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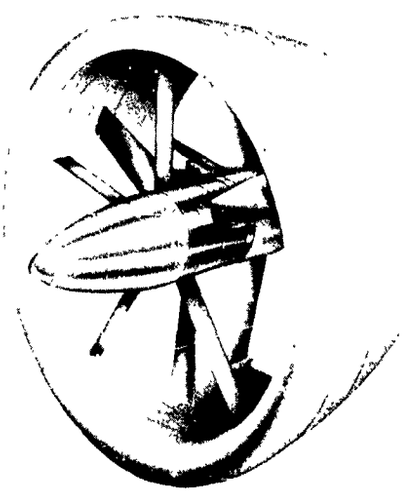
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HSER 4348
VOLUME 4 of 4

ENGINEERING REPORT

SHROUDED PROPELLER TEST PROGRAM DATA

AD820762



PHASE 1
CONTRACT NOW 64-0707-d
MAY , 1967

Hamilton Standard
DIVISION OF UNITED AIRCRAFT CORPORATION

HSER 4348
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ENGINEERING REPORT

SHROUDED PROPELLER TEST PROGRAM DATA

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United Aircraft Research Laboratories

UNITED AIRCRAFT CORPORATION

EAST HARTFORD, CONNECTICUT

Report E330590-1

Wind Tunnel Tests

of Shrouded Propellers

~~VOLUME III OF III~~

Volume IV of IV

REPORTED BY A. W. Simmonds

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DATE 3/20/67

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Report E330590-1

Wind Tunnel Tests

of Shrouded Propellers

Volume III

The data in this volume consist of tabulations of Phase I - 8-Ft Test Section Pressure Data (Inlet and Exit Pressure Data for Performance Runs), Phase I - 18- and 8-Ft Test Section Traversing Probe Data, and Phase I - 18- and 8-Ft Test Section Pressure Data (Inlet Velocities, Exit Pressures and Shroud Surface Pressures for Pressure Runs).

For explanatory text, list of data symbols, appendices, tables and performance data figures see Volume I. For tabulations of Performance Data and Phase I - 18-Ft Test Section Shroud Inlet Velocities (for Performance Runs) see Volume II.

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 434- 2 CONFIGURATION L1C1E1B4PNTT1R1RE THETA 3/4 = 20.0 DEG RPM

HO = 14.850 PSIA PINF = 14.449 PSIA TSC = 64.35 DEG F RHO = 0.00232 SLUGS/CU FT

M = 0.2046 V = 229.11 FPS Q = 60.955 PSF pSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	219.91	212.91	208.48	208.48	205.50	205.50	203.99	203.99	176.30	209.75	205.48

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12
RE	14.80	14.87	14.92	14.94	14.95	14.94	14.94	14.93	14.92	14.45	14.92	14.91

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.55	14.87	14.86	14.82	14.77	14.74	14.72	14.71	14.66	14.66	14.85	14.85

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 435- 4 CONFIGURATION L1C1E1B4PNTT1R1RE 8 0 THETA 3/4 = 34.0 DEG RPM 5500.

HO = 14.849 PSIA PINF = 13.967 PSIA TSC = 68.26 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3070 V = 343.18 FPS Q = 132.693 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	369.13	360.55	348.76	348.76	339.38	334.63	332.71	330.78	257.56	330.78	335.30

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.78	14.82	14.87	14.90	14.90	14.99	15.00	15.00	15.00	14.01	15.02	15.01	15.02

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.28	14.99	14.99	14.97	14.95	14.92	14.88	14.86	14.68	14.46	14.85	14.85

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 438- 4 CONFIGURATION L1C1E1B4PNTT1R1RE THETA 3/4 = 42.0 DEG RPM 6001.

HO = 14.830 PSIA PINF = 13.282 pSIA TSC = 74.24 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4131 V = 461.06 FPS Q = 228.055 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	502.72	493.13	475.78	472.93	456.98	452.55	448.09	443.58	379.93	441.87	456.76

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.64	14.73	14.81	14.89	14.97	15.02	15.06	15.07	15.08	13.47	15.12	15.13	15.14

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.10	15.13	15.11	15.09	15.08	15.05	15.03	14.98	14.65	14.19	14.83	14.84

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 439- 4 CONFIGURATION L1C1E1B4PNTT1R1RE 0 THETA 3/4 = 46.0 DEG RPM 6000.

HO = 14.829 PSIA PINF = 13.937 PSIA TSC = 69.69 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3089 V = 345.74 FPS Q = 1? .859 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	471.89	508.85	431.28	429.75	407.95	403.09	396.40	391.42	331.23	386.15	415.80

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.79	14.96	15.04	15.08	15.09	14.83	14.83	14.83	14.83	14.83	14.83	14.83	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.84	14.83	15.40	15.41	15.43	15.43	15.40	15.34	15.14	14.49	14.83	14.83

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 440- 4 CONFIGURATION L1C1E184PRITIR1RE THETA 3/4 = 46.0 DEG RPM 6000.

HO = 14.830 PSIA PINF = 13.305 PSIA TSC = 74.24 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4097 V = 457.39 FPS Q = 224.715 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	520.10	513.75	495.63	494.94	476.87	470.45	464.69	458.87	393.48	456.01	474.48

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.67	14.80	14.87	14.90	14.96	14.82	14.83	14.82	14.82	13.68	15.00	15.01	15.04

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.55	15.01	15.27	15.27	15.27	15.26	15.25	14.91	14.90	14.22	14.83	14.83

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 441- 6 CONFIGURATION L1C1E1B4PNTT1R1RE 0 THETA 3/4 = 46.0 DEG RPM 5500.

Ho = 14.820 PSIA PINF = 12.508 pSIA TSC = 82.96 DEG F RHO = 0.002o2 SLUGs/Cu FT

M = 0.5147 V = 573.87 FPS Q = 332.979 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	759.43	582.50	568.04	564.25	546.96	541.11	535.96	533.32	506.24	529.17	566.70

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.24	14.46	14.67	14.83	14.91	14.81	14.81	14.82	14.32	12.95	15.10	14.93	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	13.75	14.91	14.93	14.91	14.88	14.86	14.82	14.71	14.38	13.69	1[illegible].82	14.83

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - pT NO 442- 6 CONFIGURATION L1C1E1B4PNTT1R1RE 0 THETA 3/4 = 50.0 DEG RPM 5501.

HO = 14.825 PSIA PINF = 13.301 PSIA TSC = 76.85 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4098 V = 458.55 FPS Q = 224.694 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	0.	512.45	493.34	493.34	475.60	469.11	464.74	460.34	417.45	455.08	424.14

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.69	14.82	14.86	14.87	14.93	14.82	14.81	14.81	14.81	13.99	14.83	14.83	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.83	15.26	15.27	15.26	15.25	15.25	14.77	14.85	14.21	14.83	14.83

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 443- 6 CONFIGURATION 11C1E184PNTT1R1RE THETA 3/4 = 50.0 DEG RPM 5502.

HO = 14.838 PSIA PINF = 12.516 PSIA TSC = 82.31 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5156 V = 574.49 FPS Q = 334.363 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	620.92	606.74	588.13	585.06	567.08	558.88	552.61	546.83	485.43	546.83	565.85

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.42	14.56	14.68	14.81	14.94	15.02	15.07	15.08	15.11	12.77	15.08	15.15	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.04	15.14	15.12	15.12	15.10	15.08	15.02	14.75	14.63	13.75	14.83	14.84

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 466- 4 CONFIGURATION L1C1E1R4PNTT1R1RE THETA 3/4 = 54.0 DEG RPM 5544.

HO = 14.845 PSIA PINF = 13.318 PSIA TSC = 75.55 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4099 V = 458.14 FPS Q = 225.120 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	525.59	518.37	499.68	498.99	481.46	475.08	467.28	462.93	364.28	459.88	475.35

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.70	14.85	14.94	14.98	15.01	15.04	15.10	15.16	15.23	13.57	15.30	15.34	15.34

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.65	15.36	15.34	15.32	15.30	15.29	15.25	14.80	14.96	14.23	14.84	14.85

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 445- 4 CONFIGURATION L1C1E184PNT1R1RE THETA 3/4 = 54.0 DEG RPM 5500.

HO = 14.851 PSIA PINF = 12.537 PSIA TSC = 79.84 DEG F RHO = 0.00204 SLUGS/CU FT

M = 0.5143 V = 571.78 FPS Q = 333.214 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	639.44	625.50	606.54	604.75	584.12	576.14	569.62	562.11	489.02	558.07	581.53

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.48	14.63	14.70	14.78	14.89	14.84	14.85	14.84	14.84	13.06	14.87	14.85	14.85

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.85	15.33	15.32	15.31	15.29	15.27	14.79	14.75	13.78	14.85	14.85

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 446- 6 CONFIGURATION L1C1E1B4PNT1R1RE THETA 3/4 = 58.0 DEG RPM 5003.

HO = 14.858 PSIA PINF = 12.546 PSIA TSC = 78.15 DEG F RHO = 0.00205 SLUGS/CU FT

M = 0.5139 V = 570.48 FPS Q = 332.959 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	633.63	620.22	601.32	598.93	578.42	569.78	564.80	556.63	492.14	551.15	576.70

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.46	14.60	14.67	14.76	14.86	14.85	14.85	14.84	14.84	12.98	14.99	15.16	15.17

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.48	15.20	15.28	15.28	15.28	15.27	15.25	14.78	14.78	13.79	14.85	14.86

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 449- 3 CONFIGURATION L1C1F1B3PR1R1RF THETA 3/4 = 34.0 DEG RPM 5504.

HO = 14.860 PSIA PINF = 13.981 PSIA TSC = 71.64 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3062 V = 363.50 FPS Q = 132.023 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	375.02	363.81	352.13	349.38	339.15	336.31	332.55	328.69	227.59	330.35	333.50

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.71	14.78	14.86	14.93	14.97	14.98	14.98	14.98	15.00	14.04	14.99	15.00	14.99

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.76	14.99	15.00	14.99	14.99	14.98	14.96	14.82	14.79	14.47	14.86	14.86

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 450- 4 CONFIGURATION L1C1E1R3P$_R$T1R1RF THETA 3/4 = 38.0 DEG RPM 5999.

HO = 14.859 PSIA PINF = 13.975 PSIA TSC = 72.81 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.3072 V = 344.94 FPS Q = 132.797 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	410.36	403.47	389.54	387.87	375.02	368.92	362.80	359.22	292.46	357.48	370.71

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.77	14.86	14.92	14.97	15.02	15.07	15.09	15.11	15.13	14.07	15.15	15.16	15.17

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	15.18	15.18	15.19	15.20	15.20	15.19	14.81	14.99	14.50	14.86	14.86

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 451- 4 CONFIGURATION L1C1E1B3PRT1R1RE THETA 3/4 = 42.0 DEG RPM 6003.

HO = 14.868 PSIA PINF = 13.971 PSIA TSC = 71.64 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3093 V = 346.87 FPS Q = 134.577 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	432.89	426.84	412.75	411.96	394.13	388.31	382.61	378.15	310.94	373.69	391.21

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.81	14.90	14.98	15.01	15.03	15.07	15.12	15.16	15.20	14.08	15.25	15.26	15.28

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.02	15.32	15.33	15.34	15.36	15.37	15.37	14.82	15.15	14.52	14.87	14.87

TABLE VII E330590 - 1

MSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 452- 4 CONFIGURATION L1C1E1B3PRT1R1RE THETA 3/4 = 42.0 DEG RPM 5501.

HO = 14.860 PSIA PINF = 13.321 PSIA TSC = 76.85 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4115 V = 460.43 FPS Q = 226.930 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	493.91	478.03	462.22	462.22	446.78	440.75	436.18	432.34	333.57	433.62	441.96

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.60	14.68	14.79	14.90	14.97	14.98	15.00	15.01	15.03	13.51	15.03	15.05	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.73	15.06	15.06	15.06	15.05	15.05	15.04	14.80	14.76	14.21	14.86	14.87

TABLE VII F330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 453- 3 CONFIGURATION L1C1E1B3PRT1R1RE THETA 3/4 = 46.0 DEG RPM 6002.

HO = 14.860 PSIA PINF = 13.969 PSIA TSC = 72.81 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.3083 V = 366.18 FPS Q = 133.716 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	C6	07	09	10	12	13	15	V AVE
R1	439.25	435.13	420.98	419.41	402.59	396.85	390.26	386.05	320.67	378.78	399.00

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.81	14.92	14.99	15.05	15.08	15.11	15.15	15.20	15.25	14.13	15.33	15.36	15.38

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.42	15.42	15.34	15.42	15.43	15.44	15.41	14.83	15.17	14.53	14.87	14.87

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 456- 4 CONFIGURATION 11C1E183PRT1R1RE THETA 3/4 = 46.0 DEG RPM 6002.

HO = 14.859 PSIA PINF = 13.312 PSIA TSC = 73.46 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4127 V = 460.24 FPS Q = 228.059 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	529.41	517.77	500.92	499.56	480.91	475.26	469.02	463.26	362.18	461.97	476.03

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.67	14.78	14.84	14.89	14.96	15.04	15.11	15.15	15.18	13.62	15.23	15.25	15.26

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.27	15.30	15.24	15.33	15.35	15.36	15.36	14.80	15.02	14.23	14.85	14.85

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 455- 6 CONFIGURATION LIC1E183PRT1R1RE THETA 3/4 = 46.0 DEG RPM 5500.

HO = 14.869 PSIA PINF = 12.550 PSIA TSC = 80.75 DEG F RHO = 0.00204 SLUGS/CU FT

M = 0.5166 V = 572.55 FPS Q = 333.917 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	608.83	584.96	565.93	565.31	547.69	540.61	536.72	530.18	502.10	529.62	551.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.29	14.48	14.70	14.87	14.94	14.93	14.95	14.96	14.97	12.91	14.86	14.96	14.97

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.97	14.97	14.88	14.98	14.97	14.95	14.93	14.79	14.56	13.74	14.86	14.87

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 456- 6 CONFIGURATION (1C1E)B3PRT1R1RG THETA 3/4 = 50.0 DEG RPM 5502.

HO = 14.877 PSIA PINF = 13.327 PSIA TSC = 75.55 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4128 V = 461.29 FPS Q = 228.478 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	530.05	516.53	499.13	498.43	479.36	474.29	470.72	464.09	448.89	460.19	484.17

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.78	14.85	14.89	14.96	15.02	15.10	15.15	15.19	13.59	15.19	15.24	15.27

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.28	15.31	15.26	15.33	15.35	15.36	15.35	14.83	15.04	14.22	14.88	14.88

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 457- 3 CONFIGURATION L1C1E1B3PRT1R1RE THETA 3/4 = 50.0 DEG RPM 5508.

HO = 14.870 PSIA PINF = 12.551 PSIA TSC = 80.36 DEG F RHO = 0.00204 SLUGS/CU FT

M = 0.5146 V = 572.39 FPS Q = 333.987 PSF pSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	628.20	607.15	587.22	586.00	566.91	558.13	553.80	546.79	456.24	545.50	563.59

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.38	14.51	14.68	14.85	14.97	14.85	14.85	14.85	14.86	13.22	14.82	15.03	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.06	15.06	15.06	15.16	15.16	15.15	15.13	14.82	14.71	13.79	14.88	14.88

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 3 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 460- 4 CONFIGURATION L1C1E183PRT1R1RE THETA 3/4 = 54.0 DEG RPM 5900.

HO = 14.854 PSIA PINF = 12.537 PSIA TSC = 84.52 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5146 V = 574.63 FPS Q = 333.679 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	658.69	642.03	618.97	618.38	595.57	587.66	582.24	574.20	447.86	570.05	589.57

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.42	14.50	14.61	14.76	14.90	14.84	14.84	14.84	14.85	13.33	14.84	14.86	14.87

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.87	14.87	15.34	15.43	15.45	15.45	15.42	14.80	14.87	13.82	14.85	14.86

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 461- 6 CONFIGURATION L1C1E1R3PRT1R1RE THETA 3/4 = 42.0 DEG RPM 5844.

HO = 14.851 PSIA PINF = 12.539 PSIA TSO = 87.65 DEG F RHO = 0.002o1 SLUGS/CU FT

M = 0.5140 V = 575.60 FPS Q = 332.902 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-0.01	0.08	0.07	0.08	0.10	0.11	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
S1B	-0.01	-0.01	-0.01	-0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
S2T	0.08	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.05
S2B	0.08	0.07	0.08	0.08	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01					
S1B	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
S2T	-0.04	-0.05	-0.05	-0.04	-0.04	-0.04	-0.04					
S2B	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.04	-0.04

INLET VELOCITIES, FPS

RIFICE	01	03	04	06	07	09	10	12	13	15	V AVE

EXIT RAKE PRESSURES, PSIA

RIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.18	14.44	14.67	14.83	14.88	14.88	14.88	14.89	14.88	12.91	14.84	14.87	14.87

RIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.86	14.86	14.80	14.85	14.84	14.82	14.79	14.79	14.48	13.70	14.85	14.85

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 463- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 25.0 DEG RPM 5499.

HO = 14.809 PSIA PINF = 14.402 PSIA TSC = 71.64 DEG F RHO = 0.00228 SLUGS/CU FT

M = 0.2065 V = 232.78 FPS Q = 61.866 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	269.48	263.58	253.91	252.67	246.39	241.25	239.95	236.00	189.18	238.75	243.12

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.75	14.80	14.85	14.89	14.91	14.89	14.89	14.90	14.92	14.44	14.93	14.92	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.93	14.93	14.93	14.93	14.93	14.93	14.93	14.91	14.82	14.63	14.80	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 464- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 30.0 DEG RPM 5499.

HO = 14.791 PSIA PINF = 14.402 PSIA TSC = 71.64 DEG F RHO = 0.00228 SLUGS/CU FT

M = 0.2019 V = 227.65 FPS Q = 59.149 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	287.94	285.93	274.63	272.32	264.03	260.42	253.10	249.34	217.50	249.86	261.51

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.78	14.82	14.86	14.90	14.92	14.91	14.93	14.93	14.94	14.46	14.99	14.98	14.99

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.00	15.01	15.02	15.03	15.04	15.05	15.05	15.05	14.95	14.64	14.80	14.80

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 465- 3 CONFIGURATION L1C1E1B3PWTTIR1RE THETA 3/4 = 30.0 DEG RPM 5501.

HQ = 14.781 PSIA PINF = 13.890 PSIA TSC = 75.55 DEG F RHO = 0.00221 SLUGS/CU FT

M = 0.3093 V = 348.09 FPS Q = 133.756 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	366.23	352.63	341.41	340.46	329.90	325.96	325.90	320.91	222.50	326.28	325.22

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.55	14.64	14.74	14.80	14.82	14.81	14.82	14.82	14.81	13.94	14.83	14.83	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.83	14.82	14.82	14.82	14.81	14.80	14.73	14.66	14.37	14.78	14.79

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 466- 4 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 34.0 DEG RPM 5501.

HO = 14.776 PSIA PINF = 13.890 PSIA TSC = 77.37 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3084 V = 347.77 FPS Q = 133.041 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	385.91	377.53	362.52	360.71	350.55	344.93	342.08	339.22	263.36	339.34	346.62

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.62	14.68	14.77	14.84	14.87	14.85	14.88	14.88	14.89	13.97	14.92	14.91	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.92	14.93	14.95	14.95	14.95	14.95	14.73	14.78	14.39	14.78	14.78

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 467- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 35.0 DEG RPM 5505.

HO = 14.770 PSIA PINF = 14.373 PSIA TSC = 74.11 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.2042 V = 230.74 FPS Q = 60.371 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	309.23	306.95	296.26	295.18	281.99	277.45	272.88	268.18	220.61	264.91	279.36

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.78	14.81	14.85	14.88	14.90	14.76	14.77	14.76	14.77	14.76	14.77	14.76	14.76

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.76	14.77	15.09	15.11	15.12	15.13	15.15	15.09	15.03	14.62	14.77	14.77

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 468- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5503.

HO = 14.752 PSIA PINF = 13.866 PSIA TSC = 75.07 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3086 V = 347.57 FPS Q = 132.989 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	402.21	396.26	380.98	379.25	365.15	359.73	356.99	351.46	272.32	353.30	361.77

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.65	14.68	14.74	14.81	14.86	14.86	14.89	14.91	14.91	13.96	14.96	14.96	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.98	15.00	14.99	15.01	15.02	15.03	15.04	14.74	14.87	14.38	14.76	14.76

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 469- 3 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5498.

HO = 14.747 PSIA PINF = 13.221 PSIA TSC = 80.75 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4112 V = 461.80 FPS Q = 224.228 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	479.59	466.64	449.12	446.11	432.37	428.49	424.58	421.43	299.74	423.78	427.18

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.37	14.50	14.65	14.76	14.80	14.79	14.80	14.80	14.81	13.46	14.83	14.82	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.84	14.83	14.82	14.84	14.83	14.83	14.82	14.69	14.59	14.09	14.75	14.75

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 470- 3 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5501.

HO = 14.747 PSIA PINF = 13.214 PSIA TSC = 82.05 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4122 V = 463.40 FPS Q = 225.862 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	482.01	467.06	450.06	447.05	434.83	428.61	426.33	421.59	338.77	424.86	432.12

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.36	14.50	14.64	14.75	14.80	14.77	14.79	14.80	14.80	13.42	14.83	14.82	14.82

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.83	14.81	14.83	14.82	14.82	14.81	14.68	14.59	14.08	14.74	14.75

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE 1 - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 471- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 40.0 DEG RPM 5501.

HO = 14.751 PSIA PINF = 14.352 PSIA TSC = 76.07 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.2047 V = 231.70 FPS Q = 60.572 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	326.30	325.76	314.65	312.60	299.01	292.52	287.00	282.51	271.88	276.55	298.88

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.75	14.84	14.88	14.90	14.91	14.90	14.93	14.95	14.96	14.41	15.03	15.07	15.10
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.13	15.15	15.16	15.18	15.20	15.21	15.21	14.93	15.06	14.61	14.76	14.76	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 472- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5501.

HO = 14.752 PSIA PINF = 13.868 PSIA TSC = 75.55 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3082 V = 346.92 FPS Q = 132.636 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	415.48	409.73	393.34	390.83	378.85	371.02	365.84	360.47	296.34	359.57	374.15

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.70	14.72	14.76	14.81	14.87	14.89	14.93	14.96	14.97	13.99	15.02	15.03	15.05

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.08	15.08	15.12	15.14	15.16	15.17	14.71	14.97	14.40	14.75	14.76

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 473- 4 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5507.

HO = 14.752 PSIA PINF = 13.230 PSIA TSC = 82.44 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4106 V = 461.79 FPS Q = 224.350 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	499.78	486.15	468.16	467.43	453.50	446.73	442.17	439.11	366.60	439.05	450.87

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.48	14.55	14.66	14.76	14.84	14.84	14.87	14.89	14.90	13.48	14.93	14.93	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.96	14.96	14.98	14.99	14.99	14.98	14.70	14.73	14.11	14.75	14.75

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 475- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 5499.

HO = 14.807 PSIA PINF = 13.272 PSIA TSC = 76.72 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4116 V = 460.41 FPS Q = 226.143 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	510.84	498.81	480.78	479.37	463.78	457.97	454.23	448.31	378.75	447.02	461.99

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.59	14.64	14.72	14.82	14.90	14.93	14.96	14.99	15.01	13.57	15.02	15.07	15.10

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.12	15.13	15.12	15.14	15.16	15.18	15.19	14.75	14.90	14.16	14.81	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 476- 3 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 5507.

HO = 14.811 PSIA PINF = 12.501 PSIA TSC = 79.32 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5147 V = 571.95 FPS Q = 332.787 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	613.87	593.41	570.82	569.58	552.64	546.26	541.22	536.04	414.60	536.05	547.44

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.22	14.41	14.63	14.81	14.90	14.89	14.91	14.91	14.92	12.90	14.80	14.95	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.97	14.97	14.94	14.97	14.97	14.97	14.95	14.75	14.58	13.70	14.81	14.81

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 477- 2 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 6503.

HO = 14.811 PSIA PINF = 14.618 PSIA TSC = 86.87 DEG F RHO = 0.00190 SLUGS/CU FT

M = 0.6191 V = 685.13 FPS Q = 446.949 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	730.50	699.01	671.98	671.42	651.67	644.81	642.06	633.97	492.97	635.67	647.40

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.84	14.21	14.56	14.83	14.91	14.82	14.83	14.82	14.82	12.50	14.77	14.87	14.87

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.87	14.84	14.80	14.83	14.81	14.80	14.80	14.74	14.34	12.80	13.51	14.26

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 478- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5494.

HO = 14.819 PSIA PINF = 13.282 PSIA TSC = 76.85 DEG R RHO = 0.00213 SLUGS/CU FT

M = 0.4118 V = 460.69 FPS Q = 226.534 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	529.24	520.57	499.95	498.59	482.04	475.71	466.69	461.63	352.45	459.83	474.67

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.72	14.76	14.82	14.89	14.94	15.02	15.06	15.09	13.60	15.12	15.19	15.21

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.24	15.27	15.27	15.31	15.34	15.36	15.35	14.77	15.06	14.20	14.82	14.82

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 479- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5503.

HO = 14.815 PSIA PINF = 12.504 PSIA TSC = 81.14 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5147 V = 572.86 FPS Q = 332.817 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	637.63	618.19	595.53	594.33	575.04	566.98	560.19	551.96	472.98	550.98	572.38

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.36	14.46	14.62	14.79	14.91	14.96	15.02	15.04	15.06	12.96	14.83	15.10	15.12

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.14	15.14	15.11	15.15	15.16	15.17	15.16	14.77	14.77	13.74	14.82	14.82

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 480- 2 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 4001.

HO = 14.819 PSIA PINF = 12.507 PSIA TSC = 80.75 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5147 V = 572.72 FPS Q = 332.968 PSF PSI = 0_4 DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	606.29	583.98	564.27	563.02	545.31	538.88	535.64	529.12	434.96	530.07	543.15

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.25	14.41	14.62	14.81	14.89	14.88	14.89	14.89	14.89	12.90	14.81	14.90	14.90

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.91	14.88	14.90	14.90	14.89	14.89	14.78	14.54	13.70	14.83	14.83

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 481- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5510.

HO = 14.811 PSIA PINF = 12.501 PSIA TSC = 81.27 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5146 V = 572.81 FPS Q = 332.592 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	653.39	637.05	614.01	613.42	592.14	584.28	577.57	569.56	479.54	565.47	588.64

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.44	14.52	14.62	14.75	14.87	14.96	15.03	15.07	15.11	13.01	14.81	15.22	15.25

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.28	15.31	15.30	15.35	15.36	15.39	15.39	14.76	14.88	13.76	14.81	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 482- 5 CONFIGURATION L1C1E1B3PHTT1R1RE THETA 3/4 = 50.0 DEG RPM 5499.

HO = 14.809 PSIA PINF = 12.494 PSIA TSC = 80.36 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5153 V = 573.15 FPS Q = 333.390 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	636.22	617.00	594.00	591.60	573.43	565.37	559.85	551.01	448.84	549.07	568.64

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.34	14.45	14.61	14.78	14.90	14.95	14.99	15.01	15.03	12.95	14.81	15.07	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.11	15.13	15.10	15.13	15.15	15.15	15.14	14.75	14.75	13.73	14.81	14.81

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 483- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5504.

HO = 14.801 PSIA PINF = 11.630 PSIA TSC = 91.16 DEG F RHO = 0.00189 SLUGS/CU FT

M = 0.6168 V = 685.35 FPS Q = 443.993 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	[illegible]	06	07	09	10	12	13	15	V AVE
R1	735.30	703.52	678. 7	676.18	656.88	650.60	646.13	635.71	570.18	636.46	658.99

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.86	14.18	14.52	14.79	14.88	14.87	14.88	14.88	14.87	12.23	14.77	14.89	14.89
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	14.90	14.90	14.85	14.89	14.87	14.86	14.85	14.74	14.45	12.86	13.61	14.37	

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 484- 3 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5502.

HO = 14.802 PSIA PINF = 11.627 PSIA TSC = 90.38 DEG F RHO = 0.00189 SLUGS/CU FT

M = 0.6173 V = 685.37 FPS Q = 444.570 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	734.11	703.81	680.18	676.26	657.59	649.56	647.14	638.45	483.92	636.66	650.77

EXIT RAKE PRESSURES- PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.85	[illegible]	14.82	14.79	14.87	14.87	14.87	14.87	14.88	12.58	14.79	14.88	14.89

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.89	14.89	14.85	14.88	14.87	14.85	14.85	14.73	14.33	12.92	13.69	14.41

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 485- 3 CONFIGURATION L1C1E183PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5999.

HO = 14.801 PSIA PINF = 11.623 PSIA TSC = 87.39 DEG F RHO = 0.00190 SLUGS/CU FT

M = 0.6176 V = 683.89 FPS Q = 444.953 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	743.25	711.48	686.54	682.12	664.14	653.96	650.78	641.03	418.76	642.18	649.42

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.95	14.22	14.54	14.82	14.93	14.93	14.96	14.97	14.97	12.28	14.78	14.99	15.00

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.00	14.99	14.94	14.97	14.95	14.94	14.93	14.74	14.42	12.90	13.72	14.51

TABLE VII

E330590 - 1

HSC SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 486- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5503.

HQ = 14.802 PSIA PINF = 11.627 PSIA TSC = 89.60 DEG F RHO = 0.00190 SLUGS/CU FT

M = 0.6172 V = 684.84 FPS Q = 444.514 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	750.86	720.82	696.52	691.57	670.55	661.52	659.13	648.27	584.83	647.54	673.16

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	C6	07	08	09	10	11	12	13
RE	14.03	14.23	14.50	14.78	14.93	14.95	15.00	15.01	15.02	15.03	14.78	15.05	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.08	15.08	15.05	15.05	15.05	15.04	15.05	14.73	14.54	12.91	13.85	14.63

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 487- 5 CONFIGURATION L1C1E1B3PWTT1R1RE THETA 3/4 = 58.0 DEG RPM 5500.

HO = 14.809 PSIA PINF = 11.634 PSIA TSC = 89.47 DEG F RHO = 0.00190 SLUGS/CU FT

M = 0.6170 V = 684.58 FPS Q = 444.548 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	765.23	735.42	710.89	706.00	684.04	674.02	670.10	659.37	554.74	658.95	681.88

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.14	14.28	14.50	14.74	14.90	14.80	14.80	14.80	14.80	14.81	14.81	14.81	14.81

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.82	15.20	15.22	15.23	15.24	15.26	14.75	14.38	12.95	13.95	14.72

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 488- 5 CONFIGURATION L1C1E1B3PWTT1R1READ THETA 3/4 = 30.0 DEG RPM 5502.

HO = 14.819 PSIA PINF = 13.921 PSIA TSC = 78.41 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3101 V = 349.91 FPS Q = 134.754 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	368.34	355.05	345.87	342.10	334.40	331.49	326.59	324.61	286.48	325.45	334.04

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.58	14.68	14.77	14.84	14.86	14.82	14.82	14.81	14.82	14.82	14.82	14.82	14.82

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.82	14.82	14.22	14.87	14.86	14.86	14.85	14.78	14.70	14.38	14.82	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 489- 4 CONFIGURATION L1C1E1B3PWTT1R1READ THETA 3/4 = 38.0 DEG RPM 6004.

HO = 14.819 PSIA PINF = 13.933 PSIA TSC = 75.42 DEG F RHO = 0.00221 SLUGS/CU FT

M = 0.3079 V = 346.55 FPS Q = 132.992 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	410.55	404.99	391.77	388.42	376.49	370.40	365.10	361.53	260.20	257.96	368.74

EXIT RAKE PRESSURES, PSIA

ORIFICE	0_	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.74	14.78	14.83	14.89	14.95	14.82	14.81	14.81	14.82	14.82	14.82	14.82	14.82

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.82	14.81	14.37	15.18	15.19	15.21	15.23	14.79	15.03	14.43	14.82	14.82

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 490- 5 CONFIGURATION L1C1E1B3PWTT1R1READ THETA 3/4 = 38.0 DEG RPM 5497.

HO = 14.815 PSIA PINF = 13.282 PSIA TSC = 79.97 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4113 V = 461.56 FPS Q = 226.051 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	477.97	463.33	448.58	444.83	431.93	426.50	422.58	418.62	367.54	419.73	432.16

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.41	14.55	14.70	14.82	14.87	14.82	14.81	14.81	14.82	14.82	14.82	14.82	14.82

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.82	14.82	13.86	14.90	14.90	14.90	14.89	14.77	14.66	14.09	14.81	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 491- 3 CONFIGURATION L1C1E1B3PWTT1R1READ THETA 3/4 = 46.0 DEG RPM 5007.

HO = 14.820 PSIA PINF = 13.297 PSIA TSC = 79.32 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4097 V = 459.52 FPS Q = 224.536 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	491.13	477.33	459.31	459.31	445.89	441.37	436.81	430.66	337.87	432.35	441.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.55	14.61	14.72	14.83	14.90	14.93	14.96	14.96	14.97	14.99	14.83	15.01	15.03

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.04	15.04	13.96	15.04	15.05	15.04	15.06	14.79	14.80	14.14	14.82	14.83

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 492- 5 CONFIGURATION L1C1E1B3PWTT1R1READ THETA 3/4 = 46.0 DEG RPM 5497.

HO = 14.819 PSIA PINF = 12.512 PSIA TSC = 92.72 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5140 V = 578.29 FPS Q = 332.221 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	612.94	590.27	571.18	567.39	552.48	547.29	540.10	534.82	492.76	533.41	554.26

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.19	14.40	14.63	14.82	14.90	14.82	14.81	14.80	14.81	14.81	14.82	14.82	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.82	14.82	13.39	14.95	14.94	14.95	14.94	14.78	14.16	13.64	14.82	14.82

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 493- 4 CONFIGURATION L1C1E1B3PWTT1R1READ THETA 3/4 = 54.0 DEG RPM 5733.

HO = 14.820 PSIA PINF = 12.510 PSIA TSC = 89.47 DEG F RHO = 0.00200 SLUGS/CU FT

M = 0.5144 V = 577.00 FPS Q = 332.664 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	657.87	642.32	620.97	618.02	598.36	589.83	593.17	574.48	447.45	570.54	590.30

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.44	14.55	14.65	14.77	14.90	14.82	14.81	14.82	14.81	14.81	14.82	14.84	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.83	13.61	15.39	15.42	15.44	15.44	14.77	14.36	13.72	14.82	14.82

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 494- 4 CONFIGURATION L1C1E1B3PWTT1R1READ THETA 3/4 = 46.0 DEG RPM 6003.

HO = 14.830 PSIA PINF = 13.292 PSIA TSC = 85.05 DEG F RHO = 0.002I0 SLUGS/CU FT

M = 0.4117 V = 464.15 FPS Q = 226.651 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	18	15	V AVE
R1	529.70	520.32	502.03	499.97	483.91	477.50	469.66	462.36	354.80	460.15	476.02

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.66	14.70	14.77	14.86	14.94	14.84	14.83	14.84	14.84	14.84	14.84	14.84	14.85

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.85	14.08	15.33	15.36	15.38	15.39	14.80	15.10	14.17	14.84	14.84

TABLE VII

E330590 - 1

HSC SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 495- 4 CONFIGURATION L1C1E1B3PWTT1R1ND THETA 3/4 = 46.0 DEG RPM 6001.

HO = 14.325 PSIA PINF = 13.292 PSIA TSC = 82.05 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4112 V = 462.26 FPS Q = 226.030 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	02	04	06	07	09	10	12	13	15	V AVE
RI	528.35	519.97	499.57	498.87	481.96	475.49	469.76	463.15	273.99	460.76	467.19

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RF	14.65	14.70	14.78	14.88	14.96	15.00	15.05	15.07	15.10	15.10	14.97	15.18	15.22
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RF	15.24	15.28	14.09	15.32	15.34	15.37	15.39	14.79	15.09	14.21	14.83	14.83	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 496- 5 CONFIGURATION L1C1E1B3PWTT1R1ND THETA 3/4 = 46.0 DEG RPM 5502.

HO = 14.825 PSIA PINF = 12.517 PSIA TSC = 87.26 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5141 V = 575.45 FPS Q = 332.395 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	615.22	594.25	575.78	571.39	556.12	549.02	543.15	535.92	450.46	533.96	552.53

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.23	14.44	14.66	14.85	14.92	14.90	14.91	14.91	14.92	14.92	14.83	14.95	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.97	14.96	13.44	14.97	14.98	14.97	14.96	14.78	14.47	13.66	14.83	14.83

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 497- 5 CONFIGURATION L1C1E1B3PWT1R1ND THETA 3/4 = 30.0 DEG RPM 5499.

HO = 14.830 PSIA PINF = 13.939 PSIA TSC = 76.72 DEG F RHO = 0.00221 SLUGS/CU FT

M = 0.3087 V = 347.82 FPS Q = 133.721 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	366.86	355.09	346.79	341.11	332.48	327.57	322.58	320.57	261.66	321.05	329.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.61	14.71	14.80	14.85	14.88	14.86	14.86	14.87	14.87	14.87	14.88	14.88	14.88

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.88	14.88	14.27	14.87	14.88	14.87	14.86	14.78	14.73	14.42	14.83	14.83

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 498- 4 CONFIGURATION L1C1E1B3PWTT1R1ND THETA 3/4 = 38.0 DEG RPM 5998.

HO = 14.831 PSIA PINF = 13.944 PSIA TSC = 74.37 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3080 V = 346.29 FPS Q = 133.159 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	413.59	409.03	394.15	390.79	377.96	372.72	367.42	362.94	263.74	359.64	371.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.77	14.80	14.86	14.93	14.97	15.01	15.04	15.05	15.06	15.08	15.10	15.13	15.15

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.17	15.18	14.42	15.21	15.22	15.24	15.25	14.79	15.07	14.48	14.83	14.83

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 499- 3 CONFIGURATION L1C1E1B3PWTT1R1ND THETA 3/4 = 38.0 DEG RPM 6003.

HO = 14.830 PSIA PINF = 13.286 PSIA TSC = 78.67 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4127 V = 462.45 FPS Q = 227.588 PSF PSI = 0 DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	494.80	481.83	464.00	461.80	449.17	443.13	440.08	433.92	302.09	434.26	440.51

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.61	14.75	14.87	14.93	14.93	14.95	14.96	14.97	14.97	14.87	15.01	15.01

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.02	15.03	13.97	15.03	15.04	15.04	15.03	14.80	14.77	14.15	14.83	14.84

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 500- 4 CONFIGURATION L1C1E1B3PWTT1R1ND THETA 3/4 = 54.0 DEG RPM 5673.

HO = 14.830 PSIA PINF = 12.520 PSIA TSC = 87.52 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5143 V = 575.83 FPS Q = 332.744 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	655.50	643.75	621.63	619.25	599.21	591.85	584.43	576.93	415.19	571.00	587.87

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.45	14.55	14.67	14.80	14.92	14.99	15.06	15.12	15.16	15.20	14.84	15.28	15.31
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.34	15.37	13.67	15.41	15.42	15.44	15.45	14.79	14.66	13.77	14.84	14.84	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 501- 6 CONFIGURATION L1C1E1B3PWTT1R1REI0 THETA 3/4 = 42.0 DEG RPM 5500.

HO = 14.830 PSIA PINF = 13.290 PSIA TSC = 82.05 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4120 V = 463.16 FPS Q = 226.921 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	498.98	486.06	470.97	468.05	456.22	448.69	442.59	437.97	347.52	436.78	449.38

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.55	14.63	14.73	14.84	14.90	14.96	14.96	14.96	14.99	14.98	15.17	15.00	14.98

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.00	15.01	13.97	15.00	15.03	15.04	15.03	14.78	14.84	14.17	14.83	14.83

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 502- 4 CONFIGURATION L1C1E1B3PWTT1R1REI0 THETA 3/4 = 46.0 DEG RPM 5995.

HO = 14.831 PSIA PINF = 13.290 PSIA TSC = 80.75 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4121 V = 462.74 FPS Q = 227.059 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	529.02	522.66	503.54	501.47	485.44	479.01	471.05	467.40	326.84	461.35	474.78

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.76	14.81	14.88	14.94	14.99	15.06	15.11	15.14	15.18	15.13	15.25	15.28

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.31	15.33	14.14	15.36	15.36	15.36	15.36	14.79	14.99	14.23	14.84	14.84

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - FT NO 503- 5 CONFIGURATION L1C1E1B3PWTT1R1RE1O THETA 3/4 = 46.0 DEG RPM 5500.

NO = 14.830 PSIA PINF = 12.517 PSIA TSC = 90.12 DEG F RHO = 0.00200 SLUGS/CU FT

M = 0.5146 V = 577.50 FPS Q = 333.055 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	615.28	596.10	575.90	573.37	556.76	549.62	543.72	537.78	494.72	537.12	558.04

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.12	14.39	14.60	14.76	14.84	14.84	14.86	14.88	14.87	14.89	14.82	14.91	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.96	14.95	13.46	14.96	14.95	14.96	14.99	14.77	14.67	13.73	14.83	14.83

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 504- 4 CONFIGURATION L1C1E1B3PWTT1R1RE10 THETA 3/4 = 50.0 DEG RPM 6006.

HO = 14.838 PSIA PINF = 12.524 PSIA TSC = 84.91 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5146 V = 574.76 FPS Q = 333.244 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	648.33	633.68	609.56	608.36	589.05	580.40	574.90	566.10	440.19	563.09	581.37

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.44	14.56	14.67	14.81	14.92	14.99	15.08	15.14	15.17	15.22	14.83	15.28	15.29
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.31	15.33	13.66	15.31	15.33	15.32	15.33	14.80	14.67	13.81	14.84	14.85	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 505- 6 CONFIGURATION L1C1E1B3PWTT1R1REV0 THETA 3/4 = 50.0 DEG RPM 5506.

HO = 14.858 PSIA PINF = 12.545 PSIA TSC = 86.48 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5141 V = 575.06 FPS Q = 333.146 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	631.33	613.98	595.15	592.09	576.10	569.82	559.76	551.41	482.65	549.80	572.21

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.35	14.50	14.69	14.87	14.99	15.02	15.05	15.09	15.09	15.11	14.92	15.14	15.15
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.18	15.19	13.62	15.20	15.21	15.22	15.23	14.80	14.79	13.86	14.86	14.86	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 506- 7 CONFIGURATION L1C1E1B3PWTT1R1REVO THETA 3/4 = 42.0 DEG RPM 5503.

HO = 14.874 PSIA PINF = 13.328 PSIA TSC = 78.15 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4123 V = 461.78 FPS Q = 227.864 PSF PSI = 0 DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	497.56	485.45	467.75	467.02	453.18	450.20	442.69	438.13	407.07	439.26	454.83

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.56	14.65	14.78	14.91	14.98	15.00	15.02	15.03	15.04	15.04	15.05	15.06	15.08

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.10	15.12	14.05	15.12	15.12	15.12	15.12	14.82	14.84	14.25	14.88	14.88

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 508- 6 CONFIGURATION 11C1E1B3PWTT1R1REV0 THETA 3/4 = 46.0 DEG RPM 5550.

HO = 14.887 PSIA PINF = 12.558 PSIA TSC = 82.57 DEG F RHO = 0.00209 SLUGS/CU FT

M = 0.5155 V = 574.47 FPS Q = 335.301 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	615.28	594.95	575.57	571.84	556.74	552.28	543.27	536.77	466.23	539.78	555.27

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.27	14.49	14.71	14.90	14.99	14.99	15.01	15.01	15.03	15.03	14.92	15.05	15.07

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.07	13.57	15.07	15.07	15.08	15.08	14.83	14.68	13.87	14.89	14.89

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 509- 2 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 30.0 DEG RPM 5656.

HO = 14.909 PSIA PINF = 14.024 PSIA TSC = 71.64 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3067 V = 344.01 FPS Q = 132.833 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	391.72	382.16	368.50	365.86	355.98	351.44	346.84	344.06	203.54	346.14	345.61

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.66	14.77	14.88	14.93	14.93	14.93	14.93	14.92	14.92	14.92	14.92	14.91	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.91	14.37	14.90	14.90	14.89	14.89	14.83	14.87	14.81	14.44	14.91

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 510- 3 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 34.0 DEG RPM 6006.

HO = 14.909 PSIA PINF = 14.003 PSIA TSC = 72.94 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3105 V = 348.62 FPS Q = 135.935 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	427.08	422.93	407.13	403.91	390.85	384.14	379.89	373.87	280.84	372.65	384.33

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.72	14.79	14.88	14.97	15.01	15.01	15.01	15.02	15.03	15.02	15.03	15.04	15.04

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.06	15.06	14.42	15.05	15.05	15.05	15.05	14.85	15.04	14.96	14.44	14.91

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 511- 6 CONFIGURATION L1C1E2B3PWT1R1RE THETA 3/4 = 38.0 DEG RPM 5504.

HO = 14.908 PSIA PINF = 14.013 PSIA TSC = 74.76 DEG F RHO = 0.00229 SLUGS/CU FT

M = 0.3086 V = 347.13 FPS Q = 134.383 PSF PSI = C_{P_s} DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	436.27	429.77	417.79	413.01	400.03	393.40	385.83	380.70	357.10	380.01	399.39

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.76	14.81	14.88	14.96	15.01	15.00	15.03	15.03	15.04	15.04	15.05	15.06	15.07

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.08	14.44	15.10	15.10	15.11	15.11	14.85	15.11	15.03	14.44	14.91

TABLE VII F30590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 512- 2 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5607.

HO = 14.912 PSIA PINF = 13.372 PSIA TSC = 78.15 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.410° V = 460.31 FPS Q = 227.109 PSF PSI = 04 DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	520.97	510.63	492.86	490.08	475.81	470.08	462.26	457.86	352.65	459.94	469.30

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.45	14.64	14.79	14.91	14.94	14.93	14.93	14.92	14.93	14.92	14.93	14.92	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.92	14.00	14.90	14.89	14.89	14.88	14.87	14.87	14.77	14.12	14.92

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 513- 4 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 6001.

HO = 14.913 PSIA PINF = 14.006 PSIA TSC = 71.64 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3106 V = 348.25 FPS Q = 136.014 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	476.15	475.06	456.32	454.86	436.24	430.15	420.15	414.64	368.19	409.10	434.09

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.83	14.88	14.91	14.98	15.04	15.07	15.12	15.14	15.15	15.16	15.19	15.21	15.24

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.25	15.27	14.53	15.32	15.34	15.36	15.38	14.87	15.38	15.30	14.47	14.92

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 514- 3 CONFIGURATION L1C1E2B3PWTTIRIRE THETA 3/4 = 42.0 DEG RPM 6002.

HO = 14.913 PSIA PINF = 13.359 PSIA TSC = 74.24 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4128 V = 460.68 FPS Q = 228.980 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	558.35	554.76	532.67	531.37	512.98	506.28	498.15	492.67	366.79	490.44	504.45

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.59	14.68	14.82	14.94	15.02	15.03	15.06	15.07	15.08	15.09	15.11	15.12	15.13

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.13	15.14	14.12	15.14	15.13	15.15	15.15	14.86	15.14	15.03	14.12	14.91

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 515- 3 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 6501.

HO = 14.916 PSIA PINF = 12.584 PSIA TSC = 84.65 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5153 V = 575.39 FPS Q = 335.777 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	669.05	654.20	630.73	627.24	608.42	599.45	591.21	583.27	480.40	582.96	602.69

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.14	14.48	14.74	14.93	14.98	14.96	14.98	14.97	14.97	14.96	14.94	14.96	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.94	13.52	14.88	14.86	14.83	14.82	14.86	14.81	14.61	13.64	14.91

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 516- 5 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 5502.

HO = 14.916 PSIA PINF = 13.366 PSIA TSC = 77.37 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4122 V = 461.40 FPS Q = 228.462 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RE	562.92	557.92	538.18	536.25	517.88	509.86	499.08	494.96	486.72	492.28	619.60

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.63	14.70	14.82	14.94	15.02	15.05	15.08	15.10	15.10	15.12	15.07	15.13	15.1[illegible]

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.16	15.17	14.12	15.17	15.18	15.18	15.19	14.88	15.18	15.06	14.12	14.92

TABLE VII E330590 -

HSD SHROUDED PROPELLER TEST

PHASE I -- 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 517- 5 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 6253.

HO = 14.913 PSIA PINF = 12.595 PSIA TSC = 81.14 DEG F RHO = 0.00204 SLUGS/CU FT

M = 0.5136 V = 571.76 FPS Q = 333.884 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	684.62	673.49	651.26	648.99	628.16	618.81	608.50	600.13	547.65	597.84	625.94

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.22	14.48	14.74	14.94	15.04	15.03	15.06	15.06	15.07	15.07	14.90	15.09	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.09	15.08	13.62	15.03	15.03	15.01	14.99	14.87	15.01	14.81	13.66	14.92

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 518- 5 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.918 PSIA PINF = 13.368 PSIA TSC = 76.07 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4122 V = 460.82 FPS Q = 228.469 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	583.70	580.67	561.72	557.97	538.96	529.27	520.09	510.78	494.33	506.57	538.41

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.67	14.74	14.82	14.93	15.01	15.05	15.10	15.13	15.14	15.16	14.96	15.22	15.24

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.26	15.28	14.20	15.30	15.32	15.34	15.35	14.88	15.37	15.23	14.15	14.92

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 519-- 2 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5498.

HO = 14.913 PSIA PINF = 12.578 PSIA TSC = 78.67 DEG F RHO = 0.00205 SLUGS/CU FT

M = 0.51[illegible]7 V = 572.69 FPS Q = 336.186 PSF PSI = 0[illegible] DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	689.91	677.94	655.73	654.61	635.21	625.42	616.33	607.51	472.81	602.91	623.79

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.28	14.48	14.70	14.92	15.02	15.04	15.05	15.07	15.07	15.07	14.91	15.09	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.11	15.11	13.65	15.08	15.09	15.08	15.08	14.87	15106	14.87	13.64	14.91

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 520- 3 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5506.

HO = 14.918 PSIA PINF = 12.594 PSIA TSC = 79.97 DEG F RHO = 0.00205 SLUGS/CU FT

M = 0.5143 V = 571.86 FPS Q = 334.731 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	707.04	698.94	671.55	669.33	648.00	640.02	632.78	624.09	520.69	620.95	643.33

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.40	14.53	14.70	14.89	15.02	15.08	15.14	15.17	15.19	15.21	14.90	15.25	15.25

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.27	15.29	13.75	15.28	15.26	15.26	15.28	14.87	15.25	15.00	13.67	14.92

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 521- 4 CONFIGURATION L1C1E2B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5509.

HO = 14.919 PSIA PINF = 12.584 PSIA TSC = 80.36 DEG F RHO = 0.00204 SLUGS/CU FT

M = 0.5156 V = 573.39 FPS Q = 336.107 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	710.64	700.95	674.51	671.74	651.42	642.32	634.51	624.07	551.02	621.74	648.38

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.38	14.52	14.69	14.88	15.03	15.08	15.14	15.17	15.19	15.21	14.89	15.25	15.25

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.27	15.28	13.75	15.27	15.25	15.27	15.28	14.87	15.20	14.99	13.66	14.92

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 522- 5 CONFIGURATION L1C1E3B3PWTT1R1RE THETA 3/4 = 34.0 DEG RPM 5800.

HO = 14.919 PSIA PINF = 14.026 PSIA TSC = 70.34 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3081 V = 345.12 FPS Q = 134.053 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	445.13	442.90	427.77	424.69	409.78	402.56	394.46	388.66	332.26	387.61	405.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.65	14.76	14.87	14.94	14.98	14.97	14.98	14.98	14.98	14.98	14.98	14.98	14.97

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.98	14.98	14.97	14.97	14.97	14.96	14.95	14.86	14.94	14.93	14.82	14.34

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 523- 2 CONFIGURATION L1C1E383PWTTIRIRE THETA 3/4 = 38.0 DEG RPM 5505.

HO = 14.918 PSIA PINF = 14.018 PSIA TSC = 69.56 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3094 V = 346.30 FPS Q = 135.109 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	459.92	459.04	440.56	439.06	420.79	413.73	407.44	401.80	309.08	398.84	415.01

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.70	14.78	14.88	14.95	15.00	15.00	15.01	15.01	15.02	15.02	15.03	15.03	15.03

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.03	15.04	15.05	15.04	15.04	15.04	15.03	14.85	15.03	15.02	14.91	14.34

E330590 - 1

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 529- 4 CONFIGURATION L1C1E383PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 6000.

HO = 14.851 PSIA PINF = 13.316 PSIA TSC = 79.06 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4109 V = 460.76 FPS Q = 226.216 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	645.41	649.85	614.64	615.82	599.15	597.95	575.58	571.86	325.79	565.06	576.11

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.52	14.67	14.75	14.85	14.96	15.02	15.07	15.10	15.14	15.16	15.16	15.23	15.25

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.26	15.28	15.29	15.29	15.29	15.31	15.33	14.80	15.33	15.29	15.00	13.95

E330590 - 1

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 530- 2 CONFIGURATION L1C1E383PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5498.

HO = 14.848 PSIA PINF = 12.537 PSIA TSC = 85.96 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5140 V = 574.74 FPS Q = 332.884 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	721.84	717.98	689.73	684.16	664.17	662.46	647.83	646.67	373.99	643.70	645.25

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.95	14.38	14.67	14.86	14.93	14.90	14.91	14.90	14.90	14.89	14.85	14.89	14.89

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.88	14.88	14.86	14.82	14.79	14.78	14.76	14.79	14.77	14.76	14.23	13.40

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 531- 2 CONFIGURATION L1C1E3B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.830 PSIA PINF = 12.522 PSIA TSC = 92.98 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5140 V = 578.38 FPS Q = 332.433 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	724.84	722.67	689.45	685.53	669.83	666.40	647.95	648.53	465.44	646.21	656.69

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.95	14.36	14.65	14.85	14.91	14.89	14.89	14.88	14.88	14.88	14.80	14.86	14.87

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.87	14.85	14.84	14.81	14.78	14.76	14.75	14.78	14.72	14.74	14.15	13.30

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 532- 6 CONFIGURATION L1C1E3B3PWTT1R1RE THETA 3/4 = 58.0 DEG RPM 5502.

HO = 14.820 PSIA PINF = 12.515 PSIA TSC = 98.19 DEG F RHO = 0.00197 SLUGS/CU FT

M = 0.5138 V = 580.94 FPS Q = 332.042 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	766.93	772.76	738.52	730.36	714.42	710.54	686.43	685.30	537.98	680.77	702.40

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.21	14.41	14.62	14.80	14.92	14.94	14.97	14.97	14.99	15.00	14.81	15.04	15.04

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.06	15.09	15.10	15.09	15.09	15.10	15.10	14.79	14.77	15.11	14.51	19.36

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 533- 4 CONFIGURATION L1C1E3B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5943.

HO = 14.811 PSIA PINF = 13.278 PSIA TSC = 85.83 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4112 V = 463.89 FPS Q = 225.827 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	661.85	667.59	631.26	629.50	611.84	612.44	591.36	590.13	442.67	580.24	601.89

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.51	14.68	14.75	14.82	14.90	14.97	15.05	15.12	15.17	15.21	14.83	15.28	15.31

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.32	15.33	15.33	15.35	15.36	15.37	15.40	14.78	15.40	15.35	15.00	13.93

E330590 - 1

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 534- 5 CONFIGURATION L1C1E3B3PWTT1R1READ THETA 3/4 = 38.0 DEG RPM 5502.

HO = 14.796 PSIA PINF = 13.892 PSIA TSC = 78.15 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3113 V = 351.20 FPS Q = 135.549 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	464.22	463.15	444.53	438.43	426.80	424.44	406.78	405.15	301.94	402.18	417.76

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.54	14.64	14.76	14.84	14.88	14.87	14.89	14.89	14.89	14.90	14.99	14.91	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.93	14.92	14.93	14.93	14.93	14.93	14.93	14.76	14.92	14.92	14.71	14.24

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 535- 2 CONFIGURATION L1C1E3B3PWTT1R1READ THETA 3/4 = 42.0 DEG RPM 5503.

HO = 14.791 PSIA PINF = 13.259 PSIA TSC = 79.97 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4115 V = 461.69 FPS Q = 225.802 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	564.30	563.68	536.05	532.78	518.29	516.28	502.60	500.54	298.05	498.70	503.13

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.29	14.51	14.68	14.80	14.84	14.83	14.83	14.84	14.84	14.84	14.82	14.84	14.84

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.84	14.84	14.83	14.82	14.82	14.81	14.80	14.75	14.80	14.79	14.47	13.90

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 536 4 CONFIGURATION L1C1E3B3PWTT1R1READ THETA 3/4 = 46.0 DEG RPM 5999.

HO = 14.776 PSIA PINF = 13.892 PSIA TSC = 76.85 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3080 V = 347.11 FPS Q = 132.689 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	529.82	536.90	505.17	501.06	485.03	480.78	462.80	459.12	340.65	451.28	475.26

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.69	14.78	14.82	14.86	14.94	14.98	15.02	15.04	15.07	15.08	15.07	15.15	15.18

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.20	15.23	15.25	15.28	15.31	15.33	15.35	14.75	15.37	15.32	15.11	14.30

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 537- 6 CONFIGURATION L1C1E3B3PWTTIR1READ THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.770 PSIA PINF = 12.468 PSIA TSC = 98.84 DEG F RHO = 0.00196 SLUGS/CU FT

M = 0.5145 V = 581.95 FPS Q = 331.594 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	723.70	721.52	689.41	682.03	667.56	664.67	645.61	645.02	519.89	643.80	660.32

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.92	14.32	14.61	14.80	14.85	14.83	14.84	14.84	14.84	14.84	14.77	14.83	14.94

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.89	14.82	14.79	14.77	14.76	14.75	14.74	14.73	14.71	14.73	14.00	13.37

E330590 - 1

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I -- 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 538- 4 CONFIGURATION L1C1E3B3PWTT1R1READ THETA 3/4 = 50.0 DEG RPM 5702.

HO = 14.763 PSIA PINF = 12.231 PSIA TSC = 85.83 DEG F RHO = 0.00209 SLUGS/CU FT

M = 0.4118 V = 464.60 FPS Q = 225.736 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	633.43	638.12	604.98	604.38	588.32	584.60	563.26	561.34	446.01	551.17	577.56

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.45	14.56	14.67	14.79	14.89	14.93	14.97	14.99	15.01	15.04	14.77	15.09	15.11

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.12	15.14	15.14	15.16	15.16	15.18	15.19	14.73	15.19	15.16	14.77	15.06

E330590 - 1

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 539- 2 CONFIGURATION L1C1E483PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5501.

HO = 14.728 PSIA PINF = 13.851 PSIA TSC = 77.24 DEG F RHO = 0.00219 SLUGS/CU FT

M = 0.3071 V = 346.24 FPS Q = 131.526 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	365.83	353.64	342.97	340.09	333.32	332.33	326.36	326.36	181.01	329.70	323.16

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.61	14.70	14.75	14.78	14.77	14.78	14.77	14.77	14.78	14.77	14.78	14.77

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.78	14.78	14.77	14.77	14.76	14.76	14.76	14.70	14.68	13.93	14.34	14.73

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 540- 6 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 34.0 DEG RPM 5499.

HO = 14.714 PSIA PINF = 13.836 PSIA TSC = 82.57 DEG F RHO = 0.00217 SLUGS/CU FT

M = 0.3077 V = 348.58 FPS Q = 131.849 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	389.84	383.77	372.12	366.70	360.29	358.44	347.14	346.18	300.08	344.98	356.95

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.53	14.60	14.69	14.76	14.79	14.79	14.80	14.81	14.82	14.82	14.94	14.84	14.84

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.85	14.85	14.86	14.87	14.87	14.86	14.68	14.76	13.93	14.99	14.71

E330590 - 1

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 541- 4 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 30.0 DEG RPM 6006.

HO = 14.711 PSIA PINF = 13.833 PSIA TSC = 75.55 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3077 V = 346.33 FPS Q = 131.844 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	415.18	413.32	391.86	389.32	380.74	379.00	371.09	367.53	222.89	363.70	369.46

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.64	14.67	14.72	14.79	14.85	14.87	14.90	14.93	14.94	14.95	14.98	15.00	15.01

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.04	15.05	15.05	15.06	15.08	15.09	15.11	14.68	15.00	13.97	14.51	14.71

TABLE VII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 542- 2 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5503.

HO = 14.708 PSIA PINF = 13.180 PSIA TSC = 75.55 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4121 V = 460.47 FPS Q = 225.145 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	480.06	468.96	446.79	443.75	434.61	433.83	428.29	425.14	262.51	430.05	425.40

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.30	14.45	14.60	14.71	14.76	14.75	14.76	14.75	14.76	14.77	14.75	14.77	14.78

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.78	14.78	14.78	14.78	14.77	14.77	14.77	14.66	14.65	13.96	14.06	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 543- 4 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5999.

HO = 14.708 PSIA PINF = 13.825 PSIA TSC = 73.46 DEG F RHO = 0.00221 SLUGS/CU FT

M = 0.3086 V = 346.66 FPS Q = 132.541 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V-AVE
R1	437.10	438.35	415.76	414.16	402.78	400.31	388.59	385.18	308.10	381.75	397.21

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.67	14.72	14.75	14.80	14.85	14.88	14.94	14.96	14.98	15.02	15.05	15.08	15.10

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.13	15.16	15.17	15.21	15.23	15.25	15.27	14.68	15.14	13.98	14.55	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 544- 6 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5501.

HO = 14.703 PSIA PINF = 13.195 PSIA TSC = 79.45 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4094 V = 459.22 FPS Q = 222.451 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	502.88	495.92	474.63	469.53	458.52	457.02	445.75	444.22	394.53	443.60	458.66

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.41	14.49	14.61	14.72	14.81	14.81	14.84	14.85	14.85	14.86	14.75	14.90	14.91

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.93	14.92	14.92	14.93	14.94	14.93	14.67	14.78	13.39	14.11	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 545- 2 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5999.

HO = 14.689 PSIA PINF = 12.401 PSIA TSC = 83.09 DEG F RHO = 0.00200 SLUGS/CU FT

M = 0.5142 V = 573.39 FPS Q = 329.469 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	608.67	596.27	569.99	565.54	554.73	552.78	542.89	542.89	342.43	543.79	542.00

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.00	14.26	14.49	14.68	14.74	14.73	14.73	14.73	14.73	14.73	14.67	14.74	14.75

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.75	14.75	14.75	14.75	14.75	14.75	14.74	14.64	14.56	12.53	13.42	14.69

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 546- 4 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 6003.

HO = 14.679 PSIA PINF = 13.159 PSIA TSC = 81.27 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4114 V = 462.15 FPS Q = 224.006 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	532.95	529.61	501.18	499.08	487.79	484.94	472.00	471.26	359.98	467.82	480.66

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.48	14.53	14.61	14.71	14.79	14.84	14.89	14.91	14.93	14.96	14.69	15.01	15.05

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.06	15.09	15.09	15.12	15.14	15.16	15.18	14.65	14.99	13.39	14.23	14.68

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 547- 2 CONFIGURATION L1C1E483PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 5498.

HO = 14.675 PSIA PINF = 12.395 PSIA TSC = 86.35 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5135 V = 574.38 FPS Q = 326.430 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	613.01	600.40	574.18	569.72	559.54	556.30	546.38	546.38	381.42	546.80	549.41

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.02	14.26	14.50	14.67	14.74	14.72	14.74	14.74	14.74	14.74	14.65	14.75	14.76

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.76	14.76	14.76	14.76	14.75	14.75	14.75	14.62	14.56	12.53	13.39	14.67

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 548- 5 CONFIGURATION L1C1E483PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5506.

HO = 14.663 PSIA PINF = 13.151 PSIA TSC = 79.32 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4105 V = 460.39 FPS Q = 222.928 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	533.22	530.22	504.60	501.12	489.87	486.31	473.32	471.86	395.19	470.56	485.63

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.49	14.57	14.61	14.67	14.76	14.79	14.87	14.90	14.93	14.96	14.66	15.03	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.08	15.12	15.13	15.15	15.17	15.19	15.20	14.64	15.03	13.40	14.26	14.67

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 549- 5 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5501.

HO = 14.646 PSIA PINF = 12.356 PSIA TSC = 82.57 DEG F RHO = 0.00200 SLUGS/CU FT

M = 0.5153 V = 574.24 FPS Q = 329.634 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	637.60	628.56	600.25	597.18	586.05	581.67	569.79	568.51	422.34	566.93	575.89

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.16	14.28	14.46	14.63	14.76	14.81	14.84	14.85	14.87	14.89	14.62	14.90	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.94	14.96	14.96	14.96	14.98	14.99	14.99	14.62	14.51	12.56	13.55	14.66

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 550- 6 CONFIGURATION L1C1E483PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5803.

HO = 14.645 PSIA PINF = 12.359 PSIA TSC = 89.08 DEG F RHO = 0.00198 SLUGS/CU FT

M = 0.5148 V = 577.19 FPS Q = 329.129 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	658.73	652.18	619.73	617.32	606.26	605.65	594.77	591.66	501.00	588.28	603.56

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.27	14.37	14.47	14.61	14.73	14.82	14.90	14.95	15.00	15.04	14.63	15.11	15.12

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.15	15.17	15.17	15.18	15.21	15.23	15.25	14.61	14.52	12.59	13.78	14.64

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 551- 4 CONFIGURATION L1C1E4B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 6004.

HO = 14.646 PSIA PINF = 13.771 PSIA TSC = 76.07 DEG F RHO = 0.00219 SLUGS/CU FT

M = 0.3078 V = 346.63 FPS Q = 131.349 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	434.91	435.42	411.70	409.24	397.69	395.16	386.63	384.03	370.38	380.09	400.53

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.61	14.67	14.70	14.74	14.80	14.84	14.88	14.90	14.94	14.96	14.82	15.01	15.04

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.10	15.11	15.14	15.16	15.19	15.20	14.62	15.08	13.92	14.48	14.66

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 552- 6 CONFIGURATION L2C1E1B3PWTTIR1RE THETA 3/4 = 30.0 DEG RPM 5750.

HO = 14.620 PSIA PINF = 13.665 PSIA TSC = 74.24 DEG F RHO = 0.00218 SLUGS/CU FT

M = 0.3225 V = 362.20 FPS Q = 143.041 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	377.73	372.12	361.14	357.41	352.71	351.76	346.09	349.92	268.47	345.70	348.31

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.44	14.54	14.64	14.73	14.75	14.74	14.75	14.75	14.75	14.75	14.77	14.76	14.76

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.76	14.75	14.75	14.75	14.75	14.75	14.73	14.66	14.63	14.25	14.71	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 553- 3 CONFIGURATION 12C1E1B3PWTT1R1RE THETA 3/4 = 34.0 DEG RPM 5501.

HO = 14.624 PSIA PINF = 13.674 PSIA TSC = 71.64 DEG F RHO = 0.00219 SLUGS/CU FT

M = 0.3214 V = 360.16 FPS Q = 142.206 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	389.92	384.72	373.91	370.32	364.02	362.19	355.69	358.49	257.03	353.88	357.02

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.57	14.65	14.74	14.79	14.79	14.80	14.81	14.81	14.82	14.83	14.84	14.84

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.85	14.85	14.85	14.85	14.85	14.84	14.67	14.73	14.27	14.70	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 554- 6 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5505.

HO = 14.625 PSIA PINF = 13.675 PSIA TSC = 72.94 DEG F RHO = 0.00219 SLUGS/CU FT

M = 0.3214 V = 360.59 FPS Q = 142.209 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	409.76	405.85	394.88	388.85	382.73	380.09	370.31	372.11	321.60	370.54	379.67

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.56	14.61	14.67	14.75	14.82	14.84	14.85	14.88	14.89	14.90	14.93	14.92	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.94	14.94	14.95	14.95	14.96	14.97	14.97	14.68	14.79	14.29	14.71	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 555- 6 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5648.

HO = 14.624 PSIA PINF = 12.992 PSIA TSC = 78.15 DEG F RHO = 0.00209 SLUGS/CU FT

M = 0.4282 V = 479.06 FPS Q = 239.637 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	497.28	492.84	474.20	469.72	463.68	462.16	452.35	454.67	381.62	453.44	460.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.27	14.44	14.61	14.75	14.80	14.79	14.81	14.81	14.82	14.81	14.91	14.81	14.82

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.81	14.81	14.81	14.82	14.81	14.81	14.80	14.72	14.66	13.98	14.75	14.75

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 556- 6 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5505.

HO = 14.616 PSIA PINF = 13.668 PSIA TSC = 70.34 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3214 V = 359.70 FPS Q = 142.120 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	426.77	425.45	413.33	407.56	400.87	397.50	384.67	382.04	261.61	378.76	387.86

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.60	14.64	14.67	14.74	14.80	14.85	14.89	14.90	14.93	14.94	14.97	14.99	15.00

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.01	15.03	15.05	15.06	15.08	15.10	15.10	14.66	14.92	14.30	14.70	14.70

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 557- 3 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5509.

HO = 14.615 PSIA PINF = 12.993 PSIA TSC = 75.42 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4271 V = 476.57 FPS Q = 238.338 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	510.56	504.93	488.37	484.73	476.64	474.42	466.27	464.76	320.82	465.30	465.68

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.36	14.47	14.64	14.77	14.84	14.86	14.89	14.89	14.90	14.91	14.89	14.93	14.94

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.94	14.95	14.95	14.95	14.95	14.95	14.71	14.73	13.99	14.74	14.74

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 558- 2 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 6005.

HO = 14.625 PSIA PINF = 12.185 PSIA TSC = 79.71 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5344 V = 592.92 FPS Q = 349.632 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	620.72	609.57	586.29	583.08	576.50	573.25	569.44	567.47	365.40	570.93	562.27

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.98	14.31	14.58	14.79	14.85	14.85	14.86	14.85	14.86	14.86	14.76	14.87	14.85

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.86	14.84	14.84	14.83	14.84	14.83	14.76	14.58	13.49	14.80	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 559- 4 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 6002.

HO = 14.626 PSIA PINF = 12.997 PSIA TSC = 79.97 DEG F RHO = 0.00208 SLUGS/CU FT

M = 0.4278 V = 479.40 FPS Q = 239.251 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	550.19	546.19	525.17	521.03	512.05	507.12	497.31	495.87	394.64	494.08	504.37

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.56	14.65	14.76	14.87	14.93	14.96	15.00	15.02	15.04	14.76	15.11	15.14
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.16	15.19	15.20	15.22	15.25	15.27	15.29	14.71	14.98	14.02	14.74	14.75	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 560- 5 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 5607.

HO = 14.624 PSIA PINF = 12.183 PSIA TSC = 85.05 DEG F RHO = 0.00197 SLUGS/CU FT

M = 0.5345 V = 595.92 FPS Q = 349.685 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	642.99	633.08	614.26	606.72	601.65	597.19	584.31	583.01	461.83	583.58	590.86

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.02	14.29	14.57	14.79	14.88	14.90	14.91	14.92	14.92	14.91	14.76	14.93	14.93
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	14.93	14.94	14.93	14.93	14.94	14.94	14.92	14.75	14.68	13.49	14.79	14.80	

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 561- 6 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.625 PSIA PINF = 13.001 PSIA TSC = 81.27 DEG F RHO = 0.00208 SLUGS/CU FT

M = 0.4272 V = 479.34 FPS Q = 238.650 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	547.05	542.65	524.33	518.79	509.15	504.89	494.12	491.94	435.09	490.06	505.81

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.57	14.64	14.75	14.85	14.92	14.96	14.99	15.01	15.03	14.75	15.09	15.12

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.14	15.17	15.18	15.20	15.22	15.24	15.25	14.71	15.05	14.02	14.75	14.75

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 562- 3 CONFIGURATION L2C1E1B3PWTTIR1RE THETA 3/4 = 50.0 DEG RPM 5498.

HO = 14.620 PSIA PINF = 12.196 PSIA TSC = 83.87 DEG F RHO = 0.00197 SLUGS/CU FT

M = 0.2326 V = 593.27 FPS Q = 347.566 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	651.11	641.92	619.96	614.98	607.56	603.14	596.14	592.94	420.37	592.17	594.03

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.15	14.33	14.55	14.77	14.91	14.95	14.97	14.99	15.00	15.01	14.77	15.04	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.06	15.07	15.06	15.07	15.08	15.08	15.09	14.75	14.62	13.53	14.79	14.80

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 563- 6 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5509.

HO = 14.625 PSIA PINF = 12.187 PSIA TSC = 82.05 DEG F RHO = 0.00198 SLUGS/CU FT

M = 0.5341 V = 593.89 FPS Q = 349.328 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	666.17	653.05	629.20	623.68	616.90	613.80	610.80	606.43	500.38	605.07	612.55

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.27	14.39	14.55	14.73	14.89	14.97	15.01	15.04	15.08	15.13	14.77	15.19	15.20

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.22	15.24	15.24	15.25	15.26	15.27	15.31	14.75	14.67	13.56	14.80	14.81

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 564- 6 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 34.0 DEG RPM 5499.

HO = 14.626 PSIA PINF = 13.653 PSIA TSC = 74.24 DEG F RHO = 0.00218 SLUGS/CU FT

M = 0.3256 V = 365.67 FPS Q = 145.719 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	399.36	395.09	384.65	379.33	374.02	371.30	361.25	360.32	380.51	361.49	376.73

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.46	14.55	14.65	14.73	14.78	14.63	14.62	14.63	14.63	14.63	14.63	14.64	14.63

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.63	14.63	14.84	14.84	14.85	14.85	14.84	14.68	14.72	14.24	14.71	14.71

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 565- 5 CONFIGURATION L2C1E1B3PWTT1R1RE THETA 3/4 = 34.0 DEG RPM 5501.

HO = 14.625 PSIA PINF = 13.671 PSIA TSC = 77.37 DEG F RHO = 0.00217 SLUGS/CU FT

M = 0.3222 V = 363.02 FPS Q = 142.912 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	395.80	390.32	381.40	376.92	367.87	368.79	357.67	357.67	284.41	361.12	364.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.48	14.56	14.67	14.75	14.78	14.63	14.63	14.63	14.62	14.63	14.63	14.62	14.63

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.63	14.63	14.85	14.85	14.84	14.85	14.83	14.69	14.72	14.25	14.71	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 566- 6 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 30.0 DEG RPM 5497.

HO = 14.567 PSIA PINF = 13.612 PSIA TSC = 76.72 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.3230 V = 363.68 FPS Q = 142.994 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	293.15	315.52	310.16	319.63	320.78	325.93	326.89	326.89	280.98	329.69	314.96

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.37	14.46	14.56	14.64	14.68	14.66	14.67	14.67	14.67	14.66	14.67	14.67	14.67

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.67	14.67	14.67	14.66	14.66	14.65	14.64	14.60	14.52	14.16	14.65	14.65

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 567- 4 CONFIGURATION L1C2E183PWTTIRIRE THETA 3/4 = 34.0 DEG RPM 5999.

HO = 14.566 PSIA PINF = 13.620 PSIA TSC = 76.72 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.3215 V = 361.99 FPS Q = 141.729 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	321.00	351.97	338.43	345.32	345.39	348.30	343.43	349.27	271.93	352.78	336.78

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.51	14.55	14.61	14.68	14.74	14.77	14.79	14.80	14.81	14.82	14.84	14.85	14.86

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.87	14.87	14.88	14.89	14.89	14.89	14.88	14.62	14.74	14.19	14.65	14.65

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 568- 6 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5499.

HO = 14.559 PSIA PINF = 13.619 PSIA TSC = 75.55 DEG F RHO = 0.00217 SLUGS/CU FT

M = 0.3203 V = 360.26 FPS Q = 140.658 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	324.26	351.35	336.86	346.63	344.64	350.41	348.43	348.43	309.96	350.25	341.12

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.51	14.54	14.58	14.66	14.72	14.75	14.78	14.80	14.81	14.82	14.84	14.85	14.85

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.86	14.87	14.87	14.88	14.88	14.89	14.89	14.61	14.77	14.19	14.64	14.64

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 569- 6 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 38.0 DEG RPM 5499.

HQ = 14.568 PSIA PINF = 12.942 PSIA TSC = 79.06 DEG F RHO = 0.00208 SLUGS/CU FT

M = 0.4283 V = 479.52 FPS Q = 238.772 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	383.14	415.38	404.48	418.82	419.57	426.97	422.87	427.79	385.40	433.51	413.79

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.20	14.35	14.51	14.65	14.72	14.73	14.74	14.74	14.74	14.75	14.87	14.74	14.76

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.76	14.75	14.74	14.74	14.73	14.72	14.72	14.66	14.52	13.88	14.70	14.70

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 570- 4 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 6003.

HO = 14.567 PSIA PINF = 13.608 PSIA TSC = 72.94 DEG F RHO = 0.00218 SLUGS/CU FT

M = 0.3236 V = 363.05 FPS Q = 143.485 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	357.83	390.00	367.77	378.58	372.37	380.42	373.21	373.21	300.67	372.62	366.67

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.60	14.66	14.70	14.73	14.75	14.79	14.85	14.88	14.92	14.96	14.99	15.01	15.04
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.07	15.09	15.11	15.13	15.15	15.17	15.19	14.63	15.02	14.23	14.65	14.65	

TABLE VII E330540 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 571- 6 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 5500.

HO = 14.571 PSIA PINF = 12.949 PSIA TSC = 74.24 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4278 V = 476.82 FPS Q = 238.327 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	402.38	438.46	424.17	436.24	435.44	443.34	436.08	440.04	348.36	448.57	425.31

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.33	14.41	14.53	14.66	14.76	14.81	14.83	14.85	14.85	14.85	14.97	14.88	14.89

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.91	14.90	14.90	14.90	14.91	14.90	14.66	14.68	13.90	14.69	14.69

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 572- 2 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 42.0 DEG RPM 6000.

HO = 14.576 PSIA PINF = 12.140 PSIA TSC = 78.15 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5350 V = 592.64 FPS Q = 349.064 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	476.67	522.12	505.29	523.61	523.61	533.27	532.58	534.64	314.41	545.82	501.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.91	14.17	14.43	14.66	14.77	14.77	14.80	14.80	14.78	14.80	14.75	14.79	14.80

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.80	14.79	14.77	14.78	14.78	14.76	14.76	14.71	14.43	13.24	14.71	14.75

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 573- 4 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 599.

HQ = 14.585 PSIA PINF = 12.885 PSIA TSC = 71.64 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4385 V = 487.16 FPS Q = 249.164 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	437.24	477.81	452.41	468.30	464.55	471.27	470.36	471.10	345.48	475.16	453.37

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.45	14.53	14.57	14.67	14.77	14.86	14.91	14.95	14.99	15.01	14.92	15.06	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.11	15.13	15.15	15.17	15.18	15.21	15.23	14.68	14.97	13.89	14.71	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 574- 6 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 46.0 DEG RPM 5503.

HO = 14.581 PSIA PINF = 12.163 PSIA TSC = 79.32 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5326 V = 590.79 FPS Q = 346.642 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	485.54	530.73	512.72	530.12	531.40	539.58	535.60	538.32	474.19	548.25	522.64

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.03	14.20	14.42	14.66	14.80	14.84	14.87	14.88	14.87	14.88	14.78	14.89	14.89

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.90	14.90	14.88	14.89	14.88	14.88	14.87	14.70	14.45	13.32	14.75	14.76

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 575- 5 CONFIGURATION L1C2E183PWTTIRIRE THETA 3/4 = 50.0 DEG RPM 5496.

HO = 14.586 PSIA PINF = 12.993 PSIA TSC = 74.11 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4233 V = 471.93 FPS Q = 234.149 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	425.54	464.64	440.11	455.55	450.28	456.39	451.90	451.90	386.66	456.38	443.93

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.51	14.60	14.63	14.68	14.74	14.80	14.88	14.93	14.97	15.00	14.96	15.07	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.12	15.15	15.15	15.19	15.22	15.23	15.25	14.68	15.01	13.97	14.71	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 576- 6 CONFIGURATION L1C2E1 PWTI1R1RE THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.594 PSIA PINF = 12.171 PSIA TSC = 79.84 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5330 V = 591.47 FPS Q = 347.362 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	504.74	552.71	529.08	546.77	546.10	554.12	550.69	554.02	464.10	561.43	536.38

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.20	14.32	14.44	14.63	14.79	14.90	14.95	14.97	15.00	15.01	14.77	15.03	15.04
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.07	15.07	15.07	15.08	15.09	15.10	15.10	14.72	14.43	13.40	14.77	14.76	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 577- 5 CONFIGURATION L1C2E1B3PWTT1R1RE THETA 3/4 = 54.0 DEG RPM 5501.

HO = 14.586 PSIA PINF = 12.156 PSIA TSC = 78.67 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5340 V = 591.92 FPS Q = 348.280 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	520.56	572.24	544.42	565.00	561.72	570.88	565.66	566.97	453.46	571.75	549.26

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.28	14.40	14.48	14.61	14.75	14.87	14.96	15.01	15.04	15.07	14.76	15.14	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.19	15.21	15.21	15.25	15.27	15.29	15.30	14.72	14.40	13.41	14.76	14.77

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE 1 - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 578- 2 CONFIGURATION L1C2E1B3PWTT1R1READ THETA 3/4 = 30.0 DEG RPM 5500.

HO = 14.614 PSIA PINF = 13.663 PSIA TSC = 68.91 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3217 V = 359.61 FPS Q = 142.396 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	287.48	308.47	303.14	314.81	315.85	318.95	319.92	321.97	176.03	328.41	299.50

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.41	13.40	13.37	13.23	13.36	13.35	13.37	13.31	13.33	13.32	13.36	13.34	13.37

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	13.37	13.39	13.41	13.40	13.29	13.41	13.41	14.53	13.32	13.41	13.31	13.36

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 579- 4 CONFIGURATION L1C2E1B3PWTT1R1READ THETA 3/4 = 38.0 DEG RPM 6000.

HO = 14.616 PSIA PINF = 13.668 PSIA TSC = 70.86 DEG F RHO = 0.00219 SLUGS/CU FT

M = 0.3213 V = 359.78 FPS Q = 142.050 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	337.29	366.53	347.92	359.19	354.53	360.12	357.33	357.33	271.28	358.79	347.03

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.43	13.42	13.37	13.22	13.39	13.37	13.37	13.35	13.36	13.35	13.40	13.37	13.40

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	13.40	13.42	13.43	13.42	13.31	13.42	13.43	14.66	13.36	13.42	13.34	13.39

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 580- 2 CONFIGURATION L1C2E1B3PWTT1R1READ THETA 3/4 = 38.0 DEG RPM 5504.

HO = 14.615 PSIA PINF = 12.993 PSIA TSC = 72.94 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4271 V = 475.47 FPS Q = 238.338 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	379.07	410.85	400.61	413.41	415.88	420.78	419.97	419.97	329.24	428.71	403.79

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	12.57	12.57	12.41	12.41	12.47	12.50	12.46	12.43	12.47	12.44	12.51	12.46	12.50

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	12.52	12.52	12.54	12.53	12.40	12.55	12.54	14.68	12.48	12.55	12.44	12.49

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 581- 6 CONFIGURATION L1C2E183PWTT1R1READ THETA 3/4 = 46.0 DEG RPM 5501.

HO = 1[illegible].634 PSIA PINF = 13.012 PSIA TSC = 74.24 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4268 V = 475.81 FPS Q = 238.429 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	413.04	448.97	431.00	443.62	442.06	449.05	444.40	445.95	383.53	452.27	435.39

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	12.60	12.59	12.55	12.51	12.50	12.57	12.50	12.47	12.50	12.47	12.58	12.49	12.55

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	12.58	12.56	12.58	12.57	12.41	12.59	12.58	14.71	12.52	12.59	12.50	12.53

TABLE VII

E330590 -- 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 585 5 CONFIGURATION L1C2E1B3PWTT1R1READ THETA 3/4 = 54.0 DEG RPM 5503.

HO = 14.635 PSIA PINF = 12.195 PSIA TSC = 79.97 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5342 V = 592.78 FPS Q = 349.590 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	518.02	568.21	539.31	560.00	557.92	566.45	563.18	563.84	417.83	570.69	542.55

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	11.32	11.34	11.31	11.30	11.20	11.36	11.28	11.21	11.23	11.19	14.00	11.24	11.30

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	11.35	11.34	11.35	11.33	11.23	11.32	11.35	14.74	12.89	11.49	11.22	11.24

TABLE VII

2330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 585- 2 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 30.0 DEG RPM 5964.

HO = 14.698 PSIA PINF = 13.741 PSIA TSC = 66.44 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.3220 V = 359.04 FPS Q = 143.423 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	353.95	359.68	335.19	339.06	336.10	339.00	335.13	336.10	162.43	339.22	323.59

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.55	14.68	14.81	14.86	14.88	14.87	14.88	14.87	14.87	14.87	14.87	14.87	14.86

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.84	14.83	14.82	14.79	14.76	14.72	14.69	14.67	14.57	14.36	14.78	14.78

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 586- 6 CONFIGURATION L1SCC1SCE1SC83PNTT1R1RE THETA 3/4 = 34.0 DEG RPM 5499.

HO = 14.703 PSIA PINF = 13.748 PSIA TSC = 69.04 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3215 V = 359.42 FPS Q = 143.082 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	364.27	372.36	347.46	352.16	346.51	350.29	342.76	344.67	281.13	343.77	344.54

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.58	14.70	14.82	14.89	14.90	14.90	14.91	14.91	14.91	14.92	14.92	14.91	14.91

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.89	14.87	14.85	14.84	14.82	14.78	14.76	14.74	14.67	14.30	14.79	14.78

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 587- 3 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 38.0 DEG RPM 5508.

HO = 14.703 PSIA PINF = 13.736 PSIA TSC = 68.26 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3236 V = 361.46 FPS Q = 144.837 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	385.17	394.76	365.96	369.54	362.41	365.12	357.84	357.84	259.12	358.08	357.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.65	14.74	14.84	14.92	14.96	14.97	14.97	14.98	14.98	14.99	15.00	15.00	14.99

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.99	14.98	14.96	14.94	14.93	14.90	14.88	14.85	14.74	14.35	14.78	14.78

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 588- 2 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 38.0 DEG RPM 5891.

HO = 14.712 PSIA PINF = 13.067 PSIA TSC = 69.04 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4288 V = 475.59 FPS Q = 241.652 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
21	467.00	476.39	441.17	447.34	441.17	445.03	438.84	438.06	294.31	441.21	433.05

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.38	14.61	14.81	14.90	14.92	14.89	14.91	14.90	14.91	14.92	14.92	14.92	14.91

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.90	14.88	14.84	14.82	14.79	14.76	14.74	14.70	14.58	13.85	14.52	14.85

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 589- 6 CONFIGURATION L1SCC1SCE1SCB3PN T1R1RE THETA 3/4 = 42.0 DEG RPM 5506.

HO = 14.713 PSIA PINF = 13.755 PSIA TSC = 67.74 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.321 V = 359.34 FPS Q = 143.455 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	405.75	414.75	379.34	384.56	374.94	378.46	370.49	368.70	327.70	369.17	377.39

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.72	14.82	14.88	14.94	15.01	15.03	15.05	15.06	15.08	15.08	15.08	15.10	15.10

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.10	15.09	15.08	15.07	15.06	15.04	15.03	15.00	14.87	14.21	14.69	14.80

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 590- 6 CONFIGURATION L1SCC1SCE1SC83PNTT1R1RE THETA 3/4 = 42.0 DEG RPM 5503.

HO = 14.718 PSIA PINF = 13.072 PSIA TSC = 72.81 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4287 V = 477.22 FPS Q = 241.678 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	484.28	496.48	459.44	463.18	456.50	459.52	450.43	450.43	365.89	451.58	453.77

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.46	14.65	14.84	14.94	14.97	14.97	14.98	14.98	14.99	15.00	15.01	15.01	15.00

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.99	14.97	14.94	14.92	14.89	14.87	14.84	14.82	14.65	13.89	14.48	14.84

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 592- 6 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 42.0 DEG RPM 5498.

HO = 14.731 PSIA PINF = 13.098 PSIA TSC = 73.46 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4267 V = 475.34 FPS Q = 239.886 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	484.20	495.30	459.42	463.91	455.74	459.51	451.10	450.33	383.01	450.12	455.26

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.49	14.67	14.85	14.97	14.99	15.00	15.00	15.01	15.01	15.01	15.03	15.03	15.02

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.02	15.00	14.97	14.95	14.93	14.91	14.88	14.86	14.73	13.92	14.50	14.85

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 593- 4 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 46.0 DEG RPM 6001.

HO = 14.732 PSIA PINF = 13.770 PSIA TSC = 66.44 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.3225 V = 359.62 FPS Q = 144.199 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
P1	442.25	458.89	415.10	419.89	405.46	408.72	396.43	396.43	321.69	390.62	405.55

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.77	14.95	15.03	15.06	15.07	15.13	15.17	15.21	15.25	15.27	15.29	15.29	15.31

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.32	15.33	15.32	15.33	15.33	15.32	15.31	15.27	15.13	14.33	14.79	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 594- 4 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 46.0 DEG RPM 5999.

HO = 14.741 PSIA PINF = 13.113 PSIA TSC = 72.16 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4259 V = 473.92 FPS Q = 239.270 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	516.50	533.28	484.49	492.31	478.01	483.06	472.28	471.55	336.12	471.47	473.91

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.62	14.75	14.90	15.02	15.12	15.15	15.18	15.18	15.20	15.21	15.23	15.25	15.26

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.26	15.26	15.24	15.24	15.21	15.19	15.17	15.11	14.92	13.93	14.57	14.87

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 595- 2 CONFIGURATION L1SCC1SCE1SCB3PN1T1R1RE THETA 3/4 = 46.0 DEG RPM 6002.

HO = 14.741 PSIA PINF = 12.292 PSIA TSC = 79.06 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5331 V = 591.18 FPS Q = 350.983 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	602.96	620.63	571.48	579.20	568.89	574.06	563.02	564.33	334.85	564.24	554.37

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.21	14.55	14.85	15.00	15.03	15.02	15.03	15.04	15.04	15.05	15.06	15.05	15.05

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.03	15.00	14.99	14.96	14.93	14.85	14.82	14.79	14.59	13.40	14.05	14.85

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 596- 4 CONFIGURATION L1SCC1SCF1SCB3PNTT1R1RE THETA 3/4 = 50.0 DEG RPM 6000.

HO = 14.741 PSIA PINF = 13.103 PSIA TSC = 78.15 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4273 V = 478.02 FPS Q = 240.595 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	551.21	572.53	515.87	524.10	509.53	513.01	499.79	497.66	375.01	493.82	505.26

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.63	14.83	14.97	15.04	15.13	15.21	15.27	15.31	15.35	15.38	15.39	15.42	15.44
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.46	15.47	15.47	15.47	15.47	15.47	15.45	15.37	15.15	13.91	14.59	14.87	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 597- 4 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 50.0 DEG RPM 6001.

HO = 14.741 PSIA PINF = 12.290 PSIA TSC = 85.70 DEG F RHO = 0.00198 SLUGS/CU FT

M = 0.5333 V = 595.04 FPS Q = 351.229 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	641.41	663.27	603.84	613.81	600.18	604.58	590.79	591.42	421.12	589.51	591.99

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.30	14.55	14.82	15.05	15.18	15.22	15.24	15.26	15.28	15.30	15.32	15.33	15.33

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.32	15.32	15.28	15.23	15.17	15.14	15.10	15.06	14.88	13.41	14.06	14.85

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 598- 6 CONFIGURATION L1SCC1SCE1SCB3PNTTIR1RE THETA 3/4 = 54.0 DEG RPM 5497.

HO = 14.732 PSIA PINF = 12.284 PSIA TSC = 83.35 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5332 V = 593.65 FPS Q = 350.917 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	643.49	666.65	606.28	615.57	601.80	606.79	592.24	590.98	492.43	587.90	600.41

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.24	14.49	14.77	15.00	15.13	15.17	15.21	15.23	15.25	15.27	15.29	15.31	15.31
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.32	15.31	15.29	15.27	15.24	15.19	15.14	15.12	14.88	13.39	14.08	14.84	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 601- 4 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 46.0 DEG RPM 5998.

HO = 14.742 PSIA PINF = 13.791 PSIA TSC = 79.97 DEG F RHO = 0.00218 SLUGS/CU FT

M = 0.3203 V = 361.78 FPS Q = 142.466 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	453.89	468.93	424.89	429.71	415.87	419.14	404.30	402.61	317.76	397.59	413.47

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.81	14.98	15.06	15.07	15.10	15.16	15.20	15.24	15.28	15.30	15.31	15.33	15.34
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.36	15.37	15.37	15.38	15.37	15.37	15.36	15.31	15.19	14.35	14.81	14.83	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 602- 4 CONFIGURATION L1SCC1SCE1SCB3PNIT1R1RE THETA 3/4 = 46.0 DEG RPM 6001.

HO = 14.742 PSIA PINF = 13.114 PSIA TSC = 82.44 DEG F RHO = 0.00209 SLUGS/CU FT

M = 0.4259 V = 478.45 FPS Q = 239.277 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	528.00	544.50	494.85	502.72	489.07	492.69	481.11	479.64	344.30	478.16	483.50

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.63	14.77	14.91	15.02	15.12	15.15	15.19	15.21	15.21	15.24	15.25	15.26	15.28

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.28	15.27	15.26	15.26	15.23	15.22	15.20	15.14	14.94	13.94	14.53	14.86

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 603- 5 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1RE THETA 3/4 = 46.0 DEG RPM 5997.

HO = 14.741 PSIA PINF = 13.106 PSIA TSC = 83.09 DEG F RHO = 0.00209 SLUGS/CU FT

M = 0.4269 V = 479.85 FPS Q = 240.264 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	530.01	545.25	496.19	501.92	488.31	491.22	482.36	480.89	395.13	479.70	489.10

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.62	14.77	14.90	15.01	15.12	15.15	15.18	15.20	15.22	15.23	15.24	15.27	15.28
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	15.28	15.29	15.26	15.26	15.23	15.23	15.20	15.14	14.95	13.94	14.52	14.87	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 604- 3 CONFIGURATION L1SCC1SCE1SC83PNTT1R1READ THETA 3/4 = 46.0 DEG RPM 6001.

HO = 14.728 PSIA PINF = 13.088 PSIA TSC = 78.67 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4278 V = 478.77 FPS Q = 240.864 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	524.46	541.22	495.50	501.22	489.09	491.26	480.30	479.57	236.85	477.44	471.69

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.60	14.75	14.89	15.02	15.11	15.15	15.17	15.20	15.21	15.22	15.24	15.26	15.26

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.26	15.26	15.24	15.23	15.22	15.20	15.18	15.11	14.91	14.03	14.46	14.83

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 605- 4 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1READ THETA 3/4 = 46.0 DEG RPM 6000.

HO = 14.724 PSIA PINF = 13.082 PSIA TSC = 85.05 DEG F RHO = 0.00208 SLUGS/CU FT

M = 0.4281 V = 482.01 FPS Q = 241.176 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	530.48	546.33	497.81	505.01	490.53	494.91	483.81	482.33	314.64	479.90	482.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.59	14.74	14.88	15.01	15.11	15.15	15.17	15.19	15.20	15.22	15.23	15.24	15.26

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.26	15.26	15.24	15.23	15.21	15.19	15.18	15.12	14.91	14.02	14.45	14.84

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 606- 3 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1READ THETA 3/4 = 45.0 DEG RPM 6001.

HO = 14.732 PSIA PINF = 12.282 PSIA TSC = 87.52 DEG F RHO = 0.00198 SLUGS/CU FT

M = 0.5334 V = 596.11 FPS Q = 351.097 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	616.39	634.34	582.36	588.84	578.45	583.01	573.10	572.44	365.37	571.83	566.61

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.23	14.56	14.85	15.04	15.07	15.08	15.08	15.08	15.10	15.11	15.11	15.10	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.08	15.06	15.05	15.00	14.97	14.92	14.87	14.85	14.65	13.31	13.87	14.71

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 607- 2 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1READ THETA 3/4 = 30.0 DEG RPM 6025.

HO = 14.723 PSIA PINF = 13.775 PSIA TSC = 82.44 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.3199 V = 362.15 FPS Q = 141.931 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	359.01	364.22	338.24	344.19	340.18	342.16	339.18	339.18	315.84	341.38	342.36

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.56	14.71	14.83	14.88	14.90	14.89	14.90	14.90	14.89	14.90	14.89	14.88	14.88

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.86	14.85	14.83	14.81	14.77	14.73	14.70	14.68	14.57	14.29	14.54	14.79

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 608- 4 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1READ THETA 3/4 = 38.0 DEG RPM 6002.

HO = 14.724 PSIA PINF = 13.773 PSIA TSC = 76.72 DEG F RHO = 0.00219 SLUGS/CU FT

M = 0.3205 V = 360.88 FPS Q = 142.425 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	405.01	414.29	380.87	386.19	378.12	380.80	373.68	371.86	281.01	371.69	374.35

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.74	14.13	14.90	14.98	15.04	15.07	15.09	15.10	15.11	15.12	15.13	15.13	15.13

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.14	15.14	15.11	15.09	15.07	15.06	15.02	14.96	14.83	14.33	14.62	14.81

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 609- 3 CONFIGURATION L1SCC1SCE1SCB3PNTT1R1READ THETA 3/4 = 38.0 DEG RPM 5999.

HO = 14.724 PSIA PINF = 13.087 PSIA TSC = 79.97 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4273 V = 478.90 FPS Q = 240.381 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	477.23	488.22	452.97	457.61	451.42	454.52	444.53	445.32	317.76	446.97	443.65

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.41	14.63	14.81	14.92	14.94	14.94	14.95	14.96	14.96	14.97	14.98	14.97	14.97

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.93	14.91	14.88	14.85	14.83	14.79	14.76	14.62	13.95	14.36	14.81

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 610- 4 CONFIGURATION L1SCC1SCE1SCB3PNTI1R1READ THETA 3/4 = 54.0 DEG RPM 5998.

HO = 14.718 PSIA PINF = 12.277 PSIA TSC = 88.43 DEG F RHO = 0.00197 SLUGS/CU FT

M = 0.5326 V = 595.74 FPS Q = 349.878 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	657.36	679.76	618.69	628.66	614.41	618.81	603.64	604.92	403.56	599.04	602.89

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.28	14.50	14.78	15.01	15.17	15.25	15.28	15.32	15.34	15.37	15.41	15.44	15.44

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.43	15.43	15.41	15.38	15.34	15.28	15.24	15.19	14.90	13.44	14.03	14.77

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 612- 7 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 30.0 DEG RPM 5503.

HO = 14.712 PSIA PINF = 13.756 PSIA TSC = 65.14 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.3217 V = 358.27 FPS Q = 143.313 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	377.13	371.17	345.85	346.80	339.10	340.07	336.20	335.23	141.32	336.40	326.93

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.52	14.64	14.74	14.82	14.84	14.83	14.85	14.85	14.84	14.84	14.84	14.84	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.83	14.80	14.80	14.78	14.77	14.77	14.75	14.61	14.36	14.79	14.79

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 613- 7 CONFIGURATION L1C1E1B3PR12R1RE THETA 3/4 = 34.0 DEG RPM 5491.

HO = 14.712 PSIA PINF = 13.752 PSIA TSC = 67.74 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3223 V = 359.80 FPS Q = 143.805 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	396.99	387.98	370.53	368.74	361.43	361.43	353.18	353.18	301.48	353.24	360.82

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.60	14.68	14.78	14.86	14.89	14.90	14.90	14.92	14.92	14.92	14.92	14.92	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.92	14.92	14.92	14.91	14.89	14.88	14.87	14.66	14.36	14.79	14.79

TABLE VII' E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 614- 6 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 38.0 DEG RPM 5505.

HO = 14.665 PSIA PINF = 13.726 PSIA TSC = 66.31 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3192 V = 355.89 FPS Q = 140.752 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	413.22	404.33	384.19	382.46	374.62	373.74	364.83	363.02	295.34	359.70	371.54

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.65	14.71	14.77	14.83	14.89	14.93	14.95	14.96	14.97	14.97	14.98	14.98	14.99
ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25	
RE	14.99	15.00	14.99	14.99	14.99	14.99	14.97	14.95	14.73	14.35	14.75	14.75	

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 637- 4 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 50.0 DEG RPM 6001.

HO = 14.625 PSIA PINF = 12.996 PSIA TSC = 81.27 DEG F RHO = 0.00208 SLUGS/CU FT

M = 0.4279 V = 480.14 FPS Q = 239.379 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	569.92	563.98	529.85	529.85	517.47	517.47	503.32	501.89	412.95	494.77	514.15

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.58	14.74	14.86	14.87	14.89	14.95	15.03	15.10	15.16	15.20	15.23	15.25	15.27

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.29	15.30	15.30	15.31	15.30	15.30	12.67	15.18	14.80	14.04	14.74	14.74

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 638- 6 CONFIGURATION 11C1E1B3PNTT1R1RE THETA 3/4 = 50.0 DEG RPM 5501.

HO = 14.625 PSIA PINF = 12.191 PSIA TSC = 82.96 DEG F RHO = 0.00198 SLUGS/CU FT

M = 0.5337 V = 593.91 FPS Q = 348.836 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	666.76	650.96	619.37	616.25	605.18	605.18	77.27	584.04	475.97	578.17	547.91

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.28	14.44	14.63	14.81	14.94	14.98	15.00	15.01	15.02	15.02	15.04	15.05	15.05

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.04	15.03	15.00	14.97	14.96	14.95	11.53	14.88	14.42	13.41	14.78	14.79

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 639- 6 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 54.0 DEG RPM 5501.

HO = 14.635 PSIA PINF = 12.205 PSIA TSC = 82.05 DEG F RHO = 0.00198 SLUGS/CU FT

M = 0.5330 V = 592.71 FPS Q = 348.359 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	679.82	664.24	628.34	627.11	616.69	617.32	85.36	598.31	483.57	589.61	559.04

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.24	14.43	14.60	14.75	14.90	14.99	15.06	15.10	15.13	15.15	15.16	15.19	15.20

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.21	15.21	15.19	15.18	15.16	15.15	11.59	15.05	14.54	13.49	14.80	14.81

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 641- 2 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 30.0 DEG RPM 5500.

HO = 14.636 PSIA PINF = 13.761 PSIA TSC = 62.53 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3079 V = 342.32 FPS Q = 131.328 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	357.73	347.11	329.90	329.90	326.91	324.94	55.49	318.96	184.24	318.33	289.35

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.41	14.52	14.61	14.68	14.71	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.70	14.70	14.69	14.68	14.67	14.65	13.53	14.63	14.50	14.24	14.64	14.64

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 642- 6 CONFIGURATION L1C1E183PRT3R1RE THETA 3/4 = 34.0 DEG RPM 5504.

HO = 14.646 PSIA PINF = 13.769 PSIA TSC = 59.80 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3081 V = 341.62 FPS Q = 131.561 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	375.71	368.57	349.78	347.94	343.29	341.42	42.87	331.96	300.17	329.43	313.11

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.51	14.58	14.66	14.73	14.77	14.77	14.79	14.79	14.80	14.80	14.79	14.81	14.81

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.80	14.80	14.79	14.79	14.79	14.77	13.58	14.72	14.52	14.26	14.65	14.64

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 643- 4 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 38.0 DEG RPM 5997.

HO = 14.645 PSIA PINF = 13.765 PSIA TSC = 59.80 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3087 V = 342.30 FPS Q = 132.052 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	407.07	406.16	383.05	381.35	375.29	374.43	49.46	361.26	269.10	356.41	336.36

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.57	14.65	14.72	14.76	14.82	14.87	14.89	14.91	14.93	14.94	14.95	14.96	14.98

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.98	14.99	14.99	15.00	15.00	15.01	13.67	14.95	14.71	14.30	14.64	14.64

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 644- 5 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 38.0 DEG RPM 5504.

HO = 14.645 PSIA PINF = 13.134 PSIA TSC = 63.05 DEG F RHO = 0.00217 SLUGS/CU FT

M = 0.4106 V = 453.45 FPS Q = 222.710 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	476.03	465.81	444.01	437.97	433.39	432.63	55.48	417.76	329.18	417.78	391.00

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.28	14.42	14.57	14.68	14.73	14.73	14.75	14.74	14.76	14.74	14.75	14.76	14.76

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.76	14.75	14.74	14.73	14.72	14.72	12.92	14.69	14.41	13.98	14.64	14.64

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 645- 4. CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 42.0 DEG RPM 6000.

HO = 14.655 PSIA PINF = 13.791 PSIA TSC = 59.30 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.3058 V = 339.13 FPS Q = 129.318 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	420.96	419.96	395.13	395.95	386.76	385.92	55.25	371.48	210.18	365.61	340.72

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.62	14.70	14.78	14.83	14.86	14.90	14.94	14.98	15.01	15.04	15.06	15.07	15.10

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.11	15.12	15.14	15.15	15.16	15.17	13.79	15.13	14.87	14.34	14.66	14.66

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 646- 7 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 42.0 DEG RPM 5504.

HO = 14.654 PSIA PINF = 13.153 PSIA TSC = 68.26 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4091 V = 454.11 FPS Q = 221.420 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

CRIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	488.72	478.42	453.09	450.12	442.60	442.60	61.00	430.26	380.29	429.28	405.64

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.41	14.49	14.60	14.70	14.78	14.81	14.83	14.83	14.84	14.86	14.86	14.88	14.88

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.88	14.89	14.88	14.87	14.86	14.86	12.80	14.78	14.48	14.02	14.65	14.65

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 647- 2 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 42.0 DEG RPM 5746.

HO = 14.659 PSIA PINF = 12.378 PSIA TSC = 75.55 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5140 V = 569.21 FPS Q = 328.620 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	541.84	577.14	544.85	543.54	536.23	536.23	79.47	522.24	369.06	522.66	482.33

EXIT RAKE PRESSURES, PSIA

ORIFICE	C1	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.97	14.27	14.50	14.66	14.71	14.71	14.71	14.71	14.72	14.70	14.70	14.71	14.70

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.71	14.70	14.69	14.68	14.66	14.65	12.54	14.63	14.33	13.50	14.66	14.67

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 648- 4 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 34.0 DEG RPM 6002.

HO = 14.664 PSIA PINF = 13.785 PSIA TSC = 67.74 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3083 V = 344.53 FPS Q = 131.953 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	394.55	390.81	367.56	366.66	359.52	357.70	43.17	347.59	310.64	343.23	328.14

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.58	14.65	14.72	14.79	14.84	14.86	14.88	14.89	14.91	14.90	14.91	14.91	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.92	14.92	14.91	14.91	14.90	13.90	14.81	14.60	14.29	14.66	14.66

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 649- 4 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 46.0 DEG RPM 6003.

HQ = 14.664 PSIA PINF = 13.146 PSIA TSC = 68.91 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4114 V = 456.87 FPS Q = 223.803 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	525.24	518.23	488.16	487.46	477.66	475.51	70.54	461.03	314.27	456.42	427.45

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.61	14.69	14.74	14.81	14.87	14.93	14.98	15.00	15.02	15.04	15.07	15.08

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.10	15.12	15.13	15.14	15.16	15.16	13.53	15.11	14.75	14.05	14.66	14.67

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PI NO. 650- 6 CONFIGURATION L1C1E1B39RT3R1RE THETA 3/4 = 46.0 DEG RPM 5498.

HO = 14.665 PSIA PINF = 12.379 PSIA TSC = 75.55 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5145 V = 569.74 FPS Q = 329.288 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	597.79	582.13	553.93	548.90	542.04	542.04	74.36	527.90	421.30	524.66	491.51

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.10	14.32	14.51	14.68	14.76	14.78	14.78	14.79	14.80	14.79	14.80	14.81	14.82

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.81	14.80	14.79	14.79	14.78	14.77	12.76	14.73	14.34	13.55	14.67	14.66

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 651- 5 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 50.0 DEG RPM 5502.

HO = 14.669 PSIA PINF = 13.157 PSIA TSC = 76.07 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4104 V = 458.92 FPS Q = 222.958 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	524.89	518.79	489.29	487.88	480.57	477.70	70.99	460.97	390.28	455.48	435.68

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.51	14.61	14.68	14.72	14.79	14.84	14.91	14.95	14.98	15.01	15.04	15.05	15.07

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.09	15.10	15.11	15.13	15.14	15.14	13.40	15.09	14.76	14.07	14.67	14.67

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 652- 7 CONFIGURATION L1C1E1B3PRT3R1RE THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.659 PSIA PINF = 12.366 PSIA TSC = 88.95 DEG F RHO = 0.00198 SLUGS/CU FT

M = 0.5155 V = 577.84 FPS Q = 330.175 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	634.46	618.31	584.10	580.94	572.46	573.10	71.83	557.08	472.77	552.67	521.77

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	C2	03	04	05	06	07	08	09	10	11	12	13
RE	14.18	14.31	14.49	14.65	14.77	14.83	14.87	14.87	14.89	14.92	14.92	14.93	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.96	14.96	14.95	14.94	14.94	14.94	11.99	14.83	14.40	13.56	14.66	14.66

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 653- 5 CONFIGURATION L1C1E1B3PRT3R1:E THETA 3/4 = 54.0 DEG RPM 5919.

HO = 14.665 PSIA PINF = 12.379 PSIA TSC = 79.97 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5145 V = 572.08 FPS Q = 329.288 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	C4	06	07	09	10	12	13	15	V AVE
R1	652.85	641.16	604.22	604.22	595.60	593.77	75.49	574.79	449.22	568.64	536.00

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.22	14.34	14.48	14.62	14.75	14.85	14.96	15.04	15.09	15.13	15.18	15.20	15.22

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.24	15.25	15.24	15.26	15.26	15.26	12.06	15.10	14.54	13.64	14.67	14.68

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 615- 6 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 38.0 DEG RPM 5603.

HO = 14.659 PSIA PINF = 13.037 PSIA TSC = 74.76 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4264 V = 475.59 FPS Q = 238.416 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	503.18	490.12	466.05	463.81	455.50	455.50	444.04	442.49	364.20	444.06	452.89

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.34	14.52	14.70	14.81	14.84	14.85	14.85	14.86	14.86	14.85	14.86	14.86	14.86

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.84	14.83	14.82	14.81	14.80	14.79	14.78	14.53	14.05	14.78	14.78

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 616- 6 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 38.0 DEG RPM 5607.

HO = 14.664 PSIA PINF = 13.029 PSIA TSC = 76.72 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4280 V = 478.21 FPS Q = 240.094 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	504.01	491.35	467.21	464.96	455.87	456.63	445.85	445.07	357.78	446.88	453.56

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.33	14.51	14.69	14.80	14.84	14.85	14.85	14.86	14.85	14.85	14.86	14.86	14.85

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.84	14.83	14.82	14.81	14.80	14.79	14.78	14.52	14.04	14.78	14.78

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 617- 4 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 42.0 DEG RPM 6003.

HO = 14.654 PSIA PINF = 13.705 PSIA TSC = 71.64 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3211 V = 359.85 FPS Q = 142.274 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	450.79	447.22	421.29	421.29	409.13	409.13	397.41	395.72	319.84	389.90	406.17

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.78	14.85	14.88	14.91	14.94	15.01	15.05	15.08	15.10	15.12	15.13	15.15

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.17	15.18	15.19	15.21	15.23	15.24	15.23	15.18	14.94	14.35	14.74	14.74

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 618- 3 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 42.0 DEG RPM 5493.

HO = 14.645 PSIA PINF = 13.017 PSIA TSC = 74.24 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4274 V = 476.40 FPS Q = 239.141 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	520.46	509.64	481.39	479.20	469.53	470.27	458.43	456.91	336.02	458.47	464.03

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.45	14.56	14.70	14.81	14.89	14.90	14.91	14.92	14.92	14.93	14.94	14.95	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.94	14.95	14.94	14.94	14.94	14.92	14.91	14.89	14.57	14.04	14.76	14.77

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 613- 2 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 42.0 DEG RPM 5968.

HO = 14.650 PSIA PINF = 12.212 PSIA TSC = 80.75 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5336 V = 592.56 FPS Q = 349.275 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	638.43	618.82	584.40	581.85	573.36	572.74	559.14	558.48	381.70	559.86	562.88

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.03	14.36	14.62	14.81	14.87	14.87	14.88	14.87	14.87	14.86	14.87	14.87	14.85

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.84	14.83	14.82	14.79	14.78	14.77	14.75	14.39	13.36	14.79	14.82

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 620- 6 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 46.0 DEG RPM 5503.

HO = 14.640 PSIA PINF = 13.015 PSIA TSC = 71.51 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4271 V = 474.89 FPS Q = 238.786 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	539.60	529.57	498.13	497.42	486.79	486.07	474.96	473.49	375.89	471.48	483.34

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.48	14.58	14.68	14.80	14.88	14.94	14.97	14.99	15.01	15.02	15.04	15.05	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.06	15.07	15.08	15.08	15.08	15.08	15.05	14.70	14.04	14.76	14.76

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 621- 5 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 46.0 DEG RPM 5507.

HO = 14.653 PSIA PINF = 12.225 PSIA TSC = 74.24 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5324 V = 587.73 FPS Q = 348.071 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	650.40	631.43	599.50	593.87	586.19	585.55	565.86	566.51	440.70	565.83	578.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.12	14.38	14.63	14.83	14.93	14.93	14.94	14.95	14.95	14.92	14.94	14.96	14.94

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.93	14.93	14.93	14.93	14.91	14.90	14.88	14.87	14.47	13.46	14.81	14.83

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 622- 7 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 50.0 DEG RPM 5504.

HO = 14.646 PSIA PINF = 13.018 PSIA TSC = 74.24 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4273 V = 476.32 FPS Q = 239.079 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	555.48	546.71	515.11	513.04	502.55	502.55	488.28	486.12	404.51	483.58	499.79

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.53	14.62	14.72	14.79	14.87	14.94	15.01	15.04	15.08	15.10	15.12	15.13	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.17	15.19	15.20	15.21	15.23	15.24	15.23	15.18	14.85	14.05	14.77	14.77

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 623- 3 CONFIGURATION L1C1E1R3PRT2R1RE THETA 3/4 = 50.0 DEG RPM 5491.

HQ = 14.646 PSIA PINF = 12.214 PSIA TSC = 74.76 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5330 V = 588.67 FPS Q = 348.567 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	664.86	648.60	611.38	610.15	598.47	597.84	583.96	583.33	394.03	579.17	587.18

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.23	14.40	14.61	14.80	14.93	15.00	15.02	15.04	15.05	15.06	15.06	15.08	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.09	15.09	15.09	15.09	15.09	15.08	15.07	15.02	14.55	13.51	14.81	14.81

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 624- 6 CONFIGURATION L1C1E1B3PRT2R1SE THETA 3/4 = 54.0 DEG RPM 5501.

HO = 14.644 PSIA PINF = 12.208 PSIA TSC = 71.64 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5336 V = 587.57 FPS Q = 349.171 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	678.44	660.83	623.84	621.43	611.81	612.42	596.37	595.75	518.99	588.95	610.88

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.27	14.39	14.53	14.73	14.90	15.01	15.07	15.10	15.12	15.15	15.18	15.20	15.22

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.24	15.24	15.25	15.27	15.28	15.29	12.18	15.23	14.65	13.57	14.81	14.81

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 625- 6 CONFIGURATION L1C1E1B3PRT2R1RE THETA 3/4 = 34.0 DEG RPM 5492.

HO = 14.654 PSIA PINF = 13.698 PSIA TSC = 70.21 DEG F RHO = 0.00220 SLUGS/CU FT

M = 0.3222 V = 360.58 FPS Q = 143.186 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	397.86	390.09	373.56	368.16	360.92	362.76	351.54	351.54	385.06	350.95	369.24

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.55	14.62	14.73	14.80	14.84	14.85	14.85	14.86	14.86	14.86	14.86	14.86	14.87

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.86	14.86	14.86	14.85	14.84	14.83	13.54	14.80	14.60	14.30	14.74	14.74

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 627- 2 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 30.0 DEG RPM 5883.

HO = 14.646 PSIA PINF = 13.691 PSIA TSC = 63.83 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.3221 V = 358.21 FPS Q = 142.956 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	375.66	365.01	349.31	347.42	340.79	340.79	335.88	335.88	164.12	332.92	328.78

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.61	14.72	14.78	14.79	14.79	14.78	14.78	14.79	14.79	14.78	14.78	14.78

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.78	14.76	14.76	14.74	14.71	14.68	13.55	14.63	14.48	14.27	14.73	14.72

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 628- 3 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 34.0 DEG RPM 5499.

HO = 14.653 PSIA PINF = 13.698 PSIA TSC = 66.44 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3220 V = 359.03 FPS Q = 142.972 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	387.79	378.73	360.03	358.19	351.61	351.61	344.98	344.03	237.05	342.92	345.70

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.57	14.65	14.74	14.82	14.84	14.83	14.83	14.83	14.83	14.85	14.84	14.84	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.84	14.83	14.82	14.81	14.79	14.77	13.58	14.72	14.55	14.28	14.74	14.73

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 629- 7 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 38.0 DEG RPM 5499.

HO = 14.055 PSIA PINF = 13.699 PSIA TSC = 69.56 DEG F RHO = 0.00221 SLUGS/CU FT

M = 0.3222 V = 360.35 FPS Q = 143.188 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	407.52	401.67	378.61	378.61	369.70	370.60	361.52	359.67	320.75	360.23	370.89

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.65	14.71	14.78	14.84	14.90	14.92	14.93	14.93	14.93	14.95	14.95	14.95	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.94	14.95	14.93	14.91	14.91	13.64	14.83	14.61	14.31	14.74	14.74

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 630- 2 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 38.0 DEG RPM 5597.

HO = 14.655 PSIA PINF = 13.025 PSIA TSC = 70.34 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4276 V = 474.89 FPS Q = 239.524 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	492.41	480.02	455.52	454.76	445.54	446.31	439.14	437.56	301.73	436.21	438.92

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.34	14.53	14.69	14.80	14.83	14.82	14.82	14.82	14.82	14.83	14.84	14.83	14.82

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.81	14.79	14.77	14.74	14.73	12.61	14.68	14.44	14.00	14.78	14.78

TABLE VII

F330590 -- 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 631- 6 CONFIGURATION L1C1E183PNTT1R1RE THETA 3/4 = 42.0 DEG RPM 5499.

HO = 14.635 PSIA PINF = 13.694 PSIA TSC = 72.16 DEG F RHO = 0.00219 SLUGS/CU FT

M = 0.3199 V = 358.63 FPS Q = 141.037 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	424.21	418.88	401.17	398.61	388.39	388.39	375.01	375.01	337.05	371.87	387.86

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.66	14.75	14.80	14.83	14.87	14.92	14.95	14.98	14.99	14.99	14.99	15.01	15.01

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.01	15.01	15.01	15.01	15.00	14.99	13.49	14.93	14.71	14.31	14.71	14.71

TABLE VII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 632-6 CONFIGURATION L1C1E183PNTT1R1RE THETA 3/4 = 42.0 DEG RPM 5500.

HQ = 14.626 PSIA PINF = 13.003 PSIA TSC = 74.76 DEG F RHO = 0.00210 SLUGS/CU FT

M = 0.4271 V = 476.29 FPS Q = 238.522 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	512.98	500.35	474.57	472.34	464.77	466.27	452.58	451.81	333.10	450.80	457.96

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.45	14.56	14.70	14.81	14.88	14.88	14.88	14.87	14.89	14.90	14.91	14.91	14.91

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.90	14.88	14.86	14.84	14.83	12.73	14.78	14.48	13.99	14.74	14.74

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 634- 4 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 58.0 DEG RPM 5349.

HO = 14.625 PSIA PINF = 12.198 PSIA TSC = 81.14 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5323 V = 592.01 FPS Q = 347.913 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	687.82	672.86	634.88	631.82	621.73	624.82	606.23	605.60	398.11	597.38	608.12

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.29	14.44	14.61	14.72	14.82	14.92	15.04	15.12	15.20	15.24	15.26	15.28	15.30

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.31	15.31	15.30	15.30	15.28	15.27	12.05	15.14	14.55	13.55	14.80	14.79

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 635- 4 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 46.0 DEG RPM 6001

HO = 14.625 PSIA PINF = 12.998 PSIA TSC = 79.45 DEG F RHO = 0.00208 SLUGS/CU FT

M = 0.4276 V = 478.97 FPS Q = 239.048 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	551.64	543.05	510.19	509.48	498.77	498.77	485.03	483.55	379.88	480.63	494.10

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.54	14.67	14.74	14.80	14.90	14.96	15.02	15.06	15.09	15.09	15.12	15.13	15.14

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.14	15.15	15.13	15.12	15.11	15.10	12.71	15.03	14.65	14.02	14.74	14.75

TABLE VII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 636- 2 CONFIGURATION L1C1E1B3PNTT1R1RE THETA 3/4 = 46.0 DEG RPM 5472.

HO = 14.625 PSIA PINF = 12.184 PSIA TSC = 84.65 DEG F RHO = 0.00197 SLUGS/CU FT

M = 0.5345 V = 595.74 FPS Q = 349.758 PSF PSI = 0. DEG

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	641.39	624.86	590.23	587.65	579.96	578.00	564.24	564.91	390.88	562.17	568.43

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.10	14.37	14.62	14.79	14.86	14.84	14.86	14.85	14.85	14.86	14.87	14.87	14.87

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.86	14.84	14.80	14.79	14.76	14.74	11.58	14.68	14.32	13.32	14.76	14.80

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 137 CONFIGURATION L1C1E1B3PWTR1RE THETA 3/4 = 30.0 DEG RPM 5500

H0 =14.714 PS1A P1NF = 14.648 PS1A TSC = 35.73 DEG F RH0 = 0.00247 SLUGS/CU FT

M = 0.0488 V = 53.32 FPS Q = 3.514 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PS1A	PS PS1A	V FPS	V PRIME FPS
2	10.90	13.6	—	49.	14.95	—	—	—
3	9.90	8.0	33.0	48.	15.07	14.66	216.10	179.49
4	8.90	7.2	-3.0	44.	15.07	14.65	216.75	214.73
5	7.90	7.6	-3.0	44.	15.04	14.65	211.09	209.33
6	6.90	8.0	-3.0	44.	15.01	14.66	200.33	198.11
7	5.90	8.3	-5.0	43.	14.98	14.67	189.38	186.67
8	4.90	9.0	-2.0	44.	14.95	14.66	182.81	180.45
9	3.90	9.6	-2.0	43.	14.92	14.63	182.81	180.14
10	2.90	10.5	-2.0	43.	14.96	14.66	187.01	183.77
11	1.90	12.0	1.0	43.	14.87	14.65	158.67	155.18
12	.90	14.8	-2.0	43.	14.86	14.65	156.38	151.09
13	0.00	17.7	-1.0	43.	14.80	14.65	132.33	126.06

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 138 CONFIGURATION L1C1E1B3PWTR1RE THETA 314 = 30.0 DEG RPM 6500

H0 =14.714 PSIA P1NF = 14.651 PSIA TSC = 36.51 DEG F RH0 = 0.00247 SLUGS/CU FT

M = 0.0488 V = 53.35 FPS Q = 3.514 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.00	18.0	1.0	42.	14.87	14.66	156.23	148.57
3	0.90	14.8	0.0	42.	14.95	14.68	177.16	171.28
4	1.90	12.1	0.0	42.	14.98	14.67	189.19	184.99
5	2.90	10.6	-2.0	42.	15.00	14.67	194.66	191.35
6	3.90	9.8	-2.0	42.	15.03	14.65	208.88	205.71
7	4.90	9.4	-2.0	42.	15.08	14.66	219.91	216.73
8	5.90	8.5	-2.0	42.	15.11	14.66	226.38	223.75
9	6.90	8.3	-1.0	42.	15.15	14.66	236.22	233.72
10	7.90	8.7	-2.0	42.	15.23	14.65	257.00	254.04
11	8.90	7.5	-2.0	42.	15.26	14.67	347.76	344.56
12	9.90	8.4	-5.0	42.	15.27	14.69	257.00	253.27
13	10.90	14.1	—	42.	15.09	—	—	—

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 139 CONFIGURATION L1C1E183PWTRIRE THETA 3/4 = 30.0 DEG RPM 7500

H0 =14.724 PS1A P1NF = 14.654 PS1A TSC = 35.08 DEG F RH0 = 0.00248 SLUGS/CU FT

M = 0.0534 V = 58.35 FPS Q = 4.217 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PS1A	PS PS1A	V FPS	V PRIME FPS
2	10.90	16.70	—	36.	15.28	—	—	—
3	9.90	9.7	-6.0	36.	15.52	14.73	296.86	291.01
4	8.90	8.0	-12.0	37.	15.57	14.71	309.65	299.96
5	7.90	9.6	-1.0	37.	15.53	14.69	237.93	234.58
6	6.90	9.7	-1.0	37.	15.39	14.69	280.77	276.73
7	5.90	8.4	-1.0	37.	15.28	14.69	256.74	253.97
8	4.90	9.3	-2.0	37.	15.25	14.68	254.55	251.06
9	3.90	10.0	-4.0	37.	15.19	14.69	237.05	232.88
10	2.90	10.7	-4.0	37.	15.15	14.70	226.15	221.67
11	1.90	12.4	-4.0	37.	15.12	14.69	220.69	215.04
12	0.90	15.2	-1.0	37.	15.07	14.69	207.78	200.49
13	0.01	18.2	3.0	37.	14.94	14.69	169.51	160.81

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 141 CONFIGURATION L1C1E183PWTT1R4RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.702 PSIA PINF = 14.597 PSIA TSC = 40.93 DEG F RHO = 0.00244 SLUGS/CU FT

M = 0.1012 V = 111.14 FPS Q = 15.080 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	15.1	-1.0	37.	14.811	[illegible]	190.09	183.51
3	1.71	12.2	1.0	37.	14.866	[illegible]	148.58	145.21
4	2.71	19.8	4.0	37.	14.889	[illegible]	175.89	165.09
5	3.71	8.8	-3.0	37.	14.901	[illegible]	180.26	177.89
6	4.71	8.0	0.0	37.	14.938	[illegible]	189.00	187.16
7	5.71	7.8	0.0	37.	14.968	[illegible]	194.47	192.67
8	6.71	7.1	-2.0	37.	14.991	[illegible]	200.33	198.67
9	7.71	6.5	-2.0	39.	15.009	[illegible]	211.28	209.80
10	8.71	5.9	-2.0	39.	15.053	[illegible]	218.24	216.95
11	9.71	6.6	-6.0	39.	15.049	[illegible]	205.80	203.31
12	11.71	10.0	—	39.	14.919	—	—	—

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSINC PROBE DATA

RUN NO 142 CONFIGURATION L1C1E183PWTT1R4RETP THETA 3/4 = 30.0 DEG RPM 6500

HO = 14.693 PSIA PINF = 14.583 PSIA TSC = 43.53 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.1038 V = 114.28 FPS Q = 15.849 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	11.4	—	40.	15.073	—	—	—
3	10.71	7.2	-4.0	40.	15.265	[illegible]	259.70	257.03
4	9.71	6.6	-2.0	42.	15.256	[illegible]	264.59	262.68
5	8.71	6.9	-1.0	42.	15.210	[illegible]	258.00	256.11
6	7.71	7.6	-2.0	42.	15.191	[illegible]	247.03	244.71
7	6.71	8.0	-2.0	42.	15.135	[illegible]	237.15	234.70
8	5.71	8.6	-2.0	42.	15.104	[illegible]	230.56	227.83
9	4.71	8.8	-1.0	42.	15.040	[illegible]	215.19	212.64
10	3.71	9.4	-2.0	43.	15.009	[illegible]	206.63	203.73
11	2.71	10.9	-2.0	43.	14.985	[illegible]	201.14	197.39
12	1.71	13.2	-3.0	43.	14.939	[illegible]	186.85	181.66
13	0.81	15.7	1.0	43.	14.856	[illegible]	168.16	161.87

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 143 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.692 PSIA PINF = 14.587 PSIA TSC = 45.49 DEG F RHO = 0.00242 SLUGS/CU FT

M = 0.1013 V = 111.68 FPS Q = 15.080 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	16.4	-1.0	43.	14.896	14.61	184.65	177.12
3	1.71	13.7	1.0	44.	15.017	14.62	215.64	209.48
4	2.71	11.2	-1.0	44.	15.074	14.61	231.04	226.62
5	3.71	9.9	-2.0	44.	15.119	14.63	237.64	233.96
6	4.71	9.3	-2.0	44.	15.165	14.64	247.55	244.15
7	5.71	8.7	-2.0	44.	15.224	14.63	261.85	258.68
8	6.71	8.4	-3.0	44.	15.285	14.64	272.85	269.54
9	7.71	9.3	-1.0	44.	15.434	14.63	302.56	298.56
10	8.71	8.0	-1.0	44.	15.505	14.66	309.16	306.12
11	9.71	7.3	-3.0	45.	15.518	14.67	339.17	335.95
12	11.71	14.6	—	46.	15.215	—	—	—
13	10.71	9.1	-7.0	46.	15.478	14.59	319.67	313.31

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 144 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 25.0 DEG RPM 5500

HO = 14.675 PSIA PINF = 14.675 PSIA TSC = 40.41 DEG F RHO = 0.00245 SLUGS/CU FT

M = 0. V = 0. FPS Q = 0. PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	11.6	—	41.	14.855	—	—	—
3	10.71	6.5	-4.0	42.	14.962	14.69	176.76	175.20
4	9.71	5.9	-3.0	42.	14.961	14.67	184.45	183.22
5	8.71	6.1	-3.0	42.	14.962	14.67	183.35	182.06
6	7.71	6.7	-3.0	42.	14.941	14.66	180.06	178.58
7	6.71	7.2	-4.0	42.	14.931	14.67	174.57	172.78
8	5.71	8.4	-1.0	42.	14.914	14.66	170.17	168.33
9	4.71	8.9	1.0	42.	14.890	14.66	163.59	161.60
10	3.71	10.0	-1.0	42.	14.869	14.66	157.00	154.60
11	2.71	11.1	-1.0	42.	14.855	14.66	152.61	149.74
12	1.71	13.5	-1.0	42.	14.842	14.65	149.31	145.17
13	0.81	16.9	3.0	42.	14.798	14.66	128.45	122.73

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 149 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 25.0 DEG RPM 6500

HO = 14.683 PSIA PINF = 14.654 PSIA TSC = 42.23 DEG F RHO = 0.00244 SLUGS/CU FT

M = 0.0534 V = 58.77 FPS Q = 4.216 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	17.0	4.0	40.	14.861	[illegible]	152.32	145.31
3	1.71	14.1	-1.0	40.	14.903	[illegible]	166.56	161.51
4	2.71	11.4	-1.0	41.	14.931	[illegible]	177.70	174.18
5	3.71	10.2	-1.0	41.	14.957	[illegible]	187.57	184.59
6	4.71	9.2	-1.0	42.	14.988	[illegible]	193.23	190.73
7	5.71	8.4	-4.0	42.	15.018	[illegible]	204.21	201.53
8	6.71	7.7	-2.0	42.	15.043	[illegible]	197.62	195.82
9	7.71	7.1	-2.0	42.	15.070	[illegible]	214.09	212.43
10	8.71	6.5	-1.0	42.	15.083	[illegible]	220.68	219.24
11	9.71	6.2	-4.0	42.	15.094	[illegible]	219.58	217.77
12	10.71	6.7	-8.0	42.	15.097	[illegible]	218.48	214.88
13	11.71	12.2	—	42.	14.963	—	—	—

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 150 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 25.0 DEG RPM 7500

HO = 14.679 PSIA PINF = 14.652 PSIA TSC = 43.53 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.0507 V = 55.83 FPS Q = 3.795 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	12.6	—	40.	15.115	—	—	—
3	10.71	7.2	7.0	42.	15.303	14.71	260.20	256.24
4	9.71	6.4	-3.0	42.	15.315	14.69	267.89	274.78
5	8.71	7.1	-1.0	42.	15.294	14.67	266.79	264.72
6	7.71	7.4	-2.0	42.	15.226	14.67	253.61	251.35
7	6.71	8.1	-2.0	42.	15.190	14.68	242.64	240.07
8	5.71	8.7	-2.0	42.	15.138	14.68	229.46	226.68
9	4.71	9.2	-2.0	42.	15.089	14.68	217.38	214.46
10	3.71	10.2	-2.0	43.	15.052	14.68	206.63	203.24
11	2.71	11.4	-4.0	43.	15.015	14.66	204.43	199.92
12	1.71	14.1	-1.0	43.	14.982	14.67	190.14	184.39
13	0.81	17.3	-1.0	43.	14.907	14.67	193.44	184.67
14	11.71	12.6	—	44.	15.125	—	—	—

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 158 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.771 PSIA PINF = 14.771 PSIA TSC = 40.93 DEG F RHO = 0.00247 SLUGS/CU FT

M = 0.0097 V = 10.68 FPS Q = 0.141 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	13.6	—	44.	—	14.765	—	—
3	10.71	8.8	-4.0	44.	14.77	14.755	180.43	177.88
4	9.71	7.8	-4.0	44.	14.77	14.747	191.43	189.20
5	8.71	9.1	-2.0	44.	14.76	14.743	200.24	197.55
6	5.71	11.8	-2.0	44.	14.76	14.743	200.24	198.89
7	2.71	16.6	-1.0	44.	14.76	14.740	187.03	179.22
8	1.71	19.3	1.0	44.	14.75	14.732	173.83	164.04
9	0.81	20.8	4.0	44.	14.74	14.734	146.53	138.52

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 159 CONFIGURATION U1C1E184PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.780 PSIA PINF = 14.778 PSIA TSC = 42.23 DEG F RHO = 0.00246 SLUGS/CU FT

M = 0.0119 V = 13.09 FPS Q = 0.211 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	20.5	4.0	44.	15.020	14.77	183.73	171.68
3	1.71	19.5	2.0	44.	15.202	14.77	227.74	214.55
4	2.71	17.0	-1.0	44.	15.315	14.76	243.14	232.49
5	5.71	12.3	-2.0	44.	15.453	14.76	276.15	269.65
6	8.71	9.9	-3.0	44.	15.561	14.76	297.05	292.22
7	9.71	10.5	-4.0	44.	15.473	14.75	265.15	260.08
8	10.71	9.5	-8.0	44.	15.316	14.74	246.44	240.70
9	11.71	15.9	—	44.	15.110	—	—	—

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 162 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.791 PSIA PINF = 14.791 PSIA TSC = 50.82 DEG F RHO = 0.00242 SLUGS/CU FT

M = 0. V = 0. FPS Q = 0. PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	-2.1	4.0	44.	14.651	14.44	158.43	157.94
3	10.71	-2.8	-2.0	55.	14.879	14.47	221.31	220.91
4	9.71	3.5	-2.0	55.	14.960	14.46	244.66	244.06
5	8.71	4.1	-1.0	55.	14.992	14.45	253.56	252.89
6	7.21	4.9	-1.0	55.	15.019	14.46	259.12	258.15
7	5.71	6.4	-1.0	55.	15.014	14.47	253.56	251.96
8	2.71	8.6	-1.0	55.	14.961	14.47	242.44	239.69
9	1.71	10.5	1.0	55.	14.935	14.47	237.99	233.98
10	0.81	12.8	1.0	55.	14.854	14.47	213.52	208.19

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 163 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.809 PSIA PINF = 14.809 PSIA TSC = 52.12 DEG F RHO = 0.00242 SLUGS/CU FT

M = 0. V = 0. FPS Q = 0. PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	16.0	4.0	48.	14.978	14.48	242.99	233.02
3	1.71	14.4	-2.0	48.	15.158	14.49	279.44	270.50
4	2.71	12.0	-2.0	52.	15.217	14.49	292.75	286.18
5	3.71	10.6	-2.0	52.	15.256	14.48	302.73	297.39
6	4.71	9.8	-2.0	52.	15.299	14.50	306.06	301.41
7	5.71	9.0	-3.0	52.	15.331	14.51	309.38	305.14
8	8.71	6.6	-1.0	52.	15.376	14.50	320.47	318.31
9	9.71	6.4	—	52.	15.310	—	—	—
10	10.71	5.5	-3.0	53.	15.133	14.52	268.35	266.74
11	11.71	3.8	—	53.	14.773	—	—	—

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 165 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.821 PSIA PINF = 14.796 PSIA TSC = 44.83 DEG F RHO = 0.00245 SLUGS/CU FT

M = 0.0495 V = 54.59 FPS Q = 3.654 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	12.4	—	44.	14.981	—	—	—
3	10.71	8.1	-7.0	44.	15.105	14.82	180.43	177.31
4	9.71	8.5	-4.0	44.	15.142	14.82	191.43	188.87
5	8.71	9.1	-2.0	45.	15.156	14.81	200.42	197.78
6	5.71	11.7	-2.0	45.	15.158	14.82	197.11	192.90
7	2.71	17.6	-2.0	45.	15.145	14.81	196.01	186.72
8	1.71	21.9	2.0	45.	15.098	14.79	188.31	174.62
9	0.81	23.4	-9.0	45.	14.988	14.79	151.97	137.76

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 166 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.819 PSIA PINF = 14.793 PSIA TSC = 48.09 DEG F RHO = 0.00244 SLUGS/CU FT

M = 0.0495 V = 54.77 FPS Q = 3.654 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	22.2	8.0	46.	15.095	14.77	191.80	175.86
3	1.71	22.3	1.0	47.	15.305	14.78	247.16	228.65
4	2.71	18.3	-2.0	47.	15.432	14.80	269.23	255.46
5	5.71	12.3	-2.0	47.	15.504	14.83	275.85	269.36
6	8.71	9.7	-3.0	48.	15.570	14.82	292.69	288.10
7	9.71	9.7	-3.0	48.	15.555	14.86	281.65	277.23
8	10.71	9.8	-10.0	48.	15.389	14.84	250.72	243.31
9	11.71	14.4	—	48.	15.187	—	—	—

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 168 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.819 PSIA PINF = 14.413 PSIA TSC = 58.63 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.1996 V = 222.25 FPS Q = 57.857 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	-2.0	3.0	51.	14.678	14.48	155.09	154.78
3	10.71	3.1	-2.0	56.	14.927	14.49	229.32	228.85
4	9.71	3.1	-2.0	58.	14.974	14.48	242.04	241.54
5	8.71	3.8	-1.0	58.	15.001	14.47	252.08	251.50
6	5.71	6.0	-1.0	58.	15.026	14.50	252.08	250.67
7	2.71	8.6	-1.0	58.	14.980	14.47	250.97	248.12
8	1.71	10.4	-1.0	58.	14.953	14.50	232.00	228.17
9	0.81	13.3	3.0	58.	14.879	14.50	240.93	234.14

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 169 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.821 PSIA PINF = 14.416 PSIA TSC = 60.45 DEG F RHO = 0.00233 SLUGS/CU FT

M = 0.1995 V = 222.63 FPS Q = 57.857 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	17.8	5.0	58.	14.954	[illegible]	239.81	227.46
3	1.71	15.7	1.0	58.	15.178	[illegible]	284.43	273.79
4	2.71	12.2	-2.0	58.	15.242	[illegible]	294.47	287.65
5	5.71	8.7	-2.0	59.	15.327	[illegible]	309.24	305.50
6	8.71	6.2	—	59.	15.354	—	—	—
7	9.71	5.2	-2.0	61.	15.326	[illegible]	309.85	307.85
8	10.71	5.8	-4.0	62.	15.206	[illegible]	283.28	281.15
9	11.71	5.2	-8.0	62.	14.860	[illegible]	207.14	204.29

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 171 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.849 PSIA PINF = 14.824 PSIA TSC = 49.39 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.0495 V = 54.79 FPS Q = 3.654 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	15.0	—	53.	15.080	—	—	—
3	10.71	9.5	-4.0	53.	15.202	14.85	202.02	198.77
4	9.71	8.8	-2.0	52.	15.199	14.84	205.15	202.61
5	8.71	9.2	-2.0	50.	15.198	14.84	204.74	201.99
6	5.71	11.1	-1.0	52.	15.153	14.84	189.62	186.05
7	2.71	16.3	-1.0	51.	15.082	14.83	170.60	163.73
8	1.71	16.4	-1.0	51.	15.018	14.82	152.88	146.65
9	0.81	17.8	-5.0	51.	14.974	14.83	128.50	121.88

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 172 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.851 PSIA PINF = 14.825 PSIA TSC = 50.69 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.0495 V = 54.86 FPS Q = 3.654 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	18.1	-3.0	57.	15.388	[illegible]	241.80	229.51
3	10.71	11.0	-6.0	57.	15.634	[illegible]	291.95	285.01
4	9.7.	19.5	-4.0	56.	15.672	[illegible]	301.68	283.69
5	8.71	10.5	—	56.	15.664	—	—	—
6	5.71	12.0	-2.0	56.	15.475	[illegible]	268.28	262.26
7	2.71	16.2	-1.0	56.	15.265	[illegible]	227.09	218.05
8	1.71	16.2	4.0	56.	15.144	[illegible]	193.70	185.56
9	0.81	17.2	3.0	56.	15.058	[illegible]	168.09	160.35

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 173 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.851 PSIA PINF = 14.445 PSIA TSC = 64.35 DEG F RHO = 0.00232 SLUGS/CU FT

M = 0.1993 V = 223.24 FPS Q = 57.858 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	10.9	2.0	57.	14.878	14.52	207.26	203.40
3	1.71	19.1	-1.0	58.	14.948	14.53	224.20	211.84
4	2.71	7.6	-3.0	59.	14.989	14.53	234.44	232.06
5	5.71	5.6	0.0	61.	15.045	14.53	250.57	249.40
6	8.71	3.7	-1.0	61.	15.042	14.51	252.80	252.25
7	9.71	3.3	-2.0	62.	15.040	14.52	250.81	250.24
8	10.71	4.3	-4.0	62.	15.035	14.53	246.33	245.05
9	11.71	1.7	—	62.	14.756	—	—	—

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 174 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.850 PSIA PINF = 14.445 PSIA TSC = 66.96 DEG F RHO = 0.00231 SLUGS/CU FT

M = 0.1992 V = 223.66 FPS Q = 57.789 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	8.3	—	64.	15.095	—	—	—
3	10.71	7.2	-5.0	65.	15.433	14.89	316.66	312.97
4	9.71	6.5	-2.0	66.	15.443	14.86	324.81	322.53
5	8.71	6.6	-1.0	66.	15.433	14.84	325.93	323.74
6	5.71	8.2	-3.0	67.	15.330	14.85	306.00	302.45
7	2.71	11.5	0.0	67.	15.194	14.84	281.25	275.60
8	1.71	12.2	1.0	67.	15.062	14.82	256.50	250.68
9	0.81	11.1	3.0	67.	14.942	14.83	246.38	241.43

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 316 CONFIGURATION L1C1E1B3PNT1R1REI10TP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.897 PSIA PINF = 14.868 PSIA TSC = 57.20 DEG F RHO = 0.00241 SLUGS/CU FT

M = 0.0530 V = 59.21 FPS Q = 4.216 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	11.9	3.0	50.	15.068	[illegible]	181.50	177.35
3	1.71	13.6	0.0	49.	15.152	[illegible]	181.32	176.24
4	2.71	12.5	-1.0	49.	15.174	[illegible]	183.53	179.16
5	5.71	10.5	-1.0	49.	15.250	[illegible]	204.54	201.09
6	8.71	9.8	-1.0	49.	15.251	[illegible]	206.75	203.71
7	9.71	10.2	-2.0	49.	15.278	[illegible]	214.49	210.97
8	10.71	13.4	-1.0	49.	15.294	[illegible]	204.54	198.95
9	11.51	22.7	—	49.	15.158	—	—	—

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 317 CONFIGURATION L1C1E1B3PMT1R1RE110TP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.889 PSIA PINF = 14.855 PSIA TSC = 58.63 DEG F RHO = 0.00240 SLUGS/CU FT

M = 0.0569 V = 63.60 FPS Q = 4.848 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	23.0	—	53.	15.438	—	—	—
3	10.71	14.5	-5.0	57.	15.744	14.92	306.43	295.54
4	9.71	11.0	-3.0	58.	15.784	14.90	319.00	312.70
5	8.71	11.5	-1.0	57.	15.680	14.86	307.55	301.24
6	5.71	10.0	-2.0	57.	15.470	14.86	266.32	262.12
7	2.71	12.8	0.0	56.	15.432	14.87	254.92	248.59
8	1.71	14.0	1.0	55.	15.312	14.85	231.32	224.43
9	0.81	11.3	4.0	56.	15.189	14.87	193.70	189.49

TABLE VIII

HSB SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 318 CONFIGURATION L2C1E183PHT11R1RE110TP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.879 PSIA PINF = 14.450 PSIA TSC = 76.07 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.2050 V = 232.12 FPS Q = 61.234 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	7.1	0.0	50.	14.934	14.89	168.22	166.93
3	1.71	4.0	-4.0	53.	14.978	14.86	223.11	222.03
4	2.71	2.5	-1.0	72.	14.979	14.87	224.93	224.69
5	5.71	3.1	-2.0	73.	15.113	14.87	256.83	256.30
6	8.71	2.9	-2.0	74.	15.190	14.83	284.26	283.73
7	9.71	3.2	-2.0	75.	15.208	14.86	281.11	280.50
8	10.71	4.3	-4.0	75.	15.216	14.88	279.97	278.51
9	11.71	5.1	—	76.	14.903	—	—	—

TABLE VIII

HSB SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 319 CONFIGURATION L1C1E1B3PW1I1R1RE1L0TP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.879 PSIA PINF = 14.650 PSIA TSC = 81.27 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.2049 V = 233.11 FPS Q = 61.165 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	11.4	—	75.	15.283	—	—	—
3	10.71	7.9	-4.0	77.	15.689	14.65	355.44	351.22
4	9.71	7.0	-2.0	78.	15.740	14.62	367.15	364.20
5	8.71	7.2	-1.0	79.	15.710	14.58	369.79	366.84
6	5.71	5.3	-2.0	80.	15.358	14.56	313.17	311.64
7	2.71	5.3	0.0	80.	15.280	14.57	284.70	283.48
8	1.71	8.1	1.0	81.	15.190	14.58	275.86	273.08
9	0.81	8.3	3.0	81.	15.088	14.59	249.64	246.68

TABLE VIII

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HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 320 CONFIGURATION L1C1E1B3PM1I1R1RE1/10TP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.888 PSIA PINF = 14.451 PSIA TSC = 79.97 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.2069 V = 235.02 FPS Q = 62.336 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	14.3	1.0	74.	14.884	[illegible]	199.32	193.13
3	1.71	13.7	-1.0	75.	14.943	[illegible]	222.17	215.83
4	2.71	12.3	-2.0	76.	14.988	[illegible]	239.40	233.77
5	5.71	9.6	1.0	77.	15.082	[illegible]	255.51	251.91
6	8.71	8.6	0.0	78.	15.171	[illegible]	268.26	265.25
7	9.71	8.1	-2.0	79.	15.183	[illegible]	277.62	274.68
8	10.71	8.5	-4.0	79.	15.185	[illegible]	275.35	271.67
9	11.71	7.6	—	80.	14.888	—	—	—

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 321 CONFIGURATION L1C1E1B3PNTT1R1REI71OTP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.879 PSIA PINF = 14.444 PSIA T&C = 82.57 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.2033 V = 234.89 FPS Q = 61.991 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	17.2	—	78.	15.340	—	—	—
3	10.71	13.7	-5.0	79.	15.741	14.65	362.96	351.29
4	9.71	13.3	-2.0	80.	15.750	14.62	370.11	359.97
5	8.71	12.4	-2.0	80.	15.718	14.60	368.97	360.15
6	5.71	11.3	-2.0	81.	15.362	14.51	323.73	317.26
7	2.71	15.4	-2.0	82.	15.178	14.52	286.37	275.92
8	1.71	17.2	0.0	82.	15.086	14.52	266.97	255.03
9	0.81	16.8	4.0	82.	14.948	14.52	232.74	222.27

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

RHASB I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 323 CONFIGURATION L1C1E1B3PRT3R1RBTP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.908 PSIA PINF = 14.874 PSIA TSC = 57.20 DEG F RHO = 0.00241 SLUGS/CU FT

M = 0.0573 V = 63.93 FPS Q = 4.918 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	18.5	1.0	57.	15.064	[illegible]	141.52	134.19
3	1.71	21.3	3.0	58.	15.116	14.84	182.93	174.41
4	2.71	16.9	-1.0	57.	15.179	14.88	187.20	179.10
5	5.71	13.0	-1.0	57.	15.311	15.01	187.20	182.38
6	8.71	12.4	-2.0	57.	15.289	14.99	218.40	213.18
7	9.71	12.4	-2.0	57.	15.280	14.89	212.83	207.74
8	10.71	14.8	-7.0	57.	15.239	14.91	196.12	188.21
9	11.71	20.9	34.0	57.	15.124	14.91	158.23	126.71

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 324 CONFIGURATION L1C1E183PRT3R1RETP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.916 PSIA RINF = 14.885 PSIA TSC = 58.63 DEG F RHO = 0.00240 SLUGS/CU FT

M = 0.0552 V = 61.67 FPS Q = 4.567 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	22.3	-1.0	57.	15.424	14.94	244.03	225.76
3	10.71	15.2	-2.0	57.	15.670	14.94	259.72	279.42
4	9.71	13.6	-3.0	57.	15.687	14.91	299.75	290.94
5	8.71	12.4	-3.0	57.	15.673	14.92	294.18	286.02
6	5.71	13.6	-3.0	57.	15.687	14.90	301.98	293.10
7	2.71	16.8	-2.0	57.	15.399	14.86	250.72	239.88
8	1.71	16.8	-6.0	59.	15.264	14.86	216.58	206.20
9	0.82	17.9	—	59.	15.158	—	—	—

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

RNASB I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 325 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.889 PSIA RINF = 14.474 PSIA TSC = 75.55 DEG F RHO = 0.00228 SLUGS/CU FT

M = 0.2013 V = 227.77 FPS Q = 59.100 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	11.5	1.0	60.	14.928	14.88	204.50	200.37
3	1.71	11.5	-1.0	60.	15.043	14.57	236.91	232.13
4	2.71	9.4	0.0	75.	15.088	14.59	248.24	244.91
5	5.71	6.5	-1.0	76.	15.136	14.56	267.77	266.02
6	8.71	4.8	1.0	76.	15.160	14.55	274.57	273.58
7	9.71	4.5	-1.0	76.	15.169	14.57	272.30	271.43
8	10.71	5.2	-3.0	76.	15.172	14.60	264.36	263.25
9	11.71	0.	-10.0	76.	14.813	14.55	180.40	180.15

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 326 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.687 PSIA PINF = 14.468 PSIA TSC = 79.06 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.2025 V = 229.88 FPS Q = 59.789 PSF PSI = 0. DEG

PD NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	11.0	—	73.	15.177	—	—	—
3	10.71	9.3	-6.0	76.	15.616	14.63	344.92	338.52
4	9.71	7.8	-4.0	76.	15.659	14.61	355.13	351.00
5	8.71	8.1	-2.0	77.	15.692	14.60	362.26	358.43
6	5.71	9.6	-2.0	78.	15.582	14.59	333.05	328.19
7	2.71	12.4	-1.0	78.	15.254	14.54	295.54	288.62
8	1.71	11.3	2.0	79.	15.114	14.57	258.28	253.12
9	0.81	11.5	2.0	79.	14.995	14.47	257.14	251.83

TABLE VIII

E330590 - 1

HSB SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 328 CONFIGURATION L1C1E3B3PW1T1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.874 PSIA PINF = 14.840 PSIA TSC = 61.10 DEG F RHO = 0.00238 SLUGS/CU FT

M = 0.0573 V = 64.25 FPS Q = 4.918 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	13.21	11.6	—	43.	14.949	—	—	—
3	11.61	2.5	-8.0	44.	15.188	14.87	191.43	189.39
4	9.81	4.1	-3.0	43.	15.176	14.83	200.04	199.25
5	8.01	5.5	-6.0	43.	15.161	14.85	187.95	186.06
6	6.21	7.2	-1.0	43.	15.130	14.84	183.55	182.08
7	4.41	8.8	-4.0	43.	15.076	14.82	173.66	171.20
8	2.61	10.6	-5.0	43.	15.052	14.83	159.37	156.06
9	0.81	15.7	-6.0	43.	14.972	14.81	136.29	130.48

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 329 CONFIGURATION C1C1E3B3PHT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.869 PSIA PINF = 14.839 PSIA TSC = 61.75 DEG F RHO = 0.00238 SLUGS/CU FT

M = 0.0535 V = 60.02 FPS Q = 4.286 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	15.7	—	45.	15.027	—	—	—
3	2.61	11.2	-2.0	47.	15.195	14.81	210.75	206.61
4	4.41	18.9	-5.0	47.	15.260	14.80	230.61	217.35
5	6.21	17.8	-4.0	47.	15.358	14.80	253.78	241.05
6	8.01	6.5	-6.0	47.	15.465	14.82	270.33	267.12
7	10.01	4.5	-5.0	49.	15.557	14.83	288.56	286.58
8	11.61	3.1	-9.0	50.	15.563	14.87	281.10	277.24
9	13.21	13.0	—	52.	15.079	—	—	—

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 331 CONFIGURATION L2C1E3B3PWT81R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.848 PSIA PINF = 14.438 PSIA TSC = 66.44 DEG F RHO = 0.00231 SLUGS/CU FT

M = 0.2005 V = 224.92 FPS Q = 58.478 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	13.21	-1.1	10.0	48.	14.814	14.46	204.33	201.19
3	11.61	-0.7	-8.0	49.	14.950	14.46	241.02	238.67
4	9.81	-1.1	-2.0	50.	14.965	14.44	249.01	248.82
5	8.01	0.5	-4.0	50.	14.970	14.43	253.43	252.81
6	6.21	2.0	-4.0	50.	14.967	14.45	247.90	247.15
7	4.41	2.8	-2.0	50.	14.945	14.45	243.47	243.03
8	2.61	3.9	-2.0	50.	14.906	14.46	231.30	230.63
9	0.81	5.9	—	50.	14.842	—	—	—

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 332 CONFIGURATION L1C1E3B3PHT1R1RETR THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.831 PSIA RINF = 14.621 PSIA TSC = 66.96 DEG F RHO = 0.00231 SLUGS/CU FT

M = 0.2007 V = 225.29 FPS Q = 58.546 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	6.8	0.0	48.	14.892	14.44	230.84	229.22
3	2.61	6.2	-2.0	48.	15.030	14.42	268.39	266.66
4	4.41	5.2	-3.0	50.	15.110	14.41	286.56	284.98
5	6.21	4.8	-3.0	50.	15.228	14.43	306.47	304.97
6	8.01	3.2	-3.0	51.	15.253	14.42	312.40	311.48
7	9.81	1.6	-3.0	52.	15.255	14.43	312.71	312.15
8	11.61	1.5	-8.0	52.	15.235	14.48	296.08	293.11
9	13.21	1.8	8.0	52.	14.786	14.44	205.15	204.27

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 334 CONFIGURATION F2SCGISOE1SCH3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 24.582 PSIA PINF = 14.657 PSIA TSC = 53.94 DEG F RHO = 0.002378 SLUGS/CU FT

M = 0.0497 V = 55.34 FPS Q = 3.654 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	9.7	—	55.	14.961	—	—	—
3	10.71	7.6	-6.0	55.	15.052	14.67	212.41	209.39
4	9.71	7.4	-2.0	55.	15.045	14.66	214.64	212.72
5	8.71	8.5	-2.0	55.	15.030	14.67	206.85	204.46
6	5.71	10.0	-6.0	55.	14.953	14.66	186.83	182.98
7	2.71	13.3	-1.0	55.	14.888	14.66	169.04	164.49
8	1.71	14.9	-1.0	55.	14.866	14.65	162.37	156.90
9	0.81	18.4	2.0	54.	14.809	14.67	129.99	123.27

TABLE VIII

E330590 - 1

HSB SHROUDED PROPELLER TEST

PHASE I - 10 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 335 CONFIGURATION L1SCC1SCE1SCB3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.653 PSIA PINF = 14.276 PSIA TSC = 70.21 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.1937 V = 218.18 FPS Q = 53.980 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	8.3	1.0	65.	14.684	14.38	202.12	199.98
3	2.71	7.8	-1.0	67.	14.726	14.33	222.75	220.67
4	2.71	6.5	—	69.	14.756	—	—	—
5	5.71	4.8	-1.0	70.	14.880	14.32	251.59	250.68
6	8.71	3.1	-4.0	70.	14.846	14.28	266.26	265.23
7	9.71	2.9	-4.0	70.	14.838	14.27	266.26	265.28
8	10.71	3.6	-4.0	70.	14.881	14.29	259.49	258.36
9	11.71	7.2	-10.0	70.	14.659	14.27	211.13	206.28

TABLE VIII

E330590 - 1

HSB SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 360 CONFIGURATION BISCBISOEISCB3PNTTIRIRETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.557 PSIA RINF = 14.528 PSIA TSC = 54.72 DEG F RHO = 0.00238 SLUGS/CU FT

M = 0.0537 V = 59.75 FPS Q = 4.216 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	19.0	3.0	55.	14.802	14.53	179.05	169.06
3	1.71	16.4	-1.0	55.	14.919	14.55	210.19	201.62
4	2.71	13.8	-2.0	55.	14.969	14.54	225.76	219.11
5	5.71	10.4	-2.0	56.	15.101	14.44	279.41	274.65
6	8.71	10.7	-2.0	56.	15.249	14.54	289.43	284.23
7	9.71	9.3	-2.0	56.	15.369	14.55	310.58	306.32
8	10.71	8.6	-6.0	56.	15.360	14.58	302.79	297.74
9	11.71	11.6	—	56.	15.141	—	—	—

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 341 CONFIGURATION E1SCC1SDE1SCB3PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7000

HO = 14.537 PSIA PINF = 14.137 PSIA TSC = 75.42 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.2002 V = 228.49 FPS Q = 57.087 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	BETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	7.8	—	62.	14.867	—	—	—
3	10.71	5.3	-4.0	66.	15.003	14.21	311.32	309.24
4	9.71	4.7	4.0	68.	14.906	14.19	316.43	314.61
5	8.71	5.0	4.0	69.	14.969	14.18	312.21	310.27
6	5.71	6.5	-2.0	70.	14.874	14.21	286.56	284.55
7	2.71	8.2	—	72.	14.759	—	—	—
8	1.71	9.9	—	74.	14.730	—	—	—
9	0.81	11.7	—	75.	14.663	—	—	—

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 654 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 38.0 DEG RPM 5500

HO = 14.751 PSIA PINF = 13.869 PSIA TSC = 72.81 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3078 V = 345.57 FPS Q = 132.280 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	6.2	0.0	66.	14.781	14.04	303.45	301.69
3	1.71	5.8	-1.0	67.	14.887	14.05	326.57	324.87
4	2.71	4.8	-4.0	68.	14.911	14.03	331.38	329.42
5	5.71	3.8	-1.0	70.	14.967	14.01	345.57	344.78
6	5.71 (4500)*	1.4	-2.0	69.	14.808	14.00	317.33	317.04
7	5.71 (6500)*	5.8	-2.0	73.	15.145	14.04	371.87	369.75
8	8.71	2.4	-2.0	72.	14.993	14.03	345.87	345.35
9	9.71	1.8	-3.0	72.	14.983	14.04	342.48	341.83
10	10.71	2.7	-6.0	72.	14.934	14.09	433.33	430.47
11	11.71	5.9	—	72.	14.560	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 655 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.760 PSIA PINF = 13.223 PSIA TSC = 73.20 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4126 V = 460.03 FPS Q = 226.458 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	6.8	3.0	76.	14.786	13.595	390.30	387.01
3	1.71	5.7	1.0	72.	14.918	13.578	411.43	409.36
4	2.71	4.8	-1.0	72.	14.949	13.562	419.34	417.83
5	5.71	3.6	-2.0	73.	15.028	13.544	432.19	431.08
6	5.71 (4500) *	1.2	-2.0	71.	14.858	13.519	412.19	411.85
7	5.71 (6500) *	6.0	-1.0	76.	15.312	13.582	465.19	462.59
8	8.71	2.4	-2.0	73.	15.072	13.548	437.85	437.20
9	9.71	2.4	-2.0	73.	15.081	13.634	426.54	425.91
10	10.71	3.4	-2.0	74.	15.057	13.661	419.03	418.14
11	11.71	6.8	-6.0	74.	14.389	13.614	317.10	313.14

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 656 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.771 PSIA PINF = 12.459 PSIA TSC = 82.05 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5157 V = 574.41 FPS Q = 332.912 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	11.71	6.8	2.0	74.	14.775	12.915	482.45	478.77
3	10.81	5.6	1.0	78.	14.696	12.984	511.52	509.03
4	1.71	4.6	1.0	79.	14.933	12.896	516.56	514.85
5	2.71	3.9	-2.0	80.	14.947	12.863	531.82	530.27
6	5.71 (4500) *	2.8	-2.0	80.	15.030	12.820	514.74	513.82
7	5.71 (6500) *	0.3	0.0	79.	14.840	12.897	556.38	556.37
8	5.71	4.8	-2.0	84.	15.308	12.944	525.78	523.62
9	8.71	1.0	-3.0	80.	15.063	13.019	512.46	511.67
10	9.71	0.3	-2.0	83.	15.047	13.077	504.76	504.45
11	10.71	1.9	—	80.	15.038	—	—	—
12	11.71	3.3	—	83.	14.071	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 658 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 5500

HO = 14.831 PSIA PINF = 13.944 PSIA TSC = 68.91 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3080 V = 344.51 FPS Q = 133.159 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	7.5	1.0	65.	14.900	14.129	307.67	305.01
3	1.71	7.3	-2.0	67.	15.027	14.143	329.63	326.50
4	2.71	6.0	-1.0	67.	15.037	14.132	333.00	331.14
5	5.71	4.3	-1.0	68.	15.080	14.099	346.84	345.83
6	5.71 (4500) *	1.3	-2.0	67.	14.916	14.081	321.75	321.47
7	5.71 (6500) *	6.0	-2.0	70.	15.251	14.118	372.31	370.05
8	8.71	4.4	-1.0	71.	15.272	14.140	371.54	370.41
9	8.71	2.7	-1.0	68.	15.072	14.104	343.46	343.04
10	9.71	1.8	-2.0	68.	15.035	14.140	331.07	329.38
11	10.71	1.8	-6.0	68.	14.978	14.190	311.93	308.82
12	11.71	4.3	—	68.	14.600	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 659 CONFIGURATION L1C1E183PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.839 PSIA PINF = 13.304 PSIA TSC = 76.72 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4112 V = 460.03 FPS Q = 226.297 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	7.7	3.0	71.	14.863	13.684	389.61	385.56
3	1.71	6.9	1.0	73.	15.040	13.665	416.36	396.65
4	2.71	5.6	0.0	73.	15.079	13.671	420.88	418.87
5	5.71	4.2	-1.0	75.	15.149	13.636	436.40	435.18
6	5.71 (4500) *	1.5	-2.0	73.	14.939	13.580	415.22	414.83
7	5.71 (6500) *	6.0	-2.0	79.	15.385	13.266	372.06	369.80
8	8.71	2.8	-1.0	77.	15.135	13.685	428.12	427.57
9	9.71	2.0	-3.0	76.	15.105	13.712	418.67	417.83
10	10.71	2.4	-6.0	77.	15.084	13.732	413.36	410.72
11	11.71	5.3	—	76.	14.450	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 660 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.839 PSIA PINF = 12.510 PSIA TSC = 82.96 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5165 V = 575.74 FPS Q = 335.303 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	6.9	4.0	80.	14.665	13.083	493.10	488.36
3	1.71	5.8	1.0	80.	15.065	13.020	514.74	512.05
4	2.71	4.8	1.0	81.	15.065	12.972	520.93	519.05
5	5.71	3.1	-1.0	81.	15.130	12.938	532.33	531.50
6	5.71 (4500) *	0.5	-1.0	81.	14.924	12.837	517.51	517.44
7	5.71 (6500) *	5.2	2.0	86.	15.363	12.957	557.66	555.03
8	8.71	1.0	-2.0	83.	15.078	12.994	520.75	520.36
9	9.71	0.2	-3.0	82.	15.059	13.066	508.84	508.17
10	10.71	1.5	-6.0	83.	15.028	13.098	501.34	498.41
11	11.71	3.7	—	83.	14.110	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 662 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 5500

HO = 14.860 PSIA PINF = 13.969 PSIA TSC = 69.04 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3084 V = 345.05 FPS Q = 133.786 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	7.7	2.0	68.	14.945	14.178	308.55	305.58
3	1.71	7.7	0.0	69.	15.060	14.197	304.32	301.58
4	2.71	6.9	-2.0	69.	15.051	14.147	333.62	331.01
5	5.71	4.7	-2.0	70.	15.150	14.502	282.05	280.93
6	5.71 (4500) *	1.9	-2.0	68.	14.959	14.119	323.19	322.82
7	5.71 (6500) *	2.5	-2.0	73.	15.285	14.273	351.87	351.33
8	8.71	2.5	-2.0	71.	15.116	14.248	326.37	325.86
9	9.71	2.5	-2.0	70.	15.091	14.177	335.08	334.56
10	10.71	2.5	-6.0	70.	15.036	14.193	322.67	320.59
11	11.71	2.5	—	70.	14.650	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 663 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.868 PSIA PINF = 13.323 PSIA TSC = 72.29 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4121 V = 459.05 FPS Q = 227.565 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	8.2	3.0	74.	14.925	13.685	394.11	389.54
3	1.71	6.6	9.0	74.	15.094	13.694	420.16	412.24
4	2.61	5.3	-1.0	75.	15.100	13.720	417.13	415.30
5	5.61	7.5	0.0	74.	15.195	13.665	437.15	435.28
6	5.61 (4500) *	1.2	-2.0	72.	14.984	13.639	411.43	411.09
7	5.61 (6500) *	5.9	-1.0	76.	15.411	13.715	459.51	459.36
8	8.71	2.2	0.0	74.	15.189	13.707	430.35	430.03
9	9.71	2.2	-3.0	73.	15.169	13.725	425.41	424.50
10	10.71	3.0	-5.0	74.	15.140	13.773	413.36	411.22
11	11.71	5.5	—	73.	14.491	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 664 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.870 PSIA PINF = 12.545 PSIA TSC = 72.16 DEG F RHO = 0.00207 SLUGS/CU FT

M = 0.5154 V = 568.81 FPS Q = 334.796 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	8.3	3.0	70.	14.848	[illegible]	489.64	483.84
3	1.61	5.7	1.0	71.	15.110	13.097	504.75	502.21
4	2.61	4.6	1.0	71.	15.108	13.074	508.14	506.45
5	5.71	4.0	-1.0	71.	15.204	12.977	530.72	529.37
6	5.71 (4500) *	0.2	-2.0	69.	14.954	12.957	504.94	504.63
7	5.71 (6500) *	5.7	-1.0	74.	15.439	12.987	556.06	553.26
8	8.61	0.1	-1.0	72.	15.154	13.099	510.90	510.85
9	9.61	-0.2	-3.0	71.	15.118	13.169	495.76	495.06
10	10.71	1.9	-6.0	72.	15.072	13.134	496.20	493.20
11	11.71	3.1	—	71.	14.147	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 666 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.897 PSIA PINF = 14.504 PSIA TSC = 61.75 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.2022 V = 225.88 FPS Q = 59.757 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	6.7	—	60.	14.894	—	—	—
3	1.71	6.7	—	59.	14.903	—	—	—
4	2.71	6.6	-1.0	60.	15.039	14.595	230.21	228.66
5	5.71	5.4	0.0	61.	14.905	14.809	44.74	44.54
6	5.71 (4500) *	3.6	0.0	60.	14.897	14.880	45.82	45.73
7	5.71 (6500) *	6.6	0.0	62.	14.902	14.894	30.23	30.03
8	8.71	5.0	0.0	62.	14.880	14.863	45.91	45.83
9	9.71	3.6	0.0	62.	14.910	14.893	45.91	45.82
10	10.71	4.6	—	62.	14.904	—	—	—
11	11.71	6.6	—	62.	14.902	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 667 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 34.0 DEG RPM 5500

HO = 14.903 PSIA PINF = 14.039 PSIA TSC = 65.14 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.3030 V = 337.85 FPS Q = 129.786 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.4	3.0	63.	14.910	14.609	191.64	190.81
3	1.71	4.4	0.0	63.	14.927	14.594	200.61	200.02
4	2.71	3.6	-2.0	63.	14.954	14.525	227.50	226.92
5	5.71	1.9	-2.0	64.	14.966	14.511	234.44	234.17
6	5.71 (4500) *	-0.9	-2.0	63.	14.905	14.525	241.05	240.88
7	5.71 (6500) *	4.0	-1.0	66.	15.056	14.515	256.25	255.60
8	8.71	1.8	-2.0	65.	15.001	14.509	244.79	244.52
9	9.71	1.8	-2.0	65.	15.015	14.470	257.14	256.86
10	10.71	2.4	-4.0	65.	15.018	14.513	248.16	247.34
11	11.71	5.8	—	65.	14.809	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 668 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 35.0 DEG RPM 6500

HO = 14.908 PSIA PINF = 14.529 PSIA TSC = 63.05 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.1986 V = 222.12 FPS Q = 57.722 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	9.3	1.0	62.	14.991	[illegible]	171.31	169.04
3	1.71	8.8	0.0	62.	15.015	[illegible]	188.11	185.90
4	2.71	8.4	-1.0	62.	15.054	[illegible]	207.14	204.90
5	5.71	7.4	-2.0	63.	15.096	[illegible]	309.31	306.55
6	5.71 (4500) *	5.9	-2.0	62.	15.013	[illegible]	194.83	193.68
7	5.71 (6500) *	7.6	1.0	65.	15.171	[illegible]	235.81	233.72
8	8.71	5.9	3.0	65.	15.151	[illegible]	255.96	254.25
9	9.71	5.9	1.0	65.	15.161	[illegible]	221.21	220.02
10	10.71	6.7	-5.0	65.	15.156	[illegible]	216.72	214.42
11	11.71	10.8	—	65.	15.026	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 669 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 38.0 DEG RPM 5500

HO = 14.917 PSIA PINF = 14.040 PSIA TSC = 69.04 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.3053 V = 341.57 FPS Q = 131.722 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	15.0	1.0	65.	14.938	14.634	193.14	186.54
3	1.71	15.0	1.0	65.	14.956	14.635	197.63	190.88
4	2.71	14.7	-2.0	66.	14.971	14.598	212.42	205.34
5	5.71	13.7	-2.0	67.	14.994	14.813	241.88	234.86
6	5.71 (4500) *	11.5	0.0	67.	14.998	14.197	313.88	307.58
7	5.71 (6500) *	15.5	-3.0	70.	15.292	14.245	357.64	344.15
8	8.71	13.0	-1.0	70.	15.189	14.204	347.49	338.55
9	9.71	13.0	-2.0	70.	15.204	14.230	345.23	336.35
10	10.71	13.8	-5.0	70.	15.197	14.355	321.54	311.07
11	11.71	18.5	—	71.	14.857	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 670 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 5500

HO = 14.897 PSIA PINF = 13.357 PSIA TSC = 78.28 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4111 V = 460.55 FPS Q = 227.035 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.2	1.0	75.	14.904	13.736	380.86	379.80
3	1.71	4.2	-1.0	76.	15.010	13.253	474.26	472.94
4	2.71	3.3	-1.0	76.	15.014	13.700	407.32	406.60
5	5.71	2.0	-2.0	77.	15.075	13.671	421.31	420.80
6	5.71 (4500) *	-0.5	-3.0	76.	14.922	13.648	402.78	402.20
7	5.71 (6500) *	-4.3	-1.0	80.	15.290	13.712	445.27	443.97
8	8.71	-1.8	-1.0	77.	15.138	13.704	425.85	425.60
9	9.71	-1.4	-2.0	78.	15.143	13.740	420.58	420.20
10	10.71	2.7	-5.0	79.	15.132	13.788	411.88	409.86
11	11.71	5.4	—	79.	14.605	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 671 CONFIGURATION L1C1E1B3PWTT1R1RETP 0 THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.888 PSIA PINF = 13.355 PSIA TSC = 79.84 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4101 V = 460.21 FPS Q = 225.992 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.7	1.0	79.	14.912	13.760	382.30	380.98
3	1.71	4.4	0.0	79.	15.014	13.753	403.92	402.73
4	2.71	3.6	0.0	79.	15.034	13.720	408.47	407.67
5	5.71	2.7	-2.0	80.	15.134	13.658	432.74	432.00
6	5.71 (4500)*	0.5	-2.0	79.	14.969	13.659	408.47	408.21
7	5.71 (6500)*	4.8	0	83.	15.347	13.675	188.43	187.77
8	5.71	2.8	-2.0	81.	15.120	13.658	430.88	430.11
9	8.71	2.2	-2.0	81.	15.205	13.795	421.43	420.87
10	9.71	2.4	—	81.	15.208	—	—	—
11	10.71	3.7	-6.0	81.	15.235	13.806	425.18	422.47
12	11.71	7.5	—	81.	14.566	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 672 CONFIGURATION L1C1E1B3PWTT1R1RETP Q THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.879 PSIA PINF = 12.562 PSIA TSC = 85.57 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5141 V = 574.58 FPS Q = 333.620 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	3.2	-9.0	83.	14.795	13.062	477.36	470.73
3	1.71	2.5	0.0	85.	14.965	13.073	498.83	498.38
4	2.71	1.7	-1.0	84.	14.932	13.043	498.35	498.10
5	5.71	0.6	-1.0	82.	14.983	12.955	508.84	508.79
6	5.71 (5000) *	-0.3	-1.5	84.	14.904	12.928	509.78	509.47
7	5.71 (6500) *	2.9	-1.0	87.	15.211	12.983	537.57	526.07
8	8.71	-0.8	-1.0	85.	14.979	12.997	510.27	510.17
9	9.71	-0.8	-3.0	85.	14.985	13.067	501.12	500.37
10	10.71	0.7	-5.0	84.	14.979	13.150	483.49	481.61
11	11.71	4.5	—	84.	14.226	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 673 CONFIGURATION L1C1E1B3PWT11R1RETP Q THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.880 PSIA PINF = 12.565 PSIA TSC = 88.30 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5139 V = 575.82 FPS Q = 333.440 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.3	3.0	86.	14.825	13.101	477.51	475.51
3	1.71	3.9	1.0	86.	15.010	13.087	502.70	501.49
4	2.71	3.0	0	87.	15.024	13.057	507.77	507.06
5	5.71	2.7	-1.0	88.	15.088	12.951	538.04	537.39
6	5.71 (4500) *	0.2	-1.0	86.	14.919	12.935	511.86	511.81
7	5.71 (6500) *	4.6	-1.0	91.	15.396	13.033	554.49	552.66
8	12.71	1.8	-2.0	99.	15.185	13.058	531.84	531.26
9	19.71	1.6	-3.0	89.	15.201	13.130	518.99	518.06
10	20.71	2.9	-6.0	90.	15.235	13.200	514.89	511.39
11	11.71	6.9	—	90.	14.274	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 674 CONFIGURATION L1C1E1B3PWTT1R1RETP 0 THETA 3/4 = 50.0 DEG RPM 9500

HO = 14.874 PSIA PINF = 11.697 PSIA TSC = 102.48 DEG F RHO = 0.00186 SLUGS/CU FT

M = 0.6157 V = 691.30 FPS Q = 445.075 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	3.6	3.0	98.	14.666	12.[illegible]	570.75	568.81
3	1.71	2.4	1.0	99.	14.924	12.353	594.41	593.82
4	2.71	1.3	-1.0	100.	14.854	12.[illegible]	596.09	595.85
5	5.71	0.	-1.0	99.	14.938	12.164	618.75	618.69
6	5.71 (5250) *	-0.4	-2.0	100.	14.892	12.179	613.48	613.11
7	5.71 (6500) *	0.9	-2.0	102.	15.020	12.282	622.72	622.28
8	8.71	-1.5	-3.0	100.	14.897	12.318	596.19	595.18
9	9.71	-0.9	-3.0	100.	14.884	12.349	591.55	590.66
10	10.71	0.2	-6.0	101.	14.884	12.458	578.03	574.85
11	11.71	3.3	—	100.	13.660	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 675 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 54.0 DEG RPM 5500

HO = 14.877 PSIA PINF = 13.350 PSIA TSC = 82.57 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4096 V = 460.76 FPS Q = 225.274 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	8.5	2.0	83.	14.949	13.699	400.84	396.19
3	1.71	6.9	0.0	84.	15.075	13.732	428.63	425.46
4	2.71	6.0	0.0	84.	15.094	13.714	420.62	418.31
5	5.71	5.1	-1.0	84.	15.204	13.699	437.77	435.98
6	5.71 (4500) *	3.4	-2.0	83.	15.093	13.704	421.40	420.39
7	5.71 (6100) *	5.4	0.0	85.	15.249	13.696	443.91	441.96
8	8.71 (6000) *	5.3	-2.0	85.	15.339	13.750	455.35	453.12
9	8.71	5.3	-2.0	85.	15.363	13.725	455.35	453.12
10	9.71	5.6	-2.0	86.	15.376	13.777	451.17	448.74
11	10.71	6.1	-7.0	86.	15.270	13.778	435.14	429.46
12	11.71	4.1	—	88.	14.652	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 676 CONFIGURATION L1C1E1B3PHT11R1RETP THETA 3/4 = 46.0 DEG RPM 8500

HO = 14.877 PSIA PINF = 13.347 PSIA TSC = 80.75 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4099 V = 460.35 FPS Q = 225.608 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS.
2	0.81	4.1	-8.0	77.	14.852	13.387	432.66	422.85
3	1.71	4.5	-1.0	80.	14.997	13.740	400.86	398.26
4	2.71	3.6	-2.0	80.	15.025	13.708	409.97	407.27
5	5.71	2.9	-2.0	82.	15.136	13.677	431.26	428.80
6	5.71 (4500) *	1.0	-2.0	79.	14.980	13.649	411.88	409.66
7	5.71 (6500) *	5.4	4.0	84.	15.342	13.694	456.06	451.28
8	8.71	3.0	-2.0	84.	15.200	13.684	438.53	435.86
9	9.71	3.0	-2.0	83.	15.241	13.751	433.54	431.85
10	10.71	3.9	-5.0	82.	15.254	13.806	426.70	425.42
11	11.71	8.7	—	82.	14.619	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 677 CONFIGURATION L1C1E1B3PWTT1RURETP10 THETA 3/4 = 42.0 DEG RPM 5500

HO = 14.890 PSIA PINF = 13.350 PSIA TSC = 80.36 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4110 V = 461.37 FPS Q = 226.867 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.5	2.0	75.	14.854	13.721	379.72	378.32
3	1.71	4.4	1.0	77.	14.992	13.716	403.14	401.93
4	2.71	3.1	1.0	77.	15.008	13.700	406.54	405.89
5	5.71	1.9	-2.0	78.	15.063	13.673	419.44	418.98
6	5.71 (4500) *	9.7	-3.0	78.	14.898	13.656	398.98	392.72
7	5.71 (6500) *	4.2	-2.0	81.	15.261	13.721	443.42	441.96
8	8.71	1.4	-1.0	80.	15.085	13.687	421.36	421.19
9	9.71	1.3	-3.0	81.	15.100	13.732	417.20	416.49
10	10.71	2.2	-5.0	80.	15.109	13.794	407.69	403.14
11	11.71	6.3	—	81.	14.543	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 678 CONFIGURATION L1C1E1B3PWTT1R1RETP10 THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.897 PSIA PINF = 13.358 PSIA TSC = 80.75 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4109 V = 461.46 FPS Q = 226.902 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	5.2	2.0	78.	14.878	13.736	381.93	380.14
3	1.71	5.1	0.0	78.	15.034	13.742	403.53	401.92
4	2.71	4.4	-1.0	79.	15.052	13.734	408.47	407.25
5	5.71	3.3	-1.0	80.	15.145	13.786	427.05	426.28
6	5.71 (4500) *	1.1	-1.0	79.	14.994	13.682	408.47	408.35
7	5.71 (6500) *	5.9	-1.0	83.	15.365	13.693	459.08	456.60
8	8.71	3.0	-2.0	82.	15.214	13.693	439.17	438.29
9	9.71	3.0	-2.0	81.	15.239	13.760	432.02	431.16
10	10.71	4.0	-5.0	82.	15.245	13.821	424.41	421.78
11	11.71	8.2	—	82.	14.630	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 679 CONFIGURATION L1C1E1B3PHTT1R1RETPIO THETA 3/4 = 46.0 DEG RPM 8500

HO = 14.898 PSIA PINF = 12.574 PSIA TSC = 85.05 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5147 V = 574.94 FPS Q = 334.704 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	3.7	4.0	84.	14.708	13.089	467.49	465.40
3	1.71	3.0	0.0	85.	14.989	13.094	498.83	498.13
4	2.71	2.0	-1.0	86.	14.975	13.001	509.57	509.21
5	5.71	1.0	-3.0	84.	15.025	12.929	523.49	522.71
6	5.71 (5000) *	9.9	-3.0	82.	14.942	12.921	515.69	507.30
7	5.71 (6500) *	3.2	-2.0	86.	15.260	12.983	543.92	542.72
8	8.71	0.4	-3.0	84.	14.901	13.390	443.48	442.86
9	9.71	9.9	-3.0	82.	14.918	13.284	459.78	452.30
10	10.71	0.9	-2.0	83.	14.901	13.382	444.24	443.93
11	11.71	3.2	—	84.	14.648	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 681 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 38.0 DEG RPM 5500

HO = 14.908 PSIA PINF = 14.017 PSIA TSC = 72.81 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3078 V = 345.55 FPS Q = 133.677 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	1.71	6.5	1.0	75.	14.907	14.797	116.75	115.99
3	1.71	6.1	—	75.	15.056	—	—	—
4	2.71	5.3	-1.0	76.	14.939	14.729	161.11	160.40
5	5.71	3.8	-1.0	77.	14.948	14.726	166.93	166.55
6	5.71 (4500)*	1.6	-3.0	73.	14.910	14.632	185.55	185.22
7	5.71 (6500)*	5.9	-2.0	76.	15.000	14.589	225.79	224.46
8	8.71	2.3	-2.0	74.	15.020	14.457	263.87	263.50
9	9.71	2.8	-3.0	74.	15.134	14.233	334.09	333.22
10	10.71	2.9	-7.0	73.	15.147	14.254	331.50	328.63
11	11.71	7.5	—	73.	14.780	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 682 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.908 PSIA PINF = 13.366 PSIA TSC = 74.24 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4112 V = 458.91 FPS Q = 227.286 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	7.8	4.0	74.	14.889	13.722	383.92	379.48
3	1.71	7.4	2.0	74.	15.116	13.767	411.10	407.44
4	2.71	6.5	-1.0	76.	15.175	13.748	423.21	420.46
5	5.71	4.8	-2.0	75.	15.281	13.732	439.80	438.00
6	5.71 (4500) *	2.8	-2.0	73.	15.084	13.672	420.88	420.12
7	5.71 (6100) *	6.6	-1.0	78.	15.435	13.746	458.09	455.02
8	8.71	4.7	-1.0	78.	15.391	13.727	455.82	454.23
9	9.71	4.3	0.0	78.	15.405	13.781	450.13	448.87
10	10.71	5.3	-5.0	79.	15.385	13.858	435.78	432.26
11	11.71	11.0	—	79.	14.737	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 683 CONFIGURATION L1C1E1B3PRTIR1RETF THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.890 PSIA PINF = 12.572 PSIA TSC = 77.37 DEG F RHO = 0.00205 SLUGS/CU FT

M = 0.5140 V = 570.16 FPS Q = 333.765 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	5.4	4.0	78.	14.828	13.098	475.14	471.91
3	1.71	4.8	6.0	78.	15.065	13.092	503.56	499.04
4	2.71	3.9	0.0	78.	15.083	13.082	508.10	506.93
5	5.71	2.8	-1.0	77.	15.181	13.007	528.05	527.36
6	5.71 (4500) *	0.1	-1.0	76.	14.944	12.971	502.63	502.58
7	5.71 (6500) *	5.2	0.0	80.	15.441	13.197	534.12	531.93
8	8.71	2.3	0.0	79.	15.227	13.069	526.80	526.38
9	9.71	1.7	-3.0	78.	15.227	13.182	511.52	510.60
10	10.71	2.3	-5.0	78.	15.205	13.206	504.69	502.37
11	11.71	5.0	—	78.	14.224	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 684 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.897 PSIA PINF = 13.367 PSIA TSC = 84.65 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4096 V = 461.64 FPS Q = 225.566 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	6.8	3.0	73.	14.909	13.732	385.81	382.57
3	1.71	5.7	0.0	73.	15.073	13.781	402.78	400.81
4	2.71	4.7	1.0	73.	15.086	13.734	411.83	410.39
5	5.71	3.7	-2.0	73.	15.187	13.703	429.93	428.77
6	5.71 (4500) *	1.3	-2.0	72.	15.009	13.649	413.69	413.32
7	5.71 (6500) *	6.3	-1.0	76.	15.442	13.724	461.78	458.96
8	8.71	2.3	—	79.	15.227	—	—	—
9	9.71	2.8	-3.0	74.	15.244	13.784	426.95	425.84
10	10.71	3.6	-5.0	77.	15.260	13.846	420.17	417.74
11	11.71	8.2	—	85.	14.623	—	—	—
12	8.71	2.7	-2.0	83.	15.225	13.740	433.96	433.22

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 686 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 5500

HO = 14.897 PSIA PINF = 14.004 PSIA TSC = 72.94 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3083 V = 346.17 FPS Q = 134.006 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.6	0.0	72.	14.924	14.060	327.79	326.74
3	1.71	4.6	-2.0	72.	15.010	14.075	341.35	340.05
4	2.71	3.6	-2.0	72.	15.025	14.060	345.87	344.97
5	5.71	2.8	-2.0	72.	15.085	14.058	357.17	356.53
6	5.71 (4500)*	0.5	-3.0	71.	14.940	14.020	338.79	338.32
7	5.71 (6500)*	4.6	-3.0	75.	15.277	14.093	381.99	380.24
8	8.71	1.2	-3.0	74.	15.144	14.042	370.33	369.74
9	9.71	0.7	-5.0	75.	15.141	14.075	364.99	363.57
10	10.71	-0.6	-5.0	75.	15.128	14.112	355.92	354.57
11	11.71	1.5	-13.0	74.	15.123	14.151	346.55	337.58
12	12.71	7.5	—	75.	14.727	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 687 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.880 PSIA PINF = 13.338 PSIA TSC = 76.72 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4116 V = 460.44 FPS Q = 227.288 PSF PSI = 0. DEG

PT NO.	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.5	2.0	76.	14.864	13.459	425.48	423.91
3	1.71	4.7	-1.0	76.	15.020	13.498	440.22	438.68
4	2.71	3.8	-1.0	77.	15.055	13.474	448.56	447.53
5	3.71	2.7	-3.0	77.	15.151	13.467	462.19	461.04
6	5.71 (4500) *	0.4	-4.0	76.	14.944	13.460	548.01	546.70
7	5.71 (6500) *	4.6	-2.0	82.	15.345	13.485	486.02	484.17
8	8.71	1.2	-3.0	78.	15.176	13.464	466.05	465.30
9	9.71	0.6	-4.0	79.	15.206	13.519	461.95	460.84
10	10.71	0.3	-5.0	78.	15.195	13.586	451.27	449.56
11	11.71	1.4	—	78.	15.182	—	—	—
12	12.71	8.2	—	79.	14.407	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 688 CONFIGURATION L1C1E3B3PWTJ1R1RETP THETA 3/4 = 58.0 DEG RPM 5500

HO = 14.860 PSIA PINF = 12.539 PSIA TSC = 84.26 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5150 V = 574.90 FPS Q = 334.223 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	4.8	2.0	82.	14.733	12.666	524.81	522.66
3	1.71	3.8	1.0	81.	14.909	12.692	540.31	538.64
4	2.71	2.9	0.0	81.	14.909	12.648	546.01	545.30
5	5.71	1.9	-3.0	82.	15.041	12.643	561.32	560.25
6	5.71 (4500) *	1.4	-4.0	82.	14.990	12.642	555.62	554.12
7	5.71 (6300) *	3.3	-3.0	84.	15.201	12.622	580.64	578.84
8	8.71	0.7	-4.0	85.	15.106	12.687	564.04	562.63
9	9.71	0.2	-4.0	84.	15.099	12.762	553.21	551.88
10	11.71	1.7	-6.0	85.	15.091	12.835	548.02	544.79
11	12.71	8.5	—	86.	13.723	—	—	—

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 691 CONFIGURATION LISCCISCEISCPNTIRIRETP THETA 3/4 = 42.0 DEG RPM 5500

HO = 14.753 PSIA PINF = 13.867 PSIA TSC = 56.96 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3066 V = 344.60 FPS Q = 132.591 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	1.1	3.0	64.	14.820	14.067	305.13	304.64
3	1.71	9.4	0.0	66.	14.993	14.061	338.29	333.76
4	5.71	4.0	-1.0	66.	14.924	14.065	339.42	338.57
5	5.71	7.9	-1.0	70.	15.271	14.088	380.20	376.55
6	8.71 (4500) *	4.6	-1.0	68.	15.044	13.986	362.60	361.40
7	9.71 (6500) *	3.5	-3.0	69.	15.035	14.010	356.16	354.99
8	10.71	3.9	-2.0	69.	14.957	14.036	338.13	337.15
9	11.71	8.8	-1.0	67.	14.597	13.943	286.88	283.47
10	12.71	2.4	10.0	65.	14.748	13.939	317.78	312.67

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 692 CONFIGURATION LISCOISCEISCPNTTIRIRETP THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.742 PSIA PINF = 13.216 PSIA TSC = 72.94 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4114 V = 456.58 FPS Q = 224.572 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	8.4	2.0	70.	14.792	13.590	391.49	387.07
3	1.71	7.6	0.0	71.	14.956	13.603	413.29	409.65
4	2.71	6.3	0.0	71.	14.963	13.573	418.93	416.42
5	5.71	4.8	-1.0	72.	15.030	13.552	430.64	429.09
6	5.71 (4500) *	1.8	-1.0	72.	14.856	13.513	412.56	412.31
7	5.71 (6500) *	0.6	-1.0	77.	15.255	13.564	461.05	457.96
8	8.71	3.2	-2.0	75.	15.017	13.449	446.60	445.62
9	9.71	2.5	-2.0	74.	14.992	13.496	434.88	434.23
10	10.71	3.3	-3.0	74.	14.968	13.531	426.95	425.63
11	11.71	8.9	-2.0	74.	14.553	13.365	392.98	388.03
12	12.71	1.2	12.0	73.	14.728	13.374	417.49	408.31

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 693 CONFIGURATION LISCCISCEISCPNTTIRIRETP 0 THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.732 PSIA PINF = 12.437 PSIA TSC = 101.44 DEG F RHO = 0.00194 SLUGS/CU FT

M = 0.3143 V = 563.17 FPS Q = 330.610 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.71	7.9	-2.0	74.	14.776	12.931	490.37	485.42
3	1.71	6.7	-4.0	74.	14.958	12.943	509.63	504.95
4	2.71	5.5	-3.0	76.	14.953	12.885	517.38	514.28
5	5.71	3.7	-1.0	75.	15.017	12.830	531.61	530.44
6	5.71 (4500) *	1.1	-1.0	77.	14.777	12.767	513.29	513.14
7	5.71 (6500) *	5.7	-1.0	78.	15.242	12.726	569.49	566.64
8	8.71	1.9	0.0	78.	14.943	12.747	535.39	535.07
9	9.71	1.4	-1.0	77.	14.892	12.790	523.51	523.35
10	10.71	2.2	-4.0	77.	14.850	12.819	514.43	512.84
11	11.71	8.6	2.0	78.	14.527	12.630	503.56	497.32
12	12.71	1.3	13.0	78.	14.713	12.555	535.39	521.53

* DATA ACQUIRED AT INDICATED RPM

TABLE VIII E330590 - 1

HSC SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 695 CONFIGURATION L1C1E1D3PWTTIRIRETP THETA 3/4 = 34.0 DEG RPM 5500

HO = 14.660 PSIA PINF = 13.314 PSIA TSC = 67.74 DEG F RHO = 0.00217 SLUGS/CU FT

M = 0.3858 V = 428.84 FPS Q = 199.408 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	1.7	1.0	66.	14.705	14.025	291.09	290.94
3	1.71	1.2	2.0	67.	14.741	14.036	297.00	296.76
4	2.71	0.5	-1.0	68.	14.755	13.802	345.71	345.68
5	5.71	0.4	0.0	68.	14.800	13.787	356.97	356.97
6	12.71	-0.5	1.0	68.	14.828	13.743	368.23	368.19
7	9.71	-0.8	-1.0	69.	14.818	13.766	364.05	363.98
8	10.71	0.3	0.0	69.	14.800	13.749	364.05	———

TABLE VIII E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 696 CONFIGURATION L1C1E1S3PWTT1K1RETP THETA 3/4 = 38.0 DEG RPM 5500

HO = 14.685 PSIA PINF = 13.763 PSIA TSC = 69.56 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3089 V = 345.69 FPS Q = 132.376 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	1.31	2.8	1.0	66.	14.734	13.810	341.21	340.77
3	1.71	2.6	0.0	68.	14.774	13.808	347.96	347.61
4	2.71	1.7	0.0	69.	14.814	13.803	355.16	356.02
5	5.71	2.1	0.0	70.	14.895	13.818	367.79	367.53
6	8.71	1.3	0.0	71.	14.938	13.761	383.96	383.85
7	9.71	0.9	-1.0	71.	14.946	13.771	383.96	383.88
8	10.71	2.0	-9.0	72.	14.926	13.761	383.17	378.23

TABLE VIII

EB 0590 - 1

NSL SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 657 CONFIGURATION L1C1E1B3PWT11P1RE1P THETA 3/4 = 42.0 DEG. RPM 5500

HO = 14.663 PSIA PINF = 13.143 PSIA TSC = 76.72 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4115 V = 460.40 FPS Q = 223.530 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	1.71	1.4	1.0	76.	14.796	13.264	432.28	432.11
3	2.71	0.2	0.0	77.	14.775	13.253	444.02	444.02
4	5.71	0.5	-1.0	77.	14.848	13.215	458.78	458.73
5	8.71	-0.1	0.0	78.	14.908	13.178	472.87	472.87
6	9.71	-0.5	-1.0	78.	14.908	13.211	468.32	468.27
7	10.71	0.5	-8.0	78.	14.883	13.188	468.32	463.78

TABLE VIII

E330590 - 1

HSL SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 098 CONFIGURATION L1C1E163PN1T1R1K1TP THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.664 PSIA PINF = 13.151 PSIA TSC = 76.15 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4105 V = 459.88 FPS Q = 222.933 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	2.5	1.0	77.	14.728	13.205	438.34	437.90
3	1.71	2.1	0.9	78.	14.809	13.279	445.59	445.28
4	2.71	0.8	0.0	79.	14.795	13.223	452.84	452.39
5	5.71	1.0	-1.0	79.	14.903	13.207	468.77	468.54
6	9.71	0.7	-9.0	81.	14.999	13.132	490.16	490.11
7	10.71	1.0	-9.0	81.	14.963	13.176	482.18	482.08

TABLE VIII E330590 - 1

HSL SHROUDED PROPELLER TEST

PHASE 1 - 8 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 766 CONFIGURATION L1C1E1S3PWT1R1RETP THETA 3/4 = 46.0 DEG RPM 5500

HO = 14.673 PSIA PINF = 12.389 PSIA TSO = 86.48 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5140 V = 575.03 FPS Q = 328.979 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	0.7	2.0	83.	14.665	12.507	537.88	537.50
3	1.71	0.6	-1.0	84.	14.756	12.485	550.93	550.88
4	2.71	-1.0	-1.0	85.	14.694	12.493	544.59	544.48
5	5.71	-1.0	1.0	85.	14.795	12.400	566.33	566.22
6	8.71	-1.6	1.0	86.	14.800	12.345	575.99	575.70
7	9.71	-2.1	1.0	86.	14.782	12.375	569.11	568.66
8	10.71	-1.4	-6.0	86.	14.759	12.312	575.99	572.65

TABLE VIII

E330590 - 1

HSL SHROUDED PROPELLER TEST

PHASE I - 4 FT TEST SECTION

TRAVERSING PROBE DATA

RUN NO 701 CONFIGURATION L1C1E1B3PWITIRIKE3P THETA 3/4 = 50.0 DEG RPM 5500

HO = 14.673 PSIA PINF = 12.384 PSIA TSC = 86.48 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5147 V = 575.71 FPS Q = 329.663 PSF PSI = 0. DEG

PT NO	PROBE DISTANCE FROM HUB, IN	ZETA DEG	THETA DEG	TEMP DEG F	PT PSIA	PS PSIA	V FPS	V PRIME FPS
2	0.81	-1.9	2.0	84.	14.714	12.479	548.64	548.04
3	1.71	-1.7	2.0	86.	14.844	12.512	558.81	558.25
4	2.71	-1.0	1.0	87.	14.823	12.460	563.93	563.82
5	5.71	-1.3	0.0	88.	14.947	12.335	610.31	610.13
6	8.71	-0.4	0.0	88.	15.039	12.358	598.84	598.84
7	9.71	-0.2	-1.0	88.	15.025	12.398	593.10	593.04
8	10.71	-0.6	-11.0	89.	15.009	12.276	607.40	596.22

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 141-12 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.702 PSIA PINF = 14.597 PSIA TSC = 40.93 DEG F RHO = 0.00244 SLUGS/CU FT

M = 0.1012 V = 111.14 FPS Q = 15.080 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.34	0.89	0.49	0.14	0.06	0.00	0.03	0.03	0.03	0.03	-0.03	-0.08	-0.05
S1B	0.34	-2.06	-4.51	-5.15	-5.32	-5.98	-5.72	-5.23	-4.86	-3.94	0.05	0.02	0.02
S2T	0.43	0.89	0.54	0.11	0.02	0.05	-0.01	0.02	0.02	-0.04	-0.01	-0.04	0.86
S2B	0.43	-2.03	-4.62	-5.22	-5.61	-6.24	-5.76	-5.35	-4.75	-4.27	-3.67	-3.55	-3.49

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.14	-0.05	0.03	-0.01	0.02	0.11	0.20					
S1B	-3.08	-1.21	-0.46	-0.21	-0.00	0.14	0.28	0.25	0.25	0.25	0.25	0.37
S2T	0.69	0.69	0.72	0.72	0.75	0.75	0.75					
S2B	-2.94	-1.33	-0.41	-0.15	0.05	0.14	0.31	0.31	0.28	0.31	0.83	0.86

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R4	236.19	242.39	226.33	227.00	212.65	192.68	201.79	175.43	30.03	0.	174.45

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.78	14.83	14.86	14.87	14.88	14.89	14.90	14.91	14.92	14.94	14.96	14.98	15.00

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.01	15.02	15.03	15.04	15.05	15.06	15.07	15.05	14.96	14.69	14.70	14.64

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 142-13 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 30.0 DEG RPM 6500

HO = 14.693 PSIA PINF = 14.583 PSIA TSC = 43.53 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.1038 V = 114.28 FPS Q = 15.849 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-0.42	0.97	0.81	0.49	0.35	0.24	0.19	0.16	0.19	0.16	0.13	0.05	0.03
S1B	-0.42	-3.94	-6.97	-7.76	-8.01	-8.77	-8.23	-7.54	-6.97	-5.55	0.07	0.07	0.07
S2T	-0.55	0.95	0.84	0.89	0.32	0.29	0.23	0.23	0.15	0.15	0.12	0.04	0.89
S2B	-0.55	-3.99	-7.20	-8.04	-8.38	-9.03	-8.35	-7.75	-6.83	-6.23	-5.39	-5.20	-4.95

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.00	-0.00	0.08	0.04	0.07	0.15	0.21					
S1B	-4.08	-1.40	-0.58	-0.25	-0.06	0.16	0.32	0.26	0.29	0.24	0.21	0.48
S2T	0.73	0.78	0.75	0.75	0.75	0.78	0.81					
S2B	-4.00	-1.70	-0.47	-0.31	-0.01	0.13	0.29	0.32	0.24	0.26	0.89	0.86

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R4	279.11	290.18	272.79	273.91	256.11	227.30	239.65	207.10	30.22	17.45	209.38

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.81	14.87	14.92	14.94	14.95	14.97	14.98	15.00	15.01	15.04	15.07	15.10	15.12

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.15	15.17	15.20	15.23	15.25	15.26	15.27	15.26	15.12	14.68	14.69	14.63

TABLE IX

E330590 - I

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 143-13 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.692 PSIA PINF = 14.587 PSIA TSC = 45.49 DEG F RHO = 0.00242 SLUGS/CU FT

M = 0.1013 V = 111.68 FPS Q = 15.080 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-2.01	0.83	1.00	0.80	0.60	0.46	0.38	0.29	0.26	0.23	0.18	0.06	0.06
S1B	-2.01	-7.30	-11.17	-12.32	-12.49	-13.41	-12.58	-11.37	-10.37	-8.13	0.03	-0.00	-0.03
S2T	-2.51	0.74	1.00	0.74	0.54	0.48	0.37	0.31	0.28	0.22	0.19	0.11	0.89
S2B	-2.51	-7.37	-11.59	-12.62	-13.03	-13.92	-12.66	-11.52	-10.38	-9.35	-7.95	-7.50	-6.73

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.01	0.01	0.06	0.02	0.05	0.11	0.14					
S1B	-5.60	-2.30	-1.01	-0.55	-0.20	0.05	0.25	0.17	0.20	0.17	0.11	0.46
S2T	0.77	0.77	0.72	0.72	0.72	0.74	0.77					
S2B	-5.51	-2.64	-0.95	-0.52	-0.20	-0.00	0.23	0.23	0.20	0.23	0.80	0.86

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R4	328.67	344.14	321.86	324.72	301.62	263.78	283.34	242.77	39.35	0.	245.02

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.84	14.93	15.00	15.04	15.06	15.07	15.09	15.11	15.14	15.18	15.21	15.23	15.27

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.34	15.44	15.49	15.51	15.53	15.53	15.51	15.46	15.28	14.69	14.69	14.64

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 149-13 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 25.0 DEG RPM 6500

HO = 14.683 PSIA PINF = 14.654 PSIA TSC = 42.23 DEG F RHO = 0.00244 SLUGS/CU FT

M = 0.0534 V = 58.77 FPS Q = 4.216 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-10.06	0.67	0.89	1.00	1.11	1.00	1.00	0.90	0.80	0.80	0.59	0.49	0.49
S1B	-10.06	-20.51	-25.89	-27.41	-27.31	-28.73	-26.60	-23.96	-21.73	-17.79	-0.03	-0.03	-0.13
S2T	-5.11	-2.58	-0.55	1.00	1.21	1.10	0.90	0.90	0.90	0.69	0.59	0.48	1.21
S2B	-5.11	-16.01	-23.42	-23.86	-28.35	-29.58	-26.82	-24.36	-21.60	-19.56	-17.51	-16.49	-15.77

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.29	0.39	0.29	0.38	0.28	0.28	0.38					
S1B	-14.09	-6.80	-2.39	-1.46	-0.75	-0.23	0.18	0.18	0.07	0.07	-0.03	-0.24
S2T	1.00	0.90	1.00	0.90	0.90	0.90	0.90					
S2B	-13.58	-7.52	-2.39	-1.36	-0.54	-0.13	0.28	0.28	0.28	0.28	0.90	0.90

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R4	241.67	253.72	235.88	236.51	218.69	192.48	203.06	170.66	34.75	24.58	181.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.82	14.87	14.90	14.92	14.94	14.93	14.95	14.97	14.98	15.01	15.02	15.04	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.09	15.09	15.10	15.11	15.12	15.13	15.11	15.00	14.69	14.68	14.68

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 150-14 CONFIGURATION L1C1E1B3PWTT1R4RETP THETA 3/4 = 25.0 DEG RPM 7500

HO = 14.679 PSIA PINF = 14.652 PSIA TSC = 43.53 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.0507 V = 55.83 FPS Q = 3.795 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-19.07	-6.68	-1.82	0.44	0.77	0.89	1.00	0.89	0.89	0.66	0.77	0.55	0.44
S1B	-19.07	-34.21	-41.83	-44.30	-43.74	-45.65	-42.06	-37.57	-33.98	-27.79	-0.13	-0.02	-0.59
S2T	-22.93	-6.70	-1.85	0.43	1.00	0.89	1.00	0.89	0.77	0.77	0.54	0.54	0.77
S2B	-22.93	-34.56	-42.46	-44.71	-45.79	-47.15	-42.51	-38.45	-33.93	-30.99	-27.14	-25.22	-23.19

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.55	0.32	0.32	0.32	0.20	0.20	0.20					
S1B	-20.53	-8.97	-3.42	-2.51	-1.38	-0.59	0.43	-0.14	-0.02	-0.14	-0.36	-0.02
S2T	0.89	0.77	0.77	0.77	0.77	0.66	0.77					
S2B	-19.99	-9.78	-3.09	-2.18	-1.16	-0.59	-0.14	-0.02	-0.14	-0.02	0.77	0.77

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R4	286.91	301.21	281.42	282.49	260.26	225.65	241.68	203.95	24.64	17.43	212.57

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.85	14.92	14.96	14.99	15.00	15.01	15.04	15.06	15.08	15.11	15.14	15.17	15.19

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.20	15.22	15.26	15.30	15.31	15.31	15.32	15.30	15.15	14.68	14.68	14.67

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 165- 9 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.821 PSIA PINF = 14.796 PSIA TSC = 44.83 DEG F RHO = 0.00245 SLUGS/CU FT

M = 0.0495 V = 54.59 FPS Q = 3.654 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-9.70	-1.58	0.41	1.00	1.12	1.00	0.88	0.76	0.65	0.41	0.53	0.41	0.30
S1B	-9.70	-19.10	-24.51	-26.27	-26.39	-27.80	-25.68	-23.10	-20.98	-17.03	0.06	-0.18	-0.18
S2T	-10.37	-1.58	0.29	1.12	0.88	0.53	0.76	0.76	0.64	0.64	0.41	0.41	1.00
S2B	-10.37	-19.05	-25.38	-26.90	-27.41	-28.58	-26.00	-23.77	-20.95	-19.07	-16.96	-15.90	-14.96

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.18	0.30	0.18	0.18	0.18	0.18	0.29					
S1B	-13.38	-7.37	-3.36	-1.95	-1.24	-0.77	0.29	0.18	0.18	0.18	0.18	1.00
S2T	1.00	1.00	1.11	1.11	1.11	1.00	1.00					
S2B	-12.80	-8.12	-2.98	-1.92	-0.75	-0.29	0.18	0.18	0.30	0.30	1.23	1.11

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	219.78	227.84	213.05	215.80	200.92	198.71	184.18	155.23	179.87	176.55	197.19

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.93	14.99	15.05	15.10	15.13	15.14	15.14	15.15	15.15	15.15	15.16	15.16	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.16	15.16	15.16	15.15	15.15	15.14	15.13	15.09	15.00	14.82	14.82	14.82

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 166- 9 CONFIGURATION E1C1E183PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.819 PSIA PINF = 14.793 PSIA TSC = 48.09 DEG F RHO = 0.00244 SLUGS/CU FT

M = 0.0495 V = 54.77 FPS Q = 3.654 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-30.32	-11.15	-3.95	-0.06	1.00	1.12	1.00	1.00	1.00	0.88	0.88	0.76	0.65
S1B	-30.32	-46.77	-55.62	-58.91	-58.23	-59.93	-55.16	-49.04	-44.27	-35.35	0.05	-0.07	-0.54
S2T	-32.85	-11.04	-4.00	0.76	0.88	2.19	1.00	1.00	1.00	0.88	1.00	0.76	0.88
S2B	-32.85	-47.00	-56.90	-59.73	-60.29	-62.29	-56.04	-50.13	-44.46	-40.33	-35.02	-31.95	-28.88

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.53	0.65	0.53	0.29	0.29	0.29	0.29					
S1B	-24.69	-13.80	-6.34	-3.97	-2.20	-1.25	0.17	-0.18	-0.18	-0.18	-0.30	0.88
S2T	0.88	0.77	0.77	0.77	0.77	0.65	0.77					
S2B	-23.73	-14.55	-6.30	-3.83	-2.06	-0.88	-0.06	0.06	0.06	0.18	0.77	0.88

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	318.74	334.70	311.98	317.32	292.31	289.17	269.28	227.11	259.97	254.65	287.52

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	15.00	15.09	15.21	15.34	15.41	15.44	15.45	15.46	15.47	15.48	15.50	15.52	15.54

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.56	15.56	15.57	15.58	15.56	15.52	15.46	15.40	15.23	14.82	14.82	14.82

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 168- 9 CONFIGURATION L1C1E1B3PNTT1R1RETp THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.819 PSIA PINF = 14.413 PSIA TSC = 58.63 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.1996 V = 222.25 FPS Q = 57.857 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.71	-0.95	-1.32	-1.24	-1.04	-0.88	-0.70	-0.55	-0.48	-0.42	-0.40	-0.43	-0.39
S1B	0.71	0.69	-0.28	-0.55	-0.73	-1.08	-1.10	-1.05	-0.99	-0.81	-0.06	-0.05	-0.07
S2T	0.75	-0.92	-1.34	-1.37	-0.95	-0.82	-0.70	-0.58	-0.52	-0.48	-0.42	-0.42	0.30
S2B	0.75	0.73	-0.27	-0.56	-0.77	-1.08	-1.09	-1.07	-0.90	-0.79	-0.57	-0.59	-0.60

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.39	-0.36	-0.19	-0.19	-0.13	-0.05	0.07					
S1B	-0.48	-0.34	-0.16	-0.05	0.04	0.10	0.17	0.17	0.19	0.18	0.17	0.37
S2T	-0.46	-0.37	-0.29	-0.21	0.01	0.33	0.41					
S2B	-0.43	-0.35	-0.14	-0.05	0.03	0.10	0.15	0.16	0.17	0.18	0.43	0.48

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	276.35	274.99	260.00	261.18	252.17	250.33	239.84	233.05	223.85	226.60	249.84

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.76	14.85	14.89	14.92	14.95	14.96	14.98	15.00	15.02	15.02	15.03	15.03	15.03

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.03	15.02	15.01	15.01	15.01	14.98	14.95	14.92	14.77	14.62	14.80	14.70

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 169- 9 CONFIGURATION L1C1E1B3P[illegible]T1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.821 PSIA PINF = 14.416 PSIA TSC = 60.45 DEG F RHO = 0.00233 SLUGS/CU FT

M = 0.1995 V = 222.63 FPS Q = 57.857 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.88	-0.06	-0.57	-0.70	-0.63	-0.56	-0.44	-0.34	-0.31	-0.28	-0.25	-0.33	-0.29
S1B	0.88	0.02	-1.49	-1.91	-2.16	-2.64	-2.55	-2.36	-2.19	-1.67	-0.03	-0.04	-0.06
S2T	0.95	-0.07	-0.54	-0.79	-0.65	-0.53	-0.42	-0.38	-0.36	-0.32	-0.29	-0.30	0.43
S2B	0.95	0.09	-1.53	-1.95	-2.21	-2.64	-2.53	-2.41	-2.09	-1.89	-1.50	-1.48	-1.41

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.31	-0.28	-0.12	-0.14	-0.09	-0.02	0.09					
S1B	-1.16	-0.73	-0.34	-0.16	-0.02	0.08	0.18	0.18	0.19	0.20	0.20	0.34
S2T	-0.02	0.03	0.09	0.15	0.14	0.10	0.38					
S2B	-1.11	-0.76	-0.34	-0.16	-0.02	0.09	0.17	0.17	0.19	0.21	0.68	0.48

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	345.81	353.72	333.62	337.36	319.24	318.75	304.03	280.32	280.45	279.33	315.26

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.85	14.98	15.11	15.19	15.20	15.21	15.23	15.26	15.29	15.31	15.33	15.35	15.35

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.37	15.37	15.37	15.36	15.36	15.34	15.29	15.20	14.99	14.65	14.80	14.70

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 171- 9 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.849 PSIA PINF = 14.824 PSIA TSC = 49.39 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.0495 V = 54.79 FPS Q = 3.654 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-10.54	-2.20	0.17	0.88	1.00	1.00	0.64	0.76	0.76	0.53	0.41	0.41	0.29
S1B	-10.54	-19.84	-25.38	-27.38	-27.15	-28.68	-26.44	-24.08	-22.32	-19.06	0.04	-0.19	-0.19
S2T	-11.22	-2.09	0.17	1.00	1.00	0.76	0.76	0.76	0.76	0.52	0.40	0.40	0.64
S2B	-11.22	-19.77	-26.17	-27.72	-28.15	-29.21	-26.37	-24.24	-21.63	-19.50	-17.36	-16.42	-15.94

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.17	0.17	0.17	0.05	0.17	0.29	0.17					
S1B	-14.04	-5.21	-2.70	-1.51	-0.91	-0.55	0.41	0.17	0.17	0.17	-0.07	0.29
S2T	0.88	1.00	0.64	0.64	0.76	0.88	0.64					
S2B	-13.43	-5.86	-2.19	-1.37	-0.66	-0.30	0.17	0.29	0.17	0.05	0.88	1.00

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	224.26	233.12	217.05	218.43	203.44	200.47	185.80	155.62	165.15	162.39	196.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.95	14.98	15.01	15.05	15.08	15.10	15.11	15.13	15.14	15.15	15.16	15.17	15.18

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.18	15.19	15.19	15.20	15.20	15.21	15.22	15.20	15.12	14.85	14.85	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 172- 9 CONFIGURATION L1C1E1B3PRT1R1RETp THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.851 PSIA PINF = 14.825 PSIA TSC = 50.69 DEG F RHO = 0.00243 SLUGS/CU FT

M = 0.0495 V = 54.86 FPS Q = 3.654 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-31.96	-12.41	-4.58	-0.31	0.64	1.00	1.00	1.00	1.00	1.00	0.76	0.64	0.64
S1B	-31.96	-48.44	-57.27	-61.16	-60.10	-61.63	-57.03	-51.03	-46.68	-38.51	-0.07	0.05	-0.66
S2T	-34.83	-11.95	-4.46	-0.46	0.88	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.88
S2B	-34.83	-48.71	-58.68	-61.76	-62.23	-64.13	-57.61	-51.79	-46.22	-41.47	-35.78	-32.93	-29.25

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	0.64	0.29	0.29	0.41	0.29	0.29	0.29					
S1B	-24.63	-9.92	-4.93	-2.92	-1.61	-0.66	0.41	-0.07	0.11	-0.07	-0.66	0.29
S2T	0.52	0.76	0.64	0.52	0.40	0.52	0.64					
S2B	-24.11	-11.67	-4.21	-3.15	-1.84	-0.78	0.05	0.17	-0.18	0.05	0.76	0.64

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	325.53	343.11	319.26	323.11	295.77	291.59	272.22	230.07	239.72	235.21	287.56

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	15.01	15.07	15.12	15.19	15.26	15.31	15.35	15.38	15.41	15.44	15.49	15.53	15.56

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.57	15.60	15.64	15.67	15.68	15.69	15.67	15.62	15.44	14.86	14.85	14.85

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 173- 9 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.851 PSIA PINF = 14.445 PSIA TSC = 64.35 DEG F RHO = 0.00232 SLUGS/CU FT

M = 0.1993 V = 223.24 FPS Q = 57.858 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.75	-0.89	-1.29	-1.22	-1.01	-0.86	-0.70	-0.53	-0.48	-0.43	-0.39	-0.42	-0.39
S1B	0.75	0.66	-0.33	-0.61	-0.79	-1.18	-1.16	-1.11	-1.06	-0.89	-0.06	-0.06	-0.08
S2T	0.78	-0.87	-1.28	-1.33	-0.94	-0.77	-0.67	-0.56	-0.50	-0.46	-0.40	-0.39	0.13
S2B	0.78	0.69	-0.35	-0.65	-0.85	-1.18	-1.17	-1.14	-0.98	-0.87	-0.64	-0.65	-0.68

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.40	-0.36	-0.18	-0.20	-0.12	-0.05	0.07					
S1B	-0.55	-0.31	-0.18	-0.06	0.04	0.10	0.17	0.16	0.17	0.19	0.19	0.36
S2T	-0.11	-0.06	-0.03	0.00	0.15	0.26	0.32					
S2B	-0.52	-0.30	-0.16	-0.05	0.03	0.09	0.15	0.16	0.17	0.17	0.68	0.34

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	281.62	281.46	265.42	266.60	256.40	257.01	246.59	238.92	231.91	232.59	255.85

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.78	14.84	14.88	14.92	14.95	14.98	15.00	15.02	15.03	15.03	15.04	15.05	15.05

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.05	15.05	15.05	15.05	15.05	15.05	15.06	15.03	14.90	14.65	14.83	14.74

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 174- 9 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.850 PSIA PINF = 14.445 PSIA TSC = 66.96 DEG F RHO = 0.00231 SLUGS/CU FT

M = 0.1992 V = 223.66 FPS Q = 57.789 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.87	-0.02	-0.54	-0.71	-0.62	-0.56	-0.46	-0.35	-0.32	-0.29	-0.27	-0.33	-0.31
S1B	0.87	-0.07	-1.63	-2.07	-2.34	-2.83	-2.73	-2.54	-2.38	-1.87	-0.05	-0.06	-0.07
S2T	0.94	-0.01	-0.51	-0.76	-0.63	-0.52	-0.42	-0.38	-0.35	-0.33	-0.28	-0.29	0.23
S2B	0.94	-0.00	-1.68	-2.13	-2.42	-2.88	-2.75	-2.60	-2.28	-2.07	-1.62	-1.62	-1.56

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.33	-0.29	-0.13	-0.16	-0.09	-0.02	0.08					
S1B	-1.26	-0.63	-0.31	-0.11	0.01	0.09	0.19	0.17	0.17	0.18	0.17	0.30
S2T	-0.04	-0.00	0.01	0.04	0.01	0.32	0.40					
S2B	-1.21	-0.69	-0.28	-0.13	0.00	0.09	0.16	0.17	0.18	0.19	0.45	0.49

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	355.66	365.29	344.10	347.35	328.33	327.36	312.66	287.68	290.06	287.85	324.63

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.80	14.89	14.99	15.07	15.13	15.17	15.20	15.23	15.27	15.29	15.33	15.35	15.36

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.38	15.39	15.40	15.42	15.44	15.47	15.48	15.45	15.22	14.68	14.83	14.74

TABLE

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 316- 9 CONFIGURATION L1C1E1B3PWIT1R1RE110TP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.897 PSIA PINF = 14.868 PSIA TSC = 57.20 DEG F RHO = 0.00241 SLUGS/CU FT

M = 0.0530 V = 59.21 FPS Q = 4.216 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-9.69	-1.96	0.08	0.80	0.80	0.80	0.79	0.79	0.90	0.79	0.69	0.59	0.59
S1B	-9.69	-17.60	-25.02	-27.99	-25.21	-27.27	-25.21	-23.77	-21.51	-19.35	0.07	0.18	0.49
S2T	-10.92	-1.98	0.07	1.00	1.00	0.90	0.79	0.69	0.79	0.69	0.48	0.48	0.90
S2B	-10.92	-18.77	-24.70	-26.42	-26.94	-27.15	-25.10	-22.75	-21.31	-19.68	-17.12	-5.55	-14.76

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	0.59	0.38	0.49	0.07	0.28	0.28	0.28					
S1B	-13.90	-4.96	-2.60	-1.57	-0.85	1.41	0.49	0.28	0.38	0.38	0.07	0.38
S2T	1.00	0.90	0.80	0.80	0.80	0.90	0.80					
S2B	-12.24	-4.65	-1.87	-1.46	-0.75	-0.23	0.18	0.49	0.38	0.28	1.00	0.80

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	224.23	242.17	231.10	231.85	216.91	215.50	206.12	203.90	198.68	194.83	216.54

EXIT RAKE PRESSURES, RSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RB	15.01	14.87	15.09	15.12	15.14	15.16	15.18	15.21	15.24	15.26	15.27	15.28	15.29

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.29	15.30	15.31	15.32	15.34	15.35	15.35	15.33	15.25	14.90	14.90	14.90

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 317-1 9 CONFIGURATION L1C1E1B3PWTT1R1RE11OTP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.889 PSIA PINF = 14.855 PSIA T&C = 58.63 DEG F RHO = 0.00240 SLUGS/CU FT

M = 0.0569 V = 63.60 FPS Q = 4.848 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	+22.90	-4.21	-0.90	0.72	1.09	1.00	1.00	0.91	0.91	0.91	0.91	0.73	0.73
S1B	-22.90	-34.98	-44.47	-49.21	-45.81	-46.79	-42.14	-37.22	-31.13	-26.24	0.55	0.46	1.54
S2T	-20.89	-8.67	-3.24	-0.08	0.82	1.00	1.00	0.91	1.00	0.91	0.82	0.73	1.00
S2B	-20.89	-33.02	-41.65	-44.68	-48.28	-48.63	-44.71	-40.17	-36.87	-33.04	-31.26	-14.86	-20.03

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	0.73	0.73	0.46	0.37	0.37	0.28	0.28					
S1B	-22.28	-6.82	-2.60	-2.15	-1.07	2.71	0.37	0.11	0.28	0.20	-0.16	0.37
S2T	1.00	0.91	1.00	1.00	0.82	0.91	1.00					
S2B	-17.53	-6.34	-1.86	-1.86	-1.24	-0.43	0.37	0.55	0.37	0.46	1.00	0.91

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	329.54	348.26	331.70	333.58	309.83	306.29	291.78	289.65	284.80	276.49	310.19

EXIT RAKE PRESSURES, RSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	15.12	15.19	15.27	15.33	15.37	15.38	15.42	15.45	15.49	15.53	15.56	15.59	15.62

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RB	15.64	15.68	15.73	15.79	15.84	15.86	15.85	15.81	15.67	14.89	14.89	14.90

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 3184 9 CONFIGURATION L1C1E1B3PWTT1R1REI10TP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.879 PSIA PINF = 14.450 PSIA TSC = 76.07 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.2050 V = 232.12 FPS Q = 61.234 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.87	-0.47	-0.90	-0.93	-0.81	-0.73	-0.58	-0.42	-0.36	-0.32	-0.29	-0.36	-0.27
S1B	0.87	0.53	-0.55	-0.87	-1.08	-1.57	-1.65	-1.58	-1.37	-1.02	0.01	0.01	0.19
S2T	0.90	-0.37	-0.82	-0.97	-0.79	-0.60	-0.50	-0.40	-0.36	-0.33	-0.28	-0.28	0.33
S2B	0.90	0.52	-0.64	-0.97	-1.21	-1.45	-1.48	-1.38	-1.32	-1.22	-1.14	-0.33	-0.90

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.29	-0.24	-0.14	-0.12	-0.05	0.03	0.13					
S1B	-0.28	-0.34	-0.13	0.01	0.11	0.27	0.22	0.21	0.23	0.25	0.24	0.28
S2T	0.02	0.03	0.03	0.04	0.30	0.35	0.37					
S2B	-0.69	-0.30	-0.12	-0.02	0.08	0.15	0.18	0.20	0.21	0.22	0.75	0.65

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	301.52	313.65	301.09	300.55	289.12	288.56	282.96	284.09	284.06	279.52	292.51

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.88	14.91	14.95	14.99	15.02	15.03	15.06	15.07	15.09	15.09	15.11	15.12	15.14

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RB	15.15	15.16	15.17	15.18	15.18	15.18	15.17	15.15	15.07	14.67	14.86	14.86

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 3194 9 CONFIGURATION L1C1E1B3PWTT1R1RE110TP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.879 PSIA PINF = 14.450 PSIA TSC = 81.27 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.2049 V = 233.11 FPS Q = 61.165 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.90	0.27	-0.24	-0.44	-0.42	-0.36	-0.32	-0.22	-0.19	-0.17	-0.16	-0.29	-0.20
S1B	0.90	-0.28	-1.91	-2.39	-2.68	-3.31	-3.11	-2.92	-2.34	-1.50	0.02	0.02	0.26
S2T	0.93	0.35	-0.14	-0.46	-0.40	-0.32	-0.26	-0.23	-0.20	-0.19	-0.15	-0.24	0.46
S2B	0.93	-0.30	-2.11	-2.61	-2.95	-3.27	-3.20	-2.95	-2.76	-2.55	-2.39	-0.97	-1.50

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.21	-0.17	-0.09	-0.07	-0.02	0.05	0.15					
S1B	-1.80	-0.53	-0.18	-0.01	0.09	0.39	0.24	0.22	0.25	0.24	0.23	0.30
S2T	-0.00	-0.07	0.07	0.32	0.34	0.37	0.58					
S2B	-1.33	-0.58	-0.21	-0.11	0.06	0.18	0.23	0.24	0.24	0.26	0.79	0.71

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	385.95	404.15	388.30	390.85	371.78	368.66	358.36	358.86	357.01	350.01	373.39

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	15.00	15.07	15.13	15.18	15.22	15.23	15.26	15.30	15.35	15.39	15.44	15.46	15.48

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.53	15.60	15.66	15.70	15.68	15.66	15.64	15.59	15.46	14.71	14.85	14.86

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 320- 9 CONFIGURATION L1C1E1B3PWTT1R1REI'10/TP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.888 PSIA RINF = 14.651 PSIA TSC = 79.97 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.2069 V = 235.02 FPS Q = 62.336 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.82	-0.61	-1.03	-1.00	-0.87	-0.76	-0.60	-0.43	-0.37	-0.32	-0.28	-0.36	-0.27
S1B	0.82	0.64	-0.31	-0.57	-0.74	-1.17	-1.15	-1.15	-0.93	-0.59	0.02	0.02	0.22
S2T	0.86	-0.51	-0.95	-1.07	-0.86	-0.64	-0.54	-0.44	-0.38	-0.34	-0.29	-0.28	0.62
S2B	0.86	0.63	-0.40	-0.68	-0.90	-1.12	-1.16	-1.08	-1.03	-0.95	-0.91	-0.30	-0.65

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.28	-0.23	-0.13	-0.10	-0.04	0.03	0.13					
S1B	-0.57	-0.19	-0.04	0.05	0.13	0.17	0.24	0.22	0.23	0.22	0.23	0.27
S2T	0.01	0.00	0.15	0.19	0.20	0.22	0.45					
S2B	-0.54	-0.17	-0.04	0.04	0.13	0.19	0.23	0.23	0.24	0.24	0.69	0.52

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	291.72	294.64	280.10	279.52	268.93	266.53	261.04	260.27	257.71	255.83	271.63

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.85	14.90	14.94	14.97	14.99	14.99	14.99	15.00	15.00	15.02	15.04	15.06	15.08

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.11	15.13	15.13	15.16	15.17	15.18	15.17	15.14	15.03	14.67	14.87	14.87

TABLE II

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 3214 9 CONFIGURATION E1C1E1B3PWTT1R1REI'10JP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.879 PSIA PINF = 14.444 PSIA TSC = 82.57 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.2063 V = 234.99 FPS Q = 61.991 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.92	0.18	-0.32	-0.51	-0.46	-0.41	-0.35	-0.23	-0.20	-0.18	-0.17	-0.29	-0.18
S1B	0.92	-0.10	-1.50	-2.01	-2.27	-2.81	-2.61	-2.45	-1.95	-1.25	0.03	0.02	0.26
S2T	0.93	0.26	-0.22	-0.51	-0.44	-0.36	-0.28	-0.25	-0.21	-0.14	-0.17	-0.23	0.37
S2B	0.93	-0.16	-1.84	-2.30	-2.58	-2.90	-2.84	-2.60	-2.46	-2.26	-2.13	-0.80	-1.42

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.20	-0.17	-0.09	-0.07	-0.02	0.05	0.14					
S1B	-1.52	-0.42	0.01	0.13	0.18	0.24	0.26	0.21	0.23	0.23	0.21	0.29
S2T	0.10	0.13	0.15	0.15	0.18	0.32	0.36					
S2B	-1.13	-0.42	-0.11	0.00	0.14	0.23	0.27	0.30	0.28	0.27	0.76	0.65

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	369.01	382.89	368.80	368.80	349.56	345.78	333.26	333.06	325.03	320.96	349.71

EXIT RAKE PRESSURES, RSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.88	14.97	15.06	15.12	15.16	15.18	15.21	15.24	15.26	15.28	15.33	15.38	15.44

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RB	15.51	15.50	15.64	15.65	15.67	15.68	15.68	15.64	15.48	14.71	14.86	14.86

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 323- 9 CONFIGURATION EIC1E1B3PRT3R1RETP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.988 PSIA PINF = 14.874 PSIA TSC = 57.20 DEG F RHO = 0.00241 SLUGS/CU FT

M = 0.0573 V = 63.93 FPS Q = 4.918 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-7.91	1.00	1.10	1.10	1.10	1.00	0.91	0.82	0.82	0.82	0.65	0.47	0.47
S1B	-7.91	-14.61	-20.16	-22.90	-21.31	-22.02	-20.25	-18.84	-16.55	-2.36	0.47	0.47	0.91
S2T	0.52	-1.38	0.38	1.00	1.00	0.91	0.91	0.82	0.82	0.82	0.73	0.55	1.00
S2B	0.52	-10.46	-14.51	-16.72	-16.46	-22.16	-20.32	-18.39	-16.90	-15.49	-13.91	-2.95	-11.28

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	0.56	0.56	0.38	0.38	0.38	0.38	0.47					
S1B	-10.49	-5.37	-2.09	-1.03	-0.33	0.12	0.56	0.38	0.38	0.38	0.21	0.47
S2T	0.66	0.66	0.49	0.32	0.41	0.49	0.49					
S2B	-9.09	-4.84	-2.19	-1.30	-0.51	0.03	0.38	0.47	0.47	0.29	0.58	0.58

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	210.40	234.49	222.47	225.19	211.24	209.79	200.15	198.85	193.42	189.45	209.55

EXIT RAKE PRESSURES, RSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	15.05	15.07	15.10	15.13	15.17	15.19	15.22	15.23	15.25	15.27	15.29	15.31	15.31

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.30	15.29	15.30	15.31	15.30	15.28	15.25	15.23	15.17	14.91	14.91	14.91

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 3244 9 CONFIGURATION L1C1E183PR13R1RETP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.916 PSIA PINF = 14.885 PSIA TSC = 58.63 DEG F RHO = 0.00240 SLUGS/CU FT

M = 0.0552 V = 61.67 FPS Q = 4.567 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	+24.54	-4.00	-0.98	0.48	0.79	0.90	1.00	1.00	1.00	0.91	0.81	0.72	0.81
S1B	-24.54	-36.88	-46.27	-51.40	-47.32	-48.27	-43.43	-38.58	-32.79	-27.95	0.24	0.24	1.00
S2T	-24.52	-0.36	-3.32	0.04	0.90	0.90	1.00	1.00	1.00	1.00	0.81	0.81	1.00
S2B	-24.52	-36.08	-43.79	-45.87	-29.79	-49.14	-45.18	-40.17	-37.06	-32.81	-29.69	-8.16	-19.68

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	0.72	-0.53	0.53	0.43	0.34	0.24	0.24					
S1B	-21.36	-13.71	-3.01	-1.77	-0.62	-0.15	0.53	0.15	0.24	0.15	-0.23	0.34
S2T	0.91	0.81	0.81	0.81	0.62	0.72	0.81					
S2B	-18.23	-13.94	-3.00	-2.05	-0.71	-0.24	0.33	0.71	0.43	0.43	0.91	0.62

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	306.15	333.59	319.76	323.16	298.71	296.62	281.12	280.88	272.00	263.35	297.53

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	15.14	15.18	15.23	15.29	15.37	15.42	15.50	15.55	15.58	15.63	15.67	15.70	15.71

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.69	15.66	15.66	15.69	15.72	15.73	15.71	15.67	15.56	14.92	14.92	14.92

TABLE

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 325-29 CONFIGURATION LIC1B1B3PRT3R1RETP THETA 3/4 = 35.0 DEG RPM 5500

HO = 14.889 PSIA PINF = 14.674 PSIA TSC = 75.55 DEG F RHO = 0.00228 SLUGS/CU FT

M = 0.2013 V = 227.77 FPS Q = 59.100 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.83	-0.44	-0.85	-0.80	-0.61	-0.51	-0.67	-0.49	-0.43	-0.39	-0.35	-0.42	-0.33
S1B	0.83	0.59	-0.45	-0.74	-0.94	-1.41	-1.38	-1.36	-1.12	-0.75	-0.03	-0.03	0.15
S2T	0.88	-0.53	-1.00	-1.13	-0.93	-0.72	-0.60	-0.49	-0.43	-0.40	-0.35	-0.35	0.39
S2B	0.88	0.66	-0.31	-0.62	-0.99	-1.30	-1.34	-1.25	-1.18	-1.14	-1.00	-0.34	-0.74

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.34	-0.30	-0.18	-0.16	-0.10	-0.02	0.08					
S1B	-0.61	-0.41	-0.19	-0.03	0.08	0.13	0.19	0.18	0.20	0.20	0.20	0.24
S2T	0.02	0.02	0.12	0.20	0.23	0.22	0.43					
S2B	-0.58	-0.30	-0.18	-0.07	0.03	0.11	0.15	0.17	0.18	0.19	0.75	0.59

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	289.81	298.16	282.76	282.76	272.95	272.95	266.44	269.42	264.69	263.49	276.34

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.84	14.90	14.96	15.00	15.01	15.02	15.04	15.07	15.09	15.11	15.13	15.14	15.15

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.15	15.16	15.15	15.17	15.17	15.17	15.14	15.10	14.95	14.88	14.86	14.88

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 3264 9 CONFIGURATION LIG1B1B3PRT3R1RETP THETA 3/4 = 35.0 DEG RPM 7500

HO = 14.887 PSIA PINF = 14.468 PSIA TSC = 79.06 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.2025 V = 229.88 FPS Q = 59.786 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.92	0.50	0.14	-0.06	-0.03	-0.03	-0.38	-0.27	-0.23	-0.21	-0.20	-0.32	-0.22
S1B	0.92	-0.25	-1.87	-2.40	-2.71	-3.23	-3.03	-2.81	-2.11	-1.44	-0.00	-0.02	0.19
S2T	0.97	0.29	-0.21	-0.64	-0.46	-0.39	-0.32	-0.28	-0.25	-0.24	-0.20	-0.26	0.56
S2B	0.97	0.23	-2.02	-2.40	-1.44	-3.19	-3.12	-2.86	-2.70	-2.48	-2.17	-0.72	-1.49

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.24	-0.21	-0.11	-0.11	-0.06	0.03	0.12					
S1B	-1.33	-0.87	-0.35	-0.12	0.06	0.14	0.23	0.21	0.22	0.22	0.21	0.28
S2T	-0.36	-0.25	-0.25	-0.18	0.06	0.38	0.45					
S2B	-1.18	-0.85	-0.31	-0.11	0.02	0.13	0.22	0.23	0.22	0.25	0.77	0.51

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	362.68	389.44	373.86	377.38	359.05	355.37	345.13	345.53	339.28	333.44	358.12

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.91	14.98	15.04	15.13	15.20	15.25	15.30	15.35	15.38	15.41	15.47	15.52	15.57

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.60	15.65	15.68	15.69	15.69	15.64	15.55	15.52	15.33	14.72	14.87	14.87

TABLE IX

HSB SHROUDED PROPELLER TEST

REASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 328- 9 CONFIGURATION LIG1E3B3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.874 PSIA RINF = 14.840 PSIA TSC = 61.10 DEG F RHO = 0.00238 SLUGS/CU FT

M = 0.0573 V = 64.25 FPS Q = 4.918 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	+10.34	-1.72	0.16	0.81	1.00	1.00	1.00	0.82	0.91	0.82	0.74	0.74	0.74
S1B	+10.34	-18.20	-24.57	-27.54	-25.88	-26.66	-24.31	+22.56	-19.51	1.00	0.12	0.20	-0.15
S2T	-9.30	-2.61	-0.24	0.73	1.00	0.91	0.82	0.82	0.56	0.73	0.73	0.73	0.64
S2B	-9.30	+14.83	-20.35	-23.16	-22.08	-26.47	-24.45	-22.17	-20.59	-18.92	-17.60	-15.06	-14.88

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.56	0.47	0.56	0.47	0.38	0.38	0.38					
S1B	+14.47	-9.34	-7.84	-5.36	-3.33	-2.09	+0.67	-0.58	-0.32	-0.05	0.03	0.47
S2T	0.47	0.29	0.29	0.29	0.20	0.11	0.20					
S2B	+13.28	-9.49	-8.34	-5.43	-3.23	-1.91	+0.76	-0.50	-0.41	-0.06	0.20	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	240.89	259.95	245.94	245.94	229.80	230.47	213.23	211.56	204.19	201.16	228.31

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.93	14.97	15.00	15.02	15.03	15.04	15.06	15.07	15.08	15.09	15.11	15.12	15.13

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.14	15.15	15.15	15.17	15.18	15.18	15.19	15.19	15.19	15.19	15.13	14.93

TABLE IX

HSD SHROUDED PROPELLER TEST

RHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 320- 9 CONFIGURATION U1C1E383PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.869 PSIA PINF = 14.839 PSIA TSC = 61.75 DEG F RHO = 0.00238 SLUGS/CU FT

M = 0.0535 V = 60.02 FPS Q = 4.286 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-32.94	-13.62	-5.61	-1.10	0.50	0.80	1.00	1.00	1.00	1.00	1.00	0.90	0.90
S1B	-32.94	-49.30	-61.25	-67.57	-62.56	-63.86	-57.53	-51.71	-43.48	-0.22	0.19	-0.02	-2.59
S2T	-37.35	-14.14	-5.84	-0.94	0.40	0.90	0.90	1.00	1.00	0.90	0.90	0.80	0.69
S2B	-37.35	-50.57	-60.88	-64.08	-52.33	-65.03	-59.79	-53.84	-49.61	-44.26	-41.14	-33.58	-32.17

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	0.60	0.80	0.80	0.29	0.29	0.29	0.29					
S1B	-31.68	-21.33	-17.88	-12.01	-7.73	-5.39	-2.43	-2.03	-1.62	-0.92	-0.62	0.29
S2T	0.69	0.49	0.39	0.29	0.18	0.08	-0.02					
S2B	-29.17	-22.89	-19.45	-13.27	-8.11	-5.07	-2.54	-2.14	-1.63	-1.13	-0.43	0.18

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	81.00	191.39	395.92	375.60	341.94	334.47	310.18	306.85	295.68	286.54	291.94

EXIT RAKE PRESSURES, RSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.95	15.03	15.10	15.15	15.17	15.19	15.21	15.24	15.27	15.29	15.33	15.35	15.38

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.41	15.43	15.46	15.50	15.52	15.52	15.53	15.54	15.53	15.50	15.40	15.01

TABLE IX

HSD SHROUDED PROPELLER TEST

RHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 331- 9 CONFIGURATION LIC1E3B3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.848 PSIA PINF = 14.438 PSIA TSC = 66.44 DEG F RHO = 0.00231 SLUGS/CU FT

M = 0.2005 V = 224.92 FPS Q = 58.478 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.87	-0.25	-0.75	-0.83	-0.72	-0.60	-0.50	-0.36	-0.31	-0.22	-0.22	-0.23	-0.23
S1B	0.87	0.34	-0.00	-1.24	-1.46	-1.95	-1.88	-1.80	-1.43	1.00	-0.05	-0.05	-0.08
S2T	0.92	-0.28	-0.75	-0.93	-0.77	-0.57	-0.46	-0.38	-0.34	-0.31	-0.25	-0.15	-0.03
S2B	0.92	0.39	-0.94	-1.27	-1.17	-1.79	-1.82	-1.70	-1.61	-1.52	-1.38	-1.04	-1.12

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.25	-0.19	-0.18	-0.12	-0.07	-0.03	0.05					
S1B	-1.08	-0.98	-1.03	-0.65	-0.32	-0.18	0.02	0.05	0.08	0.11	0.14	0.18
S2T	-0.28	-0.02	0.11	0.13	0.15	0.20	0.24					
S2B	-1.00	-0.99	-1.11	-0.67	-0.35	-0.16	0.01	0.02	0.07	0.09	0.21	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	321.00	323.96	306.42	305.38	291.10	291.10	282.03	286.52	281.52	280.96	297.08

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.72	14.77	14.81	14.87	14.90	14.91	14.93	14.94	14.95	14.96	14.97	14.97	14.97

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.97	14.97	14.97	14.97	14.97	14.97	14.96	14.95	14.95	14.94	14.83	14.60

TABLE IX

HSD SHROUDED PROPELLER TEST

RHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 3324 9 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 374 = 30.0 DEG RPM 7500

HO = 14.831 PSIA PINF = 14.621 PSIA TSC = 66.96 DEG F RHO = 0.00231 SLUGS/CU FT

M = 0.2007 V = 225.29 FPS Q = 58.546 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.78	0.44	-0.06	-0.30	-0.33	-0.27	-0.23	-0.15	-0.14	-0.08	-0.10	-0.12	-0.14
S1B	0.78	-0.67	-2.48	-3.04	-3.42	-4.00	-3.74	-3.53	-2.85	0.85	-0.05	-0.05	-0.04
S2T	0.86	0.42	-0.05	-0.39	-0.35	-0.29	-0.23	-0.19	-0.17	-0.15	-0.11	-0.02	0.22
S2B	0.86	-0.57	-2.57	-3.11	-1.95	-3.77	-3.69	-3.39	-3.22	-2.97	-2.71	-2.15	-2.19

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.16	-0.13	-0.11	-0.07	-0.04	0.02	0.07					
S1B	-2.17	-1.89	-1.66	-1.08	-0.60	-0.34	-0.05	-0.01	0.05	0.08	0.14	0.20
S2T	-0.20	-0.23	-0.13	-0.10	-0.08	-0.05	0.04					
S2B	-1.97	-1.77	-1.75	-1.11	-0.60	-0.31	-0.05	0.00	0.05	0.10	0.16	0.19

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	390.61	410.00	391.32	391.32	370.12	368.80	354.16	356.49	349.56	345.39	372.78

EXIT RAKE PRESSURES, PSFA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.73	14.81	14.86	14.93	14.98	15.02	15.05	15.08	15.11	15.13	15.15	15.18	15.21

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.23	15.24	15.23	15.31	15.33	15.34	15.21	15.21	15.17	15.10	14.97	14.59

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 334- 9 CONFIGURATION LISCC1SCE1SCB3PWTT1R1RETR THETA 3/4 = 30.0 DEG RPM 5500

H0 = 14.682 PSIA PINF = 14.657 PSIA TSC = 53.94 DEG F RHO = 0.00239 SLUGS/CU FT

M = 0.0497 V = 55.34 FPS Q = 3.654 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-11.02	1.13	1.00	1.13	1.13	1.00	0.76	0.76	0.53	0.53	0.29	0.29	0.17
S1B	-11.02	-18.68	-21.51	-25.29	-29.65	-30.24	-30.71	-30.24	-28.00	0.05	0.05	-18.67	-16.06
S2T	1.00	-3.39	-1.04	0.76	0.88	0.88	0.76	0.76	0.76	0.52	0.40	0.28	0.43
S2B	1.00	-9.85	-13.12	-15.74	-29.41	-28.94	-29.06	-27.62	-22.08	-32.73	-23.85	-19.71	-17.22

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	0.17	0.17	-0.06	0.05	0.17	0.17	0.17					
S1B	-14.88	-7.77	-4.69	-3.74	-2.20	-1.49	-0.30	-0.54	-0.54	-0.30	-0.19	0.17
S2T	0.32	0.00	-0.02	-0.25	-0.02	-0.02	0.09					
S2B	-14.35	-7.68	-4.47	-3.64	-2.33	-1.50	-0.67	-0.67	-0.31	-0.07	0.09	0.32

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	238.99	234.84	209.48	221.79	199.58	182.50	179.06	172.72	175.38	172.74	198.71

EXIT RAKE PRESSURES, RSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.78	14.83	14.86	14.88	14.89	14.89	14.90	14.92	14.93	14.95	14.96	14.97	14.98

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.00	15.01	15.01	15.04	15.04	15.05	15.05	15.03	15.04	14.68	14.68	14.68

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 335- 9 CONFIGURATION LISCC1SCE1SCB3PWTT1R1RBTP THETA 3/4 = 30.0 DEG RPM 5500

HO = 14.653 PSIA RINF = 14.275 PSIA TSC = 70.21 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.1937 V = 218.18 FPS Q = 53.980 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.78	-0.11	-0.53	-1.03	-0.93	-0.98	-1.00	-0.77	-0.70	-0.65	-0.87	-0.75	-0.71
S1B	0.78	0.81	0.47	-0.22	-0.81	-1.16	-1.43	-1.60	-1.54	1.00	-0.11	-0.96	-0.82
S2T	0.79	-0.46	-1.16	-1.58	-1.36	-1.47	-1.01	-0.93	-0.83	-0.78	-0.83	-0.72	-0.15
S2B	0.79	0.84	0.59	0.16	-0.78	-1.05	-1.31	-1.34	-1.17	-1.87	-1.25	-1.06	-0.97

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.55	-0.49	-0.42	-0.23	-0.11	-0.03	0.09					
S1B	-0.82	-0.54	-0.32	-0.29	-0.12	-0.03	0.08	0.09	0.09	0.13	0.15	0.20
S2T	-0.61	-0.51	-0.39	-0.28	-0.16	-0.06	0.07					
S2B	-0.73	-0.52	-0.38	-0.28	-0.14	-0.04	0.03	0.07	0.10	0.10	0.16	0.20

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	278.35	259.07	243.95	270.40	247.57	234.51	246.76	253.46	250.54	251.18	253.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.58	14.62	14.67	14.72	14.75	14.75	14.77	14.77	14.79	14.80	14.82	14.83	14.84

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.85	14.84	14.85	14.86	14.86	14.85	14.84	14.73	14.46	14.63	14.63

TABLE IX

HSD SHROUDED PROPELLER TEST

RHASE I - 18 FT TEST SECTION

PRESSURE DATA

RUN - PI NO 340- 9 CONFIGURATION L1SCG1SCE1SCB3PNTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7500

HO = 14.557 PSIA PINF = 14.528 PSIA TSC = 54.72 DEG F RHO = 0.00236 SLUGS/CU FT

M = 0.0537 V = 59.75 FPS Q = 4.216 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-26.72	-12.87	-6.40	-1.88	0.40	0.79	1.00	1.00	1.00	0.90	0.79	0.69	0.59
S1B	-26.72	-38.03	-40.89	-46.29	-52.71	-51.79	-49.86	-43.93	-27.54	0.29	0.09	-34.59	-24.04
S2T	-27.04	-12.04	-6.07	-0.98	0.27	0.79	0.90	0.90	1.00	0.90	0.79	0.79	0.71
S2B	-27.04	-37.31	-40.19	-47.58	-53.91	-52.17	-51.46	-48.17	-36.50	-56.17	-43.46	-32.91	-25.23

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	0.49	0.40	0.28	0.38	0.28	0.28	0.28					
S1B	-22.52	-13.60	-7.11	-6.00	-3.77	-2.14	-0.54	-1.05	-1.05	-0.54	-0.64	0.28
S2T	0.51	0.41	0.12	0.32	0.12	0.12	0.12					
S2B	-21.33	-13.75	-6.79	-5.46	-3.71	-2.38	-1.15	-0.84	-0.43	-0.33	-0.27	0.12

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	348.35	370.60	320.56	321.04	286.22	282.41	262.63	247.50	248.14	241.75	292.92

EXIT RAKE PRESSURES, RSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RB	14.73	14.82	14.89	14.93	14.95	14.97	14.99	15.03	15.07	15.10	15.11	15.12	15.13

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RB	15.15	15.22	15.30	15.34	15.36	15.37	15.36	15.31	15.13	14.55	14.56	14.55

TABLE

HSD SHROUDED PROPELLER TEST

PHASE 1 - 18 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 341-29 CONFIGURATION LISCC1SCE1SCB3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 7000

HO = 14.537 PSIA PINF = 14.137 PSIA TSC = 75.42 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.2002 V = 226.49 FPS Q = 57.087 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.93	0.18	-0.23	-0.88	-0.93	-0.96	-0.65	-0.52	-0.46	-0.42	-0.64	-0.54	-0.52
S1B	0.93	0.53	-0.01	-0.88	-1.65	-1.99	-2.27	-2.32	-1.54	1.01	-0.04	-1.44	-1.19
S2T	0.93	0.18	-0.44	-0.96	-0.86	-1.00	-0.88	-0.65	-0.58	-0.53	-0.59	-0.51	-0.02
S2B	0.93	0.51	0.00	-0.90	-1.65	-1.91	-2.18	-2.15	-1.68	-3.19	-2.06	-1.68	-1.37

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.38	-0.35	-0.28	-0.10	-0.02	0.05	0.18					
S1B	-1.23	-0.81	-0.34	-0.30	-0.12	0.02	0.15	0.12	0.15	0.18	0.21	0.29
S2T	-0.44	-0.36	-0.28	-0.15	-0.07	0.06	0.15					
S2B	-1.15	-0.78	-0.43	-0.31	-0.13	-0.01	0.09	0.12	0.15	0.18	0.24	0.27

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	341.60	351.81	317.84	319.37	300.52	299.98	291.26	288.78	288.67	287.53	306.74

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.53	14.59	14.64	14.70	14.74	14.77	14.80	14.82	14.84	14.86	14.88	14.90	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.94	14.95	14.96	14.98	14.99	15.00	15.00	14.96	14.83	14.37	14.51	14.51

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 654- 6 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 38.0 DEG RPM 4502.

HO = 14.743 PSIA PINF = 13.852 PSIA TSC = 70.34 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3096 V = 346.75 FPS Q = 133.674 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.56	-0.94	-1.36	-1.27	-1.53	-1.00	-0.98	-0.72	-0.59	-0.52	-0.49	-0.54	-0.40
S1B	0.56	0.89	0.26	0.07	-0.10	-0.42	-0.43	-0.39	-0.38	-0.32	0.37	0.29	-0.11
S2T	0.54	-2.71	-1.58	-1.76	-1.24	-1.04	-0.85	-0.67	-0.60	-0.54	-0.48	-0.45	-0.52
S2B	0.54	0.88	0.26	0.00	-0.30	-0.41	-0.48	-0.47	-0.37	-0.33	-0.13	-0.12	-0.11

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.41	-0.36	-0.29	-0.23	-0.16	-0.07	0.10					
S1B	-0.05	-0.12	-0.01	0.10	0.17	0.07	0.15	0.16	0.17	0.17	0.18	0.13
S2T	-0.47	-0.41	-0.33	-0.24	-0.18	-0.10	0.02					
S2B	-0.11	-0.11	-0.12	-0.04	0.05	0.09	0.13	0.14	0.16	0.18	-0.05	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	368.21	361.94	341.59	341.59	336.75	335.79	324.08	329.03	312.89	327.99	337.99

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.53	14.62	14.73	14.79	14.81	14.82	14.83	14.83	14.83	14.83	14.83	14.83	14.83

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.83	14.39	14.82	14.81	14.80	14.43	14.78	14.61	14.34	14.75	14.74

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 654- 7 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 38.0 DEG RPM 6505.

HO = 14.743 PSIA PINF = 13.852 PSIA TSC = 71.64 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3096 V = 347.18 FPS Q = 133.674 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.81	-0.48	-0.95	-1.00	-1.24	-0.69	-0.71	-0.50	-0.45	-0.39	-0.37	-0.54	-0.31
S1B	0.81	0.73	-0.19	-0.46	-0.66	-1.06	-1.04	-0.92	-0.84	-0.67	0.42	0.34	-0.70
S2T	0.81	0.23	-1.09	-1.30	-0.91	-0.79	-0.63	-0.50	-0.44	-0.41	-0.37	-0.33	-0.43
S2B	0.81	0.69	-0.23	-0.48	-0.99	-1.07	-1.09	-1.06	-0.89	-0.80	-0.54	-0.48	-0.46

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.33	-0.29	-0.23	-0.17	-0.09	-0.03	0.14					
S1B	-0.46	-0.31	-0.05	-0.02	0.10	0.16	0.19	0.18	0.20	0.20	0.20	0.18
S2T	-0.38	-0.35	-0.26	-0.18	-0.13	-0.04	0.08					
S2B	-0.42	-0.29	-0.15	-0.04	0.05	0.14	0.18	0.18	0.21	0.22	-0.00	0.27

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	428.81	428.81	403.33	403.33	395.06	392.54	377.16	380.63	321.85	374.11	390.56

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.69	14.79	14.86	14.92	14.97	15.02	15.05	15.07	15.10	15.11	15.13	15.15	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.17	15.18	14.63	15.20	15.21	15.22	14.55	15.18	14.91	14.40	14.75	14.75

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 654-11 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 38.0 DEG RPM 5501.

HO = 14.751 PSIA PINF = 13.869 PSIA TSC = 72.81 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3078 V = 345.57 FPS Q = 132.280 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.71	0.69	1.14	1.10	1.34	0.87	0.86	0.61	0.52	0.46	0.42	0.50	0.34
S1B	0.71	0.83	0.05	-0.19	-0.36	-0.72	-0.72	-0.64	-0.60	-0.48	0.35	0.25	-0.38
S2T	0.69	0.84	1.33	1.54	1.07	0.91	0.74	0.58	0.52	0.47	0.43	0.40	0.51
S2B	0.69	0.80	0.03	-0.25	-0.59	-0.70	-0.74	-0.72	-0.61	-0.54	-0.33	-0.30	-0.28

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.37	-0.33	-0.25	-0.21	-0.12	-0.05	0.11					
S1B	-0.28	-0.21	-0.13	-0.02	0.06	0.10	0.17	0.16	0.19	0.18	0.19	0.16
S2T	-0.47	-0.43	-0.33	-0.24	-0.19	-0.11	0.01					
S2B	-0.24	-0.19	-0.12	-0.05	0.06	0.11	0.15	0.16	0.17	0.20	0.06	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	395.95	392.38	370.71	369.83	361.82	360.91	347.06	351.73	339.89	348.39	363.87

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.66	14.72	14.79	14.86	14.91	14.93	14.94	14.96	14.96	14.97	14.98	14.98	14.99

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.00	15.00	14.51	15.00	15.00	14.99	14.52	14.93	14.70	14.39	14.76	14.76

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 655- 6 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 46.0 DEG RPM 4500.

HO = 14.753 PSIA PINF = 13.216 PSIA TSC = 72.94 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4127 V = 460.01 FPS Q = 226.424 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.59	-0.91	-1.33	-1.23	-1.52	-0.98	-0.95	-0.69	-0.58	-0.49	-0.44	-0.49	-0.36
S1B	0.59	0.92	0.31	0.12	-0.04	-0.37	-0.38	-0.34	-0.33	-0.26	0.31	0.24	-0.09
S2T	0.58	0.53	-1.53	-1.73	-1.22	-1.00	-0.81	-0.64	-0.55	-0.50	-0.45	-0.41	-0.49
S2B	0.58	0.91	0.29	0.04	-0.24	-0.35	-0.41	-0.42	-0.32	-0.27	-0.10	-0.07	-0.08

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.36	-0.33	-0.25	-0.19	-0.11	-0.04	0.14					
S1B	-0.08	-0.06	-0.07	0.02	0.10	0.14	0.20	0.18	0.21	0.21	0.21	0.18
S2T	-0.44	-0.41	-0.31	-0.21	-0.17	-0.08	0.04					
S2B	-0.07	-0.06	-0.07	0.01	0.08	0.13	0.17	0.18	0.20	0.22	0.03	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	479.76	474.06	448.48	444.71	438.63	437.09	421.52	427.02	381.59	424.30	437.72

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.43	14.54	14.67	14.78	14.84	14.85	14.86	14.87	14.87	14.87	14.88	14.88	14.80

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.89	14.88	14.18	14.87	14.86	14.85	14.30	14.82	14.55	14.08	14.76	14.76

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 655- 7 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 46.0 DEG RPM 6500.

HO = 14.760 PSIA PINF = 13.223 PSIA TSC = 72.94 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4126 V = 459.92 FPS Q = 226.458 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.80	-0.52	-0.99	-1.06	-1.24	-0.78	-0.75	-0.53	-0.45	-0.38	-0.36	-0.46	-0.28
S1B	0.80	0.80	-0.04	-0.29	-0.49	-0.91	-0.87	-0.79	-0.73	-0.57	0.43	0.29	-0.53
S2T	0.78	0.31	-1.16	-1.48	-0.96	-0.81	-0.66	-0.51	-0.44	-0.41	-0.37	-0.33	-0.45
S2B	0.78	0.77	-0.08	-0.36	-0.78	-0.89	-0.91	-0.90	-0.75	-0.67	-0.44	-0.39	-0.34

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.31	-0.27	-0.20	-0.15	-0.08	0.00	0.16					
S1B	-0.36	-0.21	-0.09	0.00	0.09	0.14	0.22	0.21	0.22	0.23	0.23	0.20
S2T	-0.40	-0.36	-0.28	-0.19	-0.15	-0.05	0.07					
S2B	-0.29	-0.18	-0.11	-0.00	0.09	0.15	0.21	0.21	0.22	0.25	-0.01	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	547.74	547.74	514.59	512.57	503.09	500.36	477.40	484.48	405.66	477.02	497.06

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.58	14.69	14.79	14.88	14.94	15.01	15.09	15.16	15.22	15.26	15.30	15.34	15.37

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.39	15.43	14.55	15.44	15.45	15.46	14.57	15.33	14.94	14.18	14.76	14.77

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 655-11 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 46.0 DEG RPM 5499.

HO = 14.760 PSIA PINF = 13.223 PSIA TSC = 73.20 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4126 V = 460.03 FPS Q = 226.458 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.69	0.74	1.19	1.13	-1.41	-0.90	-0.89	-0.64	-0.53	-0.46	-0.42	-0.48	-0.34
S1B	0.69	0.87	0.16	-0.04	-0.23	-0.60	-0.59	-0.53	-0.51	-0.41	0.37	0.26	-0.28
S2T	0.68	0.77	1.38	1.60	-1.11	-0.92	-0.75	-0.59	-0.52	-0.46	-0.41	-0.38	-0.46
S2B	0.68	0.86	0.14	-0.12	-0.46	-0.56	-0.61	-0.61	-0.49	-0.44	-0.24	-0.21	-0.20

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.31	-0.25	-0.18	-0.11	-0.02	0.14					
S1B	-0.20	-0.14	-0.08	-0.00	0.08	0.13	0.20	0.20	0.21	0.21	0.21	0.18
S2T	-0.41	-0.38	-0.29	-0.19	-0.15	-0.06	0.06					
S2B	-0.18	-0.11	-0.08	-0.02	0.08	0.13	0.18	0.19	0.21	0.22	-0.02	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	507.56	502.76	474.63	473.19	465.14	463.68	443.65	451.18	430.81	446.86	465.95

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.53	14.62	14.72	14.80	14.88	14.94	14.98	15.01	15.01	15.03	15.05	15.05	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.07	14.29	15.08	15.08	15.08	14.68	15.04	14.69	14.12	14.76	14.76

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 656- 6 CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 50.0 DEG RPM 4504.

HO = 14.770 PSIA PINF = 12.466 PSIA TSC = 80.75 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5147 V = 572.70 FPS Q = 331.843 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-1.03	-1.54	-1.43	-1.68	-0.45	-1.19	-0.86	-0.71	-0.60	-0.54	-0.51	-0.44
S1B	0.60	0.95	0.35	0.16	-0.02	-0.36	-0.39	-0.36	-0.35	-0.29	0.30	0.08	-0.09
S2T	0.58	-0.70	-1.69	-2.01	-1.45	-1.18	-0.98	-0.78	-0.67	-0.61	-0.55	-0.49	-0.55
S2B	0.58	0.94	0.33	0.08	-0.21	-0.33	-0.39	-0.43	-0.33	-0.28	-0.11	-0.08	-0.07

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.45	-0.40	-0.32	-0.26	-0.17	-0.08	0.10					
S1B	-0.10	-0.10	-0.13	-0.02	0.05	0.10	0.16	0.15	0.17	0.17	0.17	0.14
S2T	-0.50	-0.46	-0.36	-0.25	-0.20	-0.10	0.03					
S2B	-0.08	-0.09	-0.14	-0.04	0.04	0.09	0.14	0.15	0.17	0.19	-0.06	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	592.52	583.10	552.74	548.87	542.38	541.07	520.52	529.88	470.08	528.55	540.97

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.11	14.35	14.57	14.75	14.84	14.84	14.85	14.85	14.85	14.83	14.85	14.85	14.84

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.83	14.83	13.80	14.81	14.79	14.79	14.52	14.78	14.48	13.60	14.77	14.77

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 656- 7 CONFIGURATION L1C1E1B3PRT3R1RE7P THETA 3/4 = 50.0 DEG RPM 6503.

HO = 14.767 PSIA PINF = 12.469 PSIA TSC = 80.75 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5139 V = 571.82 FPS Q = 330.883 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.72	-0.78	-1.32	-1.30	-1.62	-0.21	-1.01	-0.75	-0.62	-0.52	-0.48	-0.47	-0.39
S1B	0.72	0.89	0.16	-0.08	-0.28	-0.69	-0.70	-0.65	-0.62	-0.49	0.38	0.09	-0.37
S2T	0.70	-0.15	-1.48	-1.84	-1.27	-1.05	-0.86	-0.68	-0.59	-0.55	-0.49	-0.44	-0.52
S2B	0.70	0.88	0.13	-0.11	-0.54	-0.67	-0.72	-0.74	-0.60	-0.53	-0.34	-0.27	-0.25

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.41	-0.37	-0.30	-0.23	-0.15	-0.06	0.12					
S1B	-0.27	-0.18	-0.16	-0.04	0.05	0.11	0.18	0.17	0.18	0.19	0.19	0.15
S2T	-0.47	-0.43	-0.33	-0.23	-0.18	-0.08	0.04					
S2B	-0.23	-0.16	-0.16	-0.06	0.04	0.11	0.16	0.17	0.19	0.21	0.04	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	648.90	644.87	605.71	605.71	595.90	592.85	567.57	577.62	483.21	570.67	589.30

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.31	14.47	14.63	14.78	14.91	15.03	15.13	15.18	15.23	15.26	15.30	15.32	15.33

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.33	15.35	14.16	15.35	15.35	15.34	14.32	15.12	14.62	13.74	14.77	14.77

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 656-1I CONFIGURATION L1C1E1B3PRT3R1RETP THETA 3/4 = 50.0 DEG RPM 5501.

HO = 14.771 PSIA PINF = 12.459 PSIA TSC = 82.05 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5157 V = 574.41 FPS Q = 332.912 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.67	-0.89	-1.43	-1.35	-1.66	-0.99	-1.08	-0.79	-0.66	-0.56	-0.51	-0.47	-0.42
S1B	0.67	0.93	0.26	0.04	-0.15	-0.54	-0.55	-0.52	-0.49	-0.40	0.34	0.10	-0.24
S2T	0.65	-0.25	-1.61	-1.97	-1.32	-1.11	-0.91	-0.72	-0.63	-0.57	-0.52	-0.48	-0.58
S2B	0.65	0.91	0.24	-0.02	-0.37	-0.50	-0.56	-0.58	-0.47	-0.41	-0.22	-0.18	-0.18

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.43	-0.39	-0.31	-0.25	-0.16	-0.07	0.11					
S1B	-0.19	-0.16	-0.15	-0.04	0.05	0.10	0.16	0.16	0.17	0.17	0.18	-0.14
S2T	-0.53	-0.49	-0.39	-0.29	-0.23	-0.13	0.01					
S2B	-0.16	-0.14	-0.14	-0.05	0.05	0.10	0.15	0.15	0.17	-0.20	-0.09	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	622.90	616.82	581.55	579.68	570.92	569.02	87.19	555.75	517.53	549.93	525.13

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.22	14.40	14.59	14.75	14.88	14.95	14.99	15.00	15.01	15.03	15.03	15.05	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.06	13.95	15.06	15.05	15.04	14.19	14.94	14.50	13.66	14.78	14.77

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 658- 6 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 4498.

HO = 14.831 PSIA PINF = 13.937 PSIA TSC = 67.74 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3093 V = 345.56 FPS Q = 134.216 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.57	-0.96	-1.35	-1.25	-1.53	-0.97	-0.98	-0.71	-0.58	-0.52	-0.48	-0.53	-0.40
S1B	0.57	0.90	0.27	0.12	-0.08	-0.38	-0.40	-0.40	-0.37	-0.31	0.28	0.23	-0.11
S2T	0.53	-1.62	-1.59	-1.76	-1.23	-1.02	-0.84	-0.66	-0.58	-0.54	-0.48	-0.44	-0.53
S2B	0.53	0.88	0.25	-0.03	-0.26	-0.36	-0.42	-0.43	-0.33	-0.30	-0.11	-0.10	-0.10

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.40	-0.36	-0.30	-0.24	-0.16	-0.07	0.09					
S1B	-0.08	-0.11	-0.10	-0.00	0.06	0.10	0.16	0.16	0.17	0.17	0.18	0.14
S2T	-0.46	-0.42	-0.34	-0.24	-0.19	-0.12	0.01					
S2B	-0.10	-0.10	-0.11	-0.03	0.05	0.09	0.13	0.14	0.17	0.17	-0.05	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	364.00	357.31	341.53	340.59	333.93	334.89	35.01	326.18	272.71	324.63	303.08

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.65	14.74	14.83	14.90	14.91	14.91	14.92	14.92	14.92	14.92	14.92	14.92	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.91	14.49	14.90	14.88	14.86	14.38	14.83	14.68	14.44	14.83	14.83

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 658- 7 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 6504.

HO = 14.830 PSIA PINF = 13.932 PSIA TSC = 68.26 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3100 V = 346.50 FPS Q = 134.778 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.80	-0.49	-0.96	-1.01	-1.26	-0.70	-0.71	-0.50	-0.45	-0.38	-0.36	-0.52	-0.30
S1B	0.80	0.74	-0.17	-0.42	-0.64	-1.03	-0.99	-0.89	-0.83	-0.64	0.41	0.34	-0.66
S2T	0.80	2.38	-1.10	-1.33	-0.93	-0.80	-0.65	-0.52	-0.46	-0.42	-0.38	-0.33	-0.43
S2B	0.80	0.71	-0.20	-0.42	-0.93	-1.03	-1.04	-1.04	-0.88	-0.79	-0.54	-0.49	-0.45

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.33	-0.29	-0.22	-0.16	-0.08	-0.02	0.14					
S1B	-0.47	-0.32	-0.11	-0.02	0.08	0.12	0.20	0.19	0.20	0.20	0.21	0.18
S2T	-0.38	-0.35	-0.27	-0.17	-0.14	-0.05	0.07					
S2B	-0.42	-0.28	-0.16	-0.04	0.06	0.12	0.18	0.18	0.21	0.22	0.01	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	423.32	422.82	398.10	398.10	389.84	389.01	55.34	376.96	291.95	372.77	351.76

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.85	14.98	15.03	15.04	15.08	15.14	15.17	15.21	15.24	15.24	15.25	15.27	15.28

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.28	15.28	14.72	15.26	15.25	15.24	14.52	15.16	14.93	14.49	14.84	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 658- 8 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 6502.

HO = 14.831 PSIA PINF = 13.939 PSIA TSC = 67.74 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3088 V = 345.08 FPS Q = 133.864 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.81	-0.49	-0.96	-0.99	-1.24	-0.68	-0.71	-0.50	-0.45	-0.39	-0.36	-0.53	-0.31
S1B	0.81	0.73	-0.19	-0.45	-0.63	-1.01	-1.01	-0.91	-0.83	-0.64	0.42	0.36	-0.67
S2T	0.81	-1.17	-1.12	-1.34	-0.93	-0.79	-0.65	-0.51	-0.45	-0.41	-0.37	-0.33	-0.47
S2B	0.81	0.70	-0.22	-0.53	-0.96	-1.04	-1.06	-1.03	-0.87	-0.77	-0.53	-0.47	-0.44

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.33	-0.29	-0.23	-0.17	-0.09	-0.03	0.14					
S1B	-0.47	-0.32	-0.11	-0.02	0.08	0.13	0.20	0.18	0.21	0.20	0.21	0.18
S2T	-0.43	-0.39	-0.30	-0.21	-0.17	-0.08	0.05					
S2B	-0.42	-0.21	-0.14	-0.04	0.06	0.13	0.19	0.19	0.21	0.23	-0.03	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	421.51	422.07	399.76	398.94	390.63	388.96	60.61	377.10	315.62	370.63	354.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.85	14.98	15.03	15.04	15.08	15.13	15.17	15.21	15.24	15.24	15.25	15.27	15.28

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.28	15.28	14.73	15.26	15.25	15.24	14.53	15.16	14.94	14.49	14.84	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 658-12 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 5498.

HO = 14.831 PSIA PINF = 13.944 PSIA TSC = 68.91 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3080 V = 344.51 FPS Q = 133.159 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.70	0.71	1.13	1.09	1.35	0.85	0.85	0.62	0.52	0.45	0.41	-0.51	-0.35
S1B	0.70	0.83	0.07	-0.15	-0.32	-0.69	-0.68	-0.63	-0.57	-0.46	0.35	0.34	-0.35
S2T	0.68	1.13	1.32	1.55	1.06	0.90	0.74	0.59	0.51	0.47	0.42	-0.38	-0.50
S2B	0.68	0.81	0.03	-0.23	-0.58	-0.68	-0.71	-0.71	-0.58	-0.52	-0.30	-0.26	-0.24

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.37	-0.32	-0.25	-0.19	-0.13	-0.05	0.12					
S1B	0.26	0.20	0.10	0.02	0.06	0.13	0.18	0.17	0.18	0.19	0.20	0.15
S2T	-0.46	-0.43	-0.34	-0.25	-0.20	-0.11	0.02					
S2B	0.24	0.20	0.12	0.03	0.05	0.11	0.16	0.17	0.18	0.21	0.05	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	391.34	387.94	386.48	386.48	360.18	359.28	35.05	348.40	334.79	346.09	329.60

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.76	14.84	14.90	14.95	15.02	15.04	15.06	15.07	15.08	15.08	15.09	15.09	15.09

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.09	15.09	14.60	15.07	15.05	15.04	14.45	14.96	14.75	14.47	14.84	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 659- 6 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 4502.

HO = 14.838 PSIA PINF = 13.297 PSIA TSC = 74.24 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4120 V = 459.86 FPS Q = 227.093 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-0.92	-1.32	-1.21	-1.49	-0.96	-0.96	-0.70	-0.57	-0.49	-0.45	-0.50	-0.36
S1B	0.60	0.93	0.32	0.10	-0.04	-0.36	-0.38	-0.35	-0.31	-0.27	0.30	0.28	-0.08
S2T	0.57	-0.21	-1.54	-1.75	-1.22	-1.00	-0.82	-0.65	-0.56	-0.51	-0.46	-0.41	-0.51
S2B	0.57	0.91	0.30	0.03	-0.23	-0.33	-0.39	-0.41	-0.30	-0.25	-0.08	-0.06	-0.06

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.38	-0.33	-0.26	-0.20	-0.12	-0.04	0.13					
S1B	-0.07	-0.07	-0.07	0.02	0.09	0.14	0.19	0.18	0.20	0.21	0.21	0.16
S2T	-0.46	-0.42	-0.33	-0.23	-0.18	-0.09	0.04					
S2B	-0.06	-0.06	-0.08	0.01	0.08	0.13	0.17	0.19	0.20	0.22	0.04	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	474.48	469.47	445.28	444.53	437.02	435.49	60.98	423.78	362.23	423.27	397.65

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.57	14.66	14.78	14.87	14.94	14.94	14.96	14.96	14.96	14.97	14.98	14.98	14.97

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.97	14.96	14.27	14.93	14.91	14.90	14.35	14.85	14.62	14.16	14.84	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE 1 - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 659- 7 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 6498.

HO = 14.835 PSIA PINF = 13.296 PSIA TSC = 75.55 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4117 V = 460.10 FPS Q = 226.743 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.79	0.53	-0.99	-1.01	-1.26	-0.76	-0.76	-0.53	-0.45	-0.38	-0.35	-0.47	-0.29
S1B	0.79	0.81	-0.04	-0.27	-0.48	-0.88	-0.86	-0.77	-0.72	-0.56	0.41	0.37	-0.52
S2T	0.78	0.19	-1.16	-1.41	-0.97	-0.82	-0.66	-0.52	-0.45	-0.42	-0.37	-0.33	-0.43
S2B	0.78	0.78	-0.05	-0.29	-0.76	-0.85	-0.88	-0.88	-0.73	-0.65	-0.43	-0.36	-0.32

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.31	-0.27	-0.21	-0.15	-0.07	-0.00	0.16					
S1B	-0.36	-0.20	-0.09	0.00	0.10	0.15	0.22	0.21	0.23	0.23	0.23	0.20
S2T	-0.39	-0.36	-0.27	-0.16	-0.13	-0.04	0.08					
S2B	-0.30	-0.17	-0.12	-0.01	0.09	0.15	0.21	0.21	0.23	0.25	0.00	0.28

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	538.74	539.51	509.05	509.72	498.83	496.08	70.50	481.51	380.45	475.50	449.99

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.73	14.90	15.02	15.05	15.06	15.10	15.16	15.24	15.32	15.37	15.40	15.42	15.44

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.46	15.47	14.62	15.47	15.47	15.45	14.49	15.30	14.93	14.25	14.84	14.84

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 659-11 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 5501.

HO = 14.839 PSIA PINF = 13.304 PSIA TSC = 76.72 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4112 V = 460.03 FPS Q = 226.297 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.70	-0.74	-1.17	-1.11	-1.40	-0.83	-0.88	-0.63	-0.52	-0.44	-0.41	-0.48	-0.33
S1B	0.70	0.88	0.17	-0.04	-0.23	-0.57	-0.59	-0.53	-0.50	-0.40	0.34	0.32	-0.27
S2T	0.66	-0.42	-1.38	-1.62	-1.11	-0.92	-0.75	-0.59	-0.51	-0.47	-0.42	-0.38	-0.48
S2B	0.66	0.86	0.15	-0.11	-0.45	-0.54	-0.59	-0.60	-0.48	-0.42	-0.24	-0.20	-0.19

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.31	-0.24	-0.18	-0.10	-0.03	0.14					
S1B	-0.20	-0.14	-0.09	-0.00	0.09	0.14	0.20	0.19	0.21	0.21	0.21	0.18
S2T	-0.43	-0.40	-0.30	-0.21	-0.17	-0.07	0.06					
S2B	-0.17	-0.13	-0.09	-0.00	0.08	0.14	0.18	0.19	0.21	0.23	-0.01	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	501.00	498.62	473.25	472.53	465.31	460.19	55.77	448.40	410.84	445.91	423.18

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.77	14.83	14.89	14.98	15.04	15.07	15.11	15.12	15.13	15.14	15.15	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.16	15.16	14.40	15.13	15.12	15.10	14.40	15.06	14.73	14.20	14.84	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 660- 6 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 50.0 DEG RPM 4498.

HO = 14.838 PSIA PINF = 12.517 PSIA TSC = 82.05 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5155 V = 574.23 FPS Q = 334.239 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-1.02	-1.53	-1.39	-1.65	0.99	-1.20	-0.85	-0.70	-0.60	-0.53	-0.55	-0.44
S1B	0.60	0.96	0.37	0.17	-0.00	-0.34	-0.38	-0.35	-0.33	-0.28	0.29	0.14	-0.07
S2T	0.57	0.29	-1.58	-2.05	-1.42	-1.17	-0.97	-0.78	-0.67	-0.60	-0.54	-0.49	-0.54
S2B	0.57	0.94	0.35	0.09	-0.20	-0.31	-0.37	-0.41	-0.32	-0.27	-0.10	-0.07	-0.07

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.44	-0.40	-0.31	-0.25	-0.17	-0.08	0.10					
S1B	-0.07	-0.11	-0.13	-0.02	0.06	0.10	0.17	0.16	0.17	0.18	0.18	0.14
S2T	-0.50	-0.47	-0.36	-0.26	-0.21	-0.11	0.02					
S2B	-0.06	-0.10	-0.14	-0.04	0.04	0.09	0.14	0.15	0.17	0.26	-0.02	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	585.41	580.87	552.65	550.72	542.97	539.71	79.33	528.43	448.93	527.27	493.63

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.27	14.47	14.67	14.83	14.90	14.91	14.92	14.92	14.92	15.14	14.93	14.93	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.89	13.88	14.85	14.83	14.82	13.86	14.78	14.49	13.66	14.84	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 660- 7 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 50.0 DEG RPM 6500.

HO = 14.839 PSIA PINF = 12.514 PSIA TSC = 83.22 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5160 V = 575.39 FPS Q = 334.806 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.71	-0.77	-1.37	-1.32	-1.64	1.00	-1.02	-0.75	-0.63	-0.53	-0.49	-0.54	-0.40
S1B	0.71	0.89	0.16	-0.06	-0.27	-0.67	-0.67	-0.64	-0.59	-0.48	0.36	0.14	-0.35
S2T	0.69	-0.32	-1.56	-1.91	-1.24	-1.05	-0.86	-0.68	-0.60	-0.55	-0.49	-0.45	-0.51
S2B	0.69	0.88	0.15	-0.08	-0.52	-0.64	-0.70	-0.72	-0.59	-0.52	-0.32	-0.26	-0.24

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.42	-0.37	-0.31	-0.23	-0.15	-0.06	0.12					
S1B	-0.26	-0.19	-0.16	-0.04	0.05	0.10	0.17	0.17	0.18	0.19	0.19	0.16
S2T	-0.52	-0.47	-0.37	-0.27	-0.21	-0.11	0.02					
S2B	-0.23	-0.17	-0.16	-0.06	0.04	0.10	0.16	0.17	0.18	0.27	-0.03	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	640.76	641.19	606.35	605.75	594.98	592.54	71.04	576.73	467.48	571.25	536.80

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.47	14.63	14.78	14.88	14.97	15.08	15.18	15.26	15.32	15.14	15.40	15.42	15.42

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.42	15.40	14.22	15.34	15.31	15.30	14.00	15.17	14.65	13.77	14.84	14.84

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 660-11 CONFIGURATION L1C1E1B3PNTT1R1RETP THETA 3/4 = 50.0 DEG RPM 5501.

HO = 14.839 PSIA PINF = 12.510 PSIA TSC = 82.96 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5165 V = 575.74 FPS Q = 335.303 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.67	-0.88	-1.36	-1.36	-1.63	0.99	-1.09	-0.78	-0.65	-0.56	-0.50	-0.53	-0.41
S1B	0.67	0.93	0.27	0.06	-0.14	-0.51	-0.53	-0.49	-0.47	-0.38	0.33	0.14	-0.22
S2T	0.64	-0.71	-1.53	-1.96	-1.31	-1.10	-0.90	-0.71	-0.62	-0.56	-0.51	-0.46	-0.39
S2B	0.64	0.91	0.25	-0.01	-0.35	-0.47	-0.53	-0.56	-0.45	-0.39	-0.20	-0.15	-0.16

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.42	-0.37	-0.30	-0.24	-0.15	-0.06	0.11					
S1B	-0.18	-0.16	-0.14	-0.03	0.05	0.10	0.17	0.17	0.18	0.18	0.19	0.15
S2T	-0.46	-0.43	-0.34	-0.24	-0.18	-0.09	0.04					
S2B	-0.15	-0.13	-0.14	-0.04	0.05	0.10	0.15	0.17	0.18	0.29	0.04	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	611.60	609.65	577.68	576.45	568.29	565.80	74.94	551.40	503.96	548.21	518.80

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.43	14.56	14.69	14.82	14.96	15.03	15.08	15.09	15.09	15.12	15.12	15.13	15.14

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.13	15.12	14.03	15.09	15.06	15.04	13.84	14.96	14.54	13.71	14.84	14.84

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 662- 6 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 4503.

HO = 14.859 PSIA PINF = 13.973 PSIA TSC = 69.04 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3075 V = 344.01 FPS Q = 133.008 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.54	0.94	1.30	1.25	1.49	0.96	0.97	0.69	0.59	0.52	0.47	0.52	0.39
S1B	0.54	0.94	0.27	0.07	-0.08	-0.38	-0.42	-0.38	-0.35	-0.30	0.26	0.21	-0.10
S2T	0.55	0.96	1.54	1.74	1.21	1.01	0.84	0.67	0.58	0.53	0.48	0.43	0.52
S2B	0.55	0.88	0.24	-0.04	-0.29	-0.37	-0.43	-0.45	-0.33	-0.29	-0.10	-0.10	-0.09

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.39	-0.35	-0.28	-0.22	-0.15	-0.07	0.10					
S1B	-0.10	-0.10	-0.09	-0.01	0.07	0.12	0.16	0.16	0.18	0.17	0.17	0.13
S2T	-0.48	-0.45	-0.35	-0.25	-0.21	-0.12	0.02					
S2B	-0.09	-0.11	-0.09	-0.02	0.05	0.11	0.14	0.17	0.17	0.21	0.06	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	365.57	357.78	340.36	338.48	333.71	331.79	42.86	324.98	290.40	324.38	305.03

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.70	14.77	14.86	14.92	14.95	14.95	14.96	14.96	14.96	14.96	14.96	14.96	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.96	14.95	14.53	14.93	14.91	14.90	14.61	14.86	14.72	14.46	14.86	14.86

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 662- 7 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 6503.

HG = 14.860 PSIA PINF = 13.971 PSIA TSC = 70.21 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3080 V = 344.95 FPS Q = 133.434 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.81	-0.46	-0.92	-0.98	-1.22	-0.65	-0.69	-0.48	-0.44	-0.37	-0.34	-0.52	-0.30
S1B	0.81	0.72	-0.22	-0.49	-0.67	-1.09	-1.05	-0.95	-0.87	-0.68	0.40	0.26	-0.74
S2T	0.82	0.96	-1.08	-1.29	-0.89	-0.78	-0.63	-0.50	-0.43	-0.40	-0.36	-0.30	-0.42
S2B	0.82	0.68	-0.25	-0.55	-1.00	-1.09	-1.12	-1.10	-0.93	-0.84	-0.59	-0.53	-0.51

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.32	-0.28	-0.21	-0.17	-0.09	-0.02	0.13					
S1B	-0.53	-0.32	-0.11	-0.03	0.08	0.13	0.20	0.18	0.21	0.20	0.20	0.18
S2T	-0.37	-0.36	-0.26	-0.17	-0.14	-0.06	0.07					
S2B	-0.45	-0.28	-0.13	-0.04	0.06	0.13	0.18	0.19	0.21	0.22	0.00	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	429.07	428.31	403.94	403.13	394.13	392.48	60.64	379.00	313.04	372.91	357.67

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.87	14.98	15.04	15.08	15.12	15.17	15.20	15.24	15.27	15.28	15.30	15.31	15.32

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.33	15.34	14.79	15.33	15.33	15.31	14.71	15.23	15.02	14.53	14.87	14.87

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 662-11 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 38.0 DEG RPM 5498.

HO = 14.860 PSIA PINF = 13.969 PSIA TSC = 69.04 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3084 V = 345.05 FPS Q = 133.786 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.69	-0.70	-1.11	-1.09	-1.32	-0.84	-0.86	-0.61	-0.52	-0.45	-0.42	-0.51	-0.36
S1B	0.69	0.81	0.04	-0.19	-0.38	-0.73	-0.72	-0.66	-0.61	-0.49	0.32	0.22	-0.38
S2T	0.68	-0.13	-1.31	-1.54	-1.07	-0.91	-0.74	-0.59	-0.52	-0.46	-0.43	-0.37	-0.50
S2B	0.68	0.80	0.02	-0.25	-0.60	-0.70	-0.74	-0.73	-0.60	-0.55	-0.33	-0.30	-0.29

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.36	-0.33	-0.26	-0.20	-0.13	-0.05	0.11					
S1B	-0.29	-0.21	-0.11	-0.03	0.06	0.10	0.18	0.17	0.18	0.18	0.18	0.16
S2T	-0.45	-0.42	-0.32	-0.23	-0.18	-0.10	0.03					
S2B	-0.26	-0.21	-0.12	-0.03	0.04	0.11	0.15	0.16	0.18	0.21	0.05	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	394.36	390.14	371.25	370.38	363.33	360.66	55.35	352.47	324.54	346.42	332.89

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.79	14.87	14.93	14.99	15.04	15.06	15.07	15.09	15.10	15.10	15.12	15.13	15.12

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.14	15.13	14.65	15.11	15.10	15.08	14.65	15.00	14.79	14.49	14.86	14.86

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 663- 6 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 4503.

HO = 14.869 PSIA PINF = 13.328 PSIA TSC = 73.46 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4115 V = 458.96 FPS Q = 227.035 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-0.89	-1.28	-1.26	-1.51	-0.91	-0.98	-0.69	-0.58	-0.50	-0.45	-0.49	-0.37
S1B	0.60	0.92	0.32	0.13	-0.04	-0.35	-0.37	-0.34	-0.33	-0.25	0.30	0.21	-0.07
S2T	0.57	0.15	-1.39	-1.76	-1.22	-1.00	-0.82	-0.65	-0.56	-0.51	-0.46	-0.40	-0.49
S2B	0.57	0.91	0.31	0.05	-0.22	-0.33	-0.39	-0.41	-0.31	-0.25	-0.09	-0.06	-0.06

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.37	-0.33	-0.26	-0.19	-0.12	-0.03	0.13					
S1B	-0.06	-0.06	-0.07	0.03	0.10	0.14	0.20	0.19	0.20	0.21	0.21	0.17
S2T	-0.43	-0.40	-0.30	-0.21	-0.16	-0.07	0.05					
S2B	-0.05	-0.06	-0.08	0.01	0.08	0.13	0.17	0.19	0.20	0.38	0.01	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
VI	477.74	467.05	442.70	441.94	434.43	434.43	55.53	422.75	351.28	423.68	395.15

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.57	14.69	14.79	14.89	14.96	14.98	14.99	14.99	14.99	15.00	15.00	15.01	15.00

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.00	14.99	14.32	14.96	14.94	14.93	14.30	14.88	14.66	14.19	14.87	14.88

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 663- 7 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 6506.

HO = 14.864 PSIA PINF = 13.338 PSIA TSC = 73.46 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4095 V = 456.80 FPS Q = 225.011 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.79	-0.52	-0.98	-1.00	-1.24	-0.64	-0.77	-0.53	-0.45	-0.39	-0.35	-0.46	-0.29
S1B	0.79	0.80	-0.04	-0.28	-0.49	-0.89	-0.87	-0.79	-0.73	-0.57	0.41	0.21	-0.56
S2T	0.78	0.62	-1.41	-1.41	-0.97	-0.83	-0.67	-0.51	-0.45	-0.41	-0.36	-0.31	-0.42
S2B	0.78	0.78	-0.06	-0.32	-0.75	-0.85	-0.89	-0.88	-0.74	-0.66	-0.44	-0.38	-0.35

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.31	-0.26	-0.21	-0.15	-0.08	-0.00	0.15					
S1B	-0.38	-0.20	-0.09	0.00	0.09	0.14	0.22	0.21	0.23	0.22	0.23	0.21
S2T	-0.37	-0.34	-0.26	-0.16	-0.12	-0.03	0.09					
S2B	-0.32	-0.16	-0.11	-0.00	0.10	0.15	0.20	0.21	0.23	0.38	0.01	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	540.88	538.04	507.58	508.25	495.43	496.11	65.77	477.39	373.13	471.06	447.36

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.74	14.89	15.00	15.03	15.07	15.13	15.20	15.28	15.34	15.38	15.41	15.44	15.48

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.52	15.53	14.69	15.53	15.52	15.50	14.44	15.35	14.97	14.28	14.87	14.87

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 663-11 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 5503.

HO = 14.868 PSIA PINF = 13.323 PSIA TSC = 72.29 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4121 V = 459.05 FPS Q = 227.565 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.70	-0.71	-1.14	-1.13	-1.39	-0.53	-0.89	-0.62	-0.52	-0.44	-0.40	-0.47	-0.33
S1B	0.70	0.87	0.15	-0.07	-0.25	-0.61	-0.61	-0.54	-0.51	-0.03	0.48	0.36	0.01
S2T	0.68	0.37	-1.37	-1.60	-1.10	-0.92	-0.75	-0.58	-0.51	-0.47	-0.41	-0.36	-0.47
S2B	0.68	0.85	0.13	-0.13	-0.48	-0.58	-0.62	-0.63	-0.51	-0.45	-0.26	-0.21	-0.21

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.34	-0.30	-0.24	-0.18	-0.10	-0.03	0.14					
S1B	0.11	0.14	0.42	0.32	0.40	0.41	0.21	0.20	0.21	0.21	0.22	0.18
S2T	-0.41	-0.38	-0.29	-0.19	-0.15	-0.07	0.06					
S2B	-0.19	-0.13	-0.10	-0.01	0.08	0.14	0.18	0.19	0.21	0.39	0.01	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	508.49	502.78	475.10	473.68	464.94	464.21	55.47	449.67	402.15	447.96	424.45

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.71	14.91	14.87	14.93	15.01	15.07	15.11	15.13	15.15	15.16	15.18	15.20	15.22

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.22	15.22	14.46	15.19	15.17	15.16	14.28	15.10	14.78	14.23	14.88	14.87

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 664- 6 CONFIGURATION L1C1E1B4PNTT1R1RETP THETA 3/4 = 50.0 DEG RPM 4501.

HO = 14.869 PSIA PINF = 12.542 PSIA TSC = 70.86 DEG F RHO = 0.00207 SLUGS/CU FT

M = 0.5155 V = 568.26 FPS Q = 334.909 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.59	-1.02	-1.49	-1.48	-1.72	0.93	-1.17	-0.84	-0.70	-0.60	-0.54	-0.55	-0.45
S1B	0.59	0.95	0.37	0.17	-0.00	-0.34	-0.37	-0.34	-0.33	-0.28	0.30	0.13	-0.07
S2T	0.59	-0.59	-0.25	-1.99	-1.39	-1.17	-0.97	-0.79	-0.68	-0.60	-0.55	-0.48	-0.53
S2B	0.59	0.96	0.35	0.10	-0.21	-0.31	-0.37	-0.41	-0.30	-0.25	-0.08	-0.06	-0.06

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.44	-0.40	-0.33	-0.25	-0.16	-0.07	0.10					
S1B	-0.07	-0.10	-0.13	-0.02	0.06	0.11	0.17	0.16	0.18	0.18	0.18	0.15
S2T	-0.49	-0.45	-0.35	-0.25	-0.20	-0.10	0.03					
S2B	-0.05	-0.10	-0.13	-0.03	0.05	0.10	0.14	0.15	0.17	0.84	-0.05	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	589.50	577.45	546.66	542.21	535.72	535.08	70.10	522.10	443.58	521.63	488.40

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.24	14.47	14.67	14.85	14.94	14.95	14.96	14.97	14.97	14.96	14.97	14.97	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.93	13.95	14.89	14.87	14.85	13.87	14.81	14.52	13.69	14.87	14.87

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 664- 7 CONFIGURATION L1C1E184PNTT1R1RETP THETA 3/4 = 50.0 DEG RPM 6509.

HO = 14.864 PSIA PINF = 12.536 PSIA TSC = 70.34 DEG F RHO = 0.00208 SLUGS/CU FT

M = 0.5158 V = 568.35 FPS Q = 335.186 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.71	-0.77	-1.27	-1.28	-1.62	0.95	-1.03	0.74	0.61	0.53	0.48	-0.53	-0.40
S1B	0.71	0.89	0.16	-0.07	-0.28	-0.68	-0.68	-0.64	-0.60	-0.49	0.36	0.14	-0.38
S2T	0.71	-0.58	-0.25	-1.79	-1.22	-1.07	-0.87	-0.70	-0.60	-0.54	-0.49	-0.44	-0.50
S2B	0.71	0.88	0.13	-0.12	-0.54	-0.65	-0.72	-0.74	-0.60	-0.53	-0.33	-0.27	-0.25

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.41	-0.37	-0.29	-0.23	-0.15	-0.06	0.11					
S1B	-0.28	-0.18	-0.15	-0.03	0.05	0.11	0.17	0.16	0.19	0.18	0.19	0.16
S2T	-0.46	-0.42	-0.32	-0.22	-0.17	-0.08	0.06					
S2B	-0.23	-0.16	-0.15	-0.05	0.05	0.10	0.16	0.17	0.18	0.04	0.04	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	644.11	637.99	601.13	599.95	588.66	586.86	78.34	569.88	462.62	564.76	533.43

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.69	14.82	14.92	15.03	15.14	15.23	15.31	15.36	15.42	15.46	15.47	15.47

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.47	15.46	14.31	15.39	15.36	15.33	14.03	15.20	14.71	13.81	14.86	14.86

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 664-11 CONFIGURATION L1C1E184PNTTIR1RETP THETA 3/4 = 50.0 DEG RPM 5506.

HO = 14.870 PSIA PINF = 12.545 PSIA TSC = 72.16 DEG F RHO = 0.00207 SLUGS/CU FT

M = 0.5154 V = 568.81 FPS Q = 336.796 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.67	-0.88	-1.38	-1.40	-1.72	-0.99	-1.09	-0.78	-0.65	-0.56	-0.51	-0.54	-0.42
S1B	0.67	0.92	0.23	0.02	-0.17	-0.55	-0.55	-0.53	-0.50	-0.41	0.34	0.13	-0.26
S2T	0.65	-0.56	-0.24	-1.87	-1.28	-1.11	-0.91	-0.73	-0.63	-0.56	-0.51	-0.46	-0.50
S2B	0.65	0.90	0.22	-0.05	-0.40	-0.51	-0.58	-0.60	-0.48	-0.41	-0.23	-0.19	-0.18

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.43	-0.38	-0.31	-0.24	-0.16	-0.07	0.11					
S1B	-0.20	-0.17	-0.14	-0.04	-0.05	-0.10	0.16	0.16	0.18	0.18	0.18	-0.15
S2T	-0.48	-0.44	-0.31	-0.24	-0.19	-0.09	0.04					
S2B	-0.17	-0.15	-0.14	-0.05	0.05	-0.10	0.15	0.16	0.18	0.04	-0.05	-0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	621.48	613.10	579.18	577.96	567.00	565.76	65.76	550.10	501.27	547.72	518.93

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.47	14.61	14.73	14.85	14.99	15.06	15.12	15.13	15.15	15.17	15.20	15.21	15.21

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.21	15.20	14.13	15.17	15.16	15.13	13.98	15.03	14.62	13.77	14.87	14.87

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8' FT TEST SECTION

PRESSURE DATA

RUN - PT NO 666- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 4505.

HO = 14.897 PSIA PINF = 14.499 PSIA TSC = 61.23 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.2035 V = 227.17 FPS Q = 60.487 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.68	0.17	-0.03	0.09	0.17	0.59	-0.75	-0.55	-0.46	-0.39	-0.37	-0.44	-0.30
S1B	0.68	0.75	-0.04	-0.24	-0.43	-0.73	-0.73	-0.70	-0.63	-0.46	0.37	0.28	-0.37
S2T	0.87	-1.19	-1.15	-1.39	-0.94	-0.81	-0.68	-0.52	-0.45	0.41	-0.36	-0.34	-0.42
S2B	0.87	0.91	0.63	0.53	-0.63	-0.73	-0.77	-0.73	-0.61	-0.51	-0.31	-0.30	-0.28

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.32	-0.28	-0.21	-0.16	-0.11	-0.02	0.14					
S1B	-0.28	-0.24	-0.04	0.01	0.08	0.14	0.18	0.18	0.20	0.20	0.20	0.16
S2T	-0.40	-0.35	-0.26	-0.21	-0.14	-0.05	0.07					
S2B	-0.28	-0.21	-0.10	0.01	0.09	0.11	0.18	0.17	0.20	0.24	-0.01	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	259.04	256.79	243.16	243.16	239.32	236.73	24.54	228.80	204.38	228.41	216.43

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.90	14.90	14.90	14.90	14.90	14.98	14.99	14.99	15.00	15.01	15.00	15.00	15.01

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.01	15.02	14.81	15.02	15.02	15.02	14.80	15.01	14.93	14.73	14.89	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 666- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 6507.

HO = 14.897 PSIA PINF = 14.515 PSIA TSC = 61.23 DEG F RHO = 0.00235 SLUGS/CU FT

M = 0.1994 V = 222.65 FPS Q = 58.150 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.89	0.40	0.17	-0.46	-0.54	-0.22	-0.44	-0.26	-0.25	-0.20	-0.20	-0.41	-0.18
S1B	0.89	0.26	-1.03	-1.34	-1.56	-2.06	-1.93	-1.71	-1.56	-1.16	0.39	0.35	-1.42
S2T	0.86	0.95	-0.47	-0.64	-0.55	-0.43	-0.32	-0.24	-0.23	-0.23	-0.21	-0.17	-0.31
S2B	0.86	0.48	-0.15	-0.42	-2.09	-2.11	-2.02	-1.93	-1.69	-1.51	-1.15	-1.08	-1.02

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.20	-0.18	-0.13	-0.08	-0.02	0.03	0.20					
S1B	-1.13	-0.53	-0.06	-0.02	0.09	0.14	0.24	0.22	0.26	0.24	0.22	0.24
S2T	-0.27	-0.23	-0.18	-0.12	-0.07	0.02	0.15					
S2B	-0.96	-0.50	-0.11	-0.02	0.09	0.19	0.22	0.22	0.21	0.26	0.04	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	322.95	325.85	307.12	305.08	296.80	293.64	42.47	279.55	216.02	272.66	266.21

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	17.13	14.90	12.66	14.90	14.90	15.12	15.14	15.16	15.18	15.20	15.23	15.25	15.27

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.29	15.31	15.01	15.34	15.35	15.37	14.88	15.37	15.26	14.77	14.90	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 666-11 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 30.0 DEG RPM 5503.

HO = 14.897 PSIA PINF = 14.504 PSIA TSC = 61.75 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.2022 V = 225.88 FPS Q = 59.757 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.87	0.41	0.29	0.25	0.18	0.35	-0.59	-0.39	-0.37	-0.30	-0.26	-0.46	-0.23
S1B	0.87	0.68	-0.33	-0.60	-0.78	-1.20	-1.18	-1.05	-0.93	-0.73	0.38	0.33	-0.84
S2T	0.91	-4.38	-0.90	-1.09	-0.82	-0.70	-0.57	-0.46	-0.43	-0.34	-0.26	-0.23	-0.36
S2B	0.91	0.79	0.37	0.22	-1.17	-1.26	-1.26	-1.24	-1.05	-0.96	-0.71	-0.64	-0.63

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.25	-0.25	-0.15	-0.10	-0.05	0.02	0.19					
S1B	-0.64	-0.53	-0.05	-0.00	0.11	0.15	0.22	0.21	0.26	0.26	0.22	0.22
S2T	-0.32	-0.29	-0.20	-0.09	-0.08	-0.01	0.14					
S2B	-0.57	-0.54	-0.08	-0.01	0.10	0.19	0.21	0.21	0.24	0.24	0.03	0.28

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	286.06	284.37	271.98	270.84	266.18	263.84	34.72	251.93	231.03	247.70	240.87

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	23.74	19.32	14.90	19.32	19.32	15.05	15.06	15.07	15.07	15.68	15.11	15.11	15.12

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.13	15.14	14.90	15.15	15.16	15.16	14.84	15.16	15.06	14.74	14.90	14.90

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 667- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 34.0 DEG RPM 4504.

HO = 14.899 PSIA PINF = 14.029 PSIA TSC = 65.14 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.3043 V = 339.22 FPS Q = 130.766 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.51	-0.98	-1.35	-1.31	-1.57	-1.03	-1.00	-0.73	-0.59	-0.53	-0.48	-0.50	-0.40
S1B	0.51	0.92	0.33	0.14	-0.01	-0.32	-0.34	-0.31	-0.30	-0.24	0.27	0.20	-0.05
S2T	0.50	-0.60	-1.59	-1.78	-1.23	-1.04	-0.85	-0.66	-0.58	-0.53	-0.48	-0.42	-0.55
S2B	0.50	0.90	0.31	0.04	-0.20	-0.30	-0.35	-0.36	-0.26	-0.22	-0.02	-0.03	-0.05

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.40	-0.36	-0.30	-0.23	-0.15	-0.07	0.09					
S1B	-0.05	-0.08	-0.08	0.02	0.07	0.11	0.16	0.16	0.17	0.17	0.18	0.13
S2T	-0.51	-0.46	-0.36	-0.27	-0.21	-0.13	-0.02					
S2B	-0.05	-0.08	-0.09	-0.02	0.06	0.10	0.13	0.15	0.17	0.18	-0.08	0.18

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
K1	349.98	343.55	326.50	325.53	321.56	322.55	24.84	311.65	277.07	313.15	292.64

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	6.40	10.65	2.15	6.40	10.65	14.93	14.93	14.93	14.93	14.93	14.93	14.92	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.93	14.92	14.56	14.92	14.92	14.91	14.74	14.91	14.78	14.51	14.90	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 667- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 34.0 DEG RPM 6502.

HO = 14.908 PSIA PINF = 14.031 PSIA TSC = 65.66 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.3052 V = 340.37 FPS Q = 131.560 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.79	-0.53	-0.97	-1.00	-1.20	-0.77	-0.76	-0.54	-0.46	-0.40	-0.38	-0.49	-0.31
S1B	0.79	0.76	-0.11	-0.35	-0.54	-0.93	-0.89	-0.82	-0.75	-0.60	0.38	0.23	-0.59
S2T	0.77	-0.89	-1.16	-1.38	-0.96	-0.83	-0.68	-0.53	-0.47	-0.43	-0.38	-0.34	-0.44
S2B	0.77	0.74	-0.14	-0.41	-0.86	-0.94	-0.98	-0.95	-0.80	-0.72	-0.47	-0.44	-0.41

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.34	-0.28	-0.23	-0.18	-0.10	-0.02	0.13					
S1B	-0.44	-0.26	-0.08	-0.00	0.07	0.12	0.19	0.19	0.20	0.19	0.20	0.18
S2T	-0.40	-0.36	-0.27	-0.18	-0.13	-0.05	0.08					
S2B	-0.40	-0.22	-0.11	-0.02	0.07	0.13	0.17	0.19	0.20	0.22	-0.01	0.28

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	409.42	409.13	384.72	384.72	375.48	374.63	24.63	360.70	296.71	357.53	337.77

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	6.47	10.69	6.47	6.47	6.47	15.10	15.13	15.15	15.17	15.20	15.21	15.22	15.23

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.26	15.27	14.78	15.28	15.29	15.30	14.78	15.29	15.12	14.57	14.91	14.91

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 667-11 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 34.0 DEG RPM 5507.

HO = 14.903 PSIA PINF = 14.039 PSIA TSC = 65.14 DEG F RHO = 0.00227 SLUGS/CU FT

M = 0.3030 V = 337.85 FPS Q = 129.786 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.66	-0.73	-1.14	-1.11	-1.36	-0.88	-0.87	-0.61	-0.53	-0.45	-0.42	-0.49	-0.35
S1B	0.66	0.85	0.13	-0.08	-0.25	-0.60	-0.60	-0.54	-0.49	-0.41	0.31	0.22	-0.28
S2T	0.65	-2.13	-1.35	-1.54	-1.07	-0.91	-0.74	-0.59	-0.51	-0.47	-0.43	-0.37	-0.46
S2B	0.65	0.84	0.10	-0.16	-0.49	-0.58	-0.63	-0.63	-0.53	-0.46	-0.26	-0.24	-0.22

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.33	-0.25	-0.18	-0.12	-0.04	0.13					
S1B	-0.23	-0.17	-0.08	0.00	0.08	0.12	0.18	0.17	0.19	0.20	0.19	0.17
S2T	-0.41	-0.39	-0.29	-0.20	-0.19	-0.07	0.06					
S2B	-0.22	-0.19	-0.10	-0.02	0.05	0.11	0.15	0.16	0.19	0.21	-0.02	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	375.84	370.93	353.24	350.53	345.10	342.33	55.04	332.88	307.69	329.38	316.30

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.51	13.51	12.12	13.51	12.12	15.02	15.03	15.05	15.05	15.05	15.06	15.06	15.07

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.09	15.09	14.67	15.09	15.10	15.09	14.68	15.08	14.92	14.54	14.90	14.90

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 668- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 35.0 DEG RPM 4507.

HO = 14.909 PSIA PINF = 14.522 PSIA TSC = 63.05 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.2006 V = 224.39 FPS Q = 58.892 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.84	-0.46	-0.83	-0.89	-1.05	-0.55	-0.57	-0.41	-0.37	-0.32	-0.30	-0.44	-0.24
S1B	0.84	0.69	-0.26	-0.44	-0.61	-0.97	-0.94	-0.86	-0.79	-0.63	0.37	0.30	-0.66
S2T	0.82	-1.51	-0.92	-1.14	-0.79	-0.68	-0.55	-0.42	-0.36	-0.33	-0.29	-0.25	-0.38
S2B	0.82	0.67	-0.24	-0.59	-0.92	-1.05	-1.07	-1.05	-0.87	-0.80	-0.53	-0.49	-0.46

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.26	-0.23	-0.17	-0.12	-0.06	0.01	0.16					
S1B	-0.50	-0.24	-0.05	0.02	0.08	0.15	0.21	0.21	0.23	0.21	0.23	0.19
S2T	-0.32	-0.29	-0.22	-0.14	-0.11	-0.02	0.12					
S2B	-0.44	-0.22	-0.10	0.00	0.09	0.16	0.20	0.22	0.23	0.23	0.02	0.27

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	273.11	271.17	255.85	255.85	249.68	249.68	42.56	239.58	232.50	236.43	230.64

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.91	14.91	14.91	14.91	14.91	15.00	15.02	15.02	15.03	15.05	15.06	15.06	15.08

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.08	15.09	14.87	15.11	15.11	15.11	14.86	15.11	15.03	14.76	14.91	14.91

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 668- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 35.0 DEG RPM 6503.

HO = 14.908 PSIA PINF = 14.492 PSIA TSC = 63.05 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.2082 V = 232.76 FPS Q = 63.270 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.95	0.56	0.13	-0.58	-0.64	-0.39	-0.40	-0.24	-0.19	-0.19	-0.19	-0.38	-0.18
S1B	0.95	0.13	-1.33	-1.65	-1.91	-2.47	-2.26	-2.04	-1.86	-1.42	0.43	0.33	-1.71
S2T	0.83	-2.08	-0.37	-0.54	-0.47	-0.41	-0.30	-0.23	-0.23	-0.20	-0.18	-0.15	-0.26
S2B	0.83	0.50	-0.54	-0.81	-2.53	-2.51	-2.41	-2.26	-1.98	-1.84	-1.41	-1.34	-1.21

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.19	-0.16	-0.13	-0.08	-0.01	0.06	0.18					
S1B	-1.24	-0.47	-0.12	-0.02	0.08	0.14	0.25	0.23	0.25	0.23	0.25	0.23
S2T	-0.24	-0.22	-0.21	-0.14	-0.04	0.01	0.04					
S2B	-1.06	-0.43	-0.14	-0.06	0.10	0.16	0.22	0.23	0.22	0.25	0.04	0.30

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	356.03	361.34	339.60	338.67	327.31	326.35	42.53	309.57	249.37	301.24	295.20

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.91	14.91	14.91	14.91	14.91	15.17	15.20	15.22	15.24	15.27	15.31	15.35	15.39

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.42	15.45	15.10	15.51	15.53	15.55	14.94	15.54	15.43	14.78	14.91	14.90

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 668-11 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 35.0 DEG RPM 5505.

HO = 14.908 PSIA PINF = 14.529 PSIA TSC = 63.05 DEG F RHO = 0.00234 SLUGS/CU FT

M = 0.1986 V = 222.12 FPS Q = 57.722 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.91	0.51	0.48	0.46	0.50	0.46	-0.45	-0.25	-0.25	-0.19	-0.17	-0.40	-0.16
S1B	0.91	0.44	-0.73	-1.05	-1.23	-1.70	-1.64	-1.42	-1.31	-0.98	0.40	0.34	-1.19
S2T	0.93	-5.63	-0.58	-0.71	-0.59	-0.44	-0.33	-0.26	-0.24	-0.22	-0.18	-0.14	-0.1
S2B	0.93	0.71	0.36	0.10	-1.66	-1.73	-1.66	-1.58	-1.36	-1.25	-0.94	-0.87	-0.87

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.19	-0.17	-0.10	-0.07	0.01	0.06	0.21					
S1B	-0.94	-0.32	-0.06	0.00	0.11	0.17	0.27	0.25	0.27	0.25	0.25	0.27
S2T	-0.26	-0.24	-0.17	-0.12	-0.06	0.03	0.16					
S2B	-0.78	-0.34	-0.10	-0.00	0.09	0.16	0.20	0.20	0.24	0.24	0.05	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	305.23	307.67	288.86	287.77	281.15	278.93	42.55	267.56	251.66	260.10	257.15

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	7.00	3.05	7.00	3.05	7.00	15.09	15.10	15.11	15.14	15.15	15.17	15.20	15.22

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.24	15.25	14.98	15.27	15.28	15.30	14.90	15.30	15.19	14.77	14.91	14.91

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 669- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 38.0 DEG RPM 4501.

HO = 14.916 PSIA PINF = 14.041 PSIA TSC = 67.74 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.3049 V = 340.77 FPS Q = 131.438 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-0.65	-0.99	-0.98	-1.11	-0.54	-0.93	-0.67	-0.56	-0.48	-0.44	-0.49	-0.37
S1B	0.60	0.87	0.22	0.02	-0.14	-0.47	-0.48	-0.45	-0.41	-0.35	0.29	0.20	-0.16
S2T	0.68	0.96	-1.47	-1.68	-1.14	-0.98	-0.80	-0.63	-0.56	-0.51	-0.46	-0.41	-0.48
S2B	0.68	0.95	0.34	0.10	-0.35	-0.43	-0.50	-0.51	-0.41	-0.35	-0.17	-0.16	-0.14

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.38	-0.34	-0.27	-0.21	-0.15	-0.05	0.11					
S1B	-0.15	-0.12	-0.08	-0.00	0.06	0.11	0.17	0.17	0.18	0.18	0.18	0.15
S2T	-0.46	-0.40	-0.30	-0.20	-0.16	-0.08	0.04					
S2B	-0.14	-0.13	-0.09	-0.02	0.06	0.10	0.15	0.16	0.16	0.20	-0.04	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	367.14	359.85	342.61	341.68	334.28	334.28	49.30	323.68	279.63	326.33	305.88

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.92	14.92	14.92	11.13	14.92	14.99	15.00	15.01	15.00	15.01	15.01	15.01	15.02

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.02	15.03	14.63	15.03	15.03	15.03	14.73	15.02	14.88	14.54	14.92	14.92

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 669- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 38.0 DEG RPM 6498.

HO = 14.916 PSIA PINF = 14.044 PSIA TSC = 68.91 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.3045 V = 340.67 FPS Q = 131.085 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.85	-0.36	-0.83	-0.90	-1.07	-0.64	-0.64	-0.44	-0.39	-0.34	-0.33	-0.50	-0.28
S1B	0.85	0.68	-0.32	-0.58	-0.79	-1.23	-1.22	-1.06	-0.97	-0.76	0.41	0.24	-0.83
S2T	0.84	-0.42	-0.98	-1.20	-0.83	-0.73	-0.59	-0.45	-0.41	-0.37	-0.33	-0.29	-0.39
S2B	0.84	0.62	-0.36	-0.67	-1.13	-1.22	-1.23	-1.17	-1.00	-0.91	-0.65	-0.61	-0.54

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.30	-0.25	-0.19	-0.15	-0.08	-0.01	0.15					
S1B	-0.56	-0.23	-0.09	-0.00	0.08	0.13	0.21	0.20	0.22	0.21	0.21	0.20
S2T	-0.36	-0.32	-0.26	-0.15	-0.10	-0.02	0.09					
S2B	-0.49	-0.19	-0.10	-0.01	0.10	0.14	0.19	0.20	0.21	0.23	-0.01	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	432.98	434.50	408.06	408.06	396.80	395.98	55.27	379.26	310.30	374.66	359.59

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	11.16	7.40	11.16	11.16	11.16	15.15	15.19	15.22	15.23	15.27	15.29	15.32	15.35

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.38	15.41	14.90	15.48	15.50	15.52	14.73	15.51	15.32	14.60	14.92	14.92

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 669-11 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 38.0 DEG RPM 5499.

HO = 14.917 PSIA PINF = 14.040 PSIA TSC = 69.04 DEG F RHO = 0.00226 SLUGS/CU FT

M = 0.3053 V = 341.57 FPS Q = 131.722 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.74	-0.63	-1.05	-1.06	-1.27	-0.83	-0.82	-0.58	-0.49	-0.42	-0.39	-0.49	-0.32
S1B	0.74	0.82	0.02	-0.21	-0.39	-0.76	-0.74	-0.68	-0.62	-0.49	0.36	0.22	-0.43
S2T	0.72	2.99	-1.25	-1.46	-1.00	-0.86	-0.71	-0.55	-0.48	-0.45	-0.40	-0.34	-0.45
S2B	0.72	0.79	-0.02	-0.30	-0.66	-0.74	-0.79	-0.79	-0.65	-0.59	-0.38	-0.34	-0.31

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.30	-0.23	-0.18	-0.10	-0.03	0.13					
S1B	-0.33	-0.19	-0.08	0.00	0.08	0.13	0.20	0.18	0.20	0.20	0.20	0.18
S2T	-0.40	-0.35	-0.27	-0.17	-0.13	-0.05	0.05					
S2B	-0.29	-0.17	-0.11	-0.02	0.07	0.12	0.17	0.18	0.19	0.21	-0.01	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	394.28	391.80	369.73	368.85	361.01	360.92	49.42	348.25	328.21	348.82	332.21

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.82	14.87	14.88	14.93	14.99	15.07	15.09	15.09	15.11	15.13	15.14	15.15	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.17	15.19	14.74	15.20	15.20	15.22	14.62	15.21	15.05	14.57	14.92	14.92

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 670- 6 CONFIGURATION L1C1E1B3PWTT1R1PETP THETA 3/4 = 42.0 DEG RPM 4500.

HO = 14.897 PSIA PINF = 13.357 PSIA TSC = 75.55 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4110 V = 459.30 FPS Q = 226.968 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.57	-0.93	-1.31	-1.31	-1.54	-0.74	-0.99	-0.71	-0.59	-0.51	-0.46	-0.48	-0.37
S1B	0.57	0.93	0.36	0.18	0.03	-0.29	-0.32	-0.28	-0.27	-0.21	0.31	0.19	-0.03
S2T	0.55	-1.29	-1.38	-1.75	-1.21	-1.05	-0.86	-0.67	-0.57	-0.52	-0.46	-0.41	-0.49
S2B	0.55	0.92	0.35	0.12	-0.18	-0.27	-0.33	-0.35	-0.26	-0.21	-0.04	-0.02	-0.02

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.38	-0.34	-0.26	-0.20	-0.12	-0.03	0.13					
S1B	-0.04	-0.05	-0.06	0.03	0.10	0.14	0.19	0.19	0.20	0.20	0.21	0.17
S2T	-0.44	-0.41	-0.31	-0.21	-0.17	-0.08	0.05					
S2B	-0.03	-0.05	-0.08	0.01	0.07	0.12	0.16	0.17	0.19	0.23	0.01	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	466.48	458.79	434.93	432.62	427.21	424.88	419.38	417.00	348.57	418.59	424.84

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.43	14.63	14.78	14.89	14.94	14.94	14.94	14.93	14.94	14.94	14.94	14.95	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.94	14.34	14.93	14.93	14.93	14.17	14.92	14.72	14.22	14.90	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 670- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 6498.

HO = 14.898 PSIA PINF = 13.363 PSIA TSC = 77.37 DEG F RHO = 0.00215 SLUGS/CU FT

M = 0.4104 V = 459.40 FPS Q = 226.374 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.76	-0.19	-1.02	-1.02	-1.26	-0.78	-0.81	-0.56	-0.46	-0.40	-0.37	-0.47	-0.30
S1B	0.76	0.82	0.04	-0.21	-0.41	-0.79	-0.78	-0.71	-0.67	-0.52	0.40	0.19	-0.46
S2T	0.76	-0.86	-1.37	-1.42	-0.98	-0.89	-0.70	-0.54	-0.46	-0.42	-0.38	-0.33	-0.42
S2B	0.76	0.80	-0.00	-0.29	-0.69	-0.79	-0.82	-0.82	-0.68	-0.60	-0.39	-0.34	-0.30

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.32	-0.28	-0.21	-0.16	-0.09	-0.01	0.16					
S1B	-0.33	-0.17	-0.07	0.01	0.09	0.14	0.21	0.20	0.21	0.22	0.22	0.20
S2T	-0.36	-0.34	-0.24	-0.16	-0.11	-0.03	0.09					
S2B	-0.27	-0.14	-0.09	-0.00	0.09	0.13	0.20	0.20	0.21	0.23	0.01	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	530.15	529.54	499.48	498.12	486.44	482.94	472.30	470.15	383.74	468.13	482.10

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.77	14.84	14.93	15.03	15.09	15.15	15.17	15.20	15.23	15.26	15.30	15.32

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.35	15.38	14.65	15.43	15.45	15.47	14.33	15.46	15.19	14.31	14.90	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 670-11 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 5499.

HO = 14.897 PSIA PINF = 13.357 PSIA TSC = 78.28 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4111 V = 460.55 FPS Q = 227.035 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.68	0.31	-1.18	-1.17	-1.42	-0.65	-0.90	-0.63	-0.53	-0.45	-0.41	-0.48	-0.34
S1B	0.68	0.89	0.22	-0.00	-0.16	-0.50	-0.52	-0.46	-0.43	-0.35	0.36	0.18	-0.21
S2T	0.65	-1.08	-1.35	-1.59	-1.10	-0.98	-0.79	-0.61	-0.52	-0.47	-0.43	-0.37	-0.46
S2B	0.65	0.87	0.19	-0.06	-0.38	-0.48	-0.53	-0.53	-0.43	-0.37	-0.19	-0.15	-0.14

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.31	-0.23	-0.18	-0.10	-0.02	0.14					
S1B	-0.17	-0.12	-0.07	0.02	0.10	0.15	0.20	0.20	0.21	0.21	0.22	0.18
S2T	-0.41	-0.38	-0.29	-0.19	-0.15	-0.06	0.06					
S2B	-0.14	-0.11	-0.08	0.01	0.08	0.14	0.18	0.19	0.22	0.25	0.00	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	495.49	491.30	464.29	463.56	454.09	450.37	445.04	440.49	412.15	441.04	455.78

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.58	14.68	14.80	14.91	15.00	15.03	15.05	15.06	15.08	15.09	15.10	15.11	15.12

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.14	15.14	14.47	15.15	15.15	15.15	14.22	15.15	14.89	14.26	14.90	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 671- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 46.0 DEG RPM 4499.

HO = 14.689 PSIA PINF = 13.341 PSIA TSC = 79.32 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4122 V = 462.19 FPS Q = 227.997 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	1	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.61	-0.05	-1.29	-1.27	-1.51	-0.55	-0.98	-0.69	-0.58	-0.50	-0.45	-0.48	-0.37
S1B	0.61	0.92	0.31	0.13	-0.04	-0.36	-0.38	-0.35	-0.33	-0.27	0.33	0.17	-0.08
S2T	0.58	-1.23	-1.18	-1.73	-1.19	-1.01	-0.82	-0.64	-0.56	-0.50	-0.45	-0.39	-0.44
S2B	0.58	0.91	0.29	0.06	-0.23	-0.34	-0.39	-0.40	-0.31	-0.27	-0.10	-0.07	-0.07

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.37	-0.33	-0.26	-0.20	-0.12	-0.04	0.12					
S1B	-0.08	-0.07	-0.07	0.02	0.09	0.13	0.19	0.19	0.20	0.20	0.21	0.17
S2T	-0.44	-0.37	-0.31	-0.21	-0.16	-0.07	0.05					
S2B	-0.07	-0.06	-0.08	0.00	0.07	0.12	0.17	0.18	0.19	0.41	-0.01	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	479.25	473.80	449.44	448.69	438.80	438.80	431.15	429.59	393.45	428.29	441.13

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.48	14.62	14.77	14.89	14.94	14.96	14.96	14.97	14.97	14.98	14.98	14.98	14.99

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.99	14.99	14.36	15.00	15.00	14.99	14.20	14.99	14.75	14.21	14.89	14.89

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 671- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP 0 THETA 3/4 = 46.0 DEG RPM 6502.

HO = 14.890 PSIA PINF = 13.350 PSIA TSC = 79.45 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4111 V = 461.13 FPS Q = 227.001 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.80	-0.07	-0.91	-0.96	-1.16	-0.46	-0.77	-0.53	-0.45	-0.40	-0.35	-0.45	-0.26
S1B	0.80	0.80	-0.07	-0.30	-0.51	-0.92	-0.90	-0.82	-0.76	-0.58	0.41	0.19	-0.57
S2T	0.79	-0.78	-1.16	-1.39	-0.99	-0.84	-0.67	-0.52	-0.45	-0.41	-0.34	-0.31	-0.37
S2B	0.79	0.80	-0.08	-0.35	-0.82	-0.91	-0.94	-0.91	-0.77	-0.69	-0.48	-0.41	-0.35

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.32	-0.28	-0.21	-0.15	-0.08	-0.01	0.16					
S1B	-0.40	-0.17	-0.08	0.01	0.09	0.14	0.21	0.21	0.22	0.25	0.25	0.21
S2T	-0.37	-0.34	-0.25	-0.16	-0.12	-0.03	0.10					
S2B	-0.27	-0.10	-0.09	-0.01	0.13	0.19	0.21	0.21	0.22	0.37	0.05	0.29

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	545.65	547.83	518.04	516.70	503.07	500.32	490.93	486.72	416.51	481.18	500.70

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.73	14.85	14.87	14.94	15.01	15.08	15.17	15.20	15.21	15.28	15.33	15.37	15.42

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.47	15.53	14.74	15.58	15.60	15.61	14.38	15.58	15.26	14.31	14.89	14.89

TABLE IX 2330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 671-12 CONFIGURATION L1C1E1B3PWIT1R1BETP 0 THETA 3/4 = 46.0 DEG RPM 5495.

HO = 14.888 PSIA PINF = 13.355 PSIA TSC = 79.84 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4101 V = 460.21 FPS Q = 225.992 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.69	-0.14	-1.14	-1.13	-1.39	-0.50	-0.89	-0.63	-0.52	-0.46	-0.41	-0.46	-0.34
S1B	0.69	0.88	0.16	-0.05	-0.24	-0.60	-0.59	-0.54	-0.52	-0.41	0.37	0.17	-0.29
S2T	0.67	-1.04	-1.20	-1.61	-1.09	-0.95	-0.77	-0.59	-0.52	-0.47	-0.42	-0.37	-0.49
S2B	0.67	0.85	0.14	-0.13	-0.49	-0.58	-0.63	-0.63	-0.51	-0.45	-0.25	-0.22	-0.21

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.31	-0.24	-0.18	-0.11	-0.02	0.14					
S1B	-0.22	-0.12	-0.08	0.01	0.09	0.13	0.20	0.19	0.20	0.20	0.21	0.19
S2T	-0.45	-0.41	-0.32	-0.22	-0.17	-0.08	0.05					
S2B	-0.19	-0.11	-0.09	-0.00	0.09	0.13	0.18	0.19	0.21	0.42	-0.00	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	505.89	501.23	475.54	475.54	465.47	463.27	454.39	453.64	433.98	449.23	467.82

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.61	14.69	14.79	14.90	14.98	15.03	15.06	15.08	15.09	15.11	15.14	15.15	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.18	15.19	14.50	15.20	15.22	15.23	14.19	15.23	14.96	14.26	14.89	14.89

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 672- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP 0 THETA 3/4 = 46.0 DEG RPM 5000.

HO = 14.879 PSIA PINF = 12.562 PSIA TSC = 85.18 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5141 V = 574.38 FPS Q = 333.620 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.59	-0.33	-1.49	-1.49	-1.72	-0.66	-1.20	-0.84	-0.71	-0.61	-0.54	-0.54	-0.44
S1B	0.59	0.96	0.37	0.19	0.02	-0.32	-0.35	-0.33	-0.31	-0.26	0.33	0.10	-0.06
S2T	0.60	-1.36	-0.11	-1.98	-1.40	-1.17	-0.96	-0.78	-0.67	-0.61	-0.55	-0.48	-0.37
S2B	0.60	0.94	0.35	0.12	-0.19	-0.30	-0.37	-0.39	-0.30	-0.25	-0.09	-0.05	-0.05

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.44	-0.40	-0.32	-0.25	-0.16	-0.08	0.11					
S1B	-0.08	-0.10	-0.12	-0.02	0.06	0.11	0.17	0.16	0.17	0.18	0.18	0.14
S2T	-0.50	-0.47	-0.36	-0.26	-0.21	-0.11	0.02					
S2B	-0.08	-0.08	-0.14	-0.03	0.04	0.10	0.12	0.15	0.16	0.72	-0.06	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	584.94	577.86	548.92	546.54	538.32	536.35	530.41	526.42	475.80	530.41	539.58

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.09	14.43	14.66	14.86	14.92	14.91	14.91	14.91	14.92	14.91	14.91	14.91	14.90

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.88	13.97	14.88	14.87	14.88	13.59	14.87	14.58	13.70	14.88	14.88

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 672- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP 0 THETA 3/4 = 46.0 DEG RPM 6499.

HO = 14.880 PSIA PINF = 12.566 PSIA TSC = 85.18 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5138 V = 574.06 FPS Q = 333.316 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.69	-0.37	-1.33	-1.33	-1.64	-0.65	-1.05	-0.76	-0.63	-0.54	-0.49	-0.53	-0.41
S1B	0.69	0.91	0.22	-0.00	-0.20	-0.59	-0.61	-0.56	-0.53	-0.43	0.37	0.12	-0.28
S2T	0.61	-1.14	-0.11	-1.97	-1.25	-1.08	-0.87	-0.70	-0.61	-0.55	-0.50	-0.45	-0.37
S2B	0.61	0.89	0.18	-0.06	-0.45	-0.57	-0.63	-0.65	-0.53	-0.46	-0.28	-0.22	-0.20

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.41	-0.37	-0.30	-0.13	-0.14	-0.06	0.12					
S1B	-0.24	-0.16	-0.13	-0.03	0.06	0.11	0.18	0.17	0.19	0.19	0.19	0.16
S2T	-0.52	-0.48	-0.38	-0.28	-0.23	-0.12	0.01					
S2B	-0.20	-0.15	-0.13	-0.03	0.05	0.10	0.16	0.16	0.19	0.72	-0.08	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	630.28	627.90	592.72	592.11	583.78	578.82	567.21	565.94	491.90	562.64	579.33

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.34	14.52	14.69	14.88	15.02	15.10	15.13	15.16	15.19	15.20	15.23	15.24	15.25

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.29	15.30	14.25	15.29	15.29	15.30	13.72	15.25	14.83	13.80	14.88	14.88

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 672-11 CONFIGURATION L1C1E1B3PWT1R1RETP 0 THETA 3/4 = 46.0 DEG RPM 5499.

HO = 14.879 PSIA PINF = 12.562 PSIA TSC = 85.57 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5141 V = 574.58 FPS Q = 333.620 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.63	-0.36	-1.42	-1.43	-1.71	-0.67	-1.12	-0.81	-0.68	-0.58	-0.52	-0.52	-0.42
S1B	0.63	0.94	0.33	0.13	-0.07	-0.42	-0.43	-0.41	-0.38	-0.32	0.34	0.11	-0.13
S2T	0.60	-1.29	-0.10	-1.94	-1.35	-1.14	-0.93	-0.75	-0.65	-0.58	-0.53	-0.47	-0.23
S2B	0.60	0.93	0.30	0.06	-0.26	-0.38	-0.44	-0.47	-0.37	-0.31	-0.15	-0.11	-0.10

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.43	-0.39	-0.30	-0.24	-0.16	-0.06	0.11					
S1B	-0.13	-0.13	-0.13	-0.02	0.06	0.11	0.17	0.16	0.17	0.18	0.18	0.15
S2T	-0.50	-0.45	-0.36	-0.26	-0.20	-0.10	0.03					
S2B	-0.10	-0.11	-0.13	-0.03	0.05	0.09	0.15	0.15	0.18	0.73	-0.06	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	597.91	593.15	563.18	557.45	550.39	548.45	540.19	537.56	509.64	539.74	553.77

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.16	14.44	14.67	14.87	14.96	14.96	14.98	14.98	15.00	14.98	15.00	15.00	15.01

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.01	15.02	14.04	15.00	15.00	15.00	13.59	14.98	14.65	13.74	14.87	14.88

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 673- 6 CONFIGURATION L1C1E183PWTTIR1RETP 0 THETA 3/4 = 50.0 DEG RPM 4501.

HO = 14.874 PSIA PINF = 12.553 PSIA TSC = 86.87 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5148 V = 576.01 FPS Q = 334.266 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-0.48	-1.50	-1.47	-1.66	-0.85	-1.12	-0.79	-0.67	-0.57	-0.54	-0.45	-0.43
S1B	0.60	0.95	0.35	0.15	-0.03	-0.36	-0.39	-0.37	-0.35	-0.29	0.33	0.10	-0.09
S2T	0.77	-1.32	0.47	-1.90	-1.37	-1.15	-0.95	-0.77	-0.66	-0.59	-0.53	-0.48	-0.18
S2B	0.77	0.93	0.31	0.06	-0.25	-0.34	-0.41	-0.43	-0.33	-0.28	-0.11	-0.08	-0.08

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.43	-0.39	-0.30	-0.25	-0.16	-0.07	0.11					
S1B	-0.11	-0.10	-0.12	-0.02	0.06	0.10	0.16	0.15	0.17	0.17	0.17	0.14
S2T	-0.50	-0.41	-0.38	-0.28	-0.22	-0.12	0.02					
S2B	-0.09	-0.09	-0.12	-0.03	0.05	0.10	0.15	0.16	0.18	0.86	-0.06	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	595.38	587.43	557.38	557.38	548.87	547.57	537.07	533.76	484.89	533.45	548.32

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.14	14.41	14.65	14.85	14.93	14.93	14.93	14.94	14.94	14.94	14.94	14.95	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.94	14.00	14.93	14.93	14.92	13.60	14.91	14.61	13.72	14.87	14.87

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 673- 7 CONFIGURATION L1C1E1B3PWIT1R1RETP 0 THETA 3/4 = 50.0 DEG RPM 6494.

HO = 14.874 PSIA PINF = 12.557 PSIA TSC = 87.65 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5143 V = 575.87 FPS Q = 333.706 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.74	-0.60	-1.27	-1.28	-1.46	-0.89	-1.02	-0.70	-0.60	-0.51	-0.46	-0.40	-0.39
S1B	0.74	0.89	0.13	-0.10	-0.31	-0.72	-0.73	-0.67	-0.64	-0.52	0.41	0.13	-0.40
S2T	0.78	-1.02	0.47	-1.89	-1.20	-1.04	-0.85	-0.67	-0.58	-0.53	-0.46	-0.45	-0.10
S2B	0.78	0.86	0.10	-0.16	-0.58	-0.71	-0.77	-0.78	-0.65	-0.57	-0.37	-0.29	-0.27

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.40	-0.36	-0.27	-0.23	-0.15	-0.06	0.11					
S1B	-0.29	-0.16	-0.14	-0.04	0.06	0.11	0.17	0.18	0.17	0.17	0.17	0.14
S2T	-0.48	-0.44	-0.34	-0.24	-0.19	-0.09	0.04					
S2B	-0.25	-0.15	-0.16	-0.05	0.05	0.11	0.16	0.17	0.19	0.85	-0.05	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	652.58	651.07	609.52	614.88	603.02	597.58	587.82	585.37	507.82	583.37	591.56

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.43	14.56	14.68	14.82	14.95	15.10	15.19	15.24	15.29	15.35	15.40	15.42	15.42

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.43	15.44	14.38	15.48	15.46	15.49	13.85	15.44	14.97	13.85	14.88	14.88

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 673-11 CONFIGURATION L1C1E1B3PWTT1R1RETP 0 THETA 3/4 = 50.0 DEG RPM 5499.

HO = 14.880 PSIA PINF = 12.565 PSIA TSC = 88.30 DEG F RHO = 0.00201 SLUGS/CU FT

M = 0.5139 V = 575.82 FPS Q = 333.440 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.68	-0.80	-1.35	-1.34	-1.55	-1.01	-1.06	-0.75	-0.64	-0.54	-0.48	-0.42	-0.40
S1B	0.68	0.92	0.23	0.01	-0.18	-0.56	-0.58	-0.54	-0.51	-0.42	0.37	0.12	-0.26
S2T	0.78	-1.17	0.48	-1.86	-1.27	-1.08	-0.88	-0.70	-0.61	-0.55	-0.50	-0.44	0.03
S2B	0.78	0.90	0.20	-0.05	-0.42	-0.53	-0.59	-0.62	-0.49	-0.43	-0.25	-0.20	-0.18

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.42	-0.37	-0.28	-0.23	-0.15	-0.06	0.12					
S1B	-0.22	-0.16	-0.13	-0.03	0.06	0.11	0.17	0.16	0.18	0.18	0.18	0.15
S2T	-0.48	-0.44	-0.34	-0.24	-0.18	-0.09	0.04					
S2B	-0.18	-0.14	-0.13	-0.04	0.05	0.11	0.15	0.16	0.17	0.86	-0.03	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	625.06	622.51	589.03	585.32	576.51	574.00	563.35	559.52	535.11	560.44	579.09

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.34	14.50	14.68	14.84	14.97	15.04	15.07	15.09	15.11	15.13	15.15	15.16	15.17

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.19	15.20	14.17	15.20	15.20	15.22	13.70	15.21	14.82	13.76	14.88	14.88

TABLE IX — E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 674- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP Q THETA 3/4 = 50.0 DEG RPM 5251.

HO = 14.877 PSIA PINF = 11.697 PSIA TSC = 100.53 DEG F RHO = 0.00187 SLUGS/CU FT

M = 0.6160 V = 690.36 FPS Q = 445.457 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.67	-0.91	-1.46	-1.46	-1.46	-0.90	-1.41	-0.97	-0.82	-0.70	-0.59	-0.50	-0.50
S1B	0.67	0.97	0.41	0.20	-0.01	-0.38	-0.42	-0.41	-0.40	-0.34	0.28	0.06	-0.14
S2T	0.87	-1.09	0.75	-0.95	-1.45	-1.22	-1.25	-1.14	-0.95	-0.79	-0.66	-0.52	0.41
S2B	0.87	0.95	0.34	0.09	-0.24	-0.37	-0.45	-0.49	-0.39	-0.36	-0.18	-0.12	-0.08

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.48	-0.44	-0.10	-0.28	-0.18	-0.08	0.09					
S1B	-0.16	-0.17	-0.22	-0.07	0.01	0.07	0.13	0.12	0.14	0.14	0.13	0.10
S2T	-0.49	-0.46	-0.37	-0.27	-0.21	-0.11	0.01					
S2B	-0.14	-0.16	-0.20	-0.10	-0.00	0.06	0.10	0.11	0.13	0.95	-0.08	0.19

INLET VELOCITIES, FPS

ORIFICE	01	03	05	06	07	09	10	12	13	15	V AVE
R1	711.51	703.04	667.53	663.48	656.25	653.33	644.04	641.08	557.62	644.26	654.21

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.71	14.15	14.53	14.81	14.92	14.93	14.93	14.93	14.93	14.92	14.93	14.93	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.93	14.92	13.60	14.90	14.90	14.90	13.19	14.88	14.40	13.00	13.80	14.54

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 674- 7 CONFIGURATION L1C1E1B3PWT1R1RETP 0 THETA 3/4 = 50.0 DEG RPM 6496.

HO = 14.874 PSIA PINF = 11.676 PSIA TSC = 102.09 DEG F RHO = 0.00186 SLUGS/CU FT

M = 0.6181 V = 693.51 FPS Q = 447.673 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.71	-1.01	-1.42	-1.44	-1.44	-0.96	-1.36	-0.96	-0.80	-0.66	-0.57	-0.49	-0.50
S1B	0.71	0.95	0.37	0.14	-0.09	-0.50	-0.53	-0.52	-0.49	-0.41	0.32	0.05	-0.26
S2T	0.88	-1.02	0.76	-0.92	-1.41	-1.20	-1.18	-1.09	-0.89	-0.74	-0.62	-0.51	0.45
S2B	0.88	0.94	0.29	0.05	-0.33	-0.49	-0.56	-0.61	-0.50	-0.45	-0.28	-0.19	-0.07

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.48	-0.44	-0.09	-0.28	-0.18	-0.08	0.10					
S1B	-0.22	-0.19	-0.20	-0.09	0.01	0.07	0.13	0.12	0.14	0.14	0.14	0.11
S2T	-0.47	-0.46	-0.36	-0.27	-0.20	-0.11	0.02					
S2B	-0.19	-0.18	-0.21	-0.10	-0.01	0.06	0.11	0.12	0.15	0.96	-0.08	0.20

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	739.73	732.07	692.26	687.74	677.04	672.45	664.37	660.31	584.91	662.29	677.32

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.91	14.25	14.55	14.86	15.03	15.08	15.09	15.10	15.11	15.11	15.13	15.14	15.14

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.15	15.15	13.74	15.11	15.11	15.10	13.32	15.11	14.53	13.03	13.92	14.67

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 674-11 CONFIGURATION L1C1E1B3PWTT1R1BETP 0 THETA 3/4 = 50.0 DEG RPM 5491.

HO = 14.874 PSIA PINF = 11.697 PSIA TSC = 102.48 DEG F RHO = 0.00186 SLUGS/CU FT

M = 0.6157 V = 691.30 FPS Q = 445.075 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.68	-1.04	-1.46	-1.46	-1.46	-1.00	-1.35	-0.94	-0.79	-0.66	-0.56	-0.49	-0.49
S1B	0.68	0.96	0.41	0.22	-0.03	-0.41	-0.45	-0.43	-0.41	-0.35	0.27	0.07	-0.19
S2T	0.87	-1.05	0.76	-0.93	-1.41	-1.27	-1.20	-1.09	-0.92	-0.78	-0.66	-0.52	0.49
S2B	0.87	0.95	0.33	0.08	-0.26	-0.40	-0.48	-0.52	-0.42	-0.38	-0.20	-0.14	-0.07

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.47	-0.43	-0.09	-0.27	-0.18	-0.08	0.10					
S1B	-0.18	-0.18	-0.20	-0.07	0.01	0.07	0.13	0.13	0.14	0.14	0.14	0.12
S2T	-0.47	-0.41	-0.37	-0.27	-0.20	-0.10	0.02					
S2B	-0.15	-0.17	-0.20	-0.09	-0.00	0.06	0.11	0.12	0.15	0.96	-0.08	0.19

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	717.44	710.06	674.35	670.89	661.48	656.80	646.44	646.44	609.65	649.92	664.35

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.76	14.17	14.53	14.82	14.94	14.93	14.95	14.95	14.95	14.95	14.96	14.96	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.97	14.96	13.63	14.96	14.95	14.94	13.28	14.92	14.42	13.02	13.87	14.62

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 675- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 54.0 DEG RPM 4498.

HO = 14.877 PSIA PINF = 13.350 PSIA TSC = 82.31 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4096 V = 460.65 FPS Q = 225.274 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	1C	12.5	15	17	20	25	30
S1T	0.68	-0.66	-1.23	-1.16	-1.28	-0.52	-0.84	-0.58	-0.50	-0.42	-0.38	-0.39	-0.34
S1B	0.68	0.86	0.26	0.05	-0.17	-0.52	-0.53	-0.49	-0.45	-0.36	0.40	0.10	-0.27
S2T	0.76	-0.99	-1.24	-1.53	-1.14	-0.99	-0.76	-0.60	-0.52	-0.47	-0.42	-0.37	-0.44
S2B	0.76	0.86	0.17	-0.08	-0.40	-0.52	-0.55	-0.56	-0.46	-0.42	-0.29	-0.18	-0.18

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.34	-0.30	-0.22	-0.17	-0.10	-0.01	0.15					
S1B	-0.18	-0.08	-0.07	0.02	0.10	0.14	0.21	0.20	0.21	0.21	0.21	0.19
S2T	-0.40	-0.37	-0.28	-0.19	-0.13	-0.05	0.07					
S2B	-0.15	-0.07	-0.08	0.01	0.10	0.15	0.19	0.19	0.22	0.23	0.01	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	1C	12	13	15	V AVE
R1	499.53	496.44	469.50	468.05	460.57	458.36	448.81	445.79	411.84	446.22	460.51

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.64	14.70	14.77	14.86	14.95	15.01	15.03	15.04	15.06	15.08	15.10	15.12	15.13

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.15	15.16	14.48	15.18	15.19	15.21	14.29	15.19	14.92	14.27	14.88	14.89

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO. 675- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 54.0 DEG RPM 5999.

HO = 14.877 PSIA PINF = 13.341 PSIA TSC = 82.05 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4108 V = 461.87 FPS Q = 226.476 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.73	-0.64	-1.14	-1.10	-1.21	-0.51	-0.83	-0.55	-0.47	-0.40	-0.36	-0.40	-0.33
S1B	0.73	0.83	0.17	-0.04	-0.30	-0.66	-0.64	-0.59	-0.54	-0.43	0.40	0.11	-0.33
S2T	0.76	-0.90	-1.24	-1.45	-1.09	-0.95	-0.73	-0.58	-0.50	-0.45	-0.41	-0.35	-0.43
S2B	0.76	0.82	0.09	-0.18	-0.53	-0.63	-0.67	-0.67	-0.56	-0.51	-0.31	-0.24	-0.21

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.33	-0.30	-0.22	-0.16	-0.09	-0.01	0.14					
S1B	-0.21	-0.10	-0.14	-0.01	0.08	0.14	0.20	0.19	0.21	0.21	0.21	0.18
S2T	-0.38	-0.35	-0.27	-0.18	-0.13	-0.05	0.07					
S2B	-0.17	-0.09	-0.15	-0.02	0.08	0.14	0.19	0.21	0.22	0.23	0.01	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	516.13	515.28	488.80	488.80	478.95	477.52	466.65	465.92	429.09	463.19	479.03

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.84	14.91	14.95	14.97	15.03	15.09	15.16	15.21	15.25	15.27	15.31	15.34	15.37

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.40	15.43	14.66	15.48	15.47	15.41	14.31	15.25	14.91	14.30	14.88	14.87

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 675-12 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 54.0 DEG RPM 5498.

HO = 14.877 PSIA PINF = 13.350 PSIA TSC = 82.57 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4096 V = 460.76 FPS Q = 225.274 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.72	-0.68	-1.15	-1.11	-1.20	-0.54	-0.83	-0.56	-0.48	-0.42	-0.38	-0.41	-0.34
S1B	0.72	0.82	0.16	-0.05	-0.31	-0.67	-0.66	-0.60	-0.56	-0.44	0.40	0.11	-0.36
S2T	0.76	-0.91	-1.23	-1.47	-1.10	-0.97	-0.74	-0.59	-0.50	-0.46	-0.41	-0.36	-0.44
S2B	0.76	0.82	0.08	-0.19	-0.55	-0.66	-0.69	-0.69	-0.58	-0.53	-0.33	-0.27	-0.23

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.34	-0.30	-0.22	-0.17	-0.10	-0.02	0.14					
S1B	-0.24	-0.12	-0.12	0.00	0.08	0.13	0.20	0.19	0.20	0.20	0.20	0.18
S2T	-0.39	-0.35	-0.27	-0.18	-0.13	-0.04	0.08					
S2B	-0.20	-0.10	-0.12	-0.01	0.09	0.13	0.19	0.20	0.21	0.23	0.00	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	516.66	515.43	487.26	487.26	478.02	475.14	465.06	464.32	443.54	460.76	479.35

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.78	14.84	14.87	14.91	14.97	15.03	15.10	15.14	15.17	15.19	15.23	15.26	15.30

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.32	15.35	14.61	15.40	15.40	15.38	14.31	15.26	14.96	14.29	14.87	14.87

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 676- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 46.0 DEG RPM 4500.

HO = 14.874 PSIA PINF = 13.334 PSIA TSC = 79.71 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4113 V = 461.43 FPS Q = 226.927 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.62	-0.68	-1.35	-1.25	-1.38	-0.54	-0.86	-0.64	-0.54	-0.47	-0.42	-0.42	-0.38
S1B	0.62	0.91	0.35	0.17	-0.05	-0.36	-0.39	-0.36	-0.34	-0.27	0.35	0.10	-0.11
S2T	0.77	-1.13	-1.29	-1.77	-1.28	-1.25	-0.85	-0.68	-0.53	-0.44	-0.36	-0.29	-0.46
S2B	0.77	0.90	0.28	0.03	-0.26	-0.37	-0.42	-0.43	-0.34	-0.30	-0.12	-0.09	-0.08

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.38	-0.33	-0.23	-0.19	-0.12	-0.03	0.14					
S1B	-0.10	-0.08	-0.06	0.02	0.10	0.14	0.20	0.19	0.20	0.21	0.21	0.18
S2T	-0.42	-0.38	-0.29	-0.20	-0.15	-0.06	0.06					
S2B	-0.08	-0.07	-0.08	0.01	0.08	0.13	0.17	0.17	0.20	0.21	0.00	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	478.63	474.39	450.23	449.48	440.37	438.84	434.91	430.25	388.42	431.47	441.70

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.50	14.62	14.74	14.87	14.94	14.88	14.88	14.87	14.88	14.88	14.88	14.89	14.88

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.89	14.89	14.37	15.00	15.00	15.01	14.21	15.00	14.75	14.22	14.88	14.87

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 676- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 46.0 DEG RPM 6495.

HO = 14.877 PSIA PINF = 13.345 PSIA TSC = 80.75 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4103 V = 460.72 FPS Q = 225.942 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.80	-0.62	-1.00	-1.02	-1.06	-0.52	-0.84	-0.50	-0.43	-0.37	-0.34	-0.44	-0.30
S1B	0.80	0.75	-0.00	-0.24	-0.54	-0.94	-0.91	-0.83	-0.76	-0.59	0.44	0.12	-0.61
S2T	0.77	-0.73	-1.28	-1.33	-0.98	-0.88	-0.67	-0.52	-0.46	-0.41	-0.37	-0.32	-0.43
S2B	0.77	0.77	-0.09	-0.31	-0.81	-0.93	-0.95	-0.94	-0.81	-0.75	-0.52	-0.42	-0.37

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.32	-0.27	-0.24	-0.16	-0.08	-0.00	0.16					
S1B	-0.40	-0.19	-0.08	0.01	0.09	0.14	0.21	0.20	0.22	0.21	0.21	0.20
S2T	-0.38	-0.35	-0.26	-0.18	-0.12	-0.04	0.08					
S2B	-0.31	-0.14	-0.09	-0.00	0.09	0.15	0.21	0.21	0.22	0.24	-0.00	0.28

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	549.31	552.75	517.75	519.76	507.01	502.90	492.60	489.10	401.67	484.08	501.69

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.75	14.79	14.87	14.93	15.01	14.89	14.91	14.91	14.92	14.92	14.93	14.94	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.96	14.99	14.76	15.60	15.60	15.61	14.37	15.56	15.27	14.31	14.87	14.88

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 676-11 CONFIGURATION L1C1E1B3PWTT1R1RETP. THETA 3/4 = 46.0 DEG RPM 5501.

HO = 14.877 PSIA PINF = 13.347 PSIA TSC = 80.75 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4099 V = 460.35 FPS Q = 225.608 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.70	-0.65	-1.19	-1.14	-1.26	-0.53	-0.83	-0.58	-0.49	-0.42	-0.38	-0.42	-0.34
S1B	0.70	0.85	0.20	0.00	-0.24	-0.60	-0.60	-0.55	-0.51	-0.41	0.41	0.11	-0.32
S2T	0.77	-0.96	-1.25	-1.47	-1.07	-0.86	-0.54	-0.39	-0.32	-0.27	-0.26	-0.16	-0.43
S2B	0.77	0.85	0.13	-0.13	-0.48	-0.59	-0.64	-0.64	-0.53	-0.49	-0.29	-0.24	-0.21

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.30	-0.22	-0.17	-0.11	-0.02	0.15					
S1B	-0.23	-0.12	-0.08	0.01	0.09	0.14	0.20	0.20	0.21	0.21	0.21	0.19
S2T	-0.39	-0.36	-0.27	-0.18	-0.13	-0.04	0.08					
S2B	-0.19	-0.10	-0.09	-0.00	0.08	0.13	0.18	0.19	0.21	0.22	0.01	0.27

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	508.26	504.43	477.89	477.89	467.80	465.61	456.20	451.73	428.69	451.65	469.02

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.62	14.69	14.78	14.88	14.98	14.89	14.90	14.90	14.90	14.91	14.91	14.93	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.93	14.94	14.50	15.22	15.24	15.25	14.29	15.25	14.97	14.26	14.87	14.88

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO. 677- 6 CONFIGURATION L1C1E1B3PWTT1RURETPI0 THETA 3/4 = 42.0 DEG RPM 4500.

HO = 14.888 PSIA PINF = 13.353 PSIA TSC = 78.15 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4105 V = 459.86 FPS Q = 226.326 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.56	-0.68	-1.37	-1.30	-1.47	-0.65	-0.92	-0.67	-0.56	-0.49	-0.43	-0.40	-0.39
S1B	0.56	0.92	0.42	0.24	0.04	-0.26	-0.30	-0.27	-0.26	-0.21	0.31	0.13	-0.03
S2T	0.83	-1.24	-1.46	-1.73	-1.29	-1.10	-0.86	-0.69	-0.59	-0.52	-0.47	-0.41	-0.49
S2B	0.83	0.97	0.45	0.22	-0.15	-0.26	-0.32	-0.33	-0.23	-0.14	-0.13	-0.01	-0.01

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.39	-0.34	-0.26	-0.20	-0.12	-0.04	0.13					
S1B	-0.04	-0.04	-0.06	0.03	0.10	0.14	0.20	0.19	0.20	0.21	0.21	0.18
S2T	-0.44	-0.41	-0.32	-0.22	-0.17	-0.08	0.05					
S2B	-0.01	-0.04	-0.07	0.01	0.08	0.13	0.17	0.18	0.20	0.20	-0.02	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	462.49	455.27	431.23	429.68	426.41	424.85	418.54	413.76	313.78	415.00	419.10

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.43	14.60	14.73	14.83	14.88	14.88	14.88	14.88	14.89	14.89	14.90	14.89	14.89

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.89	14.89	14.92	14.91	14.90	14.91	14.90	14.91	14.63	14.23	14.89	14.89

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 677- 7 CONFIGURATION L1C1E183PWTT1RURETPI0 THETA 3/4 = 42.0 DEG RPM 6504.

HO = 14.890 PSIA PINF = 13.346 PSIA TSC = 79.84 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4117 V = 461.89 FPS Q = 227.535 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.76	-0.58	-0.96	-0.90	-0.98	-0.42	-0.84	-0.53	-0.46	-0.39	-0.35	-0.43	-0.31
S1B	0.76	0.81	0.12	-0.12	-0.38	-0.75	-0.74	-0.68	-0.63	-0.48	0.41	0.13	-0.47
S2T	0.79	-0.84	-1.18	-1.38	-1.05	-0.93	-0.67	-0.52	-0.47	-0.31	-0.24	-0.27	-0.45
S2B	0.79	0.84	0.13	-0.11	-0.61	-0.73	-0.77	-0.78	-0.63	-0.51	-0.49	-0.31	-0.29

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.33	-0.28	-0.21	-0.16	-0.08	-0.01	0.16					
S1B	-0.32	-0.16	-0.06	0.02	0.10	0.15	0.22	0.21	0.22	0.22	0.22	0.21
S2T	-0.40	-0.37	-0.28	-0.19	-0.14	-0.05	0.07					
S2B	-0.26	-0.13	-0.09	0.01	0.09	0.15	0.20	0.20	0.22	0.24	-0.00	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	527.11	525.79	495.32	493.93	486.68	483.16	472.62	468.29	343.37	464.36	476.06

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.70	14.80	14.86	14.94	15.02	14.91	14.91	14.91	14.92	14.92	14.93	14.93	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.94	14.94	15.39	15.41	15.42	15.42	15.42	15.39	15.07	14.30	14.89	14.89

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 677-11 CONFIGURATION L1C1E1B3PWTT1RURETPIO THETA 3/4 = 42.0 DEG RPM 5497.

HO = 14.890 PSIA PINF = 13.350 PSIA TSC = 80.36 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4110 V = 461.37 FPS Q = 226.867 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.66	-0.59	-1.21	-1.14	-1.25	-0.41	-0.88	-0.61	-0.51	-0.44	-0.40	-0.41	-0.35
S1B	0.66	0.88	0.29	0.09	-0.14	-0.47	-0.49	-0.45	-0.42	-0.33	0.37	0.12	-0.22
S2T	0.77	-1.05	-1.28	-1.58	-1.21	-0.98	-0.92	-0.75	-0.64	-0.48	-0.44	-0.41	-0.48
S2B	0.77	0.88	0.32	0.10	-0.34	-0.45	-0.51	-0.52	-0.40	-0.30	-0.29	-0.15	-0.15

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.31	-0.23	-0.19	-0.11	-0.02	0.14					
S1B	-0.16	-0.11	-0.07	0.02	0.10	0.14	0.21	0.20	0.21	0.21	0.21	0.19
S2T	-0.43	-0.40	-0.31	-0.22	-0.16	-0.07	0.05					
S2B	-0.13	-0.10	-0.07	0.01	0.09	0.14	0.18	0.19	0.21	0.22	-0.02	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	491.45	487.15	461.76	460.29	454.27	450.52	443.80	438.44	379.27	435.70	450.27

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.62	14.70	14.80	14.90	14.97	14.90	14.89	14.90	14.90	14.89	14.90	14.90	14.90

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.90	15.08	15.09	15.10	15.10	15.11	15.10	14.79	14.26	14.89	14.89

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 678- 6 CONFIGURATION L1C1E1B3PWTT1R1RETPI0 THETA 3/4 = 46.0 DEG RPM 4497.

HO = 14.893 PSIA PINF = 12.363 PSIA TSC = 79.19 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4097 V = 459.50 FPS Q = 225.683 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.61	-0.60	-1.32	-1.14	-1.33	-0.36	-0.88	-0.63	-0.53	-0.46	-0.41	-0.40	-0.37
S1B	0.61	0.90	0.35	0.17	-0.05	-0.38	-0.39	-0.37	-0.35	-0.28	0.34	0.12	-0.13
S2T	0.81	-1.14	-1.23	-1.67	-1.26	-1.04	-0.80	-0.63	-0.54	-0.46	-0.42	-0.35	-0.48
S2B	0.81	0.95	0.40	0.15	-0.25	-0.36	-0.41	-0.43	-0.32	-0.23	-0.22	-0.09	-0.09

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.37	-0.32	-0.25	-0.19	-0.11	-0.03	0.13					
S1B	-0.10	-0.07	-0.06	0.03	0.10	0.14	0.19	0.19	0.20	0.20	0.20	0.18
S2T	-0.43	-0.39	-0.30	-0.21	-0.16	-0.07	0.06					
S2B	-0.08	-0.07	-0.07	0.01	0.09	0.13	0.17	0.19	0.20	0.22	-0.02	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	477.27	472.57	448.21	447.46	441.40	438.34	428.35	426.00	335.64	426.50	434.17

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.57	14.66	14.78	14.88	14.93	14.89	14.89	14.90	14.89	14.89	14.90	14.91	14.91

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.90	15.00	15.00	15.00	15.01	15.02	15.01	14.70	14.25	14.89	14.89

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 678= 7 CONFIGURATION L1C1E1B3PWTT1R1RETPIO THETA 3/4 = 46.0 DEG RPM 6506.

HO = 14.897 PSIA PINF = 13.352 PSIA. TSC = 79.45 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4117 V = 461.78 FPS Q = 227.703 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.80	-0.53	-0.89	-0.94	-0.99	-0.40	-0.83	-0.50	-0.44	-0.37	-0.35	-0.45	-0.30
S1B	0.80	0.76	0.00	-0.25	-0.53	-0.93	-0.90	-0.83	-0.75	-0.58	-0.43	0.13	-0.63
S2T	0.83	-0.74	-1.17	-1.33	-0.98	-0.90	-0.67	-0.53	-0.46	-0.41	-0.37	-0.32	-0.44
S2B	0.83	0.84	0.11	-0.11	-0.82	-0.94	-0.96	-0.95	-0.79	-0.64	-0.60	-0.40	-0.36

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.32	-0.27	-0.21	-0.15	-0.08	-0.00	0.15					
S1B	-0.40	-0.17	-0.07	0.02	0.10	0.15	0.21	0.21	0.23	0.21	0.22	0.20
S2T	-0.39	-0.36	-0.28	-0.16	-0.14	-0.05	0.07					
S2B	-0.31	-0.13	-0.09	-0.00	0.10	0.16	0.21	0.22	0.22	0.25	-0.02	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	550.07	550.02	519.02	520.36	508.43	504.34	491.30	486.39	355.27	482.68	496.79

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.71	14.87	14.96	15.00	15.05	14.92	14.92	14.93	14.93	14.95	14.95	14.96	14.98

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.98	15.00	15.63	15.64	15.63	15.65	15.65	15.58	15.26	14.32	14.89	14.90

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 678-11 CONFIGURATION L1C1E1B3PWTT1R1RETPI0 THETA 3/4 = 46.0 DEG RPM 5500.

HO = 14.897 PSIA PINF = 13.358 PSIA TSC = 80.75 DEG F RHO = 0.00213 SLUGS/CU FT

M = 0.4109 V = 461.46 FPS Q = 226.902 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.71	-0.52	-1.13	-1.04	-1.22	-0.42	-0.85	-0.58	-0.50	-0.[illegible]	-0.38	-0.42	-0.34
S1B	0.71	0.86	0.22	0.00	-0.24	-0.59	-0.60	-0.55	-0.51	-0.[illegible]	0.39	0.11	-0.35
S2T	0.82	-0.97	-1.25	-1.53	-1.13	-0.99	-0.75	-0.60	-0.52	-0.[illegible]	-0.43	-0.37	-0.45
S2B	0.82	0.90	0.22	-0.00	-0.47	-0.59	-0.63	-0.64	-0.50	-0.39	-0.37	-0.21	-0.21

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.31	-0.23	-0.18	-0.10	-0.02	0.14					
S1B	-0.23	-0.12	-0.07	0.01	0.10	0.13	0.21	0.20	0.21	0.21	0.21	0.20
S2T	-0.41	-0.38	-0.29	-0.19	-0.15	-0.06	0.06					
S2B	-0.19	-0.11	-0.08	0.00	0.09	0.14	0.19	0.19	0.22	0.23	-0.00	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	507.83	506.82	478.12	476.69	468.11	464.46	456.35	451.87	392.71	449.84	465.28

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.76	14.83	14.92	14.99	14.91	14.92	14.92	14.93	14.92	14.93	14.94	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.95	15.22	15.23	15.24	15.24	15.25	15.24	14.90	14.28	14.91	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 679- 6 CONFIGURATION L1C1E1B3PWTT1R1RETP1.0 THETA 3/4 = 46.0 DEG RPM 5001.

HO = 14.907 PSIA PINF = 12.581 PSIA TSC = 84.78 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5147 V = 574.81 FPS Q = 334.893 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-0.78	-1.65	-1.57	-1.69	-0.58	-0.92	-0.76	-0.64	-0.56	-0.51	-0.46	-0.46
S1B	0.60	0.94	0.42	0.23	0.01	-0.32	-0.35	-0.34	-0.32	-0.27	0.33	0.06	-0.09
S2T	0.86	-1.29	-1.29	-1.90	-1.44	-1.22	-0.99	-0.72	-0.66	-0.61	-0.56	-0.49	-0.53
S2B	0.86	0.97	0.37	0.12	-0.19	-0.31	-0.38	-0.41	-0.30	-0.20	-0.21	-0.06	-0.07

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.45	-0.41	-0.31	-0.26	-0.17	-0.07	0.11					
S1B	-0.10	-0.10	-0.12	-0.02	0.06	0.10	0.17	0.16	0.17	0.17	0.17	0.15
S2T	-0.47	-0.45	-0.35	-0.26	-0.20	-0.10	0.03					
S2B	-0.07	-0.09	-0.12	-0.03	0.05	0.10	0.14	0.16	0.17	0.19	-0.05	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	585.68	579.54	552.12	549.55	541.97	539.36	531.47	527.49	437.06	529.02	537.33

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.18	14.43	14.64	14.80	14.88	14.91	14.90	14.91	14.91	14.90	14.92	14.92	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.91	14.95	14.94	14.93	14.93	14.93	14.93	14.50	13.79	14.91	14.91

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO. 679- 7 CONFIGURATION L1C1E1B3PWTT1R1RETPI0 THETA 3/4 = 46.0 DEG RPM 6498.

HO = 14.908 PSIA PINF = 12.591 PSIA TSC = 85.05 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5135 V = 573.71 FPS Q = 333.656 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.70	-0.72	-1.48	-1.42	-1.53	-0.62	-0.95	-0.70	-0.59	-0.51	-0.46	-0.47	-0.42
S1B	0.70	0.89	0.26	0.05	-0.22	-0.59	-0.61	-0.58	-0.53	-0.45	0.38	0.07	-0.37
S2T	0.86	-1.07	-1.26	-1.75	-1.32	-1.12	-0.89	-0.72	-0.63	-0.56	-0.51	-0.46	-0.51
S2B	0.86	0.92	0.22	-0.01	-0.45	-0.59	-0.64	-0.67	-0.53	-0.40	-0.40	-0.22	-0.22

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.42	-0.37	-0.32	-0.23	-0.15	-0.06	0.12					
S1B	-0.26	-0.17	-0.12	-0.02	0.06	0.11	0.17	0.17	0.18	0.18	0.19	0.16
S2T	-0.46	-0.42	-0.33	-0.24	-0.18	-0.09	0.05					
S2B	-0.22	-0.16	-0.14	-0.04	0.05	0.11	0.16	0.17	0.18	0.20	-0.04	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	631.88	630.47	593.42	594.03	584.34	580.02	567.64	563.86	454.74	565.07	576.55

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.46	14.62	14.76	14.91	15.03	15.12	15.20	15.23	15.25	15.29	15.31	15.31	15.34

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.30	15.33	15.28	15.26	15.29	15.28	15.30	15.23	14.76	13.88	14.91	14.91

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 679-11 CONFIGURATION L1C1E1B3PWTT1R1RETPIO THETA 3/4 = 46.0 DEG RPM 5499.

HO = 14.898 PSIA PINF = 12.574 PSIA TSC = 85.05 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5147 V = 574.94 FPS Q = 334.704 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.62	-0.77	-1.71	-1.61	-1.82	-0.68	-0.96	-0.74	-0.62	-0.55	-0.49	-0.46	-0.45
S1B	0.62	0.92	0.36	0.18	-0.07	-0.42	-0.45	-0.42	-0.41	-0.34	0.34	0.06	-0.19
S2T	0.87	-1.23	-1.24	-1.87	-1.41	-1.20	-0.97	-0.79	-0.68	-0.60	-0.54	-0.48	-0.52
S2B	0.87	0.95	0.41	0.18	-0.28	-0.40	-0.47	-0.49	-0.38	-0.28	-0.28	-0.12	-0.13

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.45	-0.40	-0.30	-0.25	-0.16	-0.07	0.11					
S1B	-0.15	-0.14	-0.13	-0.03	0.05	0.10	0.17	0.16	0.17	0.17	0.18	0.15
S2T	-0.48	-0.44	-0.35	-0.25	-0.19	-0.09	0.03					
S2B	-0.12	-0.12	-0.13	-0.04	0.05	0.09	0.14	0.15	0.17	0.19	-0.05	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	600.39	595.07	565.27	562.75	555.02	553.74	544.08	539.53	486.41	541.29	554.36

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.28	14.47	14.67	14.83	14.90	14.89	14.88	14.89	14.89	14.89	14.90	14.90	14.91

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.90	14.91	15.02	15.02	15.02	15.03	15.05	15.02	14.54	13.79	14.89	14.89

TABLE IX E330590 - 1

HSO SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 681= 6 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 38.0 DEG RPM 4502.

HO = 14.898 PSIA PINF = 14.008 PSIA TSC = 74.76 DEG F RHO = 0.00223 SLUGS/CU FT

M = 0.3078 V = 346.27 FPS Q = 133.657 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.57	-0.49	-0.99	-0.87	-1.16	-0.67	-0.90	-0.68	-0.56	-0.50	-0.45	-0.45	-0.41
S1B	0.57	0.89	0.30	0.12	-0.10	-0.41	-0.43	-0.40	-0.37	-0.31	0.30	0.11	-0.14
S2T	1.00	-1.19	-1.40	-1.66	-1.26	-1.08	-0.84	-0.67	-0.58	-0.52	-0.48	-0.42	-0.51
S2B	1.00	0.91	0.40	0.17	-0.31	-0.43	-0.47	-0.49	-0.37	-0.27	-0.24	-0.11	-0.13

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.41	-0.35	-0.29	-0.24	-0.15	-0.06	0.09					
S1B	-0.12	-0.11	-0.09	-0.00	0.06	0.10	0.16	0.15	0.17	0.17	0.18	0.15
S2T	-0.46	-0.41	-0.33	-0.24	-0.18	-0.09	0.03					
S2B	-0.12	-0.11	-0.11	-0.03	0.05	0.10	0.14	0.14	0.16	0.18	-0.05	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	370.67	364.93	345.74	343.86	339.13	338.17	332.45	327.57	267.03	328.20	335.78

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.78	14.87	14.94	14.97	14.97	14.98	14.98	14.98	14.98	14.99	14.99	14.99

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.99	14.98	14.98	14.98	14.98	14.98	14.97	14.97	14.80	14.51	14.90	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 681- 7 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 38.0 DEG RPM 6502.

HO = 14.899 PSIA PINF = 14.006 PSIA TSC = 72.94 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3083 V = 346.15 FPS Q = 134.011 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.85	-0.69	-0.90	-0.93	-0.92	-0.91	-0.74	-0.49	-0.43	-0.38	-0.36	-0.51	-0.31
S1B	0.85	0.69	-0.20	-0.44	-0.76	-1.17	-1.11	-1.01	-0.92	-0.72	0.40	0.13	-0.82
S2T	0.98	-0.66	-0.99	-1.21	-0.91	-0.85	-0.63	-0.50	-0.44	-0.41	-0.37	-0.32	-0.43
S2B	0.98	0.63	-0.31	-0.59	-1.07	-1.19	-1.19	-1.16	-0.99	-0.84	-0.78	-0.59	-0.54

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.33	-0.28	-0.23	-0.17	-0.10	-0.02	0.13					
S1B	-0.56	-0.22	-0.12	-0.02	0.06	0.11	0.20	0.19	0.20	0.20	0.21	0.19
S2T	-0.38	-0.34	-0.27	-0.19	-0.13	-0.05	0.07					
S2B	-0.49	-0.20	-0.14	-0.03	0.07	0.13	0.18	0.19	0.20	0.23	-0.01	0.26

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	436.21	437.79	412.85	411.25	403.19	399.11	387.53	384.15	287.31	377.31	393.67

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.83	14.94	15.02	15.06	15.11	15.17	15.22	15.25	15.27	15.29	15.31	15.33	15.35

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.37	15.38	15.39	15.41	15.43	15.44	15.45	15.43	15.20	14.57	14.90	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 681-11 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 38.0 DEG RPM 5502.

HO = 14.908 PSIA PINF = 14.017 PSIA TSC = 72.81 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3078 V = 345.55 FPS Q = 133.677 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.73	-0.43	-0.79	-0.79	-0.78	-0.38	-0.84	-0.58	-0.51	-0.43	-0.40	-0.46	-0.35
S1B	0.73	0.80	0.09	-0.13	-0.38	-0.74	-0.72	-0.67	-0.61	-0.49	0.37	0.11	-0.45
S2T	1.01	-0.93	-1.21	-1.46	-1.10	-0.98	-0.76	-0.59	-0.52	-0.48	-0.43	-0.38	-0.48
S2B	1.01	0.89	0.38	0.18	-0.64	-0.75	-0.78	-0.77	-0.63	-0.50	-0.47	-0.31	-0.30

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.37	-0.32	-0.25	-0.20	-0.13	-0.04	0.10					
S1B	-0.33	-0.19	-0.11	-0.02	0.06	0.11	0.17	0.16	0.18	0.18	0.19	0.16
S2T	-0.43	-0.39	-0.30	-0.22	-0.16	-0.08	0.05					
S2B	-0.30	-0.17	-0.13	-0.04	0.05	0.10	0.15	0.17	0.18	0.20	-0.03	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	399.35	396.32	374.35	373.48	367.35	363.81	356.63	353.00	317.42	351.00	365.27

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.81	14.87	14.95	15.01	15.06	15.08	15.10	15.12	15.12	15.14	15.14	15.14	15.16

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.16	15.16	15.16	15.17	15.16	15.16	15.17	15.16	14.96	14.55	14.91	14.90

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 682-6 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 50.0 DEG RPM 4502.

HO = 14.908 PSIA PINF = 13.367 PSIA TSC = 72.81 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4109 V = 458.08 FPS Q = 227.086 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.63	-0.65	-1.26	-1.20	-1.32	-0.68	-0.86	-0.60	-0.51	-0.44	-0.39	-0.40	-0.35
S1B	0.63	0.87	0.28	0.09	-0.13	-0.45	-0.46	-0.42	-0.39	-0.31	0.38	0.12	-0.19
S2T	0.97	-1.05	-1.29	-1.56	-1.16	-1.00	-0.78	-0.62	-0.53	-0.48	-0.42	-0.37	-0.48
S2B	0.97	0.88	0.22	-0.03	-0.34	-0.45	-0.51	-0.50	-0.39	-0.28	-0.26	-0.13	-0.13

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.35	-0.31	-0.24	-0.17	-0.09	-0.01	0.14					
S1B	-0.13	-0. 7	-0.06	0.03	0.11	0.15	0.21	0.20	0.21	0.21	0.22	0.20
S2T	-0.43	-0. .	-0.31	-0.21	-0.16	-0.07	0.06					
S2B	-0.12	-0. .	-0.08	0.01	0.08	0.14	0.18	0.19	0.21	0.22	-0.02	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	488.40	484.20	457.89	454.23	446.75	445.26	436.29	431.71	378.98	433.16	445.69

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.62	14.71	14.81	14.91	15.00	15.04	15.06	15.07	15.08	15.09	15.10	15.10	15.11

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.12	15.12	15.11	15.12	15.12	15.12	15.12	15.12	14.83	14.28	14.91	14.91

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 682-7 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 50.0 DEG RPM 6105.

HO = 14.898 PSIA PINF = 13.368 PSIA TSC = 74.24 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4096 V = 457.19 FPS Q = 225.573 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.80	-0.55	-0.86	-0.94	-1.03	-0.51	-0.80	-0.51	-0.44	-0.38	-0.35	-0.44	-0.30
S1B	0.80	0.79	0.03	-0.19	-0.47	-0.86	-0.84	-0.77	-0.71	-0.55	0.43	0.13	-0.52
S2T	0.95	-0.77	-1.09	-1.34	-1.00	-0.90	-0.68	-0.52	-0.46	-0.41	-0.37	-0.32	-0.43
S2B	0.95	0.80	0.16	-0.20	-0.75	-0.87	-0.90	-0.88	-0.73	-0.59	-0.56	-0.36	-0.33

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.32	-0.28	-0.21	-0.16	-0.08	-0.00	0.14					
S1B	-0.34	-0.19	-0.11	0.01	0.09	0.14	0.20	0.20	0.22	0.21	0.22	0.20
S2T	-0.39	-0.36	-0.28	-0.19	-0.14	-0.05	0.07					
S2B	-0.27	-0.15	-0.12	-0.00	0.10	0.15	0.20	0.21	0.22	0.24	-0.00	0.27

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	537.49	537.96	509.61	507.59	497.50	494.75	482.25	477.32	400.99	472.50	491.80

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.72	14.82	14.92	15.01	15.07	15.13	15.22	15.29	15.35	15.39	15.43	15.47	15.50

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.52	15.53	15.54	15.54	15.54	15.52	15.48	15.42	15.07	14.34	14.90	14.90

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 682-11 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.908 PSIA PINF = 13.366 PSIA TSC = 74.24 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4112 V = 458.91 FPS Q = 227.286 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.75	-0.56	-1.06	-1.03	-1.19	-0.59	-0.82	-0.55	-0.47	-0.40	-0.37	-0.43	-0.33
S1B	0.75	0.82	0.12	-0.10	-0.36	-0.73	-0.72	-0.66	-0.60	-0.48	0.40	0.13	-0.43
S2T	0.95	-0.87	-1.15	-1.43	-1.08	-0.95	-0.72	-0.57	-0.49	-0.44	-0.40	-0.35	-0.47
S2B	0.95	0.83	0.14	-0.09	-0.61	-0.73	-0.76	-0.76	-0.62	-0.49	-0.47	-0.29	-0.28

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.34	-0.29	-0.23	-0.17	-0.09	-0.01	0.14					
S1B	-0.30	-0.14	-0.08	0.01	0.09	0.13	0.21	0.20	0.21	0.21	0.21	0.20
S2T	-0.43	-0.40	-0.31	-0.22	-0.16	-0.07	0.06					
S2B	-0.23	-0.12	-0.09	-0.00	0.08	0.13	0.19	0.19	0.21	0.22	-0.03	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	522.90	519.02	492.59	491.21	482.86	479.34	469.30	464.99	432.08	459.75	481.40

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.70	14.82	14.91	14.96	15.02	15.09	15.16	15.20	15.23	15.25	15.28	15.29	15.31

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.33	15.35	15.36	15.37	15.39	15.40	15.39	15.36	15.02	14.30	14.91	14.91

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 683-6 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 50.0 DEG RPM 4498.

HO = 14.893 PSIA PINF = 12.569 PSIA TSC = 77.37 DEG F RHO = 0.00205 SLUGS/CU FT

M = 0.5149 V = 571.07 FPS Q = 334.791 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-0.84	-1.74	-1.57	-1.75	-0.69	-0.68	-0.76	-0.64	-0.56	-0.50	-0.46	-0.45
S1B	0.60	0.94	0.40	0.22	-0.00	-0.34	-0.37	-0.36	-0.34	-0.28	0.34	0.06	-0.09
S2T	0.99	-1.28	-1.40	-1.88	-1.44	-1.21	-0.99	-0.81	-0.69	-0.61	-0.55	-0.49	-0.54
S2B	0.99	0.96	0.40	0.16	-0.20	-0.33	-0.40	-0.42	-0.32	-0.22	-0.21	-0.07	-0.08

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.45	-0.40	-0.33	-0.26	-0.17	-0.07	0.10					
S1B	-0.10	-0.10	-0.13	-0.02	0.06	0.10	0.16	0.16	0.18	0.17	0.17	0.15
S2T	-0.48	-0.45	-0.36	-0.26	-0.20	-0.11	0.03					
S2B	-0.08	-0.09	-0.13	-0.04	0.05	0.10	0.14	0.15	0.17	0.18	-0.06	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	586.46	581.73	551.10	549.19	541.61	539.67	49.86	527.29	457.39	526.07	491.04

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.20	14.45	14.68	14.86	14.94	14.96	14.97	14.96	14.96	14.96	14.97	14.96	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.96	14.94	14.94	14.94	14.93	14.93	14.92	14.91	14.48	13.79	14.89	14.89

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 683- 7 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 50.0 DEG RPM 6503.

HO = 14.898 PSIA PINF = 12.580 PSIA TSC = 77.37 DEG F RHO = 0.00205 SLUGS/CU FT

M = 0.5139 V = 570.04 FPS Q = 333.829 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.73	-0.72	-1.34	-1.38	-1.50	-0.60	-0.72	-0.67	-0.57	-0.49	-0.45	-0.48	-0.41
S1B	0.73	0.86	0.19	-0.03	-0.30	-0.70	-0.71	-0.67	-0.62	-0.49	0.39	0.08	-0.42
S2T	0.99	-1.00	-1.40	-1.68	-1.29	-1.11	-0.87	-0.69	-0.60	-0.53	-0.49	-0.43	-0.51
S2B	0.99	0.88	0.19	-0.05	-0.55	-0.69	-0.75	-0.76	-0.62	-0.48	-0.47	-0.28	-0.26

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.41	-0.36	-0.29	-0.23	-0.14	-0.05	0.11					
S1B	-0.30	-0.16	-0.15	-0.03	0.06	0.11	0.18	0.17	0.19	0.19	0.19	0.17
S2T	-0.46	-0.43	-0.33	-0.23	-0.18	-0.08	0.05					
S2B	-0.26	-0.15	-0.16	-0.05	0.05	0.10	0.16	0.17	0.18	0.21	-0.04	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	643.80	641.94	608.84	607.65	598.02	595.02	61.07	578.02	475.84	572.32	538.25

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.43	14.58	14.74	14.90	15.04	15.16	15.26	15.33	15.37	15.41	15.46	15.47	15.47

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.47	15.47	15.47	15.47	15.48	15.50	15.49	15.43	14.81	13.89	14.90	14.89

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO. 683-11 CONFIGURATION L1C1E183PRT1R1RETP THETA 3/4 = 50.0 DEG RPM 5506.

HO = 14.890 PSIA PINF = 12.572 PSIA TSC = 77.37 DEG F RHO = 0.00205 SLUGS/CU FT

M = 0.5140 V = 570.16 FPS Q = 333.765 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.68	-0.80	-1.53	-1.47	-1.62	-0.63	-0.81	-0.71	-0.60	-0.52	-0.48	-0.46	-0.44
S1B	0.68	0.90	0.28	0.09	-0.17	-0.54	-0.56	-0.53	-0.50	-0.40	0.37	0.08	-0.28
S2T	0.98	-1.13	-1.41	-1.78	-1.35	-1.16	-0.93	-0.76	-0.65	-0.58	-0.52	-0.47	-0.52
S2B	0.98	0.92	0.29	0.04	-0.40	-0.54	-0.60	-0.62	-0.49	-0.37	-0.36	-0.20	-0.20

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.44	-0.38	-0.30	-0.25	-0.15	-0.06	0.10					
S1B	-0.22	-0.16	-0.14	-0.02	0.05	0.10	0.17	0.17	0.18	0.18	0.18	0.16
S2T	-0.47	-0.38	-0.34	-0.24	-0.18	-0.09	0.04					
S2B	-0.19	-0.14	-0.14	-0.05	0.04	0.09	0.15	0.16	0.17	0.19	-0.04	0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	616.13	613.59	581.56	580.33	571.09	567.98	43.22	552.99	508.24	551.52	518.66

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.32	14.50	14.70	14.86	14.99	15.07	15.11	15.12	15.13	15.15	15.16	15.18	15.21

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.20	15.20	15.20	15.21	15.20	15.20	15.20	15.19	14.71	13.85	14.89	14.88

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 684- 6 CONFIGURATION L1C1E1B3PRT1R1REIP THETA 3/4 = 46.0 DEG RPM 4502.

HO = 14.889 PSIA PINF = 13.349 PSIA TSC = 72.16 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4112 V = 458.02 FPS Q = 226.996 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.60	-0.65	-1.36	-1.26	-1.37	-0.31	-0.87	-0.64	-0.54	-0.46	-0.41	-0.41	-0.38
S1B	0.60	0.90	0.34	0.17	-0.05	-0.38	-0.40	-0.36	-0.34	-0.27	0.34	0.12	-0.11
S2T	0.96	-1.14	-1.35	-1.64	-1.24	-1.05	-0.82	-0.66	-0.57	-0.51	-0.46	-0.40	-0.48
S2B	0.96	0.92	0.47	0.17	-0.25	-0.37	-0.43	-0.44	-0.32	-0.23	-0.21	-0.08	-0.09

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.38	-0.33	-0.26	-0.19	-0.11	-0.03	0.13					
S1B	-0.10	-0.07	-0.07	0.02	0.10	0.14	0.20	0.19	0.20	0.21	0.20	0.18
S2T	-0.43	-0.40	-0.31	-0.21	-0.17	-0.07	0.05					
S2B	-0.09	-0.07	-0.08	0.00	0.08	0.13	0.17	0.17	0.20	0.22	-0.02	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	478.52	473.81	448.46	445.48	440.14	437.87	49.63	425.59	410.14	425.89	403.55

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.56	14.67	14.79	14.90	14.97	14.98	14.99	15.00	15.00	15.01	15.02	15.02	15.02

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.02	15.02	15.01	15.01	15.01	15.00	15.00	15.00	14.72	14.24	14.88	14.88

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 684- 7 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 46.0 DEG RPM 6502.

HO = 14.890 PSIA PINF = 13.348 PSIA TSC = 72.81 DEG F RHO = 0.00216 SLUGS/CU FT

M = 0.4113 V = 458.51 FPS Q = 227.201 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.81	-0.44	-1.04	-1.13	-1.17	-0.68	-0.82	-0.49	-0.43	-0.38	-0.34	-0.45	-0.29
S1B	0.81	0.77	-0.02	-0.26	-0.55	-0.95	-0.90	-0.84	-0.77	-0.58	0.44	0.13	-0.61
S2T	0.92	-0.74	-1.09	-1.31	-0.98	-0.89	-0.66	-0.92	-0.45	-0.41	-0.37	-0.32	-0.41
S2B	0.92	0.77	-0.00	-0.15	-0.82	-0.95	-0.97	-0.95	-0.80	-0.65	-0.62	-0.42	-0.38

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.31	-0.27	-0.20	-0.16	-0.08	0.00	0.14					
S1B	-0.39	-0.18	-0.09	0.01	0.09	0.14	0.21	0.21	0.22	0.22	0.23	0.21
S2T	-0.37	-0.34	-0.26	-0.17	-0.11	-0.03	0.08					
S2B	-0.32	-0.13	-0.10	-0.00	0.09	0.16	0.21	0.22	0.23	0.25	0.00	0.28

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	546.90	547.64	517.75	516.43	505.15	503.12	43.00	486.65	421.16	479.74	456.75

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.69	14.80	14.92	15.01	15.07	15.15	15.23	15.30	15.36	15.40	15.44	15.48	15.52

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.54	15.58	15.59	15.60	15.60	15.60	15.59	15.54	15.18	14.33	14.89	14.89

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO. 684=12 CONFIGURATION L1C1E1B3PRT1R1RETP THETA 3/4 = 46.0 DEG RPM 5502.

HO = 14.897 PSIA PINF = 13.367 PSIA TSC = 84.65 DEG F RHO = 0.00212 SLUGS/CU FT

M = 0.4096 V = 461.64 FPS Q = 225.566 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.71	-0.61	-1.15	-1.10	-1.22	-0.56	-0.83	-0.55	-0.47	-0.41	-0.36	-0.41	-0.32
S1B	0.71	0.85	0.19	-0.01	-0.25	-0.59	-0.59	-0.55	-0.49	-0.39	0.37	0.14	-0.32
S2T	0.92	-0.94	-1.21	-1.48	-1.11	-0.96	-0.74	-0.59	-0.51	-0.46	-0.41	-0.34	-0.47
S2B	0.92	0.84	0.13	-0.13	-0.46	-0.58	-0.63	-0.63	-0.50	-0.38	-0.37	-0.21	-0.21

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.33	-0.29	-0.22	-0.16	-0.09	-0.01	0.14					
S1B	-0.23	-0.10	-0.07	0.02	0.10	0.15	0.21	0.20	0.22	0.22	0.22	0.21
S2T	-0.42	-0.39	-0.30	-0.21	-0.16	-0.07	0.05					
S2B	-0.18	-0.09	-0.09	0.01	0.09	0.14	0.20	0.20	0.21	0.23	-0.02	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	509.18	504.73	478.59	477.15	469.25	464.84	43.49	451.41	440.79	449.90	428.93

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.67	14.78	14.86	14.94	15.03	15.09	15.12	15.14	15.15	15.16	15.18	15.19	15.20

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.21	15.22	15.22	15.23	15.24	15.25	15.25	15.24	14.91	14.31	14.90	14.90

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 686- 6 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 4501.

HO = 14.899 PSIA PINF = 14.004 PSIA TSC = 71.51 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3087 V = 346.16 FPS Q = 134.364 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.87	-1.84	-0.81	-0.84	-0.81	-1.21	-0.64	-0.40	-0.36	-0.29	-0.26	-0.37	-0.23
S1B	0.87	0.61	-0.30	-0.60	-0.87	-1.30	-1.25	-1.11	-1.04	-0.83	0.29	-0.07	-0.98
S2T	-0.04	-0.55	-0.91	-1.06	-0.81	-0.74	-0.55	-0.41	-0.37	-0.33	-0.29	-0.26	-0.32
S2B	-0.04	0.60	-0.43	-0.77	-1.27	-1.34	-1.36	-1.31	-1.10	-1.03	-0.75	-0.69	-0.70

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.22	-0.22	-0.21	-0.14	-0.09	-0.04	0.05					
S1B	-0.77	-0.73	-0.84	-0.53	-0.25	-0.11	0.03	0.06	0.08	0.11	0.13	0.16
S2T	-0.32	-0.26	-0.24	-0.16	-0.13	-0.08	-0.01					
S2B	-0.69	-0.73	-0.92	-0.55	-0.30	-0.12	0.03	0.05	0.10	0.11	0.15	0.15

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	449.98	447.51	425.62	420.17	412.20	408.21	393.60	391.94	315.53	389.23	405.40

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.57	14.74	14.84	14.93	14.94	14.94	14.94	14.94	14.95	14.94	14.95	14.96	14.95

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.94	14.94	14.94	14.94	14.94	14.93	14.93	14.92	14.91	14.80	14.31

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 686- 7 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 6501.

HO = 14.898 PSIA PINF = 14.005 PSIA TSC = 72.16 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3083 V = 345.90 FPS Q = 134.009 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.94	-1.69	-0.30	-0.47	-0.50	-1.17	-0.40	-0.20	-0.20	-0.15	-0.14	-0.28	-0.13
S1B	0.94	0.15	-1.14	-1.60	-1.96	-2.55	-2.37	-2.10	-1.94	-1.56	0.31	-0.03	-1.89
S2T	0.00	-0.01	-0.45	-0.62	-0.51	-0.39	-0.30	-0.20	-0.19	-0.18	-0.16	-0.19	-0.23
S2B	0.00	0.10	-1.33	-1.70	-2.54	-2.58	-2.51	-2.38	-2.07	-1.91	-1.52	-1.39	-1.36

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.14	-0.14	-0.14	-0.06	-0.02	0.02	0.11					
S1B	-1.54	-1.21	-1.18	-0.77	-0.40	-0.20	0.01	0.06	0.09	0.13	0.17	0.21
S2T	-0.24	-0.18	-0.16	-0.09	-0.06	-0.02	0.04					
S2B	-1.32	-1.15	-1.31	-0.78	-0.44	-0.20	0.01	0.06	0.10	0.13	0.14	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	537.91	538.51	510.34	505.64	491.92	485.69	464.52	464.52	341.43	454.25	479.47

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.72	14.85	14.90	14.98	15.06	15.09	15.12	15.16	15.18	15.19	15.23	15.25	15.26

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.28	15.30	15.31	15.33	15.34	15.36	15.38	15.40	15.41	15.39	15.24	14.42

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 686-12 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 5499.

HO = 14.897 PSIA PINF = 14.004 PSIA TSC = 72.94 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3083 V = 346.17 FPS Q = 134.006 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.95	-1.52	-0.55	-0.66	-0.65	-1.15	-0.50	-0.31	-0.26	-0.20	-0.19	-0.31	-0.16
S1B	0.95	0.45	-0.63	-0.98	-1.30	-1.77	-1.71	-1.51	-1.38	-1.10	0.28	-0.06	-1.32
S2T	-0.00	-0.28	-0.70	-0.84	-0.65	-0.50	-0.40	-0.27	-0.26	-0.25	-0.21	-0.20	-0.27
S2B	-0.00	0.42	-0.79	-1.18	-1.75	-1.82	-1.80	-1.72	-1.47	-1.36	-1.06	-0.96	-0.96

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.17	-0.17	-0.15	-0.08	-0.06	-0.00	0.09					
S1B	-1.07	-0.91	-0.94	-0.59	-0.29	-0.11	0.04	0.07	0.09	0.13	0.16	0.20
S2T	-0.29	-0.21	-0.18	-0.12	-0.09	-0.05	0.03					
S2B	-0.94	-0.90	-1.06	-0.62	-0.32	-0.12	0.05	0.06	0.10	0.14	0.17	0.19

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	487.15	485.77	460.46	456.12	445.02	439.05	60.56	420.78	393.22	415.92	406.41

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.68	14.79	14.87	14.96	15.02	15.03	15.04	15.05	15.06	15.08	15.09	15.10	15.10

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.10	15.12	15.12	15.13	15.12	15.14	15.14	15.14	15.14	15.13	15.00	14.35

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 687- 6 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 50.0 DEG RPM 4497.

HO = 14.884 PSIA PINF = 13.339 PSIA TSC = 76.72 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4119 V = 460.77 FPS Q = 227.641 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.87	-0.92	-0.78	-0.81	-0.79	-1.15	-0.58	-0.39	-0.33	-0.27	-0.24	-0.34	-0.21
S1B	0.87	0.66	-0.23	-0.54	-0.83	-1.28	-1.25	-1.11	-1.03	-0.80	0.15	-0.05	-0.96
S2T	-0.00	-0.52	-0.90	-1.08	-0.81	-0.74	-0.53	-0.38	-0.34	-0.30	-0.26	-0.22	-0.30
S2B	-0.00	0.65	-0.34	-0.69	-1.19	-1.27	-1.29	-1.27	-1.07	-0.97	-0.73	-0.65	-0.66

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.20	-0.20	-0.19	-0.11	-0.07	-0.00	0.09					
S1B	-0.76	-0.71	-0.84	-0.50	-0.23	-0.08	0.06	0.10	0.12	0.14	0.16	0.19
S2T	-0.31	-0.24	-0.21	-0.13	-0.10	-0.06	0.02					
S2B	-0.66	-0.69	-0.91	-0.52	-0.26	-0.08	0.06	0.09	0.11	0.13	0.79	0.18

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	590.58	585.48	557.00	551.30	539.76	533.92	74.85	516.96	418.68	513.04	488.16

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.31	14.56	14.74	14.88	14.94	14.95	14.95	14.95	14.96	14.96	14.96	14.97	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.96	14.95	14.95	14.94	14.93	14.93	14.92	14.92	14.91	14.90	14.60	13.93

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO 687- 7 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 50.0 DEG RPM 6504.

HO = 14.887 PSIA PINF = 13.343 PSIA TSC = 78.15 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4113 V = 461.27 FPS Q = 227.590 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.95	-0.79	-0.48	-0.60	-0.61	-1.10	-0.52	-0.26	-0.23	-0.18	-0.16	-0.27	-0.14
S1B	0.95	0.43	-0.69	-1.09	-1.45	-2.04	-1.94	-1.72	-1.59	-1.24	0.14	0.02	-1.51
S2T	0.02	-0.20	-0.66	-0.80	-0.62	-0.48	-0.37	-0.24	-0.24	-0.22	-0.19	-0.18	-0.27
S2B	0.02	0.40	-0.84	-1.25	-1.94	-2.05	-2.03	-1.97	-1.69	-1.54	-1.25	-1.10	-1.08

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.14	-0.15	-0.14	-0.06	-0.03	0.03	0.11					
S1B	-1.22	-0.97	-1.04	-0.64	-0.31	-0.12	0.05	0.09	0.12	0.14	0.18	0.21
S2T	-0.27	-0.20	-0.19	-0.11	-0.08	-0.04	0.04					
S2B	-1.06	-0.95	-1.18	-0.67	-0.34	-0.13	0.06	0.09	0.13	0.16	0.79	0.19

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	665.59	665.45	634.29	630.25	615.20	607.53	82.81	585.40	451.30	574.94	551.28

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.51	14.72	14.83	14.93	15.04	15.12	15.17	15.21	15.26	15.31	15.35	15.37	15.38

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.38	15.40	15.39	15.38	15.38	15.39	15.39	15.41	15.42	15.35	14.96	13.99

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 687-12 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 50.0 DEG RPM 5502.

HO = 14.880 PSIA PINF = 13.338 PSIA TSC = 76.72 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4116 V = 460.44 FPS Q = 227.288 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.93	-0.73	-0.61	-0.71	-0.69	-1.07	-0.52	-0.32	-0.27	-0.22	-0.20	-0.31	-0.17
S1B	0.93	0.54	-0.48	-0.84	-1.17	-1.69	-1.62	-1.46	-1.33	-1.05	0.05	0.06	-1.29
S2T	0.01	-0.34	-0.77	-0.93	-0.70	-0.55	-0.43	-0.29	-0.28	-0.26	-0.22	-0.20	-0.28
S2B	0.01	0.52	-0.62	-1.00	-1.59	-1.68	-1.68	-1.65	-1.41	-1.27	-1.00	-0.89	-0.89

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.17	-0.17	-0.16	-0.07	-0.04	0.01	0.10					
S1B	-1.05	-0.89	-0.95	-0.57	-0.27	-0.09	0.06	0.09	0.11	0.15	0.17	0.20
S2T	-0.29	-0.22	-0.20	-0.13	-0.09	-0.05	0.02					
S2B	-0.88	-0.86	-1.05	-0.60	-0.30	-0.11	0.06	0.09	0.12	0.16	0.79	0.19

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	631.89	631.14	600.??	594.29	580.96	571.74	74.79	552.32	498.82	546.18	528.24

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.42	14.64	14.76	14.88	14.99	15.04	15.07	15.09	15.10	15.12	15.13	15.15	15.15

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.17	15.13	15.18	15.18	15.18	15.20	15.20	15.19	15.19	15.18	14.91	13.94

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PI NO 688-6 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 58.0 DEG RPM 4500.

HO = 14.864 PSIA PINF = 12.545 PSIA TSC = 82.57 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5147 V = 573.64 FPS Q = 333.942 PSF PSI = 0. DEG

SHROUD PRESSURE COEEFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.89	-0.77	-0.94	-0.99	-0.94	-0.70	-0.07	-0.48	-0.41	-0.34	-0.30	-0.39	-0.25
S1B	0.89	0.71	-0.20	-0.51	-0.85	-1.43	-1.42	-1.30	-1.20	-0.94	0.07	0.07	-1.15
S2T	-0.05	-0.59	-1.02	-1.25	-0.96	-0.86	-0.64	-0.46	-0.42	-0.37	-0.33	-0.29	-0.37
S2B	-0.05	0.69	-0.34	-0.71	-1.27	-1.43	-1.50	-1.52	-1.28	-1.15	-0.91	-0.78	-0.80

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.25	-0.25	-0.24	-0.15	-0.11	-0.05	0.04					
S1B	-0.98	-0.89	-1.02	-0.60	-0.28	-0.12	0.03	0.06	0.08	0.10	0.11	0.14
S2T	-0.38	-0.31	-0.29	-0.20	-0.16	-0.12	-0.03					
S2B	-0.83	-0.85	-1.11	-0.61	-0.30	-0.12	0.03	0.06	0.08	0.11	0.88	0.13

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	746.80	740.83	709.77	702.70	690.22	678.58	93.96	659.92	471.32	655.34	614.94

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.93	14.33	14.61	14.82	14.95	14.98	14.99	14.99	15.00	15.00	15.01	15.01	15.01

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.01	15.00	14.97	14.95	14.96	14.94	14.93	14.93	14.92	14.92	14.23	13.39

TABLE IX

E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN = PT NO. 688= 7 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 58.0 DEG RPM 6327.

HO = 14.868 PSIA PINF = 12.538 PSIA TSC = 83.22 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5160 V = 575.34 FPS Q = 335.399 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.92	-0.78	-0.84	-0.93	-0.89	-0.72	-0.13	-0.44	-0.38	-0.31	-0.28	-0.38	-0.24
S1B	0.92	0.66	-0.31	-0.66	-1.04	-1.70	-1.69	-1.57	-1.46	-1.15	0.07	0.11	-1.38
S2T	-0.05	-0.52	-0.99	-1.19	-0.92	-0.74	-0.57	-0.41	-0.38	-0.34	-0.31	-0.27	-0.35
S2B	-0.05	0.64	-0.46	-0.83	-1.47	-1.66	-1.74	-1.80	-1.51	-1.36	-1.11	-0.93	-0.96

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.24	-0.24	-0.23	-0.14	-0.10	-0.04	0.05					
S1B	-1.18	-0.99	-1.12	-0.66	-0.32	-0.13	0.02	0.06	0.08	0.10	0.12	0.14
S2T	-0.36	-0.28	-0.26	-0.18	-0.14	-0.10	-0.02					
S2B	-0.96	-0.90	-1.15	-0.65	-0.34	-0.13	0.02	0.05	0.07	0.10	0.88	0.13

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	831.23	812.06	748.01	741.67	722.06	711.79	94.08	691.55	526.64	685.65	656.47

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.13	14.43	14.59	14.73	14.84	14.90	14.95	14.98	15.03	15.09	15.17	15.22	15.24

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.24	15.26	15.28	15.30	15.31	15.33	15.33	15.33	15.31	15.22	14.36	13.39

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 688-11 CONFIGURATION L1C1E3B3PWTT1R1RETP THETA 3/4 = 58.0 DEG RPM 5506.

HO = 14.860 PSIA PINF = 12.539 PSIA TSC = 84.26 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5159 V = 574.90 FPS Q = 334.223 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.90	-0.77	-0.88	-0.95	-0.92	-0.71	-0.20	-0.46	-0.39	-0.32	-0.29	-0.38	-0.25
S1B	0.90	0.67	-0.27	-0.60	-0.96	-1.58	-1.59	-1.47	-1.36	-1.08	0.10	-0.13	-1.25
S2T	-0.05	-0.55	-1.00	-1.22	-0.95	-0.78	-0.59	-0.43	-0.40	-0.36	-0.32	-0.28	-0.35
S2B	-0.05	0.65	-0.41	-0.78	-1.38	-1.57	-1.64	-1.68	-1.42	-1.27	-1.03	-0.88	-0.90

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.24	-0.25	-0.23	-0.15	-0.11	-0.04	0.05					
S1B	-1.07	-0.95	-1.09	-0.64	-0.31	-0.13	0.03	0.06	0.08	0.10	0.12	0.15
S2T	-0.36	-0.29	-0.26	-0.18	-0.14	-0.10	-0.02					
S2B	-0.90	-0.89	-1.18	-0.64	-0.33	-0.13	0.02	0.05	0.08	0.11	0.88	0.14

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	806.73	795.51	734.73	727.79	708.50	698.68	97.41	677.22	597.67	672.88	651.71

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.10	14.43	14.63	14.80	14.94	14.98	15.00	15.02	15.03	15.05	15.07	15.09	15.10

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.10	15.13	15.13	15.12	15.13	15.14	15.14	15.14	15.15	15.14	14.49	13.34

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 691-6 CONFIGURATION L1SCC1SCE1SCPNTTIR1RETP THETA 3/4 = 42.0 DEG RPM 4502.

HO = 14.753 PSIA PINF = 13.875 PSIA TSC = 65.66 DEG F RHO = 0.00225 SLUGS/CU FT

M = 0.3072 V = 342.64 FPS Q = 131.862 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.61	-0.76	-1.24	-1.76	-1.51	0.95	-1.05	-0.82	-0.73	-0.68	-0.73	-0.84	-0.37
S1B	0.61	0.95	0.78	0.34	-0.05	-0.30	-0.46	-0.58	-0.47	-0.37	0.25	0.35	-0.36
S2T	-0.02	-0.75	-1.41	-1.77	-1.35	-0.02	-0.97	-0.94	-0.83	-1.15	0.34	-0.02	-0.74
S2B	-0.02	0.93	0.74	0.23	-0.12	-0.35	-0.58	-0.62	-0.79	-0.66	-0.44	-0.31	-0.30

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.63	-0.54	-0.40	-0.16	-0.08	0.02	0.16					
S1B	-0.28	-0.23	-0.19	-0.11	-0.00	0.09	0.13	0.16	0.18	0.20	0.22	0.25
S2T	-0.61	-0.49	-0.31	-0.22	-0.12	-0.01	0.12					
S2B	-0.26	-0.24	-0.21	-0.13	-0.04	0.05	0.11	0.13	0.16	0.17	0.20	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	357.71	372.45	342.86	348.42	336.32	338.22	332.50	333.46	333.70	331.78	342.74

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.59	14.70	14.80	14.87	14.90	14.89	14.90	14.91	14.91	14.91	14.92	14.92	14.92

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.92	14.92	14.90	14.89	14.88	14.87	14.84	14.82	14.73	14.34	14.75	14.76

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 691- 7 CONFIGURATION LJSCC1SCE1SCPNTJIR1RETP THETA 3/4 = 42.0 DEG RPM 6503.

HO = 14.752 PSIA PINF = 13.869 PSIA TSC = 66.31 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3081 V = 343.82 FPS Q = 132.565 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEG	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.87	-0.15	-0.62	-1.24	-1.15	0.94	-0.79	-0.61	-0.56	-0.52	-0.66	-0.70	-0.74
S1B	0.87	0.80	0.45	-0.20	-0.76	-1.05	-1.23	-1.35	-0.70	-0.75	0.31	0.40	-1.03
S2T	-0.01	-0.16	-0.75	-1.21	-0.98	-0.01	-0.78	-0.72	-0.64	-0.99	0.38	-0.01	-0.64
S2B	-0.01	0.76	0.41	-0.19	-0.86	-1.14	-1.42	-1.44	-1.70	-1.39	-1.08	-0.88	-0.84

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.54	-0.46	-0.38	-0.11	-0.03	0.05	0.19					
S1B	-0.75	-0.51	-0.28	-0.19	-0.04	0.08	0.13	0.17	0.20	0.21	0.25	0.29
S2T	-0.50	-0.40	-0.24	-0.16	-0.06	0.04	0.15					
S2B	-0.72	-0.48	-0.31	-0.21	-0.07	0.04	0.13	0.16	0.18	0.20	0.24	0.28

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	439.11	447.34	413.62	422.26	400.83	401.64	391.01	391.02	388.43	382.53	407.78

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.71	14.94	15.02	15.05	15.11	15.15	15.20	15.23	15.25	15.27	15.29	15.30	15.32

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.33	15.34	15.34	15.36	15.35	15.34	15.32	15.26	15.08	14.38	14.74	14.76

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 691-10 CONFIGURATION L1SCC1SCE1SCPNTT1R1RETP THETA 3/4 = 42.0 DEG RPM 5501.

HO = 14.753 PSIA PINF = 13.867 PSIA TSC = 66.96 DEG F RHO = 0.00224 SLUGS/CU FT

M = 0.3086 V = 344.60 FPS Q = 132.991 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.72	-0.50	-0.97	-1.56	-1.38	0.95	-0.95	-0.74	-0.66	-0.61	-0.72	-0.78	-0.52
S1B	0.72	0.90	0.67	0.16	-0.34	-0.56	-0.73	-0.86	-0.58	-0.52	0.26	0.34	-0.61
S2T	-0.01	-0.50	-1.13	-1.53	-1.19	-0.02	-0.89	-0.85	-0.74	-1.11	0.35	-0.02	-0.75
S2B	-0.01	0.88	0.65	0.10	-0.38	-0.65	-0.88	-0.92	-1.12	-0.95	-0.70	-0.52	-0.52

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.61	-0.52	-0.40	-0.14	-0.06	0.03	0.17					
S1B	-0.46	-0.35	-0.22	-0.13	-0.02	0.06	0.13	0.15	0.17	0.21	0.23	0.26
S2T	-0.61	-0.48	-0.32	-0.24	-0.13	-0.01	0.10					
S2B	-0.44	-0.35	-0.24	-0.16	-0.04	0.04	0.12	0.12	0.16	0.17	0.19	0.22

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	388.44	398.15	369.20	375.31	361.16	364.72	354.90	356.72	357.10	353.47	367.92

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.67	14.79	14.87	14.94	14.99	15.01	15.03	15.03	15.04	15.05	15.05	15.06	15.07

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.07	15.06	15.06	15.05	15.04	15.04	15.02	14.99	14.83	14.34	14.62	14.75

E330590 - 1

TABLE IX

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 692- 6 CONFIGURATION L1SCC1SCE1SCPNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 4506.

HO = 14.743 PSIA PINF = 13.222 PSIA TSC = 72.16 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4107 V = 457.50 FPS Q = 224.309 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.57	-0.82	-1.33	-1.93	-1.62	0.98	-1.09	-0.85	-0.76	-0.68	-0.75	-0.85	-0.31
S1B	0.57	0.97	0.85	0.48	0.11	-0.11	-0.27	-0.42	-0.37	-0.29	0.25	0.36	-0.20
S2T	-0.01	-0.82	-1.53	-1.94	-1.45	-0.29	-0.98	-0.96	-0.85	-1.16	0.37	-0.00	-0.77
S2B	-0.01	0.96	0.82	0.41	0.07	-0.15	-0.36	-0.42	-0.61	-0.47	-0.27	-0.17	-0.16

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.64	-0.54	-0.37	-0.15	-0.05	0.04	0.18					
S1B	-0.16	-0.16	-0.15	-0.08	0.03	0.10	0.15	0.17	0.20	0.21	0.24	0.26
S2T	-0.62	-0.50	-0.31	-0.23	-0.12	-0.01	0.11					
S2B	-0.13	-0.16	-0.16	-0.09	0.01	0.07	0.14	0.16	0.18	0.19	0.21	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	445.34	466.43	428.40	436.11	422.07	426.77	419.64	424.35	423.98	420.04	431.32

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.37	14.55	14.71	14.81	14.84	14.83	14.85	14.85	14.85	14.86	14.87	14.86	14.86

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.85	14.84	14.82	14.81	14.79	14.77	14.76	14.74	14.67	13.91	14.26	14.68

TABLE IX E330590 - 1

HSC SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 692- 7 CONFIGURATION L1SCC1SCE1SCPNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 6505.

HO = 14.742 PSIA PINF = 13.212 PSIA TSC = 72.81 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4119 V = 459.12 FPS Q = 225.506 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.76	-0.40	-0.89	-1.53	-1.36	0.97	-0.90	-0.69	-0.63	-0.55	-0.66	-0.76	-0.50
S1B	0.76	-0.93	0.70	0.20	-0.28	-0.53	-0.71	-0.86	-0.49	-0.50	0.29	0.40	-0.60
S2T	0.02	-0.44	-1.07	-1.53	-1.17	-0.50	-0.85	-0.81	-0.71	-1.05	0.39	0.02	-0.67
S2B	0.02	0.91	0.67	0.17	-0.34	-0.59	-0.86	-0.90	-1.14	-0.91	-0.67	-0.51	-0.49

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.56	-0.47	-0.36	-0.10	-0.01	0.07	0.21					
S1B	-0.43	-0.31	-0.18	-0.10	0.02	0.11	0.17	0.20	0.22	0.25	0.27	0.30
S2T	-0.52	-0.41	-0.24	-0.17	-0.06	0.04	0.16					
S2B	-0.40	-0.30	-0.21	-0.12	-0.00	0.08	0.16	0.18	0.21	0.22	0.24	0.27

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	516.32	526.28	490.88	500.55	478.21	481.75	470.33	474.64	472.36	466.58	487.79

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.52	14.72	14.86	14.95	15.05	15.12	15.17	15.20	15.23	15.24	15.26	15.29	15.30

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.32	15.33	15.32	15.32	15.31	15.29	15.26	15.15	14.82	14.05	14.51	14.74

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 692-12 CONFIGURATION L1SCC1SCE1SCPNTT1R1RETP THETA 3/4 = 46.0 DEG RPM 5504.

HO = 14.742 PSIA PINF = 13.216 PSIA TSC = 72.94 DEG F RHO = 0.00214 SLUGS/CU FT

M = 0.4114 V = 458.58 FPS Q = 224.972 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.66	-0.64	-1.12	-1.76	-1.51	0.97	-1.01	-0.79	-0.70	-0.63	-0.69	-0.81	-0.40
S1B	0.66	0.96	0.79	0.36	-0.05	-0.29	-0.47	-0.62	-0.43	-0.39	0.26	0.37	-0.38
S2T	0.01	-0.64	-1.32	-1.75	-1.32	-0.39	-0.91	-0.89	-0.78	-1.11	0.37	0.00	-0.74
S2B	0.01	0.94	0.76	0.31	-0.12	-0.35	-0.58	-0.63	-0.86	-0.65	-0.46	-0.32	-0.31

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.61	-0.51	-0.38	-0.13	-0.04	0.05	0.19					
S1B	-0.29	-0.23	-0.16	-0.09	0.02	0.11	0.16	0.18	0.21	0.23	0.25	0.28
S2T	-0.60	-0.47	-0.29	-0.20	-0.10	0.01	0.13					
S2B	-0.27	-0.23	-0.18	-0.10	0.00	0.08	0.15	0.18	0.19	0.20	0.22	0.25

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	478.61	495.04	456.62	465.42	448.35	451.34	441.63	446.17	446.64	442.86	457.27

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.48	14.63	14.75	14.87	14.96	14.98	14.99	15.01	15.02	15.03	15.05	15.06	15.06

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.06	15.06	15.03	15.01	15.00	14.98	14.95	14.90	14.74	13.97	14.37	14.72

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 693- 6 CONFIGURATION L1SCC1SCE1SCPNTT1R1RETP 0 THETA 3/4 = 50.0 DEG RPM 4503.

HO = 14.733 PSIA PINF = 12.441 PSIA TSC = 78.15 DEG F RHO = 0.00203 SLUGS/CU FT

M = 0.5139 V = 570.43 FPS Q = 330.128 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LEO	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.57	-0.87	-1.44	-2.20	-2.00	1.00	-1.27	-1.00	-0.88	-0.81	-0.81	-0.95	-0.33
S1B	0.57	1.00	0.89	0.53	0.16	-0.07	-0.25	-0.41	-0.37	-0.31	0.20	0.35	-0.20
S2T	-0.05	-0.88	-1.73	-2.36	-1.76	-0.32	-1.12	-1.09	-0.96	-1.29	0.34	-0.05	-0.86
S2B	-0.05	0.99	0.87	0.48	0.10	-0.12	-0.36	-0.42	-0.65	-0.47	-0.29	-0.18	-0.17

	35	40	50	60	70	80	90	92	94	96	98	TEO
S1T	-0.72	-0.61	-0.41	-0.20	-0.10	0.01	0.15					
S1B	-0.18	-0.20	-0.21	-0.13	-0.01	0.07	0.13	0.14	0.16	0.18	0.21	0.23
S2T	-0.68	-0.55	-0.35	-0.26	-0.15	-0.03	0.09					
S2B	-0.14	-0.20	-0.21	-0.14	-0.04	0.03	0.10	0.12	0.14	0.16	0.19	0.21

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	550.32	574.07	529.66	540.83	521.67	528.34	518.98	527.01	528.53	525.87	534.53

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.05	14.38	14.61	14.76	14.80	14.80	14.81	14.81	14.80	14.81	14.81	14.80	14.79

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.78	14.75	14.73	14.71	14.69	14.66	14.65	14.62	14.54	13.24	13.72	14.38

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 693- 7 CONFIGURATION L1SCC1SCE1SCPNTT1R1RETP 0 THETA 3/4 = 50.0 DEG RPM 6505.

HO = 14.733 PSIA PINF = 12.432 PSIA TSC = 79.71 DEG F RHO = 0.00202 SLUGS/CU FT

M = 0.5151 V = 572.55 FPS Q = 331.435 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.69	-0.63	-1.18	-2.09	-1.77	0.99	-1.17	-0.91	-0.81	-0.74	-0.78	-0.90	-0.45
S1B	0.69	0.98	0.81	0.37	-0.07	-0.33	-0.52	-0.70	-0.45	-0.44	0.22	0.36	-0.48
S2T	-0.04	-0.63	-1.43	-2.08	-1.55	-0.44	-1.04	-1.01	-0.88	-1.24	0.36	-0.04	-0.78
S2B	-0.04	0.96	0.78	0.33	-0.14	-0.39	-0.66	-0.73	-0.99	-0.80	-0.57	-0.40	-0.40

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.68	-0.58	-0.43	-0.17	-0.08	0.03	0.17					
S1B	-0.35	-0.28	-0.23	-0.15	-0.02	0.07	0.14	0.16	0.18	0.20	0.23	0.25
S2T	-0.64	-0.51	-0.32	-0.24	-0.13	-0.01	0.11					
S2B	-0.33	-0.29	-0.26	-0.16	-0.04	0.04	0.12	0.14	0.16	0.18	0.21	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
RI	607.54	617.33	580.97	594.48	569.74	576.62	562.80	569.74	568.59	563.53	581.13

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.18	14.41	14.70	14.90	15.05	15.12	15.15	15.16	15.20	15.23	15.27	15.29	15.30

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	15.29	15.27	15.22	15.18	15.13	15.10	15.05	14.95	14.61	13.42	13.96	14.60

TABLE IX E330590-1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 693-12 CONFIGURATION L1SCG1SCE1SCPNIT1R1BETP 0 THETA 3/4 = 50.0 DEG RPM 5500.

HO = 14.732 PSIA PINF = 12.437 PSIA TSC = 101.44 DEG F RHO = 0.00194 SLUGS/CU FT

M = 0.5143 V = 583.17 FPS Q = 330.618 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.64	-0.73	-1.29	-2.19	-1.85	0.99	-1.18	-0.94	-0.84	-0.78	-0.80	-0.87	-0.39
S1B	0.64	0.99	0.85	0.45	0.06	-0.19	-0.38	-0.54	-0.40	-0.37	0.19	0.35	-0.34
S2T	-0.05	-0.75	-1.55	-2.22	-1.64	-0.37	-1.07	-1.04	-0.91	-1.24	0.34	-0.03	-0.81
S2B	-0.05	0.98	0.83	0.41	-0.01	-0.26	-0.51	-0.57	-0.81	-0.67	-0.44	-0.28	-0.28

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.68	-0.57	-0.41	-0.18	-0.08	0.02	0.16					
S1B	-0.27	-0.25	-0.22	-0.14	-0.02	0.07	0.13	0.15	0.18	0.19	0.21	0.24
S2T	-0.64	-0.52	-0.33	-0.24	-0.13	-0.01	0.11					
S2B	-0.24	-0.24	-0.23	-0.15	-0.04	0.04	0.11	0.13	0.16	0.18	0.20	0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1 -	591.30	614.15	564.61	578.89	557.92	561.88	550.14	557.46	559.57	553.62	568.95

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.14	14.41	14.66	14.84	14.92	14.93	14.95	14.95	14.96	14.97	14.98	14.98	14.98

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.97	14.96	14.93	14.93	14.88	14.86	14.83	14.81	14.45	13.33	13.82	14.46

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 695- 8 CONFIGURATION L1C1E1B3PWT1R1RETP THETA 3/4 = 34.0 DEG RPM 5500.

HO = 14.660 PSIA PINF = 13.314 PSIA TSC = 67.74 DEG F RHO = 0.00217 SLUGS/CU FT

M = 0.3858 V = 428.84 FPS Q = 199.408 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.35	-0.01	-0.23	-0.00	0.27	0.97	-0.22	-0.23	-0.32	-0.11	-0.18	-0.14	-0.26
S1B	0.35	0.29	0.60	0.20	0.56	0.37	0.38	0.64	-0.17	-0.25	-0.10	-0.13	-0.13
S2T	0.31	0.44	0.18	0.18	0.17	0.16	0.17	0.18	0.17	0.14	0.16	0.31	0.18
S2B	0.31	0.16	0.17	0.14	0.16	0.14	0.16	0.18	0.18	0.17	0.16	0.16	0.17

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.22	-0.16	-0.33	0.67	0.66	0.23	0.78					
S1B	-0.19	-0.12	-0.14	-0.12	-0.12	-0.31	0.12	0.73	0.60	0.02	0.75	0.77
S2T	0.17	0.16	0.17	0.17	0.17	0.17	0.17					
S2B	0.13	0.12	0.16	0.15	0.16	0.16	0.18	0.18	0.17	0.17	0.13	0.17

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	380.69	379.83	360.38	360.38	345.73	345.73	340.01	341.91	341.08	339.18	353.49

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.44	14.54	14.63	14.71	14.75	14.76	14.77	14.78	14.78	14.78	14.79	14.80	14.80

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.81	14.81	14.82	14.82	14.82	14.82	14.81	14.80	14.61	14.28	14.66	14.66

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 696- 8 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 38.0 DEG RPM 5502.

HO = 14.665 PSIA PINF = 13.783 PSIA TSC = 69.56 DEG F RHO = 0.00222 SLUGS/CU FT

M = 0.3089 V = 345.69 FPS Q = 132.378 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.39	0.16	-0.56	-0.55	0.04	0.96	-0.84	-0.89	-0.94	-0.76	-0.81	-0.87	-1.05
S1B	0.39	0.25	0.71	0.14	0.26	0.16	0.17	0.75	-0.66	-0.78	-0.65	-0.75	-0.73
S2T	-0.00	-0.25	-0.22	-0.22	-0.24	-0.24	-0.22	-0.21	-0.24	-0.28	-0.23	-0.01	-0.23
S2B	-0.00	-0.26	-0.23	-0.26	-0.25	-0.30	-0.25	-0.23	-0.23	-0.24	-0.26	-0.24	-0.23

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.78	-0.81	-0.83	0.71	0.66	-0.88	0.84					
S1B	-0.78	-0.65	-0.69	-0.62	-0.78	-0.89	-1.10	0.79	0.59	-0.88	0.84	0.77
S2T	-0.23	-0.26	-0.26	-0.23	-0.22	-0.26	-0.24					
S2B	-0.26	-0.31	-0.24	-0.29	-0.29	-0.24	-0.22	-0.23	-0.24	-0.21	-0.26	-0.24

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	397.85	399.30	378.30	379.17	363.27	363.27	356.12	355.20	355.33	353.49	370.13

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.52	14.57	14.66	14.73	14.80	14.81	14.83	14.84	14.85	14.87	14.88	14.89	14.90

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.91	14.93	14.92	14.93	14.94	14.95	14.96	14.95	14.73	14.31	14.66	14.67

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 697- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 42.0 DEG RPM 5499.

HO = 14.663 PSIA PINF = 13.143 PSIA TSC = 76.72 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4115 V = 460.40 FPS Q = 223.930 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	0.52	0.28	0.24	0.22	-0.07	0.98	-0.86	-0.80	-0.94	-0.76	-0.92	-0.78	-0.78
S1B	0.52	0.45	0.84	0.31	0.75	0.48	0.41	0.64	-0.72	-0.82	-0.69	-0.62	-0.71
S2T	0.02	-0.23	-0.20	-0.20	-0.22	-0.21	-0.20	-0.21	-0.22	-0.25	-0.20	0.01	-0.25
S2B	0.02	-0.25	-0.22	-0.24	-0.25	-0.29	-0.24	-0.22	-0.22	-0.23	-0.23	-0.23	-0.21

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.88	-0.99	-1.18	0.86	-0.60	-0.46	-0.04					
S1B	-0.59	-0.69	-0.66	-0.78	-0.78	-0.84	-0.68	0.33	-0.51	-0.50	0.97	0.67
S2T	-0.24	-0.25	-0.24	-0.24	-0.24	-0.26	-0.24					
S2B	-0.23	-0.26	-0.22	-0.26	-0.22	-0.23	-0.21	-0.22	-0.22	-0.22	-0.31	-0.28

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	491.44	493.86	467.43	468.90	450.23	450.99	442.69	443.46	444.51	442.21	459.57

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.32	14.43	14.55	14.66	14.77	14.79	14.81	14.81	14.82	14.84	14.85	14.85	14.87

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.89	14.89	14.90	14.90	14.90	14.90	14.90	14.90	14.57	14.03	14.67	14.67

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 698- 7 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 46.0 DEG RPM 5498.

HO = 14.664 PSIA PINF = 13.151 PSIA TSC = 78.15 DEG F RHO = 0.00211 SLUGS/CU FT

M = 0.4105 V = 459.88 FPS Q = 222.933 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-0.82	0.42	0.15	0.37	0.45	0.97	-0.90	-0.83	-1.00	-0.81	-0.90	-0.81	-0.78
S1B	-0.82	-0.15	-0.28	-0.33	-0.79	-0.61	-0.69	-0.56	-0.88	-0.85	-0.66	-0.69	-0.90
S2T	0.01	-0.23	-0.21	-0.19	-0.23	-0.20	-0.19	-0.20	-0.21	-0.24	-0.19	0.02	-0.22
S2B	0.01	-0.26	-0.25	-0.26	-0.23	-0.25	-0.22	-0.21	-0.20	-0.20	-0.20	-0.22	-0.22

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.95	-0.93	-1.23	-0.34	-0.50	-0.80	-0.20					
S1B	-0.73	-0.84	-0.37	-0.29	-0.70	-0.83	0.08	-0.36	-0.25	-0.35	-0.57	-0.42
S2T	-0.22	-0.23	-0.22	-0.23	-0.21	-0.23	-0.23					
S2B	-0.23	-0.22	-0.22	-0.27	-0.26	-0.22	-0.21	-0.20	-0.22	-0.22	-0.26	-0.23

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	502.02	505.13	478.49	477.77	459.47	460.95	451.30	451.30	453.33	448.79	468.85

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.37	14.45	14.56	14.68	14.77	14.81	14.84	14.85	14.87	14.89	14.91	14.92	14.93

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.95	14.96	14.96	14.97	14.98	14.99	15.01	15.00	14.65	14.06	14.67	14.67

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 700- 8 CONFIGURATION L1C1E1B3PWTT1R1RETP THETA 3/4 = 46.0 DEG RPM 5499.

HO = 14.673 PSIA PINF = 12.389 PSIA TSC = 86.48 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5140 V = 575.03 FPS Q = 328.979 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-0.85	-0.23	-0.25	-0.19	-0.08	0.99	-0.13	-1.03	-0.86	-0.92	-0.55	-1.04	-0.92
S1B	-0.85	-0.91	-0.94	-0.90	-0.85	-0.88	-0.86	-0.90	-0.90	-0.95	-0.80	-0.85	-0.83
S2T	-0.05	-0.31	-0.28	-0.28	-0.29	-0.28	-0.28	-0.28	-0.29	-0.32	-0.28	-0.05	-0.33
S2B	-0.05	-0.08	-0.31	-0.32	-0.31	-0.34	-0.31	-0.32	-0.30	-0.29	-0.30	-0.32	-0.29

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.91	-0.21	0.10	-0.28	-0.53	-0.52	-0.00					
S1B	0.02	-0.99	-0.90	-0.87	-1.02	-0.94	-0.52	-0.05	0.09	0.02	-0.02	-0.02
S2T	-0.32	-0.31	-0.48	-0.30	-0.31	-0.32	-0.32					
S2B	-0.31	-0.30	-0.30	-0.35	-0.35	-0.32	-0.30	-0.28	-0.30	-0.31	-0.35	-0.33

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	604.02	602.19	567.93	569.20	549.73	549.73	539.47	543.45	548.22	542.30	561.63

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	13.95	14.24	14.48	14.66	14.75	14.75	14.76	14.77	14.77	14.69	14.78	14.79	14.79

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.79	14.79	14.78	14.79	14.78	14.78	14.77	14.63	14.33	13.59	14.67	14.67

TABLE IX E330590 - 1

HSD SHROUDED PROPELLER TEST

PHASE I - 8 FT TEST SECTION

PRESSURE DATA

RUN - PT NO 701- 8 CONFIGURATION L1C1E183PWTT1R1RETP THETA 3/4 = 50.0 DEG RPM 5501.

HO = 14.673 PSIA PINF = 12.384 PSIA TSC = 86.48 DEG F RHO = 0.00199 SLUGS/CU FT

M = 0.5147 V = 575.71 FPS Q = 329.663 PSF PSI = 0. DEG

SHROUD PRESSURE COEFFICIENTS

	LE0	01	02	04	06	08	10	12.5	15	17	20	25	30
S1T	-0.85	0.06	0.31	0.20	0.15	1.00	0.49	-0.98	-1.07	-1.13	-0.90	-0.97	-0.80
S1B	-0.85	-0.98	-0.92	-0.83	-0.85	-0.84	-0.84	-0.86	-1.04	-0.93	-0.84	-0.86	-0.94
S2T	-0.04	-0.31	-0.28	-0.27	-0.29	-0.29	-0.30	-0.28	-0.29	-0.33	-0.29	-0.04	-0.30
S2B	-0.04	0.29	-0.31	-0.33	-0.31	-0.33	-0.29	-0.30	-0.29	-0.29	-0.28	-0.29	-0.29

	35	40	50	60	70	80	90	92	94	96	98	TE0
S1T	-0.89	-0.91	0.31	0.17	0.09	-0.06	0.24					
S1B	-0.83	-0.82	-0.89	-0.95	-1.01	-0.83	-0.05	0.12	0.23	0.13	0.04	0.20
S2T	-0.30	-0.26	-0.22	-0.29	-0.30	-0.29	-0.31					
S2B	-0.31	-0.32	-0.30	-0.36	-0.34	-0.32	-0.29	-0.28	-0.31	-0.31	-0.29	-0.31

INLET VELOCITIES, FPS

ORIFICE	01	03	04	06	07	09	10	12	13	15	V AVE
R1	628.45	628.32	593.99	595.84	573.84	574.47	562.44	566.93	569.28	562.86	585.64

EXIT RAKE PRESSURES, PSIA

ORIFICE	01	02	03	04	05	06	07	08	09	10	11	12	13
RE	14.10	14.27	14.48	14.66	14.78	14.84	14.86	14.89	14.90	14.68	14.93	14.94	14.96

ORIFICE	14	15	16	17	18	19	20	21	22	23	24	25
RE	14.98	14.98	14.98	14.98	15.00	15.01	15.01	14.63	14.50	13.64	14.67	14.67