 0.0061 | 0.3786 | 0.0064 | 0.3943 |
| 132 | 51.43 | -0.00 | 0.0511 | 9.9999 | 0.0101 | 9.9999 | 0.1980 | 0.9690 | 0.0059 | 0.3825 | 0.0060 | 0.3947 |
| 133 | 51.60 | 0.01 | 0.0594 | 9.9999 | 0.0131 | 9.9999 | 0.2209 | 0.9882 | 0.0048 | 0.3906 | 0.0049 | 0.3952 |
| 134 | 51.77 | 0.01 | 0.0594 | 9.9999 | 0.0131 | 9.9999 | 0.2209 | 0.9529 | 0.0059 | 0.3754 | 0.0062 | 0.3939 |
| 135 | 51.94 | -0.00 | 0.0524 | 9.9999 | 0.0097 | 9.9999 | 0.1855 | 0.9042 | 0.0091 | 0.3538 | 0.0103 | 0.3913 |
| 136 | 52.11 | -0.00 | 0.0525 | 9.9999 | 0.0088 | 9.9999 | 0.1679 | 0.9209 | 0.0079 | 0.3618 | 0.0086 | 0.3929 |
| 137 | 52.27 | 0.00 | 0.0525 | 9.9999 | 0.0093 | 9.9999 | 0.1775 | 0.9049 | 0.0094 | 0.3541 | 0.0104 | 0.3913 |
| 138 | 52.45 | -0.01 | 0.0466 | 9.9999 | 0.0070 | 9.9999 | 0.1505 | 0.9062 | 0.0095 | 0.3548 | 0.0105 | 0.3916 |

NAVAL SHIP RESEARCH AND DEVELOPMENT CENTER(NSRDC) 7 BY 10 FOOT TRANSONIC WIND TUNNEL FACILITY

PAGE 3 OF 3
SHEET 4 OF 4

MARTIN MISSILE TAILS EFFECTS DATA

| TEST | PART | MACH | RE10-6 | PHI | CONF | L | DEL1 | DEL2 | DEL3 | DEL4 | TRANSITION |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 175 | 1.10 | 1.7 | 0.0 | BIWOF15 | 0.0 | 0 | -10 | 0 | -10 | UNKNOWN |

| POINT | ALPHA | BETA | CNF3 | CM3 | CB3 | XCPF3 | YCPF3 | CNF4 | CM4 | CB4 | XCPF4 | YCPF4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | 52.60 | -0.01 | 0.0513 | 9.9999 | 0.0097 | 9.9999 | 0.1995 | 0.9104 | 0.0093 | 0.3550 | 0.0102 | 0.3933 |
| 140 | 52.76 | -0.01 | 0.0525 | 9.9999 | 0.0102 | 9.9999 | 0.1947 | 0.9166 | 0.0090 | 0.3601 | 0.0098 | 0.3929 |
| 141 | 52.94 | -0.02 | 0.0432 | 9.9999 | 0.0053 | 9.9999 | 0.1230 | 0.9380 | 0.0079 | 0.3682 | 0.0084 | 0.3925 |
| 142 | 53.11 | -0.02 | 0.0551 | 9.9999 | 0.0100 | 9.9999 | 0.1818 | 0.9345 | 0.0082 | 0.3672 | 0.0088 | 0.3929 |
| 143 | 53.26 | -0.01 | 0.0539 | 9.9999 | 0.0094 | 9.9999 | 0.1747 | 0.9375 | 0.0078 | 0.3689 | 0.0083 | 0.3935 |
| 144 | 53.43 | -0.02 | 0.0528 | 9.9999 | 0.0089 | 9.9999 | 0.1689 | 0.9490 | 0.0075 | 0.3733 | 0.0079 | 0.3933 |
| 145 | 53.59 | -0.02 | 0.0457 | 9.9999 | 0.0064 | 9.9999 | 0.1404 | 0.9364 | 0.0076 | 0.3682 | 0.0081 | 0.3932 |
| 146 | 53.74 | -0.01 | 0.0505 | 9.9999 | 0.0082 | 9.9999 | 0.1627 | 0.9418 | 0.0076 | 0.3701 | 0.0081 | 0.3929 |
| 147 | 53.92 | -0.03 | 0.0601 | 9.9999 | 0.0128 | 9.9999 | 0.2133 | 0.9575 | 0.0071 | 0.3753 | 0.0074 | 0.3930 |
| 148 | 54.06 | -0.02 | 0.0577 | 9.9999 | 0.0126 | 9.9999 | 0.2197 | 0.9573 | 0.0065 | 0.3759 | 0.0068 | 0.3926 |
| 149 | 54.19 | -0.03 | 0.0506 | 9.9999 | 0.0087 | 9.9999 | 0.1723 | 0.9447 | 0.0074 | 0.3706 | 0.0078 | 0.3923 |
| 150 | 54.35 | -0.04 | 0.0587 | 9.9999 | 0.0111 | 9.9999 | 0.1961 | 0.9732 | 0.0059 | 0.3827 | 0.0061 | 0.3932 |
| 151 | 54.51 | -0.06 | 0.0567 | 9.9999 | 0.0116 | 9.9999 | 0.2049 | 0.9713 | 0.0060 | 0.3813 | 0.0062 | 0.3925 |
| 152 | 35.23 | 18.86 | 0.0472 | 9.9999 | 0.0081 | 9.9999 | 0.1295 | 0.9699 | 0.0060 | 0.3802 | 0.0062 | 0.3920 |
| 153 | 54.92 | -0.04 | 0.0484 | 9.9999 | 0.0071 | 9.9999 | 0.1470 | 0.9751 | 0.0055 | 0.3803 | 0.0056 | 0.3900 |
| 154 | 54.97 | -0.04 | 0.0533 | 9.9999 | 0.0085 | 9.9999 | 0.1598 | 0.9721 | 0.0058 | 0.3805 | 0.0060 | 0.3914 |
| 155 | 55.11 | -0.06 | 0.0533 | 9.9999 | 0.0080 | 9.9999 | 0.1504 | 0.9735 | 0.0056 | 0.3806 | 0.0058 | 0.3909 |
| 156 | 55.28 | -0.06 | 0.0510 | 9.9999 | 0.0069 | 9.9999 | 0.1356 | 0.9869 | 0.0051 | 0.3863 | 0.0052 | 0.3914 |
| 157 | 55.47 | 0.13 | 0.0534 | 9.9999 | 0.0080 | 9.9999 | 0.1501 | 0.9855 | 0.0052 | 0.3857 | 0.0053 | 0.3913 |
| 158 | 55.58 | -0.03 | 0.0535 | 9.9999 | 0.0076 | 9.9999 | 0.1423 | 0.9967 | 0.0044 | 0.3898 | 0.0044 | 0.3911 |
| 159 | 55.77 | -0.07 | 0.0606 | 9.9999 | 0.0114 | 9.9999 | 0.1984 | 0.9992 | 0.0047 | 0.3905 | 0.0047 | 0.3908 |
| 160 | 55.93 | -0.09 | 0.0574 | 9.9999 | 0.0075 | 9.9999 | 0.1407 | 0.9958 | 0.0044 | 0.3900 | 0.0044 | 0.3916 |
| 161 | 56.11 | -0.05 | 0.0618 | 9.9999 | 0.0120 | 9.9999 | 0.1945 | 1.0056 | 0.0038 | 0.3926 | 0.0038 | 0.3904 |
| 162 | 56.26 | -0.10 | 0.0556 | 9.9999 | 0.0092 | 9.9999 | 0.1652 | 1.0014 | 0.0040 | 0.3913 | 0.0040 | 0.3907 |
| 163 | 56.42 | -0.11 | 0.0498 | 9.9999 | 0.0063 | 9.9999 | 0.1265 | 1.0071 | 0.0035 | 0.3947 | 0.0035 | 0.3919 |
| 164 | 56.60 | -0.10 | 0.0523 | 9.9999 | 0.0065 | 9.9999 | 0.1245 | 1.0380 | 0.0016 | 0.4077 | 0.0015 | 0.3928 |
| 165 | 56.76 | -0.08 | 0.0534 | 9.9999 | 0.0075 | 9.9999 | 0.1407 | 1.0523 | 0.0002 | 0.4136 | 0.0002 | 0.3931 |
| 166 | 56.90 | -0.08 | 0.0451 | 9.9999 | 0.0045 | 9.9999 | 0.1000 | 1.0352 | 0.0008 | 0.4066 | 0.0008 | 0.3909 |
| 167 | 57.03 | -0.11 | 0.0416 | 9.9999 | 0.0023 | 9.9999 | 0.0554 | 1.0309 | 0.0013 | 0.4043 | 0.0013 | 0.3922 |
| 168 | 57.20 | -0.08 | 0.0572 | 9.9999 | 0.0098 | 9.9999 | 0.1716 | 1.0334 | 0.0010 | 0.4062 | 0.0010 | 0.3911 |
| 169 | 57.33 | -0.09 | 0.0501 | 9.9999 | 0.0059 | 9.9999 | 0.1185 | 1.0439 | 0.0009 | 0.4083 | 0.0009 | 0.3911 |
| 170 | 57.49 | -0.10 | 0.0499 | 9.9999 | 0.0048 | 9.9999 | 0.0984 | 1.0522 | 0.0006 | 0.4113 | 0.0006 | 0.3909 |
| 171 | 57.67 | -0.09 | 0.0513 | 9.9999 | 0.0060 | 9.9999 | 0.1172 | 1.0496 | 0.0004 | 0.4096 | 0.0004 | 0.3903 |
| 172 | 57.79 | -0.10 | 0.0417 | 9.9999 | 0.0019 | 9.9999 | 0.0457 | 1.0569 | -0.0006 | 0.4125 | -0.0006 | 0.3908 |
| 173 | 57.93 | -0.06 | 0.0477 | 9.9999 | 0.0047 | 9.9999 | 0.0987 | 1.0510 | 0.0001 | 0.4087 | 0.0001 | 0.3889 |
| 174 | 58.07 | -0.07 | 0.0477 | 9.9999 | 0.0047 | 9.9999 | 0.0987 | 1.0593 | 0.0001 | 0.4118 | 0.0001 | 0.3888 |
| 175 | 58.21 | -0.11 | 0.0538 | 9.9999 | 0.0071 | 9.9999 | 0.1322 | 1.0447 | -0.0006 | 0.4134 | -0.0006 | 0.3883 |
| 176 | 58.37 | -0.07 | 0.0515 | 9.9999 | 0.0069 | 9.9999 | 0.1342 | 1.0696 | -0.0004 | 0.4135 | -0.0004 | 0.3868 |
| 177 | 58.39 | -0.09 | 0.0491 | 9.9999 | 0.0063 | 9.9999 | 0.1286 | 1.0553 | 0.0001 | 0.4083 | 0.0001 | 0.3869 |
| 178 | 57.51 | -0.11 | 0.0457 | 9.9999 | 0.0031 | 9.9999 | 0.0680 | 1.0385 | 0.0019 | 0.4028 | 0.0018 | 0.3879 |

## Listing of Part Numbers for the Tabulated Data of Test No. 7

| CONF | L | DELI | DEL2 | DEL3 | DEL4 | PHI | TRANSITION | R x $10^{-6}$ | $\alpha$ | $\beta$ | Part Number $M_\infty$ 0.80 | $M_\infty$ 0.90 | $M_\infty$ 1.00 | $M_\infty$ 1.10 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BIWOF23 | 0 | 0 | 0 | 0 | 0 | 0 | Unknown | 1.7 | Vary | 0 | (2) | (5) | (8) | (10) |
| ↓ | | | | | | 45 | | | | | 4 | 6 | 9 | 11 |
| BIWOFII | | | | | | 0 | | | | | (28) | (30) | (33) 34 | (37) |
| ↓ | | | | | | 45 | | | | | 29 | 32 | 35 | 36 |
| BIWOF34 | | | | | | 0 | | | | | (39) | (41) | (44) | (45) |
| ↓ | | | | | | 45 | | | | | 40 | 42 | 43 | 46 |
| BIWOFI4 | | | | | | 0 | | | | | (47) | (50) | (51) | (54) |
| ↓ | | | | | | 45 | | | | | 48 | 49 | 52 | 53 |
| BIWOFI5 | | | | | | 0 | | | | | (55) | (58) | (59) | (62) |
| ↓ | | | | | | 45 | | | | | 56 | 57 | 60 | 61 |
| BIWOFI3 | | | | | | 0 | | | | | (63) | (66) | (67) | (70) |
| ↓ | | | | | | 45 | | | | | 64 | 65 | 68 | 69 |
| BIWOF31 | | | | | | 0 | | | | | (71) | (74) | (75) | (79) |
| ↓ | | ↓ | ↓ | ↓ | ↓ | 45 | | | | | 72 | 73 | 76 | 77 |
| BIWOF0 | | OFF | OFF | OFF | OFF | 0 | | | | | 85 | 86 | 87 | |
| BIWOF31 | | 0 | -10 | 0 | -10 | | | | | | (90) | (91) | (92) | (93) |
| BIWOF23 | | | ↓ | | ↓ | | | | | | (94) | (95) | (96) | (97) |
| BIWOFII | | | | | | | | | | | (98) | (99) | (100) | (101) |
| BIWOFI4 | | | ↓ | | ↓ | | | | | | (102) | (103) | 104 | (105) |
| ↓ | | | -30 | | -30 | | | | | | (106) | (107) | (108) | (109) |
| BIWOFI5 | | | ↓ | | ↓ | | | | | | (110) | (111) | (112) | (113) |
| BIWOFI3 | | | | | | | | | | | (114) | (115) | (116) | (117) |
| BIWOF31 | | | | | | | | | | | (118) | (119) | (120) | (121) |
| BIWOF34 | | | | | | | | | | | (122) | (123) | (124) | (125) |
| BIWOF23 | | | | | | | | | | | (126) | (127) | (128) | (129) |
| BIWOFII | | | ↓ | | ↓ | | | | | | (130) | (131) | (132) | (133) |
| ↓ | | | -20 | | -20 | | | | | | (135) | (136) | (137) | (138) |
| BIWOFI4 | | | ↓ | | ↓ | | | | | | (140) | (141) | (142) | (143) |
| BIWOFI5 | | | ↓ | | ↓ | | | | | | (144) | (145) | (146) | (147) |
| BIWOF23 | | | ↓ | | ↓ | | | | | | (148) | (149) | (150) | (151) |
| BIWOFI3 | | | ↓ | | ↓ | | | | | | (152) | (153) | (154) | (155) |
| BIWOF31 | | | ↓ | | ↓ | | | | | | (156) | (157) | (158) | (159) |
| BIWOF34 | | | ↓ | | ↓ | | | | | | (160) | (161) | (162) | (163) |
| ↓ | | | -10 | | -10 | | | | | | (164) | (165) | (166) | (167) |
| BIWOFI3 | | | ↓ | | ↓ | | | | | | (168) | (169) | (170) | (171) |
| BIWOFI5 | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | (172) | (173) | (174) | (175) |

## NOMENCLATURE

| | |
|---|---|
| A | Streamwise length of beveled portion of fin leading edge, in. (see Fig. 6) |
| ALPHA ($\alpha$) | Model angle of attack, deg |
| AR | Fin aspect ratio, $b^2/S_F$ |
| B | Streamwise length of beveled portion of fin trailing edge, in. (see Fig. 6) |
| BETA ($\beta$) | Model angle of sideslip, deg |
| b | Tail fin span, measured from the root chord to the tip, in. (see Fig. 6) |
| CA | Axial-force coefficient, measured axial force/$q_\infty S$ |
| CAB | Base axial-force coefficient, $(p_\infty - p_b)/q_\infty$ |
| CAF | Forebody axial-force coefficient, CA - CAB |
| CB | Splitter plate tail fin root bending-moment coefficient, fin bending moment/$q_\infty S_F b$ |
| CB1, CB2, CB3, CB4 | Root bending-moment coefficient of tail fins No. 1, 2, 3, and 4, respectively, fin bending moment/$q_\infty S_F b$ |
| CH | Splitter plate tail fin hinge-moment coefficient, hinge moment/$q_\infty S_F C_R$ |
| CH1, CH2, CH3, CH4 | Hinge-moment coefficients of tail fins No. 1, 2, 3, and 4, respectively, fin hinge moment/$q_\infty S_F C_R$ |
| CLL | Rolling-moment coefficient, rolling moment/$q_\infty Sd$ |
| CLM | Pitching-moment coefficient, pitching moment/$q_\infty Sd$ (moment reference point located on centerline at 50 percent of model body length) |
| CLN | Yawing-moment coefficient, yawing moment/$q_\infty Sd$ |
| CN | Normal-force coefficient, normal force/$q_\infty S$ |

| | |
|---|---|
| CNF | Splitter plate tail fin normal-force coefficient, fin normal force/$q_\infty S_F$ |
| CNF1, CNF2, CNF3, CNF4 | Normal-force coefficient of tail fins No. 1, 2, 3, and 4, respectively, fin normal force/$q_\infty S_F$ |
| CONF | Model configuration identification |
| $C_R$ | Tail fin root chord, in. (see Fig. 6) |
| $C_T$ | Tail fin tip chord, in. (see Fig. 6) |
| $C_Y$ | Side-force coefficient, side force/$q_\infty S$ |
| d | Model body maximum diameter, in. (see Fig. 3) |
| DEL1, DEL2, DEL3, DEL4 | Deflection of tail fins No. 1, 2, 3, and 4, respectively, deg |
| L | Distance between model nose and the intersection of the wing leading edge with the body (measured parallel to the body centerline), in. |
| MACH ($M_\infty$) | Nominal free-stream Mach number |
| PART | Data indexing number |
| PHI | Model roll angle, deg |
| POINT | Data indexing number per part number |
| $p_b$ | Average static pressure at model base, psfa |
| $p_\infty$ | Free-stream static pressure, psfa |
| $q_\infty$ | Free-stream dynamic pressure, psf |
| R | Nominal Reynolds number per foot |
| S | Maximum body cross-sectional area, $ft^2$ |
| $S_F$ | Tail fin planform area, $ft^2$ (see Fig. 6) |
| TEST | Test identification number |
| $T_R$ | Tail fin root thickness, in. (see Fig. 6) |

| | |
|---|---|
| TRANSITION | Transition identification |
| X | Distance from fin root chord leading edge to fin hinge line, in. (see Fig. 6) |
| XCP | Missile body center-of-pressure location, CLM/CN |
| XCPF | Splitter plate fin longitudinal center-of-pressure location, CH/CNF |
| XCPF1, XCPF2 XCPF3, XCPF4 | Longitudinal center-of-pressure location of tail fins No. 1, 2, 3, and 4, respectively, hinge moment/fin normal force |
| YCPF | Splitter plate fin lateral center-of-pressure location, CB/CNF |
| YCPF1, YCPF2 YCPF3, YCPF4 | Lateral center-of-pressure location of tail fins No. 1 2, 3, and 4, respectively, root bending moment/fin normal force |
| $\Lambda$ | Tail fin leading-edge sweep angle (see Fig. 6) |
| $\lambda$ | Tail fin taper ratio, $C_T/C_R$ |