

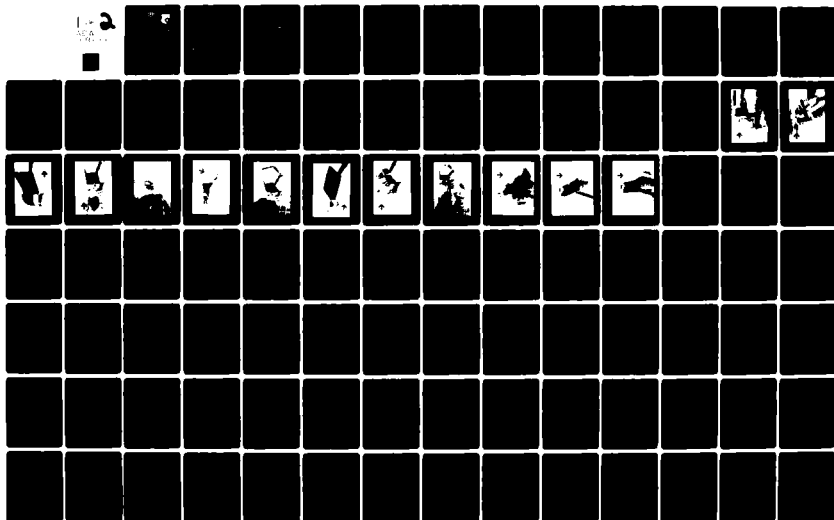
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BOEING MILITARY AIRPLANE CO SEATTLE WA F/G 1/3
ADVANCED EJECTION SEAT FOR HIGH DYNAMIC PRESSURE ESCAPE, WIND T--ETC(U)
AUG 80 J O BULL, D T THER, R F YURCZYK F33615-79-C-3806

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ADVANCED EJECTION SEAT FOR HIGH DYNAMIC PRESSURE ESCAPE WIND TUNNEL TEST REPORT

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BOEING MILITARY AIRPLANE COMPANY
SEATTLE, WASHINGTON 98124

AUGUST 1980

TECHNICAL REPORT AFWAL-TR-80-3084
Final Report for period August 1979 - May 1980

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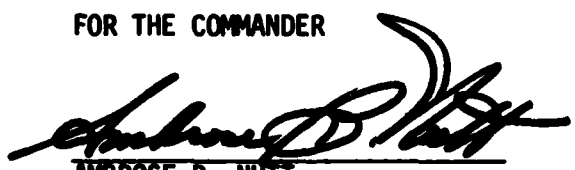
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This technical report has been reviewed and is approved for publication.


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FOR THE COMMANDER


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20. Abstract (Continued)

Preliminary phases of this program have resulted in selection and definition of a windblast-shield, an aft body drag reduction boom, a horizontal stabilizer and a flow diverter. These devices were incorporated into a one-half scale ejection seat/crewmember model and were tested in the AEDC PWT 16-T transonic tunnel. Aerodynamic data derived from these tests are being used in six-degree-of-freedom computer simulations for performance assessments of the ejection seat configurations.

FOREWORD

This report was prepared by The Boeing Military Airplane Company, Advanced Airplane Branch, Seattle, Washington under Air Force Contract F33615-79-C-3406. The work was accomplished under Project 2402, "Vehicle Equipment Technology", Work Unit 24020326 "Advanced Ejection Seat for High Dynamic Pressure Escape" during the period from 15 August 1979 to 20 May 1980. Project Engineer for the contract was Mr. James M. Peters, Air Force Wright Aeronautical Laboratories, Flight Dynamics Laboratory, AFWAL/FIER, Wright-Patterson AFB, Ohio. Mr. David Reichenau, Arnold Engineering Development Center, Tennessee served as Wind Tunnel Test Project Engineer.

Roger F. Yurczyk served as the Program Manager and Mr. John O. Bull as Principal Investigator for the technical work. Mr. Jack J. McLaren provided the wind tunnel model development and test support and Mr. W. Ray Morgan and David T. Ther performed the data analysis work. The authors submitted the report in June 1980.

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LIST OF SYMBOLS

C_A	Axial Force Coefficient ($-C_X$)
C_N	Normal Force Coefficient ($-C_Z$)
C_X or CX	Force Coefficient in Body Axis System, Parallel to but Opposite in Direction to Axial Force Coefficient (See Figure 22) = F_X/qS
C_Z or CZ	Force Coefficient in Body Axis System, Parallel to but Opposite in Direction to Axial Force Coefficient (See Figure 22) = F_Z/qS
C_Y or CY	Side Force Coefficient = F_Y/qS
C_l or CML	Rolling Moment Coefficient about Seat Reference Point = M_l/qSd
C_m or CMM	Pitching Moment Coefficient about Seat Reference Point = M_m/qSd
C_n or CMN	Yawing Moment Coefficient about Seat Reference Point = M_n/qSd
$C_{X_{CG}}$	X-Axis Force Coefficient, Transferred to Seat Center of Gravity = C_X
$C_{Y_{CG}}$	Side Force Coefficient, Transferred to Seat Center of Gravity = C_Y
$C_{Z_{CG}}$	Z-Axis Force Coefficient, Transferred to Seat Center of Gravity = C_Z
$C_{l_{CG}}$	Rolling Moment Coefficient, Transferred to Seat Center of Gravity
$C_{m_{CG}}$	Pitching Moment Coefficient, Transferred to Seat Center of Gravity
$C_{n_{CG}}$	Yawing Moment Coefficient, Transferred to Seat Center of Gravity
d	Model Reference Length, also hydraulic diameter, $\sqrt{4S/\pi}$
F_A	Axial Force ($-F_X$)
F_N	Normal Force ($-F_Z$)
F_X	X-Axis Force in Body Axis System ($-F_A$)
F_Y	Side Force in Body Axis System

LIST OF SYMBOLS (Cont'd)

F_Z	Z-Axis Force in Body Axis System ($-F_N$)
M_l	Rolling Moment about Seat Reference Point
M_m	Pitching Moment about Seat Reference Point
M_n	Yawing Moment about Seat Reference Point
M_{lCG}	Rolling Moment Transferred to Seat Center of Gravity
M_{mCG}	Pitching Moment Transferred to Seat Center of Gravity
M_{nCG}	Yawing Moment Transferred to Seat Center of Gravity
q	Free-Stream Dynamic Pressure, psf
S	Model Reference Area
x	Transfer Distance Along X Axis from SRP to CG
y	Transfer Distance Along Y Axis from SRP to CG
z	Transfer Distance Along Z Axis from SRP to CG
ALPHA (α)	Angle of Attack, degrees
YAW or PSI (ψ)	Angle of Yaw, degrees
BETA (β)	Angle of Sideslip ($-\psi$ in wind tunnel), degrees
SRP	Seat Reference Point
CG	Seat/Crewmember Center of Gravity
M	Free-Stream Mach Number
HPR	Ratio of Pressure at Dummy Crewmembers Head to Free Stream Total Pressure
UC_x	Uncertainty in X-Axis Force Coefficient
UC_z	Uncertainty in Z-Axis Force Coefficient
UC_y	Uncertainty in Side Force Coefficient
UC_m	Uncertainty in Pitching Moment Coefficient
UC_n	Uncertainty in Yawing Moment Coefficient
UC	Uncertainty in Rolling Moment Coefficient

I. INTRODUCTION

Wind Tunnel tests were conducted to evaluate new high dynamic pressure protective devices incorporated into a conventional ejection seat. These tests are part of a development program "Advanced Ejection Seat for High Dynamic Pressure Escape". The objectives of this program are to develop an ejection seat design which will provide safe escape during emergency conditions encountered throughout the performance envelope of an aircraft with speed capability to 687 KEAS (1600 PSF).

Tests were conducted in the Arnold Engineering Development Center 16T wind tunnel to obtain aerodynamic characteristics of various ejection seat configurations with windblast protection, drag reduction, and stabilization devices added to the seat. These data will be used to develop new protective concepts to enhance pilot survivability during escape in a high dynamic pressure environment. Ejection seat computer performance simulations will be used to evaluate the effect of the various devices on seat trajectory and stability and in reducing the acceleration loads on the crewmember during high speed escape.

A total of 12 configurations were tested to evaluate separately and collectively the effects of (1) a wind blast shield, (2) an aft body boom mounted at two positions, (18 and 35 degrees), (3) a horizontal stabilizer attached to the boom, and (4) a fore body flow diverter. These devices were attached to an existing 0.5-scale dummy crew member and ejection seat model, sting mounted from the test section top wall. A description of the basic model and data from previous tests conducted in Tunnel 16T were reported in References 1 through 4.

Data were obtained over an angle-of-attack range of -45 to 75 deg, a yaw angle range of -5 to 30 deg, and Mach numbers of 0.6, 0.9, 1.2, and 1.5. Rocket plume effects were simulated with high pressure cold air for selected configurations.

II. APPARATUS

2.1 TEST FACILITY

The AEDC Propulsion Wind Tunnel (16T) is a variable density, continuous-flow tunnel capable of being operated at Mach numbers from 0.2 to 1.5 and stagnation pressures from 120 to 4000 psfa. The maximum attainable Mach number can vary slightly depending upon the tunnel pressure ratio requirements with a particular test installation. The maximum stagnation pressure attainable is a function of Mach number and available electrical power. The tunnel stagnation temperature can be varied from about 80 to 160 deg F depending upon the cooling water temperature. The tunnel is equipped with a scavenging system which removes combustion products when testing with rocket motors or turbo-engines. The test section is 16 ft square by 40 ft long and enclosed by 60-deg inclined-hole perforated walls of six-percent porosity. Additional information about the tunnel, its capabilities, and operating characteristics is presented in Reference 5.

2.2 TEST ARTICLE

The basic model consisted of a 0.5-scale representation of an F-106 ejection seat, occupied by a 50th percentile crewmember in normal flying clothes and equipment. Figure 1 shows the basic man-seat model details and dimensions. Various protective devices capable of being incorporated into the man-ejection seat model included: (1) addition of a blast shield to cover the crewmembers head and upper torso, (2) addition of a boom attached to the seat back at two different positions, (3) addition of a horizontal stabilizer to the boom, and (4) addition of a flow diverter to the front of the seat (see Figures 2 through 5) various combinations of these devices resulted in twelve (12) test configurations as shown in Figure 6.

The model was sting mounted on a six-component balance. A rocket nozzle was incorporated to permit simulation of rocket plume effects with high pressure cold air supplied through the support sting. The nozzle was cantilevered from the sting adapter so that the balance did not measure the rocket thrust loads. Major dimensions of the nozzle assembly are shown in Figure 7. Additional model details are documented in Reference 6.

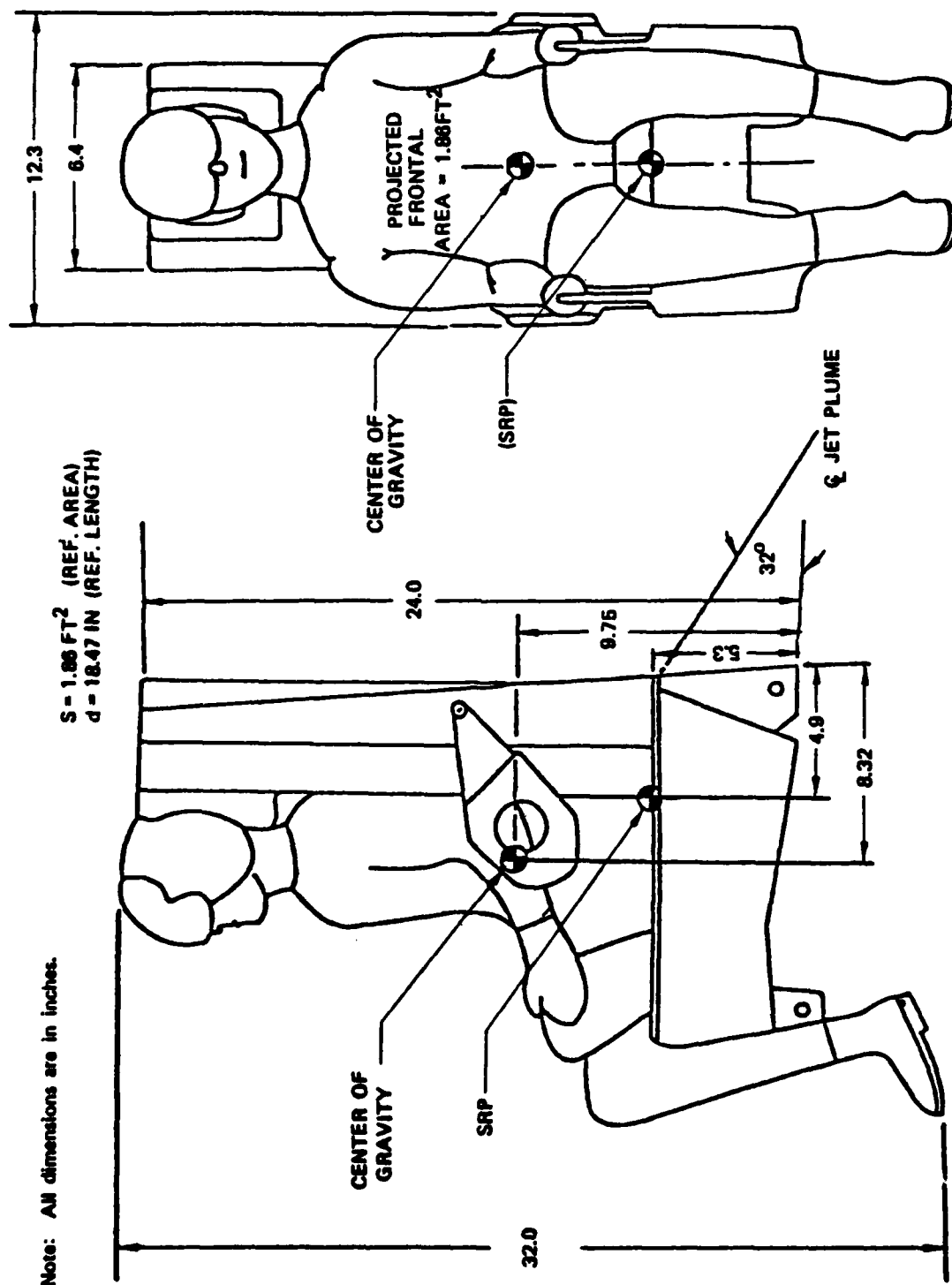


Figure 1. Model Reference Dimensions

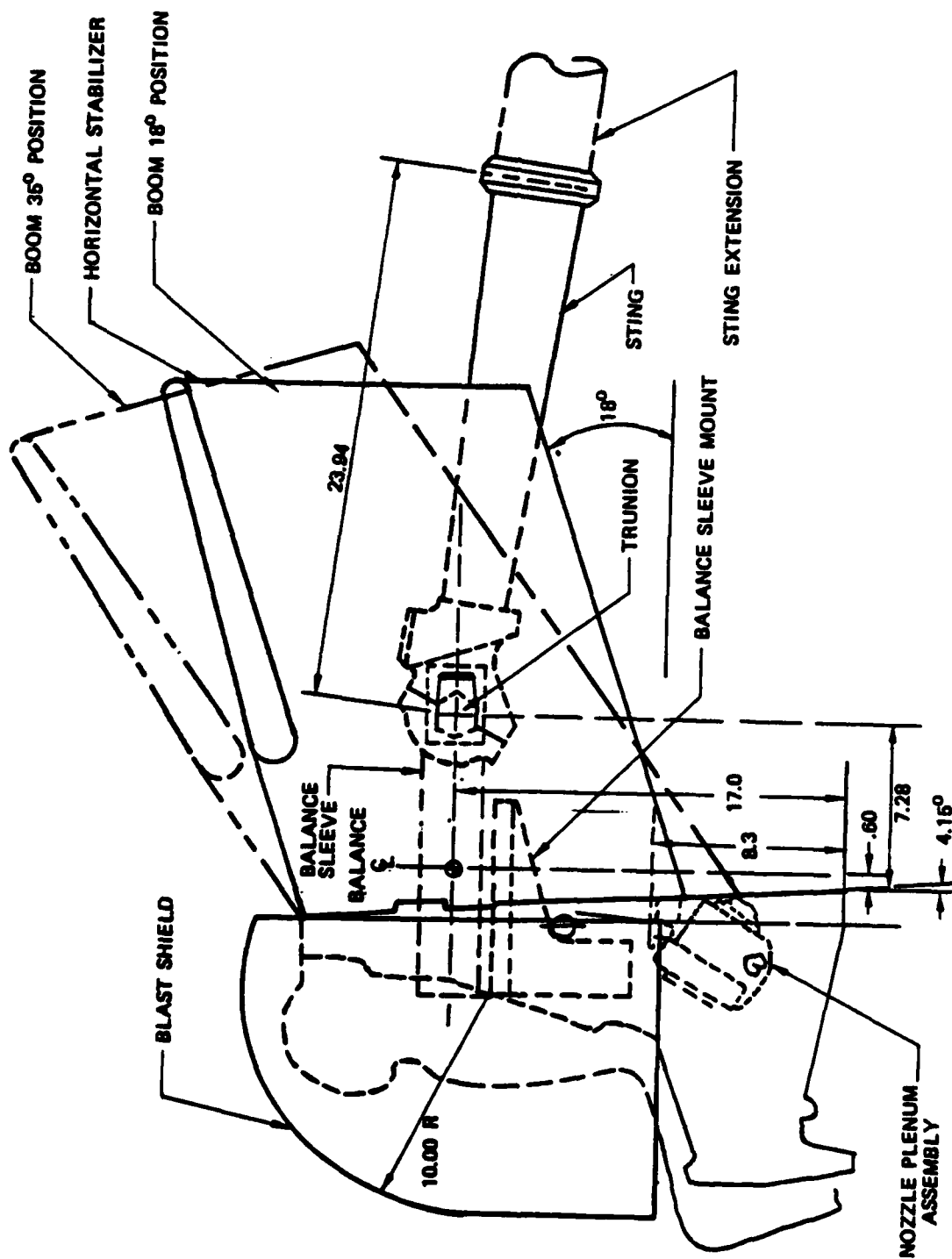


Figure 2. Advanced Ejection Seat Wind Tunnel Model

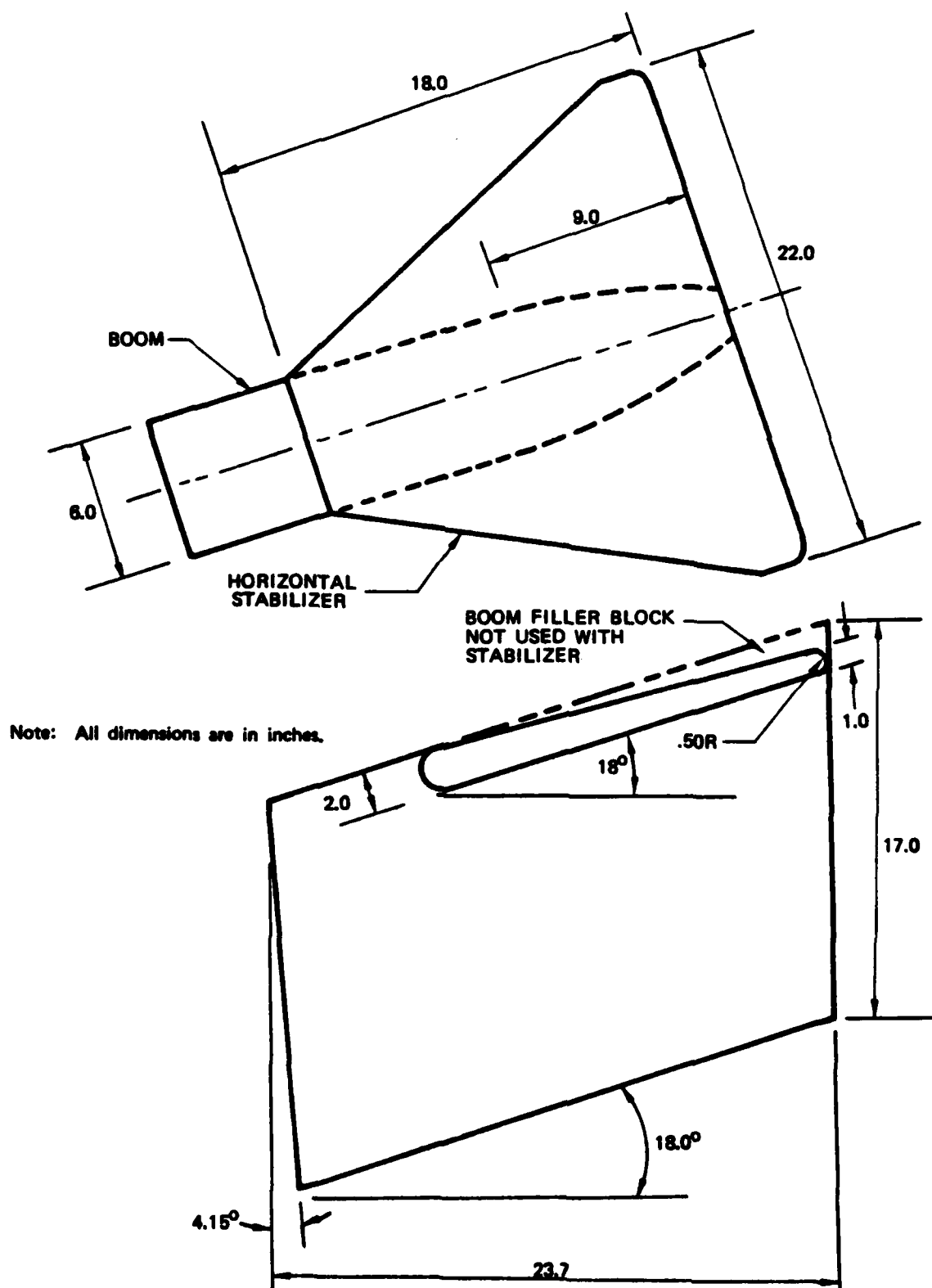


Figure 3. Wind Tunnel Model Boom and Horizontal Stabilizer

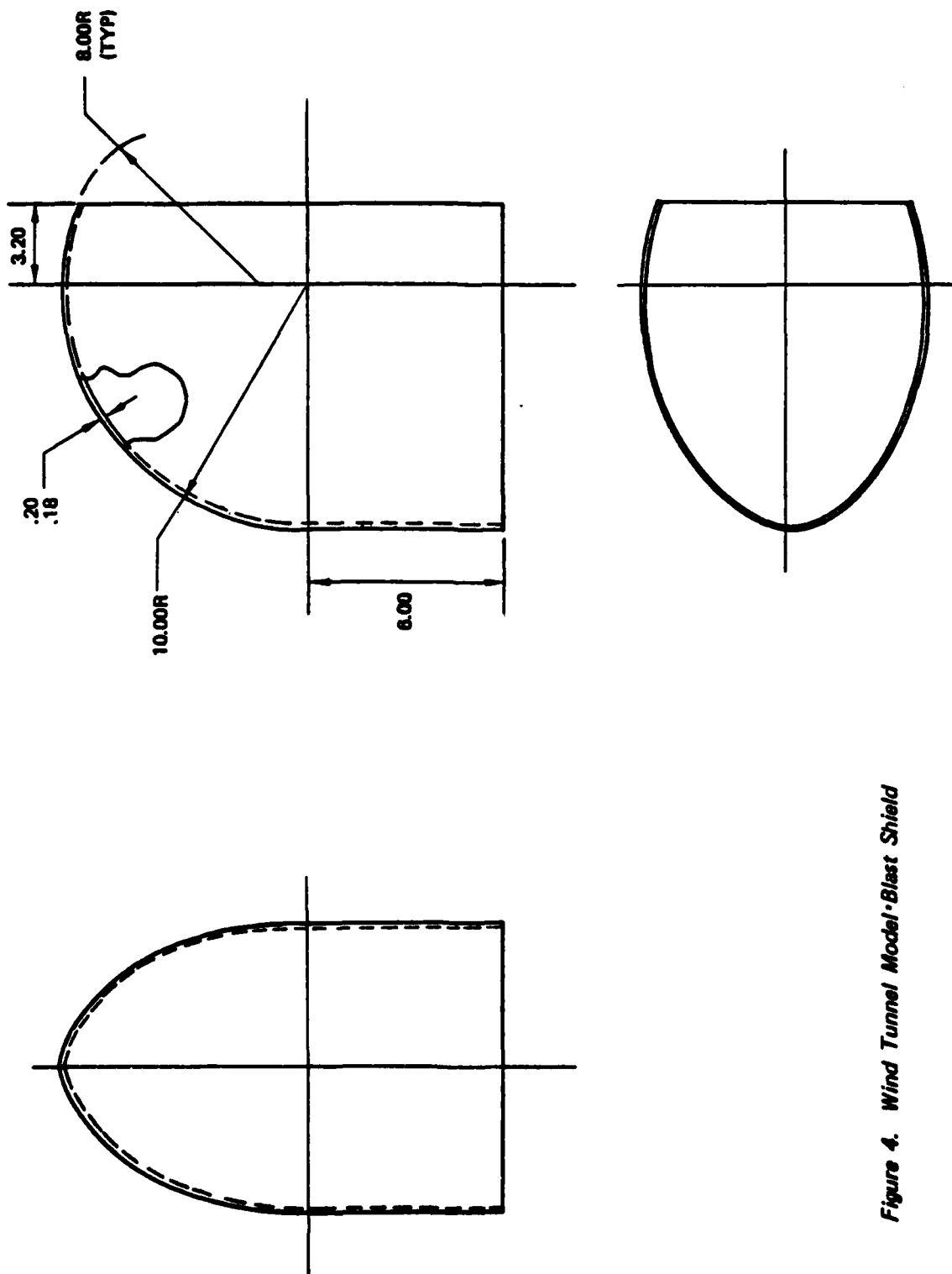


Figure 4. Wind Tunnel Model Blast Shield

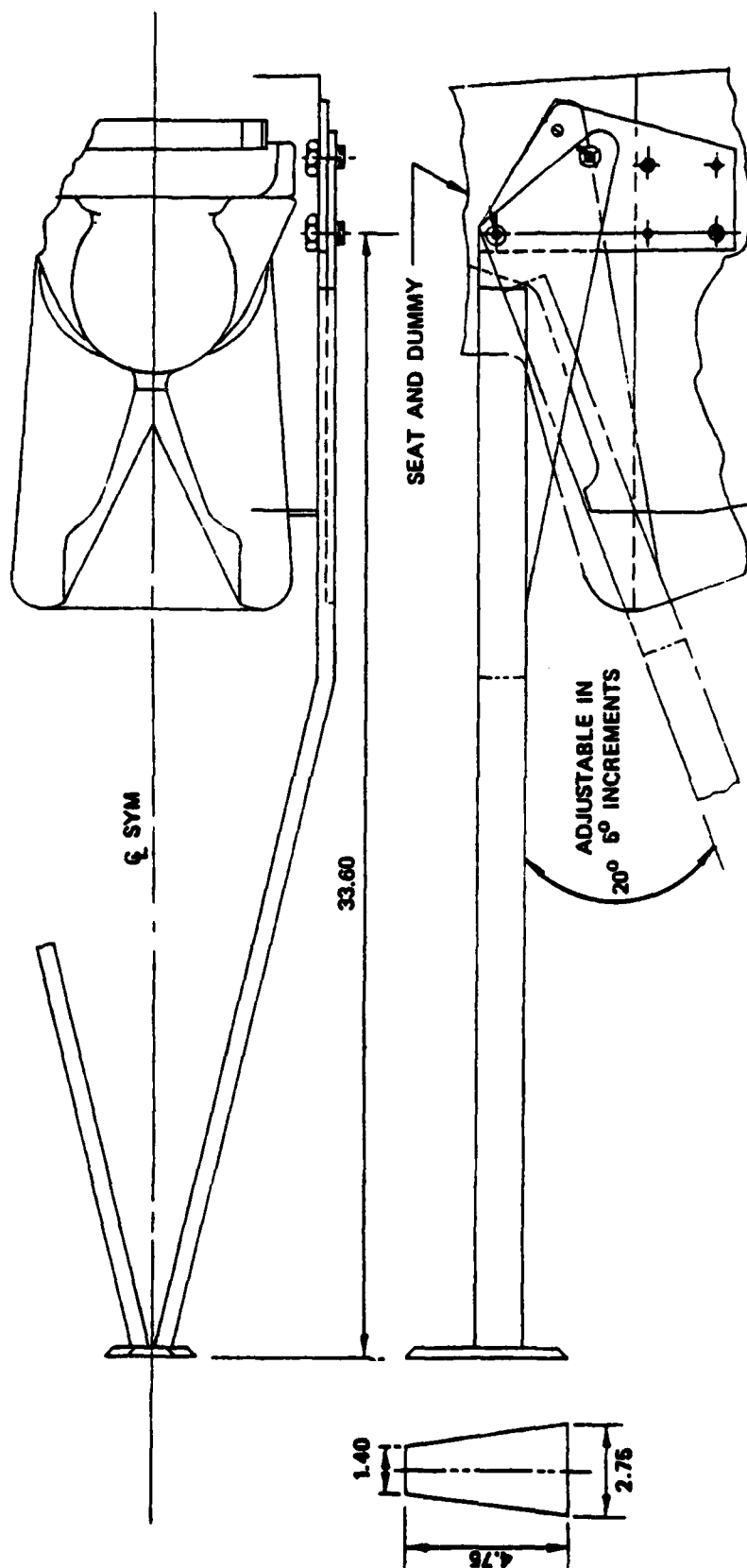


Figure 5. Wind Tunnel Model Flow Diverter Configuration

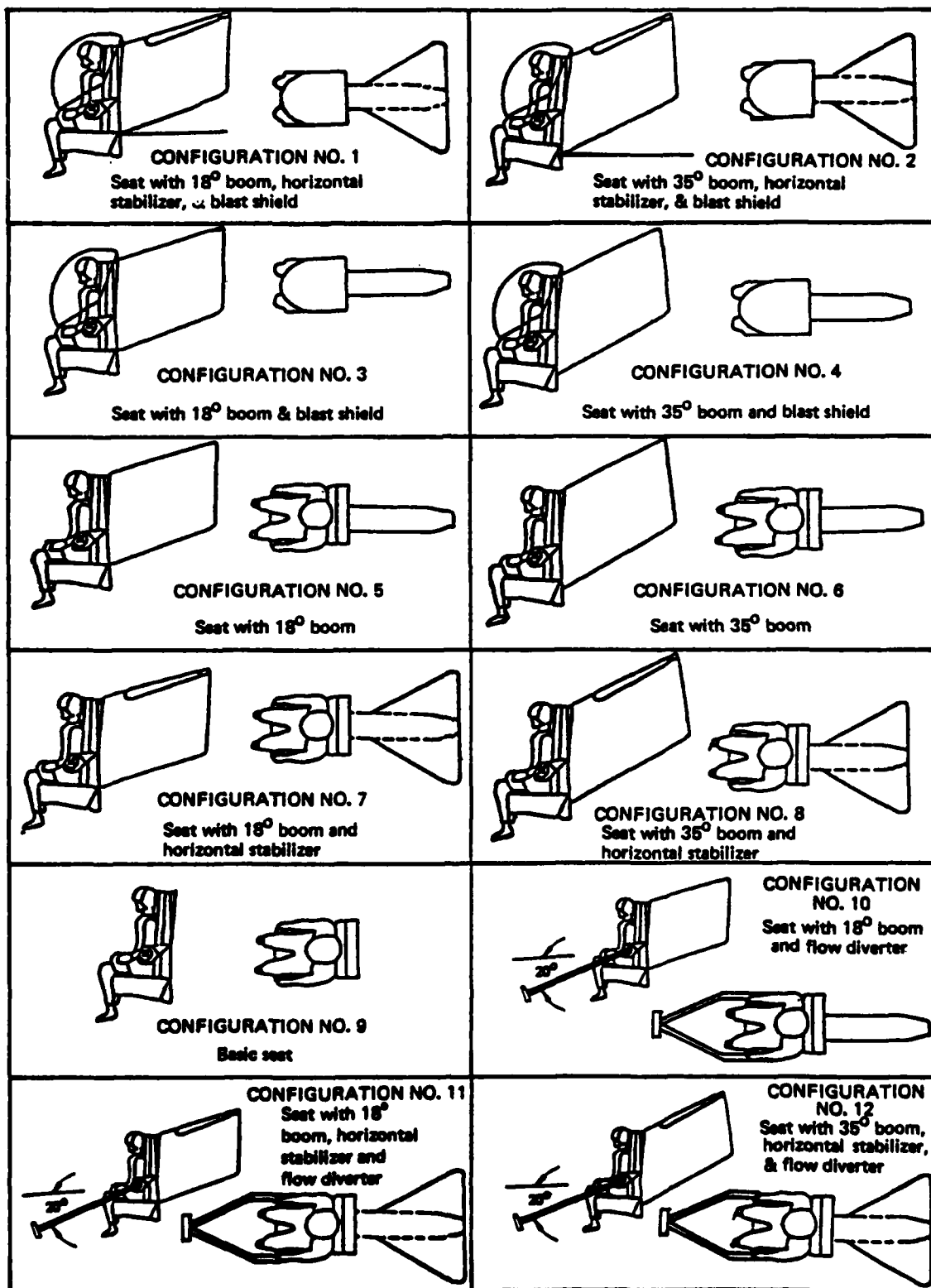


Figure 6. High Q Ejection Seat Wind Tunnel Test Configurations

The support system for the sting provided the capability to pitch the ejection seat model through an angle-of-attack range from -45 to 75 deg with a remotely controlled hydraulic actuator. Model yaw angles -5 to 30 deg were achieved by rotating the model and support system about the vertical axis of the tunnel with a motor-operated roll mechanism installed above the top wall of the test section. Figure 8 shows the sting and support system arrangement. Figure 9 through 18 are photographs showing some of the ejection seat configurations mounted in the wind tunnel for testing.

2.3 INSTRUMENTATION

An internally mounted, six-component, strain-gage balance was used to measure model forces and moments. Pitch and roll position indicators were mounted on the sting-support system for determination of model attitude; in addition, an angular position indicator was mounted within the ejection seat model for model pitch attitude determination. The jet total pressure and temperature were measured with pressure transducers and copper-constantan thermocouples, respectively. Pressure transducers were also used to measure the dummy crewman's head pressure, model cavity and base pressure. For selected configurations, the boom and horizontal stabilizer region of the model was painted with a titanium dioxide solution prior to tunnel operation to obtain flow visualization photographs of the model after establishing test conditions.

III. TEST DESCRIPTION

3.1 TEST CONDITIONS AND PROCEDURES

Data were obtained at freestream Mach numbers of 0.6, 0.9, 1.2 and 1.5 for angles of attack from -45 to 75 degrees and yaw angles from -5 to 30 degrees. For selected configurations, the force and moment data were obtained with both jet-off and jet-on conditions. A high pressure air supply system was used to generate the nozzle pressure ratio that would best simulate the plume shape of the full-scale rocket exhaust at a sea level altitude. Also for selected configurations, flow visualization photographs were obtained by painting the boom and stabilizer with a titanium dioxide solution prior to the test run. Figures 19 through 21 are flow visualization photographs for some of the configurations tested.

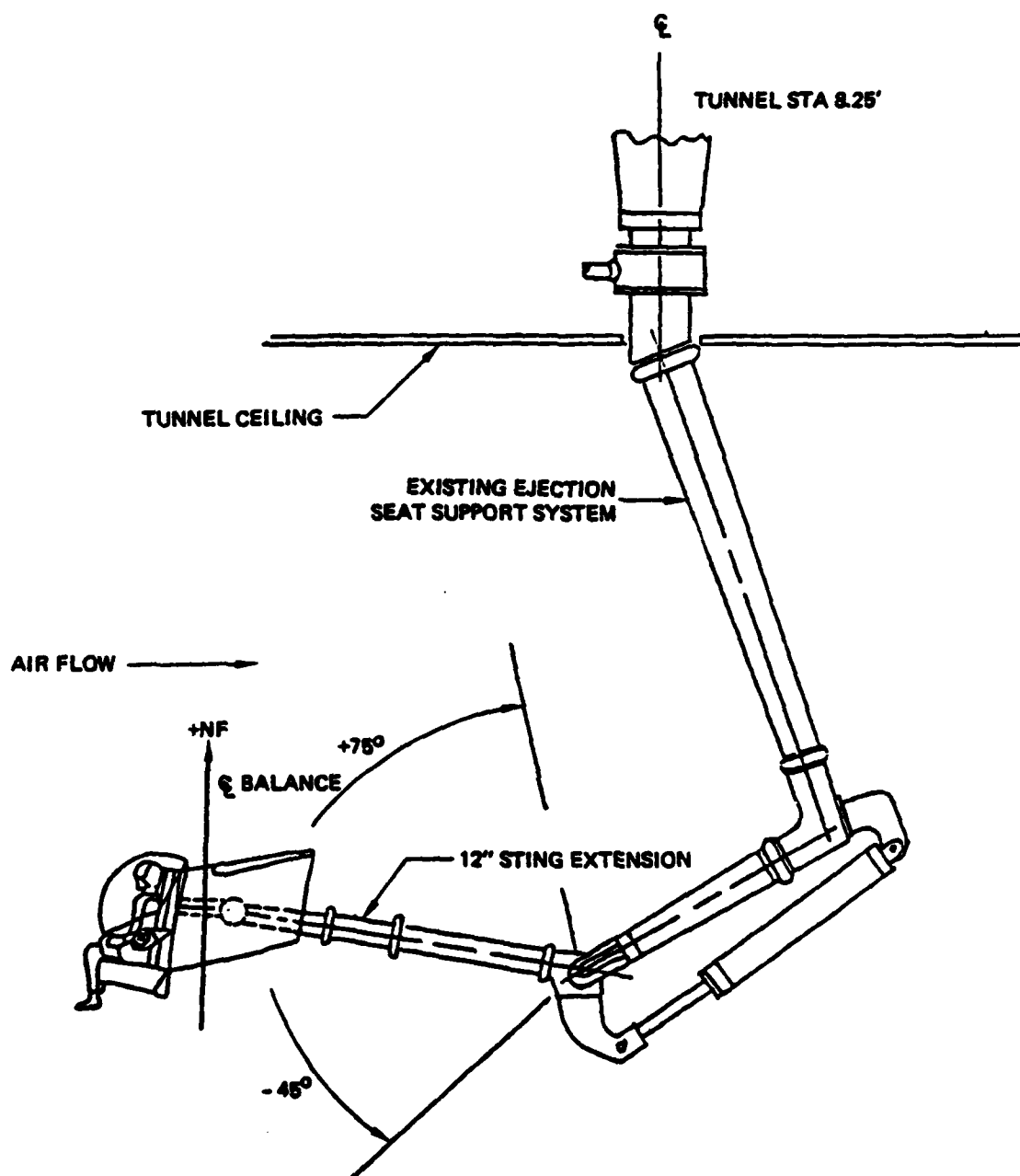


Figure 8. Ejection Seat Model Installation in Wind Tunnel 16T

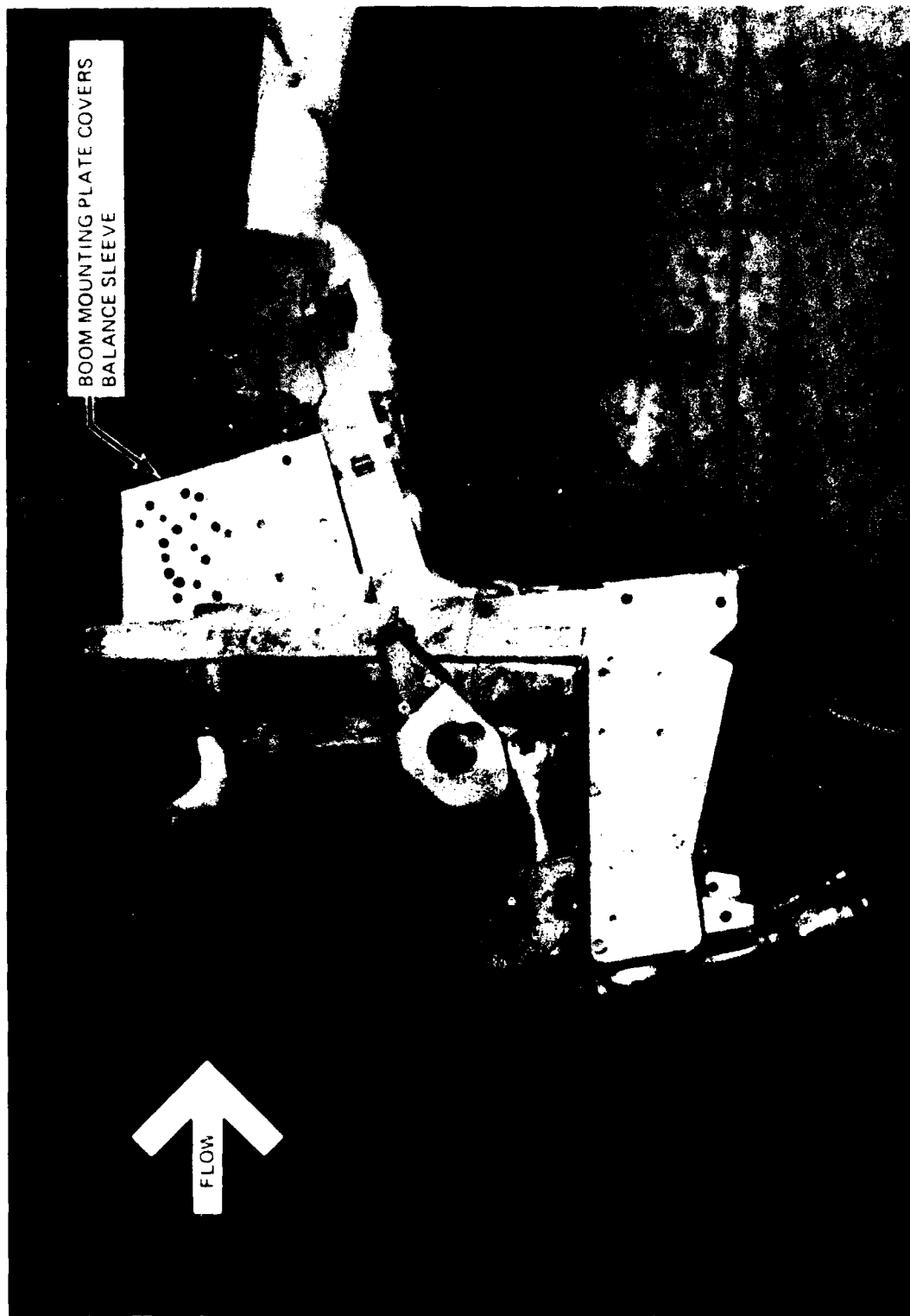


Figure 9. Basic Seat with Boom Attachment Plate - Seat at $\alpha=0^\circ$ (Configuration 9)

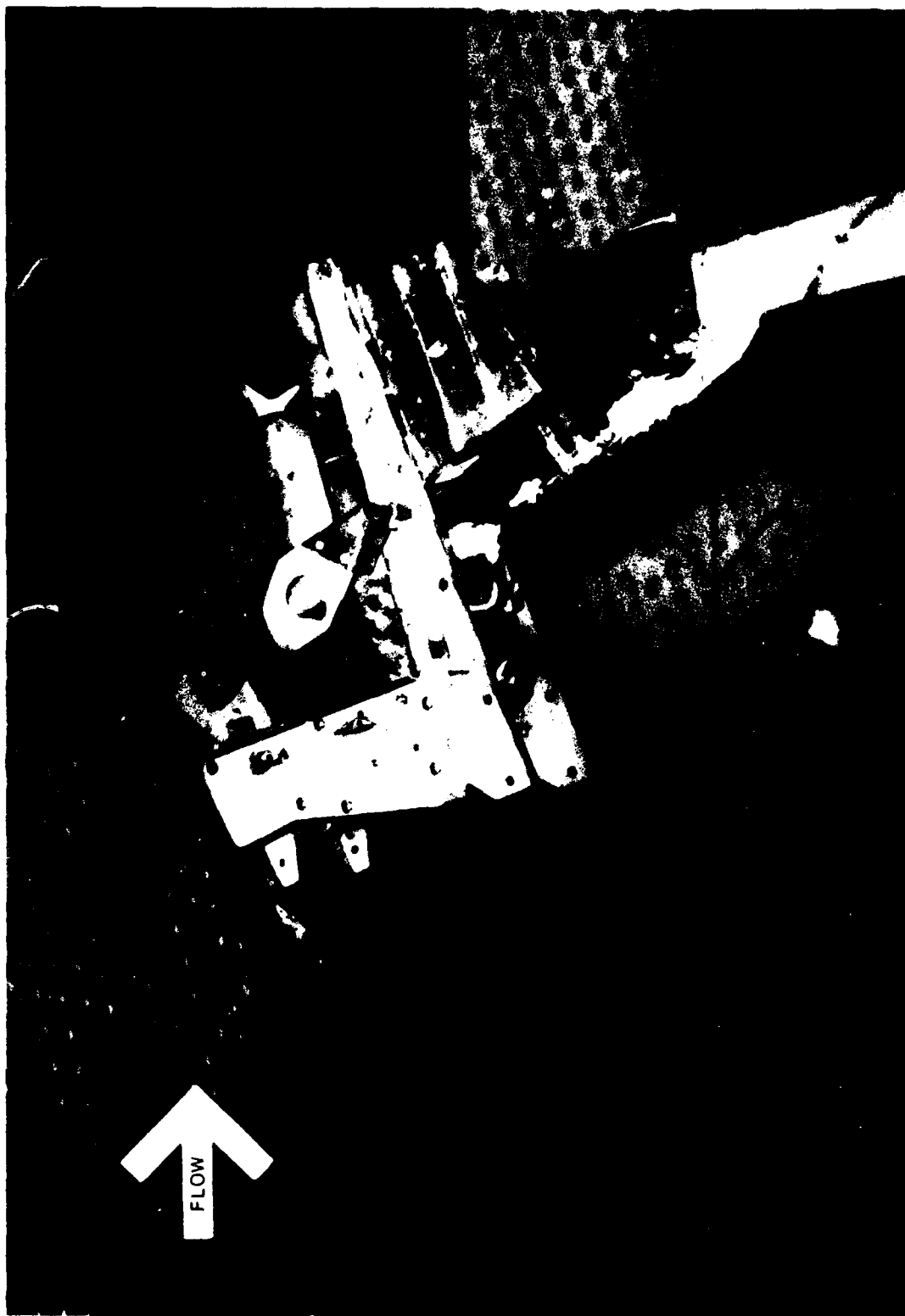


Figure 10. Basic Seat Showing Rocket Nozzle and Plenum Attached to Sting Support - Seat at $\alpha=75^\circ$ (Configuration 9)

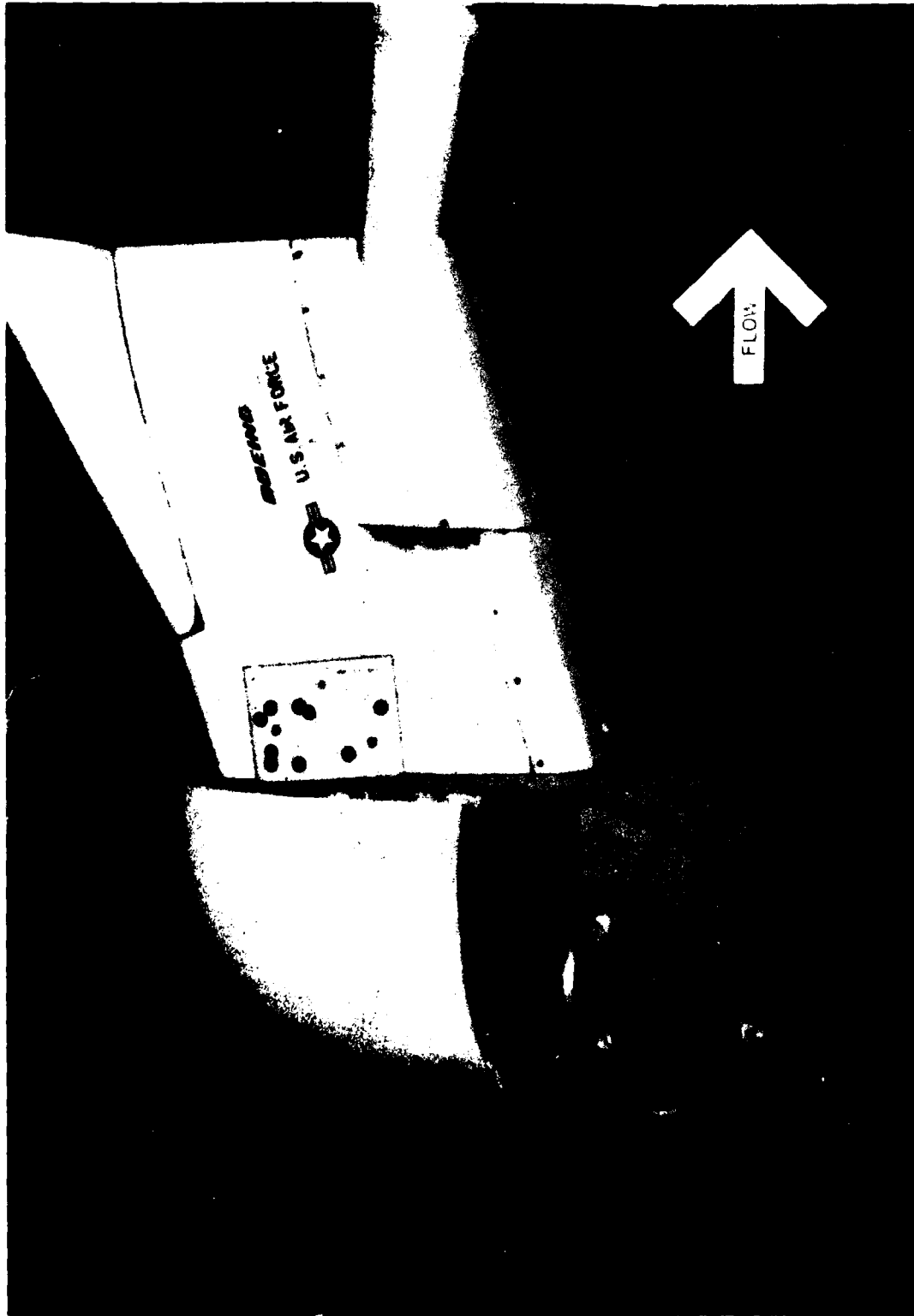


Figure 11. Seat with 18° Boom, Stabilizer, and Windblast Shield (Configuration 1)

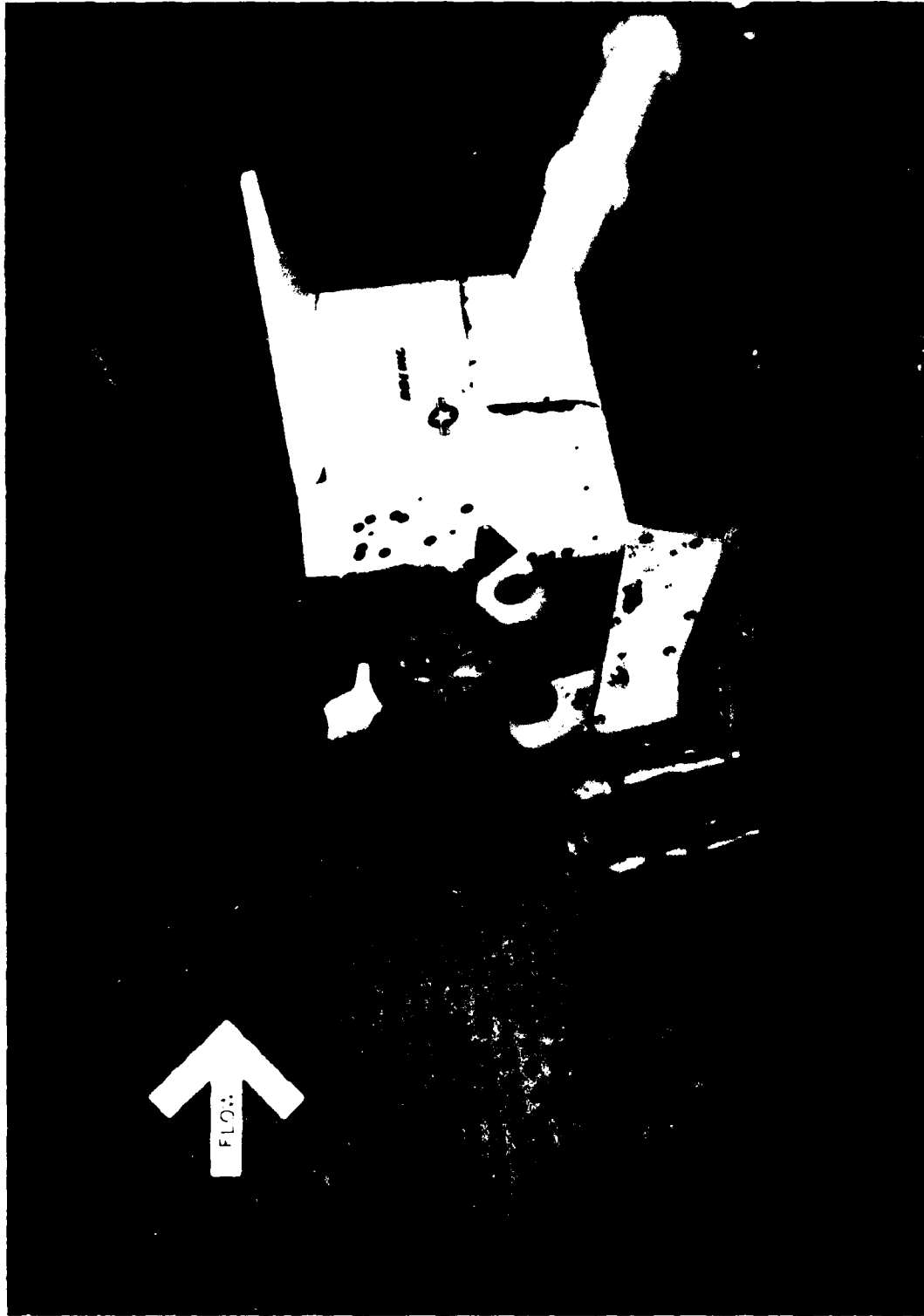


Figure 12. Seat with 18° Boom and Stabilizer (Configuration 7)

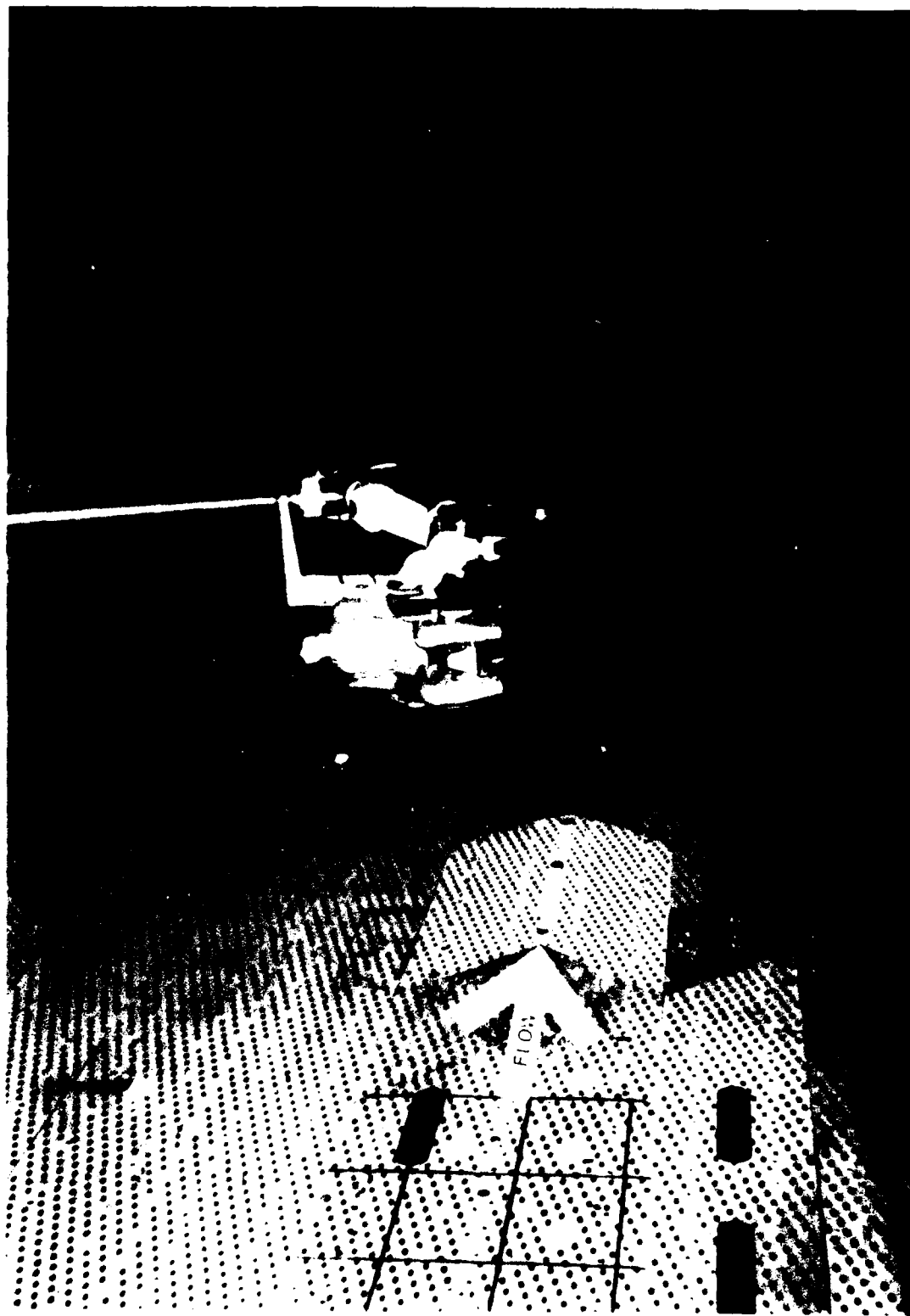


*Figure 13. Seat with 18° Boom and Stabilizer (Configuration 7)
Looking Downstream in Tunnel 16T - Seat at $\alpha=0^\circ$*

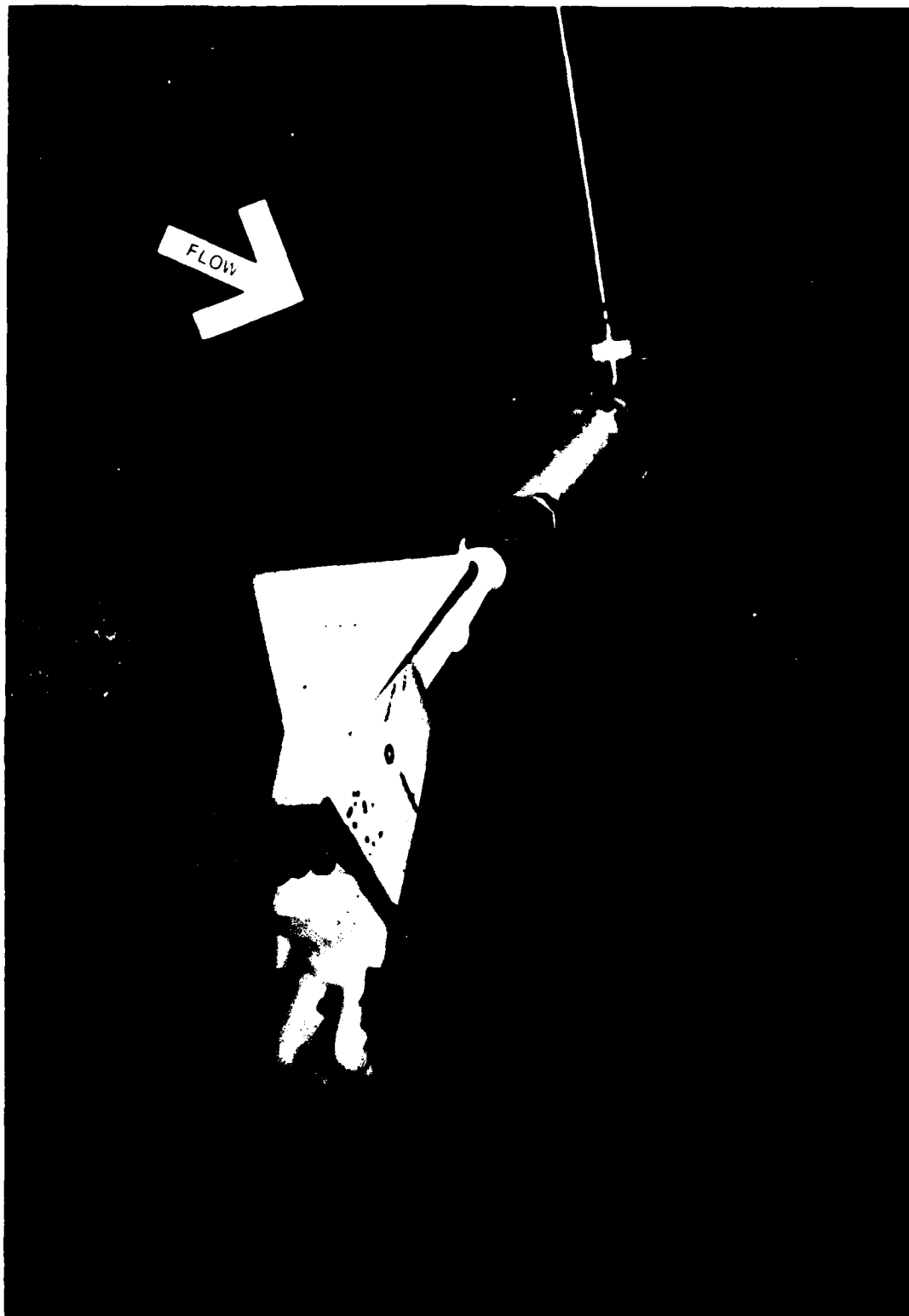


Figure 14. Seat with 18° Boom and Stabilizer (Configuration 7) - Seat at $\alpha = -45^\circ$



Figure 15. Seat with 36° Boom and Stabilizer (Configuration 8)

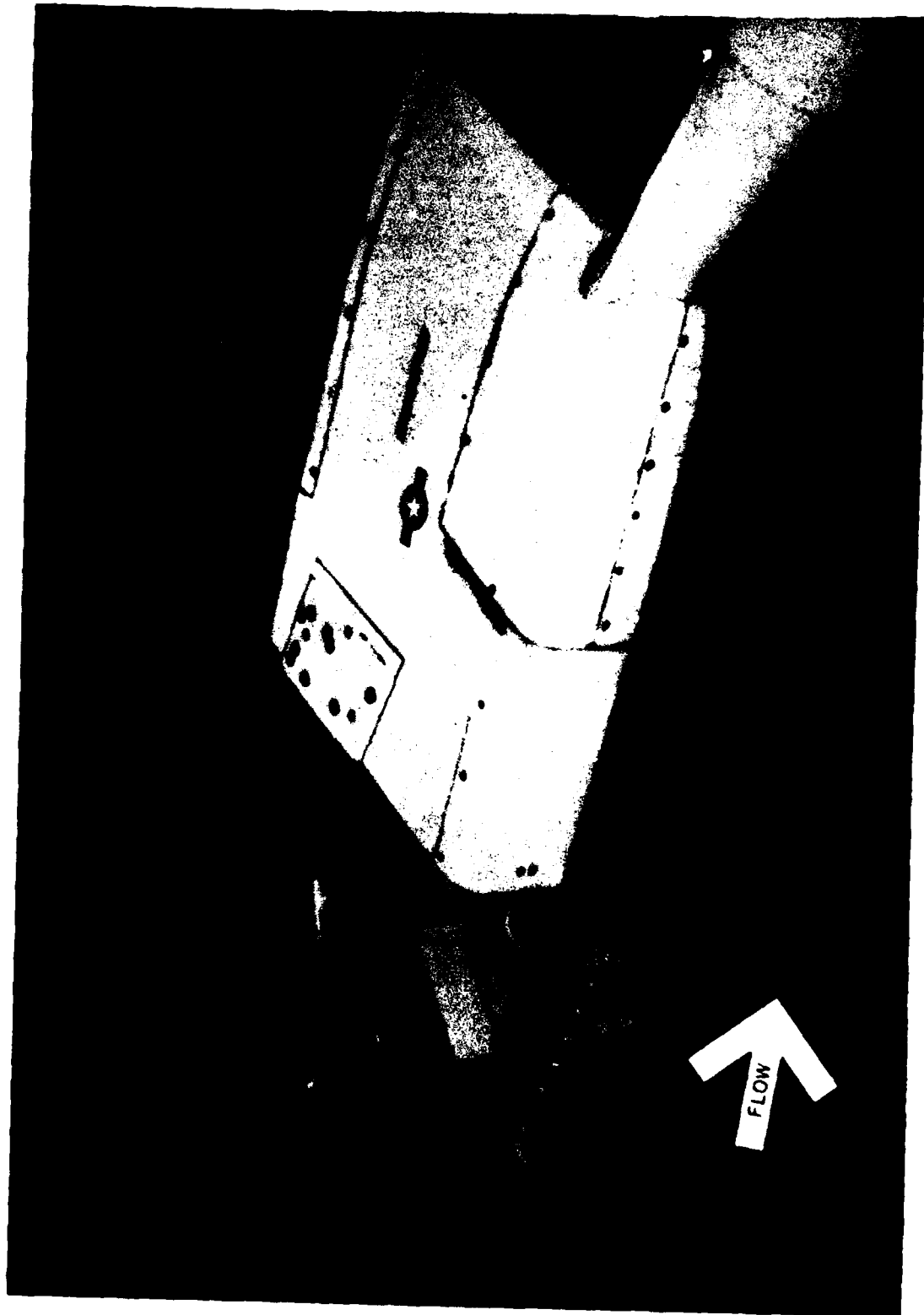


Figure 16. Stern with 18° Boom (Configuration 5)

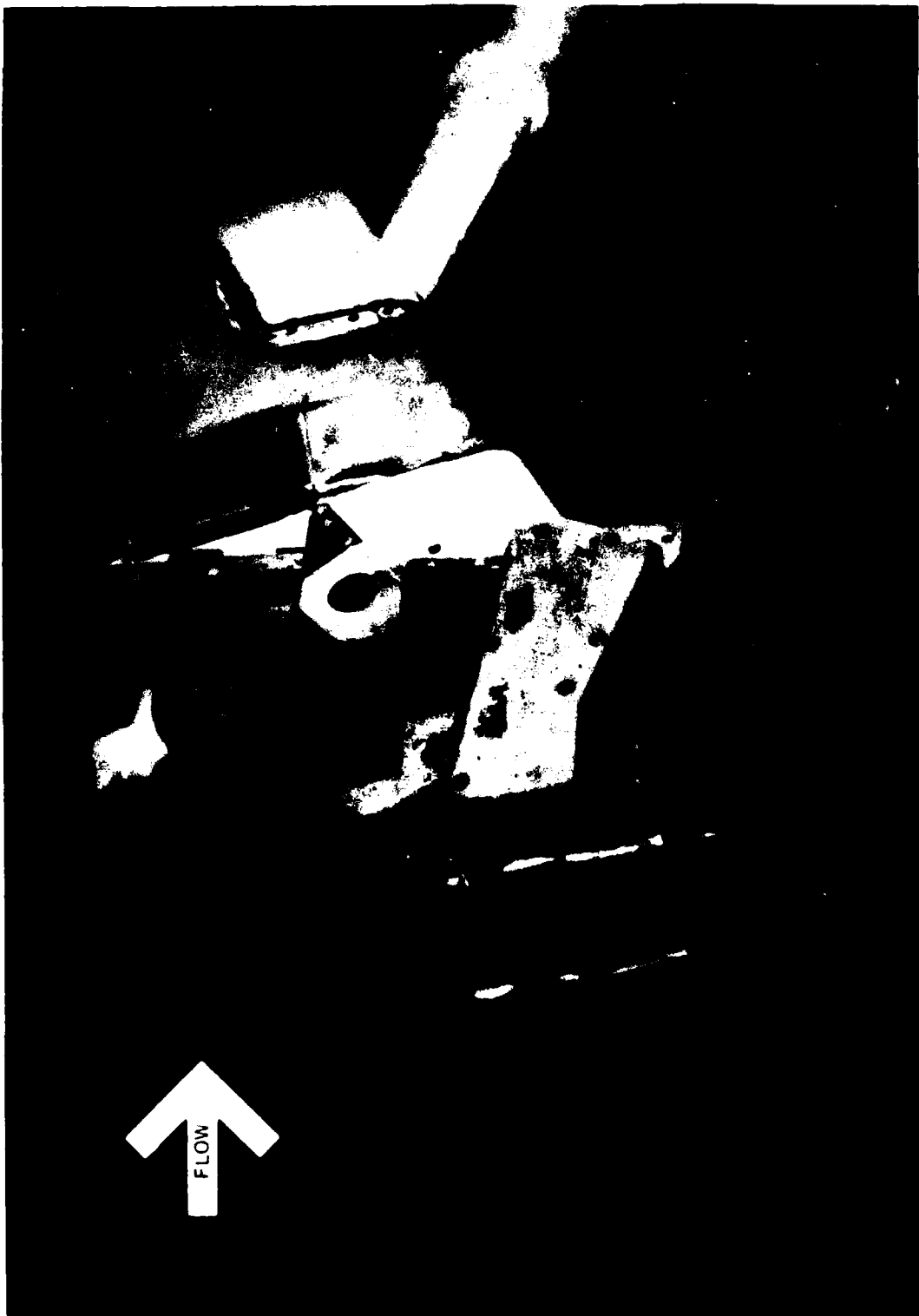


Figure 17. Seat with 36° Boom (Configuration 6)

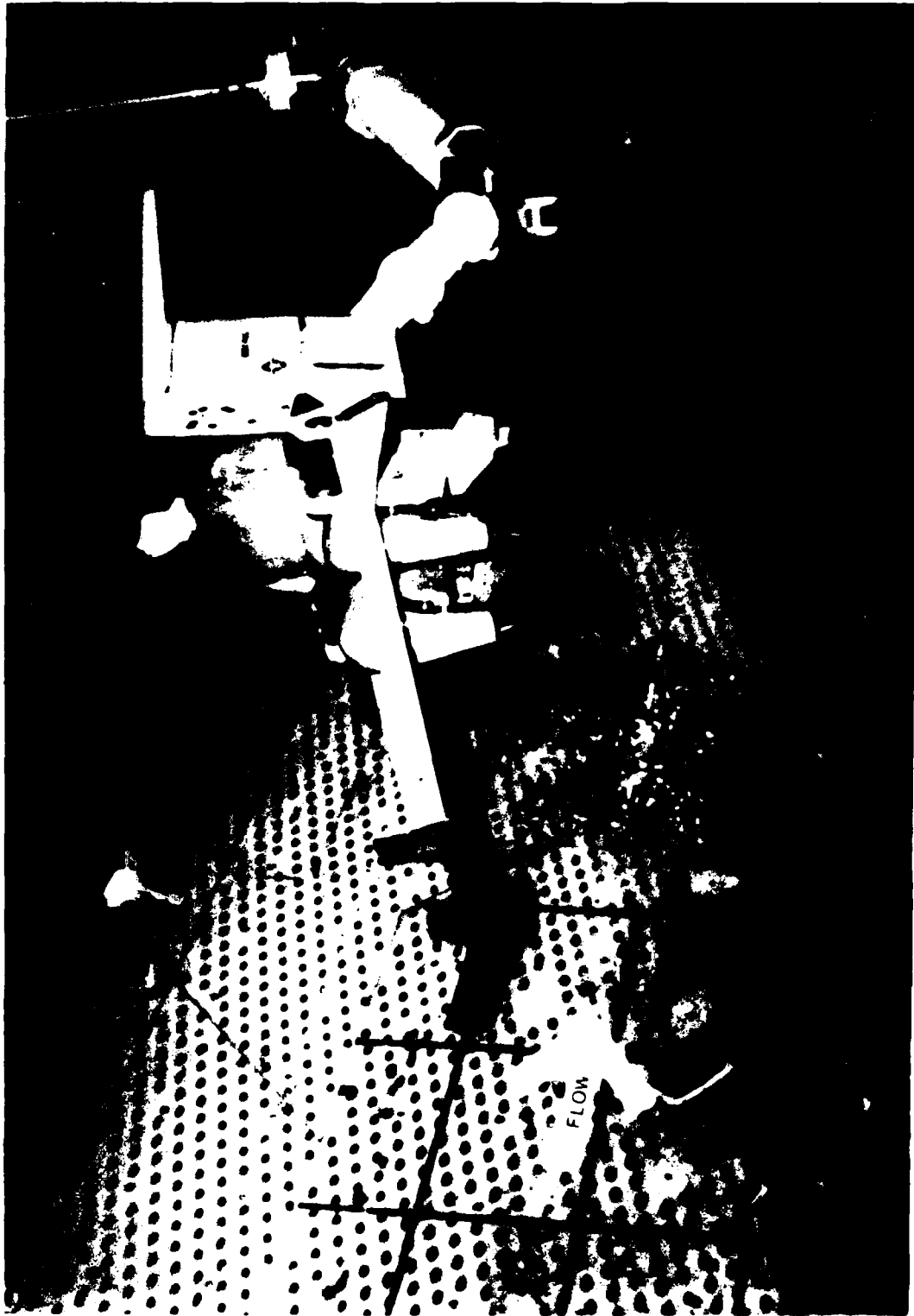


Figure 18. Seat with 18° Boom, Stabilizer and Flow Diverter (Configuration 11)

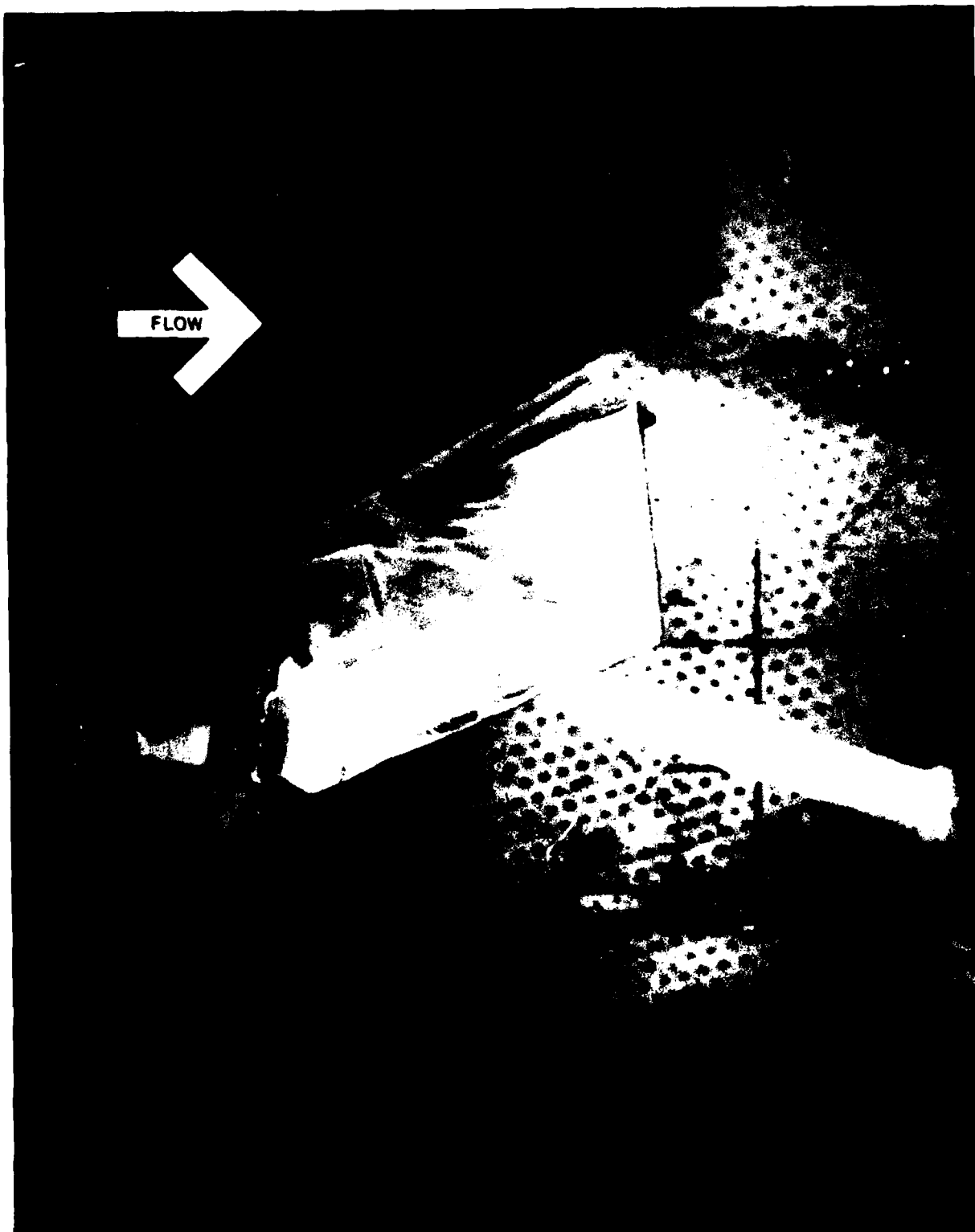


Figure 19. Flow Visualization Photograph for Seat with 36° Boom, Horizontal Stabilizer and Blast Shield (Configuration 2)

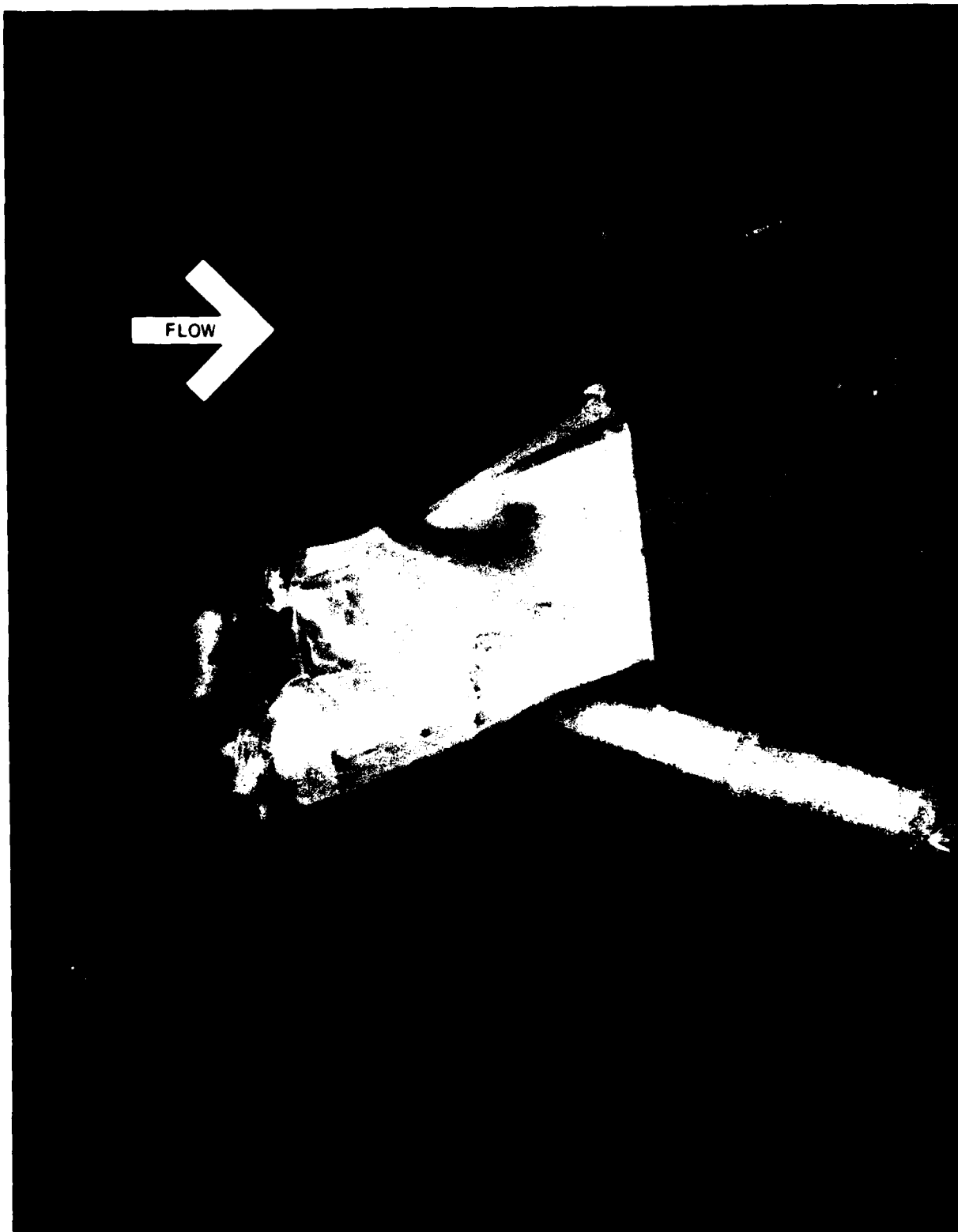


Figure 20. Flow Visualization Photograph for Seat with 35° Boom and Horizontal Stabilizer (Configuration 8)

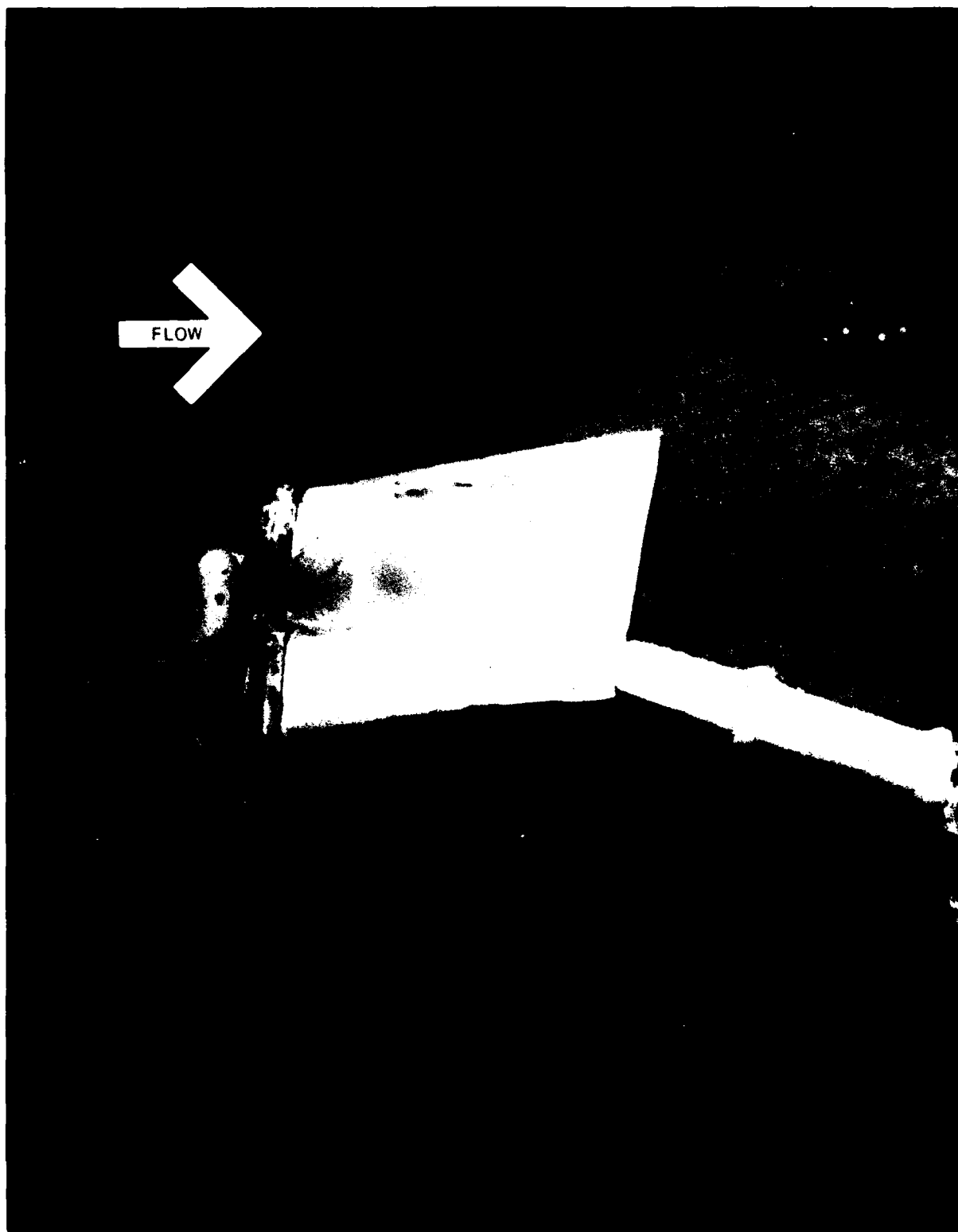


Figure 21. Flow Visualization Photograph for Seat with 18° Boom and Flow Diverter (Configuration 10)

Data were obtained by setting the appropriate tunnel conditions and taking steady-state data with either angle of attack or angle of yaw as a run variable. Model positioning and data acquisition were computer controlled during the data acquisition sequence. Model system dynamics were monitored by a real time computer system with control room displays showing the dynamic stresses during tunnel operation. A summary of test conditions and configurations tested is presented in Table 1.

All steady-state measurements were sequentially recorded by the facility on-line computer system, which reduced the data to engineering units, further processed the data to obtain the required model parameters, tabulated the data in the Tunnel 16T control room, recorded the data on magnetic tape, and transmitted the data to the AEDC central computer file. The data stored in the central computer file were generally available for plotting and analysis on the PWT Interactive Graphics System within 30 seconds after data acquisition. The immediate availability of the tabulated and plotted data permitted continual on-line monitoring of the test results.

The model force and moment data were corrected for weight tares and the model yaw angle was corrected for balance and support system deflections.

3.2 DATA REDUCTION

The ejection seat/crewmember force and moment data were reduced to coefficient forms in the body axis system and are presented in the appendix of this document. All tabulated data are referenced to the seat reference point (SRP) which is defined as the intersection of the compressed seat back tangent plane and compressed seat cushion tangent plane and the plane of aerodynamic symmetry. This moment reference center was selected since the SRP is common to all USAF developed ejection seats and the data can readily be transferred to any specific ejection seat/crewmember center of gravity.

3.2.1 Body Axis System - The body axis system, as shown in Figure 22, consists of a set of mutually perpendicular axes, X, Y, and Z, with their origin at the Seat Reference Point. The X and Z axes always lie in the plane

Table 1. Summary of Test Conditions and Configurations
(Sheet 1 of 4)

CONFIG. NO.	CONFIGURATION	α DEG.	ψ DEG.	COMMENTS	APPENDIX PAGE NO.
1	Seat with: 18° boom Horiz. stab. Blast shield Jet off	Variable	0		83
		0	Variable	ψ limited to +20° due to balance load limit.	84,85
		15	Variable	ψ limited to +20°	84,85
		30	Variable	ψ limited to +20° No data at Mach 1.5	84,85
1	Seat with: 18° boom Horiz. stab. Blast shield Jet on	Variable	0		86
		0	Variable	ψ limited to +20°	87,88
		15	Variable	ψ limited to +20°	87,88
		30	Variable	ψ limited to +20° No data at Mach 1.5	87,88
2	Seat with: 35° boom Horiz. stab. Blast shield Jet off	Variable	0	No data for negative α at Mach 1.5 - Flow visualization at Mach 0.6	89
		0	Variable	ψ limited to +20° at Mach 1.5	90,91
		15	Variable	ψ limited to +20° at Mach 1.5.	90,91
		30	Variable	ψ limited to +20° at Mach 1.5	90,91
2	Seat with: 35° boom Horiz. stab. Blast shield Jet on	Variable	0	No data for negative α at Mach 1.5.	92
		0	Variable	ψ limited to +20°	93,94
		15	Variable		93,94
		30	Variable	ψ limited to +20°	93,94

Table 1. Summary of Test Conditions and Configuration
(Sheet 2 of 4)

CONFIG. NO.	CONFIGURATION	α DEG.	ψ DEG.	COMMENTS	APPENDIX PAGE NO.
3	Seat with: 18° boom Blast shield Jet off	Variable	0		95
		-15	Variable	ψ limited to 20° at Mach 1.5	96,97
		0	Variable	ψ limited to 25° at Mach 1.2	96,97
		15	Variable	ψ limited to 20° at Mach 1.2 & 1.5	96,97
3	Seat with: 18° boom Blast shield Jet on	Variable	0		98
		-15	Variable	ψ limited to 20° at Mach 1.2 & 1.5	99,100
		0	Variable	ψ limited to 20° at Mach 1.2 & 1.5	99,100
		15	Variable	ψ limited to 20° at Mach 1.2 & 1.5	99,100
4	Seat with: 35° boom Blast shield Jet off	Variable	0		101
		-15	Variable		102,103
		0	Variable		102,103
		15	Variable	ψ limited to 20° at Mach 1.5	102,103
5	Seat with: 18° boom Jet off	Variable	0		104
		-15	Variable		105,106
		0	Variable		105,106
		15	Variable	ψ limited to 20° at Mach 1.2 & 1.5	105,106

Table 1. Summary of Test Conditions and Configurations
(Sheet 3 of 4)

CONFIG. NO.	CONFIGURATION	α DEG.	ψ DEG.	COMMENTS	APPENDIX PAGE NO.
6	Seat with: 35° boom Jet off	Variable	0		107
		-15	Variable	ψ limited to 25° at Mach 1.5	108,109
		0	Variable	ψ limited to 25° at Mach 1.5	108,109
		15	Variable	ψ limited to 25° at Mach 1.5	108,109
7	Seat with: 18° boom Horizontal stabilizer Jet off	Variable	0	No data for α at -40 or -45° for Mach 1.5	110
		0	Variable		111,112
		15	Variable		111,112
		30	Variable		111,112
8	Seat with: 35° boom Horizontal stabilizer Jet off	Variable	0	Flow visualization at Mach 1.5	113
		0	Variable	ψ limited to 20° at Mach 1.5	114,115
		15	Variable	ψ limited to 20° at Mach 1.5	114,115
		30	Variable	ψ limited to 20° at Mach 1.5	114,115
9	Basic seat Jet off	Variable	0		116
		0	Variable		117

Table 1. Summary of Test Conditions and Configurations (Sheet 4 of 4)

CONFIG. NO.	CONFIGURATION	α DEG.	ψ DEG.	COMMENTS	APPENDIX PAGE NO.
10	Seat with: 18° boom Flow diverter Jet off	Variable	0	Flow visualization at Mach 1.2	118
		-15	Variable	ψ limited to 25° at Mach 1.2 & 1.5	119,120
		0	Variable	ψ limited to 20° at Mach 1.2 & 1.5	119,120
		15	Variable	ψ limited to 15° at Mach 1.2 & 20° at Mach 1.5	119,120
11	Seat with: 18° boom Horizontal stabilizer Flow diverter Jet off	Variable	0	No data for α at -40° or -45° for Mach 0.9, 1.2, & 1.5	121
		0	Variable	ψ limited to 20° at Mach 1.2 and 25° at Mach 1.5	122,123
		15	Variable	ψ limited to 20° at Mach 1.2 & 1.5	122,123
		30	Variable	ψ limited to 25° at Mach 1.2 & 20° at Mach 1.5	122,123
12	Seat with: 35° boom Horizontal stabilizer Flow diverter Jet off	Variable	0	No data for negative α at Mach 1.5	124
		0	Variable	ψ limited to 20° at Mach 1.5	125,126
		15	Variable	ψ limited to 20° at Mach 1.5	125,126
		30	Variable	ψ limited to 20° at Mach 1.5	125,126

DATA POINTS	
MACH NUMBER	0.6, 0.9, 1.2, 1.5
α VARIABLE RANGE (DEG)	-45 to 75 in increments of 5.
ψ VARIABLE RANGE (DEG)	-5, -2, 0, 2, 5, 10, 15, 20, 25, 30

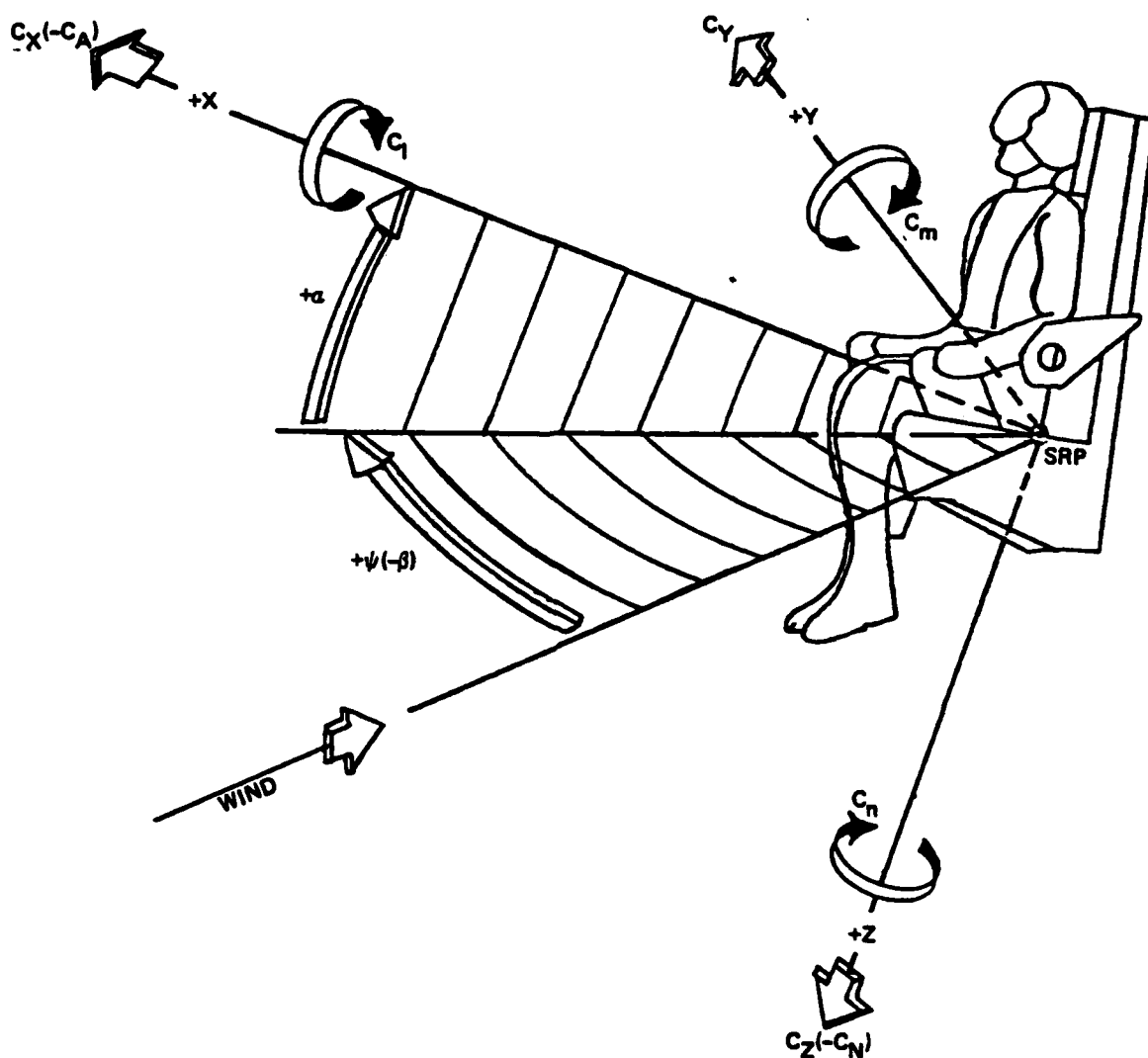


Figure 22. Definition of Standardized Body Axis System, Positive Aerodynamic Coefficients and Angles

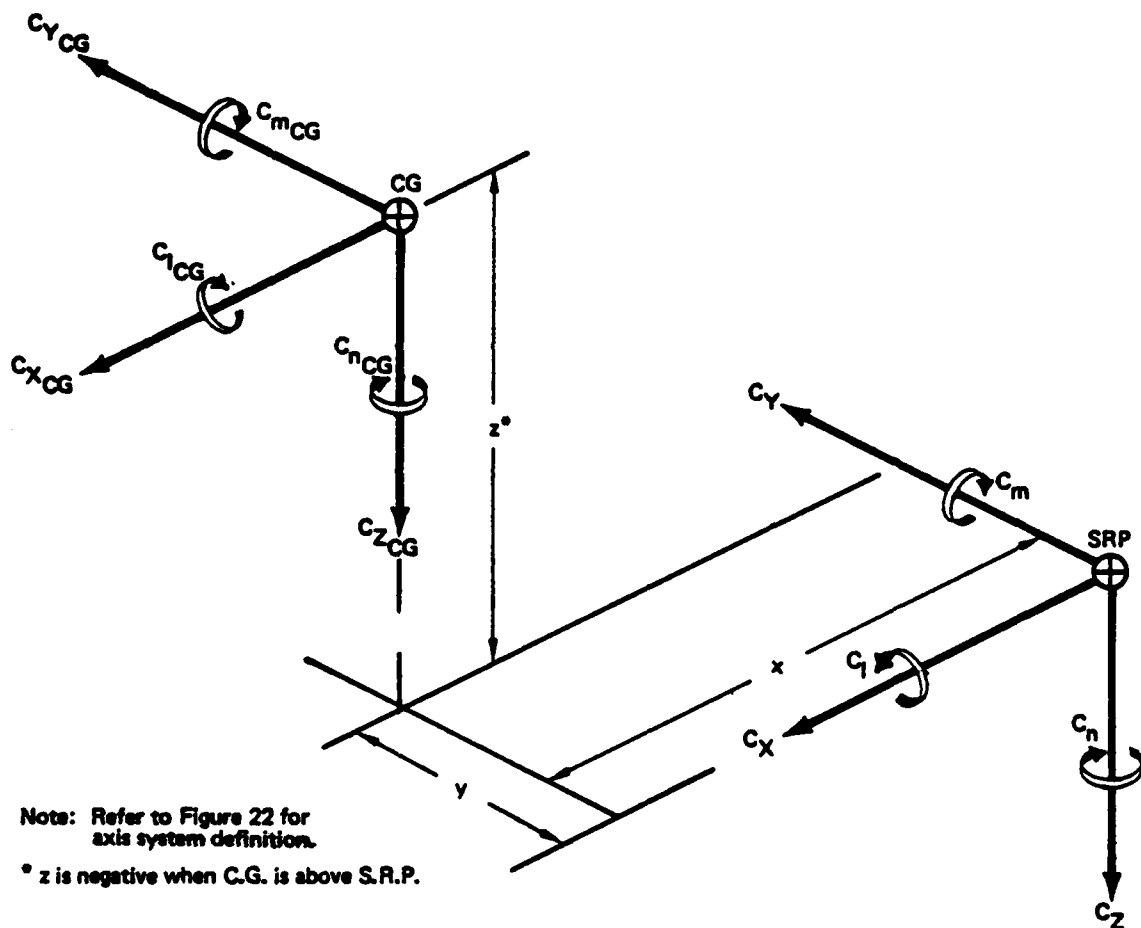
of aerodynamic symmetry. The X axis is normal to the plane of the seating surface that supports the crew member's spine (compressed seat back tangent plane) and is positive in the direction that the crewmember faces. The Z axis coincides with the line of intersection between the plane of aerodynamic symmetry and the compressed seat back tangent plane and is positive in the head to feet direction. The Y axis is perpendicular to the plane of aerodynamic symmetry and is positive from the crewmember's left to right. When the compressed seat back tangent plane is perpendicular to the wind stream vector both the angle of attack and sideslip (yaw) are zero. Rotation of the ejection seat about the Z axis to the right (facing upstream) creates a negative sideslip (positive yaw angle, ψ) and a subsequent rotation of the ejection seat clockwise about the Y axis creates a positive angle of attack (α). The direction of the moments were chosen to be consistent with the universally used right hand rule of moment-force relationship.

This axis system is directly applicable to computer simulation and also corresponds to the established human tolerance "G" vector coordinate system with the exception of the $+G_z$ vector which is in the opposite direction of the +Z axis.

3.2.3 Reference Area and Length - The reference area, S , used for data reduction for all configurations was the projected frontal area of the ejection seat including the occupants protruding extremities at α and $\beta = 0.0$. For the half scale model (see Figure 1) the reference area was 1.86 ft².

The reference length, d , was defined as the hydraulic diameter of the model which in turn is defined as the diameter of a circle, d , whose area, S , is equal to the projected area of the seat-man configuration ($\sqrt{4S/\pi}$). The reference length, d , for the half scale model was 18.74 inches.

3.2.2 General Transfer Equations - The tabulated aerodynamic coefficients presented in the appendix of this document are shown referenced to the standardized seat reference point, SRP. However, for preliminary ejection seat performance prediction analysis it is advantageous to have the data referenced about a typical seat/crewmember static center of gravity location for the seat being analyzed. The general transfer equations are presented in Figure 23.



$$\begin{aligned}
 C_{X_{CG}} &= C_X \\
 C_{Y_{CG}} &= C_Y \\
 C_{Z_{CG}} &= C_Z \\
 C_{l_{CG}} &= C_l - zC_Y/d - yC_Z/d \\
 C_{m_{CG}} &= C_m + xC_Z/d + zC_X/d \\
 C_{n_{CG}} &= C_n + yC_X/d - xC_Y/d
 \end{aligned}$$

Figure 23. Body Axis System Transfer of Aerodynamic Coefficients from Seat Reference Point (SRP) to Seat Center of Gravity (CG)

To evaluate the aerodynamic characteristics of the advanced high dynamic pressure ejection seat with wind blast protection, drag reduction, and stabilization devices, data were transferred to a nominal static seat/crewmember center of gravity as shown on Figure 1. Plotted data presented in the analysis section of this document are generally referenced to this seat/crewmember center of gravity.

3.3 PRECISION OF MEASUREMENTS

Uncertainties (combinations of systematic and random errors) of the basic tunnel parameters, (static, dynamic and total pressure, Reynolds number, and Mach number) were estimated from repeat calibrations of the instrumentation and from the repeatability and uniformity of the test section flow during tunnel calibration. Uncertainties in the instrumentation systems were estimated from repeat calibration of the systems against secondary standards whose uncertainties are traceable to the National Bureau of Standards calibration equipment. The tunnel parameter and instrument uncertainties for a 95% confidence level are combined using the Taylor series method of error propagation described in Reference 7 to determine the uncertainties of the reduced parameters shown in Table 2.

TABLE 2. MEASUREMENT UNCERTAINTIES

	M = 0.6	M = 1.2
	Q = 184 psf	Q = 290 psf
α^*	± 0.15 deg.	± 0.15 deg.
ψ	± 0.20 deg.	± 0.20 deg.
UC_x	± 0.0158	± 0.0082
UC_z	± 0.0205	± 0.0116
UC_y	± 0.0146	± 0.0065
UC_m	± 0.0075	± 0.0038
UC_n	± 0.0024	± 0.0009
UC_l	± 0.0034	± 0.0022

Note: Data uncertainties values are quoted for ALPHA = 30 deg and YAW = 15 deg

* For model angles of attack from -30 to 70 deg

IV. SUMMARY OF RESULTS

The results of the high dynamic pressure ejection seat wind tunnel test program are presented in graphic form in Figures 24 through 45 and in tabular form in the appendix to this document. References 8 and 9 also contain a complete tabulation of the data. Six component force and moment data are presented in coefficient form. All tabulated coefficients are in the same standardized seat/crewmember X,Y, and Z body axis system with the moment reference center at the seat reference point (See Figure 22). All graphic data are in the standardized body axis system but with the moment reference center at the seat/crewmember center of gravity (See Figure 1) except in Figures 24 and 25 which uses the seat reference point moment center.

Figures 24 and 25 compare the aerodynamic characteristics for the basic seat/crewmember model without any high speed protective devices to previously obtained data (reference 4) on the same model. Some minor differences exist between current and previous test data, but these differences can be attributed to changes made to the basic model and sting support system. These changes, required to accommodate installation of the high dynamic pressure devices, are:

1. A 12 inch sting extension was added to accommodate the aft body boom used in the current tests. See Figure 8.
2. The balance was re-oriented from a near vertical position in which it was completely buried inside the model cavity to a near horizontal position which resulted in the balance extending out from the model seat back. This change was made to minimize balance loads during testing with the aft body boom.
3. Plates to attach the aft body booms, and to protect the balance were added to the basic seat model (Figure 9).
4. In the previous tests of Reference 1 and 4, a model to sting attachment change was made at zero angle of attack while the current tests were conducted with a single model/ sting attachment for the entire test series.

Results of current tests of the basic seat show a smooth curve of C_x versus alpha at $\alpha=0$. A discontinuity occurred at that point in the reference 4 data due to re-positioning of the model on the sting at $\alpha=0$. This is evident in the data shown in Figure 24 at all Mach numbers.

Minor differences in pitching moment (0.06 maximum) about the seat reference point are exaggerated in Figure 24 due to the expanded ordinate scale. The same can be said for C_z versus Yaw in Figure 25 where differences up to 0.3 occur at the subsonic Mach numbers at a Yaw angle of 30 degrees. These differences are probably due to addition of the mounting plates and repositioning of the balance outside of the model for the current tests.

Figures 26 through 28 show the effect of the rocket plume on C_x , C_z and C_{mCG} for a simulated sea level plume. Data of figures 26 and 27 indicate that the rocket plume does not have a significant effect on the aerodynamic characteristics for the seat with either the 18 deg or 35 deg boom with stabilizer and blast shield (configurations 1 and 2) through the angle of attack (-45 to 75 deg) and mach number 0.6 to 1.5) ranges tested. Figure 28 shows the rocket plume effects for the seat with 18 deg boom and blast shield (configuration 3). For this configuration a rocket plume effect may be seen for angles of attack above 40 deg at mach number 0.5, but diminishes to a very minor effect at mach number 1.5. These data indicate that for a stabilized ejection seat system where the angle of attack remains within about -45 deg to +45 deg, the rocket plume effect may be neglected in making preliminary ejection seat performance predictions.

Figure 29 shows the effect on force and pitching moment coefficients of adding the 18 deg boom with stabilizer (configuration 7) and the 35 deg boom with stabilizer (configuration 8) to the basic seat (configuration 9). These data show that adding a boom and a stabilizer causes the pitch moment coefficient to become a much more sensitive function of angle of attack. The correspondingly greater slope of this function implies that the seat has a more stable pitch trim attitude. Also the seat trim point shifts, for example at Mach 0.6, from about a -25 deg for the basic seat to near 15 deg with the

18 deg boom and near 35 deg with the 35 deg boom. The force coefficients, C_x and C_z , show the effect of drag reduction at angles of attack close to the respective trim values for the configurations with boom and stabilizer as compared to the drag of the basic seat at its trim condition. This figure shows, comparatively, the pitch trim attitudes for these configurations and provides a basis for interpolating aerodynamic coefficients for configurations with a boom angle between 18 deg and 35 deg.

Figure 30 shows the effect on side force, rolling moment and yawing moment coefficients of the seat with 18 deg and 35 deg booms and stabilizers (configurations 7 and 8). These curves indicate the large magnitude of the side force and yaw moment coefficients due to the aft boom at yaw angles greater than approximately 10 . The plots of the roll moment coefficient, C for these configurations show that at subsonic speeds, for yaw angles between 0 deg and approximately 15 deg , the sign of this coefficient is negative, indicative of the complexity of the flow field aft of the seat back.

A comparison of the aerodynamic coefficients for a seat with and without the stabilizer is made in Figures 31 through 34. These curves show how this device improves the pitch stability of the seat with only a negligible drag penalty when the seat is at attack angles near the stable pitch attitude. The stabilizer causes the pitch trim attitude to change from a value near -10 deg to one near +15 deg with the 18 deg boom (See Figure 31) and to change from near 0 deg to +30 deg with the 35 deg boom (See Figure 33).

The addition of the blast shield to a seat with the 18 deg boom and stabilizer slightly reduced the drag at attack angles near zero degrees as shown by the plot of C_x in Figure 35. It also increased the attack angle of the stable trim attitude and increased the roll moment coefficient as shown in Figure 36. The latter effect is attributable to the blast shield configuration having a higher center of pressure relative to the reference center of gravity.

The aerodynamic coefficients of configurations consisting of the seat with a boom and a blast shield are shown in Figures 37 and 38. The plots show data for 18 deg and 35 deg boom angles and can be interpolated for intermediate boom angles.

The addition of the flow diverter to the seat with the 18 deg boom causes the trim attitude to shift to a higher attack angle and causes a reduction of drag at supersonic speeds. These effects are seen in Figures 39 and 40. The trim shift appears, in the pitch moment coefficient and the drag reduction in the C_x plot for attack angles near 20 deg (for which C_x is nearly identical to the drag coefficient). The flow diverter has a similar effect on drag when added to configurations which include the stabilizer (Figures 41 and 42), but has much less effect on the pitch trim attitude since this is being controlled primarily by the stabilizer.

Figures 43 through 45 are plots of the ratio of pressure at the crewmember's head to the free stream total pressure as a function of attack angle for configurations with and without the flow diverter. In all cases the flow diverter achieves significant reduction of head pressure at supersonic speeds for attack angles between 20 deg and 40 deg. This is the attack angle range for which the crewmembers head lies within the shock generated by the flow diverter.

V. CONCLUSIONS

1. The data presented in this report can be used for six degree-of-freedom performance analysis of an existing or planned, upright ejection seat with devices added for stabilization, drag reduction and wind blast protection. These devices are, an aft body boom and horizontal stabilizer, an upper torso streamlining blast shield and a flow diverter.
2. An aft body boom slightly reduces aerodynamic drag while providing high yaw stabilizing moment.
3. A horizontal stabilizer can be used to change the alpha trim point of the seat. Interpolation of the data provided at two different stabilizer/boom positions can be used to find other trim positions.
4. A horizontal stabilizer produces high pitch stabilizing moments.
5. A flow diverter reduces aerodynamic drag on the seat and reduces dynamic pressure on the crewmember at speeds above Mach one if the seat is stabilized near the design trim condition.

6. Drag reduction induced by addition of an upper torso streamlining blast shield is slight. This device also causes an increase in rolling moment coefficient due to an upward shift in the center of pressure.

7. Rocket exhaust has negligible influence on aerodynamic characteristics of the added devices with the seat at an attitude near the trim point.

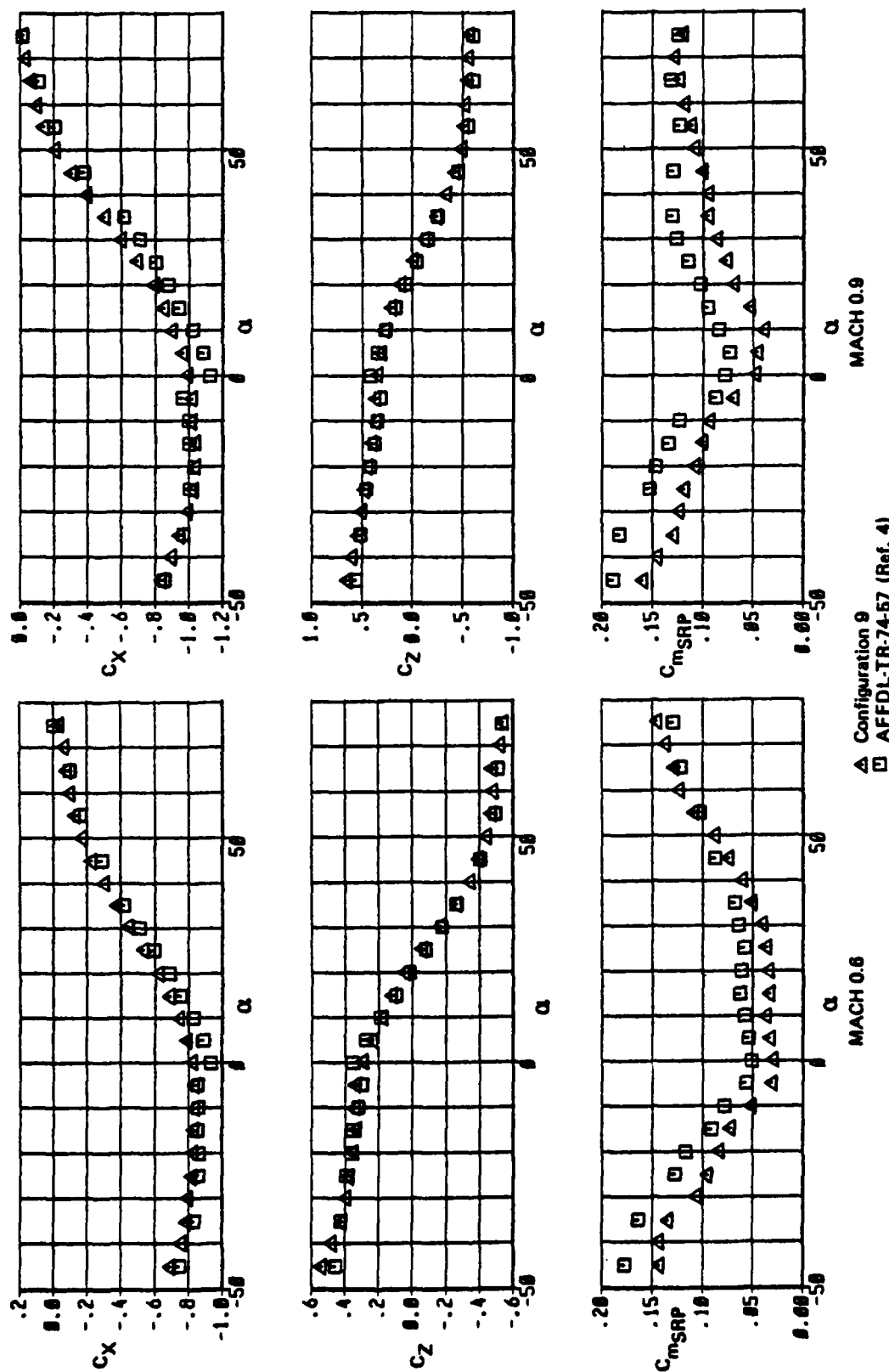


Figure 24. Comparison of Force and Moment Coefficient Variation with Angle of Attack of the Basic Seat (Configuration 9) with Previous Data from AFFDL-TR-74-57 (Ref. 4), $\psi = 0$

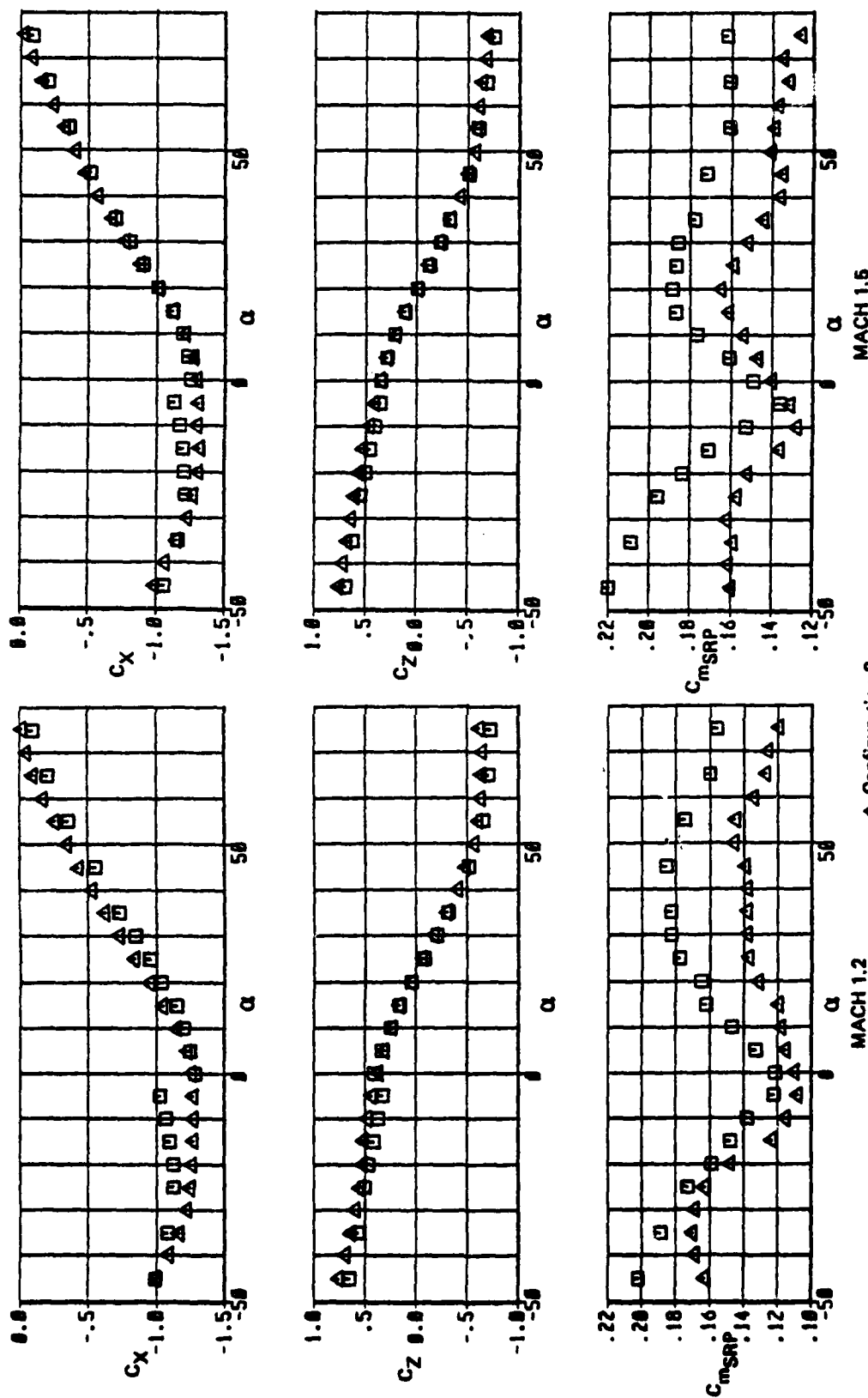


Figure 24. (Continued)

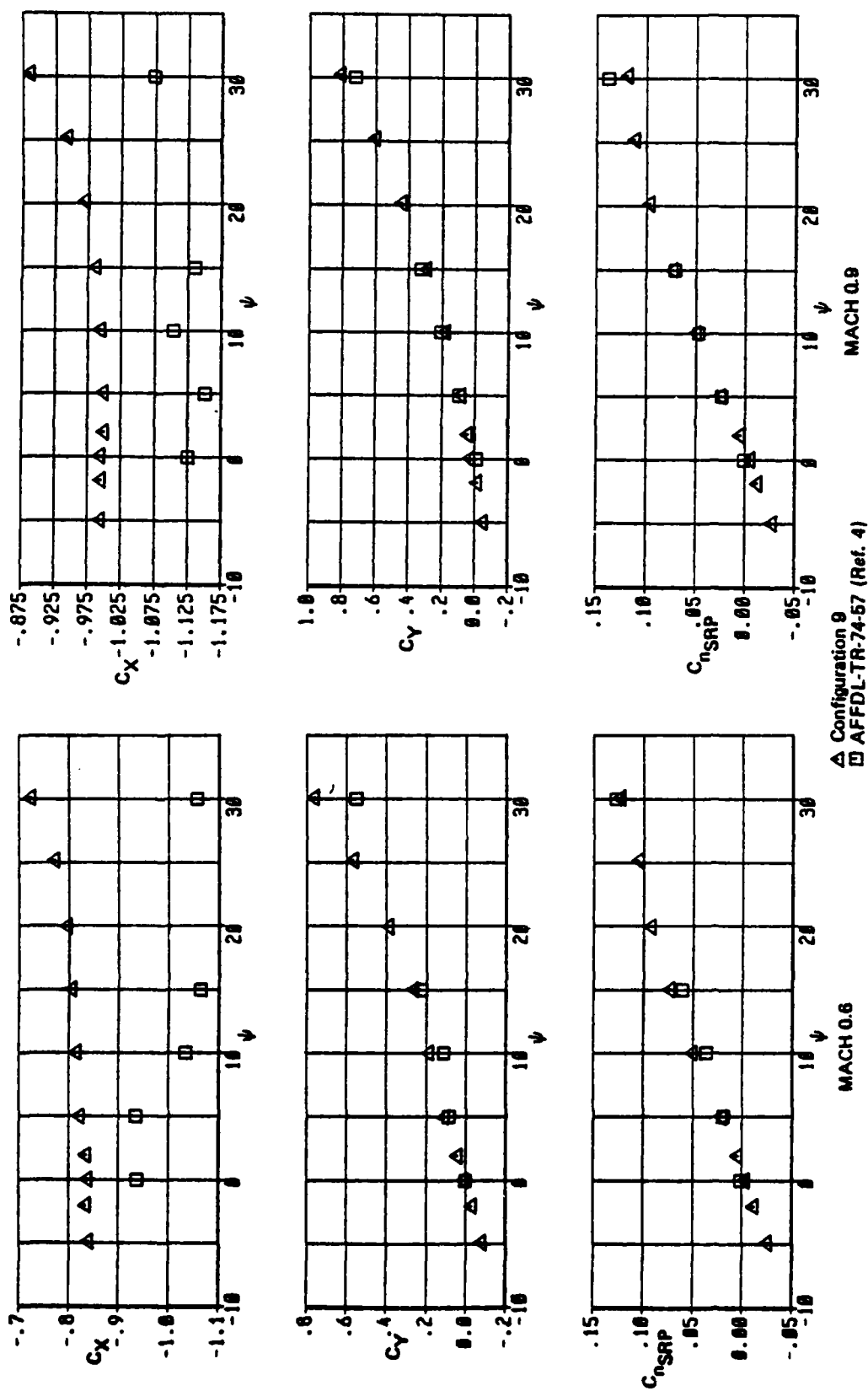


Figure 25. Comparison of Force and Moment Coefficient Variation with Angle of Yaw of the Basic Seat (Configuration 9) with Previous Data from AFFDL-TR-74-57 (Ref. 4), $\alpha = 0$

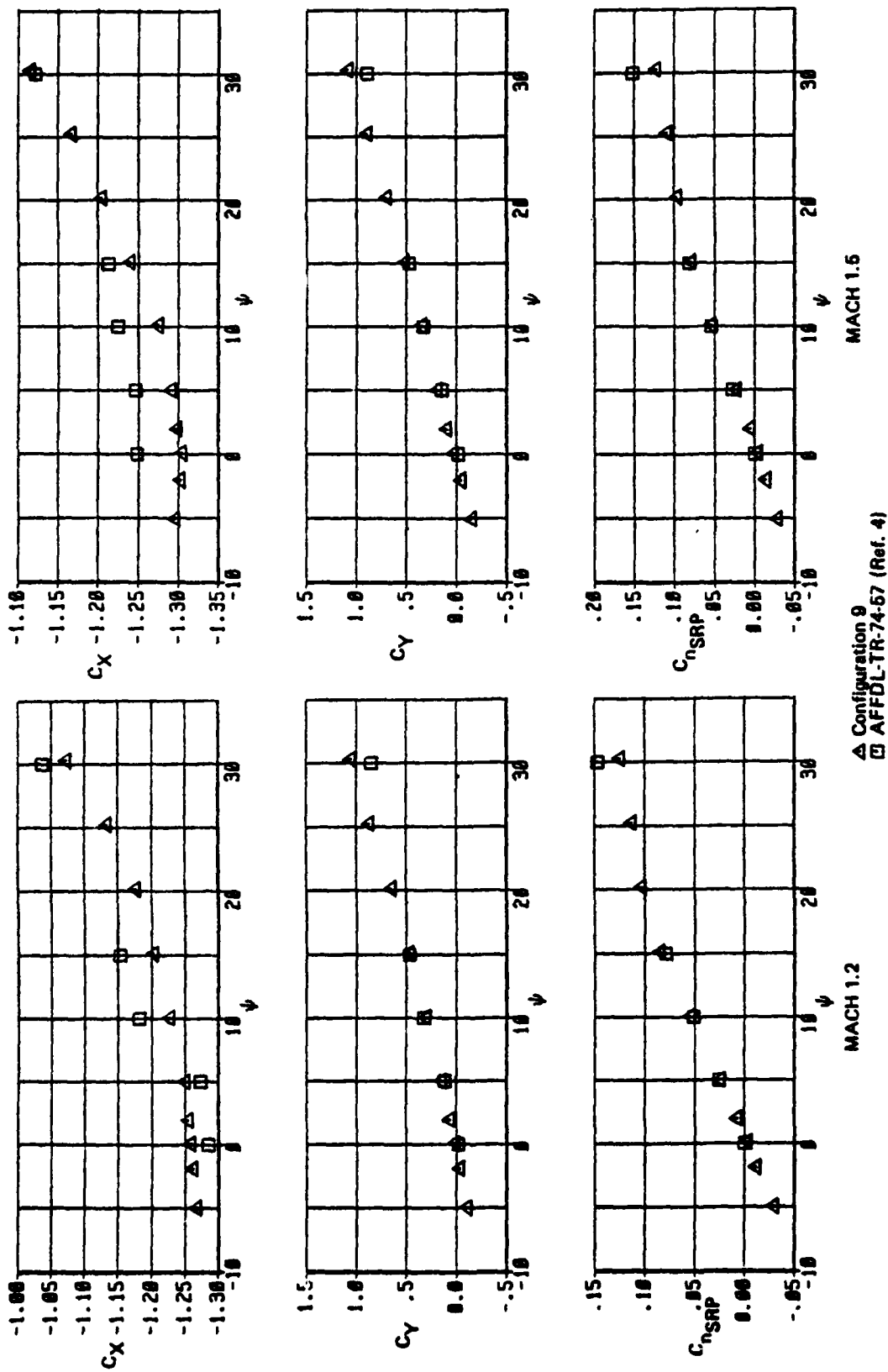


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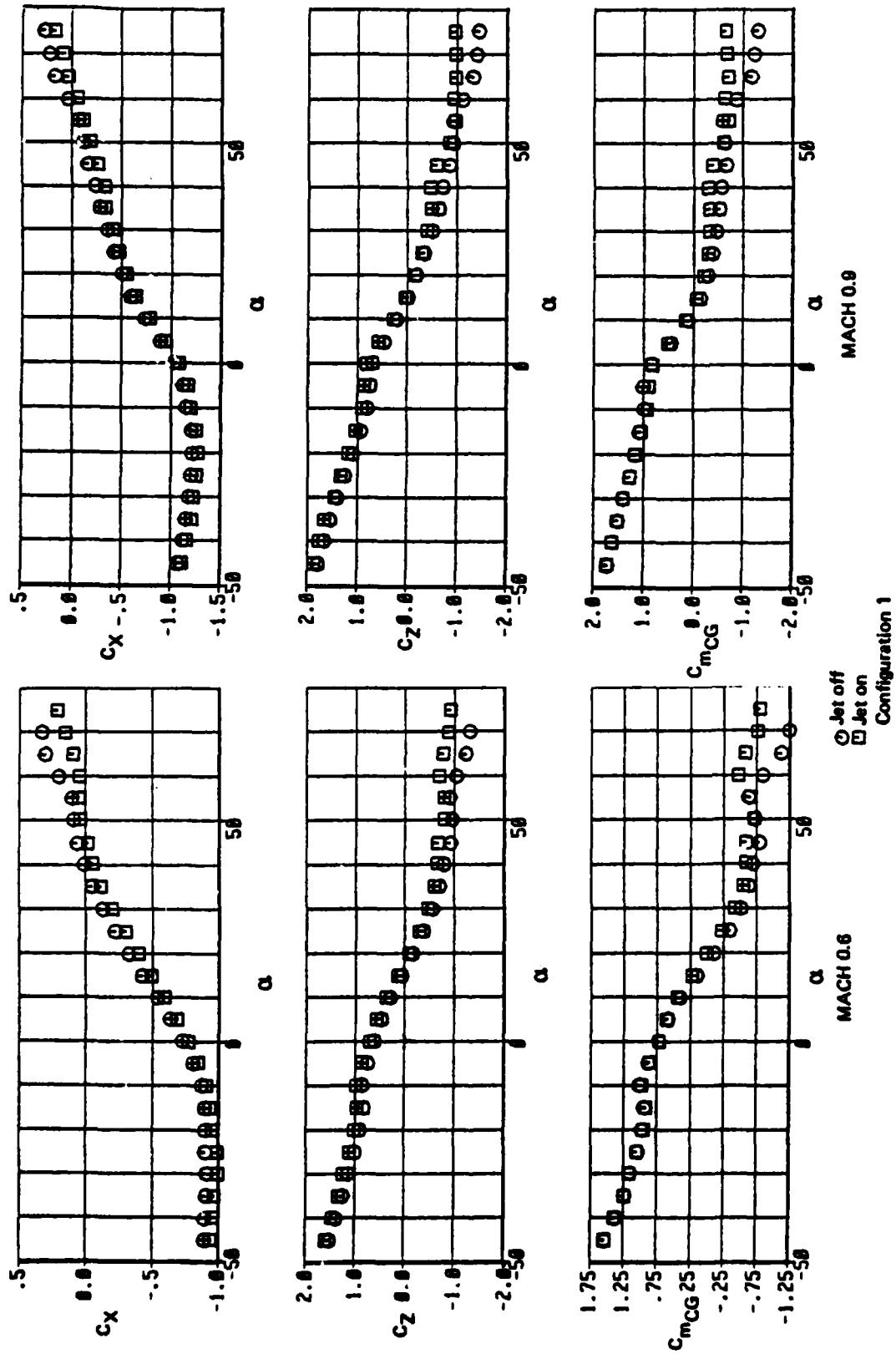


Figure 26. Variation of Force and Moment Coefficients with Angle of Attack for Rocket Off and Rocket On Conditions, Simulated Sea Level Plume, for Seat with 18° Boom, Stabilizer, and Blast Shield (Configuration 1), $\psi = 0$

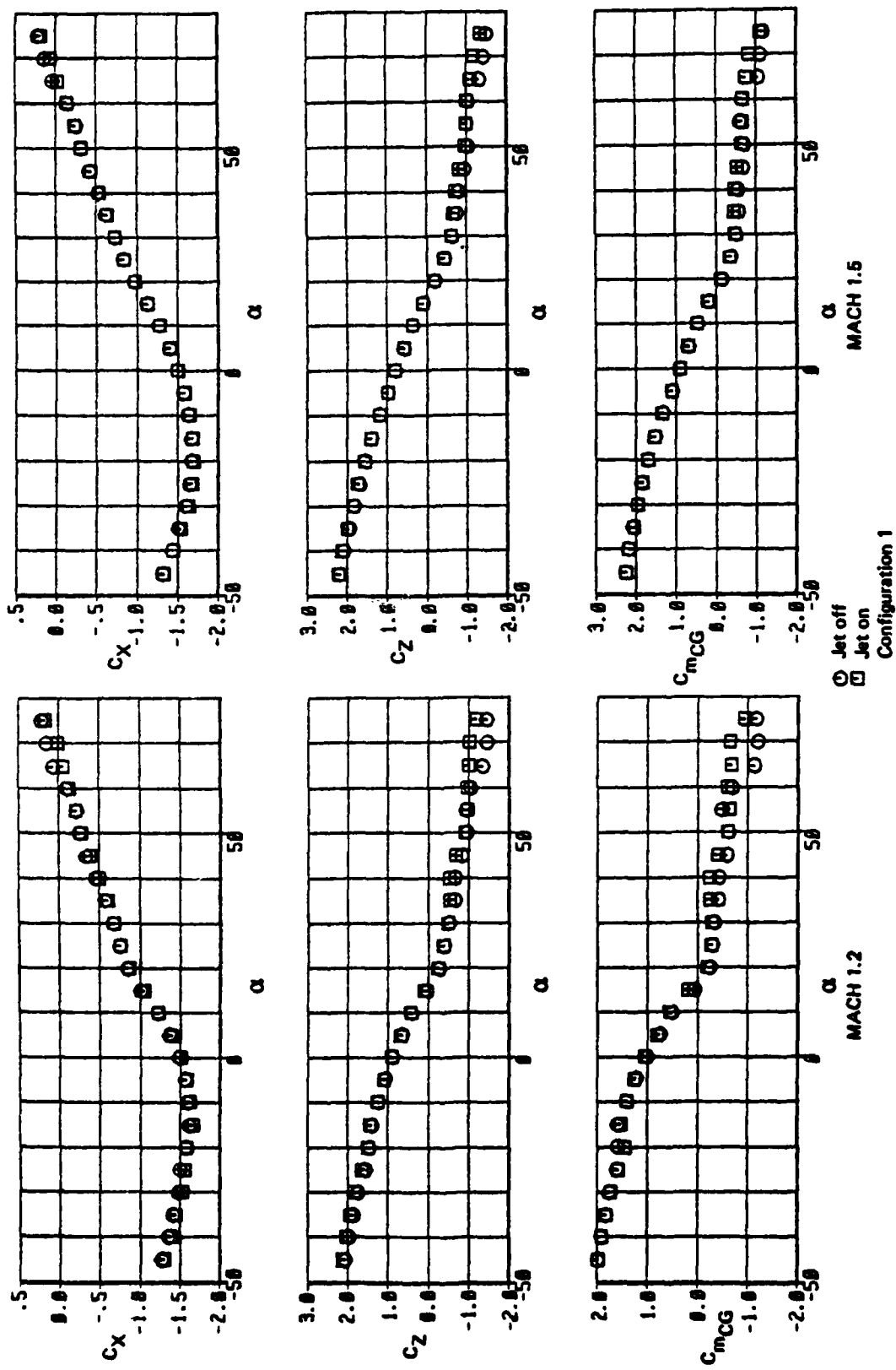


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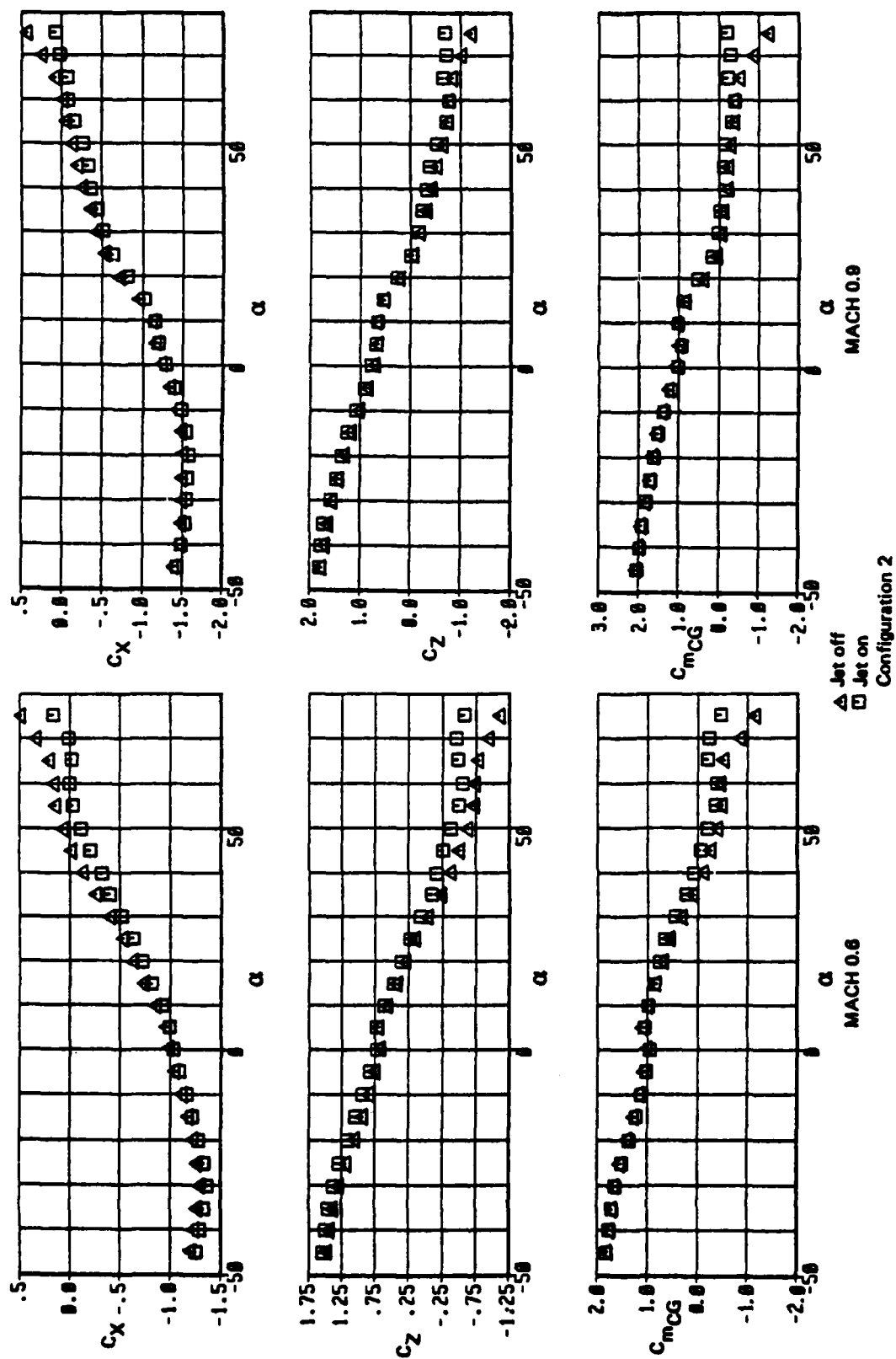


Figure 27. Variation of Force and Moment Coefficients with Angle of Attack for Rocket Off and Rocket On Conditions, Simulated Sea Level Plume, for Seat with 35° Boom, Stabilizer, and Blast Shield (Configuration 2), $\psi = 0$

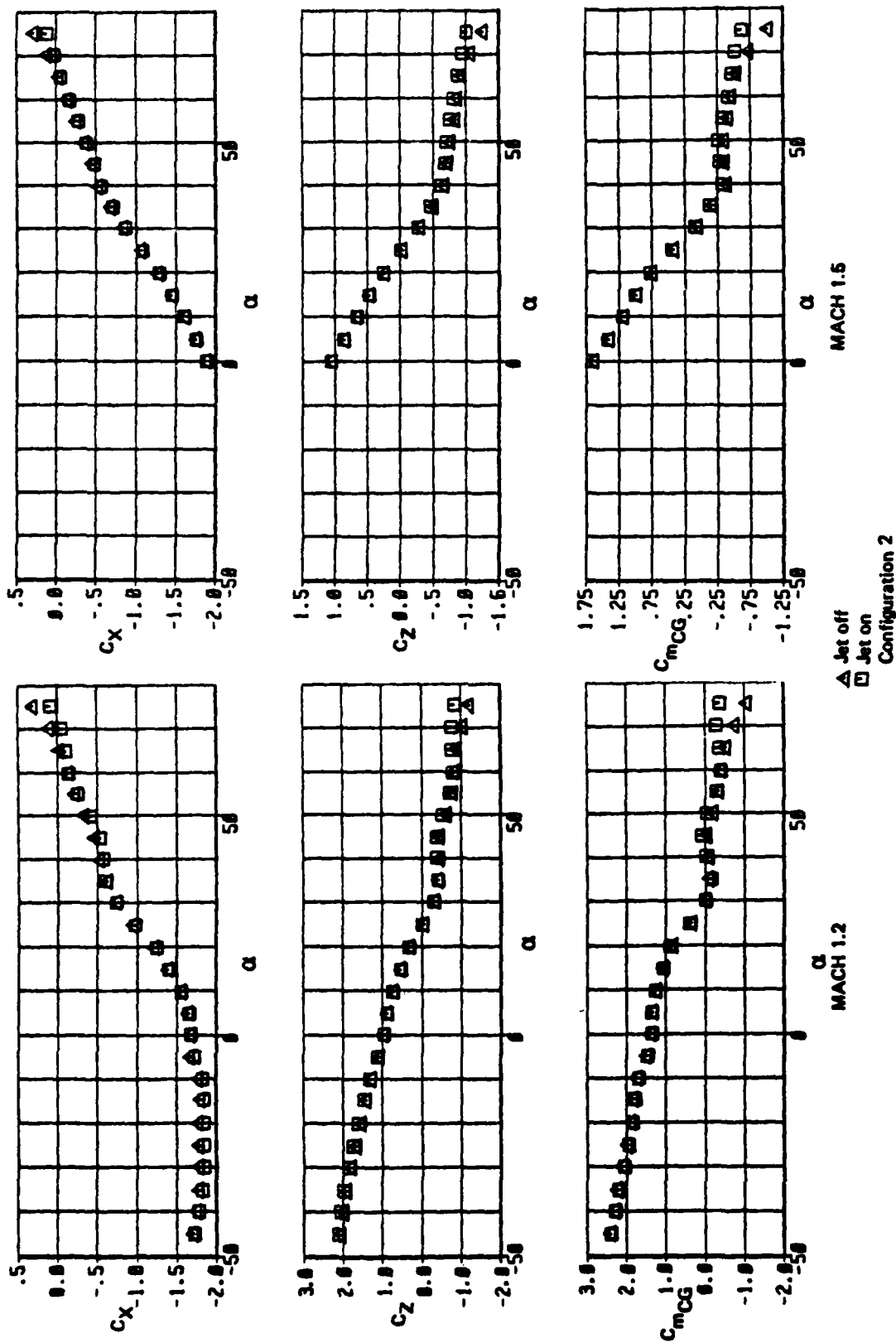


Figure 27. (Continued)

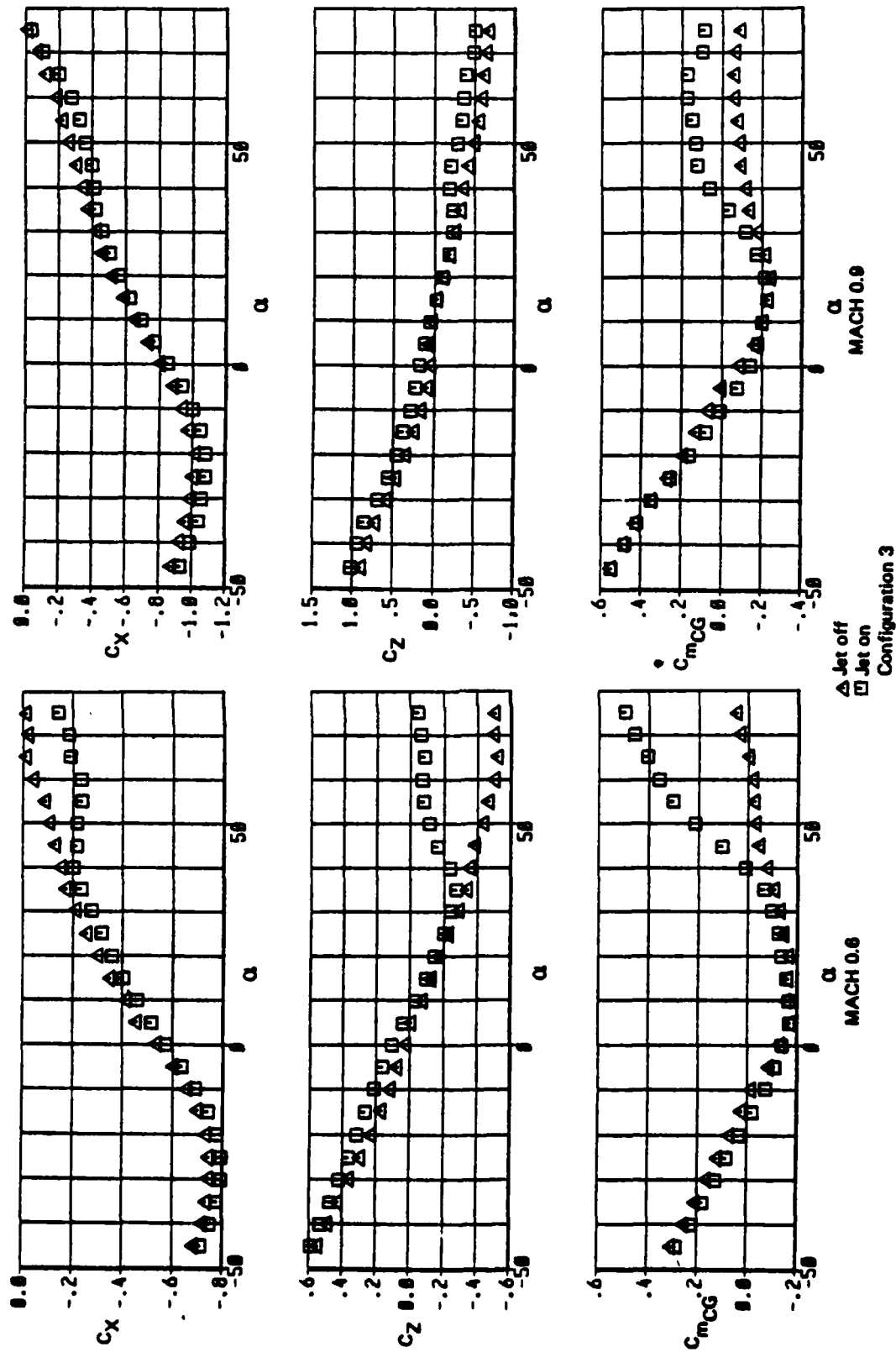


Figure 28. Variation of Force and Moment Coefficients with Angle of Attack for Rocket Off and Rocket On Conditions, Simulated Sea Level Plumes, for Seat with 18° Boom and Blast Shield (Configuration 3), $\psi = 0$

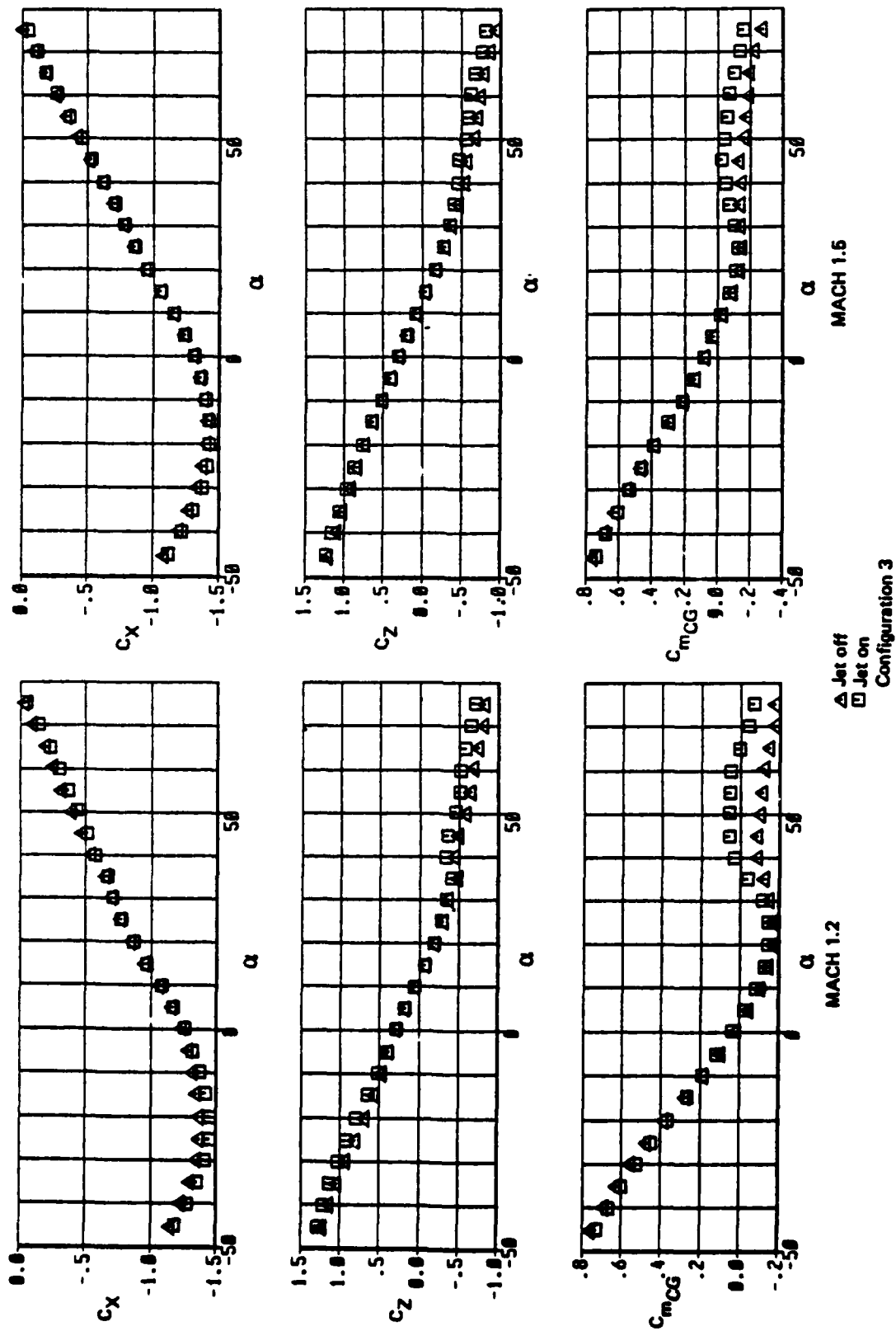


Figure 28. (Continued)

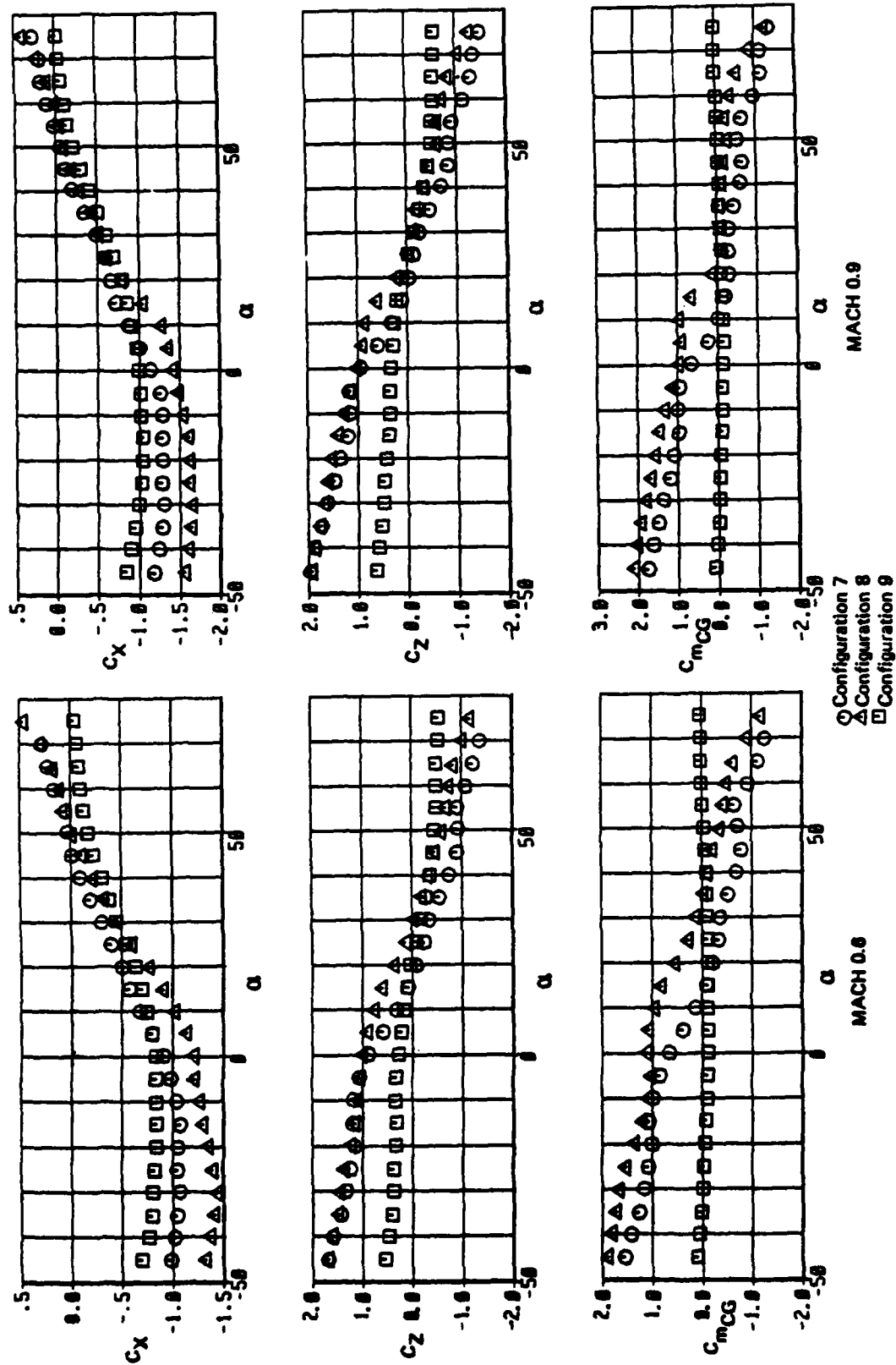


Figure 29. Variation of Force and Pitching Moment Coefficients with Angle of Attack for Seat with 18° Boom and Stabilizer (Configuration 7), Seat with 35° Boom and Stabilizer (Configuration 8), and Basic Seat (Configuration 9), $\psi = 0$

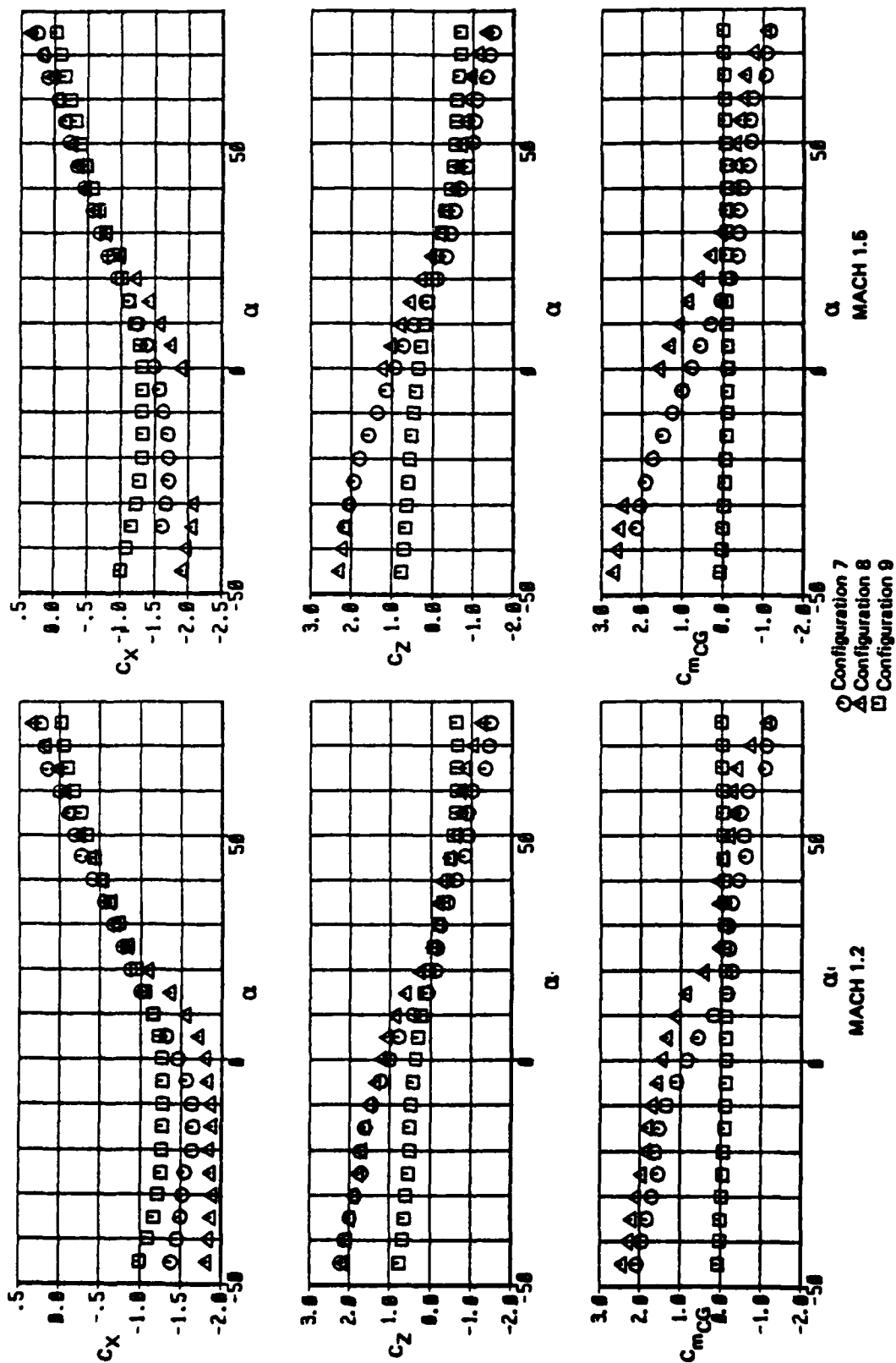


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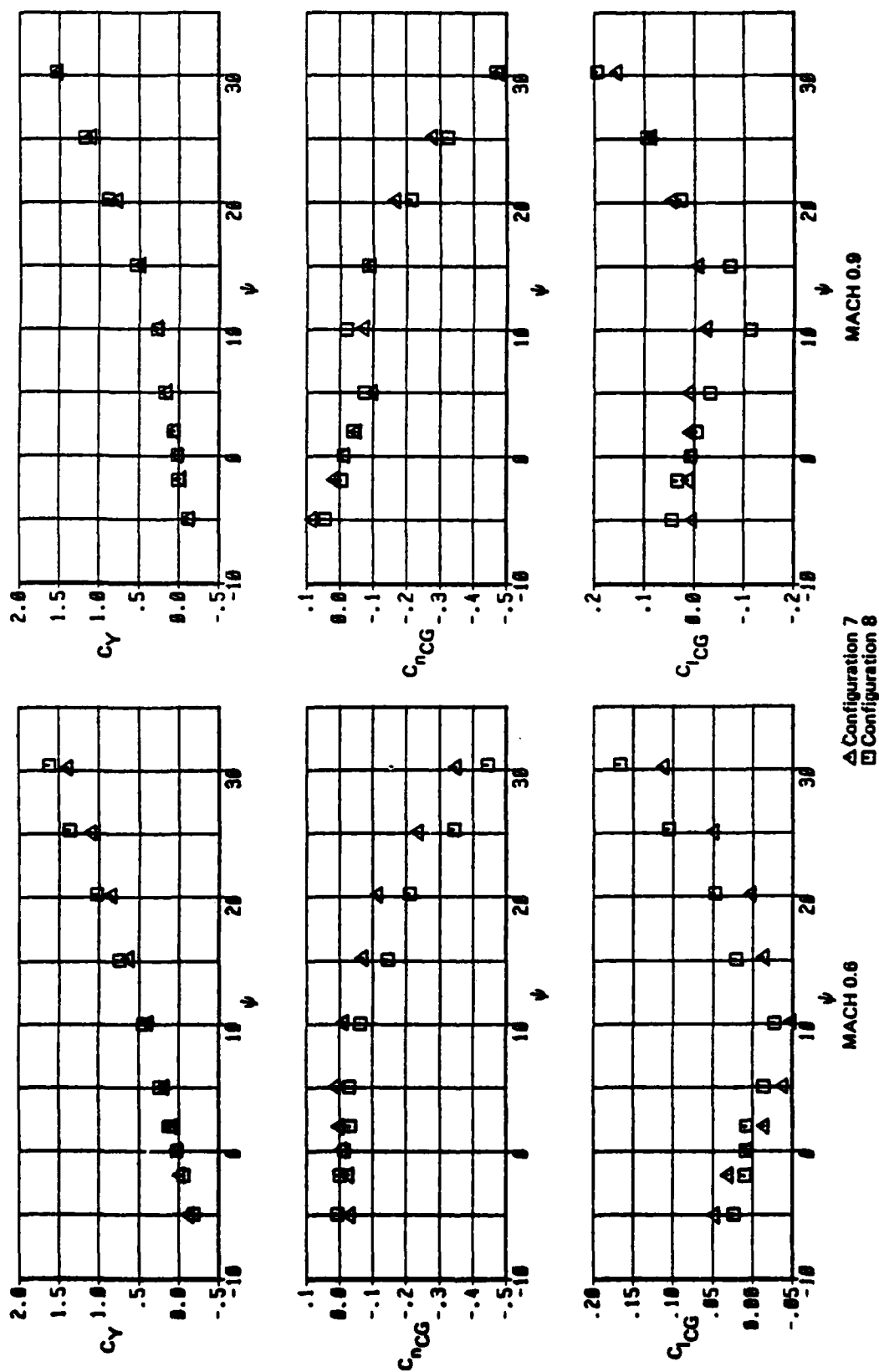


Figure 30. Variation of Side Force, Yawing Moment, and Rolling Moment Coefficients with Angle of Yaw for Seat with 18° Boom and Stabilizer (Configuration 7), and Seat with 35° Boom and Stabilizer (Configuration 8), $\alpha = 15^\circ$

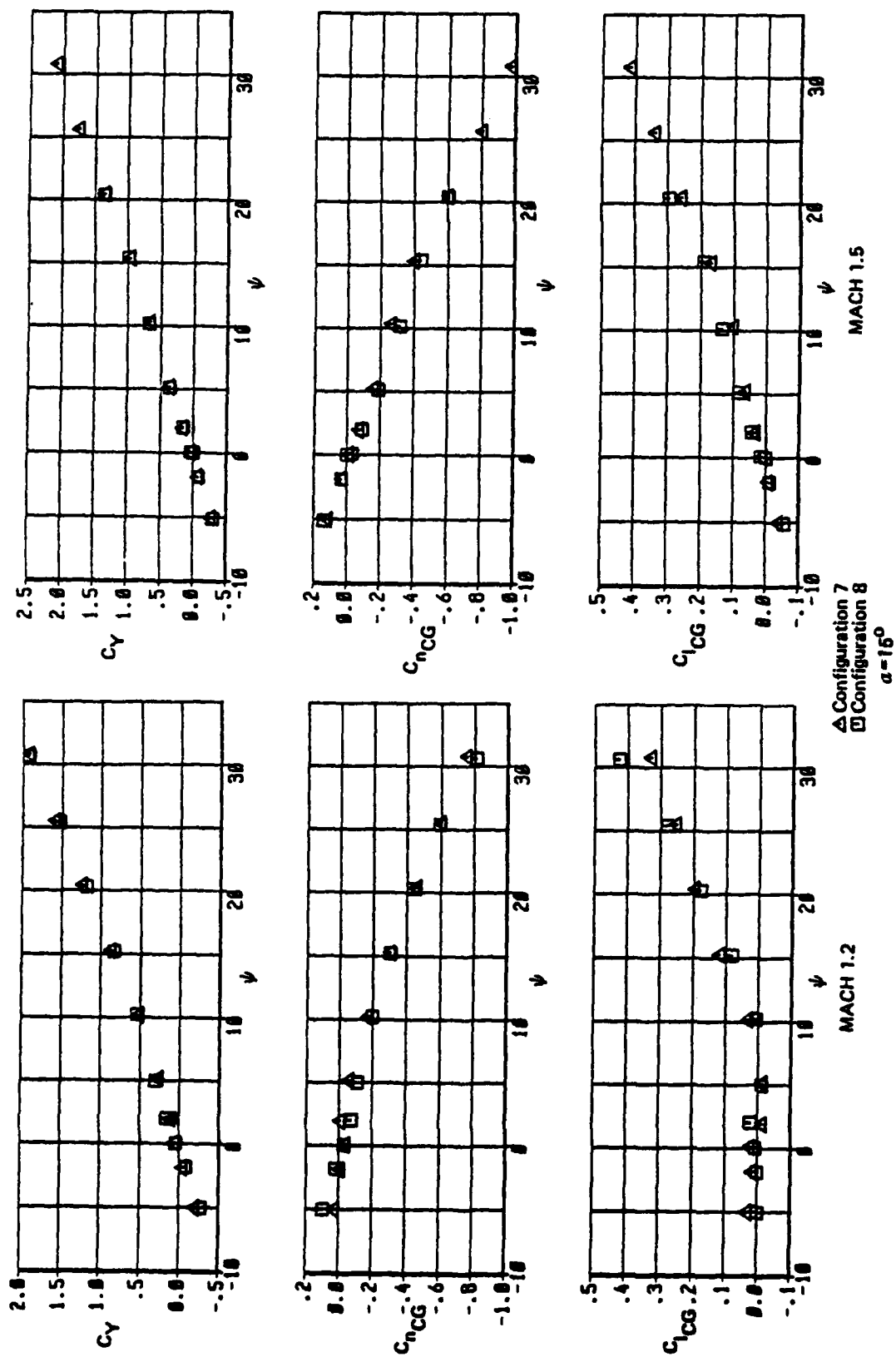


Figure 30. (Continued)

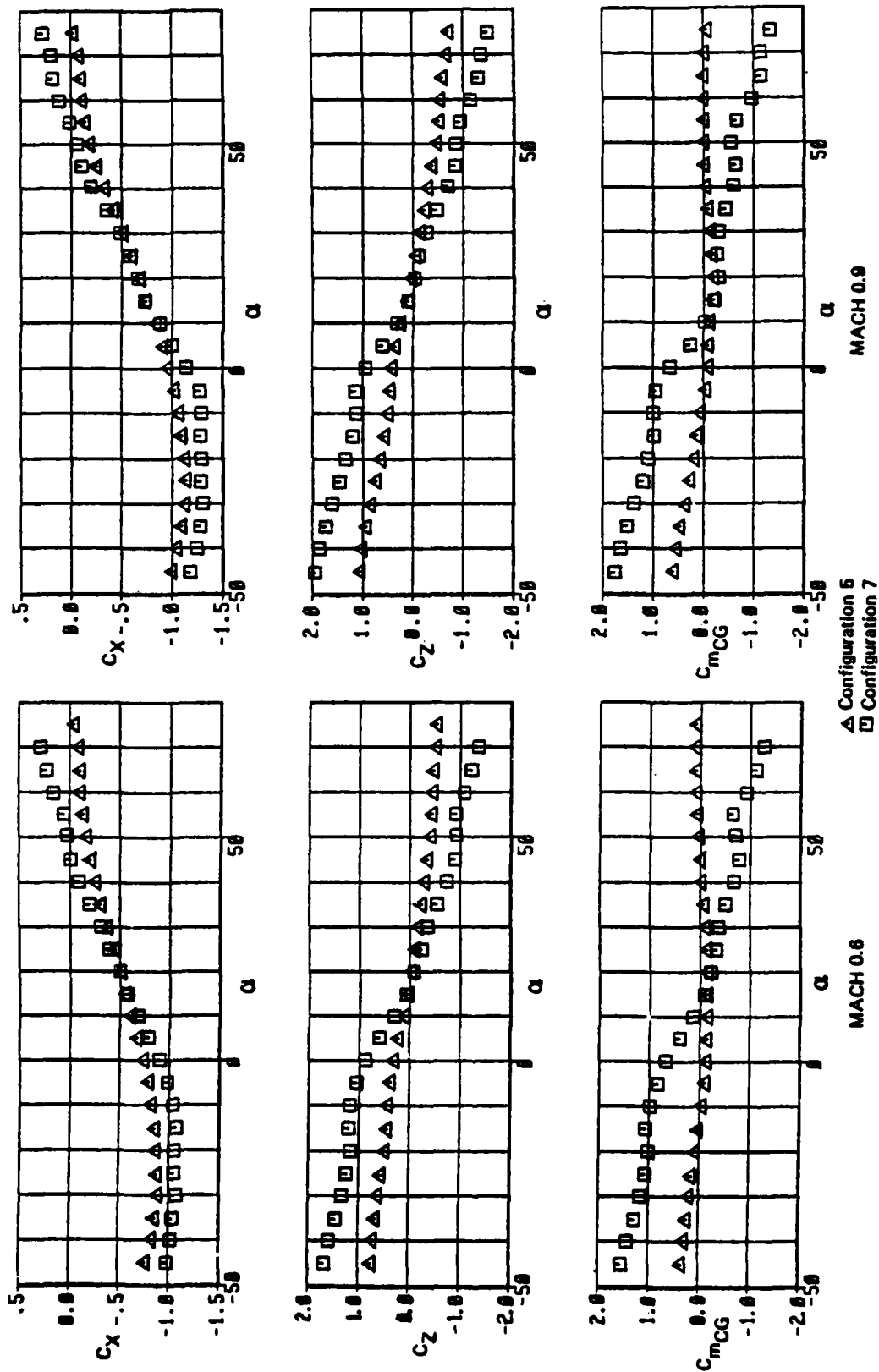


Figure 31. Variation of Force and Pitching Moment Coefficients with Angle of Attack for Seat with 18° Boom (Configuration 5), and Seat with 18° Boom and Stabilizer (Configuration 7), $\psi = 0$

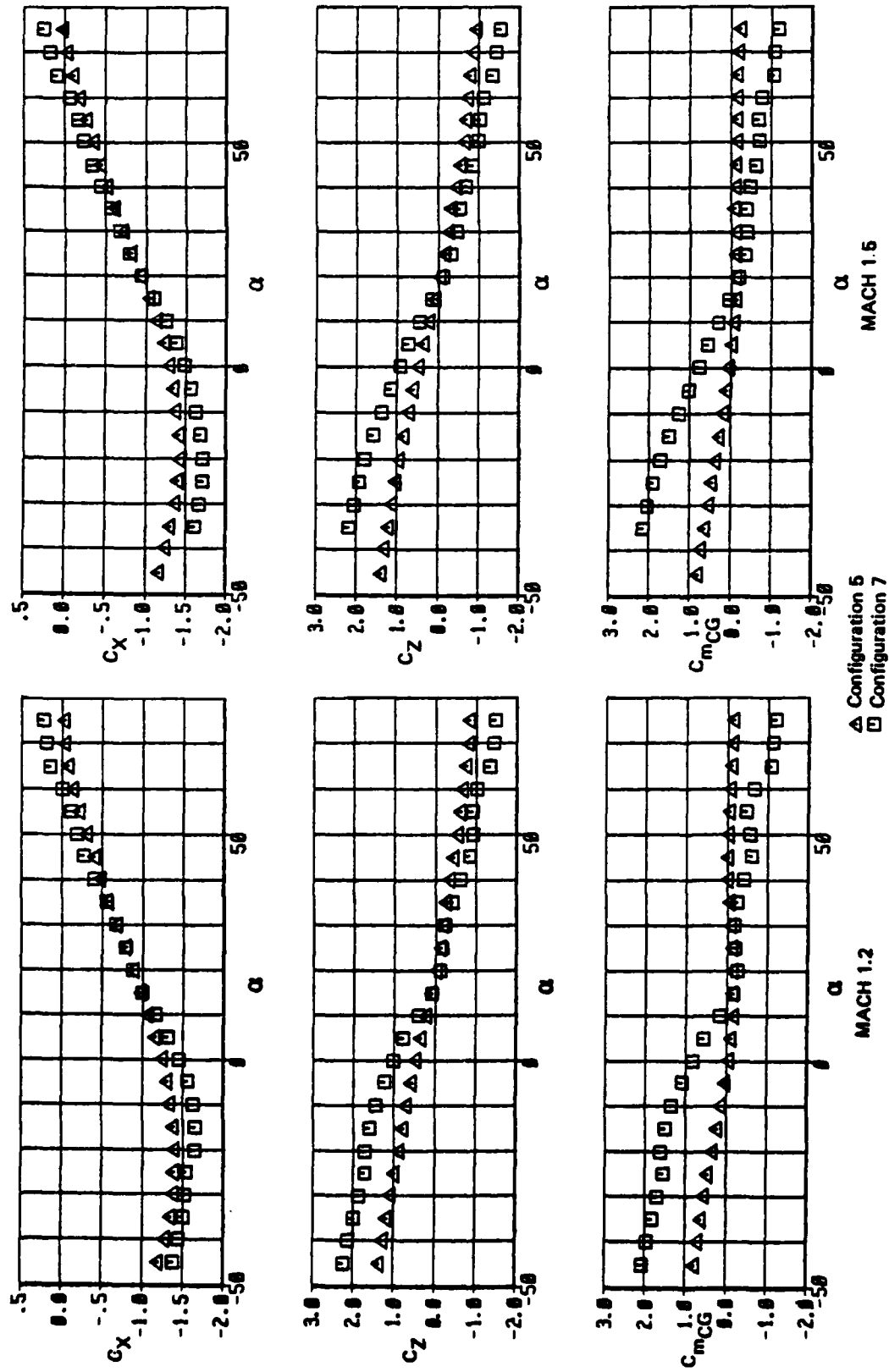


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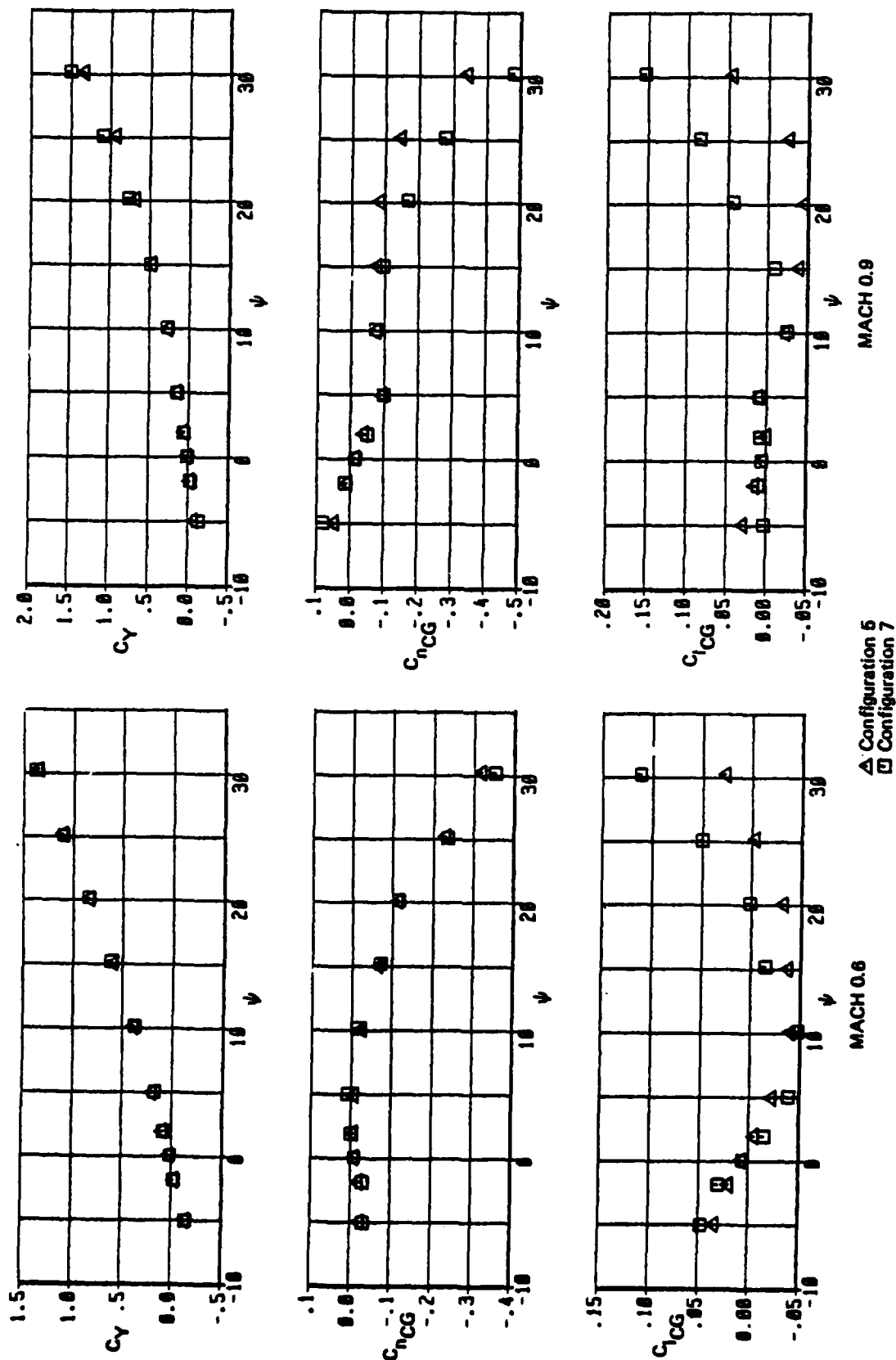


Figure 32. Variation of Side Force, Yawing Moment, and Rolling Moment Coefficients with Angle of Yaw for Seat with 18° Boom (Configuration 5), and Seat with 18° Boom and Stabilizer (Configuration 7), $\alpha = 15^\circ$

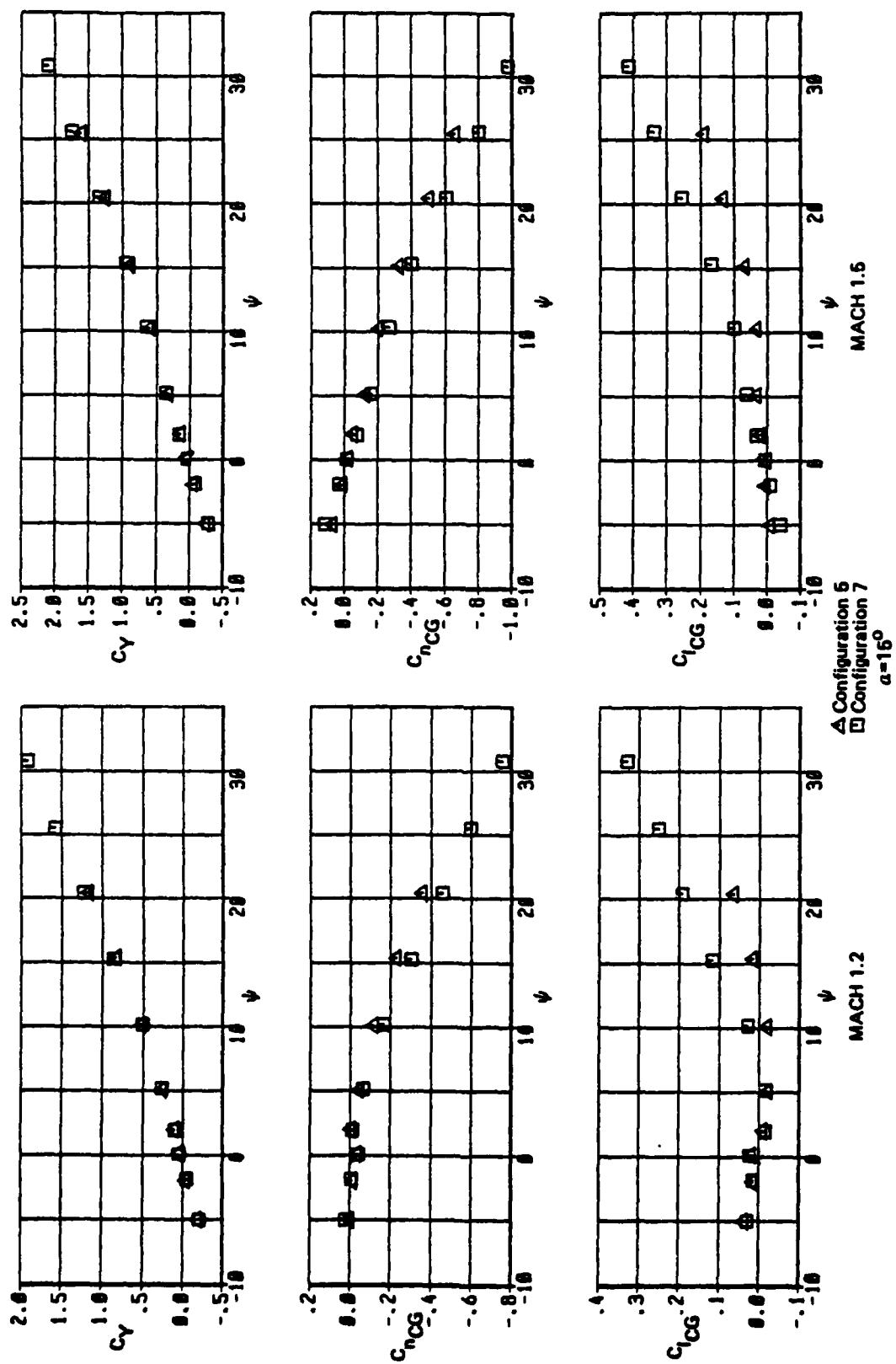


Figure 32. (Continued)

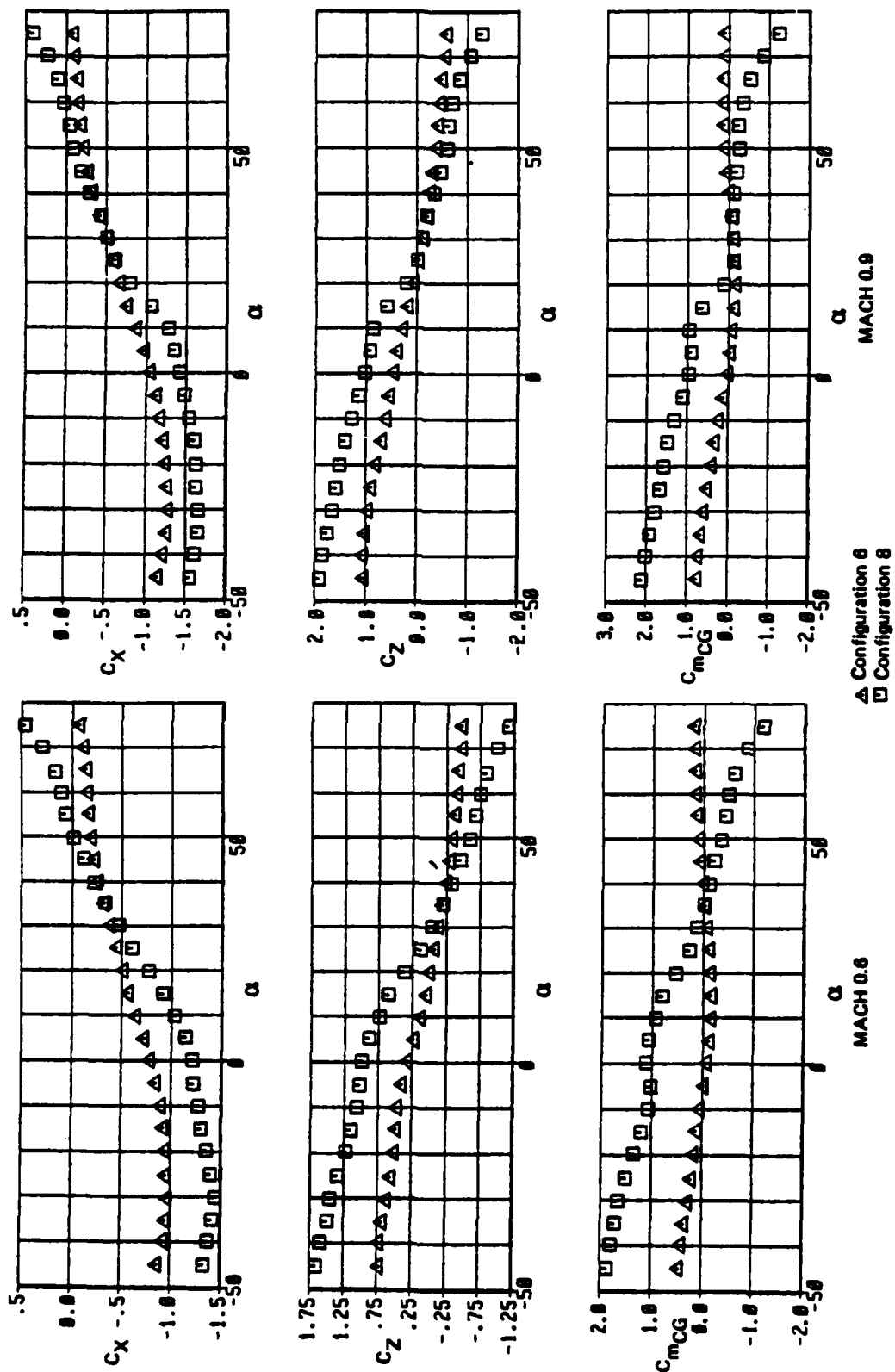


Figure 33. Variation of Force and Pitching Moment Coefficients with Angle of Attack for Seat with 35° Boom (Configuration 6), and Seat with 35° Boom and Stabilizer (Configuration 8), $\psi = 0$

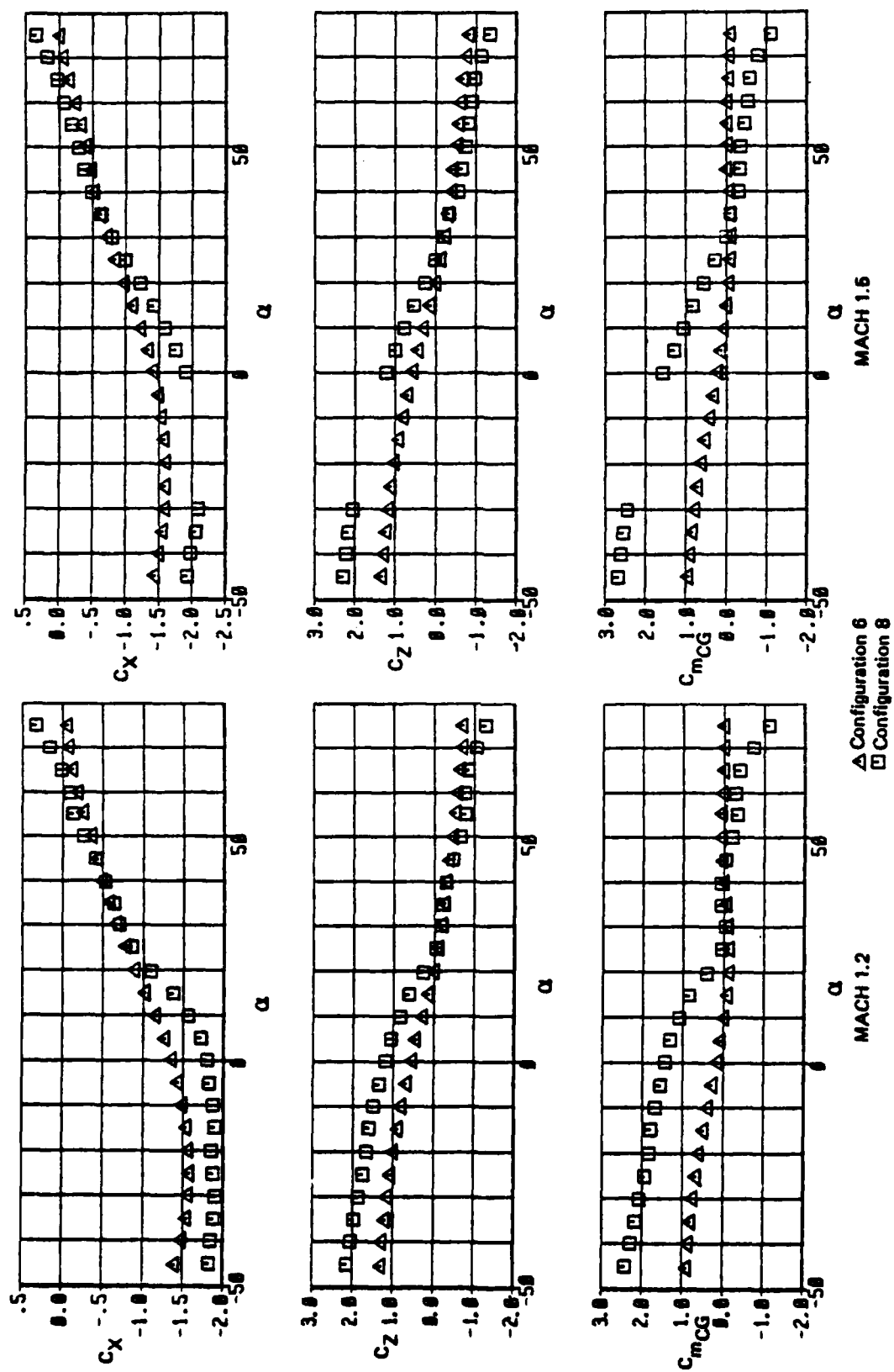


Figure 33. (Continued)

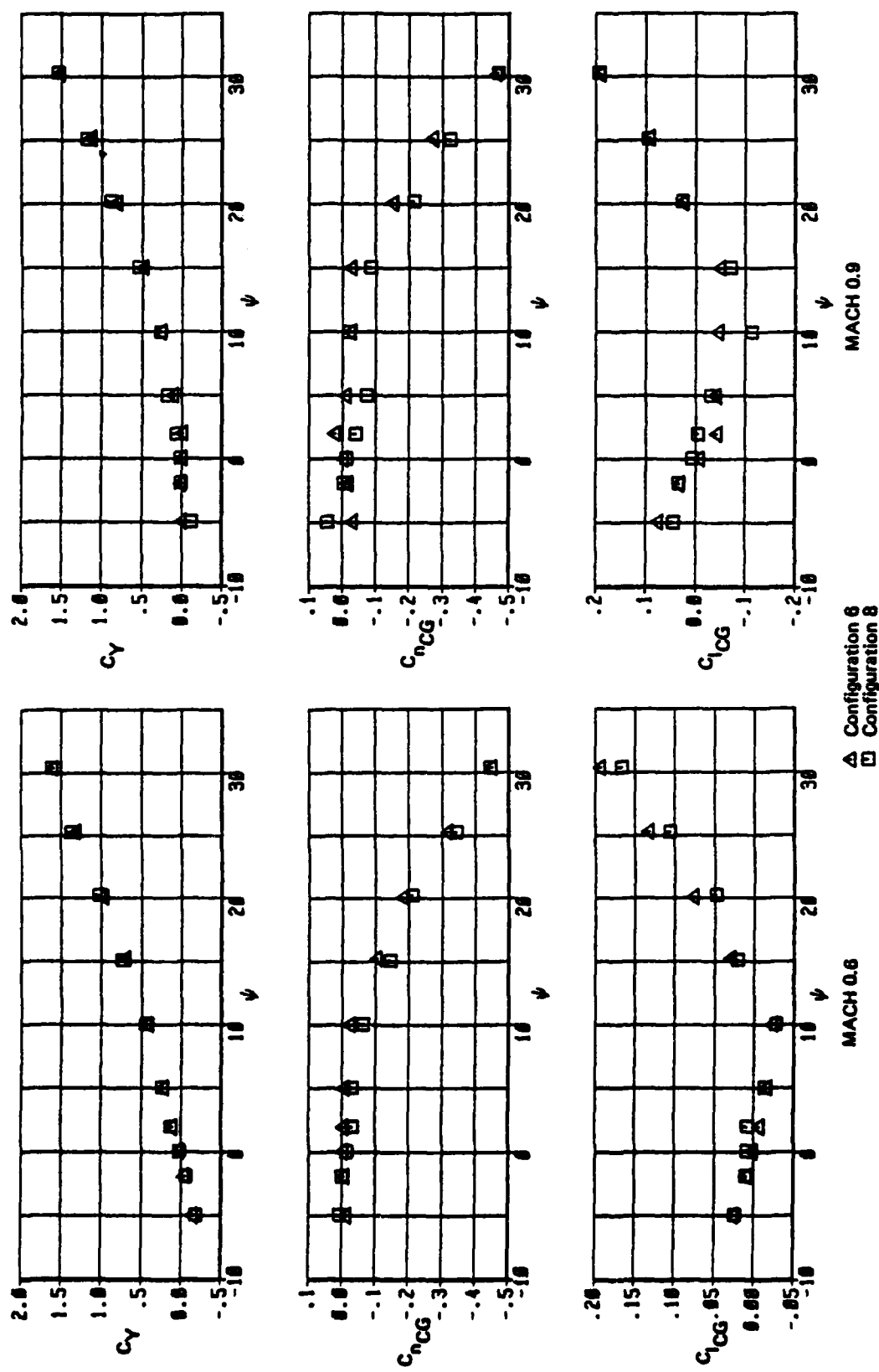


Figure 34. Variation of Side Force, Yawing Moment and Rolling Moment Coefficients with Angle of Yaw for Seat with 35° Boom (Configuration 6), and Seat with 35° Boom and Stabilizer (Configuration 8), $\alpha=15^\circ$

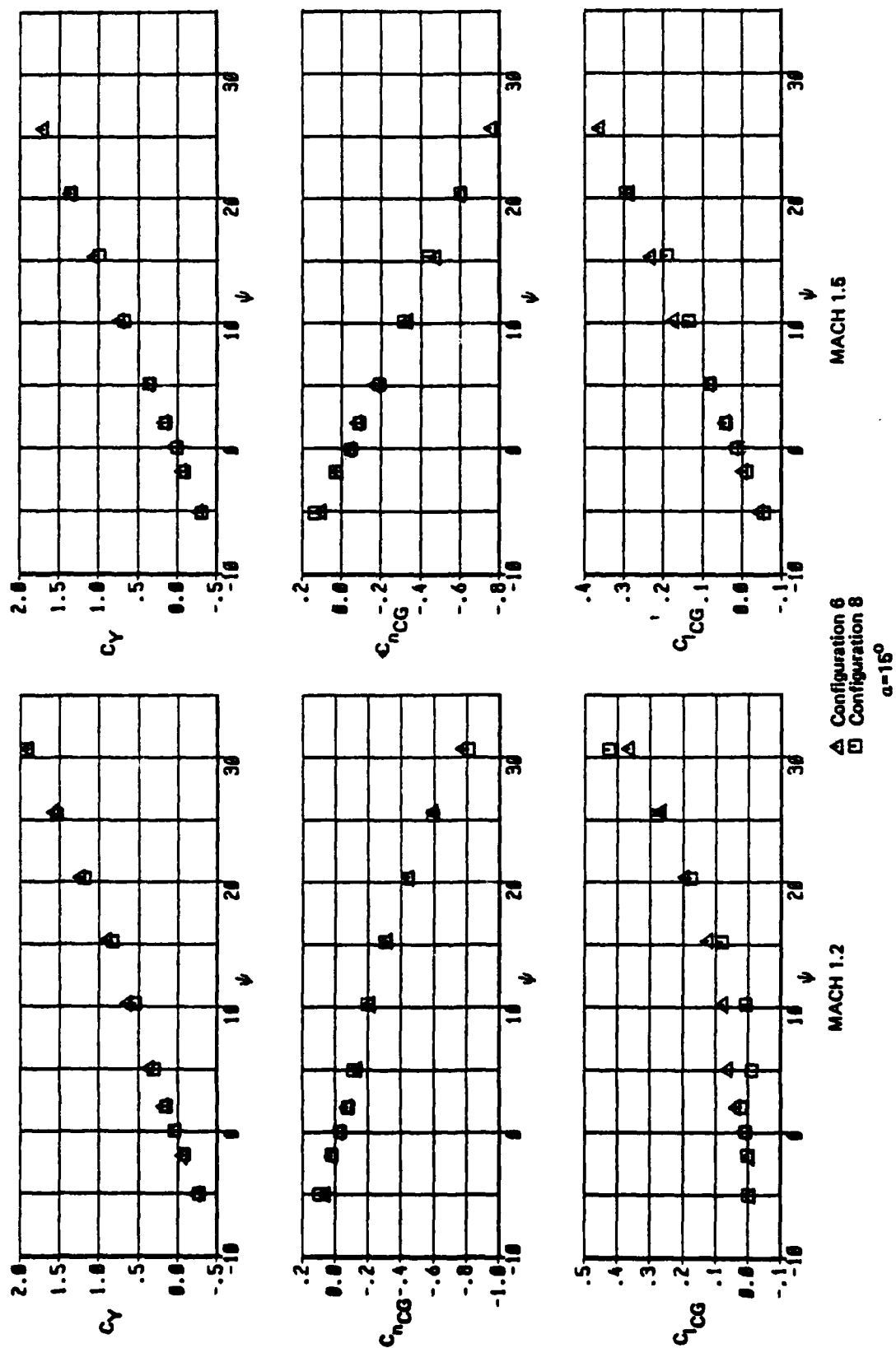


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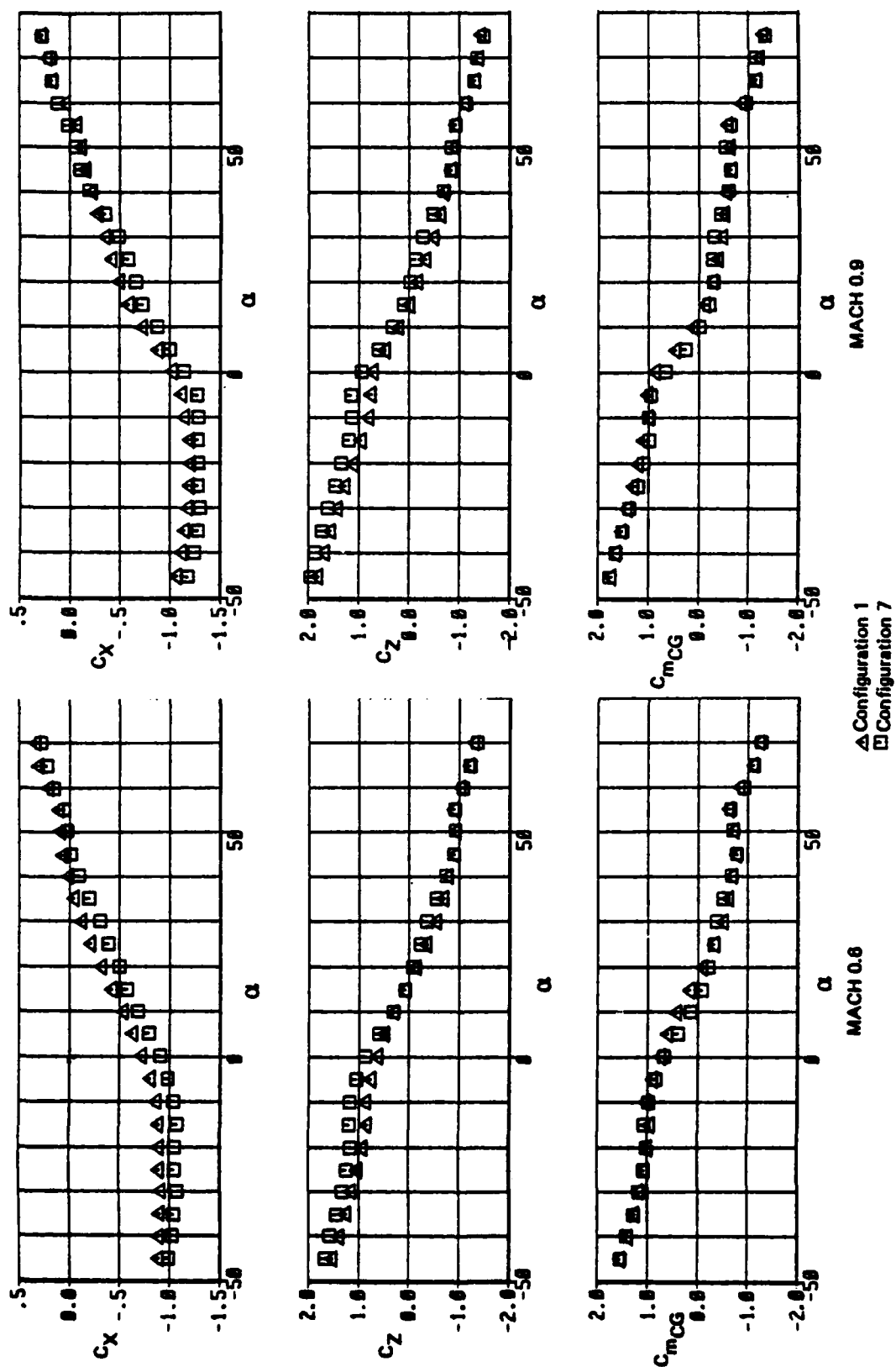


Figure 35. Variation of Force and Pitching Moment Coefficients with Angle of Attack for Seat with 18° Boom, and Stabilizer (Configuration 7), and Seat with 18° Boom, Stabilizer, and Blast Shield (Configuration 1), $\psi=0^\circ$

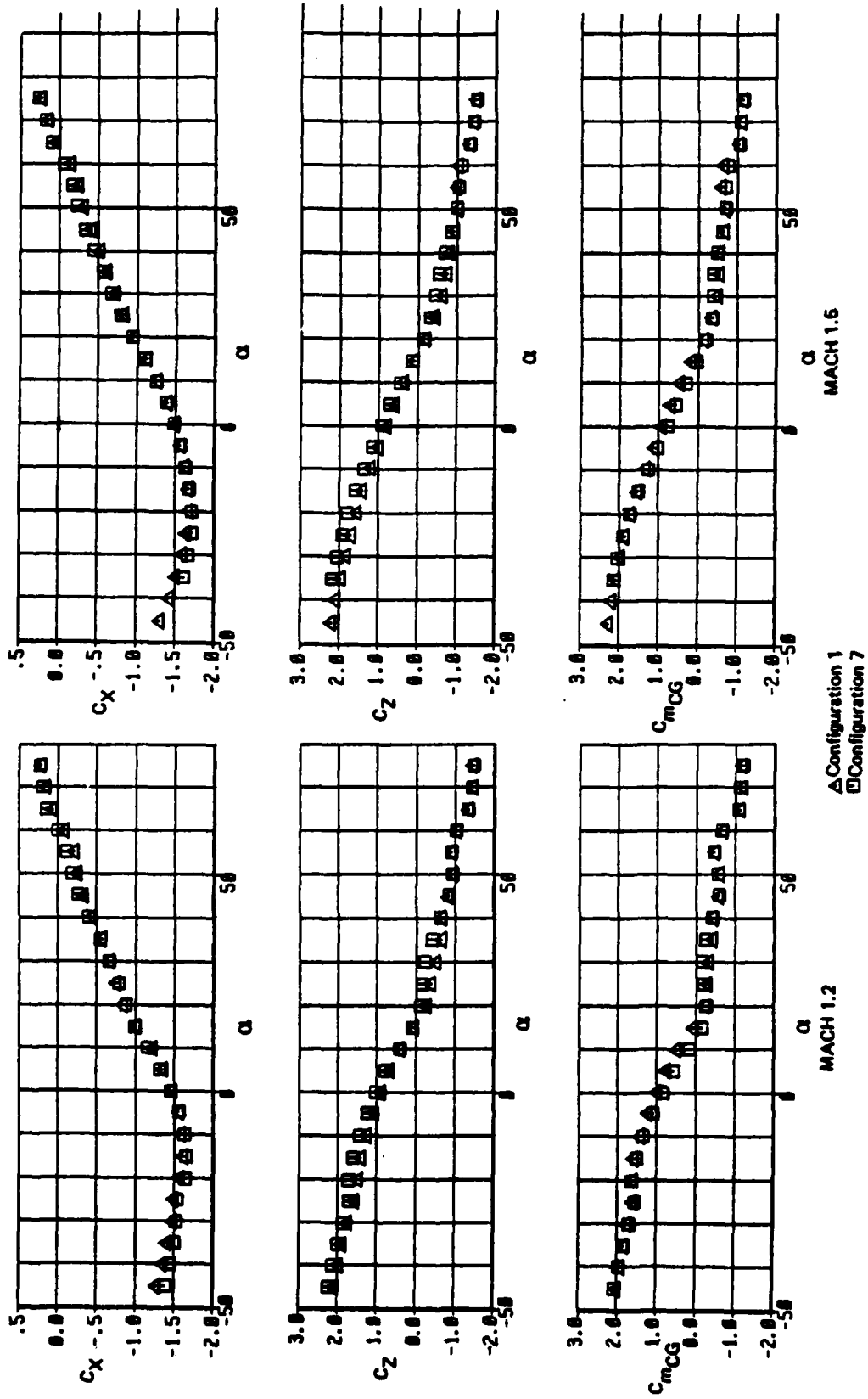


Figure 35. (Continued)

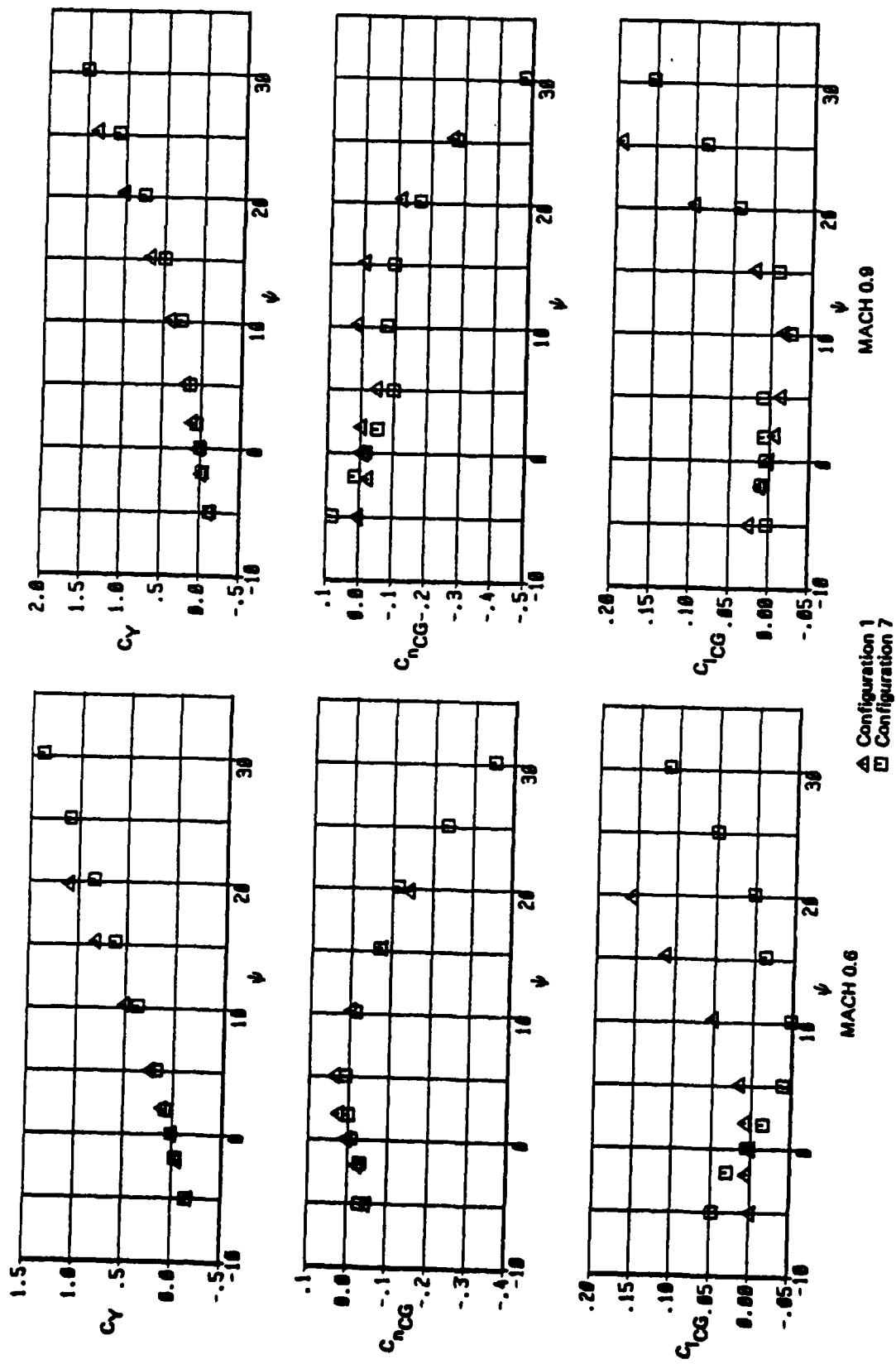


Figure 36. Variation of Side Force, Yawing Moment, and Rolling Moment Coefficients with Angle of Yaw for Seat with 18° Boom and Stabilizer (Configuration 7) and Seat with 18° Boom, Stabilizer, and Blast Shield, $\alpha=15^\circ$

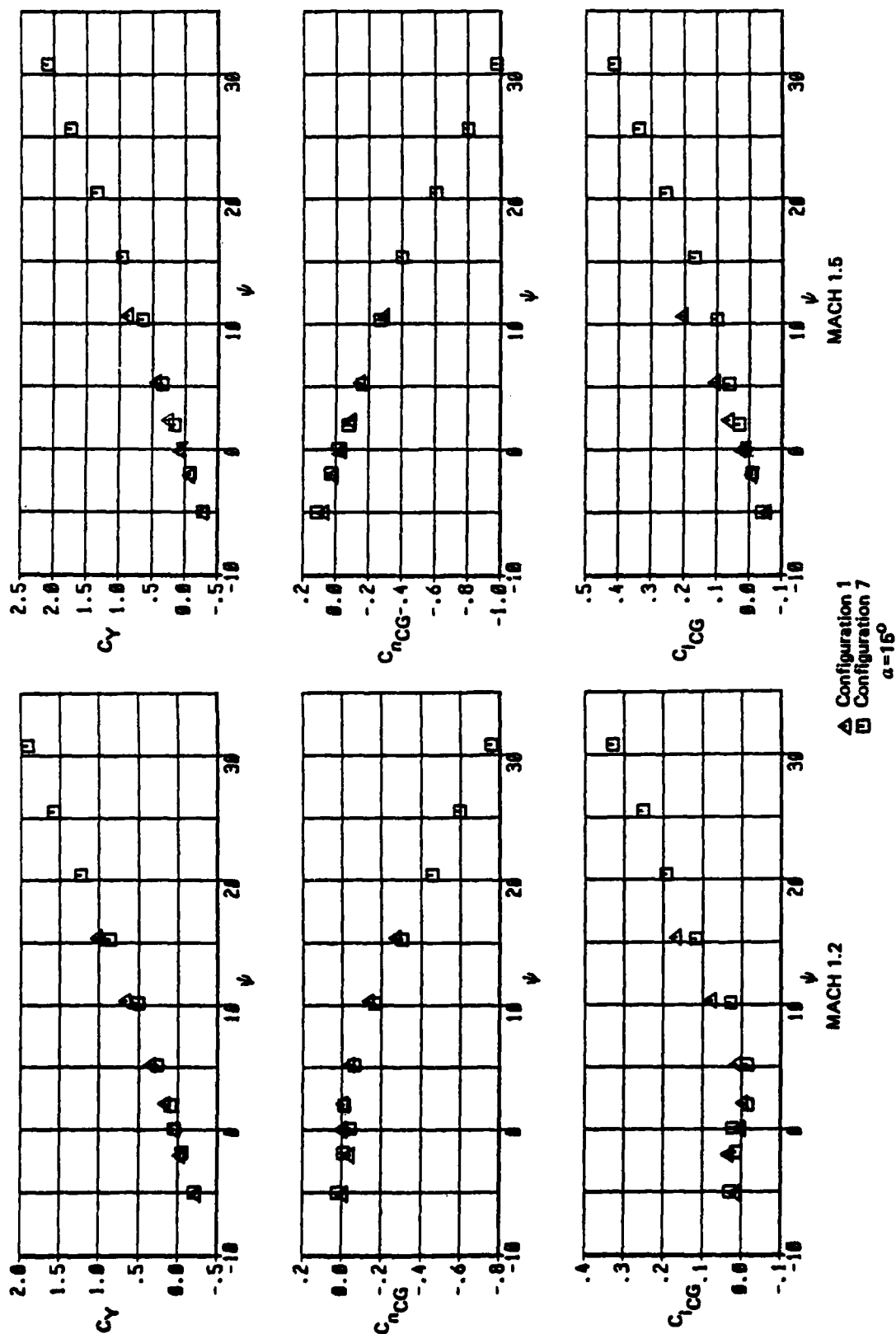


Figure 36. (Continued)

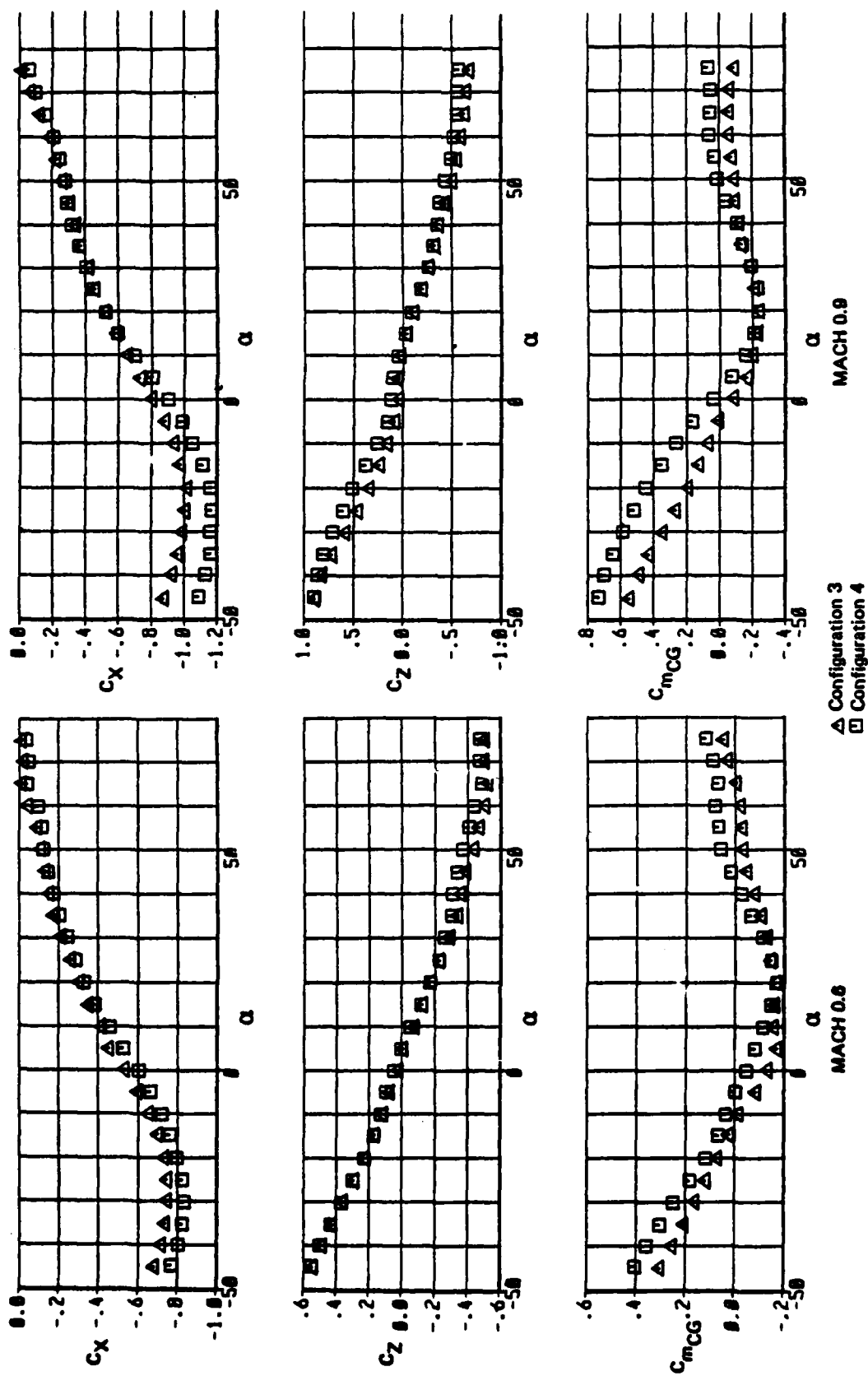


Figure 37. Variation of Force and Pitching Moment Coefficients with Angle of Attack for Seat with 18° Boom and Blast Shield (Configuration 3) and Seat with 35° Boom and Blast Shield (Configuration 4), $\psi=0^\circ$

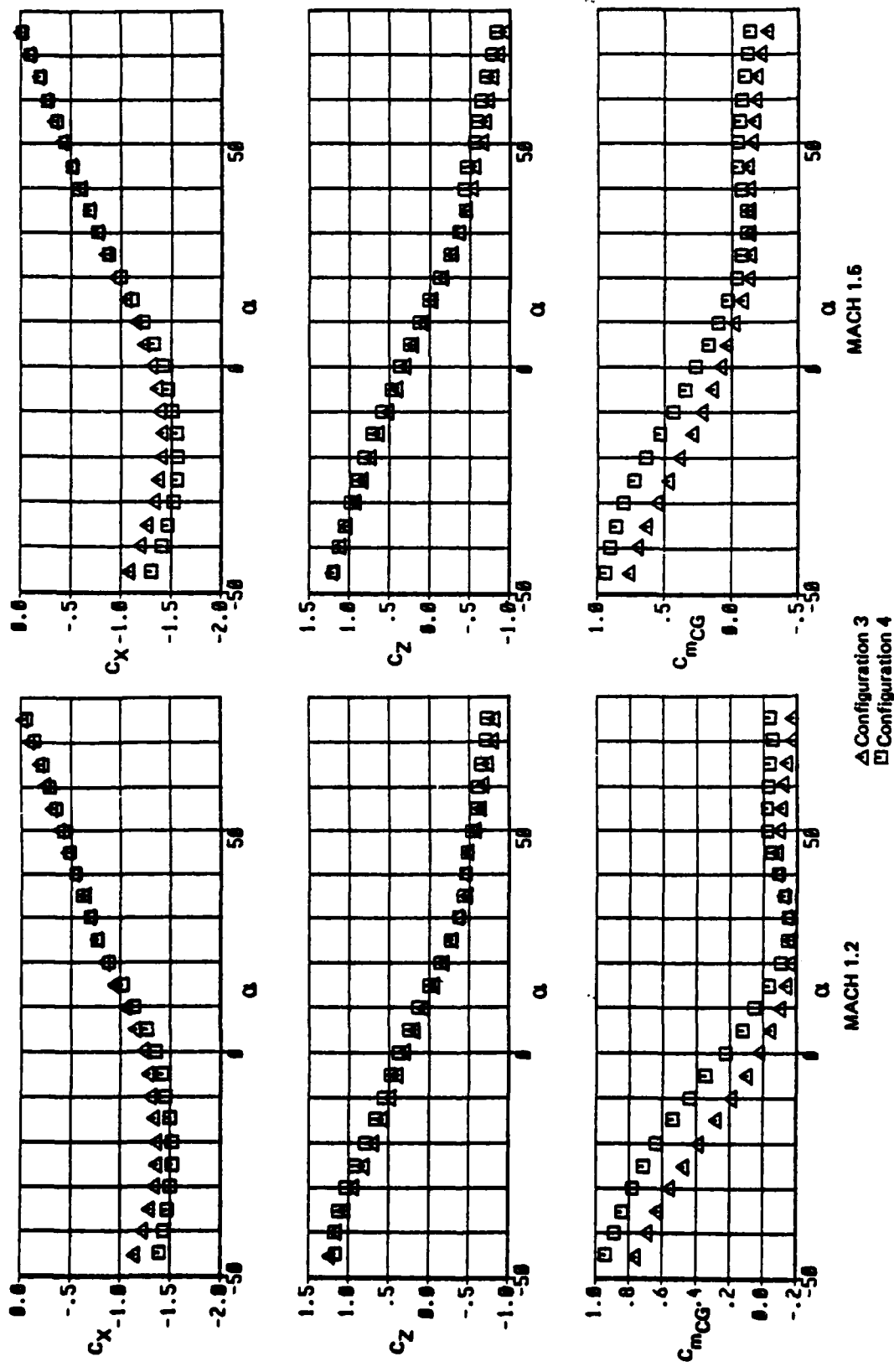


Figure 37. (Continued)

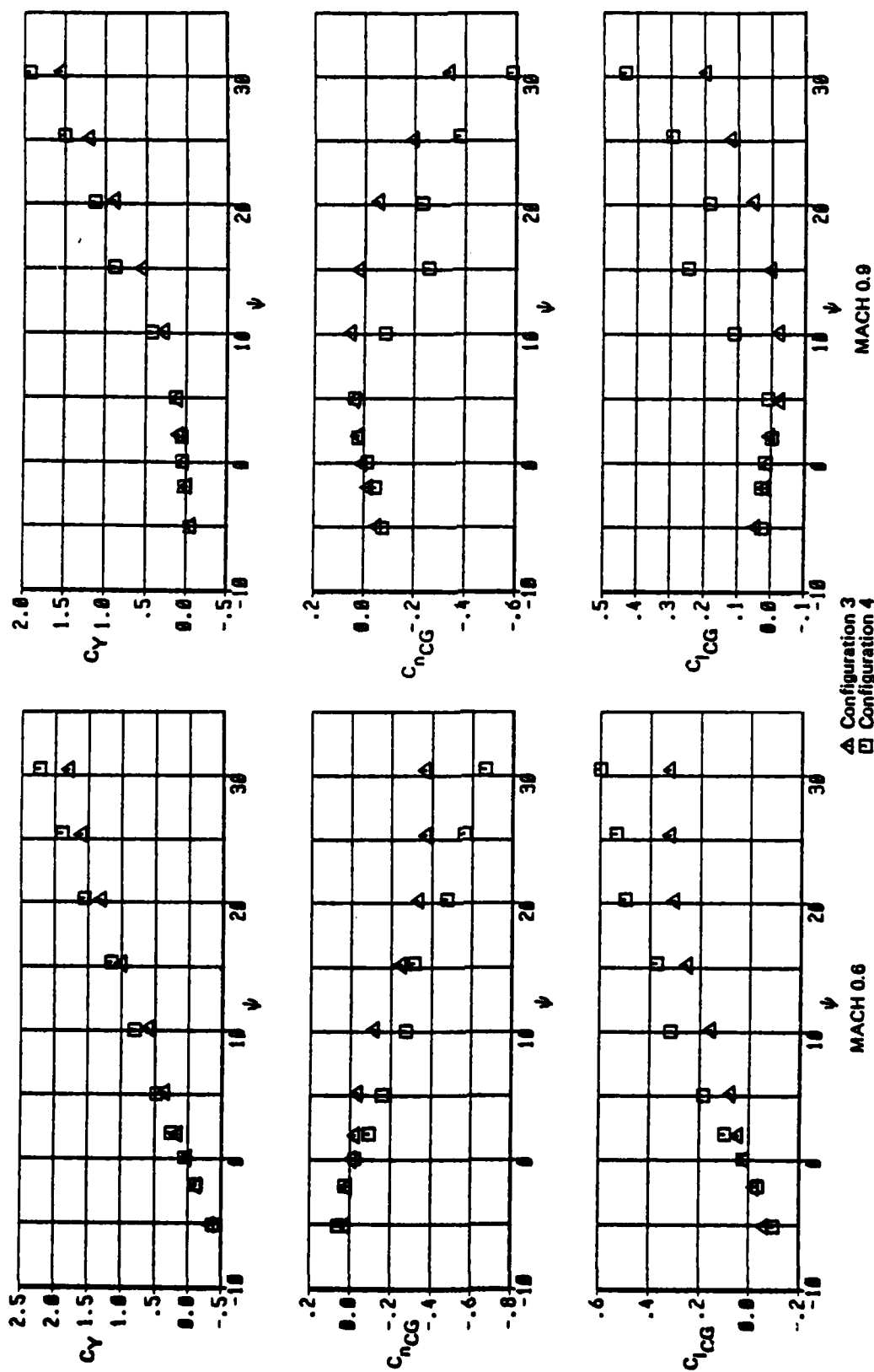


Figure 38. Variation of Side Force, Yawing Moment, and Rolling Moment Coefficients with Angle of Yaw for Seat with 18° Boom and Blast Shield (Configuration 3) and Seat with 35° Boom and Blast Shield (Configuration 4), $\alpha=0^\circ$

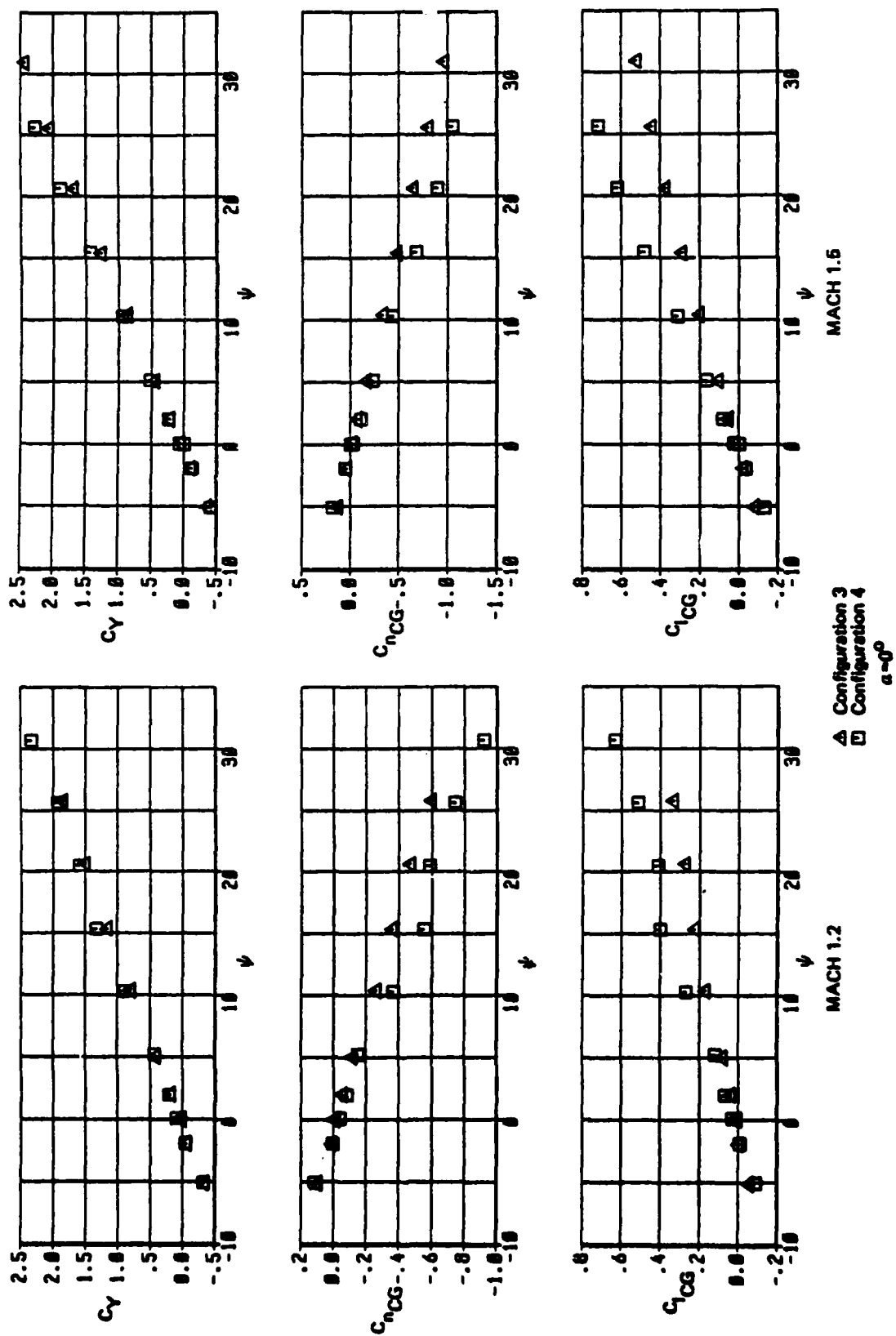


Figure 38. (Continued)

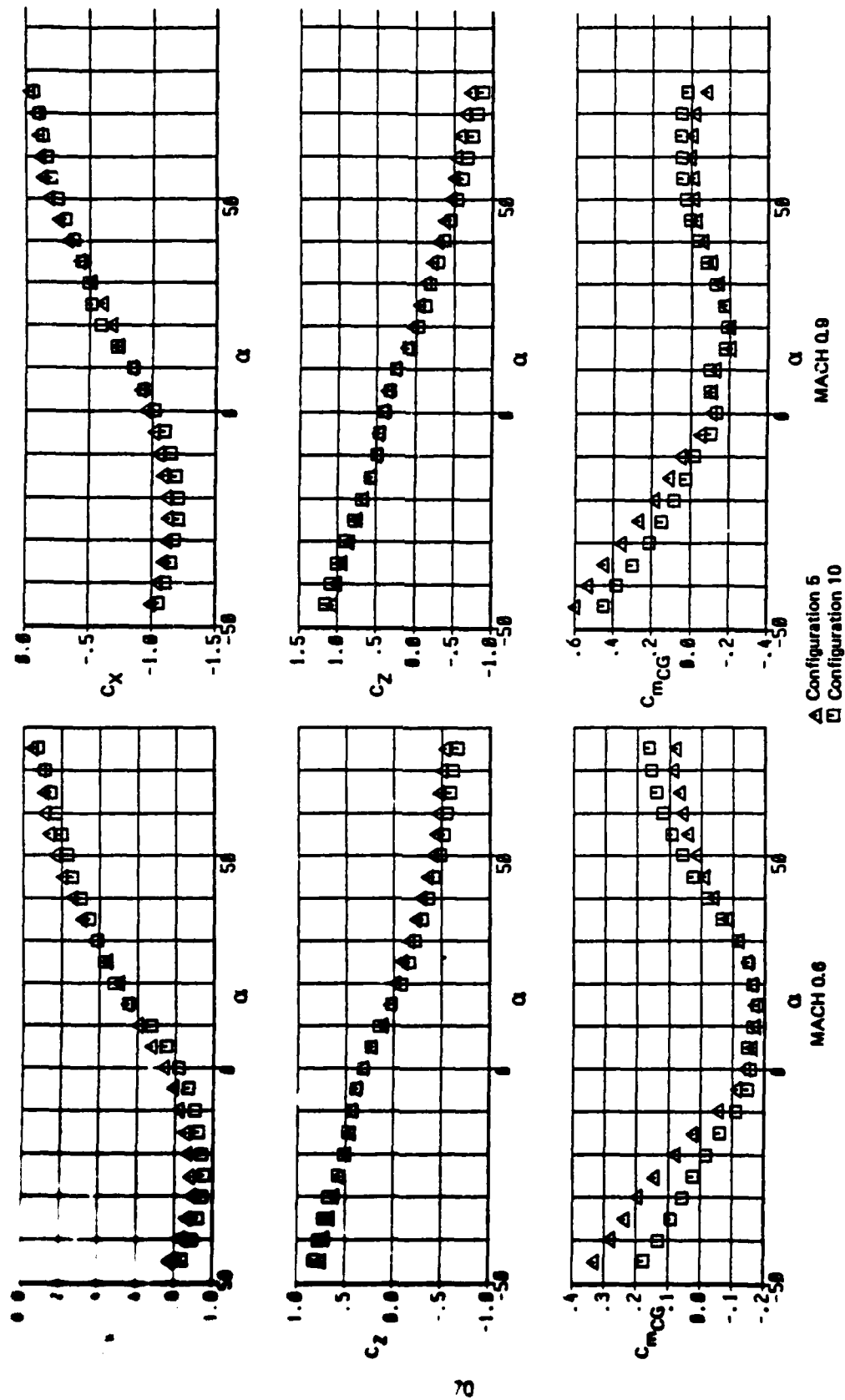


Figure 39. Variation of Force and Pitching Moment Coefficients with Angle of Attack for Seat with 18° Boom (Configuration 5), and Seat with 18° Boom and Flow Diverter (Configuration 10), $\psi=0^\circ$

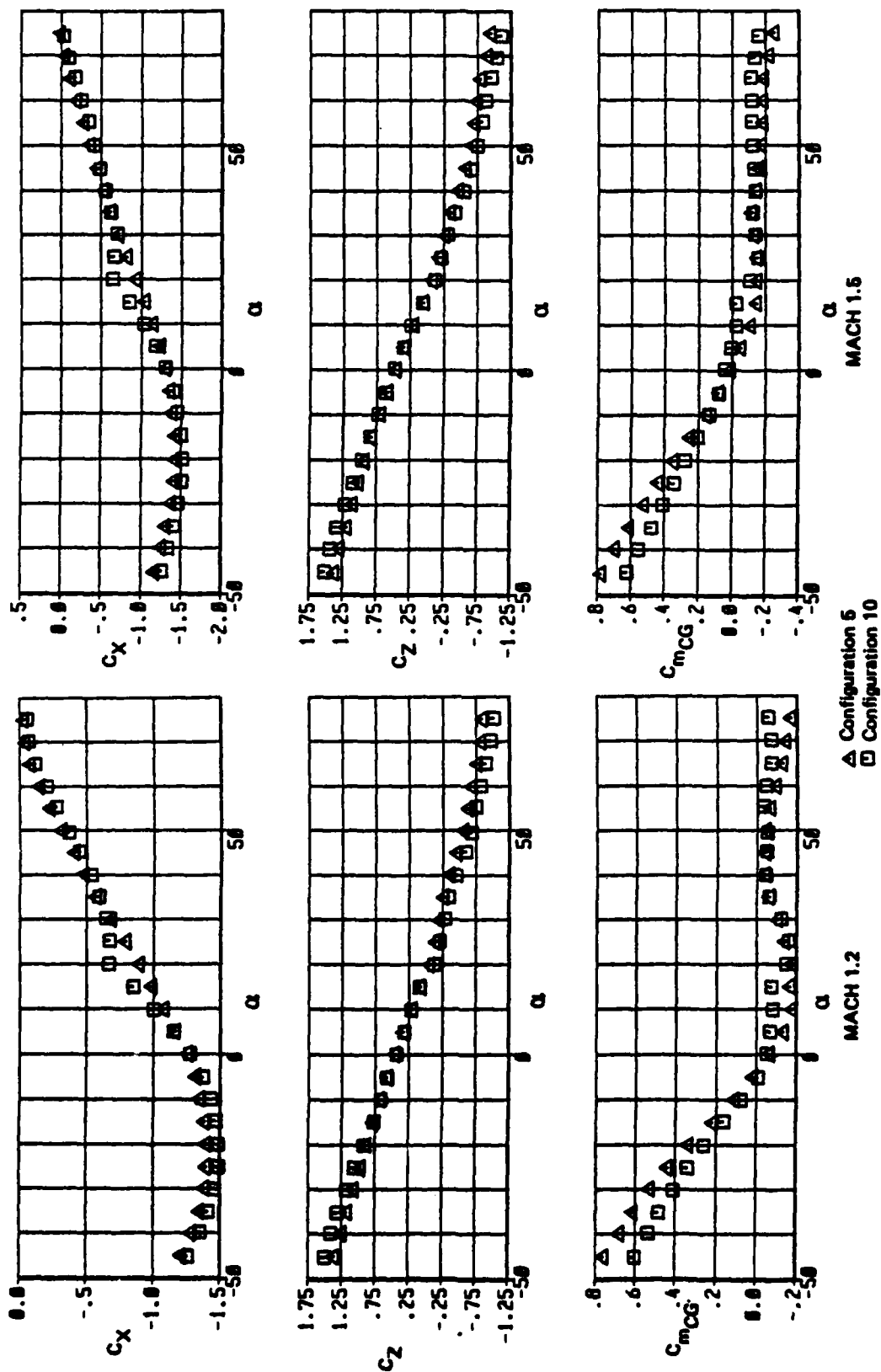


Figure 39. (Continued)

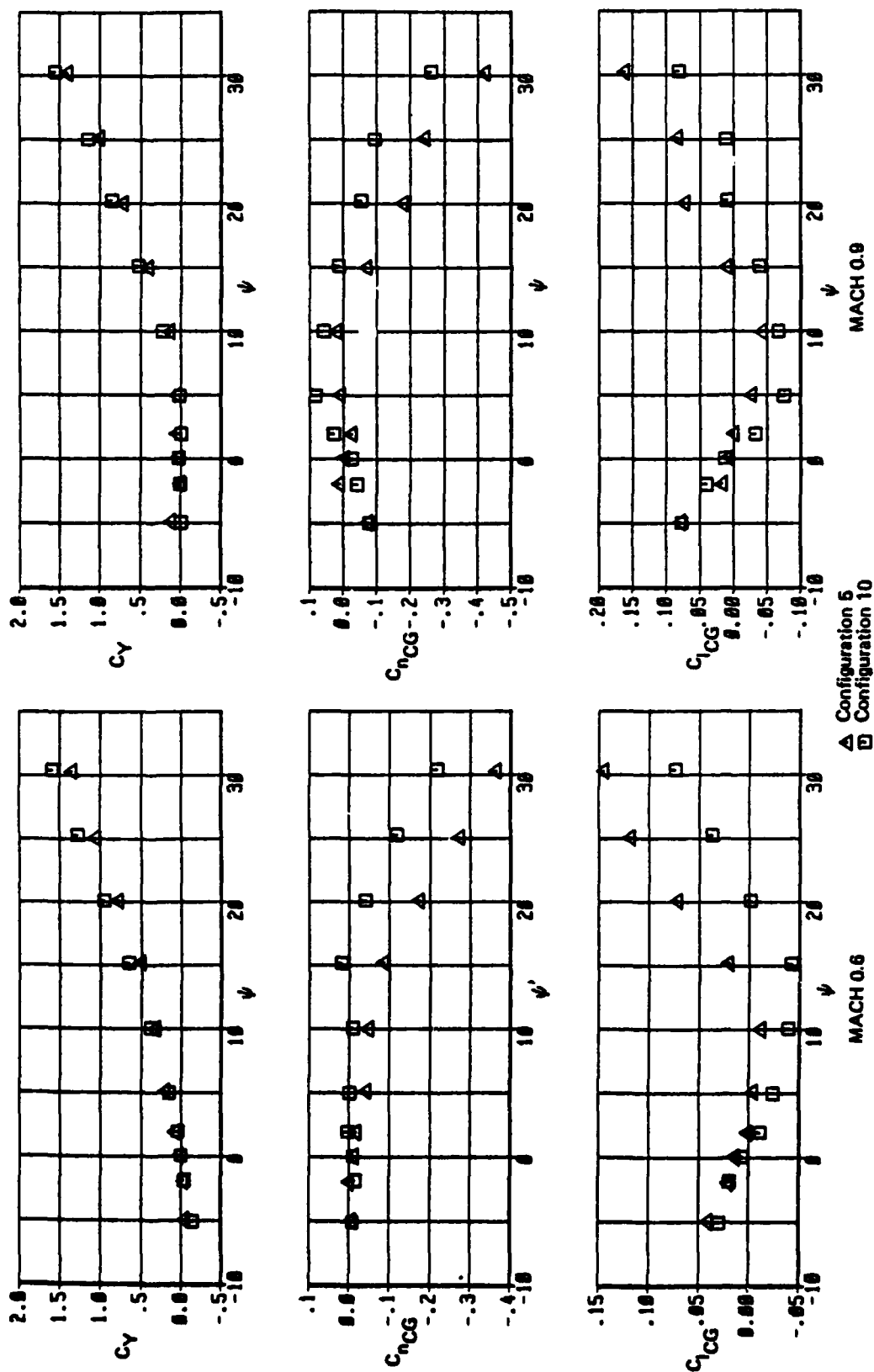


Figure 40. Variation of Side Force, Yawing Moment and Rolling Moment Coefficients with Angle of Yaw for Seat with 18° Boom and Flow Diverter (Configuration 10), $\alpha=0^\circ$

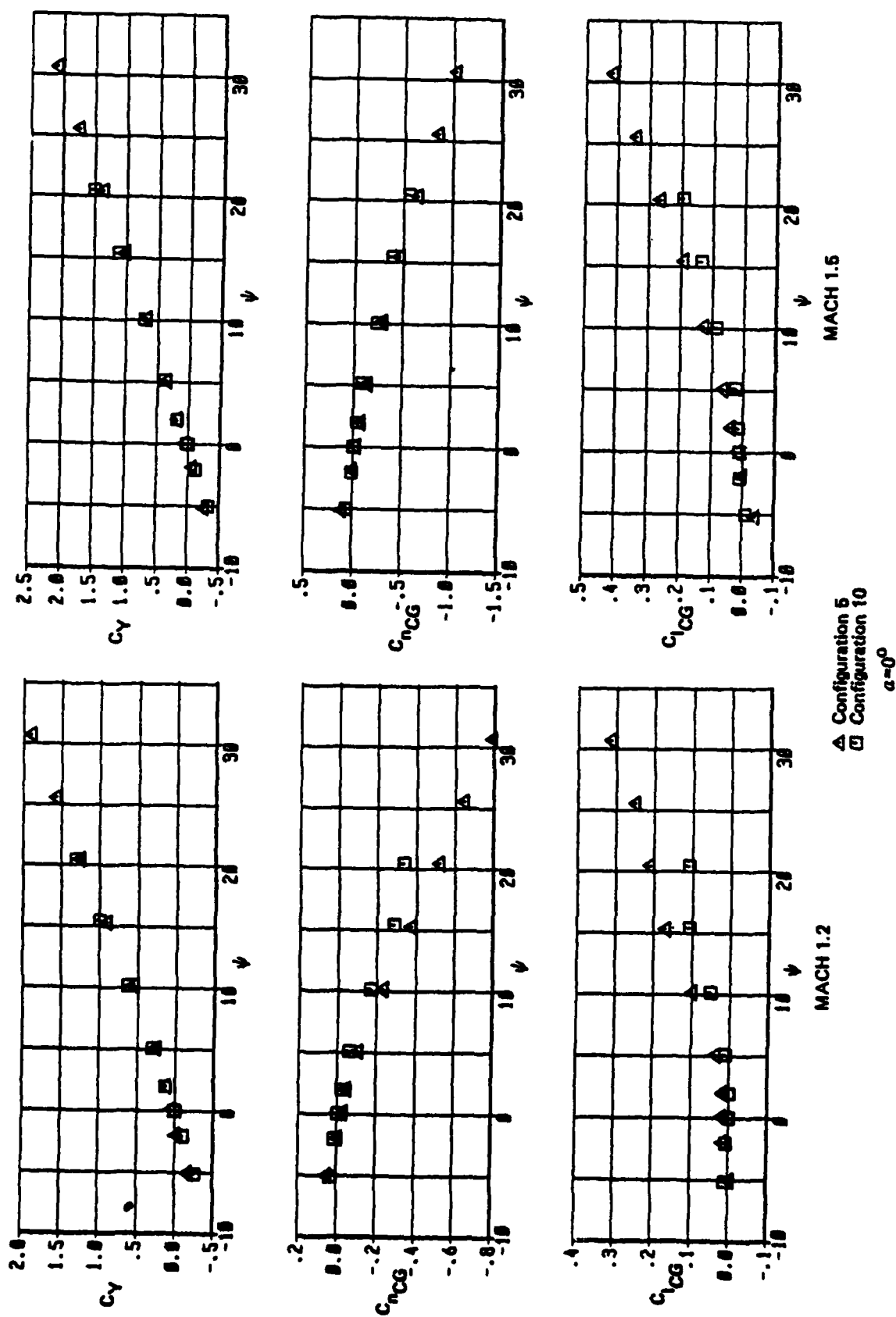


Figure 40. (Continued)

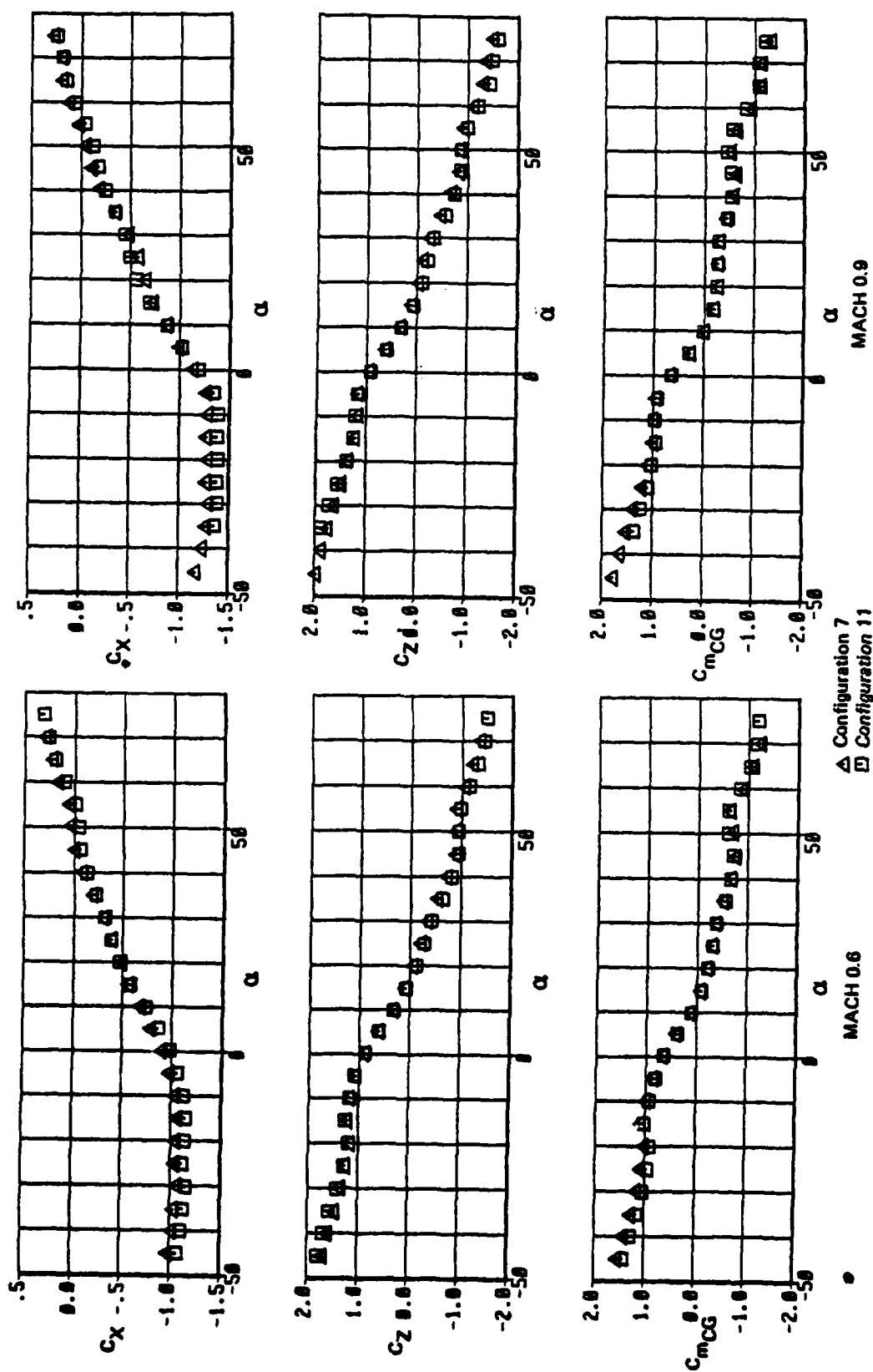


Figure 41. Variation of Force and Pitching Moment Coefficients with Angle of Attack for Seat with 18° Boom and Stabilizer (Configuration 7) and Seat with 18° Boom, Stabilizer and Flow Diverter (Configuration 11), $\psi=0^\circ$

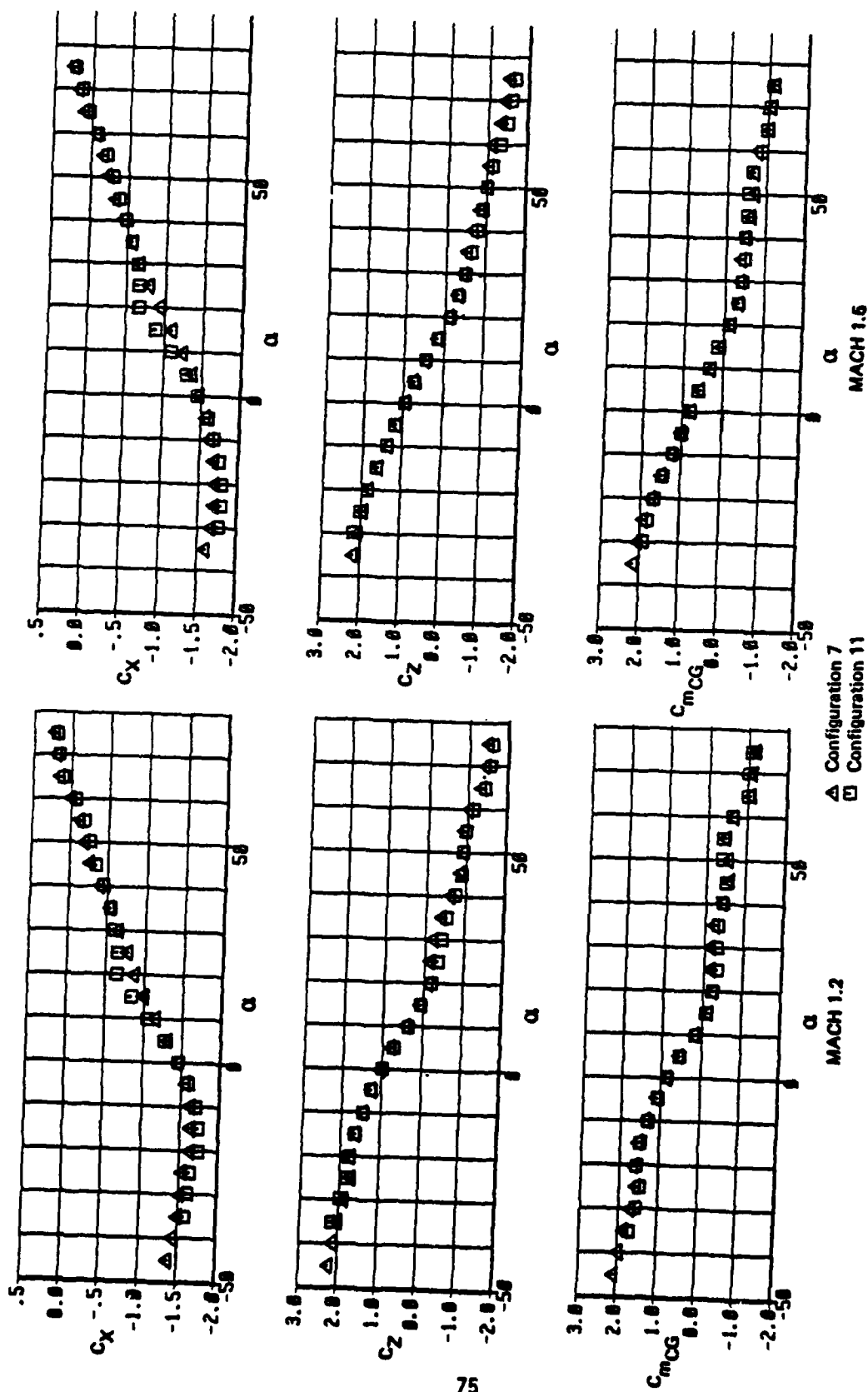


Figure 41. (Continued)

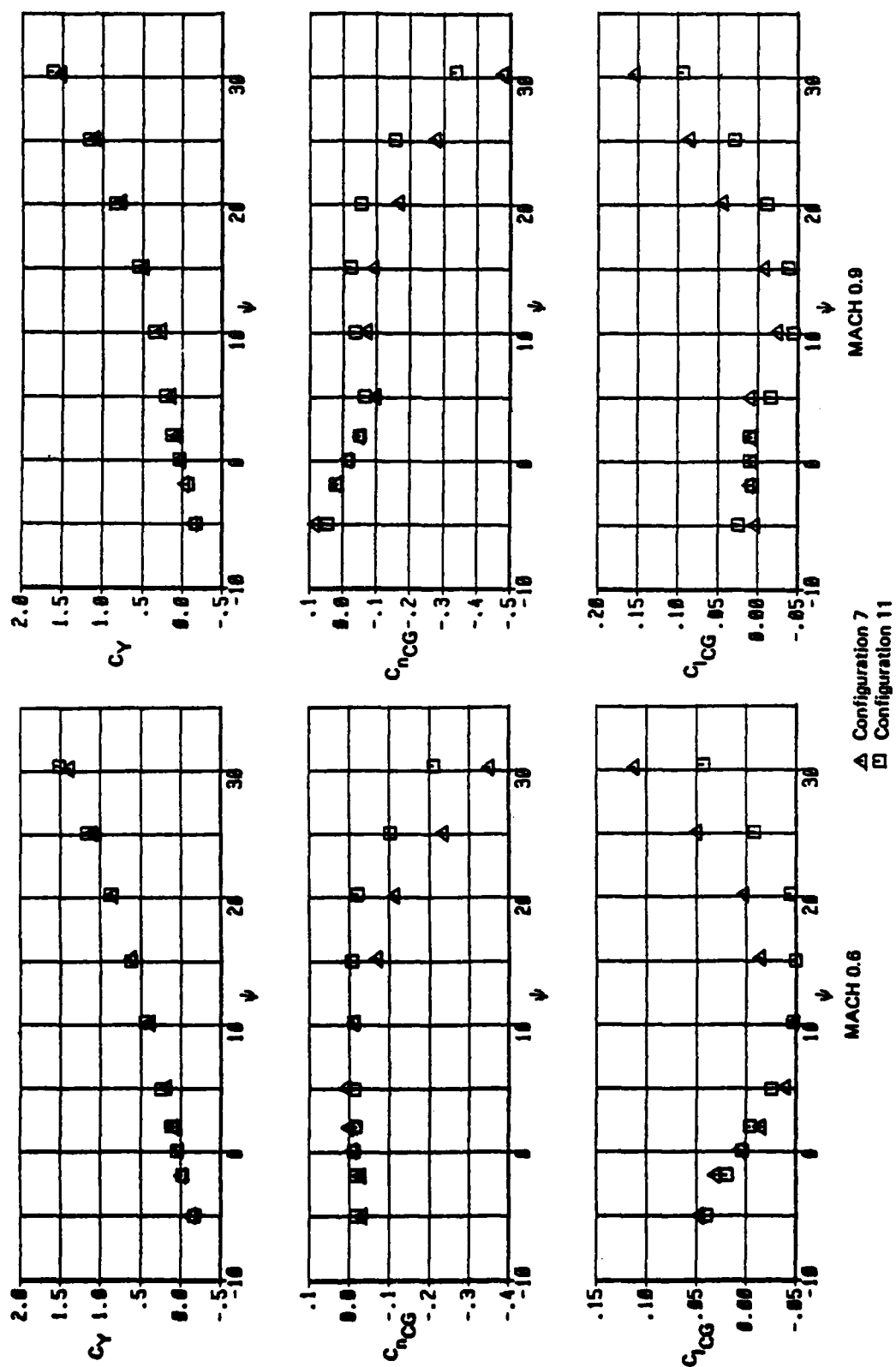


Figure 42. Variation of Side Force, Yawing Moment, and Rolling Moment Coefficients with Angle of Yaw for Seat with 18° Boom and Stabilizer (Configuration 7), and Seat with 18° Boom, Stabilizer and Flow Diverter (Configuration 11), $\alpha=15^\circ$

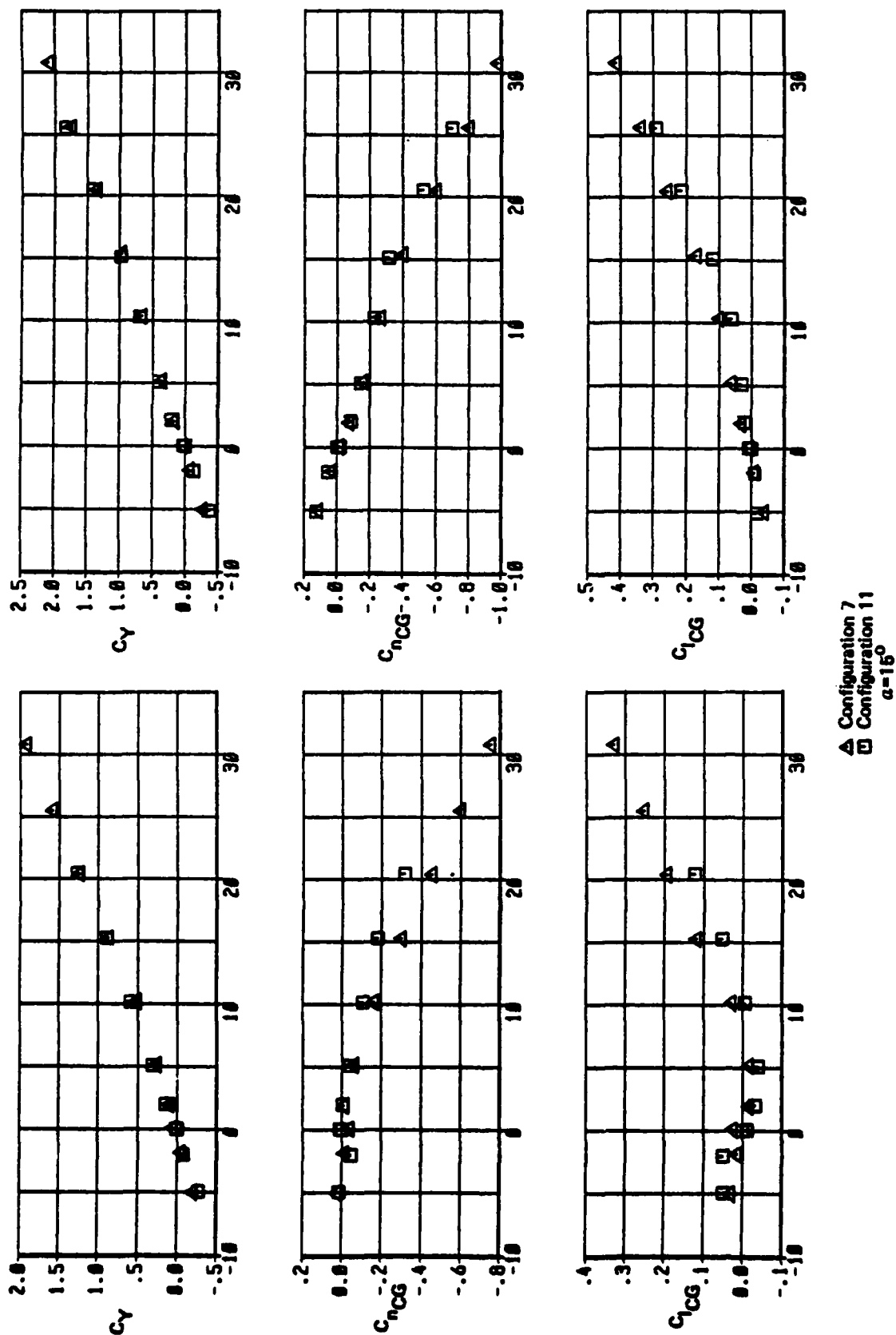
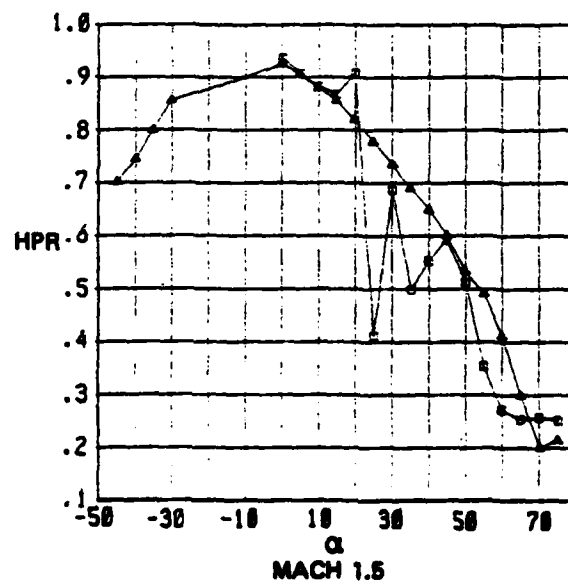
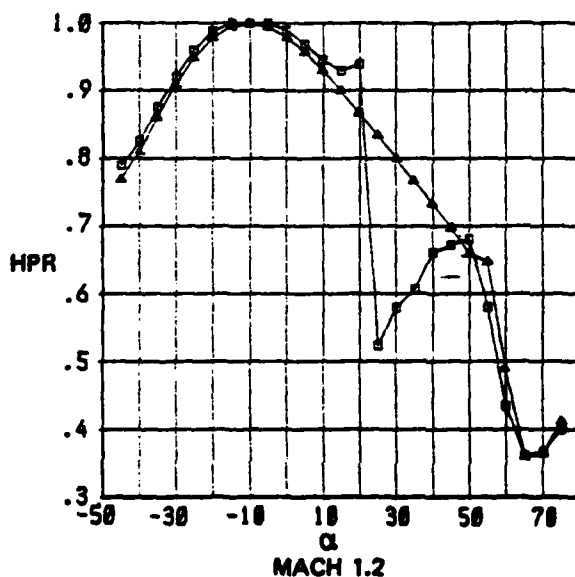
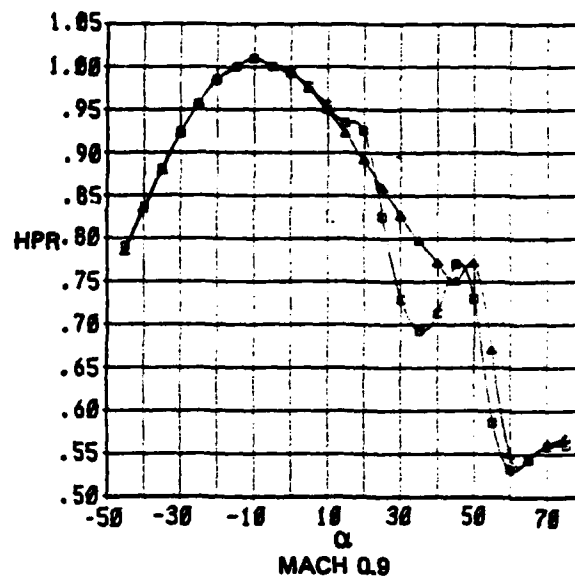
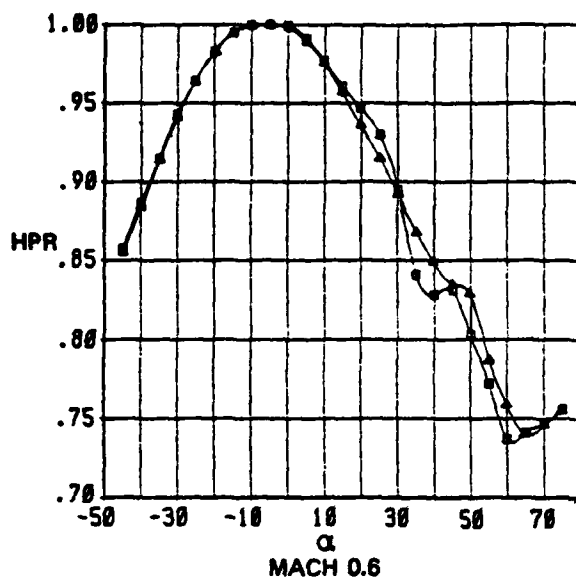
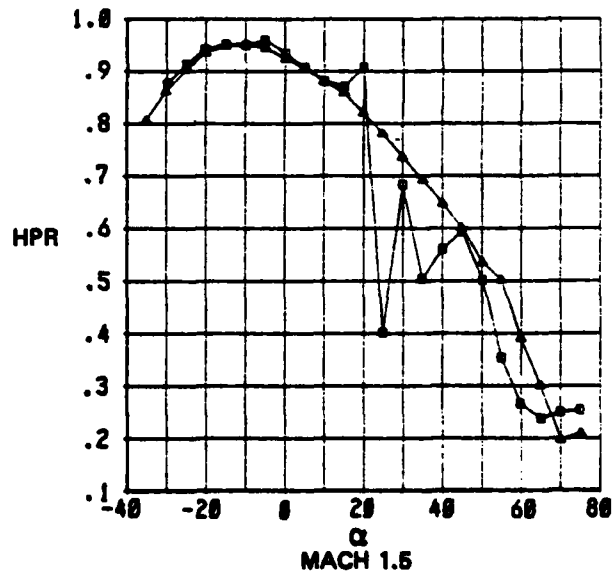
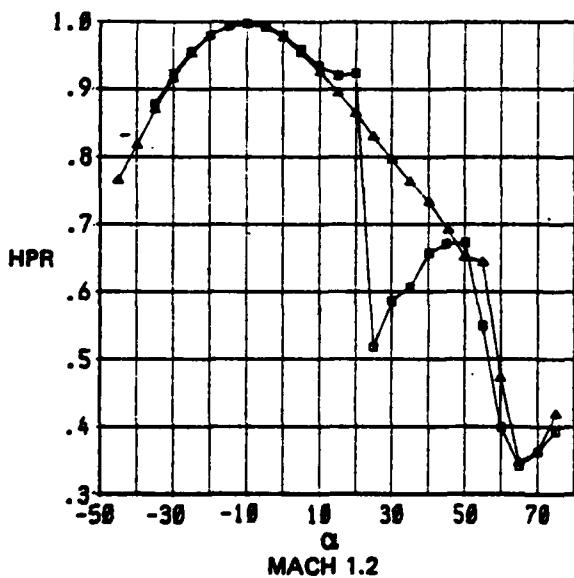
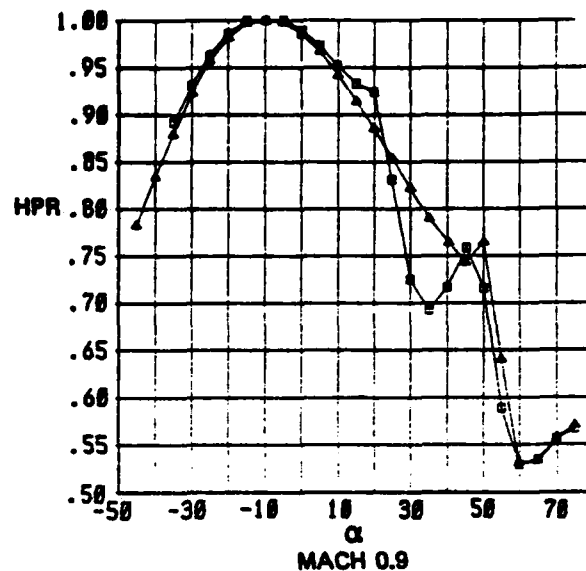
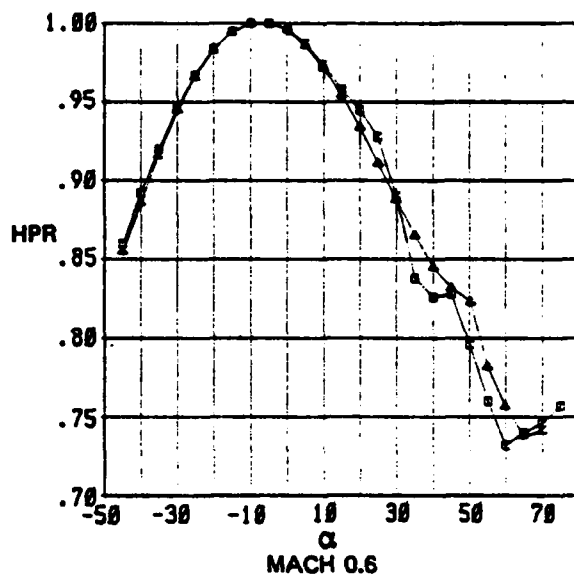


Figure 42. (Continued)



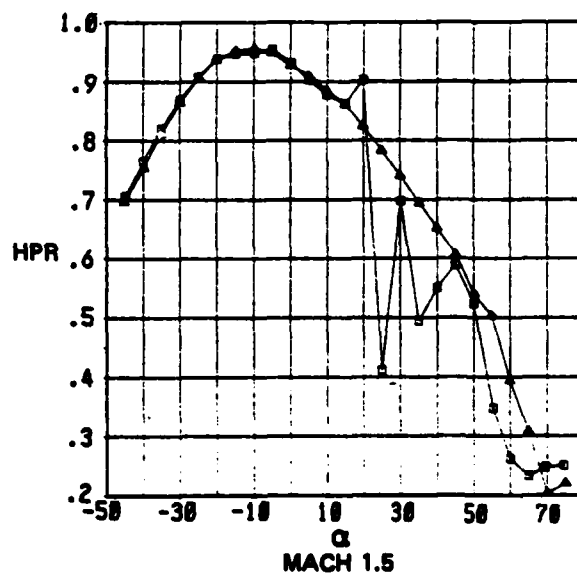
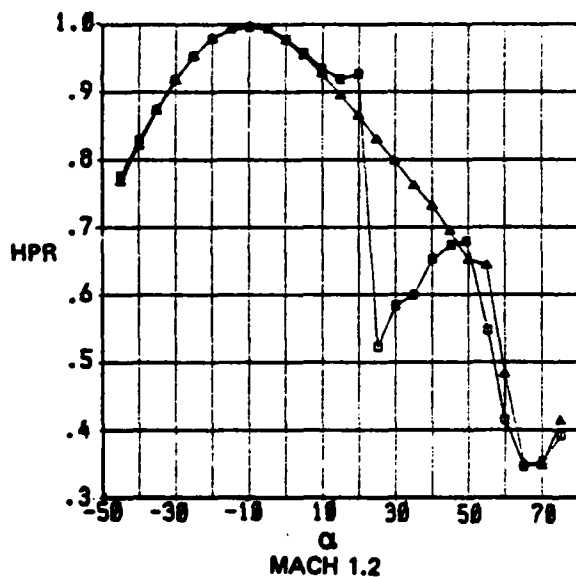
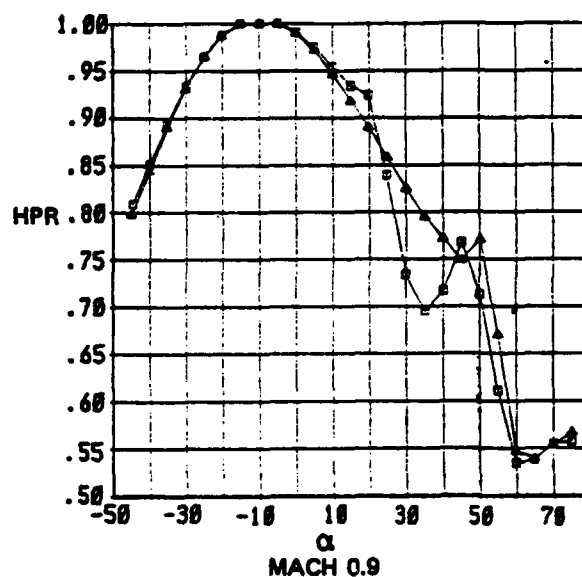
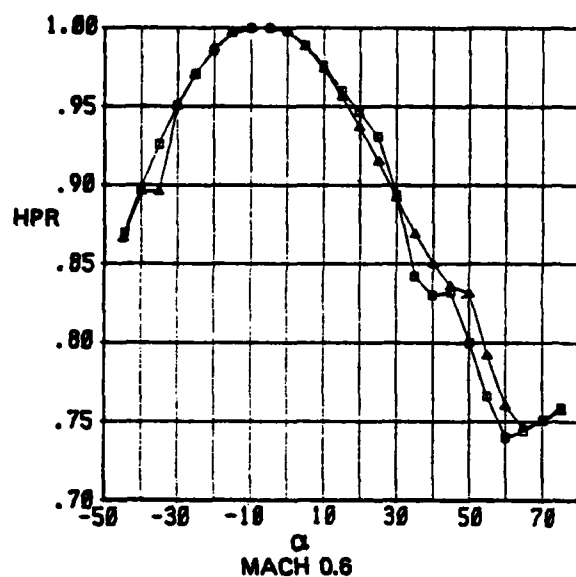
- ▲ Configuration 8
- Configuration 12

Figure 43. Variation of Pressure Ratio at Crewmembers Head to Free Stream Total Pressure for Seat with 35° Boom and Stabilizer (Configuration 8) and Seat with 35° Boom, Stabilizer and Flow Diverter (Configuration 12)



▲ Configuration 7
 ■ Configuration 11

Figure 44. Variation of Pressure Ratio at Crewmembers Head to Free Stream Total Pressure for Seat with 18° Boom and Stabilizer (Configuration 7) and Seat with 16° Boom, Stabilizer and Flow Diverter (Configuration 11)



▲ Configuration 5
 ■ Configuration 10

Figure 45. Variation of Pressure Ratio at Crewmembers Head to Free Stream Total Pressure for Seat with 18° Boom (Configuration 5) and Seat with 18° Boom and Flow Diverter (Configuration 10)

REFERENCES

1. Reichenau, David E. A. "Aerodynamic Characteristics of an Ejection Seat Escape System with Cold Flow Rocket Plume Simulation at Mach Numbers from 0.6 to 1.5." AEDC-TR-69-218 (AD860482), October 1969.
2. Reichenau, David E. A. "Wake Properties Behind an Ejection Seat Escape System and Aerodynamic Characteristics with Stabilization Parachutes at Mach Numbers from 0.6 to 1.5." AEDC-TR-71-30 (AD880650), February 1971.
3. Reichenau, David E. A. "Aerodynamic Characteristics of an Ejection Seat Escape System with a Stabilization Parachute at Mach Numbers from 0.3 through 1.5." AEDC-TR-72-51 (AD893121L), April 1972.
4. White, B. J. "Aeromechanical Properties of Ejection Seat Escape Systems." AFFDL-TR-74-57, April 1974.
5. Test Facilities Handbook (Eleventh Edition). "Propulsion Wind Tunnel Facility, Vol. 4." Arnold Engineering Development center June 1979.
6. "Wind Tunnel Test Plan. Ejection Seat for High Dynamic Pressure Escape (Rev. B)." Boeing Company, 2-8073-RFY-79-350, December 17, 1979.
7. Abernethy, R. B. and Thompson, J. W., Jr. "Handbook - Uncertainty in Gas Turbine Measurements." AEDC-TR-73-5 (AD755356), February 1973.
8. Reichenau, David E. A. "Transonic Wind Tunnel Tests of an Advanced Ejection Seat with Crewman Protective Concepts" AEDC-TRS-80-P25 March 1980.
9. Reichenau, David E. A. "Data Package: AFFDL Ejection Seat Project P41T-D7" Arnold A.F. Station, Tennessee TN558 Jan/Feb 1980.
10. Torres, E. "Calculations for Simulating an Ejection Seat Catapult Rocket Plume by a Half Scale Cold Air Jet" Weber Aircraft, DR5961, Oct. 1976.

APPENDIX

Tabulated Aerodynamic Coefficients For High Dynamic
Pressure Ejection Seat Configurations

AD-A091 810

BOEING MILITARY AIRPLANE CO SEATTLE WA

F/G 1/3

ADVANCED EJECTION SEAT FOR HIGH DYNAMIC PRESSURE ESCAPE. WIND T--ETC(U)

AUG 80 J O BULL, D T THER, R F YURCZYK

F33615-79-C-3406

UNCLASSIFIED

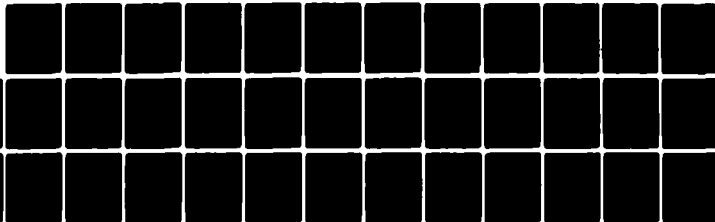
AFWAL-TR-80-3084

NL

2 x 2

12-80

■

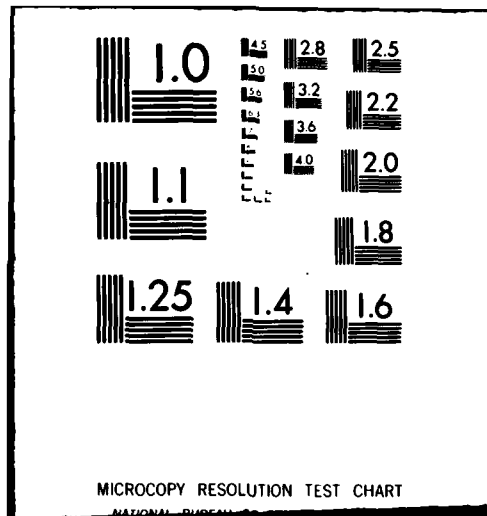


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N	ALPHA	PRI	CI	CZ	CT	CNA	CNU	CNL	N	ALPHA	PRI	CI	CZ	CT	CNA	CNU	CNL
0.9	-0.1	-5.1	-0.7159	0.6477	-0.2905	0.0071	-0.0116	-0.1411	0.9	-0.2	-5.0	-1.0196	0.7426	-0.0734	0.9049	-0.0736	0.0353
0.6	0.0	-2.0	-0.7203	0.6464	-0.0690	0.0145	-0.0210	-0.0203	0.9	-0.1	-2.1	-1.0125	0.7430	-0.0134	0.9178	-0.0732	0.0320
0.6	0.0	0.0	-0.7300	0.6401	0.0714	0.0122	-0.0254	0.0565	0.9	-0.1	0.0	-1.0102	0.7339	0.0184	0.9200	0.0044	0.0024
0.6	0.0	2.1	-0.7211	0.6371	0.2365	0.0001	-0.0270	0.1354	0.9	-0.1	-2.0	-1.0146	0.7256	-0.0232	0.9296	-0.0238	0.0162
0.6	-0.1	5.1	-0.7210	0.6245	0.3905	0.7896	-0.0310	0.2327	0.9	-0.1	5.1	-1.0210	0.7011	0.0797	0.9266	-0.0797	-0.0310
0.6	0.0	10.2	-0.7012	0.5914	0.6005	0.7191	-0.0301	0.2670	0.9	-0.1	10.2	-1.0210	0.6474	0.3563	0.9300	0.0594	0.0707
0.6	0.0	15.1	-0.6504	0.5237	1.0540	0.5834	-0.0646	0.5419	0.9	-0.1	15.4	-0.9745	0.4962	0.8860	0.6350	0.0561	0.1859
0.6	0.0	20.4	-0.6103	0.4038	1.3077	0.4213	-0.1020	0.6763	0.9	0.0	20.2	-0.9353	0.4007	1.0721	0.5020	0.0329	0.3005
0.9	-0.1	25.4	-0.5594	0.2963	1.4394	0.2963	0.1629	0.5545	0.9	-0.1	25.4	-0.8594	0.2963	1.4394	0.1629	-0.0207	0.5545
0.9	14.9	-5.0	-0.0113	0.0527	-0.1205	0.0527	-0.0113	0.0527	0.9	14.9	-5.0	-0.0113	0.0527	-0.1205	0.0527	-0.0113	0.0527
0.9	15.0	-2.0	-0.3041	0.0081	-0.0396	0.0081	-0.3041	0.0081	0.9	15.0	-2.0	-0.3041	0.0081	-0.0396	0.0081	-0.3041	0.0081
0.9	15.0	0.0	-0.3049	-0.0079	0.0396	-0.0079	0.3049	-0.0079	0.9	15.0	0.0	-0.3049	-0.0079	0.0396	-0.0079	0.3049	-0.0079
0.9	15.0	2.0	-0.3048	-0.0276	0.1024	-0.0276	0.3048	-0.0276	0.9	15.0	2.0	-0.3048	-0.0276	0.1024	-0.0276	0.3048	-0.0276
0.9	15.0	5.0	-0.0160	-0.0115	0.1090	-0.0160	0.0115	0.1090	0.9	15.0	5.0	-0.0160	-0.0115	0.1090	-0.0160	0.0115	0.1090
0.9	15.0	10.1	-0.0513	-0.0376	0.3943	-0.0513	0.0376	0.3943	0.9	15.0	10.1	-0.0513	-0.0376	0.3943	-0.0513	0.0376	0.3943
0.9	15.0	15.1	-0.0534	-0.1024	0.6443	-0.0534	0.1024	0.6443	0.9	15.0	15.1	-0.0534	-0.1024	0.6443	-0.0534	0.1024	0.6443
0.9	15.1	20.4	-0.0202	-0.2122	1.0150	-0.0202	0.2122	1.0150	0.9	15.1	20.4	-0.0202	-0.2122	1.0150	-0.0202	0.2122	1.0150
0.9	15.1	25.3	-0.0070	-0.2807	1.3004	-0.0070	0.2807	1.3004	0.9	15.1	25.3	-0.0070	-0.2807	1.3004	-0.0070	0.2807	1.3004
0.9	20.9	-5.1	-0.1207	-0.5013	-0.2906	-0.3933	-0.0305	-0.0004	0.9	20.9	-5.1	-0.1207	-0.5013	-0.2906	-0.3933	-0.0305	-0.0004
0.6	20.9	-2.0	-0.1205	-0.5448	-0.0667	-0.3807	-0.0323	-0.0026	0.9	20.9	-2.0	-0.1205	-0.5448	-0.0667	-0.3807	-0.0323	-0.0026
0.6	20.9	0.0	-0.1209	-0.5442	0.0373	-0.3955	-0.0037	0.0170	0.9	20.9	0.0	-0.1209	-0.5442	0.0373	-0.3955	-0.0037	0.0170
0.6	20.9	2.1	-0.1203	-0.5754	0.1435	-0.3970	0.0110	0.0475	0.9	20.9	2.1	-0.1203	-0.5754	0.1435	-0.3970	0.0110	0.0475
0.6	20.9	5.1	-0.1301	-0.6066	0.3230	-0.4101	0.0000	0.1096	0.9	20.9	5.1	-0.1301	-0.6066	0.3230	-0.4101	0.0000	0.1096
0.6	20.9	10.2	-0.1101	-0.6659	0.6402	-0.4523	0.0210	0.2003	0.9	20.9	10.2	-0.1101	-0.6659	0.6402	-0.4523	0.0210	0.2003
0.6	20.9	15.1	-0.0900	-0.7632	0.9807	-0.5202	0.0137	0.3003	0.9	20.9	15.1	-0.0900	-0.7632	0.9807	-0.5202	0.0137	0.3003
0.6	20.9	20.1	-0.0723	-0.7993	1.3166	-0.5303	-0.0340	0.4243	0.9	20.9	20.1	-0.0723	-0.7993	1.3166	-0.5303	-0.0340	0.4243

Configuration 1
Seat with 18 Deg. Boom, Stabilizer, and Blast Shield, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

A	ALPHA	PBI	CI	CZ	CT	CMN	CMN	CMN	CMN	CMN	CMN	CMN
1.2	0.0	-5.1	-1.4809	0.8943	-0.3036	1.1898	0.0123	-0.0979				
1.2	0.1	-2.0	-1.4788	0.9003	-0.0802	1.1901	-0.0004	-0.0108				
1.2	0.1	0.0	-1.4751	0.8986	0.0514	1.1757	-0.0051	0.0207				
1.2	0.1	2.1	-1.4719	0.8770	0.2071	1.1763	-0.0276	0.0826				
1.2	0.1	5.2	-1.4588	0.8330	0.4073	1.1308	-0.0306	0.1306				
1.2	0.1	10.3	-1.4008	0.7301	0.7952	0.9976	-0.0526	0.3170				
1.2	0.0	10.6	-1.3415	0.6417	1.1075	0.8561	-0.1207	0.4627				

A	ALPHA	PBI	CI	CZ	CT	CMN	CMN	CMN	CMN	CMN	CMN	CMN
1.2	14.9	-5.1	-1.0008	0.0357	-0.2360	0.2667	-0.0513	-0.0439				
1.2	14.9	-2.0	-1.0176	0.0348	-0.0375	0.3064	-0.0405	0.0233				
1.2	14.9	0.0	-1.0142	0.0301	0.0333	0.2953	0.0001	0.0142				
1.2	14.9	2.0	-0.9979	-0.0011	0.1633	0.2644	0.0231	0.0339				
1.2	15.0	5.2	-0.9359	-0.0463	0.3439	0.1072	0.0156	0.0951				
1.2	15.0	10.3	-0.9309	-0.1201	0.6339	0.0902	-0.0166	0.2335				
1.2	15.0	15.4	-0.9356	-0.1902	1.0151	-0.0115	-0.0074	0.4101				

A	ALPHA	PBI	CI	CZ	CT	CMN	CMN	CMN	CMN	CMN	CMN	CMN
1.2	30.0	-5.2	-0.6315	-0.5031	-0.3024	-0.0010	0.0148	-0.1062				
1.2	30.0	-2.1	-0.6710	-0.5047	-0.0358	-0.0735	-0.0106	-0.0248				
1.2	30.0	0.0	-0.6675	-0.5120	0.0336	-0.0036	-0.0233	0.0200				
1.2	30.0	2.1	-0.6644	-0.5185	0.2100	-0.0049	-0.0350	0.0763				
1.2	30.0	5.2	-0.6650	-0.5168	0.4446	-0.0020	-0.0002	0.1561				
1.2	30.1	10.4	-0.6771	-0.5002	0.8216	-0.0649	-0.1405	0.3059				
1.2	30.1	15.0	-0.6835	-0.5369	1.2156	-0.0983	-0.2407	0.4793				

Configuration 1
Seat with 18 Deg. Boom, Stabilizer, and Blast Shield, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CI	CZ	CH	CH	CH	CT	CH	CH	CH
1.2	0.0	-5.1	-1.4984	0.9168	-0.3082	1.2114	0.0177	-0.1931	1.1227	0.0565	-0.1632
1.2	0.0	-2.0	-1.5108	0.9316	-0.0691	1.2144	-0.0139	-0.0089	1.1460	0.0150	-0.0539
1.2	0.0	0.0	-1.5043	0.9104	0.0036	1.2465	0.0026	0.0146	1.1455	-0.0139	0.0310
1.2	0.0	2.1	-1.5001	0.9069	0.1043	1.2417	-0.0164	0.0749	1.1386	-0.0361	0.0966
1.2	0.0	5.2	-1.4782	0.9507	0.4050	1.1939	-0.0379	0.1451	1.0910	-0.0776	0.2052
1.2	0.0	10.3	-1.4081	0.7537	0.7092	1.0416	-0.0740	0.3040	0.9557	-0.1618	0.4025
1.2	0.0	15.6	-1.3466	0.6559	1.0164	0.9069	-0.1184	0.4221	0.8408	-0.2353	0.5698
1.2	14.0	-5.1	-1.0265	0.0039	-0.0039	0.3340	-0.0301	-0.0031	0.1076	0.0213	-0.1407
1.2	15.0	-2.0	-1.0318	0.1091	-0.0596	0.4262	-0.0356	-0.0015	0.1274	-0.0062	-0.0431
1.2	15.0	0.0	-1.0365	0.0577	0.0042	0.4267	-0.0097	0.0305	0.1170	-0.0202	0.0402
1.2	15.0	2.0	-1.0392	0.0434	0.3044	0.3554	0.0064	0.0082	0.0908	-0.0001	0.1136
1.2	15.0	5.1	-0.9797	-0.0297	0.3641	0.2395	0.0162	0.1153	0.0440	0.4327	0.3859
1.2	15.0	10.3	-0.9086	-0.0975	0.6430	0.1142	-0.0377	0.2306	-0.0563	0.5290	0.3950
1.2	15.0	15.6	-0.9427	-0.1377	0.0543	0.0598	-0.0590	0.3408	-0.0563	-0.1090	0.5605
1.2	20.0	-5.2	-0.6922	-0.4260	-0.3005	0.0145	0.0401	-0.1304	0.4422	0.0213	-0.1407
1.2	20.0	-2.1	-0.6826	-0.4685	-0.1092	-0.0203	-0.0049	-0.0343	0.4755	-0.0062	-0.0431
1.2	20.0	0.0	-0.6809	-0.4083	0.0598	-0.0369	-0.0275	0.0234	0.4751	-0.0202	0.0402
1.2	20.0	2.2	-0.6806	-0.4576	0.3428	-0.0112	-0.0425	0.0076	0.4587	-0.0001	0.1136
1.2	20.0	5.2	-0.6849	-0.4360	0.4947	0.0098	-0.0057	0.1003	0.4327	0.3859	0.3859
1.2	20.0	10.3	-0.6819	-0.4241	0.0420	0.0120	-0.1519	0.3100	0.2522	-0.1109	0.3950
1.2	20.0	15.6	-0.6726	-0.4023	1.2238	-0.0540	-0.2417	0.4025	0.1934	-0.1975	0.5605

Configuration 1
Seat with 18 Deg. Boom, Stabilizer, and Blast Shield, Jet On
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CE	CE	CV	CMA	CMA	CMA	CHI	CZ	CV	CMA	CMA	CMA	CMA
0.0	-44.7	0.1	-1.2000	1.4737	0.4430	1.8190	0.0025	0.0021	0.0	-1.4126	1.7462	0.0075	2.0020	-0.0140	0.0300
0.0	-39.9	0.1	-1.2304	1.4204	0.0337	1.7816	0.0054	0.0200	0.0	-1.4092	1.6915	0.0312	2.0200	0.0021	0.0151
0.0	-35.2	0.0	-1.2742	1.3750	0.0040	1.7502	0.0152	-0.0000	0.0	-1.4096	1.6245	0.0069	1.9742	0.0064	0.0027
0.0	-30.1	0.0	-1.2955	1.2930	0.0040	1.7220	0.0122	-0.0093	0.0	-1.5110	1.5252	0.0041	1.9550	0.0051	-0.0027
0.0	-25.2	0.0	-1.2603	1.1823	0.0050	1.6950	-0.0119	0.0116	0.0	-1.5142	1.4009	0.0046	1.9101	0.0060	-0.0030
0.0	-19.9	0.0	-1.2250	1.0514	0.0210	1.4966	-0.0110	0.0117	0.0	-1.5221	1.2917	0.0006	1.7452	0.0030	0.0000
0.0	-14.9	0.0	-1.1701	0.9362	0.0232	1.3708	-0.0210	0.0250	0.0	-1.5002	1.1610	-0.0096	1.5834	0.0047	-0.0009
0.0	-10.0	0.0	-1.1200	0.8300	-0.0025	1.2730	-0.0196	0.0155	0.0	-1.4000	1.0013	-0.0091	1.5723	0.0103	0.0040
0.0	-5.0	0.0	-1.0491	0.7453	0.0100	1.1712	-0.0062	0.0236	0.0	-1.3473	0.8133	-0.0084	1.4130	0.0110	0.0030
0.0	0.2	0.0	-0.9071	0.6461	0.0336	1.1105	-0.0022	0.0146	0.0	-1.2492	0.6923	0.0204	1.2471	0.0094	0.0105
0.0	5.0	0.1	-0.8630	0.6070	0.0010	1.2011	-0.0230	0.0570	0.0	-1.1756	0.5316	0.0360	1.1453	-0.0010	0.0317
0.0	9.0	0.1	-0.8006	0.5639	0.0010	1.0022	-0.0305	0.0601	0.0	-1.1274	0.4090	0.0400	1.1000	0.0110	0.0256
0.0	14.0	0.1	-0.7419	0.4140	0.0555	0.9155	-0.0213	0.0421	0.0	-0.9601	0.5050	0.0376	0.9496	-0.0082	0.0223
0.0	19.0	0.0	-0.6342	0.2400	0.0496	0.7732	-0.0116	0.0306	0.0	-0.7250	0.2014	0.0382	0.4944	0.0006	0.0167
0.0	24.0	0.0	-0.5353	0.1407	0.0405	0.6408	-0.0076	0.0146	0.0	-0.3365	-0.0505	0.0257	0.1576	0.0046	0.0068
0.0	29.0	0.0	-0.4027	-0.0399	0.0204	0.4104	-0.0039	0.0139	0.0	-0.4635	-0.2219	0.0249	0.0762	-0.0016	0.0126
0.0	35.0	0.0	-0.2639	-0.2370	0.0155	0.1916	-0.0023	0.0078	0.0	-0.3607	-0.3533	0.0122	0.0187	-0.0019	0.0040
0.0	40.0	0.0	-0.1304	-0.3701	0.0100	-0.0251	0.0015	0.0030	0.0	-0.2652	-0.4353	0.0006	-0.1027	0.0025	0.0045
0.0	45.0	0.0	-0.0240	-0.5143	0.0070	-0.1022	-0.0074	0.0014	0.0	-0.2067	-0.5307	0.0144	-0.1172	-0.0055	0.0107
0.0	49.0	0.0	0.0590	-0.6432	0.0152	-0.3050	-0.0074	0.0154	0.0	-0.1425	-0.5830	0.0247	-0.1000	-0.0277	0.0193
0.0	55.0	0.0	0.1302	-0.7333	0.0062	-0.4020	-0.0212	0.0136	0.0	-0.0633	-0.7894	0.0314	-0.2576	-0.0207	0.0205
0.0	59.0	0.0	0.1402	-0.7434	-0.0102	-0.3633	-0.0137	0.0050	0.0	-0.0273	-0.7706	0.0200	-0.2450	-0.0240	0.0200
0.0	65.0	0.0	0.1900	-0.7096	0.0006	-0.3309	-0.0136	0.0009	0.0	0.0747	-0.9533	0.0300	-0.4032	-0.0264	0.0290
0.0	70.0	0.0	0.3306	-0.9470	0.0103	-0.7605	-0.0131	0.0006	0.0	0.2445	-1.0103	0.0372	-0.7600	-0.0236	0.0262
0.0	75.1	0.0	0.4830	-1.1070	0.0215	-1.0794	-0.0106	0.0005	0.0	0.4203	-1.2225	0.0371	-1.1271	-0.0233	0.0315
1.2	-44.9	0.0	-1.7101	2.0301	0.0102	2.4237	0.0100	0.0000	0.0	-1.0856	1.0536	0.0334	1.0924	-0.0131	0.0192
1.2	-39.9	0.0	-1.7593	1.9701	0.0225	2.3521	0.0033	0.0110	0.0	-1.7014	0.9310	0.0370	1.0657	-0.0105	0.0235
1.2	-35.2	0.0	-1.7996	1.9035	0.0205	2.2806	0.0057	0.0079	0.0	-1.6178	0.8563	0.0360	1.0524	-0.0150	0.0193
1.2	-30.0	0.0	-1.7927	1.7709	0.0150	2.1801	0.0094	-0.0013	0.0	-1.4622	0.4625	0.0416	1.2624	-0.0211	0.0241
1.2	-25.2	0.0	-1.7000	1.6223	0.0217	2.1026	0.0097	0.0070	0.0	-1.2844	0.2391	0.0475	1.0667	-0.0173	0.0234
1.2	-20.0	0.0	-1.7040	1.5211	0.0092	2.0270	0.0105	-0.0044	0.0	-1.0666	-0.0393	0.0430	0.8747	-0.0140	0.0247
1.2	-14.7	0.0	-1.7002	1.3971	0.0146	1.9492	-0.0020	0.0073	0.0	-0.8493	-0.3045	0.0529	0.3095	-0.0211	0.0332
1.2	-10.0	0.0	-1.7009	1.2501	0.0234	1.9191	-0.0056	0.0140	0.0	-0.6899	-0.3055	0.0502	0.0714	-0.0220	0.0346
1.2	-5.0	0.0	-1.6024	1.0050	0.0376	1.6901	-0.0055	0.0165	0.0	-0.5340	-0.0440	0.0475	-0.1439	-0.0222	0.0335
1.2	0.0	0.0	-1.6799	0.9603	0.0272	1.6007	-0.0006	0.0092	0.0	-0.4565	-0.7365	0.0401	-0.1109	-0.0340	0.0395
1.2	4.0	0.0	-1.6501	0.9551	0.0509	1.5601	-0.0120	0.0203	0.0	-0.3516	-0.7672	0.0500	-0.1252	-0.0302	0.0351
1.2	9.0	0.0	-1.5005	0.7206	0.0404	1.4021	-0.0093	0.0200	0.0	-0.2491	-0.0412	0.0403	-0.1070	-0.0407	0.0314
1.2	14.0	0.1	-1.4002	0.5200	0.0516	1.2031	-0.0103	0.0217	0.0	-0.1454	-0.0709	0.0509	-0.2767	-0.0350	0.0304
1.2	19.0	0.1	-1.2104	0.2090	0.0450	1.0545	-0.0114	0.0242	0.0	-0.0320	-0.9471	0.0533	-0.3630	-0.0297	0.0301
1.2	24.0	0.1	-0.9549	-0.0604	0.0543	0.8705	-0.0093	0.0250	0.0	0.1125	-1.0849	0.0463	-0.5630	-0.0321	0.0302
1.2	30.0	0.1	-0.7423	-0.3203	0.0500	0.7122	-0.0110	0.0259	0.0	0.2845	-1.2631	0.0437	-0.8539	-0.0325	0.0319
1.2	34.0	0.1	-0.6270	-0.4291	0.0437	0.6102	-0.0063	0.0174	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	39.0	0.1	-0.5207	-0.4605	0.0412	0.5007	-0.0030	0.0170	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	45.0	0.1	-0.4600	-0.4573	0.0411	0.4103	-0.0131	0.0200	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	50.0	0.1	-0.3300	-0.6410	0.0302	-0.1100	-0.0304	0.0300	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	55.0	0.1	-0.2152	-0.7550	0.0010	-0.1445	-0.0335	0.0303	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	59.0	0.1	-0.1321	-0.0300	0.0001	-0.2100	-0.0345	0.0375	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	65.0	0.1	-0.0203	-0.9105	0.0700	-0.3603	-0.0473	0.0554	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	70.0	0.1	0.1122	-1.0409	0.0402	-0.5809	-0.0509	0.0547	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.2	75.2	0.1	0.3135	-1.2270	0.0314	-0.9199	-0.0475	0.0453	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Configuration 2
Seat with 35 Deg. Boom, Stabilizer and Blast Shield Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CX	CZ	CT	CHN	CHN	CHL
1.2	0.0	-5.1	-1.7077	0.9990	-0.3026	1.6335	0.0332	-0.1309
1.2	0.0	-2.0	-1.6798	0.9772	-0.0729	1.6081	0.0114	-0.0201
1.2	0.0	0.0	-1.6023	0.9739	0.0213	1.6125	0.0003	0.0070
1.2	0.0	2.0	-1.7057	0.9906	0.1495	1.6401	-0.0215	0.0650
1.2	0.0	5.1	-1.7301	0.9990	0.3070	1.6707	-0.0616	0.1722
1.2	0.0	10.1	-1.7617	1.0278	0.7499	1.7593	-0.1193	0.2970
1.2	0.0	15.4	-1.8002	0.9750	1.1445	1.6557	-0.2041	0.4956
1.2	0.0	20.5	-1.5396	0.8741	1.5013	1.4466	-0.2525	0.6406
1.2	0.0	25.0	-1.4087	0.7772	1.8500	1.2055	-0.3220	0.8304
1.2	0.1	30.7	-1.2457	0.6320	2.2625	1.0659	-0.4195	1.0656
1.2	14.9	-5.1	-1.3009	0.5257	-0.3226	1.2651	0.0309	-0.1151
1.2	15.1	-1.9	-1.3970	0.5177	-0.0049	1.2046	-0.0090	-0.0268
1.2	15.0	0.1	-1.4015	0.5212	0.0466	1.2909	-0.0112	0.0270
1.2	15.1	2.0	-1.3944	0.5041	0.1066	1.2710	-0.0005	0.0671
1.2	15.0	5.0	-1.3535	0.4495	0.3304	1.1851	-0.0002	0.0708
1.2	15.0	10.1	-1.2720	0.3702	0.6362	1.0140	-0.1333	0.2033
1.2	14.9	15.2	-1.1851	0.2939	0.8904	0.8265	-0.0592	0.3140
1.2	15.0	20.5	-1.1030	0.2123	1.2022	0.6555	-0.1330	0.5031
1.2	15.0	25.4	-1.0007	0.1100	1.6592	0.4617	-0.2395	0.7321
1.2	15.0	30.7	-0.8008	0.0053	2.0104	0.2394	-0.3104	0.9225
1.2	30.2	-5.1	-0.6000	-0.3300	-0.2930	0.1021	-0.0221	-0.0703
1.2	30.0	-1.9	-0.3311	-0.3257	-0.1057	0.1007	-0.0051	-0.0495
1.2	30.0	0.1	-0.7400	-0.3230	0.0022	0.2101	-0.0101	0.0277
1.2	30.0	2.0	-0.7301	-0.3410	0.1702	0.1912	-0.0052	0.0700
1.2	30.0	5.1	-0.6890	-0.3032	0.3638	0.0600	0.0044	0.1120
1.2	30.0	10.1	-0.6702	-0.4011	0.6235	0.0193	0.0096	0.1897
1.2	29.9	15.2	-0.6500	-0.4510	0.9708	-0.0706	-0.0911	0.3030
1.2	30.1	20.5	-0.5955	-0.5721	1.3992	-0.2200	-0.1915	0.6002
1.2	29.9	25.5	-0.5450	-0.5721	1.8065	-0.3327	-0.2507	0.7514
1.2	30.1	30.7	-0.4624	-0.6050	2.0491	-0.4407	-0.3698	0.9609

N	ALPHA	PSI	CX	CZ	CT	CHN	CHN	CHL
1.5	0.0	-5.1	-1.0603	1.0420	-0.1102	1.0595	0.0946	-0.1000
1.5	0.1	-1.9	-1.0814	1.0530	-0.1299	1.0931	0.0293	-0.0500
1.5	0.2	0.0	-1.0403	1.0501	0.0266	1.0800	-0.0120	0.0164
1.5	0.0	2.0	-1.0009	1.0567	0.1973	1.0903	-0.0559	0.0966
1.5	-0.1	5.0	-1.0684	1.0304	0.4402	1.0660	-0.1173	0.2195
1.5	-0.1	10.3	-1.0209	1.0050	0.8010	1.0060	-0.2347	0.4506
1.5	0.0	15.3	-1.7744	0.9593	1.3574	1.7319	-0.3096	0.7196
1.5	0.0	20.7	-1.0720	0.8609	1.8034	1.5717	-0.4021	0.9564
1.5	15.0	-5.1	-1.0317	0.4004	-0.3372	1.1919	0.0409	-0.1501
1.5	15.1	-2.0	-1.0476	0.4004	-0.1000	1.2173	0.0051	-0.0415
1.5	15.1	0.0	-1.0327	0.4007	0.0360	1.2503	-0.0145	0.0107
1.5	15.1	2.0	-1.0430	0.4272	0.1064	1.1990	-0.0455	0.0002
1.5	15.0	5.1	-1.0313	0.4006	0.3078	1.1695	-0.0704	0.1755
1.5	15.0	10.3	-1.0003	0.3429	0.7954	1.0011	-0.1356	0.3031
1.5	14.9	15.4	-1.2015	0.2332	1.1804	0.9005	-0.2104	0.5660
1.5	15.0	20.6	-1.2100	0.1510	1.5914	0.6796	-0.3110	0.7939
1.5	30.0	-5.1	-0.0483	-0.2966	-0.3030	0.3009	0.0094	-0.1702
1.5	30.1	-1.9	-0.0445	-0.3009	-0.0954	0.3043	0.0010	-0.0452
1.5	30.0	0.1	-0.0525	-0.3005	0.0336	0.3147	-0.0312	0.0336
1.5	30.0	2.0	-0.0525	-0.3064	0.1911	0.3002	-0.0022	0.1071
1.5	30.0	5.0	-0.0529	-0.3249	0.4110	0.2864	-0.0064	0.2277
1.5	30.0	10.3	-0.7493	-0.4056	0.7000	0.0594	-0.0823	0.3003
1.5	30.0	15.4	-0.7162	-0.4527	1.1244	-0.0322	-0.1021	0.5151
1.5	30.0	20.4	-0.0558	-0.5140	1.5016	-0.1405	-0.2901	0.7003

Configuration 2
 Seat with 35 Deg. Boom, Stabilizer and Blast Shield, Jet Off
 MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CX	CZ	CF	CMX	CMY	CMZ	CMX	CMY	CMZ	CMX	CMY	CMZ
0.6	-45.9	0.0	-1.2451	1.5473	0.0239	1.4374	0.0061	0.0204	0.0259	-0.0144	0.0405	0.0259	-0.0144	0.0405
0.6	-40.8	0.0	-1.2084	1.5032	0.0431	1.7977	-0.0054	0.0307	1.9009	0.0391	0.0162	2.0526	0.0049	0.0162
0.6	-35.2	0.0	-1.3270	1.4532	0.0196	1.7600	0.0021	0.0096	1.7680	0.0391	0.0162	2.0526	0.0049	0.0162
0.6	-30.1	0.0	-1.3699	1.3913	0.0202	1.7141	-0.0007	0.0131	1.7186	0.0306	0.0026	1.9646	0.0026	0.0110
0.6	-25.2	0.0	-1.3202	1.2642	-0.0115	1.5943	0.0007	0.0070	1.5758	0.0066	0.0004	1.8884	0.0004	0.0012
0.6	-20.8	0.0	-1.2838	1.1619	-0.0298	1.4704	0.0015	-0.0090	1.4717	0.0066	-0.0056	1.8061	0.0056	-0.0062
0.6	-14.8	0.0	-1.2147	0.9530	-0.0108	1.3266	0.0002	-0.0010	1.3687	0.0063	0.0021	1.7338	-0.0021	0.0027
0.6	-9.9	0.0	-1.1627	0.8399	0.0095	1.2360	0.0009	0.0108	1.5346	0.0048	0.0024	1.5508	0.0024	0.0038
0.6	-5.0	0.0	-1.0851	0.8324	-0.0209	1.1264	0.0292	-0.0220	1.7197	0.0013	0.0068	1.5352	0.0068	0.0095
0.6	-0.1	0.0	-0.9211	0.7313	-0.0495	1.0735	0.0733	0.0946	0.9297	0.0303	0.0025	1.2007	0.0025	0.0151
0.6	5.0	0.0	-0.9917	0.7289	0.0459	1.1625	0.0075	0.0026	0.7794	0.0319	0.0037	1.1037	-0.0037	0.0162
0.6	9.9	0.0	-0.9149	0.6167	0.0843	1.0966	-0.0261	0.0535	0.7798	0.0349	0.0087	1.1718	-0.0087	0.0238
0.6	14.8	0.0	-0.8137	0.4742	0.0775	0.9768	-0.0297	0.0540	0.5351	0.0340	0.0048	1.0423	-0.0048	0.0192
0.6	19.8	0.0	-0.7216	0.3600	0.0649	0.8703	-0.0189	0.0434	0.2660	0.0376	0.0027	0.6717	-0.0027	0.0101
0.6	24.9	0.0	-0.6327	0.2371	0.0554	0.7699	-0.0136	0.0295	0.1432	0.0310	0.0060	0.3250	0.0060	0.0040
0.6	30.0	0.0	-0.5124	0.0725	0.0307	0.5637	-0.0101	0.0264	-0.1370	0.0141	0.0055	0.1314	0.0055	0.0110
0.6	35.0	0.0	-0.3959	-0.0804	0.0107	0.3494	0.0002	0.0096	0.3370	0.0141	0.0042	0.1314	0.0042	0.0037
0.6	39.9	0.0	-0.3179	-0.1581	0.0195	0.1926	-0.0020	0.0110	0.2221	0.0140	0.0046	0.0046	-0.0002	0.0042
0.6	45.0	0.0	-0.2096	-0.2675	0.0169	0.0316	-0.0010	0.0002	-0.3806	-0.0050	0.0420	0.0420	-0.0121	-0.0006
0.6	49.9	0.0	-0.1125	-0.3709	0.0123	-0.1046	-0.0074	0.0148	-0.3211	0.0145	0.0019	0.0019	-0.0035	0.0061
0.6	55.0	0.0	-0.0326	-0.4900	-0.0214	-0.2547	-0.0072	0.0109	-0.1542	-0.0947	0.0203	-0.1635	-0.0037	0.0128
0.6	59.9	0.0	-0.0085	-0.5435	-0.0485	-0.2847	-0.0038	0.0142	-0.0864	-0.7678	0.0211	-0.2341	-0.0097	0.0145
0.6	65.3	0.0	-0.0177	-0.4700	-0.0704	-0.2847	-0.0038	0.0142	-0.0706	-0.6482	0.0246	-0.0902	-0.0037	-0.0010
0.6	70.2	0.0	-0.0124	-0.4548	-0.0317	-0.1931	0.0148	-0.0120	0.0242	-0.6931	0.0226	-0.1672	-0.0095	0.0098
0.6	75.2	0.0	-0.1708	-0.5700	-0.0301	-0.3997	0.0137	-0.0024	0.0027	-0.6686	-0.0333	-0.0945	0.0028	-0.0064

N	ALPHA	PSI	CX	CZ	CF	CMX	CMY	CMZ	CMX	CMY	CMZ	CMX	CMY	CMZ
1.5	0.0	-0.1	-1.1908	1.6605	0.0308	1.9210	-0.0150	0.0205	1.9009	0.0391	0.0162	2.0526	0.0049	0.0162
1.5	4.9	-0.1	-1.7626	0.9587	0.0238	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	10.0	-0.1	-1.6146	0.6638	0.0411	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	14.8	-0.1	-1.4638	0.4731	0.0397	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	19.8	-0.1	-1.2876	0.2559	0.0330	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	24.9	-0.1	-1.0766	0.0098	0.0277	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	30.0	-0.1	-0.8616	-0.2668	0.0224	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	34.9	-0.1	-0.7068	-0.4598	0.0158	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	39.9	-0.1	-0.5581	-0.6228	0.0119	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	45.0	-0.1	-0.4043	-0.6769	0.0063	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	49.9	-0.1	-0.3821	-0.7020	0.0037	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	55.0	-0.1	-0.2761	-0.7598	0.0035	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	59.8	-0.1	-0.1631	-0.8136	0.0036	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	65.1	-0.1	-0.0517	-0.8777	0.0037	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	70.2	-0.1	0.0311	-0.9451	0.0037	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189
1.5	75.1	-0.1	0.1242	-1.0070	0.0037	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189	1.6442	-0.0149	0.0189

Configuration 2
 Seat with 35 Deg. Boom, Stabilizer and Blast Shield, Jet On
 MOMENT DATA ABOUT SEAT REFERENCE POINT

A	ALPHA	PSI	CX	CZ	CY	CMX	CMY	CMZ	N	ALPHA	PSI	CX	CZ	CY	CMX	CMY	CMZ
0.0	0.0	-4.9	-1.0673	0.8503	-0.0085	1.2259	-0.0042	-0.1453	0.9	0.1	-5.1	-1.3048	0.8116	-0.2432	1.2332	0.0185	-0.1040
0.0	0.0	-2.0	-1.0657	0.8499	-0.1762	1.2237	0.0122	-0.0715	0.9	0.0	-1.8	-1.3047	0.7995	-0.0763	1.2316	0.0095	-0.0280
0.0	0.1	0.0	-1.0583	0.8331	0.0115	1.2073	0.0165	-0.0049	0.9	0.0	0.0	-1.2926	0.7890	0.0150	1.2144	-0.0013	0.0153
0.0	0.0	1.9	-1.0569	0.8123	0.1859	1.1920	0.0229	0.0460	0.9	0.0	1.9	-1.2949	0.7890	0.1167	1.2207	-0.0093	0.0632
0.0	0.1	5.1	-1.0787	0.7775	0.3761	1.2002	0.0549	0.0779	0.9	0.1	5.0	-1.3123	0.8024	0.2632	1.2414	-0.0129	0.1194
0.0	0.1	10.1	-1.1211	0.7409	0.6874	1.2350	0.0415	0.2330	0.9	0.1	10.1	-1.4649	0.8551	0.4835	1.4154	0.0036	0.1470
0.0	0.2	15.2	-1.1298	0.7430	1.0920	1.2313	-0.0168	0.4264	0.9	-0.1	15.1	-1.4109	0.8285	0.9452	1.4669	-0.0737	0.3674
0.0	0.0	20.3	-1.0727	0.5921	1.5168	1.1204	-0.0929	0.9460	0.9	0.1	20.2	-1.3260	0.7639	1.2591	1.3108	-0.0730	0.4455
0.0	0.1	25.4	-0.9409	0.5839	1.9320	0.9726	-0.1559	0.9434	0.9	0.1	25.3	-1.2312	0.6852	1.5628	1.1667	-0.1164	0.5900
0.0	0.1	30.5	-0.8213	0.4911	2.3250	0.7932	-0.2116	1.0453	0.9	0.0	30.3	-1.1100	0.5785	1.9314	0.9909	-0.1944	0.7060
0.0	15.0	-5.0	-0.9239	0.5143	-0.2730	1.0144	0.0003	-0.1016	0.9	15.1	-5.0	-0.9939	0.5207	-0.1095	0.9708	-0.0630	0.0445
0.0	15.0	-2.1	-0.9202	0.5016	-0.1109	1.0123	-0.0154	-0.0415	0.9	15.0	-1.8	-0.9866	0.5195	-0.0376	0.9902	-0.0290	0.0164
0.0	15.1	0.0	-0.9276	0.4930	0.0301	1.0100	-0.0261	0.0472	0.9	15.0	0.0	-0.9906	0.5176	0.0100	0.9926	-0.0010	0.0032
0.0	15.0	2.0	-0.9200	0.4961	0.2256	1.0199	-0.0362	0.1316	0.9	14.8	2.0	0.1713	0.0209	0.0006	-0.1045	0.0007	0.0006
0.0	15.0	5.1	-0.9249	0.4859	0.4621	0.9877	-0.0511	0.2567	0.9	14.8	5.0	0.1711	0.0209	0.0006	-0.1045	0.0007	0.0006
0.0	15.0	10.1	-0.9080	0.4527	0.6667	0.9190	-0.0937	0.4750	0.9	14.8	10.0	-1.0350	0.4576	0.1670	0.9529	0.0707	0.0535
0.0	15.0	15.3	-0.7646	0.3473	1.2043	0.7671	-0.1645	0.8870	0.9	15.0	15.2	-0.9901	0.3209	0.7852	0.7459	0.0203	0.2136
0.0	15.0	20.4	-0.6777	0.1963	1.6617	0.5615	-0.1790	0.9105	0.9	15.0	20.2	-0.9327	0.2303	1.1236	0.5677	-0.0091	0.3599
0.0	14.9	25.5	-0.5072	-0.0331	2.0629	0.3271	-0.2057	0.9013	0.9	15.0	25.2	-0.8405	0.1411	1.4411	0.4454	-0.0700	0.5309
0.0	15.1	30.6	-0.3923	-0.2165	2.4303	0.0816	-0.2407	1.1318	0.9	15.0	30.5	-0.7311	0.0046	1.8454	0.2305	-0.1361	0.7306
0.0	30.0	-5.0	-0.5333	0.0947	-0.3974	0.5730	-0.0271	-0.1425	0.9	30.1	-5.0	-0.5100	-0.1212	-0.2577	0.1745	-0.0497	-0.0100
0.0	30.1	-2.0	-0.5234	0.0901	-0.1331	0.5693	-0.0180	-0.0376	0.9	30.0	-2.1	-0.4945	-0.1164	-0.0920	0.1370	-0.0213	0.0001
0.0	30.1	0.1	-0.5225	0.0793	0.0292	0.5801	-0.0073	0.0219	0.9	30.0	0.1	-0.4930	-0.1521	0.0222	0.1343	0.0056	0.0073
0.0	30.0	2.0	-0.5246	0.0747	0.1014	0.5733	0.0013	0.0706	0.9	30.0	2.0	-0.5009	-0.1633	0.1216	0.1417	0.0373	0.0062
0.0	30.1	5.1	-0.5005	0.0472	0.2330	0.5616	0.0070	0.1741	0.9	30.1	4.9	-0.5100	-0.1801	0.2400	0.1406	0.0763	-0.0030
0.0	30.1	10.1	-0.4508	-0.0335	0.4301	0.4272	0.0115	0.3401	0.9	30.0	10.1	-0.5294	-0.2348	0.5437	0.0863	0.1141	0.0507
0.0	30.0	15.3	-0.3350	-0.1006	1.2800	0.2015	-0.0055	0.5209	0.9	30.0	15.2	-0.5009	-0.3209	0.8721	0.0203	-0.0029	0.2640
0.0	30.1	20.5	-0.1955	-0.3069	1.7495	-0.0510	-0.0756	0.7300	0.9	30.0	20.2	-0.4604	-0.4117	1.2461	-0.1103	-0.0776	0.4405
0.0	30.0	25.5	-0.0496	-0.6100	2.1747	-0.3142	-0.1997	0.9631	0.9	30.1	25.3	-0.4344	-0.4956	1.6338	-0.2449	-0.1643	0.6145
0.0	30.0	30.6	0.1073	-0.0211	2.4332	-0.0370	-0.3025	1.0191	0.9	30.0	30.3	-0.3670	-0.5315	2.0400	-0.2043	-0.2949	0.6470

Configuration 2
 Seat with 35 Deg. Boom, Stabilizer and Blast Shield, Jet On
 MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CI	CZ	CY	CNN	CNN	CNN	CX	CZ	CY	CNN	CNN	CNN	CX
1.2	0.1	-5.1	-1.6324	0.9960	-0.1054	1.5187	0.0385	-0.1213							
1.2	0.0	-5.0	-1.6791	0.9803	-0.0747	1.5077	0.0152	-0.0290							
1.2	0.1	0.0	-1.6741	0.9681	0.0154	1.5736	0.0651	0.0021							
1.2	0.1	2.0	-1.7040	0.9095	0.1078	1.5216	-0.0234	0.0664							
1.2	0.1	5.0	-1.7330	1.0029	0.3769	1.5743	-0.0633	0.1681							
1.2	0.1	10.1	-1.7762	1.0668	0.7401	1.8096	-0.1301	0.3030							
1.2	0.1	15.1	-1.8027	0.9590	1.1546	1.8644	-0.2184	0.5061							
1.2	0.0	20.4	-1.8453	0.7081	1.5517	1.8041	-0.2898	0.5959							
1.2	0.0	25.5	-1.8836	0.7500	1.8865	1.7912	-0.3624	0.8504							
1.2	0.1	30.0	-1.9480	0.6130	2.3571	1.0750	-0.4564	1.1306							
1.2	14.9	-5.0	-1.3009	0.5220	-0.2751	1.2407	-0.0090	-0.0469							
1.2	15.1	-5.0	-1.3048	0.5190	-0.0864	1.3000	-0.0076	-0.0246							
1.2	15.1	0.1	-1.3060	0.5102	0.0526	1.3000	-0.0162	0.0300							
1.2	15.1	2.0	-1.3074	0.5012	0.1730	1.2836	-0.0109	0.0500							
1.2	15.0	5.0	-1.3379	0.4829	0.3270	1.1922	-0.0031	0.0702							
1.2	15.0	10.2	-1.2014	0.3904	0.5066	1.0267	-0.0112	0.1769							
1.2	15.0	15.2	-1.1974	0.3070	0.9187	0.6626	-0.0702	0.3431							
1.2	15.0	20.3	-1.1313	0.2366	1.2970	0.7075	-0.1623	0.5501							
1.2	15.0	25.6	-0.9529	0.1035	1.7170	0.4650	-0.2570	0.7774							
1.2	15.0	30.6	-0.8546	-0.0060	2.0917	0.2416	-0.3382	0.9570							
1.2	30.0	-5.0	-0.6320	-0.2008	-0.1033	0.1446	-0.0302	-0.0496							
1.2	30.1	-1.9	-0.7377	-0.2021	-0.1191	0.2300	0.0020	-0.0548							
1.2	30.0	0.1	-0.7373	-0.2952	0.0254	0.2220	0.0045	0.0009							
1.2	30.0	2.0	-0.7468	-0.2965	0.1062	0.2362	-0.0077	0.0791							
1.2	30.0	5.0	-0.6904	-0.3323	0.3364	0.1100	0.0314	0.0411							
1.2	30.1	10.2	-0.6025	-0.3864	0.5543	0.0607	-0.0024	0.2123							
1.2	30.0	15.3	-0.6023	-0.4247	1.0271	-0.0374	-0.1156	0.2644							
1.2	30.0	20.4	-0.5979	-0.5365	1.4919	-0.2140	-0.2317	0.6650							
1.2	30.0	25.5	-0.5567	-0.6006	1.9019	-0.3406	-0.3014	0.9327							
1.2	30.0	30.7	-0.4315	-0.6532	2.1405	-0.4627	-0.4035	1.0313							
N	ALPHA	PSI	CI	CZ	CY	CNN	CNN	CNN	CX	CZ	CY	CNN	CNN	CNN	CX
1.5	0.0	-5.1	-1.8555	1.0507	-0.1024	1.5894	0.0362	-0.1082							
1.5	0.0	-5.0	-1.8667	1.0385	-0.1401	1.9172	0.0320	-0.0637							
1.5	0.1	0.0	-1.8864	1.0586	0.0334	1.9174	-0.0163	0.0216							
1.5	0.1	2.0	-1.8965	1.0549	0.2052	1.9130	-0.0603	0.1030							
1.5	0.1	5.1	-1.8993	1.0436	0.4551	1.8853	-0.1221	0.2271							
1.5	0.0	10.3	-1.8313	1.0157	0.8036	1.8404	-0.2363	0.4522							
1.5	0.0	15.4	-1.7805	0.9561	1.3445	1.7410	-0.3697	0.7133							
1.5	0.0	20.7	-1.6553	0.8087	1.8010	1.5741	-0.4829	0.9534							
1.5	15.0	-5.1	-1.4377	0.4647	-0.1060	1.2196	0.0511	-0.1593							
1.5	15.0	-1.9	-1.4503	0.4648	-0.1157	1.2436	0.0098	-0.0450							
1.5	15.0	0.1	-1.4575	0.4576	0.0400	1.2591	-0.0217	0.0267							
1.5	14.9	2.0	-1.4594	0.4502	0.1986	1.2324	-0.0517	0.0976							
1.5	15.1	5.0	-1.4233	0.4180	0.4254	1.1815	-0.0935	0.2009							
1.5	14.9	10.3	-1.3770	0.3514	0.8141	1.0038	-0.1604	0.3901							
1.5	15.0	15.3	-1.2610	0.2298	1.1330	0.8134	-0.1045	0.5233							
1.5	15.0	20.6	-1.2137	0.1400	1.4240	0.6855	-0.2004	0.9199							
1.5	14.9	25.6	-1.1075	0.0367	2.0134	0.5025	-0.4311	1.9266							
1.5	15.1	30.6	-0.9846	-0.0352	2.3480	0.3096	-0.5154	1.3011							
1.5	30.0	-5.1	-0.8640	-0.2648	-0.1780	0.3450	0.0480	-0.2046							
1.5	30.1	-1.9	-0.8560	-0.2651	-0.1199	0.3409	0.0114	-0.0601							
1.5	30.0	0.1	-0.8609	-0.2670	0.0494	0.3450	-0.0194	0.0222							
1.5	30.0	2.0	-0.8711	-0.2650	0.2020	0.3569	-0.0691	0.1162							
1.5	30.1	5.1	-0.8649	-0.2844	0.4269	0.3270	-0.0921	0.2393							
1.5	30.0	10.2	-0.7849	-0.3669	0.7003	0.0819	-0.0834	0.3031							
1.5	30.0	15.3	-0.7395	-0.4325	1.1521	-0.0092	-0.1929	0.5267							
1.5	30.0	20.6	-0.6746	-0.5353	1.4004	-0.1647	-0.2964	0.7702							

Configuration 2
Seat with 35 Deg. Boom, Stabilizer and Blast Shield, Jet On
MOMENT DATA ABOUT SEAT REFERENCE POINT

[illegible]

Configuration 3
Seat with 18 Deg. Boom and Blast Shield, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

Configuration 3
Seat with 18 Deg. Boom and Blast Shield, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CI	CE	CT	CNM	CAN	CHL	N	ALPHA	PSI	CI	CE	CT	CNM	CAN	CHL
1.2	-14.9	-5.1	-1.3495	0.5811	-0.4395	0.4888	0.1035	-0.2198	1.5	-15.5	-5.2	-1.4016	0.5674	-0.4674	0.5122	0.1107	-0.2378
1.2	-14.9	-5.1	-1.3495	0.5782	-0.4379	0.5035	0.0411	-0.0023	1.5	-14.9	-1.9	-1.4151	0.5365	-0.4176	0.5174	0.0343	-0.0122
1.2	-14.9	-5.1	-1.3495	0.5716	-0.0433	0.5018	-0.0271	0.0036	1.5	-15.0	0.0	-1.4184	0.5378	0.0393	0.5188	-0.0192	0.0245
1.2	-15.0	2.0	-1.3491	0.5768	0.2243	0.5020	-0.0739	0.1259	1.5	-14.9	2.1	-1.4131	0.5309	0.2323	0.5171	-0.0645	0.1188
1.2	-15.0	5.1	-1.3475	0.5782	0.5014	0.4934	-0.1351	0.2616	1.5	-15.0	5.0	-1.4022	0.5207	0.4980	0.5144	-0.1288	0.2378
1.2	-15.0	10.4	-1.3571	0.5938	1.0454	0.5147	-0.2967	0.5404	1.5	-15.0	10.4	-1.3846	0.5129	0.9837	0.5092	-0.2654	0.4953
1.2	-14.9	15.6	-1.3389	0.6029	1.5608	0.5117	-0.4279	0.8046	1.5	-15.0	15.6	-1.3453	0.5075	1.4829	0.5133	-0.4892	0.7459
1.2	-14.9	20.8	-1.2653	0.5976	2.0110	0.4988	-0.4948	1.0029	1.5	-14.9	20.6	-1.2665	0.5036	1.9172	0.5064	-0.5172	0.9584
1.2	-14.8	25.9	-1.1488	0.5737	2.3536	0.4414	-0.5323	1.1593									
1.2	-15.1	31.3	-1.0006	0.5191	2.6644	0.3637	-0.5538	1.3904									
1.2	0.1	-5.1	-1.2454	0.3054	-0.3375	0.2708	0.0329	-0.1406	1.5	0.2	-5.1	-1.3001	0.3049	-0.3695	0.3463	0.0590	-0.1596
1.2	0.0	-1.9	-1.2371	0.3019	-0.0674	0.2608	-0.0004	-0.0105	1.5	-0.1	-1.9	-1.3129	0.3079	-0.1124	0.3398	0.0109	-0.0079
1.2	0.0	0.1	-1.2438	0.2973	0.0494	0.2643	-0.0073	0.0271	1.5	0.1	0.1	-1.3158	0.3044	0.0476	0.3398	-0.0165	0.0287
1.2	0.0	2.0	-1.2423	0.2959	0.1014	0.2647	-0.0192	0.0019	1.5	-0.1	2.0	-1.3180	0.3044	0.2048	0.3418	-0.0445	0.1024
1.2	0.0	5.0	-1.2405	0.2881	0.3093	0.2643	-0.0432	0.1744	1.5	0.0	5.1	-1.3062	0.2907	0.4459	0.3388	-0.0875	0.2134
1.2	-0.1	10.3	-1.2215	0.2705	0.7013	0.2647	-0.1102	0.3505	1.5	0.1	10.4	-1.2834	0.2674	0.8637	0.3314	-0.1770	0.4099
1.2	0.0	15.3	-1.1915	0.2834	1.1408	0.2658	-0.1814	0.5011	1.5	0.1	15.4	-1.2595	0.2684	1.2648	0.3293	-0.2550	0.5923
1.2	0.1	20.6	-1.1208	0.2717	1.4947	0.2638	-0.1946	0.6363	1.5	0.1	20.7	-1.2100	0.2492	1.6804	0.3259	-0.3421	0.7748
1.2	-0.1	25.8	-1.0047	0.2518	1.8463	0.2387	-0.2391	0.7789	1.5	0.0	25.6	-1.1537	0.2258	2.0460	0.3018	-0.4282	0.9367
									1.5	0.1	30.9	-1.0626	0.1929	2.4380	0.2467	-0.5150	1.1097
1.2	15.1	-5.1	-0.9524	-0.0419	-0.2517	0.1114	-0.0632	-0.0401	1.5	14.9	-5.1	-1.0482	-0.0392	-0.2895	0.1723	0.0085	-0.0947
1.2	14.9	-2.0	-0.9548	-0.0521	-0.0516	0.1038	-0.0415	0.0063	1.5	15.0	-1.9	-1.0522	-0.0347	-0.0885	0.1729	-0.0090	-0.0327
1.2	15.0	0.0	-0.9452	-0.0659	0.0408	0.0941	0.0000	0.0147	1.5	15.0	0.1	-1.0540	-0.0453	0.0519	0.1698	-0.0191	0.0261
1.2	15.0	2.0	-0.9408	-0.0779	0.1431	0.0861	0.0294	0.0307	1.5	15.0	2.0	-1.0533	-0.0591	0.1857	0.1651	-0.0270	0.0709
1.2	15.1	5.0	-0.9390	-0.0948	0.3138	0.0808	0.0534	0.0663	1.5	15.0	5.1	-1.0511	-0.0811	0.3780	0.1563	-0.0408	0.1416
1.2	15.0	10.3	-0.9441	-0.0907	0.6059	0.0808	0.0313	0.1588	1.5	15.0	10.3	-1.0512	-0.1112	0.7415	0.1419	-0.0963	0.2916
1.2	15.0	15.4	-0.9410	-0.0070	0.8999	0.0790	-0.0007	0.2727	1.5	15.0	15.4	-1.0425	-0.1233	1.1169	0.1311	-0.1393	0.4293
1.2	15.0	20.4	-0.9283	-0.0414	1.2202	0.0909	-0.0403	0.3915	1.5	14.9	20.5	-1.0335	-0.1001	1.4849	0.1322	-0.2070	0.5757
1.2	14.9	25.0	-0.8033	-0.0388	1.5878	0.1004	-0.1101	0.5538									

Configuration 3
Seat with 18 Deg. Boom and Blast Shield, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PBI	CH	CZ	CY	CMA	CMN	CNL	N	ALPHA	PBI	CH	CZ	CY	CMN	CMN	CNL
0.6	-45.9	0.0	-0.7120	0.5313	-0.0078	0.3466	0.0390	-0.0110	0.9	-45.3	0.0	-0.7209	1.0211	0.0399	0.5040	0.0066	0.0094
0.6	-40.1	0.0	-0.7476	0.5339	-0.0048	0.3110	0.0321	-0.0118	0.9	-40.0	0.0	-0.9591	0.9444	0.0264	0.5459	0.0104	0.0079
0.6	-35.1	0.0	-0.7793	0.4767	-0.0043	0.2763	0.0269	-0.0120	0.9	-35.1	0.0	-1.0376	0.8508	0.0157	0.5117	0.0103	0.0033
0.6	-30.1	0.0	-0.7932	0.4237	-0.0003	0.2424	0.0189	-0.0079	0.9	-30.1	0.0	-1.0638	0.6841	0.0301	0.4768	-0.0010	0.0117
0.6	-25.1	0.0	-0.7927	0.3627	-0.0041	0.2068	0.0091	-0.0024	0.9	-25.1	0.0	-1.0751	0.5645	0.0692	0.4133	0.0124	0.0350
0.6	-20.1	0.0	-0.7779	0.3181	0.0160	0.1428	-0.0150	0.0140	0.9	-20.1	0.0	-1.0777	0.4548	0.0956	0.3374	-0.0100	0.0500
0.6	-15.0	0.0	-0.7406	0.0050	0.0146	0.0134	-0.0146	0.0134	0.9	-14.9	0.0	-0.9516	0.3791	0.1440	0.2629	-0.0445	0.0845
0.6	-9.8	0.0	-0.6882	0.2148	0.0237	0.0528	-0.0055	0.0313	0.9	-10.1	0.0	-0.9997	0.2960	0.0634	0.1951	-0.0135	0.0466
0.6	-5.0	0.0	-0.6336	0.1680	0.0530	0.0128	-0.0072	0.0314	0.9	-5.0	0.0	-0.9341	0.2392	0.0236	0.1072	0.0032	0.0202
0.6	0.0	0.0	-0.5714	0.1002	0.1006	-0.0209	-0.0072	0.0568	0.9	0.1	0.0	-0.8517	0.1847	0.0374	0.0283	-0.0007	0.0251
0.6	4.9	0.0	-0.5133	0.0403	0.0806	-0.0497	-0.0245	0.0468	0.9	5.0	0.0	-0.7699	0.1220	0.0121	-0.0150	-0.0009	0.0068
0.6	9.9	0.0	-0.4569	-0.0376	0.0596	-0.0493	-0.0169	0.0333	0.9	9.9	0.0	-0.6905	0.0547	0.0203	-0.0436	0.0052	0.0078
0.6	14.9	0.0	-0.4031	-0.0950	0.0376	-0.0601	-0.0044	0.0174	0.9	14.8	0.0	-0.6222	-0.0267	0.0276	-0.0660	0.0169	0.0080
0.6	20.0	0.0	-0.3508	-0.1428	0.0391	-0.0230	-0.0066	0.0102	0.9	19.9	0.0	-0.5543	-0.1076	0.0287	-0.0585	0.0123	0.0089
0.6	25.2	0.0	-0.3147	-0.1816	0.0314	-0.0089	-0.0009	0.0067	0.9	25.2	0.0	-0.4904	-0.1799	0.0370	-0.0170	0.0123	0.0153
0.6	30.1	0.0	-0.2742	-0.2037	0.0144	-0.0147	0.0013	0.0020	0.9	30.2	0.0	-0.4574	-0.2228	0.0285	0.0363	0.0042	0.0104
0.6	35.1	0.0	-0.2327	-0.2715	0.0263	0.0423	-0.0055	0.0075	0.9	35.0	0.0	-0.4173	-0.2294	0.0260	0.1118	0.0005	0.0115
0.6	40.5	0.0	-0.2025	-0.3233	0.0253	0.1035	-0.0020	0.0047	0.9	40.0	-0.1	-0.4114	-0.1869	0.0069	0.1956	0.0011	0.0026
0.6	45.9	0.0	-0.2136	-0.1602	0.0054	-0.1857	-0.0029	0.0022	0.9	45.0	-0.1	-0.3955	-0.2103	-0.0136	0.2590	0.0099	-0.0080
0.6	50.8	0.0	-0.2172	-0.1148	-0.0028	-0.2067	0.0030	0.0016	0.9	49.9	-0.1	-0.3600	-0.2031	-0.0103	0.2726	0.0067	-0.0073
0.6	55.0	-0.1	-0.2350	-0.0752	-0.0530	0.3727	0.0260	0.0056	0.9	55.0	-0.1	-0.3222	-0.3441	-0.0165	0.2900	0.0080	-0.0056
0.6	60.6	0.0	-0.2329	-0.0702	-0.0053	0.4265	0.0352	-0.0162	0.9	60.0	-0.1	-0.2726	-0.3640	-0.0168	0.3000	0.0046	-0.0047
0.6	65.1	-0.1	-0.1902	-0.0837	-0.0974	0.4679	0.0314	-0.0100	0.9	65.1	-0.1	-0.1907	-0.3934	0.0138	0.2941	-0.0109	0.0033
0.6	70.3	0.0	-0.1839	-0.0579	-0.0812	0.5141	0.0477	-0.0392	0.9	70.2	0.0	-0.1034	-0.4039	0.0235	0.2141	-0.0141	0.0037
0.6	75.2	-0.1	-0.1434	-0.0419	-0.0741	0.5398	0.0494	-0.0290	0.9	75.1	-0.1	-0.0256	-0.5058	-0.0673	0.2127	-0.0033	-0.0108

1.2	-46.9	0.0	-1.1829	1.2862	0.0112	0.7773	0.0072	0.0077	1.5	-45.0	-0.1	-1.1151	1.2275	0.0193	0.7864	0.0072	0.0032
1.2	-40.1	0.0	-1.2640	1.2366	0.0207	0.7526	0.0059	0.0070	1.5	-40.0	-0.1	-1.2216	1.1558	0.0153	0.7612	0.0061	0.0005
1.2	-35.0	0.0	-1.3470	1.1356	0.0235	0.7192	0.0032	0.0666	1.5	-35.1	0.0	-1.3039	1.0714	0.0208	0.7293	0.0011	0.0009
1.2	-30.0	0.0	-1.4101	1.0329	0.0252	0.6778	0.0005	0.0078	1.5	-30.0	-0.1	-1.3713	0.9711	0.0216	0.6916	0.0010	0.0071
1.2	-25.1	0.0	-1.4682	0.9240	0.0305	0.6335	-0.0049	0.0116	1.5	-25.1	0.0	-1.4345	0.8744	0.0270	0.6443	-0.0050	0.0114
1.2	-20.1	0.0	-1.4901	0.8023	0.0289	0.6205	-0.0115	0.0170	1.5	-20.0	0.0	-1.4126	0.7673	0.0262	0.5916	-0.0108	0.0155
1.2	-16.7	0.0	-1.4174	0.6520	0.0465	0.4907	-0.0235	0.0304	1.5	-14.7	0.0	-1.4333	0.6425	0.0303	0.5270	-0.0153	0.0212
1.2	-9.9	0.0	-1.3655	0.5174	0.0320	0.4256	-0.0101	0.0253	1.5	-10.0	0.0	-1.4037	0.5154	0.0319	0.4608	-0.0107	0.0251
1.2	-5.0	0.0	-1.2423	0.4033	0.0436	0.3623	-0.0062	0.0283	1.5	-4.9	0.0	-1.3635	0.4028	0.0457	0.3996	-0.0109	0.0235
1.2	0.2	0.0	-1.2631	0.2894	0.0461	0.2807	-0.0009	0.0251	1.5	0.2	0.0	-1.3440	0.2866	0.0528	0.3456	-0.0240	0.0323
1.2	4.9	0.0	-1.1726	0.1809	0.0337	0.2348	0.0114	0.0115	1.5	4.9	0.0	-1.2410	0.1932	0.0513	0.2973	-0.0215	0.0301
1.2	9.0	0.1	-1.0763	0.0507	0.0700	0.1665	-0.0136	0.0370	1.5	9.9	0.0	-1.1555	0.0801	0.0535	0.2460	-0.0210	0.0299
1.2	14.9	0.1	-0.6624	-0.0709	0.0808	0.1109	-0.0210	0.0403	1.5	14.9	0.0	-0.6551	-0.0209	0.0561	0.1902	-0.0215	0.0283
1.2	19.9	0.0	-0.1924	0.0401	0.0900	0.0005	0.0120	0.0120	1.5	20.0	0.0	-0.9536	-0.1655	0.0404	0.1473	-0.0107	0.0225
1.2	25.1	0.0	-0.7719	0.2032	0.0425	0.0926	0.0043	0.0092	1.5	25.1	0.0	-0.0509	-0.2739	0.0452	0.1346	-0.0119	0.0192
1.2	30.2	0.0	-0.7650	0.3397	0.1203	0.1203	-0.0012	0.0079	1.5	30.3	0.0	-0.7803	-0.357	0.0408	0.142	-0.015	0.0123
1.2	35.1	0.0	-0.6627	0.4709	0.0556	0.1960	-0.0080	0.0162	1.5	35.0	0.0	-0.7008	-0.4074	0.0467	0.1700	-0.0173	0.0194
1.2	40.0	0.0	-0.5707	0.3252	0.0500	0.2321	-0.0141	0.0139	1.5	40.0	0.0	-0.6193	-0.4522	0.0423	0.1820	-0.0108	0.0192
1.2	45.0	0.0	-0.5081	0.1596	0.0440	0.2470	-0.0150	0.0122	1.5	45.4	0.0	-0.5237	-0.4628	0.0364	0.1806	-0.0132	0.0157
1.2	50.3	0.0	-0.3335	0.3517	0.0372	0.2458	-0.0163	0.0135	1.5	50.0	0.0	-0.4527	-0.5564	0.0356	0.1709	-0.0162	0.0152
1.2	55.0	0.0	-0.3681	0.5003	0.0379	0.2374	-0.0135	0.0135	1.5	55.0	0.0	-0.3613	-0.5954	0.0319	0.1300	-0.0166	0.0106
1.2	59.9	0.0	-0.0993	0.5100	0.0271	0.2172	-0.0016	0.0070	1.5	60.4	0.0	-0.2452	-0.6178	0.0233	0.1076	-0.0097	0.0110
1.2	65.0	0.0	-0.3298	0.5753	0.0109	0.1642	0.0020	0.0062	1.5	65.1	-0.1	-0.1815	-0.6814	0.0120	0.0650	0.0017	0.0077
1.2	70.2	0.0	-0.1369	0.6571	0.1099	0.1099	0.0080	-0.0027	1.5	70.2	-0.1	-0.1110	-0.7546	0.0049	0.0325	0.001	0.0004
1.2	75.2	0.0	-0.0665	0.7062	0.0821	0.0745	0.0122	-0.0027	1.5	75.2	-0.1	-0.0440	-0.8061	-0.0165	0.0035	0.0177	-0.0113

Configuration 3
Seat with 18 Deg. Boom and Blast Shield, Jet On
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CX	CZ	CY	CAN	CAN	CAN	CZ	CI	CAN	CAN	CAN
1.2	-15.0	-5.1	-1.4644	0.6772	-0.4696	0.5900	0.1173	-0.7290	0.6617	-0.4762	0.5289	0.1158	-0.2307
1.2	-15.0	-2.0	-1.4170	0.6678	-0.1576	0.4944	0.0453	-0.0786	0.6527	-0.1573	0.5287	0.0179	-0.0156
1.2	-15.0	0.1	-1.4180	0.6620	0.0504	0.4940	-0.0246	0.0320	0.6500	0.0477	0.5274	-0.0201	0.0274
1.2	-15.1	2.1	-1.4155	0.6717	0.2375	0.5013	-0.0731	0.1265	0.6479	0.2201	0.5274	-0.0553	0.1152
1.2	-15.0	5.2	-1.4155	0.6609	0.5297	0.4958	-0.1416	0.2664	0.6311	0.5203	0.5195	-0.1162	0.2376
1.2	-14.9	10.4	-1.4068	0.6628	1.0822	0.5150	-0.3095	0.5529	0.6100	1.0952	0.5229	-0.2765	0.5063
1.2	-14.9	15.4	-1.3600	0.6635	1.5946	0.5303	-0.4300	0.8085	0.6141	1.4854	0.5242	-0.4101	0.7451
1.2	-14.9	20.0	-1.2703	0.6320	2.0323	0.5044	-0.5003	1.0090	0.6025	1.9310	0.5197	-0.5201	0.9620
1.2	-0.1	-0.1	-1.2012	0.3192	-0.3120	0.3090	0.0380	-0.1240	0.3163	-0.3609	0.3545	0.0395	-0.1002
1.2	0.0	-1.0	-1.2000	0.3064	-0.0557	0.2924	-0.0070	-0.0350	0.3091	-0.1147	0.3409	0.0116	-0.0400
1.2	0.0	0.1	-1.2075	0.2993	0.0034	0.2941	-0.0027	0.0395	0.3079	0.0572	0.3402	-0.0249	0.0346
1.2	0.1	2.0	-1.2090	0.3076	0.1803	0.2975	-0.0076	0.0731	0.3014	0.2142	0.3407	-0.0527	0.1006
1.2	0.1	5.2	-1.2536	0.2995	0.3920	0.3000	-0.0425	0.1551	0.3005	0.4496	0.3535	-0.0900	0.2190
1.2	0.0	10.2	-1.2340	0.2937	0.7631	0.3004	-0.1193	0.3949	0.2779	0.8201	0.3409	-0.1755	0.3959
1.2	0.0	15.5	-1.1998	0.2937	1.1577	0.3011	-0.1733	0.5175	0.2572	1.2597	0.3409	-0.2701	0.5944
1.2	0.1	20.7	-1.1303	0.2807	1.5607	0.3055	-0.2316	0.6761	0.2467	1.6709	0.3200	-0.4375	0.9300
1.2	14.9	-0.1	-0.9600	-0.0430	-0.2082	0.1205	-0.0349	-0.0790	-0.0195	-0.3102	0.1901	0.0070	-0.1099
1.2	14.9	-1.9	-0.9607	-0.0590	-0.0805	0.1299	-0.0007	0.0011	-0.0260	-0.0052	0.1902	-0.0144	-0.0236
1.2	15.0	0.1	-0.9591	-0.0772	0.0712	0.1169	-0.0202	0.0269	-0.0406	0.0574	0.1899	-0.0201	0.0255
1.2	15.1	2.0	-0.9530	-0.0864	0.1607	0.1059	0.0092	0.0535	0.0544	0.1094	0.1899	-0.0201	0.0752
1.2	15.1	5.1	-0.9410	-0.0940	0.3257	0.0940	0.0619	0.0761	0.0721	0.4097	0.1744	-0.0533	0.1636
1.2	15.0	10.2	-0.9427	-0.0822	0.5806	0.0994	0.0203	0.1633	0.1076	0.7455	0.1505	-0.0929	0.2915
1.2	15.0	15.3	-0.9403	-0.0676	0.9083	0.1072	-0.0230	0.2077	0.1399	1.1399	0.1300	-0.1535	0.4529
1.2	15.0	20.5	-0.9300	-0.0805	1.2735	0.1141	-0.0830	0.4306	0.1324	1.5164	0.1309	-0.2300	0.6092

Configuration 3
Seat with 18 Deg. Boom and Blast Shield, Jet On
MOMENT DATA ABOUT SEAT REFERENCE POINT

	M	ALPHA	PSI	CK	CZ	CY	CMM	CMM	CMM	CY	CZ	CK	PSI	ALPHA	M
0.0	-40.0	0.0	-0.7090	0.5500	0.0725	0.4917	-0.0210	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597	0.0597
0.0	-39.9	0.0	-0.7026	0.5041	0.0437	0.4506	-0.0056	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330	0.0330
0.0	-39.8	0.0	-0.6961	0.4582	0.0226	0.4235	0.0127	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028	0.0028
0.0	-39.7	0.0	-0.6896	0.4123	0.0169	0.3960	0.0114	-0.0006	-0.0006	-0.0006	-0.0006	-0.0006	-0.0006	-0.0006	-0.0006
0.0	-39.6	0.0	-0.6831	0.3664	0.0074	0.3686	0.0079	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
0.0	-39.5	0.0	-0.6766	0.3205	0.0052	0.3210	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-39.4	0.0	-0.6701	0.2746	0.0100	0.2746	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-39.3	0.0	-0.6636	0.2287	0.0200	0.2287	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-39.2	0.0	-0.6571	0.1828	0.0300	0.1828	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-39.1	0.0	-0.6506	0.1369	0.0400	0.1369	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-39.0	0.0	-0.6441	0.0910	0.0500	0.0910	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.9	0.0	-0.6376	0.0451	0.0600	0.0451	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.8	0.0	-0.6311	0.0000	0.0700	0.0000	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.7	0.0	-0.6246	-0.0459	0.0800	-0.0459	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.6	0.0	-0.6181	-0.0918	0.0900	-0.0918	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.5	0.0	-0.6116	-0.1377	0.1000	-0.1377	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.4	0.0	-0.6051	-0.1836	0.1100	-0.1836	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.3	0.0	-0.5986	-0.2295	0.1200	-0.2295	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.2	0.0	-0.5921	-0.2754	0.1300	-0.2754	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.1	0.0	-0.5856	-0.3213	0.1400	-0.3213	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-38.0	0.0	-0.5791	-0.3672	0.1500	-0.3672	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.9	0.0	-0.5726	-0.4131	0.1600	-0.4131	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.8	0.0	-0.5661	-0.4590	0.1700	-0.4590	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.7	0.0	-0.5596	-0.5049	0.1800	-0.5049	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.6	0.0	-0.5531	-0.5508	0.1900	-0.5508	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.5	0.0	-0.5466	-0.5967	0.2000	-0.5967	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.4	0.0	-0.5401	-0.6426	0.2100	-0.6426	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.3	0.0	-0.5336	-0.6885	0.2200	-0.6885	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.2	0.0	-0.5271	-0.7344	0.2300	-0.7344	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.1	0.0	-0.5206	-0.7803	0.2400	-0.7803	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-37.0	0.0	-0.5141	-0.8262	0.2500	-0.8262	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.9	0.0	-0.5076	-0.8721	0.2600	-0.8721	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.8	0.0	-0.5011	-0.9180	0.2700	-0.9180	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.7	0.0	-0.4946	-0.9639	0.2800	-0.9639	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.6	0.0	-0.4881	-1.0098	0.2900	-1.0098	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.5	0.0	-0.4816	-1.0557	0.3000	-1.0557	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.4	0.0	-0.4751	-1.1016	0.3100	-1.1016	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.3	0.0	-0.4686	-1.1475	0.3200	-1.1475	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.2	0.0	-0.4621	-1.1934	0.3300	-1.1934	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.1	0.0	-0.4556	-1.2393	0.3400	-1.2393	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-36.0	0.0	-0.4491	-1.2852	0.3500	-1.2852	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.9	0.0	-0.4426	-1.3311	0.3600	-1.3311	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.8	0.0	-0.4361	-1.3770	0.3700	-1.3770	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.7	0.0	-0.4296	-1.4229	0.3800	-1.4229	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.6	0.0	-0.4231	-1.4688	0.3900	-1.4688	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.5	0.0	-0.4166	-1.5147	0.4000	-1.5147	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.4	0.0	-0.4101	-1.5606	0.4100	-1.5606	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.3	0.0	-0.4036	-1.6065	0.4200	-1.6065	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.2	0.0	-0.3971	-1.6524	0.4300	-1.6524	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.1	0.0	-0.3906	-1.6983	0.4400	-1.6983	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-35.0	0.0	-0.3841	-1.7442	0.4500	-1.7442	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.9	0.0	-0.3776	-1.7901	0.4600	-1.7901	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.8	0.0	-0.3711	-1.8360	0.4700	-1.8360	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.7	0.0	-0.3646	-1.8819	0.4800	-1.8819	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.6	0.0	-0.3581	-1.9278	0.4900	-1.9278	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.5	0.0	-0.3516	-1.9737	0.5000	-1.9737	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.4	0.0	-0.3451	-2.0196	0.5100	-2.0196	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.3	0.0	-0.3386	-2.0655	0.5200	-2.0655	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.2	0.0	-0.3321	-2.1114	0.5300	-2.1114	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.1	0.0	-0.3256	-2.1573	0.5400	-2.1573	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-34.0	0.0	-0.3191	-2.2032	0.5500	-2.2032	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.9	0.0	-0.3126	-2.2491	0.5600	-2.2491	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.8	0.0	-0.3061	-2.2950	0.5700	-2.2950	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.7	0.0	-0.2996	-2.3409	0.5800	-2.3409	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.6	0.0	-0.2931	-2.3868	0.5900	-2.3868	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.5	0.0	-0.2866	-2.4327	0.6000	-2.4327	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.4	0.0	-0.2801	-2.4786	0.6100	-2.4786	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.3	0.0	-0.2736	-2.5245	0.6200	-2.5245	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.2	0.0	-0.2671	-2.5704	0.6300	-2.5704	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.1	0.0	-0.2606	-2.6163	0.6400	-2.6163	-0.0047	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160	0.0160
0.0	-33.0	0.0	-0.2541	-2.6622	0.6500	-2.6622									

H	ALPHA	PSI	CX	CZ	CY	CMX	CMY	CMZ	H	ALPHA	PSI	CX	CZ	CY	CMX	CMY	CMZ
0.6	-15.3	-5.1	-0.7852	0.2244	-0.4994	0.2899	0.0655	-0.4151	0.9	-15.3	-4.9	-1.1170	0.4276	-0.3712	0.5895	0.0911	-0.2261
0.6	-15.0	-2.0	-0.7459	0.2015	-0.2083	0.2793	0.0256	-0.1225	0.9	-14.9	-2.0	-1.1158	0.4042	-0.1665	0.3759	0.0510	-0.0900
0.6	-14.9	0.1	-0.7903	0.2036	0.0097	0.2759	-0.0144	0.0253	0.9	-15.0	0.0	-1.1160	0.4069	-0.0038	0.3771	0.0183	-0.0071
0.6	-14.0	3.0	-0.7946	0.2090	0.2352	0.2784	-0.0505	0.1626	0.9	-15.0	2.0	-1.1257	0.4027	0.1658	0.3829	-0.0269	0.0959
0.6	-13.9	5.1	-0.8084	0.2271	0.5206	0.3113	-0.0743	0.4365	0.9	-15.0	5.0	-1.1297	0.4377	0.3510	0.5841	-0.0821	0.2340
0.6	-15.1	10.2	-0.8209	0.2729	0.9691	0.3763	-0.1294	0.5999	0.9	-14.9	10.2	-1.1462	0.4708	0.7071	0.6248	-0.0838	0.3971
0.6	-14.9	15.4	-0.8244	0.3192	1.3832	0.4202	-0.1733	0.8106	0.9	-15.0	15.2	-1.1252	0.4733	1.1640	0.6383	-0.1350	0.6297
0.6	-16.9	20.4	-0.8002	0.3376	1.6804	0.4099	-0.1908	0.9351	0.9	-14.9	20.2	-1.0640	0.4683	1.6271	0.5947	-0.2170	0.8767
0.6	-13.0	25.3	-0.7150	0.3519	2.1077	0.3577	-0.2930	1.1916	0.9	-15.0	25.4	-0.9443	0.472	2.0632	0.5387	-0.3162	1.1215
0.6	-14.9	30.6	-0.5886	0.3215	2.4390	0.2576	-0.3326	1.3077	0.9	-15.0	30.6	-0.8814	0.4747	2.4173	0.4528	-0.4036	1.3282
0.6	0.1	-5.1	-0.5776	0.0506	-0.3757	0.0568	-0.0105	-0.1070	0.9	0.1	-5.0	-0.7229	0.2101	-0.0456	0.2516	-0.0025	0.0155
0.6	0.1	-2.0	-0.5690	0.0496	-0.1230	0.0455	0.0034	-0.0645	0.9	-0.1	-1.9	-0.9849	0.1817	0.0165	0.2346	-0.0011	0.0317
0.6	0.2	0.1	-0.5770	0.0467	0.0548	0.0404	-0.0102	0.0365	0.9	0.1	0.0	-0.9007	0.1801	0.0394	0.2239	-0.0062	0.0265
0.6	0.0	2.0	-0.5038	0.0490	0.2540	0.0549	-0.0436	0.1604	0.9	0.0	1.9	-0.9130	0.1744	0.0522	0.2327	0.0335	0.0112
0.6	-0.1	5.0	-0.5008	0.0474	0.4796	0.0642	-0.0661	0.2991	0.9	0.0	5.0	-0.9265	0.1926	0.1300	0.2515	0.0602	0.0396
0.6	0.0	10.1	-0.6127	0.0459	0.8000	0.0727	-0.1267	0.5090	0.9	-0.1	10.0	-0.9628	0.2324	0.4242	0.2953	-0.0850	0.2139
0.6	-0.1	15.3	-0.6013	0.0529	1.1596	0.0223	-0.0982	0.6526	0.9	-0.1	15.1	-0.9591	0.2484	0.4790	0.2859	-0.0918	0.1597
0.6	0.0	20.3	-0.5782	0.0744	1.5623	-0.0099	-0.1859	0.8755	0.9	0.0	20.2	-0.9476	0.2180	1.1332	0.2132	-0.0169	0.4602
0.6	0.0	25.5	-0.5470	0.0937	1.8802	0.0010	-0.2115	0.9910	0.9	-0.1	25.4	-0.9041	0.2309	1.5042	0.2065	-0.0999	0.6887
0.6	0.0	30.6	-0.4771	0.0784	2.2333	-0.0327	-0.2515	1.1380	0.9	0.0	30.3	-0.8208	0.2763	1.9373	0.2393	-0.2205	0.9036
0.6	15.0	-4.9	-0.3800	-0.0093	-0.2192	-0.0325	-0.0503	-0.0742	0.9	15.0	-4.9	-0.6194	0.2365	-0.1177	-0.0177	-0.0439	0.0660
0.6	15.0	-2.0	-0.3792	-0.1120	-0.0657	-0.0469	-0.0176	-0.0239	0.9	15.0	-2.0	-0.5959	0.0165	-0.0321	-0.0494	-0.0390	0.0111
0.6	15.0	0.0	-0.3702	-0.1178	0.0462	-0.0470	0.0123	0.0301	0.9	15.0	0.1	-0.5956	0.0951	0.0327	-0.0583	-0.0044	0.0113
0.6	15.0	2.0	-0.3081	-0.1264	0.1371	-0.0405	0.0085	0.0606	0.9	15.0	2.0	-0.5986	-0.0175	0.0380	-0.0531	0.0244	0.0165
0.6	15.0	5.0	-0.6066	-0.1337	0.2926	-0.0414	0.0316	0.1113	0.9	14.9	5.0	-0.6276	-0.0122	0.1013	-0.0268	0.0128	0.0265
0.6	15.0	10.2	-0.4143	-0.1401	0.5981	-0.0059	0.0115	0.2650	0.9	15.0	10.0	-0.6226	-0.0149	0.3660	0.0065	0.1092	0.0614
0.6	14.9	15.1	-0.3922	-0.2039	0.9956	-0.1073	0.0944	0.5130	0.9	14.9	15.1	-0.7008	0.0059	0.6332	0.0450	0.3344	0.1466
0.6	15.0	20.4	-0.3795	-0.2253	1.3647	-0.2063	-0.1514	0.6962	0.9	15.0	20.2	-0.7426	0.0587	0.9304	0.0977	0.6597	0.2717
0.6	15.1	25.4	-0.3439	-0.2397	1.7325	-0.2040	-0.1899	0.8467	0.9	15.0	25.2	-0.7147	0.0220	1.2903	0.0935	-0.0111	0.4394
0.6	15.0	30.5	-0.2697	-0.2034	2.1163	-0.2619	-0.2386	1.0116	0.9	15.0	30.3	-0.6622	-0.0024	1.6704	0.0309	-0.1104	0.4463

Configuration 4
Seat with 35 Deg. Boom and Blast Shield, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CE	CZ	CT	CNN	CNN	CNL	N	ALPHA	PSI	CE	CZ	CT	CNN	CNN	CNL
1.2	15.0	-5.1	-1.5242	0.7096	-0.5357	0.7980	0.1728	-0.3210	1.5	15.0	-5.1	-1.5418	0.7106	-0.5266	0.7839	0.1666	-0.4801
1.2	15.0	-2.0	-1.4989	0.8928	-0.1576	0.7701	0.0546	-0.0954	1.5	14.9	-1.9	-1.5507	0.7101	-0.1659	0.7843	0.0407	-0.0937
1.2	14.9	0.1	-1.4982	0.8845	0.0608	0.7766	-0.0191	0.0426	1.5	15.0	0.1	-1.5546	0.7104	0.0478	0.7828	-0.0205	0.0324
1.2	15.0	2.0	-1.5120	0.8964	0.2654	0.7932	-0.0483	0.1670	1.5	15.0	2.0	-1.5545	0.7104	0.2504	0.7901	-0.0074	0.1546
1.2	15.0	5.1	-1.5161	0.7890	0.5921	0.7984	-0.1821	0.3503	1.5	14.9	5.1	-1.5453	0.7100	0.5707	0.7921	-0.1864	0.3366
1.2	15.0	10.2	-1.5116	0.7253	1.1804	0.8149	-0.3735	0.8961	1.5	14.8	10.2	-1.5158	0.7209	1.1008	0.7778	-0.3368	0.6331
1.2	15.0	15.3	-1.4695	0.7403	1.7194	0.7895	-0.4903	0.9427	1.5	15.0	15.3	-1.4634	0.7206	1.5938	0.7735	-0.4020	0.9144
1.2	14.9	20.7	-1.3370	0.7135	2.1898	0.7358	-0.5759	1.2247	1.5	15.0	20.8	-1.3984	0.7142	2.1333	0.7621	-0.6783	1.2517
1.2	14.9	25.8	-1.1939	0.6695	2.5093	0.6457	-0.5247	1.4879	1.5	14.8	25.9	-1.3158	0.6803	2.5978	0.7329	-0.8159	1.5249
1.2	14.8	30.9	-1.0563	0.6052	2.8787	0.5644	-0.4905	1.8020									
1.2	0.0	-5.1	-1.3917	0.3959	-0.3180	0.4817	0.0575	-0.1669	1.5	0.0	-5.1	-1.4028	0.3701	-0.4115	0.5358	0.1008	-0.2264
1.2	0.0	-1.9	-1.3521	0.3864	-0.0453	0.4808	-0.0014	-0.0189	1.5	-0.1	-1.9	-1.4098	0.3721	-0.1191	0.5438	0.0201	-0.0634
1.2	-0.1	0.1	-1.3534	0.3790	0.0023	0.4831	-0.0221	0.0501	1.5	0.1	0.1	-1.4088	0.3704	0.0501	0.5404	-0.0212	0.0381
1.2	0.0	2.0	-1.3568	0.3816	0.2060	0.4812	-0.0408	0.1181	1.5	-0.1	2.0	-1.4108	0.3741	0.2324	0.5402	-0.0608	0.1364
1.2	0.0	5.2	-1.3491	0.3653	0.4313	0.4792	-0.0691	0.2215	1.5	0.0	5.1	-1.4035	0.3650	0.5114	0.5351	-0.1404	0.2902
1.2	-0.1	10.2	-1.3519	0.3831	0.8904	0.4927	-0.2028	0.4825	1.5	0.1	10.3	-1.3882	0.3656	0.9463	0.5294	-0.2651	0.5414
1.2	0.0	15.3	-1.3150	0.3961	1.4188	0.4962	-0.3098	0.7208	1.5	0.0	15.3	-1.3592	0.3706	1.4401	0.5363	-0.4134	0.8302
1.2	0.1	20.5	-1.2011	0.4047	1.5908	0.4658	-0.2945	0.7981	1.5	0.1	20.6	-1.3158	0.3631	1.8905	0.5329	-0.5401	1.0752
1.2	0.1	25.7	-1.1076	0.3833	1.9404	0.4281	-0.3879	0.9853	1.5	0.2	25.7	-1.2313	0.3412	2.3767	0.5034	-0.6327	1.2676
1.2	0.0	30.7	-1.0022	0.3344	2.3336	0.3689	-0.4913	1.1975									
1.2	15.0	-5.0	-1.0184	0.0095	-0.2871	0.2252	0.0050	-0.1125	1.5	14.6	-4.9	-1.1148	0.0261	-0.3184	0.3864	0.0107	-0.1493
1.2	15.0	-2.0	-1.0184	0.0002	-0.0504	0.2127	-0.0208	-0.0119	1.5	15.0	-2.0	-1.1054	0.0049	-0.1011	0.2908	0.0044	-0.0437
1.2	15.1	0.1	-1.0119	-0.0133	0.0615	0.2078	-0.0090	0.0310	1.5	15.0	0.1	-1.1078	0.0034	0.0648	0.2927	-0.0213	0.0361
1.2	15.0	2.0	-1.0134	-0.0139	0.1792	0.2060	-0.0024	0.0757	1.5	14.9	2.0	-1.1056	-0.0017	0.2123	0.2916	-0.0450	0.1094
1.2	15.0	5.1	-1.0115	-0.0272	0.4019	0.2008	-0.0300	0.1606	1.5	15.0	5.1	-1.1037	-0.0056	0.4236	0.2962	-0.0790	0.2169
1.2	15.0	10.2	-1.0055	-0.0071	0.6921	0.2187	-0.0461	0.2745	1.5	15.0	10.2	-1.1103	-0.0084	0.6387	0.3156	-0.1829	0.4359
1.2	14.9	15.2	-0.9874	0.0240	0.9343	0.2226	-0.0655	0.3645	1.5	15.0	15.3	-1.0905	-0.0018	1.2407	0.3128	-0.2492	0.6151
1.2	15.0	20.5	-0.9865	0.0322	1.2863	0.2152	-0.1413	0.5328	1.5	15.1	20.5	-1.0604	-0.0146	1.5856	0.2955	-0.3085	0.7662
1.2	15.0	25.5	-0.9119	0.0304	1.6652	0.1962	-0.2321	0.7159	1.5	15.0	25.6	-1.0243	-0.0082	1.9646	0.2744	-0.3992	0.9486
1.2	15.1	30.6	-0.8291	0.0140	1.9737	0.1466	-0.3025	0.8602									

Configuration 4
Seat with 35 Deg. Boom and Blast Shield, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CI	CZ	CT	CMH	CMV	CMU	N	ALPHA	PSI	CE	CZ	CY	CMH	CMV	CMU
0.0	-44.9	0.0	-0.7730	0.7337	-0.0677	0.3817	0.0205	-0.0159	0.0	-44.9	0.0	-0.9992	1.0479	-0.0151	0.6412	0.0156	-0.0260
0.0	-39.9	0.0	-0.6302	0.7077	-0.1200	0.3513	0.0624	-0.1207	0.0	-40.0	0.0	-1.0547	1.0004	-0.0372	0.5994	0.0152	-0.0255
0.0	-35.1	0.0	-0.4868	0.6530	-0.2044	0.3238	0.0834	-0.1211	0.0	-35.1	0.0	-1.1043	0.9270	-0.0532	0.5410	0.0204	-0.0309
0.0	-30.0	0.0	-0.3491	0.6006	-0.2882	0.2987	0.0913	-0.0618	0.0	-30.2	0.0	-1.1312	0.8379	-0.0831	0.4733	0.0252	-0.0431
0.0	-25.4	0.0	-0.2036	0.5524	-0.0877	0.2524	0.0877	-0.0351	0.0	-24.9	0.0	-1.1374	0.7413	-0.0262	0.4017	0.0133	-0.0176
0.0	-20.0	0.0	-0.0711	0.4838	0.0070	0.1957	0.0028	0.0052	0.0	-20.1	0.0	-1.1257	0.6497	-0.0001	0.3305	0.0009	-0.0010
0.0	-15.2	0.0	0.0852	0.4132	-0.0983	0.1460	0.0077	-0.0378	0.0	-15.0	0.0	-1.1039	0.5598	-0.0012	0.2709	0.0029	-0.0017
0.0	-9.0	0.0	-0.2927	0.4259	-0.0631	0.0663	-0.0071	0.0039	0.0	-10.0	0.0	-1.0709	0.4849	-0.0213	0.2132	0.0100	-0.0136
0.0	-4.0	0.0	-0.7952	0.3797	0.0103	0.0043	-0.0079	0.0190	0.0	-4.9	0.0	-1.0339	0.4555	-0.0232	0.1640	-0.0123	0.0157
0.0	0.0	0.0	-0.7495	0.3119	-0.0119	-0.0211	-0.0004	-0.0032	0.0	0.1	0.0	-0.9641	0.4056	-0.0135	0.1040	-0.0033	0.0110
0.0	5.0	0.0	-0.6097	0.2178	0.0039	-0.0394	0.0031	0.0002	0.0	5.0	0.0	-0.8451	0.3514	-0.0083	0.0301	-0.0009	0.0055
0.0	10.0	0.0	-0.4695	0.1064	0.0258	-0.0466	-0.0000	0.0075	0.0	10.0	0.0	-0.7198	0.2498	-0.0083	0.0258	-0.0193	0.0127
0.0	15.0	0.0	-0.3528	0.0336	0.0441	-0.0433	-0.0040	0.0119	0.0	15.0	0.0	-0.6056	0.1019	-0.0032	-0.0518	-0.0008	0.0053
0.0	20.0	0.0	-0.2578	-0.0350	0.0356	-0.0355	-0.0067	0.0151	0.0	19.9	0.0	-0.6856	0.0322	-0.0196	-0.0462	-0.0071	0.0104
0.0	25.0	0.0	-0.1846	-0.1032	0.0411	-0.0224	-0.0022	0.0127	0.0	24.9	0.0	-0.6078	-0.0594	-0.0238	-0.0256	-0.0100	0.0156
0.0	30.0	0.0	-0.1266	-0.1787	0.0392	0.0097	-0.0062	0.0100	0.0	30.1	0.0	-0.5176	-0.1476	-0.0203	0.0045	-0.0035	0.0097
0.0	35.0	0.0	-0.3097	-0.2406	0.0251	0.0250	-0.0052	0.0140	0.0	35.1	0.0	-0.4236	-0.2333	-0.0102	0.0353	-0.0041	0.0050
0.0	40.0	0.0	-0.2346	-0.2930	-0.0036	0.0759	-0.0020	-0.0011	0.0	40.0	0.0	-0.3383	-0.3071	-0.0025	0.0683	-0.0038	0.0021
0.0	45.0	0.0	-0.2113	-0.3591	-0.0004	0.1466	0.0004	-0.0023	0.0	45.0	0.0	-0.2552	-0.3877	-0.0045	0.0907	-0.0036	0.0023
0.0	50.1	0.0	-0.1804	-0.4134	-0.0069	0.1218	-0.0003	-0.0023	0.0	50.2	0.0	-0.1822	-0.4735	-0.0055	0.1140	-0.0036	0.0035
0.0	55.0	0.0	-0.1304	-0.4672	-0.0050	0.1536	-0.0004	0.0037	0.0	55.0	0.0	-0.1308	-0.5158	-0.0072	0.1110	-0.0034	0.0011
0.0	59.9	0.0	-0.1021	-0.4534	-0.0256	0.1577	-0.0004	-0.0051	0.0	59.9	0.0	-0.1141	-0.5410	-0.0246	0.1241	0.0095	-0.0053
0.0	64.0	0.0	-0.1100	-0.4790	-0.0138	0.1799	-0.0000	-0.0011	0.0	64.9	0.0	-0.1045	-0.5940	-0.0107	0.1223	0.0037	-0.0050
0.0	70.0	0.0	-0.0936	-0.4790	-0.0235	0.2010	-0.0000	-0.0010	0.0	70.0	0.0	-0.0936	-0.6599	-0.0054	0.1146	0.0004	-0.0053
0.0	75.1	0.0	-0.0496	-0.5391	-0.0075	0.1070	0.0124	-0.0137	0.0	75.1	0.0	-0.0304	-0.7215	0.0107	0.0555	-0.0032	0.0030
1.2	-45.0	0.0	-1.3120	1.3539	-0.0093	0.0002	-0.0036	-0.0001	1.5	-45.2	0.0	-1.1830	1.3655	0.0078	0.0101	-0.0028	0.0017
1.2	-39.9	0.0	-1.2081	1.2990	0.0007	0.7010	-0.0020	-0.0034	1.5	-39.8	0.0	-1.2577	1.2866	0.0007	0.7009	-0.0035	-0.0010
1.2	-35.1	0.0	-1.3085	1.1852	-0.0174	0.7329	0.0005	-0.0006	1.5	-35.1	0.0	-1.3198	1.1934	0.0000	0.7004	-0.0001	0.0009
1.2	-30.0	0.0	-1.3062	1.0703	-0.0004	0.6574	-0.0062	-0.0020	1.5	-30.0	0.0	-1.3034	1.0968	0.0000	0.6558	-0.0050	0.0001
1.2	-25.4	0.0	-1.4009	0.9711	-0.0000	0.5990	-0.0063	-0.0011	1.5	-25.0	0.0	-1.4164	1.0120	0.0209	0.5927	-0.0101	0.0071
1.2	-20.0	0.0	-1.3977	0.8766	0.0285	0.5132	-0.0201	0.0177	1.5	-20.2	0.0	-1.4333	0.9252	0.0250	0.5211	-0.0109	0.0122
1.2	-15.1	0.0	-1.3950	0.7793	0.0495	0.4871	-0.0269	0.0286	1.5	-15.0	0.0	-1.4227	0.8197	0.0267	0.4403	-0.0199	0.0156
1.2	-9.9	0.0	-1.3939	0.6802	0.0260	0.3897	-0.0157	0.0221	1.5	-9.0	0.0	-1.3920	0.6902	0.0337	0.3607	-0.0229	0.0210
1.2	-4.9	0.0	-1.3167	0.5735	0.0066	0.2808	-0.0062	0.0052	1.5	-5.0	0.0	-1.3461	0.5835	0.0255	0.2904	-0.0154	0.0173
1.2	0.1	0.0	-1.2804	0.4509	0.0322	0.1510	-0.0144	0.0309	1.5	0.0	0.0	-1.3127	0.4697	0.0479	0.2400	-0.0245	0.0265
1.2	5.0	0.0	-1.1727	0.3366	0.0664	0.0864	-0.0160	0.0304	1.5	5.0	0.0	-1.2431	0.3414	-0.0413	0.1818	-0.0102	0.0230
1.2	9.9	0.0	-1.0797	0.1966	0.0263	0.0466	-0.0103	0.0062	1.5	9.9	0.0	-1.1530	0.1993	0.0466	0.1295	-0.0102	0.0245
1.2	15.0	0.0	-0.9077	0.0702	0.0405	0.0351	-0.0292	0.0326	1.5	15.0	0.0	-1.0491	0.0515	0.0403	0.0972	-0.0110	0.0152
1.2	19.9	0.0	-0.8046	-0.0614	0.0597	0.0315	-0.0315	0.0404	1.5	19.9	0.0	-0.9302	-0.0797	0.0400	0.0893	-0.0123	0.0200
1.2	25.0	0.0	-0.7068	-0.1799	0.0418	0.0748	-0.0043	0.0166	1.5	25.0	0.0	-0.8258	-0.1893	0.0548	0.0847	-0.0205	0.0277
1.2	29.9	0.0	-0.6057	-0.2829	0.0260	0.0974	-0.0089	0.0151	1.5	29.9	0.0	-0.7210	-0.2725	0.0500	0.0805	-0.0143	0.0210
1.2	35.1	0.0	-0.5164	-0.3753	0.0208	0.1218	-0.0157	0.0134	1.5	35.2	0.0	-0.6239	-0.3546	0.0404	0.0845	-0.0237	0.0231
1.2	40.1	0.0	-0.4011	-0.3665	0.0275	0.1391	-0.0178	0.0160	1.5	40.0	0.0	-0.5369	-0.4777	0.0434	0.0877	-0.0207	0.0197
1.2	45.0	0.0	-0.4097	-0.4649	0.0251	0.1410	-0.0097	0.0084	1.5	45.0	0.0	-0.4480	-0.5833	0.0417	0.0800	-0.0100	0.0162
1.2	50.0	0.0	-0.3142	-0.5066	0.0242	0.1325	-0.0091	0.0078	1.5	50.2	0.0	-0.3597	-0.6812	0.0395	0.0842	-0.0109	0.0140
1.2	55.0	0.0	-0.2233	-0.6393	0.0147	0.1028	-0.0037	0.0022	1.5	55.0	0.0	-0.2790	-0.7206	0.0351	0.0151	-0.0109	0.0166
1.2	59.9	0.0	-0.1071	-0.6937	-0.0050	0.0642	-0.0027	-0.0042	1.5	59.9	0.0	-0.1943	-0.7518	0.0304	0.0007	-0.0167	0.0147
1.2	65.0	0.0	-0.0034	-0.7716	-0.0268	0.0330	0.0104	-0.0114	1.5	64.9	0.0	-0.1149	-0.8093	0.0221	-0.0122	-0.0121	0.0103
1.2	69.9	0.0	-0.0020	-0.8270	0.0116	0.0116	-0.0010	0.0061	1.5	70.0	0.0	-0.0300	-0.8904	0.0046	-0.0459	0.0016	-0.0039
1.2	75.1	0.0	-0.0299	-0.8444	0.0141	-0.0067	-0.0091	0.0060	1.5	75.1	0.0	0.0190	-0.9542	-0.0026	-0.0027	0.0032	-0.0071

Configuration 5
Seat with 18 Deg. Boom, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

A	ALPHA	PSI	C1	C2	CT	CRM	CNN	CNL	M	ALPHA	PSI	C1	C2	CT	CRM	CNN	CNL
0.0	-14.0	-4.0	-0.0000	0.4629	0.1074	0.1448	-0.0594	0.0570	0.0	-14.0	-5.0	-1.1103	0.5044	0.0632	0.2328	-0.0473	0.0308
0.0	-15.0	-1.0	-0.0003	0.4466	0.0060	0.1279	-0.0305	0.0397	0.0	-15.1	-1.0	-1.0956	0.5379	0.0963	0.2716	-0.0678	0.0466
0.0	-16.0	0.0	-0.0001	0.4507	-0.0128	0.1377	0.0043	0.0089	0.0	-14.9	0.1	-1.0941	0.5083	0.0882	0.2793	0.0025	0.0051
0.0	-17.0	1.0	-0.0097	0.4535	-0.1723	0.1359	0.0448	-0.0707	0.0	-15.1	1.0	-1.1009	0.5766	-0.0244	0.2934	0.0368	-0.0170
0.0	-14.9	4.0	-0.0017	0.4755	-0.0096	0.1496	0.0363	-0.0376	0.0	-14.9	5.0	-1.1196	0.6040	-0.0134	0.2990	0.0353	-0.0051
0.0	-14.9	10.0	-0.0001	0.4980	0.1508	0.1621	-0.0085	0.0021	0.0	-15.1	10.1	-1.1335	0.6272	0.2176	0.3071	-0.0162	0.1273
0.0	-15.0	15.1	-0.0053	0.5171	0.5616	0.1426	-0.1514	0.3195	0.0	-14.8	15.0	-1.0921	0.6296	0.5001	0.3106	-0.1060	0.2711
0.0	-14.9	20.2	-0.0404	0.5577	0.9369	0.1566	-0.2210	0.4020	0.0	-15.1	20.1	-1.0994	0.6441	0.9130	0.2750	-0.2057	0.4641
0.0	-15.0	25.3	-0.0129	0.5020	1.2211	0.1420	-0.2000	0.6244	0.0	-15.0	25.3	-1.0009	0.6454	1.3095	0.2350	-0.3222	0.6650
0.0	-15.0	30.3	-0.7632	0.5026	1.5066	0.1265	-0.3132	0.7266	0.0	-15.0	30.3	-0.9062	0.6499	1.6051	0.2326	-0.3229	0.7174
0.0	0.0	-4.0	-0.7568	0.3260	-0.0512	-0.0040	-0.0170	0.0275	0.0	0.1	-4.0	-0.9634	0.3958	0.1070	0.0911	-0.0649	0.1037
0.0	-0.1	-1.0	-0.7505	0.3315	-0.0237	-0.0150	-0.0067	0.0124	0.0	0.0	-1.0	-0.9542	0.4123	-0.0011	0.0505	0.0112	0.0155
0.0	0.0	0.0	-0.7536	0.3200	0.0252	-0.0204	-0.0069	0.0197	0.0	0.1	0.1	-0.9509	0.4156	0.0274	0.0436	0.0015	0.0139
0.0	0.1	1.0	-0.7527	0.3166	0.0704	-0.0214	-0.0041	0.0103	0.0	0.0	2.0	-0.9530	0.4165	0.0429	0.0472	-0.0164	0.0059
0.0	0.1	5.1	-0.7466	0.3006	0.1920	-0.0224	-0.0074	0.0410	0.0	0.0	5.0	-0.9730	0.4123	0.0400	0.0782	0.0160	-0.0154
0.0	0.0	10.0	-0.7501	0.3016	0.3117	-0.0084	0.0085	0.0633	0.0	0.0	9.0	-0.9716	0.3523	0.1201	0.0337	0.0424	-0.0130
0.0	-0.1	15.2	-0.7576	0.3397	0.4907	0.0179	0.0050	0.1404	0.0	0.0	15.0	-0.9720	0.3339	0.3004	0.0313	0.0037	0.1059
0.0	-0.2	20.1	-0.7563	0.3069	0.7735	0.0370	-0.0320	0.2576	0.0	0.0	20.1	-0.9914	0.3535	0.7109	0.0021	-0.0405	0.2401
0.0	0.0	25.1	-0.7439	0.4200	1.0503	0.0616	-0.0792	0.3740	0.0	0.0	25.2	-0.9936	0.3090	1.0054	0.1040	-0.0001	0.3255
0.0	0.0	30.3	-0.6988	0.4310	1.3513	0.0777	-0.1150	0.4710	0.0	-0.1	30.3	-0.0379	0.3379	1.3966	0.0638	-0.1063	0.4093
0.0	15.0	-5.0	-0.5620	0.0691	-0.1374	-0.0267	-0.0477	0.0094	0.0	15.1	-4.0	-0.7305	0.1312	-0.0764	-0.0319	0.0329	0.0104
0.0	15.0	-1.0	-0.5625	0.0474	-0.0215	-0.0329	-0.0230	0.0140	0.0	15.0	-1.0	-0.7109	0.1197	-0.0254	-0.0452	0.0041	0.0051
0.0	15.0	0.1	-0.5651	0.0411	0.0273	-0.0312	-0.0040	0.0137	0.0	15.0	0.1	-0.7305	0.1133	0.0078	-0.0516	-0.0123	0.0054
0.0	14.9	2.0	-0.5500	0.0354	0.0920	-0.0346	0.0110	0.0160	0.0	15.0	1.0	-0.7309	0.1012	0.0413	-0.0492	-0.0319	0.0056
0.0	15.0	5.0	-0.5572	0.0280	0.2011	-0.0401	0.0300	0.0250	0.0	15.0	5.0	-0.7402	0.0917	0.1402	-0.0245	-0.0670	0.0450
0.0	15.0	10.1	-0.5506	0.0444	0.3069	-0.0381	0.0457	0.0522	0.0	14.9	10.0	-0.7404	0.0756	0.2392	-0.0145	-0.0263	0.0307
0.0	15.0	15.1	-0.5552	0.0477	0.3956	-0.0443	0.0435	0.0664	0.0	15.1	15.0	-0.7429	0.0669	0.4397	-0.0041	0.0146	0.0703
0.0	15.0	20.1	-0.5754	0.0989	0.8387	-0.0106	0.0411	0.1703	0.0	14.9	20.1	-0.7404	0.0600	0.6752	0.0043	0.0416	0.1106
0.0	14.9	25.2	-0.5807	0.1402	1.1030	0.0294	-0.0276	0.2632	0.0	15.1	25.1	-0.7070	0.0603	0.9352	-0.0241	0.0260	0.1999
0.0	15.0	30.3	-0.5096	0.1014	1.3521	0.0410	-0.0600	0.3535	0.0	14.9	30.2	-0.6075	0.1032	1.3329	-0.0158	-0.0950	0.3635

Configuration 5
 Seat with 18 Deg. Boom, Jet Off
 MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CX	CZ	CT	CMX	CMY	CMZ	N	ALPHA	PSI	CX	CZ	CT	CMX	CMY	CMZ
1.2	-14.9	-5.0	-1.3892	0.263	-0.2579	0.4245	0.0073	-0.1269	1.5	-15.4	-5.2	-1.4214	0.409	-0.3329	0.4345	0.0074	-0.1359
1.2	-14.9	-1.9	-1.3813	0.7888	-0.0567	0.4067	0.0148	-0.0256	1.5	-15.0	-1.9	-1.4234	0.335	-0.0997	0.4313	0.0235	-0.0472
1.2	-15.0	0.0	-1.3839	0.7866	0.0541	0.4101	-0.0285	0.0304	1.5	-15.0	0.0	-1.4267	0.335	-0.0997	0.4313	0.0235	-0.0472
1.2	-14.9	2.0	-1.3815	0.7828	0.1492	0.4108	-0.0690	0.0024	1.5	-15.0	2.0	-1.4276	0.3273	0.1717	0.4460	-0.0695	0.0846
1.2	-15.1	5.1	-1.3894	0.8175	0.2488	0.4306	-0.1129	0.1467	1.5	-15.9	5.1	-1.4187	0.3260	0.3803	0.4420	-0.1129	0.1813
1.2	-14.9	10.2	-1.3803	0.8365	0.3767	0.4412	-0.2541	0.3516	1.5	-15.1	10.2	-1.4148	0.3456	0.7526	0.4640	-0.2741	0.3662
1.2	-15.1	15.4	-1.3889	0.8522	1.1410	0.4671	-0.4389	0.5903	1.5	-15.9	15.2	-1.3827	0.4009	1.1715	0.4812	-0.4390	0.5764
1.2	-14.9	20.6	-1.3108	0.8517	1.6061	0.4715	-0.6006	0.8122	1.5	-15.1	20.5	-1.2450	0.3663	1.5794	0.4953	-0.5976	0.7775
1.2	-15.0	25.7	-1.2307	0.8558	1.9578	0.4525	-0.6677	0.9429	1.5	-15.0	25.7	-1.2644	0.3128	1.9576	0.4839	-0.7323	0.9599
1.2	-15.0	30.9	-1.1096	0.7894	2.2560	0.3776	-0.6846	1.0426	1.5	-15.0	30.8	-1.1790	0.2757	2.3279	0.4494	-0.8361	1.1245
1.2	0.1	-5.0	-1.2502	0.4667	-0.1725	0.1640	0.0189	-0.0471	1.5	-0.1	-5.2	-1.3110	0.4934	-0.2736	0.2603	0.0500	-0.1073
1.2	-0.1	-1.9	-1.2616	0.4693	-0.0164	0.1567	-0.0090	0.0103	1.5	-0.1	-1.9	-1.3110	0.4794	-0.0620	0.2436	-0.0051	-0.0158
1.2	0.0	0.1	-1.2506	0.4634	0.0607	0.1525	-0.0206	0.0333	1.5	0.1	0.1	-1.3100	0.4728	0.0545	0.2461	-0.0276	0.0298
1.2	0.0	2.0	-1.2530	0.4622	0.1115	0.1612	-0.0270	0.0411	1.5	-0.1	2.0	-1.3137	0.4728	0.1722	0.2445	-0.0521	0.0770
1.2	-0.1	5.1	-1.2521	0.4661	0.2509	0.1808	-0.0616	0.0919	1.5	0.1	5.1	-1.3089	0.4691	0.1664	0.2508	-0.0816	0.1455
1.2	0.1	10.1	-1.2381	0.4581	0.5495	0.1908	-0.1322	0.2317	1.5	-0.1	10.1	-1.2975	0.4822	0.6097	0.2700	-0.1675	0.2866
1.2	-0.2	15.3	-1.2310	0.5069	0.8964	0.2445	-0.2146	0.3847	1.5	0.1	15.4	-1.2879	0.4969	1.0231	0.2920	-0.2729	0.4378
1.2	0.1	20.5	-1.1806	0.5163	1.2468	0.2741	-0.2921	0.5117	1.5	-0.1	20.5	-1.2350	0.4912	1.3658	0.3077	-0.3914	0.5952
1.2	-0.1	25.4	-1.1608	0.4916	1.5455	0.2433	-0.3602	0.6268	1.5	0.0	25.4	-1.1740	0.4648	1.7168	0.2967	-0.5240	0.7628
1.2	-0.3	30.7	-1.0046	0.4222	1.8936	0.1725	-0.4420	0.7705	1.5	0.1	30.7	-1.1013	0.4205	2.0941	0.2470	-0.6420	0.9223
1.2	15.0	-5.0	-0.9996	0.1074	-0.1861	0.0735	-0.0344	-0.0002	1.5	14.9	-5.0	-1.0469	0.0869	-0.2441	0.1163	0.0272	-0.0661
1.2	14.9	-2.0	-0.9910	0.0855	-0.0392	0.0580	-0.0181	0.0060	1.5	15.0	-2.0	-1.0504	0.0692	-0.0535	0.1066	-0.0003	-0.0090
1.2	15.1	0.1	-0.9851	0.0692	0.0546	0.0542	-0.0257	0.0320	1.5	14.9	0.1	-1.0505	0.0606	0.0422	0.1005	-0.0128	0.0211
1.2	14.9	2.0	-0.9876	0.0691	0.1042	0.0550	0.0146	0.0152	1.5	15.1	2.0	-1.0457	0.0460	0.1369	0.0989	-0.0259	0.0517
1.2	15.1	5.0	-0.9799	0.0450	0.2643	0.0499	0.0070	0.0427	1.5	14.9	5.1	-1.0465	0.0447	0.3237	0.1014	-0.0625	0.1097
1.2	15.0	10.1	-0.9642	0.0368	0.5153	0.0406	-0.0195	0.1043	1.5	15.0	10.2	-1.0313	0.0374	0.5999	0.1040	-0.0891	0.1776
1.2	14.9	15.4	-0.9585	0.0302	0.8351	0.0378	-0.0739	0.2183	1.5	14.9	15.2	-1.0251	0.0326	0.9562	0.1188	-0.1546	0.2849
1.2	14.9	20.4	-0.9470	0.0773	1.1667	0.0912	-0.1421	0.3464	1.5	15.0	20.4	-1.0006	0.0490	1.2693	0.1346	-0.2703	0.4403
									1.5	15.1	20.5	-0.9664	0.1002	1.6066	0.1520	-0.3688	0.5775

Configuration 5
 Seat with 18 Deg. Boom, Jet Off
 MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CX	CZ	CY	CNN	CNN	CNN	CNN	CNN	CNN
0.9	-44.9	-0.1	-1.1593	1.0324	-0.0163	0.0324	0.0096	0.0096	0.0096	0.0096	0.0096
0.9	-40.0	-0.1	-1.2325	1.0339	-0.0442	0.0317	0.0226	0.0226	0.0226	0.0226	0.0226
0.9	-35.2	-0.1	-1.2711	1.0318	-0.0817	0.0317	0.0283	0.0283	0.0283	0.0283	0.0283
0.9	-30.1	-0.1	-1.2911	0.9615	-0.1076	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	-25.0	-0.1	-1.2912	0.8332	-0.0552	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	-19.9	0.0	-1.2350	0.7089	-0.0136	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	-14.9	0.0	-1.2372	0.6089	0.0068	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	-10.0	-0.1	-1.1593	0.5028	-0.0266	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	-5.0	0.0	-1.1372	0.3746	-0.0154	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	0.0	0.0	-1.0028	0.2371	0.0000	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	4.9	0.0	-0.9038	0.1351	0.0235	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	9.8	0.0	-0.8031	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	14.8	0.0	-0.7035	0.1748	-0.0262	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	20.0	0.0	-0.5938	0.0321	0.0321	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	25.1	0.0	-0.4938	-0.0321	0.0321	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	30.1	0.0	-0.4037	-0.1312	0.0344	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	35.0	0.0	-0.3236	-0.2006	0.0367	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	40.0	0.0	-0.2460	-0.3160	0.0386	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	44.7	0.0	-0.1632	-0.4550	0.0405	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	50.2	0.0	-0.0836	-0.6165	0.0424	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	55.0	0.0	-0.0069	-0.8000	0.0443	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	59.8	0.0	-0.0632	-1.0000	0.0462	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	65.1	0.0	-0.1490	-1.2100	0.0481	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	70.1	0.0	-0.2460	-1.4300	0.0500	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316
0.9	75.1	0.0	-0.3500	-1.6600	0.0519	0.0316	0.0316	0.0316	0.0316	0.0316	0.0316

N	ALPHA	PSI	CX	CZ	CY	CNN	CNN	CNN	CNN	CNN	CNN
1.5	-44.8	0.0	-1.4807	1.3195	-0.0132	1.0468	0.0019	0.0019	0.0019	0.0019	0.0019
1.5	-40.0	0.0	-1.5077	1.2753	-0.0080	1.0265	0.0016	0.0016	0.0016	0.0016	0.0016
1.5	-35.0	0.0	-1.5663	1.2322	0.0036	0.9973	-0.0025	-0.0025	-0.0025	-0.0025	-0.0025
1.5	-30.1	0.0	-1.5985	1.1955	0.0012	0.9455	-0.0030	-0.0030	-0.0030	-0.0030	-0.0030
1.5	-25.1	0.0	-1.6084	1.0914	0.0220	0.8953	-0.0119	-0.0119	-0.0119	-0.0119	-0.0119
1.5	-19.9	0.0	-1.6105	1.0117	0.0240	0.8130	-0.0141	-0.0141	-0.0141	-0.0141	-0.0141
1.5	-14.8	0.0	-1.5935	0.9085	0.0303	0.7441	-0.0208	-0.0208	-0.0208	-0.0208	-0.0208
1.5	-10.0	0.0	-1.5502	0.7944	0.0308	0.6355	-0.0210	-0.0210	-0.0210	-0.0210	-0.0210
1.5	-5.1	0.0	-1.5015	0.6783	0.0328	0.5487	-0.0265	-0.0265	-0.0265	-0.0265	-0.0265
1.5	0.0	0.0	-1.4337	0.5470	0.0457	0.4471	-0.0270	-0.0270	-0.0270	-0.0270	-0.0270
1.5	5.0	0.0	-1.3517	0.4306	0.0437	0.3742	-0.0152	-0.0152	-0.0152	-0.0152	-0.0152
1.5	9.8	0.0	-1.2800	0.2954	0.0476	0.2934	-0.0168	-0.0168	-0.0168	-0.0168	-0.0168
1.5	14.9	0.0	-1.1136	0.1327	0.0520	0.2309	-0.0265	-0.0265	-0.0265	-0.0265	-0.0265
1.5	19.9	0.0	-0.9808	-0.0313	0.0530	0.1670	-0.0252	-0.0252	-0.0252	-0.0252	-0.0252
1.5	25.1	0.0	-0.8437	-0.1559	0.0649	0.1255	-0.0229	-0.0229	-0.0229	-0.0229	-0.0229
1.5	30.2	0.0	-0.7272	-0.2882	0.0633	0.1008	-0.0236	-0.0236	-0.0236	-0.0236	-0.0236
1.5	35.0	0.0	-0.6272	-0.3374	0.0598	0.0832	-0.0263	-0.0263	-0.0263	-0.0263	-0.0263
1.5	40.0	0.0	-0.5300	-0.4214	0.0502	0.1033	-0.0171	-0.0171	-0.0171	-0.0171	-0.0171
1.5	44.9	0.0	-0.4476	-0.4505	0.0322	0.1700	-0.0195	-0.0195	-0.0195	-0.0195	-0.0195
1.5	50.3	0.0	-0.3963	-0.5545	0.0531	0.1591	-0.0244	-0.0244	-0.0244	-0.0244	-0.0244
1.5	55.0	0.0	-0.3301	-0.5771	0.0499	0.1498	-0.0231	-0.0231	-0.0231	-0.0231	-0.0231
1.5	59.8	0.0	-0.2300	-0.6356	0.0399	0.1265	-0.0231	-0.0231	-0.0231	-0.0231	-0.0231
1.5	65.1	0.0	-0.1486	-0.6754	0.0333	0.0944	-0.0100	-0.0100	-0.0100	-0.0100	-0.0100
1.5	70.2	0.0	-0.0653	-0.7050	0.0422	0.0610	-0.0107	-0.0107	-0.0107	-0.0107	-0.0107
1.5	75.1	0.0	-0.0098	-0.6347	0.0355	0.0410	-0.0219	-0.0219	-0.0219	-0.0219	-0.0219

Configuration 6
Seat with 35 Deg. Boom, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

A	ALPHA	P81	CE	CT	CNH	CNM	CHL	M	ALPHA	P81	CE	CT	CNH	CNM	CHL
0.6	-10.9	-4.9	-0.3623	0.4896	0.6670	-0.0132	0.0111	0.9	-10.9	-5.0	-1.2463	0.7151	0.0249	-0.5969	0.0069
0.6	-13.0	-1.9	-0.0498	0.4694	0.1336	0.2404	0.0613	0.9	-15.0	-2.0	-1.2353	0.6988	0.1995	0.4982	0.0379
0.6	-15.1	0.0	-0.0462	0.4789	0.0317	0.2361	0.0081	0.9	-10.9	0.0	-1.2392	0.6978	0.0117	0.4996	-0.0048
0.6	-14.0	1.9	-0.0489	0.4763	-0.1981	0.2529	-0.0852	0.9	-15.0	1.9	-1.2348	0.6953	-0.0102	0.5026	-0.0156
0.6	-13.0	5.0	-0.0401	0.5093	-0.0551	0.2567	0.0019	0.9	-15.0	5.0	-1.2479	0.7152	0.0049	0.5074	0.0048
0.6	-15.0	9.9	-0.0762	0.5520	0.2380	0.2966	0.0486	0.9	-10.9	9.9	-1.2332	0.7125	0.2320	0.5138	0.1176
0.6	-15.0	15.2	-0.0650	0.6223	0.6839	0.3079	0.1700	0.9	-15.0	15.2	-1.2307	0.7308	0.6308	0.5344	0.3600
0.6	-13.0	20.2	-0.0414	0.6737	1.0861	0.3050	-0.2644	0.9	-15.0	20.1	-1.2110	0.8002	1.0459	0.5410	-0.2445
0.6	-13.0	25.2	-0.0039	0.7030	1.4547	0.2890	-0.1346	0.9	-15.0	25.2	-1.1367	0.8172	1.4650	0.4571	-0.3043
0.6	-15.0	30.5	-0.0484	0.7024	1.7911	0.2775	-0.3909	0.9	-10.9	30.4	-1.0564	0.7071	1.9085	0.4317	-0.4322
0.6	0.1	-5.0	-0.7965	0.3260	-0.0432	0.0362	-0.0491	0.9	0.0	-5.0	-1.0576	0.4019	0.0023	0.2114	0.0057
0.6	0.0	-1.9	-0.7094	0.3162	-0.0063	0.0217	-0.0226	0.9	0.0	-2.1	-1.0594	0.4518	0.0348	0.1536	-0.0202
0.6	-0.1	0.1	-0.7010	0.3153	0.0383	0.0190	-0.0111	0.9	-0.1	0.1	-1.0047	0.4042	0.0055	0.1009	-0.0054
0.6	0.1	1.9	-0.7067	0.3097	0.0512	0.0176	0.0054	0.9	-0.1	1.9	-1.0674	0.4597	0.0172	0.1076	0.0046
0.6	-0.1	4.9	-0.7809	0.3066	0.1230	0.0241	0.0297	0.9	-0.1	4.9	-1.0723	0.4616	0.0016	0.2112	0.0152
0.6	0.1	10.0	-0.0051	0.3251	0.3271	0.0450	0.0076	0.9	0.0	10.1	-1.0740	0.4030	0.1074	0.2011	0.0143
0.6	-0.1	15.2	-0.0149	0.3843	0.6666	0.0666	-0.0948	0.9	0.0	15.0	-1.0750	0.4046	0.5515	0.2500	-0.0701
0.6	0.0	20.1	-0.0265	0.4552	1.0034	0.1074	-0.1710	0.9	0.0	20.1	-1.0599	0.4977	0.9294	0.2654	-0.1412
0.6	0.0	25.4	-0.0200	0.4975	1.3726	0.1340	-0.2564	0.9	0.0	25.3	-1.0084	0.5222	1.2094	0.2806	-0.2025
0.6	0.0	30.3	-0.0143	0.5673	1.5363	0.2362	-0.1886	0.9	0.1	30.3	-0.9386	0.4726	1.6538	0.2529	-0.3013
0.6	14.0	-5.0	-0.5842	0.0076	-0.1537	-0.0230	-0.0424	0.9	15.0	-4.9	-0.7797	0.2067	-0.0131	0.0579	-0.0332
0.6	15.0	-1.9	-0.5704	0.0480	-0.0431	-0.0377	-0.0155	0.9	15.0	-2.0	-0.7572	0.1761	0.0003	0.0009	-0.0109
0.6	15.0	0.0	-0.5764	0.0398	0.0179	-0.0373	0.0006	0.9	15.0	0.0	-0.7577	0.1625	-0.0034	-0.0027	-0.0041
0.6	15.1	1.9	-0.5731	0.0359	0.1002	-0.0363	0.0124	0.9	14.9	2.0	-0.7714	0.1724	-0.0198	0.0236	0.0179
0.6	14.9	5.0	-0.5770	0.0423	0.2135	-0.0343	0.0309	0.9	15.0	5.0	-0.7711	0.1561	0.0904	0.0295	0.0034
0.6	15.1	10.0	-0.5792	0.0700	0.4101	-0.0123	0.0503	0.9	15.0	10.0	-0.7832	0.1505	0.2527	0.0549	0.0100
0.6	14.9	15.2	-0.5978	0.1007	0.6936	0.0046	0.0222	0.9	14.9	15.0	-0.7927	0.1626	0.4321	0.0896	0.0001
0.6	14.9	20.1	-0.6277	0.1610	0.9751	0.0526	-0.0057	0.9	15.0	20.1	-0.7915	0.1676	0.8015	0.0938	-0.0053
0.6	14.0	25.3	-0.6406	0.2226	1.3067	0.0977	-0.0772	0.9	15.1	25.2	-0.7906	0.2049	1.1217	0.1230	-0.0078
0.6	15.0	30.4	-0.6161	0.2510	1.5992	0.0815	-0.1555	0.9	15.1	30.2	-0.7409	0.2090	1.5112	0.0929	-0.1074

Configuration 6
Seat with 35 Deg. Boom, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CX	CZ	CY	CMX	CMY	CMZ	CHX
1.2	-15.1	-5.1	-1.5409	0.9396	-0.3361	0.7018	0.1208	-0.1873	-0.2348
1.2	-15.1	-5.1	-1.5351	0.9376	-0.3305	0.6988	0.0437	-0.0751	-0.0710
1.2	-15.0	0.1	-1.5437	0.9392	0.0082	0.6973	-0.0279	0.0293	0.0240
1.2	-15.0	2.0	-1.5380	0.9415	0.0891	0.6949	-0.0778	0.1096	0.1193
1.2	-15.0	5.1	-1.5428	0.9244	0.3611	0.7052	-0.1433	0.2045	0.2655
1.2	-15.0	10.2	-1.5538	0.9055	0.6108	0.7283	-0.3313	0.4715	0.7829
1.2	-14.9	15.4	-1.5177	0.9869	1.3034	0.7319	-0.5178	0.7551	1.0760
1.2	-15.0	20.7	-1.4411	0.9905	1.7022	0.7094	-0.6577	1.0034	1.3539
1.2	-15.0	25.9	-1.3120	0.9109	2.1103	0.6383	-0.7249	1.1614	1.6946
1.2	-14.9	30.9	-1.1693	0.8084	2.4448	0.5750	-0.8115	1.3343	1.9720
1.2	0.1	-5.0	-1.3816	0.5605	-0.1676	0.3942	0.0380	-0.0023	-0.0119
1.2	0.0	-2.0	-1.3707	0.5491	0.0006	0.3773	-0.0218	0.0119	0.0258
1.2	0.0	0.0	-1.3661	0.5414	0.0432	0.3752	-0.0236	0.0288	0.0402
1.2	-0.1	1.9	-1.3748	0.5494	0.0732	0.3947	-0.0321	0.0402	0.0519
1.2	0.0	5.0	-1.3833	0.5694	0.2432	0.4121	-0.0729	0.1273	0.1319
1.2	0.0	10.2	-1.3717	0.5913	0.5903	0.4318	-0.1672	0.3119	0.3413
1.2	-0.1	15.4	-1.3511	0.6326	1.0664	0.4642	-0.3523	0.5813	0.6805
1.2	0.0	20.5	-1.2570	0.6253	1.3777	0.4406	-0.3938	0.6805	0.8944
1.2	0.1	25.6	-1.1769	0.5980	1.7571	0.4234	-0.5163	0.8944	1.1170
1.2	0.3	30.5	-1.0034	0.5465	2.1704	0.3809	-0.6506	1.1170	1.3539
1.2	15.0	-5.0	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169	0.1065	0.3570	0.1219	-0.0981	0.1457	0.1457
1.2	15.0	10.2	-1.0125	0.1275	0.6360	0.1514	-0.0981	0.2293	0.2293
1.2	15.0	15.4	-1.0043	0.1396	0.9080	0.1844	-0.1405	0.3420	0.3420
1.2	15.0	20.4	-0.9823	0.1689	1.2377	0.2017	-0.2224	0.4932	0.4932
1.2	15.0	25.7	-0.9476	0.2107	1.5639	0.2249	-0.3072	0.6436	0.6436
1.2	15.1	30.7	-0.8759	0.2659	1.8917	0.1869	-0.4289	0.8210	0.8210
1.2	15.0	-5.1	-1.0187	0.1584	-0.2383	0.1354	0.0167	-0.0671	-0.0671
1.2	14.9	-2.0	-1.0252	0.1309	-0.0675	0.1167	0.0079	-0.0222	-0.0222
1.2	15.1	0.0	-1.0211	0.1145	0.0414	0.1122	-0.0126	0.0232	0.0232
1.2	14.9	2.0	-1.0239	0.1164	0.1744	0.1169	-0.0416	0.0764	0.0764
1.2	15.1	5.1	-1.0169						

A	ALPHA	PSI	CX	CZ	CY	CMX	CMY	CMZ	CMX	CMY	CMZ	CMX	CMY	CMZ	CMX	CMY	CMZ
0.0	0.1	-4.9	-0.9102	0.9002	-0.1354	0.7369	-0.0110	0.0072	0.7369	-0.0110	0.0072	0.7369	-0.0110	0.0072	0.7369	-0.0110	0.0072
0.0	0.1	-4.9	-0.9219	0.8973	-0.0732	0.7308	-0.0016	-0.0037	0.7308	-0.0016	-0.0037	0.7308	-0.0016	-0.0037	0.7308	-0.0016	-0.0037
0.0	0.1	-4.9	-0.9216	0.8993	0.0142	0.7260	-0.0074	0.0118	0.7260	-0.0074	0.0118	0.7260	-0.0074	0.0118	0.7260	-0.0074	0.0118
0.0	0.1	-4.9	-0.9105	0.8952	0.0752	0.7222	-0.0132	0.0255	0.7222	-0.0132	0.0255	0.7222	-0.0132	0.0255	0.7222	-0.0132	0.0255
0.0	0.1	-4.9	-0.9044	0.8937	0.2125	0.7006	-0.0109	0.0429	0.7006	-0.0109	0.0429	0.7006	-0.0109	0.0429	0.7006	-0.0109	0.0429
0.0	0.1	-4.9	-0.8875	0.7903	0.3304	0.6304	0.0201	0.0402	0.6304	0.0201	0.0402	0.6304	0.0201	0.0402	0.6304	0.0201	0.0402
0.0	0.1	-4.9	-0.8766	0.7392	0.4642	0.5458	0.0455	0.0652	0.5458	0.0455	0.0652	0.5458	0.0455	0.0652	0.5458	0.0455	0.0652
0.0	0.1	-4.9	-0.8630	0.7222	0.7401	0.4803	0.0104	0.1059	0.4803	0.0104	0.1059	0.4803	0.0104	0.1059	0.4803	0.0104	0.1059
0.0	0.1	-4.9	-0.8304	0.6426	1.0239	0.4215	-0.0300	0.3146	0.4215	-0.0300	0.3146	0.4215	-0.0300	0.3146	0.4215	-0.0300	0.3146
0.0	0.1	-4.9	-0.7781	0.5851	1.2901	0.3455	-0.0759	0.4238	0.3455	-0.0759	0.4238	0.3455	-0.0759	0.4238	0.3455	-0.0759	0.4238
0.0	0.1	-4.9	-0.5891	0.1304	-0.1301	0.0713	-0.0904	0.0146	0.0713	-0.0904	0.0146	0.0713	-0.0904	0.0146	0.0713	-0.0904	0.0146
0.0	0.1	-4.9	-0.5899	0.1105	-0.0105	0.0675	-0.0322	0.0200	0.0675	-0.0322	0.0200	0.0675	-0.0322	0.0200	0.0675	-0.0322	0.0200
0.0	0.1	-4.9	-0.5809	0.1076	0.0210	0.0670	-0.0030	0.0100	0.0670	-0.0030	0.0100	0.0670	-0.0030	0.0100	0.0670	-0.0030	0.0100
0.0	0.1	-4.9	-0.5806	0.0699	0.0607	0.0574	0.0132	0.0043	0.0574	0.0132	0.0043	0.0574	0.0132	0.0043	0.0574	0.0132	0.0043
0.0	0.1	-4.9	-0.5800	0.0773	0.1795	0.0309	0.0419	0.0039	0.0309	0.0419	0.0039	0.0309	0.0419	0.0039	0.0309	0.0419	0.0039
0.0	0.1	-4.9	-0.5761	0.0619	0.3814	0.0120	0.0571	0.0439	0.0120	0.0571	0.0439	0.0120	0.0571	0.0439	0.0120	0.0571	0.0439
0.0	0.1	-4.9	-0.5577	0.0308	0.6212	-0.0457	0.0408	0.1357	-0.0457	0.0408	0.1357	-0.0457	0.0408	0.1357	-0.0457	0.0408	0.1357
0.0	0.1	-4.9	-0.5540	0.0097	0.8445	-0.1018	0.0420	0.2056	-0.1018	0.0420	0.2056	-0.1018	0.0420	0.2056	-0.1018	0.0420	0.2056
0.0	0.1	-4.9	-0.5526	0.0076	1.0900	-0.1117	-0.0339	0.3144	-0.1117	-0.0339	0.3144	-0.1117	-0.0339	0.3144	-0.1117	-0.0339	0.3144
0.0	0.1	-4.9	-0.5202	0.0192	1.3827	-0.1492	-0.0906	0.4457	-0.1492	-0.0906	0.4457	-0.1492	-0.0906	0.4457	-0.1492	-0.0906	0.4457
0.0	0.1	-4.9	-0.3209	-0.3067	-0.2503	-0.2002	0.0022	-0.0628	-0.2002	0.0022	-0.0628	-0.2002	0.0022	-0.0628	-0.2002	0.0022	-0.0628
0.0	0.1	-4.9	-0.3130	-0.3219	-0.0070	-0.2207	-0.0000	-0.0150	-0.2207	-0.0000	-0.0150	-0.2207	-0.0000	-0.0150	-0.2207	-0.0000	-0.0150
0.0	0.1	-4.9	-0.3057	-0.3458	0.0270	-0.2501	-0.0077	0.0143	-0.2501	-0.0077	0.0143	-0.2501	-0.0077	0.0143	-0.2501	-0.0077	0.0143
0.0	0.1	-4.9	-0.3023	-0.3648	0.1204	-0.2602	-0.0137	0.0413	-0.2602	-0.0137	0.0413	-0.2602	-0.0137	0.0413	-0.2602	-0.0137	0.0413
0.0	0.1	-4.9	-0.3148	-0.3772	0.2045	-0.2550	-0.0237	0.0806	-0.2550	-0.0237	0.0806	-0.2550	-0.0237	0.0806	-0.2550	-0.0237	0.0806
0.0	0.1	-4.9	-0.3220	-0.4071	0.5405	-0.2406	-0.0667	0.1604	-0.2406	-0.0667	0.1604	-0.2406	-0.0667	0.1604	-0.2406	-0.0667	0.1604
0.0	0.1	-4.9	-0.3243	-0.4404	0.9151	-0.2400	-0.1328	0.2772	-0.2400	-0.1328	0.2772	-0.2400	-0.1328	0.2772	-0.2400	-0.1328	0.2772
0.0	0.1	-4.9	-0.3212	-0.4300	1.2489	-0.2703	-0.2221	0.4026	-0.2703	-0.2221	0.4026	-0.2703	-0.2221	0.4026	-0.2703	-0.2221	0.4026
0.0	0.1	-4.9	-0.3250	-0.4312	1.5602	-0.2716	-0.2905	0.5210	-0.2716	-0.2905	0.5210	-0.2716	-0.2905	0.5210	-0.2716	-0.2905	0.5210
0.0	0.1	-4.9	-0.2736	-0.0731	1.8873	-0.3303	-0.3539	0.6550	-0.3303	-0.3539	0.6550	-0.3303	-0.3539	0.6550	-0.3303	-0.3539	0.6550

Configuration 7
 Seat with 18 Deg. Boom and Stabilizer, Jet Off
 MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PBI	CH	CZ	CY	CNH	CNN	CHL	N	ALPHA	PBI	CH	CZ	CY	CNH	CNN	CHL
1.2	-0.1	-5.1	-1.4509	1.0573	-0.7523	1.0305	0.0496	-0.0779	1.5	0.0	-5.0	-1.4500	0.9190	-0.2616	0.9200	0.0327	-0.0719
1.2	0.1	-2.0	-1.4605	1.0439	-0.6665	1.0177	0.0020	-0.0100	1.5	-0.1	-2.1	-1.4615	0.9572	-0.1030	0.9703	0.0150	-0.0341
1.2	0.0	0.0	-1.4600	1.0333	0.0300	1.0102	-0.0110	0.0144	1.5	0.2	0.1	-1.4708	0.9137	0.0303	0.9639	-0.0222	0.0134
1.2	-0.1	1.9	-1.4547	1.0184	0.1205	1.0041	-0.0309	0.0366	1.5	-0.1	2.0	-1.4739	0.9117	0.1315	0.9376	-0.0206	0.0317
1.2	0.0	5.1	-1.4531	1.0147	0.2750	1.0235	-0.0754	0.0913	1.5	0.0	5.0	-1.4639	0.8771	0.2936	0.9002	-0.0509	0.0892
1.2	-0.1	10.1	-1.4213	0.9542	0.5235	0.9553	-0.1034	0.1717	1.5	0.0	10.2	-1.4300	0.8439	0.6236	0.8541	-0.1375	0.2330
1.2	-0.2	15.2	-1.3031	0.8059	0.8324	0.8434	-0.1637	0.3047	1.5	-0.2	15.3	-1.3086	0.8108	1.0107	0.8007	-0.2609	0.4265
1.2	0.1	20.5	-1.2064	0.7027	1.2067	0.7203	-0.2667	0.4851	1.5	-0.3	20.5	-1.3166	0.7103	1.3674	0.6007	-0.3847	0.6143
1.2	0.0	25.7	-1.1604	0.6226	1.5555	0.6330	-0.3490	0.6421	1.5	0.1	25.7	-1.2402	0.5924	1.7671	0.5447	-0.5347	0.8246
1.2	0.2	30.7	-1.0409	0.4400	1.9015	0.3944	-0.4614	0.8206	1.5	0.0	30.0	-1.1508	0.4930	2.1595	0.4211	-0.6692	1.0200
1.2	14.5	-5.0	-0.9095	0.1122	-0.2026	0.0770	-0.0131	-0.0193	1.5	15.0	-5.0	-1.0077	0.1458	-0.2770	0.2379	0.0622	-0.1076
1.2	15.0	-1.9	-0.9933	0.0850	-0.0400	0.0639	-0.0174	0.0039	1.5	15.0	-1.9	-1.1003	0.1627	-0.0753	0.2765	0.0161	-0.0265
1.2	15.0	0.1	-0.9973	0.0430	0.0320	0.0404	-0.0309	0.0357	1.5	14.9	0.1	-1.1053	0.1657	0.0319	0.2805	-0.0008	0.0151
1.2	15.0	1.9	-0.9061	0.0712	0.0950	0.0700	0.0071	0.0071	1.5	15.1	1.9	-1.0092	0.1301	0.1507	0.2673	-0.0432	0.0000
1.2	15.0	5.2	-0.9074	0.0643	0.2011	0.0810	-0.0125	0.0471	1.5	14.9	5.1	-1.0059	0.1014	0.3505	0.2141	-0.0936	0.1465
1.2	15.0	10.2	-0.9671	0.0131	0.5070	0.0503	-0.0719	0.1511	1.5	15.0	10.3	-1.0473	0.0156	0.6520	0.1041	-0.1425	0.2573
1.2	15.0	15.3	-0.9379	-0.0402	0.8674	-0.0513	-0.1426	0.3272	1.5	14.9	15.3	-1.0232	-0.0445	0.9630	0.0308	-0.2219	0.4017
1.2	15.0	20.4	-0.9111	-0.1103	1.2362	-0.1361	-0.2279	0.5224	1.5	15.0	20.5	-0.9098	-0.0970	1.3534	-0.0303	-0.3507	0.5045
1.2	14.9	25.6	-0.8511	-0.1967	1.5801	-0.2040	-0.3064	0.8357	1.5	15.0	25.6	-0.9417	-0.1221	1.7434	-0.1220	-0.4815	0.7594
1.2	15.2	30.8	-0.7796	-0.2342	1.9107	-0.3301	-0.4003	0.7920	1.5	15.1	30.0	-0.8720	-0.1727	2.0962	-0.2106	-0.5919	0.9200
1.2	29.9	-5.1	-0.6631	-0.2194	-0.3947	0.0373	0.0606	-0.0995	1.5	30.0	-5.1	-0.6766	-0.4201	-0.3305	-0.1306	0.0979	-0.1304
1.2	30.0	-2.0	-0.6603	-0.2120	-0.0026	0.0667	0.0047	-0.0209	1.5	30.0	-1.9	-0.6775	-0.4344	-0.0074	-0.1335	0.0147	-0.0337
1.2	30.0	0.1	-0.6574	-0.2327	0.0364	0.0463	-0.0146	0.0197	1.5	30.0	0.0	-0.6766	-0.4518	0.0510	-0.1444	-0.0204	0.0236
1.2	30.0	2.0	-0.6503	-0.2533	0.1563	0.0264	-0.0393	0.0624	1.5	29.9	2.1	-0.6708	-0.4507	0.1934	-0.1463	-0.0601	0.0812
1.2	30.0	5.1	-0.6302	-0.2850	0.3669	0.0005	-0.0993	0.1404	1.5	29.9	5.1	-0.6817	-0.4409	0.4036	-0.1215	-0.1476	0.1066
1.2	30.1	10.2	-0.6732	0.2337	0.6969	0.0002	-0.1840	0.2629	1.5	30.1	10.2	-0.6906	-0.4355	0.7436	-0.0807	-0.2555	0.3331
1.2	30.0	15.3	-0.6651	-0.3306	1.0161	-0.0056	-0.3803	0.3924	1.5	30.0	15.3	-0.6808	-0.4605	1.0879	-0.1174	-0.3510	0.4678
1.2	30.0	20.5	-0.6373	-0.3332	1.3504	-0.0425	-0.3072	0.5400	1.5	29.9	20.6	-0.6604	-0.4251	1.4240	-0.1130	-0.4562	0.6079
1.2	30.0	25.6	-0.6107	-0.3024	1.7045	-0.0842	-0.4178	0.8916	1.5	30.0	25.6	-0.6302	-0.4434	1.7022	-0.1099	-0.5736	0.7761
1.2	30.0	30.0	-0.5730	-0.3374	2.0103	-0.1340	-0.5420	0.8274	1.5	29.0	30.0	-0.6005	-0.4208	2.1059	-0.2100	-0.6509	0.9172

Configuration 7
Seat with 18 Deg. Boom and Stabilizer, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

A	ALPHA	PSI	CX	CZ	CY	CNM	CNN	CML
0.9	-45.1	0.0	-1.5349	1.9094	0.0070	2.1113	-0.0133	0.0171
0.9	-40.0	-0.1	-1.6113	1.6617	-0.0073	2.0769	-0.0045	-0.0079
0.9	-35.1	-0.1	-1.6465	1.7595	-0.0026	1.9999	-0.0067	-0.0233
0.9	-30.1	-0.1	-1.6561	1.6643	-0.0606	1.9079	0.0164	-0.0379
0.9	-25.1	-0.1	-1.6326	1.8552	-0.0758	1.7760	0.0146	-0.0409
0.9	-20.1	0.0	-1.6317	1.5079	-0.0376	1.6029	0.0140	-0.0257
0.9	-14.0	0.0	-1.6142	1.3971	0.0168	1.6091	0.0059	-0.0004
0.9	-10.0	0.0	-1.5443	1.2673	0.0206	1.4725	0.0034	0.0061
0.9	-5.0	0.0	-1.4895	1.1465	0.0048	1.2681	-0.0053	0.0030
0.9	0.0	0.0	-1.4155	0.9129	-0.0136	1.1353	-0.0030	-0.0010
0.9	5.0	0.0	-1.3512	0.6351	-0.0166	1.0782	0.0030	-0.0046
0.9	9.9	0.0	-1.2778	0.3551	-0.0166	1.0099	-0.0014	-0.0096
0.9	14.0	0.0	-1.0607	0.6035	0.0237	0.7971	-0.0114	-0.0169
0.9	19.9	0.0	-0.7800	0.2119	0.0332	0.2776	-0.0139	0.0120
0.9	25.1	0.0	-0.6065	-0.0135	0.0379	0.0377	-0.0125	0.0203
0.9	30.2	0.0	-0.4113	-0.1107	0.0293	0.0366	-0.0083	0.0126
0.9	35.0	0.0	-0.4272	-0.2031	0.0270	0.0661	-0.0111	0.0136
0.9	40.1	0.0	-0.2846	-0.3367	0.0224	-0.0039	-0.0121	0.0163
0.9	44.9	0.0	-0.1806	-0.4663	0.0290	-0.0623	-0.0129	0.0192
0.9	49.9	0.0	-0.0827	-0.6029	0.0425	-0.1304	-0.0251	0.0351
0.9	54.9	0.0	-0.0412	-0.6302	0.0431	-0.1170	-0.0268	0.0331
0.9	59.8	0.0	0.0238	-0.7110	0.0414	-0.2335	-0.0265	0.0316
0.9	65.0	0.0	0.1036	-0.8516	0.0393	-0.4108	-0.0250	0.0257
0.9	70.2	0.0	0.2336	-1.0458	0.0346	-0.7101	-0.0200	0.0172
0.9	75.1	0.0	0.4075	-1.2708	0.0281	-1.1051	-0.0243	0.0161

A	ALPHA	PSI	CX	CZ	CY	CNM	CNN	CML
1.2	-45.0	0.0	-1.9231	2.2901	0.0100	2.7239	-0.0080	0.0157
1.2	-39.9	0.0	-1.9034	2.2215	0.0230	2.6747	-0.0062	0.0127
1.2	-35.1	0.0	-2.0508	2.1509	0.0179	2.6517	-0.0069	0.0085
1.2	-30.1	0.0	-2.0915	2.0701	0.0126	2.5852	-0.0071	0.0066
1.2	-25.0	0.0	-1.8956	1.2200	0.0326	1.8043	-0.0224	0.0230
1.2	-20.0	0.0	-1.7539	1.0866	0.0316	1.5487	-0.0181	0.0294
1.2	-15.0	0.0	-1.5082	0.7755	0.0325	1.3000	-0.0194	0.0195
1.2	-10.0	0.0	-1.4211	0.5400	0.0234	1.0759	-0.0213	0.0235
1.2	-5.1	0.0	-1.2170	0.2735	0.0234	0.8175	-0.0160	0.0140
1.2	0.0	0.0	-0.9915	0.0150	0.0403	0.5168	-0.0224	0.0246
1.2	5.0	0.0	-0.7837	-0.2053	0.0538	0.2440	-0.0252	0.0359
1.2	10.0	0.0	-0.6230	-0.3317	0.0479	0.1133	-0.0231	0.0287
1.2	15.0	0.0	-0.4732	-0.5527	0.0436	-0.0067	-0.0247	0.0257
1.2	20.0	0.0	-0.3633	-0.6639	0.0409	-0.1355	-0.0250	0.0273
1.2	25.0	0.0	-0.2845	-0.7428	0.0500	-0.1525	-0.0257	0.0344
1.2	30.0	0.0	-0.1755	-0.8241	0.0541	-0.2507	-0.0363	0.0425
1.2	35.0	0.0	-0.0613	-0.9076	0.0477	-0.3592	-0.0342	0.0364
1.2	40.0	0.0	0.0315	-0.9735	0.0424	-0.4360	-0.0317	0.0300
1.2	45.0	0.0	0.1746	-1.1379	0.0332	-0.6167	-0.0250	0.0254
1.2	50.0	0.0	0.3433	-1.3372	0.0260	-0.9321	-0.0258	0.0366

Configuration 8
Seat with 35 Deg. Boom and Stabilizer, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	P61	CX	CZ	CV	CNM	CNM	CNL	N	ALPHA	P61	CX	CZ	CV	CNM	CNM	CNL
0.0	0.2	-5.0	-1.2368	1.0324	-0.1462	1.2305	0.0072	-0.0087	0.0	0.1	-5.0	-1.4198	1.0254	-0.0005	1.1691	-0.0044	-0.0040
0.0	0.2	-2.1	-1.2368	1.0194	-0.0497	1.2326	-0.0024	-0.0058	0.0	0.1	-1.9	-1.4201	1.0247	-0.0160	1.1606	-0.0013	0.0020
0.0	0.3	0.0	-1.2361	1.0267	0.0301	1.2285	-0.0125	0.0179	0.0	0.1	0.0	-1.4236	1.0242	0.0100	1.1629	-0.0033	0.0074
0.0	-0.3	1.9	-1.2334	1.0257	0.0097	1.2323	-0.0208	0.0330	0.0	0.1	2.0	-1.4264	1.0208	0.0419	1.1645	-0.0044	0.0103
0.0	0.3	5.0	-1.2309	1.0243	0.2016	1.2432	-0.0338	0.0781	0.0	0.0	4.9	-1.4272	1.0116	0.1200	1.1617	0.0040	0.0170
0.0	-0.3	19.1	-1.2346	1.0506	0.4241	1.2671	-0.0581	0.1732	0.0	0.0	10.1	-1.4673	1.0231	0.2268	1.2423	0.0160	0.0230
0.0	-0.4	15.1	-1.2342	1.0561	0.7005	1.2191	-0.0859	0.2852	0.0	0.1	15.1	-1.4682	1.0560	0.5170	1.2142	-0.0230	0.1210
0.0	0.4	20.3	-1.1978	1.0460	1.0008	1.1251	-0.1545	0.4338	0.0	0.1	20.2	-1.4269	1.0302	0.8670	1.2714	-0.0093	0.2530
0.0	0.3	25.2	-1.1654	0.9618	1.3105	1.0231	-0.1657	0.5104	0.0	0.2	25.1	-1.3416	0.9649	1.2290	1.1054	-0.1643	0.4120
0.0	-0.3	30.4	-1.0314	0.8243	1.5353	0.8933	-0.1679	0.5352	0.0	0.1	30.4	-1.2322	0.8374	1.6394	1.0400	-0.2002	0.6400
0.0	14.9	-5.0	-0.9264	0.6203	-0.1090	0.9245	-0.0273	-0.0223	0.0	14.9	-5.0	-1.0491	0.6119	-0.1101	0.8034	0.0234	0.0150
0.0	15.2	-1.9	-0.9220	0.5550	-0.0611	0.9267	-0.0110	-0.0045	0.0	15.1	-1.9	-1.0384	0.5867	0.0021	0.7793	-0.0040	0.0344
0.0	14.9	0.0	-0.9246	0.5905	0.0225	0.9276	-0.0098	0.0143	0.0	15.0	0.0	-1.0401	0.5895	0.0107	0.7904	-0.0002	0.0093
0.0	15.0	2.0	-0.9226	0.5935	0.1243	0.9182	-0.0076	0.0379	0.0	15.0	1.9	-1.0390	0.5723	0.0639	0.7717	-0.0275	0.0100
0.0	14.9	5.1	-0.9077	0.5766	0.2362	0.8763	0.0139	0.0424	0.0	15.0	5.0	-1.0387	0.5670	0.1704	0.7745	-0.0410	0.0102
0.0	15.0	10.0	-0.8881	0.5071	0.4458	0.7802	0.0212	0.0005	0.0	15.0	10.0	-1.0437	0.5233	0.2623	0.7598	0.0202	-0.0504
0.0	15.0	15.1	-0.8715	0.4561	0.7439	0.6211	-0.0078	0.2013	0.0	15.0	15.0	-1.0104	0.4831	0.5372	0.6866	0.0149	0.0569
0.0	15.0	20.2	-0.8002	0.4119	1.0293	0.5327	-0.0216	0.2965	0.0	15.0	20.2	-0.9664	0.4099	0.8790	0.5700	-0.0524	0.2300
0.0	15.0	25.3	-0.7522	0.3500	1.3720	0.4147	-0.0906	0.4372	0.0	15.1	25.1	-0.9041	0.3515	1.1903	0.4621	-0.1042	0.3026
0.0	14.9	30.4	-0.6364	0.3200	1.6219	0.3023	-0.1461	0.5380	0.0	15.0	30.3	-0.8253	0.3108	1.5371	0.3490	-0.1059	0.5655
0.0	29.0	-5.0	-0.4014	-0.0134	-0.2065	0.2492	-0.0357	-0.0015	0.0	30.0	-5.0	-0.5079	-0.0054	-0.1950	0.0453	-0.0217	-0.0210
0.0	30.1	-1.9	-0.4746	-0.0182	-0.0083	0.2633	-0.0114	-0.0021	0.0	30.0	-2.0	-0.5105	-0.0093	-0.0449	0.0362	-0.0167	0.0075
0.0	30.1	0.0	-0.4791	-0.0255	0.0254	0.2619	-0.0079	0.0111	0.0	30.1	0.1	-0.5150	-0.1142	0.0311	0.0336	-0.0080	0.0132
0.0	30.2	1.9	-0.4727	-0.0394	0.0966	0.2520	0.0015	0.0317	0.0	30.1	1.9	-0.5070	-0.1271	0.0955	0.0297	-0.0014	0.0179
0.0	30.0	5.0	-0.4722	-0.0664	0.2097	0.2343	0.0352	0.0316	0.0	30.0	4.9	-0.5110	-0.1330	0.1920	0.0455	0.0306	0.0120
0.0	30.5	10.2	-0.4230	-0.1409	0.4578	0.1359	0.0403	0.0943	0.0	30.0	10.1	-0.5000	-0.1062	0.4292	0.0294	0.0350	0.0500
0.0	30.0	15.2	-0.3087	-0.2060	0.7003	0.0375	0.0150	0.1933	0.0	30.0	15.1	-0.5021	-0.2339	0.6783	0.0001	-0.0247	0.1773
0.0	30.0	20.2	-0.3246	-0.2071	1.0695	-0.1014	-0.0342	0.3000	0.0	29.9	20.1	-0.4034	-0.2555	1.0064	-0.0601	-0.0743	0.3101
0.0	29.9	25.4	-0.2081	-0.3077	1.3964	-0.2020	-0.1015	0.4512	0.0	30.3	25.2	-0.4423	-0.2723	1.3693	-0.1213	-0.1914	0.5041
0.0	30.0	30.5	-0.2402	-0.3233	1.7332	-0.2710	-0.1334	0.6216	0.0	29.9	30.4	-0.4350	-0.2628	1.7747	-0.1004	-0.3211	0.7052

Configuration 8
 Seat with 35 Deg. Boom and Stabilizer, Jet Off
 MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CH	CE	CY	CAN	CHL	N	ALPHA	PSI	CH	CE	CY	CAN	CHL
1.2	0.0	-5.0	-1.7024	1.2307	-0.1626	1.0290	-0.0112	1.5	0.0	-5.1	-1.8066	1.2557	-0.3026	1.0266	-0.1300
1.2	0.2	-1.9	-1.7969	1.2161	-0.0209	1.0509	-0.0068	1.5	0.0	-1.9	-1.8923	1.2363	-0.0850	1.0076	-0.0130
1.2	0.0	0.0	-1.8025	1.2143	0.0393	1.0676	-0.0180	1.5	0.0	0.0	-1.9555	1.2337	0.0264	1.0062	-0.0262
1.2	0.0	2.0	-1.8023	1.2190	0.0000	1.0804	-0.0270	1.5	0.0	1.9	-1.9963	1.2343	0.1508	1.0143	-0.0566
1.2	-0.1	5.0	-1.7980	1.2340	0.2686	1.0761	-0.0437	1.5	-0.1	5.1	-1.8866	1.2400	0.3429	1.0166	-0.1021
1.2	0.1	10.0	-1.8177	1.2666	0.5053	1.2502	-0.1113	1.5	0.1	10.2	-1.8614	1.2307	0.6956	1.2922	-0.2116
1.2	-0.1	15.1	-1.7408	1.2420	0.8959	1.0717	-0.2327	1.5	0.0	15.4	-1.8032	1.2031	1.1411	1.7343	-0.3961
1.2	0.0	20.3	-1.6155	1.1426	1.2519	1.0613	-0.3325	1.5	0.0	20.4	-1.7197	1.1356	1.5556	1.6221	-0.5724
1.2	0.0	25.6	-1.4957	1.0206	1.0709	1.2460	-0.4713	1.5	0.0	25.6	-1.6221	1.1356	1.5556	1.6221	-0.5724
1.2	0.1	30.6	-1.3504	0.9003	2.0453	1.1357	-0.5733	1.5	0.0	20.4	-1.7197	1.1356	1.5556	1.6221	-0.5724
1.2	15.2	-5.0	-1.2133	0.5009	-0.2604	0.9005	-0.0600	1.5	14.9	-5.1	-1.1991	0.5460	-0.3072	1.0513	-0.0826
1.2	15.0	-1.9	-1.3529	0.6055	-0.0796	1.0512	-0.0092	1.5	15.0	-1.9	-1.4076	0.5329	-0.0036	1.0606	-0.0145
1.2	15.0	0.0	-1.3666	0.6043	0.0453	1.0702	-0.0204	1.5	15.0	0.1	-1.4161	0.5358	0.0307	1.0710	-0.0210
1.2	15.0	2.0	-1.3819	0.5857	0.1565	1.0400	-0.0440	1.5	15.1	2.0	-1.4007	0.5237	0.1523	1.0637	-0.0606
1.2	15.0	5.0	-1.3262	0.5501	0.3025	0.9930	-0.0526	1.5	15.0	5.1	-1.4012	0.5137	0.3613	1.0619	-0.1097
1.2	15.0	10.2	-1.2573	0.4801	0.5400	0.9046	-0.0940	1.5	15.0	10.1	-1.3554	0.4601	0.6814	0.9593	-0.1894
1.2	15.0	15.2	-1.2119	0.4292	0.8407	0.8003	-0.1453	1.5	15.0	15.4	-1.2454	0.3691	0.9955	0.7677	-0.2350
1.2	15.0	20.3	-1.1351	0.3622	1.1040	0.6502	-0.2153	1.5	14.9	20.4	-1.1703	0.3103	1.3539	0.6314	-0.3519
1.2	15.0	25.4	-1.0456	0.3098	1.3370	0.5023	-0.3104	1.5	14.9	20.4	-1.1703	0.3103	1.3539	0.6314	-0.3519
1.2	15.0	30.7	-0.9165	0.2145	1.9216	0.3110	-0.4567	1.5	14.9	20.4	-1.1703	0.3103	1.3539	0.6314	-0.3519
1.2	20.9	-5.0	-0.6685	-0.1492	-0.2002	0.1101	-0.0132	1.5	30.0	-5.1	-0.7652	-0.2107	-0.3107	0.1800	-0.0021
1.2	30.0	-1.9	-0.6079	-0.1631	-0.0566	0.1373	-0.0050	1.5	30.2	-1.9	-0.7770	-0.2000	-0.0790	0.2342	-0.0116
1.2	30.0	0.1	-0.7010	-0.1850	0.0574	0.1450	-0.0179	1.5	30.1	0.0	-0.7839	-0.2001	0.0519	0.2419	-0.0230
1.2	30.0	1.9	-0.7010	-0.2007	0.1648	0.1662	-0.0129	1.5	30.0	2.0	-0.7800	-0.2101	0.1070	0.2401	-0.0610
1.2	30.0	5.1	-0.6707	-0.2133	0.2049	0.0963	-0.0080	1.5	30.0	5.0	-0.7452	-0.2057	0.3707	0.1415	-0.1021
1.2	30.0	10.1	-0.6503	-0.2020	0.3325	0.0425	-0.0144	1.5	30.0	10.3	-0.7001	-0.3120	0.6452	0.0417	-0.1434
1.2	29.9	15.2	-0.6098	-0.3610	0.5503	-0.0665	-0.1356	1.5	30.0	15.3	-0.6666	-0.3425	0.9500	-0.0290	-0.2079
1.2	30.1	20.3	-0.5566	-0.3069	1.2239	-0.1909	-0.2060	1.5	30.0	15.3	-0.6666	-0.3425	0.9500	-0.0290	-0.2079
1.2	30.0	25.5	-0.5267	-0.4017	1.6110	-0.2704	-0.3141	1.5	30.0	20.4	-0.6221	-0.3601	1.3341	-0.1206	-0.3262
1.2	30.0	30.5	-0.4667	-0.4393	1.9467	-0.3741	-0.4230	1.5	30.0	20.4	-0.6221	-0.3601	1.3341	-0.1206	-0.3262

Configuration 8
Seat with 35 Deg. Boom and Stabilizer, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CI	CE	CT	CNN	CNN	CNN	CHL
0.0	-0.5	-4.9	-0.5394	0.3170	-0.0007	0.0330	-0.0256	0.0036	0.0036
0.0	0.1	-2.0	-0.0350	0.3051	-0.0307	0.0319	-0.0120	0.0074	0.0074
0.0	0.0	0.0	-0.0375	0.3100	0.0070	0.0290	-0.0029	0.0107	0.0107
0.0	0.0	1.9	-0.0354	0.3000	0.0407	0.0241	0.0041	0.0093	0.0093
0.0	0.0	5.0	-0.0214	0.2919	0.1074	0.0170	0.0205	0.0005	0.0005
0.0	0.0	10.0	-0.0167	0.2653	0.1059	0.0173	0.0496	-0.0005	-0.0005
0.0	0.0	15.0	-0.0063	0.2550	0.2617	0.0147	0.0732	0.0036	0.0036
0.0	0.0	20.0	-0.7966	0.2666	0.3402	0.0136	0.0922	0.0008	0.0008
0.0	0.0	25.2	-0.7710	0.2719	0.3607	0.0063	0.1040	0.0441	0.0441
0.0	0.0	30.3	-0.7253	0.2662	0.7500	-0.0004	0.1231	0.0930	0.0930

N	ALPHA	PSI	CI	CE	CT	CNN	CNN	CNN	CHL
0.0	-0.0	-0.0	-0.9902	0.3207	-0.0510	0.0607	-0.0272	0.0173	0.0173
0.0	-0.1	-1.0	-0.9951	0.3430	-0.0163	0.0504	-0.0126	0.0120	0.0120
0.0	0.1	0.1	-0.9915	0.3539	0.0274	0.0500	-0.0051	0.0153	0.0153
0.0	0.0	2.0	-0.9955	0.3491	0.0404	0.0504	0.0050	0.0079	0.0079
0.0	0.0	5.0	-0.9909	0.3353	0.0795	0.0522	0.0240	-0.0024	-0.0024
0.0	0.0	10.0	-0.9941	0.3001	0.1755	0.0513	0.0491	-0.0050	-0.0050
0.0	0.0	15.0	-0.9868	0.2094	0.2939	0.0506	0.0729	0.0005	0.0005
0.0	0.0	20.2	-0.9696	0.2932	0.4420	0.0520	0.0961	0.0292	0.0292
0.0	-0.1	25.2	-0.9420	0.2015	0.6050	0.0542	0.1115	0.0613	0.0613
0.0	0.0	30.3	-0.8859	0.2620	0.8111	0.0496	0.1100	0.1107	0.1107

N	ALPHA	PSI	CI	CE	CT	CNN	CNN	CNN	CHL
1.2	-0.5	-5.0	-1.2000	0.3919	-0.1049	0.1110	-0.0294	0.0009	0.0009
1.2	0.0	-1.0	-1.2020	0.3797	-0.0325	0.1117	-0.0126	0.0035	0.0035
1.2	0.0	0.1	-1.2009	0.3769	0.0317	0.1113	-0.0033	0.0066	0.0066
1.2	0.0	2.0	-1.2049	0.3737	0.0613	0.1103	0.0060	0.0061	0.0061
1.2	0.0	5.0	-1.2014	0.3762	0.1451	0.1094	0.0237	0.0121	0.0121
1.2	0.1	10.0	-1.2276	0.3540	0.3003	0.0959	0.0540	0.0268	0.0268
1.2	0.0	15.1	-1.2026	0.3430	0.4662	0.0921	0.0847	0.0474	0.0474
1.2	-0.1	20.2	-1.1771	0.3221	0.6503	0.0976	0.1025	0.0813	0.0813
1.2	0.1	25.2	-1.1339	0.2901	0.8074	0.0994	0.1122	0.1407	0.1407
1.2	0.1	30.3	-1.0733	0.2705	1.0475	0.0962	0.1243	0.2506	0.2506

N	ALPHA	PSI	CI	CE	CT	CNN	CNN	CNN	CHL
1.5	-0.4	-3.1	-1.2040	0.3700	-0.1493	0.1440	-0.0200	-0.0146	-0.0146
1.5	0.1	-2.0	-1.2032	0.3635	-0.0461	0.1409	-0.0144	0.0007	0.0007
1.5	0.0	0.1	-1.2044	0.3644	0.0270	0.1433	-0.0043	0.0100	0.0100
1.5	-0.1	2.0	-1.2004	0.3634	0.0914	0.1409	0.0050	0.0107	0.0107
1.5	0.1	5.0	-1.2021	0.3545	0.1044	0.1370	0.0220	0.0203	0.0203
1.5	0.0	10.1	-1.2757	0.3307	0.3441	0.1201	0.0337	0.0701	0.0701
1.5	0.0	15.1	-1.2402	0.3209	0.5193	0.1205	0.0793	0.0701	0.0701
1.5	0.0	20.2	-1.2051	0.3001	0.7005	0.1177	0.0965	0.1100	0.1100
1.5	0.1	25.2	-1.1671	0.2772	0.9941	0.1174	0.1090	0.1395	0.1395
1.5	0.1	30.3	-1.1184	0.2615	1.0027	0.1120	0.1225	0.2320	0.2320

Configuration 9
Basic Seat, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CI	CZ	CT	CNR	CMN	CML
0.6	-44.6	0.0	-0.0017	0.0203	-0.0057	0.2278	0.0191	-0.0359
0.6	-44.1	0.1	-0.0003	0.7774	-0.1003	0.2050	0.0264	-0.0005
0.6	-35.1	0.0	-0.0235	0.7238	-0.0793	0.1823	0.0196	-0.0367
0.6	-30.1	0.0	-0.0422	0.6752	-0.0644	0.1600	0.0176	0.0089
0.6	-25.1	0.0	-0.09316	0.5790	0.0073	0.1458	0.0117	0.0127
0.6	-20.2	0.1	-0.0425	0.5086	0.0356	0.1154	-0.0105	0.0254
0.6	-15.1	0.1	-0.0233	0.4737	0.0252	0.0754	-0.0094	0.0118
0.6	-10.0	0.0	-0.0035	0.4310	-0.0065	0.0274	0.0017	-0.0001
0.6	-4.0	0.0	-0.0009	0.3803	-0.0106	-0.0084	0.0000	0.0004
0.6	0.0	0.0	-0.0181	0.3232	-0.0014	-0.0167	-0.0085	0.0039
0.6	5.0	0.0	-0.0711	0.2465	-0.0066	-0.0049	0.0053	-0.0081
0.6	9.9	0.1	-0.0722	0.1548	0.0312	-0.0280	-0.0034	0.0028
0.6	15.1	0.1	-0.0561	0.0287	0.0545	-0.0744	-0.0025	0.0104
0.6	19.0	0.0	-0.0453	-0.0762	0.0345	-0.0334	0.0019	0.0171
0.6	24.0	0.0	-0.0421	-0.1555	0.0304	-0.0187	-0.0014	0.0081
0.6	30.0	0.0	-0.0382	-0.2217	0.0222	-0.0190	-0.0052	0.0054
0.6	35.1	0.0	-0.0340	-0.2963	0.0181	0.0716	-0.0002	0.0070
0.6	40.0	0.0	-0.0286	-0.3509	0.0046	0.1203	-0.0008	0.0052
0.6	45.0	0.0	-0.0259	-0.4176	-0.0015	0.1645	-0.0054	0.0036
0.6	50.2	-0.1	-0.0266	-0.4800	-0.0065	0.2034	-0.0064	0.0018
0.6	54.9	-0.1	-0.1993	-0.5261	-0.0133	0.2372	-0.0112	0.0066
0.6	60.0	0.0	-0.1698	-0.5517	0.0003	0.2620	-0.0235	0.0153
0.6	64.9	-0.1	-0.1395	-0.5680	-0.0093	0.2826	-0.0094	0.0034
0.6	70.0	-0.1	-0.1097	-0.6194	-0.0142	0.2975	-0.0065	-0.0090
0.6	75.2	0.0	-0.0730	-0.6577	0.0116	0.3035	0.0043	-0.0023

N	ALPHA	PSI	CI	CZ	CT	CNR	CMN	CML
1.2	-45.1	0.0	-1.2500	1.5082	0.0355	0.6297	-0.0282	0.0173
1.2	-39.0	0.0	-1.3332	1.4180	0.0163	0.6037	-0.0158	0.0093
1.2	-35.2	0.0	-1.4136	1.3165	-0.0074	0.5837	-0.0111	0.0033
1.2	-30.1	0.0	-1.4992	1.1081	-0.0172	0.5450	-0.0066	-0.0039
1.2	-25.2	0.0	-1.4062	0.9593	0.0055	0.5074	-0.0098	0.0034
1.2	-20.1	0.0	-1.4095	0.9199	0.0168	0.4491	-0.0128	0.0108
1.2	-14.0	0.0	-1.4317	0.7887	0.0393	0.3726	-0.0119	0.0219
1.2	-10.0	0.0	-1.4317	0.6701	0.0284	0.3014	-0.0125	0.0185
1.2	-5.0	0.0	-1.3703	0.5812	0.0194	0.2155	-0.0114	0.0137
1.2	0.0	0.0	-1.2676	0.4359	0.0116	0.1729	-0.0036	0.0051
1.2	5.0	0.0	-1.1887	0.3175	0.0399	0.1526	-0.0026	0.0155
1.2	9.0	0.0	-1.0089	0.2192	0.0413	0.1181	-0.0042	0.0107
1.2	14.0	0.0	-0.8475	0.0892	0.0377	0.1142	0.0048	0.0090
1.2	19.0	0.0	-0.6445	-0.1190	0.0460	0.0346	-0.0032	0.0172
1.2	25.1	0.0	-0.6714	-0.2116	0.0529	0.1671	-0.0120	0.0150
1.2	30.1	0.0	-0.6444	-0.2920	0.0501	0.0958	-0.0070	0.0196
1.2	35.0	0.0	-0.5954	-0.3456	0.0435	0.1437	-0.0120	0.0169
1.2	40.0	0.0	-0.5398	-0.4523	0.0383	0.1671	-0.0120	0.0150
1.2	45.0	0.0	-0.4447	-0.5916	0.0307	0.1692	-0.0059	0.0093
1.2	49.0	0.0	-0.3671	-0.6800	0.0120	0.1636	-0.0055	0.0101
1.2	55.0	0.0	-0.2697	-0.7471	0.0166	0.1608	-0.0026	0.0033
1.2	59.0	0.0	-0.2007	-0.8155	0.0296	0.1507	-0.0042	0.0089
1.2	65.0	0.0	-0.1157	-0.8973	0.0730	0.1320	-0.0171	0.0234
1.2	70.0	0.0	-0.0648	-0.9729	0.0520	0.1354	0.0017	0.0159
1.2	75.2	0.0	-0.0537	-1.0156	0.0528	0.1426	0.0171	0.0036

Configuration 10
Seat with 18 Deg. Boom and Flow Diverter, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

N	ALPHA	PSI	CX	CZ	CY	CHN	CHL	N	ALPHA	PSI	CX	CZ	CY	CHN	CHL
0.0	-15.0	-0.9	-1.1963	0.6330	0.0154	0.2318	-0.0009	0.0	-15.0	-0.9	-1.1963	0.6330	0.0154	0.2318	-0.0009
0.0	-15.0	-2.0	-1.1400	0.5325	0.1200	0.2110	-0.0737	0.0	-15.0	-2.0	-1.1400	0.5325	0.1200	0.2110	-0.0737
0.0	-14.9	0.1	-1.1664	0.5009	0.0000	0.2113	-0.0102	0.0	-14.9	0.1	-1.1664	0.5009	0.0000	0.2113	-0.0102
0.0	-15.0	2.0	-1.1919	0.5361	-0.1111	0.2292	-0.0721	0.0	-15.0	2.0	-1.1919	0.5361	-0.1111	0.2292	-0.0721
0.0	-14.9	5.0	-1.2026	0.6300	0.0100	0.2404	0.0752	0.0	-14.9	5.0	-1.2026	0.6300	0.0100	0.2404	0.0752
0.0	-15.0	10.0	-1.1774	0.6339	0.3152	0.2444	0.0770	0.0	-15.0	10.0	-1.1774	0.6339	0.3152	0.2444	0.0770
0.0	-14.9	15.1	-1.1515	0.6310	0.6469	0.2424	0.0291	0.0	-14.9	15.1	-1.1515	0.6310	0.6469	0.2424	0.0291
0.0	-15.1	20.1	-1.1000	0.6390	1.0770	0.2169	0.0496	0.0	-15.1	20.1	-1.1000	0.6390	1.0770	0.2169	0.0496
0.0	-15.0	25.3	-1.0396	0.6519	1.5264	0.1801	-0.1407	0.0	-15.0	25.3	-1.0396	0.6519	1.5264	0.1801	-0.1407
0.0	-15.0	30.5	-0.9900	0.6501	1.8029	0.1503	-0.1563	0.0	-15.0	30.5	-0.9900	0.6501	1.8029	0.1503	-0.1563
0.0	0.0	-1.9	-1.0253	0.4309	-0.0105	0.0665	-0.0791	0.0	0.0	-1.9	-1.0253	0.4309	-0.0105	0.0665	-0.0791
0.0	0.0	-1.9	-1.0297	0.4244	0.0051	0.0674	-0.0793	0.0	0.0	-1.9	-1.0297	0.4244	0.0051	0.0674	-0.0793
0.0	0.0	0.1	-1.0205	0.4104	0.0265	0.0599	-0.0193	0.0	0.0	0.1	-1.0205	0.4104	0.0265	0.0599	-0.0193
0.0	0.0	2.0	-1.0230	0.3974	0.0002	0.0457	0.0000	0.0	0.0	2.0	-1.0230	0.3974	0.0002	0.0457	0.0000
0.0	0.0	5.0	-1.0240	0.3924	0.0150	0.0570	0.0050	0.0	0.0	5.0	-1.0240	0.3924	0.0150	0.0570	0.0050
0.0	0.0	10.0	-1.0240	0.3450	0.2300	0.0802	0.0773	0.0	0.0	10.0	-1.0240	0.3450	0.2300	0.0802	0.0773
0.0	0.0	15.1	-1.0040	0.3264	0.5250	0.0302	0.1115	0.0	0.0	15.1	-1.0040	0.3264	0.5250	0.0302	0.1115
0.0	-0.1	20.2	-0.9805	0.3334	0.9526	0.0235	0.1044	0.0	-0.1	20.2	-0.9805	0.3334	0.9526	0.0235	0.1044
0.0	0.0	25.3	-0.9467	0.3910	1.1523	0.0750	0.1193	0.0	0.0	25.3	-0.9467	0.3910	1.1523	0.0750	0.1193
0.0	0.1	30.3	-0.8700	0.3010	1.5594	0.0252	0.0263	0.0	0.1	30.3	-0.8700	0.3010	1.5594	0.0252	0.0263
0.0	14.9	-5.0	-0.7503	0.1268	-0.1710	-0.0044	0.0124	0.0	14.9	-5.0	-0.7503	0.1268	-0.1710	-0.0044	0.0124
0.0	15.1	-1.9	-0.7100	0.1109	-0.0599	-0.0076	0.0057	0.0	15.1	-1.9	-0.7100	0.1109	-0.0599	-0.0076	0.0057
0.0	15.0	0.0	-0.7124	0.1020	0.0000	-0.0160	-0.0061	0.0	15.0	0.0	-0.7124	0.1020	0.0000	-0.0160	-0.0061
0.0	15.0	1.9	-0.7092	0.0966	0.1098	-0.0159	-0.0100	0.0	15.0	1.9	-0.7092	0.0966	0.1098	-0.0159	-0.0100
0.0	15.0	5.0	-0.7377	0.0839	0.2024	-0.0109	-0.0201	0.0	15.0	5.0	-0.7377	0.0839	0.2024	-0.0109	-0.0201
0.0	14.9	10.0	-0.7631	0.0369	0.3560	-0.0151	0.0291	0.0	14.9	10.0	-0.7631	0.0369	0.3560	-0.0151	0.0291
0.0	15.0	15.1	-0.7593	0.0369	0.5272	-0.0251	0.1000	0.0	15.0	15.1	-0.7593	0.0369	0.5272	-0.0251	0.1000
0.0	15.0	20.2	-0.7556	0.0820	0.7347	-0.0160	0.0657	0.0	15.0	20.2	-0.7556	0.0820	0.7347	-0.0160	0.0657
0.0	15.1	25.0	-0.7451	0.0759	1.0045	-0.0034	0.1764	0.0	15.1	25.0	-0.7451	0.0759	1.0045	-0.0034	0.1764
0.0	14.9	30.2	-0.7312	0.1193	1.4250	-0.0033	0.0813	0.0	14.9	30.2	-0.7312	0.1193	1.4250	-0.0033	0.0813

Configuration 10
Seat with 18 Deg. Boom and Flow Diverter, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

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A	ALPHA	PSI	CX	CZ	CV	CMX	CMY	CHL	CHL
0.0	-45.0	0.0	-1.0650	1.0006	-0.0457	1.3516	-0.0096	-0.0237	-0.0494
0.0	-39.9	0.0	-1.0992	1.0948	-0.0955	1.2451	0.0040	-0.0378	-0.0420
0.0	-35.1	0.0	-1.1292	1.3782	-0.1222	1.1447	0.0048	-0.0456	-0.0563
0.0	-30.1	0.0	-1.1471	1.4343	-0.0678	1.0672	0.0048	-0.0301	-0.0389
0.0	-25.1	0.0	-1.1210	1.3772	-0.0441	0.9872	-0.0013	-0.0129	-0.0408
0.0	-20.1	0.0	-1.1337	1.2807	-0.0151	0.9803	0.0054	-0.0069	-0.0031
0.0	-15.1	0.0	-1.1542	1.2633	0.0152	1.0727	0.0124	0.0173	0.0005
0.0	-10.0	0.0	-1.1231	1.1932	0.0110	0.9890	-0.0030	0.0082	0.0020
0.0	-5.0	0.0	-1.0641	1.0758	0.0085	0.8669	-0.0059	0.0010	0.015
0.0	0.0	0.0	-0.9760	0.9927	-0.0145	0.7240	-0.0068	-0.0036	0.0230
0.0	5.0	0.0	-0.8631	0.8144	-0.0069	0.4793	-0.0013	-0.0067	0.0102
0.0	10.0	0.0	-0.7327	0.6361	0.0267	0.2724	-0.0037	-0.0007	0.0126
0.0	15.0	0.0	-0.5765	0.4014	0.0543	0.0352	-0.0041	0.0180	0.0121
0.0	20.0	0.0	-0.4657	-0.1167	0.0723	-0.0739	0.0035	0.0107	0.0174
0.0	25.0	0.0	-0.3782	-0.2741	0.0375	-0.1776	-0.0062	0.0103	0.0154
0.0	30.0	0.0	-0.3144	-0.4074	0.0200	-0.2312	-0.0049	0.0117	0.0143
0.0	35.0	0.0	-0.2149	-0.5200	0.0205	-0.3034	-0.0125	0.0154	0.0073
0.0	40.0	0.0	-0.1268	-0.6006	0.0156	-0.4048	-0.0141	0.0161	0.0209
0.0	45.0	0.0	-0.0617	-0.6326	0.0153	-0.5234	-0.0167	0.0212	0.0202
0.0	50.0	0.0	-0.0494	-0.6352	0.0156	-0.6240	-0.0249	0.0165	0.0066
0.0	55.0	0.0	-0.0060	-0.5012	-0.0047	-0.6164	-0.0171	0.0140	0.0033
0.0	60.0	0.0	-0.0971	-1.1430	-0.0059	-0.5518	-0.0200	0.0149	0.0010
0.0	65.0	0.0	-0.1946	-1.1038	-0.0079	-0.4357	-0.0029	-0.0111	0.0036
0.0	70.0	0.0	-0.2596	-1.4399	0.0008	-0.2566	-0.0020	0.0036	0.0010
0.0	75.0	0.0	-0.3175	-1.4042	0.0227	-0.2975	-0.0043	0.0009	0.0010

A	ALPHA	PSI	CX	CZ	CV	CMX	CMY	CHL	CHL
1.2	-35.1	0.0	-1.1500	2.1700	-0.0362	1.7157	0.0004	-0.0172	-0.0040
1.2	-29.9	0.0	-1.0660	1.9777	-0.0245	1.6015	0.0073	-0.0154	-0.0030
1.2	-25.1	0.0	-1.0361	1.8247	-0.0161	1.5642	0.0112	-0.0150	-0.0022
1.2	-20.2	0.0	-1.2375	1.7812	0.0005	1.5640	-0.0036	0.0002	-0.0019
1.2	-15.1	0.0	-1.2304	1.6311	0.0090	1.6019	-0.0022	0.0005	-0.0059
1.2	-10.1	0.0	-1.7042	1.4667	0.0029	1.4633	-0.0037	0.0023	-0.0059
1.2	-5.0	0.0	-1.0021	1.2555	-0.0079	1.2401	0.0032	-0.0031	-0.0043
1.2	0.0	0.0	-1.4620	1.0060	0.0122	1.2423	0.0004	0.0051	0.0043
1.2	5.0	0.0	-1.2694	0.7299	0.0305	0.7472	0.0033	0.0062	0.0059
1.2	10.0	0.0	-1.0497	0.3694	0.0354	0.3490	-0.0012	0.0063	0.0100
1.2	15.0	0.0	-0.8103	0.0469	0.0193	0.1176	0.0153	-0.0090	0.0170
1.2	20.0	0.0	-0.6477	-0.1910	0.0432	-0.0401	-0.0016	0.0175	0.0247
1.2	25.0	0.0	-0.5446	-0.3465	0.0507	-0.1265	-0.0094	0.0247	0.0261
1.2	30.0	0.0	-0.4021	-0.4260	0.0540	-0.0923	-0.0100	0.0254	0.0283
1.2	35.0	0.0	-0.2395	-0.5390	0.0402	-0.1000	-0.0157	0.0213	0.0276
1.2	40.0	0.0	-0.0390	-0.7273	0.0425	-0.1087	-0.0163	0.0223	0.0255
1.2	45.0	0.0	-0.2426	-0.9807	0.0309	-0.2406	-0.0160	0.0244	0.0214
1.2	50.0	0.0	-0.2553	-0.9202	0.0464	-0.1615	-0.0119	0.0211	0.0259
1.2	55.0	0.0	-0.1745	-0.9597	0.0459	-0.1721	-0.0106	0.0263	0.0217
1.2	60.0	0.0	-0.0518	-1.1391	0.0414	-0.3952	-0.0200	0.0202	0.0171
1.2	65.0	0.0	-0.1155	-1.4137	0.0560	-0.7662	-0.0151	0.0269	0.0270
1.2	70.0	0.0	-0.1747	-1.5376	0.0566	-0.7699	-0.0110	0.0291	0.0210
1.2	75.0	0.0	-0.2077	-1.5932	0.0604	-0.8078	-0.0066	0.0253	0.0210

Configuration 11
 Seat with 18 Deg. Boom, Stabilizer and Flow Diverter, Jet Off
 MOMENT DATA ABOUT SEAT REFERENCE POINT

M	ALPHA	PSI	CX	CZ	CY	CMA	CMB	CML	M	ALPHA	PSI	CX	CZ	CY	CMA	CMB	CML
1.2	-0.3	-5.1	-1.4703	1.0500	-0.3194	1.0533	0.0127	-0.0718	1.5	-0.2	-5.1	-1.4634	0.9557	-0.3161	0.9626	-0.0162	-0.0933
1.2	0.0	-2.0	-1.4707	1.0297	-0.3167	1.0378	0.0038	-0.0891	1.5	0.0	-2.0	-1.4619	0.9659	-0.3173	0.9959	0.0009	-0.0273
1.2	0.0	0.1	-1.4640	1.0162	0.0126	1.0204	-0.0006	0.0064	1.5	0.1	0.0	-1.4624	0.9534	0.0003	0.9911	0.0060	0.0047
1.2	-0.1	2.0	-1.4647	1.0169	0.1259	1.0475	-0.0124	0.0211	1.5	-0.1	2.0	-1.4604	0.9234	0.1391	0.9628	0.0055	0.0146
1.2	0.0	5.1	-1.4733	0.9972	0.3195	1.0341	-0.0186	0.0704	1.5	0.1	5.0	-1.4553	0.8953	0.3241	0.9376	0.0027	0.0609
1.2	-0.1	10.2	-1.4455	0.9500	0.6436	0.9654	-0.0566	0.1873	1.5	-0.1	10.2	-1.4528	0.8821	0.6695	0.8977	-0.0742	0.2040
1.2	0.1	15.4	-1.3840	0.8317	0.9465	0.8027	-0.0529	0.2686	1.5	0.1	15.4	-1.4142	0.8014	1.0991	0.7751	-0.1578	0.3784
1.2	0.0	20.5	-1.3020	0.7373	1.3047	0.6454	-0.1014	0.4200	1.5	0.0	20.5	-1.3635	0.7274	1.4999	0.6400	-0.2540	0.5647
									1.5	0.0	25.6	-1.3132	0.6101	1.8774	0.5417	-0.3550	0.7567
1.2	15.0	-5.0	-0.9122	0.0679	-0.2602	0.1347	-0.0342	-0.0149	1.5	15.1	-5.1	-0.9431	0.0992	-0.3709	0.2516	0.0555	-0.1069
1.2	15.0	-2.0	-0.9551	0.0784	-0.0650	0.1250	-0.0540	0.0359	1.5	15.0	-2.0	-0.8903	0.1414	-0.1418	0.3376	0.0274	-0.0433
1.2	15.0	0.0	-0.9393	0.0725	0.0101	0.1199	0.0127	-0.0074	1.5	15.1	0.1	-0.8817	0.1531	0.0323	0.3400	-0.0093	0.0172
1.2	15.0	2.0	-0.9510	0.0306	0.1467	0.1225	0.0220	0.0029	1.5	15.0	2.1	-0.8817	0.0904	0.2045	0.3056	-0.0435	0.0720
1.2	15.0	5.1	-0.9069	0.0225	0.3140	0.1153	0.0196	0.0361	1.5	15.0	5.1	-0.9404	0.0302	0.4051	0.2242	-0.0609	0.1269
1.2	15.0	10.2	-0.7383	-0.0408	0.5870	0.0405	0.0022	0.1370	1.5	15.0	10.3	-0.9508	-0.0332	0.6938	0.1120	-0.0902	0.2207
1.2	15.0	15.3	-0.5924	-0.0727	0.8906	-0.0466	-0.0102	0.2687	1.5	14.0	15.1	-0.9400	-0.0637	0.9051	0.0339	-0.1320	0.3543
1.2	14.9	20.5	-0.9355	-0.1022	1.2699	-0.1312	-0.0810	0.4205	1.5	15.0	20.6	-0.9603	-0.1073	1.4251	-0.0450	-0.2601	0.5503
									1.5	14.9	25.6	-0.9328	-0.1477	1.8392	-0.1290	-0.3591	0.7356
1.2	30.1	-5.0	-0.6406	-0.3493	-0.3428	-0.0220	0.0138	-0.0914	1.5	30.2	-5.0	-0.6301	-0.5333	-0.3180	-0.2124	0.0553	-0.1247
1.2	29.9	-2.1	-0.6266	-0.3608	-0.1256	-0.0161	-0.0069	-0.0291	1.5	29.9	-2.0	-0.6541	-0.502	-0.0853	-0.1703	0.0017	-0.0300
1.2	30.0	0.1	-0.5993	-0.4379	0.0365	-0.0969	-0.0113	0.0224	1.5	30.0	0.1	-0.6442	-0.5195	0.0473	-0.1036	-0.0197	0.0266
1.2	30.0	2.0	-0.6184	-0.4204	0.1947	-0.0545	-0.0209	0.0467	1.5	30.0	2.0	-0.6537	-0.5276	0.1908	-0.1751	-0.0502	0.0805
1.2	29.9	5.2	-0.6336	-0.4018	0.3122	-0.0494	-0.0469	0.1203	1.5	29.9	5.1	-0.6303	-0.5594	0.4102	-0.2004	-0.1025	0.1779
1.2	30.1	10.3	-0.6637	-0.3950	0.7967	-0.0326	-0.1293	0.2628	1.5	30.2	10.2	-0.6344	-0.5076	0.8106	-0.1501	-0.1921	0.3248
1.2	29.9	15.4	-0.6704	-0.3462	1.1519	-0.0180	-0.2059	0.4099	1.5	29.9	15.4	-0.6631	-0.4972	1.2022	-0.1354	-0.2029	0.4667
1.2	30.0	20.6	-0.6501	-0.4003	1.0663	-0.0302	-0.2916	0.5469	1.5	30.1	20.5	-0.6735	-0.5063	1.5609	-0.1304	-0.3774	0.6446
1.2	30.0	25.7	-0.6234	-0.4061	1.0171	-0.0740	-0.3085	0.7006	1.5	29.9	25.6	-0.6598	-0.5095	1.8895	-0.1537	-0.4603	0.7803

Configuration 11
 Seat with 18 Deg. Boom, Stabilizer and Flow Diverter, Jet Off
 MOMENT DATA ABOUT SEAT REFERENCE POINT

0.6	ALPHA	PSI	CL	CZ	CT	CNN	CNN	CNN	ALPHA	PSI	CI	CZ	CT	CNN	CNN	CNN	CML
0.6	-44.9	0.0	-1.3910	1.7420	-0.0491	1.7494	-0.0495	0.0001	0.9	-44.9	0.0	-1.6007	1.9033	-0.0505	1.9702	-0.0126	0.0204
0.6	-39.9	0.0	-1.4353	1.7179	-0.0570	1.6923	-0.0141	-0.0021	0.9	-39.9	0.0	-1.6596	1.9738	-0.0534	1.9084	-0.0100	0.0035
0.6	-35.2	0.0	-1.4961	1.6711	-0.1330	1.6629	0.0097	-0.0497	0.9	-35.2	0.0	-1.7121	1.9156	-0.0791	1.8519	0.0008	0.0216
0.6	-30.1	0.0	-1.5337	1.5910	-0.1080	1.6671	0.0090	-0.0334	0.9	-30.1	0.0	-1.7330	1.7995	-0.0488	1.7773	0.0001	-0.0246
0.6	-25.2	0.0	-1.5940	1.4164	-0.0517	1.5374	-0.0004	-0.0234	0.9	-25.2	0.0	-1.7350	1.6492	-0.0652	1.6496	0.0095	-0.0312
0.6	-20.0	0.0	-1.4426	1.2737	-0.0350	1.3956	0.0050	-0.0174	0.9	-20.0	0.0	-1.7215	1.5509	-0.0633	1.6005	0.0108	-0.0334
0.6	-14.9	0.0	-1.3012	1.1644	-0.0239	1.2402	0.0050	-0.0115	0.9	-14.9	0.0	-1.7010	1.4207	-0.0545	1.5546	0.0122	-0.0300
0.6	-10.1	0.0	-1.3500	1.0805	-0.0162	1.1596	0.0047	-0.0083	0.9	-10.1	0.0	-1.6326	1.2897	-0.0317	1.4135	-0.0019	-0.0004
0.6	-5.0	0.0	-1.3040	1.0290	-0.0110	1.1150	0.0013	-0.0109	0.9	-5.1	0.0	-1.5523	1.1499	-0.0011	1.2437	-0.0043	0.0022
0.6	0.0	0.0	-1.2900	0.9177	0.0159	1.1348	-0.0196	0.0150	0.9	0.1	0.0	-1.4695	0.9494	-0.0001	1.1266	-0.0072	0.0032
0.6	5.0	0.0	-1.2193	0.8177	0.0159	1.1966	-0.0121	0.0130	0.9	5.0	0.0	-1.3772	0.8635	-0.0026	1.1151	0.0011	-0.0017
0.6	9.9	0.0	-1.0968	0.7764	0.0231	1.0757	-0.0105	0.0105	0.9	9.9	0.0	-1.2833	0.8455	0.0402	1.1592	-0.0190	0.0107
0.6	14.9	0.0	-0.9232	0.5991	0.0596	0.9239	-0.0175	0.0127	0.9	14.9	0.0	-1.0304	0.6450	0.0408	0.8104	-0.0190	0.0266
0.6	19.9	0.0	-0.7075	0.3401	0.0370	0.6900	0.0003	0.0107	0.9	19.9	0.0	-0.7608	0.2300	0.0302	0.4552	-0.0046	0.0046
0.6	25.1	0.0	-0.5354	0.1657	0.0334	0.4361	-0.0010	0.0087	0.9	25.1	0.0	-0.5922	0.0133	0.0237	0.2412	0.0019	-0.0008
0.6	30.1	0.0	-0.4986	-0.0571	0.0285	0.2592	-0.0091	0.0157	0.9	30.1	0.0	-0.5207	-0.1177	0.0301	0.1715	-0.0011	0.0116
0.6	35.0	0.0	-0.3872	-0.2271	0.0297	0.1781	-0.0090	0.0151	0.9	35.1	0.0	-0.4312	-0.2656	0.0415	0.1027	-0.0106	0.0237
0.6	39.9	0.0	-0.2781	-0.3679	0.0158	0.0826	-0.0083	0.0134	0.9	40.0	0.0	-0.3514	-0.3719	0.0307	0.0954	-0.0106	0.0229
0.6	45.0	0.0	-0.1806	-0.5210	0.0182	-0.0523	-0.0090	0.0165	0.9	45.0	0.0	-0.2322	-0.5303	0.0378	-0.0114	-0.0163	0.0304
0.6	49.9	0.0	-0.0651	-0.6687	0.0239	-0.1793	-0.0213	0.0260	0.9	49.9	0.0	-0.1408	-0.6557	0.0600	-0.0507	-0.0259	0.0454
0.6	55.1	0.0	-0.0102	-0.7227	0.0168	-0.1901	-0.0259	0.0274	0.9	55.1	0.0	-0.1190	-0.6927	0.0650	0.0159	-0.0267	0.0349
0.6	59.8	0.0	0.0310	-0.8020	0.0141	-0.2524	-0.0297	0.0274	0.9	59.8	0.0	-0.0508	-0.7816	0.0734	-0.0652	-0.0307	0.0427
0.6	65.1	0.0	0.1186	-0.9054	0.0134	-0.3627	-0.0353	0.0191	0.9	65.0	0.0	0.0068	-0.9201	0.0946	-0.2249	-0.0237	0.0465
0.6	70.2	0.0	0.2373	-1.0458	0.0123	-0.5236	-0.0081	0.0104	0.9	70.2	0.0	0.1677	-1.1078	0.1075	-0.4077	-0.0209	0.0499
0.6	75.1	0.0	0.3072	-1.2102	0.0321	-0.6710	-0.0064	0.0144	0.9	75.2	0.0	0.3331	-1.3262	0.0611	-0.6316	-0.0239	0.0426

1.2	ALPHA	PSI	CL	CZ	CT	CNN	CNN	CNN	ALPHA	PSI	CI	CZ	CT	CNN	CNN	CNN	CML
1.2	-44.9	-0.1	-1.0865	2.1749	0.0049	2.2035	-0.0173	0.0120	1.5	0.1	0.0	-1.0792	1.2406	0.0312	1.8155	-0.0149	0.0174
1.2	-40.0	-0.1	-1.0953	2.2135	0.0079	2.1915	-0.0119	0.0064	1.5	4.9	0.0	-1.0925	1.0137	0.0371	1.5800	-0.0103	0.0150
1.2	-35.0	-0.1	-1.1928	2.1173	-0.0160	2.1320	-0.0056	-0.0011	1.5	9.9	0.0	-1.4605	0.7993	0.0300	1.3356	-0.0106	0.0174
1.2	-30.0	-0.1	-1.9609	1.9901	-0.0050	2.0530	0.0034	-0.0003	1.5	14.0	0.0	-1.2200	0.5558	0.0443	1.1564	-0.0203	0.0224
1.2	-25.2	-0.1	-1.9550	1.8721	-0.0036	1.9765	0.0033	-0.0072	1.5	19.9	0.0	-0.9418	0.2700	0.0401	0.8552	-0.0137	0.0252
1.2	-20.0	-0.1	-1.9444	1.7352	-0.0312	1.9236	0.0047	-0.0156	1.5	25.0	0.0	-0.8319	-0.0177	0.0511	0.4721	-0.0146	0.0278
1.2	-14.9	-0.1	-1.9002	1.6359	-0.0010	1.9259	-0.0023	0.0084	1.5	30.1	0.0	-0.7607	-0.2327	0.0625	0.2603	-0.0190	0.0332
1.2	-10.1	-0.1	-1.9511	1.5066	0.0050	1.8720	-0.0034	0.0042	1.5	35.2	0.0	-0.6017	-0.4419	0.0651	0.0537	-0.0171	0.0334
1.2	-5.0	-0.1	-1.9001	1.3741	0.0053	1.7673	0.0008	0.0006	1.5	39.9	0.0	-0.4959	-0.6431	0.0678	-0.0824	-0.0204	0.0338
1.2	0.0	-0.1	-1.8467	1.2170	0.0185	1.7305	-0.0087	0.0134	1.5	44.9	0.0	-0.3807	-0.8005	0.0727	-0.1770	-0.0293	0.0415
1.2	5.0	-0.1	-1.6956	1.0349	0.0305	1.6135	-0.0065	0.0099	1.5	50.0	0.0	-0.3122	-0.8655	0.0700	-0.1421	-0.0299	0.0419
1.2	9.9	-0.1	-1.4729	0.8234	0.0430	1.3011	-0.0157	0.0153	1.5	55.0	0.0	-0.2532	-0.8934	0.0826	-0.0984	-0.0318	0.0410
1.2	14.9	-0.1	-1.2345	0.6392	0.0519	1.1664	-0.0161	0.0263	1.5	59.8	0.0	-0.1302	-0.9949	0.0852	-0.2258	-0.0346	0.0497
1.2	19.9	-0.1	-0.9655	0.2950	0.0426	0.8404	-0.0087	0.0182	1.5	65.1	0.0	-0.0050	-1.1675	0.0691	-0.3675	-0.0356	0.0534
1.2	25.0	-0.1	-0.8159	-0.0175	0.0490	0.4239	-0.0071	0.0154	1.5	70.2	0.0	0.1370	-1.2950	0.0924	-0.5126	-0.0294	0.0549
1.2	30.0	-0.1	-0.6082	-0.1985	0.0474	0.2306	-0.0020	0.0092	1.5	75.3	0.0	0.3019	-1.4598	0.0660	-0.7763	-0.0099	0.0456
1.2	35.1	-0.1	-0.6334	-0.2693	0.0429	0.2120	-0.0080	0.0154									
1.2	40.0	0.0	-0.5178	-0.4599	0.0349	0.1519	-0.0154	0.0250									
1.2	45.0	-0.1	-0.3773	-0.6477	0.0330	0.0205	-0.0182	0.0242									
1.2	50.0	0.0	-0.2426	-0.8166	0.0293	-0.1107	-0.0210	0.0251									
1.2	55.0	0.0	-0.2003	-0.8012	0.0455	-0.0055	-0.0208	0.0288									
1.2	59.9	0.0	-0.1312	-0.8527	0.0430	-0.0269	-0.0354	0.0468									
1.2	65.1	0.0	-0.0045	-0.9052	0.0096	-0.1770	-0.0443	0.0530									
1.2	70.2	0.0	0.1409	-1.1044	0.0096	-0.4409	-0.0443	0.0601									
1.2	75.3	0.0	0.2920	-1.3060	0.0059	-0.7393	-0.0295	0.0634									

Configuration 12
Seat with 35 Deg. Boom, Stabilizer and Flow Diverter, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

A	ALPHA	PSI	CH	CZ	CV	CNN	CMN	CHL	N	ALPHA	PSI	CH	CZ	CV	CNN	CMN	CHL
0.0	0.0	-5.0	-1.3101	1.0276	-0.1723	1.2391	-0.0236	-0.0349	0.9	-0.4	-5.0	-1.4937	1.0401	-0.1406	1.2018	-0.0359	-0.0108
0.0	0.1	-1.0	-1.3118	1.0166	-0.0372	1.2407	-0.0232	0.0650	0.9	0.0	-1.0	-1.4944	1.0214	-0.0285	1.1701	-0.0302	0.0115
0.0	0.0	0.0	-1.3192	1.0252	0.0242	1.2422	-0.0198	0.0216	0.9	0.0	0.1	-1.4953	1.0163	0.0095	1.1702	-0.0093	0.0047
0.0	-0.1	2.0	-1.3229	1.0201	0.0861	1.2468	-0.0121	0.0352	0.9	-0.1	2.0	-1.4993	1.0109	0.0373	1.1698	0.0173	-0.0061
0.0	0.0	5.0	-1.3197	1.0249	0.2120	1.2499	-0.0107	0.0717	0.9	0.2	5.0	-1.4964	1.0093	0.0874	1.2072	0.0538	-0.0206
0.0	0.0	10.0	-1.3271	1.0362	0.3146	1.2526	-0.0131	0.1780	0.9	-0.1	10.0	-1.5344	1.0264	0.3352	1.2445	0.0653	0.0259
0.0	0.0	15.0	-1.2676	1.0166	0.0923	1.1810	0.0134	0.3109	0.9	0.0	15.1	-1.5050	1.0324	0.6706	1.2717	0.0721	0.1233
0.0	0.0	20.2	-1.2375	0.9567	1.1808	1.1229	0.0295	0.3675	0.9	0.0	20.1	-1.4591	1.0070	1.0300	1.2256	0.0393	0.2408
0.0	0.0	25.5	-1.1603	0.8894	1.5539	0.9772	-0.0167	0.5208	0.9	-0.1	25.4	-1.3786	0.9809	1.4105	1.1450	-0.0057	0.3908
0.0	0.0	30.4	-1.0793	0.7753	1.9234	0.8301	-0.0199	0.8017	0.9	0.1	30.3	-1.2708	0.8387	1.7918	1.0126	-0.0036	0.5861
0.0	15.0	-3.0	-0.9394	0.5915	-0.2190	0.9150	-0.0326	-0.0297	0.9	14.9	-3.0	-1.0645	0.6054	-0.1676	0.8536	-0.0007	0.0215
0.0	15.0	-2.0	-0.9400	0.5976	-0.0669	0.9377	-0.0143	-0.0024	0.9	15.0	-1.0	-1.0304	0.5638	-0.0420	0.8649	-0.0004	0.0248
0.0	15.0	0.1	-0.9432	0.5858	0.0081	0.9200	-0.0103	0.0198	0.9	15.0	0.1	-1.0149	0.5464	0.0409	0.7862	-0.0178	0.0279
0.0	15.1	2.0	-0.9332	0.5741	0.1554	0.9094	-0.0117	0.0495	0.9	15.0	2.0	-1.0168	0.5320	0.1373	0.7912	-0.0338	0.0312
0.0	14.9	5.0	-0.9150	0.5306	0.3156	0.8640	0.0010	0.0807	0.9	15.0	5.0	-1.0575	0.5507	0.2366	0.8300	-0.0193	0.0677
0.0	15.1	10.1	-0.8912	0.4396	0.5483	0.7378	0.0240	0.1132	0.9	15.0	10.0	-1.0634	0.4864	0.3728	0.7745	0.0486	-0.0347
0.0	14.9	15.1	-0.8710	0.3792	0.7453	0.6141	0.0790	0.1308	0.9	15.0	15.1	-1.0375	0.4253	0.4305	0.6608	0.0659	0.0653
0.0	15.1	20.1	-0.8476	0.3518	1.0647	0.5304	0.0811	0.2348	0.9	15.0	20.1	-0.9895	0.3687	0.9710	0.5482	0.0386	0.2246
0.0	14.9	25.4	-0.7916	0.2962	1.4376	0.4076	0.0343	0.3994	0.9	15.1	25.4	-0.9268	0.3146	1.3306	0.4308	0.0094	0.3737
0.0	15.0	30.5	-0.7097	0.2467	1.7604	0.2606	0.0021	0.5354	0.9	15.0	30.3	-0.8391	0.2408	1.7267	0.2908	-0.0540	0.5613
0.0	20.9	-5.1	-0.9667	-0.0578	-0.1922	0.2732	-0.0690	-0.0012	0.9	30.0	-5.0	-0.5302	-0.1213	-0.1728	0.1146	-0.0772	0.0180
0.0	30.0	-1.9	-0.9852	-0.0503	-0.0447	0.2644	-0.0280	0.0000	0.9	30.0	-1.9	-0.5249	-0.1109	-0.0147	0.1414	-0.0603	0.0514
0.0	20.9	0.1	-0.9105	-0.0500	0.0371	0.3093	-0.0098	0.0194	0.9	29.9	0.1	-0.5305	-0.1150	0.0414	0.1697	-0.0013	0.0120
0.0	30.0	1.9	-0.9030	-0.0672	0.1003	0.2964	0.0174	0.0196	0.9	30.0	2.0	-0.5277	-0.1633	0.0927	0.1272	0.0451	-0.0120
0.0	30.0	5.0	-0.9029	-0.1023	0.2306	0.2645	0.0615	0.0300	0.9	30.0	5.0	-0.5271	-0.1909	0.2281	0.1013	0.0666	0.0020
0.0	30.0	10.1	-0.9702	-0.1308	0.5059	0.1754	0.1035	0.0607	0.9	30.0	10.0	-0.5343	-0.2409	0.4749	0.0327	0.1111	0.0352
0.0	30.0	15.1	-0.9214	-0.2581	0.9252	0.0340	0.1157	0.1717	0.9	30.0	15.1	-0.5109	-0.2409	0.7074	-0.0327	0.1145	0.1424
0.0	30.0	20.3	-0.9575	-0.3498	1.1406	-0.1073	0.0860	0.2872	0.9	30.0	20.2	-0.5022	-0.3172	1.1255	-0.0648	0.0016	0.3198
0.0	30.0	25.4	-0.9113	-0.3707	1.5211	-0.1909	0.0271	0.4426	0.9	30.0	25.2	-0.4848	-0.3302	1.4658	-0.1209	-0.0648	0.4753
0.0	30.0	30.4	-0.8730	-0.3682	1.8814	-0.2437	-0.0430	0.6101	0.9	29.9	30.4	-0.4599	-0.3091	1.9059	-0.1493	-0.1762	0.6847

Configuration 12
Seat with 35 Deg. Boom, Stabilizer and Flow Diverter, Jet Off
MOMENT DATA ABOUT SEAT REFERENCE POINT

