

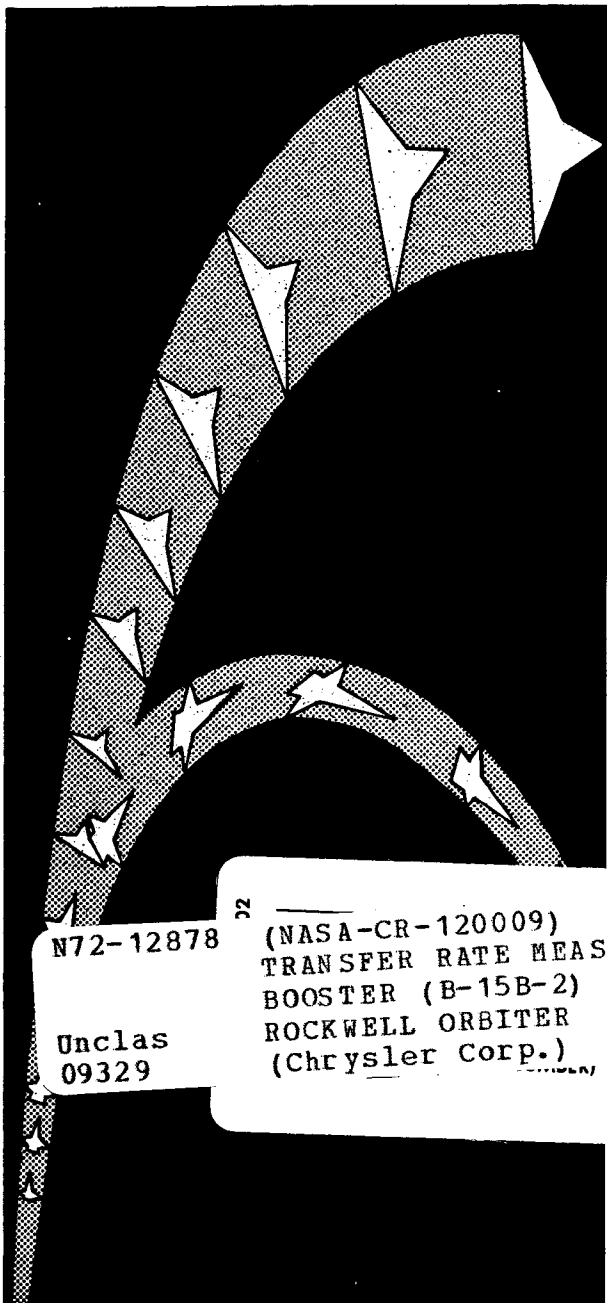
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—SPACE SHUTTLE—

**HEAT TRANSFER RATE
MEASUREMENTS ON CONVAIR
BOOSTER (B-15B-2) AND NORTH
AMERICAN ROCKWELL ORBITER
(161B) AT NOMINAL MACH
NUMBER OF 8**

by

**J. D. Warmbrod, MSFC
W. R. Martindale, ARO, INC.
R. K. Matthews, ARO, INC.**



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(NASA-CR-120009) SPACE SHUTTLE: HEAT
TRANSFER RATE MEASUREMENTS ON CONVAIR
BOOSTER (B-15B-2) AND NORTH AMERICAN
ROCKWELL ORBITER (161B) AT NOMINAL MACH
(Chrysler Corp.) J.D. Warmbrod, et al
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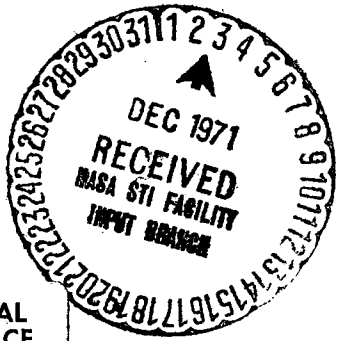
**VFK 50-INCH HYPERSONIC
TUNNEL B
ARNOLD ENGINEERING
DEVELOPMENT CENTER**

SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM

CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER



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SADSAC/SPACE SHUTTLE
WIND TUNNEL TEST DATA REPORT

CONFIGURATION: Convair Booster (B-15B-2) & North American Rockwell Orbiter (161B)

TEST PURPOSE: Heat-Transfer Rate Measurements at a Nominal Mach Number
of 8.

TEST FACILITY: AEDC VKF 50-Inch Hypersonic Tunnel B

TESTING AGENCY: AEDC-MSFC

TEST NO. & DATE: VT 1162-1; May 26, 1971

FACILITY COORDINATOR: L. L. Trimmer, ARO, Inc.

PROJECT ENGINEER(S): W. R. Martindale - ARO, Inc.

R. K. Matthews - ARO, Inc.

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CONTRACT NAS 8-4016

AMENDMENT 153

DRL 184 - 58

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ABSTRACT

Plotted and tabulated data from the thin-skin thermocouple phase of a joint AEDC-MSFC experimental test program are presented herein. These data are representative of three events of simulated flight and described as follows:

<u>Event</u>	<u>Description</u>
1	Booster-Orbiter Ascent Heating Data
2	Booster Reentry Heating Data
3	Orbiter Reentry Heating Data

The test was conducted in the AEDC VKF 50-Inch Hypersonic Tunnel B at a nominal Mach number of 8 and free-stream Reynolds number range of 0.7×10^6 to 3.7×10^6 per foot. The model employed was a 0.009 scale replica of the Convair B-15B-2 booster and North American Rockwell 161B orbiter. The tabulated values of the plotted data are located in the Appendix Section of this document.

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SUMMARY

A joint AEDC-MSFC experimental test program in the VKF 50-in. hypersonic Tunnel B has been conducted to determine detailed heat-transfer distributions on Phase B space shuttle configurations. This report presents data taken during the thin-skin thermocouple phase of these tests.

The configurations investigated were 0.009 scale replicas of the Convair B-15B-2 booster and the North American Rockwell 161B orbiter. Data were obtained at a nominal Mach number of 8 and free-stream unit Reynolds numbers from 0.7×10^6 to 3.7×10^6 per foot. Angle of attack was varied from -5 to 60 degrees. During the higher angle of attack ($\alpha \geq 30$ deg) portion of the reentry configuration tests it was desired to obtain turbulent boundary layer flow over as large a portion of the models as possible. To accomplish this carborundum grit was placed on the windward surfaces (bottom) of the booster and orbiter models. The application method consisted of dabbing small dots of Barco Bond [®] epoxy in about 1-in. intervals over the entire bottom surfaces of the models and then sprinkling the surface with No. 46 grit (≈ 0.015 -in. diameter). Several pieces of grit adhered to each dot, resulting in model surface irregularities approximately 0.025-in. high. Test runs where this technique was used are noted in the Test Data Summary as - grit on. In one case No. 20 grit (≈ 0.043 -in. diameter) was placed on the orbiter nose from the nose tip back about one inch for a low angle of attack test.

SUMMARY
(Continued)

Data generated from this test are presented as plotted variations and tabulated values of the plotted data. The tabulated values are located in the Appendix of this document.

CONFIGURATIONS INVESTIGATED

The booster model was a 0.009 scale replica of the Convair B-15B-2 delta-wing booster furnished by the Convair Aerospace Division of General Dynamics Corporation. It was machined from 17-4PH steel to a nominal skin thickness of 0.04 inches. Configuration details are tabulated in Tables 3 through 7 and a model photograph is shown in Figure 1.

The orbiter model was a 0.009 scale replica of the North American Rockwell 9992-161B delta-wing orbiter furnished by North American Rockwell. It was machined from 17-4PH steel to a nominal skin thickness of 0.04 inches. Configuration details are tabulated in Tables 8 through 13 and a model photograph is shown in Figure 2.

The booster model was instrumented with 342 iron-constantan thermocouples of which 184 were used during the mated tests. The orbiter model was instrumented with 204 iron-constantan thermocouples of which 97 were used during the mated tests. Thermocouple locations are shown graphically in Figures 4 and 5 and a tabulation of the locations of the thermocouples used during mated tests is given in Table 1.

Thermocouple outputs were recorded on magnetic tape by a Beckman 210 digital data system at the rate of 20 times per second from the start of the model injection cycle until about 5 seconds after the model reached tunnel centerline.

SADSAC NO.	TC NUMBER	FUSELAGE - BOOSTER		SADSAC NO.	TC NUMBER	FUSELAGE - BOOSTER	
		X/L	PHI			X/L	PHI
1	B 1	0.0	0	88	B 446	0.354	105
2	B 2	0.0137	0	89	B 447		120
3	B 3	0.0137	180	90	B 448		135
4	B 4	0.0274	0	91	B 450		150
5	B 5		30	92	B 451		180
6	B 6		60	93	B 452	0.380	0
7	B 7		90	94	B 454		30
8	B 8		120	95	B 456		60
9	B 9		150	96	B 458		90
10	B 10		180	97	B 459		105
11	B 11	0.0406	180	98	B 460	0.380	120
12	B 12	0.0543	0	99	B 461		135
13	B 13		30	100	B 462		150
14	B 14		60	101	B 463		165
15	B 15		90	102	B 464		180
16	B 16		120	103	B 106	0.440	0
17	B 17		150	104	B 109		90
18	B 18		180	105	B 110		120
19	B 19	0.067	180	106	B 111		150
20	B 20	0.079	0	107	B 112		180
21	B 21	0.079	180	108	B 113	0.488	0
22	B 22	0.092	180	109	B 116		90
23	B 23	0.103	0	110	B 117		120
24	B 24		15	111	B 118		150
25	B 25		30	112	B 119		180
26	B 26		45	113	B 120	0.520	0
27	B 27		60	114	B 195	0.550	43
28	B 28		75	115	B 127		90
29	B 29		90	116	B 128		105
30	B 30		105	117	B 129		120
31	B 31		120	118	B 130		150
32	B 32		135	119	B 131		180
33	B 33		150	120	B 133	0.625	0
34	B 34		165	121	B 136		90
35	B 35		180	122	B 139		105
36	B 36	0.116	180	123	B 140		120
37	B 37	0.130	180	124	B 141		150
38	B 38	0.143	0	125	B 142		180
39	B 39	0.143	180	126	B 150	0.700	90
40	B 40	0.156	180	127	B 151		105
41	B 41	0.169	0	128	B 152		120
42	B 42		15	129	B 153		150
43	B 43		30	130	B 154		180
44	B 44		45	131	B 159	0.770	90
45	B 45		60	132	B 160		120
46	B 46		75	133	B 161		150
47	B 47		90	134	B 162		180
48	B 48		105	135	B 171	0.895	120
49	B 49		120	136	B 172	0.895	150
50	B 50		135				
51	B 51		150				
52	B 52		165				
53	B 53		180				
54	B 400	0.242	0				
55	B 402		30	137	B 200	0.0	0.10
56	B 404		60	138	B 201	0.10	
57	B 406		90	139	B 202	0.20	
58	B 407		105	140	B 203	0.33	
59	B 408		120	141	B 204	0.40	
60	B 409		135	142	B 205	0.60	
61	B 410		150	143	B 206	0.70	
62	B 411		165	144	B 207	0.91	
63	B 412		180	145	B 217	0.0	0.20
64	B 413	0.283	0	146	B 218	0.05	
65	B 415		30	147	B 219	0.10	
66	B 417		60	148	B 220	0.20	
67	B 419		90	149	B 221	0.40	
68	B 420		105	150	B 222	0.60	
69	B 421		120	151	B 223	0.70	
70	B 422		135	152	B 230	0.0	0.25
71	B 423		150	153	B 231	0.10	
72	B 424		165	154	B 232	0.40	
73	B 425		180	155	B 233	0.50	
74	B 426	0.316	0	156	B 234	0.60	
75	B 428		30	157	B 235	0.833	
76	B 430		60	158	B 236	0.867	
77	B 432		90	159	B 237	0.901	
78	B 433		105	160	B 238	0.935	
79	B 434		120	161	B 248	0.0	0.30
80	B 435		135	162	B 249	0.10	
81	B 436		150	163	B 250	0.20	
82	B 437		165	164	B 251	0.40	
83	B 438		180	165	B 252	0.60	
84	B 439	0.354	0	166	B 263	0.0	0.40
85	B 441		30	167	B 264	0.10	
86	B 443		60	168	B 265	0.40	
87	B 445		90				

Table 1. Thermocouple Coordinates

SADSAC NO.	TC NUMBER	FUSELAGE - BOOSTER		SADSAC NO.	TC NUMBER	LOWER WING SURFACE - ORBITER	
		X/L	PHI			X/C	Y/S
169	B 266	0.60	0.40	254	0 135	0.0	0.25
170	B 277	0.0	0.50	255	0 136	0.1	
171	B 278	0.10		256	0 137	0.2	
172	B 279	0.20		257	0 138	0.8	
173	B 280	0.40		258	0 140	0.6	
174	B 281	0.50		259	0 142	0.9	
175	B 282	0.60		260	0 149	0.0	0.50
176	B 283	0.877		261	0 150	0.1	
177	B 296	0.0	0.60	262	0 151	0.2	
178	B 297	0.10		263	0 152	0.4	
179	B 298	0.20		264	0 154	0.6	
180	B 299	0.40		265	0 157	0.9	
181	B 300	0.60		266	0 171	0.0	0.75
182	B 301	0.793		267	0 172	0.1	
183	B 302	0.851		268	0 175	0.4	
184	B 315	0.10	0.70	269	0 178	0.8	
185	B 316	0.20					
186	B 317	0.50					
UPPER CANARD SURFACE - BOOSTER				UPPER WING SURFACE - ORBITER			
		X/C	Y/S			X/C	Y/S
187	B 350	0.0	0.25	270	0 129	0.1	0.1
188	B 351	0.25		271	0 130	0.2	
189	B 352	0.50		272	0 131	0.4	
190	B 353	0.70		273	0 132	0.7	
191	B 357	0.0	0.50	274	0 133	0.9	
192	B 358	0.25		275	0 158	0.1	0.5
193	B 359	0.50		276	0 159	0.2	
194	B 360	0.70		277	0 160	0.4	
				278	0 161	0.8	
				279	0 162	0.9	
FUSELAGE - ORBITER				VERTICAL STABILIZER - ORBITER			
		X/L	Y/YMAX			X/C	Z/S
195	0 1	0.0	-0.0	280	0 187	0.0	0.10
196	0 2	0.01		281	0 188	0.1	
197	0 7	0.03		282	0 189	0.4	
198	0 12	0.05		283	0 192	0.0	0.25
199	0 19	0.10		284	0 193	0.1	
200	0 29	0.20		285	0 194	0.4	
201	0 44	0.30		286	0 196	0.0	0.50
202	0 54	0.40		287	0 197	0.1	
203	0 66	0.50		288	0 198	0.4	
204	0 76	0.55		289	0 201	0.0	0.75
205	0 80	0.60		290	0 202	0.1	
206	0 89	0.70		291	0 203	0.4	
207	0 98	0.80					
208	0 104	0.90					
209	0 114	0.99					
210	0 20	0.10	-0.383				
211	0 31	0.20	-0.466				
212	0 46	0.30	-0.504				
213	0 56	0.40	-0.526				
214	0 69	0.50	-0.530				
215	0 83	0.60	-0.748				
216	0 92	0.70	-0.704				
217	0 101	0.80	-0.669				
218	0 107	0.90	-0.678				
219	0 117	0.99	-0.660				
220	0 9	0.01	+0.0				
221	0 10	0.03					
222	0 15	0.05					
223	0 24	0.10					
224	0 28	0.15					
225	0 35	0.20					
226	0 36	0.21					
227	0 37	0.22					
228	0 38	0.23					
229	0 40	0.25					
230	0 53	0.30					
231	0 62	0.40					
232	0 75	0.50					
233	0 67	0.60					
234	0 96	0.70					
235	0 111	0.90	+0.610				
236	0 120	0.99	+0.305				
237	0 4	0.01	+1.000				
238	0 14	0.05					
239	0 22	0.10					
240	0 33	0.20					
241	0 48	0.30					
242	0 59	0.40					
243	0 72	0.50					
244	0 78	0.55					
245	0 85	0.60					
246	0 77	0.55	-1.000				
247	0 84	0.60					
248	0 94	0.70					
249	0 39	0.24	+0.486				
250	0 42	0.27	+0.465				
251	0 51	0.30	+0.433				
252	0 41	0.27	+0.465				
253	0 52	0.30	+0.361				

Table 1. Concluded

TEST FACILITY DESCRIPTION

Tunnel B is a continuous, closed-circuit, variable density wind tunnel with an axisymmetric contoured nozzle and a 50-in.-diam. test section. The tunnel can be operated at a nominal Mach number of 6 or 8 at stagnation pressures from 20 to 300 and 50 to 900 psia, respectively, at stagnation temperatures up to 1350°R. The model may be injected into the tunnel for a test run and then retracted for model cooling or model changes without interruption the tunnel flow.

TABLE 2

TEST CONDITIONS

TEST TITLE: AEDC-MSFC Phase B Heating Study - Thin-Skin Thermocouple PhaseTEST NUMBER: VT1162 TEST FACILITY: AEDC Tunnel BTEST DATE: May 26-29, 1971 TEST ENGINEER: W. R. Martindale & R. K. Matthews

Run No.	Model Configuration Identification	Model Scale		Free Stream Mach Number	Total Pressure (psia)	Total Temp. (°R)	$\frac{T_{aw}^*}{T_{total}}$	$\frac{RNX10^6}{Ft}$	Phase Change Temp. (°F)	Booster-Orbiter Spacing (in.)			Model Position (degrees)		
		δ_c	δ_e							XD	ZD	GRIT	β	ϕ_M	α
1	Booster + Orbiter	0	0	0.009	857	1339	1.00	3.75	NA	2.22	.234	Off	0	0	0
2					858	1347		3.72							
3					856	1346		3.72							-5
4					858	1341		3.75							5
5					859	1347		3.73		1.72					0
6					858	1338		3.76		2.72					
7					859	1346		3.73		2.22	.118				
8					7.93	149	1249		0.74		.318				
9					148	1234		0.75		.234					
10					151	1233		0.77							-5
11					8.00	857	1342		3.74						5
12	Booster				861	1342		3.76						-5	0
13					860	1341		3.75						0	

** X axis parallel to stream (+downstream, -upstream)
 Y axis (+right, -left, as viewed from the rear)
 Z axis (+up, -down)

* T_{aw} = adiabatic wall temperature

TABLE 2 - Continued

TEST CONDITIONS

TEST TITLE: AEDC-MSFC Phase B Heating Study - Thin-Skin Thermocouple PhaseTEST NUMBER: VT1162 TEST FACILITY: AEDC Tunnel BTEST DATE: May 26-29, 1971 TEST ENGINEER: W. R. Martindale & R. K. Matthews

Run No.	Model Configuration Identification			Model Scale	Free Stream Mach Number	Total Pressure (psia)	Total Temp. (°R)	$\frac{T_{aw}^*}{T_{total}}$	$\frac{RNx10^6}{Ft}$	Phase Change Temp. (°F)	Booster-Orbiter Spacing (in.)			Model Position (degrees)		
											δ_c	δ_e	XD	ZD	GRIT	β
14	Booster			0.009	8.00	858	1347	1.00	3.72	NA	-	-	Off	0	0	5
15					7.93	149	1225		0.76							0
16						150	1223		0.77							-5
17						149	1219		0.77							5
18					8.00	857	1353		3.69							60
19						855	1340		3.74							50
20						857	1338		3.76							40
21						856	1342		3.73							40
22						860	1343		3.75				On			60
23						856	1344		3.73				On			10
24						856	1342		3.73				Off			20
25						857	1346		3.72							30
26						857	1342		3.74							30

** X axis parallel to stream (+downstream, -upstream)

Y axis (+right, -left, as viewed from the rear)

Z axis (+up, -down)

* T_{aw} = adiabatic wall temperature

TABLE 2 - Continued

TEST CONDITIONS

TEST TITLE: AEDC-MSFC Phase B Heating Study - Thin-Skin Thermocouple Phase

TEST NUMBER: VT1162

TEST FACILITY: AEDC Tunnel B

TEST DATE: May 26-29, 1971

TEST ENGINEER: W. R. Martindale & R. K. Matthews

Run No.	Model Configuration Identification			Model Scale	Free Stream Mach Number	Total Pressure (psia)	Total Temp. (°R)	T _{aw} * / T _{total}	RNX10 ⁶ / Ft	Phase Change Temp. (°F)	Booster-Orbiter Spacing (in.)			Model Position (degrees)		
											XD	ZD	GRIT	β	φ _M	α
	δ _c	δ _e														
27	Booster			0.009	8.00	859	1342	1.00	3.74	NA	-	-	Off	0	0	30
28	Booster					858	1342		3.74							
29	Orbiter					859	1339		3.76				↓			θ
30						857	1337		3.76				On			50
31						857	1343		3.76				On			40
32						857	1343		3.74				On			30
33						856	1340		3.74				Off			30
34						856	1343		3.73							40
35						858	1347		3.72							50
36						555	1305		2.52							50
37						553	1311		2.50							40
38						554	1311		2.50							30
39						554	1308		2.51							20
						553	1307		2.51							10

** X axis parallel to stream (+downstream, -upstream)
 Y axis (+right, -left, as viewed from the rear)
 Z axis (+up, -down)

* T_{aw} = adiabatic wall temperature

TABLE 2 - Concluded

TEST CONDITIONS

TEST TITLE: AEDC-MSFC Phase B Heating Study - Thin-Skin Thermocouple PhaseTEST NUMBER: VT1162 TEST FACILITY: AEDC Tunnel BTEST DATE: May 26-29, 1971 TEST ENGINEER: W. R. Martindale & R. K. Matthews

Run No.	Model Configuration Identification			Model Scale	Free Stream Mach Number	Total Pressure (psia)	Total Temp. (°R)	T _{aw} * / T _{total}	RNX10 ⁶ / Ft	Phase Change Temp. (°F)	Booster-Orbiter Spacing (in.)			Model Position (degrees)		
											XD	ZD	GRIT	β	φ _M	α
		δ _c	δ _e													
40	Orbiter	-	0	0.009	7.94	166	1254	1.00	0.82	NA	-	-	Off	0	0	10
41						165	1237		0.83							20
42						166	1228		0.84							30
43						167	1232		0.85							5
44						167	1237		0.84							0
45						165	1241		0.83							-5
46					8.00	856	1324		3.81							-5
47						863	1335		3.79							0
48						861	1344		3.75							20
49						856	1342		3.74							10
50						858	1344		3.74				***			10
51			-10			858	1346		3.73				On			10
													Off			30

** X axis parallel to stream (+downstream, -upstream)
 Y axis (+right, -left, as viewed from the rear)
 Z axis (+up, -down)

* T_{aw} = adiabatic wall temperature

***Nose only

DATA REDUCTION

The reduction of thin-skin thermocouple data normally involves only the calorimetric heat balance which in coefficient form is:

$$h = wb c_p \left(\frac{dT_w/dt}{T_o - T_w} \right) \quad (1)$$

Radiation and conduction losses are neglected in this heat balance and data reduction simply requires evaluation of dT_w/dt from the temperature-time data and determination of model material properties. For the present tests radiation effects were negligible; however, conduction effects were significant in several regions of the models. To permit identification of these regions and improve evaluation of the data the following procedure was used.

Separation of variables and integration of Equation (1) assuming constant w , b , c_p , and T_o yields

$$\frac{h}{wb c_p} (t - t_i) = \ln \left(\frac{T_o - T_{wi}}{T_o - T_w} \right) \quad (2)$$

Differentiation of Equation (2) with respect to time gives

$$\frac{h}{wb c_p} = \frac{d}{dt} \left[\ln \left(\frac{T_o - T_{wi}}{T_o - T_w} \right) \right] \quad (3)$$

Since the left side of Equation (3) is a constant, plotting $\ln \left(\frac{T_o - T_{wi}}{T_o - T_w} \right)$ versus time will give a straight line if conduction is negligible. Thus, deviation from a straight line can be interpreted as conduction effects.

DATA REDUCTION
(Continued)

The data were evaluated in this manner and generally a reasonably linear portion of the curve could be found for all thermocouples. For high heating rates, such as experienced in the nose, leading edge, and interference regions, the linear portion was quite short. A linear least squares curve fit of $\ln \left(\frac{T_o - T_{w1}}{T_o - T_w} \right)$ versus time was applied to the data beginning at the time which the model reached uniform flow and extending for a time span which was a function of the heating rate, shown below:

<u>Heating Rate, R/sec</u>	<u>Time Span of Data Used, sec.</u>	<u>Number of Data Points Used</u>
$16 \leq dT_w/dt$	0.2	5
$4 \leq dT_w/dt < 16$	0.4	9
$2 \leq dT_w/dt < 4$	0.6	13
$dT_w/dt < 2$	1.0	21

In general, the above time spans were adequate to keep the evaluation of the right side of Equation (3) within the linear region. Strictly, the value of c_p is not constant as assumed and the relation

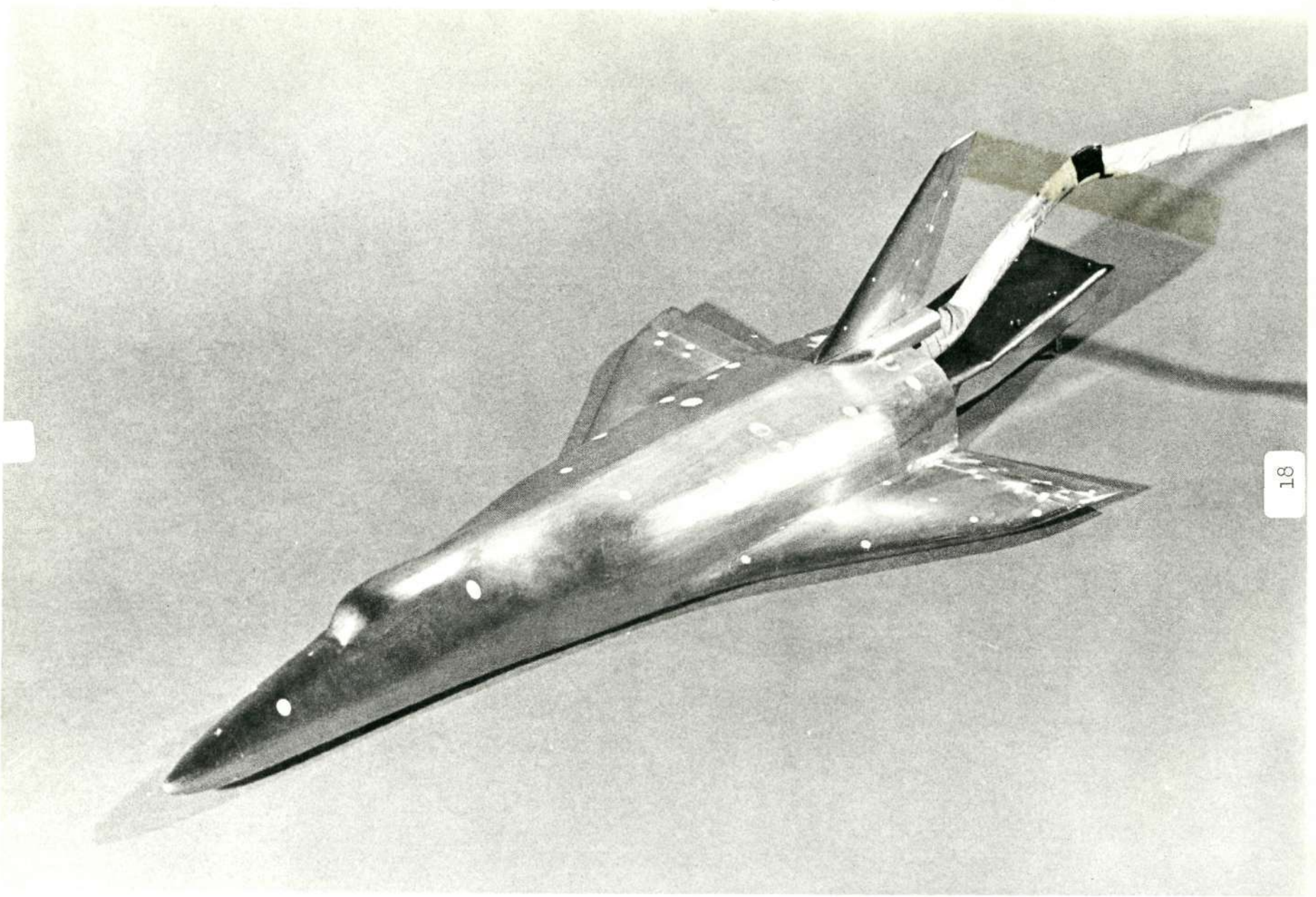
$$c_p = 0.0608 + 1.295 \times 10^{-4} T_w - 6.35 \times 10^{-8} T_w^2 \quad (4)$$

was used with the value of T_w at the midpoint of the curve fit. The maximum variation of c_p over any curve fit was less than one percent; thus the assumption of constancy was not grossly violated. A constant $485 \text{ LB}_m/\text{ft}^3$ was used for w and measured values of b for each thermocouple were used.

F I G U R E S



Figure 1. Booster Model Photograph



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Figure 2. Orbiter Model Photograph

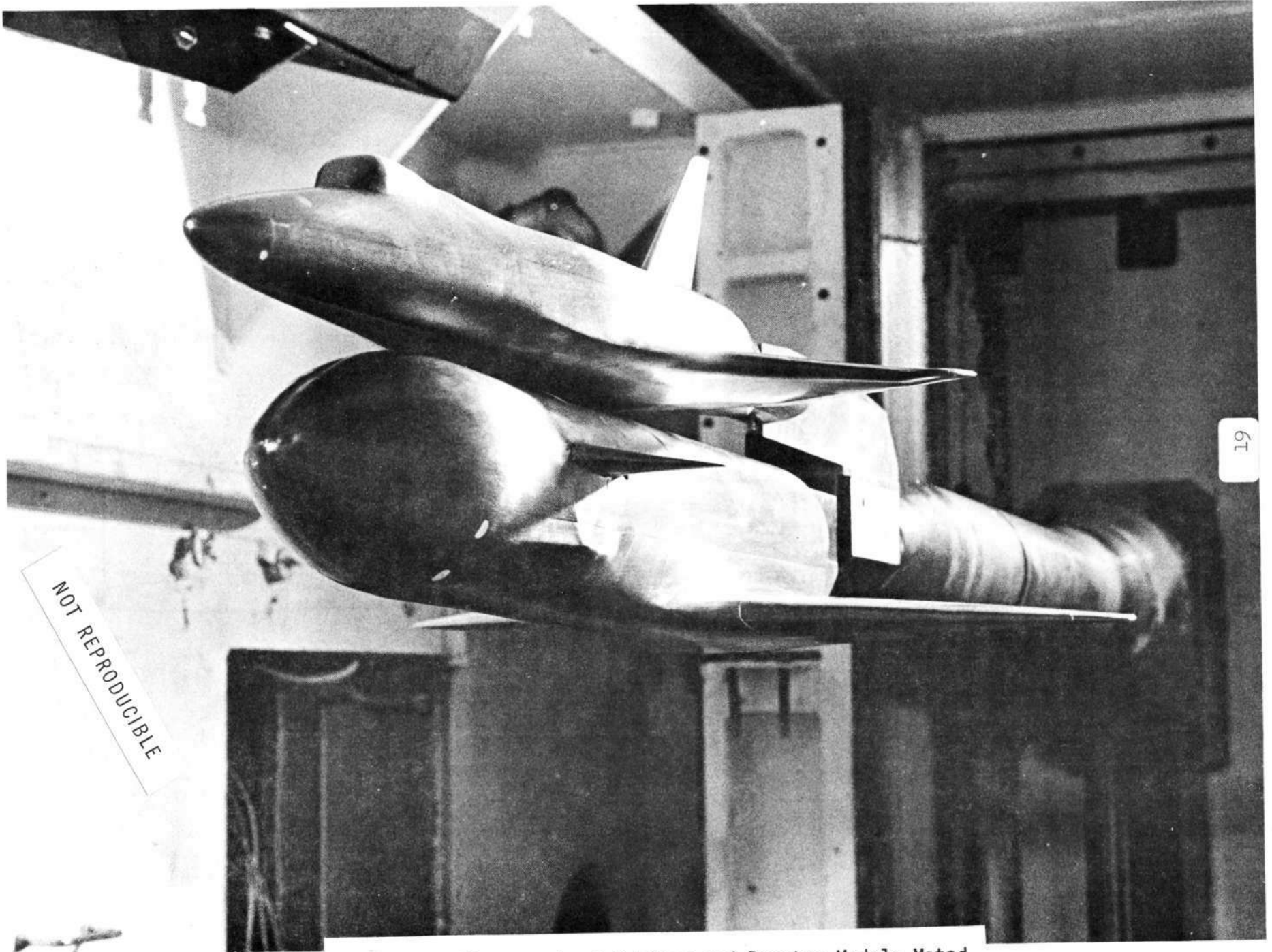


Figure 3. Photograph of Orbiter and Booster Models Mated

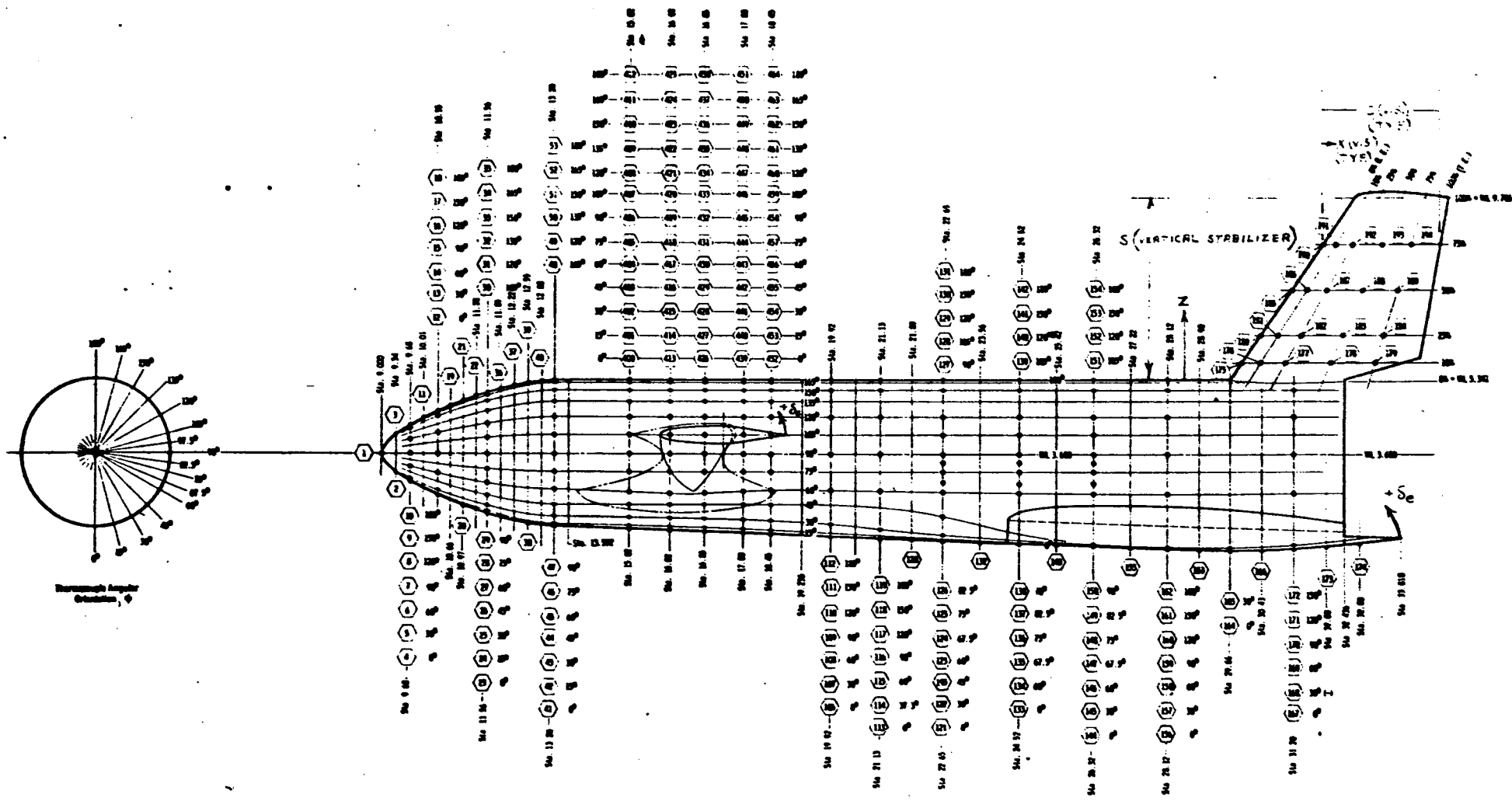


Figure 4. Booster Thermocouple Locations

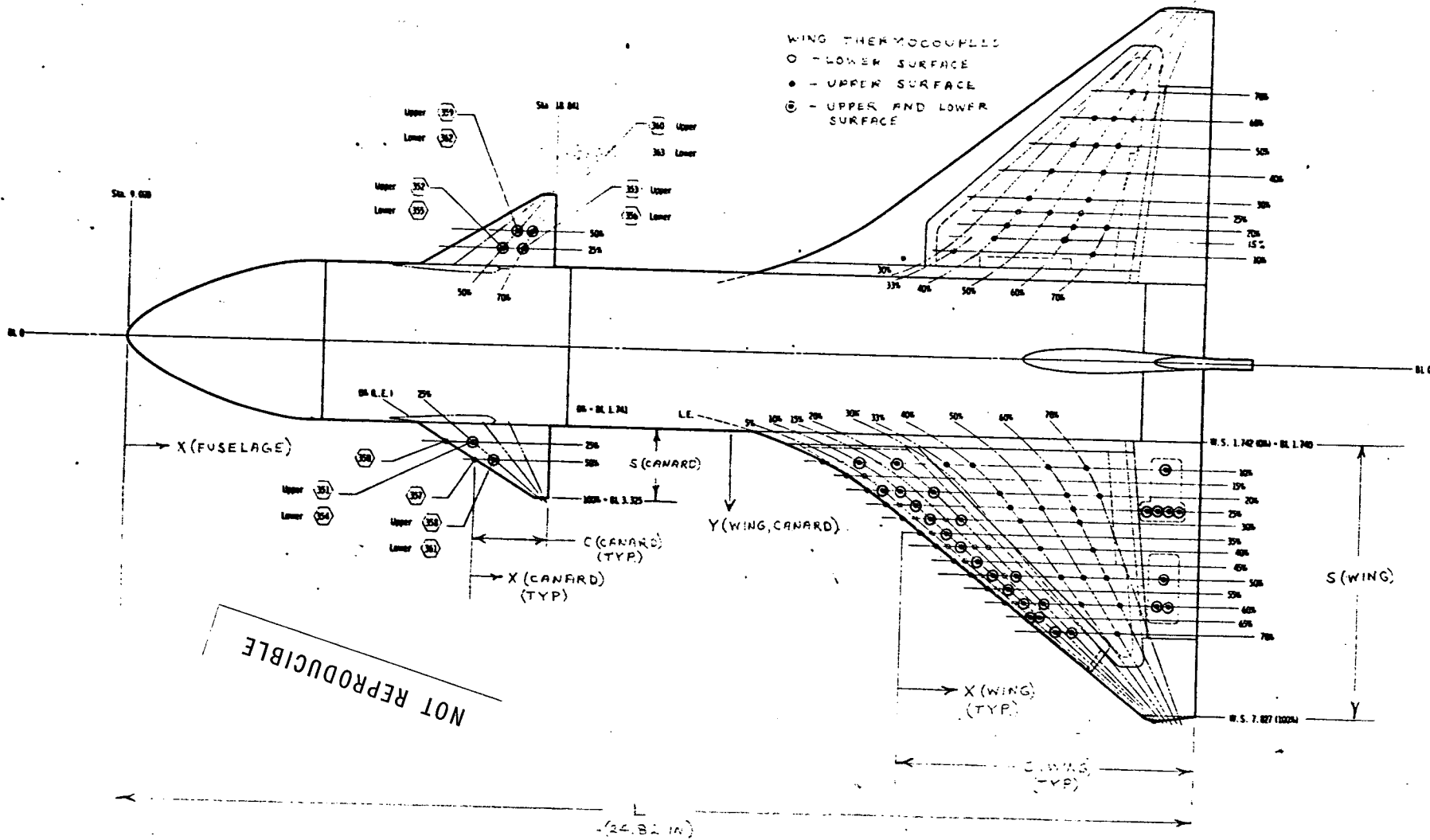


Figure 4. Continued

WING THERMOCOUPLE IDENTIFICATION NUMBERS											
	○ - Lower Surface ● - Upper Surface										
% Span	% Chord										
	0% (L.E.)	5%	10%	15%	20%	33%	40%	50%	60%	70%	81%
10% Upper	200		201		202	203	204		205	206	207
10% Lower			208		209	210				213	214
15% Upper	215										
15% Lower		216					211		212		
20% Upper	217	218	219		220		221		222	223	
20% Lower		224	225		226		227		228	229	83.3%
25% Upper	230		231				232	233	234		235
25% Lower		239	240				241	242	243		244
30% Upper	248		249		250		251		252		86.7%
30% Lower		253	254	255	256		257		258		90.1%
35% Upper	259		260								93.5%
35% Lower		261	262								
40% Upper	263		264				265		266		
40% Lower		267	268	269	270		271		272		
45% Upper	273		274								
45% Lower		275	276								87.7%
50% Upper	277		278		279		280	281	282		283
50% Lower		284	285	286	287		288	289	290		291
55% Upper	292		293								
55% Lower		294	295								82%
60% Upper	296		297		298		299		300		301
60% Lower		303	304		305		306	307	308		309
65% Upper		311	312								310
65% Lower		313	314								
70% Upper			315		316			317			
70% Lower			318		319			320			

Figure 4. Concluded

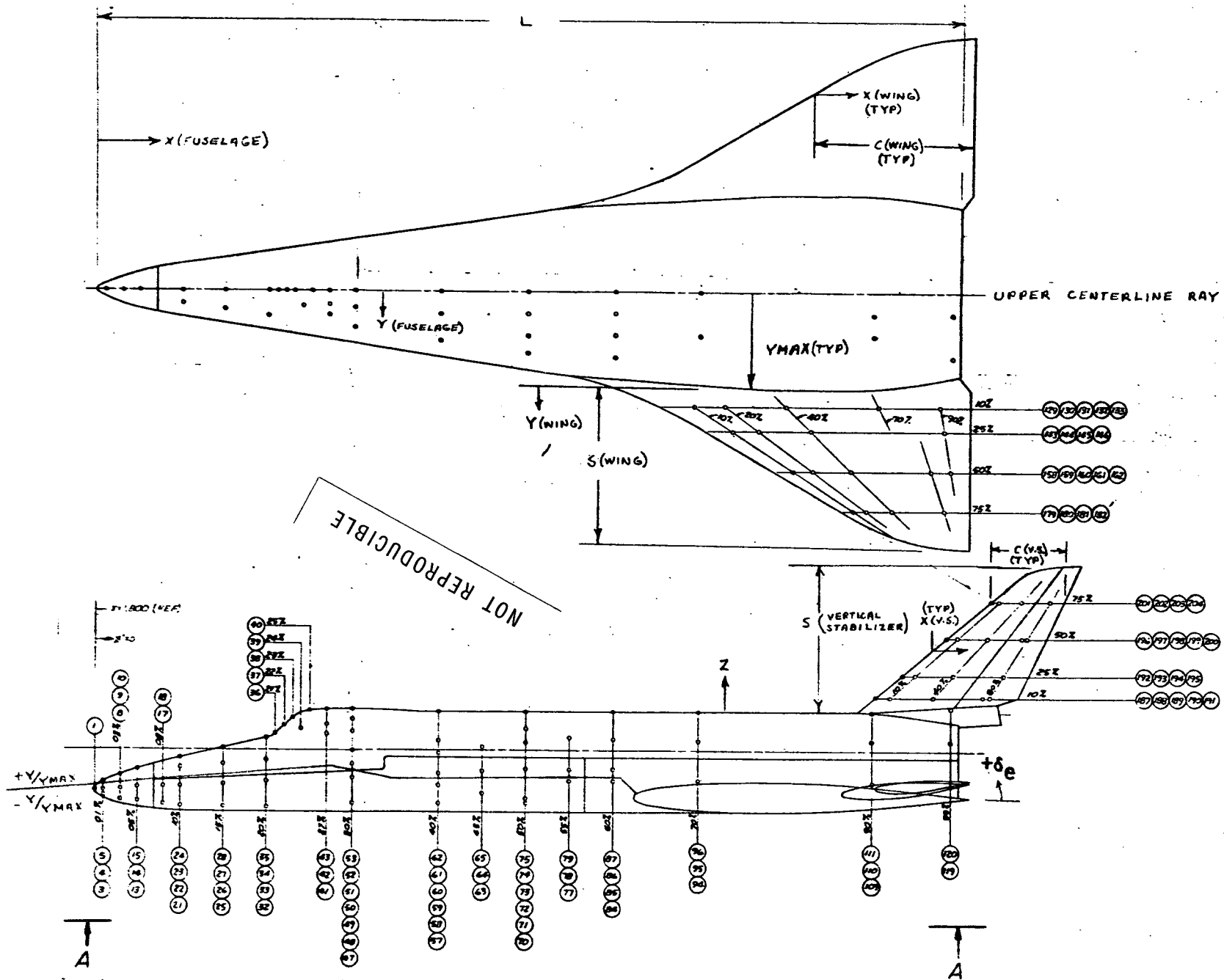


Figure 5. Orbiter Thermocouple Locations

MODEL COMPONENT DESCRIPTION SHEETS

Table 3. Booster Fuselage Details

MODEL COMPONENT: BODY - B24

GENERAL DESCRIPTION: Basic Fuselage for the B-15B-2 Booster Configuration

DRAWING NUMBER: WT-71-105129

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>2757 in.</u>	<u>24.81 in.</u>
Max. Width	<u>387 in.</u>	<u>3.48 in.</u>
Max. Depth	<u>453 in.</u>	<u>4.08 in.</u>
Fineness Ratio	<u>6.08</u>	<u>6.08</u>
Area		
Max. Cross-Sectional	<u>183837 in²</u>	<u>14.89 in²</u>
Planform	<u>1010612 in²</u>	<u>81.86 in²</u>
Wetted	<u> </u>	<u> </u>
Base	<u>159510 in²</u>	<u>12.19 in²</u>

Table 4. Booster Canard Details

MODEL COMPONENT: Canard C4

GENERAL DESCRIPTION: Basic Canard for B-15B-2 Booster Configuration

DRAWING NUMBER: WT-71-105129

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>66286 in²</u>	<u>5.37 in²</u>
Span (equivalent)	<u>352 in.</u>	<u>3.17 in.</u>
Inb'd equivalent chord	<u>341 in.</u>	<u>3.07 in.</u>
Outb'd equivalent chord	<u>36 in.</u>	<u>0.324 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u> </u>	<u> </u>
At Outb'd equiv. chord	<u> </u>	<u> </u>
Sweep Back Angles, degrees		
Leading Edge	<u>60</u>	<u>60</u>
Tailing Edge	<u>0</u>	<u>0</u>
Hingeline	<u> </u>	<u> </u>
Area Moment (Normal to hinge line)	<u> </u>	<u> </u>

Table 5. Booster Wing Details

MODEL COMPONENT: Wing - W15

GENERAL DESCRIPTION: Basic Wing for the B-15B-2 Booster Configuration -
C_L Design = 0.215

DRAWING NUMBER: WT-71-105125

DIMENSIONS:

TOTAL DATA

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area		
Planform	1241959 in ²	100.60 in ²
Wetted		
Span (equivalent)	1739 in.	15.65 in.
Aspect Ratio	2.436	2.436
Rate of Taper		
Taper Ratio	0.106	0.106
Dihedral Angle, degrees	3 (TE)	3 (TE)
Incidence Angle, degrees	2	2
Aerodynamic Twist, degrees	0	0
Toe-In Angle		
Cant Angle		
Sweep Back Angles, degrees		
Leading Edge	53	53
Trailing Edge	0	0
0.25 Element Line	44.85	44.85
Chords:		
Root (Wing Sta. 0.0)	1291 in.	11.62 in.
Tip, (equivalent)	137 in.	1.23 in.
MAC, inches	869.4 in.	7.82 in.
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		
Airfoil Section		
Root		NACA-0010-64 (Mod)
Tip		NACA-0010-63 (Mod)

EXPOSED DATA

Area	812980 in ²	65.85 in ²
Span, (equivalent)	1373 in.	12.36 in.
Aspect Ratio	2.25	2.25
Taper Ratio	0.1306	0.1306
Chords		
Root	1048 in.	9.43 in.
Tip	137 in.	1.23 in.
MAC	709.1 in.	6.38 in.
Fus. Sta. of .25 MAC		
W.P. of .25 MAC		

✓
Table 6. Booster Elevon Details

MODEL COMPONENT: Elevon

GENERAL DESCRIPTION: Basic Elevon for the W₁₅ Wing

DRAWING NUMBER: WT-71-105125

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>69178 in²</u>	<u>5.60 in²</u>
Span (equivalent)	<u>486 in.</u>	<u>4.37 in.</u>
Inb'd equivalent chord	<u>172 in.</u>	<u>1.55 in.</u>
Outb'd equivalent chord	<u>114 in.</u>	<u>1.03 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>0.167</u>	<u>0.167</u>
At Outb'd equiv. chord	<u>0.294</u>	<u>0.294</u>
Sweep Back Angles, degrees		
Leading Edge	<u>6.73</u>	<u>6.73</u>
Tailing Edge	<u>0.0</u>	<u>0.0</u>
Hingeline	<u>6.73</u>	<u>6.73</u>
Area Moment (Normal to hinge line)	<u> </u>	<u> </u>

Table 7. Booster Tail Details

MODEL COMPONENT: Vertical, V7

GENERAL DESCRIPTION: Basic Vertical Tail for B-15B-2 Booster Configuration

DRAWING NUMBER:

WT-71-105129

DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>177306 in.²</u>	<u>14.36 in.²</u>
Span (equivalent)	<u>485 in.</u>	<u>4.36 in.</u>
Inb'd equivalent chord	<u>504 in.</u>	<u>4.53 in.</u>
Outb'd equivalent chord	<u>252 in.</u>	<u>2.27 in.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u> </u>	<u> </u>
At Outb'd equiv. chord	<u> </u>	<u> </u>
Sweep Back Angles, degrees		
Leading Edge	<u>35</u>	<u>35</u>
Tailing Edge	<u>10</u>	<u>10</u>
Hingeline	<u>19.83</u>	<u>19.83</u>
Area Moment (Normal to hinge line)	<u> </u>	<u> </u>

Table 8. Orbiter Fuselage Details

MODEL COMPONENT: BODY - B6

GENERAL DESCRIPTION: Basic delta wing fuselage as per NR lines drawing 9992-161B. Fuselage reference plane is located at water plane 400.00 in.

Model Scale = 0.009

DRAWING NUMBER: Lines Drawing 9992-161B
ELLCO Engineering EE5424-1106-2 thru -5

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>2223.00</u>	<u>20.007</u>
Max. Width	<u>495.80</u>	<u>4.462</u>
Max. Depth	<u>263.00</u>	<u>2.367</u>
Fineness Ratio	<u>6.019</u>	<u>6.019</u>
Area		
Max. Cross-Sectional	<u>743.95</u>	<u>0.06026</u>
Planform	<u>DNA</u>	<u>DNA</u>
Wetted	<u>DNA</u>	<u>DNA</u>
Base	<u>DNA</u>	<u>DNA</u>

GENERAL DESCRIPTION: Delta wing with -5° twist and rounded wing tips. Wing blended into body. Follows NR lines 9992-161B. Used with Body B6.

Model Scale = 0.009

DRAWING NUMBER: Ellico Engineering EE5424-1106-4, -6, -23, -24, -25

DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
<u>TOTAL DATA</u>		
Area, ft ²		
Planform		
Wetted	<u>6511.00</u>	<u>0.52736</u>
Span (equivalent), in.	<u>-</u>	<u>-</u>
Aspect Ratio	<u>1272.38</u>	<u>11.451</u>
Rate of Taper	<u>1.714</u>	<u>1.714</u>
Taper Ratio	<u>1.719</u>	<u>1.719</u>
Dihedral Angle, degrees	<u>0.144</u>	<u>0.144</u>
Incidence Angle, degrees	<u>7.000</u>	<u>7.000</u>
Aerodynamic Twist, degrees (about T.E.)	<u>0.000</u>	<u>0.000</u>
Incidence, Root (B.P. 247.90)	<u>-5.000</u>	<u>-5.000</u>
Incidence, Tip (B.P. 557.70)	<u>0.000</u>	<u>0.000</u>
Sweep Back Angles, degrees	<u>-5.000</u>	<u>-5.000</u>
Leading Edge	<u>59.808</u>	<u>59.808</u>
Trailing Edge	<u>0.000</u>	<u>0.000</u>
0.25 Element Line	<u>52.197</u>	<u>52.197</u>
Chords: in.		
Root (Wing Sta. 0.0)	<u>1287.70</u>	<u>11.589</u>
Tip, (equivalent)(W.S. 640.97)	<u>186.00</u>	<u>1.674</u>
MAC (W.S. 240.62)	<u>874.10</u>	<u>7.867</u>
Fus. Sta. of .25 MAC	<u>1793.32</u>	<u>16.140</u>
W.P. of .25 MAC	<u>280.73</u>	<u>2.527</u>
B.L. of .25 MAC	<u>238.83</u>	<u>2.149</u>
Airfoil Section		
Root (W.S. 249.75)	<u>NACA 0009-64</u>	<u>-</u>
Tip (W.S. 561.85)	<u>NACA 0012-64</u>	<u>-</u>
<u>EXPOSED DATA</u>		
Area, ft ²	<u>3023.00</u>	<u>0.24482</u>
Span, (equivalent), in.	<u>810.61</u>	<u>7.296</u>
Aspect Ratio	<u>1.408</u>	<u>1.493</u>
Taper Ratio	<u>0.209</u>	<u>0.209</u>
Chords: in.		
Root (Equiv.) (W.S. 232.62)	<u>887.85</u>	<u>7.991</u>
Tip (Equiv.) (W.S. 640.97)	<u>145.00</u>	<u>1.674</u>
MAC (W.S. 392.31)	<u>613.34</u>	<u>5.520</u>
Fus. Sta. of .25 MAC	<u>1908.85</u>	<u>17.000</u>
W.P. of .25 MAC	<u>299.22</u>	<u>2.693</u>
B.L. of .25 MAC	<u>309.39</u>	<u>3.504</u>
<u>LEADING EDGE CURF</u>		
Planform Area, ft ²	<u>62.29</u>	<u>0.00505</u>
L.E. Intersects Fus. M. Sta., in.	<u>1275.00</u>	<u>11.475</u>
L.E. Intersects Wing L.E. Sta., in.	<u>1700.00</u>	<u>15.714</u>

Table 10. Orbiter Elevon Details

MODEL COMPONENT: Elevon - E11 (Data for one of two sides)

GENERAL DESCRIPTION: Constant chord elevon located on Delta Wing - W21

Model Scale = 0.009

DRAWING NUMBER: Ellco Engineering EE5424-1106-23, -24, -25

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area (true), ft ²	<u>423.09</u>	<u>0.03427</u>
Span (equivalent), in.	<u>417.30</u>	<u>3.756</u>
Inb'd equivalent chord, in. (W.S. 237.48)	<u>146.00</u>	<u>1.314</u>
Outb'd equivalent chord, in. (W.S. 654.78)	<u>146.00</u>	<u>1.314</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.166</u>	<u>0.166</u>
At Outb'd equiv. chord	<u>0.900</u>	<u>0.900</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.000</u>	<u>0.000</u>
Tailing Edge	<u>0.000</u>	<u>0.000</u>
Hingeline	<u>0.000</u>	<u>0.000</u>
Area Moment (Normal to hinge line), ft ³ (Product of area and mean chord)	<u>5144.00</u>	<u>0.00375</u>

Table 11. Orbital Maneuvering System Shroud Details

MODEL COMPONENT: Orbital Maneuvering System Shroud - Z2

GENERAL DESCRIPTION: Fairing over orbital manuevering system. Located on aft upper fuselage mold line.

Model Scale = 0.009

DRAWING NUMBER: Ellico Engineering EE5424-1106

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length (along upper surface), in.	<u>359.31</u>	<u>3.234</u>
Sta. of Leading Edge, in.	<u>2163.33</u>	<u>19.470</u>
Sta. of Trailing Edge, in.	<u>2523.56</u>	<u>22.712</u>
Pitch Angle (T.E. Up), deg.	<u>3.181</u>	<u>3.181</u>
Area		
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

Table 12. Orbiter Tail Details

MODEL COMPONENT: Vertical Tail - V27

GENERAL DESCRIPTION: Centerline vertical tail on delta wing configuration.

The total data includes the void area listed below. Used with Body-B6.

Follows NR lines 9992-161B.

Model Scale = 0.009

DRAWING NUMBER: Ellico Engineering EE5424-1106-7, -8, -11, -12

DIMENSIONS:

TOTAL DATA

Area, ft²

Planform

*Void (included above)

Span (equivalent), in.

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Toe-In Angle

Cant Angle

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords: in.

Root(W.P. 511.62)

Tip, (equivalent)(W.P. 872.67)

MAC (W.P. 660.90)

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section

(W.P. 500.44)

(W.P. 878.00)

EXPOSED DATA

Area

Span, (equivalent)

Aspect Ratio

Taper Ratio

Chords

Root

Tip

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

FULL-SCALE

MODEL SCALE

626.03

0.05071

1.99

0.00016

361.06

3.250

1.446

1.446

0.718

0.718

0.316

0.316

-

-

-

-

-

-

0.000

0.000

0.000

0.000

50.003

50.003

25.352

25.352

45.352

45.352

379.31

3.414

120.05

1.080

272.11

2.449

2422.61

21.803

660.90

5.948

0.00

0.000

NACA 0012-64

NACA 0009-64

* This area is the void area located at the lower aft portion of the surface.

Table 13. Orbiter Drag Brake Details

MODEL COMPONENT: Drag Brake - J4 (Data for one of two sides)

GENERAL DESCRIPTION: Drag Brake - J4 is the deflectable side panels of delta wing vertical tail V27 hinged at the 60% element line and extending to the trailing edge.

Model Scale = 0.009

DRAWING NUMBER: Ellco Engineering EES424-1106-11, -12

(All dimensions are in the drag brake reference plane)

DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area, ft ²	<u>242.39</u>	<u>0.01963</u>
Span (equivalent), in.	<u>355.61</u>	<u>3.201</u>
Inb'd equivalent chord, in. (W.P. 520.18)	<u>149.22</u>	<u>1.343</u>
Outb'd equivalent chord, in. (W.P. 875.79)	<u>47.08</u>	<u>0.424</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>-</u>	<u>-</u>
At Outb'd equiv. chord	<u>-</u>	<u>-</u>
Sweep Back Angles, degrees		
Leading Edge	<u>37.273</u>	<u>37.273</u>
Trailing Edge	<u>25.352</u>	<u>25.352</u>
Hingeline	<u>37.273</u>	<u>37.273</u>
Area Moment (Normal to hinge line), ft ³ (Produce of area and mean chord)	<u>1921.27</u>	<u>0.00140</u>
Buttock Plane of Hingeline, in.	<u>3.44</u>	<u>0.031</u>

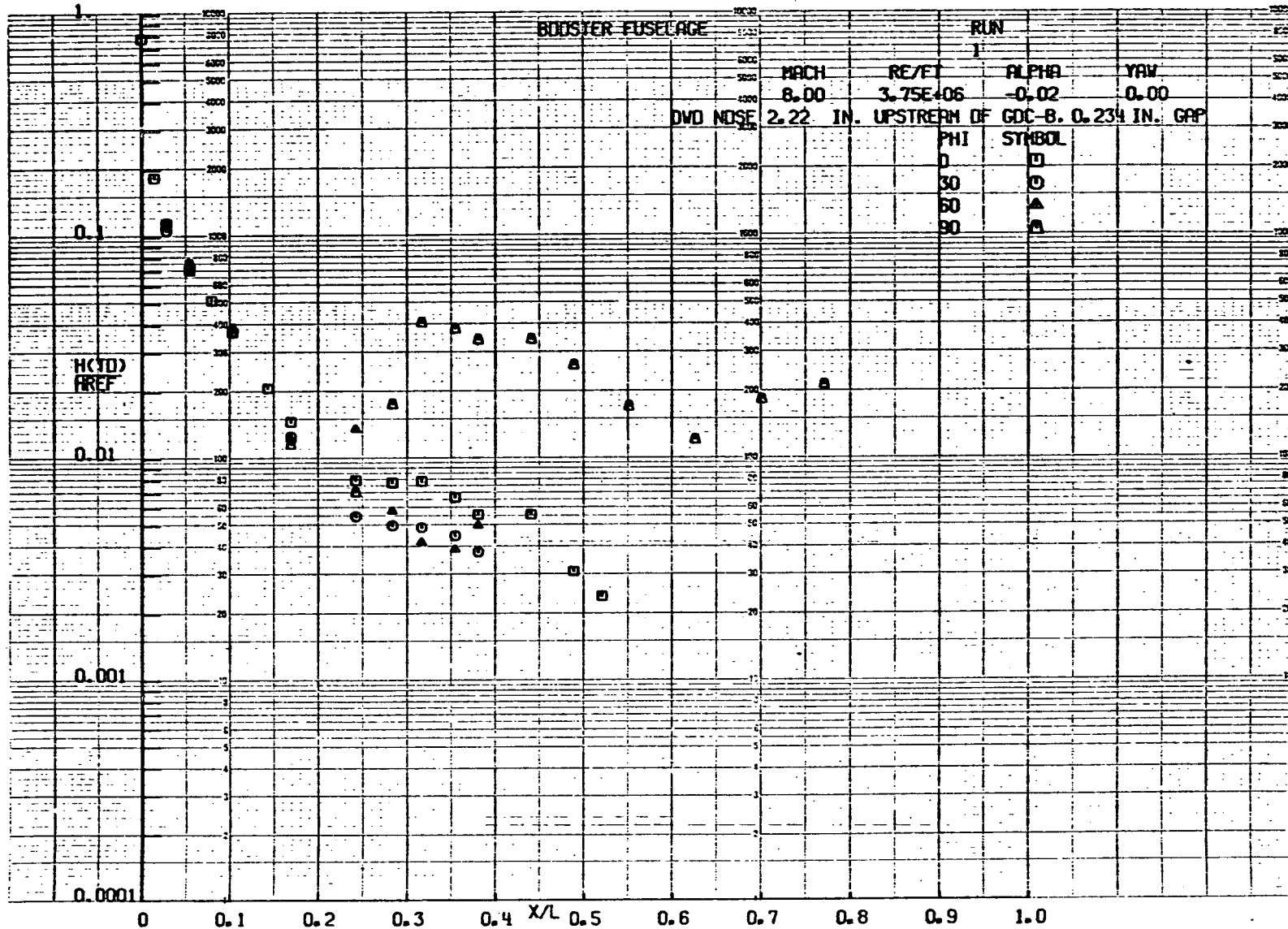
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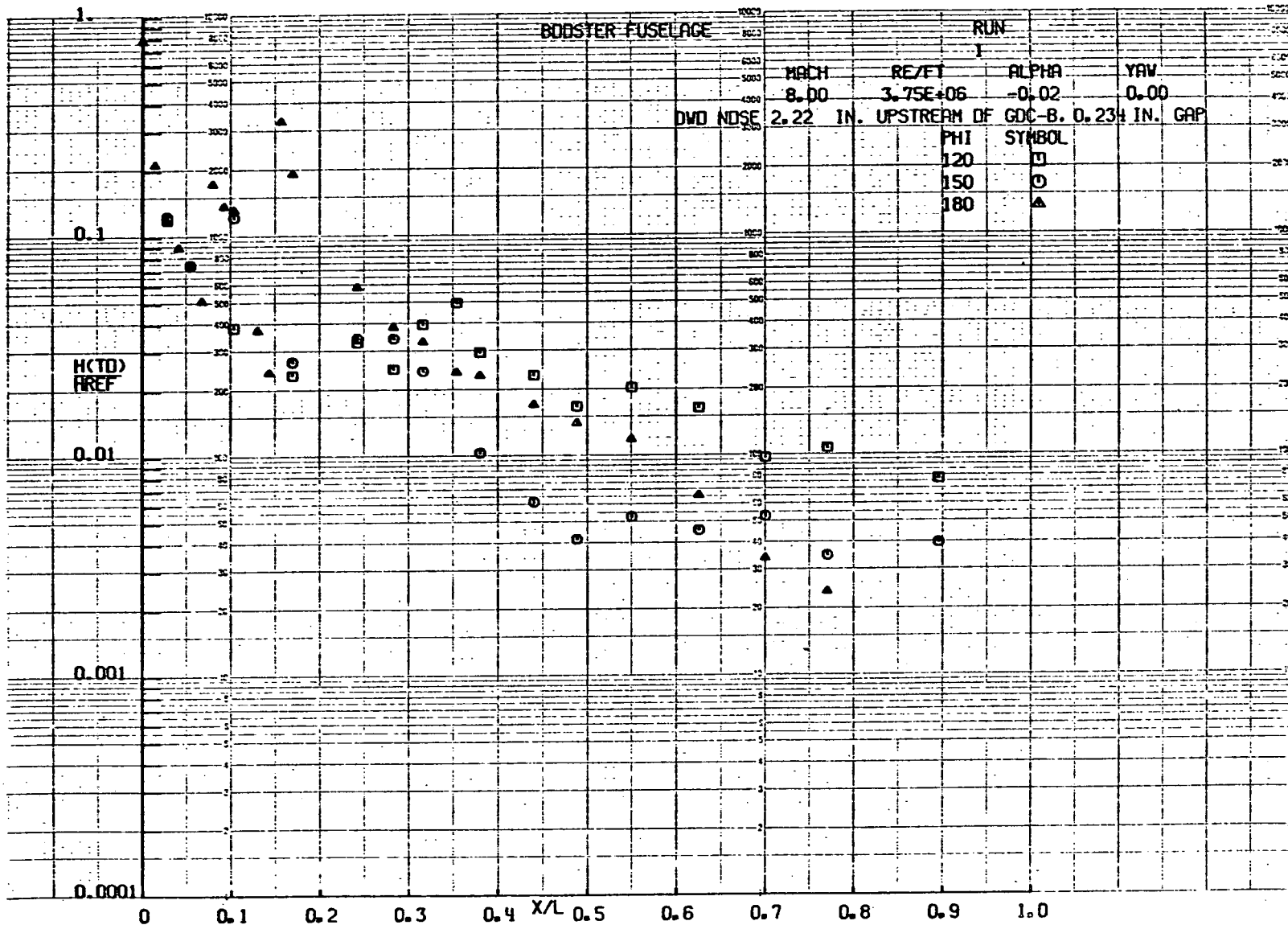
<u>TEXT</u>	<u>SYMBOL</u>	<u>DEFINITION</u>
	DATA <u>PRINTOUT</u>	
b		Skin thickness, ft.
c	C	Local chord length, in.
c_p		Specific heat, BTU/lb _m -°R
dT_w/dt	DTWDT	Derivative of the model skin temperature with respect to time, °R/sec
h	H(T ₀)	Heat transfer coefficient based on T ₀ , BTU/ft ² -sec-°R
	H(.9T ₀)	Heat transfer coefficient based on 0.9 T ₀ , BTU/ft ² -sec-°R
	H(.85T ₀)	Heat transfer coefficient based on 0.85 T ₀ , BTU/ft ² -sec-°R
h_{ref}	HREF	Theoretical stagnation point heat transfer coefficient for a 0.009-foot (1 scale foot) radius sphere calculated from Fay-Riddell theory using a wall temperature of 560°R, BTU/ft ² -sec-°R
L	L	Fuselage length (see Figs. 4 and 5), in.
	MACH	Free-stream Mach number
	MU-INF	Free-stream viscosity, lb/sec-ft ²
	P-INF	Free-stream pressure, psia
	P0	Tunnel-stilling chamber pressure, psia
	Q-DOT	Heat transfer rate, BTU/ft ² -sec
	Q-INF	Free-stream dynamic pressure, psia
	RE/FT	Free-stream unit Reynolds number, ft ⁻¹
	RHO-INF	Free-stream density, slugs/ft ³

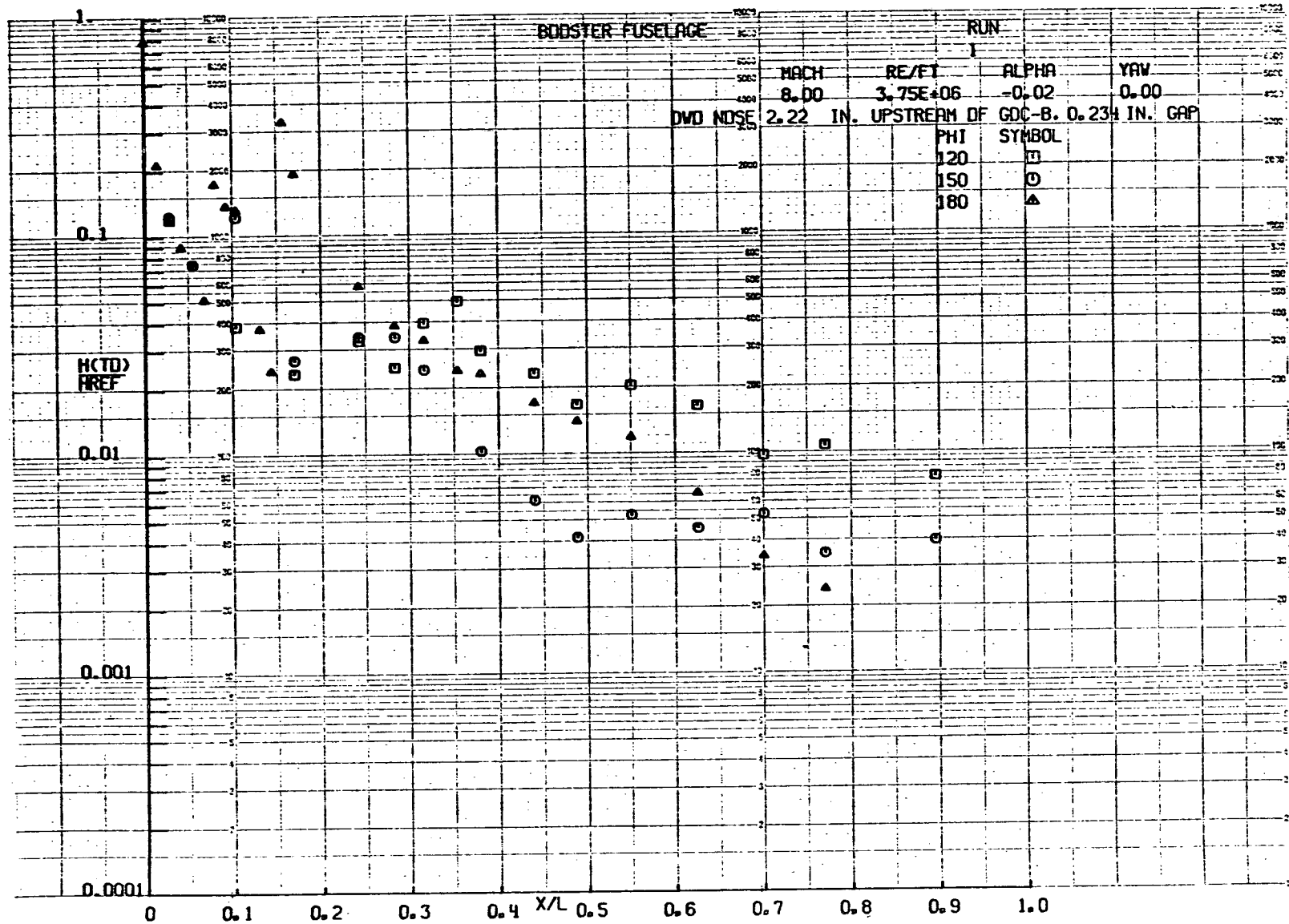
<u>SYMBOL</u>	<u>DATA PRINTOUT</u>	<u>DEFINITION</u>
	ROLL-MODEL	Model roll angle, deg.
S	S	Semispan, wing, canard, vertical stabilizer (see Figs. 4 and 5), in.
	ST-FR	Theoretical stagnation point Stanton number for a 0.009-foot (1 scale foot) radius sphere calculated from Fay-Riddell theory using a wall temperature of 560°R
t		Time, sec.
	T-INF	Free-stream temperature, °R
T ₀	T0	Tunnel stilling chamber temperature, °R
T _w	TW	Model skin temperature, °R
	V-INF	Free-stream velocity, ft/sec
w		Model skin density, lb _m /ft ³
X	X	Axial coordinate (see Figs. 4 and 5), in.
XD		Axial distance from the orbiter nose to the booster nose, in.
Y	Y	Lateral coordinate (see Figs. 4 and 5), in.
	YAW	Model yaw angle (equal to $-\beta$), deg.
	YMAX	Local maximum fuselage width, in.
Z	Z	Vertical coordinate (see Figs. 4 and 5), in.
ZD		Vertical distance from the top of the booster to the bottom of the orbiter, in.
α	ALPHA-MODEL	Model angle of attack, deg.
	ALPHA-PREBEND	Sting prebend angle, deg.
	ALPHA-SECTOR	Tunnel sector angle, deg.

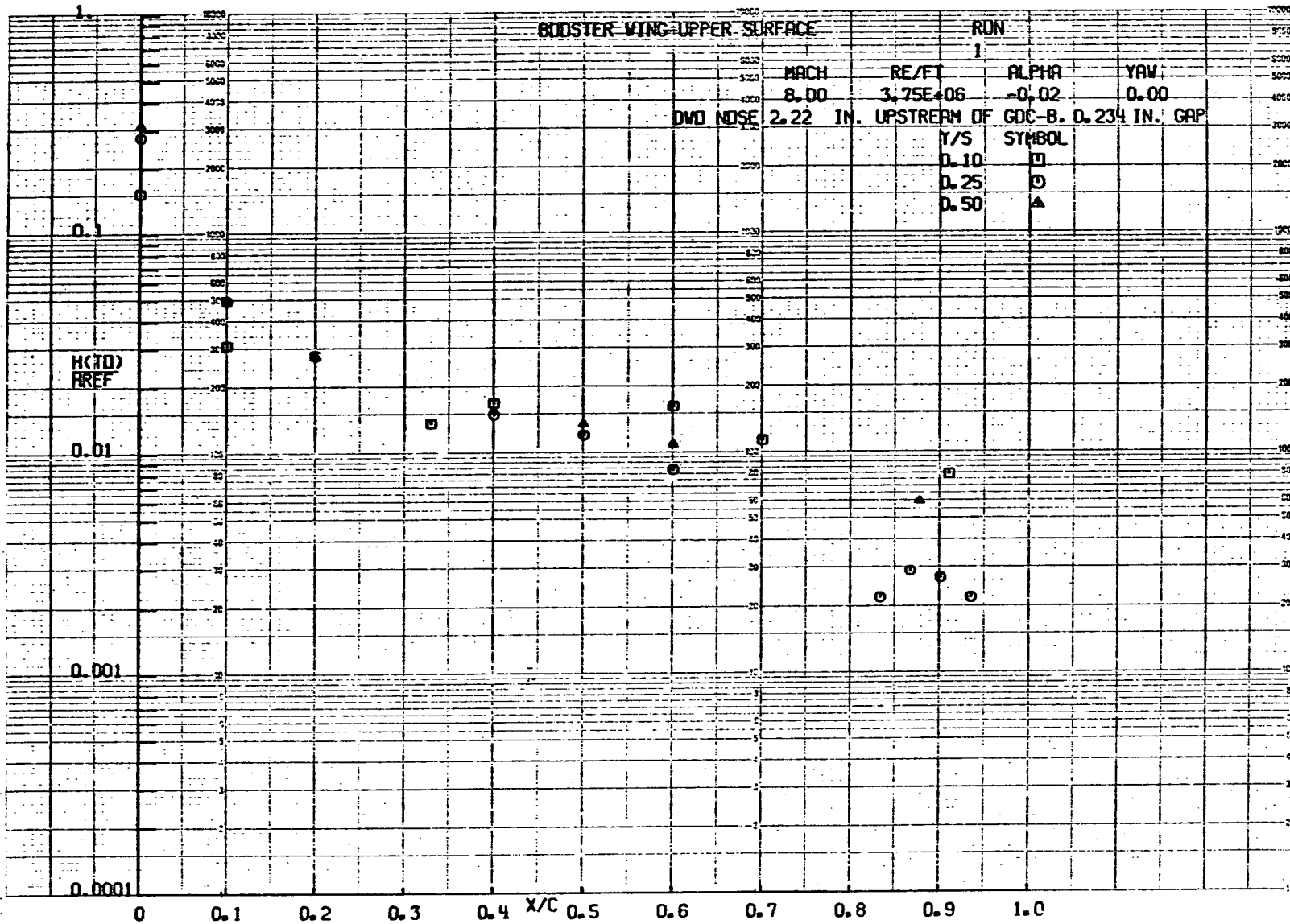
<u>TEXT</u>	<u>SYMBOL</u>	<u>DATA PRINTOUT</u>	<u>DEFINITION</u>
	β		Sideslip angle, deg.
	ϕ	PHI	Orientation angle on the booster (see Fig. 4), deg.
	ϕ_M		Model roll angle, deg.
	δ_c		Canard deflection angle (see Fig. 4), deg.
	δ_e		Elevon deflection angle (see Figs. 4 and 5), deg.
SUBSCRIPT			
	i		Initial conditions

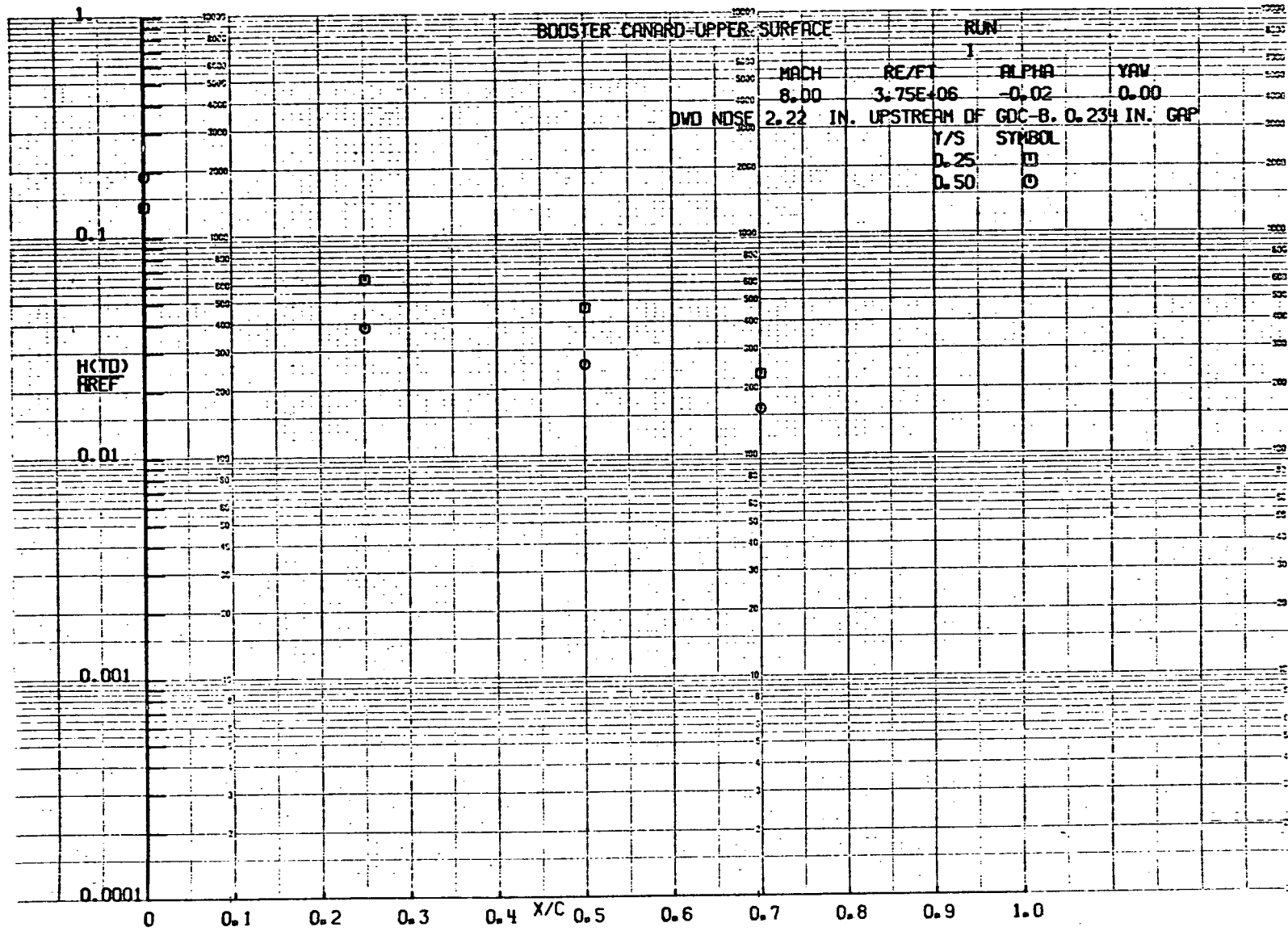
P L O T T E D D A T A

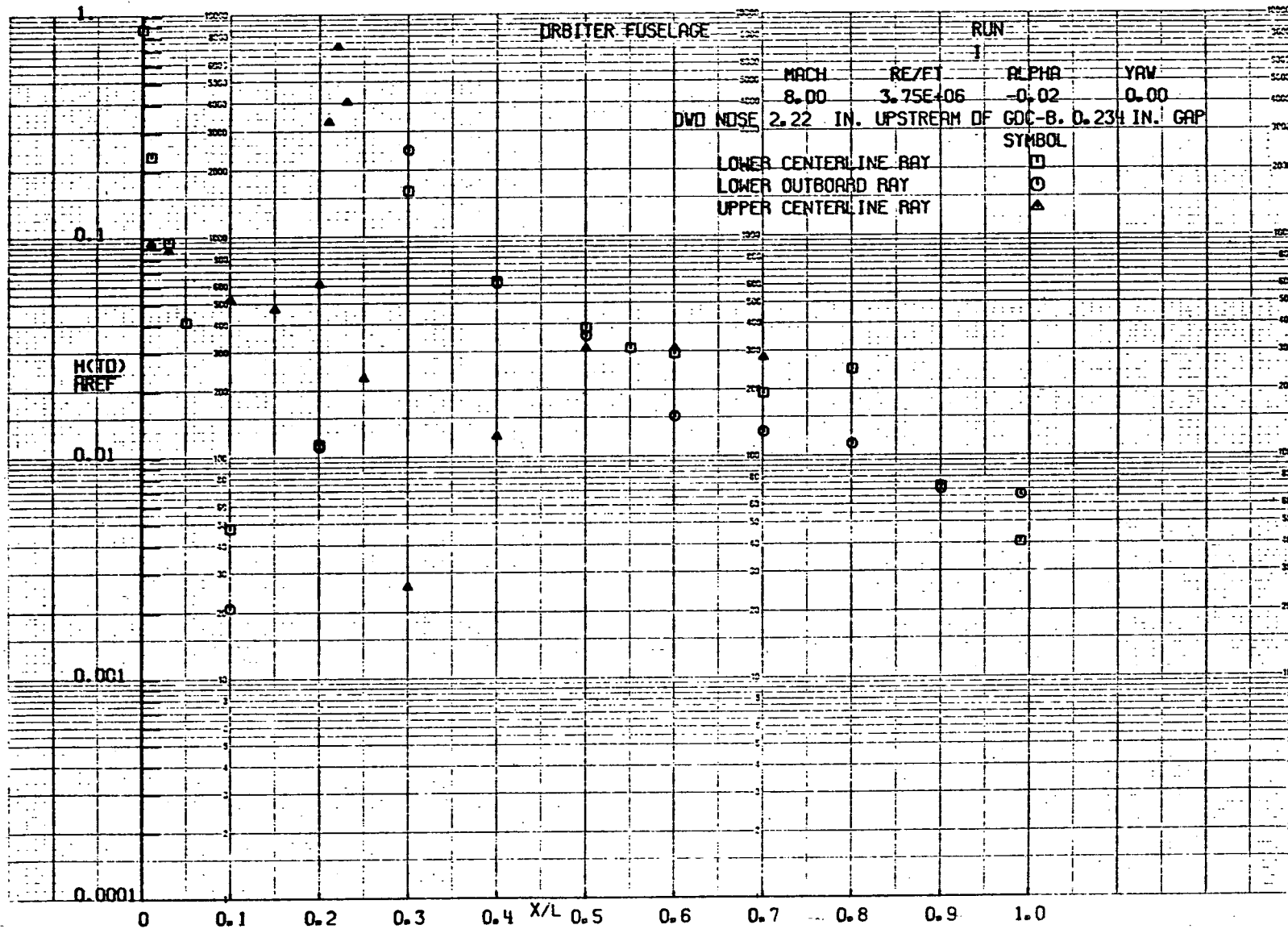


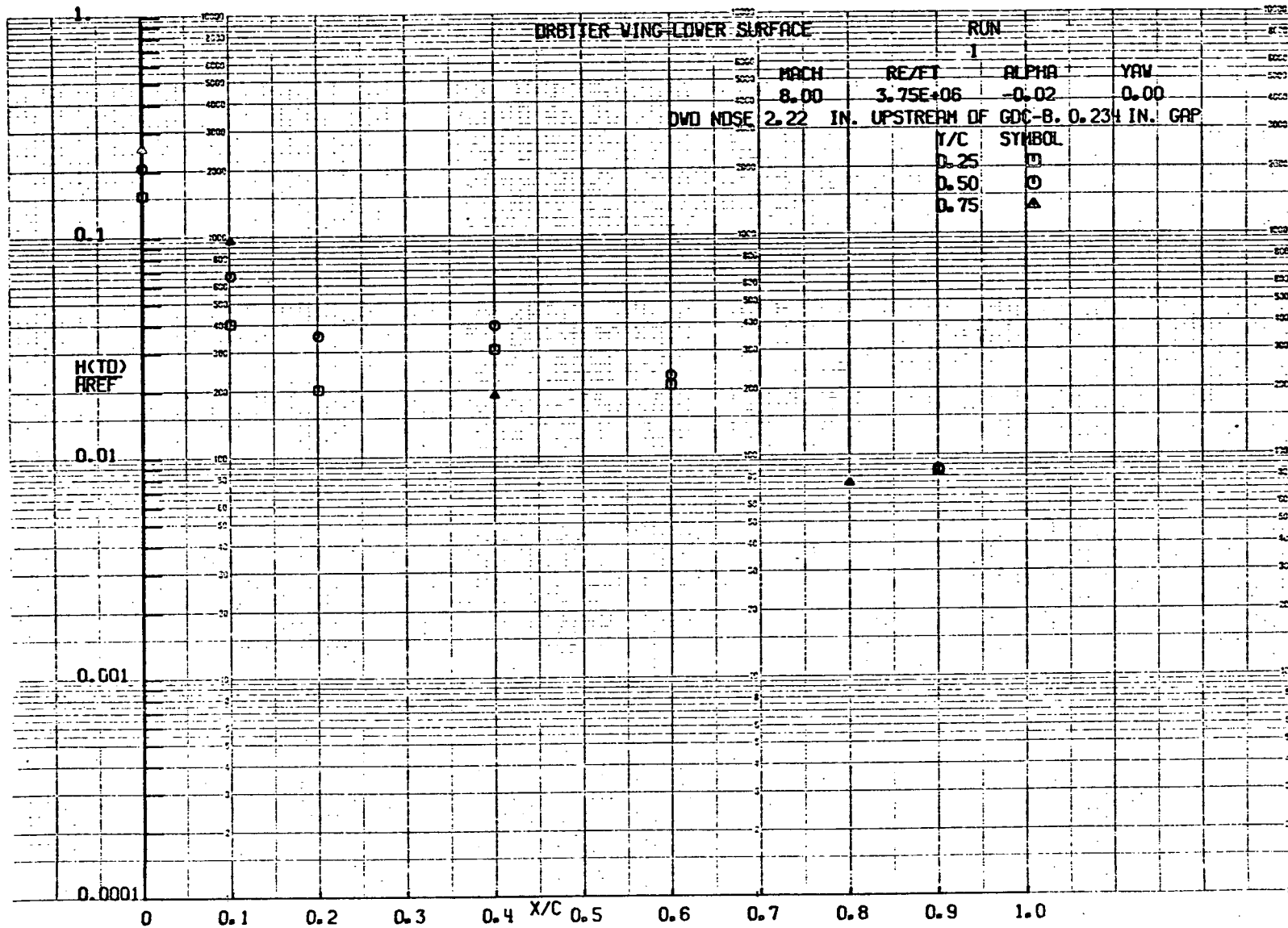


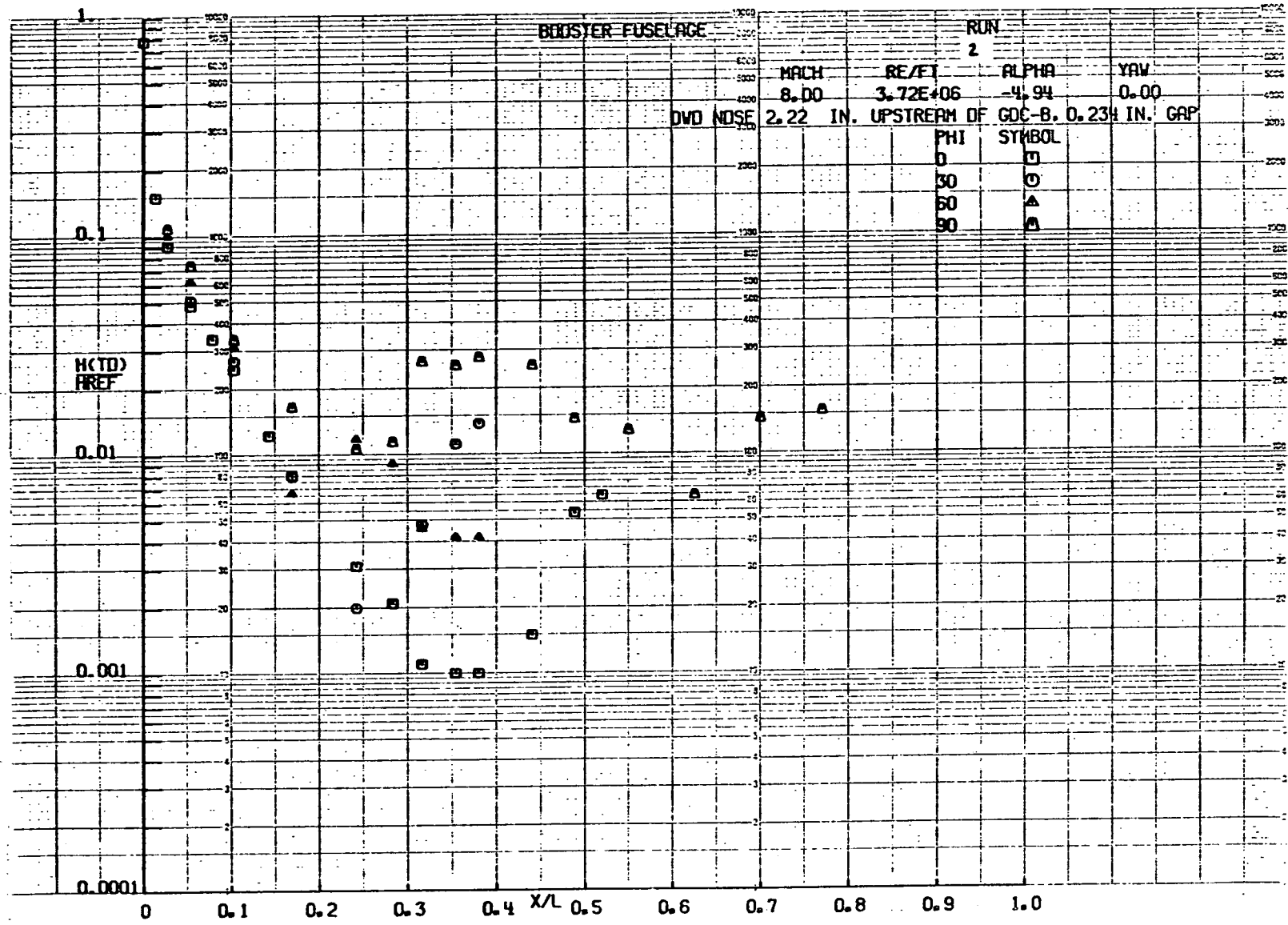


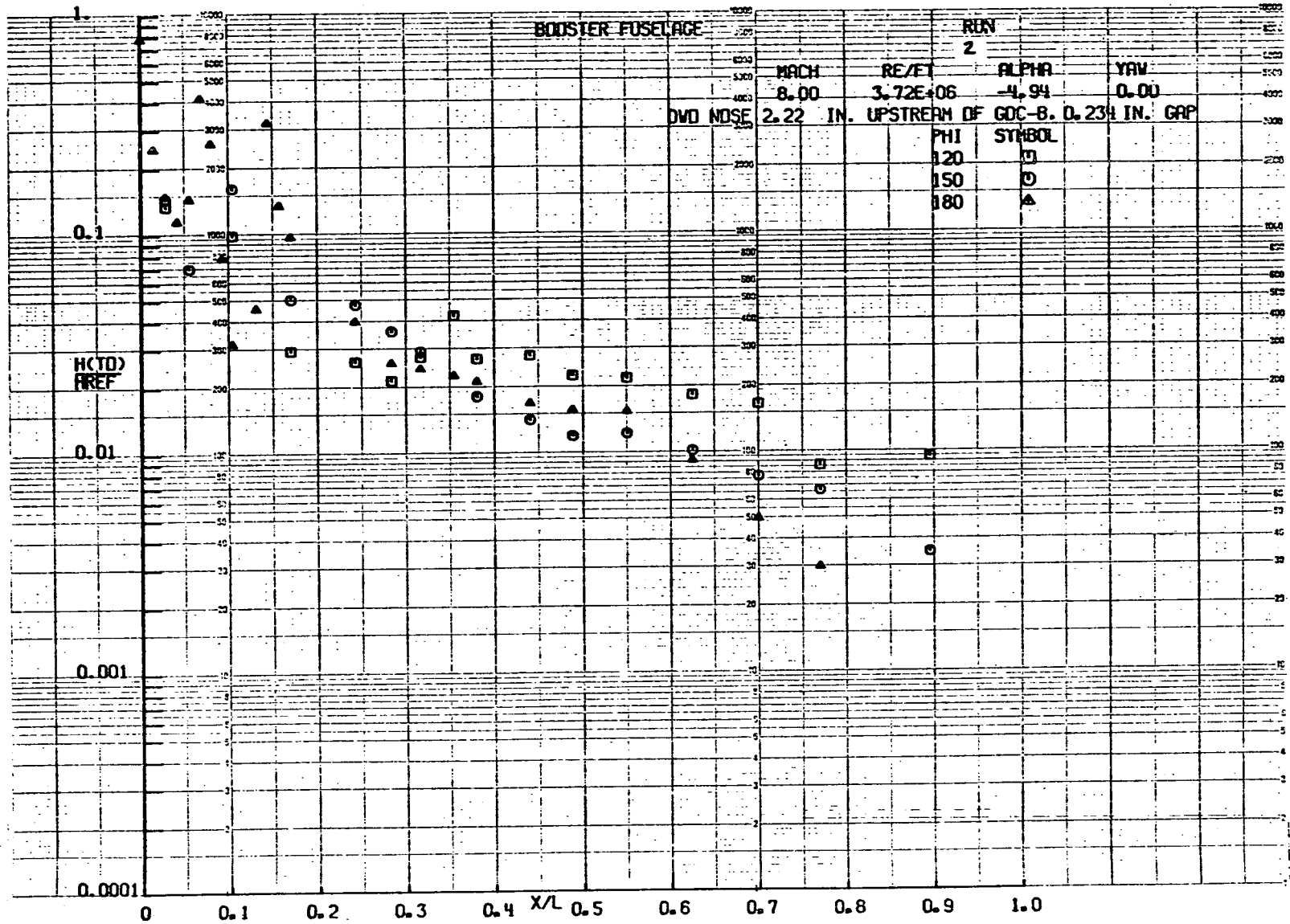


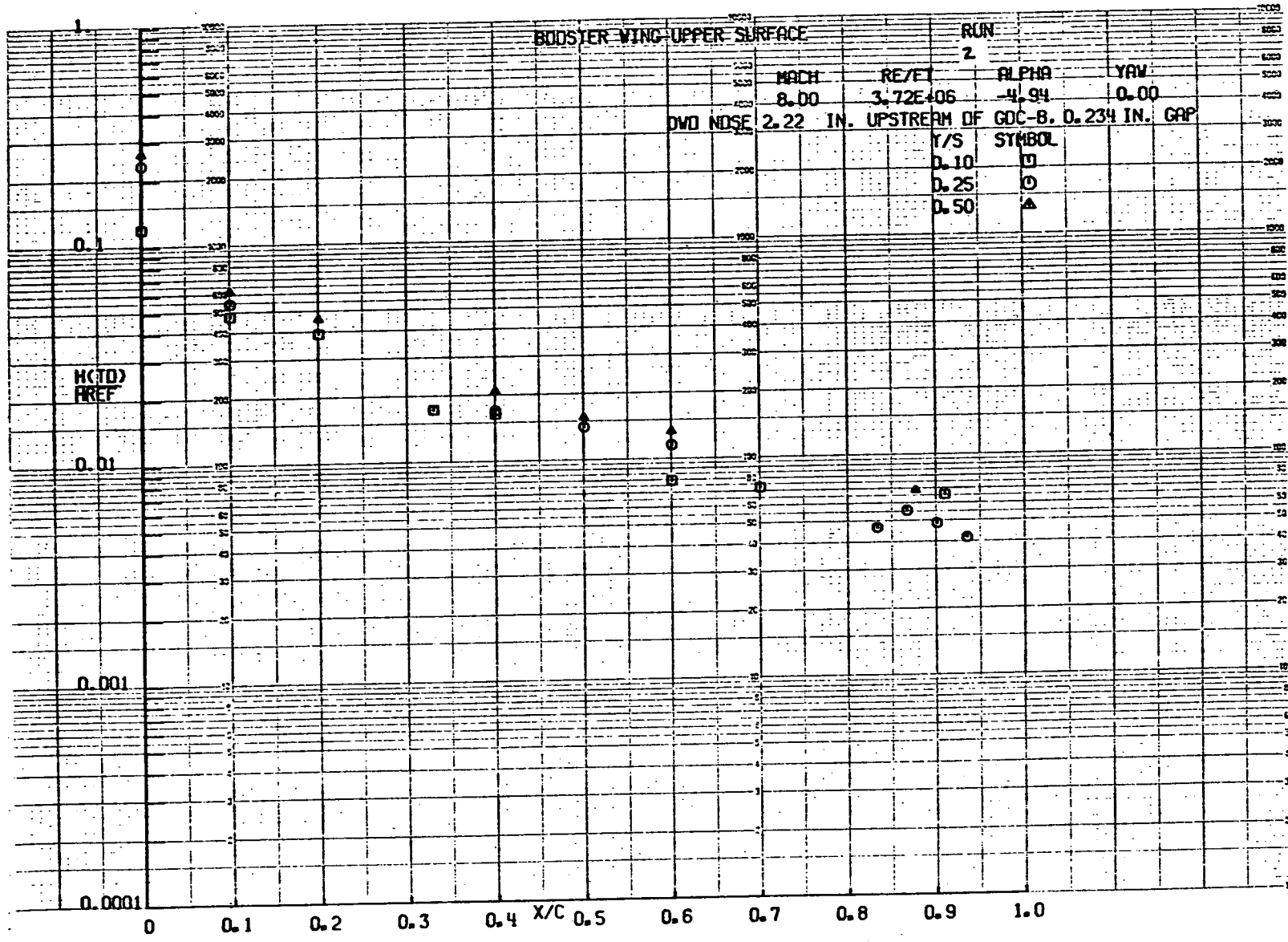


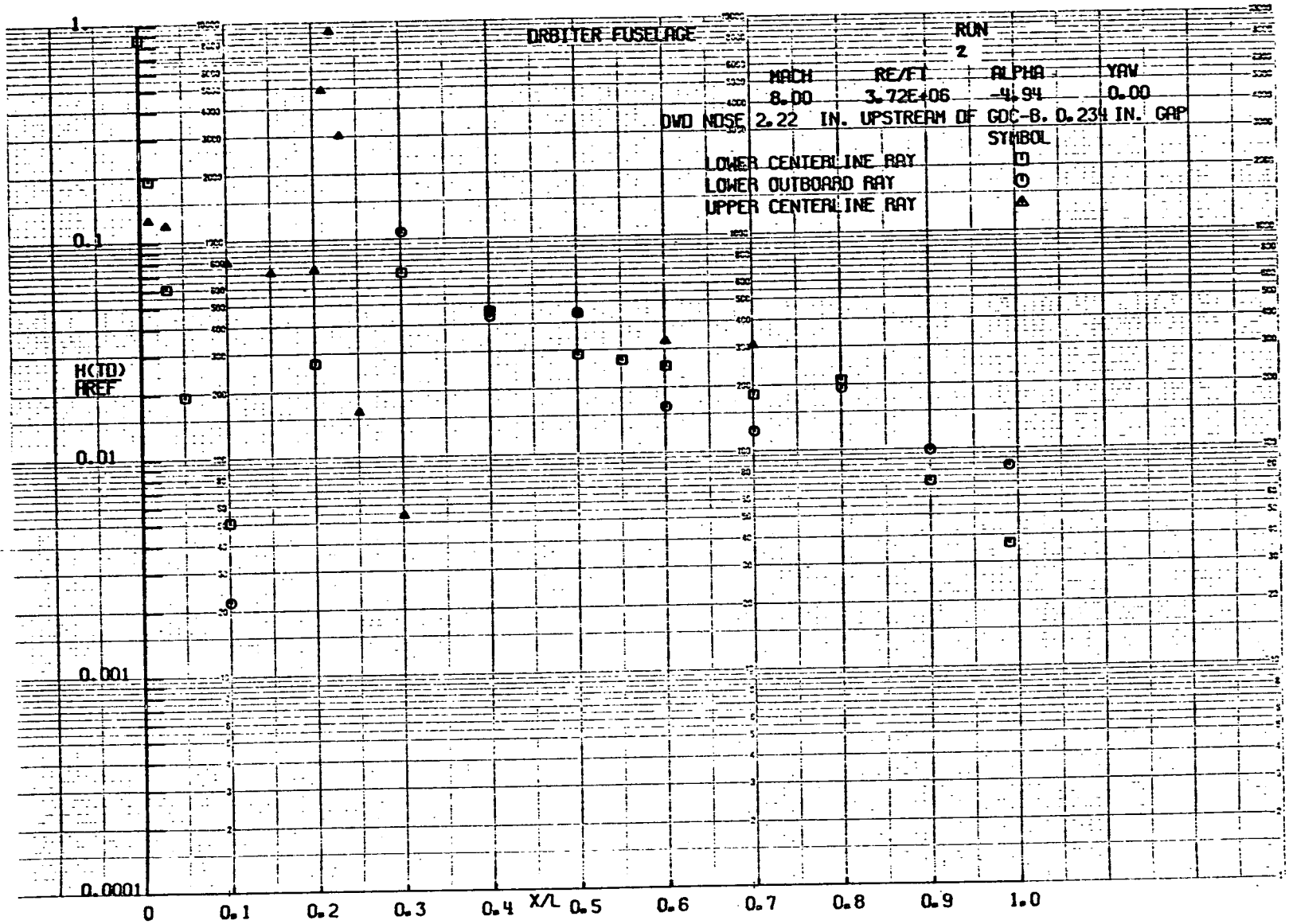


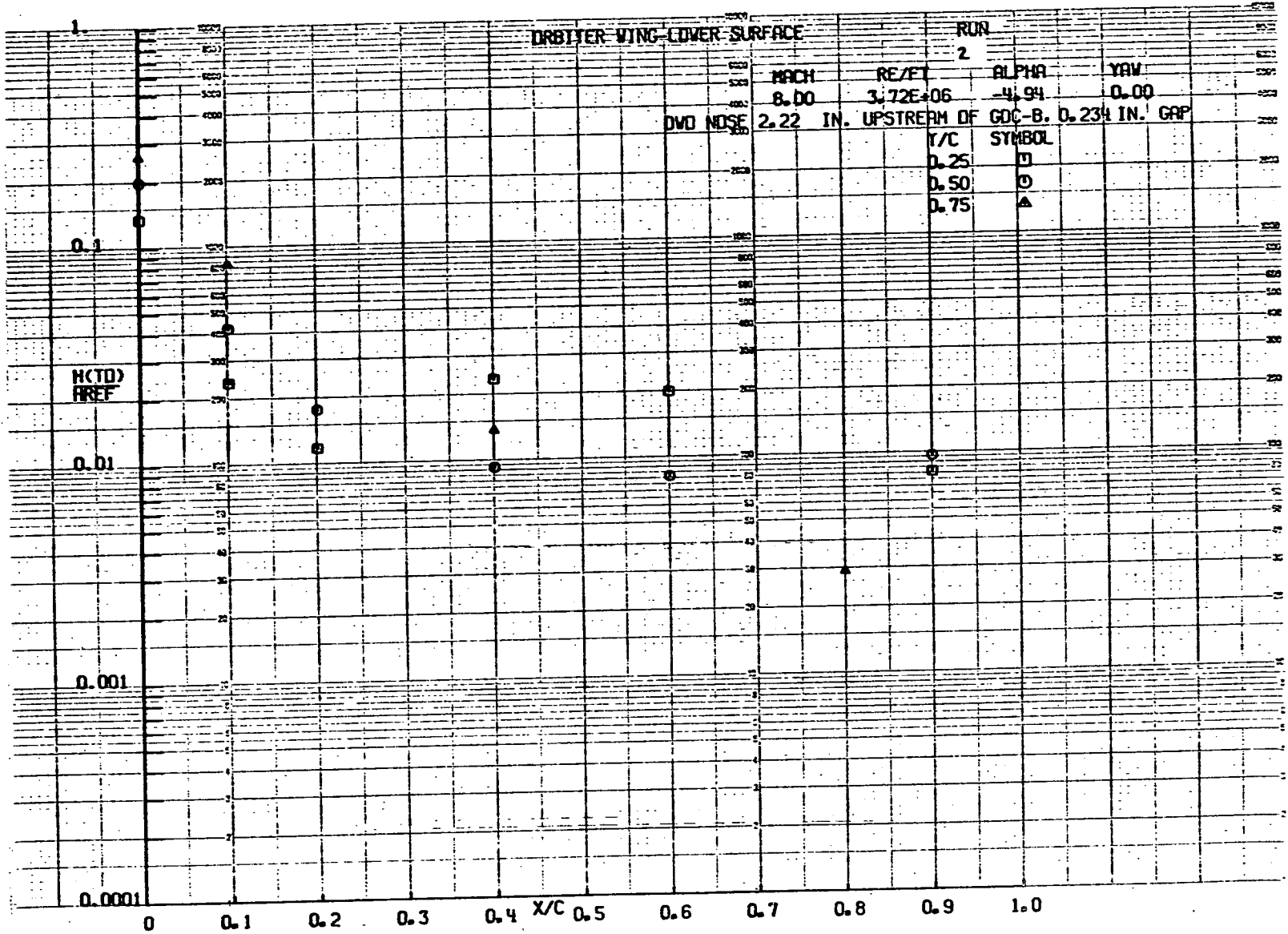


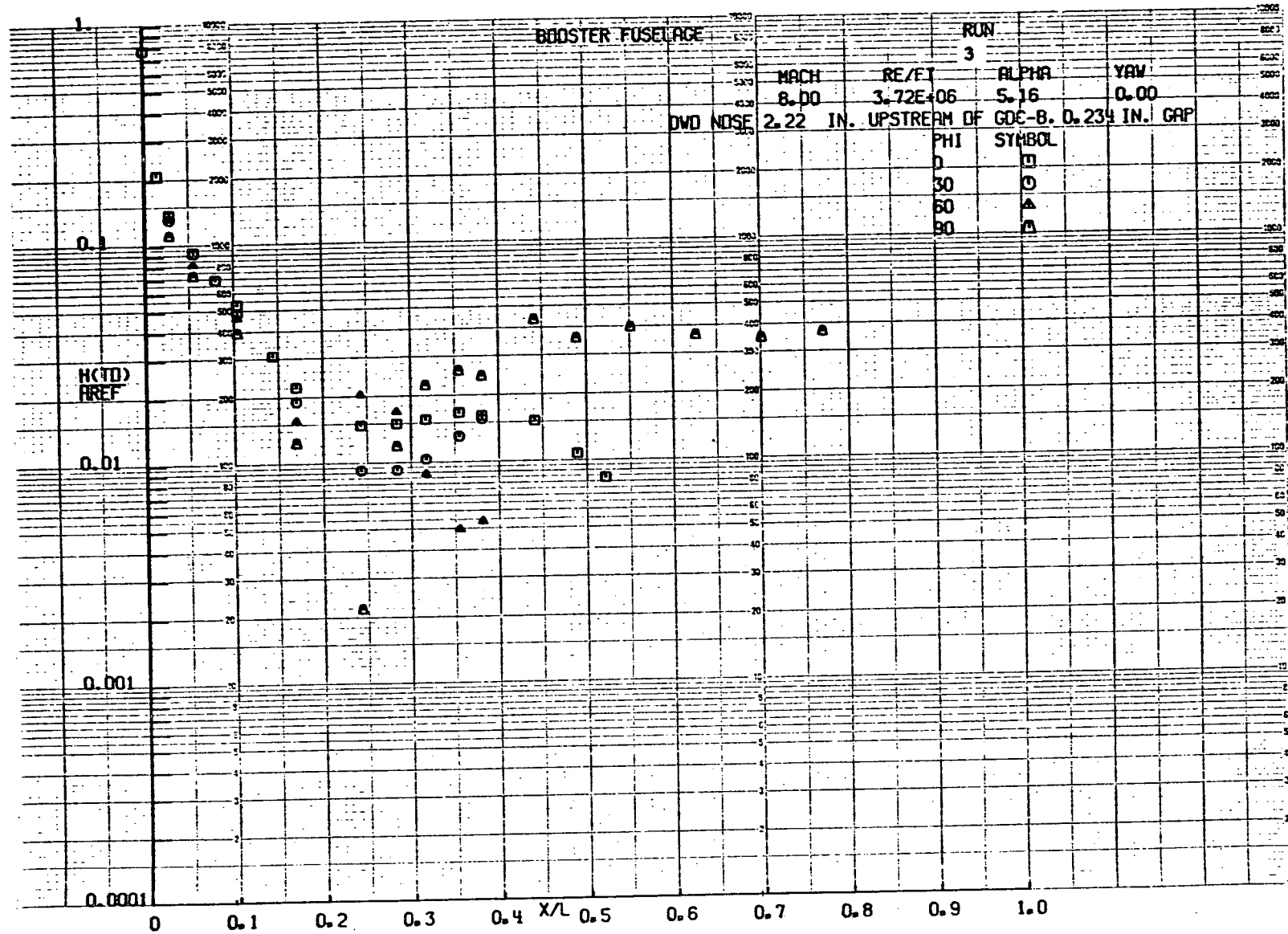


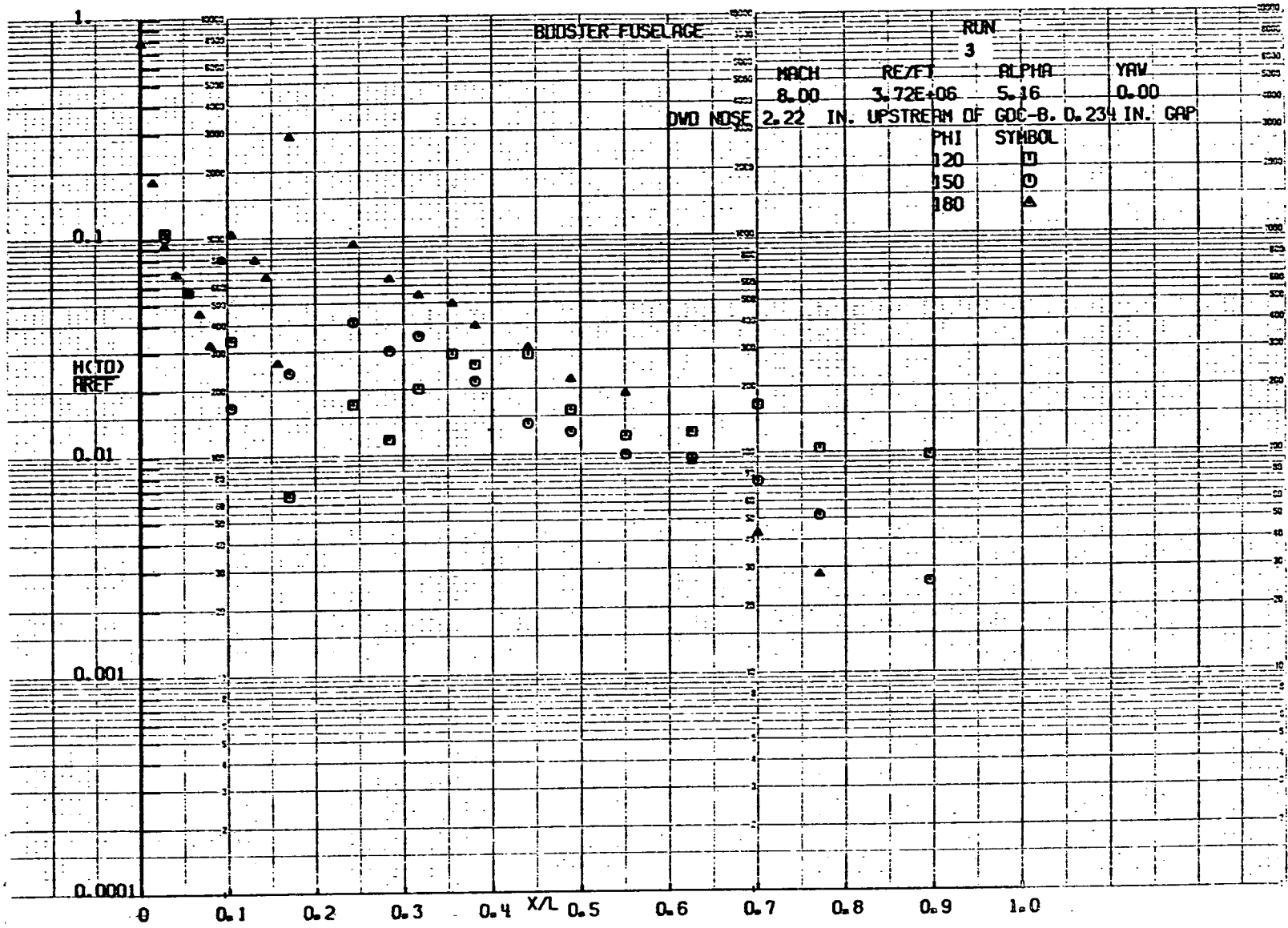


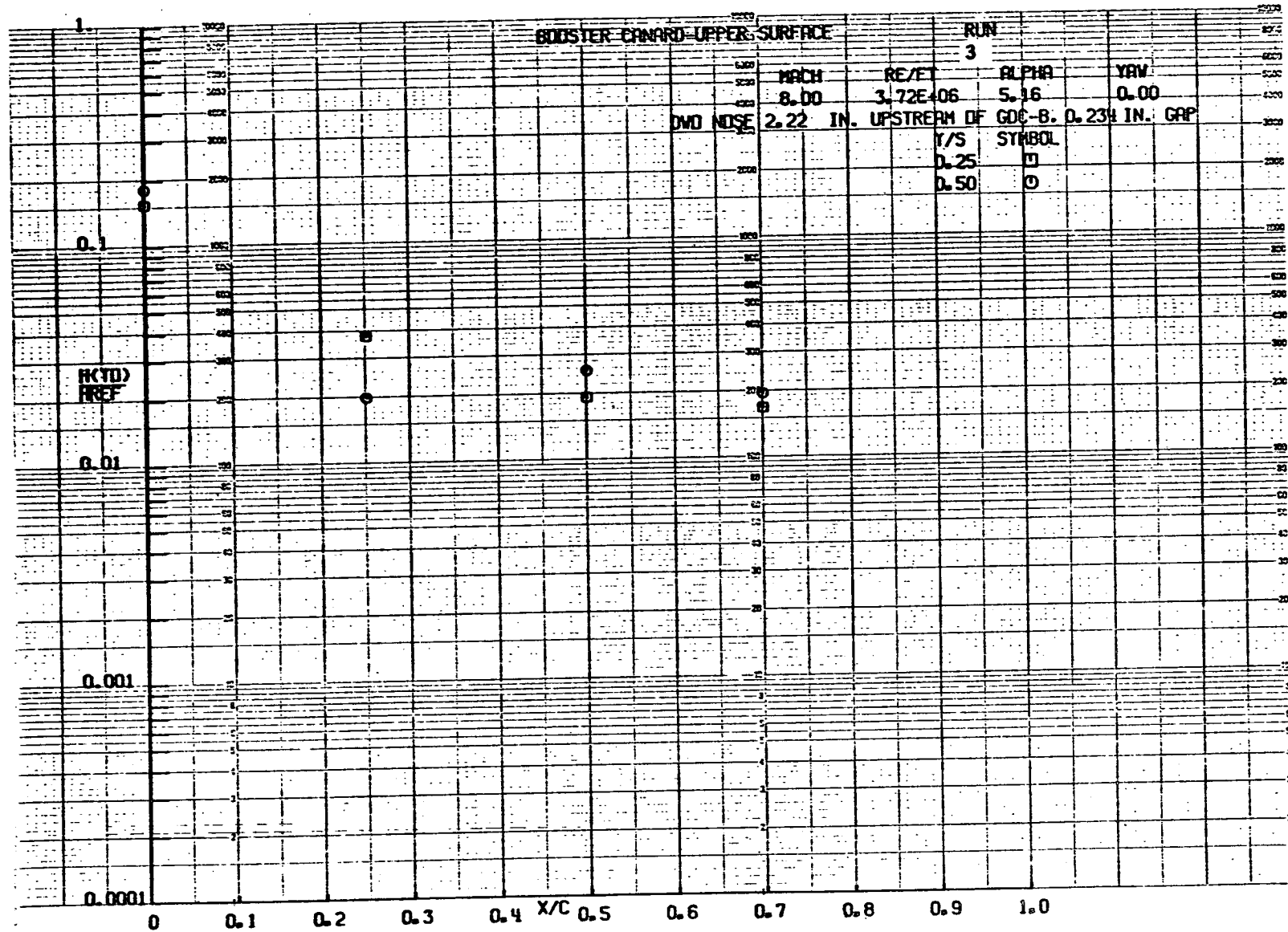




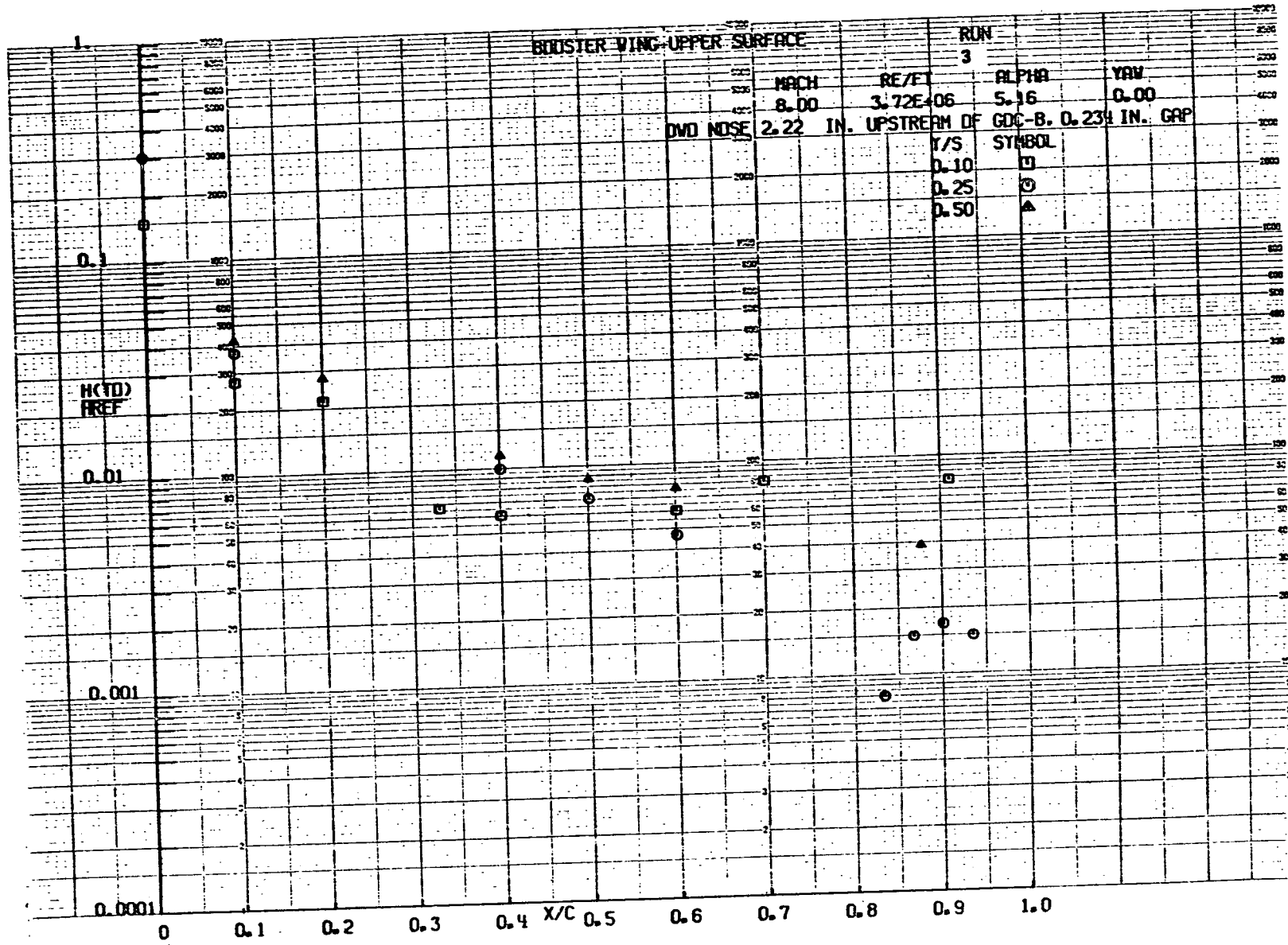


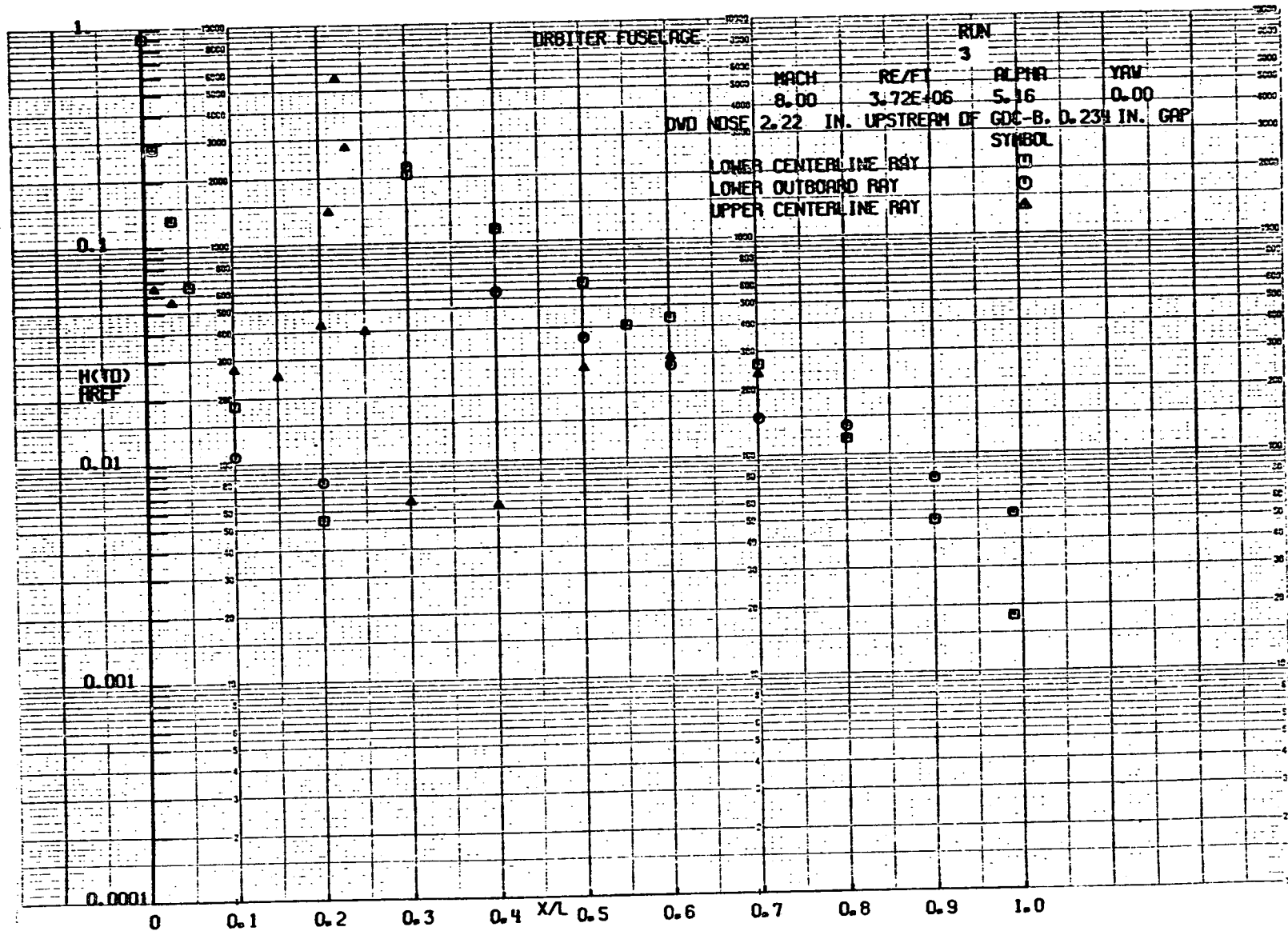


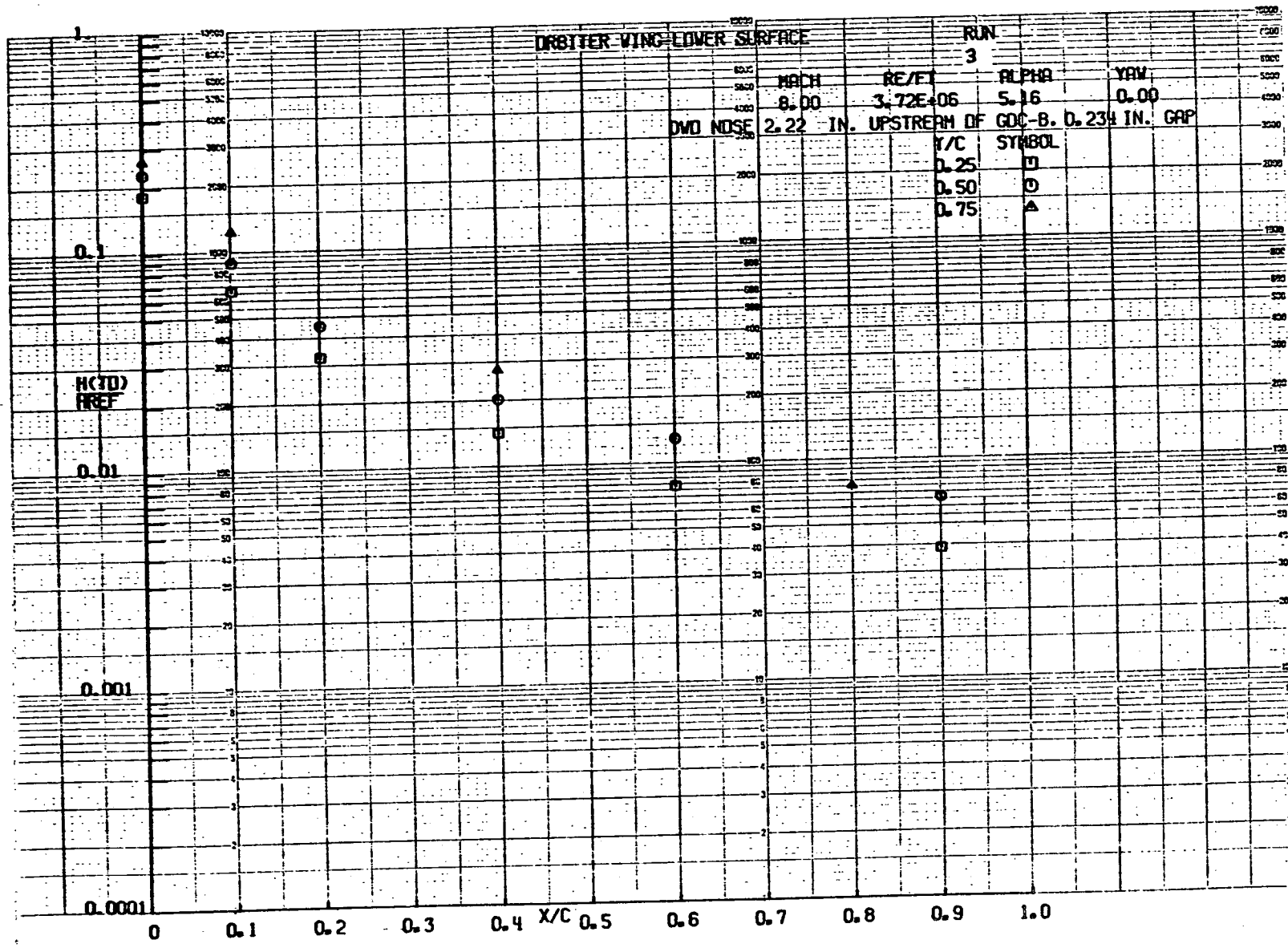


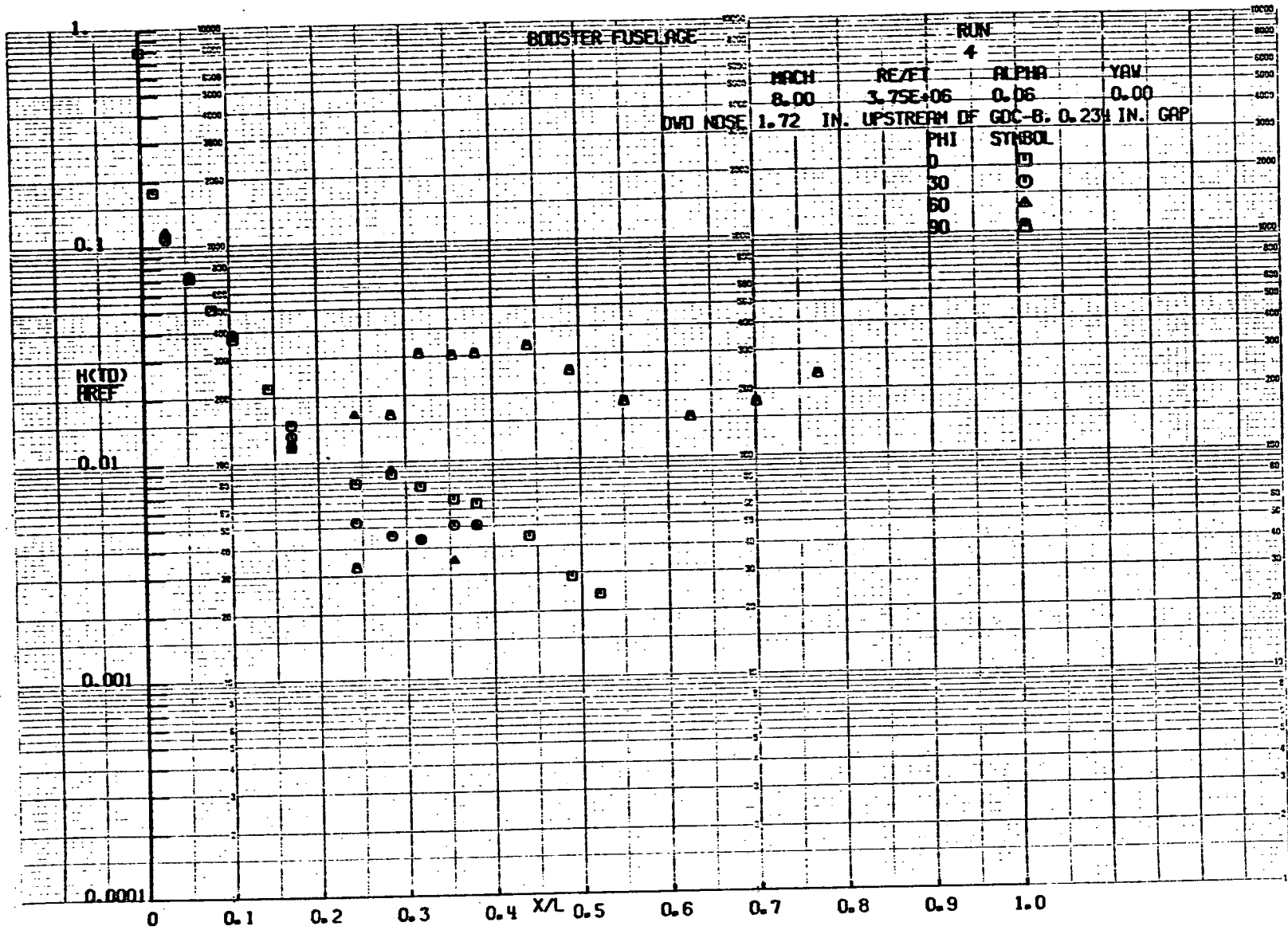


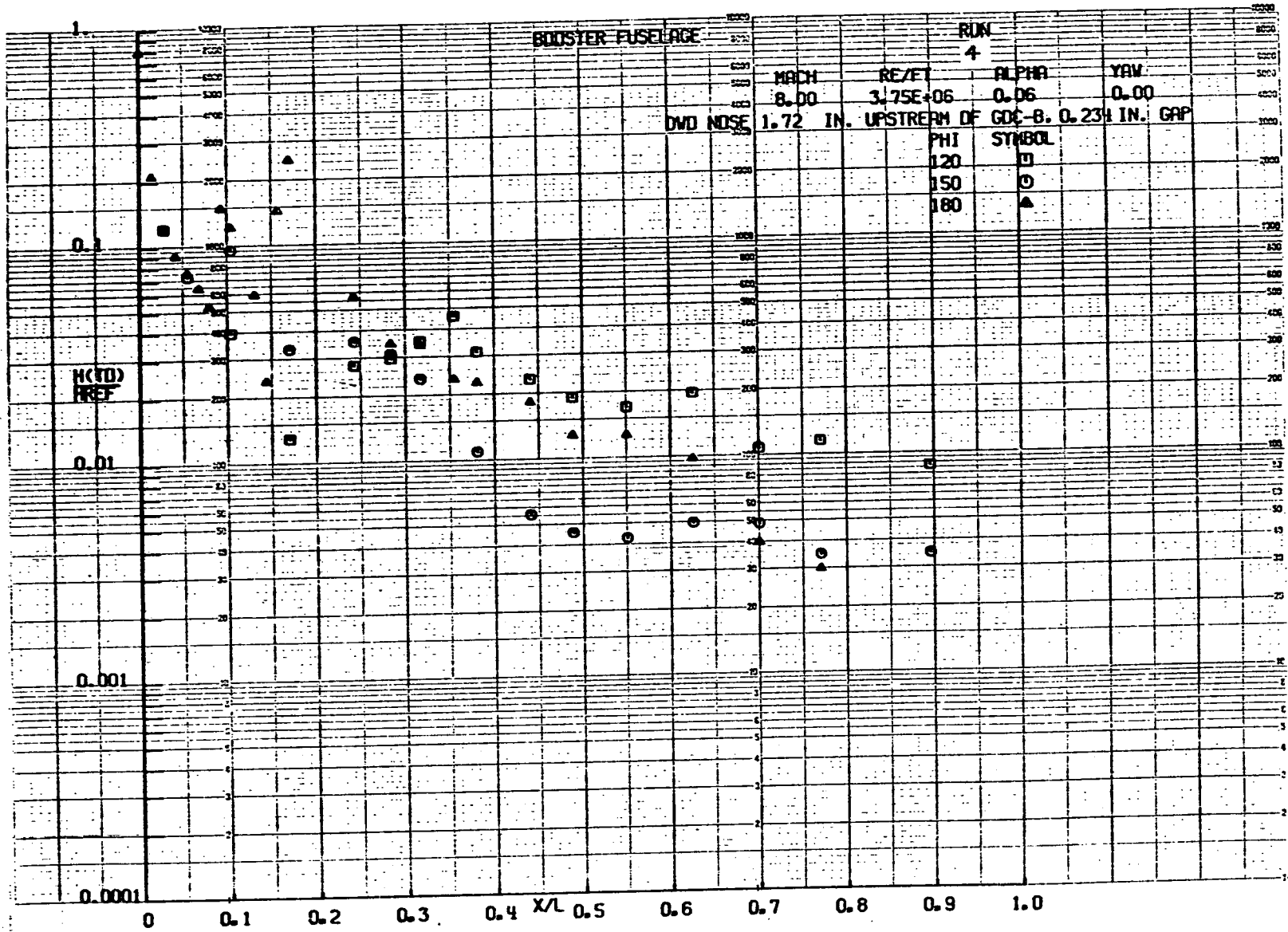
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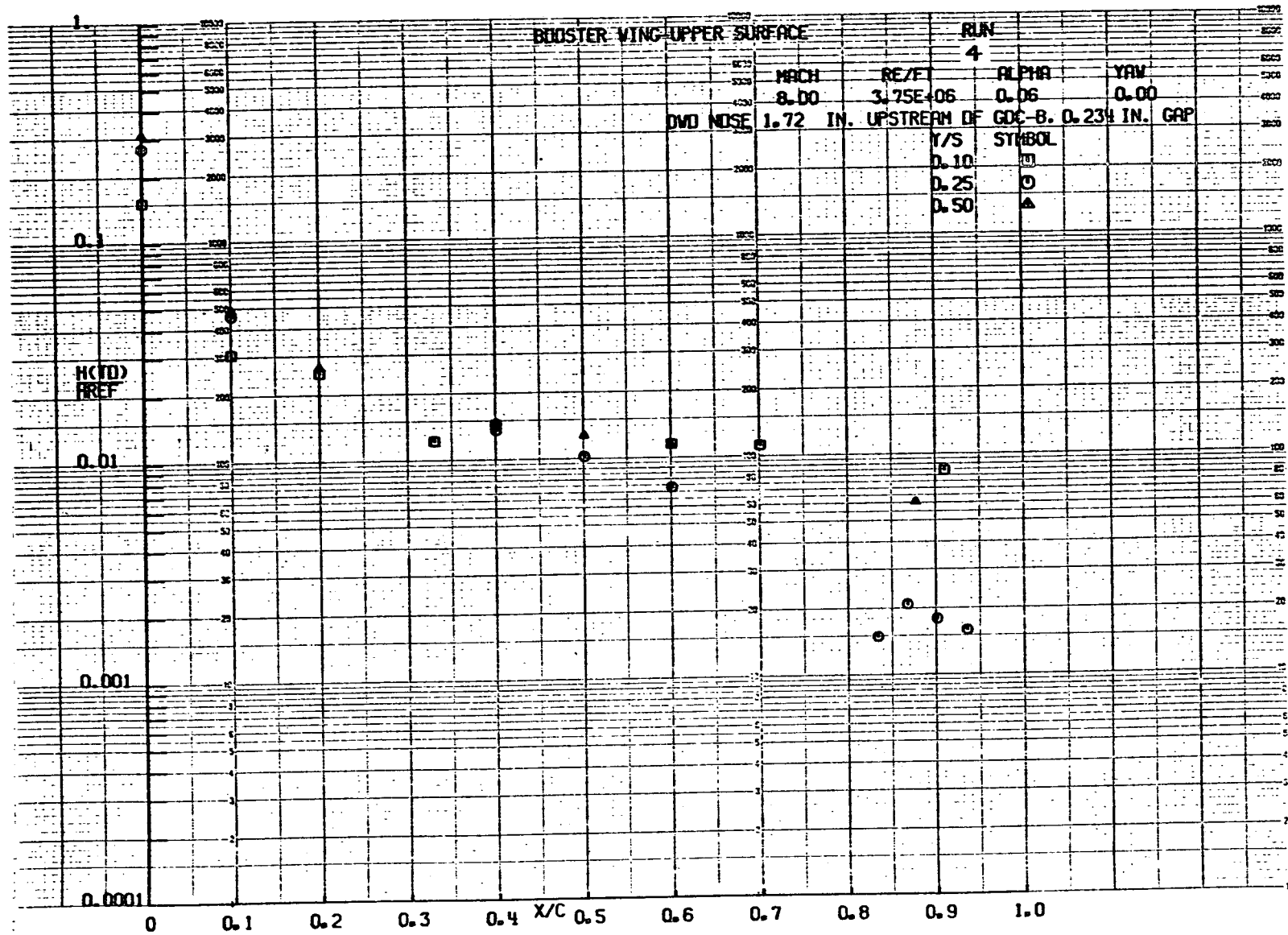


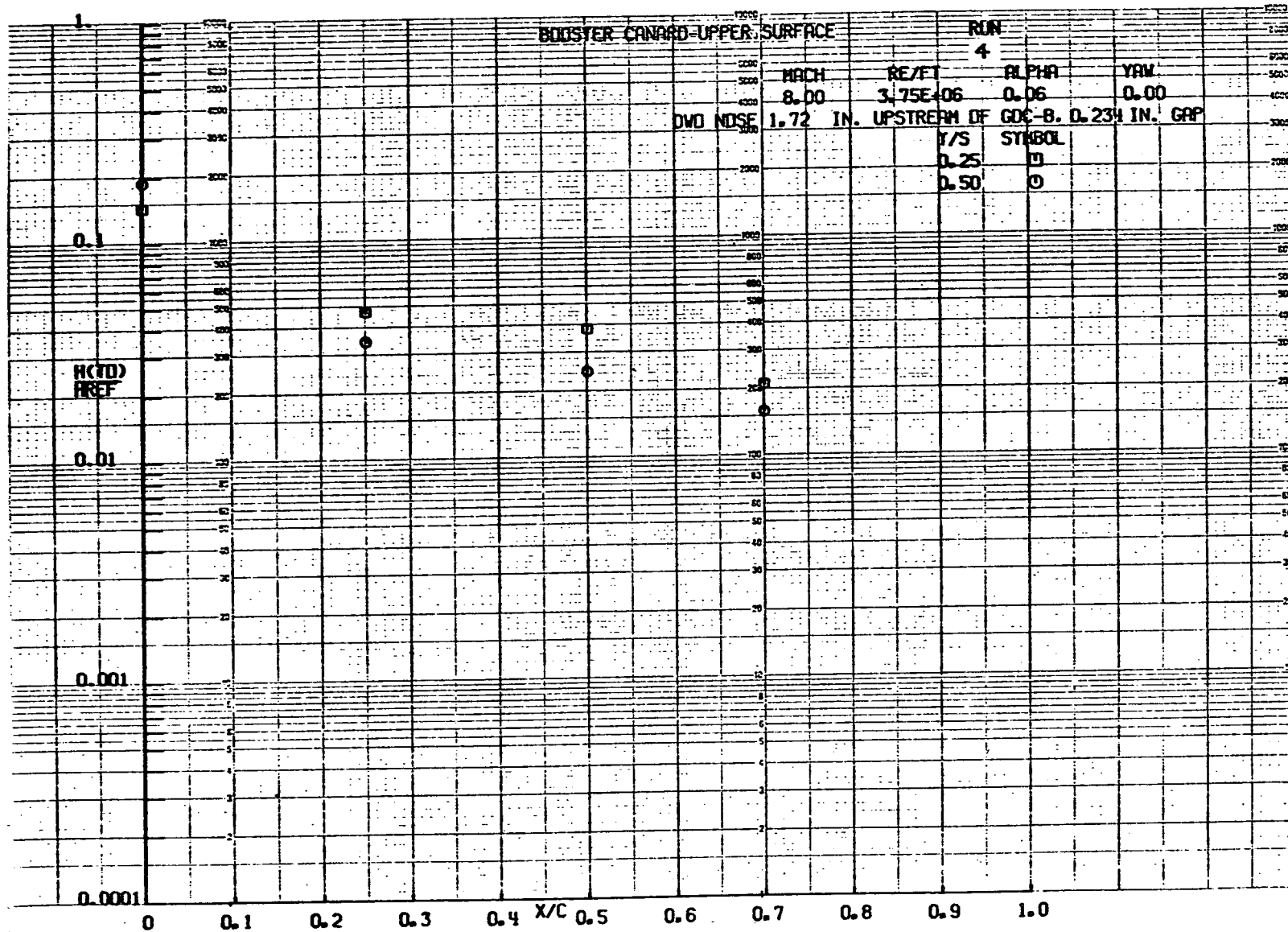


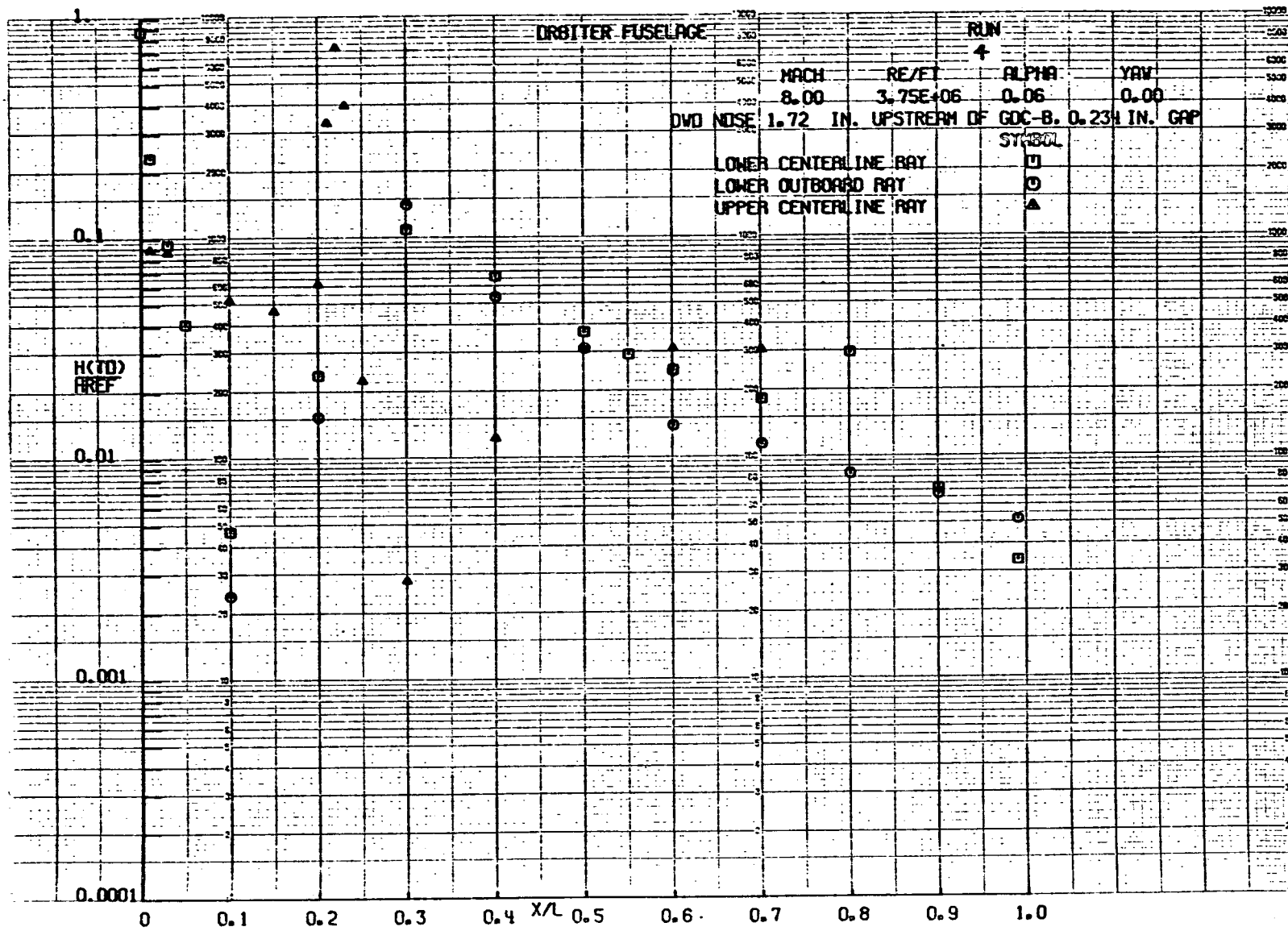


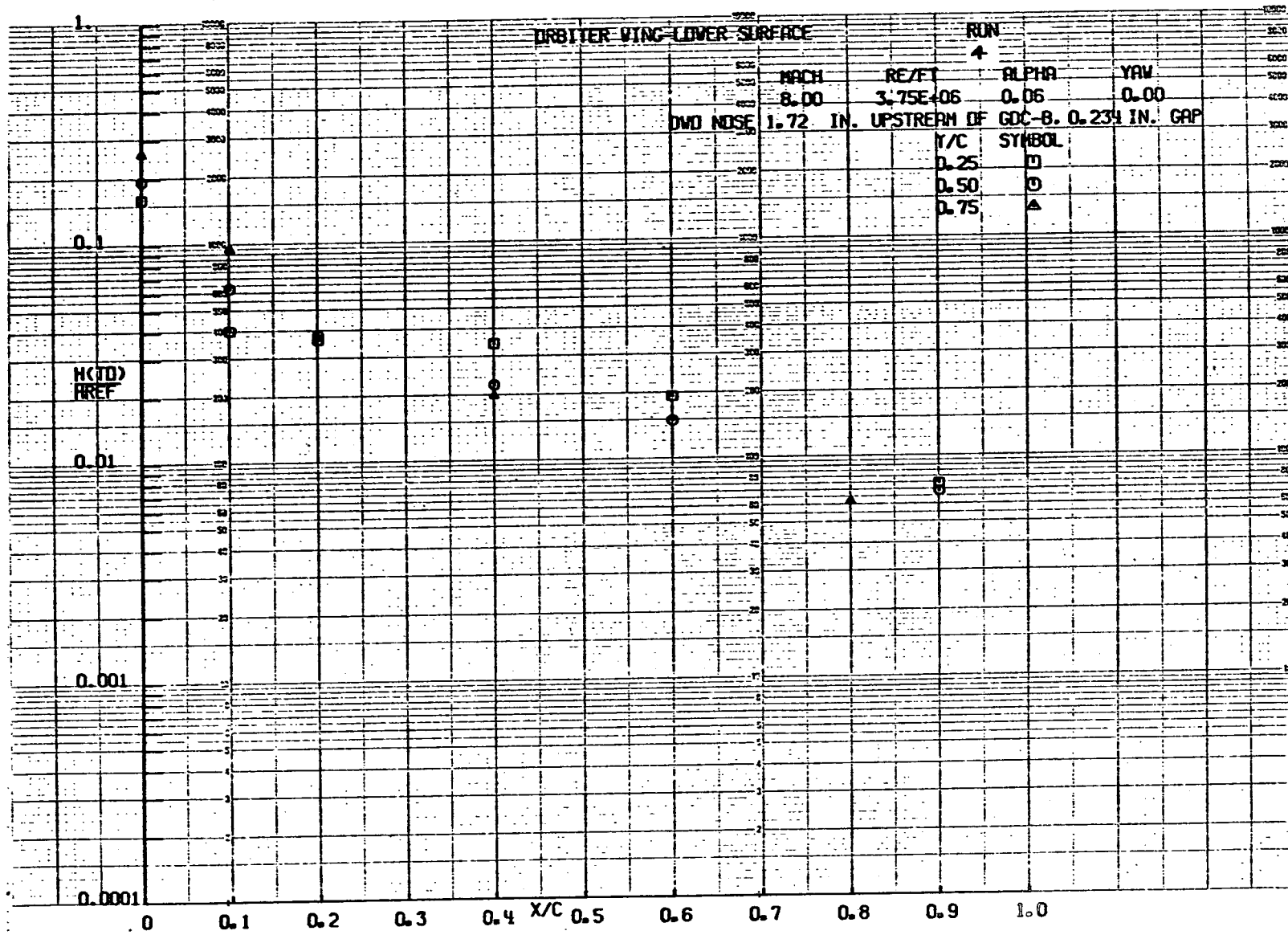


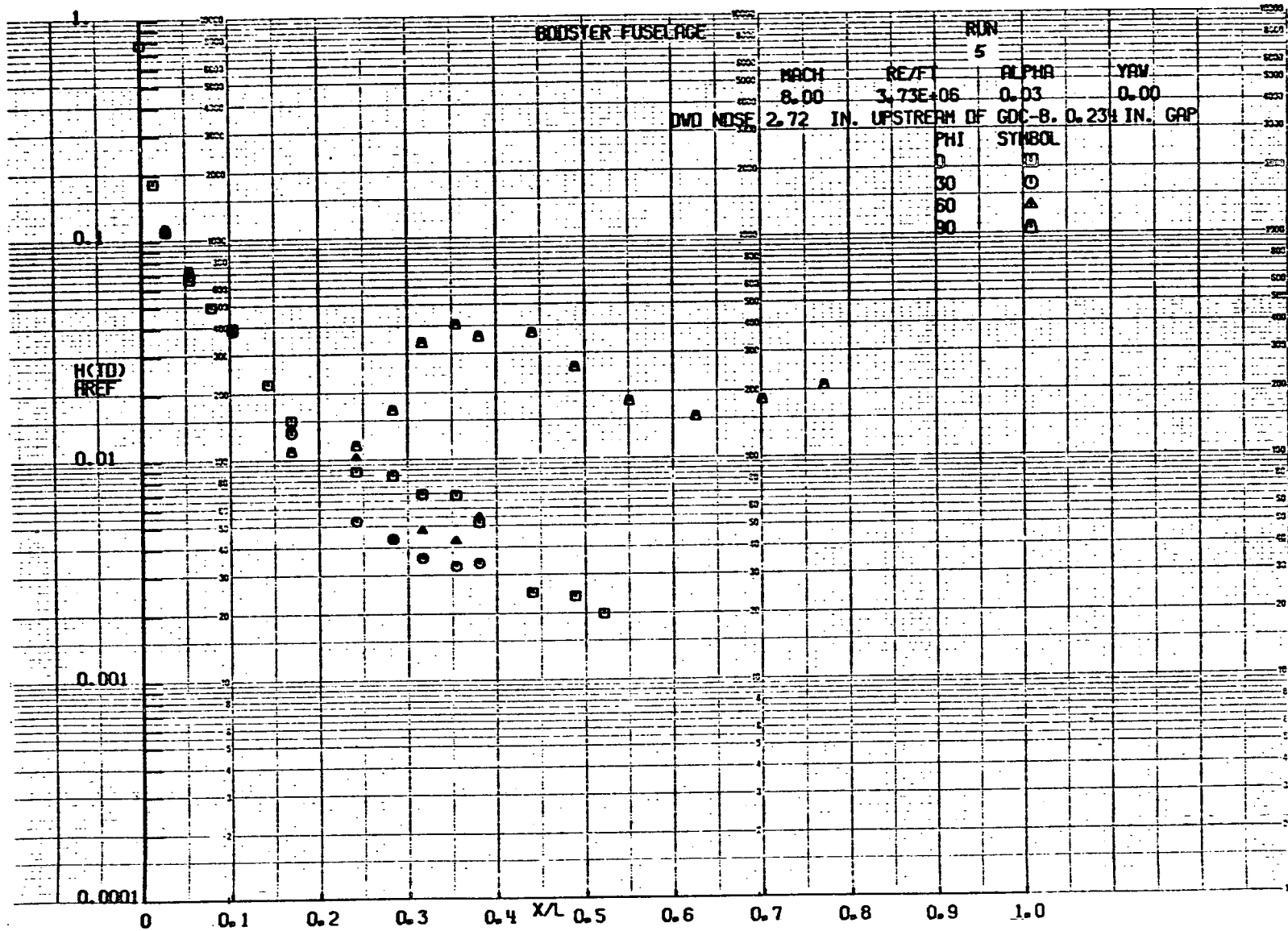


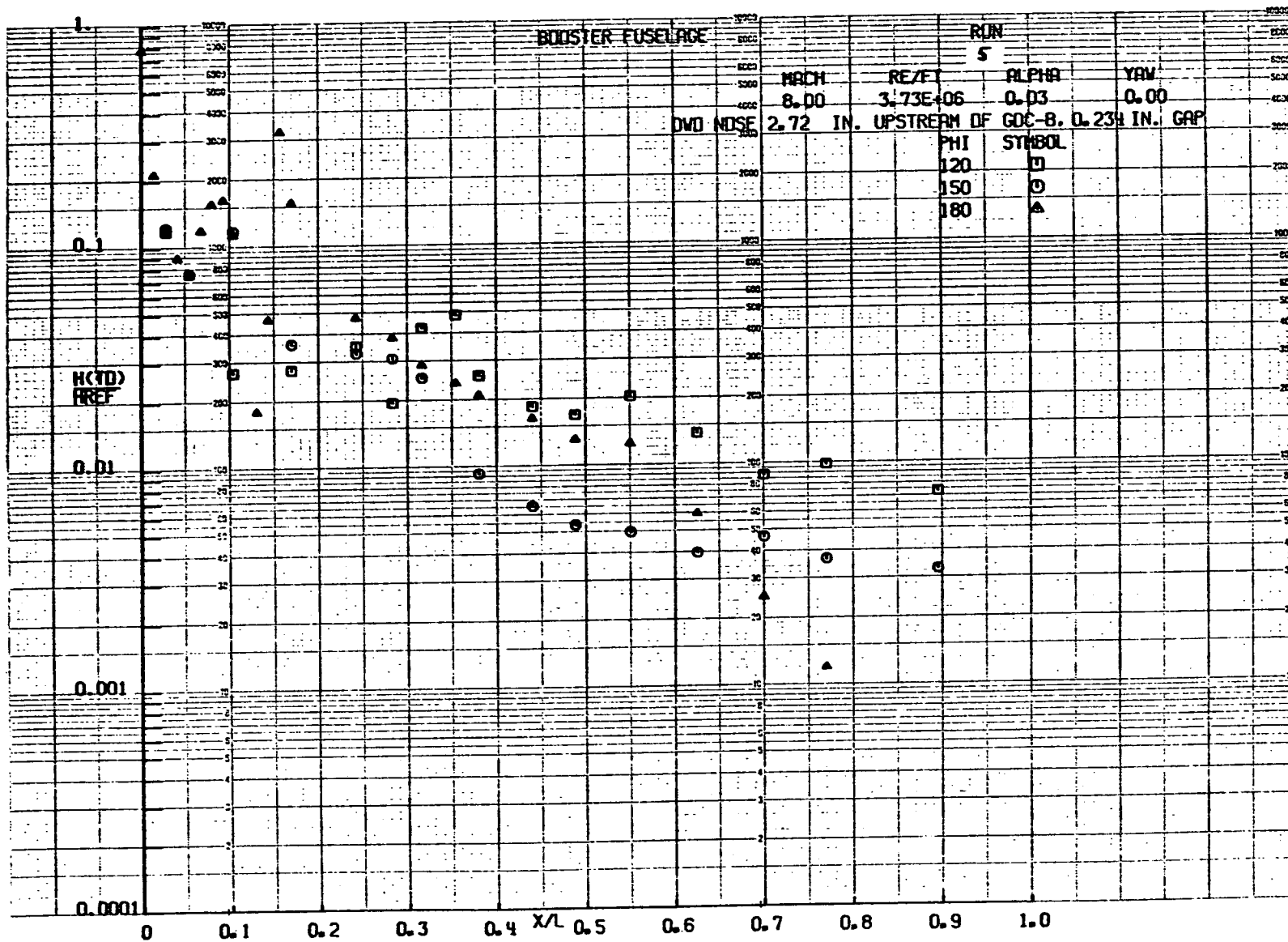


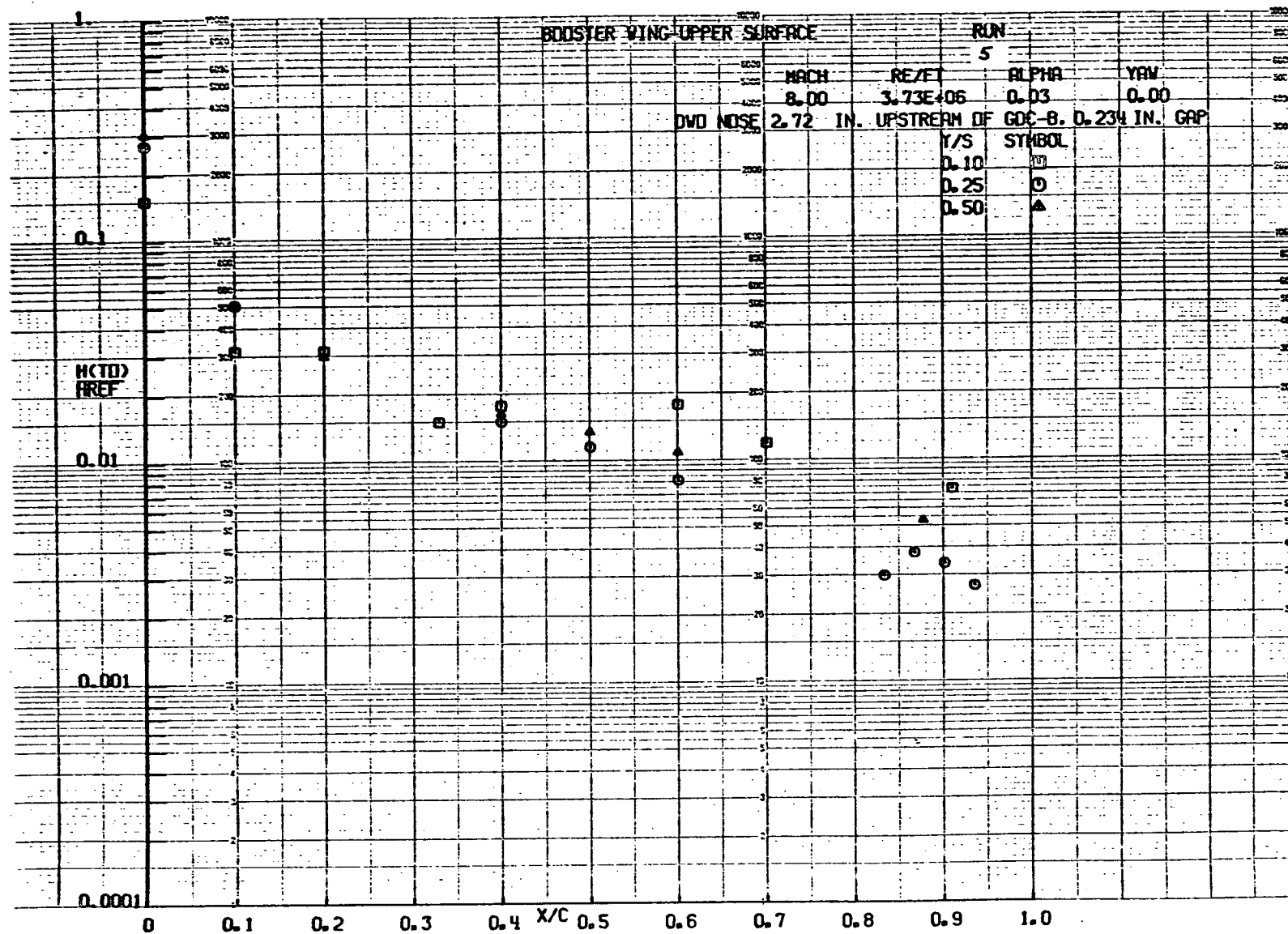


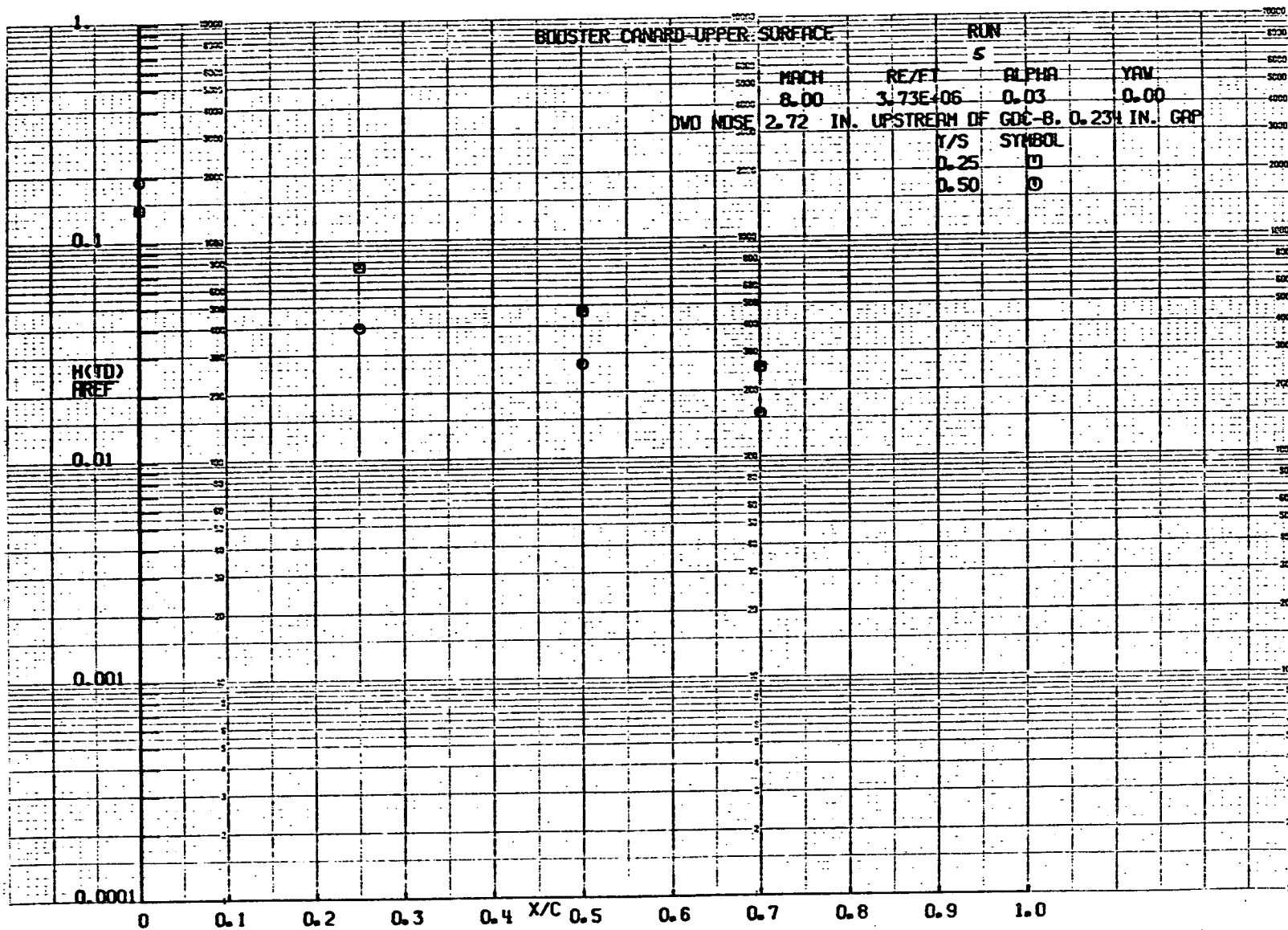


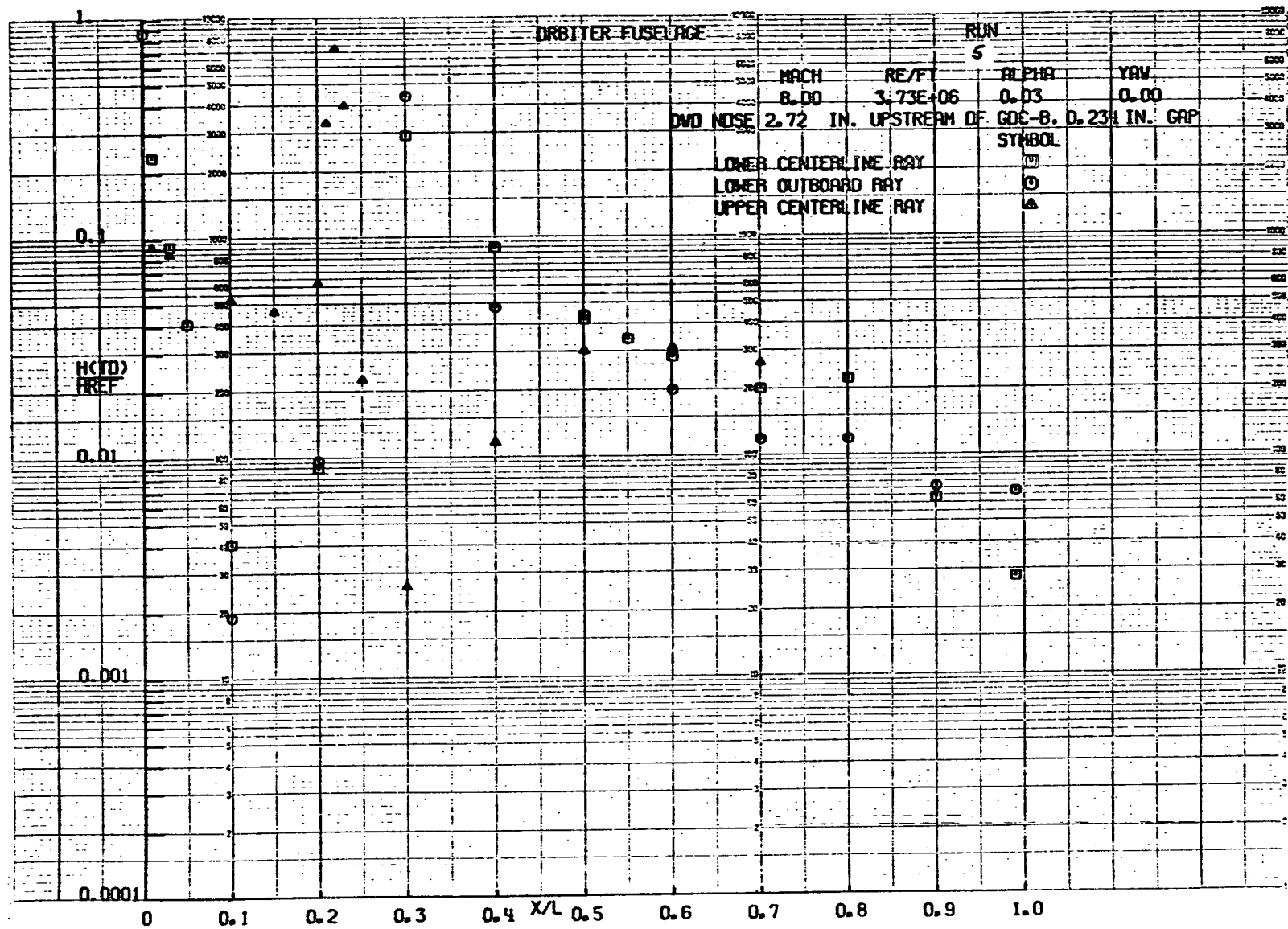


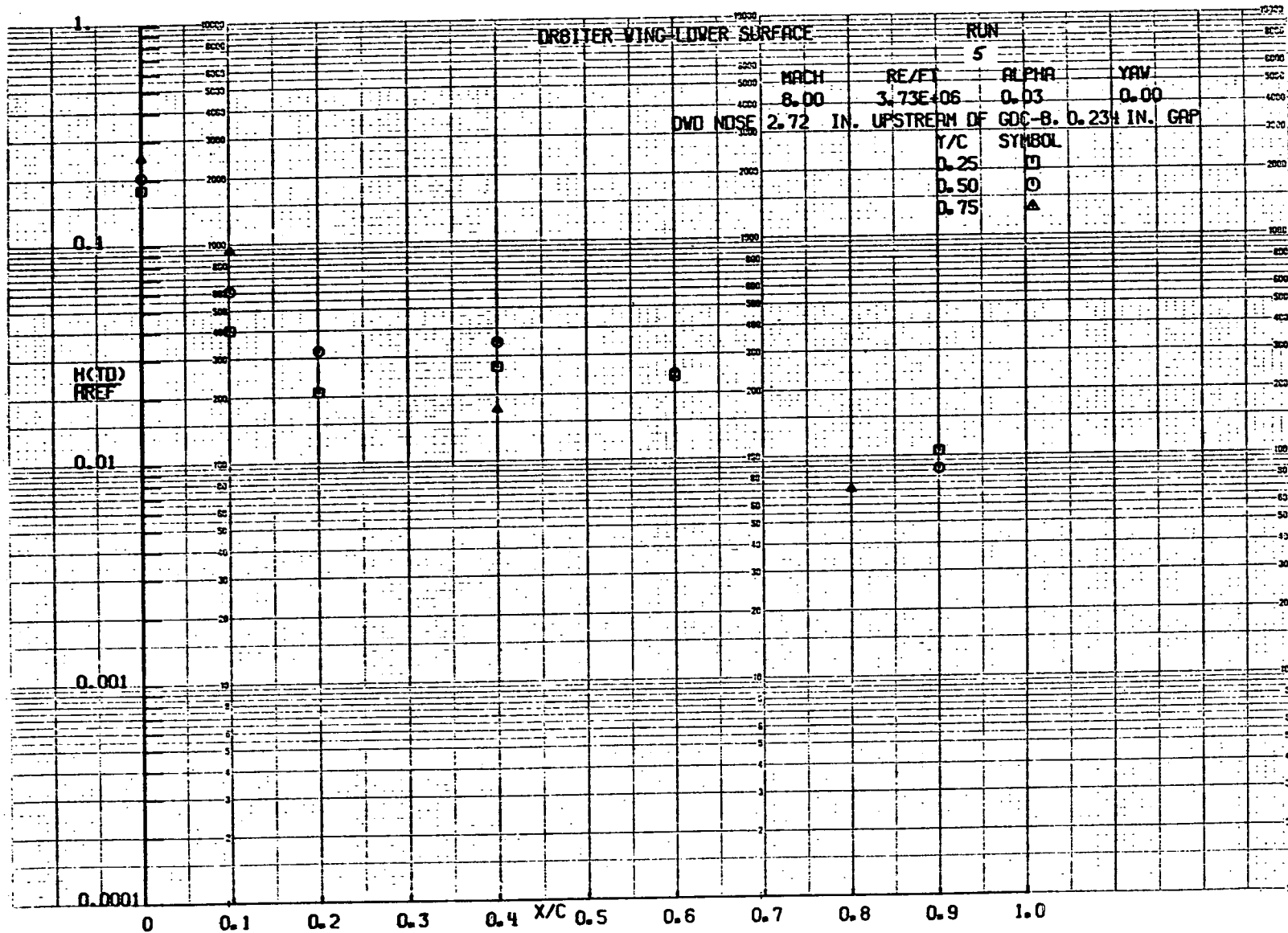


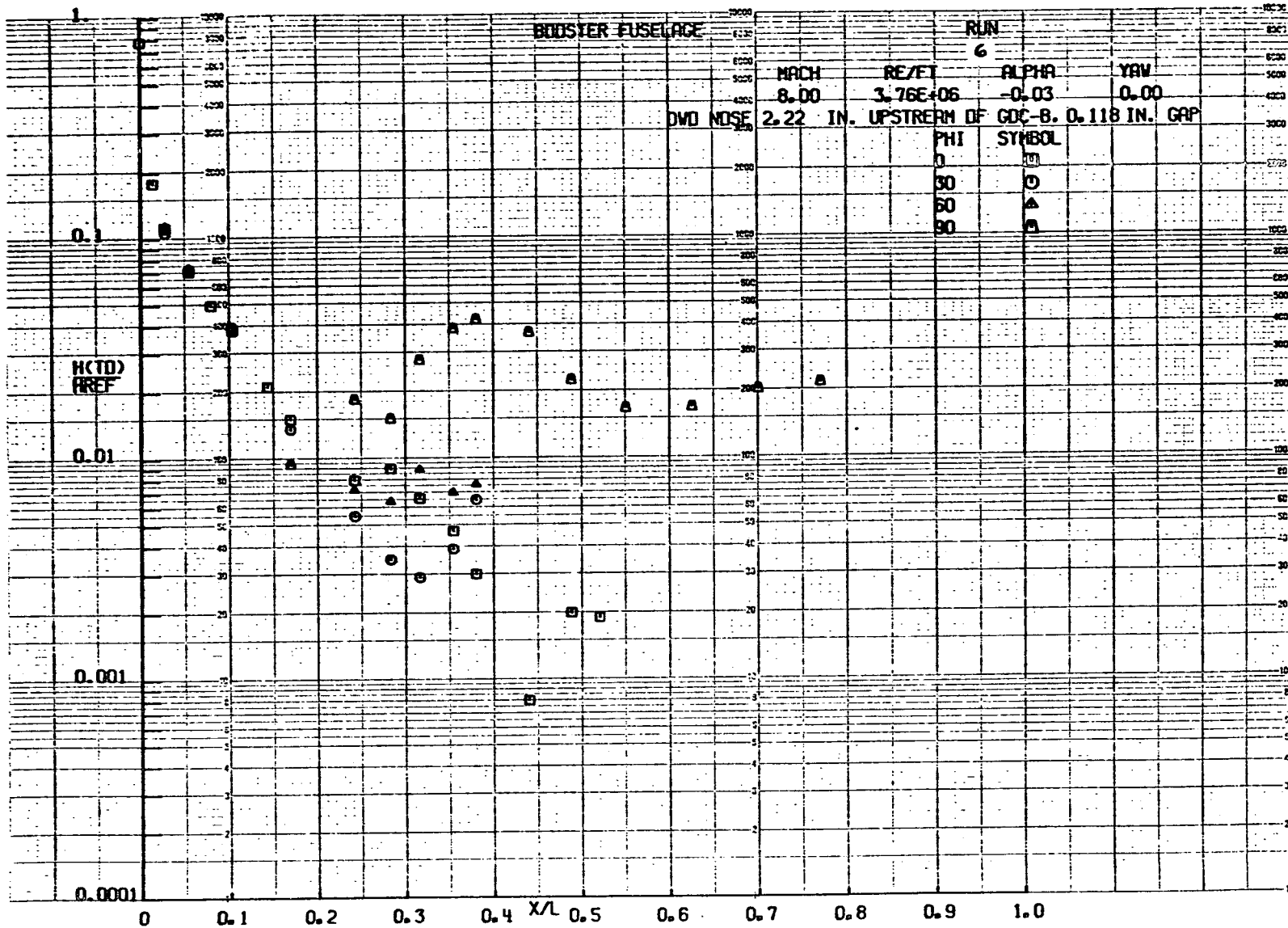


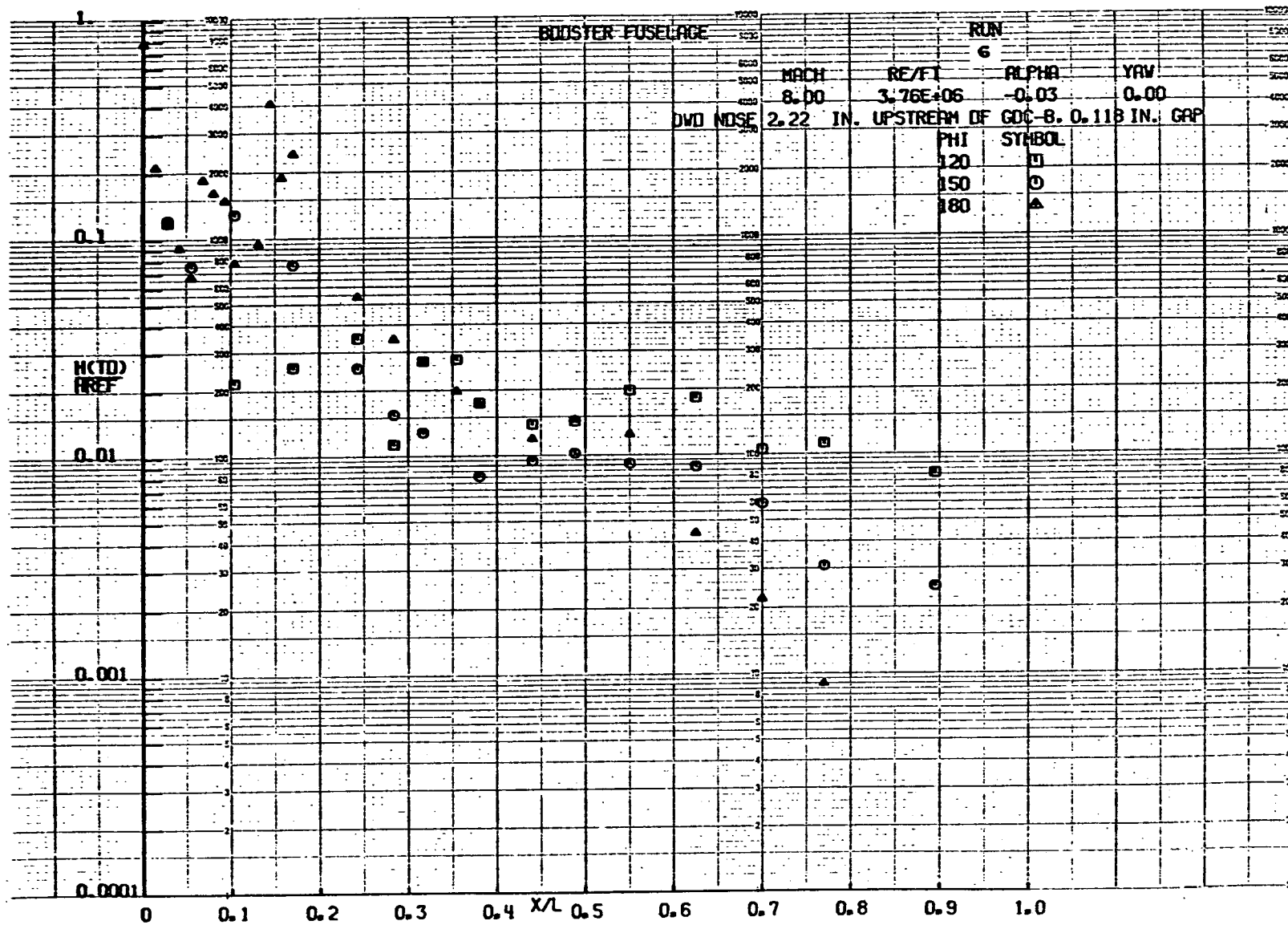


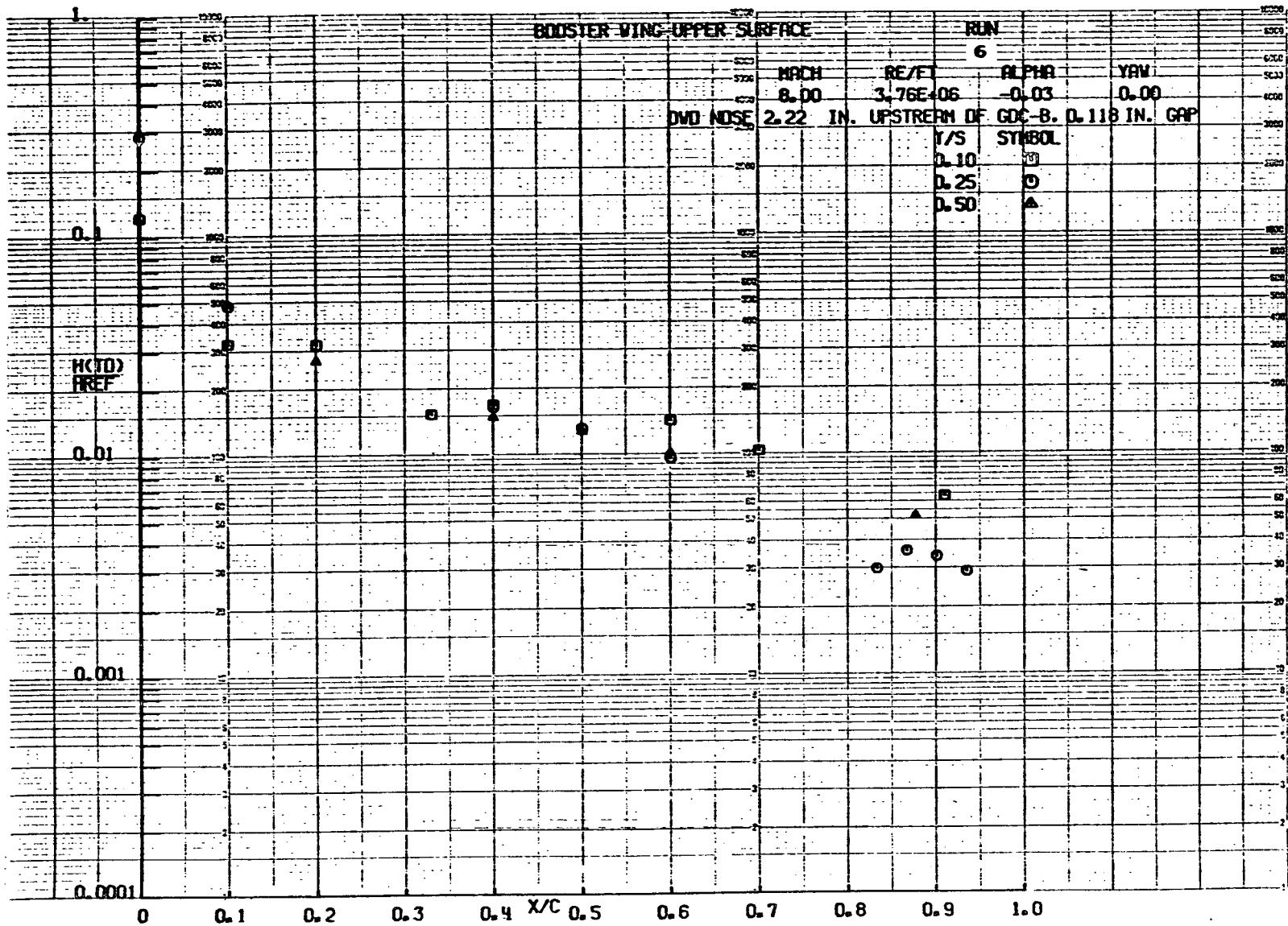


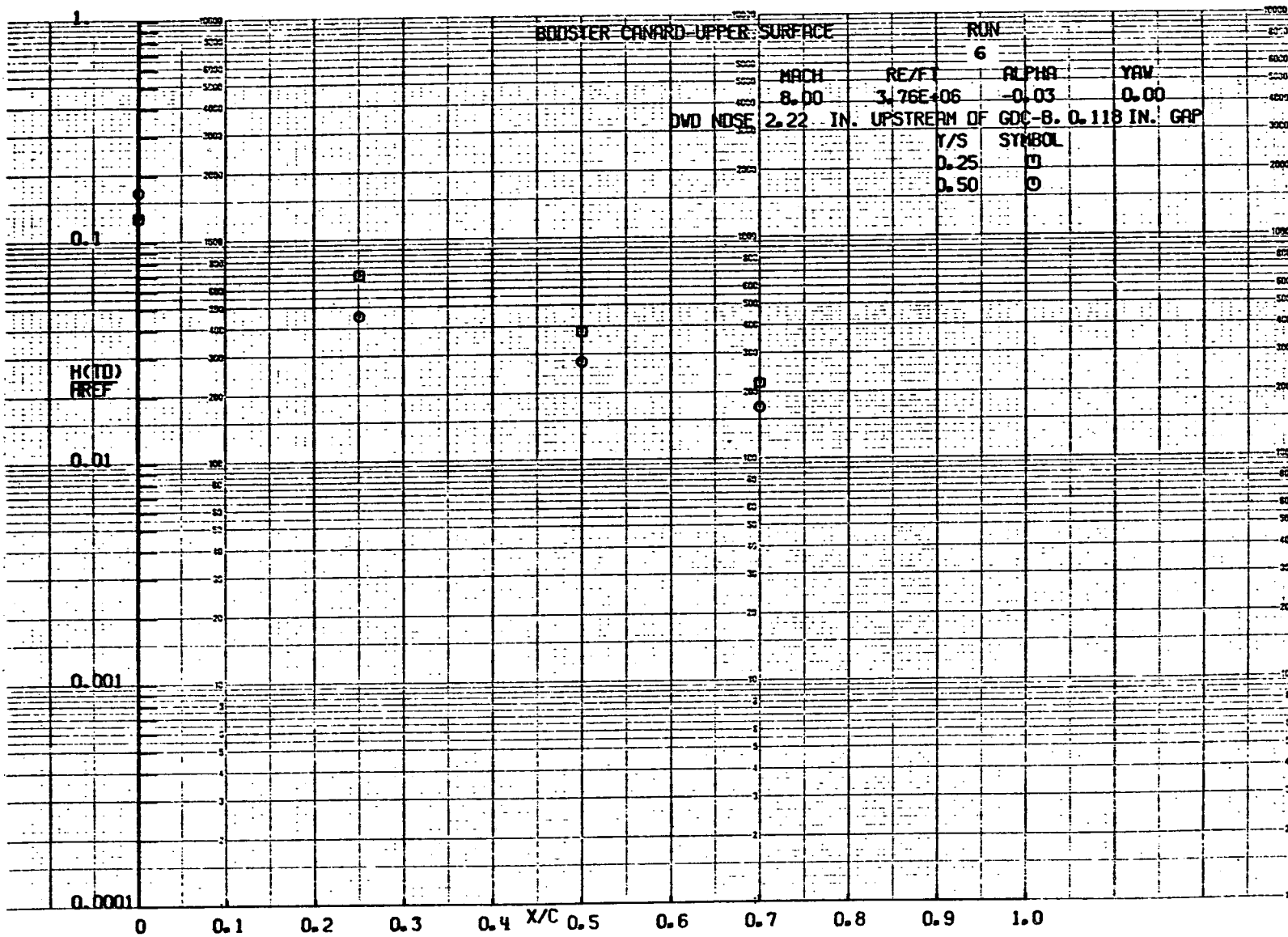


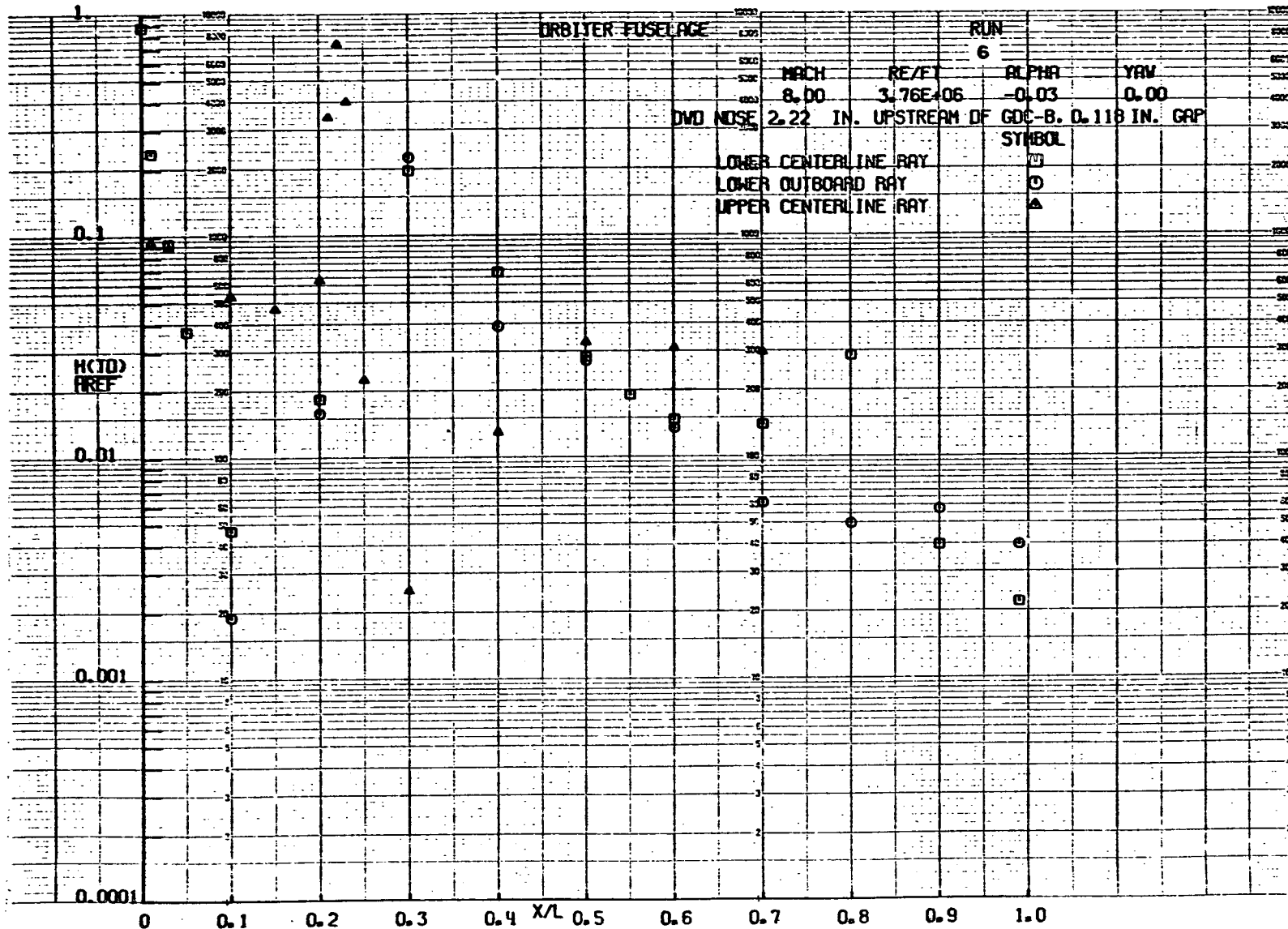


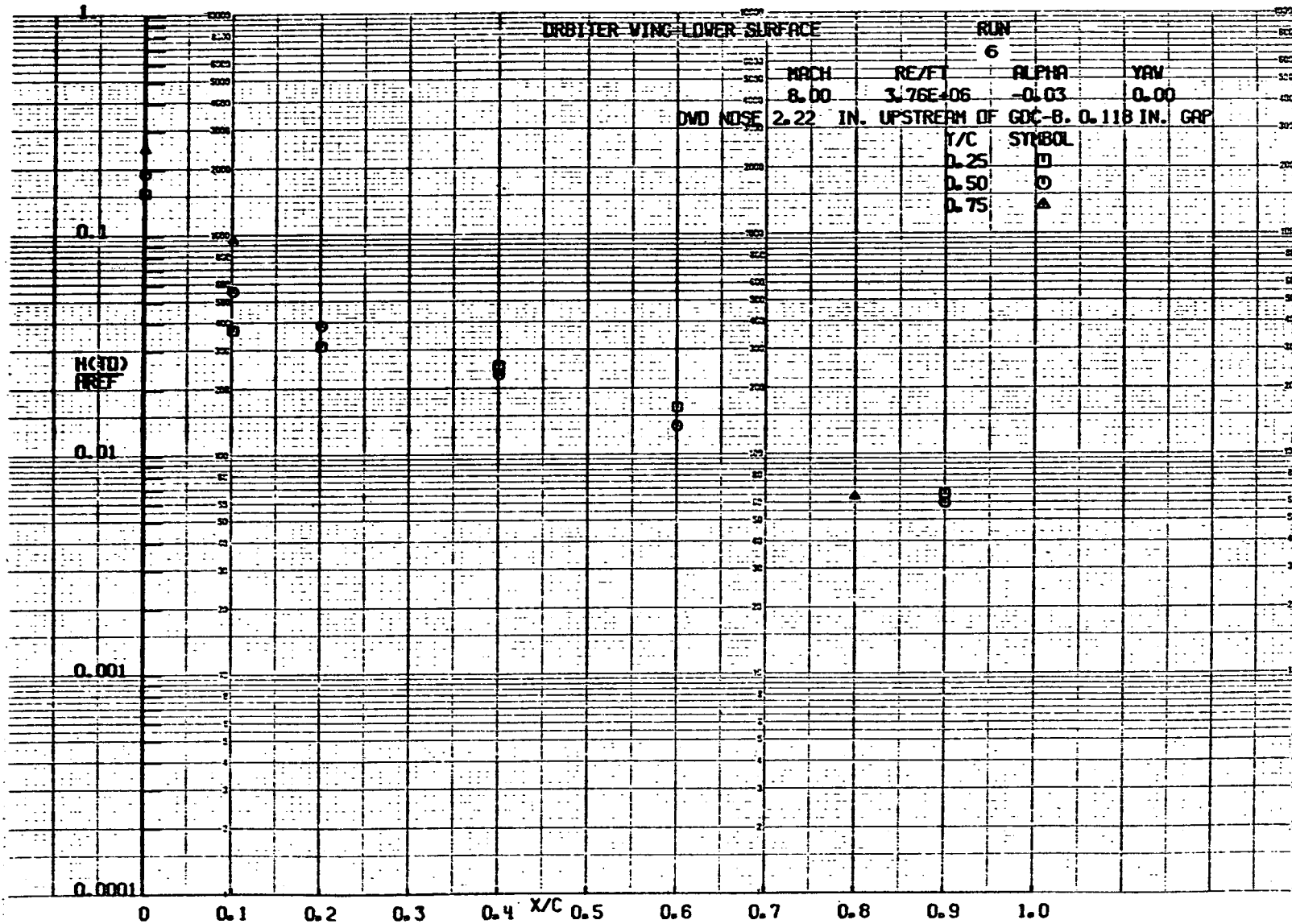


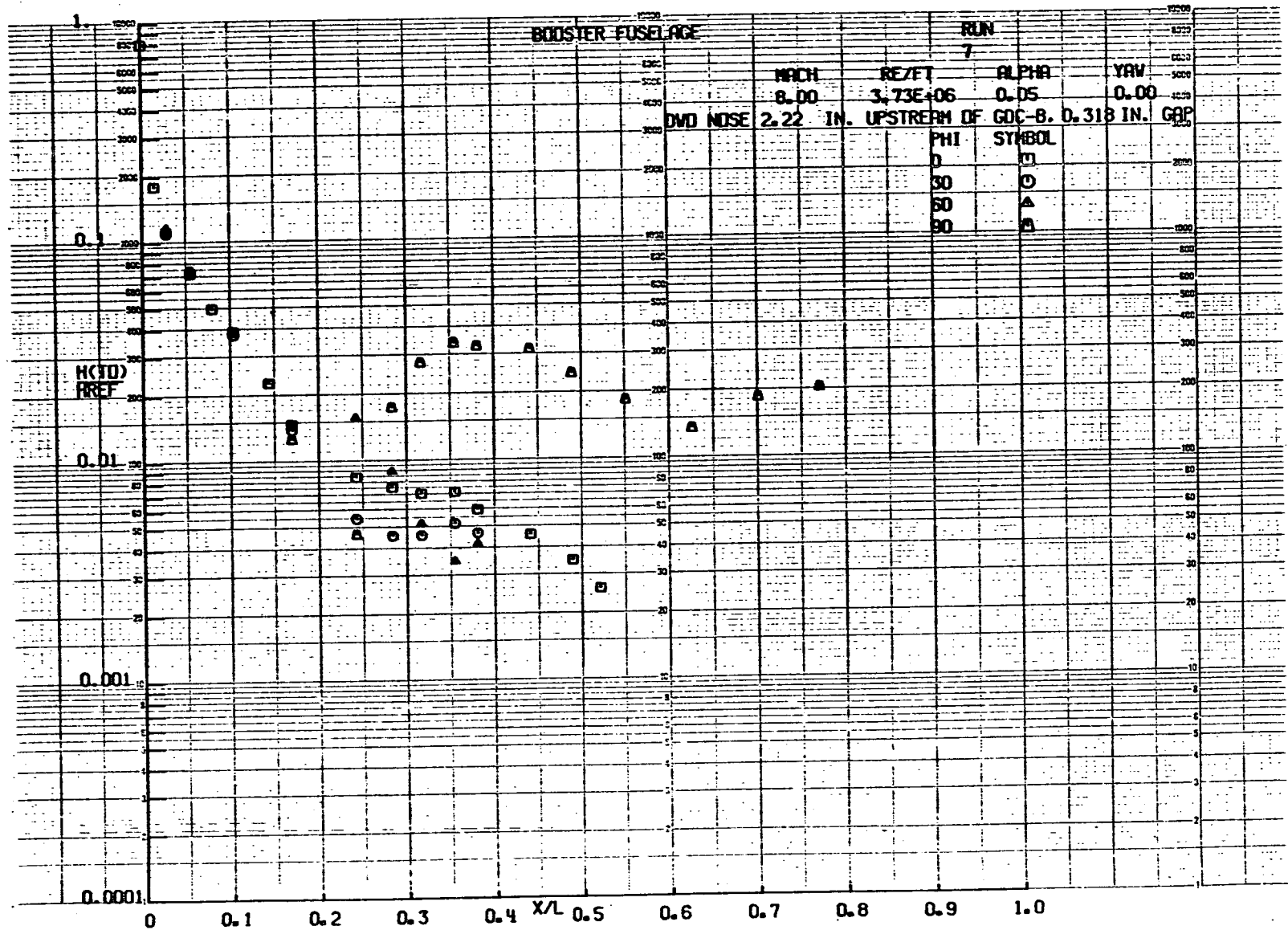


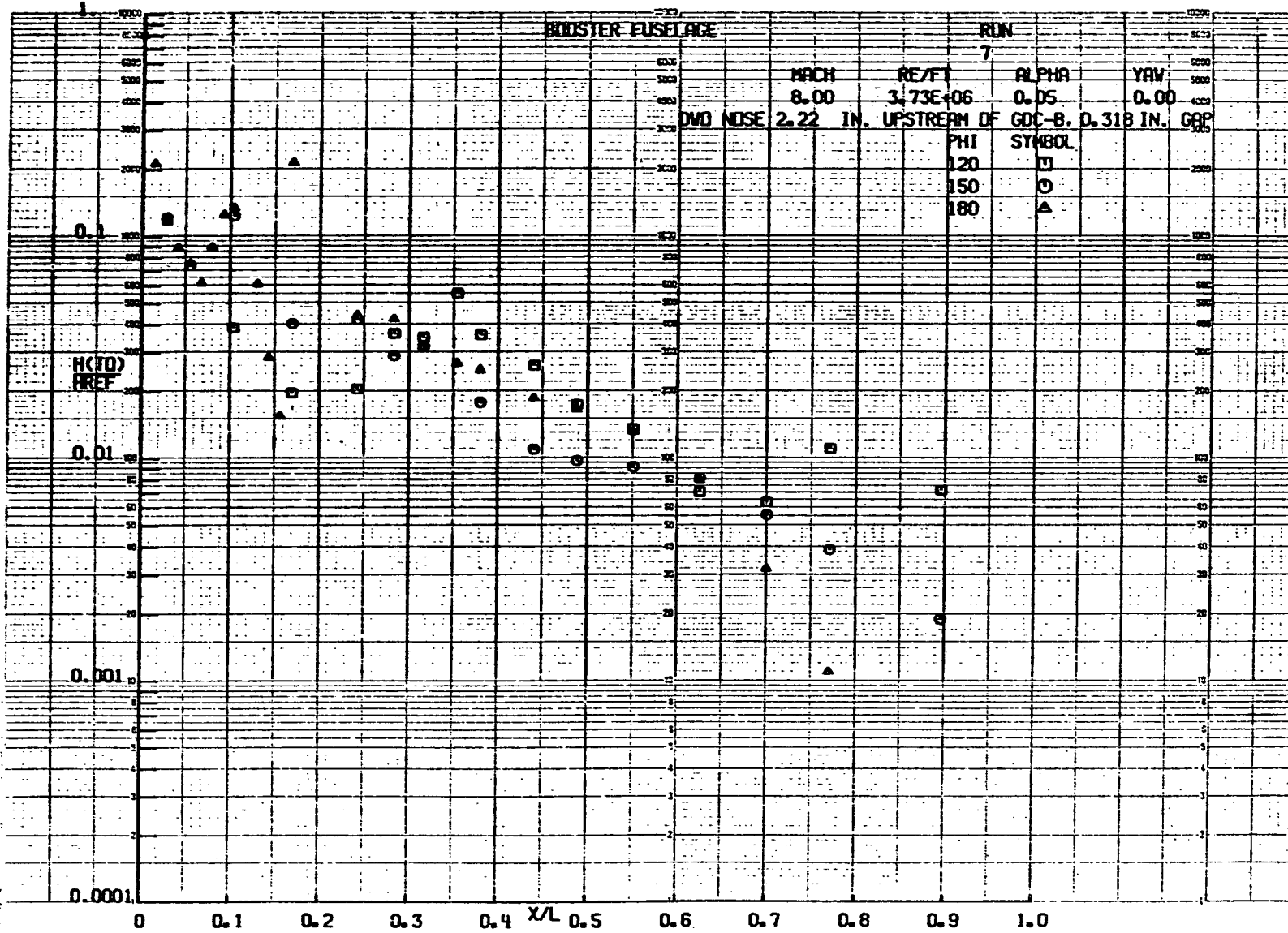


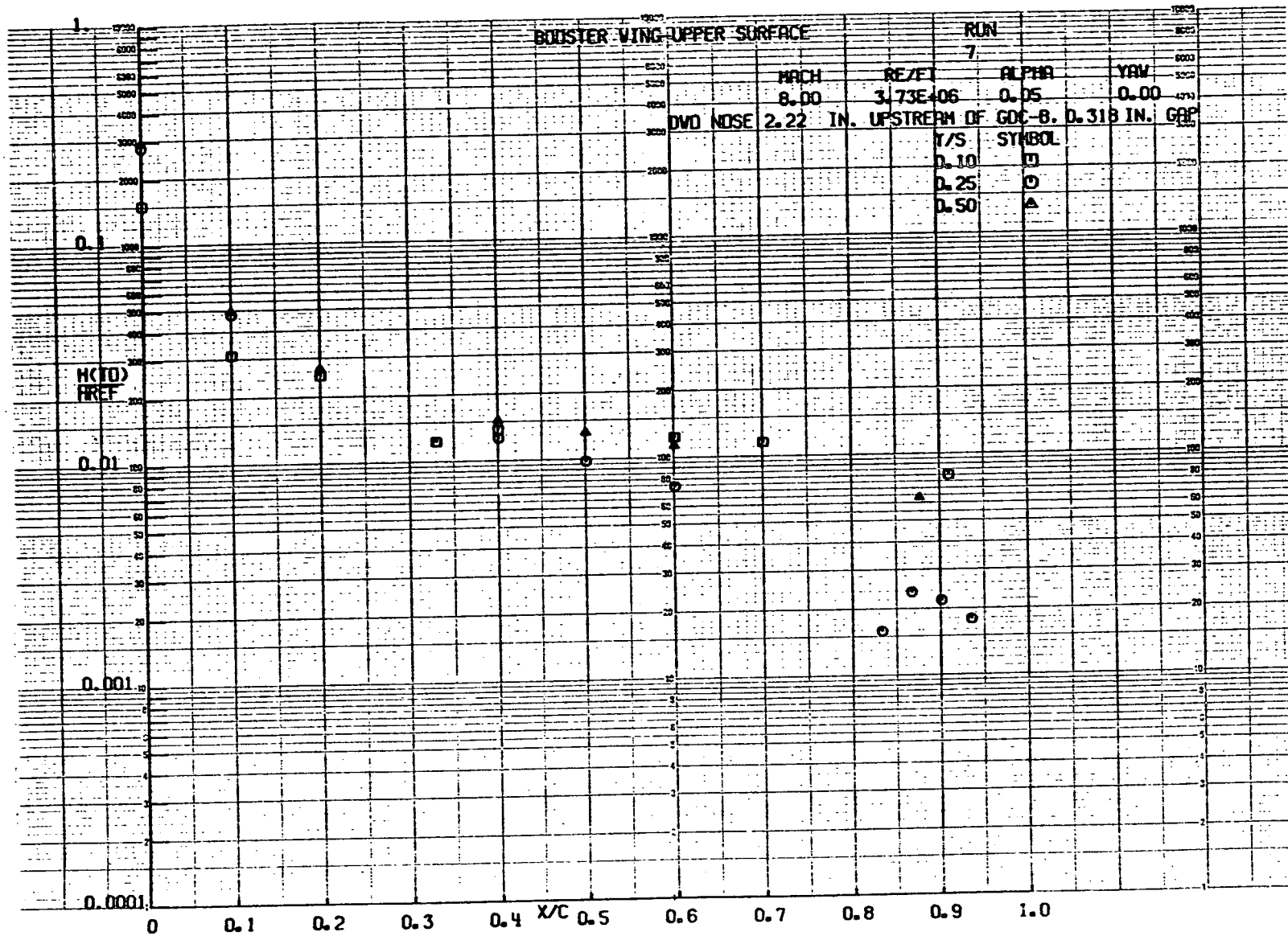


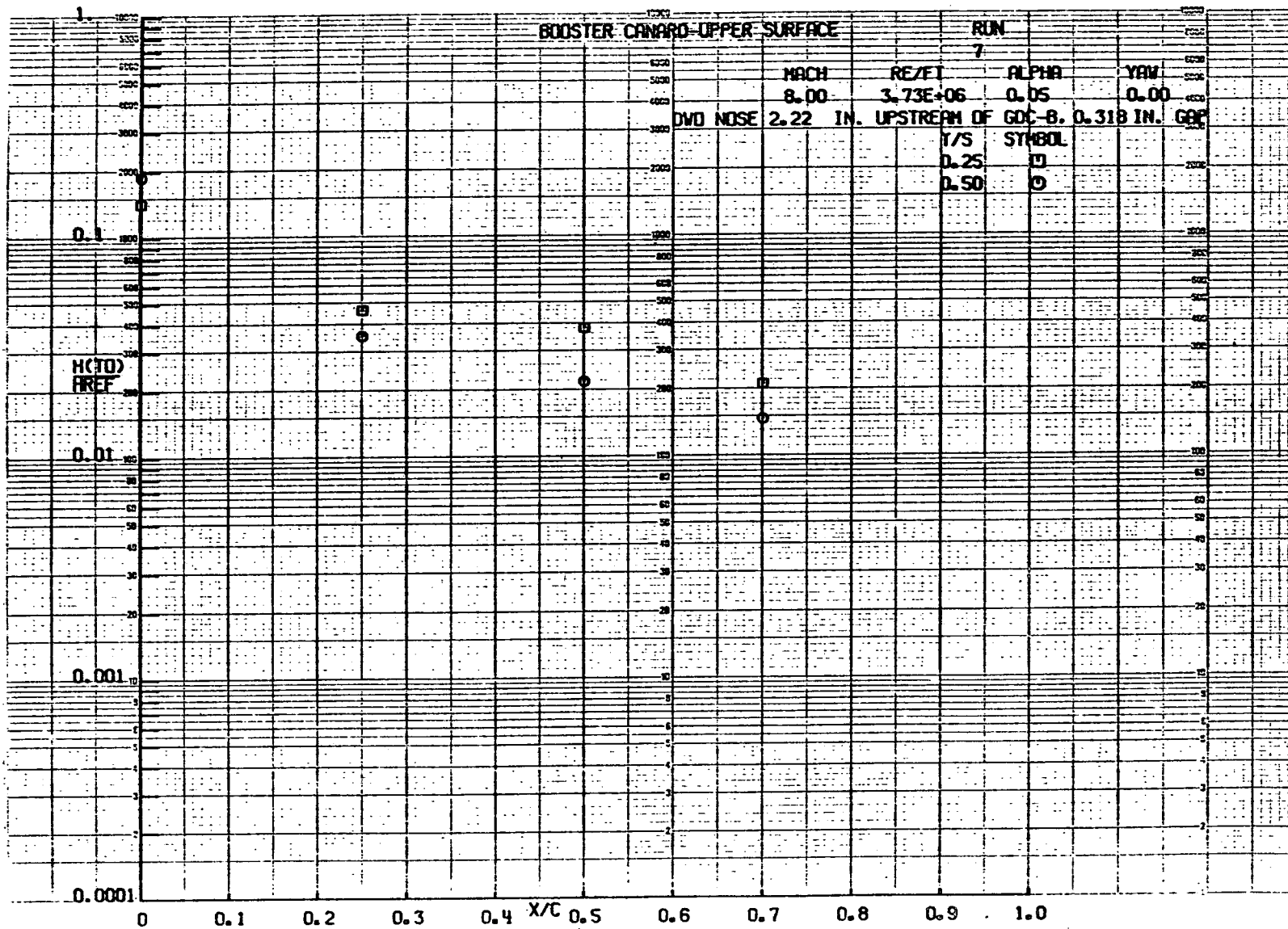


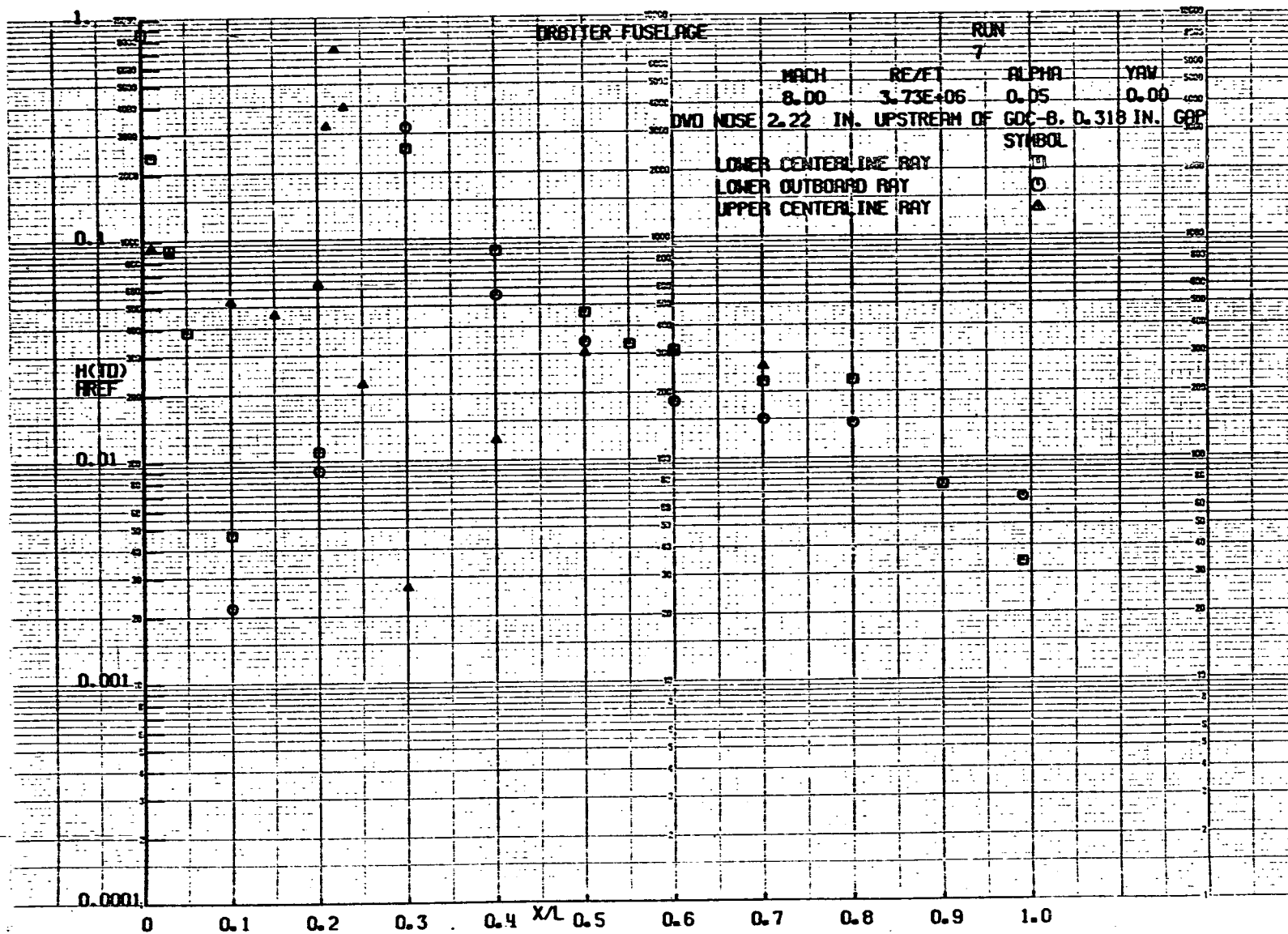


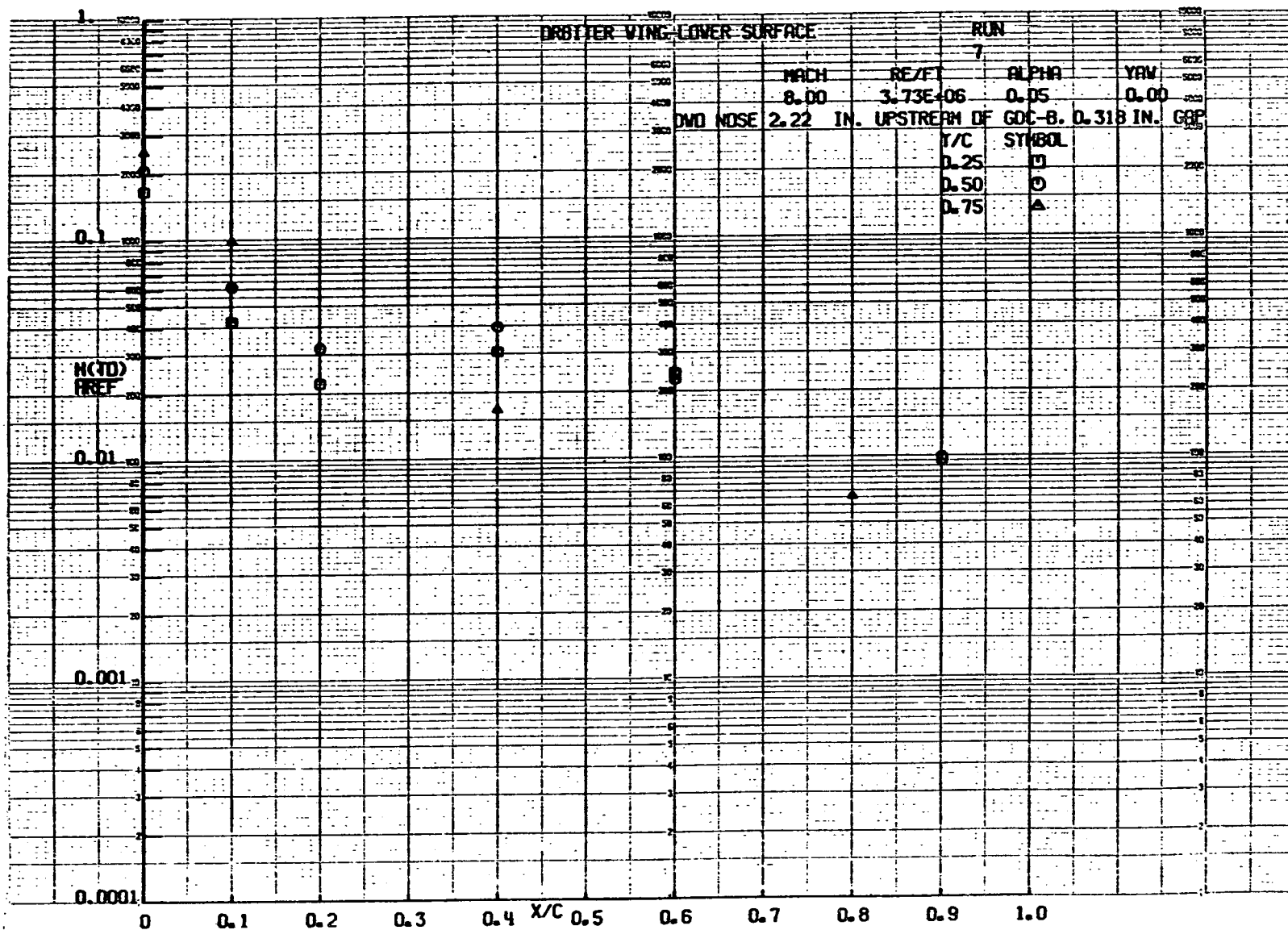


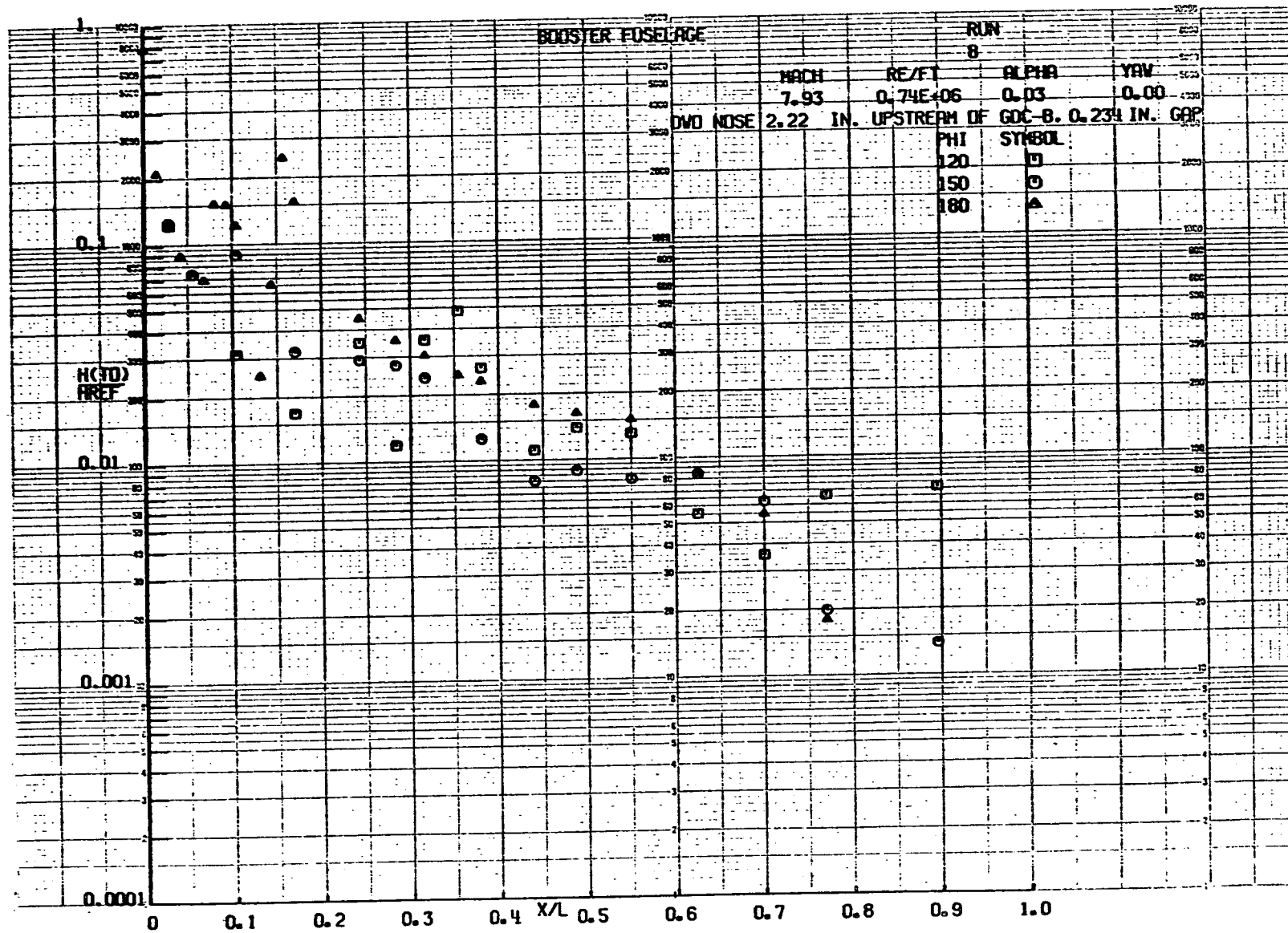


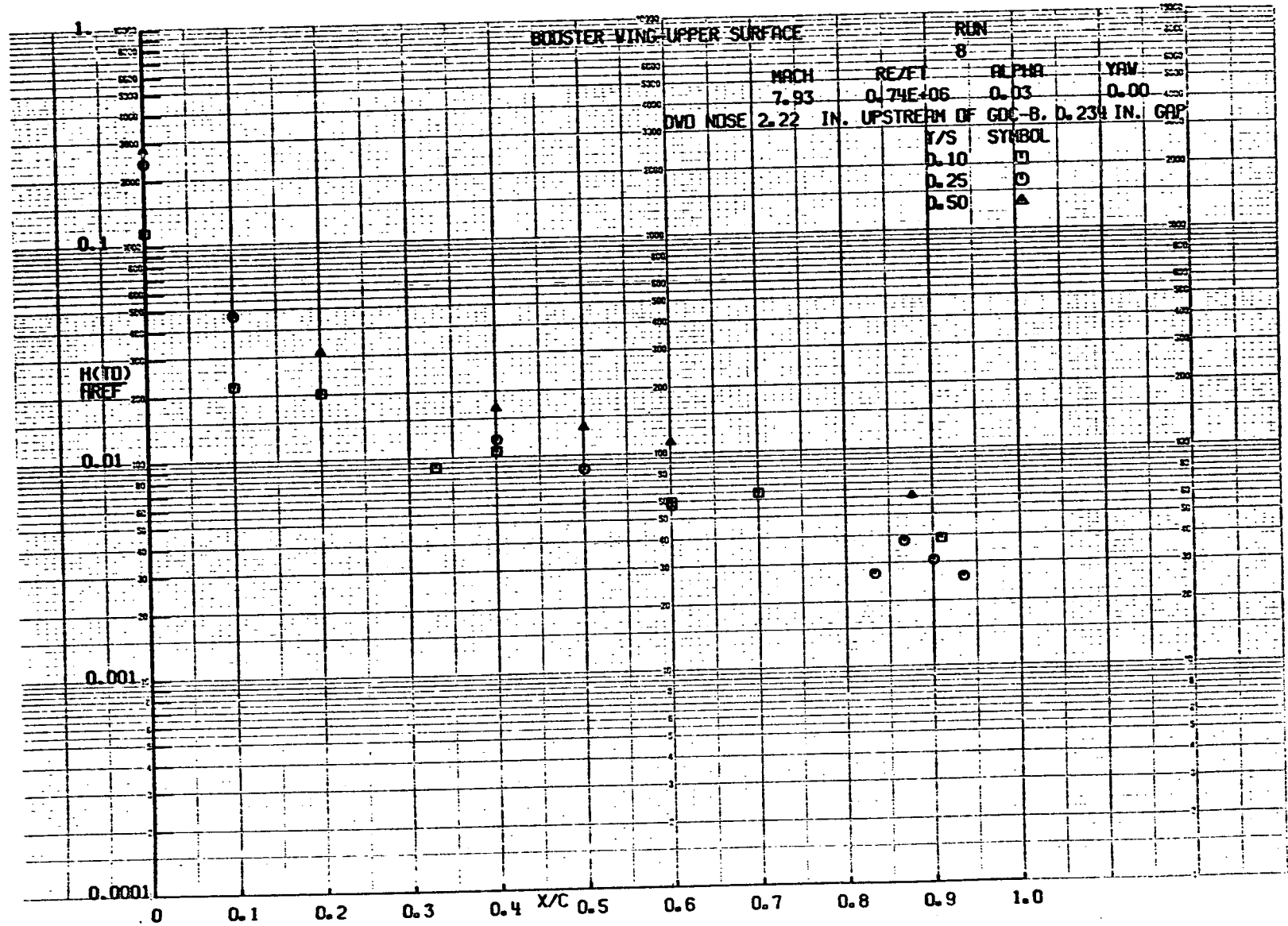


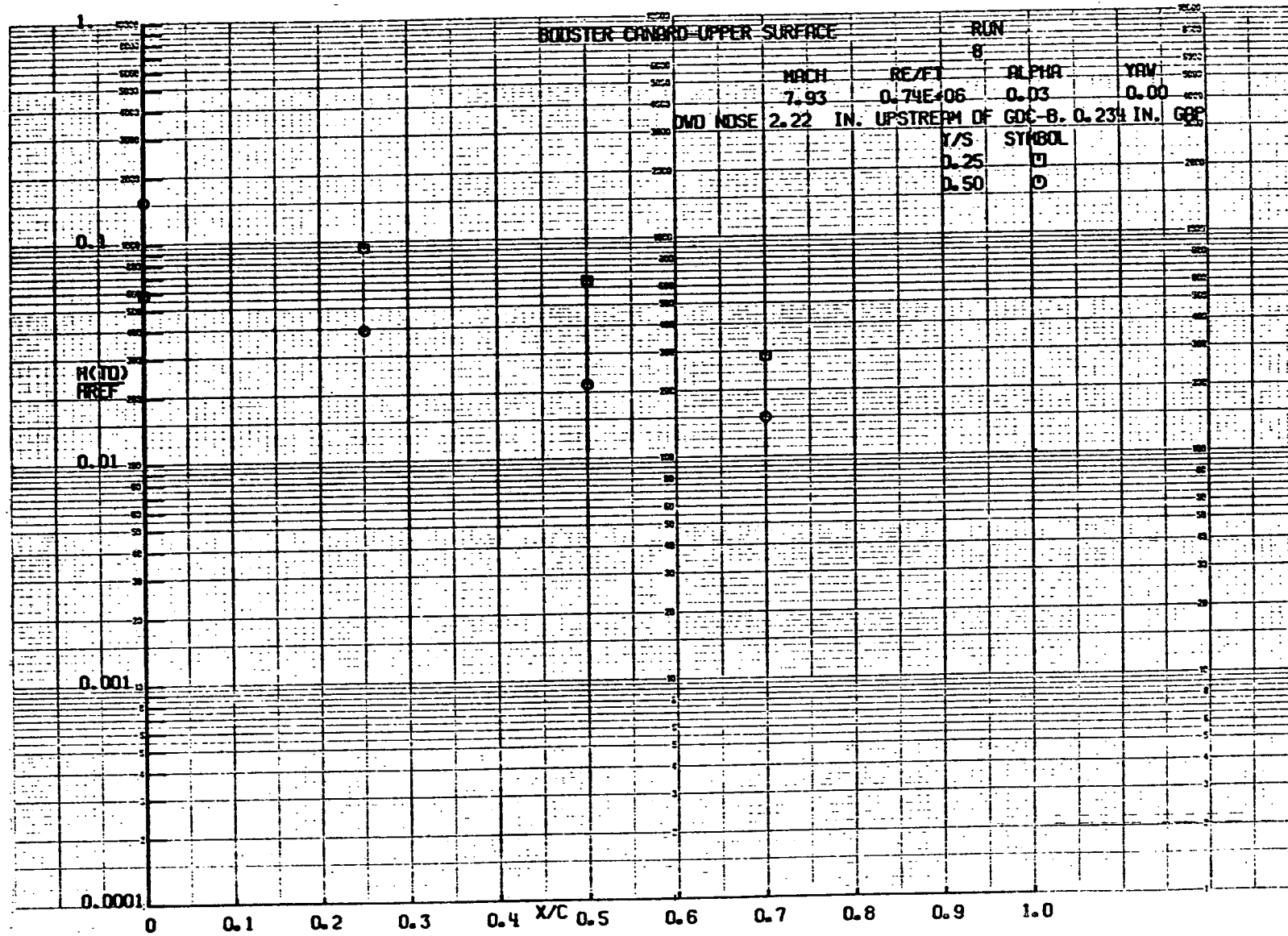


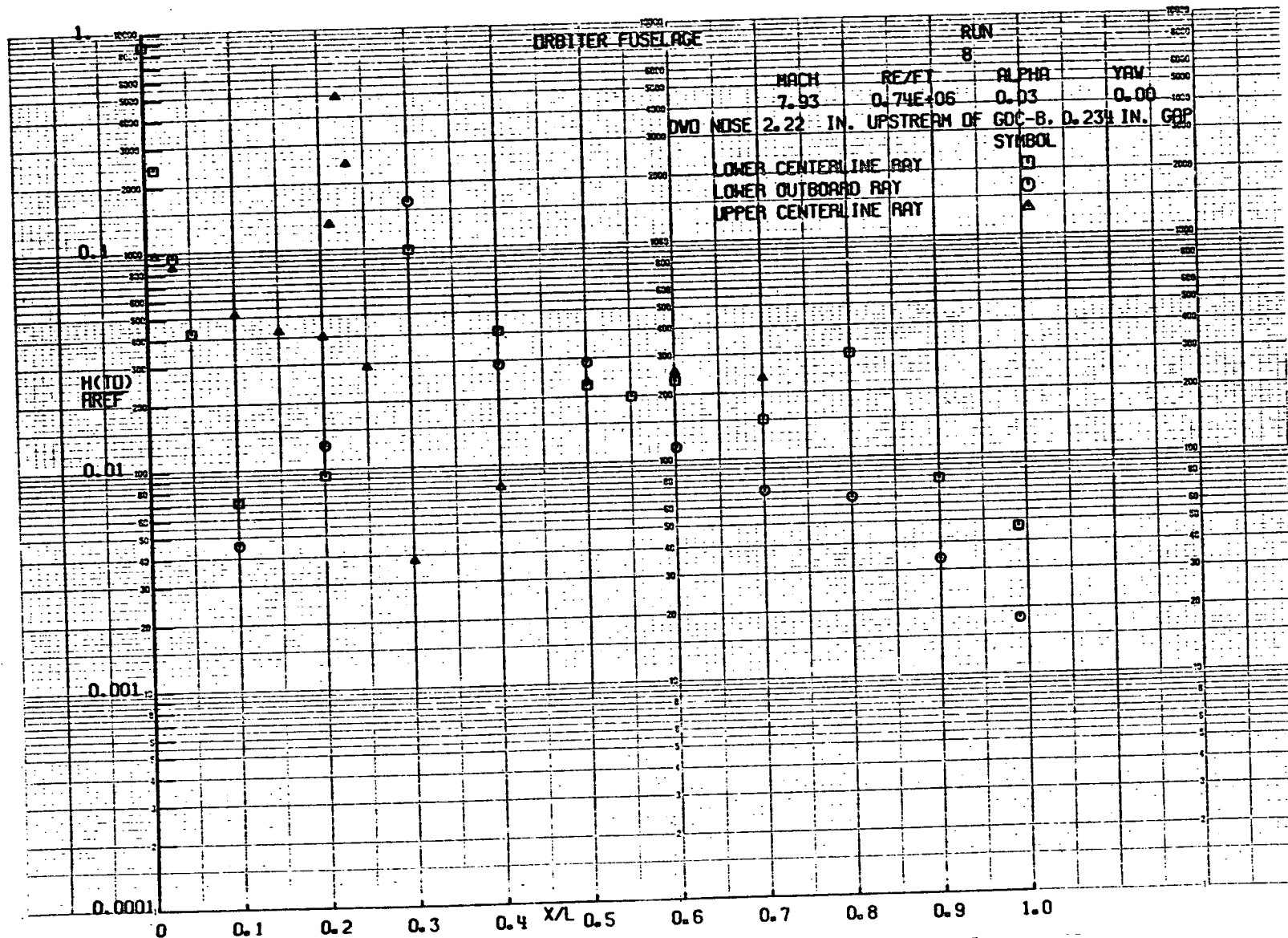


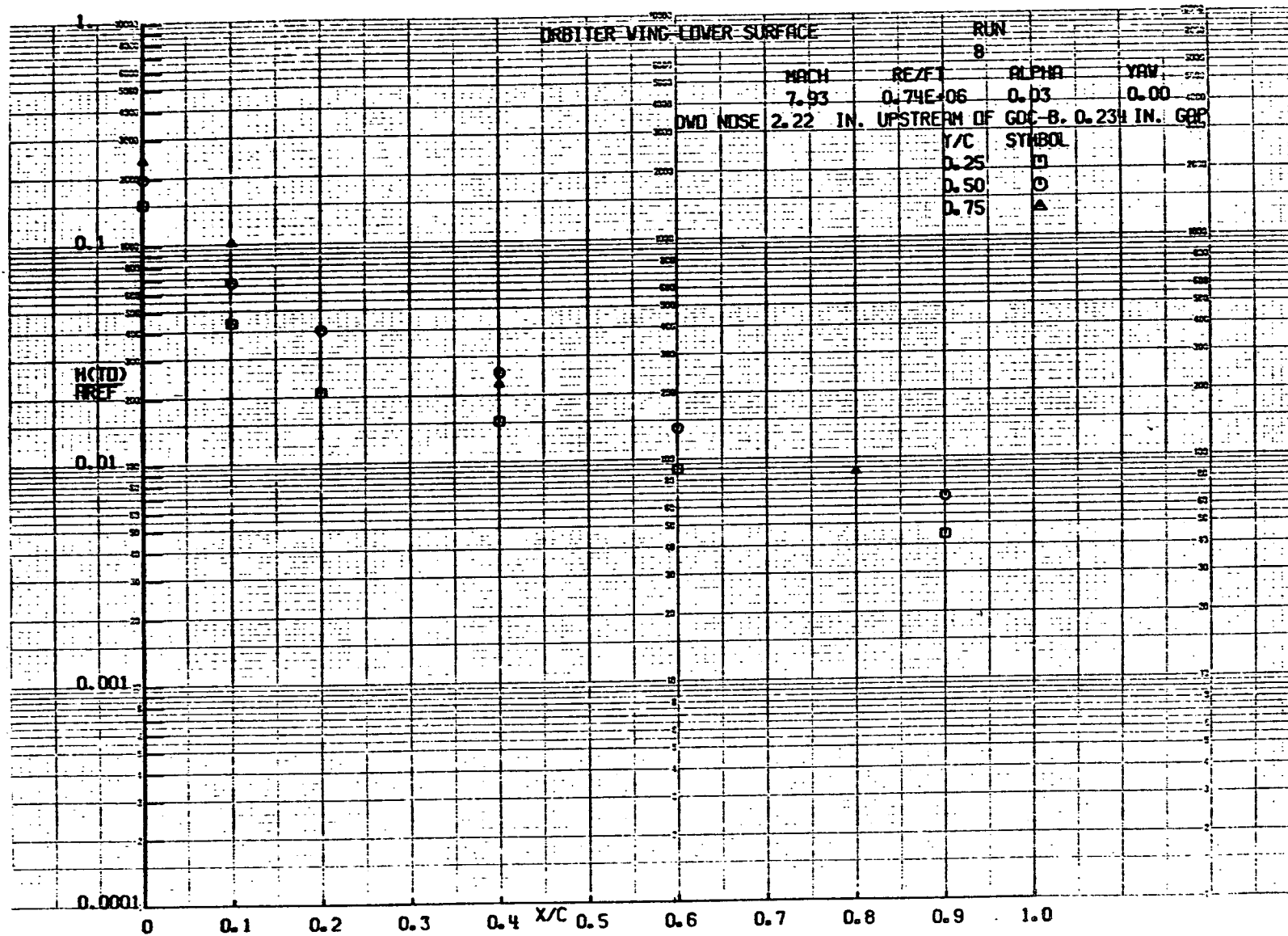


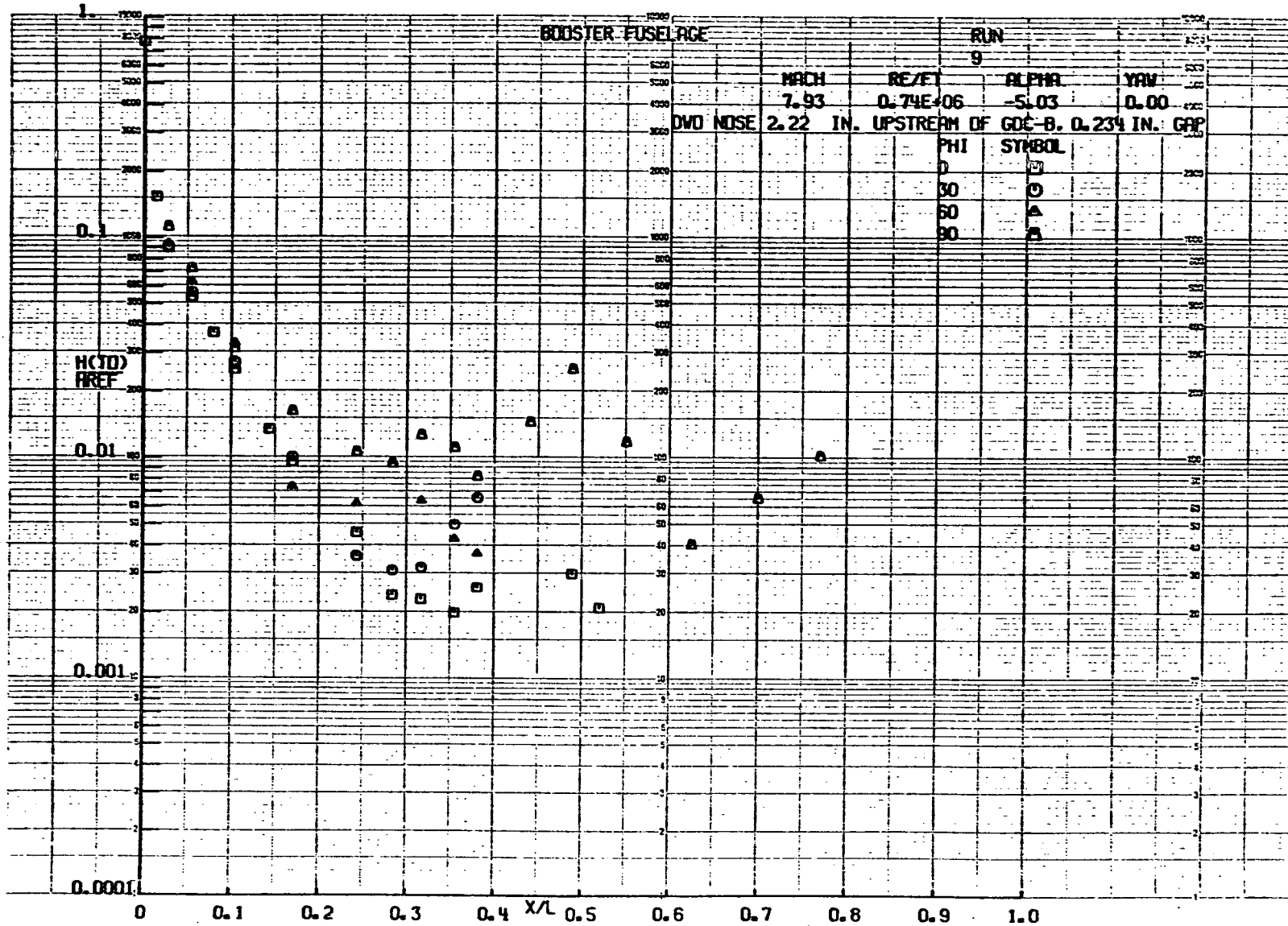


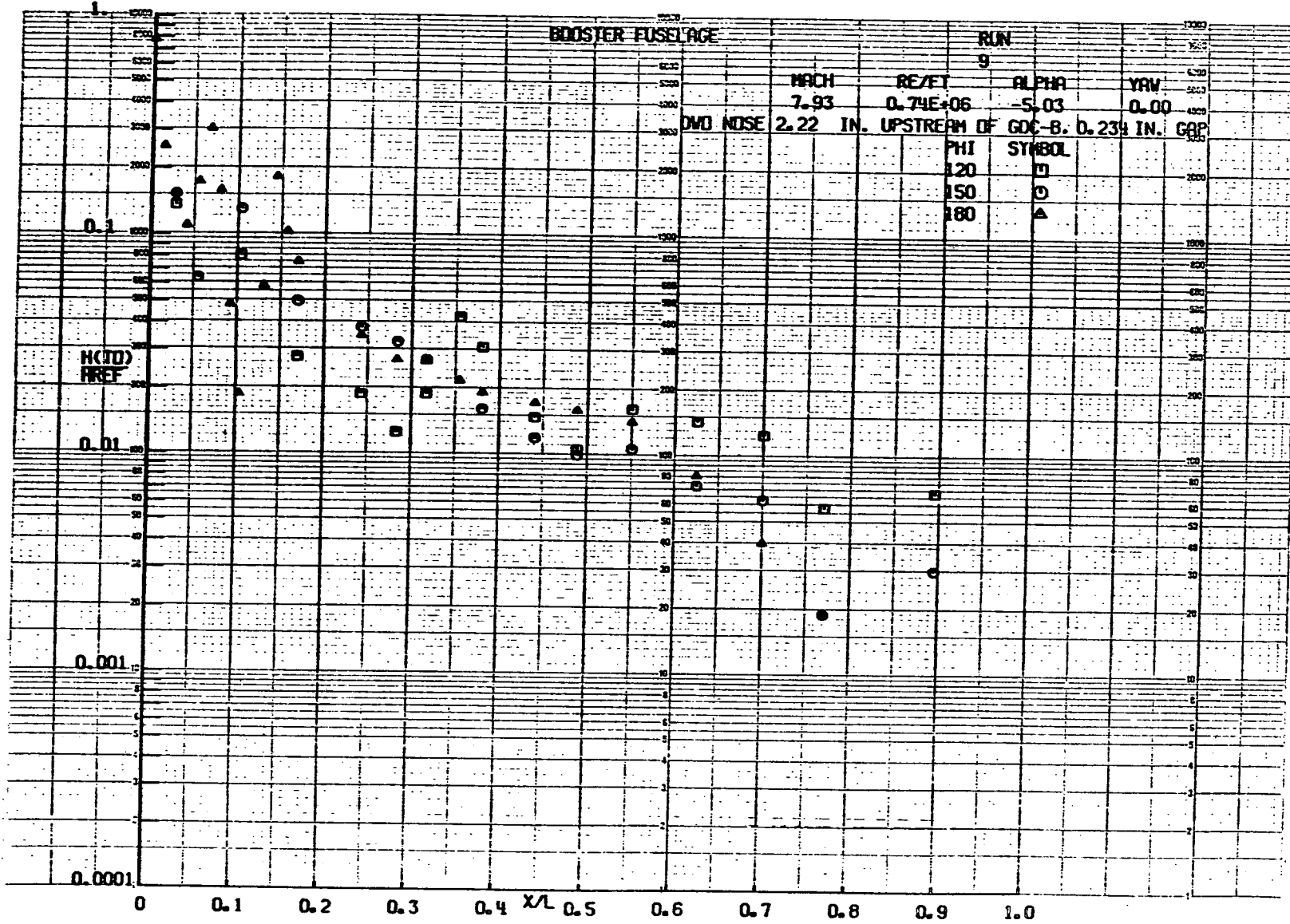


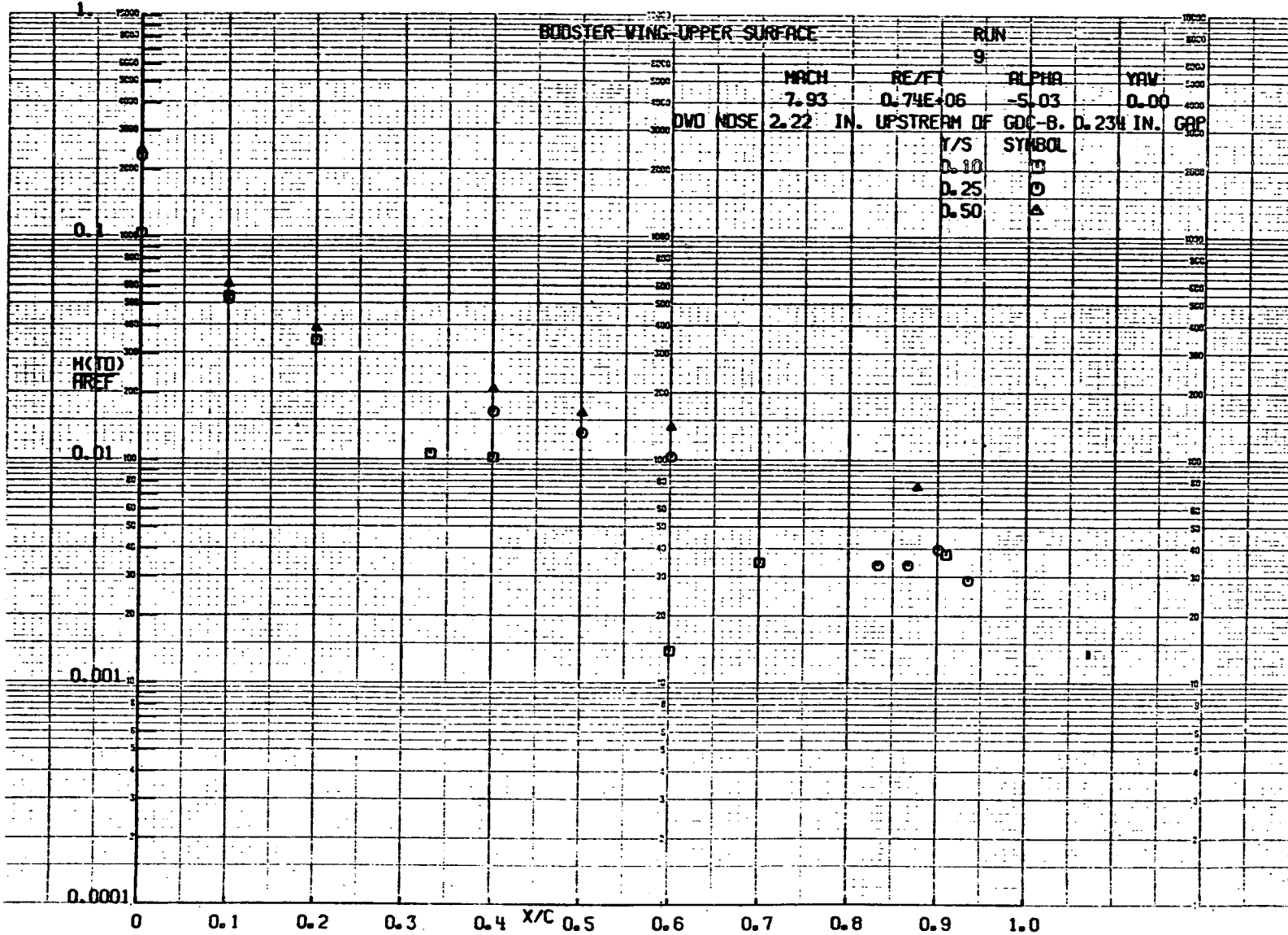


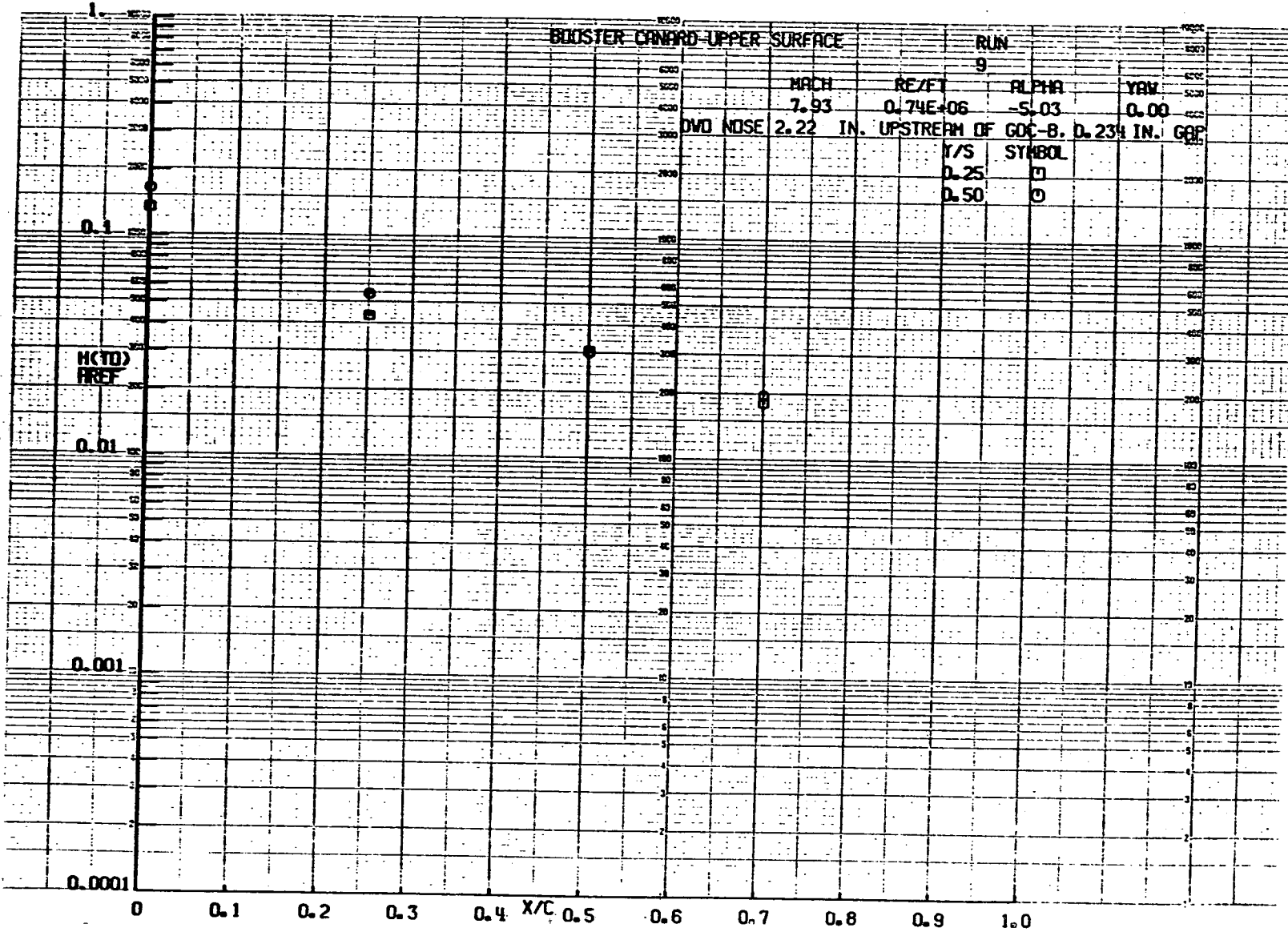


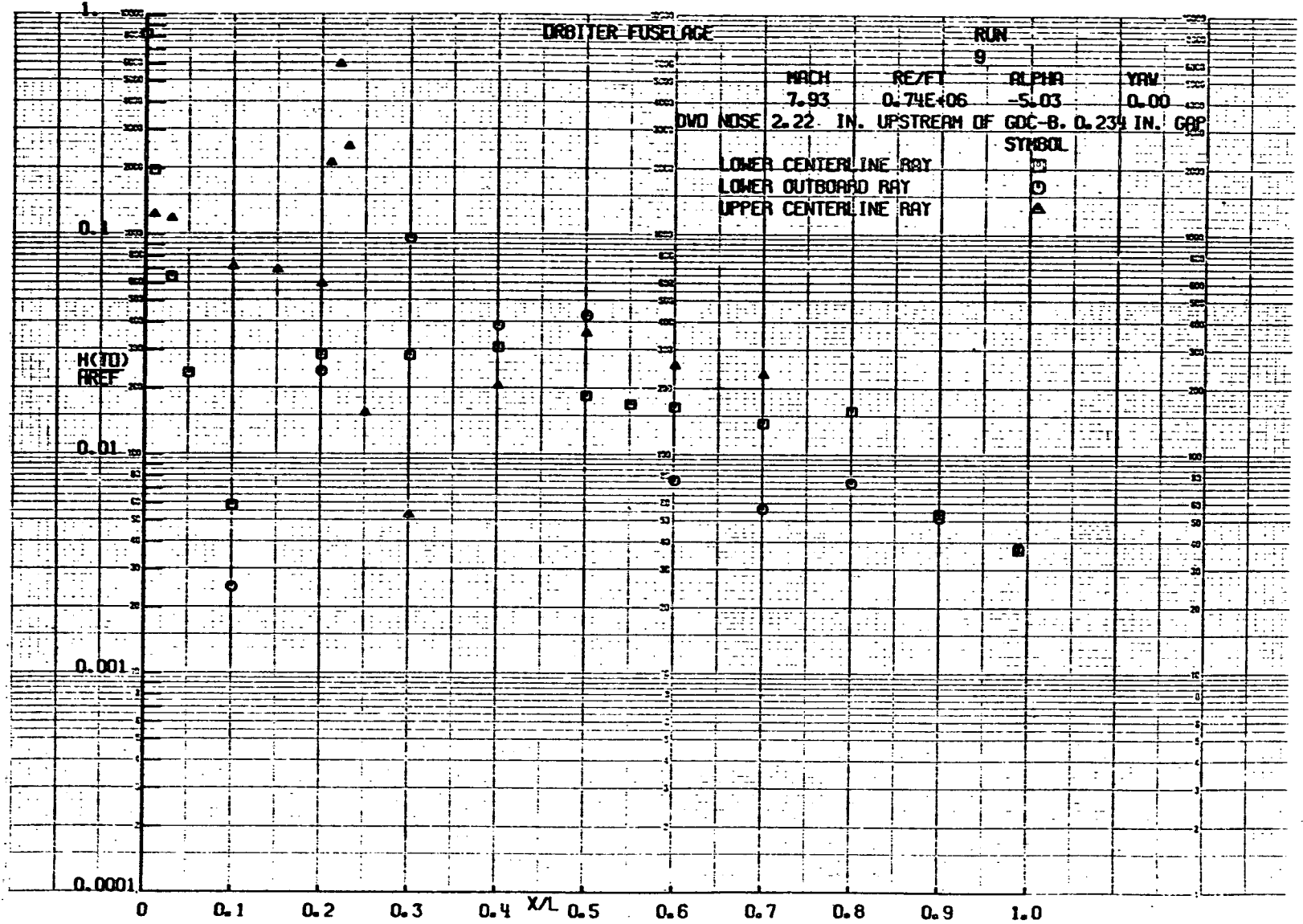


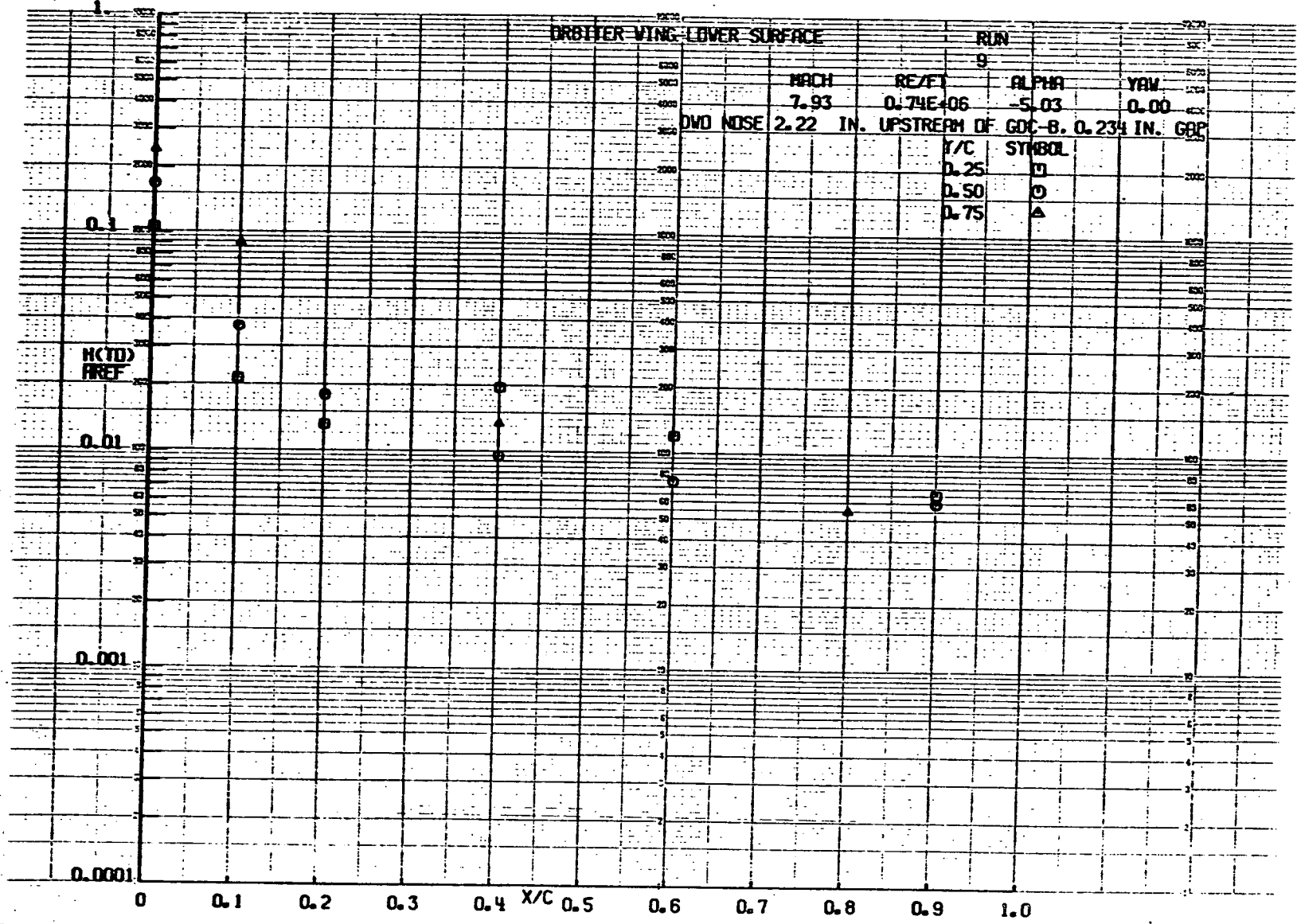


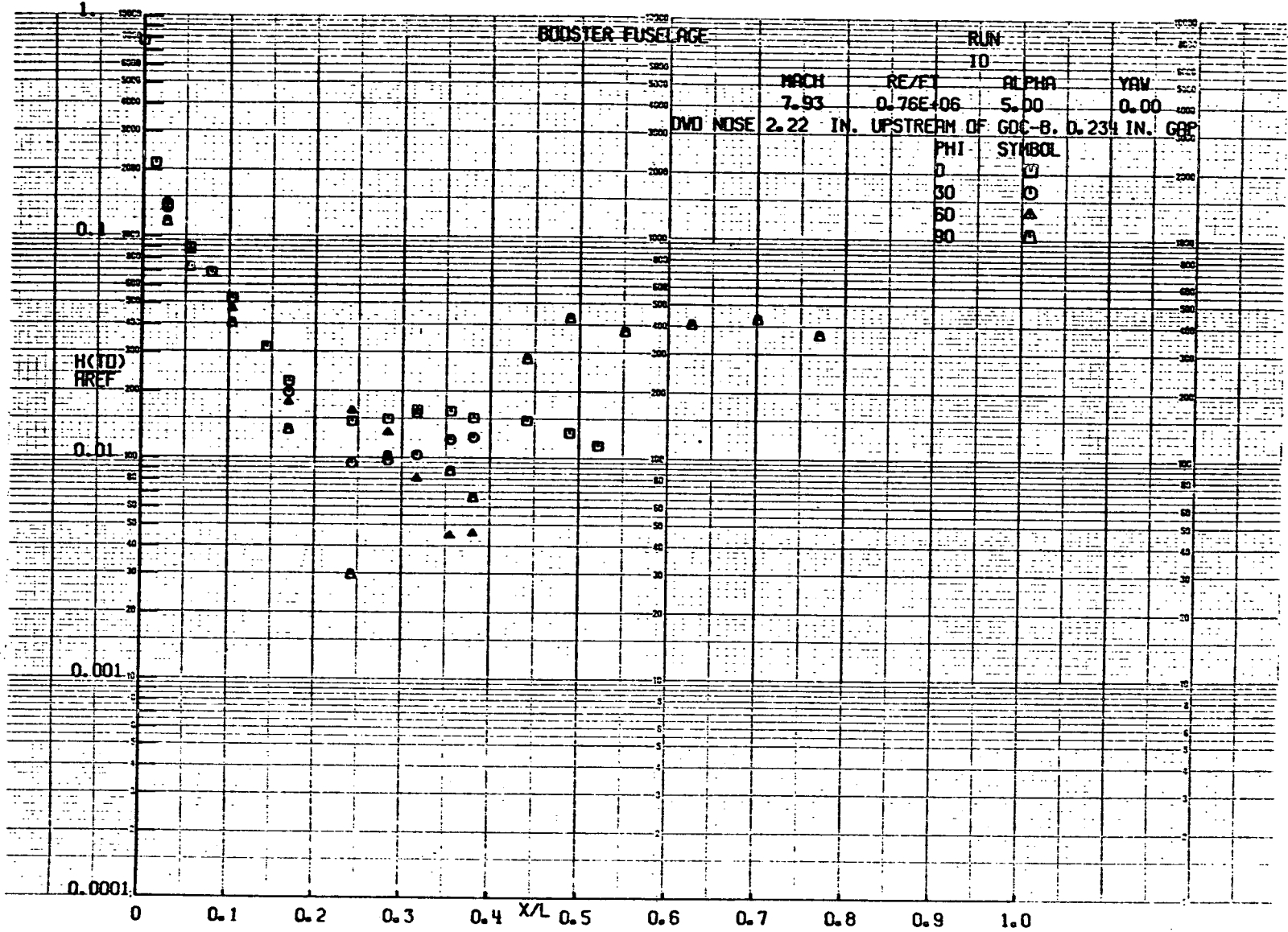


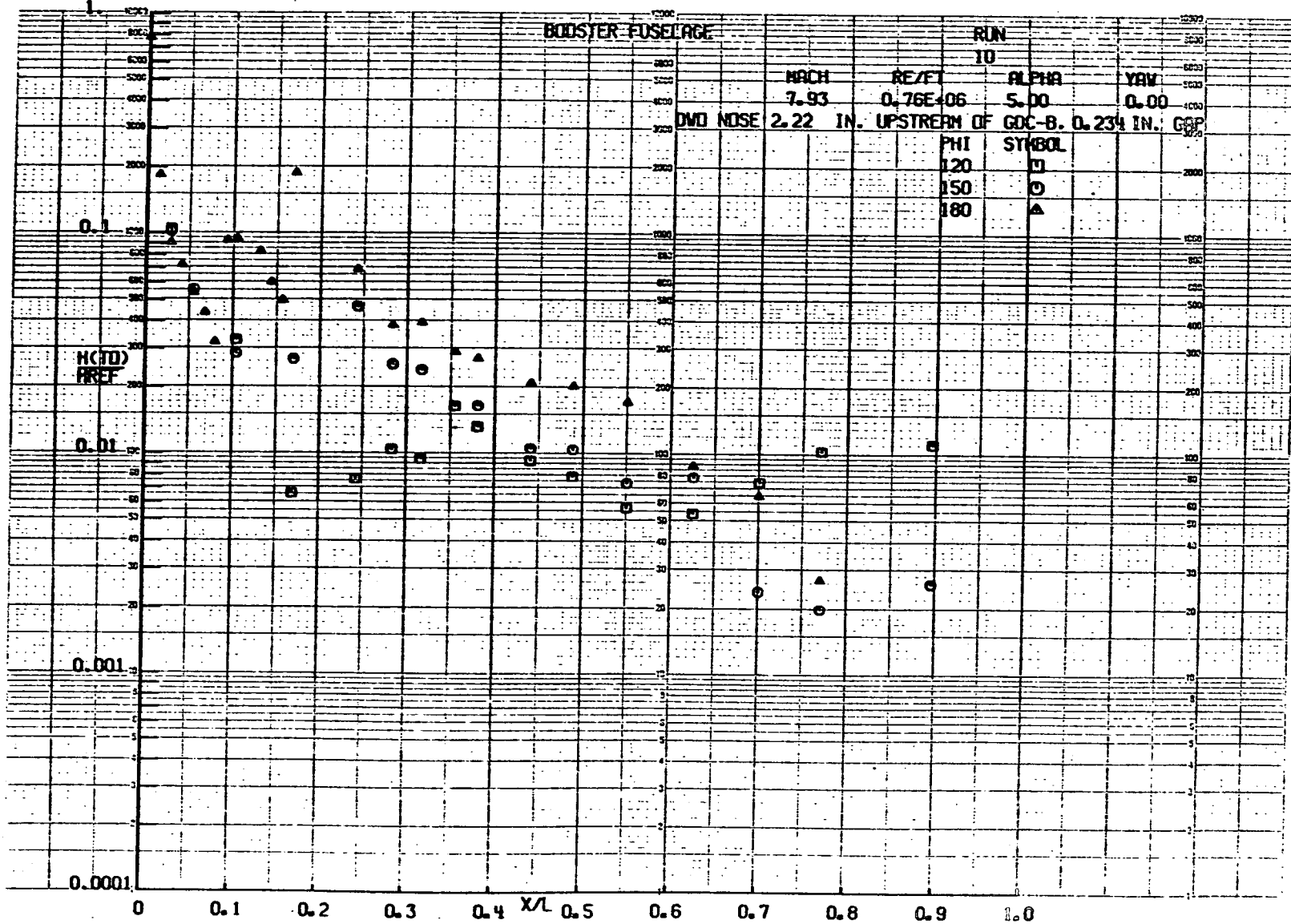


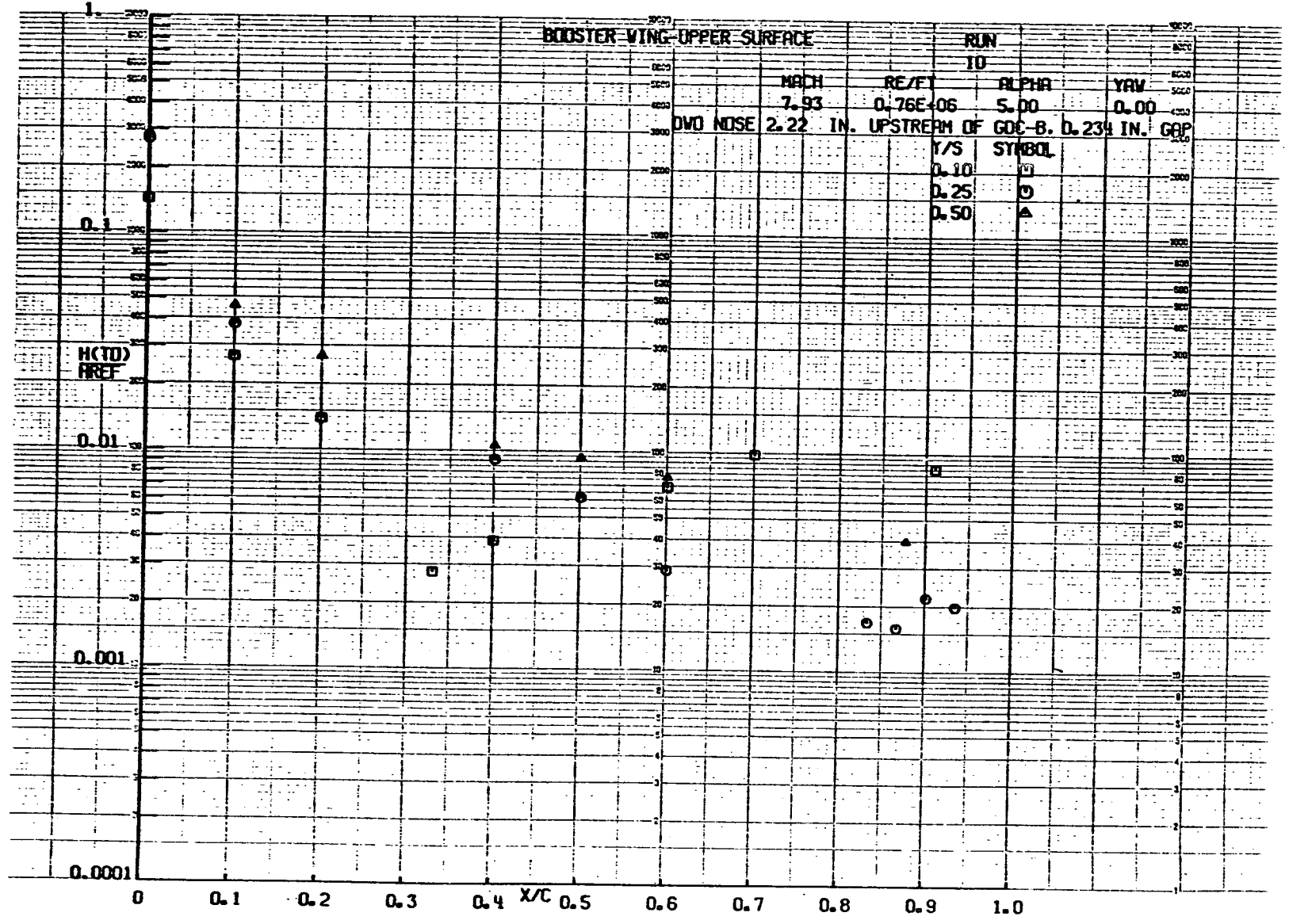


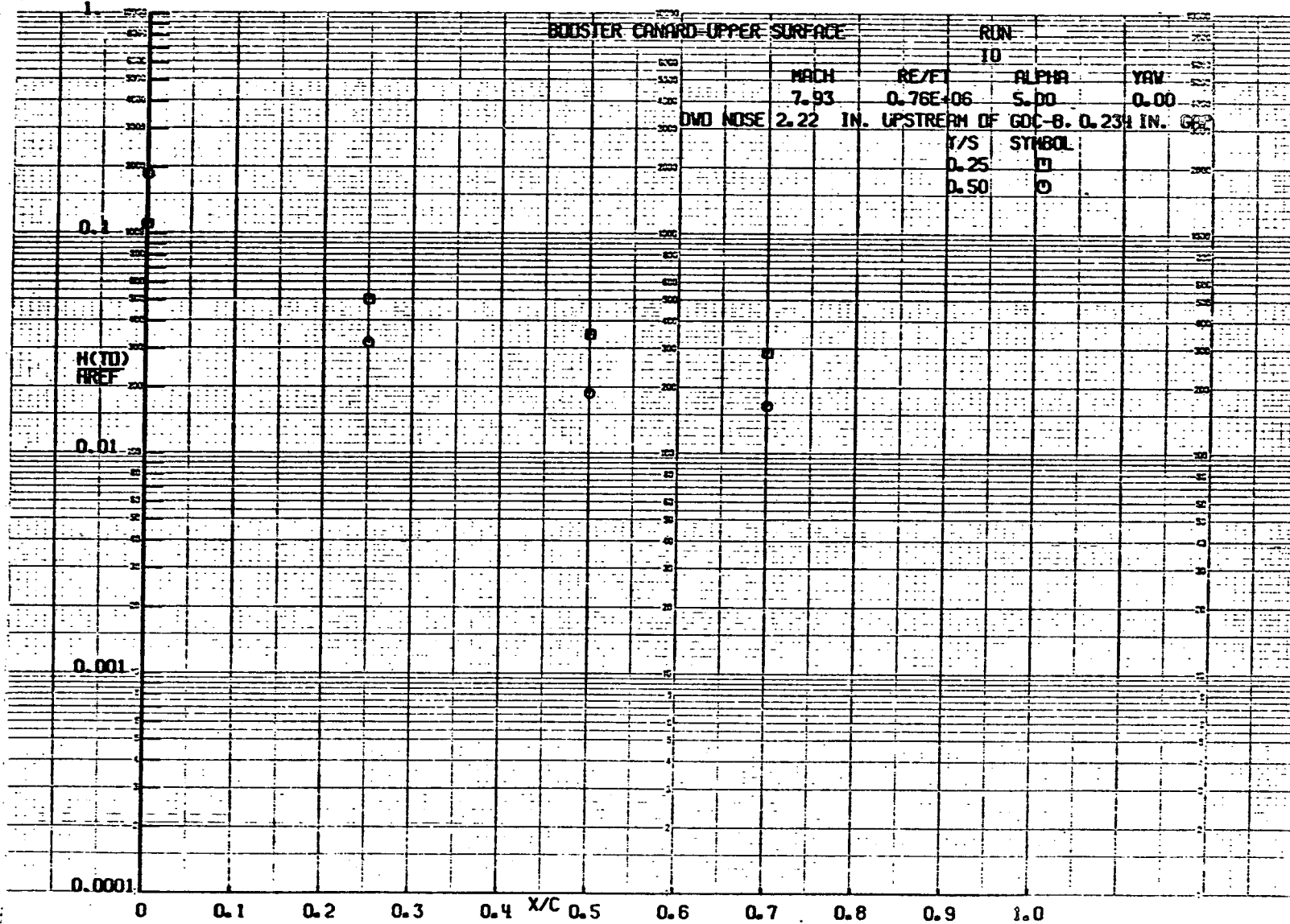


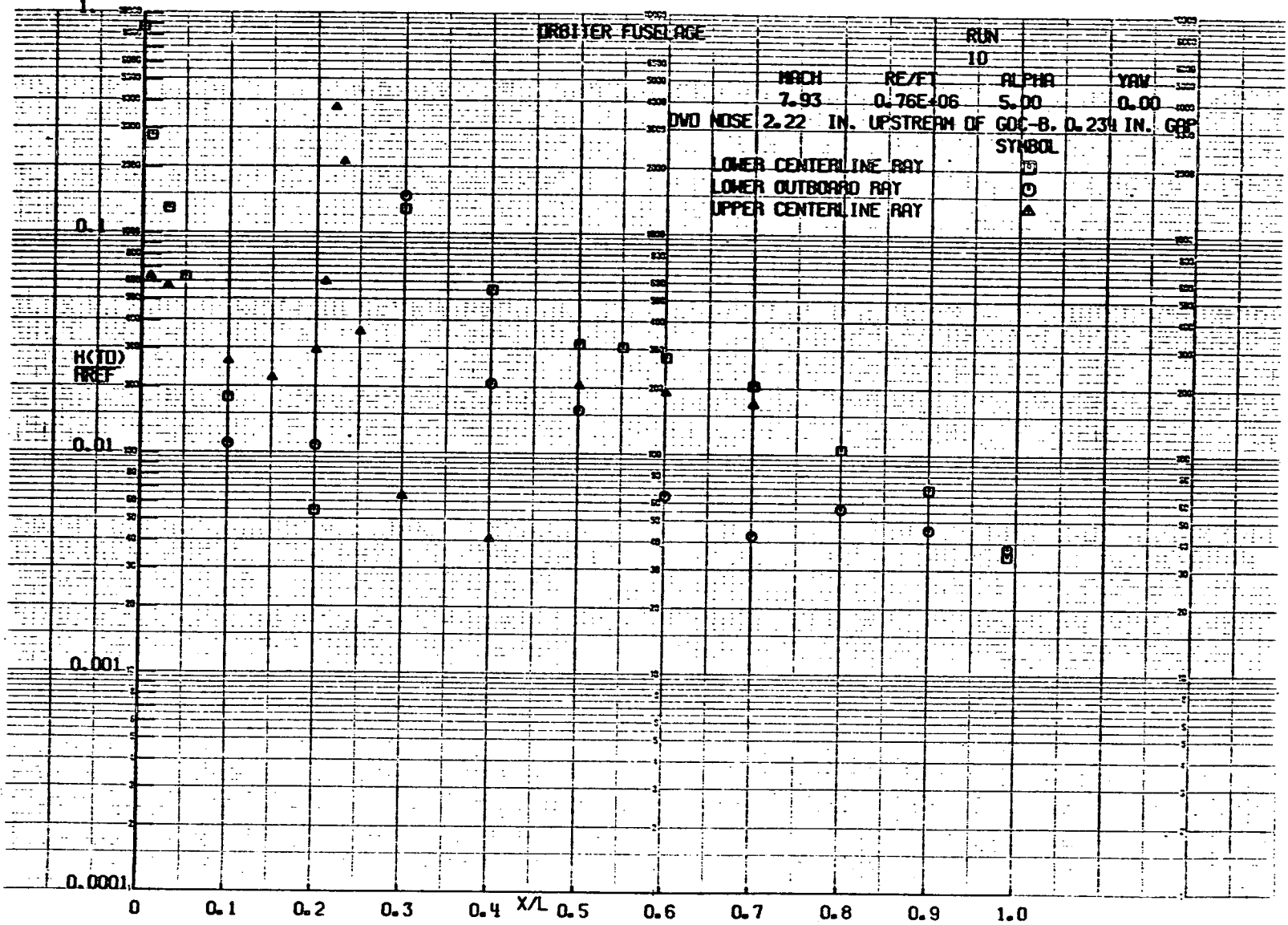


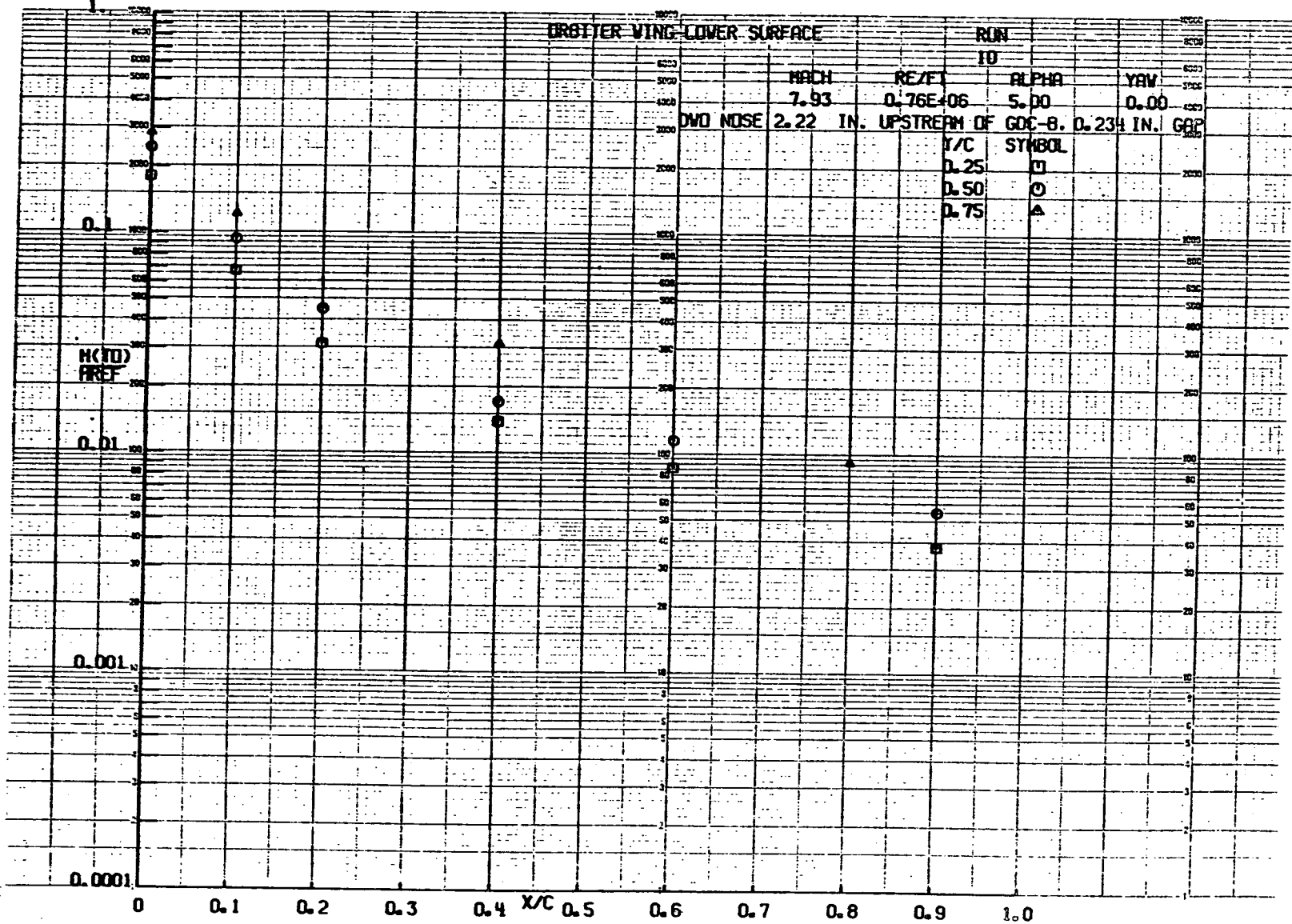


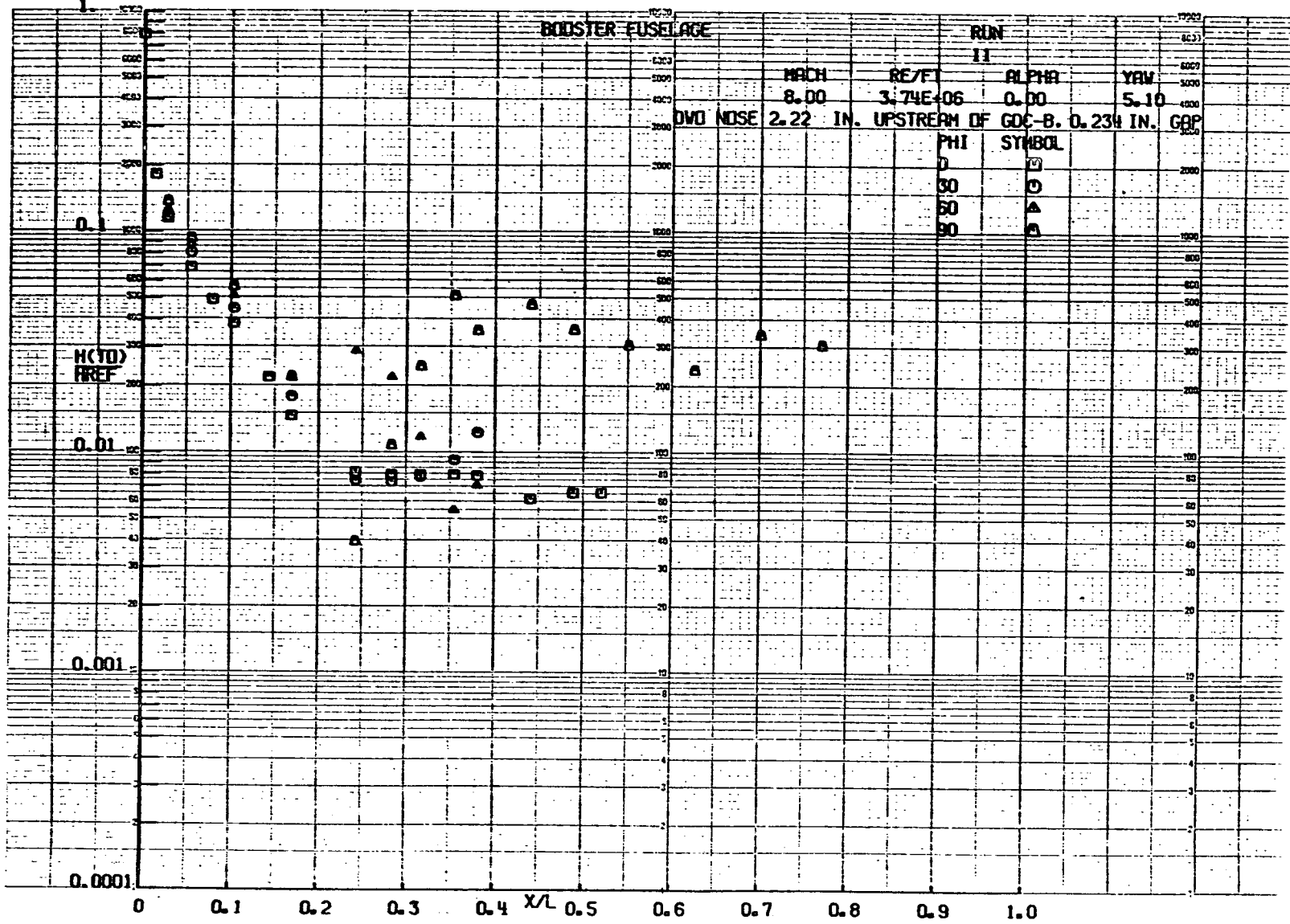


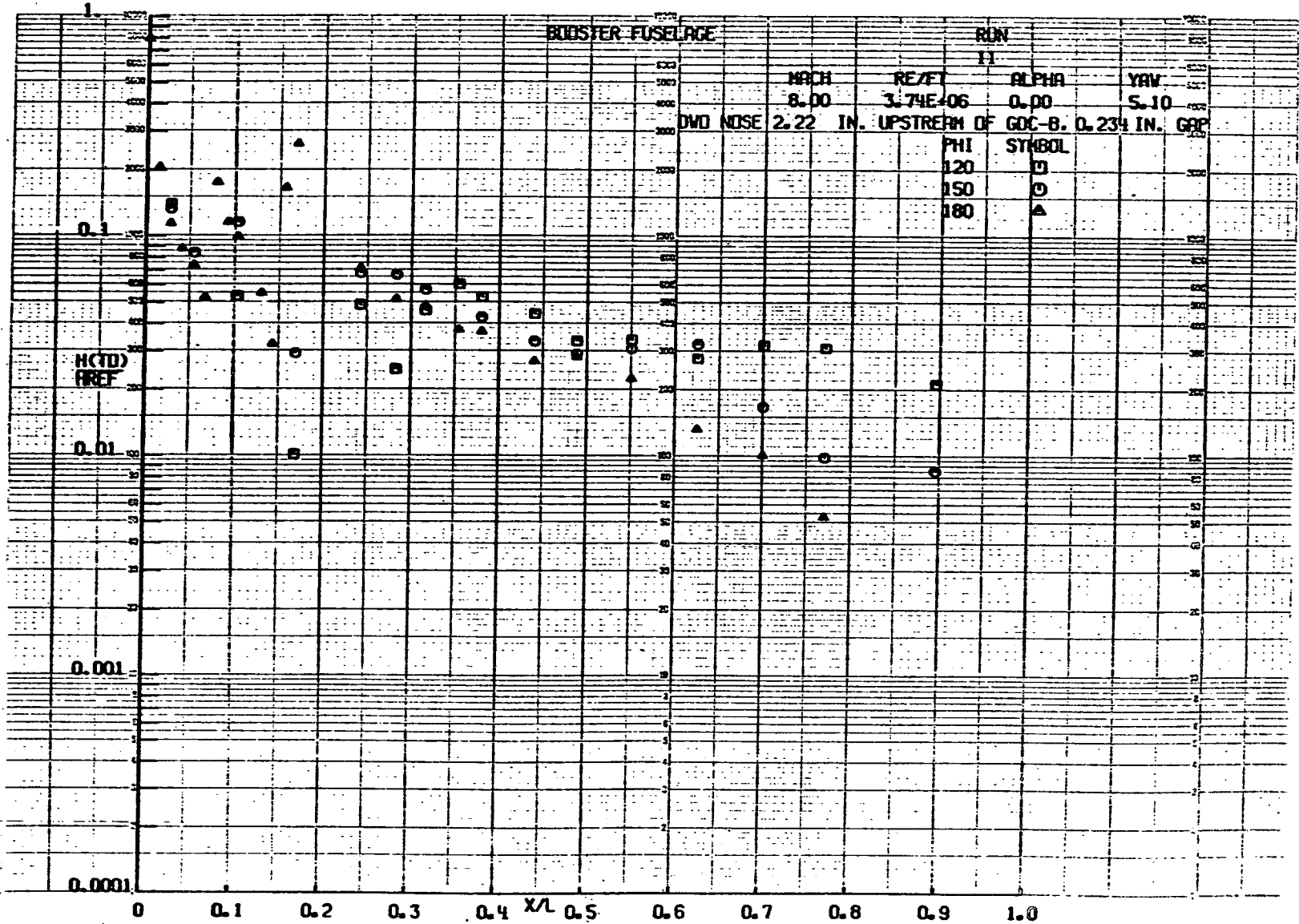


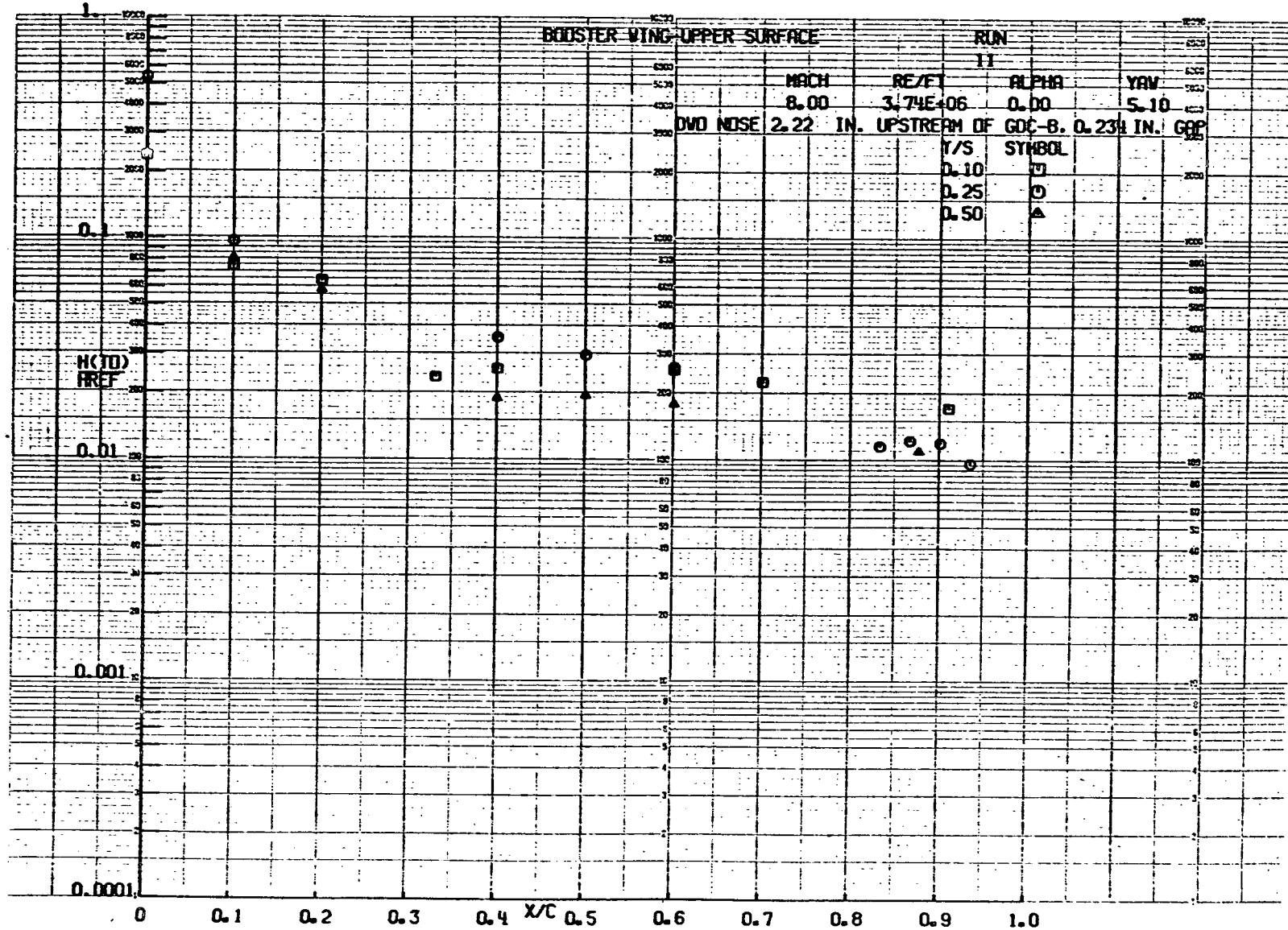


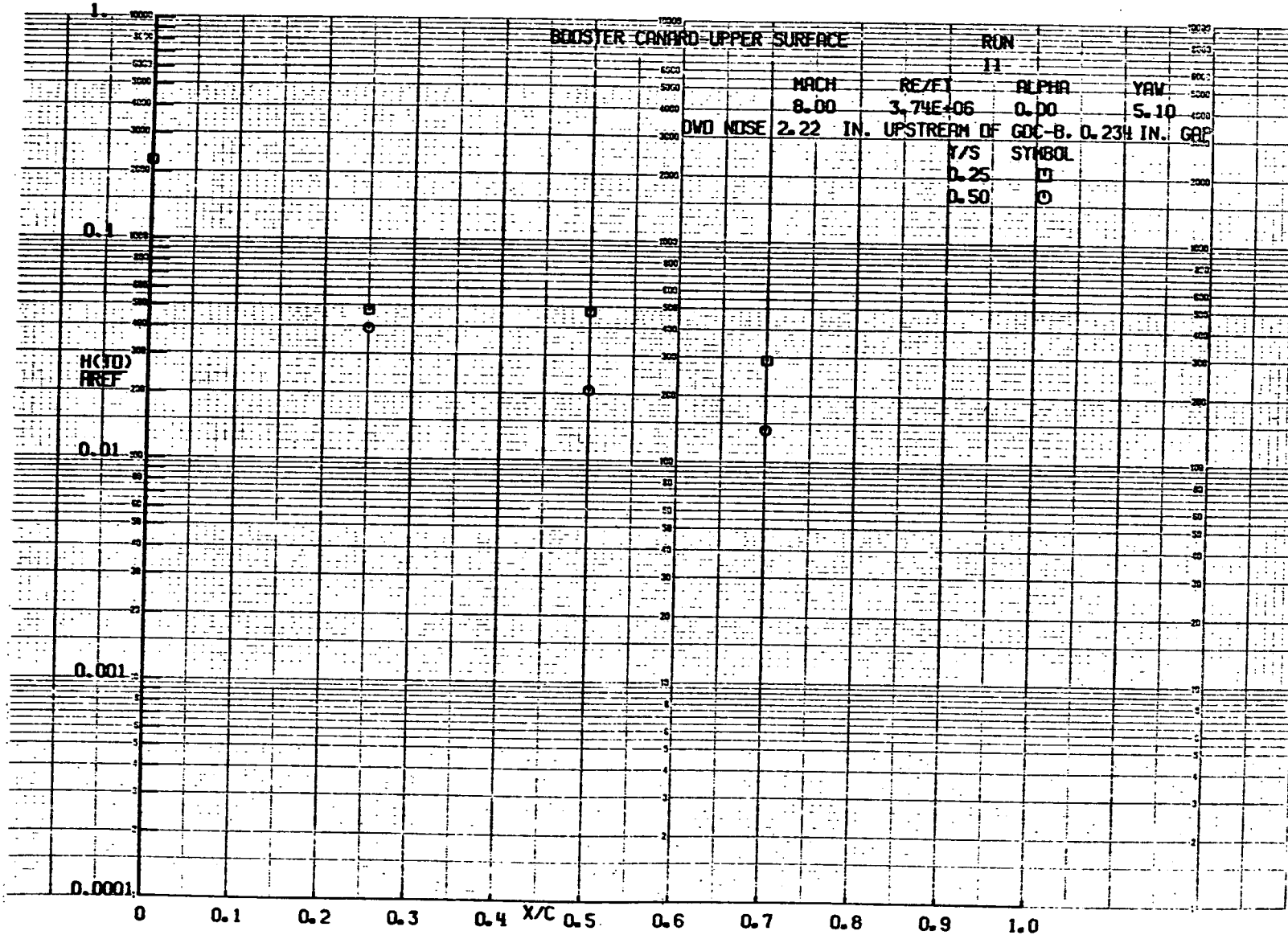


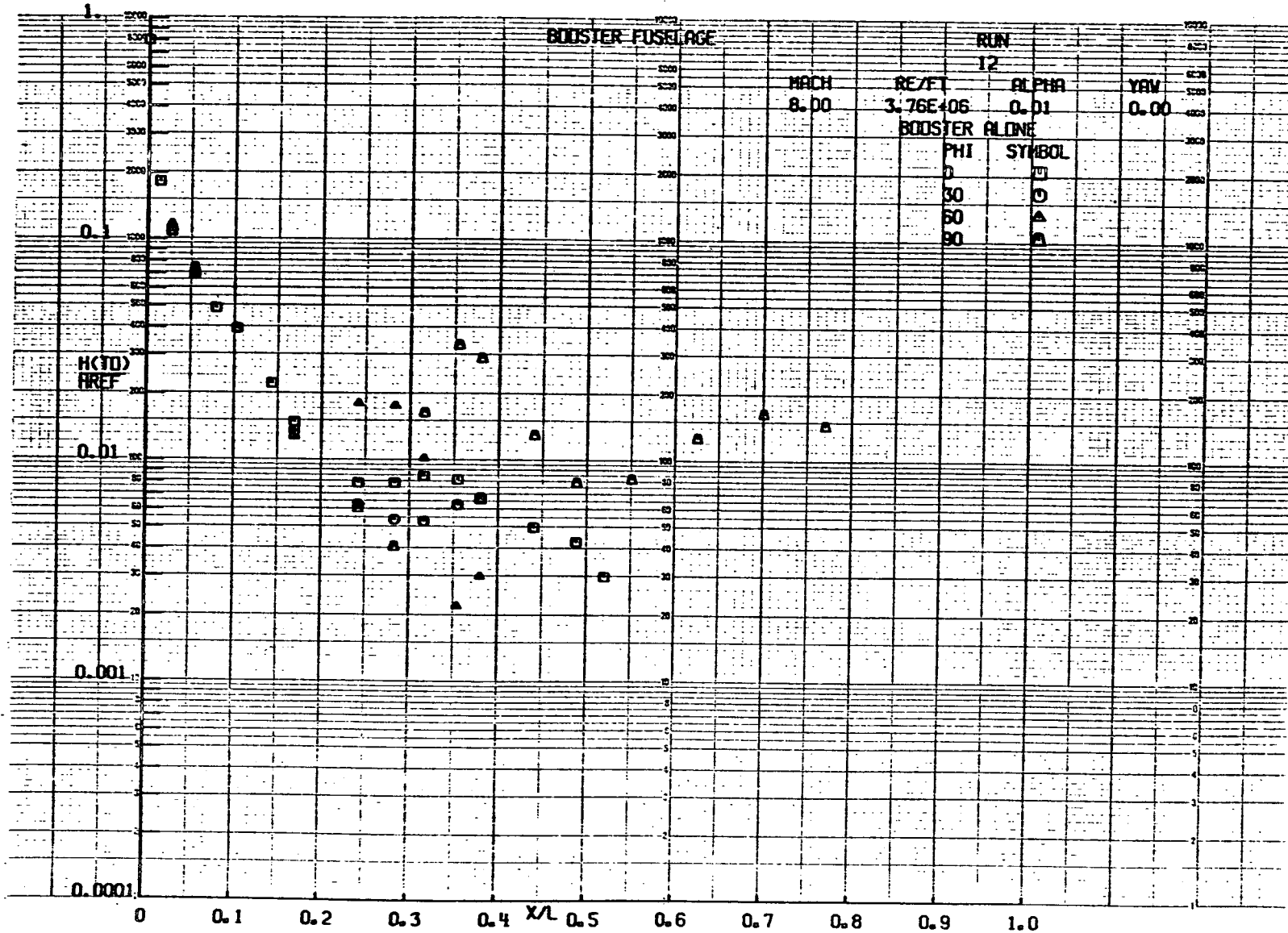


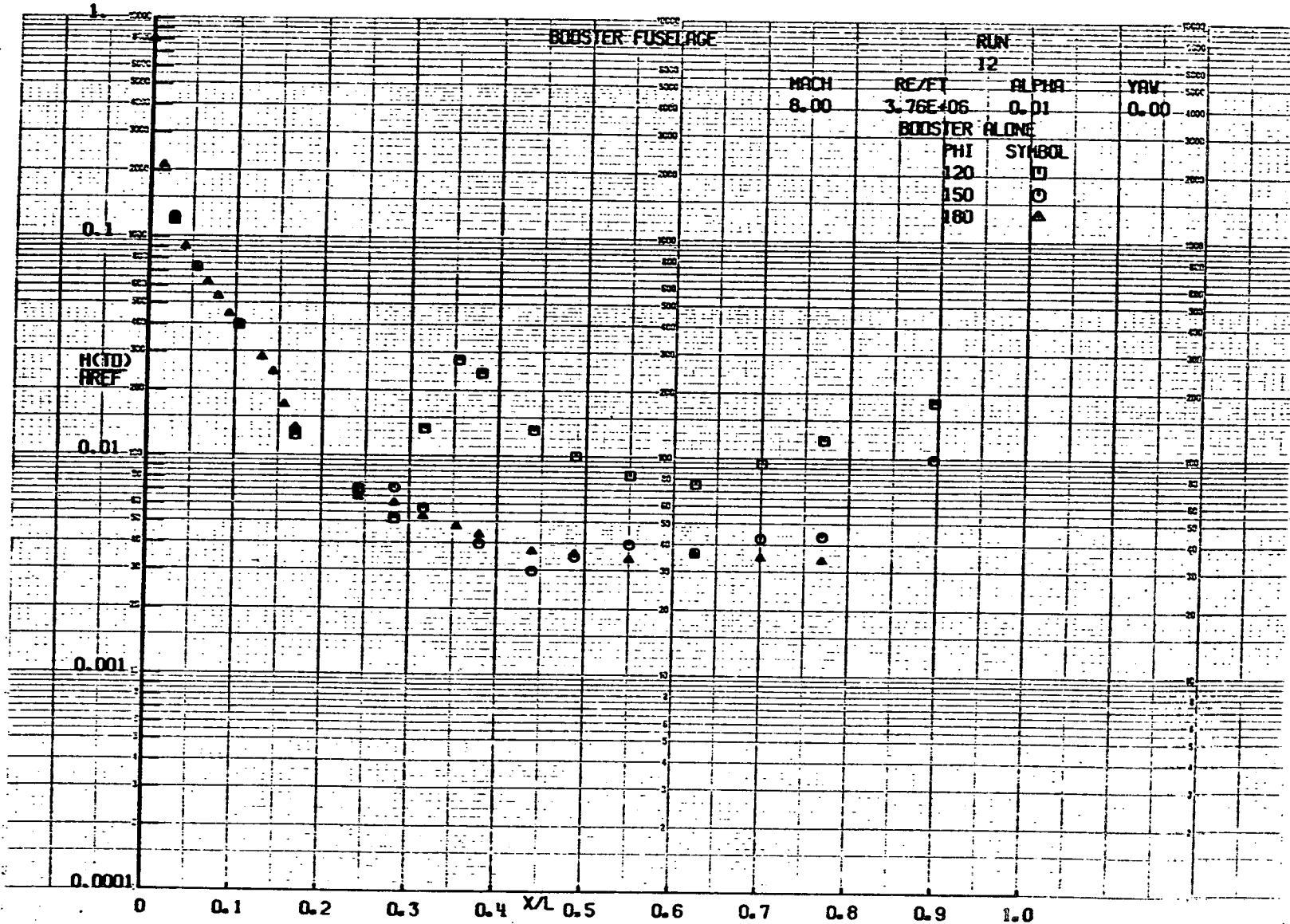


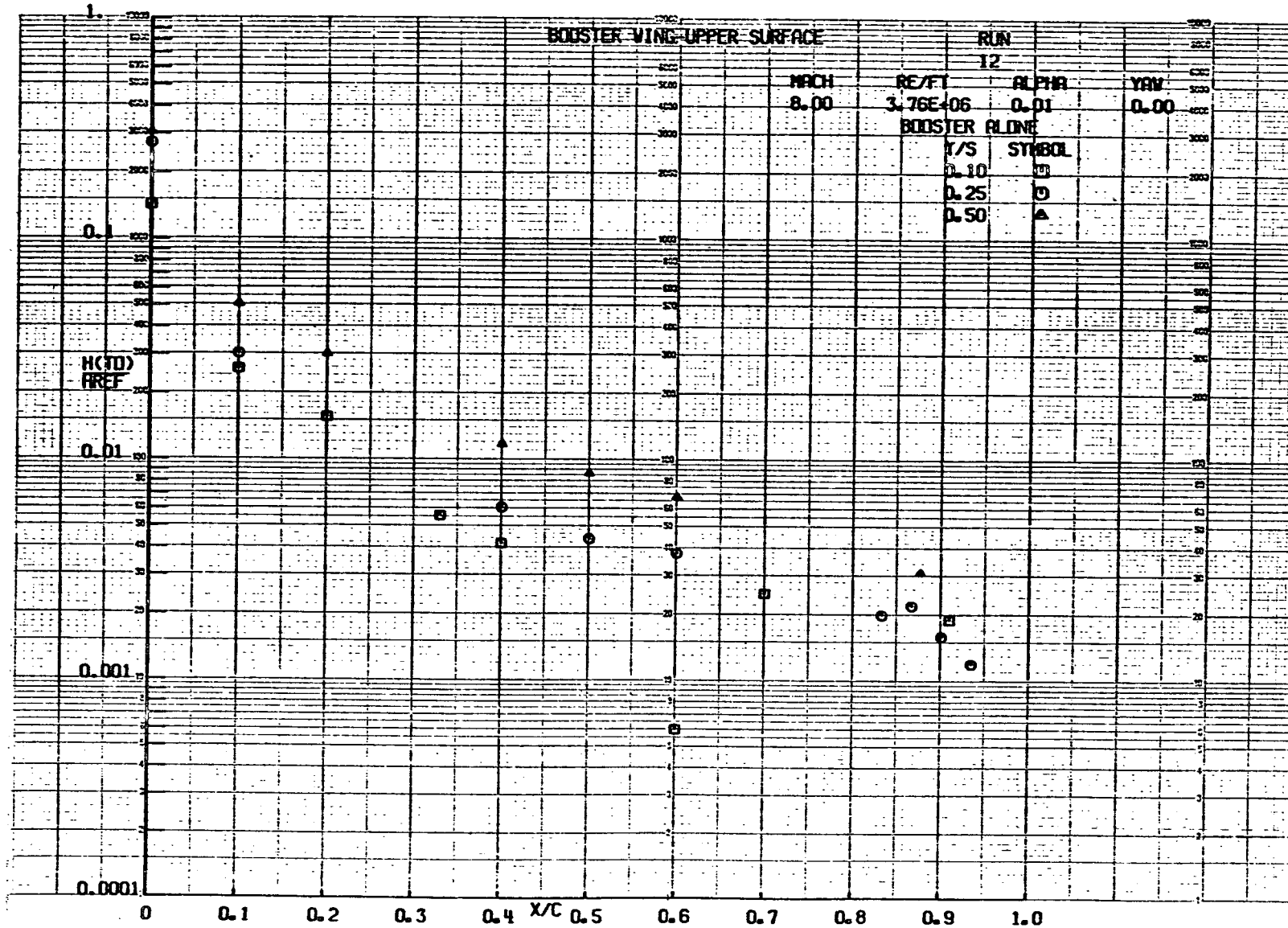


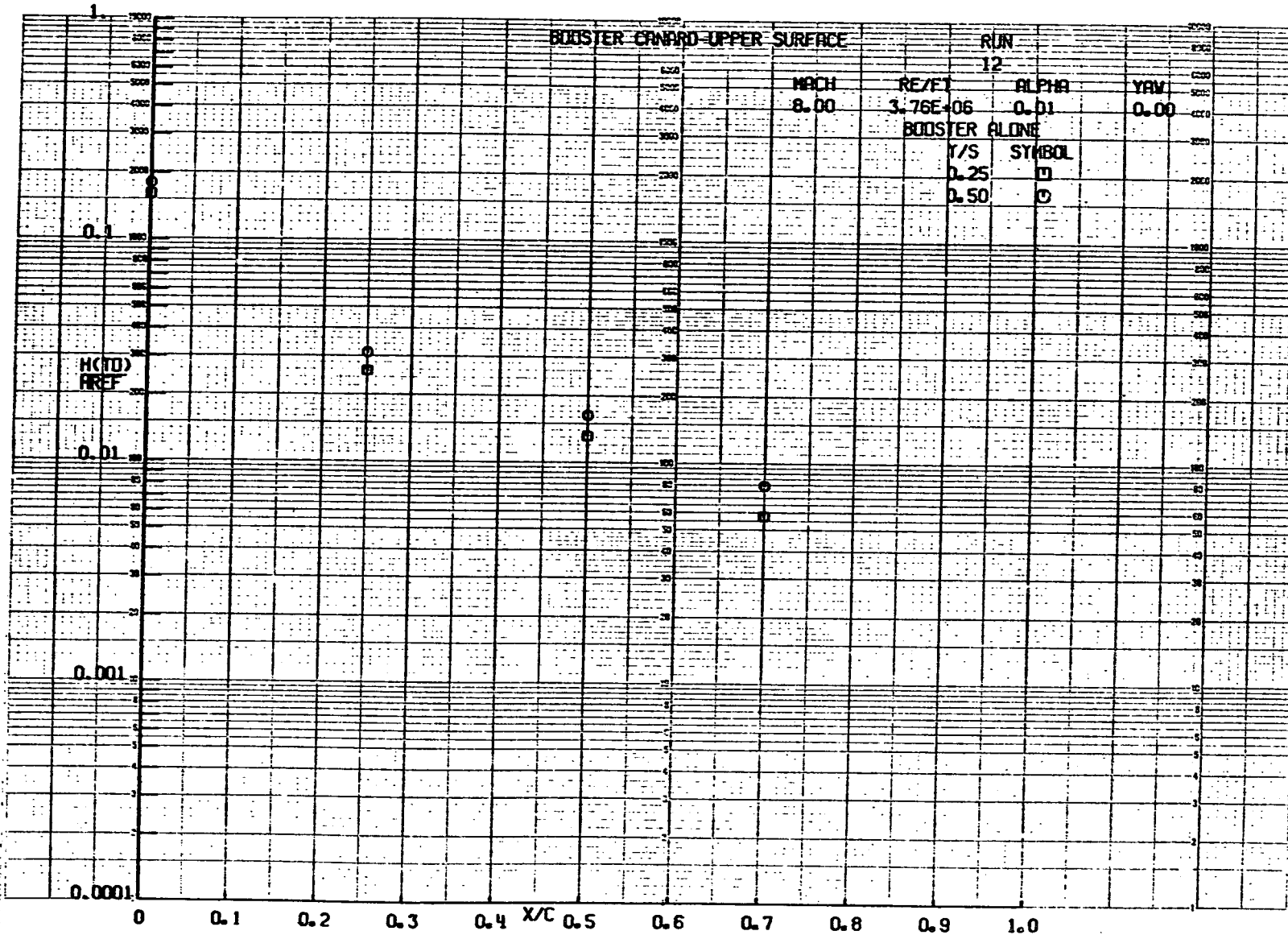


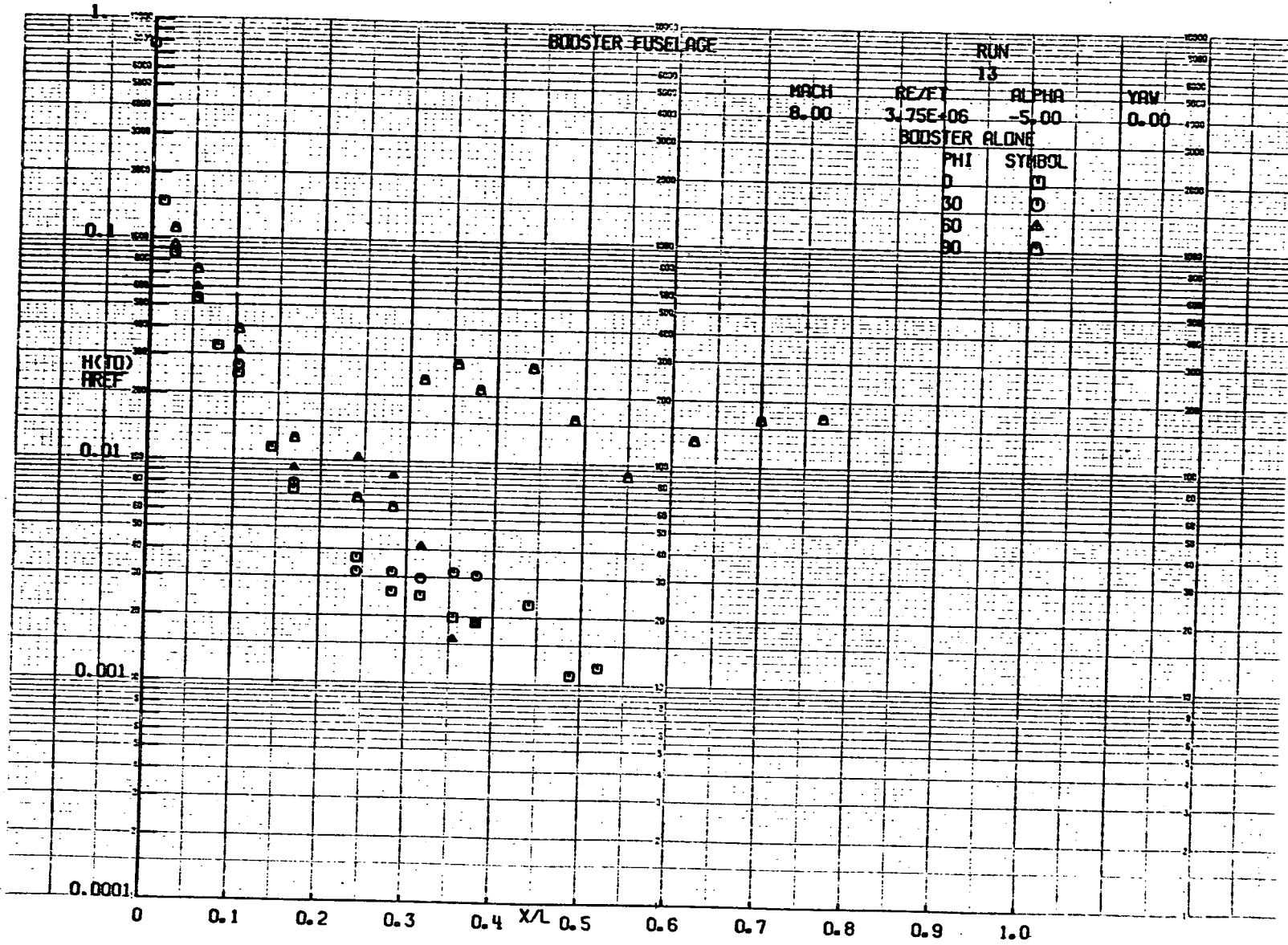


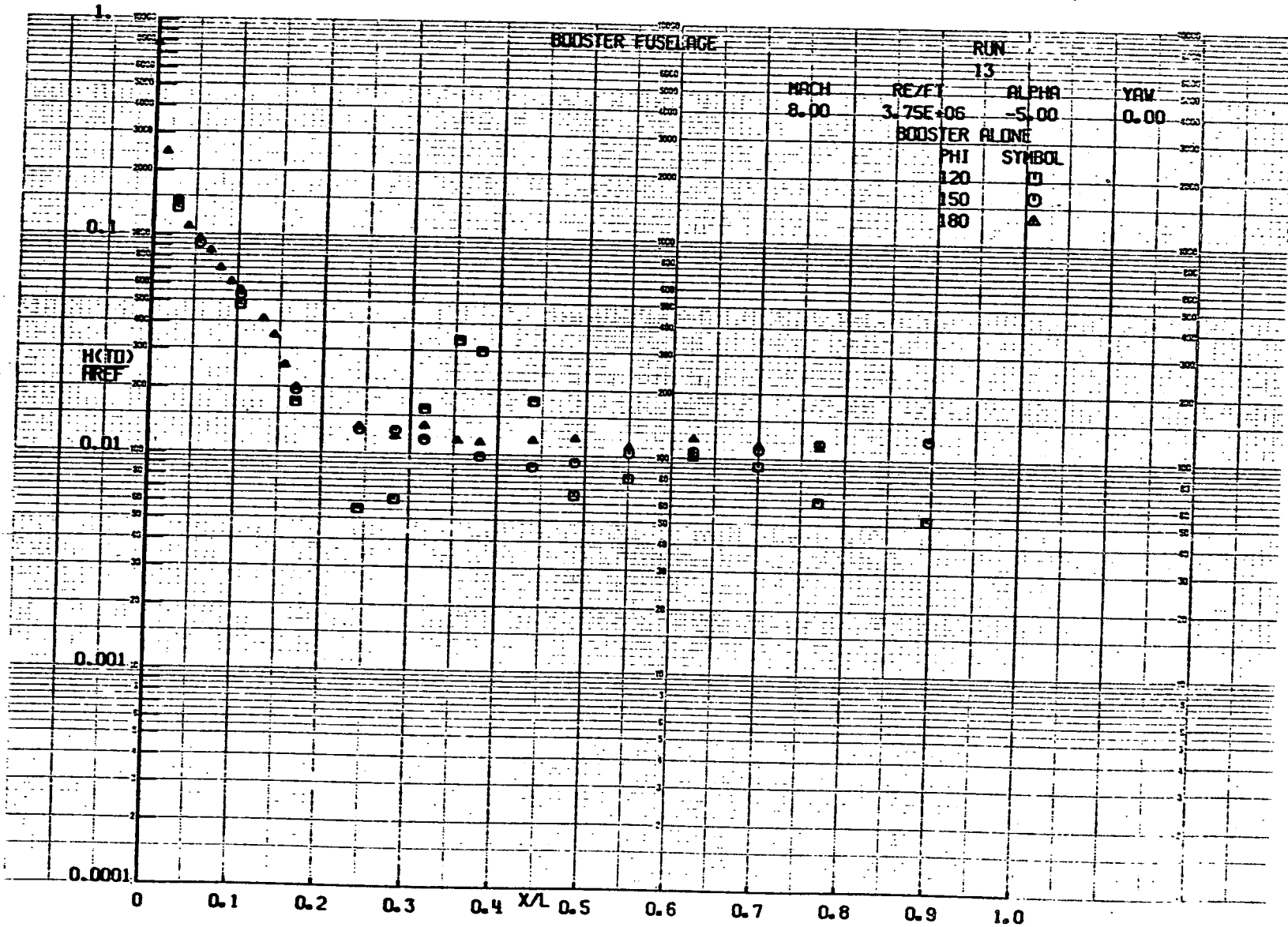


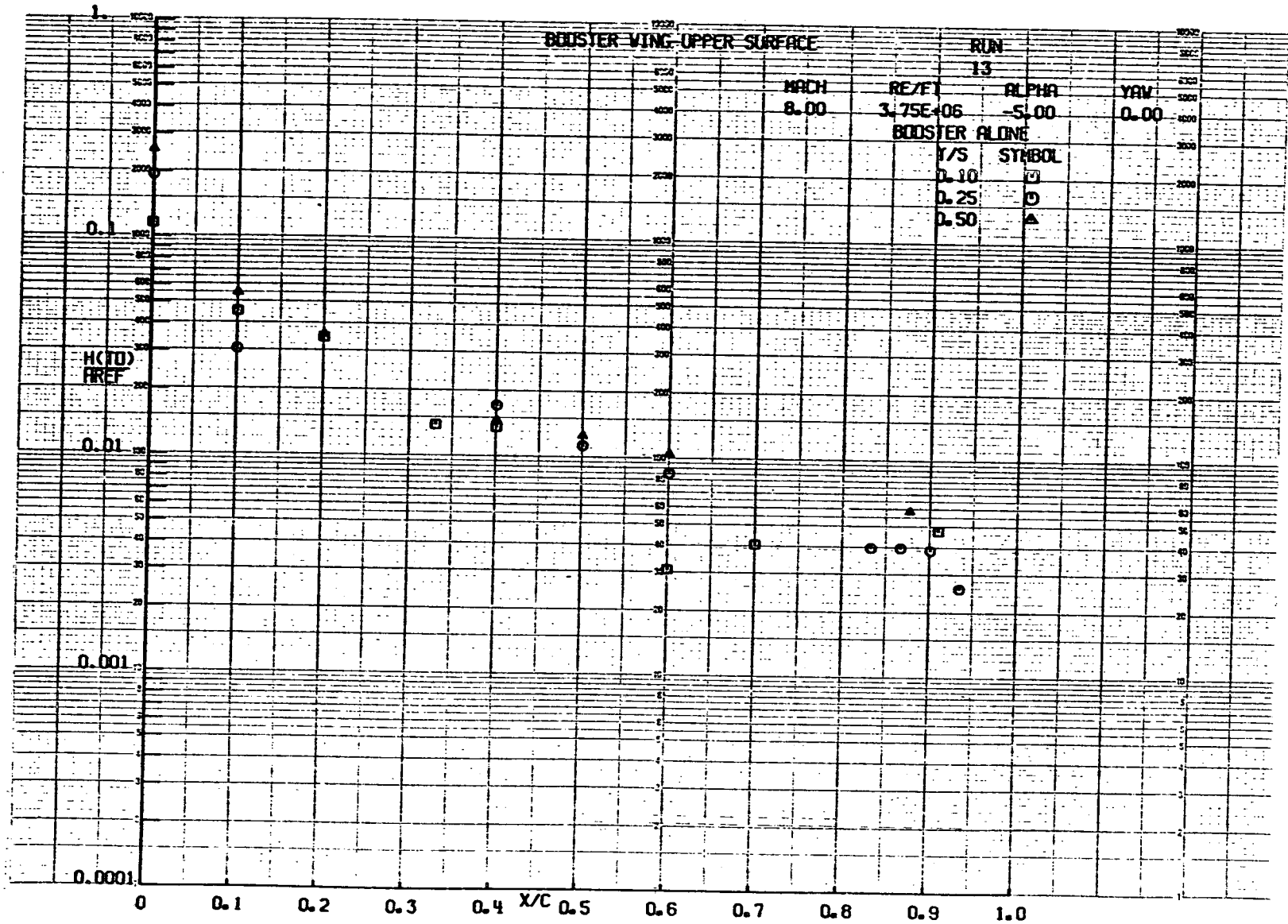


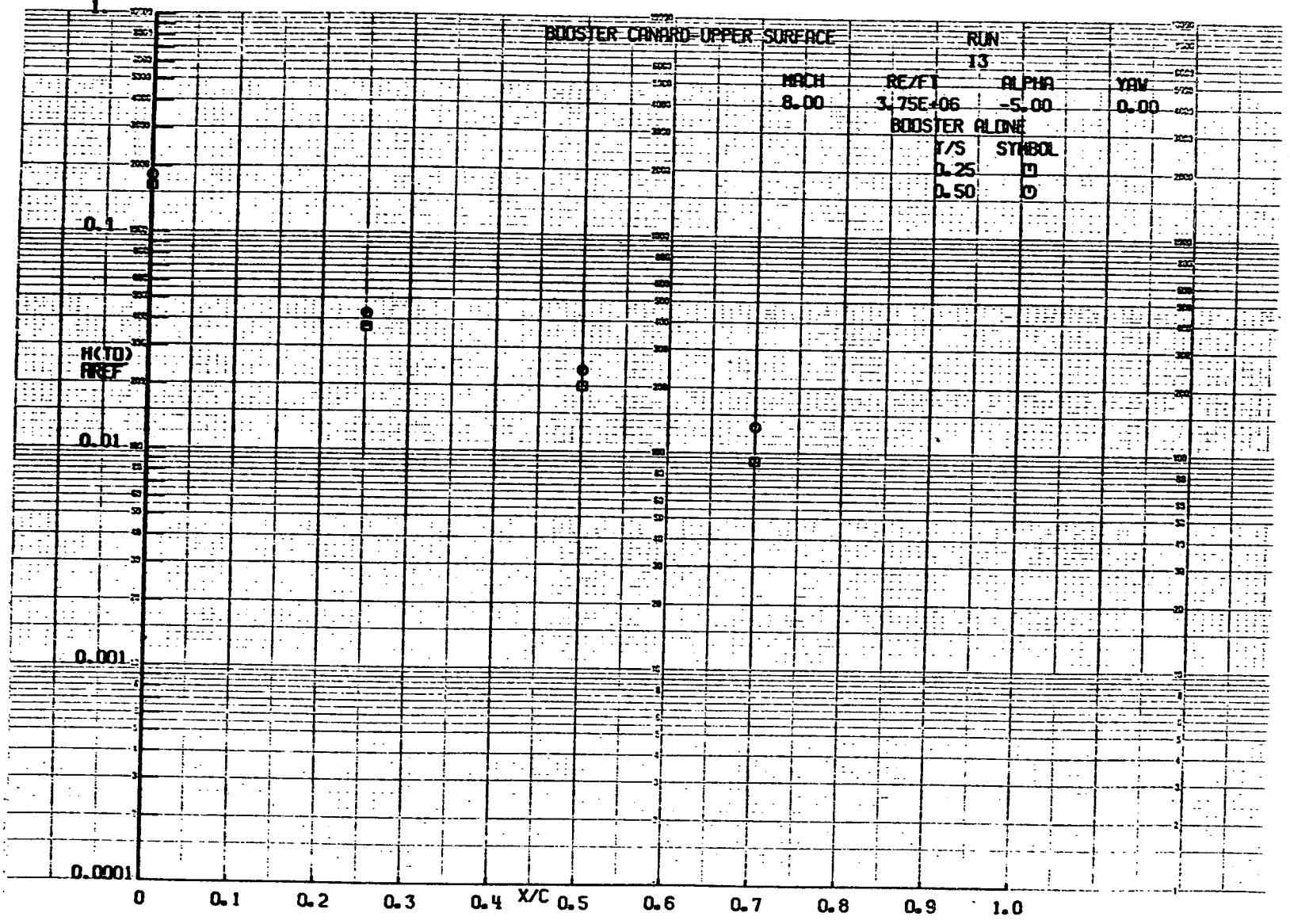


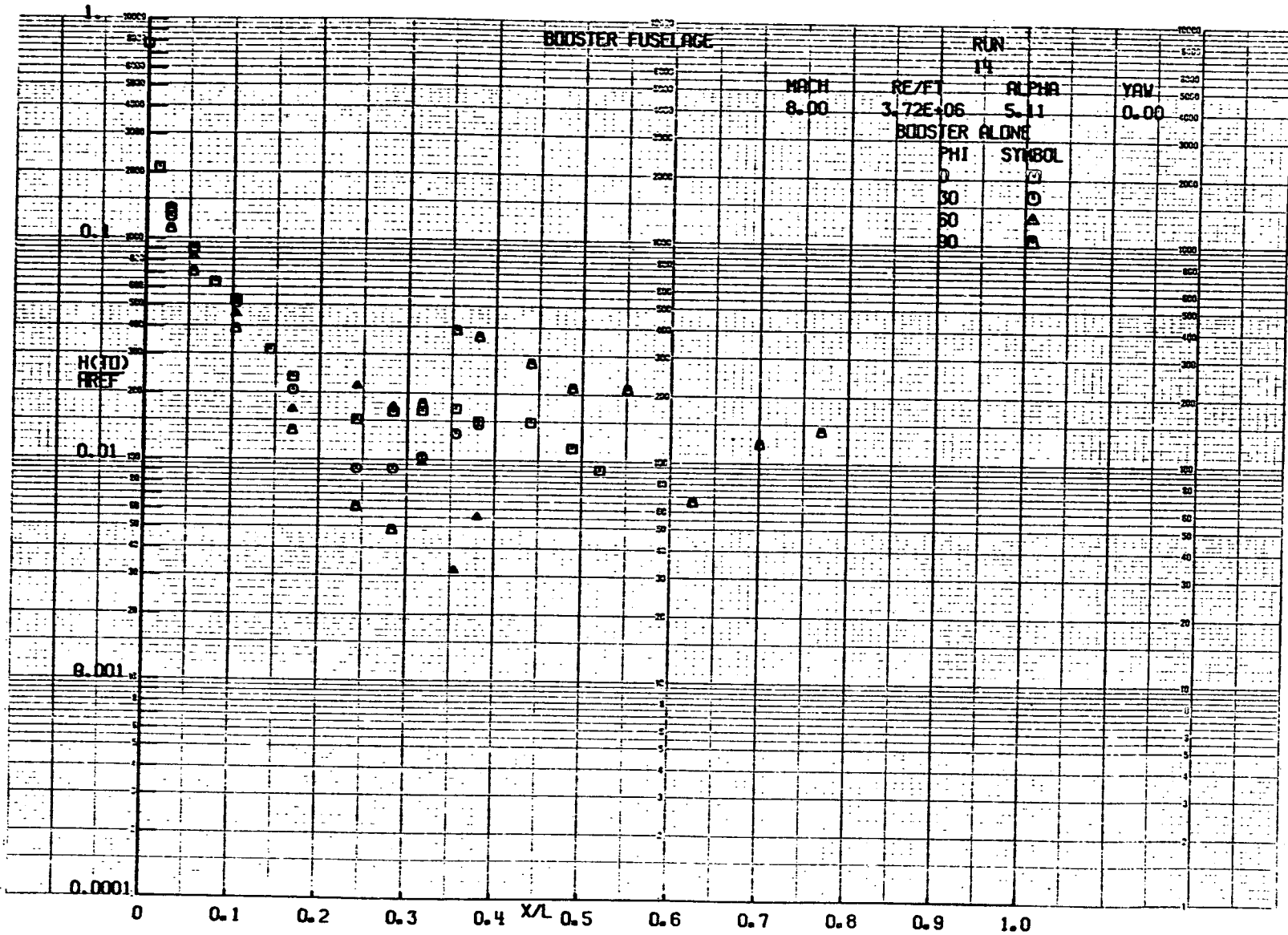


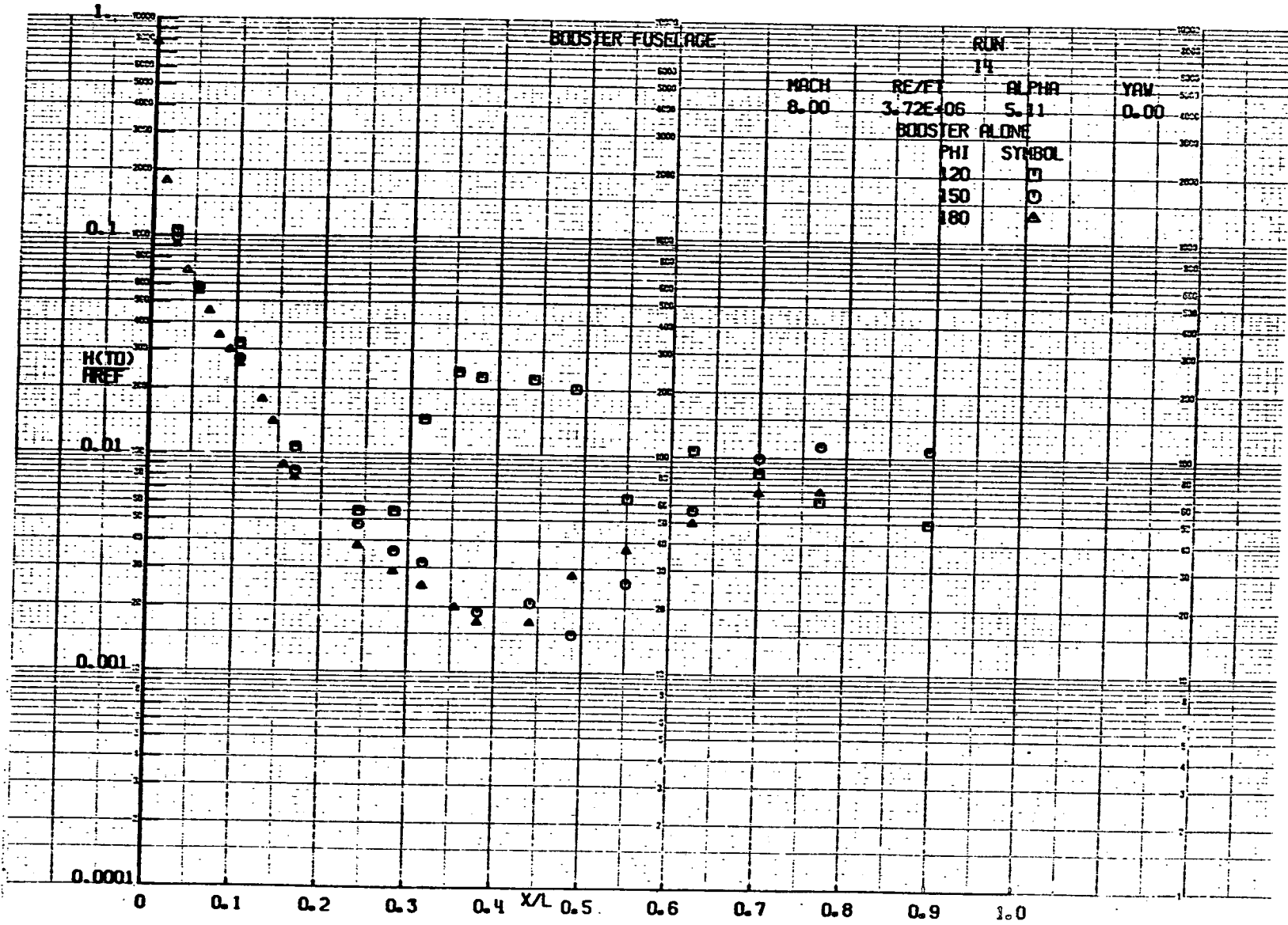


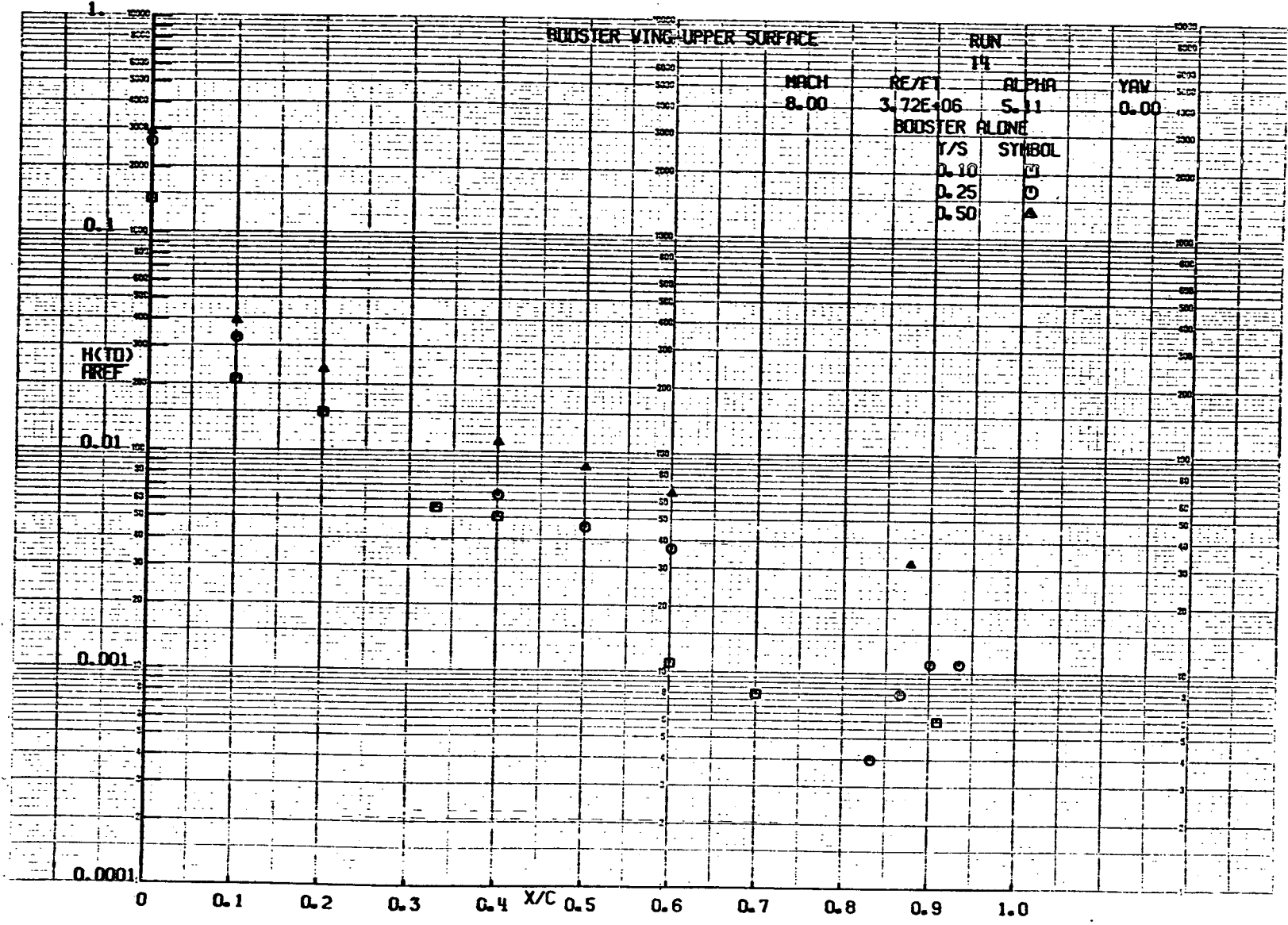




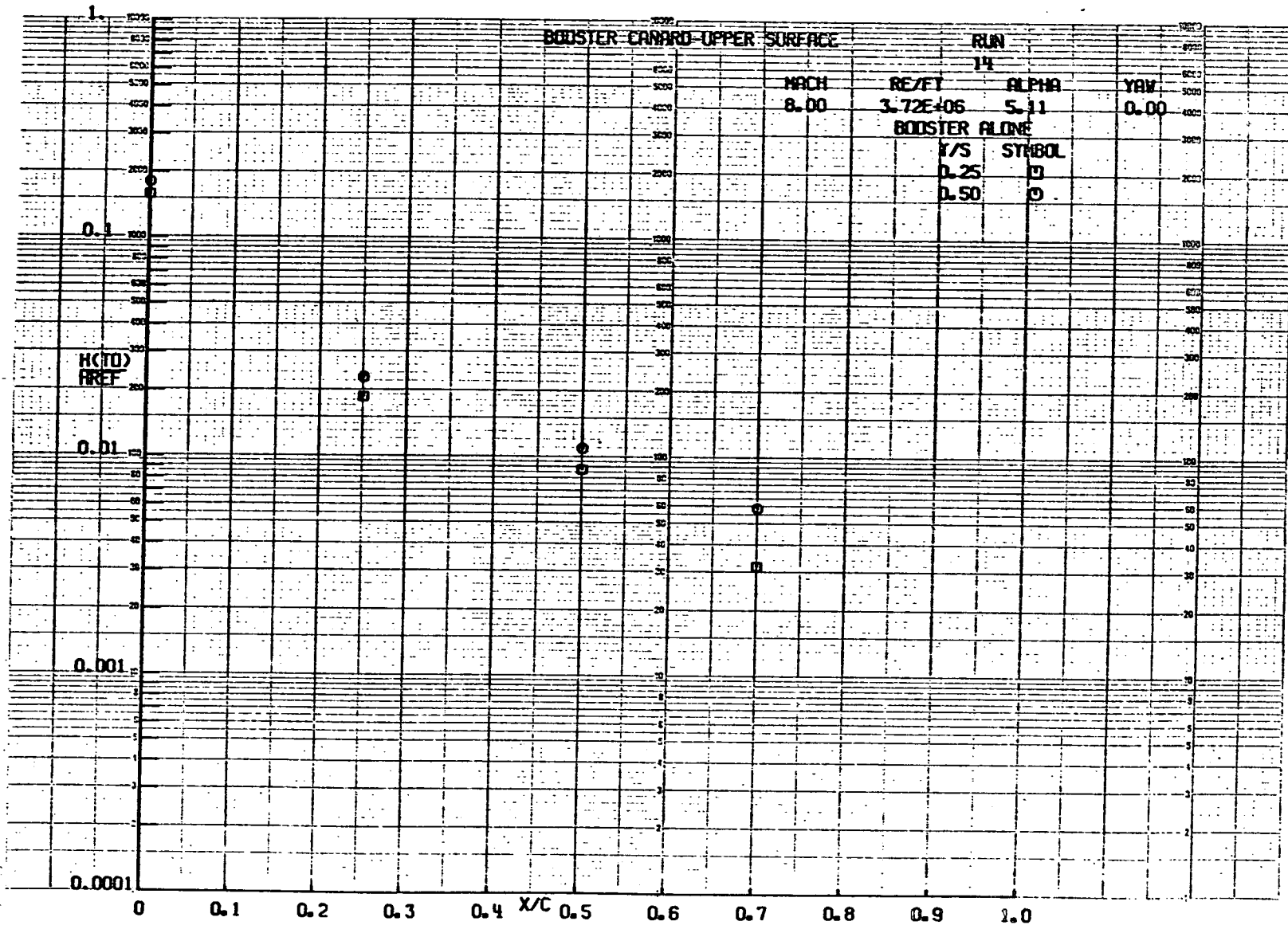


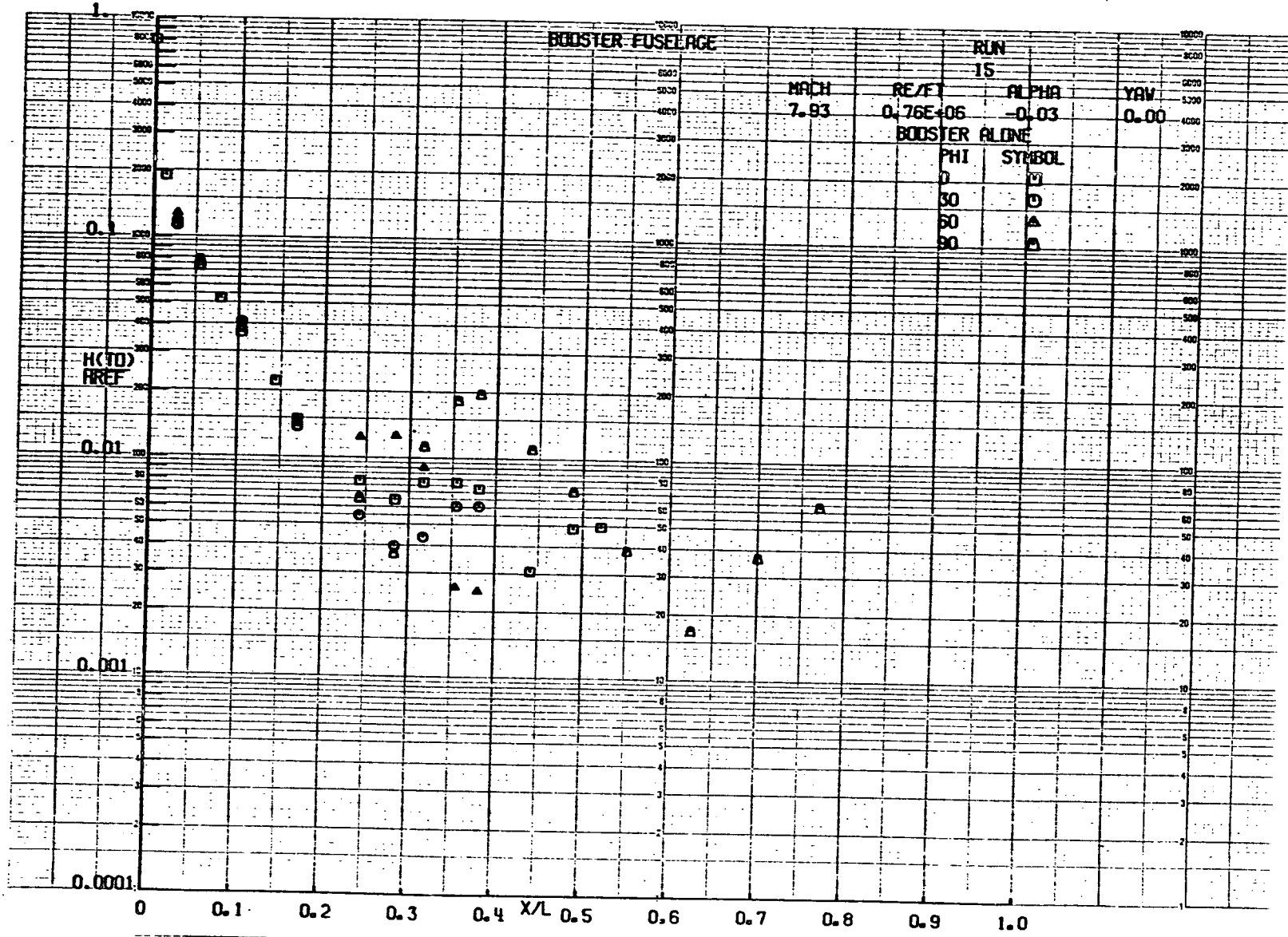


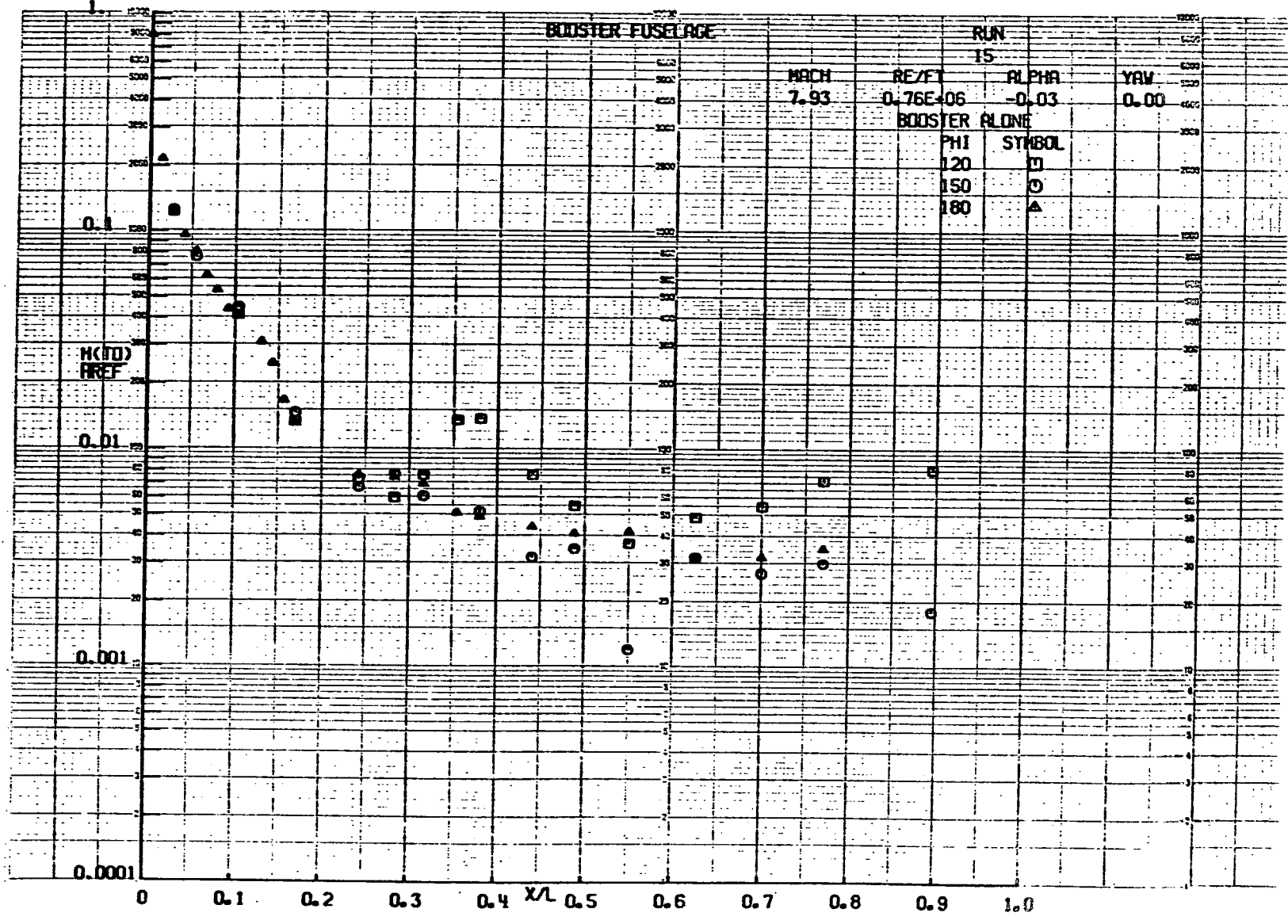


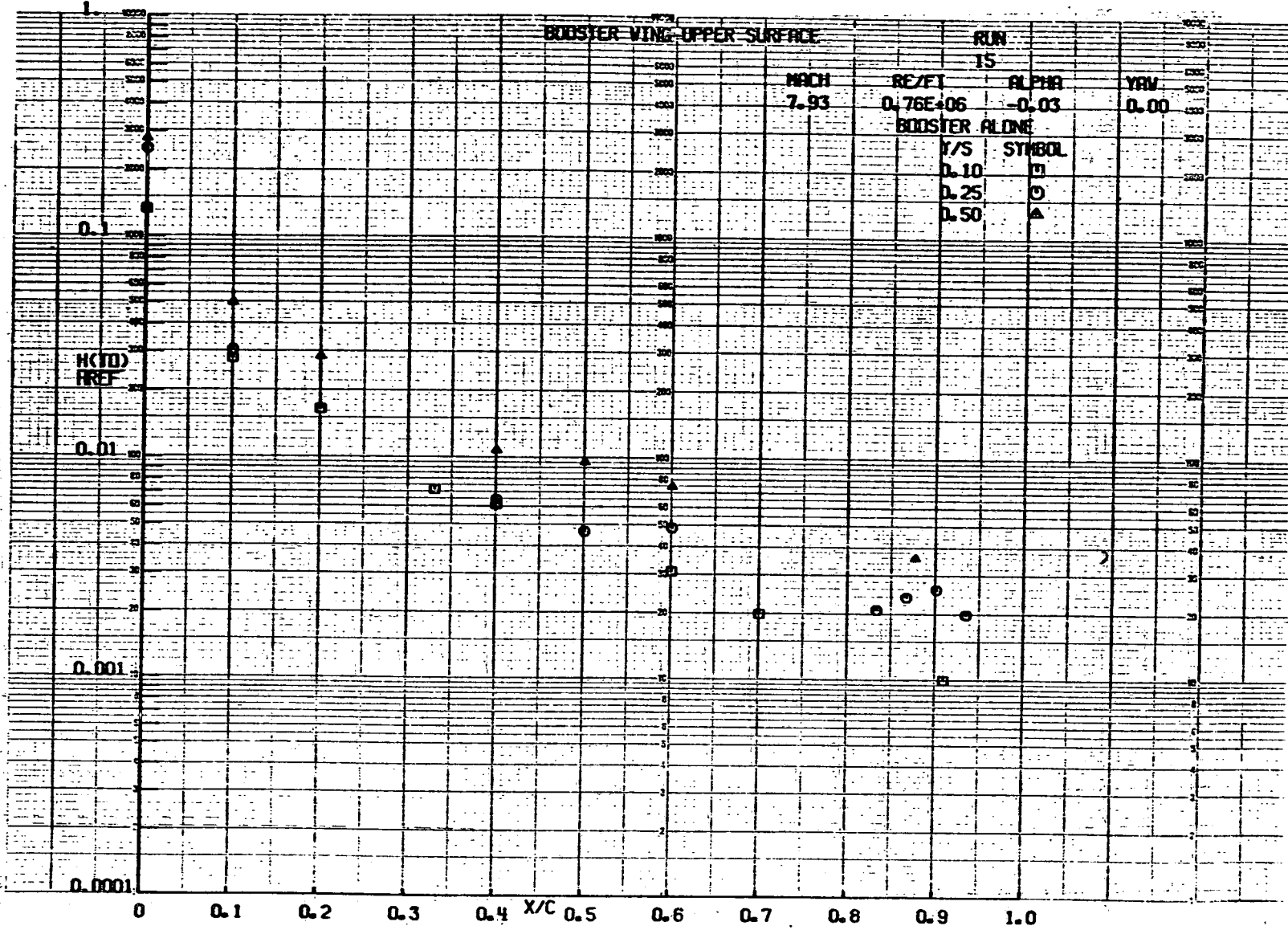


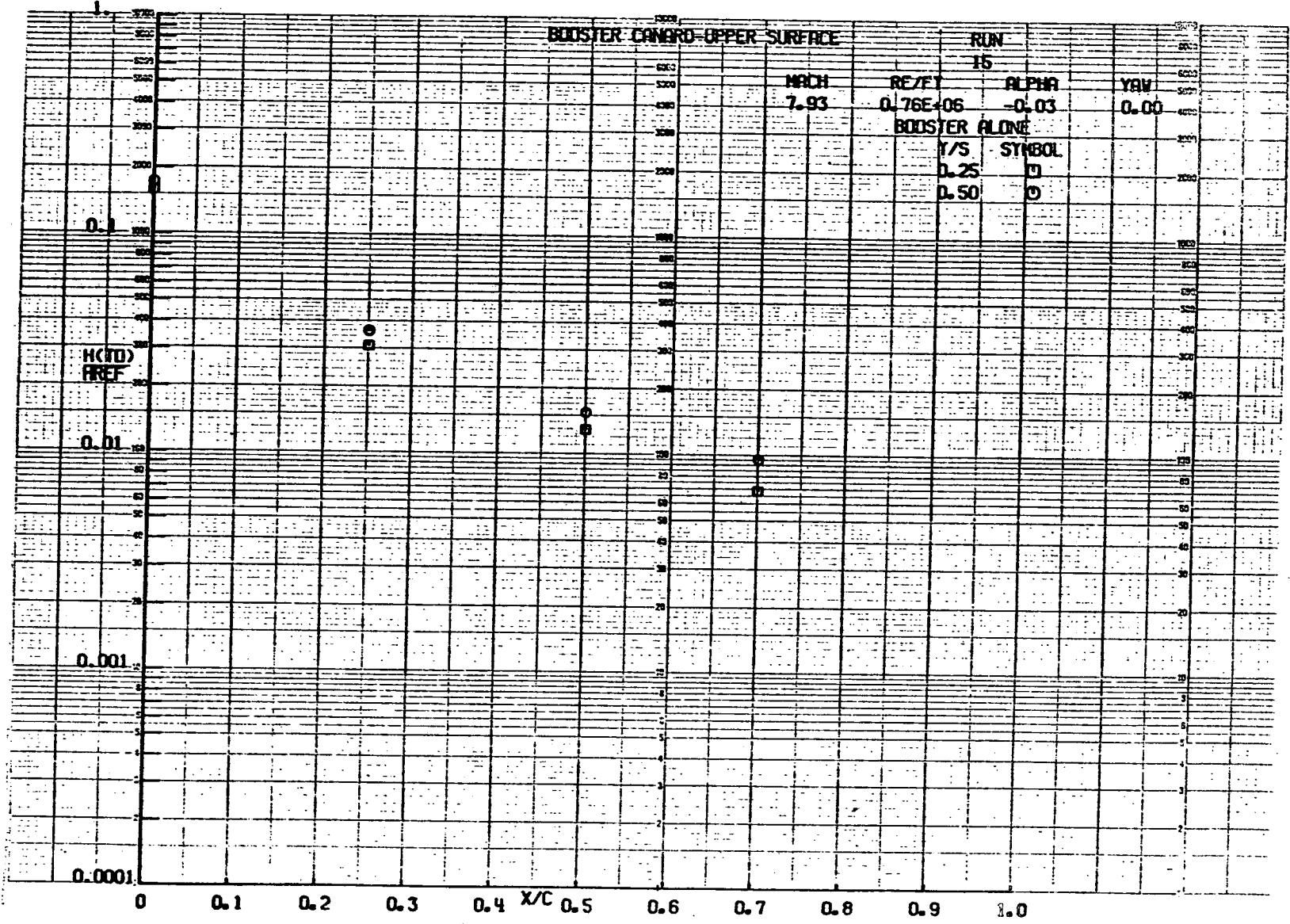
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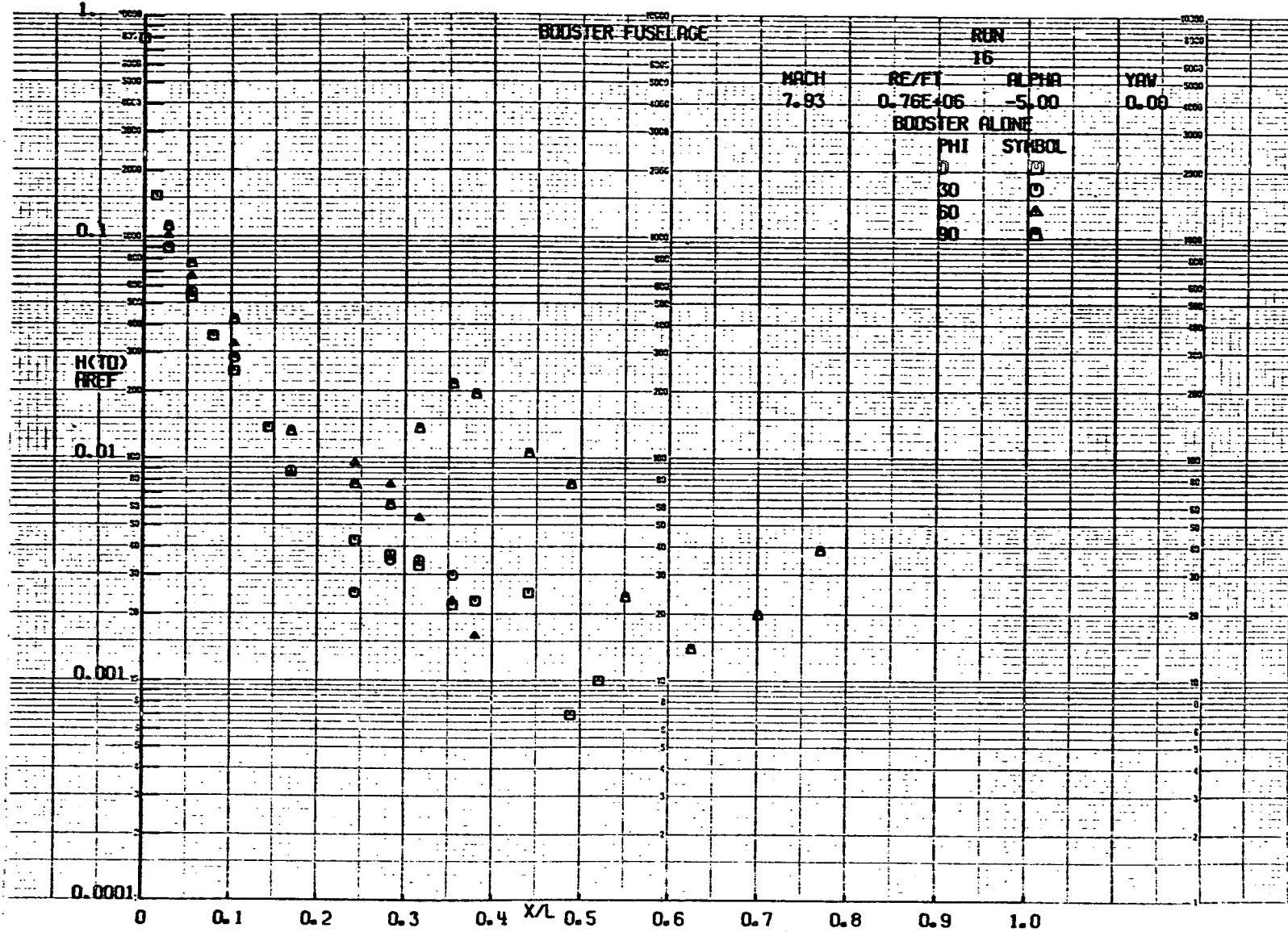


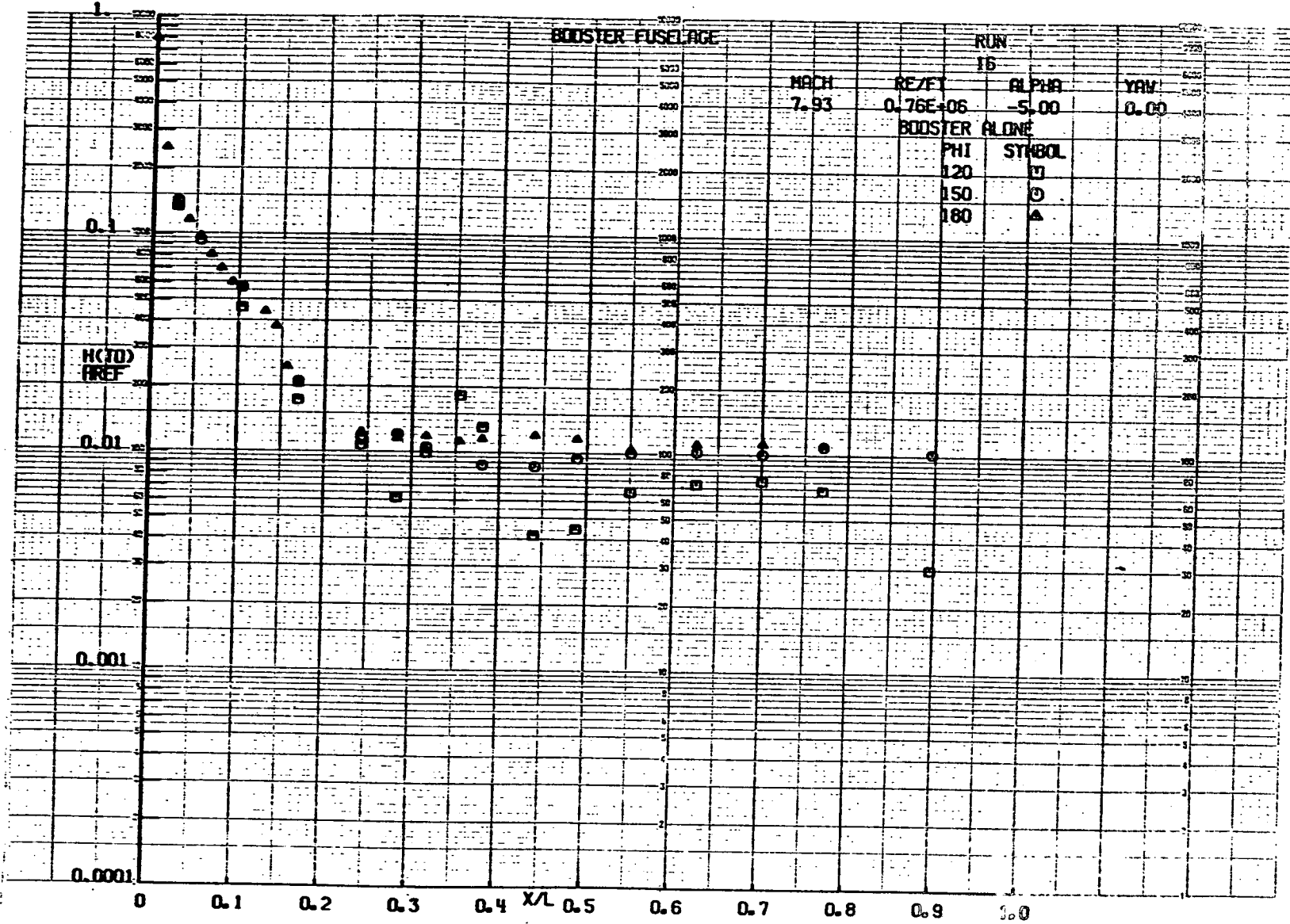


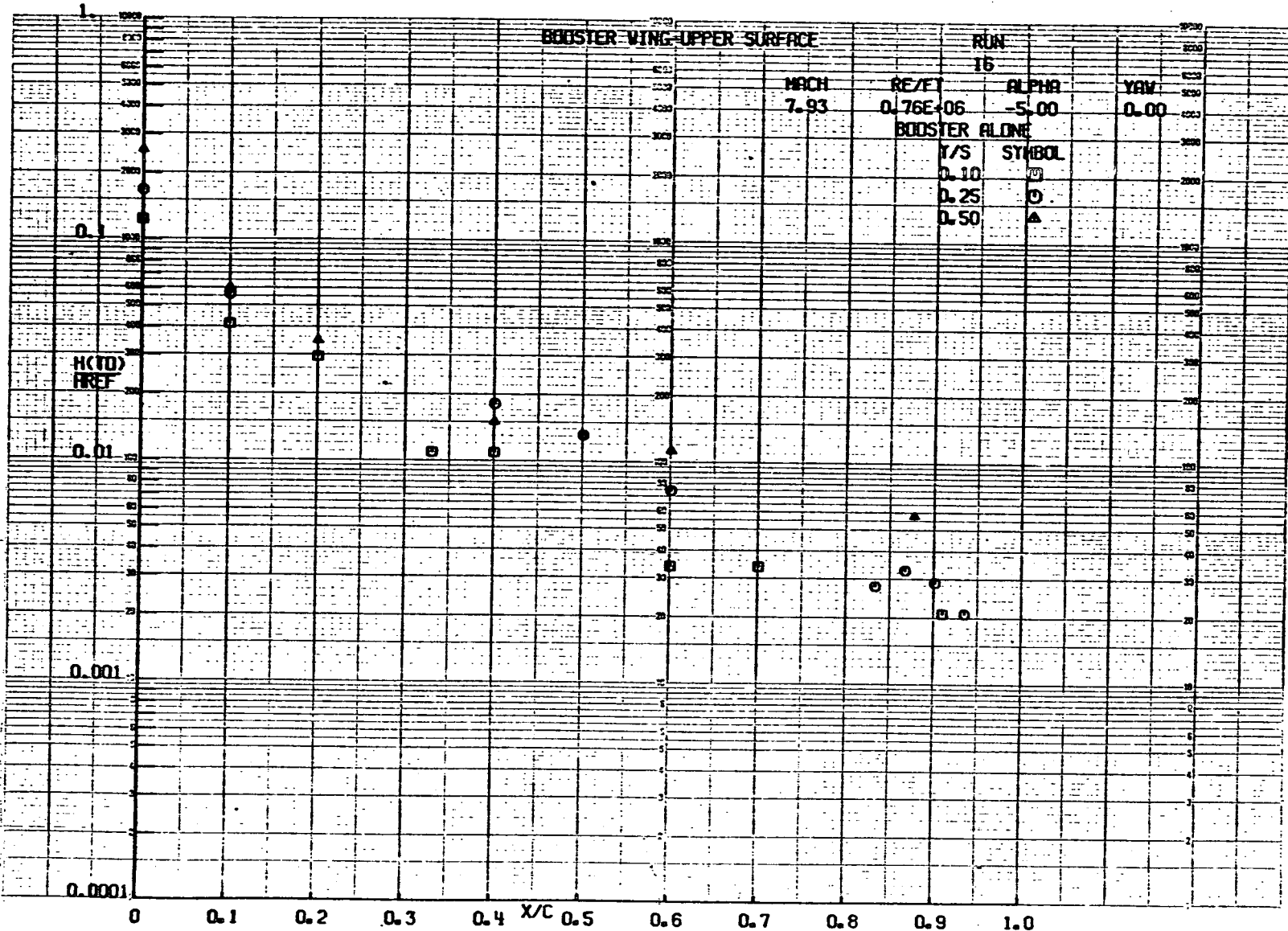


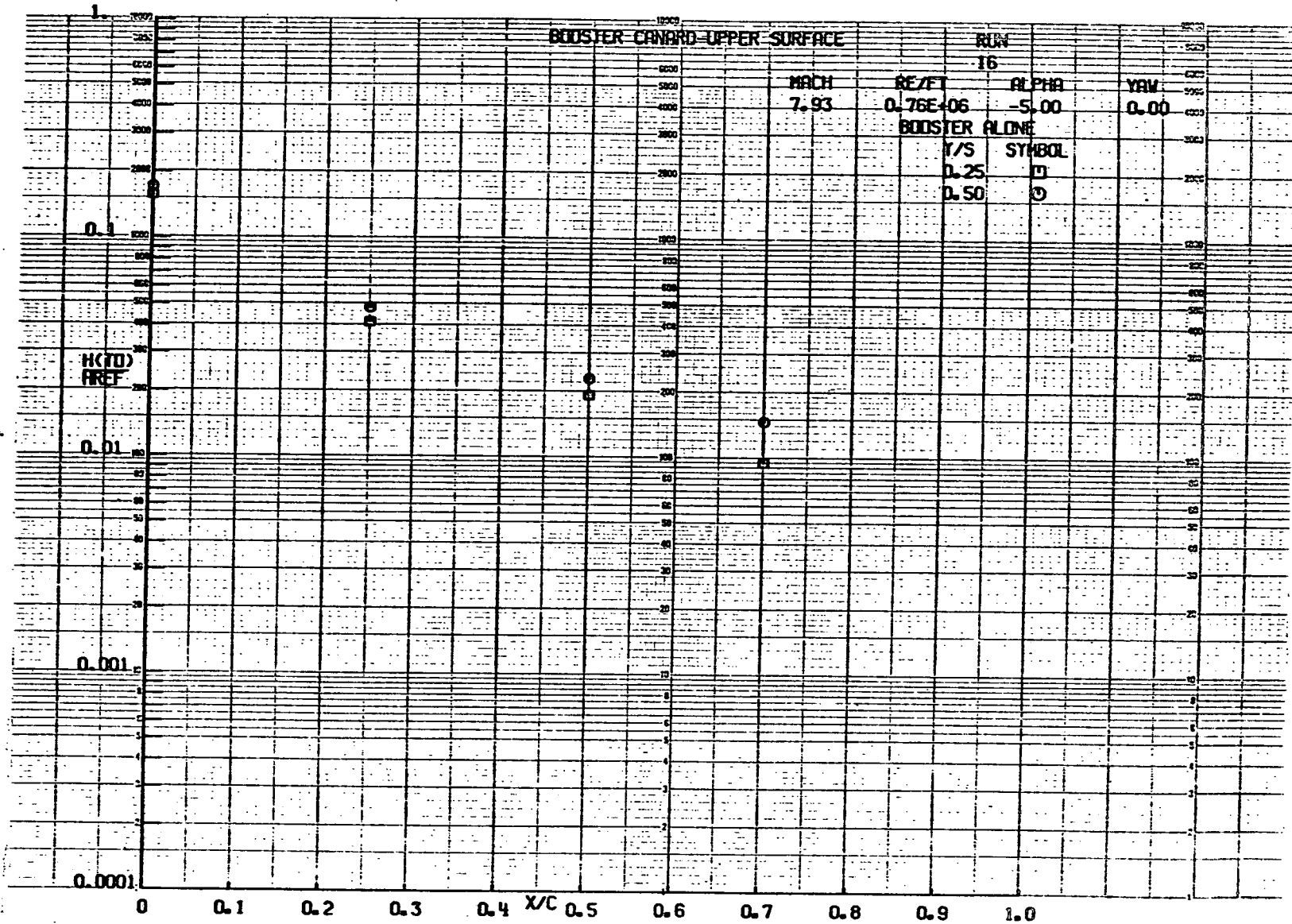


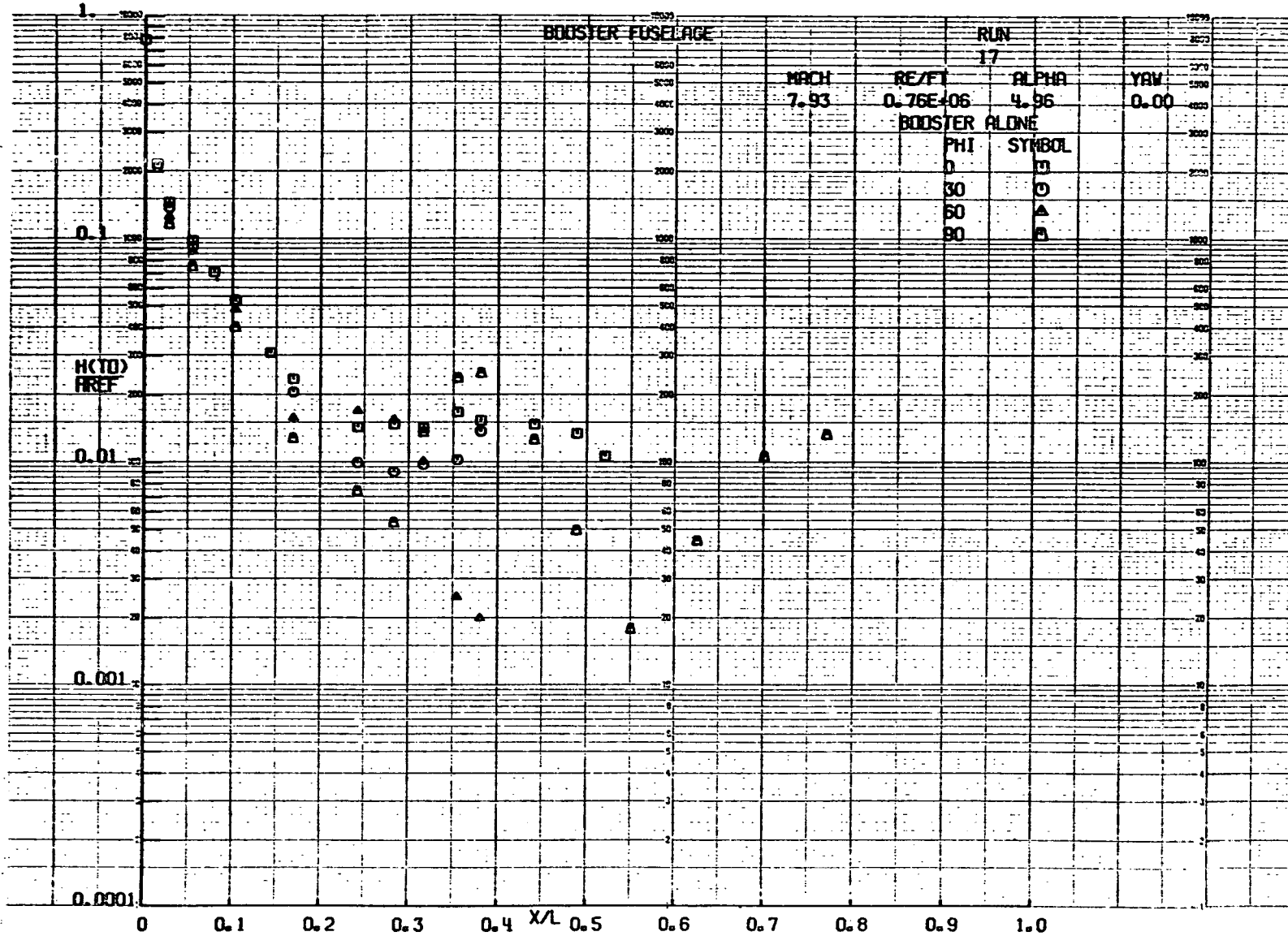


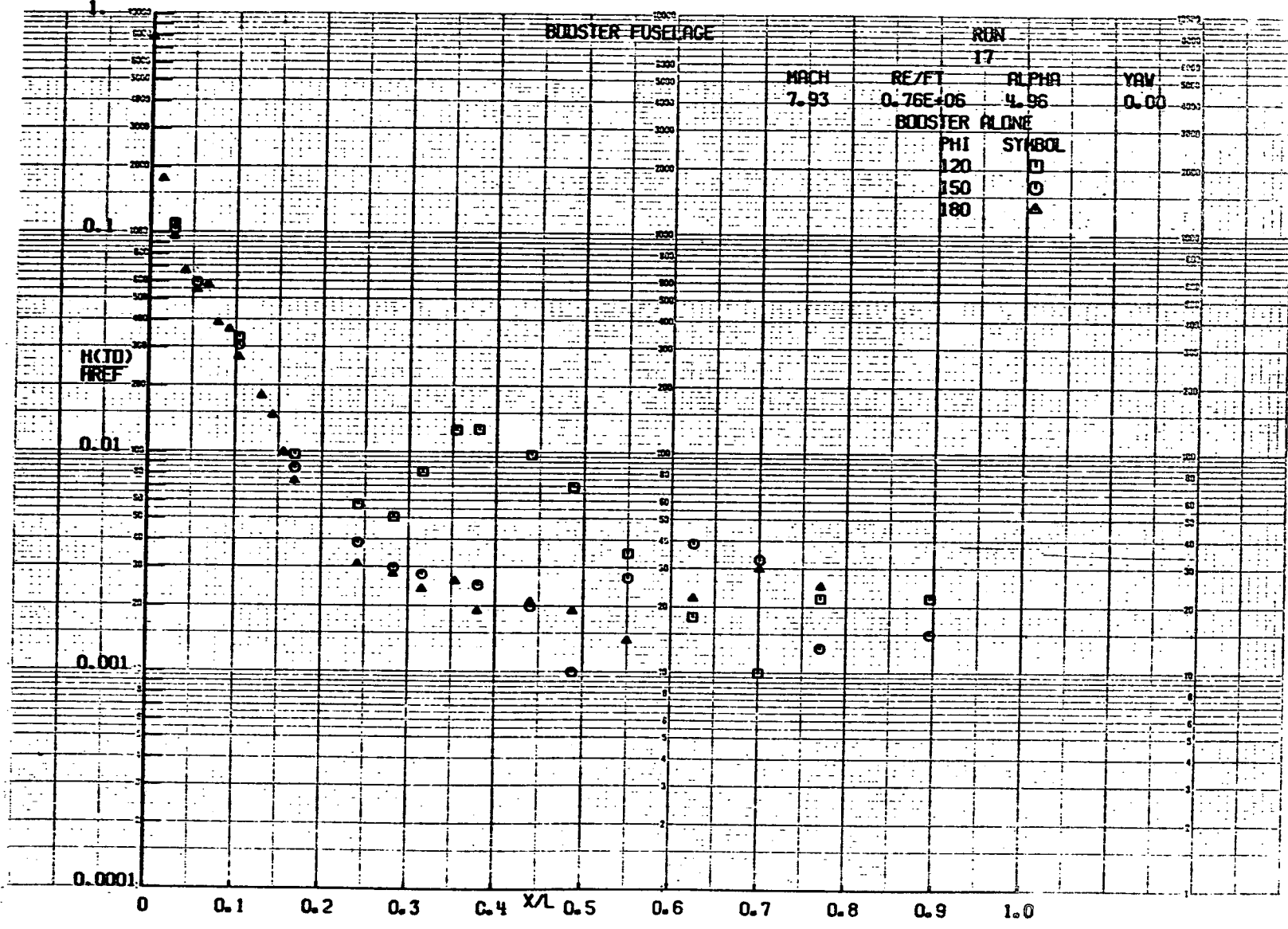


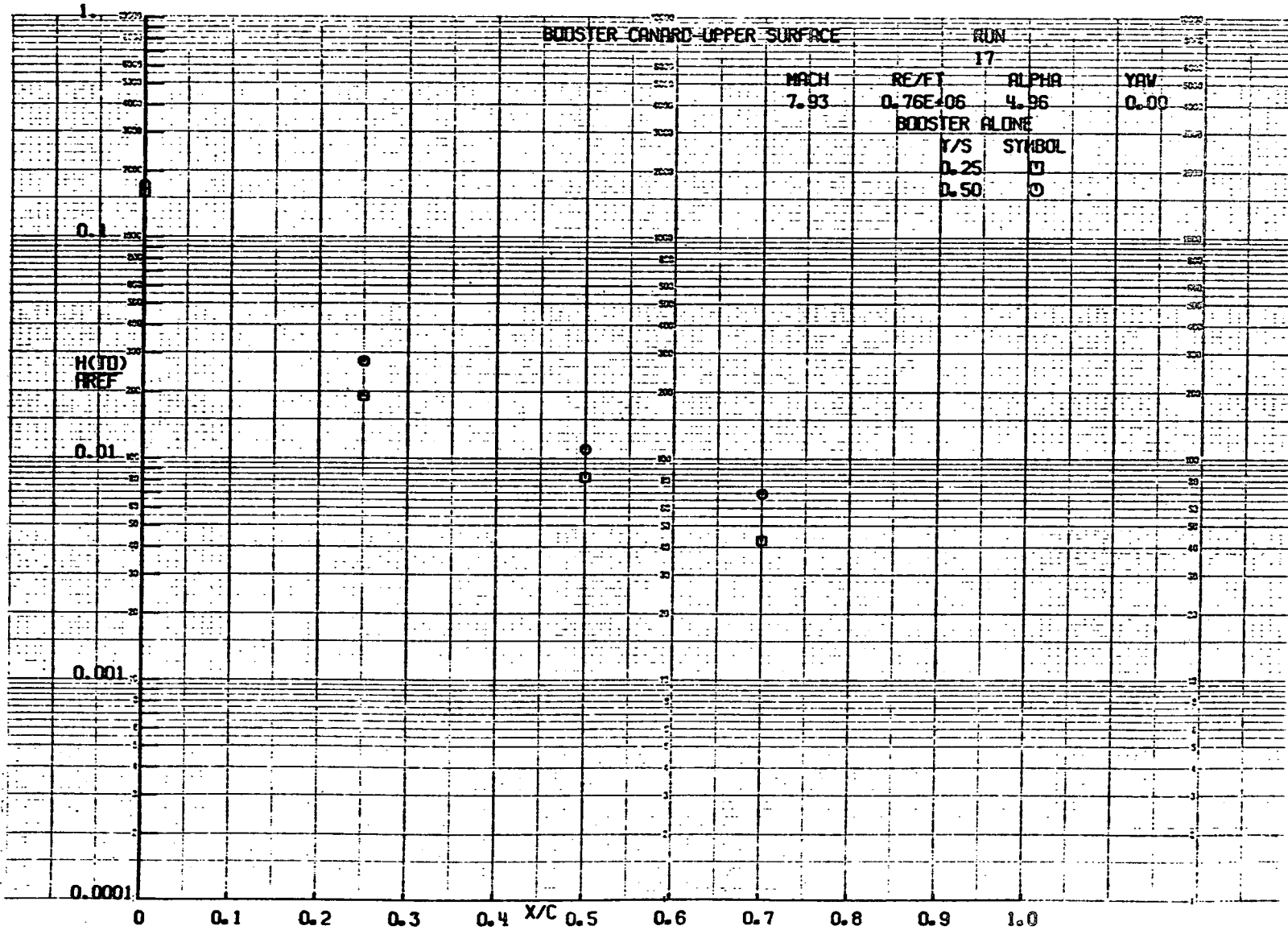


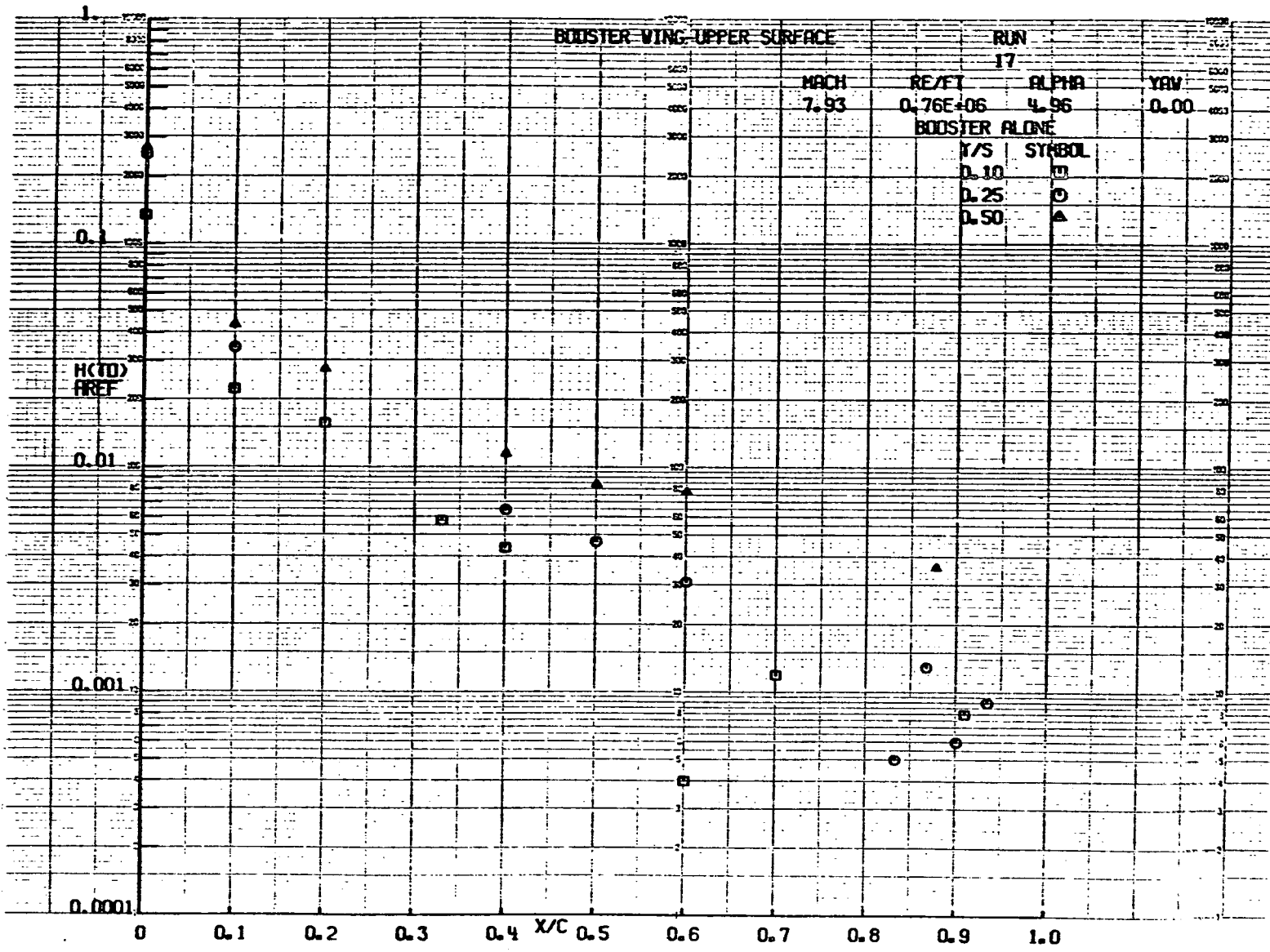












A P P E N D I X

NOT REPRODUCIBLE

ADOLPH (AKO) INC. ANNOUNC OFS: IPANESSEE
 VON KAMMAN GAS DYNAMICS FACILITY
 50 INCH DIAMETRIC TUNNEL N
 VILLOP

DOWNSTREAM OF		UPSTREAM OF		UCC-B-234		IN GAP		ALPHA-MODIFI		ALPHA-DECTON		ALPHA-PHEMEND		MOLL-MODEL		YAW	
CONTO	MODEL	MACH N/	MACH N/	PU .51A	PU .51A	IN DEG N	IN DEG N	02	02	0	0	0	0	0	0	0	0
1-INE	2-INE	3-INE	4-INE	5-INE	6-INE	7-INE	8-INE	HE/PT	HE/PT	HE/PT	HE/PT	HE/PT	HE/PT	HE/PT	HE/PT	HE/PT	HE/PT
(DEG N)	(DEG N)	(DEG N)	(DEG N)	(DEG N)	(DEG N)	(DEG N)	(DEG N)	(F-1)	(F-1)	(F-1)	(F-1)	(F-1)	(F-1)	(F-1)	(F-1)	(F-1)	(F-1)
47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0	3.78F 00	3.78F 00	3.78F 00	3.78F 00	3.78F 00	3.78F 00	3.78F 00	3.78F 00	3.78F 00	3.78F 00
TC AU	TW	DEAL	DEAL	DEAL	DEAL	DEAL	DEAL	M(10)/MREF	M(10)/MREF	M(10)/MREF	M(10)/MREF	M(10)/MREF	M(10)/MREF	M(10)/MREF	M(10)/MREF	M(10)/MREF	M(10)/MREF
M 1	554	220.731	41.051	0.348E-02	.7810	0.0974E-02	.0441	7.2044E-02	1.0527								
M 2	438	20.755	10.611	1.262E-02	.1904	1.5013E-02	.2193	1.6645E-02	.2422								
M 3	501	67.508	12.730	1.441E-02	.2133	1.7380E-02	.2539	1.9216E-02	.2806								
M 4	444	37.157	6.677	1.645E-03	.1167	1.8221E-04	.1301	1.0442E-02	.1502								
M 5	447	16.022	0.214	1.301E-03	.1006	0.0670E-03	.1205	0.9040E-03	.1444								
M 6	444	37.157	6.677	1.553E-03	.1103	0.0400E-03	.1301	0.0400E-03	.1510								
M 7	449	37.201	6.702	1.446E-03	.1153	0.2739E-03	.1301	0.0400E-03	.1510								
M 8	441	37.201	6.692	0.203E-03	.1190	0.7619E-03	.1423	1.0730E-02	.1570								
M 9	430	34.007	7.212	0.504E-03	.1243	1.0103E-02	.1475	1.0730E-02	.1570								
M 10	444	37.157	6.677	0.040E-03	.1181	0.0400E-03	.1402	1.0400E-02	.1628								
M 11	449	37.201	6.702	0.129E-03	.0895	7.2753E-03	.1003	1.0400E-02	.1172								
M 12	444	37.157	6.677	0.421E-03	.0719	0.0335E-03	.0803	0.0255E-03	.0939								
M 13	444	37.157	6.677	0.735E-03	.0842	0.0118E-03	.0926	0.0118E-03	.0949								
M 14	443	22.822	0.020	0.421E-03	.0719	0.0335E-03	.0803	0.0255E-03	.0939								
M 15	444	37.157	6.677	0.140E-03	.0759	0.0161E-03	.0826	0.0161E-03	.0942								
M 16	447	24.307	0.335	0.140E-03	.0759	0.0161E-03	.0826	0.0161E-03	.0942								
M 17	446	24.307	0.335	0.140E-03	.0759	0.0161E-03	.0826	0.0161E-03	.0942								
M 18	447	24.307	0.335	0.140E-03	.0759	0.0161E-03	.0826	0.0161E-03	.0942								
M 19	447	24.307	0.335	0.140E-03	.0759	0.0161E-03	.0826	0.0161E-03	.0942								
M 20	445	16.826	0.041	0.514E-03	.0513	0.0098E-03	.0577	0.0098E-03	.0671								
M 21	513	44.907	0.001	1.43E-02	.0317	0.1941E-03	.0613	0.0247E-03	.0671								
M 22	500	43.701	1.905	0.434E-03	.1378	1.4207E-02	.2075	1.5710E-02	.2244								
M 23	444	11.257	0.151	0.444E-03	.0372	1.1227E-02	.1640	1.2407E-02	.1812								
M 24	444	14.027	0.272	0.647E-03	.0394	0.2059E-03	.0460	0.3430E-03	.0489								
M 25	445	12.017	0.177	0.541E-03	.0377	0.0670E-03	.0460	0.3430E-03	.0517								
M 26	442	12.121	0.182	0.574E-03	.0377	0.0670E-03	.0460	0.3430E-03	.0495								
M 27	442	12.407	0.234	0.641E-03	.0386	0.1369E-03	.0460	0.3430E-03	.0494								
M 28	443	12.407	0.233	0.642E-03	.0386	0.1369E-03	.0460	0.3430E-03	.0494								
M 29	442	12.504	0.251	0.661E-03	.0389	0.1605E-03	.0460	0.3430E-03	.0506								
M 30	443	13.128	0.371	0.804E-03	.0410	0.0431E-03	.0460	0.3430E-03	.0509								
M 31	443	12.442	0.242	0.651E-03	.0387	0.1494E-03	.0460	0.3430E-03	.0527								
M 32	441	7.041	1.375	1.623E-03	.0437	1.9273E-03	.0701	2.1248E-03	.0508								
M 33	512	34.404	7.028	0.040E-03	.1228	1.0012E-02	.1402	1.1067E-02	.0311								
M 34	515	41.303	7.490	0.985E-03	.1312	1.0703E-02	.1563	1.1055E-02	.0311								
M 35	504	41.725	7.506	0.985E-03	.1312	1.0703E-02	.1563	1.1055E-02	.0311								
M 36	507	11.725	0.140	0.76E-03	.1325	1.0811E-02	.1574	1.1453E-02	.1746								
M 37	515	41.303	7.490	0.546E-03	.0376	0.0700E-03	.0460	0.3430E-03	.0496								
M 38	513	34.404	7.028	0.652E-03	.0208	1.0669E-03	.0298	1.8743E-03	.0274								
M 39	513	34.404	7.028	0.652E-03	.0208	1.0669E-03	.0298	1.8743E-03	.0274								
M 40	510	16.355	1.046	0.249E-02	.0344	1.9720E-03	.0288	2.1033E-03	.0314								
M 41	522	3.905	0.021	1.006E-03	.0147	2.7572E-02	.0277	3.0711E-02	.0485								
M 42	522	3.454	0.098	0.546E-04	.0125	1.2638E-03	.0176	1.3347E-03	.0195								
M 43	522	3.604	0.706	0.643E-04	.0126	1.0233E-03	.0144	1.1335E-03	.0166								
M 44	520	1.705	0.730	0.921E-04	.0126	1.0233E-03	.0144	1.1335E-03	.0166								
M 45	520	1.621	0.688	0.403E-04	.0123	1.0045E-03	.0147	1.1134E-03	.0163								
M 46	518	3.747	0.705	0.599E-04	.0126	1.0276E-03	.0150	1.1306E-03	.0166								
M 47	514	3.422	0.636	0.007E-04	.0117	0.5708E-04	.0140	1.0610E-03	.0155								
M 48	514	1.051	0.356	0.339E-04	.0063	0.5184E-04	.0076	0.7650E-04	.0084								
M 49	520	0.977	1.314	1.650E-03	.0235	4.9204E-03	.0281	2.1241E-03	.0311								
M 50	521	10.922	2.063	0.532E-03	.0370	0.0298E-03	.0442	0.3349E-03	.0491								
M 51	521	7.792	1.511	1.886E-03	.0270	2.2103E-03	.0323	2.4501E-03	.0358								
M 52	541	57.268	10.917	1.370E-02	.2001	1.0466E-02	.2405	1.8314E-02	.2675								
M 53	541	10.450	10.510	1.371E-02	.1929	1.5870E-02	.2318	1.7640E-02	.2578								
M 54	517	2.443	0.432	0.512E-04	.0080	0.5866E-04	.0096	7.2974E-04	.0107								
M 55	517	1.658	0.311	0.793E-04	.0055	4.5313E-04	.0066	5.0200E-04	.0073								
M 56	511	2.157	0.762	0.290E-04	.0130	1.1086E-03	.0162	1.2242E-03	.0174								
M 57	512	3.945	0.741	0.450E-04	.0071	0.7898E-04	.0084	0.4038E-04	.0094								
M 58	514	0.444	1.004	0.263E-03	.0131	1.0702E-03	.0150	1.1046E-03	.0173								
M 59	514	0.385	1.047	0.001E-03	.0330	2.7018E-03	.0395	2.9920E-03	.0437								
M 60	516	0.061	1.942	0.363E-03	.0242	2.3898E-03	.0344	2.6448E-03	.0387								
M 61	520	14.034	0.003	0.524E-03	.0345	2.6231E-03	.0412	3.1272E-03	.0457								
M 62	527	16.435	0.294	0.022E-03	.0587	4.8106E-03	.0703	4.8644E-03	.0682								
M 63	514	0.253	0.443	0.375E-04	.0078	6.4108E-04	.0094	6.3372E-04	.0079								
M 64	513	1.434	0.022	0.042E-04	.0050	0.0830E-04	.0060	4.9402E-04	.0064								
M 65	511	1.941	0.328	0.071E-04	.0058	0.7375E-04	.0069	5.2468E-04	.0077								
M 66	513	0.564	1.011	1.211E-04	.0177	1.4426E-03	.0211	1.5449E-03	.0233								
M 67	503	10.001	1.819	0.177E-03	.0318	2.5917E-03	.0378	2.8944E-03	.0418								
M 68	505	0.630	1.428	1.714E-03	.0250	2.0420E-03	.0248	2.2501E-03	.0230								
M 69	516	7.115	1.291	1.551E-03	.0226	1.8079E-03	.0270	2.0431E-03	.0298								
M 70	518	0.772	1.958	0.358E-03	.0300	2.8107E-03	.0410	3.1043E-03	.0454								
M 71	518	0.227	1.775	0.138E-03	.0312	2.5406E-03	.0372	2.8144E-03	.0412								
M 72	519	11.413	0.194	0.505E-03	.0307	3.1609E-03	.0402	3.4471E-03	.0511								
M 73	515	2.307	0.646	0.415E-04	.0079	6.4666E-04	.0094	7.1015E-04	.0105								
M 74	515	2.157	0.762	0.327E-04	.0059	3.2971E-04	.0058	6.3972E-04	.0064								
M 75	517	13.944	0.368	0.007E-04	.0062	3.6627E-04	.0050	3.8042E-04	.0056								
M 76	517	12.749	0.235	0.007E-04	.0062	3.3864E-03	.0492	3.7232E-03	.0544								
M 77	517	13.944	0.368	0.007E-04	.0062	3.6627E-04											

50 INCH HYPERSONIC TUNNEL H
V11102

GROUP	ID	LINE NO	LINE ID	LINE MODEL	UPSTREAM OF	GDC NO	GDC MODEL	MACH NO	GDC H. +236 IN. GAP	PU MSIA	PU DEG H	ALPHA-PODEL	ALPHA-SECTOR	ALPHA-PREDEMD	ROLL-MODEL	YAW	SWITCH POSITION 2			FUSELAGE-BOOSTER	UPPER WING SURFACE-BOOSTER
																	RE/FT	MHEF-FW	STPH		
H 460	50H	4.27H	1.68E	2.025E-03	0.246	2.4133E-03	0.035J	2.6643E-03	0.0390												
H 461	50H	4.16H	1.48H	1.783E-03	0.261	2.1247E-03	0.031I	2.3502E-03	0.034A												
H 462	50H	3.16I	1.59I	1.096F-04	0.104	8.4566E-04	0.012A	9.3533E-04	0.0137												
H 463	510	5.375	1.00E	1.212F-03	0.177	1.4452E-03	0.021I	1.5940E-03	0.023A												
H 464	509	7.053	1.320	1.588F-03	0.232	1.8935E-03	0.027I	2.0948E-03	0.030A												
H 100	521	1.023	1.315	1.843E-04	0.056	4.5944E-04	0.0067	5.0910E-04	0.007A												
H 109	518	10.621	1.941	2.362F-03	0.345	2.8216E-03	0.041J	3.1269E-03	0.0457												
H 110	515	7.187	1.312	1.590E-03	0.233	1.8987E-03	0.027H	2.1047E-03	0.028A												
H 111	514	1.925	1.351	1.291E-03	0.171	1.4973E-03	0.020A	1.5461E-03	0.022B												
H 112	515	5.285	1.485	1.888F-04	0.062	5.0738E-04	0.007A	2.1047E-03	0.0082												
H 113	522	4.841	1.17E	1.189F-03	0.062	1.2961E-03	0.020A	1.5461E-03	0.022B												
H 116	517	8.374	1.485	2.188F-04	0.031	2.8603E-04	0.003B	2.8603E-04	0.0042												
H 117	513	5.199	1.447	1.188E-03	0.168	2.1566E-03	0.0315	2.3848E-03	0.0349												
H 118	512	1.315	1.240	2.4894F-04	0.042	3.4529E-04	0.0050	1.5134E-03	0.0056												
H 119	513	4.314	1.797	1.664F-04	0.141	1.1509E-03	0.016B	1.2741E-03	0.018B												
H 120	523	1.681	1.134	1.646F-04	0.024	1.4689E-04	0.0024	2.1812E-03	0.0032												
H 125	520	4.267	1.964	1.176F-03	0.0505	4.1270E-03	0.0605	4.5941E-03	0.0672												
H 128	518	4.971	1.908	1.105F-03	0.162	1.4055E-03	0.0206	1.5517E-03	0.022H												
H 129	515	6.342	1.157	1.403E-03	0.0205	1.3200E-03	0.019J	1.4643E-03	0.0214												
H 130	511	1.668	1.303	1.656F-04	0.050J	4.3605E-03	0.0745	1.8549E-03	0.0271												
H 131	509	1.717	1.67E	8.133E-04	0.0119	4.6972E-04	0.006A	4.8057E-04	0.0071												
H 132	521	3.743	1.685	8.372E-04	0.122	1.0011E-03	0.0142	1.0129E-03	0.0157												
H 133	518	3.100	1.567	8.891E-04	0.101	8.2378E-04	0.0146	1.0197E-03	0.0162												
H 141	514	5.125	1.934	1.131E-03	0.165	1.3496E-03	0.0140	1.2499E-03	0.0133												
H 142	509	1.444	1.263	1.170E-04	0.046	3.7803E-04	0.0197	1.4441E-03	0.0219												
H 150	522	7.053	1.373	1.490F-04	0.066	5.3524E-04	0.007H	4.1846E-04	0.0061												
H 151	518	4.031	1.037	1.247E-03	0.185	1.5148E-03	0.0242	1.6741E-03	0.0246												
H 152	516	3.018	1.351	8.972E-04	0.131	1.0720E-03	0.0157	1.1878E-03	0.0174												
H 153	513	1.651	1.301	3.640F-04	0.009H	7.9887E-04	0.0117	8.8841E-04	0.0124												
H 154	511	1.105	1.191	2.354F-04	0.0034	4.3435E-04	0.0004	4.8094E-04	0.0070												
H 159	526	6.718	1.191	1.471E-03	0.0215	1.7608E-03	0.0258	1.9532E-03	0.0286												
H 160	521	3.345	1.403	1.363F-04	0.108	8.8031E-04	0.0129	9.7512E-04	0.0143												
H 161	517	1.126	1.200	4.423E-04	0.0035	2.8968E-04	0.0042	3.2077E-04	0.0047												
H 162	514	1.764	1.135	1.628E-04	0.0024	1.9448E-04	0.0028	2.1533E-04	0.0031												
H 171	524	7.371	1.435	5.330F-04	0.0078	6.2769E-04	0.0093	7.0715E-04	0.0103												
H 172	521	1.224	1.226	2.761F-04	0.0040	3.3018E-04	0.0048	3.6600E-04	0.0054												
H 200	518	54.73H	8.422	1.050F-02	1.536	1.2612E-02	1.1845	1.4018E-02	2.050												
H 201	526	14.833	1.730	2.127E-03	0.0311	2.5458E-03	0.0372	2.8242E-03	0.0410												
H 202	526	11.050	1.552	1.907E-03	0.0274	2.2826E-03	0.0334	2.5320E-03	0.0370												
H 203	528	3.67H	1.762	1.385F-04	0.137	1.1241E-03	0.0164	1.2475E-03	0.0182												
H 204	527	5.330	1.937	1.153F-03	0.169	1.3810E-03	0.0202	1.5323E-03	0.0224												
H 205	525	5.087	1.406	1.112F-03	0.163	1.3312E-03	0.0195	1.4765E-03	0.0216												
H 206	528	3.655	1.631	1.771F-04	0.114	4.3089E-04	0.0136	1.0326E-03	0.0151												
H 207	527	4.684	1.443	1.452F-04	0.080	6.5202E-04	0.0095	7.2445E-04	0.0106												
H 217	526	102.440	12.653	1.615E-02	2.361	1.4475E-02	2.8498	1.7144E-02	3.176												
H 218	532	47.138	4.598	5.691E-03	0.0832	6.8221E-03	0.0998	7.5752E-03	0.1108												
H 219	528	24.234	2.748	3.385E-03	0.0495	4.0543E-03	0.0593	4.4991E-03	0.0658												
H 220	528	14.587	1.304	1.611E-03	0.236	1.4296E-03	0.0242	1.5111E-03	0.0313												
H 221	524	3.945	1.77E	1.509E-04	0.139	1.1378E-03	0.0166	1.2618E-03	0.0185												
H 222	523	1.867	1.332	1.065E-04	0.059	4.8624E-04	0.0071	5.3913E-04	0.0079												
H 223	524	1.241	1.212	2.594F-04	0.038	3.1036E-04	0.0045	3.4419E-04	0.0050												
H 230	528	107.751	14.408	1.894F-02	2.770	2.2887E-02	3.343	2.5443E-02	3.729												
H 231	526	23.650	2.772	1.408E-03	0.0498	4.0748E-03	0.0596	4.5225E-03	0.0661												
H 232	524	4.297	1.677	1.023E-03	0.150	1.2240E-03	0.0174	1.3574E-03	0.0199												
H 233	523	3.564	1.677	8.296E-04	0.121	4.9241E-04	0.0145	1.1004E-03	0.0161												
H 234	523	2.557	1.469	5.741F-04	0.0894	6.88679E-04	0.0100	7.6152E-04	0.0111												
H 235	526	1.862	1.122	1.505E-04	0.022	1.8018E-04	0.0026	1.9949E-04	0.0029												
H 236	526	1.980	1.160	1.969E-04	0.029	2.3573E-04	0.0034	2.6148E-04	0.0038												
H 237	525	1.842	1.45	1.831F-04	0.027	2.1918E-04	0.0032	2.4312E-04	0.0036												
H 238	525	1.601	1.123	1.504E-04	0.022	1.8004E-04	0.0026	1.9907E-04	0.0029												
H 248	545	112.111	12.855	1.659F-02	2.447	2.0061E-02	2.934	2.2403E-02	3.277												
H 249	526	15.533	1.888	2.319F-03	0.339	2.7767E-03	0.0406	3.0803E-03	0.0451												
H 250	529	15.950	1.4																		

NOT REPRODUCIBLE

VII162

IC NO	TW	DHWL	G-DOF	M(TO)	M(TO)/HREF	P(.9TU)	M(.9TU)/HREF	M(.85TU)	M(.85TU)/HREF	ALPHA-PODEL		ALPHA-SECTOR		ALPHA-PREBEND		HULL-MODEL		YAW	
										HE/FT (FT-1)	HREF-FR (H= .009FT)	SIFR (H= .009FT)	SWITCH POSITION	0	0	0	0		
0 1	555	254.700	46.447	5.979E-02	.8757	7.2104E-02	1.0561	8.0342E-02	1.1774										
0 2	489	85.462	13.804	1.601E-07	.2345	1.9001E-02	.2783	2.0940E-02	.3070										
0 7	465	33.318	5.721	0.548E-03	.0959	7.7329E-03	.1133	8.5022E-03	.1245										
0 12	459	11.343	2.490	2.831E-03	.0415	3.3393E-03	.0489	3.6646E-03	.0537										
0 19	462	1.020	.288	1.863E-04	.0048	3.8747E-04	.0057	4.2384E-04	.0062										
U 29	458	4.050	.692	1.114E-02	.0115	9.2732E-04	.0136	1.0146E-03	.0149										
U 44	479	56.954	9.572	1.378E-03	.0151	1.3191E-02	.1932	1.4531E-02	.2128										
U 54	480	19.644	3.716	2.640E-03	.0387	5.1270E-03	.0751	5.6448E-03	.0827										
U 66	486	12.563	2.252	2.131E-03	.0313	3.1316E-03	.0459	3.4529E-03	.0506										
U 76	494	11.371	1.800	2.014E-03	.0295	2.5900E-03	.0351	2.8051E-03	.0411										
U 80	488	9.059	1.692	1.323E-03	.0194	1.3736E-03	.0231	1.7423E-03	.0255										
U 89	505	6.076	1.102	1.702E-03	.0249	2.0232E-03	.0296	2.2343E-03	.0255										
U 98	496	8.449	1.435	4.963E-04	.0073	5.9166E-04	.0087	6.3415E-04	.0096										
U 104	507	2.344	.413	1.415E-04	.0021	1.6709E-04	.0024	1.8437E-04	.0027										
U 114	502	1.244	.232	2.773E-04	.0041	3.3020E-04	.0048	4.3415E-04	.0053										
U 20	465	1.696	.124	1.622E-04	.0112	8.9882E-04	.0132	9.8731E-04	.0145										
U 31	458	3.411	.671	1.701E-02	.2491	2.0172E-02	.2994	2.2239E-02	.3257										
U 46	485	7.253	1.453	4.226E-03	.0619	5.0049E-03	.0733	5.5131E-03	.0807										
U 56	479	19.221	3.635	2.428E-03	.0356	2.8721E-03	.0421	3.1615E-03	.0463										
U 69	474	11.807	2.101	1.045E-03	.0153	1.2401E-03	.0192	1.3641E-03	.0200										
U 83	490	4.062	.883	0.884E-04	.0130	1.0567E-03	.0155	1.1673E-03	.0171										
U 92	498	4.134	.883	7.808E-04	.0114	9.2972E-04	.0136	1.0277E-03	.0151										
U 101	503	3.225	.653	4.81E-04	.0071	5.7632E-04	.0084	6.3100E-04	.0093										
U 107	502	2.304	.405	4.592E-04	.0067	5.4707E-04	.0080	6.0443E-04	.0089										
U 117	505	1.994	.383	0.479E-03	.0949	7.6626E-03	.1122	8.4324E-03	.1235										
U 5	472	37.071	5.615	0.016E-03	.0881	7.1149E-03	.1042	7.8301E-03	.1147										
U 10	477	30.237	5.215	0.016E-03	.0949	7.6626E-03	.1122	8.4324E-03	.1235										
U 24	484	16.027	3.071	3.594E-03	.0526	4.2611E-03	.0624	4.6975E-03	.0688										
U 28	489	17.940	2.746	2.233E-03	.0474	3.8376E-03	.0562	4.2432E-03	.0620										
U 35	495	20.256	3.551	4.707E-03	.0618	4.9998E-03	.0732	5.5201E-03	.0808										
U 36	527	114.576	18.573	2.288E-02	.3351	2.7396E-02	.4012	3.0397E-02	.4452										
U 37	564	217.101	38.581	4.981E-02	.7295	6.2413E-02	.8819	6.7238E-02	.9848										
U 38	541	141.456	22.341	2.801E-02	.4103	3.3665E-02	.4431	3.7443E-02	.5484										
U 40	494	8.093	1.322	1.566E-03	.0229	1.8605E-03	.0272	2.0539E-03	.0301										
U 53	494	4.912	.150	1.772E-04	.0026	2.1040E-04	.0041	2.3247E-04	.0034										
U 62	498	4.635	.714	0.490E-04	.0124	1.0097E-03	.0148	1.1153E-03	.0163										
U 75	500	10.156	1.783	2.126E-03	.0311	2.5292E-03	.0370	2.7945E-03	.0409										
U 87	505	10.467	1.776	2.130E-03	.0312	2.5373E-03	.0372	2.8055E-03	.0411										
U 96	508	9.040	1.594	1.918E-03	.0281	2.2866E-03	.0335	2.5243E-03	.0370										
U 111	509	2.557	.410	4.944E-04	.0072	5.8955E-04	.0086	6.5227E-04	.0096										
U 120	518	14.031	1.651	2.011E-03	.0295	2.4028E-03	.0352	2.6621E-03	.0390										
U 14	468	29.117	4.256	4.898E-03	.0717	5.7898E-03	.0848	6.3649E-03	.0933										
U 22	474	11.078	1.914	2.672E-03	.0528	3.2567E-03	.0623	3.6814E-03	.0686										
U 33	467	7.865	1.694	2.213E-03	.0324	2.6187E-03	.0384	2.8828E-03	.0422										
U 48	469	14.545	2.352	1.933E-03	.0283	2.2819E-03	.0334	2.5080E-03	.0367										
U 59	477	26.044	4.890	2.704E-03	.0396	3.1944E-03	.0488	3.5163E-03	.0515										
U 72	479	30.517	5.927	4.889E-03	.0831	6.7168E-03	.0984	7.3970E-03	.1083										
U 78	488	13.380	1.478	2.325E-03	.0341	2.7594E-03	.0404	3.0436E-03	.0446										
U 85	491	9.195	1.605	1.893E-03	.0277	2.2486E-03	.0329	2.4812E-03	.0363										
U 77	482	4.027	.624	1.279E-04	.0107	1.2514E-03	.0126	1.3801E-03	.0139										
U 84	487	4.598	.892	1.059E-03	.0154	1.4051E-03	.0183	1.3801E-03	.0202										
U 94	498	4.610	.980	1.165E-03	.0171	1.3895E-03	.0203	1.5309E-03	.0224										
U 34	502	10.578	5.861	1.001E-03	.0125	1.3339E-03	.0161	1.5309E-03	.0224										
U 47	493	8.408	1.659	1.961E-03	.0287	2.3299E-03	.0361	2.5116E-03	.0377										
U 51	496	10.039	2.025	2.404E-03	.0352	2.8578E-03	.0419	3.1399E-03	.0462										
U 41	497	22.254	4.373	5.196E-03	.0761	6.1788E-03	.0905	6.8244E-03	.1000										
U 57	494	3.644	.734	0.696E-04	.0127	1.0335E-03	.0151	1.1409E-03	.0167										
0 135	510	49.915	8.814	1.064E-02	.1558	1.2684E-02	.1858	1.4036E-02	.2056										
0 136	501	13.254	2.328	2.780E-03	.0407	3.091E-03	.0485	3.6570E-03	.0536										
0 137	501	7.088	1.186	1.392E-03	.0204	1.6967E-03	.0203	1.8309E-03	.0268										
0 138	504	4.707	1.559	2.108E-03	.0309	2.5105E-03	.0368	2.7757E-03	.0407										
0 140	505	7.049	1.203	1.442E-03	.0211	1.7179E-03	.0252	1.8994E-03	.0278										
0 142	503	3.037	.485	0.810E-04	.0085	6.9180E-04	.0101	7.6475E-04	.0112										
0 149	523	3.240	11.592	1.420E-02	.2489	2.833E-02	.3489	3.8842E-02	.4760										
0 150	508	19.423	3.814	4.591E-03	.0672	5.6726E-03	.0802	6.0541E-03	.0887										
0 151	507	10.582	2.035	2.445E-03	.0398	2.9139E-03	.0427	3.2229E-03	.0472										
0 152	509	13.139	2.248	2.711E-03	.0397	3.2323E-03	.0473	3.5765E-03	.0524										
0 154	508	7.528	1.328	1.598E-03	.0236	1.9051E-03	.0279	2.1075E-03	.0309										
0 157	506	2.821																	

ALDC (AMO, INC.) AMNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 VT1162

TC NO	TW	DTWLT	U-1001	M(TU)	M(TU)/MHEF	P(.9TU)	M(.9TU)/MHEF	M(.45TU)	M(.45TU)/MHEF	FUSELAGE-BOOSTER 4/L PWI	YAW 0												
												ALPHA-MODEL -4.99	ALPHA-SECTION -4.99	ALPHA-PREHEND 0	ROLL-MOULL 0								
GDC-M. #234		IN. GAP		MU-1NF		HE/FT		SWITCH															
MU-1NF		MU-1NF		MU-1NF		MU-1NF		MU-1NF															
(F/1/SEC)		(F/1/SEC)		(F/1/SEC)		(F/1/SEC)		(F/1/SEC)															
7.547E-05		7.547E-05		7.547E-05		7.547E-05		7.547E-05															
841.1		841.1		841.1		841.1		841.1															
1344		1344		1344		1344		1344															
ALPHA-MODEL		ALPHA-SECTION		ALPHA-PREHEND		ROLL-MOULL		YAW															
-4.99		-4.99		0		0		0															
HE/FT		HE/FT		HE/FT		HE/FT		HE/FT															
(F1-1)		(F1-1)		(F1-1)		(F1-1)		(F1-1)															
3.75E 06		6.847E-02		2.926E-02		1		1															
TC NO		TW		DTWLT		U-1001		M(TU)		M(TU)/MHEF		P(.9TU)		M(.9TU)/MHEF		M(.45TU)		M(.45TU)/MHEF		FUSELAGE-BOOSTER 4/L PWI		YAW 0	
H	1	545	224.62M	47.409	5.332E-02	.7787	6.4104E-02	.9102	7.1316E-02	1.0415													
H	2	475	40.81M	4.012	1.036E-02	.1514	1.2260E-02	.1791	1.3444E-02	.1971													
H	3	447	40.322	14.414	1.642E-02	.2457	1.9950E-02	.2414	2.1947E-02	.3213													
H	4	441	41.210	3.917	6.259E-03	.0914	7.3897E-03	.1074	8.1159E-03	.1185													
H	5	442	40.911	3.459	6.186E-03	.0903	7.2973E-03	.1066	8.0174E-03	.1171													
H	6	465	40.442	6.101	6.938E-03	.1013	8.1844E-03	.1190	9.0015E-03	.1315													
H	7	444	37.12E	6.441	7.519E-03	.1098	8.8811E-03	.1297	9.7656E-03	.1426													
H	8	473	40.221	8.086	8.247E-03	.1351	1.0927E-02	.1596	1.2019E-02	.1755													
H	9	474	47.501	8.495	8.978E-03	.1457	1.1797E-02	.1723	1.2941E-02	.1894													
H	10	474	47.501	8.495	1.023E-02	.1494	1.2098E-02	.1767	1.3314E-02	.1944													
H	11	470	38.451	6.449	1.037E-03	.1153	1.2098E-02	.1363	1.3314E-02	.1494													
H	12	455	16.824	2.456	1.037E-03	.0486	1.2098E-02	.0573	1.3314E-02	.0624													
H	13	454	17.872	3.138	1.037E-03	.0514	1.2098E-02	.0606	1.3314E-02	.0665													
H	14	454	21.781	3.424	1.037E-03	.0542	1.2098E-02	.0639	1.3314E-02	.0708													
H	15	456	25.804	4.538	1.037E-03	.0746	1.2098E-02	.0929	1.3314E-02	.1012													
H	17	443	24.012	4.241	1.037E-03	.0703	1.2098E-02	.0879	1.3314E-02	.0965													
H	18	473	40.781	8.678	1.037E-03	.1455	1.2098E-02	.1721	1.3314E-02	.1894													
H	19	503	133.156	24.123	2.807E-02	.4187	1.1784E-02	.4983	3.7704E-02	.5507													
H	20	445	11.814	2.078	2.339E-03	.0342	2.7563E-03	.0403	3.0261E-03	.0442													
H	21	445	45.664	15.348	1.785E-02	.2607	2.1162E-02	.2691	2.3324E-02	.3406													
H	22	445	26.745	4.732	5.381E-03	.0786	6.3519E-03	.0828	6.9819E-03	.1020													
H	23	440	40.46M	1.494	1.690E-03	.0247	1.4928E-03	.0291	2.1847E-03	.0320													
H	24	440	40.46M	1.602	1.412E-03	.0265	1.371E-03	.0312	2.4034E-03	.0343													
H	25	440	40.301	1.641	1.855E-03	.0271	1.8494E-03	.0320	2.4034E-03	.0351													
H	26	457	47.717	1.641	1.939E-03	.0283	2.2849E-03	.0334	2.5089E-03	.0366													
H	27	456	10.947	1.925	2.166E-03	.0316	2.5525E-03	.0373	2.8022E-03	.0409													
H	28	456	12.155	2.137	2.405E-03	.0351	2.8342E-03	.0414	3.1116E-03	.0454													
H	29	455	11.846	1.262	2.342E-03	.0342	2.7595E-03	.0403	3.0261E-03	.0442													
H	30	454	7.144	1.262	1.418E-03	.0207	1.6698E-03	.0244	1.8377E-03	.0268													
H	31	443	33.851	5.974	6.088E-03	.0990	8.0019E-03	.1149	8.7928E-03	.1284													
H	32	448	42.586	7.547	1.116E-02	.1257	1.0167E-02	.1485	1.1140E-02	.1533													
H	33	474	54.549	4.711	1.116E-02	.1630	1.3198E-02	.1927	1.4523E-02	.2121													
H	34	443	20.934	3.698	1.956E-03	.0613	4.9508E-03	.0723	5.4403E-03	.0795													
H	35	440	10.887	1.920	2.171E-03	.0317	2.5599E-03	.0374	2.8120E-03	.0411													
H	37	445	15.633	2.766	4.441E-04	.0460	3.7156E-04	.0543	4.0843E-03	.0597													
H	38	473	40.132	1.735	4.981E-04	.0123	4.981E-04	.0146	1.0944E-03	.0160													
H	39	500	103.346	16.696	2.214E-02	.3232	2.4328E-02	.3845	2.9080E-02	.4247													
H	40	447	44.511	7.447	1.354E-02	.1354	1.6993E-02	.1606	1.2120E-02	.1770													
H	41	474	2.345	.480	5.541E-04	.0081	6.5586E-04	.0096	7.2220E-04	.0105													
H	42	474	2.211	.436	5.037E-04	.0074	5.9623E-04	.0087	6.5051E-04	.0096													
H	43	477	2.514	.475	5.473E-04	.0080	6.4774E-04	.0095	7.1317E-04	.0104													
H	44	476	2.804	.534	6.211E-04	.0091	7.3407E-04	.0107	8.0912E-04	.0118													
H	45	476	2.182	.400	4.606E-04	.0067	5.4493E-04	.0079	5.9945E-04	.0088													
H	46	473	1.921	.352	4.033E-04	.0059	4.7678E-04	.0070	5.2461E-04	.0077													
H	47	475	5.414	.992	1.141E-03	.0167	1.3502E-03	.0197	1.4842E-03	.0217													
H	48	476	4.502	1.559	1.796E-03	.0262	2.1246E-03	.0310	2.3388E-03	.0342													
H	49	477	4.558	1.754	2.022E-03	.0295	2.3928E-03	.0344	2.6344E-03	.0385													
H	50	478	11.804	2.183	2.521E-03	.0366	2.9843E-03	.0436	3.2862E-03	.0480													
H	51	481	15.854	3.001	3.475E-03	.0507	4.1155E-03	.0601	4.5314E-03	.0662													
H	52	488	35.904	6.635	7.748E-03	.1132	9.1909E-03	.1342	1.0134E-02	.1480													
H	53	484	31.446	5.726	6.660E-03	.0973	7.8940E-03	.1153	8.7002E-03	.1271													
H	400	483	1.014	.182	2.109E-04	.0031	2.4992E-04	.0037	2.7540E-04	.0040													
H	402	482	.634	.118	1.364E-04	.0020	1.6163E-04	.0024	1.7808E-04	.0026													
H	404	481	3.024	.697	8.080E-04	.0118	9.5701E-04	.0140	1.0542E-03	.0154													
H	406	471	3.065	.642	7.352E-04	.0107	8.6890E-04	.0127	9.5584E-04	.0140													
H	407	470	4.211	.780	8.921E-04	.0130	1.0541E-03	.0154	1.1594E-03	.0169													
H	408	471	6.217	1.571	1.600E-03	.0263	2.1273E-03	.0311	2.3402E-03	.0342													
H	409	472	6.443	1.233	1.413E-03	.0206	1.6710E-03	.0244	1.8345E-03	.0269													
H	410	477	14.764	2.835	3.278E-03	.0478	3.8703E-03	.0565	4.2614E-03	.0622													
H	411	478	11.746	2.256	2.603E-03	.0380	3.0809E-03	.0450	3.3923E-03	.0495													
H	412	479	17.530	3.368	4.737E-03	.0700	5.2405E-03	.0673	5.5686E-03	.0721													
H	413	486	.654	.124	1.447E-04	.0021	1.7149E-04	.0025	1.9070E-04	.0028													
H	415	484	.645	.124	1.447E-04	.0021	1.7149E-04	.0025	1.9070E-04	.0028													
H	417	483	3.234	.534	6.257E-04	.0091	7.4142E-04	.0108	8.1648E-04	.0119													
H	419	470	3.821	.691	1.907E-04	.0115	2.3446E-04	.0136	1.0279E-03	.0150													
H	420	449	10.201	1.681	1.920E-03	.0280	2.2683E-03	.0331	2.4445E-03	.0364													
H	421	468	7.493	1.292	1.475E-03</																		

UPSTREAM OF GDC-M. 23A IN. GAP										ALPHA-POUCL	ALPHA-SECTOR	ALPHA-PRESEN	ROLL-MODEL	YAN		
IC	AD	TM	UTWLI	U-DU1	H(10)	M(10)/MREF	F(10T)	M(10T)/MREF	F(10T)	M(10T)	M(10T)/MREF	M(10T)	M(10T)/MREF			
1-1NF	2-1NF	3-1NF	4-1NF	5-1NF	6-1NF	7-1NF	8-1NF	9-1NF	10-1NF	RE/FT	MREF-FH	SIFH	SWITCH			
(10.4)	(10.4)	(10.4)	(10.4)	(10.4)	(10.4)	(10.4)	(10.4)	(10.4)	(10.4)	(F1-1)	(R=009FT)	(M=009FT)	POSITION			
47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	47.6	3.72E 06	6.837E-02	2.435E-02	3			
0	1	562	255.154	40.174	5.912E-02	.8647	7.1374E-02	1.0439	7.9620E-02	1.1666						FUSELAGE-ORBITER
0	2	497	70.502	11.279	1.321E-02	.1932	1.5699E-02	.2296	1.7330E-02	.2535						R/L
0	7	482	20.719	3.606	4.168E-03	.0610	4.9361E-03	.0722	5.4372E-03	.0795						V/TMAR
0	12	475	6.149	1.157	1.327E-03	.0194	1.5698E-03	.0230	1.7276E-03	.0253						0
0	19	473	1.709	.303	4.469E-04	.0051	4.1006E-04	.0090	4.5114E-04	.0066						0
0	29	475	4.313	1.620	1.859E-03	.0272	2.1922E-03	.0322	2.4204E-03	.0354						0
0	44	488	24.552	4.150	4.832E-03	.0707	5.7310E-03	.0838	6.3186E-03	.0924						0
0	54	442	14.227	2.711	3.172E-03	.0464	3.7654E-03	.0551	4.1540E-03	.0468						0
0	66	473	4.315	1.688	1.976E-03	.0289	2.3462E-03	.0343	2.5885E-03	.0379						0
0	76	493	4.921	1.576	1.847E-03	.0270	2.1924E-03	.0321	2.4140E-03	.0354						0
0	80	496	7.859	1.467	1.725E-03	.0252	2.0502E-03	.0300	2.2631E-03	.0331						0
0	89	503	5.825	1.055	1.251E-03	.0183	1.4887E-03	.0218	1.6490E-03	.0241						0
0	98	500	7.189	1.224	1.446E-03	.0211	1.7193E-03	.0251	1.8940E-03	.0278						0
0	104	506	2.346	.413	4.911E-04	.0072	5.8473E-04	.0096	6.4633E-04	.0095						0
0	114	505	1.145	.214	2.537E-04	.0037	3.0204E-04	.0044	3.3380E-04	.0049						0
0	120	474	1.750	.428	1.471E-04	.0022	1.7790E-04	.0025	1.9147E-04	.0028						0
0	126	477	8.110	1.618	1.857E-03	.0272	2.1922E-03	.0321	2.4187E-03	.0354						0
0	134	474	11.660	6.365	1.458E-03	.0191	1.6548E-03	.0235	1.7694E-03	.0242						0
0	140	474	13.491	2.555	2.998E-03	.0438	3.5601E-03	.0521	3.9467E-03	.0575						0
0	149	497	14.410	2.614	3.078E-03	.0450	3.6583E-03	.0535	4.0389E-03	.0591						0
0	157	497	4.921	.950	1.118E-03	.0164	1.3286E-03	.0194	1.4667E-03	.0215						0
0	162	504	1.956	.717	6.308E-04	.0124	1.0122E-03	.0148	1.1185E-03	.0164						0
0	101	508	5.411	1.112	1.323E-03	.0194	1.5789E-03	.0231	1.7453E-03	.0255						0
0	107	507	1.254	.574	6.831E-04	.0084	8.1355E-04	.0119	8.9945E-04	.0132						0
0	117	507	2.500	.481	5.720E-04	.0084	6.8119E-04	.0100	7.5306E-04	.0110						0
0	5	487	48.703	7.455	6.678E-03	.1249	1.0288E-02	.1505	1.1342E-02	.1659						0
0	10	487	40.533	7.056	6.206E-03	.1200	9.7203E-03	.1423	1.0725E-02	.1569						0
0	24	487	25.436	4.648	5.464E-03	.0799	6.4788E-03	.0948	7.1428E-03	.1045						0
0	28	491	27.228	4.177	4.881E-03	.0714	5.7931E-03	.0847	6.3898E-03	.0935						0
0	35	497	24.400	4.275	5.031E-03	.0736	5.9701E-03	.0875	6.6007E-03	.0965						0
0	36	543	166.267	27.195	1.384E-02	.4950	1.0463E-02	.1294	1.3929E-02	.1612						0
0	37	582	261.565	48.371	6.324E-02	.9250	1.0760E-02	.1227	1.6944E-02	.12970						0
0	38	512	104.523	17.050	4.092E-02	.3060	4.5090E-02	.3669	2.7813E-02	.4668						0
0	40	497	6.110	.941	1.108E-03	.0162	1.3169E-03	.0193	1.4839E-03	.0213						0
0	52	498	1.904	.314	6.693E-04	.0054	4.3897E-04	.0064	4.8467E-04	.0071						0
0	52	507	17.103	2.649	1.152E-03	.0461	3.7842E-03	.0549	4.1503E-03	.0580						0
0	75	503	14.476	2.544	1.015E-03	.0441	3.8879E-03	.0525	3.9643E-03	.0580						0
0	87	503	11.022	1.490	6.240E-03	.0326	2.6455E-03	.0398	2.9422E-03	.0431						0
0	96	506	10.088	1.773	4.109E-03	.0309	2.8117E-03	.0367	2.7765E-03	.0406						0
0	111	508	19.065	1.268	1.512E-03	.0221	1.8089E-03	.0263	1.9914E-03	.0291						0
0	120	514	19.888	2.240	4.689E-03	.0393	3.2074E-03	.0449	3.5494E-03	.0519						0
0	4	485	29.012	3.291	4.980E-03	.0728	5.9021E-03	.0843	6.5846E-03	.0961						0
0	14	481	19.350	3.254	4.757E-03	.0659	4.4498E-03	.0581	4.9981E-03	.0717						0
0	22	442	11.485	2.341	1.397E-03	.0394	1.6064E-03	.0469	1.8325E-03	.0517						0
0	33	480	6.980	1.211	1.307E-03	.0294	1.6064E-03	.0292	1.8223E-03	.0297						0
0	48	495	22.247	3.665	4.301E-03	.0629	5.1895E-03	.0747	5.6376E-03	.0825						0
0	59	497	21.969	4.495	5.243E-03	.0767	6.2303E-03	.0911	6.8781E-03	.1006						0
0	72	494	22.167	4.346	5.096E-03	.0745	6.0511E-03	.0886	6.6770E-03	.0977						0
0	78	495	12.120	1.400	4.113E-03	.0369	2.8897E-03	.0367	2.7699E-03	.0405						0
0	85	495	6.882	1.204	1.414E-03	.0267	1.6796E-03	.0264	1.8538E-03	.0271						0
0	77	492	10.045	1.550	1.813E-03	.0265	2.1581E-03	.0315	2.3741E-03	.0347						0
0	84	495	4.357	1.436	4.157E-03	.0315	2.8617E-03	.0378	2.8273E-03	.0414						0
0	94	501	4.110	1.721	4.042E-03	.0299	2.4288E-03	.0308	2.6820E-03	.0392						0
0	39	509	41.334	7.956	4.492E-03	.1368	1.1398E-02	.1484	1.2808E-02	.1829						0
0	42	494	10.072	1.981	4.335E-03	.0342	2.7732E-03	.0406	3.0004E-03	.0448						0
0	51	500	4.872	1.496	4.357E-03	.0345	2.8610E-03	.0418	3.0968E-03	.0453						0
0	41	503	14.014	3.670	4.348E-03	.0636	5.1795E-03	.0757	5.7168E-03	.0836						0
0	52	498	3.659	.739	6.786E-04	.0127	1.0340E-03	.0151	1.1025E-03	.0167						0
0	135	518	4.054	7.637	4.211E-03	.1347	1.0999E-02	.1489	1.2179E-02	.1781						LOWER WING SURFACE-ORBITER
0	136	506	7.751	1.366	1.625E-03	.0238	1.9346E-03	.0283	2.1364E-03	.0313						0
0	137	507	4.027	.677	6.852E-04	.0118	9.5894E-04	.0140	1.0401E-03	.0158						0
0	138	511	7.425	1.351	1.614E-03	.0236	1.9235E-03	.0281	2.1275E-03	.0311						0
0	142	510	6.650	1.146	1.371E-03	.0200	1.6338E-03	.0239	1.8074E-03	.0264						0
0	149	528	60.958	4.078	5.628E-04	.0882	6.6978E-04	.0898	7.4884E-04	.0189						0
0	156	514	12.511	11.204	1.388E-02	.4204	1.0373E-02	.2395	1.0149E-02	.2654						0
0	151	511	5.257	1.012	4.890E-03	.0424	3.4572E-03	.0504	3.8260E-03	.0560						0
0	152	511	3.114	.533	1.212E-03	.0177	1.4446E-03	.0211	1.5942E-03	.0234						0
0	154	512	2.034	.664	6.382E-04	.0093	7.6883E-04	.0111	8.4165E-04	.0123						0
0	157	513	3.117	.551	6.619E-04	.0082	6.8585E-04	.0097	7.3666E-04	.0108						0
0	171	543	74.440	14.303	1.781E-02	.4204	2.1392E-02	.0115	6.7298E-04	.0128						0
0	172	523	27.066	4.669	5.667E-03	.0649	2.1392E-02	.3129	2.3787E-02	.3479						0
0	175	515	3.934	.781	4.391E-0											

NOT REPRODUCIBLE

27/0/11

ALUC (AMU, INC.) ARNOLD AFS, TENNESSEE
VOI KAMMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL H
V11162

P III	DWD CASE 2-22 IN		UPSTREAM	GDC-H +236 IN	IN GAP	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	MOLL-MODEL	TAB
	CONFIG	MODEL								
(REG H)	T-INF	V-INF	U-INF	V-INF	RHO-INF	MU-INF	RE/FT	MREF-FR	SIFK	SWITCH
97.8	(PSIA)	(PSIA)	(F/SEC)	(F/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FT-1)	(M +009F)	(M +009F)	POSITION
TC NO	FW	UT-1	U-DOT	H(TO)	H(TO)/MREF	H(TO)	H(TO)/MREF	H(AS10)	H(AS10)/MREF	FUSELAGE-MONSTER
H 1	551	277.957	42.422	3.313E-02	.7772	6.3938E-02	.9352	7.1173E-02	1.0411	
H 2	485	244.360	12.432	1.439E-02	.2104	1.7048E-02	.2494	1.8756E-02	.2748	
H 3	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	
H 4	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	
H 5	476	246.004	9.312	1.053E-02	.1395	1.1286E-02	.1631	1.2424E-02	.1817	180.000
H 6	476	246.004	9.312	1.053E-02	.1395	1.1286E-02	.1631	1.2424E-02	.1817	180.000
H 7	476	246.004	9.312	1.053E-02	.1395	1.1286E-02	.1631	1.2424E-02	.1817	180.000
H 8	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	30.000
H 9	473	243.545	10.192	1.191E-02	.1711	1.4280E-02	.2104	1.5975E-02	.2319	60.000
H 10	473	243.545	10.192	1.191E-02	.1711	1.4280E-02	.2104	1.5975E-02	.2319	120.000
H 11	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 12	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 13	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 14	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 15	470	241.720	8.392	9.966E-03	.1171	1.0901E-02	.1394	1.2049E-02	.1394	30.000
H 17	469	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	60.000
H 18	469	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	90.000
H 19	470	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	120.000
H 20	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 21	470	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	180.000
H 22	477	246.167	9.776	1.047E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	30.000
H 23	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	60.000
H 24	475	245.254	10.073	1.156E-02	.1514	1.3749E-02	.1631	1.2424E-02	.1817	90.000
H 25	475	245.254	10.073	1.156E-02	.1514	1.3749E-02	.1631	1.2424E-02	.1817	120.000
H 26	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 27	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	180.000
H 28	473	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	30.000
H 29	473	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	60.000
H 30	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	90.000
H 31	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	120.000
H 32	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 33	470	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	180.000
H 34	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	30.000
H 35	479	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	60.000
H 37	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	90.000
H 38	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	120.000
H 39	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	150.000
H 40	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	180.000
H 41	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	30.000
H 42	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	60.000
H 43	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	90.000
H 44	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	120.000
H 45	470	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	150.000
H 46	470	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	180.000
H 47	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	30.000
H 48	470	241.514	7.463	8.936E-03	.1076	9.9017E-03	.1267	1.1750E-02	.1394	60.000
H 49	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	90.000
H 50	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	120.000
H 51	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 52	475	245.254	10.073	1.156E-02	.1514	1.3749E-02	.1631	1.2424E-02	.1817	180.000
H 53	512	410.016	16.595	1.982E-02	.2099	2.3629E-02	.3456	2.6141E-02	.3824	30.000
H 400	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	60.000
H 402	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	90.000
H 404	479	249.464	10.392	1.185E-02	.1429	1.3199E-02	.1514	1.2424E-02	.1817	120.000
H 406	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 407	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	180.000
H 408	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	30.000
H 409	476	246.004	9.312	1.053E-02	.1395	1.1286E-02	.1631	1.2424E-02	.1817	60.000
H 410	476	246.004	9.312	1.053E-02	.1395	1.1286E-02	.1631	1.2424E-02	.1817	90.000
H 411	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	120.000
H 412	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 413	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	180.000
H 415	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	30.000
H 417	474	244.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	60.000
H 419	473	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	90.000
H 420	471	242.262	9.134	1.031E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	120.000
H 421	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 422	473	244.437	9.437	1.053E-02	.1395	1.1286E-02	.1631	1.2424E-02	.1817	180.000
H 423	475	245.254	10.073	1.156E-02	.1514	1.3749E-02	.1631	1.2424E-02	.1817	30.000
H 424	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	60.000
H 425	477	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	90.000
H 426	476	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	120.000
H 427	477	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	150.000
H 430	475	245.254	10.073	1.156E-02	.1514	1.3749E-02	.1631	1.2424E-02	.1817	180.000
H 432	475	245.254	10.073	1.156E-02	.1514	1.3749E-02	.1631	1.2424E-02	.1817	30.000
H 433	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	60.000
H 434	473	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	90.000
H 435	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	120.000
H 436	477	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	150.000
H 437	477	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	180.000
H 438	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	30.000
H 439	479	249.464	10.392	1.185E-02	.1429	1.3199E-02	.1514	1.2424E-02	.1817	60.000
H 441	508	3.921	.762	9.969E-04	.0121	1.0862E-03	.0199	1.1774E-03	.0210	90.000
H 443	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	120.000
H 445	473	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	150.000
H 446	472	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	180.000
H 447	491	10.009	1.721	1.099E-03	.0120	1.0990E-03	.0199	1.1774E-03	.0210	30.000
H 448	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	60.000
H 450	478	248.956	10.241	1.178E-02	.1406	1.3048E-02	.1506	1.2249E-02	.1394	90.000
H 451	473	243.545	9.185	1.077E-02	.1267	1.1041E-02	.1506	1.2249E-02	.1394	120.000
H 452	511	4.923	.941	1.109E-03	.0162	1.1090E-03	.0249	1.2743E-03	.0260	150.000
H 454	511	4.923	.941	1.109E-03	.0162	1.1090E-03	.0249	1.2743E-03	.0260	180.000
H 456	500	1.471	.312	3.708E-04						

50 INCH FIFTEENSONIC TUNNEL M
V11102

DOWNSIDE CORRUG. MODEL		UPSIDE/UP OF MODEL		GUC-H= .234 IN. GAP		ALPHA-MODEL		ALPHA-SECTION		ALPHA-PREHEND		ROLL-MOULL		YAW	
IN-INE (DEG M)	OUT-INE (PSIA)	U-INE (PSIA)	V-INE (K/SEC)	HMO-INE (SLUGS/FT)	MU-INE (LB-SEC/F2)	HE/FT (H-1)	PRE-FH (M+00VF1)	SIFH (M+00VF1)	SWITCH POSITION	0		0		0	
TC NO	FW	DTWLT	U-INDI	M(TO)	M(TO)/MREF	M(L.9TO)/MREF	M(L.85TO)	M(L.85TO)/MREF	0	0	0	0	0	0	0
H 460	491	4.501	1.525	1.783F-03	.0261	2.1154E-03	.0310	2.3330E-03							
H 461	489	3.852	.642	0.043F-04	.0118	4.5389E-04	.0140	1.0517E-03	.0342						
H 462	491	6.902	1.278	1.450E-03	.0218	1.7682E-03	.0259	1.9502E-03	.0154						
H 463	494	11.014	2.043	2.389F-03	.0350	2.8360E-03	.0415	3.1240E-03	.0285						
H 464	494	12.372	2.295	2.684F-03	.0393	3.1866E-03	.0466	3.5158E-03	.0458						
H 106	503	4.555	.882	1.043F-03	.0153	1.2404E-03	.0182	1.3704E-03	.0515						
H 109	504	14.033	2.544	3.012E-03	.0441	3.5850E-03	.0525	3.6414E-03	.0201						
H 110	500	9.323	1.687	1.988F-03	.0291	2.3644E-03	.0346	2.6113E-03	.0580						
H 111	498	4.516	.816	4.985F-04	.0140	1.1390E-03	.0167	1.2574E-03	.0382						
H 112	500	10.017	1.811	2.133E-03	.0312	2.5364E-03	.0371	2.8009E-03	.0184						
H 113	508	3.160	.618	7.367E-04	.0108	8.7495E-04	.0128	9.6710E-04	.0414						
H 116	507	11.734	2.086	2.459E-03	.0360	2.9290E-03	.0429	3.2311E-03	.0674						
H 117	501	5.145	.931	1.099E-03	.0161	1.3069E-03	.0185	1.4435E-03	.0271						
H 118	501	4.107	.743	0.761F-04	.0128	1.0418E-03	.0152	1.1506E-03	.0184						
H 119	503	7.085	1.274	1.509E-03	.0221	1.7951E-03	.0263	1.9827E-03	.0294						
H 120	503	2.485	.481	0.725E-04	.0084	0.8194E-03	.0100	7.5404E-04	.0110						
H 125	520	21.775	4.395	5.303E-03	.0776	6.3335E-03	.0927	7.0153E-03	.0127						
H 127	512	12.589	2.294	2.743E-03	.0402	3.2704E-03	.0479	3.6173E-03	.0530						
H 128	509	4.387	1.527	1.818F-03	.0266	2.1654E-03	.0317	2.3945E-03	.0351						
H 129	504	4.869	.701	0.859E-04	.0100	8.1563E-04	.0119	1.0923E-03	.0160						
H 130	501	1.213	.581	0.307E-04	.0122	9.8854E-04	.0128	9.0084E-04	.0132						
H 131	498	6.104	1.103	1.296F-03	.0190	1.5407E-03	.0226	1.7008E-03	.0249						
H 134	515	11.466	2.092	2.508E-03	.0367	2.9919E-03	.0448	3.3113E-03	.0485						
H 139	511	6.589	1.192	1.422F-03	.0206	1.6953E-03	.0248	1.8752E-03	.0274						
H 140	504	4.021	.729	0.636E-04	.0126	1.0277E-03	.0150	1.1456E-03	.0166						
H 141	501	3.056	.553	0.526E-04	.0096	7.7615E-04	.0114	8.2578E-04	.0125						
H 142	499	2.980	.535	0.293F-04	.0092	7.4792E-04	.0109	8.2578E-04	.0121						
H 150	514	10.958	2.006	1.405E-03	.0352	2.8684E-03	.0420	3.1775E-03	.0465						
H 151	511	6.217	1.132	1.352F-03	.0198	1.6112E-03	.0246	1.7822E-03	.0261						
H 152	508	4.285	.961	1.143E-03	.0167	1.3616E-03	.0199	1.5055E-03	.0220						
H 153	504	2.403	.436	0.157E-04	.0075	6.2136E-04	.0090	6.7811E-04	.0099						
H 154	501	1.427	.251	2.955F-04	.0043	3.5133E-04	.0051	3.8802E-04	.0057						
H 159	518	11.907	2.113	2.544F-03	.0372	3.0377E-03	.0445	3.3639E-03	.0492						
H 160	511	3.388	.598	1.139E-04	.0105	8.5088E-04	.0125	9.4116E-04	.0138						
H 161	506	1.865	.797	3.523E-04	.0052	4.1947E-04	.0061	4.6366E-04	.0068						
H 162	503	.924	.164	1.942E-04	.0028	2.3099E-04	.0034	2.5520E-04	.0037						
H 171	512	1.085	.563	0.723E-04	.0098	8.0143E-04	.0117	8.8661E-04	.0130						
H 172	507	.830	.151	1.792F-04	.0026	2.1338E-04	.0031	2.3541E-04	.0035						
H 200	531	54.824	8.403	1.028F-02	.1505	1.2311E-02	.1802	1.3649E-02	.2000						
H 201	520	13.344	1.551	1.873E-03	.0274	2.2236E-03	.0327	2.4774E-03	.0363						
H 202	517	8.842	1.235	1.486E-03	.0218	1.7742E-03	.0260	1.9645E-03	.0288						
H 203	517	1.841	.376	4.555E-04	.0067	5.4362E-04	.0080	6.0146E-04	.0088						
H 204	518	1.972	.344	0.145F-04	.0061	4.9887E-04	.0072	5.4746E-04	.0080						
H 205	518	1.972	.344	4.201E-04	.0061	5.0146E-04	.0072	5.5526E-04	.0081						
H 206	519	2.703	.480	0.539F-04	.0081	6.0144E-04	.0097	6.7329E-04	.0107						
H 207	521	4.702	.842	0.357E-04	.0078	4.4008E-04	.0094	4.8914E-04	.0104						
H 217	551	107.017	13.181	1.652E-02	.2419	1.9884E-02	.2911	2.2146E-02	.3240						
H 218	527	13.702	3.275	3.992E-03	.0584	4.7762E-03	.0699	5.2465E-03	.0775						
H 219	522	19.359	4.878	2.273F-03	.0333	2.7158E-03	.0398	3.0062E-03	.0440						
H 220	520	10.323	.922	1.114E-03	.0163	1.3304E-03	.0195	1.4738E-03	.0216						
H 221	518	2.867	.555	0.680E-04	.0098	7.9749E-04	.0117	8.8307E-04	.0129						
H 222	517	.867	.159	0.345E-04	.0028	2.2844E-04	.0033	2.5242E-04	.0037						
H 223	518	.658	.112	1.348E-04	.0020	1.6050E-04	.0024	1.7779E-04	.0026						
H 230	545	114.807	16.432	4.870F-02	.3031	2.4943E-02	.3611	2.7777E-02	.3668						
H 231	541	18.108	2.116	4.958E-03	.0375	3.0568E-03	.0447	3.3846E-03	.0496						
H 232	519	2.935	.568	0.842E-04	.0100	8.1816E-04	.0120	9.0011E-04	.0133						
H 233	518	2.140	.403	4.852E-04	.0071	5.7429E-04	.0085	6.4150E-04	.0094						
H 234	519	1.464	.268	3.228E-04	.0047	3.8541E-04	.0056	4.2884E-04	.0062						
H 235	521	.634	.046	0.532E-05	.0008	6.0093E-05	.0010	6.7322E-05	.0011						
H 236	522	1.028	.083	1.004E-04	.0015	1.1998E-04	.0018	1.3243E-04	.0019						
H 237	521	1.167	.094	1.040E-04	.0017	1.2503E-04	.0020	1.5095E-04	.0022						
H 238	521	1.132	.087	1.047E-04	.0015	1.2503E-04	.0018	1.3852E-04	.0020						
H 249	525	115.177	13.220	1.690E-02	.2474	2.0418E-02	.2989	2.2742E-02	.3336						
H 250	524	15.308	1.859	2.258E-03	.0331	2.7006E-03	.0395	2.9939E-03	.0438						
H 251	521	10.204	1.145	1.389E-03	.0203	1.6667E-03	.0253	1.8407E-03	.0269						
H 252	522	3.077	.597	1.209E-04	.0106	8.6125E-04	.0126	9.5412E-04	.0140						
H 263	549	131.715	16.374	4.479E-04	.0066	5.3520E-04	.0078	5.9246E-04	.0087						
H 264	528	22.638	2.755	2.100E-02	.3074	2.5389E-02	.3717	2.8354E-02	.4150						
H 265	524	3.048	.592	3.358E-03	.0492	4.0193E-03	.0588	4.4580E-03	.0653						
H 266	525	2.218	.331	1.183E-04	.0105	8.8887E-04	.0126	9.5197E-04	.0139						
H 277	542	164.309	19.944	5.227E-04	.0077	6.2504E-04	.0091	6.9287E-04	.0101						
H 278	510	18.013	3.355	2.087E-02	.3055	2.5332E-02	.3708	2.8361E-02	.4152						
H 279	530	12.701	1.547	2.880E-03	.0422	3.4472E-03	.0505	3.8240E-03	.0560						
H 280	526	3.324	.647	1.890E-03	.0277	2.2630E-03	.0331	2.5107E-03	.0368						
H 281	525	2.578	.487	7.889E-04	.0115	9.4124E-04	.0138	1.0436E-03	.0153						
H 282	526	2.300	.435	0.280E-04	.0087	7.0676E-04	.0103	7.8344E-04	.0115						
H 283	525	2.334	.221	2.483F-04	.0077	6.3152E-04	.0092	7.0013E-04	.0102	</					

NOT REPRODUCIBLE

V11167										ALPHA-MODEL			ALPHA-SECTOR			ALPHA-PREBEND			ROLL-MODEL		YAW	
GDC-H-236 IN. GAP										5-16			5-16			0			0		0	
MACH NO. 1360										HE/FT			MDEF-FH			STPH			SWITCH		POSITION	
PU MSIA 7.544F-05										(F1-1)			(M=009F1)			(M=009F1)			3		3	
V-1NF (F1/SELC) 3H71										3.72E 00			6.830E-02			2.430E-02						
RHO-1NF (SLUGS/FT3) 7.544F-05										M(-910)/MREF			M(-8510)			M(-8510)/MREF						
MU-1NF (LM-SELC/F12) 7.450E-08																						
FC NO. TM																						
0	1	577	259.529	47.531	0.188E-02	.9061	7.5021E-02	1.0985	8.3933E-02	1.2290	FUSELAGE-ORBITEN											
0	2	520	48.599	15.924	1.930F-02	.2826	2.3062E-02	.3377	2.3062E-02	.3741	A/L	Y/YMAX	0	0	0	0	0	0	0	0		
0	7	564	43.603	7.670	4.111E-03	.1334	1.0844E-02	.1588	1.0844E-02	.1755			.0100	-.00								
0	12	442	20.126	3.844	4.510F-03	.0660	5.3541E-03	.0784	5.3541E-03	.0865			.0300	-.00								
0	19	446	0.050	1.092	1.270E-03	.0186	1.5054E-03	.0220	1.5054E-03	.0243			.0500	-.00								
0	29	445	1.467	.325	3.770E-04	.0055	4.4682E-04	.0065	4.4682E-04	.0072			.1000	-.00								
0	44	519	44.338	11.761	1.422E-02	.2083	1.6989E-02	.2488	1.6989E-02	.2755			.2000	-.00								
0	54	514	38.142	6.591	1.922F-03	.1160	2.4506E-03	.1384	2.4506E-03	.1532			.3000	-.00								
0	66	508	20.328	3.705	4.424F-03	.0648	5.2713E-03	.0772	5.2713E-03	.0854			.4000	-.00								
0	76	505	18.722	2.530	2.814E-03	.0412	3.3497E-03	.0490	3.3497E-03	.0542			.5000	-.00								
0	89	510	4.317	1.513	3.018F-03	.0442	3.5952E-03	.0526	3.5952E-03	.0582			.6000	-.00								
0	98	505	4.021	.686	1.412E-03	.0265	2.1603E-03	.0316	2.1603E-03	.0350			.7000	-.00								
0	104	509	1.805	.283	8.185E-04	.0120	9.7212E-04	.0142	9.7212E-04	.0157			.8000	-.00								
0	114	509	1.540	.101	1.208E-04	.0050	1.4308E-04	.0059	1.4308E-04	.0065			.9000	-.00								
0	20	489	8.036	.639	1.453F-04	.0018	1.6396E-04	.0021	1.6396E-04	.0023			.9900	-.00								
0	31	486	2.410	.483	5.620F-04	.0012	6.4207E-04	.0019	6.4207E-04	.0021			.1000	-.383								
0	46	520	62.062	12.815	1.552E-02	.0082	1.8541E-02	.0098	1.8541E-02	.0108			.2000	-.486								
0	56	509	17.087	3.406	4.072E-03	.0546	4.8523E-03	.0572	4.8523E-03	.0608			.3000	-.504								
0	69	508	11.422	2.076	2.479E-03	.0363	2.9523E-03	.0370	2.9523E-03	.0387			.4000	-.526								
0	83	507	7.487	1.535	1.431F-03	.0263	1.7101E-03	.0322	1.7101E-03	.0342			.5000	-.530								
0	92	510	4.710	.858	1.026E-03	.0150	1.2227E-03	.0179	1.2227E-03	.0198			.6000	-.748								
0	101	512	3.841	.742	3.379E-04	.0137	1.1184E-03	.0144	1.1184E-03	.0149			.7000	-.704								
0	107	510	2.509	.443	5.305F-04	.0078	6.3241E-04	.0093	6.3241E-04	.0104			.8000	-.669								
0	117	511	1.584	.301	4.610F-04	.0053	5.3039E-04	.0063	5.3039E-04	.0070			.9000	-.678								
0	5	485	24.422	3.758	4.418E-03	.0647	5.2487E-03	.0769	5.2487E-03	.0848			.9900	-.060								
0	24	491	18.610	3.252	3.811F-03	.0558	4.5252E-03	.0663	4.5252E-03	.0731			.1000	0								
0	28	484	8.559	1.592	1.862E-03	.0273	2.2103E-03	.0324	2.2103E-03	.0357			.0300	0								
0	35	503	14.255	1.465	1.725F-03	.0253	2.0494E-03	.0300	2.0494E-03	.0331			.1000	0								
0	36	514	50.012	2.465	2.927E-03	.0429	3.4831E-03	.0510	3.4831E-03	.0564			.1500	0								
0	37	503	170.131	36.057	5.691F-03	.1419	1.1562E-02	.1693	1.1562E-02	.1874			.2000	0								
0	38	519	47.610	15.399	3.950E-02	.5784	4.7702E-02	.6485	4.7702E-02	.7434			.2100	0								
0	40	510	14.820	2.302	1.910F-02	.2796	2.4293E-02	.3356	2.4293E-02	.3730			.2200	0								
0	53	506	2.214	.302	2.754E-03	.0403	3.2874E-03	.0481	3.2874E-03	.0532			.2300	0								
0	62	507	2.336	.362	4.486F-04	.0066	5.3430E-04	.0078	5.3430E-04	.0086			.2500	0								
0	75	507	8.552	1.507	1.748E-03	.0083	2.0369E-03	.0075	2.0369E-03	.0083			.3000	0								
0	87	507	4.799	1.675	1.999E-03	.0263	2.3392E-03	.0313	2.3392E-03	.0346			.4000	0								
0	96	508	7.717	1.361	1.625E-03	.0293	2.3807E-03	.0349	2.3807E-03	.0385			.5000	0								
0	111	509	1.993	.320	3.819F-04	.0028	1.9344E-03	.0284	1.9344E-03	.0314			.6000	0								
0	120	514	10.201	1.145	1.382E-03	.0202	1.6504E-03	.0087	1.6504E-03	.0074			.7000	0								
0	4	488	26.529	3.945	4.653F-03	.0681	5.5302E-03	.0741	5.5302E-03	.0810			.8000	.618								
0	14	484	14.165	3.250	3.815E-03	.0559	4.5306E-03	.0653	4.5306E-03	.0732			.9000	.305								
0	22	490	6.622	1.155	1.349E-03	.0198	1.6010E-03	.0234	1.6010E-03	.0259			.1000	1.000								
0	23	493	10.062	1.759	2.064E-03	.0302	2.4510E-03	.0359	2.4510E-03	.0423			.0300	1.000								
0	48	506	12.314	2.038	2.427F-03	.0355	2.8900E-03	.0443	2.8900E-03	.0534			.1000	1.000								
0	72	510	17.681	3.311	3.960E-03	.0580	4.7203E-03	.0691	4.7203E-03	.0818			.2000	1.000								
0	78	506	16.727	3.305	3.938E-03	.0577	4.6907E-03	.0687	4.6907E-03	.0818			.3000	1.000								
0	85	502	9.069	1.353	1.607E-03	.0235	1.9119E-03	.0280	1.9119E-03	.0340			.4000	1.000								
0	77	498	2.762	.422	3.383F-04	.0137	1.1164E-03	.0163	1.1164E-03	.0181			.5000	1.000								
0	44	500	1.901	.374	4.985E-04	.0073	5.9254E-04	.0087	5.9254E-04	.0096			.6000	1.000								
0	44	504	1.813	.340	4.424F-04	.0065	5.2616E-04	.0077	5.2616E-04	.0085			.7000	1.000								
0	39	512	27.458	3.902	4.749E-04	.0070	5.6527E-04	.0083	5.6527E-04	.0091			.8000	1.000								
0	42	507	4.059	1.401	1.971E-03	.0280	2.7169E-03	.0333	2.7169E-03	.0399			.9000	.486								
0	51	512	12.969	2.640	3.187E-03	.0464	3.7765E-03	.0533	3.7765E-03	.0618			.1000	.465								
0	41	513	20.034	3.475	4.777E-03	.0699	5.6980E-03	.0834	5.6980E-03	.0923			.2000	.465								
0	52	507	4.026	.429	4.890E-04	.0145	1.1780E-03	.0172	1.1780E-03	.0191			.3000	.361								
0	135	531	57.057	10.197	1.252E-02	.1833	1.4997E-02	.2196	1.4997E-02	.2437	LOWEN WING SURFACE-ORBITEN											
0	136	517	21.392	3.793	4.580E-03	.0671	5.4682E-03	.0801	5.4682E-03	.0943	A/C	Y/C	0	.250								
0	137	517	11.191	1.864	2.249F-03	.0329	2.6853E-03	.0393	2.6853E-03	.0435			.1000	.250								
0	138	515	4.441	.810	1.749E-04	.0143	1.1633E-03	.0170	1.1633E-03	.0189			.2000	.250								
0	140	515	2.603	.447	3.379E-04	.0079	6.4181E-04	.0094	6.4181E-04	.0104			.4000	.250								
0	142	516	1.376	.222	2.670F-04	.0039	3.1862E-04	.0047	3.1862E-04	.0052			.6000	.250								
0	149	540	67.994	12.584	1.563F-02	.2288	1.8763E-02	.2747	1.8763E-02	.3054			.8000	.250								
0	150	527	25.879	5.033	6.147E-03	.0900	7.3560E-03	.1077	7.3560E-03	.1195			.9000	.500								
0	151	522	13.302	2.581	3.135F-03	.0459	3.7480E-03	.0549	3.7480E-03	.0608			.1000	.500								
0	152	520	6.670	1.149	1.392F-03	.0204	1.6635E-03	.0244	1.6635E-03	.0270			.2000	.500								
0	154	518	4.149	.738	1.899E-04	.0130	1.0628E-03	.0156	1.0628E-03	.0172			.3000	.500								
0	157	519	2.124	.377	4.564E-04	.0067	5.4521E-04	.0080	5.4521E-04	.0088			.4000	.500								
0	171	541	18.470	3.179	1.795E-02	.2614	2.1496E-02	.3148	2.1496E-02	.3505			.5000	.500								
0	172	516	39.502	6.885	4.481E-03	.1242	1.01															

ALDC (AMD, INC.) ANNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A
 V11162

RUN #	DWD NOSE CONE 1/2 IN. MODEL	1.72 IN. UPMSTREAM OF MACH NO. 1.00	GDC-R. #234 PU 251A 1341	IN. GAP 10 DEG H	ALPHA-PODEL .04		ALPHA-SECTOR .04		ALPHA-PREBEND 0		ROLL-NOVEL 0	YAW 0
					RE/FT (FT-1)	MHEF-FH (M=.009F1)	SIFH (M=.009F1)	SWITCH POSITION 1				
T-1NF (DEG M) 97.2	P-1NF (PSIA) 4.088	U-1NF (PSIA) 1.939	V-1NF (1/SEC) 3.065	MU-1NF (SLUGS/FT3) 7.590F-05	MU-1NF (LB-SEC/FT2) 7.025E-08	M(10)/MHEF	M(.85T)	M(.45T)/MHEF	M(.45T)/MHEF	FUSELAGE-BOOSTER X/L PHI		
TC NO	TW	DTML	U-NOI	M(TO)	M(TO)/MHEF	M(.91T)	M(.85T)	M(.45T)/MHEF	M(.45T)/MHEF			
M 1 501	214.260		4.0691	5.425E-02	.7937	6.6057E-02	.4666	7.4127E-02	1.0847			
M 2 514	53.498		9.864	1.221E-02	.1787	1.6644E-02	.2143	1.6243E-02	.2380			
M 3 515	4.1331		11.687	1.450E-02	.2121	1.7390E-02	.2545	1.9310E-02	.2827			
M 4 527	33.852		0.219	7.638E-03	.1117	9.1422E-03	.1338	1.0142E-02	.1484			
M 5 526	32.888		0.039	7.410E-03	.1084	8.8694E-03	.1298	9.8345E-03	.1448			
M 6 527	35.081		0.555	0.048E-03	.1178	9.6348E-03	.1410	1.0688E-02	.1564			
M 7 526	34.021		0.245	0.276E-03	.1211	9.9059E-03	.1449	1.0162E-02	.1487			
M 8 526	35.067		0.786	0.288E-03	.1212	9.9148E-03	.1451	1.0999E-02	.1609			
M 9 527	35.669		0.785	0.276E-03	.1211	9.9059E-03	.1449	1.0988E-02	.1608			
M 10 526	35.824		0.772	0.288E-03	.1212	9.9148E-03	.1451	1.0999E-02	.1609			
M 11 524	27.015		5.063	0.191E-03	.1216	9.9453E-03	.1455	1.1032E-02	.1614			
M 12 520	21.917		4.010	0.803E-03	.0906	7.4062E-03	.1084	8.2117E-03	.1262			
M 13 520	22.333		4.081	0.978E-03	.0714	5.8355E-03	.0854	6.4666E-03	.0946			
M 14 520	22.614		4.139	0.043E-03	.0728	5.9497E-03	.0871	6.5934E-03	.0965			
M 15 520	22.478		4.113	0.008E-03	.0738	6.0278E-03	.0882	6.6802E-03	.0977			
M 17 520	22.337		4.088	0.977E-03	.0728	5.9085E-03	.0876	6.6311E-03	.0971			
M 18 520	23.189		4.242	0.162E-03	.0758	5.9482E-03	.0870	6.5915E-03	.0965			
M 19 518	19.839		3.626	0.402E-03	.0644	4.1888E-03	.0903	6.8354E-03	.1000			
M 20 517	15.832		2.893	0.511E-03	.0514	4.2588E-03	.0769	5.8255E-03	.0852			
M 21 517	16.327		2.982	0.618E-03	.0529	4.3211E-03	.0814	6.6447E-03	.0890			
M 22 525	45.377		0.326	1.020E-02	.1492	1.2199E-02	.0632	4.7811E-03	.0700			
M 23 512	11.625		2.118	2.555E-03	.0374	3.0483E-03	.1785	1.3529E-02	.1980			
M 24 513	12.393		2.259	2.729E-03	.0399	3.2562E-03	.0476	3.3740E-03	.0494			
M 25 513	12.087		2.203	2.662E-03	.0389	3.1763E-03	.0465	3.6046E-03	.0527			
M 26 510	12.136		2.208	2.658E-03	.0389	3.1690E-03	.0464	3.5162E-03	.0515			
M 27 511	12.293		2.238	2.696E-03	.0394	3.2153E-03	.0470	3.5885E-03	.0513			
M 28 511	12.310		2.204	2.655E-03	.0389	3.1679E-03	.0463	3.5046E-03	.0521			
M 29 512	12.218		2.225	2.682E-03	.0393	3.1998E-03	.0468	3.5613E-03	.0513			
M 30 512	12.114		2.217	2.671E-03	.0391	3.1863E-03	.0466	3.5233E-03	.0518			
M 31 511	12.368		2.255	2.717E-03	.0398	3.2414E-03	.0474	3.5872E-03	.0516			
M 32 510	8.486		1.544	1.858E-03	.0272	2.2132E-03	.0324	2.4486E-03	.0325			
M 33 516	29.716		5.426	0.377E-03	.0962	7.8535E-03	.1149	6.6978E-03	.1273			
M 34 518	14.051		0.223	7.854E-03	.1106	9.0262E-03	.1321	9.9988E-03	.1463			
M 35 520	17.522		6.886	0.353E-03	.1222	9.9817E-03	.1461	1.1068E-02	.1618			
M 37 508	18.887		3.396	0.077E-03	.0597	0.8997E-03	.0711	5.3785E-03	.0787			
M 38 502	6.992		1.266	1.508E-03	.0221	1.7943E-03	.0263	1.9828E-03	.0290			
M 39 501	7.306		1.369	1.629E-03	.0238	1.9391E-03	.0284	2.1426E-03	.0314			
M 40 517	48.848		8.135	9.866E-03	.1444	1.1783E-02	.1724	1.3050E-02	.1910			
M 41 498	4.158		.862	1.022E-03	.0150	1.2152E-03	.0178	1.3422E-03	.0196			
M 42 499	3.946		.787	9.334E-04	.0137	1.1101E-03	.0162	1.2261E-03	.0179			
M 43 498	4.015		.768	9.111E-04	.0133	1.0838E-03	.0159	1.1967E-03	.0175			
M 44 498	4.396		.855	1.014E-03	.0148	1.2058E-03	.0176	1.3318E-03	.0193			
M 45 499	3.542		.665	7.942E-04	.0116	9.4468E-04	.0138	1.0436E-03	.0155			
M 46 499	3.917		.729	8.659E-04	.0127	1.0306E-03	.0151	1.1378E-03	.0166			
M 47 500	3.747		.707	8.404E-04	.0123	9.9980E-04	.0124	1.1046E-03	.0162			
M 48 499	3.219		.595	7.104E-04	.0104	8.4491E-04	.0124	9.3323E-04	.0137			
M 49 498	4.017		.747	8.852E-04	.0130	1.0527E-03	.0146	1.1626E-03	.0170			
M 50 501	9.391		1.749	2.082E-03	.0305	2.4769E-03	.0362	2.7369E-03	.0400			
M 51 502	4.979		1.913	2.278E-03	.0333	2.7107E-03	.0397	2.9994E-03	.0438			
M 52 512	38.139		7.150	0.618E-03	.1261	1.6288E-02	.1504	1.1377E-02	.1665			
M 53 526	75.110		13.800	1.692E-02	.2476	2.0249E-02	.2963	2.2459E-02	.3286			
M 400 503	2.530		.458	0.467E-04	.0080	6.5081E-04	.0095	7.1911E-04	.0105			
M 402 505	1.639		.306	3.656E-04	.0053	4.3542E-04	.0064	4.8137E-04	.0070			
M 404 508	4.816		.962	1.130E-03	.0165	1.3461E-03	.0197	1.4688E-03	.0218			
M 406 505	1.038		.185	2.258E-04	.0033	2.6870E-04	.0039	2.9706E-04	.0043			
M 407 507	5.055		.945	1.132E-03	.0166	1.3469E-03	.0197	1.4917E-03	.0218			
M 408 508	8.114		1.588	1.966E-03	.0279	2.2711E-03	.0332	2.5121E-03	.0368			
M 409 508	10.126		1.981	2.378E-03	.0348	2.8322E-03	.0414	3.1326E-03	.0458			
M 410 510	10.346		2.035	2.447E-03	.0358	2.9174E-03	.0427	3.2276E-03	.0472			
M 411 512	14.166		2.778	3.351E-03	.0496	3.9980E-03	.0585	4.4251E-03	.0648			
M 412 511	16.960		3.269	4.936E-03	.0576	6.4947E-03	.0687	5.1981E-03	.0760			
M 413 512	2.592		.500	0.025E-04	.0080	7.1868E-04	.0105	7.9538E-04	.0116			
M 415 514	1.319		.256	1.129E-04	.0046	3.7339E-04	.0055	4.1338E-04	.0060			
M 417 516	3.073		.521	0.315E-04	.0092	7.5402E-04	.0110	8.3902E-04	.0122			
M 419 514	5.099		.933	1.128E-03	.0165	1.3462E-03	.0197	1.4905E-03	.0218			
M 420 513	4.173		1.554	1.876E-03	.0275	2.2389E-03	.0328	2.4783E-03	.0363			
M 421 517	10.061		1.676	2.033E-03	.0298	2.4285E-03	.0355	2.6905E-03	.0394			
M 422 515	6.436		1.174	1.421E-03	.0208	1.6957E-03	.0248	1.8775E-03	.0275			
M 423 516	8.757		1.763	1.363E-03	.0213	1.5505E-03	.0273	2.0245E-03	.0413			
M 424 516	9.190		1.779	1.566E-03	.0315	2.5748E-03	.0377	2.8516E-03	.0417			
M 425 516	10.119		1.956	2.369E-03	.0347	2.8291E-03	.0414	3.1331E-03	.0458			
M 428 517	2.247		.434	0.247E-04	.0077	6.2623E-04	.0092	6.9334E-04	.0101			
M 430 516	1.426		.248	0.011E-04	.0044	3.5961E-04	.0053	3.9829E-04	.0058			
M 432 516	10.442		1.768	2.989E-03	.0044	3.5685E-04	.0052	3.9516E-04	.0058			
M 433 509	2.488		.479	2.958E-03	.0314	2.9585E-03	.0374	2.8335E-03	.0415			
M 434 515	12.683		2.008	0.758E-04	.0084	6.8614E-04	.0100	7.5905E-04	.0111			
M 435 513	4.587		.860	2.925E-03	.0356	2.925E-03	.0425	3.2141E-03	.0470			
M 436 513	6.913		1.357	1.039E-03	.0192	1.2391E-03	.0191	1.3716E-03	.0201			
M 437 515	8.266		1.597	1.934E-03	.0290	1.9556E-03	.0296	2.1649E-03	.0317			
M 438 516	9.765		1.919	2.302E-03	.0283	2.3092E-03	.0338	2.5571E-03	.0374			
M 439 513	1.947		.384	0.608E-04	.0067	2.7772E-03	.0406	3.0757E-03	.0450			
M 441 515	1.428		.281	0.477E-04	.0051	4.1514E-04	.0080	6.0857E-04	.0089			
M 442 516	1.234		.199	0.411E-04	.0035	2.8791E-04	.0061	4.5988E-04	.0067			
M 445 518	9.724		1.726	0.097E-03	.0307	2.5051E-03	.0442	3.1886E-04	.0047			
M 446 515	7.848		1.369	1.655E-03	.0242	1.9761E-03	.0280	2.7753E-03	.0406			
M 447 519	14.924		2.605	0.171E-03	.0464	3.7887E-03	.0584	4.1974E-03	.0614			
M 448 511	4.521		.847	1.021E-03	.0149	1.2179E-03	.0178	1.3479E-03	.0197			
M 450 514	5.996		1.125	1.359E-03	.0199	1.6224E-03	.0237	1.7941E-03	.0263			
M 451 514	7.144		1.341	1.621E-03	.0237	1.9339E-03	.0283	2.1409E-03	.0313			
M 452 511	1.890		.364	0.388E-04	.0064	5.2339E-04	.0077	5.7918E-04	.0085			
M 454 512	1.483		.286	0.451E-04	.0051	4.1176E-04	.0060	4.5574E-04	.0067			
M 456 514	1.762		.284	0.427E-04	.0050	4.0905E-04	.0060	4.5287E-04	.0066			
M 458 516	9.569		1.793	2.129E-03	.0311	2.5370E-03	.0371	2.8097E-03	.0411			
M 459 521	21.368		4.137	0.041E-03	.0738	6.0264E-03	.0882	6.6788E-03	.0977			

NOT REPRODUCIBLE

50 MIL PER SECOND CHANNEL
M11162

IC NO	IN	DEL	C-BOOT	H(TO)	H(TO)/HREF	P(LSTU)	H(LSTU)/HREF	H(LSTU)	H(LSTU)/HREF	ALPHA-MODEL -02	ALPHA-SECTION -02	ALPHA-PREBEND 0	ROLL-MOUL 0	YAW 0	FUSELAGE-BOOSTER	
															K/L	PHI
H 460	505	4.934	1.402	2.155F-03	.0315	2.5066E-03	.0375	2.8174E-03	.0415							
H 461	503	6.277	1.137	1.356E-03	.0198	1.0145E-03	.0236	1.7844E-03	.0261							
H 462	505	3.385	.632	7.540F-04	.0110	2.4780E-04	.0141	9.9208E-04	.0145							
H 463	505	5.434	1.016	1.715E-03	.0178	1.4466E-03	.0212	1.5943E-03	.0234							
H 464	505	6.476	1.302	1.558F-03	.0228	1.8557E-03	.0271	2.0317E-03	.0300							
H 106	509	1.330	.256	2.293F-04	.0045	3.6679E-04	.0054	4.0575E-04	.0059							
H 109	511	10.454	1.904	2.293F-04	.0045	3.6679E-04	.0054	4.0575E-04	.0059							
H 110	510	7.309	1.325	1.599F-03	.0234	1.9060E-03	.0279	3.0268E-03	.0343							
H 111	504	1.722	.318	3.824E-04	.0056	4.5578E-04	.0074	2.1077E-03	.0308							
H 112	510	5.125	1.042	1.253F-03	.0183	1.4966E-03	.0214	5.0416E-04	.0074							
H 113	512	.840	.165	1.987E-04	.0029	2.3698E-04	.0035	7.6429E-04	.0242							
H 116	515	4.112	1.444	1.753F-03	.0256	2.0935E-03	.0306	2.3182E-03	.0339							
H 117	513	5.925	1.086	1.304F-03	.0191	1.9562E-03	.0228	1.7225E-03	.0252							
H 118	512	1.421	.259	3.123F-04	.0006	3.7292E-04	.0054	4.1210E-04	.0080							
H 119	513	3.963	.722	1.040E-03	.0128	1.0408E-03	.0152	1.1521E-03	.0169							
H 120	513	.682	.134	1.618F-04	.0024	1.4278E-04	.0028	2.1341E-04	.0031							
H 125	525	16.004	3.241	3.972E-03	.0591	4.7539E-03	.0695	9.2725E-03	.0711							
H 127	517	5.053	1.033	1.254E-03	.0183	1.6976E-03	.0214	1.6589E-03	.0243							
H 128	516	4.714	.861	1.044E-03	.0153	1.2447E-03	.0182	1.4806E-03	.0202							
H 129	514	5.228	.964	1.167E-03	.0171	1.3926E-03	.0204	1.5414E-03	.0226							
H 130	513	1.367	.246	2.965F-04	.0043	3.5384E-04	.0052	3.9169E-04	.0057							
H 131	512	3.956	.721	8.696F-04	.0127	1.0375E-03	.0152	1.1483E-03	.0168							
H 134	519	4.733	.866	1.053F-03	.0154	1.2580E-03	.0184	1.3934E-03	.0204							
H 139	516	3.107	.568	8.898F-04	.0101	8.2200E-04	.0121	9.1291E-04	.0134							
H 140	516	6.054	1.106	1.339E-03	.0196	1.5993E-03	.0234	1.7711E-03	.0254							
H 141	515	1.559	.285	3.445F-04	.0050	4.1121E-04	.0060	4.5574E-04	.0067							
H 142	516	3.014	.551	0.676E-04	.0048	7.9717E-04	.0057	8.8280E-04	.0067							
H 150	518	3.847	1.003	1.218F-03	.0178	1.5465E-03	.0213	1.6112E-03	.0236							
H 151	516	4.037	.737	0.935F-04	.0131	1.0664E-03	.0156	1.1916E-03	.0173							
H 152	515	1.345	.610	7.393E-04	.0108	8.8261E-04	.0124	9.7736E-04	.0143							
H 153	515	1.523	.276	3.364E-04	.0049	4.0158E-04	.0059	4.4447E-04	.0065							
H 154	515	1.224	.228	2.762E-04	.0040	3.2977E-04	.0048	3.6515E-04	.0053							
H 159	519	7.455	1.331	1.620E-03	.0237	1.9354E-03	.0283	2.1445E-03	.0314							
H 160	516	3.704	.657	7.960F-04	.0116	9.5041E-04	.0139	1.0525E-03	.0154							
H 161	514	1.125	.199	2.408F-04	.0035	2.8707E-04	.0042	3.1781E-04	.0046							
H 162	513	.971	.172	2.276F-04	.0030	2.4770E-04	.0036	2.7420E-04	.0040							
H 171	516	2.724	.497	0.927E-04	.0088	7.1963E-04	.0105	7.9695E-04	.0117							
H 172	514	1.073	.196	2.366E-04	.0035	2.8242E-04	.0041	3.1267E-04	.0046							
H 200	517	4.925	8.444	1.050F-02	.1535	1.2597E-02	.1842	1.3947E-02	.2047							
H 201	526	14.770	1.723	2.113F-03	.0309	2.5294E-03	.0370	2.8045E-03	.0410							
H 202	523	10.049	1.409	1.722F-03	.0252	2.0598E-03	.0301	2.2834E-03	.0334							
H 203	521	3.340	.685	4.400E-04	.0123	1.0042E-03	.0147	1.1130E-03	.0163							
H 204	522	4.630	.811	9.897F-04	.0145	1.1836E-03	.0173	1.3118E-03	.0192							
H 205	522	3.655	.650	7.927E-04	.0116	9.4786E-04	.0135	1.0506E-03	.0154							
H 206	523	3.694	.630	7.701E-04	.0113	9.2106E-04	.0132	1.0212E-03	.0149							
H 207	525	5.043	.476	3.832F-04	.0085	6.9784E-04	.0102	7.7388E-04	.0113							
H 217	557	100.762	12.449	1.587E-02	.2322	1.9166E-02	.2800	2.118E-02	.3122							
H 218	512	4.5032	4.393	5.432E-03	.0794	6.5115E-03	.0952	7.2310E-03	.1057							
H 219	529	27.349	2.668	3.283F-03	.0480	5.9326E-03	.0575	4.3842E-03	.0638							
H 220	525	14.148	1.264	1.556E-03	.0228	1.8616E-03	.0272	2.0646E-03	.0302							
H 221	522	3.843	.758	7.219F-04	.0135	1.0244E-03	.0161	1.2221E-03	.0179							
H 222	521	1.714	.305	7.715F-04	.0054	4.9011E-04	.0065	4.9224E-04	.0072							
H 223	521	1.225	.206	2.544E-04	.0037	3.0416E-04	.0044	3.3714E-04	.0049							
H 230	559	105.580	14.507	1.884E-02	.2712	2.2376E-02	.3273	2.4957E-02	.3650							
H 231	526	21.977	2.575	1.158E-03	.0462	5.7802E-03	.0553	4.1929E-03	.0613							
H 232	523	3.953	.767	9.373F-04	.0137	1.1210E-03	.0164	1.2428E-03	.0182							
H 233	522	3.052	.576	6.030E-04	.0103	8.4072E-04	.0123	9.3198E-04	.0136							
H 234	522	2.274	.417	3.087F-04	.0076	6.0895E-04	.0089	6.7438E-04	.0094							
H 235	525	1.155	.084	1.073E-04	.0015	1.2452E-04	.0018	1.3917E-04	.0020							
H 236	525	1.413	.114	1.402E-04	.0021	1.6795E-04	.0025	1.8604E-04	.0027							
H 237	525	1.271	.103	1.261E-04	.0018	1.5088E-04	.0022	1.6731E-04	.0024							
H 238	524	1.172	.090	1.099F-04	.0016	1.3153E-04	.0019	1.4586E-04	.0021							
H 248	566	111.222	12.765	1.646E-02	.2407	1.4901E-02	.2911	2.2224E-02	.3251							
H 249	526	14.274	1.735	2.127F-03	.0311	2.5463E-03	.0372	2.8242E-03	.0413							
H 250	527	12.861	1.444	1.777E-03	.0260	2.1271E-03	.0311	2.3548E-03	.0345							
H 251	524	4.351	.852	1.044E-03	.0153	1.2488E-03	.0183	1.3848E-03	.0203							
H 252	524	3.017	.596	1.297E-04	.0107	8.7305E-04	.0128	4.6818E-04	.0142							
H 263	549	135.177	10.558	2.145E-02	.3137	2.5998E-02	.3797	2.9007E-02	.4243							
H 264	530	20.517	2.499	3.083E-03	.0451	3.6941E-03	.0540	4.1005E-03	.0600							
H 265	526	4.315	.849	1.030F-04	.0151	1.2324E-03	.0180	1.3670E-03	.0200							
H 266	527	2.774	.540	0.633E-04	.0097	7.9421E-04	.0110	8.8116E-04	.0129							
H 277	541	166.454	18.191	2.130E-02	.3115	2.5840E-02	.3782	2.8962E-02	.4236							
H 278	531	20.764	2.724	3.365E-03	.0492	4.0330E-03	.0590	4.4774E-03	.0655							
H 279	531	12.140	1.479	1.825F-03	.0267	2.1874E-03	.0320	2.4242E-03	.0355							
H 280	525	4.244	.825	1.011E-03	.0149	1.2102E-03	.0177	1.3422E-03	.0196							
H 281	526	3.775	.714	6.759F-0												

V11162										ALPHA-MODEL			ALPHA-SECTOR			ALPHA-PREHEND			ROLL-MODEL		YAW		
IC	AO	AW	DT	DL	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	IN	
1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	1-1NF	
(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	(1000 FT)	
97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	97.2	
HE/FT	MREF-FH	STPH	SWITCH	M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF	
(FT-1)	(M+009FT)	(M+009FT)	(M+009FT)	M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF	
3.75F 06	6.433E-02	2.927E-02	3	M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF		M(10)/MREF	
U 1	578	244.453	45.517	5.971E-02	.8730	7.2452E-02	1.0603	8.1108E-02	1.1870	FUELLAGE-ORBITER													
U 2	515	42.044	13.207	1.499E-02	.2339	1.9083E-02	.2793	2.1149E-02	1.1870	A/L		Y/YMAA											
U 7	498	10.941	5.825	6.436E-03	.0942	7.6542E-03	.1120	8.4538E-03	.0992	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U 12	441	12.440	2.370	2.750E-03	.0408	3.3126E-03	.0485	3.6551E-03	.1237	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100
U 19	441	7.922	1.385	1.629E-03	.0047	3.8298E-04	.0056	4.2239E-04	.0535	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500
U 44	521	35.060	6.145	7.494E-03	.0238	1.9337E-03	.0283	2.1334E-03	.0662	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 54	520	19.351	3.756	4.574E-03	.1097	8.9586E-03	.1311	9.9241E-03	.0312	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000	-2.000
U 66	517	11.447	2.100	2.548E-03	.0673	3.0428E-03	.0445	3.3702E-03	.0887	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400	-0.400
U 78	419	10.241	1.692	2.010E-03	.0294	2.4016E-03	.0351	2.6604E-03	.0493	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500	-0.500
U 80	521	7.336	1.394	1.699E-03	.0249	2.0311E-03	.0297	2.2511E-03	.0329	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600
U 84	521	5.615	1.026	1.254E-03	.0184	1.4997E-03	.0219	1.6622E-03	.0243	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600	-0.600
U 98	522	4.861	1.669	2.038E-03	.0298	2.4376E-03	.0374	2.7021E-03	.0395	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800
U 134	519	2.271	.403	4.903E-04	.0072	5.8589E-04	.0091	6.4413E-04	.0095	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800	-0.800
U 114	518	1.018	.191	2.370E-04	.0034	2.7789E-04	.0046	3.0764E-04	.0045	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900	-0.900
U 20	440	1.868	.136	1.625E-04	.0024	1.9284E-04	.0028	2.1273E-04	.0031	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 31	440	4.470	.892	1.055E-03	.0154	1.2526E-03	.0163	1.3818E-03	.0202	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 56	520	15.596	3.021	3.600E-03	.0539	4.3979E-03	.0644	4.8264E-03	.0803	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 69	518	4.712	1.770	2.140E-03	.0313	2.5511E-03	.0374	2.8275E-03	.0414	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 83	520	4.051	.785	1.474E-04	.0140	1.7429E-04	.0167	1.9444E-04	.0188	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 92	521	3.525	.645	7.874E-04	.0115	9.4144E-04	.0138	1.0439E-03	.0153	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 101	520	2.300	.470	3.733E-04	.0084	4.4332E-04	.0100	4.9498E-04	.0111	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 107	519	2.133	.380	4.623E-04	.0060	5.5233E-04	.0081	6.1213E-04	.0090	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 117	519	1.459	.290	3.532E-04	.0052	4.2208E-04	.0062	4.6767E-04	.0068	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000
U 5	497	11.385	5.141	6.992E-03	.0892	7.2440E-03	.1000	7.9947E-03	.1171	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100
U 10	497	28.543	5.000	5.928E-03	.0867	7.0427E-03	.1041	7.7770E-03	.1138	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300	-0.300
U 24	507	15.998	2.982	4.553E-03	.0520	4.2289E-03	.0619	4.6733E-03	.0684	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100
U 28	504	17.177	2.657	3.178E-03	.0465	3.7826E-03	.0554	4.1818E-03	.0612	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100
U 35	510	19.794	3.496	4.210E-03	.0616	5.0203E-03	.0735	5.5551E-03	.0813	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100	-0.100
U 36	542	111.752	18.266	2.287E-02	.3347	2.7481E-02	.4022	3.0564E-02	.4473	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 37	540	207.944	30.121	5.010E-02	.7332	6.0811E-02	.8900	6.8043E-02	.9966	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 38	548	114.877	21.459	4.741E-02	.6011	5.3074E-02	.6840	6.0485E-02	.6966	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 40	515	8.153	1.269	1.536E-03	.0225	1.8332E-03	.0268	2.0249E-03	.0297	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 53	518	4.957	.759	1.928E-04	.0123	2.2908E-04	.0147	2.5968E-04	.0163	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 62	518	4.431	.691	1.394E-04	.0083	1.6031E-04	.0094	1.7771E-04	.0103	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 75	519	7.769	1.734	2.111E-03	.0309	2.5348E-03	.0364	2.7992E-03	.0409	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 87	522	10.101	1.742	4.127E-03	.0311	4.5848E-03	.0372	5.0497E-03	.0413	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 96	521	9.642	1.713	2.089E-03	.0306	2.4977E-03	.0366	2.7822E-03	.0405	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 111	519	3.224	.521	6.382E-04	.0093	7.5878E-04	.0111	8.3977E-04	.0123	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 120	528	14.906	1.693	2.083E-03	.0305	2.4951E-03	.0365	2.7877E-03	.0405	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200	-0.200
U 4	496	27.551	4.094	4.049E-03	.0710	5.7638E-03	.0844	6.3844E-03	.0931	-0.200	-0												

NOT REPRODUCIBLE

ALDICO (AHO, INC.) ANNULUS AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 V1162

ROW	TC NO	Tc	OWD NOSE 7.72 IN. UPSTREAM OF		GDC-R. #236 IN. GAP		ALPHA-MODEL #02	ALPHA-SECTION #02	ALPHA-PREHEND 0	ROLL-MODEL 0	YAW 0	FUSELAGE-HOOSTER X/L	PHI
			CONF. #07	MODEL CUC-H*UWU	MACH NO H=00	PU PSIA H=0.73							
T-INF (DEG H) 97.3	U-INF (PSIA) 10.734	V-INF (F/SEC) JMAH	RHO-INF (SLUGS/FT3) 7.575F-05	MU-INF (LH-SEC/FT2) 7.830E-08	HE/FT (FT-1)	REF-FW (IN=0.009FT)	SIFW (IN=0.009FT)	SWITCH POSITION 1					
TC NO	Tc	HTW/L	U-DUT	H(TO)	H(TO)/HREF	F(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF				
H 1	596	200.137	39.610	5.306E-02	.7768	6.4690E-02	.9471	7.2653E-02	1.0637			1.0	0
H 2	511	54.427	10.096	1.245F-02	.1823	1.4917E-02	.2184	1.6559E-02	.2424			.0137	0
H 3	536	63.704	11.763	1.459F-02	.2137	1.7510E-02	.2504	1.9443E-02	.2848			.0137	180.000
H 4	525	33.467	6.142	1.517F-03	.1101	8.9961E-03	.1317	9.9743E-03	.1460			.0274	0
H 5	574	33.344	6.117	1.479F-03	.1095	8.9479E-03	.1310	9.9220E-03	.1453			.0274	30.000
H 6	576	33.461	6.142	1.524E-03	.1102	9.0036E-03	.1318	9.9858E-03	.1462			.0274	60.000
H 7	576	34.264	6.347	1.778F-03	.1139	9.3096E-03	.1363	1.0326E-02	.1512			.0274	90.000
H 8	575	35.422	6.642	8.194E-03	.1200	9.6046E-03	.1435	1.0874E-02	.1592			.0274	120.000
H 9	576	36.250	6.852	8.195E-03	.1229	1.0047E-02	.1471	1.1143E-02	.1631			.0274	150.000
H 10	575	34.163	6.455	1.903F-03	.1157	9.3219E-03	.1385	1.0489E-02	.1536			.0274	180.000
H 11	524	27.372	5.011	6.121F-03	.0896	7.3219E-03	.1072	8.1178E-03	.1189			.0406	180.000
H 12	520	20.508	3.752	4.566F-03	.0668	5.4866E-03	.0794	6.0465E-03	.0885			.0543	0
H 13	520	21.340	3.907	4.755F-03	.0696	5.6834E-03	.0832	6.2982E-03	.0922			.0543	30.000
H 14	520	21.624	3.954	4.817E-03	.0705	5.7572E-03	.0843	6.3799E-03	.0934			.0543	60.000
H 15	521	22.457	4.112	5.011E-03	.0734	5.9906E-03	.0877	6.6366E-03	.0972			.0543	90.000
H 17	521	23.304	4.267	5.197F-03	.0761	6.2121E-03	.0910	6.8846E-03	.1004			.0543	150.000
H 18	522	22.872	4.190	5.107E-03	.0748	6.1069E-03	.0894	6.7685E-03	.0991			.0543	180.000
H 19	527	36.087	6.630	6.133E-03	.1191	9.7363E-03	.1425	1.0871E-02	.1581			.0670	180.000
H 20	518	19.382	2.811	3.410E-03	.0499	4.0725E-03	.0596	4.5111E-03	.0660			.0790	0
H 21	531	47.035	8.655	1.067F-02	.1562	1.2786E-02	.1872	1.4192E-02	.2078			.0790	180.000
H 22	528	45.159	9.045	1.111E-02	.1627	1.3306E-02	.1946	1.4763E-02	.2162			.0920	180.000
H 23	514	12.414	2.262	2.733F-03	.0500	3.2609E-03	.0477	3.6098E-03	.0529			.1030	0
H 24	515	11.980	2.216	2.673F-03	.0391	3.1908E-03	.0467	3.5328E-03	.0517			.1030	15.000
H 25	515	11.980	2.186	2.643E-03	.0387	3.1551E-03	.0462	3.4934E-03	.0511			.1030	30.000
H 26	513	11.874	2.165	2.611F-03	.0382	3.1151E-03	.0456	3.4481E-03	.0505			.1030	45.000
H 27	514	12.247	2.233	2.697E-03	.0395	3.2184E-03	.0471	3.5629E-03	.0522			.1030	60.000
H 28	515	11.982	2.186	2.642E-03	.0387	3.1536E-03	.0462	3.4917E-03	.0511			.1030	75.000
H 29	515	12.147	2.216	2.678F-03	.0392	3.1967E-03	.0468	3.5343E-03	.0518			.1030	90.000
H 30	516	12.093	2.207	2.670F-03	.0391	3.1879E-03	.0467	3.5295E-03	.0517			.1030	105.000
H 31	513	8.420	1.535	1.851F-03	.0271	2.2091E-03	.0323	2.4454E-03	.0358			.1030	120.000
H 32	516	17.038	3.111	3.767E-03	.0552	4.4982E-03	.0659	4.9820E-03	.0729			.1030	135.000
H 33	524	16.007	6.605	4.075E-03	.1182	9.6506E-03	.1414	1.0711E-02	.1568			.1030	150.000
H 34	526	41.415	7.606	4.325F-03	.1365	1.1161E-02	.1634	1.2308E-02	.1813			.1030	165.000
H 35	523	34.622	6.348	1.753F-03	.1139	9.2736E-03	.1358	1.0428E-02	.1505			.1030	180.000
H 37	510	2.608	1.020	1.227E-03	.0180	1.4632E-03	.0214	1.6190E-03	.0237			.1430	0
H 38	506	6.994	1.270	1.519F-03	.0222	1.8097E-03	.0265	2.0012E-03	.0293			.1430	180.000
H 39	511	14.656	2.676	1.220F-03	.0471	3.8401E-03	.0562	4.2803E-03	.0622			.1560	180.000
H 40	541	106.653	18.007	2.247E-02	.3289	2.6988E-02	.3951	3.6003E-02	.4393			.1690	0
H 41	504	4.150	.871	1.039F-03	.0152	1.2367E-03	.0181	1.3649E-03	.0200			.1690	15.000
H 42	514	3.877	.775	9.251E-04	.0135	1.1015E-03	.0161	1.2176E-03	.0178			.1690	30.000
H 43	514	3.978	.764	9.116E-04	.0133	1.0895E-03	.0159	1.1999E-03	.0181			.1690	45.000
H 44	505	4.032	.787	9.397E-04	.0138	1.1191E-03	.0164	1.2371E-03	.0181			.1690	60.000
H 45	505	4.302	.803	9.600E-04	.0141	1.1434E-03	.0167	1.2641E-03	.0185			.1690	75.000
H 46	506	4.207	.786	9.399F-04	.0138	1.1196E-03	.0164	1.2340E-03	.0181			.1690	90.000
H 47	508	3.362	.625	7.534E-04	.0110	8.9774E-04	.0131	9.9288E-04	.0145			.1690	105.000
H 48	506	3.155	.590	7.051E-04	.0103	8.3990E-04	.0123	9.2869E-04	.0136			.1690	120.000
H 49	507	4.477	1.590	1.899E-03	.0278	2.2627E-03	.0331	2.5024E-03	.0366			.1690	135.000
H 50	510	10.347	1.947	2.338E-03	.0342	2.7873E-03	.0408	3.0436E-03	.0451			.1690	150.000
H 51	510	10.746	2.070	2.488E-03	.0360	2.9670E-03	.0434	3.2828E-03	.0481			.1690	165.000
H 52	528	43.621	12.035	1.477E-02	.2169	1.7687E-02	.2590	1.9623E-02	.2873			.1690	180.000
H 53	523	47.939	8.789	1.873F-02	.1572	1.2839E-02	.1880	1.4234E-02	.2084			.2420	0
H 400	506	2.796	.508	6.074E-04	.0086	4.2359E-04	.0106	4.7326E-04	.0117			.2420	30.000
H 402	508	1.602	.300	3.591E-04	.0053	2.3591E-04	.0063	2.6202E-04	.0069			.2420	60.000
H 404	511	2.948	.587	1.063F-04	.0103	8.4322E-04	.0123	9.3405E-04	.0136			.2420	90.000
H 406	511	2.641	.605	8.003E-04	.0117	7.8887E-04	.0140	8.7268E-04	.0155			.2420	105.000
H 407	511	2.936	.550	6.615F-04	.0097	7.8887E-04	.0115	8.7268E-04	.0128			.2420	120.000
H 408	514	10.203	2.003	2.418E-03	.0394	2.8891E-03	.0422	3.1949E-03	.0468			.2420	135.000
H 409	512	6.856	1.352	1.629F-03	.0238	1.8431E-03	.0284	2.1505E-03	.0315			.2420	150.000
H 410	514	4.412	1.480	2.246F-03	.0329	2.6803E-03	.0392	2.9673E-03	.0434			.2420	165.000
H 411	517	14.054	2.763	3.348F-03	.0490	3.9980E-03	.0585	4.4279E-03	.0629			.2420	180.000
H 412	516	13.876	2.682	3.248F-03	.0476	3.8701E-03	.0568	4.2949E-03	.0629			.2830	0
H 413	514	2.446	.482	2.814E-04	.0085	6.9302E-04	.0102	7.6805E-04	.0112			.2830	30.000
H 415	514	1.278	.251	3.072E-04	.0044	3.6101E-04	.0053	4.0077E-04	.0059			.2830	60.000
H 417	516	1.476	.250	3.032F-04	.0044	3.6205E-04	.0053	4.0094E-04	.0059			.2830	90.000
H 419	517	5.295	.954	1.156F-03	.0169	1.3804E-03	.0202	1.5288E-03	.0224			.2830	105.000
H 421	517	10.030	1.701	2.057E-03	.0301	2.4561E-03	.0360	2.7195E-03	.0398			.2830	120.000
H 422	518	6.641	1.106	1.348E-03	.0196	1.6007E-03	.0234	1.7729E-03	.0260			.2830	135.000
H 423	519	8.671	1.749	1.698F-03	.0288	2.0260E-03	.0329	2.2444E-03	.0329			.2830	150.000
H 424	520	4.734	1.692	2.058F-03	.0311	2.5366E-03	.0371	2.8102E-03	.0411			.2830	165.000
H 425	520	11.170	2.164	2.631F-03	.0385	3.4988E-03	.0460	3.6845E-03	.0499			.2830	180.000
H 426	515	2.059	.398	9.813E-04	.0070	7.7664E-04	.0084	8.3030E-04	.0093			.3160	0
H 428	517	1.031	.205	4.481E-04	.0036	2.9627E-04	.0043	3.2814E-04	.0048			.3160	30.000
H 430	515	1.444	.272	3.288E-04	.0048	3.9249E-04	.0057	4.3458E-04	.0064			.3160	60.000
H 432	519	11.255	1.920	2.331F-03	.0341	2.7851E-03	.0408	3.0855E-03	.0452			.3160	90.000
H 433	511	1.941	.374	9.504F-04	.0066	5.3721E-04	.0079	5.9449E-04	.0087			.3160	105.000
H 434	520	15.160	2.398	2.916E-03	.0427	3.4002E-03	.0510	3.8607E-03	.0565			.3160	120.000
H 435	515	4.276	.803	3.707E-04	.0142	1.1586E-03	.0170	1.2828E-03	.0188			.3160	135.000
H 436	517	7.270	1.430	1.734E-03	.0254	2.0711E-03	.0303	2.2941E-03	.0336			.3160	150.000
H 437	517	7.364	1.425	1.727E-03	.0253	2.0691E-03	.0302	2.2852E-03	.0335			.3160	165.000
H 438	517	8.282	1.622	1.973F-03	.0289	2.3560E-03	.0345	2.6094E-03	.0382			.3160	180.000
H 439	515	1.925	.396	9.709E-04	.0069	5.6207E-04	.0082	6.2229E-04	.0091			.3540	0
H 441	518	.917	.185	2.233E-04	.0033	2.6664E-04	.0039	2.9547E-04	.0043			.3540	30.000
H 443	518	1.519	.245	2.969F-04	.0043	3.5662E-04	.0052	3.9281E-04	.				

CONFID		MODEL		MACH NO		PU PSIA		TO DEG N		ALPHA-MODEL		ALPHA-SECTOR		ALPHA-PHASE		ROLL-MODEL		YAW	
NO		NO		NO		NO		NO		U		U		O		O		O	
I-INF		P-INF		U-INF		V-INF		W-INF		MU-INF		HE/FT		HREF-FT		SIFM		SWITCH	
(DEG)		(PSIA)		(PSIA)		(1/SEC)		(SLUUS/FT)		(LM-DEC/FT)		(FT-1)		(NO 709F1)		(NO 009F1)		POSITION	
97.4		0.000		0.000		0.000		7.576E-05		7.041E-08		3.74E 00		6.430E-02		2.430E-02		2	
IC NO	FM	DTWLT	G-DUT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.9TO)	M(.9TO)/MREF
M 400	501	4.200	1.485	1.761E-03	.0258	2.0952E-03	.0300	7.3147E-03	.0334	FUELSAGE-BOOSTER									
M 441	501	4.727	1.574	1.873E-03	.0274	2.2240E-03	.0320	7.4013E-03	.0360	R/L									
M 462	500	2.854	.535	0.306E-04	.0093	7.5960E-04	.0111	8.3008E-04	.0123	PHI									
M 463	502	5.473	1.020	1.212E-03	.0177	1.4424E-03	.0211	1.5491E-03	.0233	0.000									
M 464	502	6.443	1.210	1.438E-03	.0210	1.7109E-03	.0250	1.8404E-03	.0277	0.000									
M 106	511	.750	.145	1.737E-04	.0025	2.0716E-04	.0030	2.7421E-04	.0034	0.000									
M 109	512	11.725	2.145	2.569E-03	.0375	3.0593E-03	.0447	3.3852E-03	.0495	0.000									
M 110	508	5.853	1.064	1.272E-03	.0186	1.5180E-03	.0222	1.6765E-03	.0245	0.000									
M 111	507	2.071	.376	4.495E-04	.0066	5.3594E-04	.0078	5.9420E-04	.0087	0.000									
M 112	504	5.143	.945	1.119E-03	.0164	1.3338E-03	.0184	1.4752E-03	.0204	0.000									
M 113	514	.020	.133	1.607E-04	.0024	1.9180E-04	.0028	2.1230E-04	.0031	0.000									
M 116	513	4.306	1.445	1.788E-03	.0262	2.1385E-03	.0312	2.3614E-03	.0345	0.000									
M 117	510	5.327	.964	1.162E-03	.0170	1.3852E-03	.0184	1.5323E-03	.0224	0.000									
M 118	509	1.681	.306	4.664E-04	.0054	5.4671E-04	.0064	6.0307E-04	.0071	0.000									
M 119	511	4.094	.746	0.953E-03	.0131	1.0675E-03	.0136	1.1811E-03	.0173	0.000									
M 120	516	.584	.115	1.385E-04	.0020	1.6530E-04	.0024	1.8703E-04	.0027	0.000									
M 121	506	11.360	2.301	2.812E-03	.0411	3.3650E-03	.0492	3.7303E-03	.0546	0.000									
M 122	515	5.000	1.037	1.253E-03	.0183	1.4464E-03	.0214	1.6371E-03	.0242	0.000									
M 129	512	6.400	.895	1.081E-03	.0158	1.2897E-03	.0184	1.4271E-03	.0209	0.000									
M 130	504	6.400	1.166	1.402E-03	.0205	1.6725E-03	.0245	1.8510E-03	.0271	0.000									
M 131	504	1.923	.294	3.407E-04	.0050	4.0607E-04	.0059	4.4414E-04	.0066	0.000									
M 134	514	4.742	.713	8.523E-04	.0125	1.0159E-03	.0144	1.1430E-03	.0164	0.000									
M 139	516	1.448	.639	1.059E-03	.0155	1.2644E-03	.0185	1.4010E-03	.0205	0.000									
M 140	512	4.330	.789	7.714E-04	.0113	9.2087E-04	.0125	1.0147E-03	.0144	0.000									
M 141	509	1.255	.220	4.811E-04	.0069	5.6811E-04	.0081	6.2914E-04	.0093	0.000									
M 142	504	1.872	.340	4.732E-04	.0064	5.5633E-04	.0076	6.3601E-04	.0087	0.000									
M 150	514	5.669	1.037	1.257E-03	.0184	1.4691E-03	.0220	1.6636E-03	.0243	0.000									
M 151	517	4.411	.806	9.743E-04	.0143	1.1634E-03	.0170	1.2884E-03	.0188	0.000									
M 152	515	2.772	.506	0.103E-04	.0019	7.2836E-04	.0107	8.0638E-04	.0118	0.000									
M 153	512	1.471	.268	3.220E-04	.0047	3.8306E-04	.0056	4.2499E-04	.0062	0.000									
M 154	509	.807	.142	1.706E-04	.0025	2.0330E-04	.0030	2.2488E-04	.0033	0.000									
M 159	522	6.712	1.193	1.452E-03	.0212	1.7337E-03	.0254	1.9237E-03	.0281	0.000									
M 160	514	3.146	.558	0.755E-03	.0099	8.0670E-04	.0118	8.9349E-04	.0131	0.000									
M 161	514	1.174	.208	4.511E-04	.0037	2.9985E-04	.0044	3.3164E-04	.0049	0.000									
M 162	511	.327	.069	0.252E-05	.0012	4.0398E-05	.0014	1.0887E-04	.0016	0.000									
M 171	520	2.293	.420	3.092E-04	.0074	3.6081E-04	.0089	4.1410E-04	.0099	0.000									
M 172	518	1.023	.167	2.264E-04	.0033	2.7047E-04	.0040	2.9958E-04	.0044	0.000									
M 200	537	54.633	8.401	1.041E-02	.1523	1.2491E-02	.1427	1.3477E-02	.2030	UPPER WING SURFACE-BOOSTER									
M 201	525	15.264	1.780	2.172E-03	.0318	2.5907E-03	.0380	2.8814E-03	.0421	R/C									
M 202	525	12.673	1.779	2.172E-03	.0318	2.5909E-03	.0380	2.8819E-03	.0422	Y/S									
M 203	526	4.052	.846	1.034E-03	.0151	1.2375E-03	.0181	1.3723E-03	.0201	0.000									
M 204	526	5.664	.995	1.216E-03	.0178	1.4546E-03	.0213	1.6131E-03	.0236	0.000									
M 205	524	5.627	1.002	1.222E-03	.0179	1.4613E-03	.0214	1.6202E-03	.0237	0.000									
M 206	526	5.427	.669	8.184E-04	.0120	9.7940E-04	.0143	1.0862E-03	.0154	0.000									
M 207	526	4.361	.612	5.042E-04	.0074	6.0342E-04	.0088	6.6925E-04	.0098	0.000									
M 217	557	101.404	12.533	1.593E-02	.2331	1.9217E-02	.2811	2.1424E-02	.3134	0.000									
M 218	513	44.504	4.733	3.836E-03	.0584	4.5944E-03	.0723	5.1655E-03	.0813	0.000									
M 219	529	24.065	2.430	2.410E-03	.0308	2.8594E-03	.0360	3.1110E-03	.0373	0.000									
M 220	524	15.611	1.401	1.717E-03	.0251	2.0591E-03	.0301	2.2798E-03	.0333	0.000									
M 221	525	4.224	.421	4.480E-04	.0054	5.2976E-04	.0064	5.9322E-04	.0071	0.000									
M 222	524	1.642	.301	1.474E-04	.0054	1.7396E-04	.0064	1.9302E-04	.0071	0.000									
M 223	525	1.432	.244	2.480E-04	.0044	2.8692E-04	.0052	3.2953E-04	.0058	0.000									
M 230	560	105.404	14.564	1.858E-02	.2718	2.2429E-02	.3291	2.5018E-02	.3659	0.000									
M 231	527	24.332	2.454	3.494E-03	.0511	4.1825E-03	.0612	4.6395E-03	.0674	0.000									
M 232	526	4.338	.643	1.031E-03	.0151	1.2342E-03	.0181	1.3698E-03	.0200	0.000									
M 233	526	3.430	.650	1.940E-04	.0116	2.3001E-04	.0139	2.6135E-04	.0154	0.000									
M 234	525	2.500	.454	3.608E-04	.0082	4.3769E-04	.0098	4.8374E-04	.0104	0.000									
M 235	524	2.274	.165	2.018E-04	.0030	2.4156E-04	.0035	2.6747E-04	.0039	0.000									
M 236	528	2.612	.212	2.594E-04	.0038	3.1055E-04	.0045	3.4450E-04	.0049	0.000									
M 237	527	2.359	.191	2.342E-04	.0034	2.8032E-04	.0041	3.1045E-04	.0045	0.000									
M 238	527	1.993	.153	1.871E-04	.0027	2.2389E-04	.0033	2.4812E-04	.0036	0.000									
M 248	547	110.214	12.657	1.630E-02	.2384	1.9712E-02	.2883	2.2016E-02	.3220	0.000									
M 249	528	15.240	1.653	2.270E-03	.0332	2.7177E-03	.0394	3.0148E-03	.0441	0.000									
M 250	532	15.914	1.744	2.210E-03	.0323	2.6478E-03	.0387	2.9343E-03	.0430	0.000									
M 251	524	6.056	1.179	1.446E-03	.0211	1.7309E-03	.0253	1.9204E-03	.0281	0.000									
M 252	528	4.004	.743	9.715E-04	.0142	1.1629E-03	.0170	1.2901E-03	.0189	0.000									
M 263	512	126.484	15.808	2.047E-02	.2994	2.4780E-02	.3625	2.7647E-02	.4051	0.000									
M 264	513	20.012	2.446	3.017E-03	.0441	3.6162E-03	.0529	4.0147E-03	.0587	0.000									
M 265	531	4.418	.861	1.060E-03	.0155	1.2695E-03	.0186	1.4090E-03	.0206	0.000									
M 266	513	3.003	.586	1.223E-04	.0106	1.4564E-04	.0127	1.6104E-04	.0141	0.000									
M 277	546	161.282	15.725	2.074E-02	.3034	2.5212E-02	.3688	2.8256E-02	.4133	0.000									
M 278	515	21.438	2.815	3.440E-03	.0504	4.1728E-03	.0598	4.6344E-03	.0678	0.000									
M 279	515	13.520	1.651	2.042E-03	.0299	2.4496E-03	.0358	2.7208E-03	.0418	0.000									
M 280	531	4.673	.911	1.121E-03	.0164</														

NOT REPRODUCIBLE

V11162										IN. GAP		ALPHA-MODEL		ALPHA-SECTOR		ALPHA-PREHEND		NULL-MODEL		YAW		
DWD-DISE		2.72 IN.		UPSTREAM OF		GUC-H. .886		IN. GAP		ALPHA-MODEL		ALPHA-SECTOR		ALPHA-PREHEND		NULL-MODEL		YAW				
CONFIG		MODEL		MACH N1		PO PSIA		IN. DEG H		REF-F1		REF-FH		SIFK		SWITCH						
R07		GUC-D-01.0		M.00		858.9		1367		3.73E 00		6.841E-02		2.936E-02		0		0		0		
T-INF		P-INF		Q-INF		V-INF		RHU-INF		MU-INF		REF-F1		REF-FH		SIFK		SWITCH				
(DEG H)		(PSIA)		(PSIA)		(FT/SEC)		(SLUGS/FT ³)		(LB-SEC/FT ²)		(FT-1)		(H = .009F1)		(H = .009F1)		POSITION				
97.6		.004		1.771		.373		7.562F-05		7.058F-08		3.73E 00		6.841E-02		2.936E-02		3				
TC NO		TW		DINCL		C-DOUT		H(TO)		H(TO)/HREF		F(.9TU)		H(.9TO)/HREF		H(.85TU)		H(.85TU)/HREF				
0	1	542	244.484	45.672	5.970F-02	.8728	7.2440E-02	1.0593	8.1128E-02	1.1860												
0	2	517	43.075	13.387	1.612F-02	.2357	1.9240E-02	.2813	2.1306E-02	.3115												
0	7	494	30.482	5.345	6.312F-03	.0923	7.5052E-03	.1097	8.2884E-03	.1212												
0	12	492	12.600	2.401	2.809F-03	.0411	3.3349E-03	.0488	3.6740E-03	.0556												
0	19	447	1.355	.242	2.828F-04	.0041	3.3535E-04	.0049	3.6970E-04	.0054												
0	29	448	3.037	.525	6.163F-04	.0040	7.3089E-04	.0107	8.0583E-04	.0118												
0	54	513	44.735	16.435	2.021F-02	.2954	2.92719E-02	.3540	2.6887E-02	.3930												
0	66	517	26.424	.355	6.169E-03	.0902	7.3641E-03	.1077	8.1542E-03	.1192												
0	74	514	13.127	2.396	2.811F-03	.0421	3.4380E-03	.0503	3.8098E-03	.0556												
0	80	515	4.622	1.962	2.356F-03	.0344	2.8109E-03	.0411	3.1108E-03	.0455												
0	84	519	6.253	1.615	1.946F-03	.0285	2.3221E-03	.0334	2.5703E-03	.0376												
0	98	517	7.384	1.144	1.382E-03	.0202	1.6508E-03	.0241	1.8244E-03	.0267												
0	104	520	2.022	1.270	1.532E-03	.0224	1.8285E-03	.0267	2.0248E-03	.0296												
0	114	519	.833	.157	4.345E-04	.0064	5.1908E-04	.0076	5.7505E-04	.0084												
0	20	449	1.451	.110	1.843F-04	.0028	2.2004E-04	.0033	2.5036E-04	.0037												
0	31	491	2.825	.576	1.285F-04	.0019	1.5242E-04	.0022	1.6806E-04	.0025												
0	46	545	114.150	24.505	1.285F-04	.0097	7.8886E-04	.0115	8.7118E-04	.0127												
0	56	514	14.249	2.751	1.285F-04	.0445	3.6710E-02	.5366	4.0829E-02	.5969												
0	69	515	13.804	2.520	1.285F-04	.0443	3.4737E-03	.0576	4.3572E-03	.0637												
0	83	514	5.940	1.144	1.378E-03	.0201	3.6155E-03	.0529	4.0022E-03	.0585												
0	92	518	3.702	.677	8.164E-04	.0119	1.6443E-03	.0240	1.8198E-03	.0266												
0	101	521	3.274	.671	8.125E-04	.0119	9.7078E-04	.0142	1.0745E-03	.0158												
0	107	520	2.253	.407	4.923E-04	.0072	5.8813E-04	.0142	1.0757E-03	.0157												
0	117	520	1.954	.386	4.674F-04	.0068	5.5843E-04	.0086	6.5150E-04	.0095												
0	5	498	34.750	5.360	6.315E-03	.0923	7.5061E-03	.1097	8.1805E-03	.1212												
0	10	497	28.101	4.925	5.798E-03	.0848	6.8904E-03	.1007	8.2877E-03	.1112												
0	24	499	16.340	3.040	3.584E-03	.0524	4.2604E-03	.0623	4.7044E-03	.0688												
0	28	501	17.359	2.679	3.167F-03	.0463	3.7672E-03	.0551	4.1612E-03	.0608												
0	35	509	20.232	3.571	4.262F-03	.0623	5.0778E-03	.0742	5.6155E-03	.0821												
0	37	540	113.306	18.515	2.299F-02	.3361	2.7608E-02	.4036	3.0640E-02	.4486												
0	38	548	219.482	36.474	5.018F-02	.7335	6.0869E-02	.8898	6.8128E-02	.9959												
0	40	513	156.153	21.784	2.760E-02	.4035	3.3260E-02	.4866	3.7101E-02	.5424												
0	53	513	8.325	1.294	1.553E-03	.0227	1.8522E-03	.0231	2.0497E-03	.0300												
0	62	518	4.244	.662	1.772F-04	.0026	2.1140E-04	.0041	2.3395E-04	.0034												
0	75	514	4.677	.662	1.980E-04	.0117	9.5271E-04	.0139	1.0550E-03	.0154												
0	87	521	10.215	1.718	2.075E-03	.0303	2.4777E-03	.0362	2.7443E-03	.0411												
0	96	522	8.419	1.497	2.143E-03	.0313	2.9590E-03	.0374	2.8360E-03	.0415												
0	111	520	2.377	.384	1.814E-03	.0265	2.1602E-03	.0317	2.4026E-03	.0351												
0	120	528	14.213	1.614	1.970F-03	.0288	5.5885E-04	.0081	6.1469E-04	.0090												
0	4	498	27.525	4.094	4.821E-03	.0705	5.7290E-03	.0828	6.3260E-03	.0925												
0	14	495	14.010	3.055	3.885E-03	.0524	4.2577E-03	.0622	4.6986E-03	.0687												
0	22	494	11.344	1.984	2.327E-03	.0340	2.7632E-03	.0404	3.0492E-03	.0446												
0	33	496	7.827	1.371	1.612F-03	.0236	1.9194E-03	.0290	2.1143E-03	.0309												
0	48	510	9.849	1.642	1.962E-03	.0287	2.3380E-03	.0342	2.5859E-03	.0378												
0	59	515	17.057	3.203	3.849E-03	.0503	4.5926E-03	.0671	5.0036E-03	.0743												
0	72	515	24.143	5.597	6.730E-03	.0984	8.3028E-03	.1174	8.8840E-03	.1299												
0	78	515	18.163	2.732	3.204E-03	.0480	3.9177E-03	.0573	4.3465E-03	.0634												
0	85	513	9.220	1.631	1.956F-03	.0266	2.3333E-03	.0341	2.5821E-03	.0377												
0	77	510	6.460	1.002	1.197E-03	.0175	1.4026E-03	.0208	1.5773E-03	.0231												
0	84	512	7.015	1.390	1.665E-03	.0243	1.9806E-03	.0290	2.1957E-03	.0321												
0	94	516	6.175	1.326	1.596F-03	.0233	1.9041E-03	.0270	2.1880E-03	.0308												
0	39	518	30.380	5.880	1.096F-03	.0137	1.6473E-03	.0139	1.3842E-03	.0172												
0	42	513	8.237	1.633	1.959F-03	.0246	2.3361E-03	.0342	2.5852E-03	.0378												
0	51	518	9.651	2.021	2.439F-03	.0357	2.9120E-03	.0426	3.2256E-03	.0472												
0	41	514	22.488	4.476	5.409F-03	.0791	6.4603E-03	.0944	7.1588E-03	.1046												
0	52	515	4.017	.814	4.848F-04	.0144	1.1790E-03	.0172	1.3007E-03	.0190												
0	135	533	55.871	9.498	1.229F-02	.1796	1.4726E-02	.2153	1.6474E-02	.2390												
0	136	522	12.932	2.299	2.787F-03	.0907	3.3312E-03	.0487	3.6914E-03	.0540												
0	137	520	7.164	1.195	1.448F-03	.0211	1.7274E-03	.0253	1.9117E-03	.0280												
0	138	522	8.349	1.530	1.895F-03	.0271	2.2160E-03	.0324	2.4563E-03	.0359												
0	140	523	7.833	1.351	1.439F-03	.0240	1.9590E-03	.0286	2.1711E-03	.0317												
0	142	520	3.704	.598	1.238E-04	.0106	6.6671E-04	.0126	9.5797E-04	.0140												
0	149	541	60.852	11.274	1.399F-02	.2655	1.6801E-02	.2456	1.8675E-02	.2730												
0	150	525	17.782	3.456	4.206E-03	.0515	5.0302E-03	.0735	4.5771E-03	.0815												
0	151	524	9.434	1.832	2.225F-03	.0325	2.8607E-03	.0390	2.9441E-03	.0431												
0	152	526	11.388	1.967	2.395F-03	.0350	2.8692E-03	.0419	3.1767E-03	.0464												
0	154	523	7.803	1.389</																		

AEDC (AMU, INC.) ANNULUS AFS, TENNESSEE
VON KARMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL W
V11102

ITEM	DWO NO	KASE	2-22	IN	UPSTREAM	OF	GUC-H	+ 11A	IN	GAP	ALPHA-PODEL	ALPHA-SECTOR	ALPHA-PHEBEND	ROLL-MODEL	YAW
TC	KU	TM	DTWLT	Q-DOUT	H(TU)	M(TU)/MREF	H(.9TO)	M(.9TO)/MREF	H(.85TO)	M(.85TO)/MREF	HE/FT	PREF-FH	STPR	SWITCH	
					(F/SEC)	(SLUGS/FT3)	(LBS-SEC/FT2)				(FT-1)	(MM +009FT)	(MM +009FT)	POSITION	
0	1	603	206.007	30.500	5.333E-02	.7749	0.5155E-02	.9515	7.3275E-02	1.0701					FUSELAGE-HOOSTER
0	2	562	5.1005	4.835	1.226E-02	.1791	1.4731E-02	.2151	1.4379E-02	.2392					ACL
0	3	566	22.400	11.603	1.461E-02	.2134	1.7567E-02	.2505	1.9541E-02	.2854					PHI
0	4	535	33.834	6.242	7.714E-03	.1127	4.2500E-03	.1301	1.0273E-02	.1504					
0	5	532	32.000	5.900	7.279E-03	.1063	4.2735E-03	.1274	4.6644E-03	.1414					
0	6	534	34.423	6.346	7.826E-03	.1143	4.3806E-03	.1370	1.0415E-02	.1521					
0	7	534	34.701	6.474	7.610E-03	.1111	4.2735E-03	.1332	1.0111E-02	.1479					
0	8	533	34.977	6.617	8.186E-03	.1195	4.8118E-03	.1433	1.0844E-02	.1591					
0	9	534	34.701	6.796	8.392E-03	.1225	1.0041E-02	.1469	1.1173E-02	.1632					
0	10	534	34.701	6.879	7.998E-03	.1169	9.5890E-03	.1400	1.0648E-02	.1555					
0	11	532	27.000	5.006	6.265E-03	.0915	7.5074E-03	.1096	8.3340E-03	.1217					
0	12	527	21.500	3.452	4.846E-03	.0708	5.8003E-03	.0847	4.4319E-03	.0940					
0	13	527	21.955	4.034	4.940E-03	.0721	5.9129E-03	.0854	4.5599E-03	.0958					
0	14	528	22.367	4.111	4.937E-03	.0736	6.0300E-03	.0881	4.6843E-03	.0977					
0	15	528	21.950	4.034	4.942E-03	.0722	5.9158E-03	.0864	4.5642E-03	.0958					
0	17	528	22.420	4.214	5.165E-03	.0754	6.1843E-03	.0903	4.8610E-03	.1002					
0	18	529	20.384	3.751	4.605E-03	.0673	5.5154E-03	.0805	4.1201E-03	.0894					
0	19	544	55.058	10.219	1.278E-02	.1866	1.5360E-02	.2273	1.7086E-02	.2495					
0	20	524	15.183	4.784	3.395E-03	.0496	4.0597E-03	.0593	4.5007E-02	.0657					
0	21	541	44.274	8.937	1.625E-02	.1625	1.9369E-02	.2492	1.4898E-02	.2170					
0	22	534	44.973	8.297	1.025E-02	.1497	1.2290E-02	.1795	1.3649E-02	.1993					
0	23	520	11.920	2.181	4.647E-03	.0386	4.1623E-03	.0465	3.5037E-03	.0512					
0	24	520	11.987	2.194	4.663E-03	.0389	3.1815E-03	.0465	3.4251E-03	.0515					
0	25	520	11.705	2.142	4.600E-03	.0380	3.1072E-03	.0454	3.4420E-03	.0503					
0	26	518	11.560	2.113	4.557E-03	.0373	3.0538E-03	.0446	3.3823E-03	.0494					
0	27	518	11.513	2.104	4.547E-03	.0372	3.0418E-03	.0444	3.3691E-03	.0492					
0	28	519	12.041	2.202	4.670E-03	.0390	3.1900E-03	.0466	3.5440E-03	.0516					
0	29	519	12.227	2.236	4.712E-03	.0396	3.2394E-03	.0473	3.5842E-03	.0524					
0	30	520	12.084	2.211	4.682E-03	.0392	3.2050E-03	.0468	3.5510E-03	.0514					
0	31	517	6.760	1.235	1.498E-03	.0219	1.7887E-03	.0261	1.9810E-03	.0280					
0	32	523	41.457	3.432	4.788E-03	.0699	5.7290E-03	.0836	4.3498E-03	.0927					
0	33	510	39.228	7.219	6.872E-03	.1296	1.0626E-02	.1552	1.1743E-02	.1722					
0	34	511	39.361	7.065	6.694E-03	.1270	1.0417E-02	.1521	1.1562E-02	.1689					
0	35	525	23.801	4.369	5.337E-03	.0779	6.3856E-03	.0933	7.0811E-03	.1034					
0	37	524	29.016	5.320	6.489E-03	.0947	7.7552E-03	.1133	8.5973E-03	.1256					
0	38	511	6.641	1.206	1.452E-03	.0212	1.7312E-03	.0253	1.9154E-03	.0280					
0	39	547	114.236	24.200	4.820E-02	.4129	3.4096E-02	.4974	3.8008E-02	.5551					
0	40	532	63.034	10.580	1.364E-02	.1704	1.9624E-02	.2282	1.7344E-02	.2533					
0	41	504	4.124	.861	1.031E-03	.0151	1.2243E-03	.0179	1.3586E-03	.0198					
0	42	504	3.818	.764	9.168E-04	.0134	1.0926E-03	.0160	1.2085E-03	.0176					
0	43	504	4.027	.775	9.288E-04	.0136	1.1070E-03	.0162	1.2245E-03	.0174					
0	44	504	4.194	.822	9.834E-04	.0144	1.1722E-03	.0171	1.2964E-03	.0189					
0	45	509	2.426	.547	6.553E-04	.0096	7.8099E-04	.0114	8.6388E-04	.0126					
0	46	511	3.868	.725	8.494E-04	.0127	1.0368E-03	.0151	1.1471E-03	.0168					
0	47	511	2.888	.541	6.582E-04	.0089	7.7570E-04	.0113	8.5746E-04	.0125					
0	48	510	1.550	.665	7.978E-04	.0117	9.5120E-04	.0139	1.0597E-03	.0154					
0	49	512	7.840	1.470	1.766E-03	.0258	4.2058E-03	.0308	2.3301E-03	.0340					
0	50	512	6.640	1.245	1.499E-03	.0218	1.7834E-03	.0230	1.9734E-03	.0288					
0	51	516	22.402	4.330	5.227E-03	.0763	6.2396E-03	.0911	6.9088E-03	.1009					
0	52	520	10.902	5.823	7.071E-03	.1033	8.4903E-03	.1234	9.3636E-03	.1367					
0	53	538	12.146	13.457	1.678E-02	.7439	2.0043E-02	.2927	2.2272E-02	.3253					
0	400	510	2.525	.459	5.511E-04	.0080	6.5696E-04	.0096	7.2680E-04	.0104					
0	402	510	1.673	.313	3.758E-04	.0055	4.4802E-04	.0065	4.9564E-04	.0072					
0	404	511	2.104	.412	4.950E-04	.0072	5.9019E-04	.0086	6.5249E-04	.0095					
0	406	514	5.783	1.058	1.274E-03	.0186	1.5201E-03	.0222	1.6826E-03	.0246					
0	407	514	6.354	1.200	1.446E-03	.0211	1.7251E-03	.0252	1.9095E-03	.0279					
0	408	516	10.055	1.984	4.396E-03	.0350	4.8597E-03	.0418	3.1644E-03	.0462					
0	409	514	6.887	1.352	1.629E-03	.0238	1.9443E-03	.0284	2.1522E-03	.0314					
0	410	514	7.374	1.445	1.747E-03	.0255	2.0845E-03	.0304	2.3076E-03	.0337					
0	411	517	10.817	2.127	4.571E-03	.0375	3.0691E-03	.0448	3.3947E-03	.0496					
0	412	519	15.867	3.072	7.721E-03	.0543	4.4452E-03	.0649	4.9241E-03	.0719					
0	413	514	2.651	.200	6.169E-04	.0090	7.3566E-04	.0107	8.1432E-04	.0114					
0	415	513	1.021	.200	4.411E-04	.0035	2.8765E-04	.0042	3.1837E-04	.0046					
0	417	514	2.146	.364	4.389E-04	.0084	5.2332E-04	.0076	5.7932E-04	.0085					
0	419	516	4.095	.860	1.038E-03	.0152	1.2398E-03	.0181	1.3728E-03	.0200					
0	420	528	14.851	4.525	3.063E-03	.0447	3.6597E-03	.0534	4.0546E-03	.0592					
0	421	515	3.875	.645	7.783E-04	.0114	9.2895E-04	.0136	1.0285E-03	.0150					
0	422	517	6.049	1.114	1.348E-03	.0197	1.6091E-03	.0235	1.7820E-03	.0260					
0	423	516	4.390	.884	1.068E-03	.0156	1.2744E-03	.0186	1.4111E-03	.0206					
0	424	517	7.368	1.425	1.722E-03	.0251	2.0561E-03	.0300	2.2769E-03	.0333					
0	425	519	10.077	1.951	4.364E-03	.0345	2.8232E-03	.0412	2.2769E-03	.0457					
0	426	516	1.936	.374	4.521E-04	.0066	5.3467E-04	.0079	5.9754E-04	.0087					
0	428	515	.821	.104	1.974E-04	.0029	2.3560E-04	.0034	2.6083E-04	.0038					
0	430	514	2.682	.503	6.062E-04	.0089	7.2325E-04	.0106	8.0055E-04	.0117					
0	432	518	4.331	1.585	1.919E-03	.0280	2.2914E-03	.0335	2.5340E-03	.0371					
0	433	512	1.723	.332	4.992E-04	.0058	4.7603E-04	.0070	5.2675E-04	.0077					
0	434	516	9.787	1.951	1.874E-03	.0274	2.2371E-03	.0327	2.4773E-03	.0362					
0	435	515	3.989	.744	4.032E-04	.0132	1.0778E-03	.0157	1.1932E-03	.0174					
0	436	515	3.714	.730	6.804E-04	.0124	1.0506E-03	.0153	1.1630E-03	.0170					
0	437	516	9.864	1.134	1.370E-03	.0200	1.6352E-03	.0249	1.8106E-03	.0264					
0	438	517	7.764	1.532	1.852E-03	.0270	2.2115E-03	.0323	2.4441E-03	.0358					
0	439	515	1.369	.264	4.238E-04	.0047	3.8847E-04	.0056	4.2784E-04	.0062					
0	441	515	1.084	.219	4.643E-04	.0039	3.1546E-04	.0046	3.4423E-04	.0051					
0	443	516	2.445	.394	4.759E-04	.0070	5.6816E-04	.0083	6.2914E-04	.0092					
0	445	521	12.311	2.187	4.657E-03	.0388	3.1747E-03	.0464	3						

NOT REPRODUCIBLE

VON KARMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL B
V11162

DOW NOSE 2.22 IN. UPSTREAM OF GUC-B, .114 IN. GAP		CONFIG NO7		MODEL	MACH NO	PU PSIA	TO DEG W	ALPHA-PODEL	ALPHA-SECTOR	ALPHA-PREBEND	HOLL-MOULL	YAW
		CUC-HVLDWD			8.00	859.3	1342	-0.01	-0.01	0	0	0
T-INF	P-INF	U-INF	V-INF	W-INF	RHO-INF	MU-INF	HE/FT	HREF-FH	SIFR	SWITCH		
(DEG H)	(PSIA)	(PSIA)	(F/SEC)	(SLUGS/FT3)	(LB-DEN/FT2)	(LB-DEN/FT2)	(FT-1)	(H= .009FT)	(H= .009FT)	POSITION		
97.2	.044	3.443	.865	7.545E-05	7.828E-08	7.828E-08	3.75E 06	6.838E-02	2.420E-02	2		
TC NO	TW	UTWLT	U-DOT	H(TO)	H(TO)/HREF	F(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER		
										X/L	PHI	
8 460	508	5.524	1.004	1.203E-03	.0176	1.0341E-03	.0210	1.5861E-03	.0232		.3800	120.000
8 461	509	5.471	.995	1.195E-03	.0175	1.0266E-03	.0208	1.5760E-03	.0230		.3800	135.000
8 462	511	2.469	.463	5.569E-04	.0081	6.6415E-04	.0097	7.3492E-04	.0107		.3800	150.000
8 463	512	1.969	.369	4.453E-04	.0065	5.3124E-04	.0078	5.8749E-04	.0086		.3800	165.000
8 464	514	5.154	.975	1.178E-03	.0172	1.0061E-03	.0206	1.5567E-03	.0228		.3800	180.000
8 106	515	.222	.043	5.175E-05	.0008	6.1772E-05	.0009	6.8394E-05	.0010		.4400	0
8 109	515	11.486	2.096	2.536E-03	.0371	3.0276E-03	.0443	3.3522E-03	.0490		.4400	90.000
8 110	511	4.382	.798	5.596E-04	.0140	1.1643E-03	.0167	1.2662E-03	.0185		.4400	120.000
8 111	512	2.957	.535	6.487E-04	.0095	7.7381E-04	.0113	8.5636E-04	.0125		.4400	150.000
8 112	513	3.723	.678	8.182E-04	.0120	9.7617E-04	.0143	1.0805E-03	.0158		.4400	180.000
8 113	518	.575	.113	1.375E-04	.0020	1.6425E-04	.0024	1.8146E-04	.0027		.4800	0
8 116	517	7.204	1.277	1.548E-03	.0226	1.8480E-03	.0270	2.0467E-03	.0299		.4800	90.000
8 117	512	4.472	.815	9.816E-04	.0144	1.1710E-03	.0171	1.2760E-03	.0190		.4800	120.000
8 118	512	3.221	.587	7.068E-04	.0103	8.310E-04	.0123	9.3317E-04	.0136		.4800	150.000
8 119	513	4.544	.827	9.980E-04	.0146	1.1907E-03	.0174	1.3179E-03	.0193		.4800	180.000
8 120	520	.584	.107	1.303E-04	.0019	1.5576E-04	.0023	1.7261E-04	.0025		.5200	0
8 195	531	18.980	3.853	4.751E-03	.0695	5.6921E-03	.0832	6.3182E-03	.0924		.5500	43.000
8 127	519	5.153	.993	1.146E-03	.0168	1.3699E-03	.0200	1.5179E-03	.0222		.5500	90.000
8 128	517	4.576	.836	1.013E-03	.0150	1.2099E-03	.0177	1.3399E-03	.0196		.5500	105.000
8 129	515	6.154	1.123	1.358E-03	.0199	1.6216E-03	.0237	1.7953E-03	.0263		.5500	120.000
8 130	511	2.865	.522	6.278E-04	.0092	7.4888E-04	.0109	8.2046E-04	.0121		.5500	150.000
8 131	508	3.905	.710	8.515E-04	.0125	1.0149E-03	.0148	1.2226E-03	.0164		.5500	180.000
8 138	522	5.214	.955	1.166E-03	.0170	1.3930E-03	.0204	1.5451E-03	.0226		.6250	90.000
8 139	519	4.100	.750	9.117E-04	.0133	1.0090E-03	.0159	1.2070E-03	.0177		.6250	105.000
8 140	515	5.708	1.042	1.260E-03	.0184	1.4904E-03	.0220	1.6656E-03	.0244		.6250	120.000
8 141	511	2.763	.503	6.668E-04	.0089	7.7279E-04	.0106	7.9983E-04	.0117		.6250	150.000
8 142	509	1.377	.250	3.004E-04	.0044	3.5981E-04	.0052	3.9615E-04	.0058		.6250	180.000
8 150	523	6.215	1.139	1.392E-03	.0204	1.6652E-03	.0244	1.8442E-03	.0270		.7000	90.000
8 151	521	4.656	.853	1.039E-03	.0152	1.2422E-03	.0182	1.3767E-03	.0201		.7000	105.000
8 152	519	3.259	.596	7.245E-04	.0106	8.0680E-04	.0127	9.3913E-04	.0140		.7000	120.000
8 153	516	1.844	.337	4.074E-04	.0050	4.8042E-04	.0071	5.3864E-04	.0079		.7000	150.000
8 154	512	.710	.125	1.512E-04	.0022	1.8032E-04	.0026	1.9956E-04	.0029		.7000	180.000
8 159	527	6.808	1.214	1.490E-03	.0210	1.7832E-03	.0261	1.9781E-03	.0289		.7700	90.000
8 160	522	3.577	.636	7.760E-04	.0113	9.2709E-04	.0136	1.0286E-03	.0150		.7700	120.000
8 161	518	.994	.176	2.139E-04	.0031	2.5959E-04	.0037	2.8303E-04	.0041		.7700	150.000
8 162	514	.282	.050	6.033E-05	.0009	7.2000E-05	.0011	7.9722E-05	.0012		.7700	180.000
8 171	525	2.509	.466	5.634E-04	.0082	6.7408E-04	.0099	7.4751E-04	.0109		.8950	120.000
8 172	522	.760	.139	1.697E-04	.0025	2.0296E-04	.0030	2.2496E-04	.0033		.8950	150.000
8 200	539	43.587	8.711	8.366E-03	.1223	1.0046E-02	.1469	1.1167E-02	.1633		0	.100
8 201	529	15.479	1.809	2.227E-03	.0320	2.6079E-03	.0399	2.9603E-03	.0433		.1600	.100
8 202	529	12.734	1.791	2.204E-03	.0322	2.6309E-03	.0386	2.9291E-03	.0420		.2000	.100
8 203	530	4.120	.854	1.052E-03	.0156	1.2890E-03	.0184	1.3981E-03	.0204		.3300	.100
8 204	530	5.375	.945	1.165E-03	.0170	1.3953E-03	.0204	1.5486E-03	.0226		.4000	.100
8 205	528	4.472	.798	9.811E-04	.0143	1.1739E-03	.0172	1.3037E-03	.0191		.6000	.100
8 206	530	3.391	.580	7.144E-04	.0104	8.9592E-04	.0125	9.4949E-04	.0139		.7000	.100
8 207	531	3.773	.357	4.408E-04	.0064	5.2015E-04	.0077	5.8265E-04	.0086		.9100	.100
8 217	562	102.157	12.654	1.622E-02	.2373	1.8994E-02	.2866	2.1866E-02	.3198		0	.200
8 218	537	48.379	4.732	5.881E-03	.0850	7.0579E-03	.1032	7.8827E-03	.1147		.0500	.200
8 219	533	28.844	2.815	3.481E-03	.0500	4.1741E-03	.0610	4.6351E-03	.0678		.1800	.200
8 220	532	14.898	1.360	1.655E-03	.0262	1.9032E-03	.0290	2.2018E-03	.0322		.2800	.200
8 221	529	4.446	.866	1.066E-03	.0190	1.2768E-03	.0187	1.4169E-03	.0207		.4000	.200
8 222	528	1.817	.324	3.986E-04	.0090	4.7733E-04	.0070	5.2965E-04	.0077		.6000	.200
8 223	529	1.310	.224	2.754E-04	.0040	3.2970E-04	.0048	3.6594E-04	.0054		.7000	.200
8 230	566	109.585	15.111	1.947E-02	.2847	2.2836E-02	.3442	2.6283E-02	.3844		0	.250
8 231	531	22.880	2.689	3.317E-03	.0405	3.9793E-03	.0501	4.4129E-03	.0645		.1000	.250
8 232	531	4.698	.916	1.129E-03	.0165	1.3527E-03	.0198	1.5019E-03	.0220		.4000	.250
8 233	530	3.874	.734	9.036E-04	.0132	1.0029E-03	.0150	1.2014E-03	.0176		.5000	.250
8 234	530	2.908	.535	6.589E-04	.0096	7.8020E-04	.0115	8.7894E-04	.0128		.6000	.250
8 235	531	2.284	.186	2.848E-04	.0030	2.9913E-04	.0036	2.7213E-04	.0040		.8000	.250
8 236	531	2.453	.199	2.435E-04	.0036	2.9459E-04	.0043	3.2703E-04	.0048		.8670	.250
8 237	531	2.308	.187	2.312E-04	.0036	2.7701E-04	.0041	3.0749E-04	.0045		.9010	.250
8 238	530	2.102	.182	1.991E-04	.0029	2.3062E-04	.0035	2.6669E-04	.0039		.9350	.250
8 248	571	109.990	12.657	1.643E-02	.2503	1.9098E-02	.2910	2.2244E-02	.3253		0	.300
8 249	533	15.165	1.850	2.288E-03	.0395	2.7336E-03	.0481	3.0467E-03	.0446		.1000	.300
8 250	535	14.056	1.587	1.968E-03	.0280	2.3003E-03	.0345	2.6218E-03	.0393		.2000	.300
8 251	533	5.921	1.156	1.430E-03	.0200	1.7140E-03	.0251	1.9030E-03	.0278		.4000	.300
8 252	532	3.945	.782	9.660E-04	.0141	1.1990E-03	.0169	1.2868E-03	.0188		.6000	.300
8 263	576	121.134	15.112	1.973E-02	.2800	2.3427E-02	.3499	2.6771E-02	.3915		0	.400
8 264	536	19.606	2.396	2.978E-03	.0435	3.5708E-03	.0522	3.9675E-03	.0580		.1000	.400
8 265	535	4.013	.784	9.720E-04	.0142	1.1690E-03	.0171	1.2990E-03	.0189		.4000	.400
8 266	535	2.517	.492	6.093E-04	.0089	7.3087E-04	.0107	8.1182E-04	.0119		.6000	.400
8 277	598	156.939	15.333	2.048E-02	.2904	2.4000E-02	.3633	2.7887E-02	.4075		0	.500
8 278	599	20.555	2.705	3.369E-03	.0493	4.0442E-03	.0591	4.4950E-03	.0657		.1000	.500
8 279	599	12.188	1.481	1.845E-03	.0270	2.2151E-03	.0324	2.4620E-03	.0360		.2000	.500
8 280	537	4.171	.816	1.013E-03	.0160	1.2162E-03	.0170	1.3913E-03	.0194		.4000	.500
8 281	535	3.674	.699	8.663E-04	.0127	1.0392E-03	.0152	1.1544E-03	.0169		.5000	.500
8 282	535	2.924	.594	6.981E-04	.0101	8.2705E-04	.0121	9.1963E-04	.0134		.6000	.500
8 293	534	3.814	.784	3.345E-04	.0092	4.2517E-04	.0062	4.7224E-04	.0069		.8770	.500
8 294	587	145.758	19.022	2.422E-02	.3680	3.0076E-02	.4486	3.4397E-02	.5031		0	.600
8 297	548	25.115	3.305	4.129E-03	.0604	4.9596E-03	.0725	5.5191E-03	.0806		.1000	.600
8 298	549	16.938	2.055	2.561E-03	.0375	3.0757E-03	.0450	3.4190E-03	.0500		.2000	.600
8 299	537	2.455	.557	6.928E-04	.0101	8.3194E-04	.0122	9.2404E-04	.0137		.4000	.600
8 300	540	2.714	.480	6.990E-04	.0080	7.1945E-04	.0105	7.9988E-04	.0117		.6000	.600
8 301	538	3.473	.330	4.112E-04	.0060	4.9361E-04	.0072	5.4458E-04	.0080		.7930	.600
8 302	537	2.703	.257	3.197E-04	.0047	3.8369E-04	.0056	4.2				

ID	CONF	DOW NOSE		2.22 IN. MODEL		UPS/STREAM		GDC-R. #118 IN. GAP		ALPHA-MODEL		ALPHA-VECTOR		ALPHA-PREEMD		ROLL-MODEL		YAW
		MOF	CUC-R+DWD	MACH NO	H.00	PU PSIA	TO DEG M	RE/FT	PREF-FH	STFR	SWITCH	POSITION	0	0				
T-1AF	P-1NF	U-1NF	V-1NF	RHO-1NF	MU-1NF	ALPHA-MODEL	ALPHA-VECTOR	ALPHA-PREEMD	ROLL-MODEL	YAW								
(UEG N)	(PSIA)	(PSIA)	(F1/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	ALPHA-MODEL	ALPHA-VECTOR	ALPHA-PREEMD	ROLL-MODEL	YAW								
97.0	0.88	3.435	JM60	7.598E-05	7.808E-08	ALPHA-MODEL	ALPHA-VECTOR	ALPHA-PREEMD	ROLL-MODEL	YAW								
TC NO	TR	UTRGT	Q-001	M(TO)	M(TO)/MHEF	M(.9TO)	M(.85TO)	M(.45TO)/MHEF	FUSELAGE-ORBITER		K/L		Y/VMAX					
0 1	581	247.298	45.308	5.993E-02	.8778	7.2803E-02	1.0663	8.1501E-02	1.1946	FUSELAGE-ORBITER		K/L		Y/VMAX				
0 2	517	92.477	13.295	1.610E-02	.2371	1.9343E-02	.2933	2.1430E-02	.3139	K/L		Y/VMAX						
0 7	500	30.124	5.294	6.321E-03	.0426	7.8225E-03	.1102	8.3121E-03	.1217	K/L		Y/VMAX						
0 12	493	11.308	2.156	2.949E-03	.0373	3.0283E-03	.0444	3.3425E-03	.0490	K/L		Y/VMAX						
0 19	488	6.105	1.067	1.262E-03	.0185	1.4994E-03	.0220	4.1466E-04	.0061	K/L		Y/VMAX						
0 29	443	3.105	1.027	1.351E-02	.1979	1.6190E-02	.2371	1.6551E-03	.0242	K/L		Y/VMAX						
0 44	530	63.105	10.927	4.703E-03	.0689	5.6259E-03	.0824	1.7972E-02	.2632	K/L		Y/VMAX						
0 54	522	19.780	3.838	1.943E-03	.0285	2.3211E-03	.0390	6.2379E-03	.0914	K/L		Y/VMAX						
0 66	518	8.722	1.594	1.443E-03	.0192	1.5640E-03	.0229	2.5717E-03	.0377	K/L		Y/VMAX						
0 76	516	6.654	1.074	1.017E-03	.0149	1.2133E-03	.0178	1.7329E-03	.0254	K/L		Y/VMAX						
0 80	510	4.424	.834	4.833E-04	.0141	1.1817E-03	.0169	1.2764E-03	.0197	K/L		Y/VMAX						
0 89	524	4.304	.788	1.968E-03	.0288	2.3546E-03	.0345	2.6110E-03	.0382	K/L		Y/VMAX						
0 98	523	4.300	1.604	4.704E-04	.0040	3.2329E-04	.0047	3.5831E-04	.0052	K/L		Y/VMAX						
0 104	570	1.246	.421	1.314E-04	.0022	1.6363E-04	.0027	2.0381E-04	.0030	K/L		Y/VMAX						
0 114	570	.668	.126	1.088E-03	.0019	1.9597E-04	.0023	1.7207E-04	.0025	K/L		Y/VMAX						
0 20	489	1.507	.112	1.553E-02	.2275	1.6614E-02	.2726	1.4232E-03	.0208	K/L		Y/VMAX						
0 31	493	4.554	.917	1.671E-03	.0232	3.1908E-03	.0408	2.0468E-02	.3627	K/L		Y/VMAX						
0 46	510	60.961	12.547	4.258E-04	.0136	2.2360E-03	.0327	3.5434E-03	.0519	K/L		Y/VMAX						
0 56	570	11.283	2.187	4.747E-03	.0874	5.1099E-03	.0163	2.4777E-03	.0319	K/L		Y/VMAX						
0 69	518	8.392	1.534	1.871E-03	.0274	2.1099E-03	.0163	1.2299E-03	.0180	K/L		Y/VMAX						
0 83	519	3.933	.761	4.258E-04	.0062	5.1099E-04	.0074	5.6299E-04	.0082	K/L		Y/VMAX						
0 92	519	1.904	.348	4.258E-04	.0062	5.1099E-04	.0074	5.6299E-04	.0082	K/L		Y/VMAX						
0 101	571	1.373	.281	4.438E-04	.0050	4.7366E-04	.0060	5.2508E-04	.0077	K/L		Y/VMAX						
0 107	571	1.821	.324	4.961E-04	.0058	4.7366E-04	.0069	5.2508E-04	.0077	K/L		Y/VMAX						
0 117	521	1.160	.225	4.750E-04	.0040	3.2806E-04	.0048	3.6458E-04	.0053	K/L		Y/VMAX						
0 5	501	35.014	5.403	6.048E-03	.0885	7.1845E-03	.1124	8.4814E-03	.1242	K/L		Y/VMAX						
0 10	498	20.940	3.062	4.658E-03	.0635	4.3744E-03	.0582	7.9364E-03	.1162	K/L		Y/VMAX						
0 24	499	16.442	2.679	4.208E-03	.0470	3.8170E-03	.0599	4.7977E-03	.0703	K/L		Y/VMAX						
0 28	543	17.317	3.571	4.318E-03	.0633	4.1825E-03	.0755	4.2203E-03	.0618	K/L		Y/VMAX						
0 35	512	20.202	3.571	4.318E-03	.0633	4.1825E-03	.0755	4.2203E-03	.0618	K/L		Y/VMAX						
0 36	543	14.171	18.673	2.348E-02	.3439	2.8234E-02	.4135	3.1412E-02	.4601	K/L		Y/VMAX						
0 37	541	208.918	38.321	5.858E-02	.7411	6.1468E-02	.9682	6.8849E-02	1.0084	K/L		Y/VMAX						
0 38	559	135.124	21.547	2.768E-02	.4851	3.3398E-02	.4892	3.7263E-02	.5450	K/L		Y/VMAX						
0 40	516	8.124	1.265	1.538E-03	.0225	1.8365E-03	.0240	2.0849E-03	.0298	K/L		Y/VMAX						
0 53	518	.952	.142	1.782E-04	.0025	2.0649E-04	.0030	2.2891E-04	.0034	K/L		Y/VMAX						
0 62	573	4.624	.723	1.060E-03	.0135	1.2699E-03	.0155	1.1742E-03	.0172	K/L		Y/VMAX						
0 75	527	10.357	1.842	4.287E-03	.0331	2.6997E-03	.0395	2.9933E-03	.0438	K/L		Y/VMAX						
0 87	524	9.971	1.721	4.114E-03	.0310	2.5380E-03	.0371	2.8843E-03	.0411	K/L		Y/VMAX						
0 96	524	9.314	1.659	4.037E-03	.0298	2.4374E-03	.0357	2.7832E-03	.0396	K/L		Y/VMAX						
0 111	523	3.352	.542	6.644E-04	.0097	7.9488E-04	.0116	8.6133E-04	.0129	K/L		Y/VMAX						
0 120	510	14.473	1.645	4.034E-03	.0298	2.4374E-03	.0357	2.7832E-03	.0396	K/L		Y/VMAX						
0 4	500	28.201	4.199	5.884E-03	.0733	6.9566E-03	.0872	6.5814E-03	.0984	K/L		Y/VMAX						
0 14	495	17.060	3.031	4.894E-03	.0584	4.2727E-03	.0626	4.7172E-03	.0691	K/L		Y/VMAX						
0 22	495	9.999	1.750	4.678E-03	.0584	4.2727E-03	.0626	4.7172E-03	.0691	K/L		Y/VMAX						
0 28	498	0.846	1.280	1.427E-03	.0209	2.4678E-03	.0261	2.7239E-03	.0309	K/L		Y/VMAX						
0 48	573	30.555	5.108	6.264E-03	.0918	1.0970E-03	.0249	1.6753E-03	.0275	K/L		Y/VMAX						
0 59	527	32.301	6.110	7.533E-03	.1103	9.4909E-03	.0189	8.3169E-03	.1218	K/L		Y/VMAX						
0 72	521	25.267	5.035	6.161E-03	.0982	9.6216E-03	.1321	1.0011E-02	.1466	K/L		Y/VMAX						
0 78	521	10.931	1.648	4.018E-03	.0298	2.4374E-03	.0357	2.7832E-03	.0396	K/L		Y/VMAX						
0 85	518	7.617	1.352	1.644E-03	.0241	1.8732E-03	.0289	2.1832E-03	.0320	K/L		Y/VMAX						
0 77	516	3.614	.563	6.844E-04	.0160	8.1743E-04	.0140	9.0543E-04	.0133	K/L		Y/VMAX						
0 84	516	3.960	.775	9.426E-04	.0130	1.1366E-03	.0145	1.2472E-03	.0183	K/L		Y/VMAX						
0 94	518	4.478	.963	1.174E-03	.0172	1.4826E-03	.0205	1.5941E-03	.0228	K/L		Y/VMAX						
0 39	526	24.786	5.771	7.051E-03	.1033	8.4298E-03	.1235	9.3430E-03	.1368	K/L		Y/VMAX						
0 42	517	7.479	1.588	1.938E-03	.0283	2.2649E-03	.0330	2.5533E-03	.0374	K/L		Y/VMAX						
0 51	523	9.843	2.826	2.477E-03	.0363	2.9633E-03	.0434	3.2858E-03	.0481	K/L		Y/VMAX						
0 41	522	21.606	4.388	5.277E-03	.0773	6.3114E-03	.0924	6.9977E-03	.1025	K/L		Y/VMAX						
0 52	519	3.678	.752	4.177E-04	.0134	1.6969E-03	.0161	1.2156E-03	.0178	K/L		Y/VMAX						
0 135	534	47.913	8.578	1.064E-02	.1561	1.2787E-02	.1873	1.4205E-02	.2080	LOWER WING SURFACE-ORBITER		K/C		Y/C				
0 136	574	11.604	2.064	2.537E-03	.0372	3.0363E-03	.0445	3.3679E-03	.0493	K/C		Y/C						
0 137	525	10.431	1.748	2.147E-03	.0314	2.5782E-03	.0376	2.8811E-03	.0418	K/C		Y/C						
0 138	575	7.726	1.418	1.742E-03	.0255	2.0899E-03	.0306	2.3137E-03	.0319	K/C		Y/C						
0 140	574	5.325	.919	1.129E-02	.0165	1.3599E-02	.0198	1.4942E-03	.0219	K/C		Y/C						
0 142	523	2.241	.345	4.521E-04	.0066	5.4888E-04	.0070	5.9974E-04	.0080	K/C		Y/C						
0 149	543	56.113	10.399	1.367E-02	.0919	1.5710E-02	.2392	1.7446E-02	.2561	K/C		Y/C						
0 150	529	15.925	3.101	4.831E-03	.0681	4.5899E-03	.0672	5.0945E-03	.0746	K/C		Y/C						
0 151	528	11.022	2.149	4.044E-03	.0288	3.1894E-03	.0404	3.5172E-03	.0515	K/C		Y/C						
0 152	527	7.459	1.290	1.598E-03	.0233	1.5938E-03	.0279	2.1123E-03	.0309	K/C		Y/C						
0 154	525	4.248	.757	4.362E-04	.0136	1.1132E-03	.0163	1.2349E-03	.0181	K/C		Y/C						
0 157	525	1.881	.335	4.117E-04	.0060	4.9272E-04	.0072	5.4452E-04	.0080	K/C		Y/C						
0 171	552	73.624	13.306	1.692E-02	.2477	2.0383E-02	.2485	2.2711E-02	.3326	K/C		Y/C						
0 172	537	36.032	5.221	6.515E-03	.0954	7.8211E-03	.1166	8.6924E-03	.1273	K/C		Y/C						
0 175	528	6.571	1.314	1.621E-03	.0237	1.9418E-03	.0284	2.1349E-03	.0316	K/C		Y/C						
0 178	525	2.001	.354	4.381E-04	.0064	5.2441E-04	.0077	5.8169E-04	.0085	K/C		Y/C						
0 129	521	12.704	1.916	4.345E-03	.0343	2.8043E-03	.0411	3.1048E-03	.0455	UPPER WING SURFACE-ORBITER		K/C		Y/C				
0 130	518	4.314	.719	6.763E-04	.0128	1.0471E-03	.0153	1.1602E-03	.0170	K/C		Y/C						
0 131	519	2.943	.532	6.967E-04	.0096	7.8490E-04	.0115	8.6978E-04	.0127	K/C		Y/C						
0 132	519	1.614	.364	3.707E-04	.0054	4.4307E-04	.0065	4.9048E-04	.0072	K/C		Y/C						
0 133	519	1.223	.211	2.971E-04	.0038	3.0733E-04	.0045	3.4066E-04	.0050	K/C		Y/C						
0 150	526	16.930	2.561	4.159E-03	.0462	3.7763E-03	.0553	4.1848E-03	.0614	K/C		Y/C						
0 159	576	12.291	1.992	4.893E-03	.0359	2.9269E-03	.0430	3.2589E-03	.0477	K/C		Y/C						
0 160	526	6.506	1.054	1.288E-03	.0190													

NOT REPRODUCIBLE

5/26/71

AEDC (AMO, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 VT1162

ITEM #	NOSE CONFIG		UPSTREAM OF		GUC-H. 31A IN. GAP		IC DEG R 1362	ALPHA-POUCEL -02	ALPHA-SECTOR -02	ALPHA-PREREND 0	ROLL-MOUEL 0	YAW 0
	MOUCL MOUCL	CUC-H-LWU	MACH NO	PO PSIA R58.1	RU-1NF RU-1NF	RU-2NF RU-2NF						
TC NO	TR	HT/MLT	HT/OUT	HT(1)	HT(1)/HREF	HT(1)/HT	HT(1)/HREF	HT(1)/HREF	HT(1)/HREF	HT(1)/HREF	FUSELAGE-HOOSTER A/L	PHI
H 1	597	270.445	41.792	3.531F-02	.8094	6.7270E-02	.9844	7.5942E-02	1.1037	0	0	0
H 2	532	44.321	10.01E	1.236E-02	.1809	1.4812E-02	.2168	1.6444E-02	.2406	.0137	0	0
H 3	537	63.526	11.737	1.457F-02	.2133	1.7490E-02	.2559	1.9434E-02	.2844	.0137	180.000	0
H 4	526	34.181	6.271	7.677F-03	.1123	9.1804E-03	.1344	1.0148E-02	.1491	.0274	0	0
H 5	525	33.007	6.16E	7.546F-03	.1104	9.0286E-03	.1321	1.0012E-02	.1465	.0274	30.000	0
H 6	524	35.625	6.552	8.029F-03	.1175	9.6100E-03	.1406	1.0659E-02	.1560	.0274	60.000	0
H 7	527	34.251	6.346	7.794F-03	.1139	9.3190E-03	.1364	1.0334E-02	.1513	.0274	90.000	0
H 8	526	35.405	6.692	8.199F-03	.1200	9.8122E-03	.1436	1.0843E-02	.1593	.0274	120.000	0
H 9	527	35.944	6.79E	8.336E-03	.1220	9.9782E-03	.1460	1.1049E-02	.1620	.0274	150.000	0
H 10	527	34.551	6.533	8.005E-03	.1172	9.5865E-03	.1403	1.0634E-02	.1556	.0274	180.000	0
H 11	525	27.170	4.945	6.097F-03	.0892	7.2950E-03	.1068	8.0846E-03	.1184	.0406	180.000	0
H 12	521	27.324	4.047	4.945E-03	.0728	5.9437E-03	.0870	6.5866E-03	.0964	.0543	0	0
H 13	521	22.124	4.061	4.881E-03	.0714	5.9107E-03	.0865	6.5506E-03	.0959	.0543	30.000	0
H 14	521	21.901	4.016	4.801E-03	.0714	5.9336E-03	.0854	6.4662E-03	.0946	.0543	60.000	0
H 15	521	22.861	4.190	5.102E-03	.0743	6.0936E-03	.0892	6.7578E-03	.0989	.0543	90.000	0
H 17	523	22.714	4.164	5.079E-03	.0743	6.0732E-03	.0889	6.7323E-03	.0985	.0543	150.000	0
H 18	523	23.124	4.241	5.177F-03	.0758	6.1912E-03	.0906	6.8644E-03	.1005	.0543	180.000	0
H 19	521	14.954	3.470	4.224E-03	.0618	5.0499E-03	.0739	5.5941E-03	.0819	.0670	180.000	0
H 20	519	15.420	2.820	3.423F-03	.0501	4.0894E-03	.0598	4.5304E-03	.0663	.0790	0	0
H 21	528	27.247	5.010	6.153F-03	.0900	7.3040E-03	.1078	8.1750E-03	.1196	.0790	180.000	0
H 22	528	38.034	6.905	8.576F-03	.1255	1.0267E-02	.1502	1.1341E-02	.1667	.0920	180.000	0
H 23	516	12.113	2.211	4.678E-03	.0392	3.1950E-03	.0468	3.3441E-03	.0518	.1030	0	0
H 24	517	12.317	2.250	4.729E-03	.0399	3.2504E-03	.0476	3.4044E-03	.0527	.1030	15.000	0
H 25	517	11.733	2.143	4.595E-03	.0386	3.0986E-03	.0453	3.4314E-03	.0502	.1030	30.000	0
H 26	515	17.005	2.190	4.646F-03	.0387	3.1505E-03	.0462	3.4970E-03	.0512	.1030	45.000	0
H 27	516	11.973	2.18E	4.644E-03	.0387	3.1500E-03	.0462	3.4957E-03	.0512	.1030	60.000	0
H 28	516	11.754	2.147	4.600E-03	.0386	3.1041E-03	.0464	3.4477E-03	.0503	.1030	75.000	0
H 29	517	12.175	2.224	4.694F-03	.0394	3.2173E-03	.0471	3.5633E-03	.0521	.1030	90.000	0
H 30	518	12.154	2.22E	4.702E-03	.0395	3.2270E-03	.0472	3.5744E-03	.0523	.1030	105.000	0
H 31	518	12.047	2.19E	4.667E-03	.0390	3.1866E-03	.0466	3.5286E-03	.0516	.1030	120.000	0
H 32	516	7.420	1.354	3.035E-03	.0240	1.9952E-03	.0286	2.1051E-03	.0317	.1030	135.000	0
H 33	524	17.747	6.938	8.517E-03	.1246	1.0107E-02	.1492	1.1313E-02	.1655	.1030	150.000	0
H 34	525	13.322	6.11E	4.486F-03	.0365	2.9597E-03	.0431	3.0319E-03	.0453	.1030	165.000	0
H 35	527	40.977	7.52E	9.233E-03	.0612	1.5052E-02	.0717	1.6260E-02	.0794	.1030	180.000	0
H 37	519	18.834	3.445	4.183E-03	.0312	2.5074E-03	.0371	2.8061E-03	.0402	.1030	180.000	0
H 38	509	7.171	1.304	1.564E-03	.0229	1.5074E-03	.0273	1.6017E-03	.0302	.1030	0	0
H 39	514	8.863	1.616	1.950E-03	.0285	1.9265E-03	.0341	2.0759E-03	.0377	.1030	180.000	0
H 40	511	5.324	.884	1.062E-03	.0183	1.2266E-03	.0217	1.4012E-03	.0205	.1860	180.000	0
H 41	507	4.063	.846	1.013E-03	.0140	1.2064E-03	.0185	1.3341E-03	.0195	.1690	0	0
H 42	507	3.761	.753	9.615E-04	.0132	1.0741E-03	.0187	1.1878E-03	.0194	.1690	15.000	0
H 43	507	4.157	.799	9.566E-04	.0140	1.1262E-03	.0187	1.2602E-03	.0194	.1690	30.000	0
H 44	507	4.150	.813	9.727E-04	.0142	1.1596E-03	.0190	1.2881E-03	.0200	.1690	45.000	0
H 45	508	4.415	.826	9.891E-04	.0146	1.2170E-03	.0192	1.3202E-03	.0201	.1690	60.000	0
H 46	509	4.050	.759	9.113E-04	.0133	1.0904E-03	.0189	1.2018E-03	.0197	.1690	75.000	0
H 47	511	3.881	.727	8.753E-04	.0120	1.0406E-03	.0183	1.1582E-03	.0190	.1690	90.000	0
H 48	509	2.744	.514	6.164E-04	.0090	7.2300E-04	.0108	8.1320E-04	.0119	.1690	90.000	0
H 49	511	6.007	1.125	1.353E-03	.0190	1.0113E-03	.0240	1.1784E-03	.0261	.1690	105.000	0
H 50	512	9.366	1.757	2.116E-03	.0310	2.5262E-03	.0369	2.7915E-03	.0409	.1690	120.000	0
H 51	514	11.851	2.294	2.773E-03	.0406	3.0091E-03	.0464	3.6615E-03	.0526	.1690	135.000	0
H 52	513	9.654	1.818	2.191E-03	.0321	2.6112E-03	.0383	2.6919E-03	.0423	.1690	150.000	0
H 53	515	6.300	1.805	1.469E-02	.0250	1.7021E-02	.0297	1.9572E-02	.0304	.1690	165.000	0
H 400	510	2.889	.682	5.791E-04	.0095	6.9044E-04	.0101	7.6380E-04	.0112	.2420	0	0
H 402	511	1.661	.311	3.743E-04	.0059	4.6031E-04	.0065	4.9380E-04	.0072	.2420	30.000	0
H 404	513	4.563	.895	1.079E-03	.0140	1.2070E-03	.0180	1.4256E-03	.0209	.2420	60.000	0
H 406	513	1.452	.268	1.190E-04	.0047	1.2010E-04	.0064	1.4227E-04	.0082	.2420	90.000	0
H 407	514	4.583	.868	1.039E-03	.0132	1.2330E-03	.0181	1.3726E-03	.0201	.2420	105.000	0
H 408	515	5.944	1.107	1.418E-03	.0200	1.6002E-03	.0246	1.8640E-03	.0273	.2420	120.000	0
H 409	518	12.466	2.445	4.972E-03	.0425	5.0002E-03	.0519	5.9326E-03	.0575	.2420	135.000	0
H 410	518	12.693	2.366	4.885E-03	.0423	4.8498E-03	.0505	5.8216E-03	.0564	.2420	150.000	0
H 411	519	13.517	2.461	4.232E-03	.0472	4.8858E-03	.0569	4.2758E-03	.0584	.2420	165.000	0
H 412	518	12.845	2.404	4.017E-03	.0462	4.0448E-03	.0547	3.9977E-03	.0584	.2420	180.000	0
H 413	514	7.232	.431	3.201E-04	.0076	3.6206E-04	.0091	4.0708E-04	.0101	.2830	0	0
H 415	516	1.311	.262	1.171E-04	.0040	1.2786E-04	.0050	1.4191E-04	.0061	.2830	30.000	0
H 417	519	2.954	.509	6.142E-04	.0090	7.2000E-04	.0108	8.1820E-04	.0120	.2830	60.000	0
H 419	518	5.416	.993	1.204E-03	.0170	1.4026E-03	.0210	1.5956E-03	.0233	.2830	90.000	0
H 420	516	6.077	1.167	1.413E-03	.0207	1.6007E-03	.0247	1.8083E-03	.0273	.2830	90.000	0
H 421	523	12.244	2.047	4.497E-03	.0369	4.9200E-03	.0437	3.1108E-03	.0473	.2830	105.000	0
H 422	521	8.938	1.636	1.992E-03	.0291	2.0011E-03	.0348	2.6305E-03	.0386	.2830	120.000	0
H 423	521	8.058	1.435	1.989E-03	.0291	2.0770E-03	.0348	2.6346E-03	.0386	.2830	135.000	0
H 424	523	11.442	2.227	2.711E-03	.0397	3.2401E-03	.0470	1.8979E-03	.0526	.2830	150.000	0
H 425	522	12.274	2.381	2.902E-03	.0423	3.0602E-03	.0500	3.0408E-03	.0563	.2830	165.000	0
H 426	517	2.044	.482	9.877E-04	.0071	9.820E-04	.0085	1.0100E-03	.0094	.3160	0	0
H 428	519	1.314	.266	1.150E-04	.0040	1.2770E-04	.0050	1.4100E-04	.0061	.3160	30.000	0
H 430	519	1.552	.292	1.347E-04	.0042	1.4180E-04	.0052	1.5600E-04	.0064	.3160	60.000	0
H 432	519	4.250	1.573	4.058E-04	.0089	4.6920E-04	.0106	5.2520E-04	.0118	.3160	90.000	0
H 433	513	2.021	.504	9.598E-04	.0089	1.0791E-03	.0106	1.2000E-03	.0118	.3160	105.000	0
H 434	521	12.404	1.470	4.397E-03	.0391	4.8000E-03	.0469	3.1766E-03	.0505	.3160	120.000	0
H 435	517	4.809	.904	1.096E-03	.0180	1.2000E-03	.0219	1.4443E-03	.0212	.3160	135.000	0
H 436	520	9.104	1.794	4.181E-03	.0319	4.2000E-03	.0391	2.6800E-03	.0423	.3160	150.000	0
H 437	519	4.224	1.787	4.172E-03	.0319	4.2000E-03	.0391	2.6766E-03	.0421	.3160	165.000	0
H 438	520	9.16E	1.794	4.182E-03	.0319	4.2000E-03	.0391	2.6766E-03	.0421	.3160	180.000	0
H 439	517	2.065	.486	9.919E-04	.0072	9.8700E-04	.0084	1.0100E-03	.0094	.3840	0	0
H 441	518	1.441	.295	1.375E-04	.0052	1.4700E-04	.0062	1.6100E-04	.0074	.3840	30.000	0
H 443	519	1.225	.19E	4.401E-04	.0035	2.8000E-04	.0042	3.1770E-04	.0047	.3840	60.000	0
H 445	523	10.744	1.421	4.343E-03	.0343	4.8019E-03	.0410	3.1050E-03	.0454	.3840	90.000	0
H 446	519	6.1										

50 INCH HYPERSONIC TUNNEL H
V1162

CONF ID		NO. IN.	UPSTAIR	GDC-B	IN.	GAP	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREEMD	HOLL-MODEL	YAW
707		227	NO.	31M	NO.	1345	.05	.05	0	0	0
T-INF		P-INF	U-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF-FR	STFW	SWITCH	POSITION
(DEG H)		(PSIA)	(PSIA)	(F/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(IN +009FT)	(IN +009FT)	POSITION	2
97.5		.000	3.436	3.470	7.562E-05	7.848E-08	3.73E 06	6.835E-02	2.933E-02		
TC NO	TW	UTWL	U-DUT	H(TO)	H(TO)/HREF	H(.910)	H(.910)/HREF	H(.8510)	H(.8510)/HREF	FUSELAGE-BOOSTER	
H 460	509	11.31V	2.058	2.462E-03	.0360	2.9340E-03	.0429	3.2451E-03	.0475	A/L	PHI
H 461	506	5.424	.995	1.185E-03	.0173	1.4112E-03	.0706	1.5600E-03	.0423	.3800	120.000
H 462	506	5.507	1.029	1.226E-03	.0179	1.4596E-03	.0214	1.6135E-03	.0236	.3800	135.000
H 463	507	7.17E	1.342	1.601E-03	.0234	1.9073E-03	.0279	2.1040E-03	.0309	.3800	150.000
H 464	506	7.654	1.431	1.705E-03	.0250	2.0311E-03	.0247	2.2456E-03	.0329	.3800	165.000
H 106	516	1.347	.260	3.138E-04	.0046	3.7448E-04	.0055	4.1461E-04	.0061	.4400	0
H 109	516	4.93U	1.813	2.187E-03	.0320	2.6101E-03	.0382	2.8900E-03	.0423	.4400	90.000
H 110	514	8.17V	1.492	1.795E-03	.0263	2.1414E-03	.0313	2.3703E-03	.0347	.4400	120.000
H 111	512	3.445	.628	7.530E-04	.0110	8.9792E-04	.0131	9.9354E-04	.0145	.4400	150.000
H 112	512	5.837	1.063	1.276E-03	.0187	1.5219E-03	.0223	1.6840E-03	.0246	.4400	180.000
H 113	519	1.008	.198	2.401E-04	.0035	2.8680E-04	.0042	3.1769E-04	.0046	.4800	0
H 116	519	7.847	1.393	1.687E-03	.0247	2.0147E-03	.0295	2.2319E-03	.0327	.4800	90.000
H 117	516	5.447	.994	1.198E-03	.0175	1.4304E-03	.0209	1.5837E-03	.0232	.4800	120.000
H 118	514	3.061	.558	6.715E-04	.0098	8.0116E-04	.0117	8.8677E-04	.0130	.4800	150.000
H 119	514	5.172	.943	1.134E-03	.0166	1.3534E-03	.0196	1.4940E-03	.0214	.4800	180.000
H 120	520	.744	.147	1.777E-04	.0026	2.1225E-04	.0031	2.3514E-04	.0034	.5200	0
H 195	531	16.301	3.310	4.065E-03	.0595	4.8698E-03	.0712	5.4046E-03	.0791	.5500	43.000
H 127	521	5.731	1.050	1.274E-03	.0186	1.5228E-03	.0223	1.6875E-03	.0247	.5500	90.000
H 128	520	5.245	.960	1.163E-03	.0170	1.3892E-03	.0203	1.5390E-03	.0225	.5500	105.000
H 129	517	4.224	.771	5.309E-04	.0136	1.1113E-03	.0163	1.2306E-03	.0180	.5500	120.000
H 130	514	2.852	.520	6.257E-04	.0092	7.4651E-04	.0109	8.2629E-04	.0121	.5500	150.000
H 131	511	4.168	.755	5.042E-04	.0132	1.0790E-03	.0138	1.1926E-03	.0174	.5500	180.000
H 138	524	4.180	.771	5.388E-04	.0137	1.1227E-03	.0164	1.2446E-03	.0182	.6250	90.000
H 139	522	3.168	.569	4.910E-04	.0101	6.2590E-04	.0121	6.1522E-04	.0134	.6250	105.000
H 140	517	2.184	.400	4.827E-04	.0071	5.7632E-04	.0084	6.3820E-04	.0093	.6250	120.000
H 141	515	2.564	.448	5.631E-04	.0082	6.7191E-04	.0098	7.4378E-04	.0109	.6250	150.000
H 142	513	7.484	.454	5.452E-04	.0080	6.5037E-04	.0095	7.1478E-04	.0105	.6250	180.000
H 150	524	5.745	1.054	1.283E-03	.0180	1.5345E-03	.0225	1.7011E-03	.0249	.7000	90.000
H 151	522	4.116	.754	4.156E-04	.0134	1.0943E-03	.0160	1.2127E-03	.0177	.7000	105.000
H 152	520	1.987	.364	4.404E-04	.0084	5.2615E-04	.0077	5.8288E-04	.0085	.7000	120.000
H 153	517	1.746	.319	3.850E-04	.0056	4.5958E-04	.0057	5.0891E-04	.0074	.7000	150.000
H 154	514	1.031	.183	2.197E-04	.0032	2.6211E-04	.0038	2.9014E-04	.0042	.7000	180.000
H 159	527	6.503	1.160	1.417E-03	.0207	1.6960E-03	.0248	1.8810E-03	.0275	.7700	90.000
H 160	523	3.505	.624	1.583E-04	.0111	9.0667E-04	.0133	1.0050E-03	.0147	.7700	120.000
H 161	519	1.240	.220	2.662E-04	.0039	3.1796E-04	.0047	3.5219E-04	.0052	.7700	150.000
H 162	516	.354	.064	1.667E-05	.0011	9.1320E-05	.0013	1.0134E-04	.0015	.7700	180.000
H 171	524	2.211	.407	4.951E-04	.0072	5.9204E-04	.0087	6.5630E-04	.0096	.8950	120.000
H 172	521	.516	.105	1.260E-04	.0019	1.5298E-04	.0022	1.6952E-04	.0025	.8950	150.000
H 200	544	54.287	8.377	1.049E-02	.1529	1.2556E-02	.1837	1.3964E-02	.2043	1.0000	.100
H 201	512	14.945	1.749	2.151E-03	.0315	2.5768E-03	.0377	2.8802E-03	.0418	.2000	.100
H 202	520	9.956	1.401	1.719E-03	.0252	2.0988E-03	.0301	2.2946E-03	.0334	.3300	.100
H 203	529	3.331	.690	6.454E-04	.0124	1.0122E-03	.0148	1.1230E-03	.0164	.4000	.100
H 204	528	4.446	.782	6.579E-04	.0140	1.1470E-03	.0168	1.2726E-03	.0186	.6000	.100
H 205	528	3.909	.697	6.538E-04	.0125	1.0218E-03	.0149	1.1335E-03	.0166	.7000	.100
H 206	510	3.920	.653	6.013E-04	.0117	9.5958E-04	.0140	1.0488E-03	.0156	.9100	.100
H 207	510	4.744	.452	5.944E-04	.0081	6.2400E-04	.0097	7.3648E-04	.0108	.0	.250
H 217	564	97.444	12.093	1.549E-02	.2246	1.8711E-02	.2738	2.0844E-02	.3056	.0500	.200
H 218	519	44.990	6.405	5.465E-03	.0800	6.5600E-03	.0960	7.2902E-03	.1067	.1000	.200
H 219	515	26.314	2.571	3.171E-03	.0464	3.8014E-03	.0556	4.2213E-03	.0618	.2000	.200
H 220	512	14.038	1.263	1.552E-03	.0227	1.8600E-03	.0272	2.0645E-03	.0302	.6000	.200
H 221	529	3.991	.777	6.328E-04	.0139	1.1405E-03	.0167	1.2653E-03	.0185	.6000	.200
H 222	528	1.763	.314	4.848E-04	.0056	4.6059E-04	.0067	5.1092E-04	.0075	.7000	.200
H 223	528	1.231	.210	2.573E-04	.0038	3.0802E-04	.0045	3.4169E-04	.0050	.7000	.200
H 230	561	109.835	15.112	1.927E-02	.2820	2.3266E-02	.3404	2.5954E-02	.3797	.0	.250
H 231	533	22.858	2.489	3.309E-03	.0464	3.9661E-03	.0580	4.4030E-03	.0644	.1000	.250
H 232	510	3.660	.713	6.743E-04	.0128	1.0470E-03	.0153	1.1617E-03	.0170	.4000	.250
H 233	529	2.917	.552	6.763E-04	.0094	8.0776E-04	.0118	8.9836E-04	.0131	.5000	.250
H 234	529	2.272	.418	5.117E-04	.0075	6.1265E-04	.0090	6.7468E-04	.0099	.6000	.250
H 235	531	1.240	.090	1.104E-04	.0016	1.3222E-04	.0019	1.4672E-04	.0021	.6000	.250
H 236	531	1.020	.132	1.615E-04	.0024	1.9344E-04	.0028	2.1466E-04	.0031	.8330	.250
H 237	530	1.514	.123	1.508E-04	.0022	1.8063E-04	.0026	2.0044E-04	.0029	.8670	.250
H 238	530	1.277	.098	1.203E-04	.0018	1.4409E-04	.0021	1.5488E-04	.0023	.9010	.250
H 248	573	104.020	12.442	1.612E-02	.2358	1.9521E-02	.2856	2.1824E-02	.3193	.9350	.250
H 249	533	14.774	1.802	2.218E-03	.0325	2.6587E-03	.0389	2.9516E-03	.0432	.0	.300
H 250	515	13.434	1.516	1.871E-03	.0274	2.2429E-03	.0328	2.4907E-03	.0384	.1000	.300
H 251	531	4.464	.870	1.069E-03	.0156	1.2810E-03	.0187	1.4218E-03	.0208	.2000	.300
H 252	531	3.020	.599	1.355E-04	.0108	8.8109E-04	.0129	9.7791E-04	.0143	.4000	.300
H 263	572	137.708	17.143	2.210E-02	.3242	2.6825E-02	.3925	2.9490E-02	.4386	.6000	.300
H 264	518	21.127	2.584	3.198E-03	.0468	3.8377E-03	.0561	4.2636E-03	.0624	.0	.400
H 265	534	4.811	.861	1.061E-03	.0155	1.2720E-03	.0186	1.4123E-03	.0207	.1000	.400
H 266	513	2.845	.565	4.956E-04	.0102	8.3363E-04	.0122	9.2548E-04	.0135	.6000	.400
H 277	508	156.216	15.260	2.020E-02	.2956	2.4579E-02	.3596	2.7566E-02	.4033	.0	.500
H 278	539	20.827	2.742	3.401E-03	.0498	4.0823E-03	.0597	4.5367E-03	.0664	.1000	.500
H 279	539	12.174	1.490	1.847E-03	.0270	2.2173E-03	.0324	2.4639E-03	.0360	.2000	.500
H 280	534	4.342	.848	1.044E-03	.0153	1.2516E-03	.0183	1.3896E-03	.0203	.4000	.500
H 281	534	3.876	.736	9.074E-04	.0133	1.0878E-03	.0159	1.2079E-03	.0177	.5000	.500
H 282	535	3.311	.625	7.644E-04	.0114	9.3103E-04	.0136	1.0340E-03	.0151	.6000	.500
H 283	534	3.742	.355	4.379E-04	.0064	5.2495E-04	.0077	5.8289E-04	.0085	.6000	.500
H 294	540	146.040	19.061	2.490E-02	.3643	3.0210E-02	.4420	3.3814E-02	.4947	.0	.600
H 297	540	26.056	3.510	4.357E-03	.0637	5.2298E-03	.0765	5.8124E-03	.0850	.1000	.600
H 298	539	18.045	2.189	2.717E-03	.0397	3.2612E-03	.0477	3.6243E-03	.0530	.2000	.600
H 299	537	7.315	.524	6.485E-04	.0095	7.7797E-04	.0114	8.6423E-04	.0126	.4000	.600
H 300	539	3.037	.537	6.657E-04	.0097	7.9900E-04	.0117	8.8790E-04	.0130	.6000	.600
H 301	537	3.665	.349	5.316E-04	.0063	5.1778E-04	.0076	5.7525E-04	.0084	.6000	.600
H 302	537	2.933	.279	4.451E-04	.0050	4.1399E-04	.0061	4.5941E-04	.0067	.7930	.600
H 315	550	54.362	5.712	1.855E-03	.1051	8.6492E-03	.1265	9.6300E-03	.1409	.8510	.600
H 316	546	23.741	2.444	3.119E-03	.0456	3.7497E-03	.0549	4.1716E-03	.0610	.1000	.700
H 317	522	4.066	.665	6.275E-04	.0121	7.9401E-04	.0145	1.1052E-03	.0162	.2000	.700
H 350	510	84.050	1.960	7.761E-03	.1428	1.1609E-02	.1710	1.2971E-02	.1898	.0	.250

NOT REPRODUCIBLE

50 INCH DIMENSIONAL CHANNEL
V11162

TC NO	TW	UTMCL	G-1001	H(TO)	H(TO)/HHEF	F(.910)	H(.910)/HHEF	H(.85TO)	H(.45TO)/HHEF	FUSELAGE-ORBITER K/L	Y/YMAX
0 1	596	240.864	44.496	5.931E-02	.0673	7.2274E-02	1.0569	8.1144E-02	1.1866	0	0
0 2	531	240.864	13.330	1.635F-02	.2391	1.9580E-02	.2863	2.1724E-02	.3177	.0100	0
0 7	514	240.864	5.217	0.268E-03	.0917	7.4773E-03	.1093	8.2759E-03	.1210	.0300	0
0 12	407	11.622	2.234	2.662F-03	.0389	3.1699E-03	.0464	3.5045E-03	.0512	.0500	0
0 19	500	1.471	.771	3.203E-04	.0047	3.8093E-04	.0056	4.2075E-04	.0062	.1000	0
0 29	591	3.660	.643	1.605E-04	.0111	9.0492E-04	.0132	9.9416E-04	.0146	.2000	0
0 44	542	22.193	14.331	1.783E-02	.2607	2.1410E-02	.3131	2.3080E-02	.3482	.3000	0
0 54	528	25.712	5.006	0.122F-03	.0895	7.3284E-03	.1072	8.1244E-03	.1189	.4000	0
0 66	522	14.431	2.643	3.207E-03	.0469	3.8326E-03	.0560	4.2470E-03	.0621	.5000	0
0 76	520	11.726	1.892	2.297E-03	.0336	2.7443E-03	.0401	3.0402E-03	.0445	.6000	0
0 89	522	4.435	1.777	2.152E-03	.0315	2.5712E-03	.0376	2.8485E-03	.0417	.7000	0
0 98	523	7.457	1.286	1.539E-03	.0225	1.8394E-03	.0269	2.0344E-03	.0298	.8000	0
0 104	520	2.431	.432	3.227E-04	.0076	6.2450E-04	.0091	6.9144E-04	.0101	.9000	0
0 114	519	1.824	.193	2.331E-04	.0034	2.7844E-04	.0041	3.0842E-04	.0045	.9500	0
0 20	502	1.739	.130	1.537E-04	.0022	1.8240E-04	.0027	2.0208E-04	.0030	.9900	0
0 31	502	2.641	.526	0.240E-04	.0091	7.4244E-04	.0109	8.2036E-04	.0120	.9900	-.303
0 46	547	25.340	17.761	2.224E-02	.3292	2.6744E-02	.3911	2.9790E-02	.4352	.2000	-.466
0 56	527	16.277	3.165	3.862E-03	.0565	4.6214E-03	.0676	5.1250E-03	.0749	.4000	-.504
0 69	519	10.657	1.950	2.358E-03	.0345	2.8172E-03	.0412	3.1247E-03	.0456	.6000	-.526
0 83	519	5.365	1.039	1.257E-03	.0186	1.5013E-03	.0220	1.6670E-03	.0243	.5000	-.748
0 92	522	4.670	.857	1.040E-03	.0152	1.2424E-03	.0182	1.3747E-03	.0201	.6000	-.704
0 101	523	3.982	.816	9.918E-04	.0145	1.1854E-03	.0173	1.3143E-03	.0192	.7000	-.669
0 107	521	2.453	.436	5.283E-04	.0077	6.3124E-04	.0092	6.9941E-04	.0102	.8000	-.678
0 117	521	1.946	.377	4.569E-04	.0067	5.4599E-04	.0080	6.0494E-04	.0088	.9000	-.660
0 5	514	34.122	5.302	0.383E-03	.0933	7.6153E-03	.1114	8.4292E-03	.1233	.0100	0
0 10	512	28.241	4.993	3.988E-03	.0876	7.1407E-03	.1044	7.9012E-03	.1155	.0300	0
0 24	513	16.138	3.027	3.633E-03	.0531	4.3327E-03	.0634	4.7946E-03	.0701	.1000	0
0 28	514	16.921	2.632	3.165E-03	.0463	3.7760E-03	.0552	4.1795E-03	.0611	.1500	0
0 35	521	20.214	3.593	4.356E-03	.0637	5.2062E-03	.0761	5.7688E-03	.0844	.2000	0
0 36	548	108.744	17.834	2.236E-02	.3269	2.6889E-02	.3933	2.9946E-02	.4377	.2100	0
0 37	592	204.051	37.632	4.990E-02	.7297	6.0744E-02	.8883	6.8147E-02	.9965	.2200	0
0 38	569	132.824	21.288	2.741E-02	.4008	3.3158E-02	.4849	3.7041E-02	.5417	.2300	0
0 40	525	8.055	1.261	1.535E-03	.0224	1.8355E-03	.0268	2.0349E-03	.0298	.2500	0
0 53	524	4.847	.156	1.822E-04	.0027	2.1782E-04	.0032	2.4147E-04	.0035	.2800	0
0 62	524	4.456	.698	0.504E-04	.0124	1.0173E-03	.0149	1.1280E-03	.0165	.4000	0
0 75	524	4.643	1.711	2.089E-03	.0306	2.4988E-03	.0365	2.7702E-03	.0405	.5000	0
0 87	524	4.852	1.701	2.071E-03	.0303	2.4763E-03	.0362	2.7453E-03	.0401	.6000	0
0 96	524	4.241	1.476	1.795E-03	.0263	2.1466E-03	.0314	2.3796E-03	.0348	.7000	0
0 111	521	2.460	.398	4.821E-04	.0070	5.7808E-04	.0084	6.3834E-04	.0093	.9000	.610
0 120	510	14.522	1.650	4.021E-03	.0296	4.2206E-03	.0354	2.6457E-03	.0393	.9900	.305
0 4	513	26.871	4.003	4.807E-03	.0703	5.7340E-03	.0839	6.3457E-03	.0928	.0100	1.000
0 14	509	14.255	3.124	3.732E-03	.0546	4.4667E-03	.0650	4.9179E-03	.0719	.0500	1.000
0 22	508	11.001	1.940	2.314E-03	.0330	2.7867E-03	.0403	3.0482E-03	.0446	.1000	1.000
0 28	508	8.639	1.524	1.818E-03	.0266	2.1695E-03	.0317	2.3745E-03	.0318	.4000	1.000
0 48	522	8.091	1.352	1.640E-03	.0240	1.9004E-03	.0287	2.1725E-03	.0318	.2000	1.000
0 59	525	15.265	2.883	3.512E-03	.0514	4.2000E-03	.0614	4.6565E-03	.0681	.3000	1.000
0 72	523	27.894	5.566	0.764E-03	.0989	8.0879E-03	.1183	8.9641E-03	.1311	.4000	1.000
0 78	522	14.440	2.187	2.654E-03	.0380	3.1728E-03	.0404	3.5161E-03	.0411	.5000	1.000
0 85	519	9.089	1.614	1.952E-03	.0285	2.3314E-03	.0341	2.5825E-03	.0378	.6000	1.000
0 77	516	5.236	.815	9.816E-04	.0144	1.1714E-03	.0171	1.2949E-03	.0190	.5500	1.000
0 84	517	5.230	1.040	1.255E-03	.0184	1.4904E-03	.0219	1.6593E-03	.0243	.6000	1.000
0 94	520	4.683	1.036	1.220E-03	.0178	1.4590E-03	.0213	1.6152E-03	.0236	.7000	1.000
0 39	530	29.604	5.767	1.064E-03	.1033	8.6980E-03	.1237	9.3843E-03	.1372	.2400	.484
0 42	524	8.149	1.627	1.980E-03	.0290	2.3882E-03	.0346	2.6254E-03	.0384	.2700	.465
0 51	528	9.900	2.034	2.487E-03	.0364	2.9772E-03	.0435	3.3025E-03	.0483	.3000	.433
0 41	530	21.635	4.333	3.312E-03	.0777	6.3617E-03	.0930	7.0592E-03	.1032	.2700	.465
0 52	525	3.524	.723	0.808E-04	.0129	1.0537E-03	.0154	1.1683E-03	.0171	.3000	.361
0 135	537	51.567	9.248	1.144E-02	.1673	1.3722E-02	.2007	1.5245E-02	.2229	0	.250
0 136	526	13.550	2.615	2.497E-03	.0431	3.5250E-03	.0516	3.9098E-03	.0572	.1000	.250
0 137	525	1.517	1.257	1.531E-03	.0224	1.8355E-03	.0268	2.0349E-03	.0298	.2000	.250
0 138	526	4.422	1.730	2.110E-03	.0309	2.3240E-03	.0369	2.7949E-03	.0409	.4000	.250
0 140	526	7.950	1.375	1.679E-03	.0245	2.0042E-03	.0293	2.2233E-03	.0325	.6000	.250
0 142	519	3.348	.548	0.635E-04	.0097	7.9291E-04	.0116	8.7189E-04	.0128	.9000	.250
0 149	543	62.211	11.531	1.436E-02	.2100	1.7292E-02	.2523	1.9184E-02	.2805	0	.500
0 150	510	17.735	3.455	4.231E-03	.0619	5.0660E-03	.0741	5.6210E-03	.0822	.1000	.500
0 151	528	9.322	1.814	2.216F-03	.0324	2.6922E-03	.0388	2.9418E-03	.0430	.2000	.500
0 152	530	12.937	2.240	2.744E-03	.0401	3.2899E-03	.0481	3.6458E-03	.0533	.4000	.500
0 154	526	7.186	1.290	1.561E-03	.0228	1.8670E-03	.0273	2.0701E-03	.0303	.6000	.500
0 157	523	3.178	.565	0.847E-04	.0100	8.1021E-04	.0120	9.0640E-04	.0133	.9000	.500
0 171	543	75.628	13.640	1.726E-02	.3292	2.0788E-02	.3040	2.3156E-02	.3386	0	.750
0 172	537	31.417	5.463	6.752E-03	.0987	8.1001E-03	.1185	8.9981E-03	.1316	.1000	.750
0 175	526	4.711	.941	1.149E-03	.0168	1.3742E-03	.0201	1.5240E-03	.0223	.4000	.750
0 178	523	2.066	.376	4.496E-04	.0066	5.3790E-04	.0079	5.9574E-04	.0087	.8000	.750
0 129	522	11.044	1.976	2.399E-03	.0391	2.8871E-03	.0469	3.1744E-03	.0465	.1000	.100
0 130	521	5.734	.957	1.160E-03	.0170	1.3880E-03	.0203	1.5337E-03	.0225	.2000	.100
0 131	521	1.170	.541	1.038E-04	.0103	8.5109E-04	.0123	9.3197E-04	.0136	.4000	.100
0 132	519	2.086	.393	7.745E-04	.0069	9.6671E-04	.0083	6.2768E-04	.0092	.7000	.100
0 133	516	1.671	.287	3.463E-04	.0051	6.1309E-04	.0060	4.5715E-04	.0067	.9000	.100
0 150	529	17.861	2.708	3.310E-03	.0685	3.9670E-03	.0580	4.4409E-03	.0644	.9000	.500
0 150	529	12.319	1.498	2.446E-03	.0398	2.9277E-03	.0428	3.2410E-03	.0475	.2000	.500
0 160	527	8.965	1.458	1.781E-03	.0261	2.1320E-03	.0312	2.3644E-03	.0346	.4000	.500
0 161	525	2.117	.305	4.490E-04	.0065	5.3222E-04	.0078	5.9099E-04	.0086	.6000	.500
0 162	521	3.825	.515	0.245F-04	.0091	7.4631E-04	.0109	8.2646E-04	.0121	.9000	.500
0 187	544	128.381	21.222	2.712E-02	.3966	3.6798E-02	.4790	3.6992E-02	.5345	0	.100
0 188	531	19.112	3.312	4.060E-03	.0999	4.0701E-03	.0712	5.4049E-03	.0790	.1000	.100
0 189	526	4.245	.711	0.665E-04	.0127	1.0367E-03	.0152	1.1495E-03	.0168	.4000	.100
0 192	529	49.527	11.224	2.190F-02	.3203	2.6421E-02	.3804	2.9420E-02	.4308	0	.250
0 193	534	23.947	4.194	3.120F-03	.0749	6.1376E-03	.0898	6.8145E-03	.0997	.1000	.250
0 194	526	0.143	1.039	1.272E-03	.0106	1.3224E-03	.0223	1.6890E-03	.0247	.4000	.250
0 197	540	40.893	7.551	3.369F-03	.1370	1.1267E-02	.1645	1.2900E-02	.1828	.1000	.500
0 198	529	5.729	1.022	1.251E-03	.0103	1.4987E-03	.0219	1.6011E-03	.0243	.4000	.500
0 201	523	14.072	2.127	3.428E-03	.0594	4.2720E-03	.0647	4.7795E-03	.0693	0	.750
0 202	540	62.807	7.216	4.063E-03	.1325						

ALUC (AND INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 V11162

RUN H	DNO NOSE CONFIG 807	2.22 IN. MODEL EUC-H-UWU	UPSTREAM OF MACH NO 7.93	GDC-R, .234 IN. GAP MU PSIA 153.0	IU DEG H 1277	ALPHA-PODEL		ALPHA-VECTOR		ALPHA-PRECOND		ROLL-MODEL	YAW
						-04	-04	-04	-04				
T-1AF (DEG H) 94.1	P-1NF (MSIA) 0.017	U-1NF (PSIA) 0.730	V-1NF (F/SEC) 374V	RHO-1NF (SLUGS/FT ³) 1.480E-05	MU-1NF (LB-MEG/FT ²) 7.573E-08	RE/FT (FT-1) 7.37E 05	MREF-FH (H= .009FT) 2.918E-02	SIFR (H= .009FT) 6.549E-02	SWITCH POSITION 1	FUSELAGE-BOOSTER X/L PHI			
TC NO	TW	DTMCI	U-COIT	M(TO)	M(TO)/MREF M(1.970)	M(1.970)/MREF	M(1.970)	M(1.970)	M(1.970)	M(1.970)	M(1.970)		
H 1	544	87.535	10.345	2.298E-02	.7876	2.7991E-02	.9593	3.1416E-02		1.0767			
H 2	516	20.864	J.853	5.199E-03	.1782	6.2020E-03	.2152	7.0122E-03		.2403			
H 3	519	24.720	0.571	0.190E-03	.2121	7.0030E-03	.2505	8.3576E-03		.2004			
H 4	514	13.325	2.458	J.307E-03	.1133	J.9930E-03	.1360	4.4563E-03		.1527			
H 5	514	17.124	2.346	J.155E-03	.1081	J.8002E-03	.1305	4.2498E-03		.1436			
H 6	514	13.372	2.406	J.316E-03	.1136	4.0037E-03	.1372	4.4008E-03		.1531			
H 7	515	13.653	2.410	J.386E-03	.1109	4.0084E-03	.1401	4.5014E-03		.1563			
H 8	516	14.105	2.679	J.610E-03	.1437	4.3604E-03	.1494	4.8661E-03		.1660			
H 9	516	14.445	2.745	J.702E-03	.1290	4.6725E-03	.1533	4.9910E-03		.1711			
H 10	514	10.082	2.675	J.603E-03	.1235	4.3516E-03	.1491	4.8561E-03		.1604			
H 11	514	10.561	1.948	4.622E-03	.0894	J.1059E-03	.1005	3.5325E-03		.1211			
H 12	511	8.559	1.575	2.110E-03	.0723	2.5493E-03	.0872	2.8464E-03		.0973			
H 13	530	8.520	1.576	2.110E-03	.0723	2.5493E-03	.0872	2.8464E-03		.0973			
H 14	510	8.886	1.636	2.190E-03	.0751	2.4419E-03	.0905	2.8498E-03		.1010			
H 15	511	8.694	1.601	2.148E-03	.0735	2.3888E-03	.0887	2.8062E-03		.0999			
H 16	512	8.810	1.614	2.170E-03	.0744	2.4188E-03	.0894	2.9203E-03		.1001			
H 17	511	8.212	1.516	2.184E-03	.0749	2.4366E-03	.0904	2.9407E-03		.1008			
H 18	527	5.821	1.071	4.032E-03	.0690	2.4813E-03	.0840	2.7336E-03		.0937			
H 19	515	14.100	J.313	1.424E-03	.0589	1.7700E-03	.0590	2.7336E-03		.0937			
H 20	514	17.064	J.313	4.498E-03	.1542	5.4322E-03	.1862	1.9116E-02		.0657			
H 21	525	4.342	.797	1.059E-03	.0528	5.3827E-03	.1845	6.0673E-03		.2070			
H 22	525	4.544	.844	1.122E-03	.0385	1.2756E-03	.0437	6.0050E-03		.2058			
H 23	525	4.547	.844	1.122E-03	.0385	1.2756E-03	.0437	6.0050E-03		.2058			
H 24	523	4.465	.818	1.088E-03	.0385	1.2519E-03	.0463	1.5057E-03		.0516			
H 25	524	4.578	.840	1.114E-03	.0372	1.2057E-03	.0447	1.5068E-03		.0516			
H 26	524	4.297	.788	1.047E-03	.0359	1.3419E-03	.0440	1.4938E-03		.0498			
H 27	525	4.506	.827	1.098E-03	.0376	1.2605E-03	.0432	1.4035E-03		.0512			
H 28	525	4.925	.904	1.202E-03	.0412	1.3229E-03	.0453	1.4735E-03		.0481			
H 29	525	3.805	.698	1.281E-04	.0318	1.4474E-03	.0446	1.6123E-03		.0505			
H 30	525	3.418	.627	0.337E-04	.0286	1.1117E-03	.0383	1.2452E-03		.0553			
H 31	529	10.780	1.983	4.650E-03	.0508	1.9942E-03	.0394	1.1187E-03		.0427			
H 32	511	16.818	3.108	1.122E-03	.0385	3.1960E-03	.1095	3.5627E-03		.0383			
H 33	512	14.482	2.668	1.688E-03	.1428	5.0290E-03	.1724	5.6084E-03		.1221			
H 34	525	J.024	.555	3.578E-03	.1226	4.3178E-03	.1480	4.8155E-03		.1922			
H 35	521	2.839	.483	0.385E-04	.0219	7.8813E-04	.0304	9.8646E-04		.0339			
H 36	526	7.884	1.448	1.927E-03	.0661	2.3232E-03	.0203	8.5495E-04		.0293			
H 37	514	32.032	5.386	7.248E-03	.2484	8.7523E-03	.0796	2.5874E-03		.0887			
H 38	519	1.617	.319	4.476E-04	.0183	5.3888E-04	.0185	5.9905E-04		.0205			
H 39	519	1.646	.319	4.476E-04	.0183	5.3888E-04	.0185	5.9905E-04		.0205			
H 40	519	1.703	.315	4.288E-04	.0144	5.0605E-04	.0173	5.4108E-04		.0185			
H 41	519	1.534	.290	4.428E-04	.0182	5.3226E-04	.0173	5.6312E-04		.0193			
H 42	521	1.723	.325	3.828E-04	.0131	4.6002E-04	.0158	5.9230E-04		.0203			
H 43	523	1.401	.274	4.294E-04	.0147	5.1658E-04	.0177	5.1191E-04		.0175			
H 44	521	.904	.170	2.888E-04	.0125	4.2964E-04	.0151	5.7497E-04		.0197			
H 45	521	1.046	.319	4.476E-04	.0183	5.3888E-04	.0185	5.9905E-04		.0205			
H 46	521	1.723	.325	3.828E-04	.0131	4.6002E-04	.0158	5.9230E-04		.0203			
H 47	523	1.401	.274	4.294E-04	.0147	5.1658E-04	.0177	5.1191E-04		.0175			
H 48	521	.904	.170	2.888E-04	.0125	4.2964E-04	.0151	5.7497E-04		.0197			
H 49	521	1.046	.319	4.476E-04	.0183	5.3888E-04	.0185	5.9905E-04		.0205			
H 50	524	4.437	.830	4.978E-04	.0077	2.7132E-04	.0093	3.0202E-04		.0104			
H 51	524	3.084	.718	4.978E-04	.0077	2.7132E-04	.0093	3.0202E-04		.0104			
H 52	529	17.321	3.270	4.909E-03	.0326	1.1451E-03	.0459	1.4916E-03		.0511			
H 53	529	18.576	3.417	5.869E-03	.1802	9.2854E-03	.0459	1.4916E-03		.0437			
H 54	518	1.076	.197	4.909E-04	.0089	5.2505E-04	.0189	6.1411E-03		.2019			
H 55	518	.705	.133	1.748E-04	.0080	3.1162E-04	.0107	3.4670E-04		.2105			
H 56	520	1.050	.207	2.724E-04	.0093	4.1010E-04	.0072	2.3373E-04		.0119			
H 57	523	.735	.135	1.782E-04	.0061	2.7519E-04	.0112	3.6438E-04		.0125			
H 58	520	3.452	.164	2.888E-04	.0074	2.6111E-04	.0073	2.3864E-04		.0082			
H 59	523	2.982	.740	1.034E-03	.0354	1.2444E-04	.0089	2.9061E-04		.0100			
H 60	524	J.289	.588	1.797E-04	.0267	9.3881E-04	.0427	1.3861E-03		.0475			
H 61	524	4.810	.648	0.613E-04	.0295	1.0370E-03	.0322	1.0449E-03		.0358			
H 62	525	5.159	1.002	1.262E-03	.0432	1.5198E-03	.0395	1.1549E-03		.0396			
H 63	520	.923	.175	1.332E-03	.0457	1.6047E-03	.0521	1.6927E-03		.0580			
H 64	519	.404	.091	2.362E-04	.0051	2.8417E-04	.0097	1.7875E-03		.0613			
H 65	520	.770	.131	1.294E-04	.0041	1.4485E-04	.0050	3.1625E-04		.0108			
H 66	522	1.161	.213	1.728E-04	.0059	2.0790E-04	.0071	1.6118E-04		.0055			
H 67	522	1.981	.337	4.824E-04	.0097	3.3994E-04	.0117	2.3135E-04		.0074			
H 68	523	1.582	.204	4.587E-04	.0153	5.3786E-04	.0184	3.7848E-04		.0130			
H 69	524	2.441	.448	5.944E-04	.0120	4.2218E-04	.0145	4.7010E-04		.0205			
H 70	524	3.017	.611	8.111E-04	.0204	7.1573E-04	.0245	7.9712E-04		.0161			
H 71	524	J.884	.755	1.003E-03	.0278	9.7687E-04	.0335	1.0800E-03		.0273			
H 72	525	4.000	.789	1.058E-03	.0344	1.2079E-03	.0414	1.3453E-03		.0373			
H 73	521	.944	.183	4.422E-04	.0083	1.2645E-03	.0433	1.4086E-03		.0461			
H 74	520	.531	.105	1.385E-04	.0047	2.9141E-04	.0100	3.2438E-04		.0111			
H 75	517	.404	.076	1.000E-04	.0034	1.6663E-04	.0057	1.8544E-04		.0044			
H 76	520	1.221	.208	2.750E-04	.0094	1.2021E-04	.0041	1.3372E-04		.0046			
H 77	520	.465	.090	1.191E-04	.0041	1.3089E-04	.0113	3.6832E-04		.0126			
H 78	523	3.001	.795	1.058E-03	.0361	1.4225E-04	.0049	1.5943E-04		.0055			
H 79	523	1.963	.374	4.989E-04	.0171	6.0014E-03	.0435	1.4137E-03		.0484			
H 80	522	2.713	.535	1.089E-04	.0243	8.5326E-04	.0206	6.6824E-04		.0229			
H 81	524	3.058	.594	1.876E-04	.0270	9.4816E-04	.0292	9.4998E-04		.0326			
H 82	520	.831	.073	0.948E-04	.0307	1.0774E-03	.0325	1.0561E-03		.0362			
H 83	520	.547	.105	2.179E-04	.0075	2.6219E-04	.0369	1.2001E-03		.0411			
H 84	520	.398	.120	1.590E-04	.0054	1.9118E-04	.0090	2.9181E-03		.0100			
H 85	522	1.561	.278	4.832E-05	.0029	1.0204E-04	.0035	2.1275E-04		.0073			
H 86	521	1.404	.256	4.878E-04	.0126	4.4266E-04	.0152	1.1356E-04		.0039			
H 87	525	6.110	1.073	J.390E-04	.0116	4.0794E-04	.0140	4.9243E-04		.0169			
H 88	522	1.464	.277	1.426E-03	.0489	1.7170E-03	.0588	4.5410E-04		.0156			
H 89	524	2.380	.449	4.662E-04	.0126	4.4124E-04	.0151	1.9125E-03		.0655			
H 90	524	2.855	.547	1.237E-04	.0204	7.1786E-04	.0246	4.9121E-04		.0168			
H 91	521	.082	.132	1.748E-04	.0249	8.7387E-04	.0290	9.7374E-04		.0274			
H 92	521	.450	.087	1.155E-04	.0060	2.1052							

DU MACH DIMENSIONAL TUNNEL H
V11162

NO. NOSE		222 IN. MODEL		UPSTREAM OF		GUC-H. #234 IN. GAP		ALPHA-MODEL		ALPHA-SECTOR		ALPHA-PREBEND		ROLL-MODEL		YAW		
CONTOUR	NO. 1	CONTOUR	NO. 2	GUC-H. #234	MACH NO. 7.93	MU PSIA	10 DEG H	#03	#03	#03	0	0	0	0	0	0	0	
T-INF (DEG H)	P-INF (PSIA)	U-INF (PSIA)	V-INF (F/SEC)	WU-INF (SLUGS/FT ³)	MU-INF (LB-ZC/FT ²)	HE/FT (FI-1)	MREF-FR (HM #009F1)	SECTOR (HM #009F1)	PREBEND (HM #009F1)	SWITCH POSITION 3								
IC NO	FW	OTAIL	G-DUCT	H(TO)	H(TO)/MREF	H(.9TO)	H(.9TO)/MREF	H(.85TO)	H(.85TO)/MREF	FUSELAGE-ORBITER								
										A/L	Y/YMAX							
0	1	535	100.722	14.043	4.527E-02	.8810	3.0032E-02	1.067H	3.4265E-02	1.1945								
0	2	548	32.137	5.154	0.955E-03	.8245	0.3057E-03	.2916	0.3046E-03	.3245								
0	7	543	11.576	4.036	4.730F-03	.0952	3.2796E-03	.1143	3.6465E-03	.1271								
0	12	540	4.814	.923	1.231F-03	.0429	1.4768E-03	.0515	1.6439E-03	.0572								
0	19	541	.856	.154	4.055F-04	.0072	2.4674E-04	.0086	2.7421E-04	.0096								
0	29	530	1.155	.203	4.706E-04	.0094	3.2506E-04	.0113	3.6122E-04	.0126								
0	44	514	12.147	2.094	4.849E-03	.0993	3.4320E-03	.1196	3.8235E-03	.1333								
0	54	520	4.471	.866	1.188E-03	.0414	1.4339E-03	.0500	1.5943E-03	.0558								
0	66	525	2.577	.473	0.534F-04	.0228	7.8970E-04	.0275	8.8165E-04	.0307								
0	74	528	2.564	.416	0.677F-04	.0233	6.4784E-04	.0243	7.7953E-04	.0272								
0	80	529	1.713	.315	4.369E-04	.0152	5.2840E-04	.0282	9.0246E-04	.0315								
0	94	527	3.613	.625	0.643E-04	.0301	1.0449E-03	.0184	5.9030E-04	.0206								
0	104	526	.920	.164	4.267E-04	.0079	2.7488E-04	.0364	1.1668E-03	.0407								
0	114	525	.515	.097	1.343E-04	.0047	1.6230E-04	.0096	3.0604E-04	.0107								
0	20	503	1.316	.098	1.310E-04	.0046	1.5802E-04	.0057	1.8119E-04	.0063								
0	46	516	17.046	3.478	7.709E-04	.0129	4.4524E-04	.0152	1.7369E-04	.0061								
0	56	518	3.153	.610	0.741E-03	.1653	5.7137E-03	.1922	4.9448E-04	.0173								
0	69	523	1.497	.294	0.351E-04	.0291	1.0073E-03	.0351	6.3671E-03	.2220								
0	83	526	1.234	.694	0.322E-04	.0290	1.0051E-03	.0350	1.1231E-03	.0392								
0	92	525	.816	.240	0.318F-04	.0116	4.0103E-04	.0140	1.1217E-03	.0391								
0	101	526	.816	.190	4.070F-04	.0072	4.5020E-04	.0087	4.4778E-04	.0156								
0	107	526	.391	.070	1.903F-04	.0066	2.3003E-04	.0080	2.5644E-04	.0097								
0	117	525	.167	.036	5.628E-05	.0034	1.1634E-04	.0041	1.2940E-04	.0045								
0	5	503	13.543	2.493	4.807E-03	.0978	6.0779E-03	.0021	6.7456E-05	.0024								
0	10	503	10.513	1.849	4.478E-03	.0864	3.3697E-03	.1175	3.7456E-03	.1306								
0	24	508	5.899	1.104	1.489F-03	.0519	2.9741E-03	.1017	3.3088E-03	.1183								
0	28	511	5.869	.914	1.238E-03	.0432	1.7910E-03	.0624	1.9930E-03	.0695								
0	35	513	4.822	.853	1.158E-03	.0404	1.4903E-03	.0520	1.6943E-03	.0578								
0	36	517	17.313	4.791	4.811E-03	.0404	1.3950E-03	.0446	1.5537E-03	.0542								
0	37	534	57.668	10.323	1.443E-02	.1328	4.5945E-03	.1602	5.1212E-03	.1785								
0	38	527	12.873	5.151	1.129E-03	.2485	1.7489E-02	.6097	1.9598E-02	.6818								
0	40	517	1.941	.614	0.386E-04	.0292	0.6195E-03	.0305	0.6257E-03	.3356								
0	53	519	.476	.079	1.088E-04	.0038	1.0111E-03	.0352	1.1270E-03	.0393								
0	62	523	1.071	.167	4.304E-04	.0068	1.3127E-04	.0096	1.4638E-04	.0051								
0	75	525	2.755	.491	0.773E-04	.0236	2.7826E-04	.0097	3.1049E-04	.0108								
0	87	528	3.050	.528	1.318E-04	.0255	8.1843E-04	.0285	9.1362E-04	.0318								
0	96	527	2.728	.484	0.738E-04	.0235	8.1479E-04	.0308	9.8766E-04	.0344								
0	111	526	.505	.082	1.132E-04	.0039	1.1691E-04	.0284	9.0999E-04	.0317								
0	120	529	3.722	.623	0.874E-04	.0295	1.1069E-04	.0048	1.5288E-04	.0053								
0	4	504	10.651	1.594	4.133E-03	.0743	2.5619E-03	.0893	7.9405E-04	.0277								
0	14	503	0.893	1.175	1.577E-03	.0549	1.8908E-03	.0659	2.8466E-03	.0993								
0	22	505	3.376	.594	1.982E-04	.0278	9.5919E-04	.0324	2.1011E-03	.0732								
0	35	504	2.621	.461	0.192E-04	.0216	7.4306E-04	.0299	1.0467E-03	.0372								
0	48	515	5.216	.868	1.181E-03	.0412	1.4233E-03	.0494	8.2732E-04	.0288								
0	59	521	0.830	1.452	4.542E-03	.0886	3.0686E-03	.1670	1.5896E-03	.0553								
0	72	521	0.634	1.728	4.363E-03	.0824	2.8530E-03	.0995	3.4220E-03	.1193								
0	78	525	1.724	.261	4.598E-04	.0125	4.3472E-04	.0152	1.1824E-03	.1110								
0	85	524	1.784	.318	4.379E-04	.0183	5.2200E-04	.0184	4.8529E-04	.0169								
0	77	523	1.174	.184	4.529E-04	.0088	3.0548E-04	.0106	5.0830E-04	.0206								
0	84	523	.885	.177	4.338E-04	.0085	2.9344E-04	.0162	3.4998E-04	.0119								
0	94	522	.713	.154	4.110E-04	.0074	2.8474E-04	.0099	3.2743E-04	.0114								
0	39	519	12.134	4.350	4.220E-03	.1123	3.8853E-03	.1384	2.8419E-03	.0699								
0	42	517	1.510	.698	4.337E-04	.0332	1.1591E-03	.0401	4.3327E-03	.1510								
0	51	521	4.238	.867	4.186E-04	.0415	1.4354E-03	.0500	1.2870E-03	.0447								
0	41	520	7.140	1.422	1.958E-03	.0580	4.2935E-03	.0920	1.6011E-03	.0558								
0	52	519	1.457	.298	4.078E-04	.0142	4.9194E-04	.0171	2.6248E-04	.0915								
											LOWER WING SURFACE-ORBITER							
											A/C	Y/C						
0	135	526	17.912	3.193	4.416E-03	.1939	5.2386E-03	.1881	5.9612E-03	.2078								
0	136	521	5.217	.927	1.273E-03	.0844	1.5370E-03	.0536	1.7146E-03	.0598								
0	137	520	2.955	.443	0.079E-04	.0212	7.2365E-04	.0256	8.1830E-04	.0285								
0	138	523	1.757	.322	4.311E-04	.0154	5.3503E-04	.0187	5.9699E-04	.0208								
0	140	524	1.897	.189	4.611E-04	.0091	1.1544E-04	.0110	3.5208E-04	.0123								
0	142	523	.579	.094	1.209E-04	.0045	1.5563E-04	.0054	1.7365E-04	.0061								
0	144	527	22.518	4.137	4.729E-03	.1997	9.9278E-03	.2415	9.4220E-03	.2697								
0	146	523	7.292	1.415	1.948E-03	.0679	2.3519E-03	.0820	2.6243E-03	.0915								
0	151	522	4.395	.853	1.172E-03	.0489	1.4168E-03	.0494	1.5808E-04	.0591								
0	152	524	3.890	.534	1.362E-04	.0257	0.8922E-04	.0310	9.9239E-04	.0366								
0	154	523	1.639	.136	4.017E-04	.0148	4.8517E-04	.0189	5.4144E-04	.0189								
0	157	522	.763	.136	1.917E-04	.0067	2.3144E-04	.0081	2.5823E-04	.0090								
0	171	534	27.717	4.962	4.937E-03	.2418	8.4054E-03	.2930	9.4002E-03	.3277								
0	172	528	12.236	2.114	4.932E-03	.1822	3.5499E-03	.1236	3.9603E-03	.1381								
0	175	524	2.372	.473	0.522E-04	.0227	7.8776E-04	.0275	8.7915E-04	.0306								
0	178	522	1.615	.180	4.482E-04	.0087	2.9964E-04	.0104	3.3432E-04	.0117								
											UPPER WING SURFACE-ORBITER							
											A/C	Y/S						
0	124	521	4.515	.681	4.394E-04	.0326	1.1292E-03	.0394	1.2597E-03	.0439								
0	130	520	1.970	.329	4.589E-04	.0157	9.4408E-04	.0190	6.0680E-04	.0212								
0	131	520	.633	.116	1.488E-04	.0095	1.9167E-04	.0067	2.1376E-04	.0075								
0	132	522	.470	.090	1.233E-04	.0043	1.4888E-04	.0052	1.6610E-04	.0058								
0	133	522	.339	.058	0.631E-05	.0028	9.8966E-05	.0024	1.0817E-04	.0038								
0	159	528	6.362	.962	1.321E-03	.0460	1.5937E-03	.0596	1.7774E-03	.0620								
0	159	520	3.669	.547	0.194E-04	.0286	9.8882E-04	.0345	1.1029E-03	.0384								
0	160	528	2.632	.425	0.828E-04	.0263	7.0333E-04	.0285	7.8441E-04	.0273								
0	161	524	.429	.074	1.022E-04	.0030	1.2350E-04	.0043	1.3785E-04	.0048								
0	162	522	1.166	.149	0.049E-04	.0071	4.739E-04	.0086	2.7802E-04	.0096								
											VERTICAL STABILIZER-ORBITER							
											A/C	Z/S						
0	187	529	34.857	5.688	0.007E-03	.2791	4.7157E-03	.3387	1.0876E-04	.3742								
0	188	529	5.122	.887	1.271E-03	.0429	1.4897E-03	.0514	1.6843E-03	.0580								
0	192	529	1.447	.242	4.398E-04	.0117	4.0498E-04	.0141	4.8218E-04	.0158								
0	193	520	32.774	6.239	0.741E-03	.3061	1.0884E-02	.3714	1.1926E-02	.4188								
0	194	527	4.352	1.027	4.253E-03	.0785	2.7267E-03	.0981	3.0471E-03	.1082								
0	197	510	14.425	.497	0.678E-04	.0196	8.8137E-04	.0238	7.6049E-04	.0265								
0	198	524	2.449	.303	0.212E-03	.1468	9.0073E-03	.1777	5.6996E-03	.1986								
0	201	543	51.929	4.411	0.886E-02	.6896	7.2626E-02	.0286	8.2065E-04	.0286								
0	202	531	24.017	2.777	1.408E-02	.4896	1.7857E-02	.0980	1.9111E-02	.6624								
0	203	524	3.496	.396	3.867E-03	.1348	4.6813E-03	.1628	5.2323E-03	.1824								
											GROUP							
											A/C	Y/S						
0	187	529	34.857	5.688	0.007E-03	.2791	4.7157E-03	.3387	1.087									

50 INCH HYPERSONIC TUNNEL A
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CONFIG. NO. 7		MODEL CUC-H-CWO		MACH NO. 7.93		GDC-B, .234 IN. GAP PU PSIA 107.2		ALPHA-PODEL -5.01		ALPHA-SECTOR -5.01		ALPHA-PREBEND 0		ROLL-MODEL 0		YAW 0	
T-INF (OEG H)	P-INF (PSIA)	U-INF (PSIA)	V-INF (F/SEC)	RHO-INF (SLUGS/FT3)	PU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FH (M= .009F1)	STFR (M= .009F1)	SWITCH POSITION	FUSELAGE-BOOSTER		UPPER WING SURFACE-BOOSTER		UPPER CANARD SURFACE-BOOSTER			
91.2	.016	.703	3710	1.469E-05	7.339E-08	7.43E 05	2.847E-02	6.597E-02	2	A/L	PHI	A/L	Y/S	A/L	Y/S		
H 460	527	3.419	.62E	0.844E-04	.0311	1.0710E-03	.0376	1.1973E-03	.0421								
H 461	527	1.626	.299	4.201E-04	.0168	5.0883E-04	.0179	5.6856E-04	.0200								
H 462	528	1.728	.327	4.606E-04	.0182	5.2796E-04	.0196	5.2348E-04	.0219								
H 463	529	2.128	.414	5.843E-04	.0205	7.0796E-04	.0249	7.9170E-04	.0278								
H 464	530	2.049	.388	5.479E-04	.0192	6.0396E-04	.0233	7.4246E-04	.0261								
H 106	523	-0.042	-.008	-1.137E-05	-.0004	-1.3767E-05	-.0005	-1.5354E-05	-.0005								
H 109	526	1.609	.295	4.149E-04	.0166	5.0217E-04	.0170	5.6122E-04	.0197								
H 110	526	1.645	.302	4.246E-04	.0169	5.1410E-04	.0181	5.7462E-04	.0202								
H 111	527	1.320	.244	3.430E-04	.0120	4.1933E-04	.0156	4.6432E-04	.0183								
H 112	528	1.904	.350	4.933E-04	.0173	5.9798E-04	.0210	6.6817E-04	.0235								
H 113	526	.311	.061	0.615E-05	.0030	1.0426E-04	.0037	1.1647E-04	.0041								
H 117	527	2.889	.515	7.251E-04	.0255	8.7810E-04	.0308	9.8162E-04	.0345								
H 118	527	1.172	.215	3.078E-04	.0106	3.6662E-04	.0129	4.0982E-04	.0144								
H 119	528	1.759	.292	4.847E-04	.0160	5.4482E-04	.0181	5.9550E-04	.0205								
H 120	525	.220	.023	4.558E-04	.0160	5.2922E-04	.0194	5.7166E-04	.0217								
H 125	529	1.414	.268	0.099E-05	.0021	7.3804E-05	.0026	8.2468E-05	.0029								
H 127	527	1.310	.241	3.194E-04	.0102	4.2892E-04	.0121	4.7037E-04	.0141								
H 128	527	.890	.184	3.388E-04	.0110	4.1027E-04	.0144	4.5067E-04	.0161								
H 129	527	1.794	.330	4.302E-04	.0161	4.9788E-04	.0198	5.4157E-04	.0219								
H 130	526	1.165	.218	4.649E-04	.0163	5.2629E-04	.0190	5.6297E-04	.0221								
H 131	523	1.561	.290	4.053E-04	.0107	4.6981E-04	.0138	5.1268E-04	.0163								
H 138	528	.447	.082	1.157E-04	.0041	1.2902E-04	.0049	1.4126E-04	.0052								
H 139	528	1.209	.222	3.131E-04	.0110	3.7892E-04	.0133	4.0982E-04	.0159								
H 140	525	1.590	.292	4.092E-04	.0160	4.6899E-04	.0176	5.0342E-04	.0194								
H 141	522	.812	.169	4.082E-04	.0073	4.5912E-04	.0088	5.0115E-04	.0099								
H 142	521	.897	.164	4.292E-04	.0081	4.7734E-04	.0097	5.0959E-04	.0109								
H 150	526	.731	.134	1.884E-04	.0046	2.2808E-04	.0050	2.7749E-04	.0059								
H 151	525	.799	.147	4.055E-04	.0072	4.6070E-04	.0087	5.0199E-04	.0098								
H 152	524	1.387	.254	3.584E-04	.0125	4.3132E-04	.0152	4.8149E-04	.0180								
H 153	521	.702	.129	1.794E-04	.0043	2.1044E-04	.0052	2.4212E-04	.0058								
H 154	520	.463	.082	1.147E-04	.0040	1.3089E-04	.0049	1.5471E-04	.0054								
H 159	526	1.173	.209	4.934E-04	.0103	5.5518E-04	.0125	6.0643E-04	.0139								
H 161	522	.663	.118	1.648E-04	.0058	1.9025E-04	.0070	2.2251E-04	.0078								
H 162	519	.223	.040	3.395E-05	.0019	6.0809E-05	.0023	7.4237E-05	.0026								
H 163	519	.215	.038	3.321E-05	.0019	6.4270E-05	.0023	7.1741E-05	.0025								
H 171	518	.756	.138	1.922E-04	.0048	2.3209E-04	.0052	2.5940E-04	.0059								
H 172	516	.340	.062	0.813E-05	.0036	1.0397E-04	.0037	1.1599E-04	.0041								
H 200	536	13.561	2.884	4.971E-03	.1044	3.0071E-03	.1267	4.0399E-03	.1419								
H 201	535	9.282	1.888	1.541E-03	.0344	1.0702E-03	.0608	2.1029E-03	.0739								
H 202	533	4.900	.691	4.889E-04	.0129	1.1099E-03	.0410	1.3316E-03	.0460								
H 203	531	1.033	.214	4.332E-04	.0187	3.0776E-04	.0120	4.1102E-04	.0105								
H 204	531	1.181	.298	4.943E-04	.0183	3.5070E-04	.0120	4.5991E-04	.0105								
H 205	528	.161	.029	4.062E-05	.0010	3.5070E-04	.0018	4.5991E-04	.0019								
H 206	528	.410	.076	4.871E-05	.0016	4.5007E-04	.0017	5.5021E-05	.0019								
H 207	527	.863	.160	1.088E-04	.0030	1.2926E-04	.0032	1.5355E-04	.0037								
H 217	544	17.509	4.604	0.641E-03	.2333	6.0847E-03	.0055	1.4440E-02	.0051								
H 218	537	17.379	1.699	2.424E-03	.0888	2.6433E-03	.1036	3.2970E-03	.1158								
H 219	536	10.013	.979	1.394E-03	.0496	1.0906E-03	.0590	1.3870E-03	.0667								
H 220	534	6.196	.558	1.934E-04	.0670	9.0282E-04	.0330	1.0770E-03	.0374								
H 221	531	1.654	.323	4.364E-04	.0166	0.5031E-04	.0194	6.1903E-04	.0217								
H 222	528	.962	.172	4.419E-04	.0080	2.9206E-04	.0103	3.2767E-04	.0115								
H 223	527	.763	.130	1.874E-04	.0040	2.2207E-04	.0070	2.4621E-04	.0077								
H 230	544	33.649	4.587	0.689E-03	.2322	0.6433E-03	.2840	9.0222E-03	.3170								
H 231	535	9.978	1.057	1.988E-03	.0529	1.0267E-03	.0642	2.0490E-03	.0719								
H 232	532	1.855	.331	4.884E-04	.0165	3.6702E-04	.0200	4.3047E-04	.0223								
H 233	530	1.411	.267	4.778E-04	.0133	4.0704E-04	.0161	5.1179E-04	.0180								
H 234	529	1.145	.211	4.970E-04	.0100	3.9079E-04	.0126	4.6233E-04	.0141								
H 235	527	.435	.068	4.937E-05	.0034	1.1849E-04	.0041	1.2912E-04	.0045								
H 236	527	.846	.065	4.937E-05	.0034	1.1800E-04	.0041	1.3077E-04	.0046								
H 237	527	.995	.081	1.138E-04	.0029	1.2971E-04	.0036	1.3337E-04	.0039								
H 238	527	.774	.059	4.331E-05	.0029	1.0111E-04	.0020	1.1302E-04	.0020								
H 248	547	40.908	4.649	0.734E-03	.2306	8.2048E-03	.2802	9.2103E-03	.3236								
H 249	536	8.113	.991	1.414E-03	.0407	1.2103E-03	.0503	1.9231E-03	.0676								
H 250	536	6.237	.704	1.084E-03	.0793	1.2103E-03	.0620	1.3808E-03	.0400								
H 251	533	1.930	.377	5.341E-04	.0180	0.4780E-04	.0220	7.2490E-04	.0255								
H 252	530	1.076	.212	4.999E-04	.0109	3.0380E-04	.0129	4.0612E-04	.0143								
H 263	550	36.921	4.791	0.963E-03	.2640	0.4007E-03	.2902	9.5354E-03	.3350								
H 264	530	4.701	1.187	1.697E-03	.0596	2.0023E-03	.0726	2.3100E-03	.0812								
H 265	535	1.959	.391	5.957E-04	.0195	0.7462E-04	.0237	7.5510E-04	.0265								
H 266	532	1.250	.244	4.458E-04	.0121	4.1027E-04	.0147	4.6689E-04	.0165								
H 277	546	49.802	4.783	7.015E-03	.2664	0.5700E-03	.3011	9.6397E-03	.3386								
H 270	539	9.364	1.225	1.753E-03	.0610	2.1300E-03	.0740	2.3874E-03	.0839								
H 275	530	0.365	.076	1.109E-03	.0300	1.3078E-03	.0476	1.9101E-03	.0531								
H 280	525	2.134	.417	5.932E-04	.0200	7.2003E-04	.0253	8.0618E-04	.0283								
H 281	533	1.727	.328	4.648E-04	.0163	5.6800E-04	.0190	6.3899E-04	.0222								
H 282	533	1.452	.282	4.014E-04	.0141	4.8082E-04	.0171	5.4402E-04	.0191								
H 283	531	1.669	.152	4.158E-04	.0076	2.6162E-04	.0092	2.9270E-04	.0103								
H 286	532	48.252	0.183	4.012E-03	.0771	1.0897E-02	.3803	1.2356E-02	.4341								
H 287	530	11.636	1.532	2.195E-03	.0711	2.2607E-03	.0937	2.9899E-03	.1050								
H 288	534	7.456	.904	1.292E-03	.0495	1.5999E-03	.0592	1.7549E-03	.0618								
H 289	535	1.285	.291	4.142E-04	.0166	5.0291E-04	.0177	5.6303E-04	.0198								
H 290	536	1.096	.299	4.267E-04	.0150	5.1003E-04	.0162	5.8016E-04	.0179								
H 291	534	1.845	.175	4.490E-04	.0007	3.0216E-04	.0100	3.3827E-04	.0119								
H 292	536	1.941	.146	4.879E-04	.0073	4.5226E-04	.0089	5.2820E-04	.0099								
H 295	565	23.676	2.479	4.577E-03	.1297	4.2969E-03	.1530										

NOT REPRODUCIBLE

5/26/71

AEDC (AMU, INC.) ANNULUS AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 V11162

RUN #	NOSE CONFIG	MODEL	UPSTREAM MACH NO	GDC-0.234	IN. GAP	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
9	707	CC-BRUWU	7.93	MU PSIA 14R-5	U OEG H 1243	-5.02	+5.02	0	0	0
T-INF (UEG R)	P-INF (PSIA)	U-INF (PSIA)	V-INF (F1/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LH-SEC/FT2)	HE/FT (FT-1)	HREF-FH (R = .009F1)	SIFR (M = .009F1)	SWITCH POSITION	
91.5	.016	.739	3718	1.476E-05	7.370E-08	7.45E 05	2.861E-02	6.385E-02	1	
TC NO	TW	DTW/L	W-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L PHI
B 1	540	14.020	15.660	2.229E-07	.7790	2.7080E-02	.9465	3.0340E-02	1.0604	
B 2	514	17.030	J.215	4.411E-03	.1542	2.3175E-03	.1459	5.9266E-03	.2071	.0137 0
B 3	517	24.711	5.245	7.228E-03	.2526	5.7214E-03	.3048	9.7264E-03	.3399	.0137 180.000
B 4	513	10.350	1.886	2.584E-03	.0903	3.1144E-03	.1089	3.4735E-03	.1213	.0274 0
B 5	512	10.540	1.920	2.629E-03	.0919	3.1688E-03	.1107	3.5306E-03	.1234	.0274 30.000
B 6	512	10.802	1.968	2.694E-03	.0942	3.2469E-03	.1135	3.6177E-03	.1264	.0274 60.000
B 7	513	12.950	2.362	3.238E-03	.1132	3.9029E-03	.1364	4.3444E-03	.1520	.0274 90.000
B 8	513	15.234	2.860	3.920E-03	.1370	4.7255E-03	.1652	5.2662E-03	.1841	.0274 120.000
B 9	513	17.075	3.203	4.387E-03	.1533	5.2874E-03	.1848	5.8917E-03	.2054	.0274 150.000
B 10	513	17.075	3.203	4.388E-03	.1534	5.2883E-03	.1848	5.8928E-03	.2060	.0274 180.000
B 11	513	12.563	2.265	3.136E-03	.1096	3.7797E-03	.1321	4.2118E-03	.1472	.0406 180.000
B 12	511	6.219	1.132	1.546E-03	.0540	1.4625E-03	.0651	2.0747E-03	.0725	.0543 0
B 13	510	6.520	1.188	1.621E-03	.0567	1.5923E-03	.0682	2.1743E-03	.0760	.0543 30.000
B 14	510	7.262	1.325	1.808E-03	.0632	2.1772E-03	.0761	2.4248E-03	.0887	.0543 60.000
B 15	510	8.435	1.535	2.098E-03	.0733	2.5244E-03	.0882	2.8118E-03	.0983	.0543 90.000
B 16	509	7.300	1.302	1.830E-03	.0639	2.2029E-03	.0770	2.4531E-03	.0857	.0543 150.000
B 17	514	19.885	3.627	4.977E-03	.1740	6.0006E-03	.2097	6.6842E-03	.2338	.0543 180.000
B 18	514	19.885	3.627	4.977E-03	.1740	6.0006E-03	.2097	6.6842E-03	.2338	.0543 180.000
B 19	521	34.400	6.297	8.720E-03	.3048	1.0532E-02	.3681	1.1744E-02	.4108	.0679 180.000
B 20	511	4.262	.776	1.061E-03	.0371	1.2777E-03	.0447	1.4233E-03	.0497	.0799 0
B 21	515	18.188	3.318	4.556E-03	.1592	5.4936E-03	.1920	6.1235E-03	.2140	.0920 180.000
B 22	511	5.559	1.012	1.383E-03	.0483	1.6048E-03	.0582	1.8958E-03	.0649	.1830 180.000
B 23	512	2.903	.525	7.231E-04	.0253	8.7119E-04	.0304	9.7053E-04	.0339	.1830 15.000
B 24	512	3.412	.585	8.006E-04	.0280	9.6867E-04	.0331	1.0748E-03	.0376	.1830 30.000
B 25	512	3.151	.574	7.850E-04	.0276	9.6062E-04	.0331	1.0538E-03	.0368	.1830 45.000
B 26	509	3.615	.657	8.963E-04	.0313	1.0792E-03	.0377	1.2017E-03	.0420	.1830 60.000
B 27	510	3.838	.698	9.531E-04	.0333	1.1499E-03	.0401	1.2785E-03	.0447	.1830 75.000
B 28	510	4.214	.768	1.047E-03	.0364	1.2614E-03	.0441	1.4049E-03	.0491	.1830 90.000
B 29	510	3.652	.664	9.068E-04	.0317	1.0920E-03	.0382	1.2142E-03	.0425	.1830 105.000
B 30	510	3.116	.567	7.731E-04	.0270	9.3083E-04	.0325	1.0366E-03	.0362	.1830 120.000
B 31	513	9.243	1.685	2.309E-03	.0807	2.7027E-03	.0973	3.1016E-03	.1084	.1830 135.000
B 32	515	13.677	2.495	3.425E-03	.1197	4.1303E-03	.1444	4.6819E-03	.1609	.1830 150.000
B 33	516	14.930	2.726	3.750E-03	.1311	4.5231E-03	.1581	5.0432E-03	.1763	.1830 165.000
B 34	511	5.064	.922	1.260E-03	.0440	1.5170E-03	.0530	1.6906E-03	.0591	.1830 180.000
B 35	510	2.167	.394	5.385E-04	.0180	6.0487E-04	.0227	7.2239E-04	.0252	.1830 180.000
B 36	514	6.666	1.217	1.676E-03	.0506	2.0216E-03	.0707	2.2842E-03	.0788	.1300 180.000
B 37	516	1.500	.281	3.857E-04	.0135	4.6503E-04	.0163	5.1836E-04	.0181	.1430 0
B 38	524	20.604	3.778	8.253E-03	.1830	6.2501E-03	.2219	7.0907E-03	.2478	.1430 180.000
B 39	524	20.604	3.778	8.253E-03	.1830	6.2501E-03	.2219	7.0907E-03	.2478	.1430 180.000
B 40	523	12.717	2.122	2.950E-03	.1031	3.9680E-03	.1246	3.9808E-03	.1391	.1560 180.000
B 41	516	.957	.200	2.755E-04	.0096	2.3232E-04	.0116	3.7056E-04	.0128	.1690 0
B 42	515	.961	.193	2.659E-04	.0093	2.2064E-04	.0112	3.5748E-04	.0125	.1690 15.000
B 43	516	1.092	.211	2.903E-04	.0101	2.4938E-04	.0122	3.9043E-04	.0136	.1690 30.000
B 44	515	1.017	.200	2.748E-04	.0096	2.3102E-04	.0116	3.6948E-04	.0129	.1690 45.000
B 45	516	.815	.153	2.199E-04	.0079	2.0400E-04	.0099	2.8776E-04	.0099	.1690 60.000
B 46	516	.834	.157	2.154E-04	.0075	2.0062E-04	.0091	2.6982E-04	.0101	.1690 75.000
B 47	518	1.813	.361	4.703E-04	.0160	6.0750E-04	.0198	6.3305E-04	.0221	.1690 90.000
B 48	517	3.154	.681	8.298E-04	.0279	9.9422E-04	.0349	1.1144E-03	.0390	.1690 105.000
B 49	517	3.086	.580	7.994E-04	.0270	9.6649E-04	.0337	1.0796E-03	.0376	.1690 120.000
B 50	519	3.761	.768	9.784E-04	.0322	1.1801E-03	.0413	1.3179E-03	.0461	.1690 135.000
B 51	519	5.364	1.039	1.436E-03	.0502	1.7432E-03	.0606	1.9350E-03	.0676	.1690 150.000
B 52	522	9.458	1.791	2.483E-03	.0866	2.5504E-03	.1048	3.3481E-03	.1170	.1690 165.000
B 53	522	8.510	1.556	2.164E-03	.0750	2.0192E-03	.0914	2.9194E-03	.1020	.1490 180.000
B 480	516	.521	.095	1.310E-04	.0046	1.0881E-04	.0055	1.7619E-04	.0062	.2420 0
B 482	516	.393	.074	1.017E-04	.0036	1.2271E-04	.0053	1.3862E-04	.0048	.2420 30.000
B 484	516	.655	.125	1.771E-04	.0062	2.1370E-04	.0075	2.3829E-04	.0083	.2420 60.000
B 485	518	1.213	.222	3.066E-04	.0107	3.7004E-04	.0129	4.1272E-04	.0144	.2420 90.000
B 486	518	1.248	.235	3.239E-04	.0113	3.8089E-04	.0137	4.3502E-04	.0152	.2420 105.000
B 488	519	1.992	.392	5.419E-04	.0189	6.9429E-04	.0229	7.2999E-04	.0255	.2420 120.000
B 489	520	1.952	.392	5.411E-04	.0190	6.9398E-04	.0229	7.3189E-04	.0256	.2420 135.000
B 410	523	3.983	.786	1.092E-03	.0302	1.3202E-03	.0401	1.4741E-03	.0515	.2420 150.000
B 411	524	3.612	.713	9.912E-04	.0340	1.1943E-03	.0419	1.3400E-03	.0471	.2420 165.000
B 412	524	3.694	.718	9.984E-04	.0349	1.2071E-03	.0422	1.3440E-03	.0471	.2420 180.000
B 413	518	.256	.045	8.826E-05	.0020	8.2302E-05	.0029	9.1846E-05	.0032	.2830 0
B 415	517	.325	.064	8.018E-05	.0031	1.0640E-04	.0037	1.1866E-04	.0041	.2830 30.000
B 417	519	1.175	.200	2.753E-04	.0096	3.2200E-04	.0116	3.7066E-04	.0130	.2830 60.000
B 419	519	1.072	.197	2.793E-04	.0095	3.2004E-04	.0115	3.6949E-04	.0128	.2830 90.000
B 420	520	1.177	.200	2.717E-04	.0095	3.2004E-04	.0115	3.6949E-04	.0128	.2830 105.000
B 421	522	1.567	.260	3.604E-04	.0097	3.2419E-04	.0117	3.7283E-04	.0130	.2830 120.000
B 422	524	2.125	.390	5.421E-04	.0126	6.2902E-04	.0152	4.8000E-04	.0170	.2830 135.000
B 423	526	3.314	.671	9.364E-04	.0189	6.9564E-04	.0229	7.3193E-04	.0256	.2830 150.000
B 424	526	2.604	.507	1.086E-04	.0268	1.1329E-03	.0346	1.2086E-03	.0442	.2830 165.000
B 425	528	2.950	.595	1.754E-04	.0271	9.3802E-04	.0300	9.5049E-04	.0335	.2830 180.000
B 426	519	.247	.048	6.590E-05	.0023	7.9949E-05	.0028	1.0487E-04	.0037	.3160 0
B 428	519	.336	.064	6.157E-05	.0032	1.1050E-04	.0039	8.8740E-05	.0031	.3160 30.000
B 430	517	.762	.132	1.819E-04	.0060	2.1959E-04	.0077	1.2431E-04	.0043	.3160 60.000
B 432	520	1.562	.264	3.674E-04	.0128	6.4367E-04	.0155	4.9806E-04	.0173	.3160 90.000
B 433	519	.988	.176	2.427E-04	.0095	2.9300E-04	.0102	3.2687E-04	.0118	.3160 105.000
B 434	524	2.460	.391	3.422E-04	.0190	6.9512E-04	.0229	7.3127E-04	.0256	.3160 120.000
B 435	524	1.993	.365	3.120E-04	.0179	6.1990E-04	.0217	6.9223E-04	.0237	.3160 135.000
B 436	526	2.837	.561	1.023E-03	.0273	9.4640E-04	.0331	1.0573E-03	.0370	.3160 150.000
B 437	527	2.362	.480	8.428E-04	.0225	7.7778E-04	.0272	8.6849E-04	.0304	.3160 165.000
B 438	528	2.744	.544	1.015E-03	.0266	9.2180E-04	.0322	1.0304E-03	.0360	.3160 180.000
B 439	519	.206	.041	5.010E-05	.0020	6.7773E-05	.0024	7.5553E-05	.0026	.3540 0
B 441	519	.517	.104	1.440E-04	.0050	1.7390E-04	.0061	1.9401E-04	.0068	.3540 30.000
B 442	520	.953	.085	1.235E-04	.0043	1.6908E-04	.0052	1.6634E-04	.0058	.3540 60.000
B 443	523	1.297	.241	2.044E-04	.0112	3.8710E-04	.0135	4.3226E-04	.0151	.3540 90.000
B 444	523	1.632	.286	2.978E-04	.0139	4.8005E-04	.0168	5.3597E-04	.0187	.3540 105.000
B 447	526	5.016	.880	1.228E-03	.0249	1.2495E-03	.0319	1.6593E-03	.0380	.3540 120.000
B 448	526	1.663	.311	4.331E-04	.0049	1.2495E-04	.0059	1.6593E-04	.0070	.3540 135.000
B 450	529	1.935	.386	3.137E-04	.0180	5.2396E-04	.0183	5.8533E-04	.0205	.3540 150.000

50 INCH HYPERSONIC TUNNEL H
V11162

DWD CASE 7.22 IN. UPSTREAM OF GDC-R. #234 IN. GAP		MODEL		MACH NO		PU PSIA		TU DEG H		ALPHA-PODEL		ALPHA-SECTOR		ALPHA-PREBEND		ROLL-MODEL		YAW											
CONFIG		MACH NO		MACH NO		PU PSIA		TU DEG H		-5.0J		-5.0J		0		0		0											
T-INF	P-INF	Q-INF	V-INF	HMD-INF	HU-INF	RE/FT	MHEF-FR	SIFH	SWITCH	ALPHA-PODEL		ALPHA-SECTOR		ALPHA-PREBEND		ROLL-MODEL		YAW											
(DEG K)	(PSIA)	(PSIA)	(F/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(H= .009FT)	(H= .009FT)	POSITION	-5.0J		-5.0J		0		0		0											
90.0	+0.16	+0.05	+0.705	(5LUGS/FT ³)	(LB-SEC/FT ²)	7.48E 05	2.850E-02	6.570E-02	J	-5.0J		-5.0J		0		0		0											
TC NO	TW	DTWCT	U-DOT	H(TO)	H(TO)/MHEF	H(.9TO)	H(.05TO)	H(.85TO)	H(.85TO)/MHEF	FUSELAGE-ORBITER																			
										X/L										Y/YMAX									
0	1	547	90.043	16.243	2.362E-02	.0280	2.8793E-02	1.0102	3.2331E-02	1.1344	FUSELAGE-ORBITER																		
0	2	518	25.035	16.338	5.638E-03	.1978	6.8120E-03	.2390	7.6038E-03	.2668	X/L																		
0	7	513	7.550	1.336	1.451E-03	.0649	2.2320E-03	.0783	2.4847E-03	.0874	Y/YMAX																		
0	12	510	2.540	.485	6.758E-04	.0237	8.1465E-04	.0286	9.0794E-04	.0314	0																		
0	19	510	.672	.122	1.687E-04	.0059	2.0332E-04	.0071	2.2658E-04	.0079	0																		
0	29	514	3.314	.587	8.152E-04	.0286	9.8372E-04	.0345	1.0971E-03	.0385	0																		
0	44	523	3.336	.576	8.087E-04	.0284	9.7863E-04	.0343	1.0933E-03	.0384	0																		
0	54	527	3.212	.625	8.836E-04	.0310	1.0706E-03	.0376	1.1970E-03	.0420	0																		
0	66	510	2.025	.373	5.288E-04	.0186	6.6110E-04	.0225	7.1726E-04	.0252	0																		
0	76	531	2.100	.342	4.868E-04	.0171	5.7903E-04	.0207	6.6075E-04	.0232	0																		
0	80	572	1.751	.332	4.727E-04	.0166	5.4978E-04	.0193	6.1507E-04	.0216	0																		
0	89	530	1.527	.281	3.488E-04	.0140	4.8351E-04	.0170	5.4097E-04	.0190	0																		
0	98	510	1.846	.320	4.535E-04	.0159	5.4978E-04	.0193	6.1507E-04	.0216	0																		
0	104	527	.610	.105	1.538E-04	.0050	1.8634E-04	.0065	2.0435E-04	.0073	0																		
0	114	526	.356	.075	1.057E-04	.0037	1.2805E-04	.0045	1.4316E-04	.0050	0																		
0	20	511	.652	.052	1.166E-05	.0025	8.6390E-05	.0030	9.6241E-05	.0034	0																		
0	31	514	2.425	.494	6.863E-04	.0241	8.2822E-04	.0291	9.2375E-04	.0324	0																		
0	46	527	4.513	1.953	2.759E-03	.0908	3.3424E-03	.1173	3.7372E-03	.1311	0																		
0	54	527	4.032	.785	1.110E-03	.0389	1.3443E-03	.0472	1.5033E-03	.0527	0																		
0	69	530	4.722	.865	1.235E-03	.0433	1.4971E-03	.0526	1.6751E-03	.0588	0																		
0	83	531	.787	.153	4.181E-04	.0077	2.0490E-04	.0093	2.9601E-04	.0104	0																		
0	92	524	.614	.114	1.614E-04	.0057	1.0964E-04	.0069	2.1887E-04	.0077	0																		
0	101	524	.914	.151	2.140E-04	.0075	2.5939E-04	.0091	2.9014E-04	.0121	0																		
0	107	528	.590	.105	1.490E-04	.0052	1.0093E-04	.0063	2.0190E-04	.0071	0																		
0	117	527	.392	.076	1.079E-04	.0038	1.3071E-04	.0046	1.4617E-04	.0051	0																		
0	5	515	16.355	2.545	3.535E-03	.1240	4.2866E-03	.1497	4.7588E-03	.1670	0																		
0	10	515	11.786	2.442	3.395E-03	.1191	4.0983E-03	.1438	4.5719E-03	.1604	0																		
0	24	517	7.790	1.465	2.841E-03	.0916	3.4066E-03	.0865	2.7802E-03	.0965	0																		
0	28	520	4.034	1.411	1.974E-03	.0693	2.3089E-03	.0837	2.6640E-03	.0935	0																		
0	35	524	6.790	1.210	1.703E-03	.0588	2.0616E-03	.0723	2.3036E-03	.0808	0																		
0	36	530	26.340	4.285	6.088E-03	.2123	7.3717E-03	.0723	8.2476E-03	.2894	0																		
0	37	548	65.354	11.787	1.717E-02	.6024	2.0903E-02	.7345	2.3510E-02	.8244	0																		
0	38	537	31.978	5.039	1.223E-03	.2534	8.7701E-03	.3079	9.8332E-03	.3450	0																		
0	40	527	1.955	.313	4.416E-04	.0188	3.3601E-04	.0188	3.9809E-04	.0210	0																		
0	53	527	.630	.106	1.905E-04	.0083	1.0220E-04	.0084	2.0388E-04	.0072	0																		
0	62	529	2.644	.414	8.747E-04	.0200	1.1388E-04	.0250	7.9682E-04	.0280	0																		
0	75	530	4.026	.719	1.826E-03	.0280	1.2238E-03	.0434	1.3830E-03	.0486	0																		
0	87	510	2.960	.513	1.282E-04	.0586	8.0302E-04	.0310	9.8604E-04	.0367	0																		
0	96	529	2.604	.466	6.603E-04	.0322	3.0086E-04	.0281	8.9538E-04	.0314	0																		
0	111	529	.914	.148	2.103E-04	.0074	2.0888E-04	.0089	2.8511E-04	.0100	0																		
0	120	534	5.947	.682	4.742E-04	.0242	1.1027E-03	.0415	2.9322E-03	.0465	0																		
0	14	515	10.431	1.567	2.178E-03	.0764	2.0266E-03	.0922	2.6997E-03	.1029	0																		
0	28	512	6.561	1.126	1.541E-03	.0549	1.0337E-03	.0661	2.1997E-03	.0737	0																		
0	48	515	3.121	.952	1.638E-04	.0266	9.2123E-04	.0323	1.6997E-03	.0290	0																		
0	88	528	2.021	.358	6.977E-04	.0170	6.0888E-04	.0211	6.1823E-04	.0235	0																		
0	89	528	1.011	1.175	1.664E-03	.0604	2.0160E-03	.0768	2.2050E-03	.0791	0																		
0	72	527	5.313	1.895	1.422E-03	.0490	1.0729E-03	.0400	1.9270E-03	.0471	0																		
0	78	530	3.553	.781	4.462E-04	.0360	1.2001E-03	.0421	1.3420E-03	.0471	0																		
0	85	529	1.642	.387	3.998E-04	.0190	6.6603E-04	.0234	7.4968E-04	.0262	0																		
0	77	529	1.700	.267	3.672E-04	.0180	4.8803E-04	.0186	4.9781E-04	.0175	0																		
0	84	529	1.451	.298	3.781E-04	.0180	6.8034E-04	.0181	5.1274E-04	.0180	0																		
0	94	528	1.554	.346	6.231E-04	.0140	8.1882E-04	.0180	5.7363E-04	.0201	0																		
0	39	530	12.078	2.353	3.338E-03	.0172	8.9382E-04	.0280	6.6381E-04	.0233	0																		
0	42	526	3.361	.672	4.478E-04	.1171	4.0662E-03	.1020	4.6271E-03	.1588	0																		
0	51	528	3.894	.794	1.152E-03	.0333	1.2187E-03	.0403	1.2831E-03	.0450	0																		
0	41	529	1.642	.794	4.188E-03	.0297	1.2378E-03	.0401	1.5240E-03	.0538	0																		
0	52	527	1.344	.276	3.981E-04	.0137	2.0031E-03	.0927	2.9868E-03	.1037	0																		
0	135	534	11.885	2.128	3.830E-03	.1000	3.0076E-03	.1294	4.1293E-03	.1449	LOWER WING SURFACE-ORBITER																		
0	136	529	2.434	.634	6.194E-04	.0210	7.0808E-04	.0262	8.3421E-04	.0293	X/C																		
0	137	529	1.547	.268	3.793E-04	.0120	4.0077E-04	.0161	5.3474E-04	.0180	Y/C																		
0	138	530	2.162	.398	3.651E-04	.0100	6.8822E-04	.0240	7.6072E-04	.0269	0																		
0	140	530	1.394	.242	3.442E-04	.0121	4.1730E-04	.0146	4.6877E-04	.0164	0																		
0	142	528	.822	.133	1.088E-04	.0060	2.8803E-04	.0080	2.8804E-04	.0090	0																		
0	149	535	16.222	3.365	6.018E-03	.1000	8.0010E-03	.2053	9.5957E-03	.2310	0																		
0	150	531	3.860	.753	1.070E-03	.0370	1.8207E-03	.0455	1.4822E-03	.0510	0																		
0	152	511	1.068	.304	3.177E-04	.0102	6.2707E-04	.0220	7.0263E-04	.0247	0																		
0	154	530	.867	.192	2.723E-04	.0090	3.2010E-04	.0110	3.6991E-04	.0130	0																		
0	157	528	.671	.120	1.148E-04	.0075	2.2001E-04	.0091	2.9138E-04	.0102	0																		
0	171	543	26.318	4.739	1.697E-02	.8000	2.8007E-02	.0072	2.3008E-02	.0081	0																		
0	172	536	16.316	1.793	4.549E-03	.2904	3.3601E-03	.3926	9.3578E-03	.3283	0																		
0	175	531	1.351	.271	1.852E-04	.0129	4.0721E-04	.0104	3.4908E-04	.0127	0																		
0	178	529	.624	.111	1.579E-04	.0050	1.9120E-04	.0067	2.1404E-04	.0075	0																		
0	129	536	6.442	.904	1.394E-03	.0090	1.0070E-03	.0894	1.8941E-03	.0665	UPPER WING SURFACE-ORBITER																		
0	130	528	3.164	.535	1.581E-04	.0200	9.1071E-04	.0322	1.0278E-03	.0361	X/S																		
0	131	520	1.334	.245	3.070E-04	.0122	4.2065E-04	.0148	4.7026E-04	.0165	Y/S																		
0	132	520	.560	.094	1.361E-04	.0040	1.6006E-04	.0058	1.8036E-04	.0065	0																		
0	133	527	.624	.113	1.997E-04	.0050	1.9290E-04	.0068	2.1635E-04	.0076	0																		
0	135	532	6.853	1.343	1.913E-03	.0071	2.2806E-03	.0814	2.5976E-03	.0911	0																		
0	139	532	3.824	.946	1.349E-03	.0073	1.6037E-03	.0574	1.8324E-03	.0643	0																		
0	160	533	3.134	.511	1.279E-04	.0250	0.0000E-04	.0310	9.8891E-04	.0347	0																		
0	161	525	.864	.140	1.097E-04	.0070	2.0223E-04	.0085	2.7164E-04	.0095	0																		
0	162	529	1.634	.221	3.134E-04	.0110	3.7900E-04	.0133	4.2443E-04	.0144	0																		
0	167	532	92.053	0.051	1.267E-02	.4600	1.9040E-02	.5428	1.7388E-02	.6101	VERTICAL STABILIZER-ORBITER																		
0	160	535	4.223	1.430	2.852E-03	.0720	2.8046E-03	.0875	2.7944E-03	.0981	X/S																		
0	165	535	1.700	.303	3.220E-04	.0152	9.2990E-04	.0184	5.8849E-04	.0207	Y/S																		
0	162	548	35.914	0.874	1.002E-02	.3314	1.002E-02	.4205	1.3717E-02	.4813	0																		
0	193	539	10.462	1.423	4.268E-03	.0921	3.1925E-03	.1120	3.9740E-03	.1256	0																		
0	194	538	2.313	.346	6.081E-04	.0197	3.0804E-04	.0239	7.6310E-04	.0268	0																		
0	197	546	26.041	0.930	1.156E-03	.2811	0.7178E-03	.3059	9.7862E-03	.3434	0																		
0	198	538	3.250	.496	6.477E-04	.0297	1.0																						

ALDC (ARO, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL B
 VT1162

MIN TO	DWO NOSE 2.22 IN.		UPSTREAM OF GDC-R-0236 IN. GAP	MACH NO 7.93	PU PSIA 108.8	TO DEG R 123.0	ALPHA-MODEL 5-13	ALPHA-SECTOR 5-13	ALPHA-PRESEND 0	ROLL-MODEL 0	YAW 0
	CONFID R07	MODEL GUC-H-DWO									
T-1NF (DEG H) 90.9	P-1NF (PSIA) 0.16	Q-1NF (PSIA) 7.10	V-1NF (F/SEC) 3706	RHO-1NF (SLUGS/FT ³) 1.690E-05	MU-1NF (LB-BEC/FT ²) 7.319E-00	RE/FT (FT-1) 7.99E 03	KREF-PR (R-009FT) 2.800E-02	SIFR (M-009FT) 6.549E-02	SWITCH POSITION 1		
TC NO	IN	DTML1	W-DUT	M(TO)	M(TO)/MREF	F(.9TO)	M(.9TO)/MREF	M(.05TO)	M(.05TO)/MREF	FUSELAGE-BOOSTER X/L	PHI
B 1	547	82.647	15.352	4.236E-02	.7810	2.7809E-02	.9931	3.0017E-02	1.0704		
B 2	524	23.957	4.394	0.194E-03	.2164	7.5207E-03	.6221	8.3799E-03	.2930		
B 3	523	20.473	3.752	5.279E-03	1.846	6.5073E-03	.2233	7.1366E-02	.2499		
B 4	523	15.523	2.843	0.001E-03	.1399	4.9032E-03	.1693	5.4091E-03	.1891		
B 5	522	15.109	2.768	0.888E-03	.1350	4.9032E-03	.1694	5.2839E-03	.1837		
B 6	522	16.160	2.400	0.158E-03	.1454	8.0008E-03	.1785	5.0102E-03	.1904		
B 7	521	13.151	2.408	0.378E-03	.1181	4.8808E-03	.1630	4.9522E-03	.1599		
B 8	520	11.405	2.148	0.010E-03	.1082	3.5033E-03	.1272	4.0022E-03	.1420		
B 9	520	11.099	2.090	4.929E-03	.1024	7.0013E-03	.1870	3.0006E-03	.1382		
B 10	520	9.860	1.857	4.601E-03	.0909	3.1440E-03	.1099	3.9100E-03	.1227		
B 11	519	8.058	1.474	4.063E-03	.0721	2.4491E-03	.0872	2.7049E-03	.0974		
B 12	520	10.048	1.934	4.574E-03	.0909	3.1007E-03	.1087	3.4717E-03	.1214		
B 13	520	10.048	1.934	4.574E-03	.0909	3.1007E-03	.1087	3.4717E-03	.1214		
B 14	518	9.633	1.426	4.097E-03	.0733	2.8039E-03	.0986	2.8039E-03	.0986		
B 15	518	8.204	1.761	4.463E-03	.0861	2.0799E-03	.1040	2.4798E-03	.1215		
B 17	517	6.262	1.300	4.097E-03	.0733	2.8039E-03	.0986	2.8039E-03	.0986		
B 18	518	6.044	1.164	1.598E-03	.0599	1.0200E-03	.0675	2.1501E-02	.0989		
B 19	518	4.924	.900	1.548E-03	.0540	1.0074E-03	.0653	2.0045E-03	.0729		
B 20	519	7.731	1.414	1.257E-03	.0440	1.0102E-03	.0821	1.0088E-03	.0593		
B 21	519	3.593	.657	1.979E-03	.0992	2.2999E-03	.0826	2.0172E-03	.0934		
B 22	523	10.331	1.894	4.088E-03	.0821	1.1066E-03	.0268	1.0209E-03	.0433		
B 23	519	5.905	1.080	4.088E-03	.0821	2.0280E-03	.0268	3.0022E-03	.1265		
B 24	519	6.091	1.114	1.568E-03	.0545	1.0209E-03	.0630	2.0388E-03	.0713		
B 25	519	5.905	1.080	1.518E-03	.0528	1.0209E-03	.0630	2.1046E-03	.0726		
B 26	516	5.587	1.020	1.422E-03	.0497	1.0209E-03	.0630	2.0388E-03	.0712		
B 27	516	5.328	.973	1.354E-03	.0474	1.0209E-03	.0630	1.9198E-03	.0670		
B 28	516	4.787	.874	1.219E-03	.0426	1.0209E-03	.0630	1.0377E-03	.0620		
B 29	516	4.800	.848	1.171E-03	.0410	1.0209E-03	.0630	1.0432E-03	.0624		
B 30	517	4.244	.784	1.094E-03	.0383	1.0209E-03	.0630	1.0788E-03	.0632		
B 31	517	3.704	.677	0.951E-03	.0330	1.0209E-03	.0630	1.0742E-03	.0616		
B 32	517	3.232	.591	0.782E-03	.0289	0.9000E-03	.0599	1.0742E-03	.0640		
B 33	519	3.208	.586	0.192E-04	.0224	0.9000E-03	.0599	1.1117E-03	.0399		
B 34	523	11.407	2.090	4.948E-03	.1028	2.0280E-03	.0268	1.1088E-03	.0360		
B 35	522	10.972	1.936	4.720E-03	.0931	2.0280E-03	.0268	3.0741E-03	.1260		
B 37	524	4.203	1.688	4.378E-03	.0821	2.0280E-03	.0268	3.0741E-03	.1260		
B 38	519	3.577	.654	0.148E-04	.0320	1.0209E-03	.0630	2.0388E-03	.0729		
B 39	524	6.049	1.225	1.720E-03	.0504	2.0280E-03	.0268	1.0209E-03	.0630		
B 40	524	6.074	1.016	1.430E-03	.0466	1.0209E-03	.0630	1.0209E-03	.0630		
B 41	518	2.180	.657	0.384E-04	.0223	1.0209E-03	.0630	1.0209E-03	.0630		
B 42	518	2.203	.644	0.293E-04	.0189	0.9000E-03	.0599	1.0209E-03	.0630		
B 43	518	2.103	.607	0.084E-04	.0319	0.9000E-03	.0599	1.0209E-03	.0630		
B 44	518	1.971	.388	0.417E-04	.0169	0.9000E-03	.0599	1.0209E-03	.0630		
B 45	518	1.947	.366	0.119E-04	.0170	0.9000E-03	.0599	1.0209E-03	.0630		
B 46	519	1.764	.334	0.694E-04	.0166	0.9000E-03	.0599	1.0209E-03	.0630		
B 47	521	1.455	.274	0.694E-04	.0139	0.9000E-03	.0599	1.0209E-03	.0630		
B 48	520	1.357	.254	0.588E-04	.0123	0.9000E-03	.0599	1.0209E-03	.0630		
B 49	520	.719	.135	1.097E-04	.0123	0.9000E-03	.0599	1.0209E-03	.0630		
B 50	521	1.449	.273	0.788E-04	.0120	0.9000E-03	.0599	1.0209E-03	.0630		
B 51	523	2.820	.547	1.788E-04	.0120	0.9000E-03	.0599	1.0209E-03	.0630		
B 52	526	9.538	1.803	2.547E-03	.0599	2.0280E-03	.0268	1.0209E-03	.0630		
B 53	531	20.051	3.882	0.418E-03	.1001	1.0209E-03	.0630	3.0589E-03	.1267		
B 480	519	1.044	.381	0.263E-04	.0107	0.9000E-03	.0599	1.0209E-03	.0630		
B 402	518	1.032	.194	0.714E-04	.0098	0.9000E-03	.0599	1.0209E-03	.0630		
B 404	519	1.706	.336	0.694E-04	.0104	0.9000E-03	.0599	1.0209E-03	.0630		
B 406	520	.330	.081	0.491E-05	.0029	1.0209E-03	.0630	0.3341E-04	.0221		
B 407	521	.912	.183	2.578E-04	.0099	2.0280E-03	.0268	1.0209E-03	.0630		
B 408	522	.740	.157	2.206E-04	.0077	2.0280E-03	.0268	3.4792E-04	.0121		
B 410	526	3.562	.704	0.932E-04	.0307	1.0209E-03	.0630	2.0002E-04	.0104		
B 411	528	4.614	.913	1.343E-03	.0470	1.0209E-03	.0630	1.3444E-03	.0470		
B 412	529	7.147	1.392	1.076E-03	.0482	1.0209E-03	.0630	1.0209E-03	.0630		
B 413	521	1.585	.387	0.316E-04	.0191	0.9000E-03	.0599	1.0209E-03	.0630		
B 410	520	1.624	.201	0.819E-04	.0093	0.9000E-03	.0599	1.0209E-03	.0630		
B 417	520	1.574	.208	0.799E-04	.0081	0.9000E-03	.0599	1.0209E-03	.0630		
B 419	523	1.141	.208	0.954E-04	.0080	0.9000E-03	.0599	1.0209E-03	.0630		
B 420	524	.612	.108	4.993E-04	.0188	0.9000E-03	.0599	1.0209E-03	.0630		
B 421	525	1.267	.212	0.824E-04	.0079	0.9000E-03	.0599	1.0209E-03	.0630		
B 422	520	2.619	.681	0.323E-04	.0079	0.9000E-03	.0599	1.0209E-03	.0630		
B 423	530	2.539	.919	1.158E-03	.0402	1.0209E-03	.0630	0.9000E-03	.0599		
B 424	933	0.127	.089	1.108E-03	.0402	1.0209E-03	.0630	0.9000E-03	.0599		
B 425	933	3.949	.771	0.748E-04	.0324	1.0209E-03	.0630	1.0209E-03	.0630		
B 426	923	1.729	.338	4.082E-04	.0160	0.9000E-03	.0599	1.0209E-03	.0630		
B 428	921	1.074	.212	2.327E-04	.0093	0.9000E-03	.0599	1.0209E-03	.0630		
B 428	920	.881	.166	2.327E-04	.0093	0.9000E-03	.0599	1.0209E-03	.0630		
B 432	924	1.910	.326	4.603E-04	.0101	0.9000E-03	.0599	1.0209E-03	.0630		
B 433	924	.724	.141	1.992E-04	.0059	0.9000E-03	.0599	1.0209E-03	.0630		
B 434	926	1.211	.193	4.724E-04	.0050	0.9000E-03	.0599	1.0209E-03	.0630		
B 435	926	1.845	.311	4.418E-04	.0050	0.9000E-03	.0599	1.0209E-03	.0630		
B 436	931	2.440	.485	0.896E-04	.0241	0.9000E-03	.0599	1.0209E-03	.0630		
B 437	932	3.225	.624	0.974E-04	.0214	1.0209E-03	.0630	1.0209E-03	.0630		
B 438	935	3.962	.787	1.128E-03	.0380	1.0209E-03	.0630	1.0209E-03	.0630		
B 439	927	1.686	.232	4.682E-04	.0104	0.9000E-03	.0599	1.0209E-03	.0630		
B 441	922	1.274	.249	0.503E-04	.0122	0.9000E-03	.0599	1.0209E-03	.0630		
B 442	927	.563	.091	1.279E-04	.0048	1.0209E-03	.0630	1.0209E-03	.0630		
B 443	927	1.003	.179	0.928E-04	.0060	0.9000E-03	.0599	1.0209E-03	.0630		
B 447	920	1.038	.296	0.622E-04	.0109	0.9000E-03	.0599	1.0209E-03	.0630		
B 448	930	1.809	.288	0.710E-04	.0160	0.9000E-03	.0599	1.0209E-03	.0630		
B 449	934	2.322	.268	0.999E-04	.0109	0.9000E-03	.0599	1.0209E-03	.0630		
B 481	934	3.052	.442	0.258E-04	.0227	1.0209E-03	.0630	1.0209E-03	.0630		
B 482	924	1.594	.211	0.287E-04	.0050	1.0209E-03	.0630	1.0209E-03	.0630		
B 484	924	1.303	.283	0.807E-04	.0109	0.9000E-03	.0599	1.0209E-03	.0630		
B 486	924	.963	.094	1.222E-04	.0123	0.9000E-03	.0599	1.0209E-03	.0630		
B 488	927	.722	.124	1.053E-04	.0087	0.9000E-03	.0599	1.0209E-03	.0630		
B 489	931	0.110	1.192	1.099E-03	.0600	0.9000E-03	.0599	1.0209E-03	.0630		

NOT REPRODUCIBLE

VON KARMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL #
VII162

Table with columns: DWD NOSE CONFIG, UPSIREAM OF GDC-R, GDC-R, ALPHA-MODEL, ALPHA-SECTOR, ALPHA-PREBEND, ROLL-MODEL, YAW, T-INF, P-INF, Q-INF, V-INF, RHO-INF, MU-INF, RE/FT, MREF-FR, SIFN, SWITCH, TC NO, TM, U(T), U-DOT, H(T), H(T)/HREF, H(.9TO), H(.9TO)/HREF, H(.85TO), H(.85TO)/HREF, FUSELAGE-BOOSTER, UPPER WING SURFACE-BOOSTER, UPPER CANARD SURFACE-BOOSTER. Rows contain numerical data for various parameters across different test cases.

GROUP		TC NO	TR	TIME	U-INF (PSIA)	V-INF (PSIA)	RHO-INT (SLUGS/FT ³)	MU-INT (LB-SEC/FT ²)	ALPHA-POOL	ALPHA-SECTOR	ALPHA-PREMIUM	ROLL-MODEL	YAW
0	1	541	47.327	17.449	2.927E-02	.0798	3.07740E-02	1.0090	3.4491E-02	1.1952	FUSELAGE-ORBITER		
0	2	516	15.914	5.786	0.066E-03	.2796	0.7011E-03	.3376	1.0060E-02	.3764	A/L	Y/YAW	
0	7	511	15.374	2.717	3.763E-03	.1306	0.3303E-03	.1573	5.0343E-03	.1754	.0100	.00	
0	17	505	6.452	1.215	1.034E-03	.0636	2.2080E-04	.0706	2.4587E-03	.0852	.0300	.00	
0	19	504	2.051	.379	5.198E-04	.0100	6.2598E-04	.0217	6.9045E-04	.0241	.0500	.00	
0	29	502	.661	.116	1.598E-04	.0055	1.0127E-04	.0006	2.1248E-04	.0074	.1000	.00	
0	44	519	15.001	2.686	3.762E-03	.1304	4.9471E-03	.1576	5.0771E-03	.1760	.3000	.00	
0	56	523	5.913	1.146	1.616E-03	.0500	1.4993E-03	.0678	2.1867E-03	.0757	.4000	.00	
0	64	526	3.524	.648	4.167E-04	.0218	1.1104E-03	.0385	1.2416E-03	.0430	.5000	.00	
0	76	528	3.874	.629	8.439E-04	.0309	1.0017E-03	.0338	1.2100E-03	.0419	.6000	.00	
0	80	530	2.964	.565	5.924E-04	.0278	1.0017E-03	.0338	1.0702E-03	.0378	.7000	.00	
0	89	528	2.264	.421	3.964E-04	.0207	7.2270E-04	.0251	4.0043E-04	.0200	.8000	.00	
0	94	525	1.250	.216	1.046E-04	.0106	3.0000E-04	.0120	4.1231E-04	.0143	.9000	.00	
0	104	524	.794	.144	4.086E-04	.0070	2.4270E-04	.0004	2.7130E-04	.0004	.9500	.00	
0	114	522	.317	.071	1.001E-04	.0039	1.2109E-04	.0002	1.3824E-04	.0004	.9800	.00	
0	20	506	3.100	.232	3.188E-04	.0111	3.0300E-04	.0131	4.2769E-04	.0144	.9900	.00	
0	31	504	1.130	.229	1.141E-04	.0109	4.320E-03	.0147	4.2047E-03	.0146	.9900	.00	
0	46	520	15.051	4.079	4.320E-03	.1497	7.2160E-04	.0210	4.8347E-03	.0222	.9900	.00	
0	56	519	2.232	.432	0.053E-04	.0210	5.9973E-04	.0193	6.2043E-04	.0203	.9900	.00	
0	69	522	1.764	.327	4.594E-04	.0189	2.2601E-04	.0079	2.5178E-04	.0088	.9900	.00	
0	83	528	.674	.132	1.873E-04	.0085	1.6970E-04	.0082	1.6740E-04	.0088	.9900	.00	
0	92	526	.476	.087	1.237E-04	.0063	1.5901E-04	.0059	2.2143E-04	.0077	.9900	.00	
0	101	525	.565	.116	1.639E-04	.0046	1.0100E-04	.0065	1.8002E-04	.0063	.9900	.00	
0	107	524	.531	.095	1.338E-04	.0030	1.3104E-04	.0046	1.4693E-04	.0051	.9900	.00	
0	117	524	.397	.077	1.086E-04	.0030	2.2117E-03	.0767	2.4633E-03	.0775	.9900	.00	
0	5	506	4.625	1.335	1.837E-03	.0637	2.0075E-03	.0696	2.2300E-03	.0750	.9900	.00	
0	10	506	6.875	1.211	1.667E-03	.0578	9.1493E-04	.0317	1.0190E-03	.0353	.9900	.00	
0	24	508	2.940	.550	7.589E-04	.0263	7.6689E-04	.0266	8.9444E-04	.0296	.9900	.00	
0	28	511	2.954	.459	6.357E-04	.0220	1.0203E-04	.0030	1.1490E-03	.0397	.9900	.00	
0	35	515	3.444	.610	8.800E-04	.0293	1.5020E-03	.0260	2.3520E-03	.0816	.9900	.00	
0	36	518	7.737	1.248	1.744E-03	.0505	2.1077E-03	.0575	1.4774E-02	.5121	.9900	.00	
0	37	532	42.674	7.630	1.088E-02	.3771	1.3109E-02	.4575	8.3306E-03	.2889	.9900	.00	
0	38	528	27.684	4.339	6.150E-03	.2132	1.2527E-03	.0434	1.3991E-03	.0485	.9900	.00	
0	40	521	4.728	.738	1.036E-03	.0359	2.2309E-04	.0077	2.4915E-03	.0086	.9900	.00	
0	53	520	.788	.132	1.848E-04	.0064	1.4173E-04	.0069	1.5832E-04	.0055	.9900	.00	
0	62	521	.534	.083	1.172E-04	.0041	7.2179E-04	.0249	8.0238E-04	.0278	.9900	.00	
0	75	524	2.364	.421	3.932E-04	.0206	6.7155E-04	.0233	7.5087E-04	.0260	.9900	.00	
0	87	526	2.268	.392	3.544E-04	.0192	9.9312E-04	.0206	4.6306E-04	.0230	.9900	.00	
0	96	525	1.946	.347	4.898E-04	.0170	8.3609E-05	.0019	3.9770E-05	.0021	.9900	.610	
0	111	525	.193	.031	4.10E-05	.0015	3.8630E-04	.0134	4.321E-04	.0150	.9900	.305	
0	120	528	1.972	.225	1.203	.658E-03	2.5409E-03	.0081	2.8318E-03	.0982	.9900	.00	
0	4	510	10.185	1.526	1.888E-04	.0110	1.9972E-03	.0692	2.2249E-03	.0771	.9900	1.000	
0	14	508	7.035	1.203	1.658E-03	.0692	6.7300E-04	.0330	1.0848E-03	.0376	.9900	1.000	
0	22	507	3.331	.567	6.085E-04	.0200	9.7030E-04	.0339	1.0401E-03	.0378	.9900	1.000	
0	28	508	3.338	.589	6.120E-04	.0201	1.1100E-03	.0385	1.2404E-03	.0430	.9900	1.000	
0	48	520	3.930	.656	1.188E-04	.0318	1.2347E-03	.0428	1.3790E-03	.0478	.9900	1.000	
0	59	520	3.862	.728	1.021E-03	.0390	1.4413E-03	.0500	1.6100E-03	.0588	.9900	1.000	
0	72	521	4.258	.848	1.192E-03	.0434	3.6978E-04	.0197	6.3701E-04	.0221	.9900	1.000	
0	78	526	2.199	.333	4.703E-04	.0163	3.4426E-04	.0119	3.8488E-04	.0133	.9900	1.000	
0	89	526	1.129	.201	2.643E-04	.0080	2.4032E-04	.0083	2.6863E-04	.0093	.9900	1.000	
0	84	525	.894	.141	1.985E-04	.0089	2.2991E-04	.0077	2.4930E-04	.0086	.9900	1.000	
0	96	525	.653	.130	1.842E-04	.0064	2.2791E-04	.0079	2.5419E-04	.0088	.9900	1.000	
0	39	523	.817	.133	1.878E-04	.0065	2.2791E-04	.0079	3.9359E-03	.1364	.9900	1.000	
0	42	520	10.058	2.008	4.911E-03	.1009	3.9229E-03	.1221	1.0796E-03	.0374	.9900	.466	
0	51	523	2.864	.570	1.998E-04	.0277	4.6677E-04	.0345	1.3393E-03	.0464	.9900	.433	
0	41	521	3.436	.704	4.906E-04	.0343	1.1947E-03	.0449	1.4460E-03	.0501	.9900	.465	
0	52	521	1.351	.285	1.070E-03	.0371	1.2946E-03	.0486	1.4460E-03	.0501	.9900	.465	
0	135	533	20.487	3.665	5.232E-03	.1813	6.3499E-03	.2201	7.1044E-03	.2464	LOWER WING SURFACE-ORBITER		
0	136	527	7.730	1.380	1.955E-03	.0678	2.3699E-03	.0621	2.6300E-03	.0919	X/C	Y/Z	
0	137	527	3.845	.642	4.093E-04	.0315	1.2101E-03	.0382	1.2319E-03	.0427	.0000	.250	
0	138	527	1.957	.286	4.047E-04	.0160	4.9029E-04	.0170	5.4809E-04	.0190	.2000	.250	
0	140	527	1.024	.178	4.510E-04	.0087	3.0489E-04	.0106	3.4090E-04	.0118	.4000	.250	
0	142	524	.486	.079	1.109E-04	.0030	1.3628E-04	.0097	1.5038E-04	.0052	.6000	.250	
0	149	535	26.724	4.941	7.062E-03	.2348	8.5763E-03	.2973	9.6065E-03	.3330	.9000	.250	
0	150	530	9.746	1.909	2.714E-03	.0941	3.2911E-03	.1141	3.6827E-03	.1276	.0000	.500	
0	151	528	4.751	.925	1.312E-03	.0455	1.5904E-03	.0551	1.7791E-03	.0617	.1000	.500	
0	152	528	2.020	.351	4.973E-04	.0172	6.0273E-04	.0209	6.7416E-04	.0234	.2000	.500	
0	154	527	1.320	.235	3.335E-04	.0116	4.0407E-04	.0140	4.5189E-04	.0157	.4000	.500	
0	157	525	.633	.113	1.592E-04	.0055	1.9275E-04	.0067	2.1547E-04	.0075	.6000	.500	
0	171	541	31.767	5.708	6.242E-03	.2057	7.2028E-02	.3476	1.1247E-02	.3898	.9000	.500	
0	172	534	14.209	2.466	4.525E-03	.1222	4.2800E-03	.1683	4.7929E-03	.1661	.9900	.750	
0	175	529	3.204	.642	4.117E-04	.0316	1.1092E-03	.0383	1.2364E-03	.0429	.9900	.750	
0	178	526	1.054	.188	4.656E-04	.0092	3.2163E-04	.0111	3.5959E-04	.0125	.9900	.750	
0	129	526	3.460	.523	7.403E-04	.0257	8.9678E-04	.0311	1.0027E-03	.0348	UPPER WING SURFACE-ORBITER		
0	130	524	1.319	.221	1.111E-04	.0100	3.7699E-04	.0131	4.2048E-04	.0146	X/C	Y/Z	
0	131	524	.347	.073	1.025E-04	.0036	1.2410E-04	.0043	1.3869E-04	.0048	.0000	.100	
0	132	524	.171	.032	4.551E-05	.0016	5.0800E-05	.0019	6.1533E-05	.0021	.4000	.100	
0	133	522	.164	.026	3.977E-05	.0014	4.8122E-05	.0017	5.3765E-05	.0019	.7000	.100	
0	158	526	5.176	.793	1.108E-03	.0380	1.3419E-03	.0465	1.5005E-03	.0520	.9000	.100	
0	159	526	3.367	.546	7.720E-04	.0266	4.3920E-04	.0324	1.0495E-03	.0362	.0000	.500	
0	160	528	1.356	.220	1.117E-04	.0108	3.7767E-04	.0131	4.2239E-04	.0166	.1000	.500	
0	161	527	.502	.087	1.227E-04	.0043	1.4866E-04	.0052	1.6623E-04	.0058	.4000	.500	
0	162	525	.445										

NOT REPRODUCIBLE

5/26/71

AEDC (ARO, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 VT1102

RUN	NO	MOUSE	CONF IG	MODEL	UPSTREAM OF	GDC-NO.	IN. GAP	ALPHA-PODFL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
11		2.22 IN.	807	CLC-H-000	MACH NO	0.236	10 DEG	00	5.05	0	-00.00	5.0
T-1NF	P-1NF	O-1NF	V-1NF	RHO-1NF	MU-1NF	RE/FT	PREF-FM	STFR	SWITCH			
(DEG H)	(PSIA)	(PSIA)	(F/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FT-1)	(M+009F1)	(M+009F1)	POSITION			
97.4	0.88	3.952	3869	7.599E-05	7.842E-08	3.75E 06	6.844E-02	2.926E-02	1			
TC NO	TW	DTML	C-000	H(T0)	H(T0)/HREF	P(L9T0)	H(L9T0)/HREF	H(L85T0)	H(L85T0)/HREF			
H	1	602	211.806	40.425	3.447E-07	.7956	6.6514E-02	.9713	7.4743E-02	1.0921		
H	2	546	43.800	4.988	1.251E-02	.1827	1.2508E-02	.2198	1.6743E-02	.2445		
H	3	569	60.752	11.296	1.421E-07	.2075	1.7098E-02	.2497	1.9035E-02	.2780		
H	4	579	34.590	6.395	7.939E-03	.1159	9.5285E-03	.1391	1.0549E-02	.1546		
H	5	540	35.107	6.497	6.042E-03	.1258	1.0348E-02	.1417	1.0748E-02	.1575		
H	6	542	37.274	6.906	6.413E-03	.1389	1.1425E-02	.1688	1.1506E-02	.1680		
H	7	542	41.170	7.746	6.632E-03	.1407	1.1564E-02	.1689	1.2704E-02	.1855		
H	8	540	40.666	7.376	6.168E-03	.1339	1.1007E-02	.1607	1.2854E-02	.1877		
H	9	540	34.732	6.311	7.836E-03	.1144	9.0035E-03	.1373	1.2233E-02	.1786		
H	10	538	33.204	4.880	6.035E-03	.0881	7.2382E-03	.1057	1.0449E-02	.1526		
H	11	535	26.440	3.827	4.738E-03	.0692	5.6831E-03	.0830	8.0396E-03	.1174		
H	12	536	20.724	4.469	6.538E-03	.0809	6.6643E-03	.0970	6.3132E-03	.0922		
H	13	537	24.188	4.880	6.049E-03	.0883	7.2581E-03	.1060	7.3819E-03	.1078		
H	14	537	26.405	5.213	6.446E-03	.0944	7.7600E-03	.1133	8.0622E-03	.1178		
H	15	538	28.206	5.674	6.785E-03	.0985	8.9389E-03	.1193	8.6225E-03	.1259		
H	17	536	25.311	4.674	6.079E-03	.0741	6.0895E-03	.0884	7.7079E-03	.1259		
H	18	534	22.260	4.110	4.3247E-03	.0527	4.3247E-03	.0632	6.7540E-03	.0967		
H	19	534	15.862	2.500	3.607E-03	.0496	4.0600E-03	.0593	4.8027E-03	.0701		
H	20	517	14.760	2.731	3.384E-03	.0496	4.0600E-03	.0593	4.5114E-03	.0654		
H	21	550	51.627	4.603	1.209F-02	.1766	1.4593E-02	.2125	1.6203E-02	.2366		
H	22	543	34.344	6.367	7.950E-03	.1161	9.5934E-03	.1395	1.0625E-02	.1552		
H	23	537	11.840	2.132	2.640E-03	.0386	3.2167E-03	.0463	3.5191E-03	.0514		
H	24	537	17.644	2.331	2.897E-03	.0423	3.4780E-03	.0508	3.8620E-03	.0564		
H	25	537	13.532	1.701	3.097E-03	.0452	3.7195E-03	.0543	4.1278E-03	.0603		
H	26	536	14.632	2.843	3.340E-03	.0480	4.0063E-03	.0585	4.4499E-03	.0650		
H	27	536	15.399	2.888	3.576E-03	.0513	4.2169E-03	.0616	4.6838E-03	.0684		
H	28	536	15.626	3.159	3.904E-03	.0570	4.6010E-03	.0684	4.7566E-03	.0695		
H	29	535	17.123	3.031	3.746E-03	.0547	4.4910E-03	.0656	4.9887E-03	.0729		
H	30	535	16.424	2.980	3.516E-03	.0530	4.1906E-03	.0645	4.9033E-03	.0716		
H	31	535	16.148	1.995	2.463E-03	.0366	2.9594E-03	.0431	3.2745E-03	.0479		
H	32	534	10.815	1.495	1.463E-03	.0260	1.9912E-03	.0401	1.0667E-02	.1558		
H	33	543	34.445	6.394	7.982E-03	.1166	9.9012E-03	.1481	1.0722E-02	.1566		
H	34	541	34.807	6.444	8.029F-03	.1173	9.0446E-03	.1408	1.0833E-03	.1330		
H	35	539	29.713	5.496	6.827E-03	.0997	8.1856E-03	.1197	5.0936E-03	.0738		
H	37	538	16.536	3.056	3.790E-03	.0553	4.5401E-03	.0664	2.9815E-03	.0293		
H	38	534	6.616	1.220	1.506E-03	.0220	1.0046E-03	.0284	1.5379E-02	.0431		
H	39	539	9.627	1.781	2.212E-03	.0323	2.6997E-03	.0388	1.5379E-02	.2246		
H	40	555	53.134	9.037	1.148E-02	.1672	1.2806E-02	.2015	1.3424E-03	.0196		
H	41	534	3.865	.818	1.009E-03	.0147	1.2800E-03	.0177	1.4792E-03	.0216		
H	42	533	4.437	.902	1.112E-03	.0162	1.3323E-03	.0195	1.6377E-03	.0239		
H	43	534	5.108	.997	1.230E-03	.0180	1.0749E-03	.0215	1.6451E-03	.0248		
H	44	534	5.201	1.032	1.273E-03	.0186	1.9266E-03	.0223	1.9845E-03	.0291		
H	45	533	6.367	1.212	1.495E-03	.0210	1.7919E-03	.0262	2.0845E-03	.0329		
H	46	535	6.125	1.163	1.437E-03	.0210	1.7230E-03	.0252	1.9144E-03	.0280		
H	49	541	12.811	2.441	1.517E-03	.0222	1.8109E-03	.0266	2.0218E-03	.0295		
H	48	536	5.855	1.075	1.331E-03	.0190	1.9969E-03	.0233	1.7739E-03	.0259		
H	49	535	2.975	.565	6.985E-04	.0102	8.3771E-04	.0122	9.3040E-04	.0136		
H	50	541	12.811	2.441	1.038E-03	.0146	2.60470E-03	.0233	4.0590E-03	.0592		
H	51	539	8.287	1.622	2.014E-03	.0294	2.4179E-03	.0353	2.6865E-03	.0392		
H	52	547	29.310	5.605	7.028E-03	.1026	8.6534E-03	.1234	9.4071E-03	.1374		
H	53	566	75.716	14.197	1.819E-02	.2656	2.1974E-02	.3209	2.4525E-02	.3581		
H	400	530	2.480	.456	3.607E-04	.0082	6.7195E-04	.0098	7.4525E-04	.0109		
H	402	531	2.204	.419	3.148E-04	.0075	6.1818E-04	.0090	6.8895E-04	.0100		
H	404	534	4.079	1.604	1.979E-03	.0289	2.3721E-03	.0346	2.6340E-03	.0385		
H	406	532	1.195	.221	1.720E-04	.0040	3.2593E-04	.0048	3.6182E-04	.0053		
H	407	535	4.060	.771	4.527E-04	.0139	1.1426E-03	.0167	1.2680E-03	.0185		
H	408	541	13.994	2.704	4.372E-03	.0492	4.663E-03	.0591	4.5019E-03	.0657		
H	409	541	17.158	3.428	4.268E-03	.0623	5.1299E-03	.0769	5.6986E-03	.0832		
H	410	542	18.891	3.759	4.688E-03	.0689	5.4326E-03	.0823	6.2633E-03	.0915		
H	411	545	22.005	4.395	5.500E-03	.0803	6.0119E-03	.0966	7.3851E-03	.1074		
H	412	544	20.071	3.942	4.929E-03	.0720	5.0290E-03	.0865	6.5947E-03	.0962		
H	413	533	2.283	.445	3.488E-04	.0080	4.8770E-04	.0096	7.3016E-04	.0107		
H	415	531	2.078	.412	3.062E-04	.0074	4.0043E-04	.0089	6.7303E-04	.0098		
H	417	533	7.133	1.222	1.505E-03	.0220	1.6041E-03	.0293	2.0629E-03	.0242		
H	419	535	3.271	.605	1.481F-04	.0109	8.9710E-04	.0131	4.9631E-04	.0145		
H	420	536	10.362	1.778	2.202E-03	.0322	2.6613E-03	.0386	2.9341E-03	.0428		
H	421	539	8.149	1.374	1.708E-03	.0249	2.0074E-03	.0294	2.2753E-03	.0332		
H	422	543	12.747	2.362	2.948E-03	.0431	3.5827E-03	.0517	3.9398E-03	.0575		
H	423	545	17.992	3.681	4.605E-03	.0673	5.5936E-03	.0809	6.1989E-03	.0894		
H	424	548	19.923	3.054	3.833E-03	.0560	4.6119E-03	.0673	5.1324E-03	.0749		
H	425	547	14.447	2.841	3.562E-03	.0520	4.2806E-03	.0626	4.7679E-03	.0696		
H	426	533	2.266	.442	3.450E-04	.0080	4.6501E-04	.0096	7.2617E-04	.0106		
H	428	532	2.192	.436	3.364F-04	.0078	4.2427E-04	.0094	7.1351E-04	.0104		
H	430	531	3.474	.658	6.092E-04	.0118	9.6941E-04	.0142	1.0759E-03	.0157		
H	432	538	7.960	1.368	1.697E-03	.0240	2.0366E-03	.0297	2.2630E-03	.0330		
H	433	533	2.741	.538	6.594E-04	.0096	7.9039E-04	.0119	8.7747E-04	.0128		
H	434	504	15.784	2.536	3.168E-03	.0463	3.6069E-03	.0556	4.2340E-03	.0618		
H	435	562	11.943	2.278	2.840E-03	.0375	3.2117E-03	.0498	3.7936E-03	.0554		
H	436	545	15.753	3.146	4.937E-03	.0619	5.7330E-03	.0769	5.2653E-03	.0769		
H	437	545	16.329	3.206	4.815E-03	.0586	5.4821E-03	.0769	4.5271E-03	.0784		
H	438	545	13.324	2.662	3.330E-03	.0486	4.0024E-03	.0585	4.5947E-03	.0650		
H	439	533	2.252	.447	3.504E-04	.0080	4.5967E-04	.0096				

VON KARMAN GAS DYNAMICS FACILITY
90 INCH HYPERSONIC TUNNEL B
U11102

RUN 11	DWO NOSE 7.22 IN.		UPSTREAM OF		GDC-R. +234 IN. GAP		ALPHA-MODEL		ALPHA-SECTOR		ALPHA-PREBEND		ROLL-MODEL		YAW 5.1
	CONF R07	MODEL CUC-H*DWU	MACH NO R.00	PU PSIA 856.5	TO DEG H 1342	RE/FT (F1-1)	MREF-FR (M= .009F1)	SIFR (M= .009F1)	SWITCH POSITION	ROLL-MODEL -90.00					
T-1AF (DEG R)	P-1NF (PSIA)	U-1AF (PSIA)	V-1NF (PSIA)	RHO-1NF (SLUGS/FT3)	MU-1NF (LB-SEC/FT2)										
97.2	.04M	3.430	JR65	7.570E-05	7.829E-08	3.74E 06	6.827E-02	2.431E-02	2						
TC NO	TM	UTWL	U-D01	H(TO)	H(TO)/MREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER					
										X/L	PMI				
H 600	544	15.04H	2.401	4.636E-03	.0933	4.370E-03	.0440	4.8617E-03	.0712						
H 601	543	4.34V	1.742	4.180E-03	.0319	4.6199E-03	.0384	2.9140E-03	.0427						
H 602	545	12.317	2.352	4.951E-03	.0432	3.5488E-03	.0520	3.9485E-03	.0578						
H 603	545	11.624	2.220	4.786E-03	.0408	3.3696E-03	.0441	3.7268E-03	.0546						
H 604	544	10.564	2.013	4.523E-03	.0370	3.0335E-03	.0444	3.3746E-03	.0494						
H 104	546	1.754	.343	4.252E-04	.0062	3.1013E-04	.0075	5.6671E-04	.0083						
H 109	544	11.84J	2.576	4.230E-03	.0473	3.8829E-03	.0569	4.3147E-03	.0633						
H 110	545	13.16V	2.444	4.067E-03	.0449	3.6085E-03	.0540	4.1041E-03	.0601						
H 111	545	4.825	1.823	4.288E-03	.0335	2.7511E-03	.0403	3.0611E-03	.0444						
H 112	544	7.46U	1.472	1.845E-03	.0270	2.2173E-03	.0325	2.4666E-03	.0361						
H 113	537	1.821	.362	4.504E-04	.0066	3.4091E-04	.0079	6.0063E-04	.0086						
H 114	545	11.001	1.981	4.486E-03	.0264	2.9809E-03	.0438	3.3262E-03	.0487						
H 115	544	4.876	1.832	4.297E-03	.0336	2.7617E-03	.0405	3.0725E-03	.0450						
H 116	544	8.562	1.592	1.998E-03	.0293	2.4019E-03	.0352	2.6726E-03	.0391						
H 119	544	8.306	1.541	1.932E-03	.0283	2.3226E-03	.0340	2.5839E-03	.0379						
H 120	538	1.834	.338	4.537E-04	.0066	3.4453E-04	.0080	6.0512E-04	.0089						
H 125	550	25.530	5.238	6.616E-03	.0969	7.9665E-03	.1107	4.8716E-03	.1300						
H 127	545	4.066	1.692	4.110E-03	.0309	2.5371E-03	.0372	2.8228E-03	.0414						
H 128	544	5.44J	1.018	1.276E-03	.0187	1.9340E-03	.0225	1.7064E-03	.0250						
H 129	545	4.986	1.853	4.328E-03	.0341	2.7962E-03	.0410	3.1113E-03	.0456						
H 130	545	4.089	1.686	4.116E-03	.0310	2.5441E-03	.0373	2.8305E-03	.0415						
H 131	540	6.685	1.237	1.543E-03	.0236	1.8533E-03	.0271	2.0640E-03	.0302						
H 134	544	7.015	1.301	1.631E-03	.0239	1.9010E-03	.0287	2.1816E-03	.0320						
H 139	544	6.853	1.271	1.594E-03	.0233	1.8182E-03	.0281	2.1321E-03	.0312						
H 140	544	8.241	1.528	1.914E-03	.0280	2.3012E-03	.0337	2.5549E-03	.0375						
H 141	543	9.559	1.772	2.218E-03	.0325	2.6666E-03	.0391	2.9653E-03	.0434						
H 142	540	3.936	.728	4.077E-04	.0133	1.0900E-03	.0160	1.2117E-03	.0178						
H 150	544	10.17H	1.887	4.365E-03	.0346	2.8431E-03	.0416	3.1628E-03	.0463						
H 151	544	10.751	1.994	4.501E-03	.0366	3.0066E-03	.0440	3.3444E-03	.0490						
H 152	545	4.436	1.750	4.196E-03	.0322	2.6400E-03	.0387	2.9372E-03	.0430						
H 153	541	4.971	.920	1.149E-03	.0160	1.3790E-03	.0202	1.5342E-03	.0225						
H 154	539	3.074	.552	6.878E-04	.0101	0.2003E-03	.0121	9.1824E-04	.0135						
H 159	544	4.394	1.691	4.119E-03	.0310	2.5466E-03	.0373	2.8431E-03	.0415						
H 160	544	4.439	1.699	4.129E-03	.0312	2.5592E-03	.0375	2.8649E-03	.0417						
H 161	539	3.013	.541	6.741E-04	.0099	0.0937E-03	.0114	8.9967E-04	.0132						
H 162	536	1.620	.290	4.605E-04	.0053	4.3258E-04	.0063	4.8061E-04	.0070						
H 171	541	6.313	1.168	1.458E-03	.0214	1.7517E-03	.0257	1.9475E-03	.0285						
H 172	537	2.544	.470	3.846E-04	.0086	7.0003E-04	.0103	7.7886E-04	.0114						
										UPPER WING SURFACE-BOOSTER					
										X/L	Y/S				
H 200	573	74.51V	12.457	1.620E-02	.2373	1.9020E-02	.2074	2.1938E-02	.3214						
H 201	546	33.971	4.028	5.126E-03	.0751	6.1013E-03	.0909	6.8408E-03	.1009						
H 202	542	74.533	3.494	4.427E-03	.0640	5.0332E-03	.0781	5.9416E-03	.0870						
H 203	545	6.157	1.207	1.616E-03	.0237	1.8043E-03	.0289	2.1022E-03	.0317						
H 204	547	7.879	1.399	1.766E-03	.0258	2.1176E-03	.0310	2.3570E-03	.0345						
H 205	544	7.784	1.396	1.750E-03	.0256	2.1042E-03	.0308	2.3410E-03	.0343						
H 206	546	7.132	1.229	1.546E-03	.0226	1.8917E-03	.0271	2.0600E-03	.0302						
H 207	546	4.772	.934	1.174E-03	.0172	1.3126E-03	.0207	1.5718E-03	.0230						
H 217	547	189.36V	23.861	3.032E-02	.4692	3.9082E-02	.5722	4.3082E-02	.6428						
H 218	566	88.797	8.816	1.137E-02	.1666	1.3749E-02	.2014	1.5355E-02	.2249						
H 219	560	53.957	5.341	6.829E-03	.0476	8.2432E-03	.1200	9.1933E-03	.1347						
H 220	544	28.222	2.569	3.264E-03	.0476	3.9342E-03	.0576	4.3866E-03	.0642						
H 221	547	8.543	1.690	4.127E-03	.0312	4.5525E-03	.0375	2.8677E-03	.0417						
H 222	543	5.218	.939	1.176E-03	.0172	1.4131E-03	.0207	1.5718E-03	.0230						
H 223	543	3.954	.682	6.533E-04	.0125	1.0299E-03	.0130	1.0710E-03	.0135						
H 230	595	147.41V	27.613	4.966E-02	.9415	4.9666E-02	.6000	1.1405E-02	.0167						
H 231	554	43.775	5.210	6.616E-03	.0969	7.9773E-03	.1109	5.0594E-02	.7411						
H 232	547	9.861	1.939	4.441E-03	.0388	5.0363E-03	.0630	6.8946E-03	.1302						
H 233	546	8.445	1.621	4.037E-03	.0290	2.4498E-03	.0359	3.7262E-03	.0479						
H 234	545	7.682	1.425	1.788E-03	.0262	2.1496E-03	.0315	2.3917E-03	.0350						
H 235	548	8.587	.629	1.928E-04	.0116	9.5418E-04	.0140	1.0623E-03	.0156						
H 236	547	8.155	.668	4.412E-04	.0123	1.0121E-03	.0148	1.1265E-03	.0161						
H 237	547	7.944	.651	4.193E-04	.0120	9.8963E-04	.0144	1.0970E-03	.0161						
H 238	546	6.794	.527	6.628E-04	.0097	7.9727E-04	.0117	8.8728E-04	.0130						
H 248	610	170.850	20.025	2.738E-02	.4010	4.3926E-02	.6911	3.7768E-02	.5533						
H 249	544	25.442	3.143	3.988E-03	.0504	4.8067E-03	.0704	5.3502E-03	.0785						
H 250	545	25.190	2.874	4.653E-03	.0535	4.4039E-03	.0655	4.9083E-03	.0719						
H 251	550	11.111	2.188	2.762E-03	.0405	3.3250E-03	.0487	3.7029E-03	.0542						
H 252	547	7.581	1.515	1.906E-03	.0279	2.2027E-03	.0346	2.5517E-03	.0374						
H 263	604	205.452	25.977	3.522E-02	.5159	4.3094E-02	.6307	4.8440E-02	.7096						
H 264	557	33.684	4.161	3.301E-03	.0776	3.9346E-03	.0937	7.1281E-03	.1044						
H 265	549	5.156	1.015	1.290E-03	.0187	1.5402E-03	.0226	1.7148E-03	.0251						
H 266	547	3.663	.720	9.068E-04	.0133	1.0907E-03	.0160	1.2140E-03	.0178						
H 277	605	262.742	25.845	4.586E-02	.5136	4.2846E-02	.6279	6.0230E-02	.7065						
H 278	557	32.711	4.348	5.543E-03	.0812	6.0870E-03	.0980	7.6568E-03	.1092						
H 279	556	25.306	3.125	4.977E-03	.0583	4.7858E-03	.0703	5.3462E-03	.0783						

ALUC (AMU, INC.) ANNULUS OFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL #
 V11102

RUN ID	CONFIG NO	MODEL GUC-H	MACH NO H.00	PU PSIA 0%0.3	TC DEG R 1367	ALPHA-MODEL .04	ALPHA-SECTOR .04	ALPHA-PREBEND 0	ROLL-MODEL 0	YAW 0	FUSELAGE-BOOSTER	
											K/L	PHI
T-1AF (OEU N)	M-1NF (PS1A)	U-1NF (PS1A)	V-1NF (F1/SLC)	RU-1NF (SLUGS/FT3)	BU-1NF (LO-56C/FT2)	HE/FT (PT-1)	HREF-FH (R= .009FT)	SIFH (R= .009FT)	SWITCH POSITION			
97.6	0.0HR	3.929	3.072	7.990E-03	7.057E-08	3.72E 00	0.830E-02	2.938E-02	1			
TC NO	TW	UTWCI	U-DUT	H(TO)	H(TO)/HREF	F(L,STO)	H(L,STO)/HREF	H(L,STO)	H(L,STO)/HREF			
0	1	610	210.734	40.362	5.476E-02	.0017	0.0806E-02	.9809	7.5426E-02	1.1043	0	0
0	2	595	53.110	9.909	1.252E-02	.1033	1.9090E-02	.2209	1.6016E-02	.2462	.0137	0
0	3	557	61.474	11.476	1.452E-02	.2126	1.7900E-02	.2503	1.9911E-02	.2897	.0137	180.000
0	4	550	31.737	5.905	1.413E-03	.1085	8.9217E-03	.1306	9.9322E-03	.1454	.0274	0
0	5	549	12.306	0.007	1.532E-03	.1103	9.0020E-03	.1327	1.0087E-02	.1477	.0274	30.000
0	6	548	34.533	6.419	0.040E-03	.1177	9.0711E-03	.1416	1.0763E-02	.1576	.0274	60.000
0	7	548	33.292	0.188	1.750E-03	.1135	9.3221E-03	.1365	1.0375E-02	.1519	.0274	90.000
0	8	549	34.380	6.581	0.250E-03	.1208	9.9292E-03	.1453	1.1047E-02	.1617	.0274	120.000
0	9	549	35.480	6.793	0.520E-03	.1267	1.0251E-02	.1501	1.1411E-02	.1671	.0274	150.000
0	10	549	34.386	6.581	0.249E-03	.1208	9.9281E-03	.1453	1.1046E-02	.1617	.0274	180.000
0	11	547	26.539	4.930	0.166E-03	.0903	7.0143E-03	.1066	8.2498E-03	.1208	.0460	180.000
0	12	546	20.488	3.800	4.748E-03	.0096	5.7070E-03	.0026	6.3902E-03	.0030	.0543	0
0	13	545	20.754	3.851	4.806E-03	.0704	5.7704E-03	.0066	6.4253E-03	.0041	.0543	30.000
0	14	546	20.754	3.851	4.807E-03	.0704	5.7709E-03	.0066	6.4249E-03	.0041	.0543	60.000
0	15	546	21.132	4.106	5.136E-03	.0751	6.1676E-03	.0093	6.8612E-03	.0105	.0543	90.000
0	16	546	21.725	4.031	5.029E-03	.0730	6.0048E-03	.0095	6.7237E-03	.0084	.0543	120.000
0	17	545	21.725	4.031	4.937E-03	.0723	5.9308E-03	.0089	6.6617E-03	.0087	.0543	150.000
0	18	545	18.547	3.440	4.288E-03	.0628	5.1941E-03	.0755	5.7324E-03	.0839	.0670	180.000
0	19	545	15.917	2.493	4.082E-03	.0491	4.0232E-03	.0590	4.4853E-03	.0657	.0790	0
0	20	546	14.474	2.687	4.288E-03	.0628	5.1941E-03	.0755	5.7324E-03	.0839	.0670	180.000
0	21	545	15.917	2.493	4.082E-03	.0491	4.0232E-03	.0590	4.4853E-03	.0657	.0790	0
0	22	544	13.313	2.469	4.077E-03	.0458	3.6097E-03	.0468	4.9218E-03	.0721	.0790	180.000
0	23	544	11.678	2.164	4.098E-03	.0385	3.2819E-03	.0475	4.1122E-03	.0602	.0920	180.000
0	24	544	11.286	2.093	4.068E-03	.0362	3.2181E-03	.0430	3.6048E-03	.0528	.1030	0
0	25	544	11.724	2.174	4.707E-03	.0396	3.2200E-03	.0476	3.6017E-03	.0530	.1030	15.000
0	26	541	11.071	2.050	4.546E-03	.0373	3.0970E-03	.0498	3.3982E-03	.0498	.1030	30.000
0	27	542	11.624	2.152	4.678E-03	.0392	3.2128E-03	.0479	3.5707E-03	.0523	.1030	45.000
0	28	542	11.302	2.093	4.598E-03	.0361	3.1181E-03	.0457	3.4701E-03	.0508	.1030	60.000
0	29	542	11.829	2.191	4.723E-03	.0399	3.2409E-03	.0479	3.6325E-03	.0532	.1030	75.000
0	30	542	11.969	2.221	4.761E-03	.0404	3.2316E-03	.0479	3.6325E-03	.0532	.1030	90.000
0	31	542	11.923	2.208	4.744E-03	.0402	3.2298E-03	.0482	3.6073E-03	.0536	.1030	105.000
0	32	542	12.035	2.230	4.772E-03	.0406	3.2328E-03	.0487	3.6032E-03	.0536	.1030	120.000
0	33	543	12.009	2.225	4.768E-03	.0405	3.2309E-03	.0487	3.7016E-03	.0542	.1030	135.000
0	34	543	12.146	2.251	4.800E-03	.0410	3.2300E-03	.0492	3.7401E-03	.0541	.1030	150.000
0	35	543	11.893	2.204	4.742E-03	.0401	3.2303E-03	.0482	3.6012E-03	.0541	.1030	165.000
0	36	543	8.400	1.558	1.938E-03	.0264	2.28274E-03	.0341	2.5878E-03	.0379	.1030	180.000
0	37	543	6.000	1.224	1.522E-03	.0220	1.8279E-03	.0268	2.0322E-03	.0298	.1390	180.000
0	38	543	7.118	1.331	1.657E-03	.0243	1.9910E-03	.0292	2.2141E-03	.0324	.1430	0
0	39	542	5.899	.944	1.174E-03	.0172	1.4187E-03	.0207	1.6884E-03	.0230	.1430	180.000
0	40	543	5.899	.944	1.174E-03	.0172	1.4187E-03	.0207	1.6884E-03	.0230	.1430	0
0	41	542	3.866	.677	1.010E-03	.0149	1.2710E-03	.0179	1.3861E-03	.0199	.1690	0
0	42	542	3.518	.617	0.930E-04	.0131	1.0731E-03	.0197	1.1930E-03	.0175	.1690	15.000
0	43	542	3.808	.747	0.930E-04	.0131	1.0731E-03	.0197	1.1930E-03	.0175	.1690	30.000
0	44	542	3.762	.750	0.928E-04	.0130	1.1190E-03	.0193	1.2366E-03	.0181	.1690	45.000
0	45	542	3.671	.700	0.902E-04	.0127	1.0691E-03	.0193	1.2491E-03	.0182	.1690	60.000
0	46	542	4.044	.771	0.988E-04	.0140	1.1519E-03	.0199	1.1610E-03	.0170	.1690	75.000
0	47	544	3.782	.722	0.958E-04	.0132	1.0768E-03	.0198	1.2005E-03	.0176	.1690	90.000
0	48	543	3.632	.693	0.818E-04	.0120	1.0300E-03	.0192	1.1507E-03	.0168	.1690	105.000
0	49	542	3.610	.688	0.856E-04	.0120	1.0768E-03	.0192	1.1507E-03	.0168	.1690	120.000
0	50	543	3.471	.662	0.840E-04	.0121	1.0809E-03	.0190	1.1424E-03	.0167	.1690	135.000
0	51	542	3.678	.722	0.969E-04	.0131	1.0773E-03	.0199	1.1007E-03	.0161	.1690	150.000
0	52	543	3.723	.710	0.833E-04	.0120	1.0609E-03	.0195	1.1977E-03	.0175	.1690	165.000
0	53	543	3.997	.741	0.937E-04	.0138	1.1062E-03	.0192	1.1795E-03	.0173	.1690	180.000
0	400	538	2.374	.439	0.428E-04	.0070	0.8000E-04	.0055	1.2304E-03	.0100	.2420	0
0	402	536	1.837	.348	4.309E-04	.0063	9.1670E-04	.0076	9.7368E-04	.0084	.2420	30.000
0	404	538	5.024	1.000	1.237E-03	.0181	1.4037E-03	.0217	1.6484E-03	.0241	.2420	60.000
0	406	537	1.832	.340	4.198E-04	.0061	9.0320E-04	.0074	9.5909E-04	.0082	.2420	90.000
0	407	530	2.077	.399	4.804E-04	.0072	9.0998E-04	.0086	6.8099E-04	.0095	.2420	120.000
0	408	538	1.978	.393	4.863E-04	.0071	9.0330E-04	.0086	6.4006E-04	.0095	.2420	150.000
0	409	538	2.092	.416	5.146E-04	.0070	9.1742E-04	.0090	6.0904E-04	.0100	.2420	180.000
0	410	538	1.911	.380	4.702E-04	.0069	8.6614E-04	.0093	6.2076E-04	.0092	.2420	135.000
0	411	539	1.865	.371	4.593E-04	.0067	8.5120E-04	.0091	6.1203E-04	.0090	.2420	165.000
0	412	539	1.839	.360	4.456E-04	.0066	8.2047E-04	.0090	5.9414E-04	.0087	.2420	180.000
0	413	530	2.222	.435	5.374E-04	.0079	9.6607E-04	.0094	7.1617E-04	.0105	.2830	0
0	415	536	1.510	.300	3.692E-04	.0054	4.8261E-04	.0059	4.8146E-04	.0072	.2830	30.000
0	417	538	5.704	.975	1.207E-03	.0177	1.4047E-03	.0212	1.6072E-03	.0239	.2830	60.000
0	418	535	1.238	.229	4.828E-04	.0041	2.8207E-04	.0050	3.7016E-04	.0059	.2830	90.000
0	420	536	4.011	.688	4.491E-04	.0040	1.8018E-03	.0190	1.1310E-03	.0166	.2830	105.000
0	421	536	1.720	.290	4.972E-04	.0052	4.0238E-04	.0060	4.7071E-04	.0070	.2830	120.000
0	422	537	1.723	.310	4.927E-04	.0050	4.7180E-04	.0060	5.2320E-04	.0077	.2830	135.000
0	423	536	1.961	.400	4.931E-04	.0050	4.8197E-04	.0060	6.9684E-04	.0096	.2830	150.000
0	424	537	1.973	.388	4.766E-04	.0050	4.7178E-04	.0060	6.2966E-04	.0093	.2830	165.000
0	425	530	1.709	.334	4.133E-04	.0061	4.9963E-04	.0073	5.9095E-04	.0081	.2830	180.000
0	426	530	2.398	.469	5.799E-04	.0068	6.9564E-04	.0082	7.7280E-04	.0093	.3160	0
0	428	538	1.464	.292	3.592E-04	.0053	4.3062E-04	.0063	4.7916E-04	.0070	.3160	30.000
0	430	531	3.005	.576	6.985E-04	.0102	9.3062E-04	.0122	9.2804E-04	.0136	.3160	60.000
0	432	536	5.300	.911	1.124E-03	.0145	1.3904E-03	.0197	1.4070E-03	.0219	.3160	90.000
0	433	534	.783	.153	1.881E-04	.0020	2.2000E-04	.0023	2.5035E-04	.0027	.3160	105.000
0	434	536	4.660	.747	4.208E-04	.0135	1.1042E-03	.0162	1.2264E-03	.0180	.3160	120.000
0	435	534	1.204	.229	2.815E-04	.0041	2.3749E-04	.0049	3.7467E-04	.0055	.3160	135.000
0	436	535	1.631	.324	4.980E-04	.0058	4.0720E-04	.0070	5.3106E-04	.0078	.3160	150.000
0	437	535	1.717	.336	4.133E-04	.0061	4.0997E-04	.0073	5.9030E-04	.0081	.3160	165.000
0	438	535	1.466	.291	4.587E-04	.0055	4.2890E-04	.0064	6.7767E-04	.0070	.3160	180.000
0	439	537	2.284	.454	6.608E-04	.0082	6.7297E-04	.0098	7.4700E-04	.0109	.3840	0
0	441	536	1.720	.351	4.318E-04	.0063	4.1790E-04	.0076	5.7401E-04	.0084	.3840	30.000

NOT REPRODUCIBLE

ALUC (AND INC.) ARNOLD AFB, TENNESSEE
 VOI KARNAN GAS DYNAMICS FACILITY
 30 INCH HYPERSONIC TUNNEL #1
 V11102

RUN	NO	CONFIG	MODEL	MACH #	GDC-NO.	IN. GAP	IC DEG	ALPHA-PODEL	ALPHA-SECTION	ALPHA-PRE-SEND	ROLL-MODEL	YAW	FUSELAGE-ORBITER				
													A/L	Y/VMAX			
1-1NF	P-1NF	V-1NF	V-1NF	V-1NF	HRO-1NF	HU-1NF	RE/FT	PREP-FR	31FN	SWITCH							
(DEG MI	(PSIA)	(PSIA)	(PSIA)	(F/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(NO-009FT)	(NO-009FT)	POSITION							
97.2	3.931	3.931	3.931	3.931	7.571E-05	7.029E-05	3.70E 00	0.02PE-02	2.931E-02	3							
IC NO	TR	UTML	UDUT	M(TO)	M(TO)/MREF	P(1,070)	M(1,070)/MREF	M(1,0510)	M(1,0510)/MREF								
0	1	613	234.742	43.702	3.992E-02	.0776	1.3202E-02	1.9755	4.2750E-02	1.2121							
0	2	547	73.400	12.030	1.514E-02	.2317	1.0210E-02	.2667	2.0249E-02	.2969							
0	7	513	28.844	5.101	0.381E-03	.0435	4.0207E-03	.1121	5.4966E-03	.1244							
0	12	528	12.321	2.403	4.952E-03	.0432	4.952E-03	.0516	3.9208E-03	.0574							
0	19	522	2.004	.367	4.479E-04	.0066	5.2650E-04	.0078	5.9265E-04	.0087							
0	29	570	3.453	.617	7.592E-04	.0111	5.0000E-04	.0133	1.0094E-03	.0148							
0	44	564	74.107	13.073	1.681E-02	.2443	2.0282E-02	.2077	2.2049E-02	.3323							
0	54	551	21.920	4.322	5.466E-03	.0801	6.0230E-03	.0904	7.3313E-03	.1074							
0	66	551	15.237	2.837	3.589E-03	.0926	4.3225E-03	.0943	4.8117E-03	.0765							
0	76	543	14.497	2.450	3.104E-03	.0455	3.7400E-03	.0548	4.1687E-03	.0610							
0	80	545	10.856	2.079	4.626E-03	.0385	3.1622E-03	.0443	3.5416E-03	.0516							
0	89	546	7.580	1.404	1.764E-03	.0258	2.1217E-03	.0311	2.3812E-03	.0346							
0	90	549	10.816	1.893	4.388E-03	.0290	2.0740E-03	.0421	3.2005E-03	.0469							
0	104	540	3.401	.611	7.615E-04	.0112	4.1450E-04	.0134	1.0167E-03	.0149							
0	114	538	1.976	.376	4.676E-04	.0060	5.6122E-04	.0082	6.2316E-04	.0091							
0	20	526	4.504	.822	6.031E-04	.0080	7.2184E-04	.0100	8.0066E-04	.0117							
0	31	531	3.004	.659	4.132E-04	.0119	9.7490E-04	.0143	1.0818E-03	.0158							
U	46	579	45.760	20.210	2.650E-02	.3001	3.2198E-02	.4710	3.6001E-02	.5273							
U	56	553	24.065	4.867	1.172E-03	.0994	7.0373E-03	.1009	8.2809E-03	.1214							
U	69	541	13.817	2.572	3.250E-03	.0476	3.0142E-03	.0573	4.3590E-03	.0639							
U	83	543	12.975	2.560	3.247E-03	.0476	3.0120E-03	.0573	4.3590E-03	.0639							
U	92	548	8.105	1.506	4.276E-03	.0278	2.2637E-03	.0336	2.5422E-03	.0372							
U	101	546	8.737	1.813	4.276E-03	.0278	2.2637E-03	.0336	2.5422E-03	.0372							
U	107	541	4.069	.731	4.126E-04	.0124	1.0062E-03	.0132	1.0000E-03	.0146							
U	117	540	3.065	.601	7.490E-04	.0124	1.0062E-03	.0132	1.0000E-03	.0146							
0	5	534	34.828	5.478	6.776E-03	.0993	8.1893E-03	.1190	9.0233E-03	.1322							
0	10	531	26.377	4.713	5.809E-03	.0851	6.9597E-03	.1019	7.7251E-03	.1131							
0	24	530	14.704	2.786	4.432E-03	.0543	4.1114E-03	.0602	4.5022E-03	.0668							
0	28	534	16.273	2.560	3.168E-03	.0464	3.1706E-03	.0536	4.2188E-03	.0618							
0	35	535	13.917	2.493	3.090E-03	.0463	3.1706E-03	.0536	4.2188E-03	.0618							
0	36	565	40.269	15.925	2.050E-02	.3002	2.4774E-02	.3629	2.7662E-02	.4051							
0	37	595	175.204	32.357	4.334E-02	.6348	5.2895E-02	.7739	5.9336E-02	.8691							
0	38	579	125.708	20.243	2.653E-02	.3806	3.2190E-02	.4716	3.6042E-02	.5279							
0	40	540	4.371	1.479	1.843E-03	.0270	2.2132E-03	.0324	2.4002E-03	.0360							
0	53	540	1.426	.241	3.000E-04	.0044	3.8020E-04	.0053	4.0049E-04	.0059							
0	62	546	8.508	1.347	1.691E-03	.0248	2.0341E-03	.0258	2.2034E-03	.0232							
0	87	543	5.265	.947	1.185E-03	.0176	1.3246E-03	.0209	1.5846E-03	.0232							
0	87	542	4.113	.717	8.962E-04	.0131	1.0768E-03	.0158	1.1974E-03	.0175							
0	96	540	4.834	.868	1.083E-03	.0159	1.3007E-03	.0191	1.4460E-03	.0212							
0	111	540	2.807	.458	5.710E-04	.0084	6.0569E-04	.0100	7.6224E-04	.0112							
0	120	547	14.540	1.668	2.098E-03	.0307	2.9233E-03	.0370	2.8004E-03	.0411							
0	4	537	36.133	5.499	6.830E-03	.1000	8.1959E-03	.1200	9.1000E-03	.1334							
0	14	532	24.958	4.322	5.344E-03	.0703	6.0090E-03	.0938	7.1121E-03	.0942							
0	25	528	19.007	3.392	4.169E-03	.0611	4.9929E-03	.0731	5.5396E-03	.0811							
0	28	537	17.856	3.166	3.932E-03	.0576	4.7102E-03	.0691	5.2436E-03	.0768							
0	48	546	7.101	1.204	1.509E-03	.0221	1.8190E-03	.0266	2.0197E-03	.0296							
0	59	545	29.312	5.629	7.155E-03	.1048	8.0208E-03	.1264	9.6196E-03	.1408							
0	72	554	25.004	5.194	6.999E-03	.0966	7.9840E-03	.1165	8.8644E-03	.1298							
0	78	554	17.076	2.622	3.328E-03	.0487	4.0168E-03	.0587	4.4690E-03	.0655							
0	85	551	12.506	2.259	2.556E-03	.0418	3.2440E-03	.0504	3.8215E-03	.0561							
0	77	553	11.893	1.890	2.398E-03	.0351	2.8876E-03	.0423	3.2174E-03	.0471							
0	84	552	10.431	2.114	2.675E-03	.0392	3.2227E-03	.0472	3.5899E-03	.0526							
U	44	549	4.989	2.185	4.759E-03	.0403	3.3197E-03	.0486	3.6916E-03	.0541							
0	39	547	36.906	7.259	4.135E-03	.1328	1.0400E-02	.1610	1.2233E-02	.1792							
0	42	542	12.939	2.608	3.262E-03	.0470	3.9105E-03	.0574	4.3889E-03	.0638							
0	51	547	14.928	3.099	3.901E-03	.0571	4.5831E-03	.0687	5.2238E-03	.0765							
0	41	551	31.444	6.370	8.055E-03	.1180	9.7019E-03	.1421	1.0800E-02	.1583							
0	52	543	7.134	1.478	1.850E-03	.0271	2.2238E-03	.0326	2.4736E-03	.0362							
0	135	573	72.034	13.305	1.729E-02	.2533	2.0949E-02	.3068	2.3419E-02	.3430							
0	136	542	22.006	4.086	5.174E-03	.0758	6.2334E-03	.0913	6.9441E-03	.1017							
0	137	552	22.881	3.885	4.919E-03	.0720	5.9250E-03	.0888	6.6314E-03	.0987							
0	138	548	16.440	3.055	3.849E-03	.0504	4.6323E-03	.0678	5.1546E-03	.0755							
0	140	544	4.440	1.647	2.064E-03	.0302	2.4010E-03	.0363	2.7606E-03	.0404							
0	142	541	3.940	.644	8.038E-04	.0110	9.6999E-04	.0141	1.0737E-03	.0157							
0	149	572	74.431	14.444	1.941E-02	.2843	2.3500E-02	.3443	2.6200E-02	.3849							
0	150	540	23.322	4.594	5.800E-03	.0809	6.9827E-03	.1023	7.7787E-03	.1139							
0	151	548	15.747	3.096	3.900E-03	.0572	4.7007E-03	.0688	5.2333E-03	.0766							
0	152	549	15.653	2.739	3.453E-03	.0506	4.1560E-03	.0609	4.6276E-03	.0678							
0	154	545	4.457	1.703	2.136E-03	.0313	2.5888E-03	.0376	2.8811E-03	.0419							
0	157	541	4.531	.814	1.017E-03	.0149	1.2211E-03	.0179	1.3877E-03	.0199							
0	171	564	49.687	16.310	2.098E-02	.3070	2.5326E-02	.3709	2.8269E-02	.4140							
0	172	548	32.714	5.752	7.339E-03	.1075	8.0952E-03	.1297	9.8752E-03	.1446							
0	175	543	5.288	1.066	1.335E-03	.0195	1.6039E-03	.0235	1.7839E-03	.0261							
0	178	541	2.271	.408	5.097E-04	.0075	6.1239E-04	.0090	6.8096E-04	.0100							
0	129	551	21.227	3.256	4.119E-03	.0603	4.9018E-03	.0727	5.5265E-03	.0809							
0	130	505	11.394	1.931	2.433E-03	.0356	2.9286E-03	.0429	3.2603E-03	.0478							
0	131	505	7.011	1.412	1.772E-03	.0259	2.1302E-03	.0312	2.3703E-03	.0347							
0	132	500	3.202	.610	7.610E-04	.0111	9.1408E-04	.0144	1.0161E-03	.0149							

ALUC (ANO, INC.) ORNULU OFS: TFMALDSE
 VON RAMMAN GAS DYNAMICS FACILITY
 90 INCH HYPERSONIC TUNNEL N
 V1162

CONFID	CONFID	MOUL	MACH	DU POSA	10 DEG H	ALPHA=PODFL	ALPHA=SECTOR	ALPHA=PREMNO	ROLL-MODEL	YAW
11	NOU	LOC-H	NOO	0101	1361	9=01	9=01	0	0	0
1-INT	1-INT	1-INT	1-INT	1-INT	1-INT	1-INT	1-INT	1-INT	1-INT	1-INT
(DEG H)	(PSIA)	(PSIA)	(PSIA)	(SLUGS/FT ³)	(LBS/IN ²)	(FT-1)	(NO.00911)	(NO.00911)	POSITION	POSITION
97.2	1.0MP	1.054	1.054	1.054	1.054	1.054	1.054	1.054	1.054	1.054
TC NO	TR	DIRL	W-DIR	H(TO)	M(TO)/MMET	P(,GTU)	M(,GTU)/MMET	M(,GTU)	M(,GTU)/MMET	FUSELAGE-BOOSTER
										N/L
1	540	211.104	0.0067	5.334E-03	0.7740	0.0038E-02	0.4440	7.7040E-04	1.0000	0
2	572	45.310	0.102	1.014E-02	1.491	1.0170E-02	1.771	1.3041E-02	1.903	0
3	576	73.547	13.563	1.400E-02	2.054	1.0160E-02	1.990	2.2313E-02	3.260	0
4	510	26.720	4.085	5.930E-03	0.807	7.0000E-03	1.030	7.0012E-03	1.100	100.000
5	517	20.404	4.034	5.000E-03	0.837	7.0000E-03	1.023	7.7040E-03	1.133	0
6	517	20.134	5.323	0.400E-03	0.904	7.1748E-03	1.117	8.0040E-03	1.204	20.000
7	521	30.404	0.244	1.677E-03	1.121	7.1700E-03	1.130	1.0110E-02	1.200	0
8	521	0.013	1.541	4.198E-03	1.133	1.0000E-02	1.100	1.0110E-02	1.200	0
9	523	43.140	0.140	4.057E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
10	523	43.000	0.123	4.024E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
11	521	33.005	0.105	4.520E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
12	516	10.019	3.034	4.678E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
13	516	10.761	3.000	4.520E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
14	516	10.730	3.420	4.144E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
15	517	22.000	0.140	4.021E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
16	519	20.340	5.193	0.320E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
17	521	24.024	5.424	0.612E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
18	521	20.110	4.701	5.022E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
19	520	10.174	1.000	4.240E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
20	520	21.007	3.052	4.031E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
21	522	10.553	3.418	4.170E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
22	522	10.300	1.300	1.600E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
23	522	10.300	1.400	1.710E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
24	522	10.300	1.400	1.800E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
25	523	8.294	1.400	1.710E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
26	520	4.004	1.000	1.000E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
27	521	4.004	1.000	1.000E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
28	522	10.000	1.000	1.000E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
29	522	12.000	4.210	4.420E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
30	523	13.253	4.420	4.600E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
31	523	14.767	2.707	4.900E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
32	524	15.023	2.005	4.310E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
33	523	16.401	3.007	4.577E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
34	524	16.953	3.110	4.670E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
35	524	17.045	3.130	4.830E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
37	511	12.491	2.299	4.837E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
38	511	10.473	0.639	4.891E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
39	513	10.450	1.920	4.304E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
40	514	10.357	1.405	1.740E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
41	512	1.912	0.417	5.153E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
42	513	1.977	0.402	4.969E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
43	512	2.283	0.445	5.504E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
44	512	2.351	0.474	5.057E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
45	512	2.713	0.514	0.354E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
46	512	3.374	0.641	1.921E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
47	513	3.720	0.700	0.739E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
48	512	3.057	0.732	0.048E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
49	512	5.044	0.956	1.102E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
50	513	5.065	0.961	1.100E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
51	513	5.550	1.003	1.341E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
52	513	5.444	1.120	1.397E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
53	514	6.030	1.113	1.370E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
400	520	1.113	0.205	4.520E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
402	520	0.429	0.170	2.160E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
404	511	2.924	0.500	1.103E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
406	520	2.000	0.304	4.725E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
407	520	2.472	0.400	5.700E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
408	520	1.574	0.312	3.034E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
409	520	3.332	0.600	0.110E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
410	520	3.065	0.725	0.900E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
411	520	3.500	0.710	0.722E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
412	520	3.044	0.745	4.205E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
413	520	0.750	0.147	1.807E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
415	520	0.910	0.100	4.211E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
417	520	2.033	0.404	0.955E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
419	520	1.900	0.351	4.310E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
420	520	6.203	1.059	1.300E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
421	525	2.054	0.344	4.213E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
422	525	2.450	0.542	0.641E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
423	524	3.574	0.723	0.841E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
424	522	3.323	0.645	1.074E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
425	523	3.482	0.670	0.263E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
426	520	0.707	0.130	1.697E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
428	520	0.820	0.104	4.020E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
430	527	1.252	0.237	4.900E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
432	520	7.751	1.325	1.632E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
433	525	1.292	0.251	4.073E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
434	527	5.000	0.907	1.114E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
435	525	7.234	0.423	5.182E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
436	525	3.300	0.610	0.098E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
437	524	3.550	0.691	0.451E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
438	523	3.051	0.700	0.293E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
439	520	0.500	0.112	1.377E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
440	520	0.803	0.179	4.200E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
441	520	0.811	0.191	1.170E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
442	520	0.911	0.191	1.941E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
443	520	0.875	1.500	0.687E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
444	520	3.004	0.502	4.678E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
447	525	10.628	1.074	0.324E-03	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
448	520	1.570	0.290	4.678E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
450	531	3.254	0.610	1.671E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
451	520	3.444	0.652	0.041E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
452	533	0.527	0.103	1.272E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
454	533	0.810	0.171	4.114E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
456	520	0.644	0.105	1.303E-04	1.140	1.1000E-02	1.130	1.0110E-02	1.200	0
458										

AEDC (ARO, INC.) ARMOLO OPS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL R
 V11102

RHN ID	CONFIG		MODEL GOL-R	MACH NO #00	PU PSIA #570	TO DEG R 1300	ALPHA-MODEL		ALPHA-SECTOR		ALPHA-PREBEND 0	ROLL-MODEL 0	YAW 0
	I-INF (DEG N) 97.4	P-INF (PSIA) .0MM					Q-INF (PSIA) 3.432	V-INF (F/SEC)	RHO-INF (SLUGS/FT3) 7.500E-03	MU-INF (LB-SEC/FT2) 7.039E-08			
TC NO	TW	DTL	G-DUT	H(TO)	H(TO)/MREF	H(LSTO)	H(LSTO)/MREF	H(LSTO)	H(LSTO)	H(LSTO)/MREF	FUSELAGE-BOOSTER P/L PHI		
1	597	204.574	39.713	3.317E-02	.7785	0.0037E-02	.0693	7.2824E-02	1.0662		0	0	
2	517	53.403	11.711	1.451E-02	.2125	1.7013E-02	.2509	1.9340E-02	.2832		.0137	0	
3	534	53.759	9.415	1.225E-02	.1793	1.4005E-02	.2150	1.6306E-02	.2388		.0137	100.000	
4	512	41.926	7.029	9.397E-03	.1376	1.1200E-02	.1649	1.2900E-02	.1830		.0274	0	
5	530	38.342	7.029	6.684E-03	.1271	1.0402E-02	.1523	1.1943E-02	.1690		.0274	30.000	
6	529	42.314	7.784	9.599E-03	.1400	1.1400E-02	.1676	1.2703E-02	.1860		.0274	60.000	
7	528	36.100	6.265	7.687E-03	.1125	9.2028E-03	.1347	1.0210E-02	.1495		.0274	90.000	
8	525	31.364	5.926	7.240E-03	.1080	8.0629E-03	.1208	9.0059E-03	.1406		.0274	120.000	
9	525	29.210	5.529	6.917E-03	.0999	8.0007E-03	.1183	8.9604E-03	.1312		.0274	150.000	
10	524	27.114	5.133	6.587E-03	.0917	7.4390E-03	.1107	8.3110E-03	.1217		.0274	180.000	
11	525	21.152	4.841	6.094E-03	.0894	6.9070E-03	.1043	7.8445E-03	.1177		.0406	180.000	
12	529	27.517	5.041	6.218E-03	.0910	7.4427E-03	.1100	8.2845E-03	.1209		.0543	0	
13	528	27.346	5.036	6.176E-03	.0904	7.3942E-03	.1083	8.2038E-03	.1201		.0543	30.000	
14	525	25.337	4.651	5.689E-03	.0832	6.8022E-03	.0996	7.8445E-03	.1104		.0543	60.000	
15	524	21.716	3.983	4.861E-03	.0712	5.8160E-03	.0851	6.4471E-03	.0944		.0543	90.000	
17	522	17.955	3.240	4.006E-03	.0566	4.7098E-03	.0701	5.3045E-03	.0777		.0543	120.000	
18	523	17.101	3.135	3.822E-03	.0560	4.5700E-03	.0669	5.0660E-03	.0742		.0543	150.000	
19	524	13.845	2.545	3.110E-03	.0455	3.7200E-03	.0545	4.1251E-03	.0604		.0543	180.000	
20	527	14.441	3.572	3.375E-03	.0641	3.2374E-03	.0767	3.6097E-03	.0851		.0709	0	
21	524	10.649	1.462	2.394E-03	.0350	2.8033E-03	.0419	3.1745E-03	.0465		.0709	180.000	
22	524	9.176	1.683	2.055E-03	.0301	2.4980E-03	.0360	2.7456E-03	.0399		.0922	180.000	
23	527	16.225	2.481	3.650E-03	.0534	3.3005E-03	.0640	3.6450E-03	.0709		.1030	0	
24	527	15.325	2.827	3.461E-03	.0507	3.1032E-03	.0607	3.4547E-03	.0673		.1030	15.000	
25	528	15.604	2.865	3.519E-03	.0515	3.2132E-03	.0617	3.5743E-03	.0684		.1030	30.000	
26	526	14.741	2.715	3.320E-03	.0486	3.0720E-03	.0582	3.4053E-03	.0645		.1030	45.000	
27	525	13.931	2.557	3.128E-03	.0459	2.9380E-03	.0547	3.1461E-03	.0607		.1030	60.000	
28	524	12.547	2.309	2.820E-03	.0413	2.7333E-03	.0494	3.0705E-03	.0548		.1030	75.000	
29	524	12.027	2.208	2.691E-03	.0394	2.6191E-03	.0471	3.0090E-03	.0523		.1030	90.000	
30	523	10.956	1.820	2.450E-03	.0350	2.4902E-03	.0429	3.2086E-03	.0476		.1030	105.000	
31	524	9.924	1.622	2.220E-03	.0325	2.3544E-03	.0389	2.9427E-03	.0431		.1030	120.000	
32	523	9.228	1.692	2.053E-03	.0302	2.2069E-03	.0361	2.7347E-03	.0400		.1030	135.000	
33	524	8.431	1.546	1.887E-03	.0278	2.0567E-03	.0330	2.5020E-03	.0366		.1030	150.000	
34	524	8.149	1.504	1.834E-03	.0265	2.0070E-03	.0321	2.4318E-03	.0356		.1030	165.000	
35	525	7.414	1.452	1.773E-03	.0260	1.9570E-03	.0310	2.3914E-03	.0344		.1030	180.000	
37	527	5.409	.944	1.216E-03	.0178	1.4597E-03	.0213	1.6146E-03	.0236		.1430	0	
38	529	4.548	1.760	1.161E-03	.0316	1.3987E-03	.0168	1.5105E-03	.0207		.1430	180.000	
39	528	4.264	.784	9.607E-04	.0141	1.1901E-03	.0107	1.2705E-03	.0119		.1430	180.000	
40	528	2.971	.498	6.111E-04	.0009	7.3100E-04	.0068	8.1176E-04	.0087		.1430	180.000	
41	528	6.240	1.326	1.626E-03	.0238	1.5947E-03	.0185	1.7011E-03	.0215		.1430	180.000	
42	528	5.941	1.204	1.477E-03	.0204	1.4707E-03	.0169	1.5612E-03	.0187		.1430	180.000	
43	528	5.945	1.161	1.423E-03	.0200	1.4030E-03	.0164	1.4902E-03	.0177		.1430	180.000	
44	527	5.315	1.051	1.287E-03	.0180	1.3010E-03	.0126	1.4094E-03	.0150		.1430	180.000	
45	528	4.906	.943	1.156E-03	.0160	1.2004E-03	.0103	1.3354E-03	.0125		.1430	180.000	
46	528	4.544	.800	1.053E-03	.0154	1.2011E-03	.0105	1.3490E-03	.0125		.1430	180.000	
47	528	4.014	.760	9.338E-04	.0137	1.1173E-03	.0084	1.2340E-03	.0102		.1430	180.000	
48	528	3.125	.591	7.255E-04	.0106	8.0870E-04	.0067	9.6380E-04	.0081		.1430	180.000	
49	528	3.173	.600	7.356E-04	.0100	8.0801E-04	.0069	9.7689E-04	.0083		.1430	180.000	
50	528	2.634	.498	6.114E-04	.0090	7.3204E-04	.0067	8.1216E-04	.0087		.1430	180.000	
51	528	2.346	.466	5.720E-04	.0084	6.8049E-04	.0060	7.9989E-04	.0081		.1430	180.000	
52	528	2.142	.408	4.978E-04	.0073	5.9567E-04	.0057	6.8009E-04	.0077		.1430	180.000	
53	528	2.313	.436	5.352E-04	.0078	6.2400E-04	.0064	7.1108E-04	.0084		.1430	180.000	
54	528	2.000	.352	1.643E-03	.0153	1.2402E-03	.0103	1.3844E-03	.0120		.2420	0	
502	526	2.731	.516	3.306E-04	.0092	7.2050E-04	.0060	8.3068E-04	.0082		.2420	30.000	
504	524	6.134	1.213	1.484E-03	.0217	1.7750E-03	.0120	1.9692E-03	.0208		.2420	60.000	
506	526	1.844	.348	6.243E-04	.0052	5.0920E-04	.0036	5.6456E-04	.0048		.2420	90.000	
507	524	1.842	.348	6.243E-04	.0052	5.0920E-04	.0036	5.6456E-04	.0048		.2420	105.000	
508	523	1.544	.306	5.728E-04	.0045	4.6570E-04	.0034	5.2916E-04	.0047		.2420	120.000	
509	523	1.427	.282	5.434E-04	.0040	4.1660E-04	.0030	4.9327E-04	.0044		.2420	135.000	
510	522	1.370	.270	5.288E-04	.0040	3.9000E-04	.0030	4.5861E-04	.0044		.2420	150.000	
511	521	1.145	.222	4.697E-04	.0030	3.2230E-04	.0027	3.6730E-04	.0035		.2420	165.000	
512	522	1.041	.212	4.577E-04	.0030	3.0011E-04	.0025	3.4190E-04	.0030		.2420	180.000	
513	525	4.784	.930	1.136E-03	.0166	1.2990E-03	.0100	1.5073E-03	.0121		.2830	0	
515	525	2.601	.514	6.274E-04	.0082	7.5800E-04	.0050	8.3216E-04	.0082		.2830	30.000	
517	525	5.742	.979	1.196E-03	.0175	1.4310E-03	.0110	1.5867E-03	.0122		.2830	60.000	
519	521	1.501	.276	5.300E-04	.0049	4.0031E-04	.0030	4.4360E-04	.0045		.2830	90.000	
520	520	3.218	.547	6.650E-04	.0097	7.9075E-04	.0064	8.8064E-04	.0129		.2830	105.000	
521	520	1.844	.309	5.749E-04	.0055	4.4002E-04	.0036	4.9044E-04	.0053		.2830	120.000	
522	518	1.143	.216	4.642E-04	.0039	3.1900E-04	.0026	3.4964E-04	.0031		.2830	135.000	
523	517	1.016	.205	4.478E-04	.0036	2.9907E-04	.0023	3.2760E-04	.0028		.2830	150.000	
524	516	.944	.175	4.111E-04	.0031	2.8200E-04	.0027	2.7410E-04	.0021		.2830	165.000	
525	516	.843	.163	3.971E-04	.0029	2.6302E-04	.0024	2.6059E-04	.0020		.2830	180.000	
526	527	4.801	.934	1.145E-03	.0160	1.2700E-03	.0101	1.5190E-03	.0123		.3160	0	
528	526	2.937	.582	7.123E-04	.0104	8.2430E-04	.0069	9.4942E-04	.0081		.3160	30.000	
530	523	2.911	.549	6.699E-04	.0098	8.0112E-04	.0067	8.0011E-04	.0080		.3160	60.000	
532	524	5.933	1.011	1.233E-03	.0181	1.4792E-03	.0110	1.6395E-03	.0129		.3160	90.000	
533	520	.676	.130	1.575E-04	.0023	1.0022E-04	.0020	2.0895E-04	.0031		.3160	105.000	
534	521	5.170	.821	9.492E-04	.0146	1.1963E-03	.0087	1.3236E-03	.0094		.3160	120.000	
535	519	1.116	.210	2.546E-04	.0037	2.0410E-04	.0026	3.3046E-04	.0049		.3160	135.000	
536	515	.922	.181	2.187E-04	.0032	2.0107E-04	.0023	2.9005E-04	.0042		.3160	150.000	
537	516	.776	.150	1.811E-04	.0027	2.0107E-04	.0023	2.9005E-04	.0042		.3160	165.000	
538	516	.717	.141	1.743E-04	.0025	2.0107E-04	.0023	2.9005E-04	.0042		.3160	180.000	
539	520	6.844	.959	1.177E-03	.0172	1.4000E-03	.0106	1.5813E-03	.0129		.3540	0	
540	520	3.663	.743	9.109E-04	.0133	1.0900E-03	.0080	1.2100E-03	.0097		.3540	30.000	
541	520	1.844	.309	5.749E-04	.0055	4.4002E-04	.0036	4.9044E-04	.0053		.3540	60.000	
542	522	12.153	2.173	6.678E-03	.0292	3.2100E-03	.0170	3.5030E-03	.0222		.3540	90.000	
544	523	1.027	.320	5.911E-04	.0057	4.0700E-04	.0030	5.1070E-04	.0047		.3540	105.000	
547	528	7.665	1.347	1.051E-03	.0242	1.0700E-03	.0120	2.0132E-03	.0211		.3540	120.000	

NOT REPRODUCIBLE

AEDC (ARO, INC.) ANNOLU AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL R
 V11102

ROLL IN	CONF ID NO	MODEL GUC-N	MACH NO M-00	PO PSIA 857-B	IG DEG R 1347	ALPHA-PODEL 5-11	ALPHA-SECTOR 5-11	ALPHA-PREBEND 0	ROLL-MODEL 0	YAW 0
T-IAF (DEG R)	M-INA (PSIA)	U-INA (PSIA)	V-INA (FT/SEC)	WU-INA (SLUGS/FT3)	MU-INA (LB-SEC/FT2)	RE/FT (FT-1)	REF-FR (R = .009F1)	SFR (M = .009FT)	SWITCH POSITION	
97.6	.08M	3.93A	3874	7.549F-05	7.461E-08	3.72E 06	6.837E-02	2.936E-02	2	
TC NO	TR	DTMCT	G-001	M(TU)	M(TU)/HREF	M(.9TU)	M(.9TU)/HREF	M(.85TU)	M(.85TU)/HREF	FUSELAGE-BOOSTER K/L PHI
H 460	521	7.06H	1.294	1.565F-03	.0229	1.8695E-03	.0273	2.0711E-03	.0303	-3800 120.000
H 461	516	2.515	.455	3.524F-04	.0091	6.5921E-04	.0096	7.2981E-04	.0107	-3800 135.000
H 462	517	.529	.105	1.268E-04	.0019	1.5110E-04	.0022	1.6730E-04	.0024	-3800 150.000
H 463	517	.521	.099	1.192E-04	.0017	1.4225E-04	.0021	1.5750E-04	.0023	-3800 165.000
H 464	517	.514	.097	1.163E-04	.0017	1.3878E-04	.0020	1.5365E-04	.0022	-3800 180.000
H 106	534	4.21H	.435	1.026E-03	.0150	1.2300E-03	.0180	1.3655E-03	.0200	-4400 0
H 109	530	8.46D	1.554	1.907E-03	.0274	2.2039E-03	.0334	2.5336E-03	.0371	-4400 90.000
H 110	527	4.852	1.254	1.535F-03	.0225	1.8369E-03	.0294	2.0371E-03	.0298	-4400 120.000
H 112	522	.510	.094	1.145E-04	.0021	1.7593E-04	.0026	1.9451E-04	.0028	-4400 150.000
H 113	535	3.213	.638	7.453E-04	.0115	8.4136E-04	.0138	1.5159E-04	.0022	-4400 180.000
H 116	531	6.745	1.205	1.475E-03	.0216	1.7668E-03	.0258	1.0452E-03	.0153	-4800 0
H 117	529	6.217	1.143	1.397E-03	.0204	1.6717E-03	.0245	1.8944E-03	.0267	-4800 90.000
H 118	523	.454	.084	1.021E-04	.0015	1.2201E-04	.0018	1.3523E-04	.0020	-4800 120.000
H 119	523	.867	.156	1.927E-04	.0028	2.3041E-04	.0034	2.5536E-04	.0037	-4800 150.000
H 120	536	2.360	.505	4.274E-04	.0092	7.5235E-04	.0110	8.3957E-04	.0122	-4800 180.000
H 125	545	19.373	3.964	4.940E-03	.0723	5.9368E-03	.0808	6.8030E-03	.0966	-5500 0
H 127	534	6.453	1.190	1.463E-03	.0214	1.7530E-03	.0256	1.9462E-03	.0285	-5500 43.000
H 128	532	4.051	.753	4.236E-04	.0135	1.1063E-03	.0162	1.2494E-03	.0180	-5500 90.000
H 129	52H	1.959	.360	4.392E-04	.0064	5.2560E-04	.0077	5.8294E-04	.0085	-5500 105.000
H 130	523	.814	.146	1.809E-04	.0026	2.1624E-04	.0032	2.3964E-04	.0035	-5500 120.000
H 131	519	1.152	.211	2.544E-04	.0037	3.0384E-04	.0044	3.3654E-04	.0049	-5500 150.000
H 138	534	2.027	.374	4.600E-04	.0067	5.5143E-04	.0081	6.1225E-04	.0090	-5500 180.000
H 139	533	2.787	.514	6.311F-04	.0092	7.5623E-04	.0111	8.3948E-04	.0123	-6250 0
H 140	530	3.269	.601	7.353E-04	.0108	8.8029E-04	.0129	9.7661E-04	.0143	-6250 105.000
H 141	526	1.755	.322	3.926E-04	.0057	4.6971E-04	.0069	5.2084E-04	.0076	-6250 120.000
H 142	525	1.524	.280	3.402E-04	.0050	4.0695E-04	.0060	4.5118E-04	.0068	-6250 150.000
H 150	535	3.710	.684	4.420E-04	.0123	1.0093E-03	.0148	1.1206E-03	.0164	-6250 180.000
H 151	532	1.71H	.328	4.019E-04	.0059	4.8154E-04	.0070	5.3447E-04	.0078	-7000 0
H 152	531	2.575	.474	5.811E-04	.0085	6.9007E-04	.0102	7.7246E-04	.0113	-7000 105.000
H 153	529	3.039	.555	6.834E-04	.0100	8.1018E-04	.0120	9.0768E-04	.0133	-7000 120.000
H 154	529	2.140	.384	4.689E-04	.0069	5.6130E-04	.0082	6.2274E-04	.0091	-7000 150.000
H 159	537	4.355	.781	9.643E-04	.0141	1.1567E-03	.0169	1.2849E-03	.0188	-7000 180.000
H 160	534	1.951	.349	4.294E-04	.0063	5.1470E-04	.0075	5.7143E-04	.0084	-7700 0
H 161	534	3.550	.636	7.817E-04	.0116	9.3694E-04	.0137	1.0403E-03	.0152	-7700 120.000
H 162	534	2.166	.388	4.764E-04	.0078	5.7092E-04	.0094	6.3381E-04	.0093	-7700 150.000
H 171	537	1.456	.276	3.413E-04	.0050	4.0946E-04	.0060	4.5484E-04	.0067	-8950 0
H 172	539	3.258	.602	7.448F-04	.0109	8.9364E-04	.0131	9.9286E-04	.0145	-8950 150.000
H 200	553	50.283	7.799	9.817E-03	.1436	1.1823E-02	.1729	1.3168E-02	.1926	UPPER WING SURFACE-BOOSTER K/L Y/S
H 201	540	9.994	1.175	1.454E-03	.0213	1.7452E-03	.0255	1.9394E-03	.0284	0 .100
H 202	538	5.926	.838	1.036E-03	.0151	1.2426E-03	.0182	1.3806E-03	.0202	-1000 .100
H 203	540	1.469	.310	3.843E-04	.0056	4.6130E-04	.0067	5.1264E-04	.0075	-2000 .100
H 204	539	1.565	.290	3.467E-04	.0051	4.1609E-04	.0061	4.6235E-04	.0068	-3300 .100
H 205	537	.348	.062	7.708E-05	.0011	9.2454E-05	.0014	1.0269E-04	.0015	-4000 .100
H 206	539	.272	.047	3.312E-05	.0008	3.9434E-05	.0010	4.312E-05	.0011	-6000 .100
H 207	539	.366	.035	4.312E-05	.0006	5.1740E-05	.0008	5.7159E-05	.0011	-7000 .100
H 217	544	99.561	12.349	1.577E-02	.2307	1.9049E-02	.2786	2.1288E-02	.3189	-9100 .100
H 218	544	33.224	3.262	4.061E-03	.0594	4.8788E-03	.0714	5.4254E-03	.0794	0 .200
H 219	540	17.349	1.694	2.104E-03	.0308	2.5255E-03	.0369	2.8065E-03	.0410	-9500 .200
H 220	540	7.518	.879	1.010E-03	.0123	1.0094E-03	.0148	1.1217E-03	.0164	-1800 .200
H 221	539	1.500	.105	3.779E-04	.0055	4.5346E-04	.0066	5.0385E-04	.0074	-2000 .200
H 222	538	.845	.152	2.2601E-04	.0027	2.2601E-04	.0033	2.4929E-04	.0036	-4000 .200
H 223	539	.563	.097	1.190E-04	.0017	1.3931E-04	.0021	1.5946E-04	.0023	-6000 .200
H 230	573	101.177	14.004	1.808E-02	.2669	2.1109E-02	.2722	2.4446E-02	.3579	-7000 .200
H 231	541	19.443	1.825	2.263E-03	.0331	2.7106E-03	.0397	3.0194E-03	.0442	-1000 .250
H 232	541	1.791	.451	4.349E-04	.0064	5.2211E-04	.0076	5.8027E-04	.0085	-4000 .250
H 233	539	1.327	.253	3.127E-04	.0044	3.7721E-04	.0055	4.1042E-04	.0061	-5000 .250
H 234	539	1.091	.202	2.497E-04	.0037	2.9964E-04	.0044	3.3295E-04	.0049	-6000 .250
H 235	541	.301	.022	4.721E-05	.0004	5.2874E-05	.0005	5.8316E-05	.0005	-8330 .250
H 236	541	.557	.045	5.637E-05	.0008	6.7678E-05	.0010	7.5217E-05	.0011	-8670 .250
H 237	541	.746	.061	7.568E-05	.0011	9.0888E-05	.0013	1.0097E-04	.0015	-9010 .250
H 238	540	.746	.062	7.626E-05	.0011	9.1548E-05	.0013	1.0174E-04	.0015	-9350 .250
H 248	579	112.346	12.977	1.689E-02	.2470	2.0408E-02	.2596	2.2917E-02	.3352	0 .300
H 249	541	13.521	1.657	2.056E-03	.0301	2.4068E-03	.0361	2.7439E-03	.0428	-2000 .300
H 250	543	9.374	1.063	1.322E-03	.0193	1.5887E-03	.0232	1.7681E-03	.0281	-4000 .300
H 251	541	2.080	.408	3.060E-04	.0074	3.6754E-04	.0089	4.1783E-04	.0099	-6000 .300
H 252	541	1.286	.256	3.179E-04	.0046	3.8162E-04	.0056	4.2417E-04	.0062	-8000 .300
H 263	581	176.466	15.819	2.068E-02	.3020	2.3905E-02	.3685	2.8047E-02	.4102	0 .400
H 264	544	14.812	1.818	2.242E-03	.0331	2.7181E-03	.0398	3.0226E-03	.0442	-1000 .400
H 265	544	2.693	.529	4.584F-04	.0096	5.4910E-04	.0116	6.1795E-04	.0129	-4000 .400
H 266	544	1.911	.317	3.952E-04	.0058	4.7509E-04	.0069	5.2846E-04	.0077	-6000 .400
H 277	595	153.318	15.011	1.994E-02	.2917	2.4292E-02	.3583	2.7264E-02	.3988	0 .500
H 278	545	14.344	2.154	2.689E-03	.0353	3.2313E-03	.0473	3.9942E-03	.0526	-1000 .500
H 279	547	14.947	1.291	1.613E-03	.0236	1.9306E-03	.0284	2.1580E-03	.0316	-2800 .500
H 280	546	3.111	.609	7.688E-04	.0111	9.1392E-04	.0134	1.0161E-03	.0149	-4000 .500
H 281	545	2.884	.671	3.862E-04	.0066	4.6091E-04	.0080	5.0859E-04	.0091	-6000 .500
H 282	546	1.940	.303	3.529E-04	.0066	4.2438E-04	.0080	4.6859E-04	.0091	-8000 .500
H 283	545	1.831	.175	2.188E-04	.0032	2.6190E-04	.0040	2.9191E-04	.0043	-8000 .500
H 284	544	1.286	.256	3.179E-04	.0046	3.8162E-04	.0056	4.2417E-04	.0062	-8000 .500
H 286	594	145.340	14.091	1.828E-02	.2668	2.1109E-02	.2722	2.4446E-02	.3579	0 .500
H 287	547	20.182	2.608	3.324E-03	.0388	3.9782E-03	.0492	3.4842E-03	.0552	-4000 .500
H 288	548	12.921	1.575	1.968E-03	.0280	2.3069E-03	.0346	2.6337E-03	.0385	-1000 .500
H 289	548	1.040	.374	4.675E-04	.0068	5.5629E-04	.0082	6.2599E-04	.0092	-2000 .500
H 300	550	2.077	.309	4.634E-04	.0068	5.5629E-04	.0082	6.2599E-04	.0092	-4000 .500
H 301	548	1.434	.137	1.718E-04	.0025	2.0095E-04	.0030	2.2291E-04	.0034	-6000 .500
H 302										

ALUC (ARO, INC.) ARNOLD AFS TENNESSEE
VON KAMMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL B
VT1162

ROW	CONFID	MODEL	MACH NO	PU PSIA	IC DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
I	NO	NO	7.93	148.5	1226	-01	-01	0	0	0
1-1AF	P-1NF	Q-1AF	V-1NF	WU-1NF	MU-1NF	HE/FT	MFEF-FN	SIFN	SWITCH	POSITION
(DEG H)	(PSIA)	(PSIA)	(F1/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FT-1)	(R=009F1)	(R=009F1)	0	1
90.3	0.18	0.09	3697	1.497E-05	7.260E-08	7.60E 05	2.854E-02	0.330E-02		
TC NO	IN	DIRCT	Q-001	H(TO)	H(TO)/MFEF	H(.470)	H(.970)/MFEF	H(.8510)	H(.4510)/MFEF	FUSELAGE-BOOSTER
										4/L PHI
H 1	506	90.747	16.449	2.288E-02	.8017	2.7978E-02	.9662	3.0732E-02	1.0767	
H 2	478	22.871	4.079	2.483E-03	.1910	6.8210E-03	.2205	7.2242E-03	.2533	
H 3	482	25.530	4.567	6.142E-03	.2152	7.3930E-03	.2576	8.1590E-03	.2859	
H 4	475	13.471	2.447	4.313E-03	.1161	3.4996E-03	.1367	4.3876E-03	.1537	
H 5	474	13.665	2.442	4.238E-03	.1134	3.8660E-03	.1355	4.2840E-03	.1561	
H 6	474	15.441	2.755	4.668E-03	.1284	4.3806E-03	.1535	4.8933E-03	.1786	
H 7	477	14.388	2.545	4.244E-03	.1200	4.0937E-03	.1434	4.5375E-03	.1590	
H 8	477	14.337	2.631	4.515E-03	.1232	4.2038E-03	.1473	4.6602E-03	.1633	
H 9	478	14.611	2.684	4.591E-03	.1258	4.2955E-03	.1505	4.7076E-03	.1669	
H 10	479	14.560	2.675	4.581E-03	.1254	4.2833E-03	.1501	4.7443E-03	.1664	
H 11	479	11.450	2.044	2.736E-03	.0958	3.2729E-03	.1147	3.6246E-03	.1271	
H 12	471	8.944	1.589	2.106E-03	.0738	2.5140E-03	.0881	2.7849E-03	.0976	
H 13	471	9.167	1.628	2.150E-03	.0755	2.5736E-03	.0902	2.8500E-03	.0998	
H 14	472	9.185	1.632	2.164E-03	.0758	2.5892E-03	.0905	2.8620E-03	.0995	
H 15	473	9.537	1.696	2.244E-03	.0790	2.6921E-03	.0943	2.9822E-03	.1045	
H 17	477	9.173	1.635	2.183E-03	.0765	2.6104E-03	.0915	2.8935E-03	.1014	
H 18	478	9.645	1.721	2.302E-03	.0807	2.7539E-03	.0945	3.0929E-03	.1070	
H 19	479	7.472	1.334	1.789E-03	.0625	2.1395E-03	.0748	2.3874E-03	.0830	
H 20	479	6.370	1.132	1.503E-03	.0527	1.7940E-03	.0629	1.9878E-03	.0696	
H 21	479	6.385	1.140	1.527E-03	.0535	1.8272E-03	.0640	2.0262E-03	.0710	
H 22	480	5.225	.933	1.252E-03	.0439	1.4969E-03	.0525	1.6825E-03	.0582	
H 24	476	4.903	.792	1.056E-03	.0370	1.2622E-03	.0442	1.5448E-03	.0490	
H 25	476	4.903	.874	1.165E-03	.0408	1.3926E-03	.0488	1.5448E-03	.0541	
H 26	474	5.000	.891	1.188E-03	.0416	1.4201E-03	.0498	1.5739E-03	.0551	
H 27	474	4.571	.835	1.111E-03	.0389	1.3271E-03	.0465	1.4704E-03	.0519	
H 28	475	4.854	.814	1.083E-03	.0379	1.2935E-03	.0453	1.4331E-03	.0502	
H 29	475	4.832	.861	1.152E-03	.0404	1.3766E-03	.0482	1.5253E-03	.0534	
H 30	476	4.720	.852	1.147E-03	.0402	1.3713E-03	.0480	1.5147E-03	.0532	
H 31	478	4.945	.882	1.137E-03	.0398	1.3598E-03	.0476	1.5068E-03	.0528	
H 32	478	5.063	.903	1.179E-03	.0413	1.4106E-03	.0494	1.5631E-03	.0548	
H 33	474	5.371	.959	1.208E-03	.0423	1.4499E-03	.0506	1.6026E-03	.0561	
H 34	480	4.840	.865	1.206E-03	.0420	1.4392E-03	.0499	1.5708E-03	.0558	
H 35	481	4.837	.864	1.189E-03	.0406	1.3878E-03	.0486	1.5392E-03	.0539	
H 37	485	3.637	.652	8.806E-04	.0309	1.2887E-03	.0447	1.5403E-03	.0540	
H 38	483	2.846	.473	6.373E-04	.0224	1.0953E-03	.0370	1.1716E-03	.0410	
H 39	486	2.844	.520	7.038E-04	.0246	7.6321E-04	.0267	8.4687E-04	.0297	
H 40	486	2.157	.353	4.778E-04	.0167	6.4335E-04	.0205	9.3042E-04	.0328	
H 41	485	1.546	.318	4.291E-04	.0150	6.2710E-04	.0200	6.3491E-04	.0222	
H 42	485	1.453	.287	4.874E-04	.0136	4.6421E-04	.0180	5.7084E-04	.0200	
H 43	485	1.544	.293	4.998E-04	.0139	4.7385E-04	.0183	5.1527E-04	.0181	
H 44	486	1.403	.270	4.649E-04	.0128	4.3785E-04	.0166	5.2549E-04	.0184	
H 45	485	1.602	.312	4.211E-04	.0148	5.0453E-04	.0193	4.8527E-04	.0170	
H 46	485	1.632	.301	4.065E-04	.0147	4.8709E-04	.0177	4.6006E-04	.0196	
H 47	487	1.544	.295	4.994E-04	.0140	4.7881E-04	.0171	5.4071E-04	.0189	
H 48	486	1.535	.283	4.831E-04	.0134	4.5921E-04	.0168	5.3166E-04	.0186	
H 49	486	1.530	.282	4.819E-04	.0134	4.5877E-04	.0168	5.0983E-04	.0179	
H 50	486	1.456	.269	4.037E-04	.0127	4.3606E-04	.0153	5.0764E-04	.0178	
H 51	486	1.636	.311	4.202E-04	.0147	5.0369E-04	.0176	5.8411E-04	.0170	
H 52	487	1.514	.280	4.789E-04	.0133	4.9376E-04	.0159	5.8926E-04	.0196	
H 53	487	1.540	.276	4.742E-04	.0131	4.8482E-04	.0157	5.0347E-04	.0178	
H 400	491	.620	.115	2.259E-04	.0079	2.7114E-04	.0095	4.0819E-04	.0106	
H 402	491	1.350	.263	1.562E-04	.0055	1.8748E-04	.0066	3.0130E-04	.0073	
H 406	488	.774	.139	3.577E-04	.0125	4.2930E-04	.0150	2.0934E-04	.0073	
H 407	488	.817	.151	1.890E-04	.0066	2.2672E-04	.0079	4.7709E-04	.0167	
H 408	488	.746	.154	2.687E-04	.0072	2.4953E-04	.0086	2.5182E-04	.0088	
H 409	488	.945	.183	2.687E-04	.0073	2.5032E-04	.0088	2.7271E-04	.0096	
H 410	488	.724	.141	1.965E-04	.0067	2.29731E-04	.0104	2.7803E-04	.0097	
H 411	488	.964	.154	2.121E-04	.0074	2.2843E-04	.0080	3.3024E-04	.0116	
H 412	488	.839	.168	2.164E-04	.0074	2.5433E-04	.0089	2.5369E-04	.0089	
H 413	486	.704	.135	1.846E-04	.0076	2.5951E-04	.0091	2.8247E-04	.0099	
H 415	487	.434	.084	1.154E-04	.0048	2.2194E-04	.0078	2.8824E-04	.0101	
H 417	487	1.571	.264	4.620E-04	.0127	1.3884E-04	.0049	2.4688E-04	.0086	
H 419	488	.435	.078	1.668E-04	.0037	1.2717E-04	.0052	1.5456E-04	.0054	
H 420	486	.855	.149	2.016E-04	.0071	1.2717E-04	.0052	4.8417E-04	.0170	
H 421	487	.773	.126	1.711E-04	.0060	2.4416E-04	.0065	1.4123E-04	.0049	
H 422	488	.748	.134	1.820E-04	.0064	2.0513E-04	.0072	2.6833E-04	.0094	
H 423	488	.817	.162	2.192E-04	.0077	2.1021E-04	.0076	2.2779E-04	.0080	
H 424	489	.674	.129	1.751E-04	.0061	2.6286E-04	.0092	2.4235E-04	.0085	
H 425	488	.814	.156	2.109E-04	.0074	2.1084E-04	.0074	2.9143E-04	.0102	
H 426	500	.840	.161	2.215E-04	.0078	2.9280E-04	.0084	2.3311E-04	.0082	
H 428	501	.466	.091	1.255E-04	.0044	2.9280E-04	.0084	2.0044E-04	.0098	
H 430	500	1.017	.189	2.608E-04	.0091	2.6053E-04	.0093	2.9667E-04	.0104	
H 432	488	1.444	.241	4.266E-04	.0114	1.8104E-04	.0053	1.6815E-04	.0059	
H 433	485	.402	.076	1.029E-04	.0036	3.1379E-04	.0110	3.4426E-04	.0122	
H 434	487	1.036	.161	2.183E-04	.0076	3.9171E-04	.0137	4.3506E-04	.0152	
H 435	488	.627	.116	1.570E-04	.0055	1.2234E-04	.0043	1.3641E-04	.0046	
H 436	487	.683	.126	1.732E-04	.0061	2.6173E-04	.0092	2.9063E-04	.0102	
H 437	486	.785	.146	2.013E-04	.0071	1.8826E-04	.0066	2.0408E-04	.0073	
H 438	487	.756	.144	1.976E-04	.0069	2.0750E-04	.0073	2.3049E-04	.0081	
H 439	502	.826	.161	2.222E-04	.0078	2.4124E-04	.0085	2.6783E-04	.0094	
H 461	502	.626	.125	1.476E-04	.0051	2.3689E-04	.0083	2.6304E-04	.0092	
H 463	502	.342	.095	1.729E-04	.0061	2.6781E-04	.0094	2.9786E-04	.0104	
H 469	495	2.207	.386	7.944E-05	.0026	2.0819E-04	.0073	2.3140E-04	.0081	
H 466	491	.284	.096	7.282E-05	.0026	9.0027E-05	.0032	1.0114E-04	.0035	
H 447	442	1.651	.284	9.708E-05	.0030	6.3456E-05	.0222	7.0563E-04	.0247	
H 448	490	.527	.098	4.874E-04	.0130	8.1081E-05	.0028	9.0010E-05	.0032	
H 450	491	.625	.116	1.326E-04	.0046	4.6511E-04	.0163	5.1648E-04	.0181	
H 451	491	.561	.108	1.576E-04	.0059	1.8915E-04	.0056	1.7044E-04	.0062	
H 452	504	.786	.151	1.440E-04	.0051	1.8915E-04	.0056	2.1815E-04	.0074	
H 454	504	.657	.126	2.089E-04	.0073	1.7921E-04	.0061	1.9444E-04	.0068	
H 456	503	.319	.091	1.746E-04	.0061	2.9165E-04	.0080	2.8032E-04	.0098	
H 458	498	2.280	.412	7.064E-05	.0025	2.1032E-04	.0076	2.3428E-04	.0082	
H 459	494	.603	.115	6.57E-04	.0198	8.5072E-05	.0030	9.4752E-05	.0033	
H 459	494	.603	.115	1.575E-04	.0095	6.8022E-04	.0230	7.9843E-04	.0265	
H 459	494	.603	.115	1.575E-04	.0095	1.8920E-04	.0066	2.1039E-04	.0074	

GROUP
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AEDC(DAO, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 30 INCH HYPERSONIC TUNNEL
 VT1102

RUN NO	CONFIG 800	MODEL GUC-B	MACH NO 7.93	PO PSIA 151.0	TO DEG R 1225	ALPHA-MODEL -5.00	ALPHA-SECTOR -5.00	ALPHA-PREBEND 0	ROLL-MODEL 0	YAW 0	FUSelage-BOODTOR PHI
TC NO	Tu	U=UCL	U=DOT	M(TO)	M(TO)/HREF	M(.85TO)	M(.90TO)/HREF	M(.85TO)	M(.85TO)/HREF	M(.85TO)	M(.85TO)/HREF
8 1 523	87.772	16.086	2.240E-02	.7057	2.7738E-02	.9638	3.1014E-02	1.0776	0	0	0
8 2 497	17.913	3.245	4.459E-03	.1549	5.3021E-03	.1503	5.9860E-03	.2073	.0137	0	0
8 3 501	28.731	5.200	7.185F-03	.2097	8.0402E-03	.3005	9.0304E-03	.3366	.0137	180.000	0
8 4 495	10.400	1.876	2.573E-03	.0894	3.0924E-03	.1079	3.4397E-03	.1195	.0274	0	0
8 5 495	10.525	1.898	2.600E-03	.0903	3.1239E-03	.1095	3.4742E-03	.1207	.0274	30.000	0
8 6 496	11.855	2.139	2.932E-03	.1019	3.5237E-03	.1224	3.9193E-03	.1362	.0274	60.000	0
8 7 496	13.180	2.372	3.261E-03	.1133	3.9187E-03	.1362	4.3586E-03	.1514	.0274	90.000	0
8 8 496	15.225	2.825	3.882E-03	.1349	4.5661E-03	.1591	5.1907E-03	.1804	.0274	120.000	0
8 9 496	16.136	2.997	4.110E-03	.1428	4.9396E-03	.1716	5.4944E-03	.1909	.0274	150.000	0
8 10 496	14.846	2.758	3.784E-03	.1315	4.5493E-03	.1591	5.0006E-03	.1750	.0274	180.000	0
8 11 497	13.464	2.434	3.342E-03	.1101	4.0183E-03	.1396	4.4704E-03	.1553	.0406	180.000	0
8 12 495	6.281	1.129	1.547E-03	.0589	1.9804E-03	.0604	2.1887E-03	.0760	.0543	30.000	0
8 13 496	6.649	1.198	1.639E-03	.0605	2.2297E-03	.0798	2.5339E-03	.0987	.0543	60.000	0
8 14 493	7.773	1.400	1.913E-03	.0770	2.5610E-03	.0925	2.9581E-03	.1028	.0543	90.000	0
8 15 493	9.018	1.624	2.216E-03	.0938	3.2440E-03	.1170	3.6088E-03	.1253	.0543	150.000	0
8 17 494	10.925	1.975	2.701E-03	.0981	3.7936E-03	.1277	4.3773E-03	.1311	.0543	180.000	0
8 18 495	11.428	2.061	2.824E-03	.1003	3.9336E-03	.1277	4.3773E-03	.1311	.0543	180.000	0
8 19 495	9.361	1.688	2.310E-03	.0803	2.7761E-03	.0965	3.0873E-03	.1073	.0481	180.000	0
8 20 496	4.182	.754	1.034E-03	.0359	1.2433E-03	.0432	1.3823E-03	.0481	.0790	0	0
8 21 494	8.150	1.465	1.732E-03	.0698	2.4138E-03	.0839	2.6894E-03	.0933	.0790	180.000	0
8 22 494	7.032	1.267	1.732E-03	.0698	2.4138E-03	.0839	2.6894E-03	.0933	.0790	180.000	0
8 23 495	2.848	.522	1.150E-04	.0248	8.8909E-04	.0298	9.9534E-04	.0332	.1836	0	0
8 24 495	2.961	.534	1.306E-04	.0258	8.7787E-04	.0305	9.7624E-04	.0339	.1836	0	0
8 25 494	3.323	.599	8.193E-04	.0285	9.0431E-04	.0342	1.0949E-03	.0380	.1836	15.000	0
8 26 491	3.511	.632	8.607E-04	.0299	1.0332E-03	.0359	1.1483E-03	.0399	.1836	30.000	0
8 27 492	3.872	.697	9.497E-04	.0330	1.1401E-03	.0396	1.2871E-03	.0440	.1836	60.000	0
8 28 492	4.249	.765	1.042E-03	.0362	1.2514E-03	.0435	1.3909E-03	.0483	.1836	75.000	0
8 29 491	5.014	.902	1.229E-03	.0427	1.4757E-03	.0513	1.6401E-03	.0570	.1836	90.000	0
8 30 491	5.396	.971	1.323E-03	.0460	1.5878E-03	.0552	1.7646E-03	.0613	.1836	105.000	0
8 31 491	5.444	.979	1.335E-03	.0464	1.6021E-03	.0557	1.7809E-03	.0619	.1836	120.000	0
8 32 491	6.399	1.151	1.569E-03	.0545	1.8833E-03	.0654	2.0911E-03	.0727	.1836	135.000	0
8 33 492	6.724	1.211	1.653E-03	.0574	1.9982E-03	.0690	2.2208E-03	.0767	.1836	150.000	0
8 34 492	6.824	1.229	1.678E-03	.0582	2.0139E-03	.0699	2.2374E-03	.0777	.1836	165.000	0
8 35 493	6.875	1.202	1.643E-03	.0571	1.9737E-03	.0686	2.1943E-03	.0762	.1836	180.000	0
8 37 494	5.172	.932	1.274E-03	.0443	1.5309E-03	.0532	1.7022E-03	.0591	.1309	180.000	0
8 38 491	1.623	.292	9.976E-04	.0338	1.2720E-03	.0466	1.4873E-03	.0506	.1430	0	0
8 39 493	4.435	.799	1.091E-03	.0379	1.2108E-03	.0488	1.4573E-03	.0506	.1430	180.000	0
8 40 492	3.178	.522	7.119E-04	.0287	8.25479E-04	.0297	9.9910E-04	.0330	.1560	0	0
8 41 490	.898	.185	2.516E-04	.0087	2.8180E-04	.0105	3.3541E-04	.0117	.1690	0	0
8 42 490	.872	.173	2.349E-04	.0082	3.0349E-04	.0108	3.1315E-04	.0109	.1690	15.000	0
8 43 489	.978	.186	4.530E-04	.0088	3.2800E-04	.0105	3.3717E-04	.0117	.1690	30.000	0
8 44 489	1.030	.199	4.709E-04	.0094	3.2800E-04	.0113	3.6107E-04	.0125	.1690	45.000	0
8 45 490	.976	.181	4.457E-04	.0085	2.9482E-04	.0102	3.2702E-04	.0114	.1690	60.000	0
8 46 491	1.442	.267	6.637E-04	.0126	4.2607E-04	.0152	4.8816E-04	.0169	.1690	75.000	0
8 47 493	1.513	.280	3.828E-04	.0133	4.8972E-04	.0160	5.1105E-04	.0178	.1690	90.000	0
8 48 492	1.648	.305	4.101E-04	.0145	4.9988E-04	.0174	5.5824E-04	.0193	.1690	105.000	0
8 49 491	1.909	.368	5.020E-04	.0174	6.0258E-04	.0209	6.6969E-04	.0233	.1690	120.000	0
8 50 492	2.133	.395	5.388E-04	.0187	6.4447E-04	.0225	7.1891E-04	.0250	.1690	135.000	0
8 51 492	2.345	.447	6.091E-04	.0212	7.3119E-04	.0254	8.1265E-04	.0282	.1690	150.000	0
8 52 493	2.265	.420	5.730E-04	.0199	6.8809E-04	.0239	7.4499E-04	.0266	.1690	165.000	0
8 53 492	2.391	.430	5.878E-04	.0204	7.0548E-04	.0245	7.8418E-04	.0272	.1690	180.000	0
8 400 94	.498	.090	1.227E-04	.0043	1.4735E-04	.0051	1.6328E-04	.0057	.2420	0	0
8 402 94	.288	.053	7.306E-05	.0025	8.7749E-05	.0030	9.7898E-05	.0034	.2420	30.000	0
8 404 94	1.025	.199	2.721E-04	.0095	3.2688E-04	.0114	3.6344E-04	.0126	.2420	60.000	0
8 406 94	.903	.163	2.229E-04	.0077	2.6778E-04	.0092	2.9772E-04	.0103	.2420	90.000	0
8 407 94	1.113	.206	2.621E-04	.0099	3.2899E-04	.0118	3.7081E-04	.0131	.2420	105.000	0
8 408 94	1.170	.227	3.103E-04	.0108	3.7276E-04	.0130	4.1446E-04	.0144	.2420	120.000	0
8 409 95	1.171	.227	3.111E-04	.0108	3.7394E-04	.0130	4.1572E-04	.0144	.2420	135.000	0
8 410 94	1.263	.249	3.400E-04	.0118	4.0922E-04	.0142	4.5505E-04	.0158	.2420	150.000	0
8 411 95	1.279	.248	3.399E-04	.0118	4.0874E-04	.0142	4.5416E-04	.0158	.2420	165.000	0
8 412 95	1.364	.260	3.568E-04	.0124	4.2874E-04	.0149	4.7844E-04	.0166	.2420	180.000	0
8 413 500	.399	.076	1.059E-04	.0037	1.2693E-04	.0044	1.4329E-04	.0049	.2830	0	0
8 415 501	.373	.073	1.004E-04	.0035	1.2078E-04	.0042	1.3644E-04	.0047	.2830	30.000	0
8 417 500	.937	.158	2.174E-04	.0076	2.6143E-04	.0091	2.9124E-04	.0101	.2830	60.000	0
8 419 495	.722	.131	1.788E-04	.0062	2.1486E-04	.0075	2.3894E-04	.0083	.2830	90.000	0
8 420 495	1.076	.180	2.470E-04	.0086	2.9678E-04	.0103	3.3005E-04	.0115	.2830	105.000	0
8 421 495	.796	.131	1.793E-04	.0062	2.1946E-04	.0075	2.3963E-04	.0083	.2830	120.000	0
8 422 496	1.123	.203	2.782E-04	.0097	3.2449E-04	.0110	3.7198E-04	.0129	.2830	135.000	0
8 423 497	1.286	.256	3.515E-04	.0122	4.2231E-04	.0147	4.7002E-04	.0163	.2830	150.000	0
8 424 496	1.366	.261	3.582E-04	.0124	4.3064E-04	.0150	4.7906E-04	.0166	.2830	165.000	0
8 425 497	1.275	.244	3.367E-04	.0116	4.0237E-04	.0140	4.4764E-04	.0156	.2830	180.000	0
8 426 504	.356	.068	4.472E-05	.0023	1.21410E-04	.0040	1.2711E-04	.0044	.3160	0	0
8 428 505	.364	.072	1.002E-04	.0035	1.2009E-04	.0042	1.3447E-04	.0047	.3160	30.000	0
8 430 502	.558	.112	1.542E-04	.0054	1.8599E-04	.0065	2.0879E-04	.0072	.3160	60.000	0
8 432 496	1.789	.287	3.934E-04	.0137	4.7285E-04	.0164	5.2801E-04	.0183	.3160	90.000	0
8 433 494	.330	.063	8.028E-05	.0030	1.0306E-04	.0036	1.1827E-04	.0040	.3160	105.000	0
8 434 495	1.367	.211	2.888E-04	.0100	3.4706E-04	.0121	3.8806E-04	.0136	.3160	120.000	0
8 435 497	.911	.165	2.327E-04	.0081	2.7975E-04	.0097	3.1125E-04	.0108	.3160	135.000	0
8 436 495	1.147	.223	3.047E-04	.0105	3.6613E-04	.0127	4.0718E-04	.0141	.3160	150.000	0
8 437 495	1.384	.264	3.621E-04	.0129	4.3822E-04	.0151	4.8402E-04	.0168	.3160	165.000	0
8 438 496	1.283	.249	3.410E-04	.0119	4.1088E-04	.0143	4.5694E-04	.0159	.3160	180.000	0
8 439 504	.236	.046	8.390E-05	.0032	7.6999E-05	.0037	8.5771E-05	.0040	.3540	0	0
8 441 506	.306	.061	8.505E-05	.0030	1.0285E-04	.0036	1.1422E-04	.0040	.3540	30.000	0
8 443 506	.295	.047	8.557E-05	.0027	7.9924E-05	.0032	8.8057E-05	.0031	.3540	60.000	0
8 445 500	2.589	.455	6.272E-04	.0218	7.5478E-04	.0262	8.4026E-04	.0292	.3540	90.000	0
8 446 498	.743	.128	1.762E-04	.0061	2.1194E-04	.0074	2.3582E-04	.0082	.3540	105.000	0
8 447 499	2.239	.387	3.328E-04	.0188	4.4093E-04	.0233	4.8134E-04	.0252	.3540	120.000	0
8 448 496	.606	.113	1.549E-04	.0054	1.6037E-04	.0065	2.0067E-04	.0072			

ID	CONFIG NO	MODEL NO	MACH NO 7.93	PO PSIA 144.7	TO DEG R 1225	ALPHA-MODEL		ALPHA-SECTOR		ALPHA-PREBEND		ROLL-MODEL	VAN
						ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL				
TC NO	TW	DIA I	L-001	H(10)	H(10)/HREF	H(.9TU)	RE/FT	HREF-FN	SIFN	SWITCH		FUSELAGE-BOOSTER K/L	PHI
							(FT-1)	(IN+.009FT)	(IN+.009FT)	(FT-1)	POSITION		
							7.62E 00	2.856E-02	0.923E-02	2			
							H(.9TU)/HREF	H(.85TU)	H(.85TU)/HREF				
B 460	496	1.543	.247	3.944E-04	.0138	4.7412E-04	.0166	5.2740E-04	.0185				
B 461	493	.446	.040	1.097F-04	.0038	1.3180E-04	.0046	1.4652E-04	.0051			.3800	120.000
B 462	495	.545	.109	1.486F-04	.0052	1.7898E-04	.0063	1.9849E-04	.0070			.3800	120.000
B 463	494	.546	.101	1.387E-04	.0049	1.6662E-04	.0058	1.8529E-04	.0065			.3800	150.000
B 464	494	.546	.101	1.387E-04	.0049	1.6662E-04	.0058	1.8529E-04	.0065			.3800	165.000
B 106	509	.324	.064	0.987E-05	.0031	1.0841E-04	.0038	1.2087E-04	.0042			.3800	160.000
B 109	506	1.273	.231	3.211F-04	.0112	3.8704E-04	.0136	4.3130E-04	.0151			.4400	0
B 110	502	.866	.157	1.171F-04	.0076	2.6143E-04	.0092	2.9116E-04	.0102			.4400	90.000
B 111	499	.368	.067	0.173E-05	.0032	1.1036E-04	.0039	1.2264E-04	.0043			.4400	120.000
B 112	498	.507	.092	1.261E-04	.0044	1.5166E-04	.0053	1.6876E-04	.0059			.4400	150.000
B 113	512	.514	.101	1.413E-04	.0049	1.7069E-04	.0060	1.9045E-04	.0067			.4800	0
B 116	510	.834	.147	2.040E-04	.0072	2.4866E-04	.0087	2.7734E-04	.0097			.4800	90.000
B 117	507	.820	.113	1.570E-04	.0055	1.8932E-04	.0066	2.1108E-04	.0074			.4800	120.000
B 118	504	.400	.073	1.006E-04	.0035	1.2121E-04	.0042	1.3503E-04	.0047			.4800	150.000
B 119	502	.463	.084	1.162E-04	.0041	1.3990E-04	.0049	1.5540E-04	.0055			.4800	150.000
B 120	513	.517	.101	1.475E-04	.0050	1.7219E-04	.0060	1.9218E-04	.0067			.4800	160.000
B 125	519	5.388	1.087	1.541E-03	.0539	1.8642E-03	.0653	2.0829E-03	.0729			.8200	0
B 128	514	1.460	.285	1.100E-04	.0039	1.3294E-04	.0047	1.4840E-04	.0052			.8200	43.000
B 129	511	.418	.076	3.735E-04	.0131	4.5129E-04	.0158	5.0373E-04	.0176			.8200	90.000
B 130	505	.136	.025	1.067E-04	.0037	1.2883E-04	.0045	1.4372E-04	.0050			.8200	100.000
B 131	500	.461	.087	3.439E-05	.0012	4.1449E-05	.0015	4.6188E-05	.0016			.8200	120.000
B 138	519	.180	.034	1.200E-04	.0042	1.4447E-04	.0051	1.6083E-04	.0056			.8200	150.000
B 139	518	.661	.121	1.711E-04	.0060	2.0497E-04	.0072	2.3121E-04	.0081			.8200	160.000
B 140	515	.542	.099	1.392E-04	.0059	1.6823E-04	.0069	1.8780E-04	.0066			.8200	120.000
B 141	511	.358	.065	0.126E-05	.0032	1.1016E-04	.0039	1.2288E-04	.0043			.8200	150.000
B 142	509	.353	.064	0.959E-05	.0031	1.0888E-04	.0038	1.2288E-04	.0043			.8200	150.000
B 150	520	.463	.074	1.046E-04	.0037	1.2664E-04	.0044	1.4181E-04	.0050			.8200	150.000
B 151	519	.310	.057	0.042E-05	.0028	9.7303E-05	.0034	1.0872E-04	.0038			.7000	90.000
B 152	518	.612	.112	1.583E-04	.0055	1.9146E-04	.0067	2.1380E-04	.0075			.7000	100.000
B 153	515	.277	.054	0.622E-05	.0027	9.2112E-05	.0032	1.0283E-04	.0036			.7000	120.000
B 154	514	.377	.066	0.253E-05	.0032	1.1170E-04	.0039	1.2476E-04	.0044			.7000	150.000
B 159	523	.723	.125	1.833E-04	.0064	2.2313E-04	.0076	2.4841E-04	.0087			.7000	160.000
B 160	522	.815	.145	2.060E-04	.0072	2.4946E-04	.0087	2.7888E-04	.0098			.7700	90.000
B 161	520	.336	.060	0.455E-05	.0030	1.0232E-04	.0036	1.1432E-04	.0040			.7700	120.000
B 162	519	.353	.070	0.869E-05	.0035	1.1948E-04	.0042	1.3348E-04	.0047			.7700	150.000
B 171	522	.867	.163	2.314E-04	.0081	2.8029E-04	.0095	3.1338E-04	.0110			.7700	160.000
B 172	521	.153	.035	0.029E-05	.0018	6.0896E-05	.0021	6.8009E-05	.0024			.6900	120.000
B 200	531	17.297	2.651	3.824E-03	.1339	4.6439E-03	.1626	5.2018E-03	.1821			.0000	0
B 201	529	4.772	.558	0.018E-04	.0281	9.7322E-03	.0341	1.0897E-03	.0382			.1000	.100
B 202	526	2.360	.331	0.745E-04	.0166	3.7539E-04	.0201	4.3085E-04	.0225			.2000	.100
B 203	523	.658	.144	2.052E-04	.0072	2.4866E-04	.0281	2.7758E-04	.0307			.3200	.100
B 204	524	.710	.124	1.775E-04	.0062	2.1515E-04	.0075	2.4063E-04	.0084			.4000	.100
B 205	524	.381	.093	0.923E-05	.0031	1.0814E-04	.0038	1.2094E-04	.0042			.4000	.100
B 206	524	.231	.039	0.623E-05	.0020	6.8142E-05	.0024	7.6214E-05	.0027			.4000	.100
B 207	525	.209	.020	0.024E-05	.0010	3.0237E-05	.0012	3.0202E-05	.0013			.7000	.100
B 217	541	35.248	4.316	0.313E-03	.2211	7.6909E-03	.2693	6.6239E-03	.3023			.9100	.100
B 218	532	10.576	1.031	1.488E-03	.0521	1.8880E-03	.0623	2.0294E-03	.0709			.0000	.200
B 219	510	5.847	.573	0.253E-04	.0289	1.0619E-03	.0351	1.2119E-03	.0393			.1000	.200
B 220	526	2.444	.224	1.207E-04	.0112	1.3888E-04	.0136	1.5281E-04	.0152			.2000	.200
B 221	524	.724	.141	0.607E-04	.0076	2.4313E-04	.0085	2.7191E-04	.0095			.4000	.200
B 222	524	.470	.084	1.192E-04	.0042	1.4446E-04	.0051	1.6156E-04	.0057			.4000	.200
B 223	523	.344	.059	0.447E-05	.0030	1.0234E-04	.0036	1.1448E-04	.0040			.4000	.200
B 230	544	35.861	4.889	1.811E-03	.1309	6.1794E-03	.1606	4.8227E-03	.2443			.0000	.200
B 231	529	5.194	.610	0.750E-04	.0307	1.0582E-03	.0372	1.1898E-03	.0417			.1000	.200
B 232	525	.671	.130	1.863E-04	.0065	2.2586E-04	.0079	2.5928E-04	.0088			.4000	.200
B 233	525	.495	.093	1.335E-04	.0047	1.6183E-04	.0057	1.8103E-04	.0063			.4000	.200
B 234	524	.524	.097	1.387E-04	.0049	1.6806E-04	.0060	1.8798E-04	.0066			.4000	.200
B 235	524	.560	.042	0.989E-05	.0021	7.2578E-05	.0025	8.1176E-05	.0028			.4000	.200
B 236	524	.584	.047	0.748E-05	.0024	8.1779E-05	.0289	9.1571E-05	.0322			.4000	.200
B 237	524	.633	.051	1.317E-05	.0026	8.6888E-05	.0031	9.4111E-05	.0035			.9010	.200
B 238	525	.511	.039	0.594E-05	.0020	6.7806E-05	.0024	7.5840E-05	.0027			.9300	.200
B 248	547	41.467	4.712	0.954E-03	.2425	6.054E-03	.2972	9.5410E-03	.3341			.0000	.300
B 249	529	4.726	.575	0.264E-04	.0290	1.0025E-03	.0361	1.1264E-03	.0393			.1000	.300
B 250	528	3.272	.368	0.278E-04	.0185	6.4034E-04	.0224	7.1472E-04	.0251			.2000	.300
B 251	525	.889	.173	2.470E-04	.0086	2.9948E-04	.0109	3.3801E-04	.0117			.4000	.300
B 252	525	.548	.118	1.689E-04	.0050	2.0475E-04	.0072	2.2804E-04	.0080			.4000	.300
B 263	548	46.853	5.761	0.507E-03	.2979	1.0385E-02	.3636	1.1674E-02	.4088			.0000	.300
B 264	532	7.878	.461	1.387E-03	.0486	1.6842E-02	.0590	1.8870E-02	.0661			.1000	.400
B 265	527	.925	.180	2.577E-04	.0090	3.1290E-04	.0109	3.4971E-04	.0122			.4000	.400
B 266	528	.577	.112	1.611E-04	.0056	1.9548E-04	.0068	2.1886E-04	.0077			.4000	.400
B 277	554	59.688	5.338	1.953E-03	.2785	9.2777E-03	.2488	1.0228E-02	.3034			.0000	.500
B 278	532	7.528	.907	1.426E-03	.0495	1.7327E-02	.0607	1.9413E-02	.0660			.1000	.500
B 279	531	4.627	.564	0.126E-04	.0285	9.8884E-04	.0346	1.1093E-03	.0387			.2000	.500
B 280	526	1.103	.214	0.971E-04	.0108	3.7244E-04	.0130	4.1678E-04	.0146			.4000	.500
B 281	525	1.016	.192	2.746E-04	.0095	3.2878E-04	.0117	3.7240E-04	.0130			.4000	.500
B 282	525	.797	.151	2.150E-04	.0075	2.6066E-04	.0091	2.9198E-04	.0102			.4000	.500
B 283	525	.760	.072	1.026E-04	.0036	1.2434E-04	.0044	1.3929E-04	.0049			.4000	.500
B 296	547	46.508	6.202	4.155E-03	.3206	1.2117E-02	.3913	1.2801E-02	.4398			.0000	.700
B 297	532	10.824	1.420	2.050E-03	.0718	2.4909E-03	.0872	2.7907E-03	.0977			.1000	.700
B 298	510	0.772	.017	1.174E-03	.0142	1.4280E-03	.0166	1.5991E-03	.0180			.2000	.600
B 299	528	.917	.207	2.966E-04	.0104	3.5991E-04	.0126	4.0280E-04	.0141			.4000	.600
B 300	527	.921	.172	2.470E-04	.0080	2.9948E-04	.0108	3.3823E-04	.0117			.4000	.600
B 301	527	.852	.081	1.154E-04	.0040	1.3929E-04	.0050	1.5661E-04	.0055			.7200	.600
B 302	527	.603	.057	0.172E-05	.0029	4.1144E-05	.0035	4.6829E-05	.0039			.8510	.600
B 315	517	19.746	2.000	4.993E-03	.1048	4.6409E-03	.1275	4.6829E-03	.1430			.1000	.700
B 316	533	.861	.202	1.304E-03	.0457								

NOT REPRODUCIBLE

AEDC (ARO, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL B
 V11162

REF ID	CONF ID	MODEL GUC-H	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW	
	800		7.93	149.7	1223	-5.00	-5.00	0	0	0	
T-INF (DEG M)	P-INF (PSIA)	G-INF (PSIA)	V-INF (F/SEC)	RMU-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF-FR (R= .009FT)	SIFR (M= .009FT)	SWITCH POSITION		
90.1	.016	.715	3689	1.512E-05	7.255E-08	7.69E 05	2.865E-02	6.496E-02	2		
TC NO	Tw	UT-EL	V-(W)	M(TO)	M(TO)/HREF	M(.9TO)	M(.9TO)/HREF	M(.85TO)	M(.85TO)/HREF	FUSELAGE-BOOSTER	
										K/L	PHI
8 460	497	1.525	.275	3.789F-04	.0132	4.9562E-04	.0159	5.0644E-04	.0177	.3800	120.000
8 461	494	.637	.115	1.574E-04	.0095	1.8908E-04	.0066	2.1027E-04	.0073	.3800	120.000
8 462	496	.990	.184	4.929E-04	.0088	3.0410E-04	.0106	3.3832E-04	.0118	.3800	120.000
8 463	497	1.259	.234	3.217F-04	.0112	3.8680E-04	.0135	4.3035E-04	.0150	.3800	120.000
8 464	496	1.305	.242	3.335E-04	.0116	4.0103E-04	.0140	4.4618E-04	.0156	.3800	120.000
8 106	508	.261	.050	7.028E-05	.0025	8.4744E-05	.0030	9.4497E-05	.0033	.4400	0
8 109	506	1.159	.216	3.033E-04	.0106	3.6569E-04	.0128	4.0758E-04	.0142	.4400	90.000
8 110	503	.474	.086	1.193E-04	.0042	1.4369E-04	.0050	1.6007E-04	.0056	.4400	120.000
8 111	501	.992	.180	2.486E-04	.0087	2.9932E-04	.0104	3.3331E-04	.0116	.4400	120.000
8 112	500	1.383	.250	3.460E-04	.0121	4.1841E-04	.0145	4.6362E-04	.0162	.4400	120.000
8 113	513	.073	.014	2.023E-05	.0007	2.4442E-05	.0009	2.7278E-05	.0010	.4800	0
8 116	511	.886	.157	2.199E-04	.0077	2.5533E-04	.0093	2.9626E-04	.0103	.4800	90.000
8 117	509	.507	.092	1.290E-04	.0045	1.5563E-04	.0054	1.7358E-04	.0061	.4800	120.000
8 118	506	1.079	.196	2.731E-04	.0095	3.2921E-04	.0115	3.6899E-04	.0128	.4800	120.000
8 119	505	1.327	.241	3.350E-04	.0117	4.0370E-04	.0141	4.4985E-04	.0157	.4800	120.000
8 120	514	.106	.021	2.938E-05	.0010	3.5501E-05	.0012	3.9627E-05	.0014	.5200	0
8 125	519	1.561	.319	4.526E-04	.0158	5.4764E-04	.0191	6.1191E-04	.0214	.5800	43.000
8 127	516	.263	.046	6.793E-05	.0024	8.2123E-05	.0029	9.1702E-05	.0032	.5800	90.000
8 128	515	.417	.076	1.074E-04	.0038	1.2986E-04	.0045	1.4499E-04	.0051	.5800	105.000
8 129	512	.748	.136	1.917E-04	.0067	2.3154E-04	.0081	2.5839E-04	.0090	.5800	120.000
8 130	508	1.137	.207	2.886E-04	.0101	3.4809E-04	.0122	3.8811E-04	.0135	.5800	120.000
8 131	503	1.152	.216	2.997E-04	.0105	3.6099E-04	.0126	4.0210E-04	.0140	.5800	120.000
8 131	520	.159	.027	3.891E-05	.0014	4.7100E-05	.0016	5.2639E-05	.0018	.6200	90.000
8 139	519	.343	.063	8.916E-05	.0031	1.0791E-04	.0038	1.2059E-04	.0042	.6200	105.000
8 140	516	.810	.146	2.092E-04	.0073	2.5296E-04	.0088	2.8251E-04	.0099	.6200	120.000
8 141	513	1.153	.210	2.958E-04	.0103	3.5730E-04	.0125	3.9879E-04	.0139	.6200	120.000
8 142	511	1.259	.229	3.218E-04	.0112	3.8850E-04	.0136	4.3345E-04	.0151	.6200	120.000
8 150	520	.221	.040	5.747E-05	.0020	6.9576E-05	.0024	7.7769E-05	.0027	.7000	90.000
8 151	520	.365	.067	9.495E-05	.0033	1.1496E-04	.0040	1.2849E-04	.0045	.7000	105.000
8 152	520	.439	.076	2.182E-04	.0076	2.6414E-04	.0092	2.9520E-04	.0103	.7000	120.000
8 153	517	1.112	.205	2.903E-04	.0101	3.5118E-04	.0123	3.9229E-04	.0137	.7000	120.000
8 154	516	1.456	.230	3.250E-04	.0113	3.9296E-04	.0137	4.3888E-04	.0153	.7000	120.000
8 159	524	.435	.077	1.086E-04	.0039	1.3409E-04	.0047	1.4998E-04	.0052	.7700	90.000
8 160	522	.760	.139	1.978E-04	.0069	2.3966E-04	.0084	2.6799E-04	.0094	.7700	120.000
8 161	521	1.249	.222	3.161E-04	.0110	3.8286E-04	.0134	4.2802E-04	.0149	.7700	120.000
8 162	521	1.255	.223	3.172E-04	.0111	3.8411E-04	.0134	4.2937E-04	.0150	.7700	120.000
8 171	524	.328	.060	8.585E-05	.0030	1.0484E-04	.0036	1.1636E-04	.0041	.8950	120.000
8 172	524	1.112	.207	2.952E-04	.0103	3.5779E-04	.0125	4.0018E-04	.0140	.8950	120.000
8 200	532	15.938	2.444	3.537E-03	.1235	4.2977E-03	.1500	4.8157E-03	.1681	0	100
8 201	530	7.071	.827	1.193E-03	.0417	1.4491E-03	.0506	1.6231E-03	.0567	.1000	100
8 202	528	4.217	.593	6.519E-04	.0297	1.0336E-03	.0361	1.1571E-03	.0404	.2000	100
8 203	525	1.062	.220	3.444E-04	.0110	3.8119E-04	.0133	4.2847E-04	.0149	.3300	100
8 204	526	1.248	.219	3.143E-04	.0110	3.6125E-04	.0133	4.2665E-04	.0149	.4000	100
8 205	526	.378	.067	6.665E-05	.0034	1.1722E-04	.0041	1.3116E-04	.0046	.4000	100
8 206	526	.403	.069	6.875E-05	.0034	1.1977E-04	.0042	1.3403E-04	.0047	.4000	100
8 207	528	.439	.076	9.744E-05	.0042	1.2481E-04	.0051	1.4136E-04	.0058	.4000	100
8 217	539	28.608	3.501	3.114F-03	.1785	6.2270E-03	.2174	6.9873E-03	.2439	0	200
8 218	533	16.727	1.632	2.362E-03	.0825	2.8704E-03	.1022	3.2165E-03	.1123	.0500	200
8 219	532	9.573	.972	1.408E-03	.0491	1.7077E-03	.0596	1.9133E-03	.0668	.1000	200
8 220	529	5.937	.533	7.676E-04	.0268	9.3181E-04	.0325	1.0434E-03	.0364	.2000	200
8 221	527	1.874	.165	2.239E-04	.0103	2.5359E-04	.0122	2.8115E-04	.0140	.4000	200
8 222	527	.461	.076	2.204E-04	.0077	2.6728E-04	.0093	2.9914E-04	.0104	.6000	200
8 223	526	.560	.094	1.370E-04	.0048	1.6617E-04	.0058	1.8596E-04	.0065	.7000	200
8 230	540	24.155	3.286	4.485E-03	.1577	5.8924E-03	.2043	6.5879E-03	.2293	0	250
8 231	531	9.603	1.126	1.630E-03	.0569	1.9805E-03	.0691	2.2187E-03	.0774	.1000	250
8 232	529	1.874	.165	2.253E-04	.0103	2.5359E-04	.0122	2.8115E-04	.0140	.4000	250
8 233	528	1.399	.126	3.810E-04	.0133	4.3624E-04	.0161	5.1772E-04	.0181	.6000	250
8 234	528	.810	.146	2.139E-04	.0075	2.5986E-04	.0091	2.9056E-04	.0101	.6000	250
8 235	527	.763	.095	7.936E-05	.0028	9.6289E-05	.0034	1.0744E-04	.0038	.6000	250
8 236	528	.812	.066	6.458E-05	.0033	1.1475E-04	.0040	1.2844E-04	.0045	.8670	250
8 237	528	.704	.057	6.210E-05	.0029	7.9624E-05	.0035	8.1322E-05	.0039	.9010	250
8 238	528	.550	.042	6.069E-05	.0021	7.3644E-05	.0026	8.2438E-05	.0029	.9350	250
8 248	544	31.703	3.597	3.295E-03	.1848	6.4981E-03	.2254	7.2549E-03	.2532	0	300
8 249	530	5.096	.621	8.950E-04	.0312	1.0868E-03	.0379	1.2171E-03	.0425	.1000	300
8 250	530	4.328	.487	7.026E-04	.0245	8.5315E-04	.0298	9.5549E-04	.0334	.2000	300
8 251	529	1.621	.316	4.550E-04	.0159	5.5234E-04	.0193	6.1852E-04	.0216	.4000	300
8 252	528	.888	.176	2.528F-04	.0088	3.0680E-04	.0107	3.4350E-04	.0120	.6000	300
8 263	547	41.066	5.047	7.459E-03	.2604	9.1050E-03	.3178	1.0234E-02	.3572	0	400
8 264	534	9.539	1.164	1.689F-03	.0590	2.0534E-03	.0717	2.3017E-03	.0803	.1000	400
8 265	531	1.525	.297	4.297E-04	.0150	5.2191E-04	.0182	5.8467E-04	.0204	.4000	400
8 266	532	1.247	.243	3.520F-04	.0123	4.2776E-04	.0149	4.7930E-04	.0167	.6000	400
8 277	551	51.009	4.888	7.272E-03	.2538	8.8905E-03	.3103	1.0004E-02	.3492	0	500
8 278	535	9.045	1.188	1.727E-03	.0603	2.1003E-03	.0733	2.3549E-03	.0822	.1000	500
8 279	534	5.462	.691	1.003E-03	.0350	1.2199E-03	.0426	1.3676E-03	.0477	.2000	500
8 284	531	1.531	.296	4.314E-04	.0151	5.2401E-04	.0183	5.8705E-04	.0205	.4000	500
8 281	531	1.365	.262	3.787E-04	.0132	4.5993E-04	.0161	5.1517E-04	.0180	.6000	500
8 282	530	1.184	.224	3.236F-04	.0113	3.9303E-04	.0137	4.4022E-04	.0154	.6000	500
8 283	530	1.207	.115	1.652E-04	.0058	2.0069E-04	.0070	2.2467E-04	.0078	.8770	500
8 296	550	47.742	6.113	7.077E-03	.3168	1.1092E-02	.3872	1.2937E-02	.4355	0	600
8 297	536	11.245	1.478	2.149F-03	.0750	2.6181E-03	.0912	1.0486E-03	.0168	.1000	600
8 298	534	6.895	.834	1.210E-03	.0422	1.4708E-03	.0513	1.6486E-03	.0575	.2000	600
8 299	533	1.064	.244	3.540F-04	.0124	4.3030E-04	.0150	4.8227E-04	.0168	.4000	600
8 300	534	1.321	.233	3.374E-04	.0118	4.1018E-04	.0143	4.5973E-04	.0160	.6000	600
8 301	533	1.405	.133	1.929E-04	.0067	2.3439E-04	.0082	2.6266E-04	.0092	.7000	600
8 302	533	1.206	.114	1.655F-04	.0058	2.0116E-04	.0070	2.2541E-04	.0079	.8510	600
8 315	542	22.740	2.378	3.488E-03	.1217	4.2505E-03	.1484	4.7722E-03	.1666	.1000	700
8 316	539	9.861	1.030	1.505E-03	.0525	1.8319E-03	.0639	2.0596E-03	.0718	.2000	700
8 317	537	1.932	.315	4.585E-04	.0160	5.5791E-04	.0195	6.2573E-04	.0218	.5000	700
8 350	513	34.158	3.204	4.509E-03	.1574	5.4465E-03	.1901</				

AEPC (AMC, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 V11162

ITER	CONFIG	MODEL	MACH NO	PO PSIA	TC DEG H	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	MOD	MODEL	7.93	148.3	1222	5-02	5-02	0	0	0
T-INF	V-INF	U-INF	V-INF	RMU-INF	MU-INF	HE/FT	MREF-FH	STPH	SWITCH	
(DEG H)	(PSIA)	(PSIA)	(F/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(M = 0.00FT)	(M = 0.00FT)	POSITION	
90.0	0.14		JAR7	1.449E-05	7.248E-08	7.42E 05	2.851E-02	0.523E-02	1	
TC NO	TM	DTML	U-DUT	M(TO)	M(TO)/MREF	M(L0T0)	M(L0T0)/MREF	M(L0ST0)	M(L0ST0)/MREF	FUSELAGE-BOOSTER
										X/L PHI
H 1	510	47.400	15.473	2.242E-02	.7864	2.7063E-02	.9492	3.0149E-02	1.0584	0 0
H 2	444	25.444	4.565	0.181E-03	.2108	7.4063E-03	.2598	8.2215E-03	.2884	0 0
H 3	443	20.744	3.715	0.027E-03	.1763	0.0240E-03	.2113	4.6847E-03	.2345	0 0
H 4	440	17.343	3.047	4.170E-03	.1463	4.9912E-03	.1751	5.5365E-03	.1942	180.000
H 5	478	16.440	2.443	J.952E-03	.1386	4.7280E-03	.1658	5.2428E-03	.1834	0 0
H 6	440	14.433	2.667	J.591E-03	.1260	4.2944E-03	.1508	4.7641E-03	.1672	30.000
H 7	440	13.443	2.440	J.354E-03	.1176	4.0147E-03	.1408	4.4535E-03	.1562	60.000
H 8	440	12.643	2.333	J.142E-03	.1102	J.7603E-03	.1319	4.1712E-03	.1463	90.000
H 9	440	11.445	2.196	2.958E-03	.1037	3.5406E-03	.1242	3.9275E-03	.1378	120.000
H 10	440	11.050	2.032	2.738E-03	.0960	3.2779E-03	.1150	3.6364E-03	.1275	150.000
H 11	479	7.452	1.420	1.910E-03	.0670	2.2856E-03	.0802	2.5351E-03	.0884	180.000
H 12	479	11.709	2.091	2.813E-03	.0987	3.3667E-03	.1181	3.7342E-03	.1310	180.000
H 13	477	11.027	1.966	2.639E-03	.0926	3.1570E-03	.1107	3.5005E-03	.1228	180.000
H 14	478	10.480	1.868	2.503E-03	.0878	2.9933E-03	.1050	3.3194E-03	.1184	30.000
H 15	476	9.405	1.614	2.162E-03	.0788	2.5855E-03	.0907	2.8662E-03	.1005	60.000
H 16	477	7.118	1.288	1.703E-03	.0597	4.0371E-03	.0715	2.2586E-03	.0792	90.000
H 17	474	6.533	1.168	1.567E-03	.0550	1.8757E-03	.0658	2.0802E-03	.0730	120.000
H 18	474	6.844	1.230	1.659E-03	.0581	1.4812E-03	.0645	2.1974E-03	.0771	150.000
H 19	474	6.844	1.230	1.659E-03	.0581	1.4812E-03	.0645	2.1974E-03	.0771	180.000
H 20	441	4.423	1.405	2.030E-03	.0712	2.4302E-03	.0852	2.6462E-03	.0946	180.000
H 21	440	4.548	.421	1.107E-03	.0385	1.3249E-03	.0465	1.4697E-03	.0516	0 0
H 22	441	4.284	.766	1.033E-03	.0362	1.2368E-03	.0434	1.3719E-03	.0481	0 0
H 23	443	6.222	1.114	1.507E-03	.0529	1.4054E-03	.0633	2.0040E-03	.0703	180.000
H 24	443	6.438	1.152	1.459E-03	.0547	1.8475E-03	.0642	2.0727E-03	.0727	0 0
H 25	443	6.321	1.131	1.529E-03	.0536	1.8312E-03	.0633	2.0324E-03	.0713	15.000
H 26	440	5.973	1.067	1.437E-03	.0504	1.7197E-03	.0603	1.9076E-03	.0669	30.000
H 27	479	5.758	1.028	1.384E-03	.0485	1.6536E-03	.0581	1.8272E-03	.0644	45.000
H 28	479	5.396	.963	1.297E-03	.0455	1.5522E-03	.0544	1.7217E-03	.0604	60.000
H 29	479	4.814	.860	1.158E-03	.0406	1.3855E-03	.0486	1.5347E-03	.0539	75.000
H 30	440	4.432	.791	1.066E-03	.0374	1.2754E-03	.0447	1.4148E-03	.0496	90.000
H 31	440	3.974	.710	9.557E-04	.0335	1.1440E-03	.0401	1.2690E-03	.0445	105.000
H 32	440	3.833	.685	9.229E-04	.0324	1.1049E-03	.0388	1.2288E-03	.0430	120.000
H 33	441	3.657	.654	8.818E-04	.0309	1.0559E-03	.0370	1.1716E-03	.0411	135.000
H 34	441	3.344	.607	8.189E-04	.0287	9.8070E-04	.0344	1.0882E-03	.0382	150.000
H 35	442	3.203	.573	7.733E-04	.0271	9.2615E-04	.0325	1.0277E-03	.0360	165.000
H 37	448	2.100	.377	5.129E-04	.0180	6.1523E-04	.0216	6.8342E-04	.0240	180.000
H 38	449	J.603	.647	8.830E-04	.0310	1.0597E-03	.0372	1.1775E-03	.0413	180.000
H 39	441	1.701	.306	4.182E-04	.0147	5.0208E-04	.0176	5.9805E-04	.0196	0 0
H 40	441	1.267	.208	2.844E-04	.0100	3.4145E-04	.0120	3.7956E-04	.0133	180.000
H 41	440	2.345	.494	6.746E-04	.0237	8.0982E-04	.0284	9.0001E-04	.0316	180.000
H 42	440	2.206	.437	5.973E-04	.0210	7.1704E-04	.0252	7.9688E-04	.0280	15.000
H 43	440	2.264	.432	5.897E-04	.0207	7.0784E-04	.0248	7.8663E-04	.0276	30.000
H 44	444	1.923	.372	5.076E-04	.0178	6.0924E-04	.0214	6.7700E-04	.0237	45.000
H 45	441	1.781	.330	4.506E-04	.0158	5.4098E-04	.0190	6.0128E-04	.0211	60.000
H 46	440	1.770	.328	4.478E-04	.0157	5.3760E-04	.0189	5.9751E-04	.0210	75.000
H 47	442	1.447	.268	3.671E-04	.0129	4.4096E-04	.0155	4.9024E-04	.0172	90.000
H 48	447	1.332	.247	J.377E-04	.0118	4.0553E-04	.0142	4.5083E-04	.0158	105.000
H 49	441	1.049	.203	2.781E-04	.0089	3.2390E-04	.0117	3.7115E-04	.0130	120.000
H 50	442	1.144	.212	2.961E-04	.0102	3.4836E-04	.0122	3.8730E-04	.0136	135.000
H 51	442	.930	.177	2.423E-04	.0085	2.9127E-04	.0102	3.2379E-04	.0114	150.000
H 52	442	.841	.148	2.054E-04	.0074	2.4432E-04	.0086	2.7163E-04	.0095	165.000
H 53	442	.861	.155	2.123E-04	.0074	2.3800E-04	.0089	2.6357E-04	.0099	180.000
H 400	445	1.658	.298	4.103E-04	.0144	4.9132E-04	.0173	5.4495E-04	.0192	180.000
H 402	444	1.124	.208	2.852E-04	.0100	3.4276E-04	.0120	3.8121E-04	.0134	0 0
H 404	444	1.822	.353	4.850E-04	.0170	5.8280E-04	.0204	6.4412E-04	.0227	30.000
H 406	441	.864	.157	2.144E-04	.0075	2.5745E-04	.0090	2.8817E-04	.0100	60.000
H 407	441	.737	.136	1.867E-04	.0065	2.2419E-04	.0079	2.4922E-04	.0087	90.000
H 408	441	.627	.121	1.661E-04	.0058	1.9950E-04	.0070	2.2177E-04	.0078	120.000
H 409	442	.511	.094	1.357E-04	.0048	1.6301E-04	.0057	1.8123E-04	.0064	135.000
H 410	442	.415	.040	1.188E-04	.0039	1.3208E-04	.0046	1.4663E-04	.0051	150.000
H 411	442	.340	.006	9.032E-05	.0032	1.0849E-04	.0038	1.2061E-04	.0042	165.000
H 412	443	.333	.003	8.696E-05	.0031	1.0446E-04	.0037	1.1615E-04	.0041	180.000
H 413	508	1.580	.304	4.212E-04	.0148	5.0696E-04	.0178	5.6445E-04	.0198	0 0
H 415	448	.970	.184	2.605E-04	.0091	3.1343E-04	.0110	3.4884E-04	.0122	30.000
H 417	448	1.404	.321	4.259E-04	.0155	5.3234E-04	.0187	5.9248E-04	.0208	60.000
H 419	448	.622	.112	1.530E-04	.0054	1.8365E-04	.0064	2.0407E-04	.0072	90.000
H 420	448	.736	.123	1.675E-04	.0059	2.0098E-04	.0070	2.2329E-04	.0078	105.000
H 421	448	.648	.106	1.449E-04	.0051	1.7391E-04	.0061	1.9324E-04	.0068	120.000
H 422	440	.412	.074	1.018E-04	.0035	1.2130E-04	.0043	1.3481E-04	.0047	135.000
H 423	440	.314	.063	8.626E-05	.0030	1.0355E-04	.0036	1.1508E-04	.0040	150.000
H 424	447	.441	.092	1.257E-04	.0044	1.5101E-04	.0053	1.6790E-04	.0059	165.000
H 425	441	.311	.059	8.095E-05	.0028	9.7193E-05	.0034	1.0803E-04	.0038	180.000
H 426	503	1.513	.290	4.036E-04	.0142	4.8623E-04	.0171	5.4168E-04	.0190	0 0
H 428	502	1.027	.201	2.786E-04	.0098	3.3544E-04	.0118	3.7374E-04	.0131	30.000
H 430	448	1.116	.208	2.868E-04	.0101	3.4509E-04	.0121	3.8406E-04	.0135	60.000
H 432	440	1.713	.284	J.911E-04	.0137	4.8952E-04	.0165	5.2187E-04	.0183	90.000
H 433	448	.257	.049	8.659E-05	.0023	7.9885E-05	.0028	8.8741E-05	.0031	105.000
H 434	449	1.044	.171	1.226E-04	.0082	2.7911E-04	.0098	3.1013E-04	.0109	120.000
H 435	440	.486	.090	1.228E-04	.0043	1.4740E-04	.0052	1.6340E-04	.0057	135.000
H 436	449	.302	.056	7.959E-05	.0028	7.5498E-05	.0033	1.0410E-04	.0037	150.000
H 437	448	.443	.092	1.251E-04	.0044	1.5011E-04	.0053	1.6477E-04	.0058	165.000
H 438	447	.265	.051	8.963E-05	.0024	8.3512E-05	.0029	9.2754E-05	.0033	180.000
H 439	504	1.741	.344	4.785E-04	.0168	5.7667E-04	.0202	6.4257E-04	.0225	0 0
H 441	504	1.053	.211	2.929E-04	.0103	3.5294E-04	.0124	3.9323E-04	.0138	30.000
H 443	502	.316	.050	7.066E-05	.0025	8.4385E-05	.0030	9.3495E-05	.0033	60.000
H 445	446	2.831	.446	8.832E-04	.0240	8.2158E-04	.0288	9.1409E-04	.0321	90.000
H 446	443	.335	.058	7.891E-05	.0028	9.2784E-05	.0033	1.0539E-04	.0037	105.000
H 447	444	1.532	.264	J.622E-04	.0127	4.3518E-04	.0153	4.8391E-04	.0170	120.000
H 448	442	.452	.084	1.146E-04	.0040	1.3744E-04	.0048	1.5302E-04	.0054	135.000
H 450	442	.254	.048	8.556E-05	.0023	7.8740E-05	.0028	8.7535E-05	.0031	150.000
H 451	441	.240	.034	7.350E-05	.0020	8.2562E-05	.0024	9.0899E-05	.0028	165.000
H 452	506	1.634	.315	4.396E-04	.0154	5.2003E-04	.0186	5.9074E-04	.0207	0 0
H 454	505	1.484	.282	J.932E-04	.0138	4.7410E-04	.0166	5.2838E-04	.0185	30.000
H 456	504	.256	.041	7.705E-05	.0020	8.4741E-05	.0024	7.6549E-05	.0027	60.000
H 458	449	2.867	.518	7.171E-04	.0252	8.6306E-04	.0303	9.6043E-04		

AEDC (ARO, INC.) ANNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H
 VII102

NOT REPRODUCIBLE

MIN	CONFIG	MODEL	MACH NO	PU PSTA	TO DEG H	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	803	GUC-4	7.93	149-1	1219	4-96	4-96	0	0	0
T-INF	P-INF	Q-INF	V-INF	W0-INF	W1-INF	NE/FT	MREF-FR	STPH	SWITCH	
(DEG R)	(PSIA)	(PSIA)	(F/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(M = .009F1)	(M = .009F1)	POSITION	
89.8	.016	.712	JARR	1.511F-05	7.431E-08	7.69E 05	2.859E-02	6.497E-02	2	
TC NO	TW	UTALI	Q-DUI	H(TO)	H(TO)/MREF	F(.9TO)	H(.9TO)/MREF	H(.85TO)	H(.85TO)/MREF	FUSELAGE-BOOSTER
										X/L PHI
H 460	498	1.4e3	.204	J.862E-04	.0128	4.4074E-04	.0154	4.9064E-04	.0172	.3800 120.000
H 461	495	.442	.080	1.049E-04	.0038	1.3216E-04	.0046	1.4704E-04	.0051	.3000 135.000
H 462	497	.222	.052	1.243E-05	.0025	8.7137E-05	.0030	9.8491E-05	.0034	.3000 150.000
H 463	497	.250	.055	1.672E-05	.0027	9.2300E-05	.0032	1.0273E-04	.0036	.3000 165.000
H 464	496	.211	.035	5.431E-05	.0019	6.5325E-05	.0023	7.2700E-05	.0025	.3000 180.000
H 106	510	1.554	.299	4.217E-04	.0148	5.0916E-04	.0178	5.8608E-04	.0199	.4400 0
H 109	507	1.420	.258	J.623E-04	.0127	4.3723E-04	.0153	4.8761E-04	.0171	.4400 90.000
H 110	505	1.069	.199	2.787E-04	.0098	3.3601E-04	.0118	3.7452E-04	.0131	.4400 120.000
H 111	501	.227	.041	5.728E-05	.0020	6.8999E-05	.0024	7.6861E-05	.0027	.4400 150.000
H 112	500	.237	.043	5.951E-05	.0021	7.1458E-05	.0025	7.9403E-05	.0028	.4400 180.000
H 113	514	1.381	.271	J.845E-04	.0135	4.6487E-04	.0163	5.1915E-04	.0182	.4800 0
H 116	512	.572	.101	1.431E-04	.0050	1.7291E-04	.0061	1.9303E-04	.0068	.4800 90.000
H 117	510	.760	.142	2.002E-04	.0070	2.4171E-04	.0085	2.6970E-04	.0094	.4800 120.000
H 118	506	.110	.021	2.952E-05	.0010	J.5596E-05	.0012	3.9645E-05	.0014	.4800 150.000
H 119	505	.218	.035	5.427E-05	.0019	6.5436E-05	.0023	7.2942E-05	.0026	.4800 180.000
H 120	515	1.050	.215	J.057E-04	.0107	J.6977E-04	.0129	4.1301E-04	.0145	.5200 0
H 125	521	7.158	1.446	4.072E-03	.0725	2.5101E-03	.0878	2.8072E-03	.0982	.5500 43.000
H 127	516	.150	.036	5.082E-05	.0018	6.1480E-05	.0022	6.8606E-05	.0024	.5500 90.000
H 128	516	.444	.081	1.188E-04	.0041	1.4011E-04	.0049	1.5652E-04	.0055	.5500 120.000
H 129	513	.385	.070	4.930E-05	.0035	1.2002E-04	.0042	1.3400E-04	.0047	.5500 150.000
H 130	508	.300	.054	7.661E-05	.0027	9.2468E-05	.0032	1.0314E-04	.0036	.5500 180.000
H 131	503	.153	.028	J.874E-05	.0014	4.6889E-05	.0016	5.2026E-05	.0018	.5500 0
H 138	521	.441	.090	1.285E-04	.0045	1.5973E-04	.0054	1.7414E-04	.0061	.5500 90.000
H 139	570	.237	.043	6.206E-05	.0022	7.5170E-05	.0026	8.4045E-05	.0029	.6250 105.000
H 140	517	.199	.036	5.179E-05	.0018	6.2659E-05	.0022	7.0007E-05	.0024	.6250 120.000
H 141	514	.431	.078	1.112E-04	.0039	1.3441E-04	.0047	1.5008E-04	.0053	.6250 150.000
H 142	511	.242	.044	6.224E-05	.0022	7.5183E-05	.0026	8.3904E-05	.0029	.6250 180.000
H 150	522	1.159	.212	J.044E-04	.0107	J.6884E-04	.0129	4.1255E-04	.0144	.7000 0
H 151	521	.469	.086	1.228E-04	.0043	1.4876E-04	.0052	1.6635E-04	.0058	.7000 90.000
H 152	520	.108	.020	2.814E-05	.0010	3.4082E-05	.0012	3.8101E-05	.0013	.7000 120.000
H 153	517	.362	.066	4.417E-05	.0033	1.1396E-04	.0040	1.2734E-04	.0045	.7000 150.000
H 154	516	.342	.061	6.616E-05	.0030	1.0422E-04	.0036	1.1643E-04	.0041	.7000 180.000
H 159	525	1.455	.266	J.835E-04	.0134	4.6518E-04	.0163	5.2063E-04	.0182	.7700 0
H 160	523	.250	.044	6.370E-05	.0022	7.7216E-05	.0027	8.6379E-05	.0030	.7700 90.000
H 161	521	.144	.026	J.759E-05	.0013	4.5543E-05	.0016	5.0932E-05	.0018	.7700 120.000
H 162	521	.283	.050	1.185E-05	.0025	8.7041E-05	.0030	9.7266E-05	.0034	.7700 150.000
H 171	523	.244	.045	6.425E-05	.0022	7.7897E-05	.0027	8.7132E-05	.0030	.8950 120.000
H 172	522	.160	.029	6.212E-05	.0015	5.1051E-05	.0018	5.7102E-05	.0020	.8950 150.000
H 200	533	17.283	2.651	J.859E-03	.1350	4.6919E-03	.1642	5.2545E-03	.1841	UPPER WING SURFACE-BOOSTER
H 201	529	3.799	.444	6.432E-04	.0225	7.8119E-04	.0273	8.7508E-04	.0306	X/C Y/S
H 202	527	2.229	.313	4.520E-04	.0158	5.4853E-04	.0192	6.1413E-04	.0215	.0 100
H 203	525	.558	.115	1.661E-04	.0058	2.0145E-04	.0070	2.2544E-04	.0079	.0 100
H 204	526	.494	.087	1.856E-04	.0064	1.5164E-04	.0053	1.6979E-04	.0059	.0 100
H 205	527	.040	.007	1.028E-05	.0004	1.2473E-05	.0004	1.3965E-05	.0005	.0 100
H 206	526	.140	.024	1.445E-05	.0012	1.809E-05	.0015	4.6805E-05	.0016	.0 100
H 207	528	.158	.015	2.160E-05	.0008	2.6225E-05	.0009	2.9368E-05	.0010	.0 100
H 217	541	35.776	4.384	6.464E-03	.2262	7.8812E-03	.2758	8.8515E-03	.3098	.0 200
H 218	533	12.184	1.190	1.733E-03	.0607	2.1079E-03	.0738	2.3631E-03	.0827	.0500 200
H 219	531	6.511	.635	9.213E-04	.0322	1.1194E-03	.0392	1.2544E-03	.0439	.0 200
H 220	527	2.743	.246	J.955E-04	.0124	4.3155E-04	.0151	4.8321E-04	.0169	.0 200
H 221	527	.2678	.132	1.902E-04	.0067	2.3089E-04	.0081	2.5881E-04	.0090	.0 200
H 222	526	.323	.056	3.19E-05	.0029	1.0095E-04	.0035	1.1302E-04	.0040	.0 200
H 223	526	.182	.031	4.75E-05	.0016	5.4303E-05	.0019	6.0793E-05	.0021	.0 200
H 230	544	35.715	.870	7.211E-03	.2524	8.8003E-03	.3080	4.0899E-03	.3441	.0 250
H 231	530	5.754	.640	9.865E-04	.0345	1.1984E-03	.0419	1.3625E-03	.0470	.0 250
H 232	527	.659	.128	1.853E-04	.0065	2.2495E-04	.0079	2.5189E-04	.0088	.0 250
H 233	528	.496	.094	1.355E-04	.0047	1.6455E-04	.0058	1.8427E-04	.0064	.0 250
H 234	528	.329	.060	6.730E-05	.0031	1.0594E-04	.0047	1.1847E-04	.0042	.0 250
H 235	528	.143	.010	1.502E-05	.0005	1.8234E-05	.0006	2.0418E-05	.0007	.0 250
H 236	528	.323	.026	J.790E-05	.0013	4.6099E-05	.0016	5.1525E-05	.0018	.0 250
H 237	528	.147	.012	1.725E-05	.0006	2.0946E-05	.0007	2.3459E-05	.0008	.0 250
H 238	528	.229	.018	2.541E-05	.0009	3.0854E-05	.0011	3.4556E-05	.0012	.0 250
H 248	544	40.707	6.618	6.835E-03	.2392	8.3412E-03	.2919	9.3735E-03	.3280	.0 300
H 249	531	5.070	.618	6.966E-04	.0314	1.0894E-03	.0381	1.2207E-03	.0427	.0 300
H 250	529	3.407	.383	5.957E-04	.0194	6.7495E-04	.0236	7.5611E-04	.0265	.0 300
H 251	528	.813	.158	2.289E-04	.0080	2.7795E-04	.0097	3.1129E-04	.0109	.0 300
H 252	529	.419	.083	1.201E-04	.0042	1.4593E-04	.0051	1.6333E-04	.0057	.0 300
H 263	547	43.958	5.404	6.379E-03	.2813	7.8213E-03	.3437	1.1045E-02	.3865	.0 400
H 264	533	7.644	.932	1.357E-03	.0475	1.6498E-03	.0577	1.8494E-03	.0647	.0 400
H 265	530	1.022	.199	2.881E-04	.0101	3.5129E-04	.0123	3.9360E-04	.0138	.0 400
H 266	530	.854	.128	1.850E-04	.0065	2.2479E-04	.0079	2.5146E-04	.0088	.0 400
H 277	553	53.583	5.139	7.713E-03	.2699	9.4408E-03	.3304	1.0832E-02	.3721	.0 500
H 278	534	6.500	.853	1.244E-03	.0435	1.5132E-03	.0530	1.6947E-03	.0594	.0 500
H 279	537	4.413	.538	1.837E-04	.0274	4.9290E-04	.0333	1.0642E-03	.0374	.0 500
H 280	530	1.188	.227	J.293E-04	.0115	3.9996E-04	.0140	4.4806E-04	.0155	.0 500
H 281	530	.878	.164	2.411E-04	.0084	2.9294E-04	.0103	3.2820E-04	.0115	.0 500
H 282	530	.612	.154	2.233E-04	.0078	2.7130E-04	.0095	3.0398E-04	.0106	.0 500
H 283	530	.750	.072	1.039E-04	.0036	1.2618E-04	.0044	1.4136E-04	.0049	.0 500
H 284	549	53.974	6.408	1.031E-02	.3607	1.2598E-02	.4409	1.4174E-02	.4960	.0 600
H 297	533	6.4015	1.131	1.648E-03	.0577	2.0041E-03	.0701	2.2470E-03	.0786	.0 600
H 298	533	.4367	.528	1.689E-04	.0269	9.3492E-04	.0327	1.0481E-03	.0367	.0 600
H 299	532	.732	.165	2.404E-04	.0084	2.9223E-04	.0102	3.2753E-04	.0115	.0 600
H 300	533	.987	.160	2.328E-04	.0081	2.8304E-04	.0099	3.1732E-04	.0111	.0 600
H 301	533	.827	.078	1.143E-04	.0040	1.3896E-04	.0049	1.5578E-04	.0055	.0 600
H 302	533	.751	.071	1.038E-04	.0036	1.2620E-04	.0044	1.4148E-04	.0050	.0 600
H 315	538	17.087	1.784	2.619E-03	.0916	3.1898E-03	.1116	3.5801E-03	.1253	.0 700
H 316	537	6.767	.708	1.034E-03	.0362	1.2583E-03	.0440	1.4117E-03	.0494	.0 700
H 317	536	1.335	.218	J.182E-04	.0111	3.8726E-04	.0136	4.3442E-04	.0152	.0 700
H 350	512	34.453	J.230	4.568E-03	.1598	5.5195E-03	.1932	6.1614E-03	.2156	UPPER CANARD SURFACE-BOOSTER
H 351	503	4.280	.395	5.515E-04	.0193	6.0461E-04	.0233	7.0052E-04	.0259	X/L Y/S
H 352	506	1.908	.170	2.378E-04	.0083	2.8654E-04	.0100	3.1944E-04	.0112	.0 250
H 353	507	.253	.088	1.238E-04	.0043	1.4932E-04	.0052	1.6651E-04	.0058	.0 250
H 357	519	36.834	3.467	9.948E-03	.1731	5.9904E-03	.2096	6.6585E-03	.2343	.0 250
H 358	506	6.044	.565	1.924E-04	.0277	4.5575E-04				