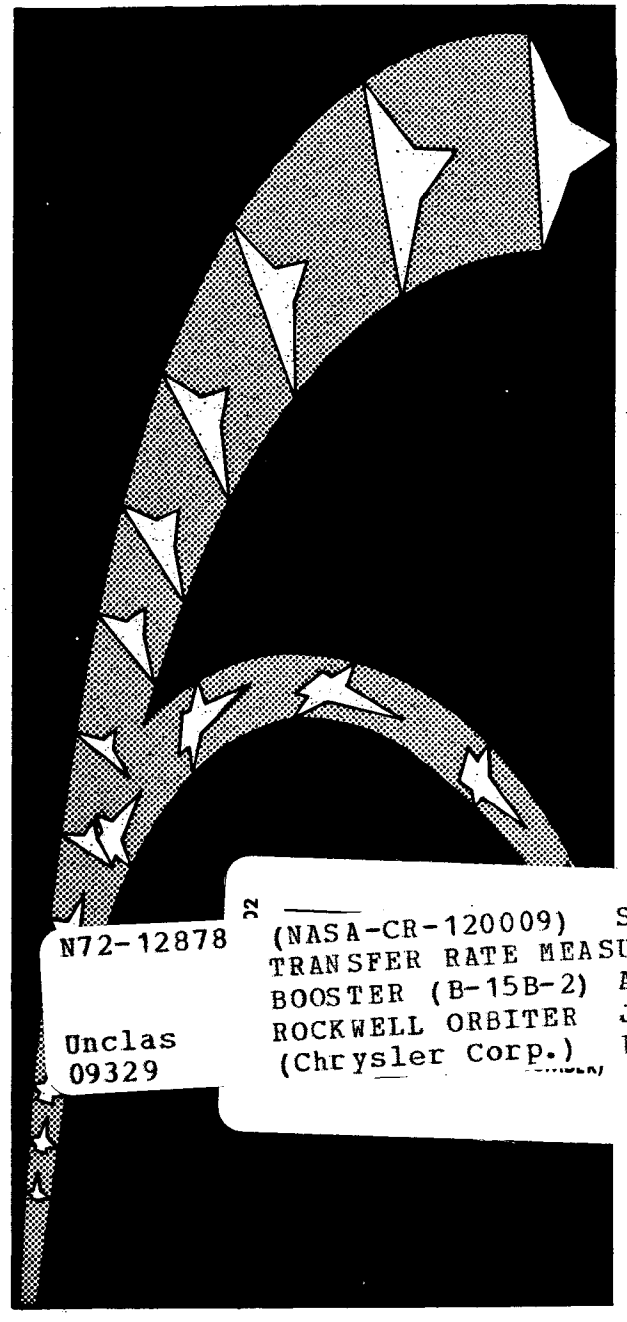
DMS-DR-1177
VOLUME I
NOVEMBER 1971
CR-120009



—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

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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

SPACE DIVISION CHRYSLER CORPORATION

NASA Series Number: H-1009

DMS-DR-1177
VOLUME I
NOVEMBER, 1970

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.
J. D. Warmbrod - MSFC

DATA MANAGEMENT SERVICES

LIAISON: NA

DATA OPERATIONS: J. R. Ziler

RELEASE APPROVAL: N. D. Kemp, Supervisor
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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:

Event	Description
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 ($\approx$ 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 ($\approx$ 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 X/L	PHI
1	B 1	0.0	0
2	B 2	0.0137	0
3	B 3	0.0137	180
4	B 4	0.0274	0
5	B 5		30
6	B 6		60
7	B 7		90
8	B 8		120
9	B 9		150
10	B 10		180
11	B 11	0.0406	180
12	B 12	0.0543	0
13	B 13		30
14	B 14		60
15	B 15		90
16	B 16		120
17	B 17		150
18	B 18		180
19	B 19	0.067	180
20	B 20	0.079	0
21	B 21	0.079	180
22	B 22	0.092	180
23	B 23	0.103	0
24	B 24		15
25	B 25		30
26	B 26		45
27	B 27		60
28	B 28		75
29	B 29		90
30	B 30		105
31	B 31		120
32	B 32		135
33	B 33		150
34	B 34		165
35	B 35		180
36	B 36	0.116	180
37	B 37	0.130	180
38	B 38	0.143	0
39	B 39	0.143	180
40	B 40	0.156	180
41	B 41	0.169	0
42	B 42		15
43	B 43		30
44	B 44		45
45	B 45		60
46	B 46		75
47	B 47		90
48	B 48		105
49	B 49		120
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
56	B 404		60
57	B 406		90
58	B 407		105
59	B 408		120
60	B 409		135
61	B 410		150
62	B 411		165
63	B 412		180
64	B 413	0.283	0
65	B 415		30
66	B 417		60
67	B 419		90
68	B 420		105
69	B 421		120
70	B 422		135
71	B 423		150
72	B 424		165
73	B 425		180
74	B 426	0.316	0
75	B 428		30
76	B 430		60
77	B 432		90
78	B 433		105
79	B 434		120
80	B 435		135
81	B 436		150
82	B 437		165
83	B 438		180
84	B 439	0.354	0
85	B 441		30
86	B 443		60
87	B 445		90
88	B 446	0.354	105
89	B 447		120
90	B 448		135
91	B 450		165
92	B 451		180
93	B 452	0.380	0
94	B 454		30
95	B 456		60
96	B 458		90
97	B 459		105
98	B 460	0.380	120
99	B 461		135
100	B 462		150
101	B 463		165
102	B 464		180
103	B 106	0.440	0
104	B 109		90
105	B 110		120
106	B 111		150
107	B 112		180
108	B 113	0.488	0
109	B 116		90
110	B 117		120
111	B 118		150
112	B 119		180
113	B 120	0.520	0
114	B 195	0.550	43
115	B 127		90
116	B 128		105
117	B 129		120
118	B 130		150
119	B 131		180
120	B 133	0.625	0
121	B 138		90
122	B 139		105
123	B 140		120
124	B 141		150
125	B 142		180
126	B 150	0.700	90
127	B 151		105
128	B 152		120
129	B 153		150
130	B 154		180
131	B 159	0.770	90
132	B 160		120
133	B 161		150
134	B 162		180
135	B 171	0.895	120
136	B 172	0.895	150

SADSAC NO.	TC NUMBER	UPPER WING SURFACE - BOOSTER X/C	Y/S
137	B 200	0.0	0.10
138	B 201	0.10	
139	B 202	0.20	
140	B 203	0.33	
141	B 204	0.40	
142	B 205	0.60	
143	B 206	0.70	
144	B 207	0.91	
145	B 217	0.0	0.20
146	B 218	0.05	
147	B 219	0.10	
148	B 220	0.20	
149	B 221	0.40	
150	B 222	0.60	
151	B 223	0.70	
152	B 230	0.0	0.25
153	B 231	0.10	
154	B 232	0.40	
155	B 233	0.50	
156	B 234	0.60	
157	B 235	0.833	
158	B 236	0.867	
159	B 237	0.901	
160	B 238	0.935	
161	B 248	0.0	0.30
162	B 249	0.10	
163	B 250	0.20	
164	B 251	0.40	
165	B 252	0.60	
166	B 263	0.0	0.40
167	B 264	0.10	
168	B 265	0.40	

Table 1. Thermocouple Coordinates

SADSAC NO.	TC NUMBER	FUSELAGE - BOOSTER X/L	PHI
169	B 266	0.60	0.40
170	B 277	0.0	0.50
171	B 278	0.10	↓
172	B 279	0.20	
173	B 280	0.40	
174	B 281	0.50	
175	B 282	0.60	
176	B 283	0.877	
177	B 296	0.0	0.60
178	B 297	0.10	↓
179	B 298	0.20	
180	B 299	0.40	
181	B 300	0.60	
182	B 301	0.793	
183	B 302	0.851	
184	B 315	0.10	0.70
185	B 316	0.20	↓
186	B 317	0.50	

		UPPER CANARD SURFACE - BOOSTER X/C	Y/S
187	B 350	0.0	0.25
188	B 351	0.25	↓
189	B 352	0.50	
190	B 353	0.70	
191	B 357	0.0	0.50
192	B 358	0.25	↓
193	B 359	0.50	
194	B 360	0.70	

		FUSELAGE - ORBITER X/L	Y/YMAX
195	0 1	0.0	-0.0
196	0 2	0.01	↓
197	0 7	0.03	
198	0 12	0.05	
199	0 19	0.10	
200	0 29	0.20	
201	0 44	0.30	
202	0 54	0.40	
203	0 66	0.50	
204	0 76	0.55	
205	0 80	0.60	
206	0 89	0.70	
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	-0.830
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 5	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 87	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	+0.432
252	0 41	0.27	+0.465
253	0 52	0.30	+0.361

SADSAC NO.	TC NUMBER	LOWER WING SURFACE - ORBITER X/C	Y/S
254	0 135	0.0	0.25
255	0 136	0.1	↓
256	0 137	0.2	
257	0 138	0.4	
258	0 140	0.6	
259	0 142	0.9	
260	0 149	0.0	0.50
261	0 150	0.1	↓
262	0 151	0.2	
263	0 152	0.4	
264	0 154	0.6	
265	0 157	0.9	
266	0 171	0.0	0.75
267	0 172	0.1	↓
268	0 175	0.4	
269	0 178	0.8	

		UPPER WING SURFACE - ORBITER X/C	Y/S
270	0 129	0.1	0.1
271	0 130	0.2	↓
272	0 131	0.4	
273	0 132	0.7	
274	0 133	0.9	
275	0 158	0.1	0.5
276	0 159	0.2	↓
277	0 160	0.4	
278	0 161	0.8	
279	0 162	0.9	

		VERTICAL STABILIZER - ORBITER X/C	Z/S
280	0 187	0.0	0.10
281	0 188	0.1	↓
282	0 189	0.4	
283	0 192	0.0	0.25
284	0 193	0.1	↓
285	0 194	0.4	
286	0 196	0.0	0.50
287	0 197	0.1	↓
288	0 198	0.4	
289	0 201	0.0	0.75
290	0 202	0.1	↓
291	0 203	0.4	

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 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	δ_c	δ_e	Model Scale	Free Stream Mach Number	Total Pressure (psia)	Total Temp. (^oR)	$\frac{T_{aw}*}{T_{total}}$	$\frac{RNX10^6}{Ft}$	Phase Change Temp. (^oF)	Booster-Orbiter Spacing (in.) XD	ZD	GRIT	Model Position (degrees) β	ϕ_M	α
1	Booster + Orbiter	0	0	0.009	8.00	857	1339	1.00	3.75	NA	2.22	.234	Off	0	0	0
2	↓	↓	↓	↓	↓	858	1347	↓	3.72	↓	↓	↓	↓	↓	↓	-5
3	↓	↓	↓	↓	↓	856	1346	↓	3.72	↓	↓	↓	↓	↓	↓	5
4	↓	↓	↓	↓	↓	858	1341	↓	3.75	↓	1.72	↓	↓	↓	↓	0
5	↓	↓	↓	↓	↓	859	1347	↓	3.73	↓	2.72	↓	↓	↓	↓	↓
6	↓	↓	↓	↓	↓	858	1338	↓	3.76	↓	2.22	.118	↓	↓	↓	↓
7	↓	↓	↓	↓	↓	859	1346	↓	3.73	↓	↓	.318	↓	↓	↓	↓
8	↓	↓	↓	↓	7.93	149	1249	↓	0.74	↓	↓	.234	↓	↓	↓	↓
9	↓	↓	↓	↓	↓	148	1234	↓	0.75	↓	↓	↓	↓	↓	↓	-5
10	↓	↓	↓	↓	↓	151	1233	↓	0.77	↓	↓	↓	↓	↓	↓	5
11	↓	↓	↓	↓	8.00	857	1342	↓	3.74	↓	↓	↓	↓	-5	↓	0
12	Booster	↓	↓	↓	↓	861	1342	↓	3.76	↓	-	-	↓	0	↓	↓
13	↓	↓	↓	↓	↓	860	1341	↓	3.75	↓	-	-	↓	↓	↓	-5

** 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	δ_c	δ_e	Model Scale	Free Stream Mach Number	Total Pressure (psia)	Total Temp. (^oR)	$\frac{T_{aw}*}{T_{total}}$	$\frac{RNX10^6}{Ft}$	Phase Change Temp. (^oF)	Booster-Orbiter Spacing (in.) XD	ZD	GRIT	Model Position (degrees) β	ϕ_M	α
14	Booster	0	0	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	↓	60	↓	↓	8.00	857	1353	↓	3.69	↓	↓	↓	↓	↓	↓	60
19	↓	50	↓	↓	↓	855	1340	↓	3.74	↓	↓	↓	↓	↓	↓	50
20	↓	40	↓	↓	↓	857	1338	↓	3.76	↓	↓	↓	↓	↓	↓	40
21	↓	40	↓	↓	↓	856	1342	↓	3.73	↓	↓	↓	On	↓	↓	40
22	↓	60	↓	↓	↓	860	1343	↓	3.75	↓	↓	↓	On	↓	↓	60
23	↓	10	↓	↓	↓	856	1344	↓	3.73	↓	↓	↓	Off	↓	↓	10
24	↓	20	↓	↓	↓	856	1342	↓	3.73	↓	↓	↓	↓	↓	↓	20
25	↓	30	↓	↓	↓	857	1346	↓	3.72	↓	↓	↓	↓	↓	↓	30
26	↓	30	-15	↓	↓	857	1342	↓	3.74	↓	↓	↓	↓	↓	↓	↓

** 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	δ_c	δ_e	Model Scale	Free Stream Mach Number	Total Pressure (psia)	Total Temp. (^oR)	$\frac{T_{aw}*}{T_{total}}$	$\frac{RNX10^6}{Ft}$	Phase Change Temp. (^oF)	Booster-Orbiter Spacing (in.) XD	ZD	GRIT	Model Position (degrees) β	ϕ_M	α
27	Booster	30	15	0.009	8.00	859	1342	1.00	3.74	NA	-	-	Off	0	0	30
28	Booster	0	0			858	1342		3.74							0
29	Orbiter	-				859	1339		3.76				On			50
30						857	1337		3.76				On			40
31						857	1343		3.74				On			30
32						856	1340		3.74				Off			30
33						856	1343		3.73							40
34						858	1347		3.72							50
35						555	1305		2.52							50
36						553	1311		2.50							40
37						554	1311		2.50							30
38						554	1308		2.51							20
39						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 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. (^{o}R)	T_{aw} * / T_{total}	RNX10^{6}/Ft	Phase Change Temp. (^{o}F)	Booster-Orbiter Spacing (in.)			Model Position (degrees)		
		δ_c	δ_e								XD	ZD	GRIT	β	ϕ_M	α
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				*** On			10
51			-10			858	1346		3.73				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:

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

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

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

Differentiation of Equation (2) with respect to time gives

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

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

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 $\ell n \left(\frac{T_o - T_{wi}}{T_o - T_w}\right)$ 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:

Heating Rate, R/sec	Time Span of Data Used, sec.	Number of Data Points Used
$16 \leq dT_w/dt$	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

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

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 LB_m/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

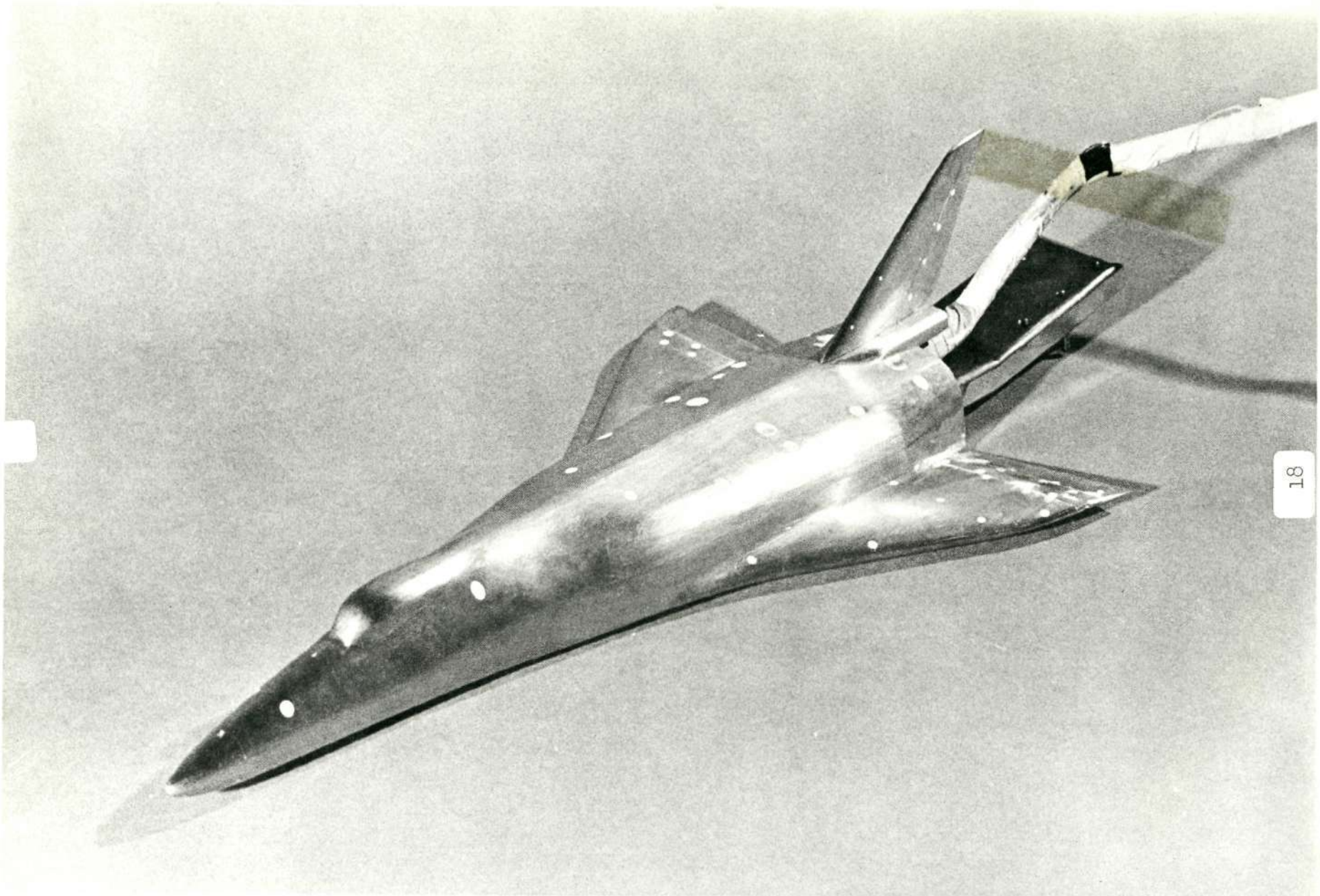


Figure 2. Orbiter Model Photograph

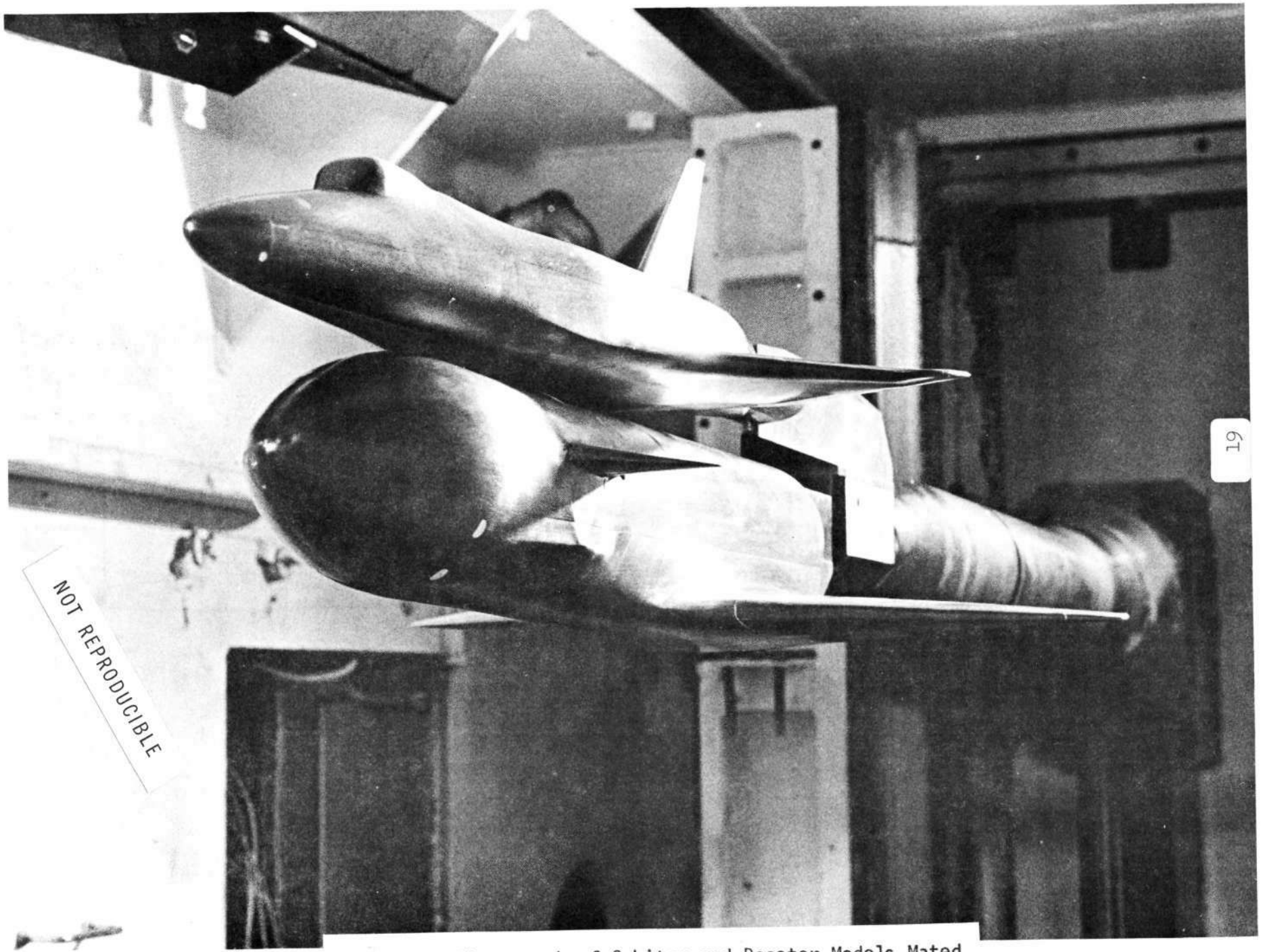


Figure 3. Photograph of Orbiter and Booster Models Mated

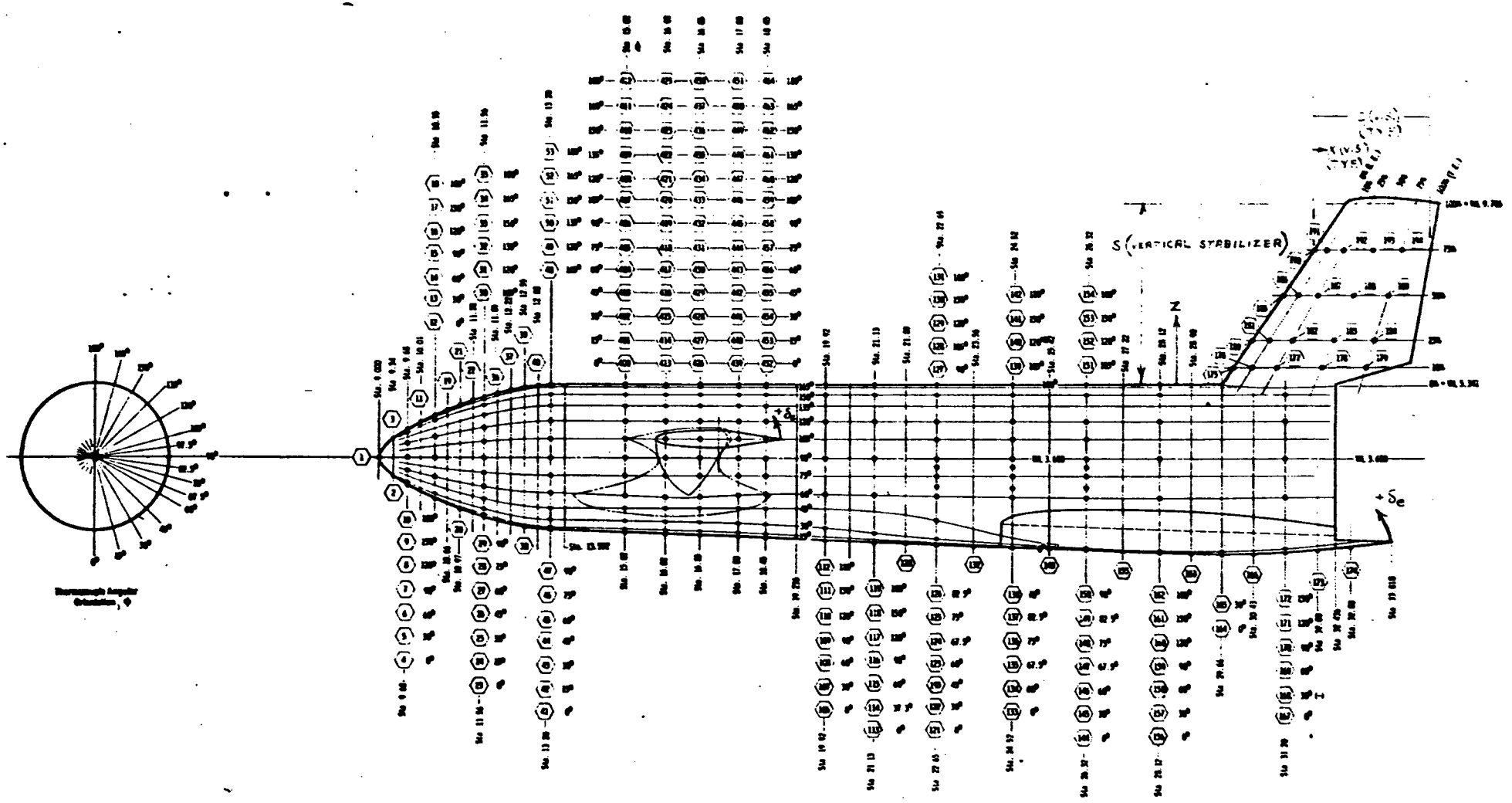


Figure 4. Booster Thermocouple Locations

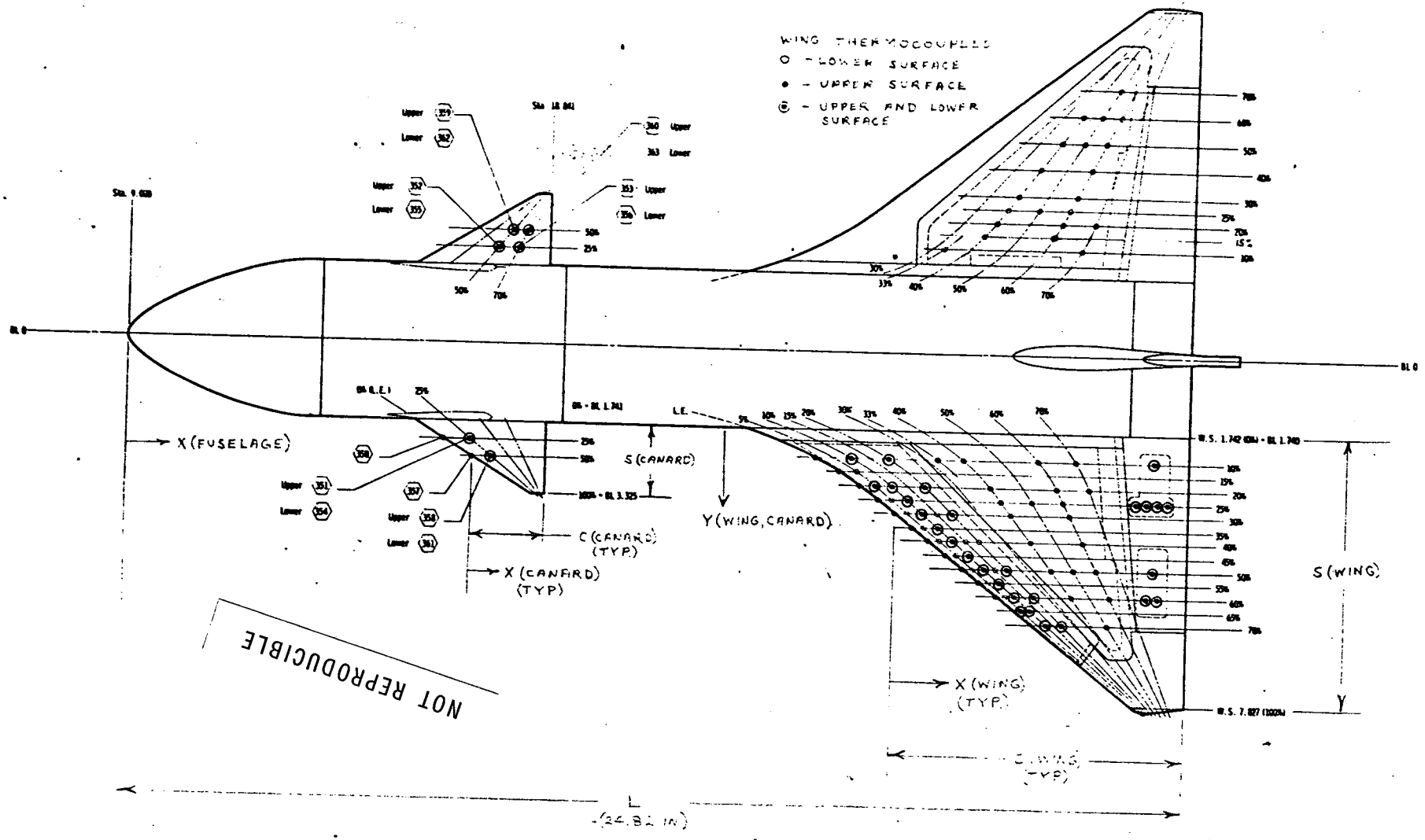


Figure 4. Continued

WING THERMOCOUPLE IDENTIFICATION NUMBERS

o - 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%	86.7%	90.1%	93.5%
25% Upper	230		231				232	233	234		235	236	237	238
25% Lower		239	240				241	242	243		244	245	246	247
30% Upper	248		249		250		251		252					
30% Lower		253	254	255	256		257		258					
35% Upper	259		260											
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%	88.1%		
60% Upper	296		297		298		299		300		301	302		
60% Lower		303	304		305		306	307	308		309	310		
65% Upper		311	312											
65% Lower		313	314											
70% Upper			315		316			317						
70% Lower			318		319			320						

Figure 4. Concluded

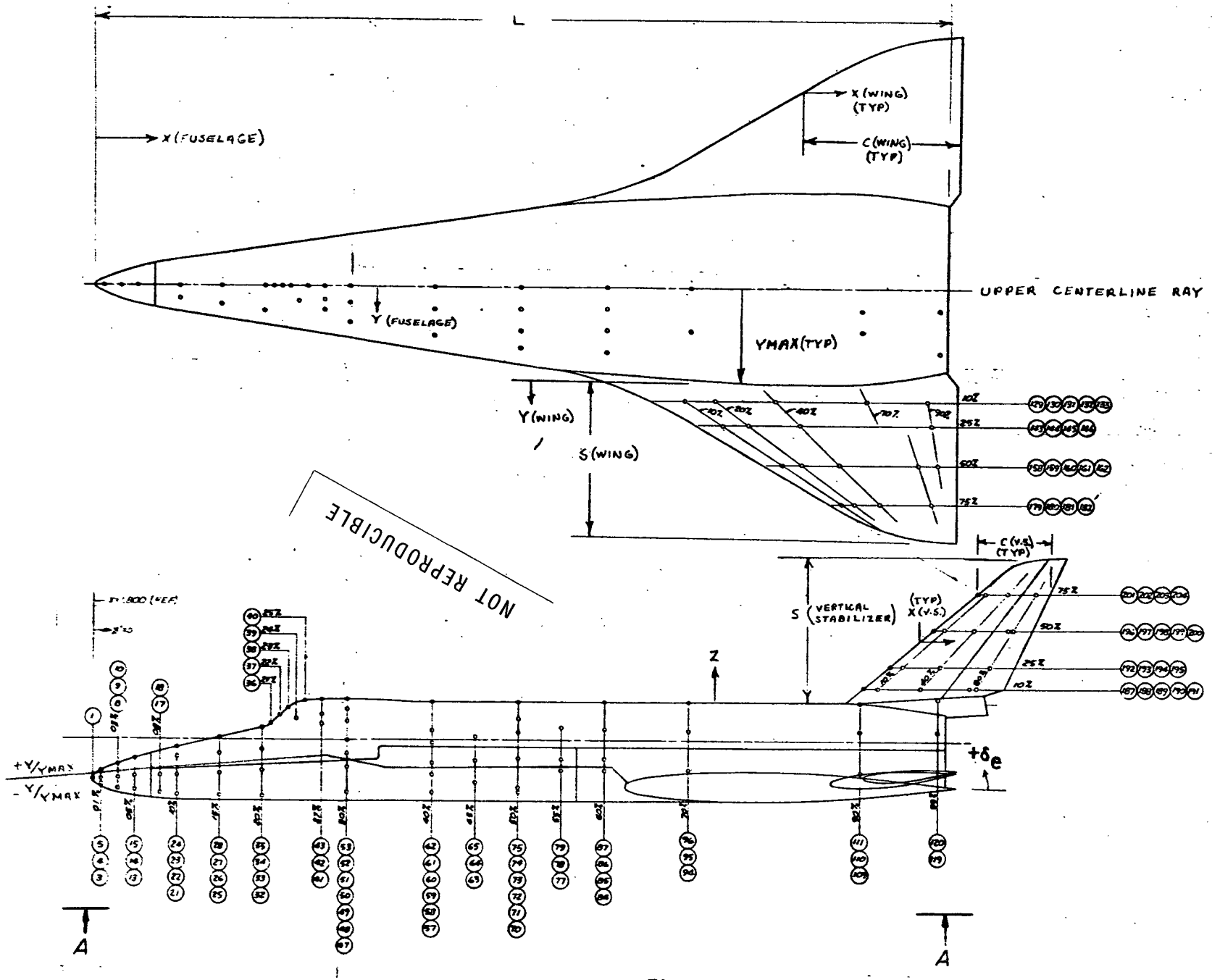
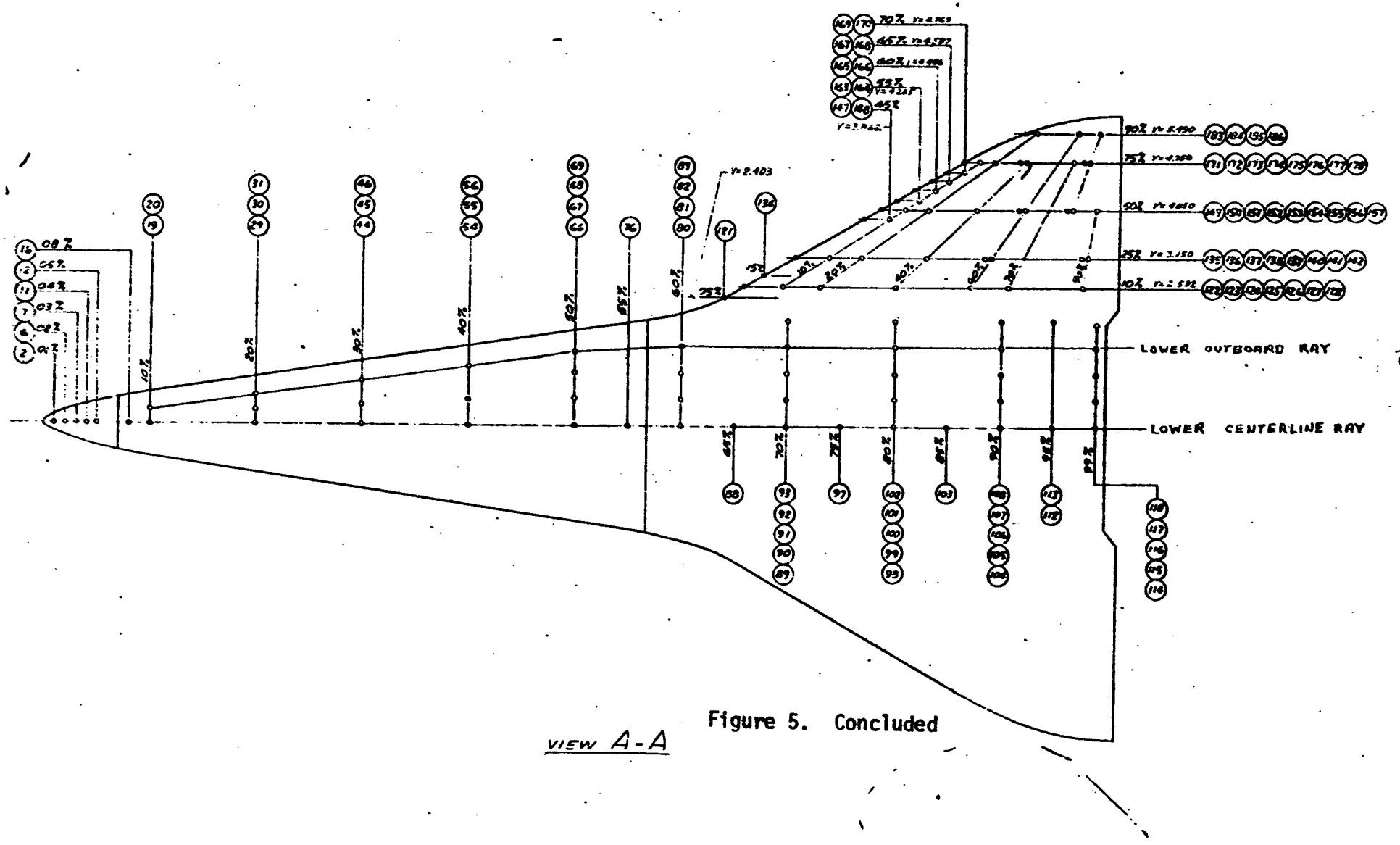


Figure 5. Orbiter Thermocouple Locations



VIEW A-A

Figure 5. Concluded

MODEL COMPONENT DESCRIPTION SHEETS

Table 3. Booster Fuselage Details

MODEL COMPONENT: BODY - B_{24}

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

DRAWING NUMBER: WT-71-105129

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Length	2757 in.	24.81 in.
Max. Width	387 in.	3.48 in.
Max. Depth	453 in.	4.08 in.
Fineness Ratio	6.08	6.08
Area		
Max. Cross-Sectional	183837 in^2	14.89 in^2
Planform	1010612 in^2	81.86 in^2
Wetted		
Base	159510 in^2	12.19 in^2

Table 4. Booster Canard Details

MODEL COMPONENT: Canard C4

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

DRAWING NUMBER: WT-71-105129

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area	66286 in^2	5.37 in^2
Span (equivalent)	352 in.	3.17 in.
Inb'd equivalent chord	341 in.	3.07 in.
Outb'd equivalent chord	36 in.	0.324 in.
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord		
At Outb'd equiv. chord		
Sweep Back Angles, degrees		
Leading Edge	60	60
Tailing Edge	0	0
Hingeline		
Area Moment (Normal to hinge line)		

Table 5. Booster Wing Details

MODEL COMPONENT: Wing - W_{15}

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

DRAWING NUMBER: WT-71-105125

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
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
Diehedral 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 W_{15} Wing

DRAWING NUMBER: WT-71-105125

DIMENSIONS:	FULL-SCALE	MODEL SCALE
Area	69178 in^2	5.60 in^2
Span (equivalent)	486 in.	4.37 in.
Inb'd equivalent chord	172 in.	1.55 in.
Outb'd equivalent chord	114 in.	1.03 in.
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	0.167	0.167
At Outb'd equiv. chord	0.294	0.294
Sweep Back Angles, degrees		
Leading Edge	6.73	6.73
Tailing Edge	0.0	0.0
Hingeline	6.73	6.73
Area Moment (Normal to hinge line)		

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:

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

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

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

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: Ellco Engineering EE5424-1106-4, -6, -23, -24, -25

DIMENSIONS:

	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area, ft²		
Planform	6511.00	0.52736
Wetted	-	-
Span (equivalent), in.	1272.38	11.451
Aspect Ratio	1.714	1.714
Rate of Taper	1.719	1.719
Taper Ratio	0.144	0.144
Dihedral Angle, degrees	7.000	7.000
Incidence Angle, degrees	0.000	0.000
Aerodynamic Twist, degrees (about T.E.)	-5.000	-5.000
Incidence, Root (B.P. 247.90)	0.000	0.000
Incidence, Tip (B.P. 557.70)	-5.000	-5.000
Sweep Back Angles, degrees		
Leading Edge	59.808	59.808
Trailing Edge	0.000	0.000
0.25 Element Line	52.197	52.197
Chords: in.		
Root (Wing Sta. 0.0)	1287.70	11.589
Tip, (equivalent)(W.S. 640.97)	186.00	1.674
MAC (W.S. 240.62)	874.10	7.867
Fus. Sta. of .25 MAC	1793.32	16.140
W.P. of .25 MAC	280.73	2.527
B.L. of .25 MAC	238.83	2.149
Airfoil Section		
Root (W.S. 249.75)	NACA 0009-64	
Tip (W.S. 561.85)	NACA 0012-64	
EXPOSED DATA		
Area, ft²	3023.00	0.24482
Span, (equivalent), in.	810.61	7.296
Aspect Ratio	1.498	1.498
Taper Ratio	0.209	0.209
Chords: in.		
Root (Equiv.)(W.S. 232.62)	887.85	7.991
Tip (Equiv.)(W.S. 640.97)	186.00	1.674
MAC (W.S. 392.31)	613.34	5.520
Fus. Sta. of .25 MAC	1900.65	17.900
W.P. of .25 MAC	299.22	2.693
B.L. of .25 MAC	389.39	3.504
LEADING EDGE CUFF		
Planform Area, ft²	62.29	0.00505
L.E. Intersects Fus. M.L. Sta., in.	1275.00	11.475
L.E. Intersects Wing L.E. Sta., in.	1745.00	15.714

Table 10. Orbiter Elevon Details

MODEL COMPONENT: Elevon - E_{11} (Data for one of two sides)

GENERAL DESCRIPTION: Constant chord elevon located on Delta Wing - W_{21}

Model Scale = 0.009

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

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

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: Ellco Engineering EE5424-1106

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

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: Elico Engineering EE5424-1106-7, -8, -11, -12

DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area, ft^2		
Planform	626.03	0.05071
*Void (included above)	1.99	0.00016
Span (equivalent), in.	361.06	3.250
Aspect Ratio	1.446	1.446
Rate of Taper	0.718	0.718
Taper Ratio	0.316	0.316
Dihedral Angle, degrees	-	-
Incidence Angle, degrees	-	-
Aerodynamic Twist, degrees	-	-
Toe-In Angle	0.000	0.000
Cant Angle	0.000	0.000
Sweep Back Angles, degrees		
Leading Edge	50.003	50.003
Trailing Edge	25.352	25.352
0.25 Element Line	45.352	45.352
Chords: in.		
Root(W.P 511.62)	379.31	3.414
Tip, (equivalent)(W.P. 872.67)	120.05	1.080
MAC (W.P. 660.90)	272.11	2.449
Fus. Sta. of .25 MAC	2422.61	21.803
W.P. of .25 MAC	660.90	5.948
B.L. of .25 MAC	0.00	0.000
Airfoil Section		
(W.P. 500.44)	NACA 0012-64	
(W.P. 878.00)	NACA 0009-64	
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		

* 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 EF5424-1106-11, -12

DIMENSIONS: (All dimensions are in the drag brake reference plane)

	FULL-SCALE	MODEL SCALE
Area, ft2	242.39	0.01963
Span (equivalent), in.	355.61	3.201
Inb'd equivalent chord, in. (W.P. 520.18)	149.22	1.343
Outb'd equivalent chord, in. (W.P. 875.79)	47.08	0.424
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	-	-
At Outb'd equiv. chord	-	-
Sweep Back Angles, degrees		
Leading Edge	37.273	37.273
Tailing Edge	25.352	25.352
Hingeline	37.273	37.273
Area Moment (Normal to hinge line), ft3 (Produce of area and mean chord)	1921.27	0.00140
Buttock Plane of Hingeline, in.	3.44	0.031

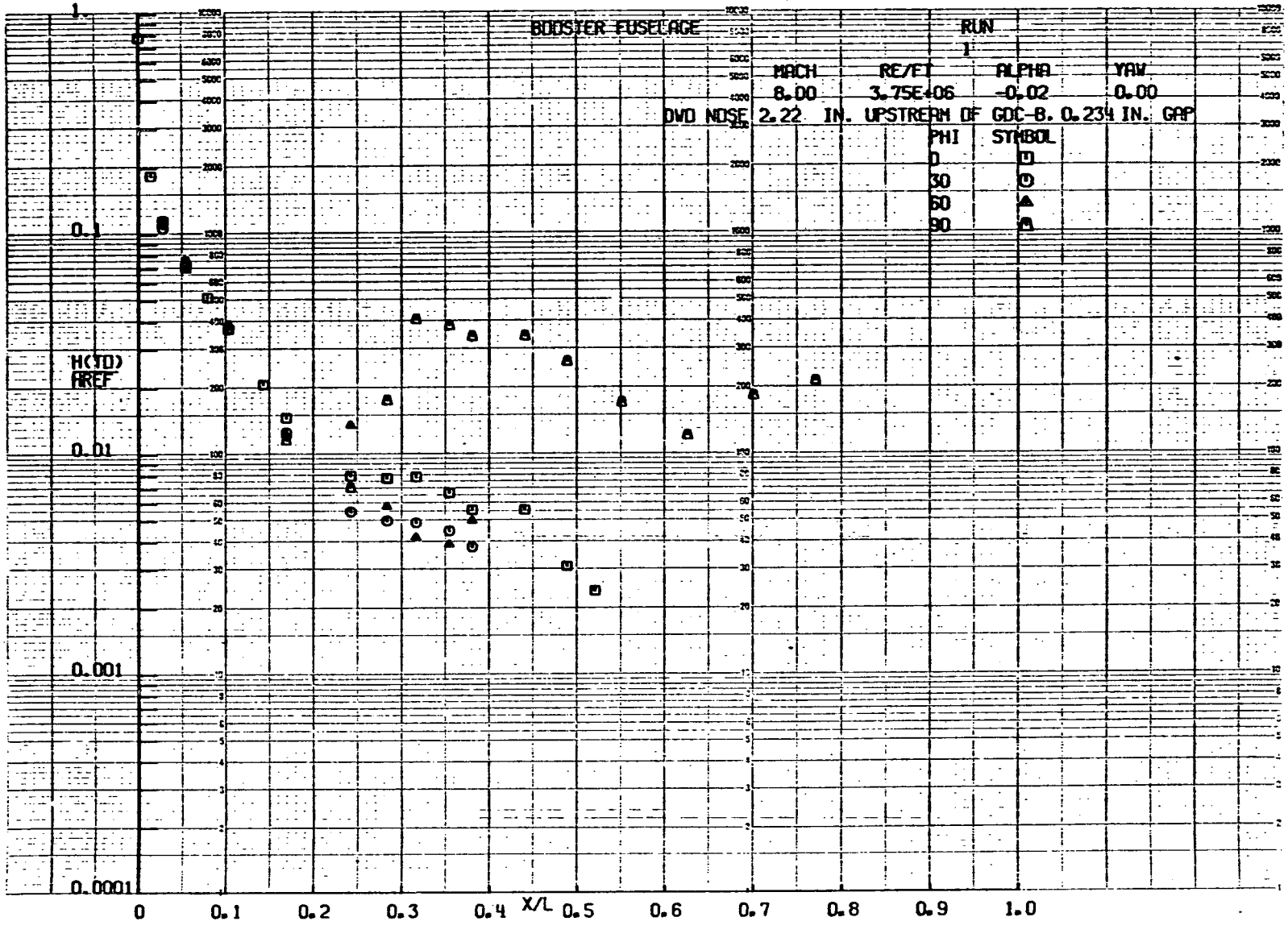
NOMENCLATURE

SYMBOL		DEFINITION
TEXT	DATA PRINTOUT	
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(TO)	Heat transfer coefficient based on T_o, BTU/ft^2-sec-°R
	H(.9TO)	Heat transfer coefficient based on 0.9 T_o, BTU/ft^2-sec-°R
	H(.85TO)	Heat transfer coefficient based on 0.85 T_o, 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
	PO	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

SYMBOL		DEFINITION
TEXT	DATA PRINTOUT	
	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_o	TO	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.

SYMBOL		DEFINITION
TEXT	DATA PRINTOUT	
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

PLOTTED DATA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RE/FT
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ALPHA
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YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
PHI
SYMBOL
0
30
60
90
H(STD)
HREF
1.
0.1
0.01
0.001
0.0001
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0.4
X/L
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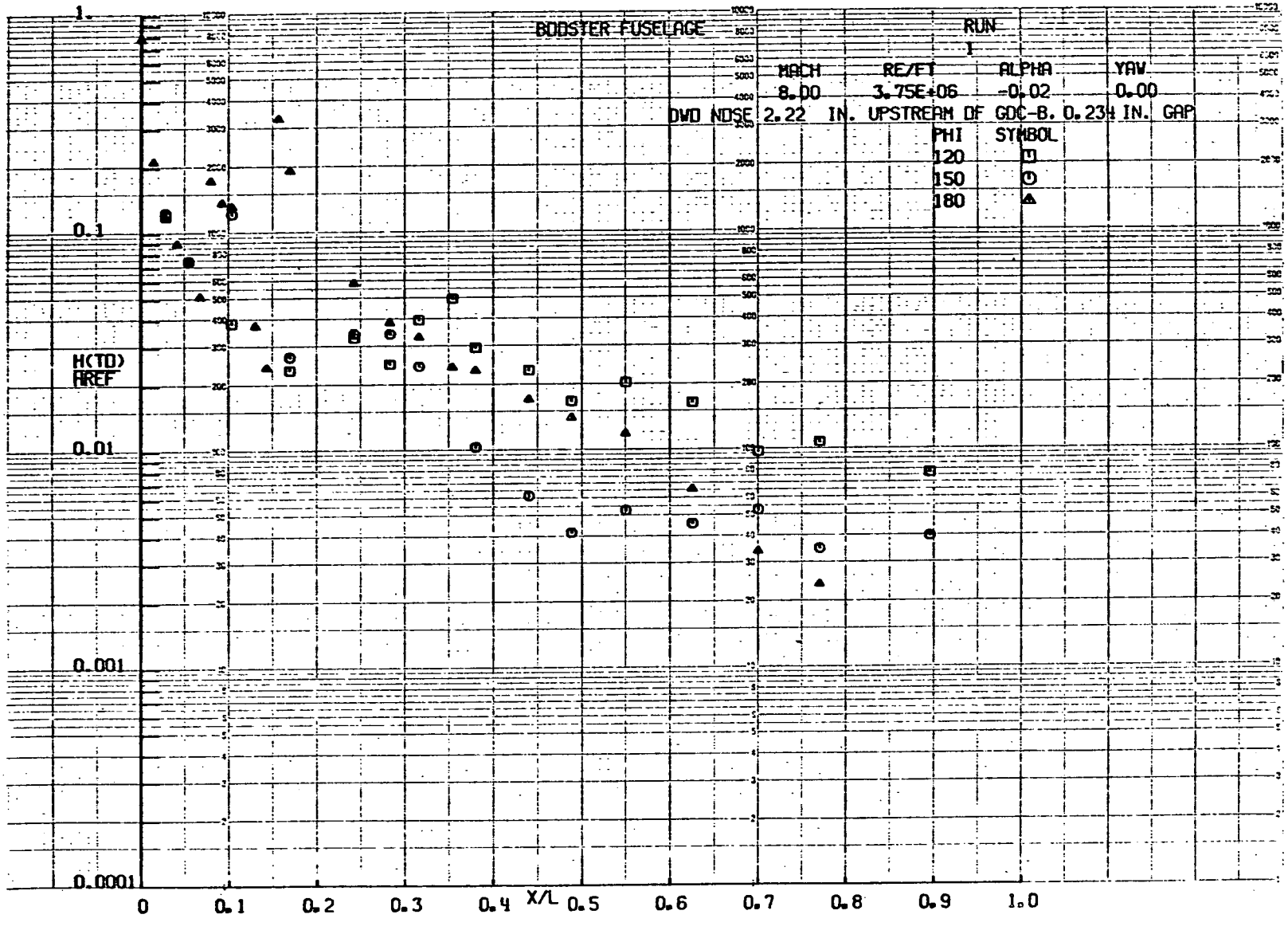
BOOSTER FUSELAGE
RUN
1
MACH
8.00
RE/FT
3.75E+06
ALPHA
-0.02
YAW
0.00
DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
PHI
SYMBOL
120
150
180
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
0
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X/L
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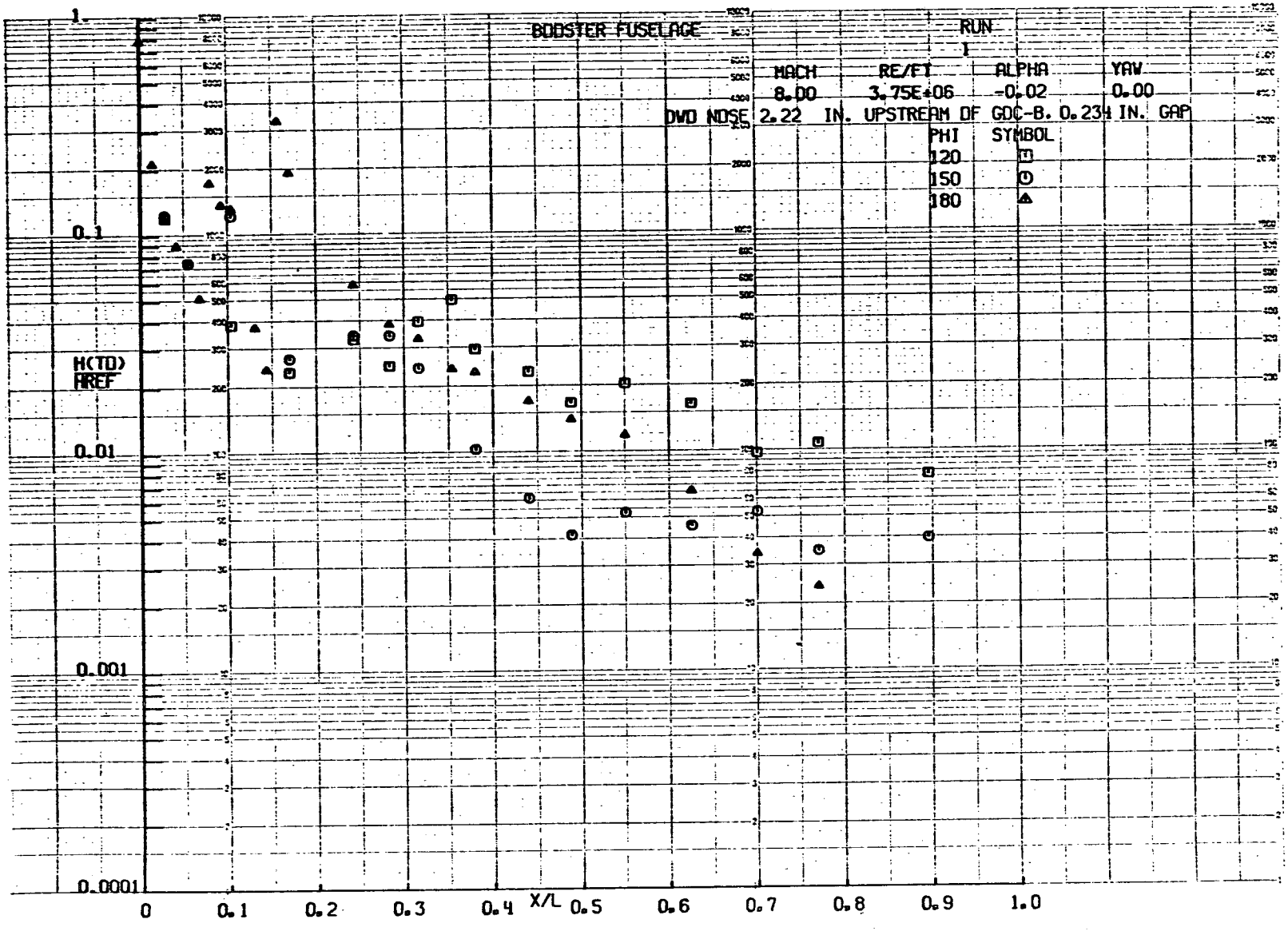
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RUN
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RE/FT 3.75E+06
ALPHA -0.02
YAW 0.00
DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
PHI SYMBOL
120
150
180
H(TD)/HREF
1.
0.1
0.01
0.001
0.0001
0
0.1
0.2
0.3
0.4
X/L
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0.6
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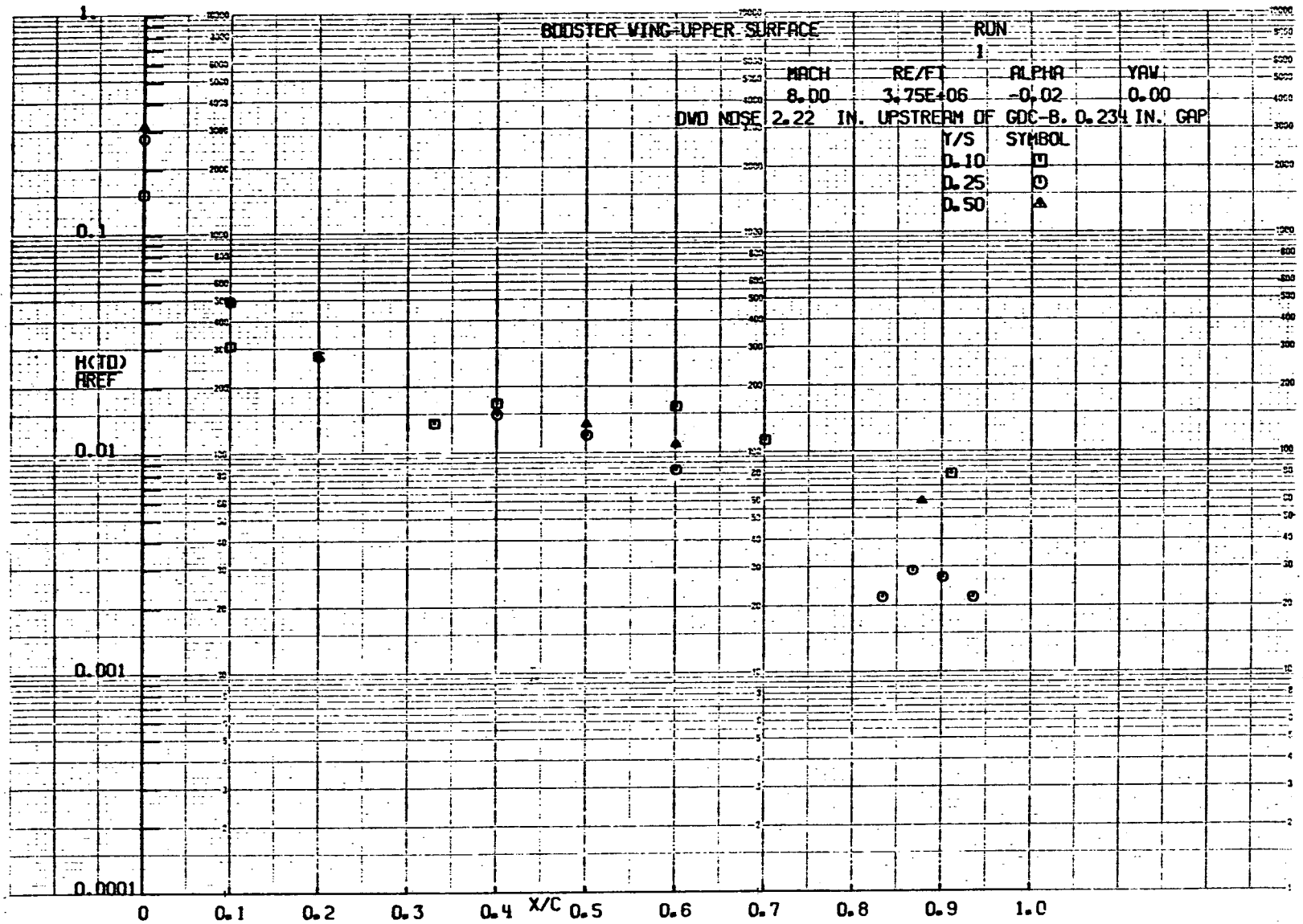
BOOSTER WING-UPPER SURFACE
RUN
1
MACH
8.00
RE/FT
3.75E+06
ALPHA
-0.02
YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
Y/S
SYMBOL
0.10
0.25
0.50
H(TD)
AREF
1.
0.1
0.01
0.001
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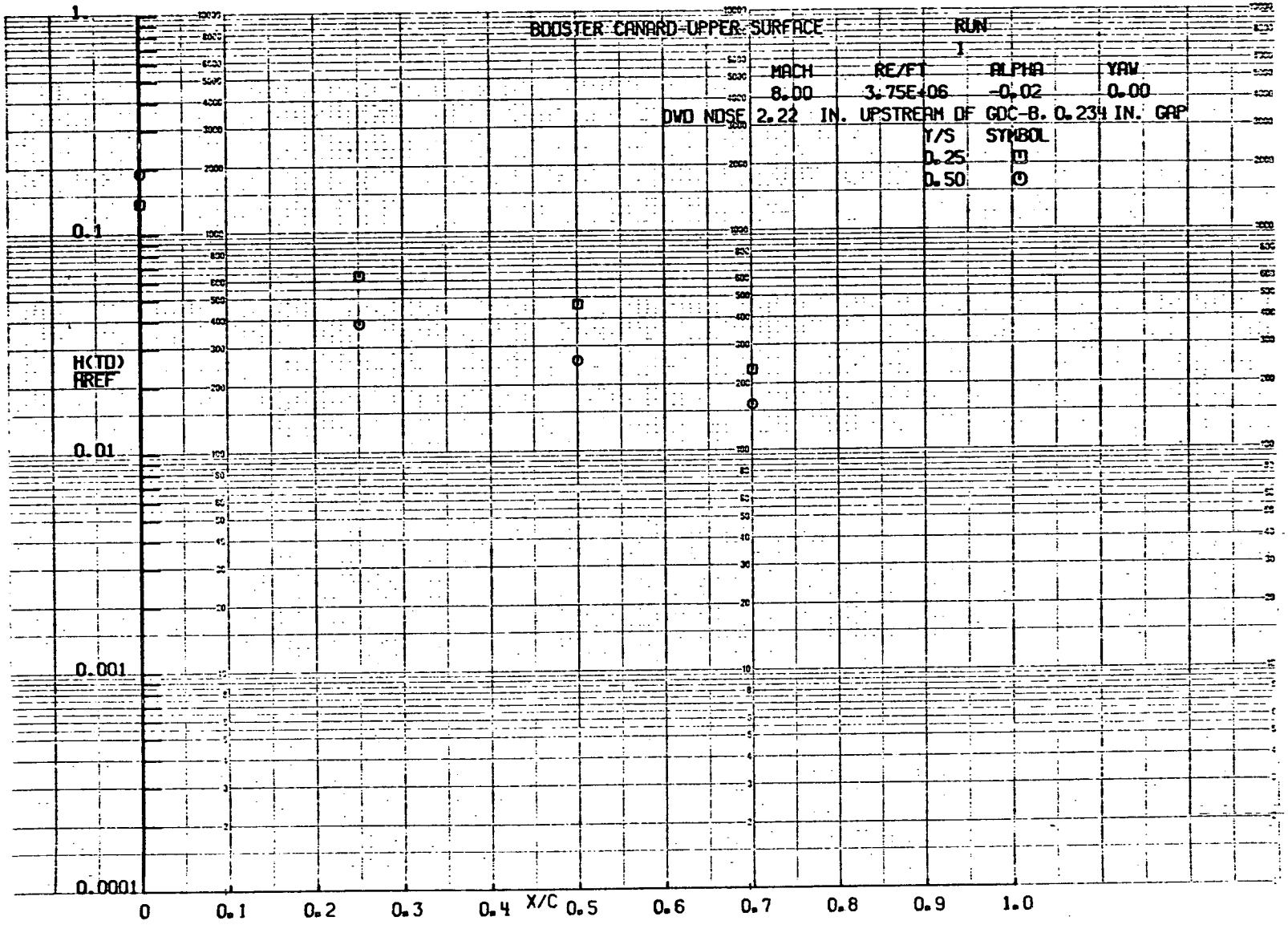
BOOSTER CANARD-UPPER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
Y/S
SYMBOL
0.25
0.50
H(TD)
AREF
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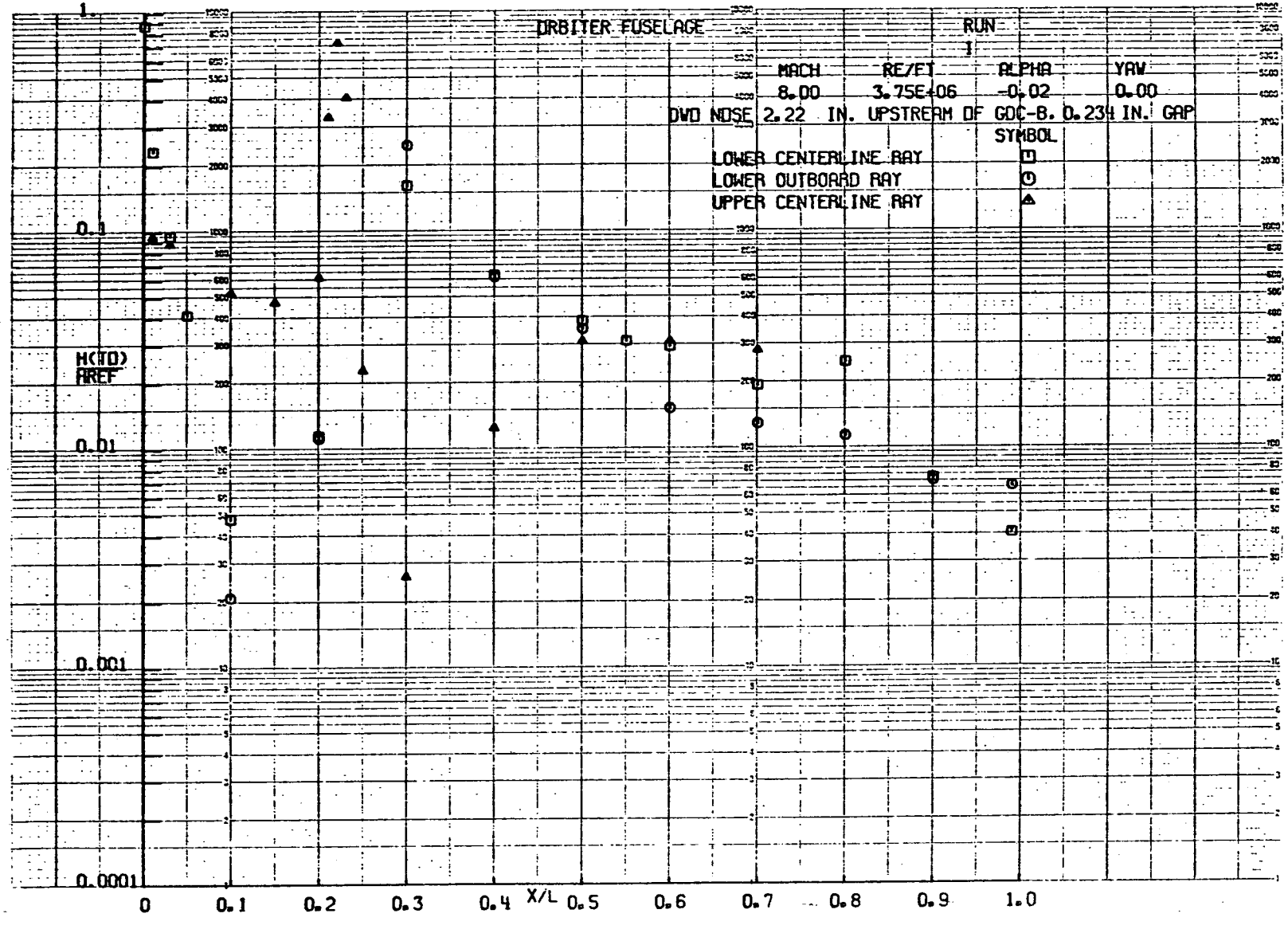
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MACH
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TD)
AREF
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0.01
0.001
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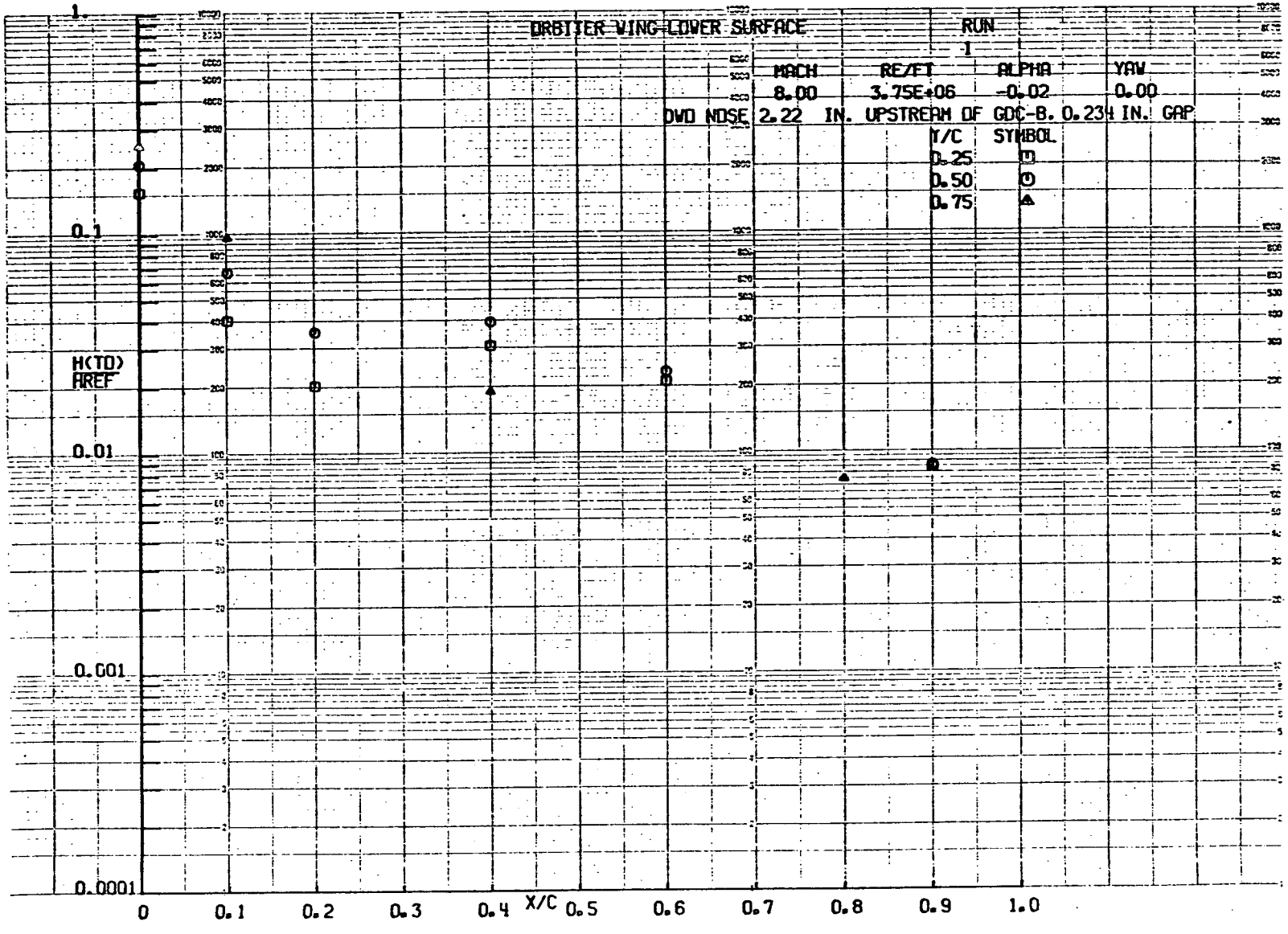
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RUN
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MACH
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RE/FT
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ALPHA
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YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
T/C
SYMBOL
0.25
0.50
0.75
H(TD)
AREF
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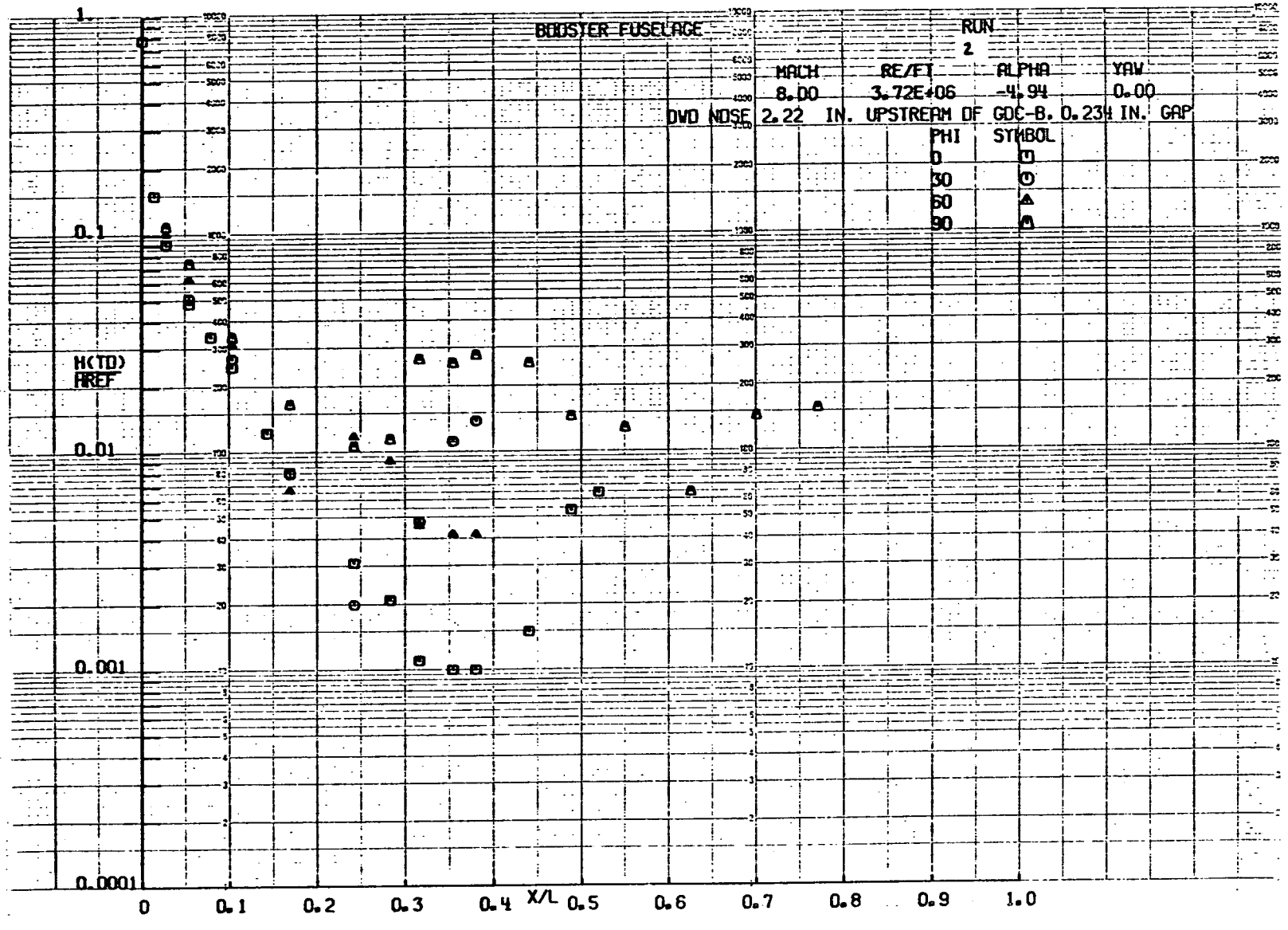
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ALPHA
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YAW
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PHI
SYMBOL
0
30
60
90
H(TD)
HREF
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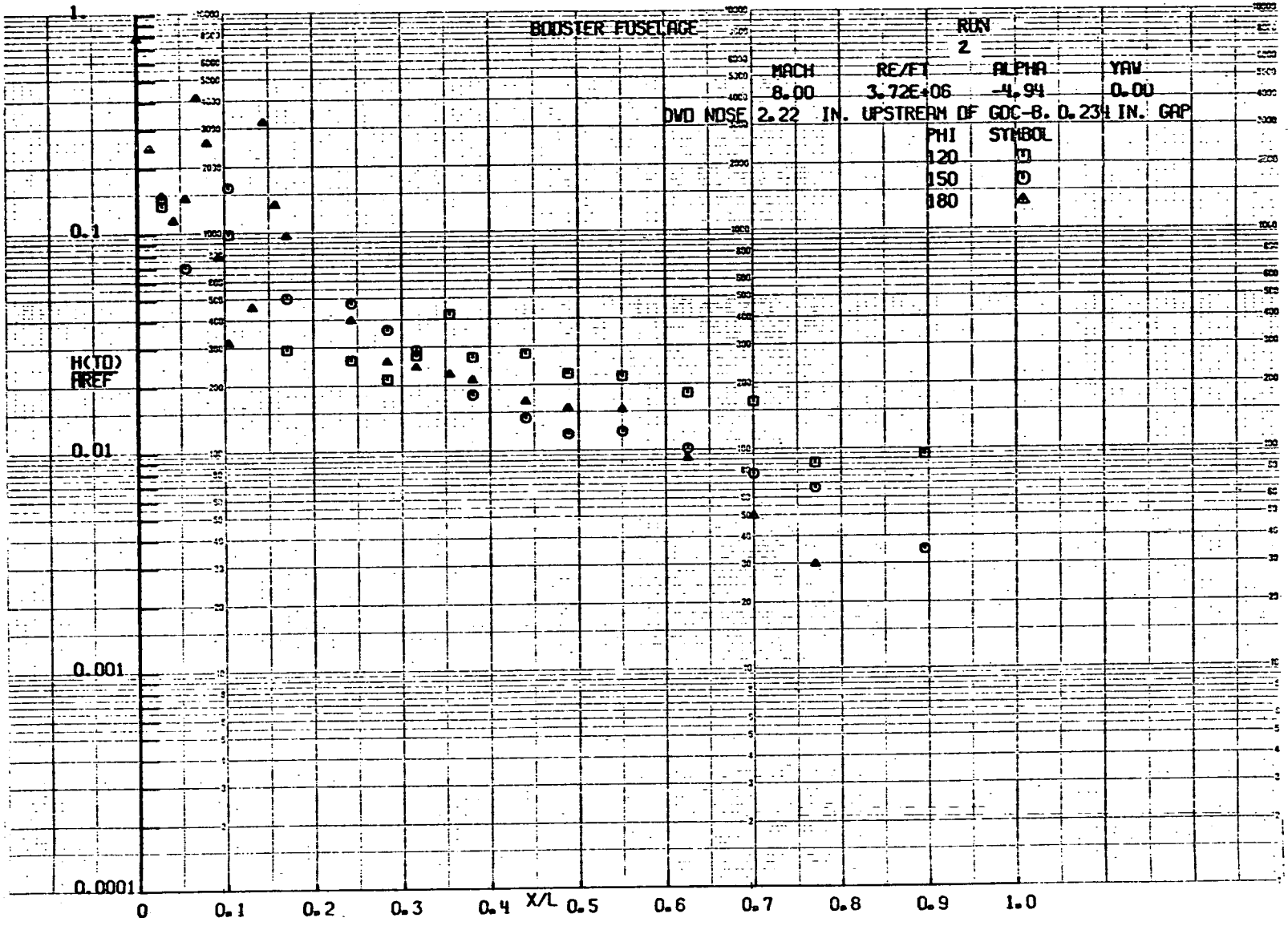
BOOSTER FUSELAGE
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MACH
8.00
RE/FT
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ALPHA
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YAW
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PHI
SYMBOL
120
150
180
H(TD)
AREF
1.
0.1
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0.001
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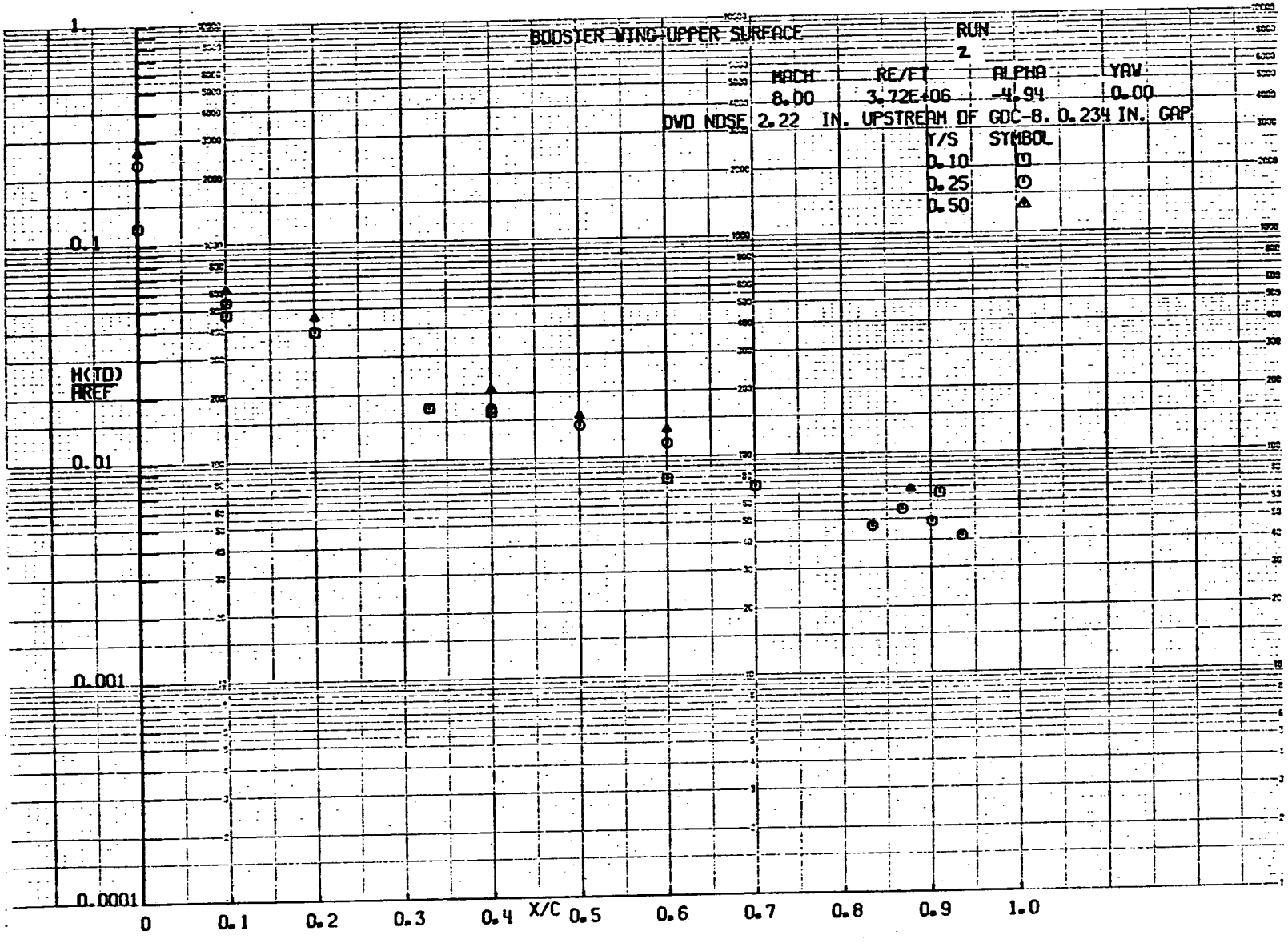
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RE/FT
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ALPHA
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YAW
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Y/S
SYMBOL
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0.50
H(TD)
AREF
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0.001
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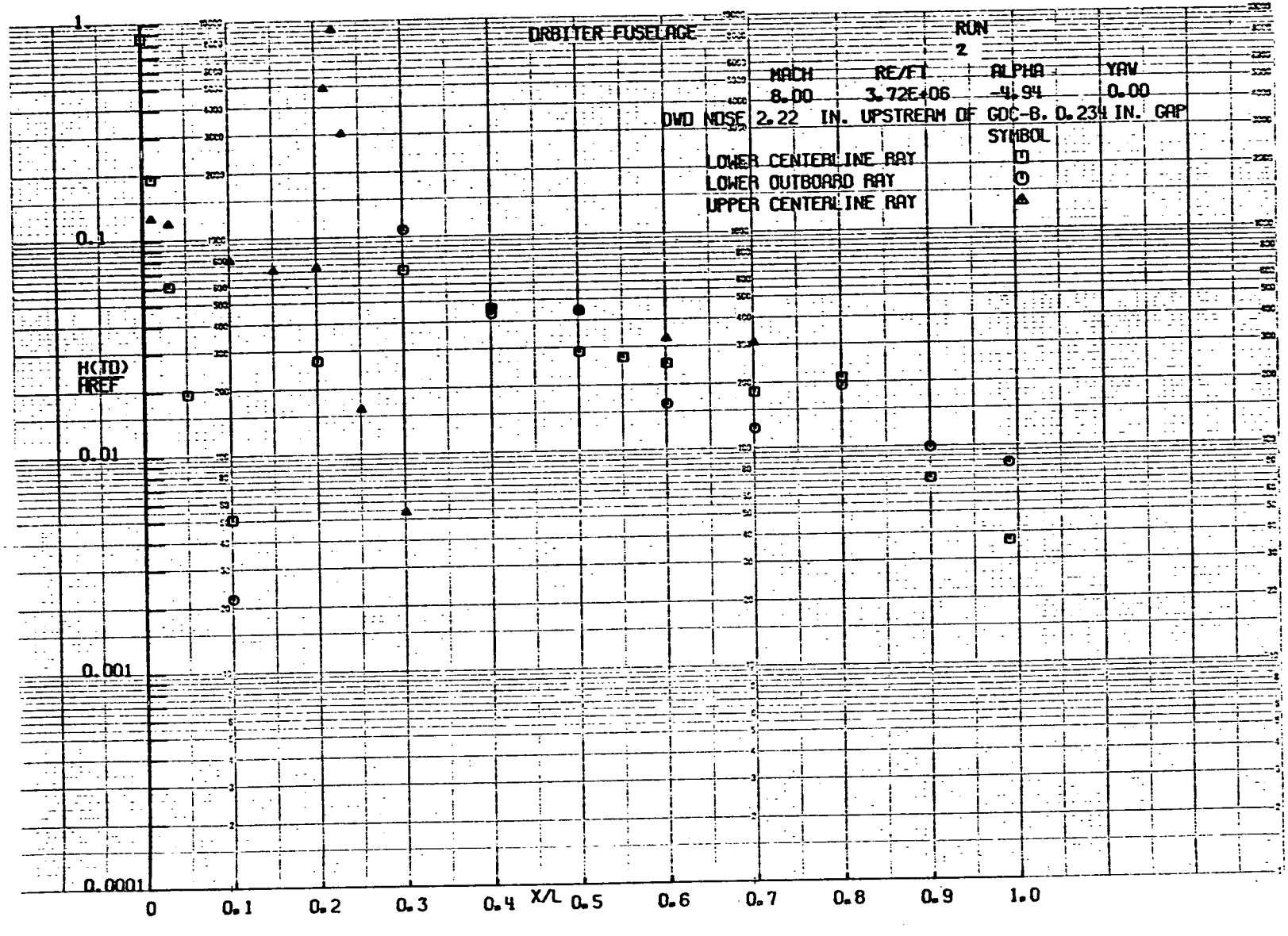
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RE/FT
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ALPHA
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YAW
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SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TD)
HREF
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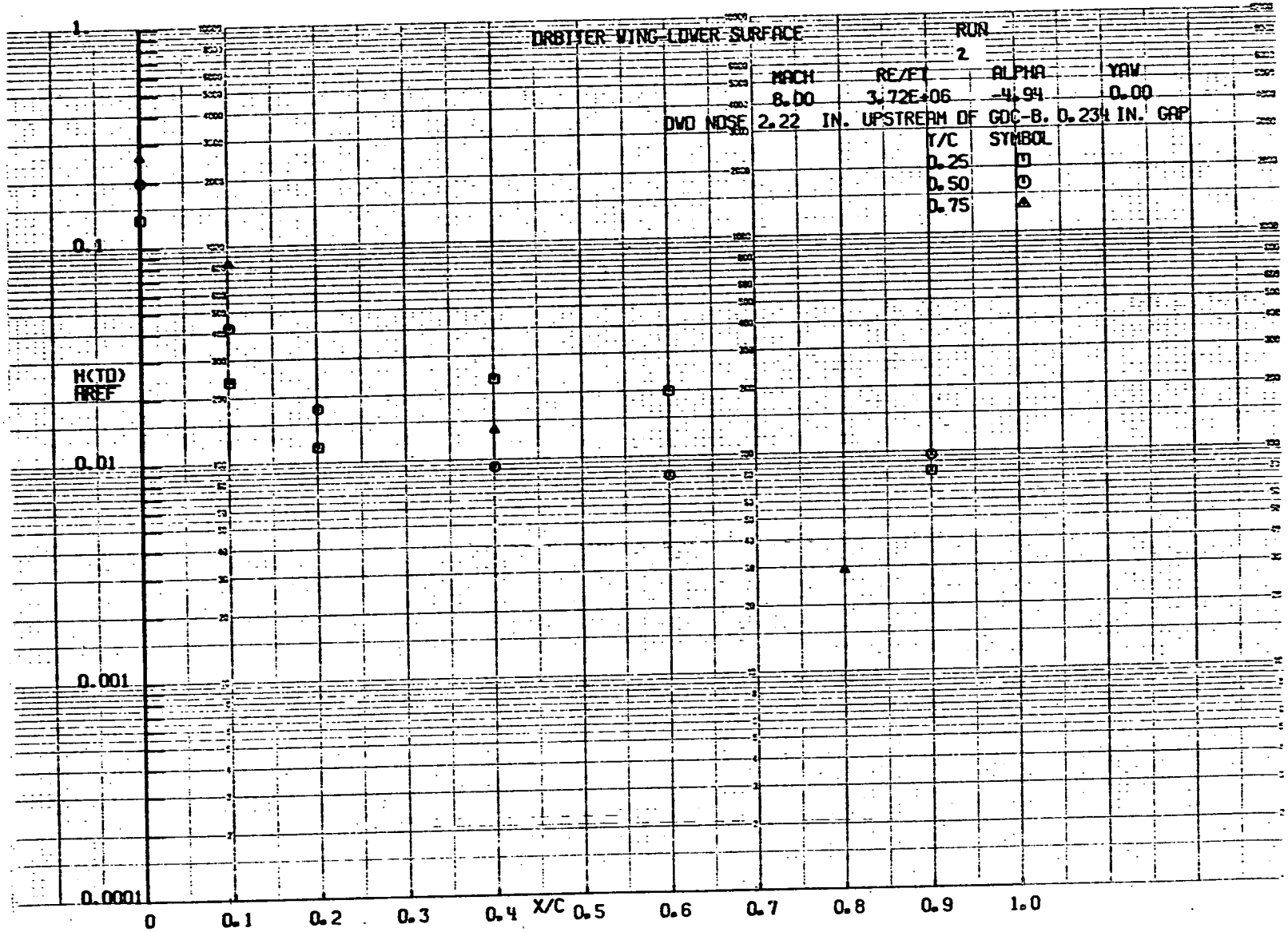
ORBITER WING-LOWER SURFACE
RUN
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RE/FT
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ALPHA
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YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
T/C
SYMBOL
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0.50
0.75
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
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X/C
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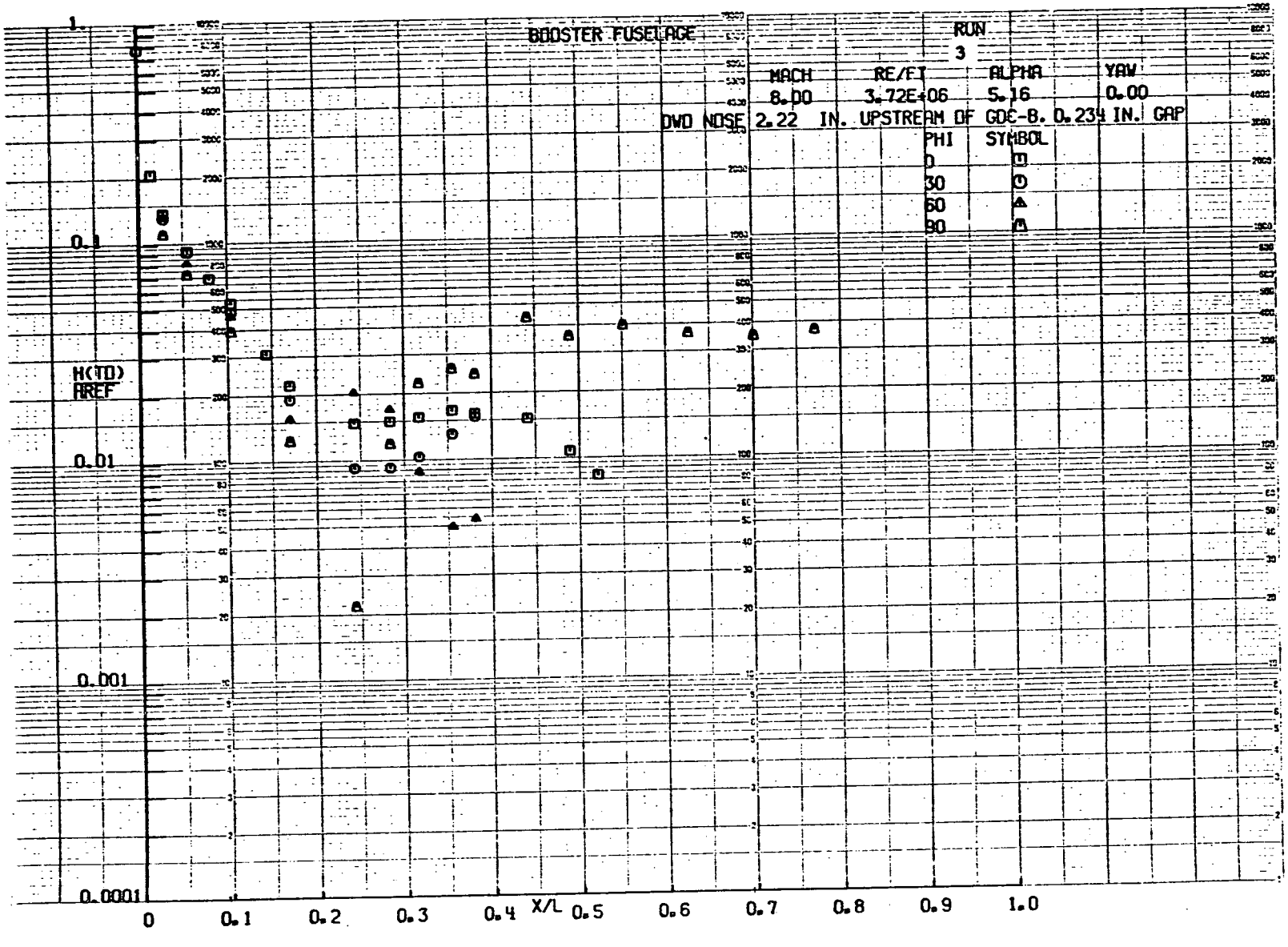
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MACH
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RE/FT
3.72E+06
ALPHA
5.16
YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GOC-B. 0.234 IN. GAP
PHI
SYMBOL
0
30
60
90
H(TD)
AREF
1.
0.1
0.01
0.001
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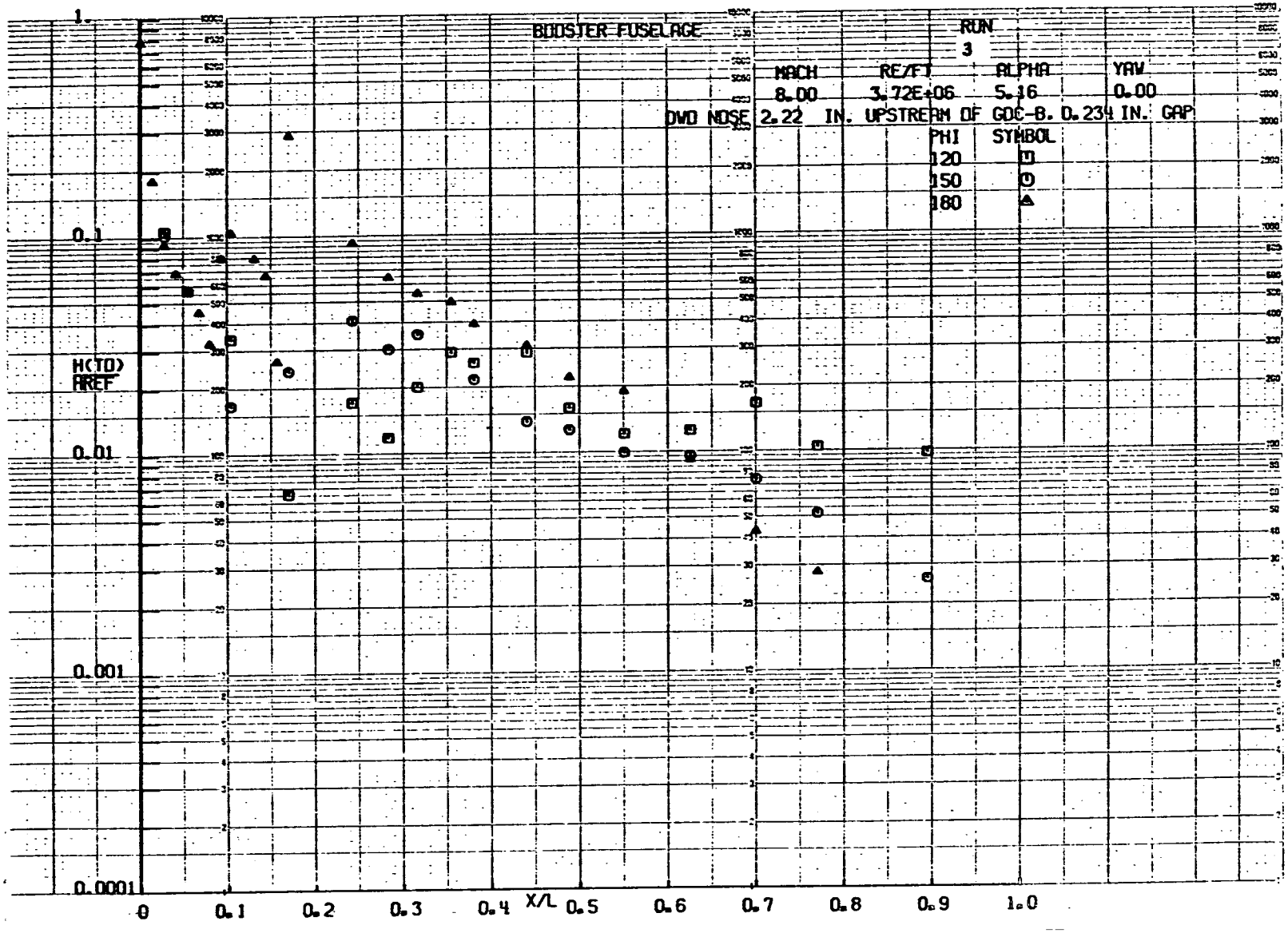
BOOSTER FUSELAGE
RUN
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MACH
8.00
RE/FT
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ALPHA
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YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
PHI
120
150
180
SYMBOL
H(TD)
AREF
1.
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0.01
0.001
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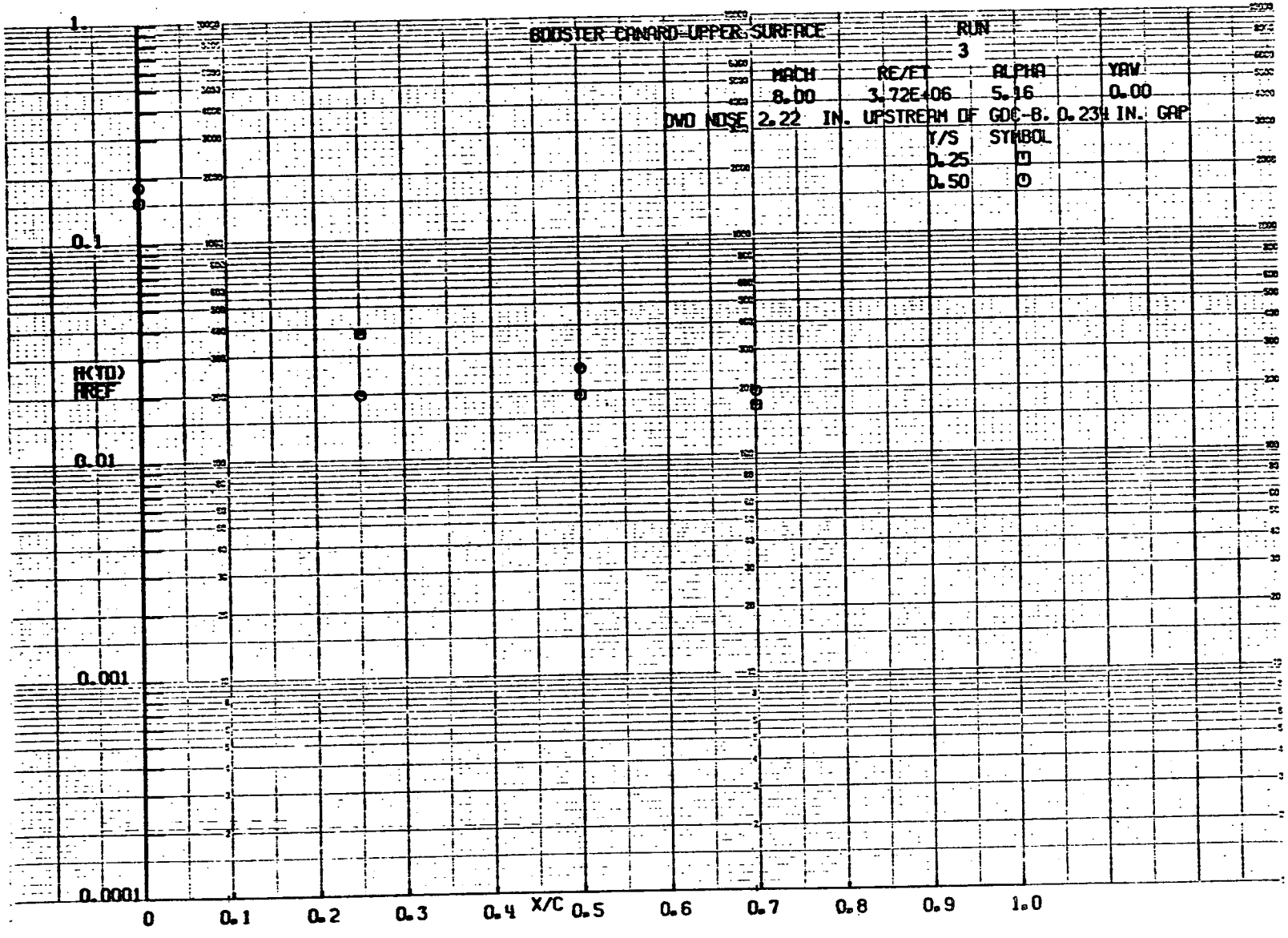
BOOSTER CANARD-UPPER SURFACE
RUN
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MACH
8.00
RE/FT
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ALPHA
5.16
YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
Y/S
SYMBOL
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0.1
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0.001
0.0001
K(TD)
AREF
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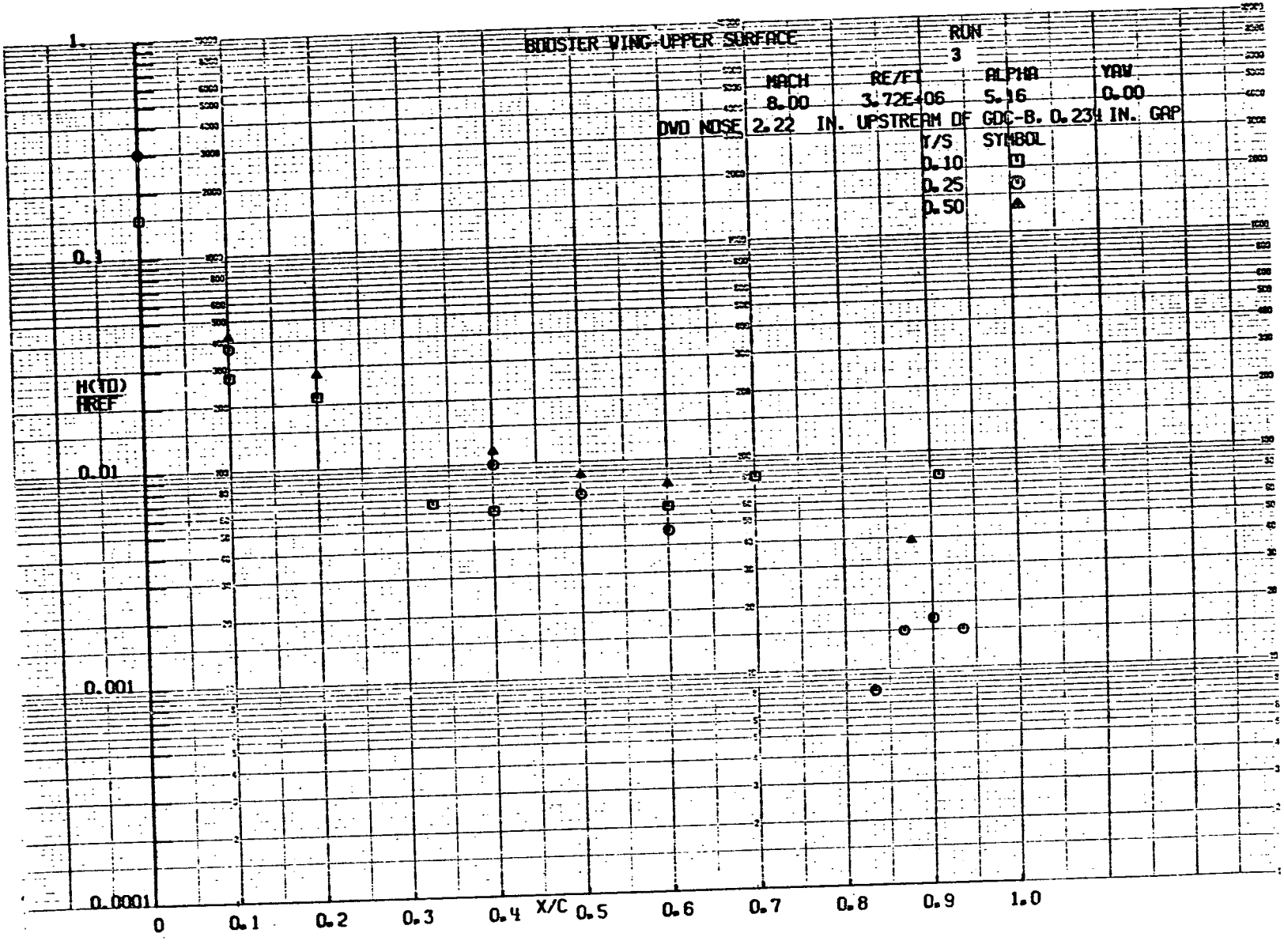
BOOSTER WING-UPPER SURFACE
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MACH
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
T/S
SYMBOL
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H(TD)
HREF
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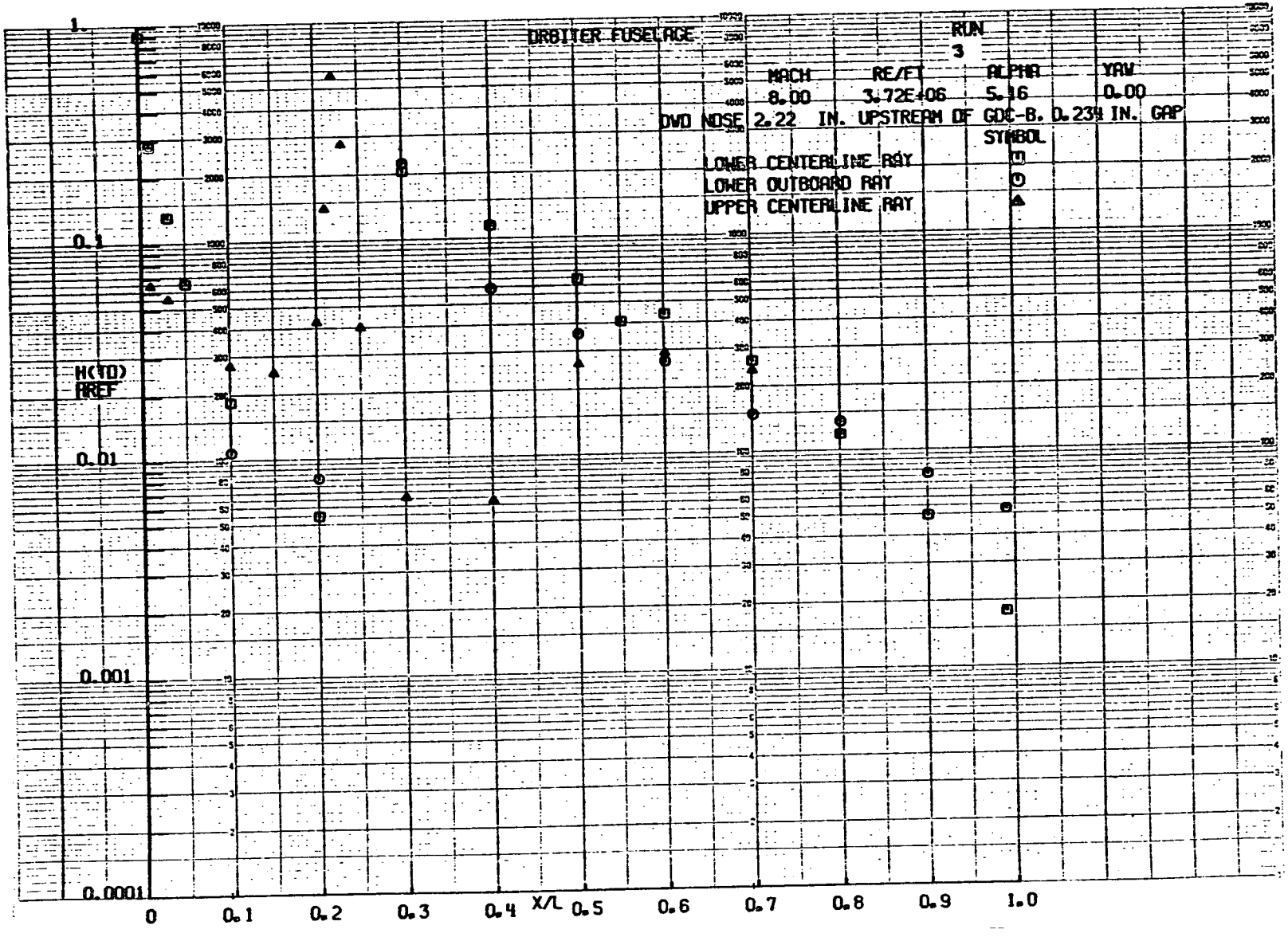
ORBITER FUSELAGE
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TD)
RREF
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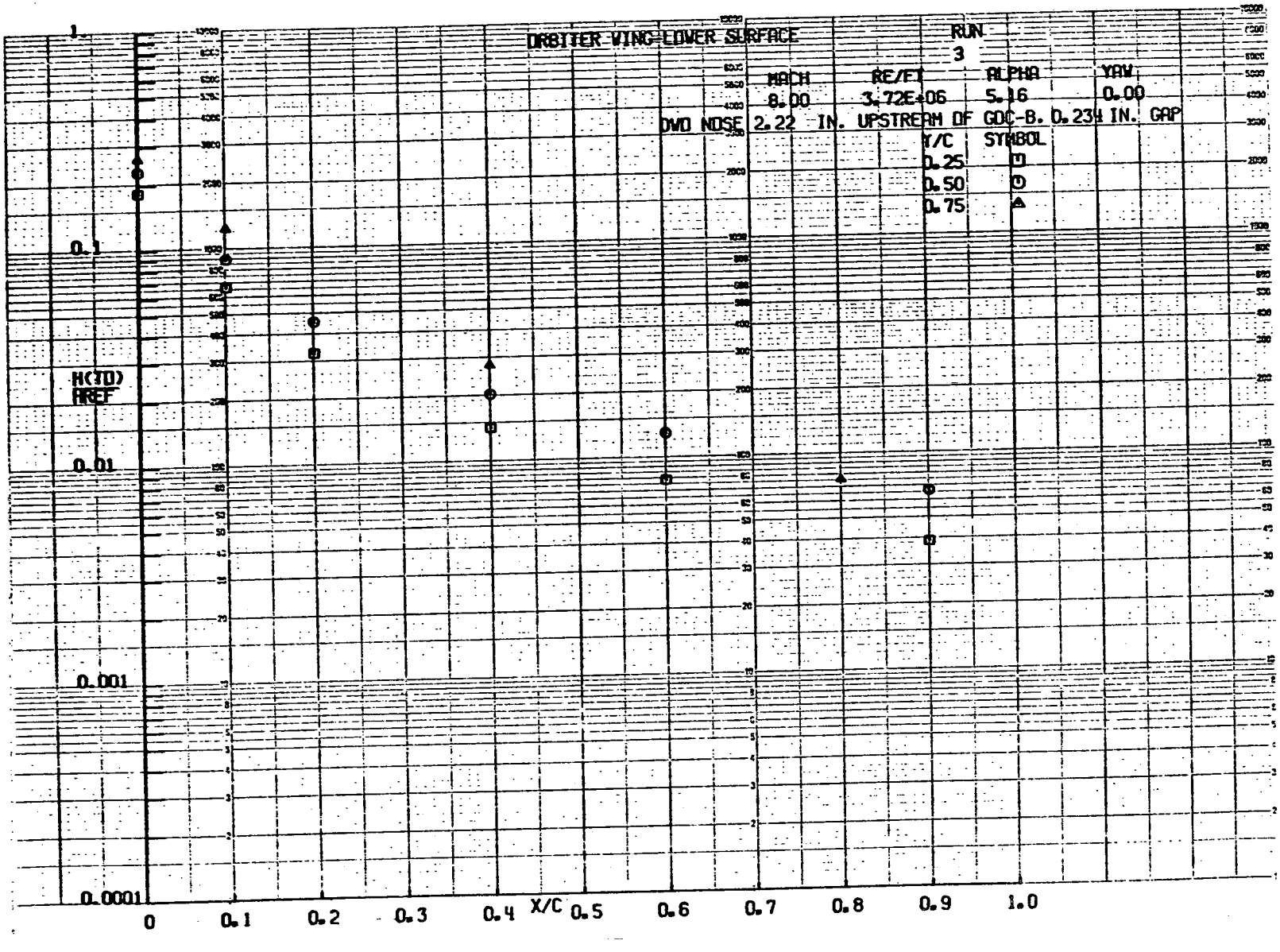
ORBITER VING-LOWER SURFACE
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YAW
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T/C
SYMBOL
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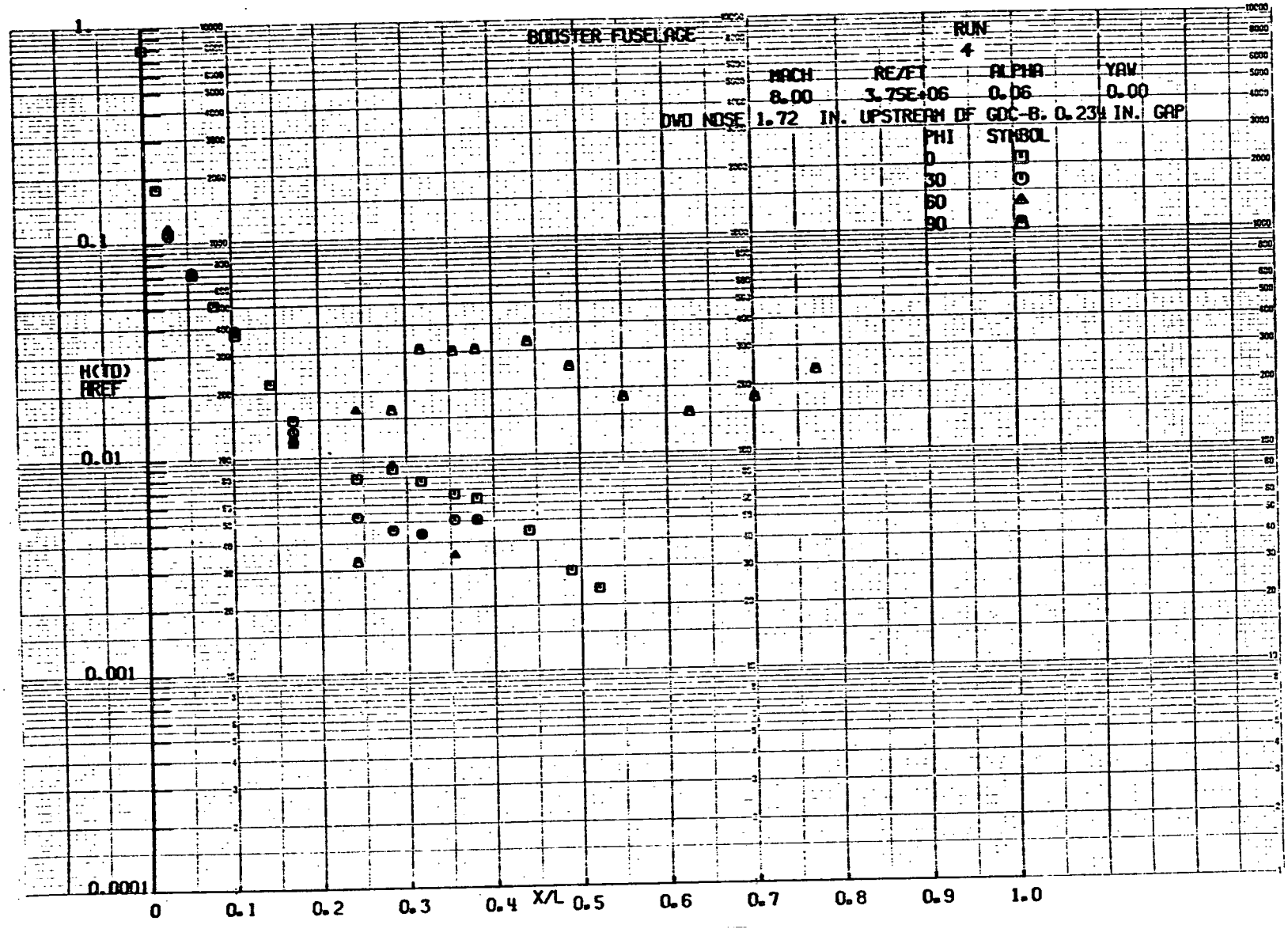
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ALPHA
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DWD NOSE 1.72 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
PHI
SYMBOL
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90
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H(TD)
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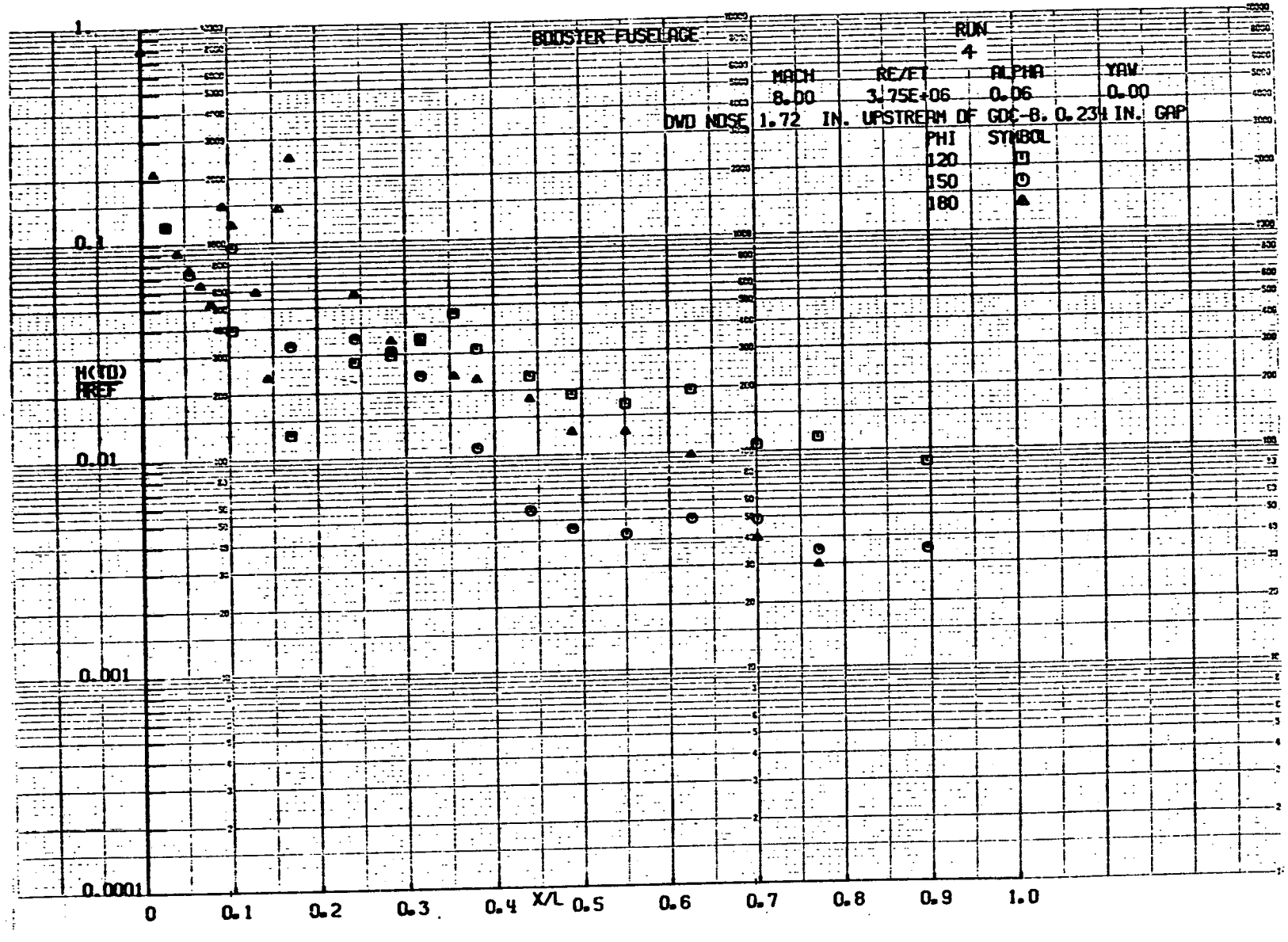
BOOSTER FUSELAGE
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PHI
SYMBOL
120
150
180
H(TD)
AREF
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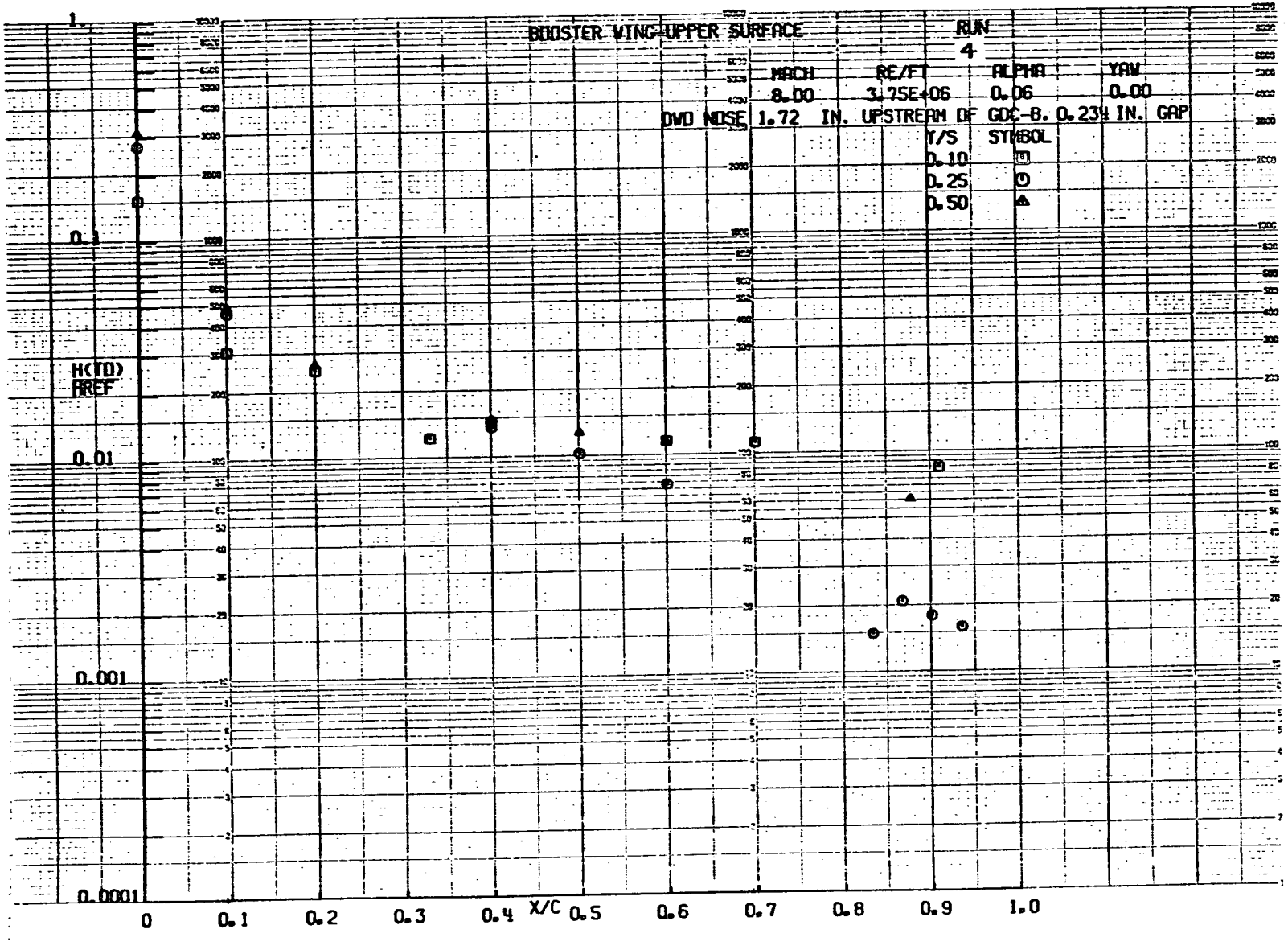
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YAW
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DVD NOSE 1.72 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
Y/S
SYMBOL
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H(TD)
HREF
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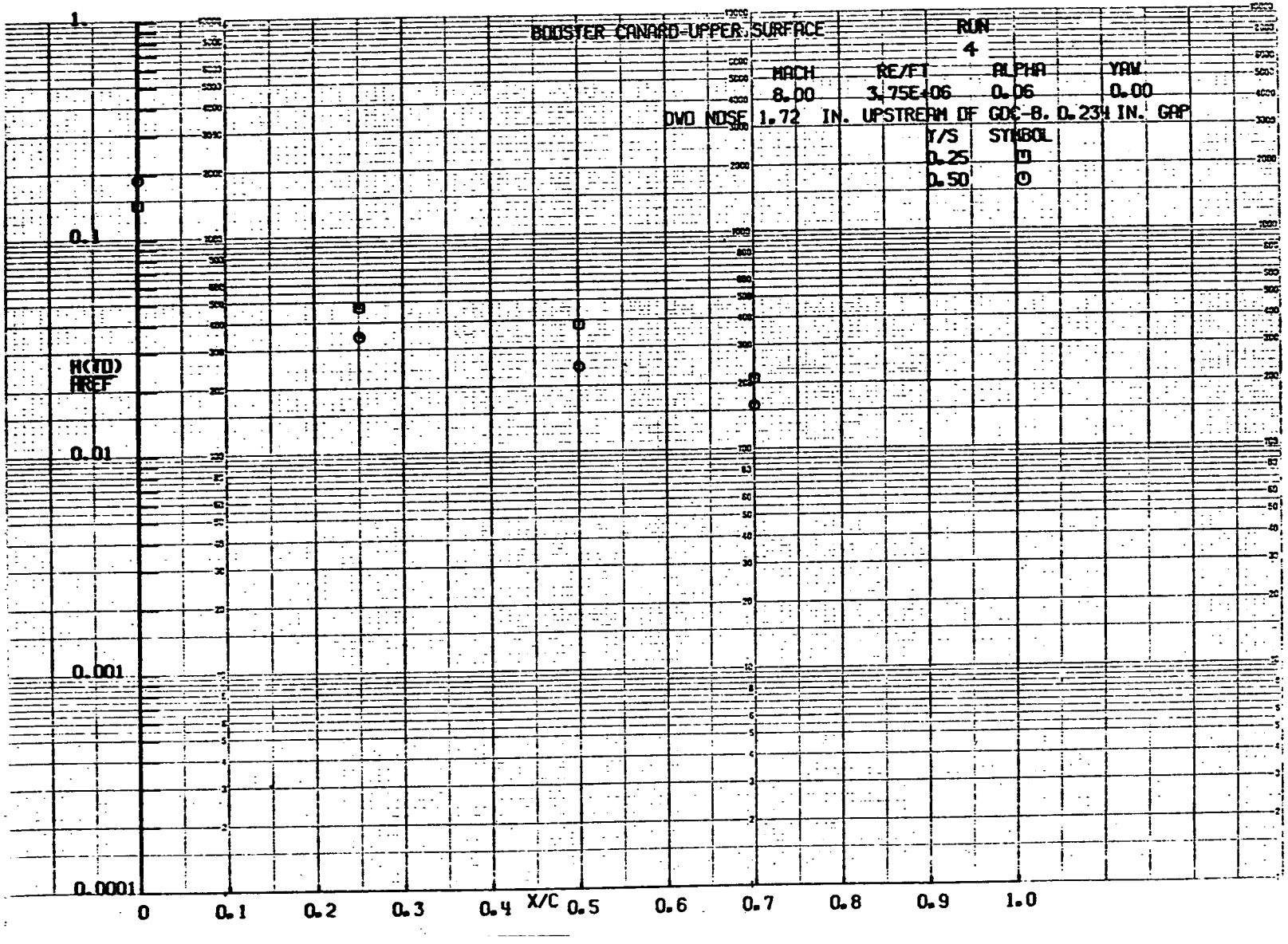
BOOSTER CANARD-UPPER SURFACE
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DVD NOSE 1.72 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
T/S
SYMBOL
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H(TD)
HREF
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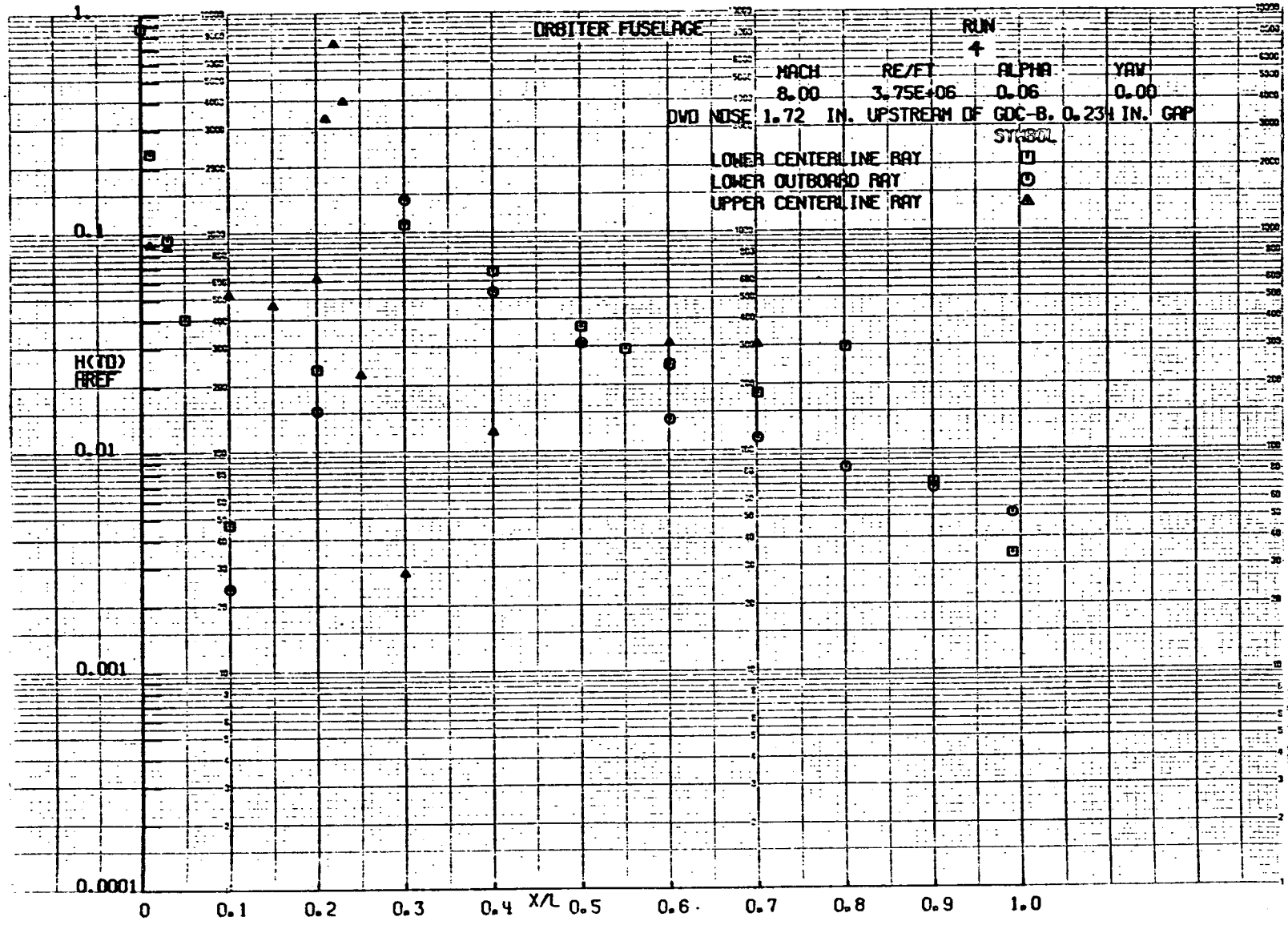
ORBITER FUSELAGE
RUN
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YAW
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DWD NOSE 1.72 IN. UPSTREAM OF GDC-B, 0.234 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TD)
AREF
1.
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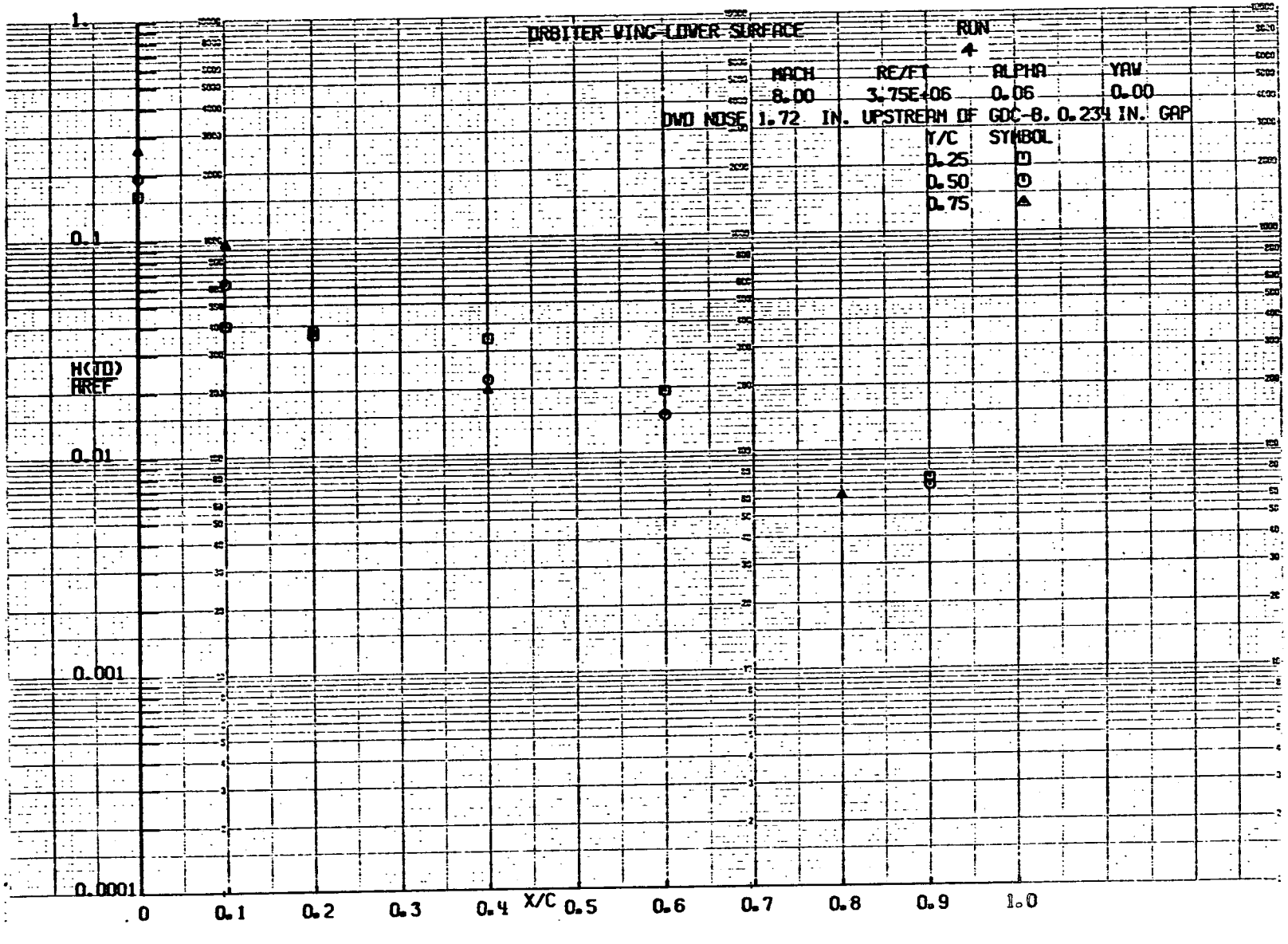
ORBITER WING-LOWER SURFACE
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DWO NOSE 1.72 IN. UPSTREAM OF GOC-8. 0.234 IN. GAP
T/C
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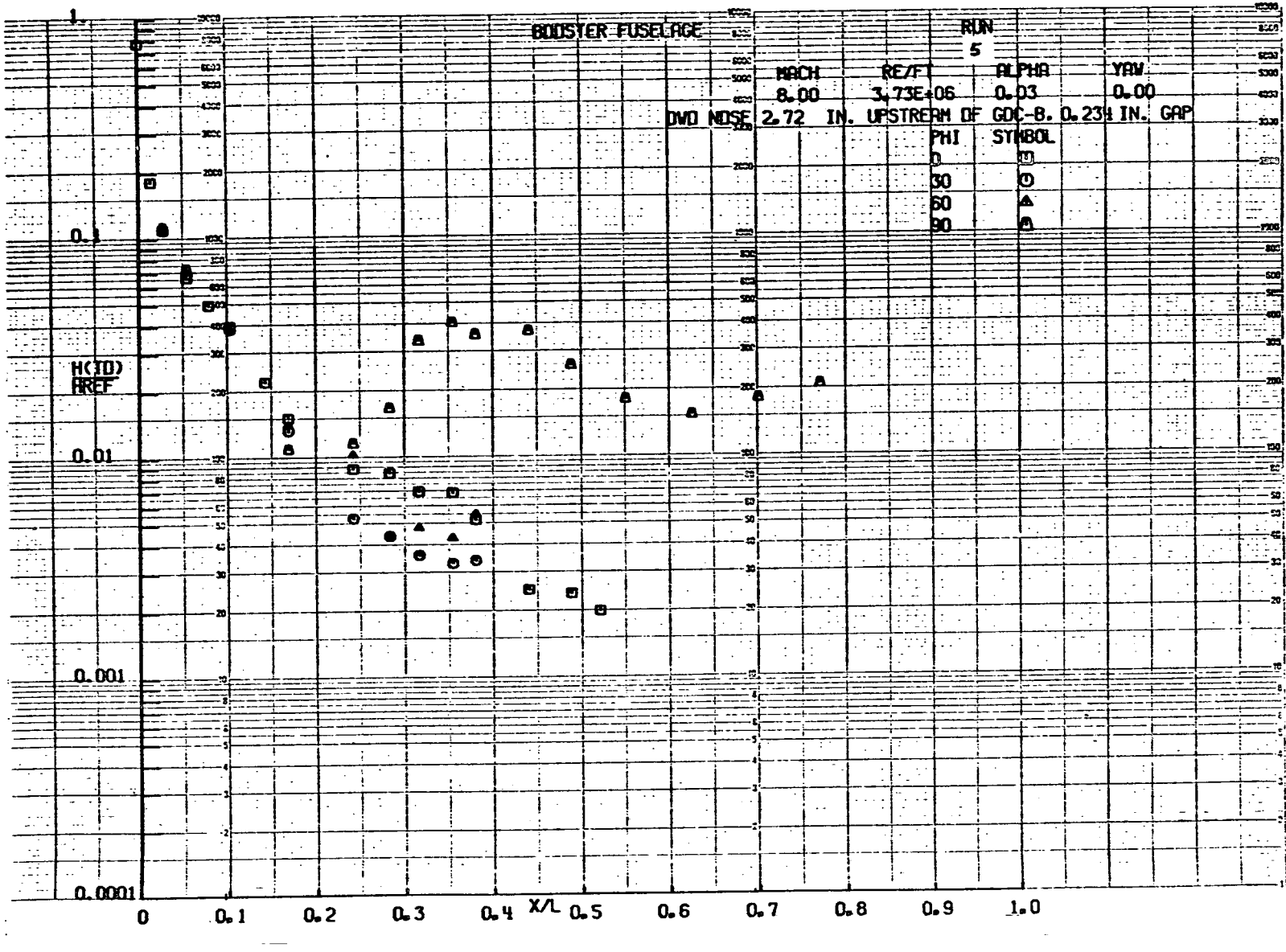
BOOSTER FUSELAGE
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ALPHA
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YAW
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DWD NOSE 2.72 IN. UPSTREAM OF GDC-8. 0.23¼ IN. GAP
PHI
SYMBOL
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H(TD)
HREF
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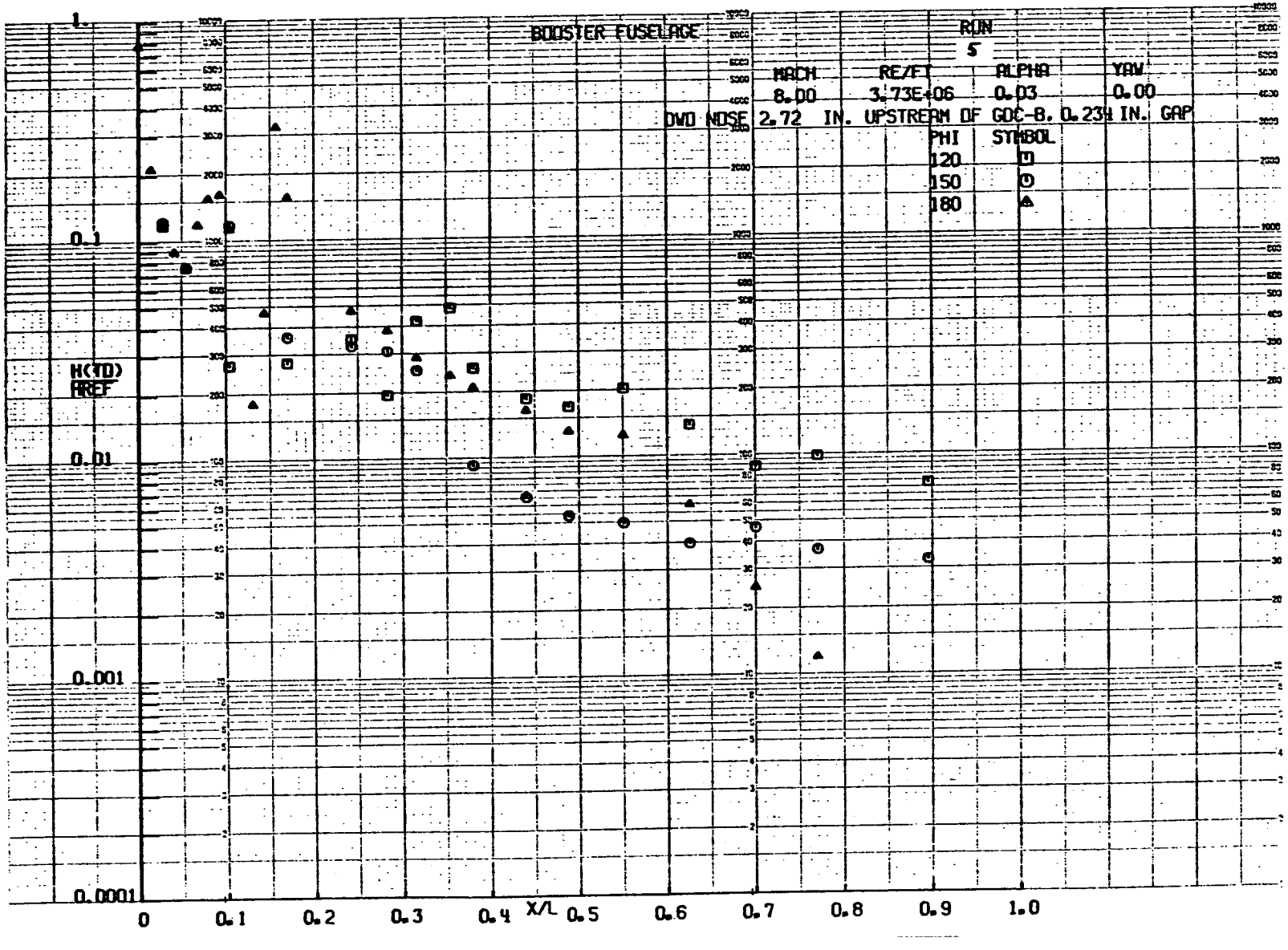
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DWD NOSE 2.72 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
PHI
SYMBOL
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180
H(TD)
AREF
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X/L
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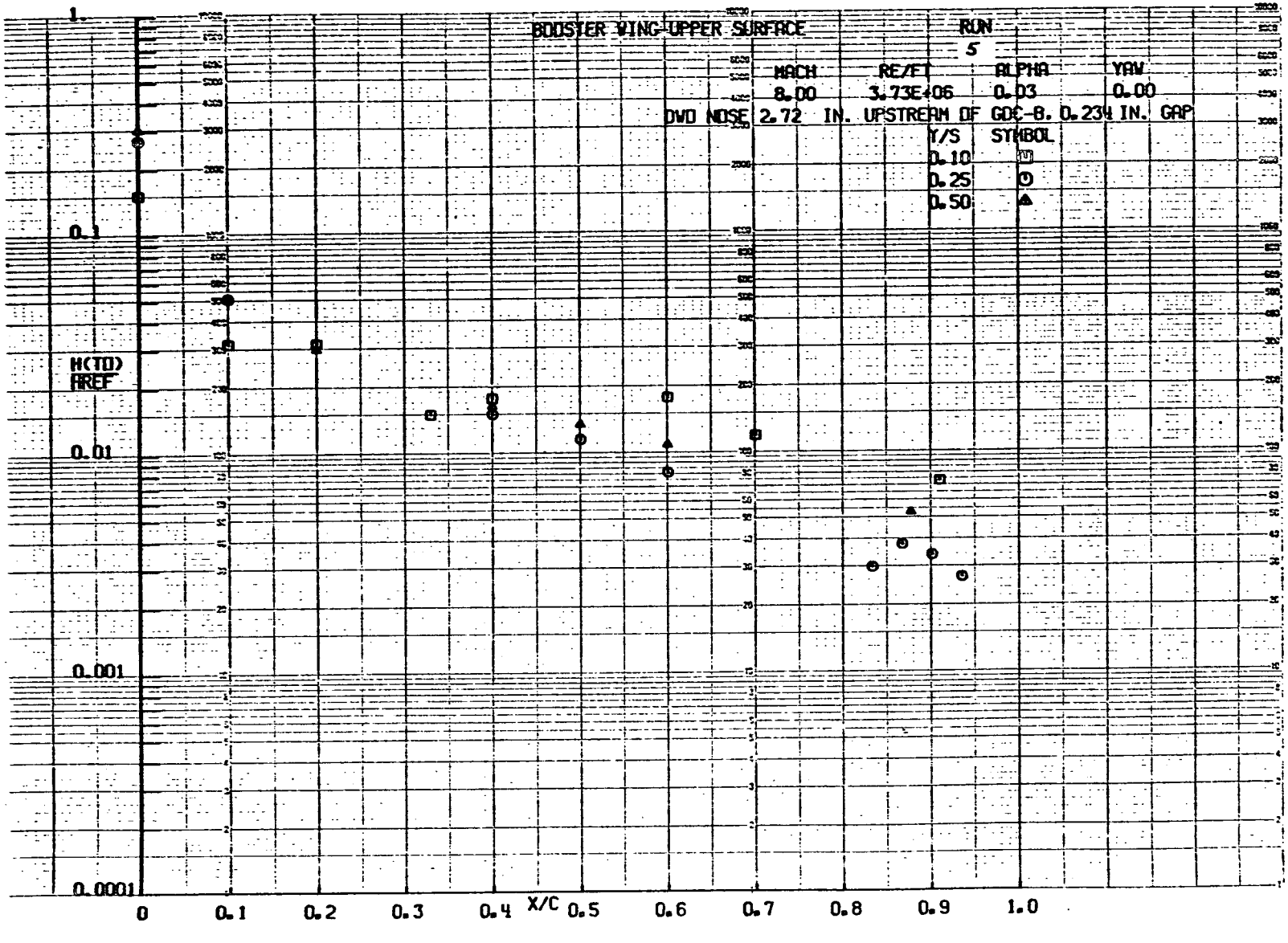
BOOSTER WING-UPPER SURFACE
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YAW
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DVD NOSE 2.72 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
Y/S
SYMBOL
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H(TD)
HREF
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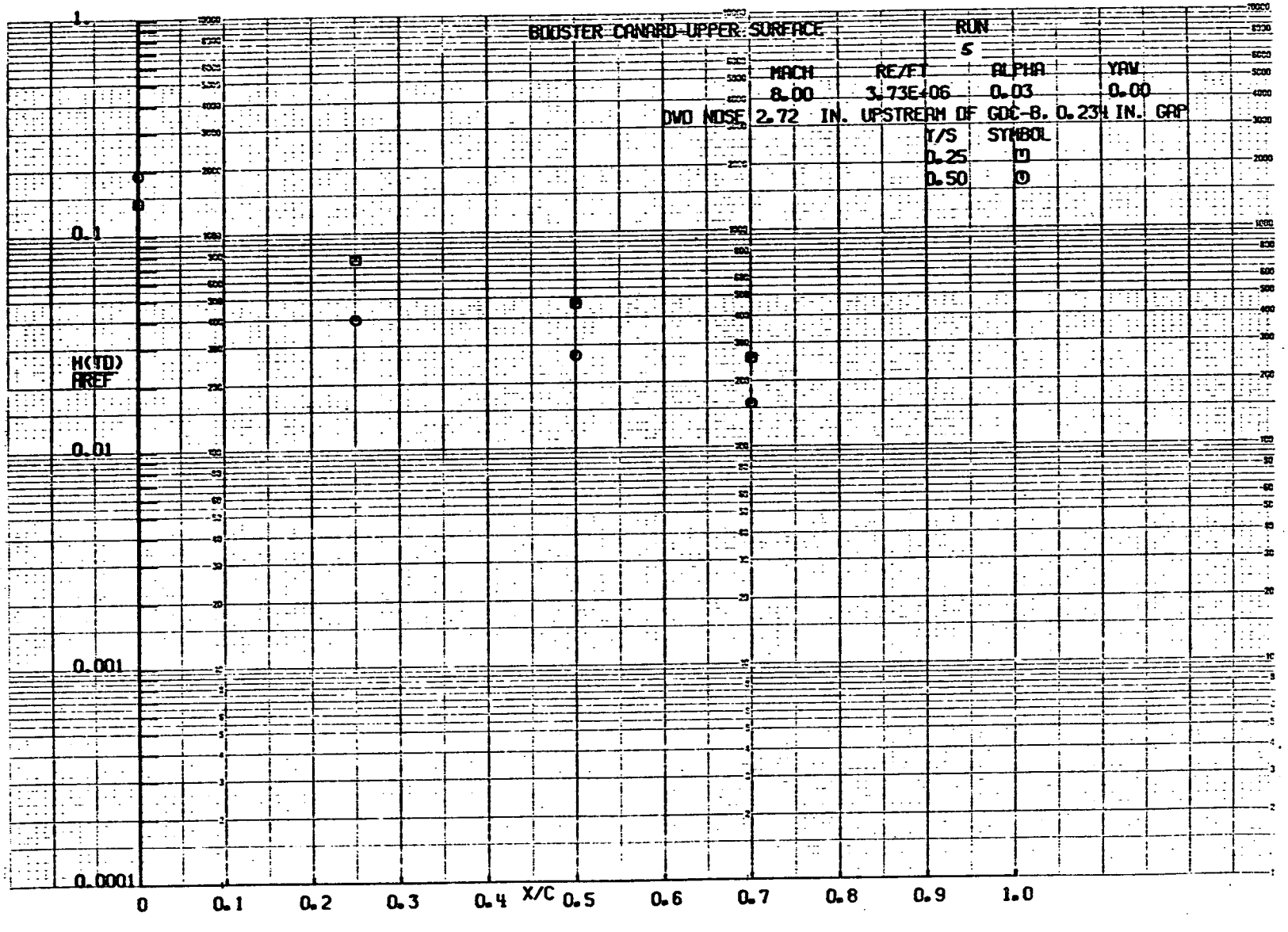
BOOSTER CANARD-UPPER SURFACE
RUN
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.72 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
T/S
SYMBOL
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H(TD)
AREF
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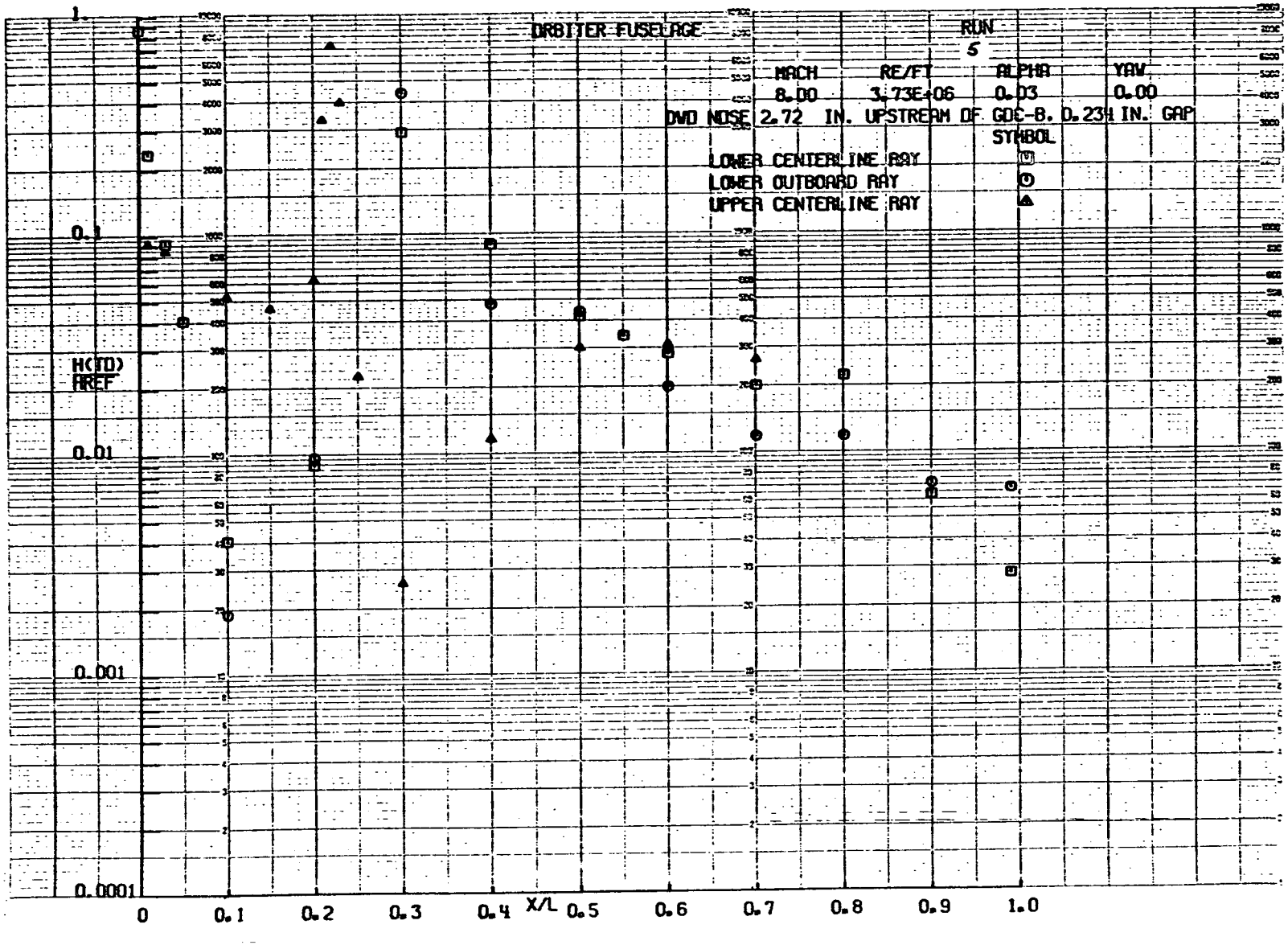
ORBITER FUSELAGE
RUN
5
MACH
8.00
RE/FT
3.73E+06
ALPHA
0.03
YAW
0.00
DVD NOSE 2.72 IN. UPSTREAM OF GOC-8. 0.234 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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X/L
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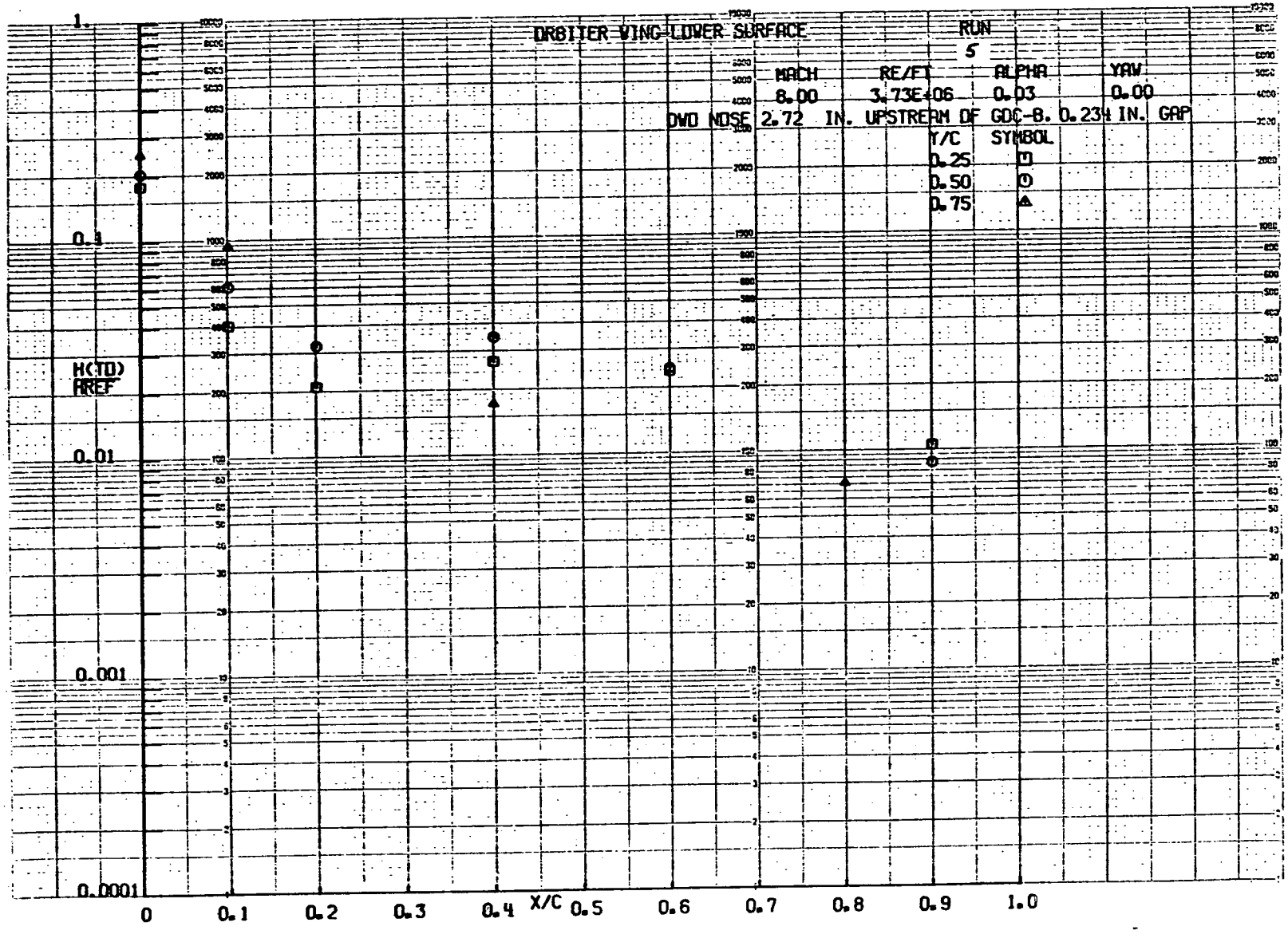
1.0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MACH
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RE/FT
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ALPHA
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YAW
0.00
DWD NOSE 2.72 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
T/C
SYMBOL
0.25
0.50
0.75
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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0.4
X/C
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0.6
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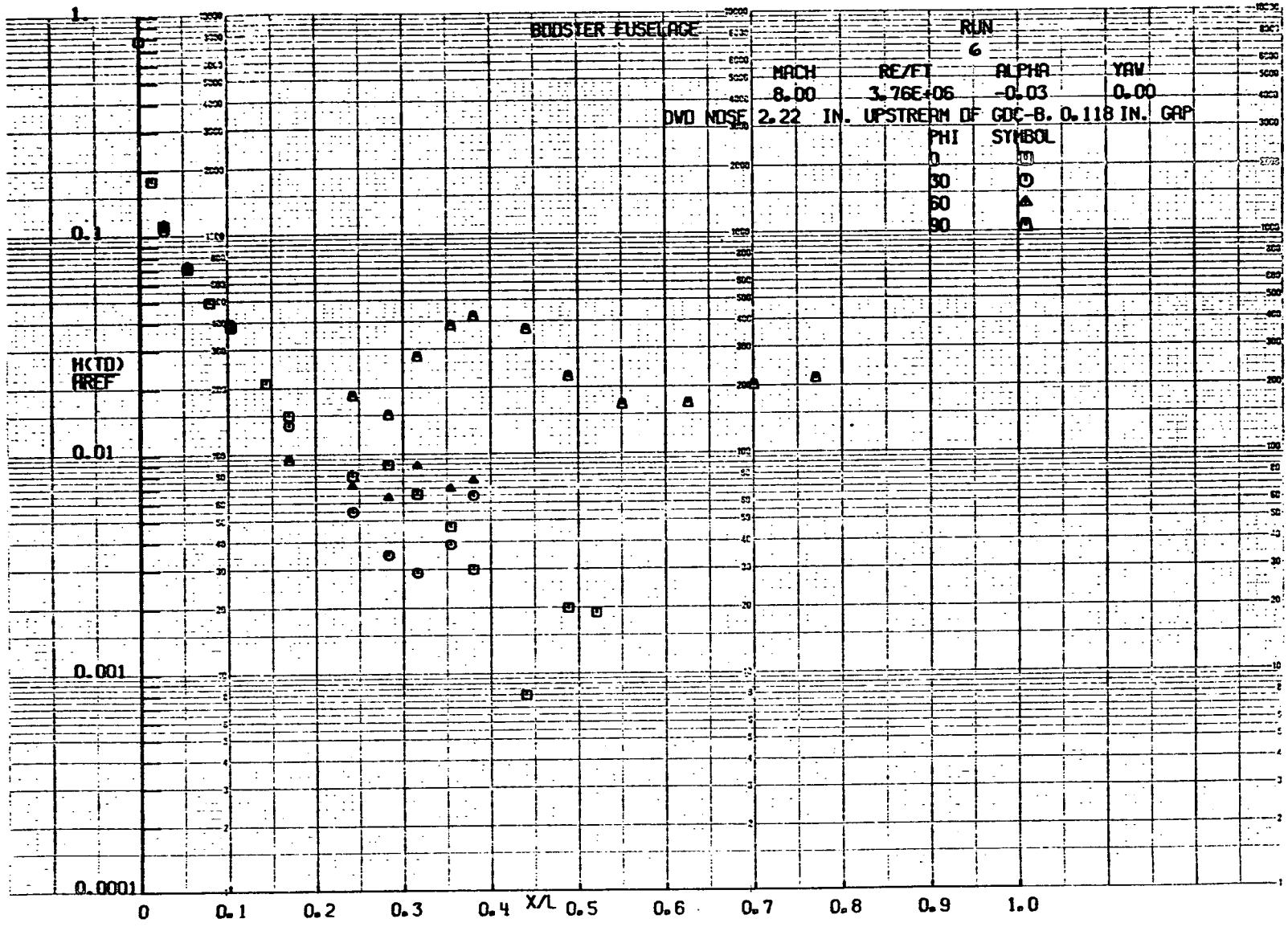
BOOSTER FUSELAGE
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MACH
8.00
RE/FT
3.76E+06
ALPHA
-0.03
YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.118 IN. GAP
PHI
SYMBOL
0
30
60
90
H(TD)
QREF
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0.1
0.01
0.001
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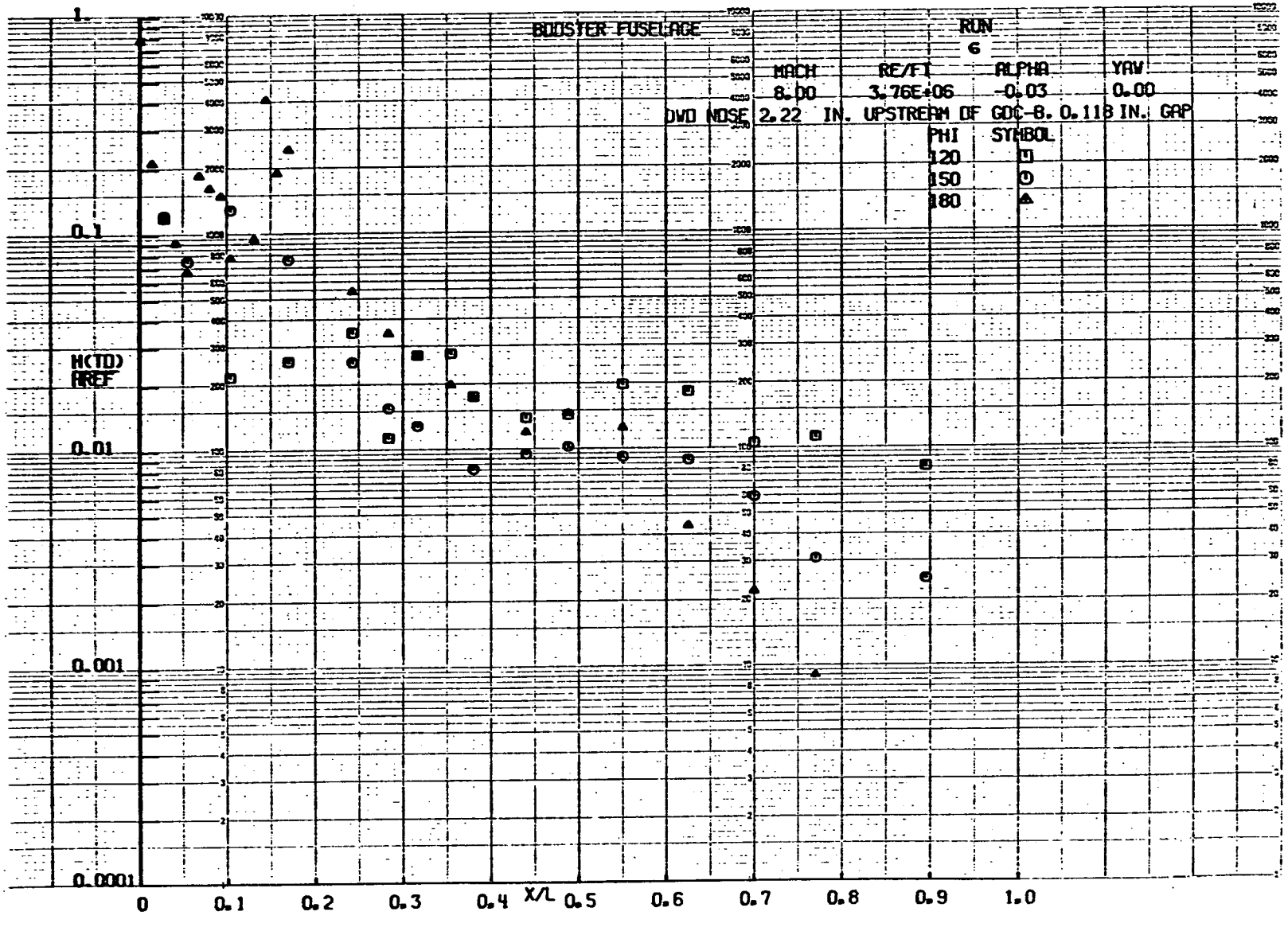
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RE/FT
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ALPHA
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.118 IN. GAP
PHI
SYMBOL
120
150
180
1.
0.1
0.01
0.001
0.0001
HCTD)
AREF
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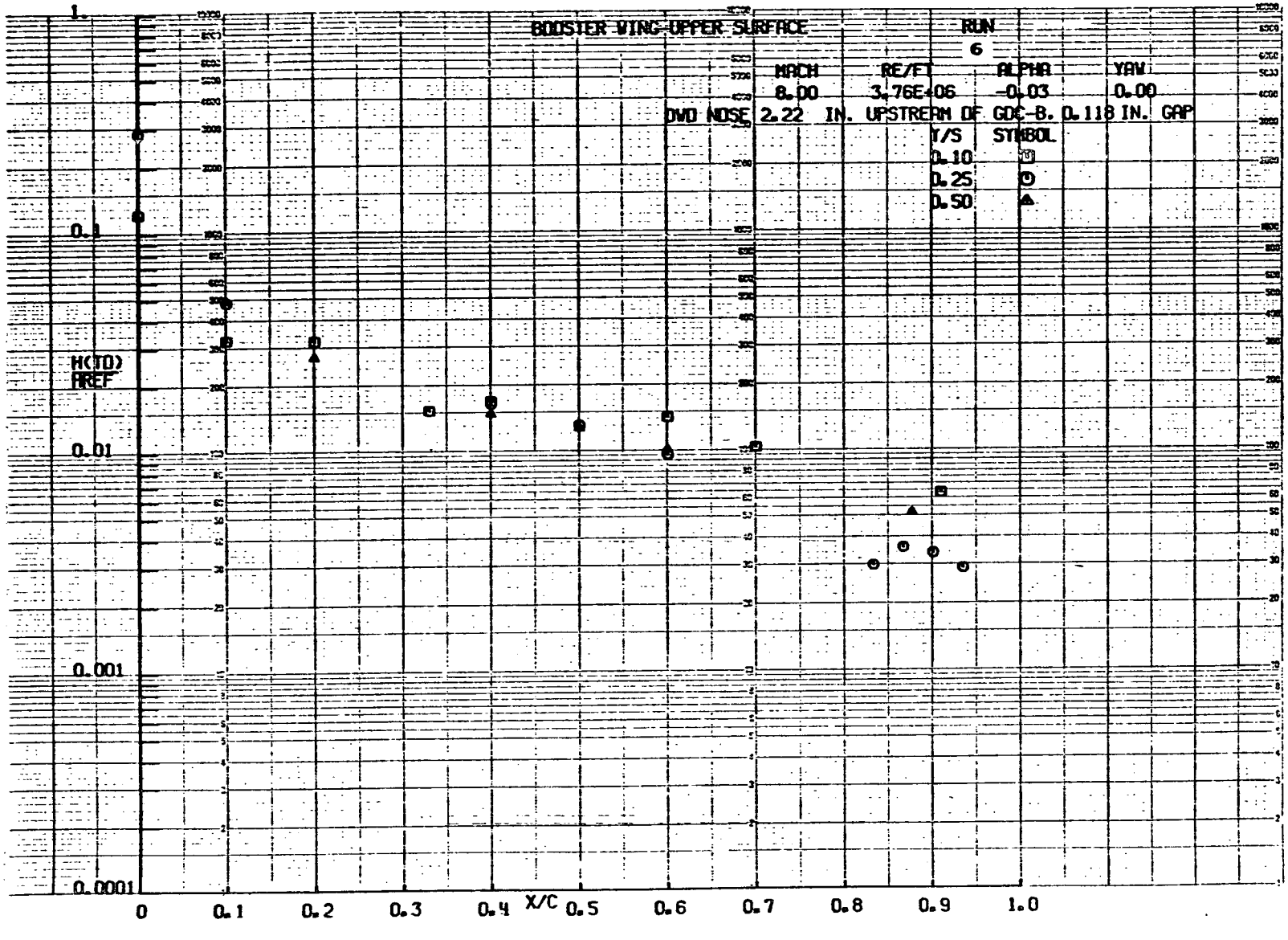
BOOSTER WING-UPPER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.118 IN. GAP
Y/S
SYMBOL
0.10
0.25
0.50
1.
0.1
0.01
0.001
0.0001
H(TD)
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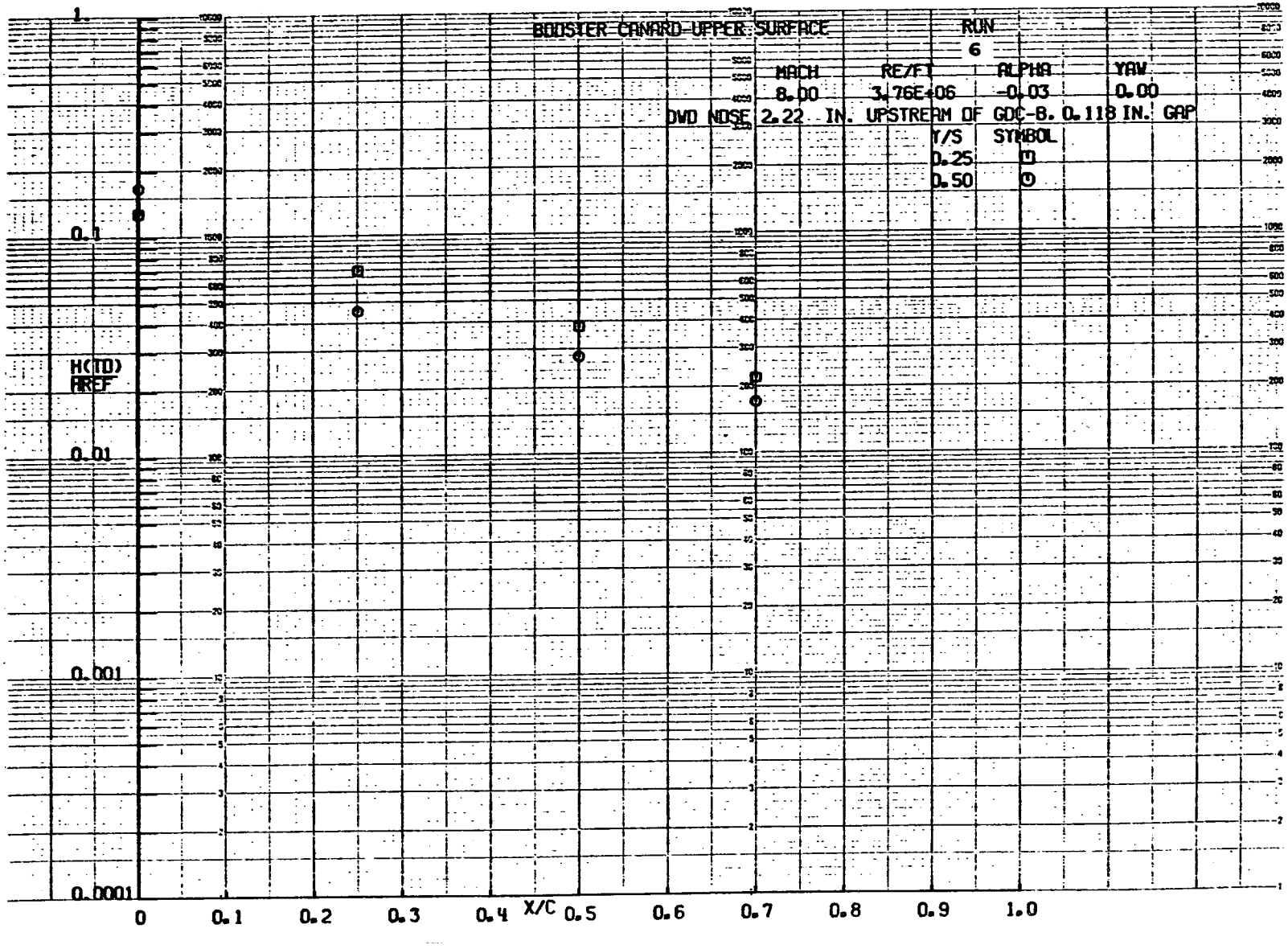
BOOSTER CANARD-UPPER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
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YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.118 IN. GAP
Y/S
SYMBOL
0.25
0.50
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
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X/C
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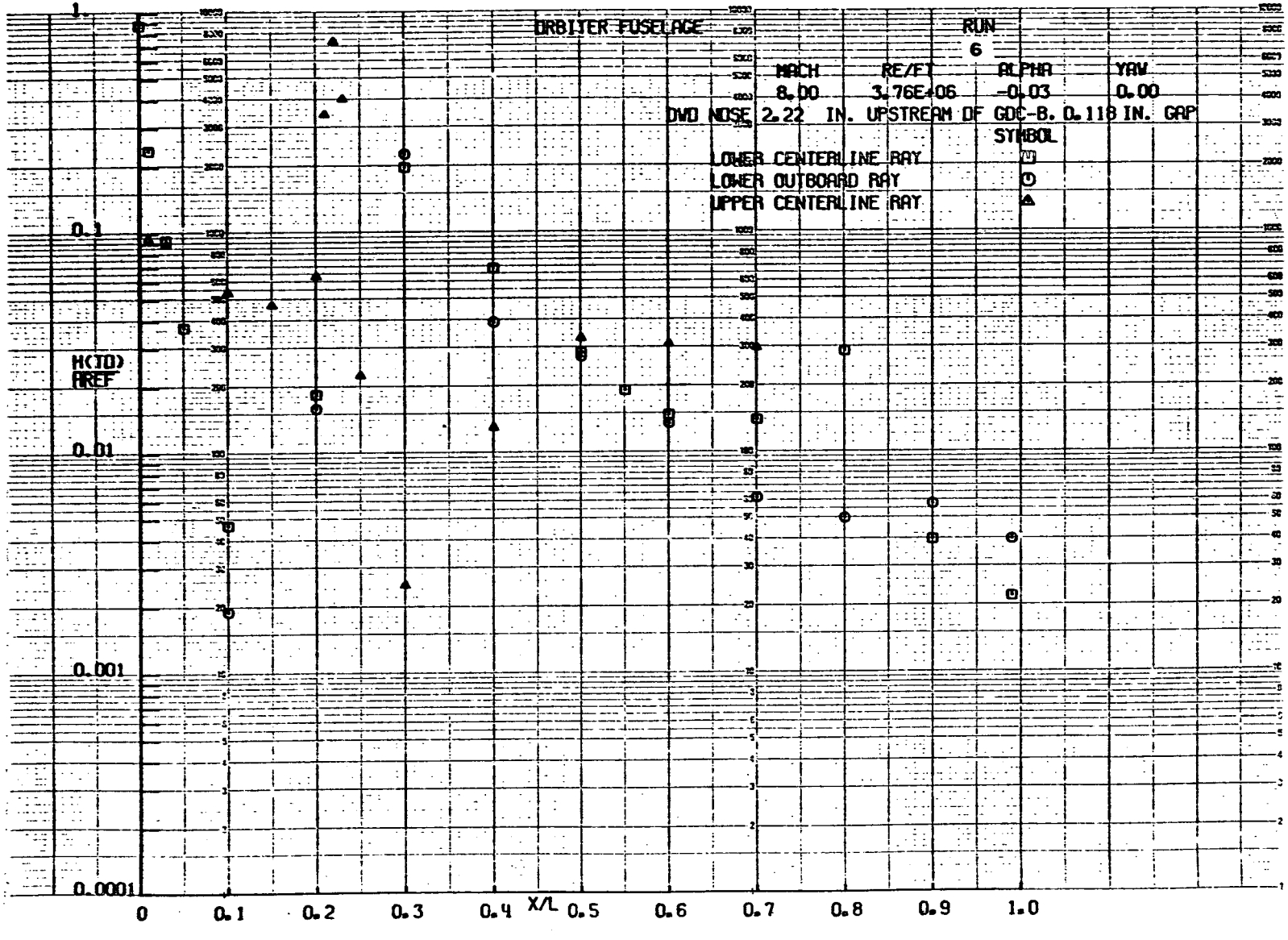
ORBITER FUSELAGE
RUN
6
MACH
8.00
RE/FT
3.76E+06
ALPHA
-0.03
YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.118 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
1.
0.1
H(TD)
AREF
0.01
0.001
0.0001
0
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0.3
0.4
X/L
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0.6
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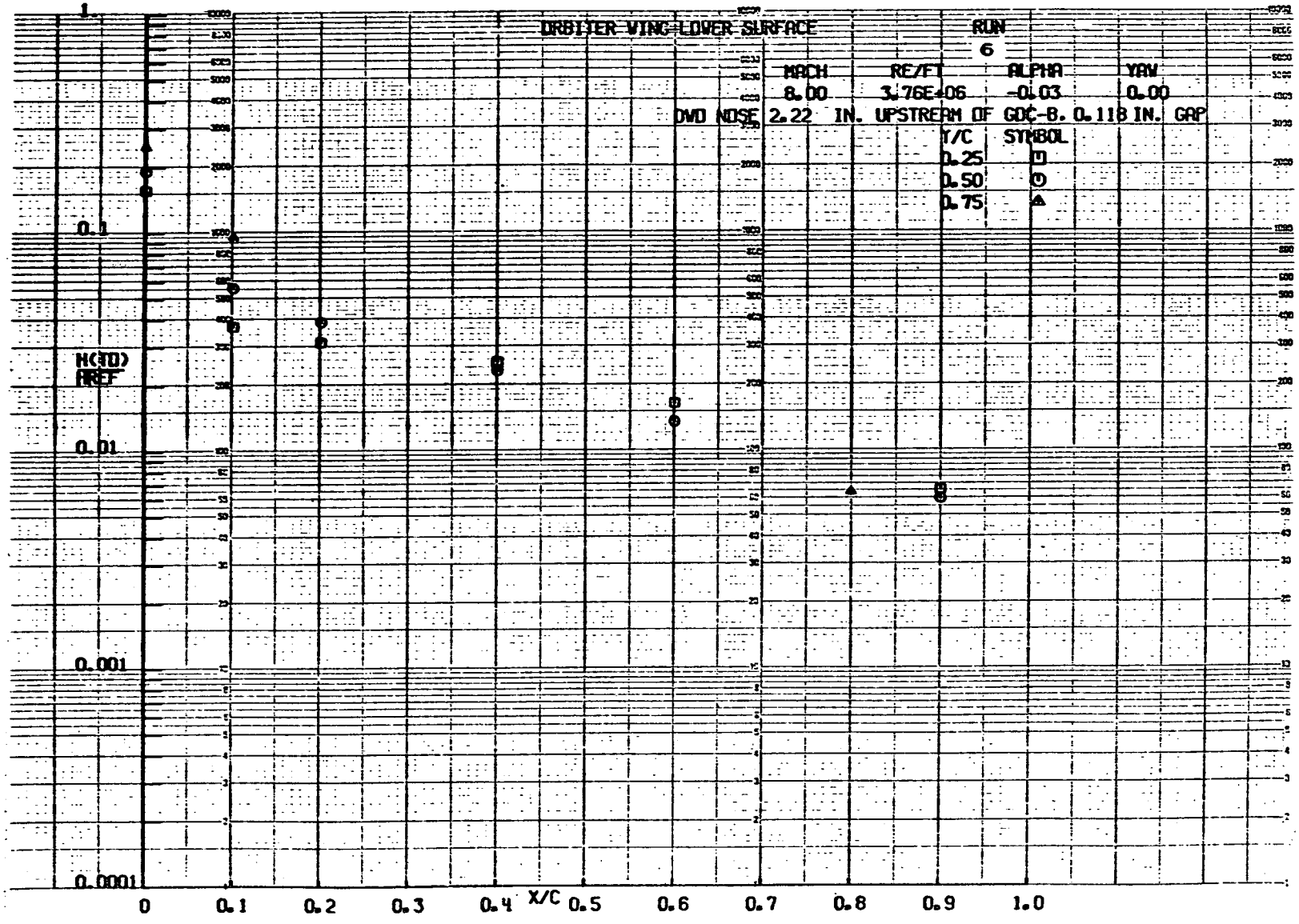
ORBITER VING LOWER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
-0.03
YAW
0.00
OVD NOSE 2.22 IN. UPSTREAM OF GOC-8. 0.118 IN. GAP
Y/C
SYMBOL
0.25
0.50
0.75
1
0.1
H(TD)
REF
0.01
0.001
0.0001
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0.4
X/C
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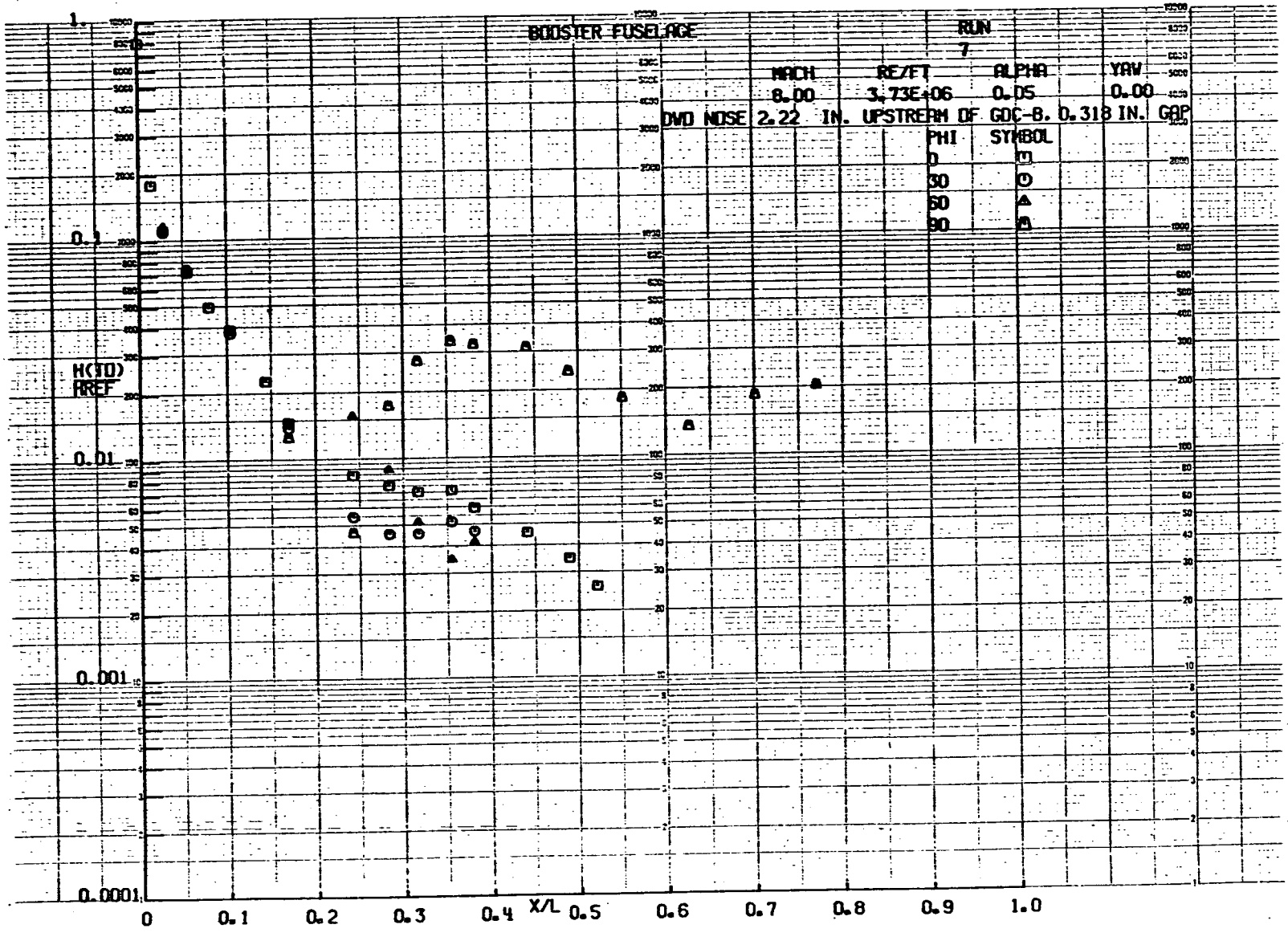
1.0


BOOSTER FUSELAGE
RUN
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MACH
8.00
RE/FT
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ALPHA
0.05
YAW
0.00
DWD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.318 IN. GAP
PHI
SYMBOL
0
30
60
90
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
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0.3
0.4
X/L
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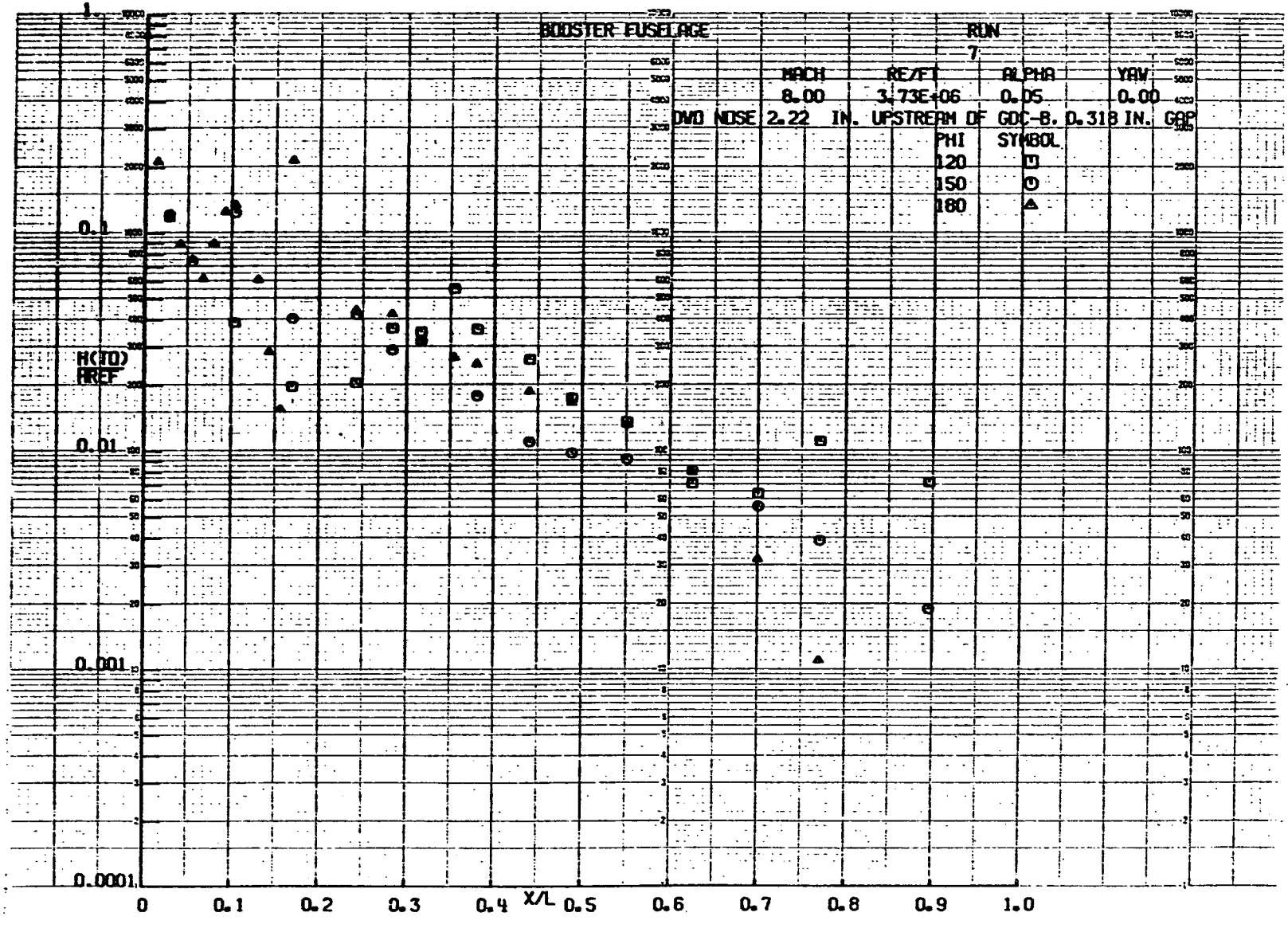
BOOSTER FUSELAGE
RUN
7
MACH
8.00
RE/FT
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ALPHA
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YAW
0.00
DWD NOSE 2.22 IN. UPSTREAM OF GDC-B, 0.318 IN. GAP
PHI
SYMBOL
120
150
180
1.
0.1
0.01
0.001
0.0001
H(TO)
HREF
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0.3
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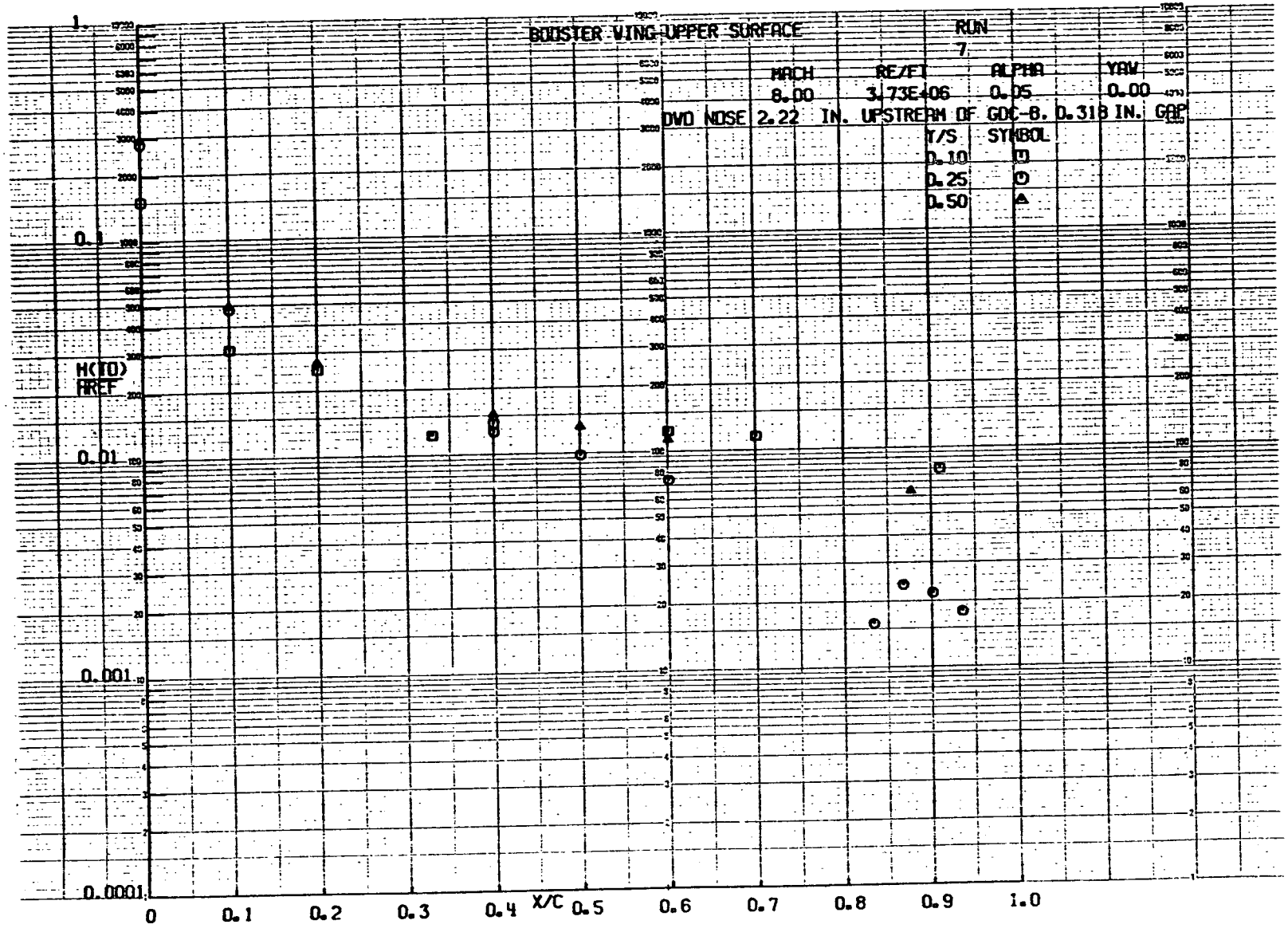
BOOSTER VING-UPPER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
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YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.318 IN. GAP
T/S SYMBOL
0.10
0.25
0.50
H(TD)
HREF
1.
0.1
0.01
0.001
0.0001
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X/C
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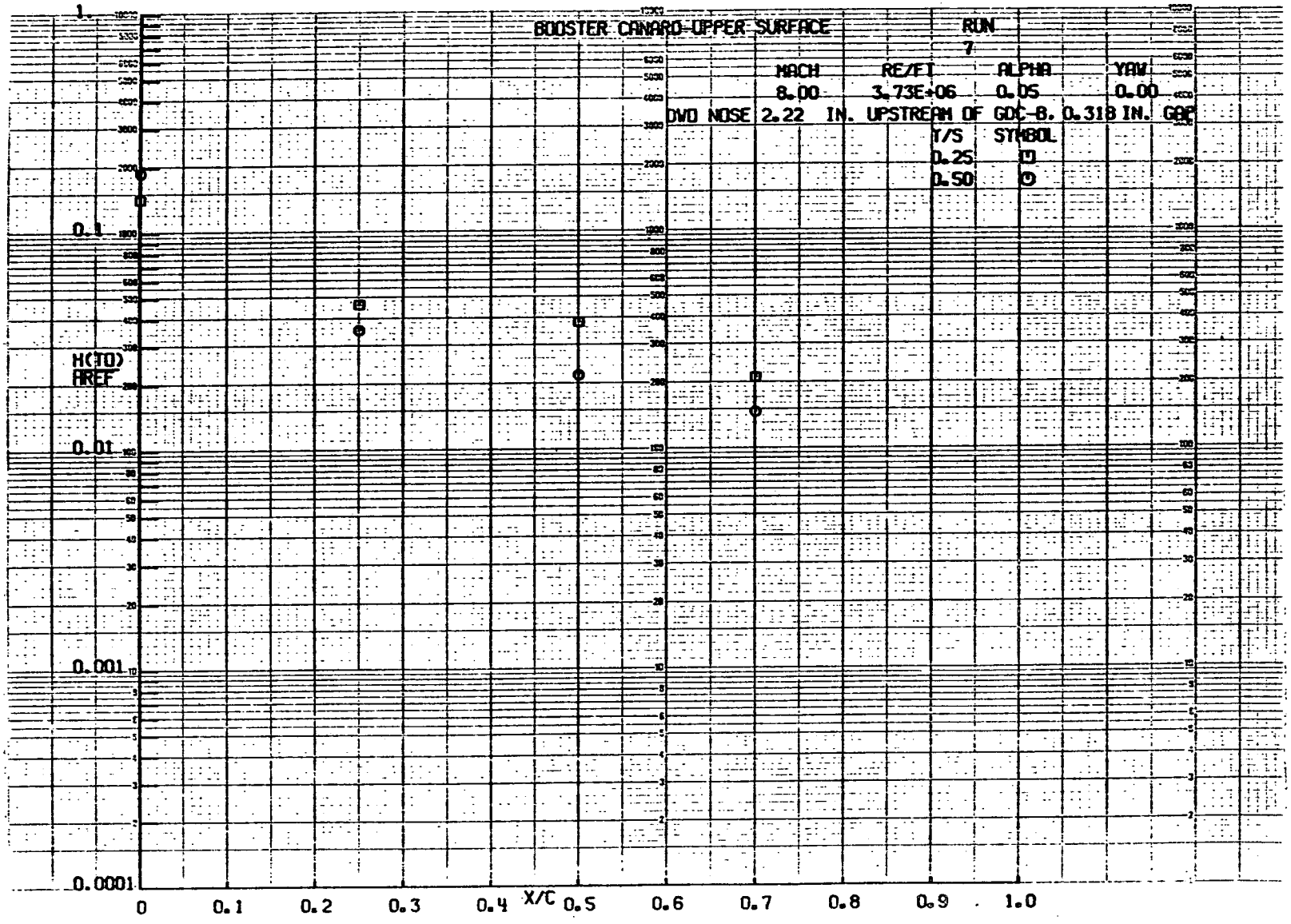
BOOSTER CANARD-UPPER SURFACE
RUN
7
MACH
8.00
RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.318 IN. GDC
T/S
SYMBOL
0.25
0.50
H(TO)
HREF
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0.01
0.001
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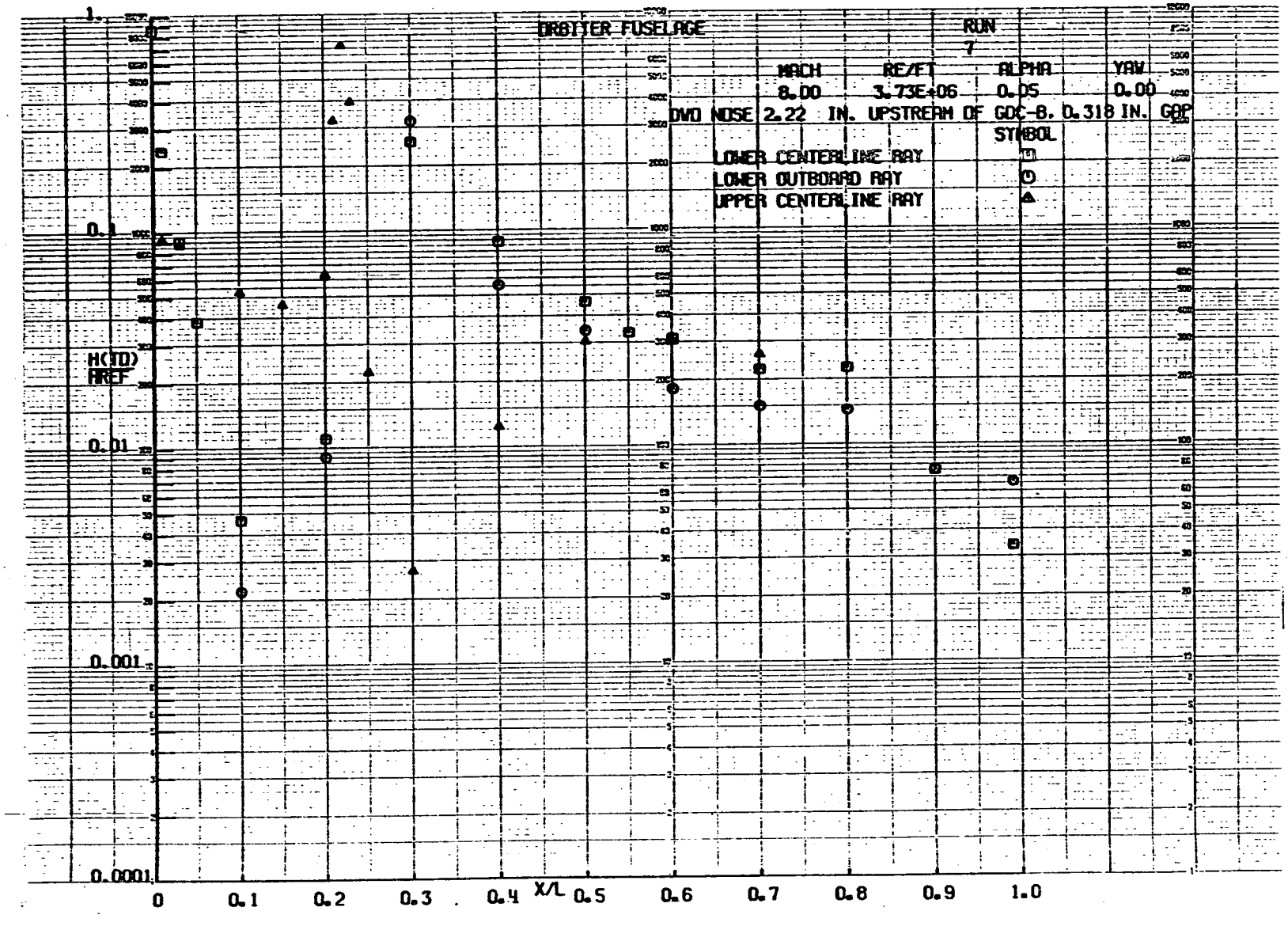
ORBITER FUSELAGE
RUN
7
MACH
8.00
RE/FT
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ALPHA
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YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.318 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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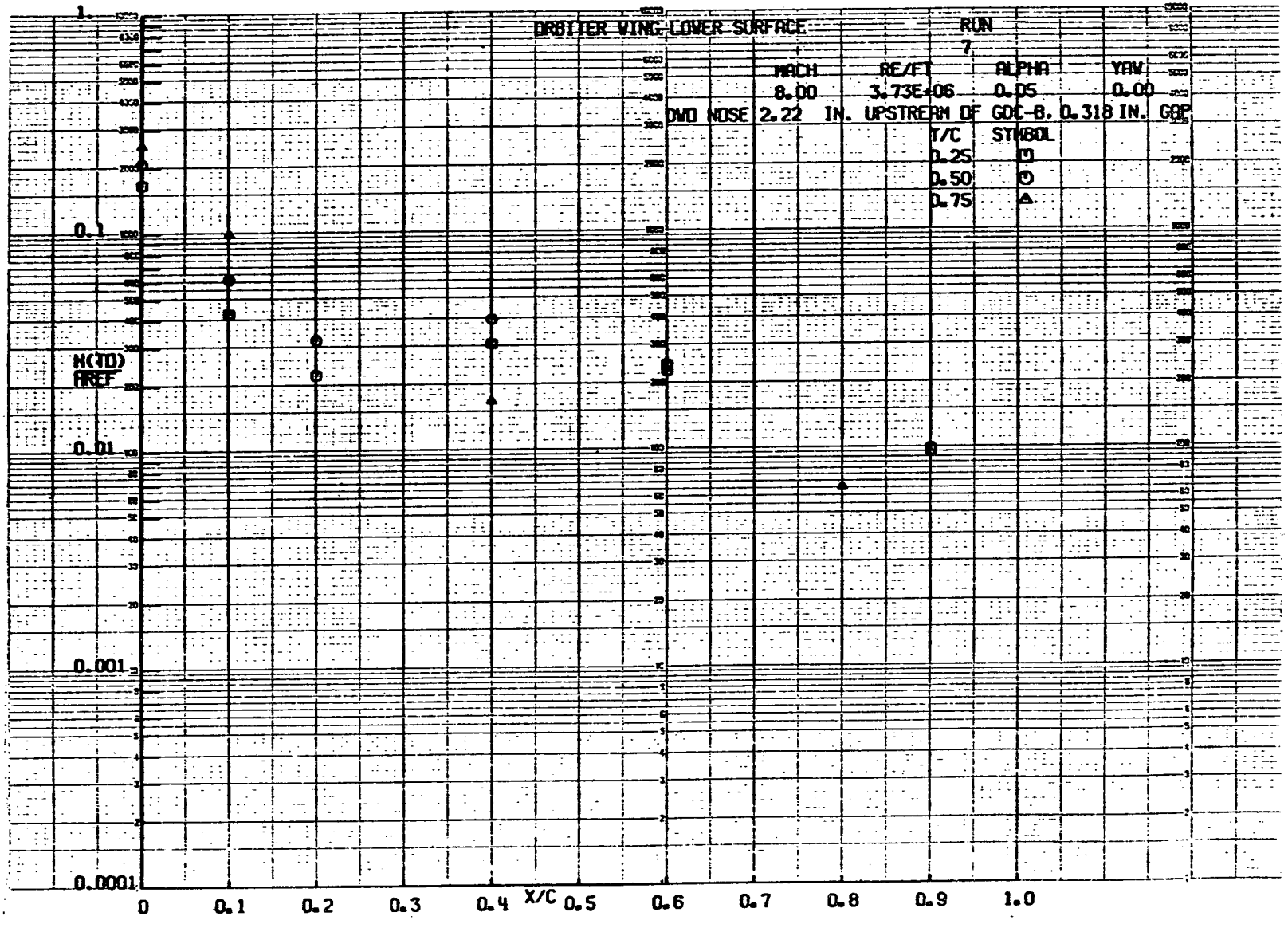
ORBITER WING LOWER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
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YAW
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DWD NOSE 2.22 IN. UPSTREAM OF GOC-8. 0.318 IN. GAP
T/C
SYMBOL
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0.75
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0.1
0.01
0.001
0.0001
N(TD)
PREF
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X/C
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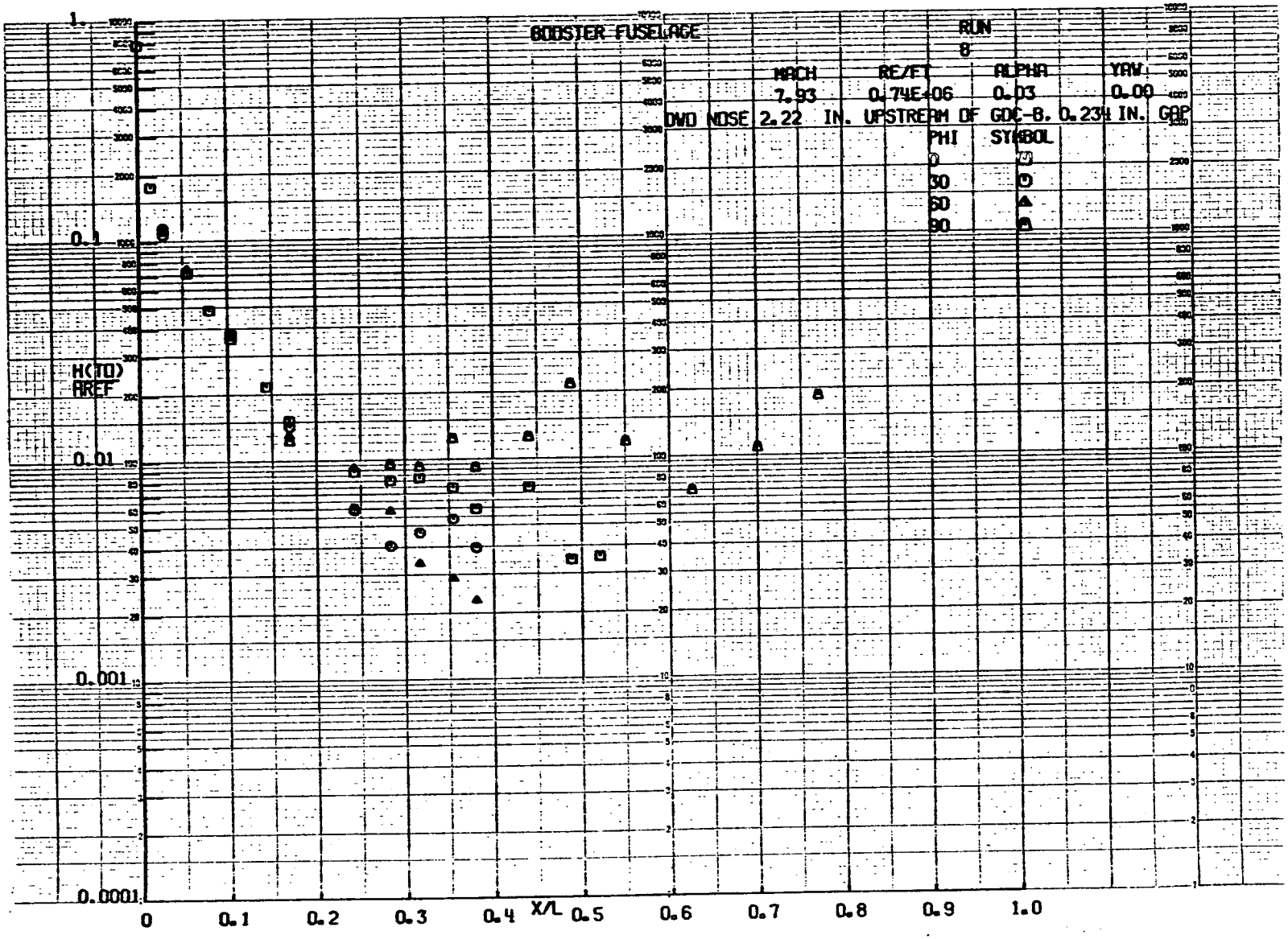
BOOSTER FUSELAGE
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MACH
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RE/FT
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ALPHA
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YAW
0.00
DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
PHI
SYMBOL
0
30
60
90
H(TO)
AREF
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0.01
0.001
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X/L
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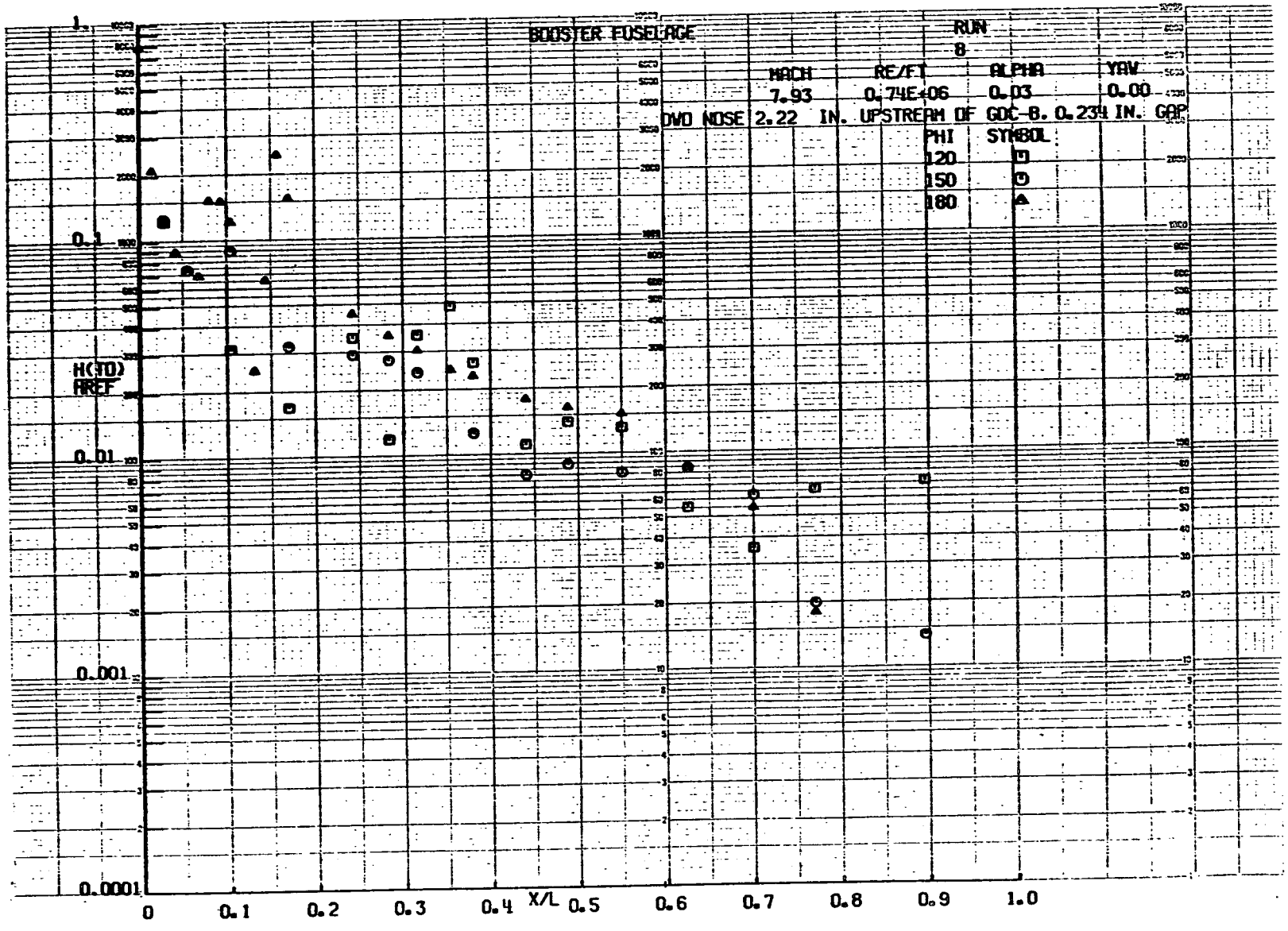
BOOSTER FUSELAGE
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MACH
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RE/FT
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ALPHA
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YAW
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DWO NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
PHI
SYMBOL
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150
180
H(3D)
AREF
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0.001
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X/L
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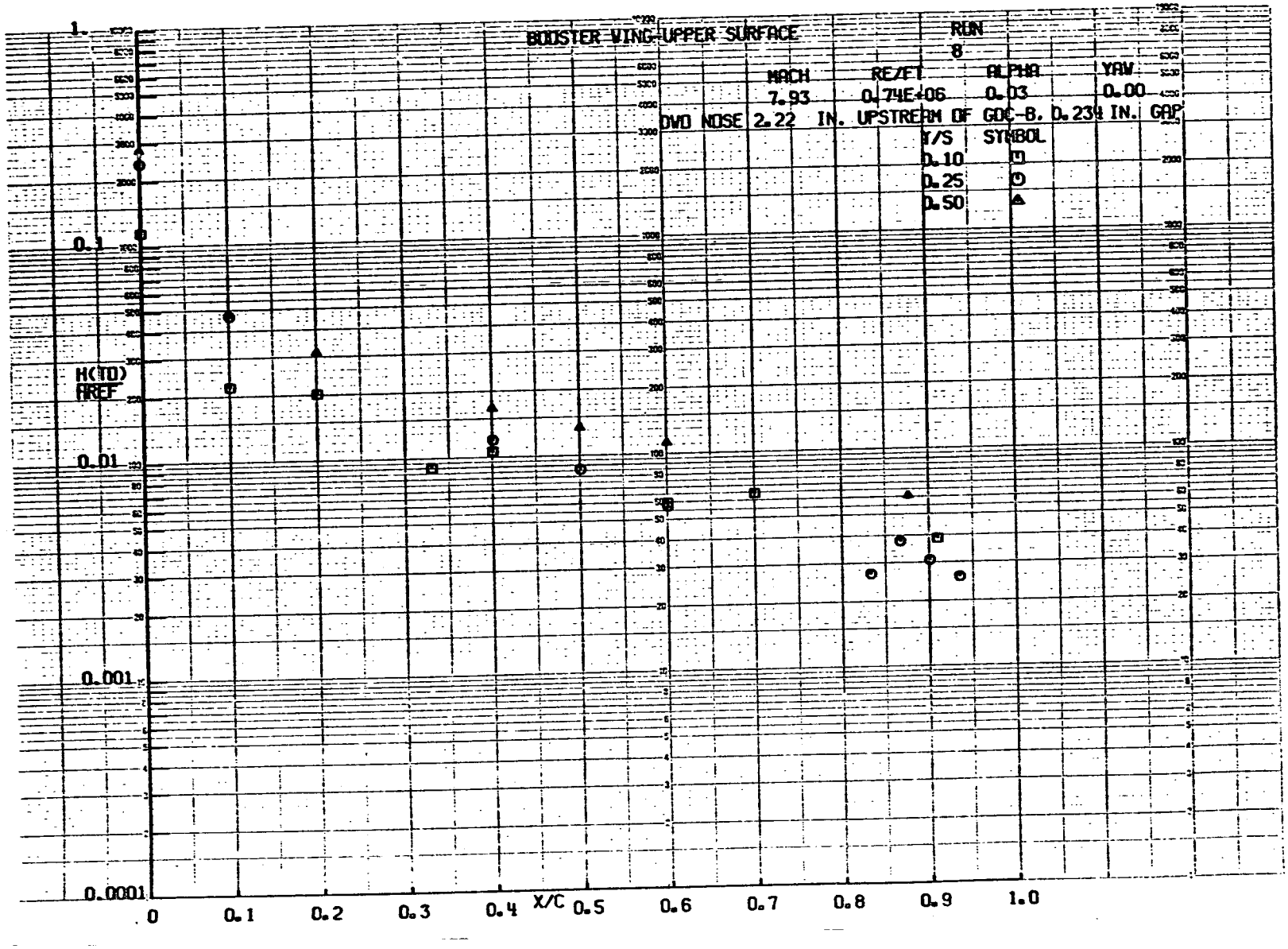
BOOSTER WING-UPPER SURFACE
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
M/S
SYMBOL
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0.50
H(TO)
HREF
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0.001
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0.4
X/C
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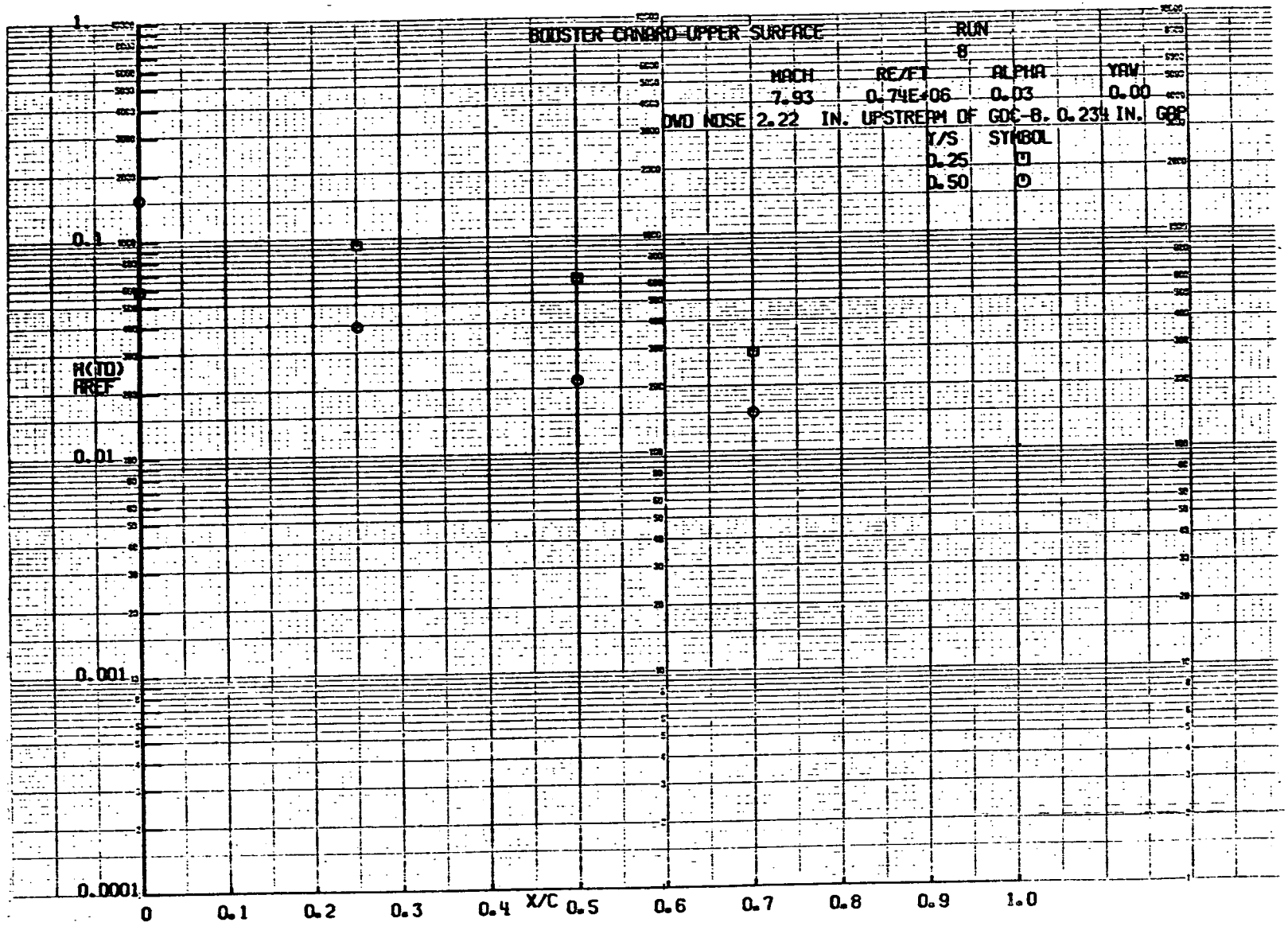
BOOSTER CANARD-UPPER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
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DMD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
Y/S
SYMBOL
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H(JD)
HREF
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0.001
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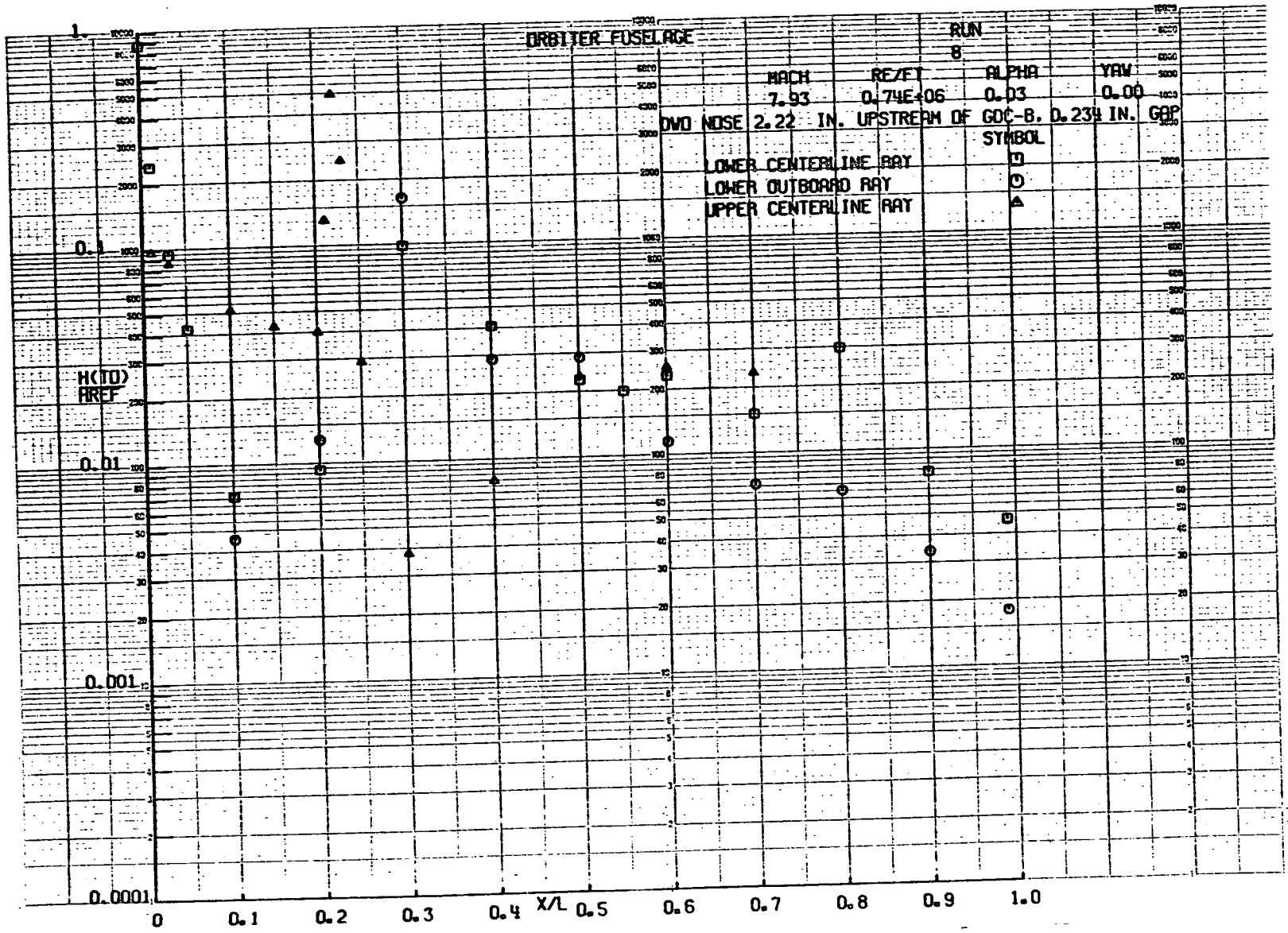
ORBITER FUSELAGE
RUN
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MACH
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RE/FT
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ALPHA
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YAW
0.00
OVO NOSE 2.22 IN. UPSTREAM OF GOC-B. 0.234 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TO)
AREF
1.
0.1
0.01
0.001
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X/L
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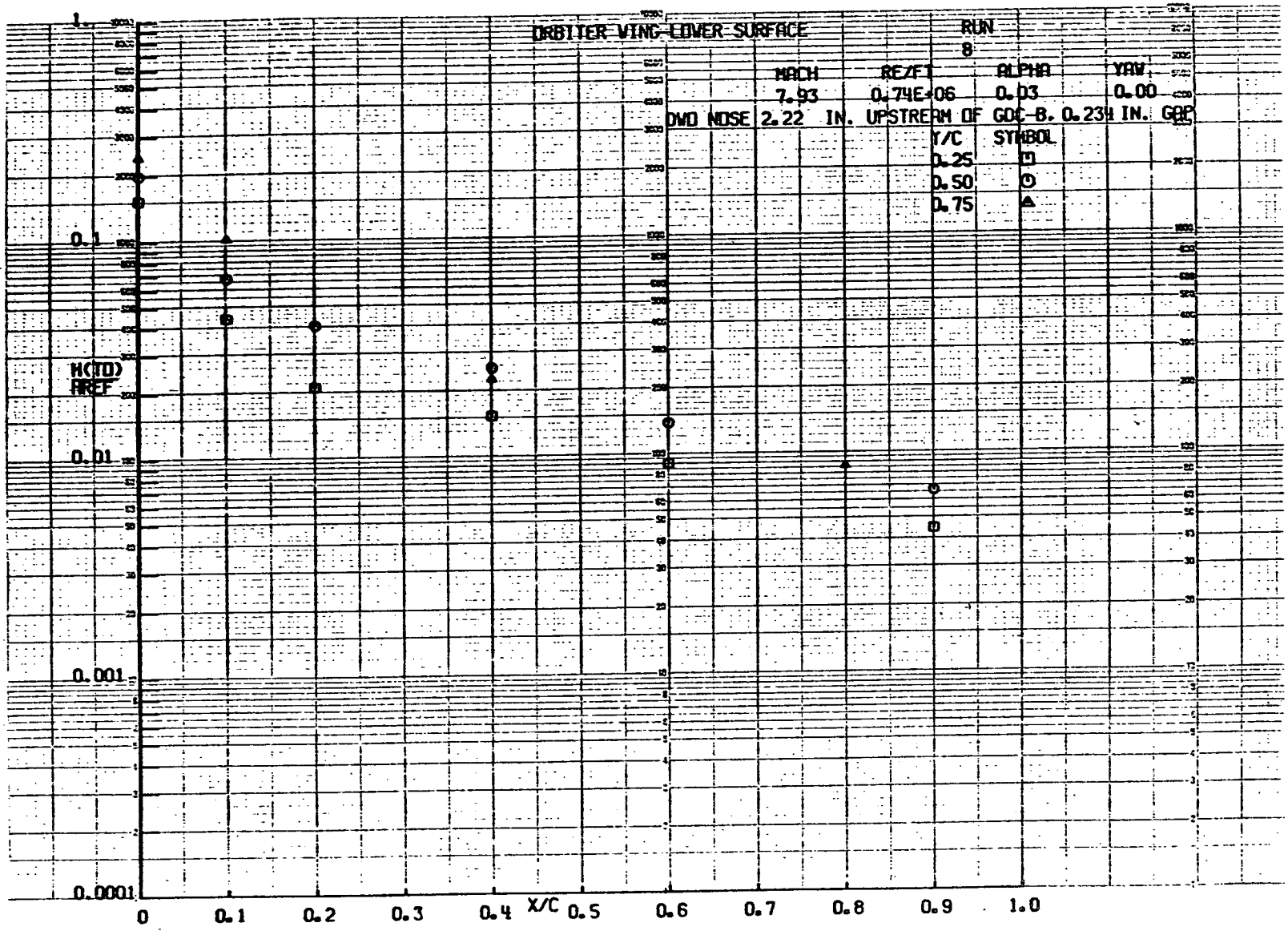
ORBITER WING LOWER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
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YAW
0.00
DWD NOSE 2.22 IN. UPSTREAM OF GOC-8. 0.234 IN. GOP
T/C
SYMBOL
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0.50
0.75
H(TD)
HREF
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X/C
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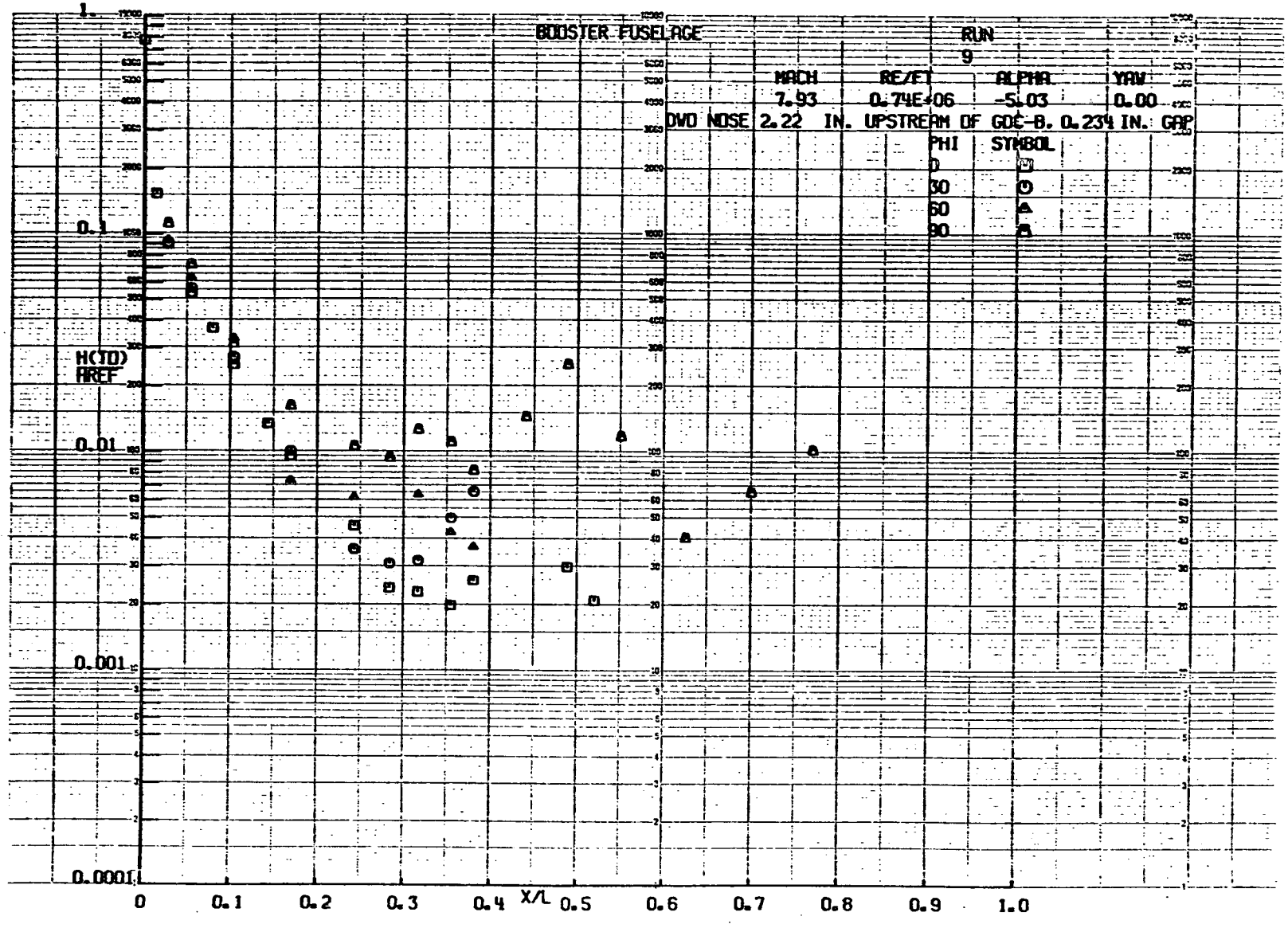
BOOSTER FUSELAGE
RUN
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RE/FT
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ALPHA
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YAW
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DVD NOSE 2.22 IN. UPSTREAM OF GOC-B. 0.234 IN. GAP
PHI
SYMBOL
0
30
60
90
H(TD)
HREF
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0.01
0.001
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X/L
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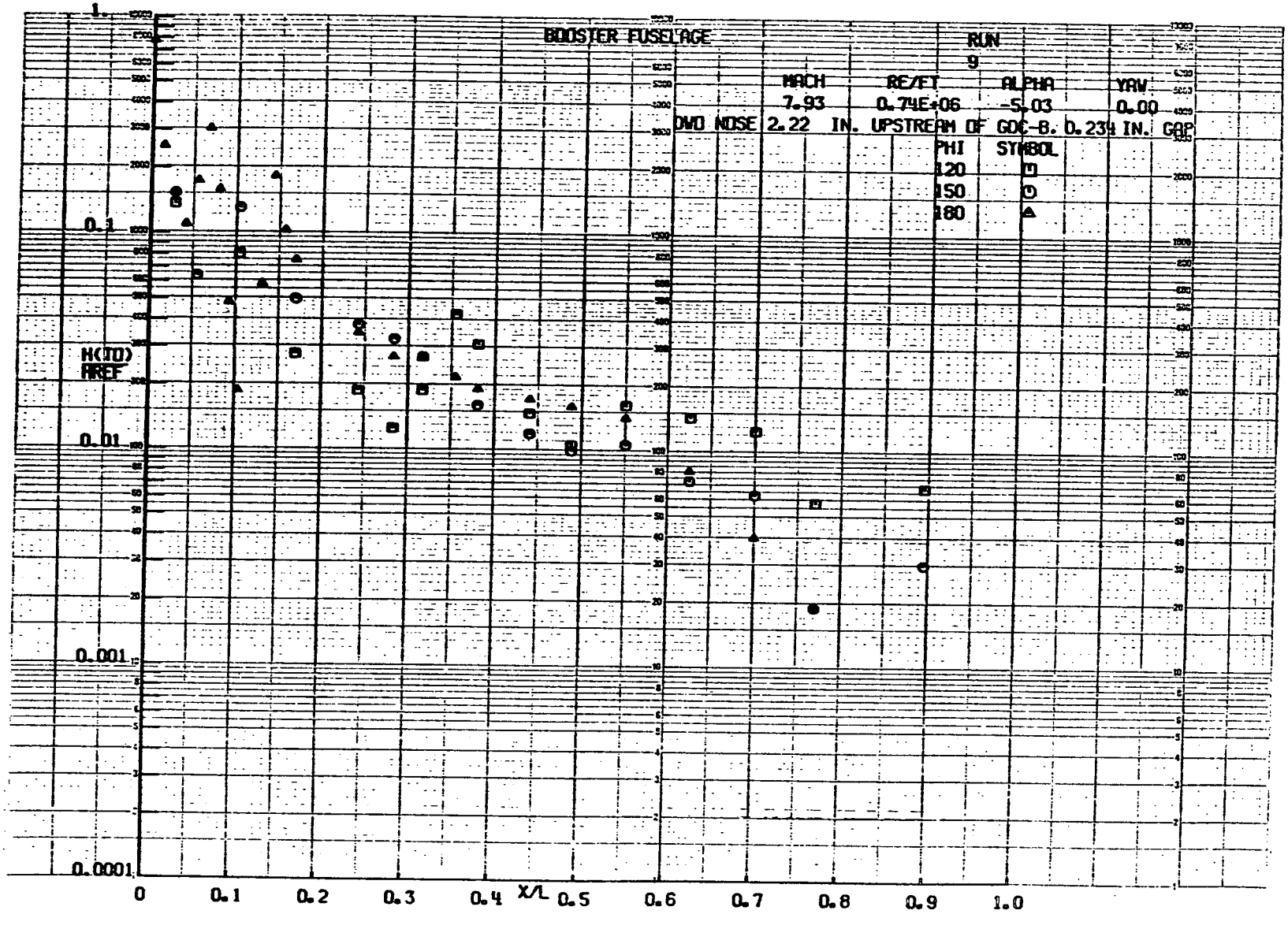
BOOSTER FUSELAGE
RUN
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MACH
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ALPHA
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YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GOC-8. 0.234 IN. GAP
PHI
SYMBOL
120
150
180
1.
0.1
0.01
0.001
0.0001
M(TD)
AREF
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0.3
0.4
X/L
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0.6
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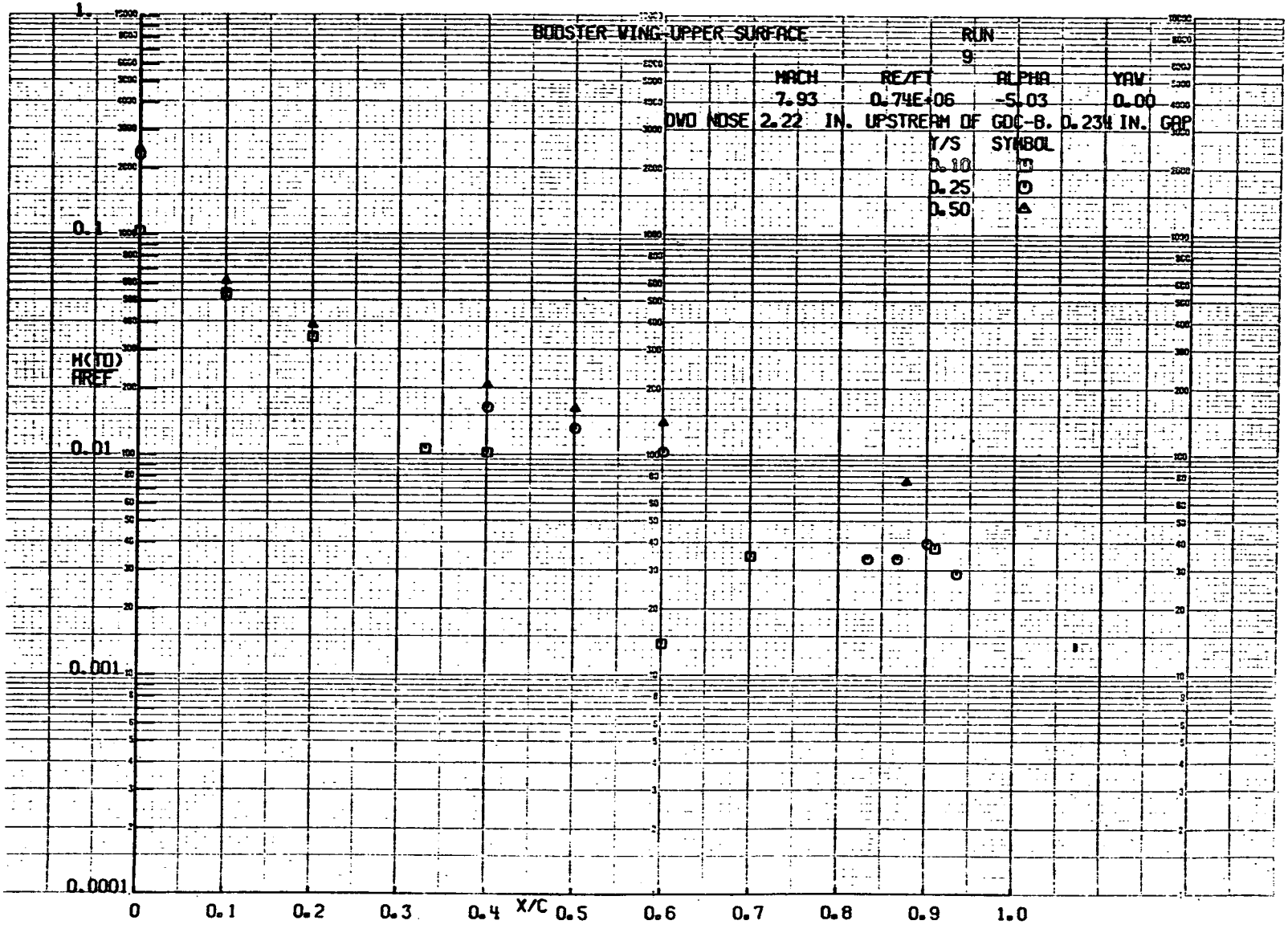
1.0


BOOSTER VING-UPPER SURFACE
RUN
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MACH
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RE/FT
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ALPHA
-5.03
YAW
0.00
OVD NOSE 2.22 IN. UPSTREAM OF GOC-8. 0.234 IN. GAP
Y/S
SYMBOL
0.10
0.25
0.50
H(TO)
AREF
1.
0.1
0.01
0.001
0.0001
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0.3
0.4
X/C
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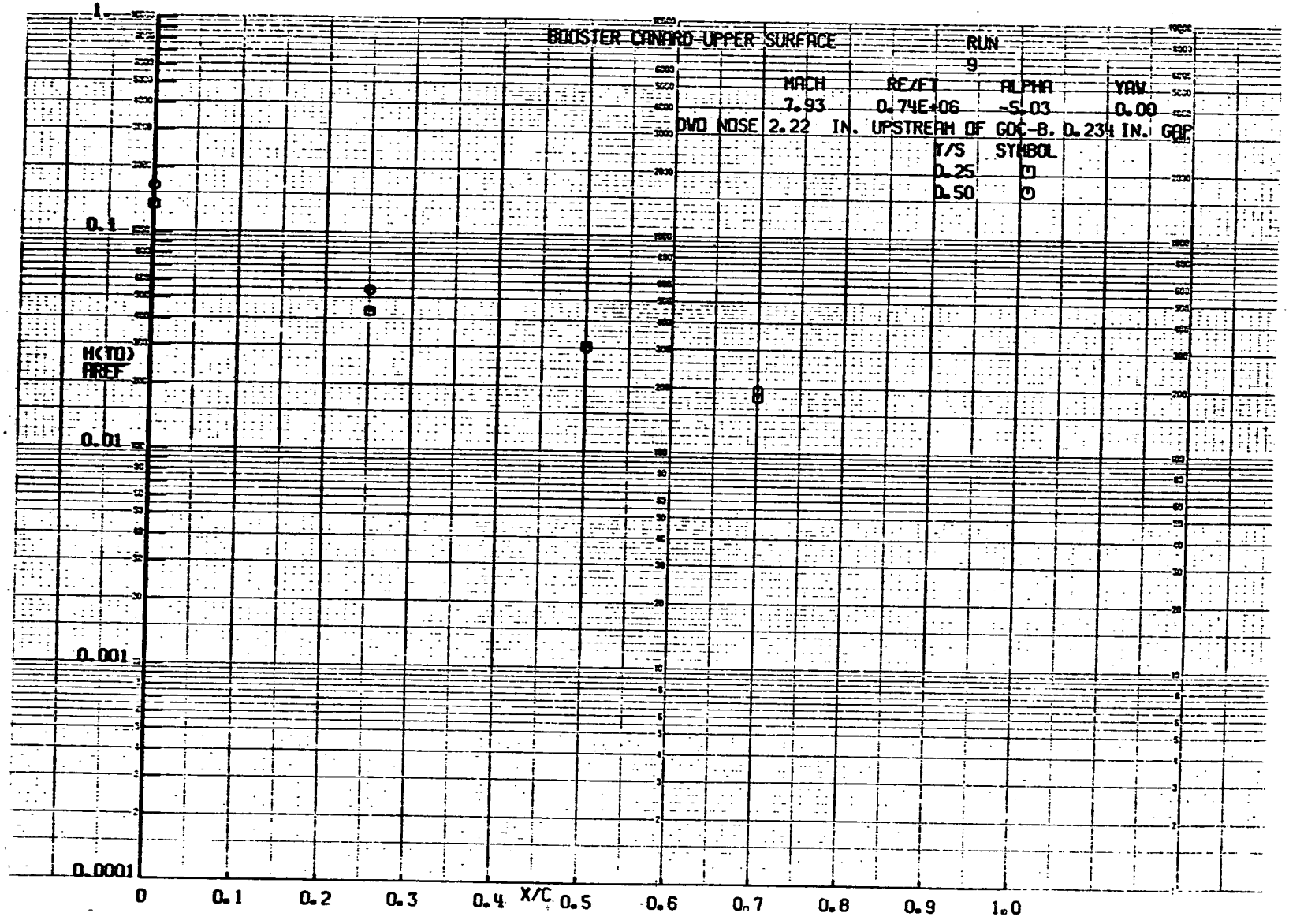
BOOSTER CANARD-UPPER SURFACE
RUN
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MACH
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RE/FT
0.74E+06
ALPHA
-5.03
YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GOC-B, 0.234 IN. GOC
T/S
SYMBOL
0.25
0.50
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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X/C
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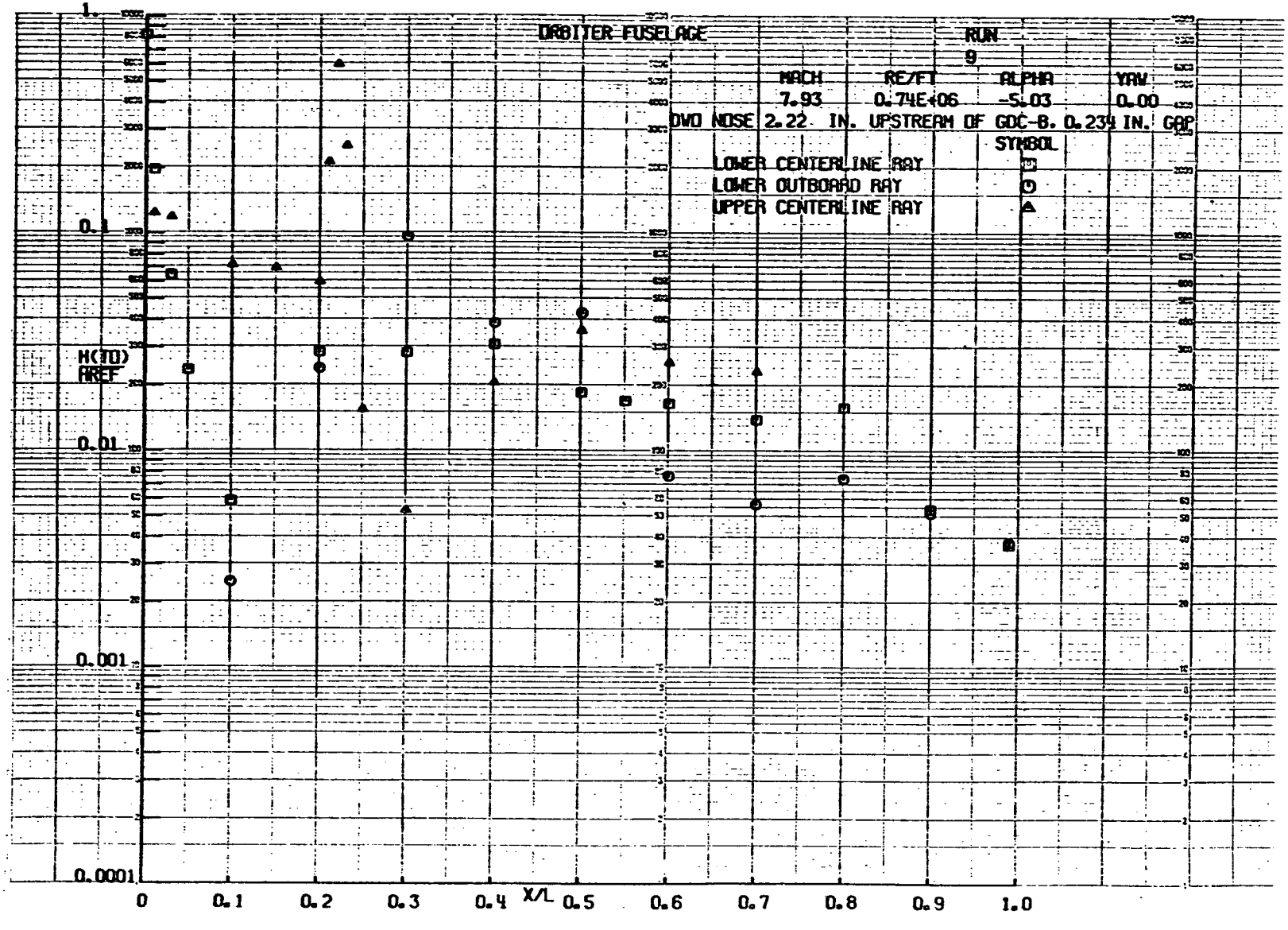
ORBITER FUSELAGE
RUN
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MACH
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RE/FT
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ALPHA
-5.03
YAW
0.00
DVO NOSE 2.22 IN. UPSTREAM OF GOC-B. 0.234 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TU)
AREF
1.
0.1
0.01
0.001
0.0001
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X/L
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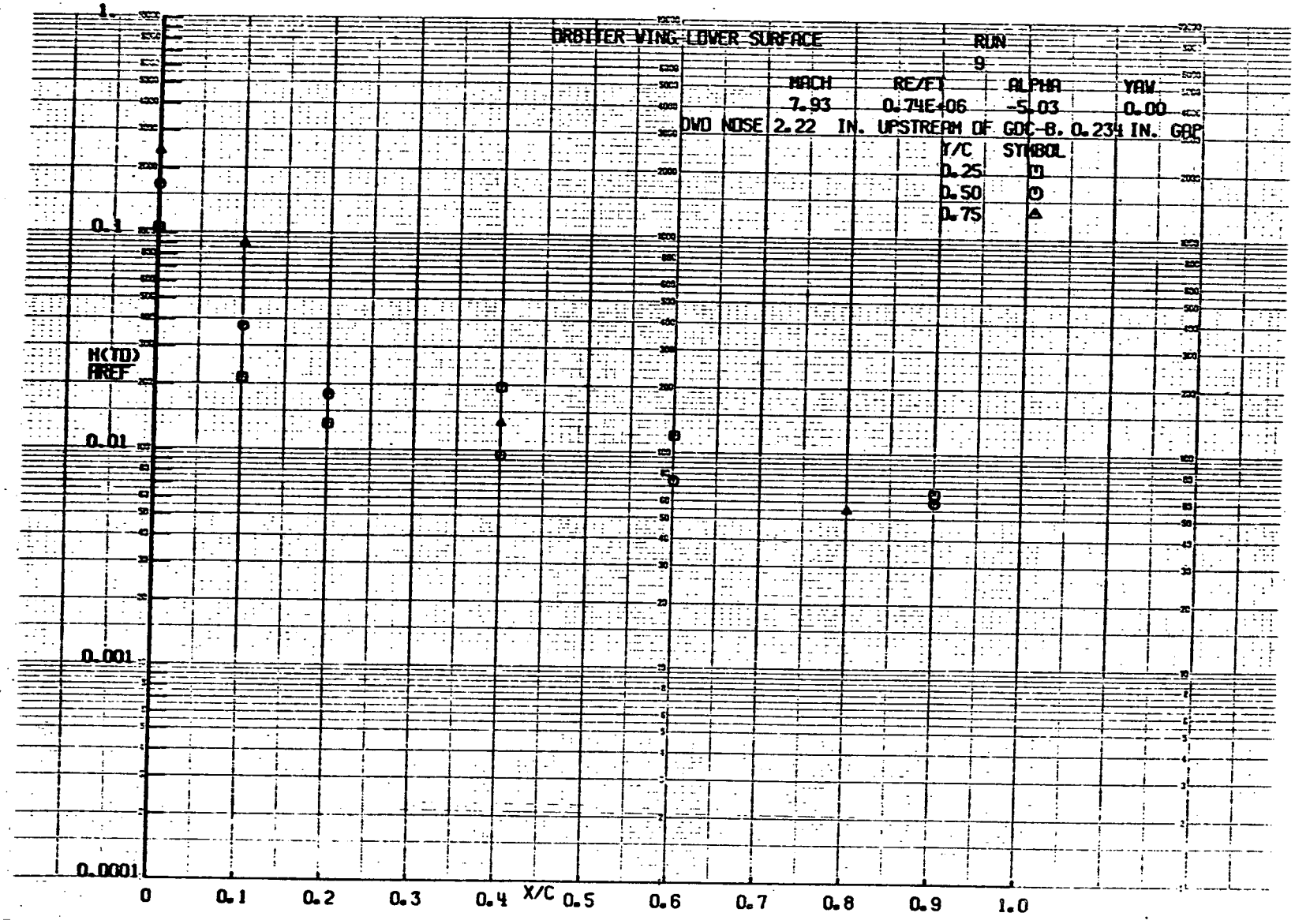
1.0


ORBITER WING LOWER SURFACE
RUN
9
MACH
7.93
RE/FT
0.74E+06
ALPHA
-5.03
YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
T/C
SYMBOL
0.25
0.50
0.75
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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0.2
0.3
0.4
X/C
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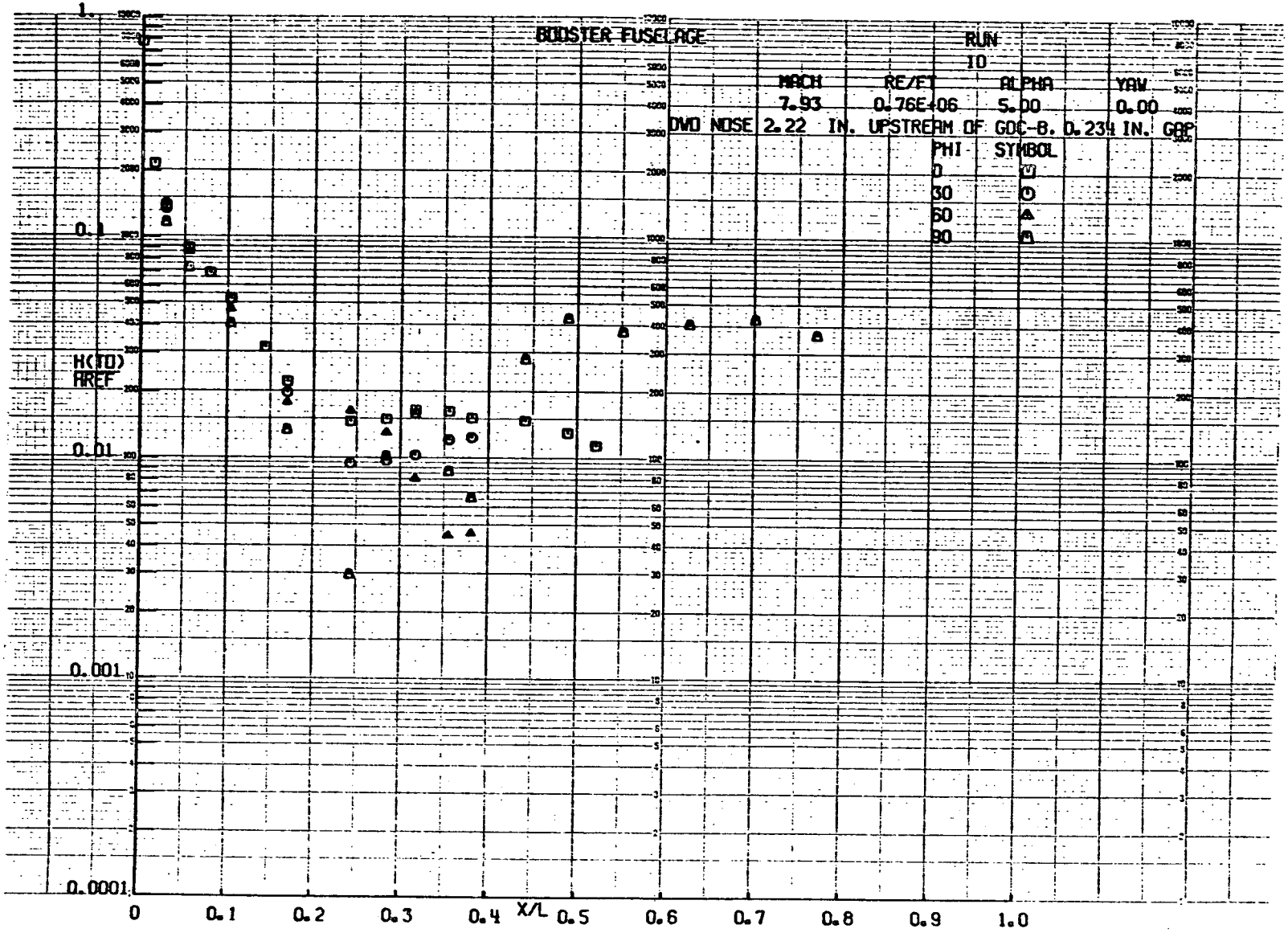
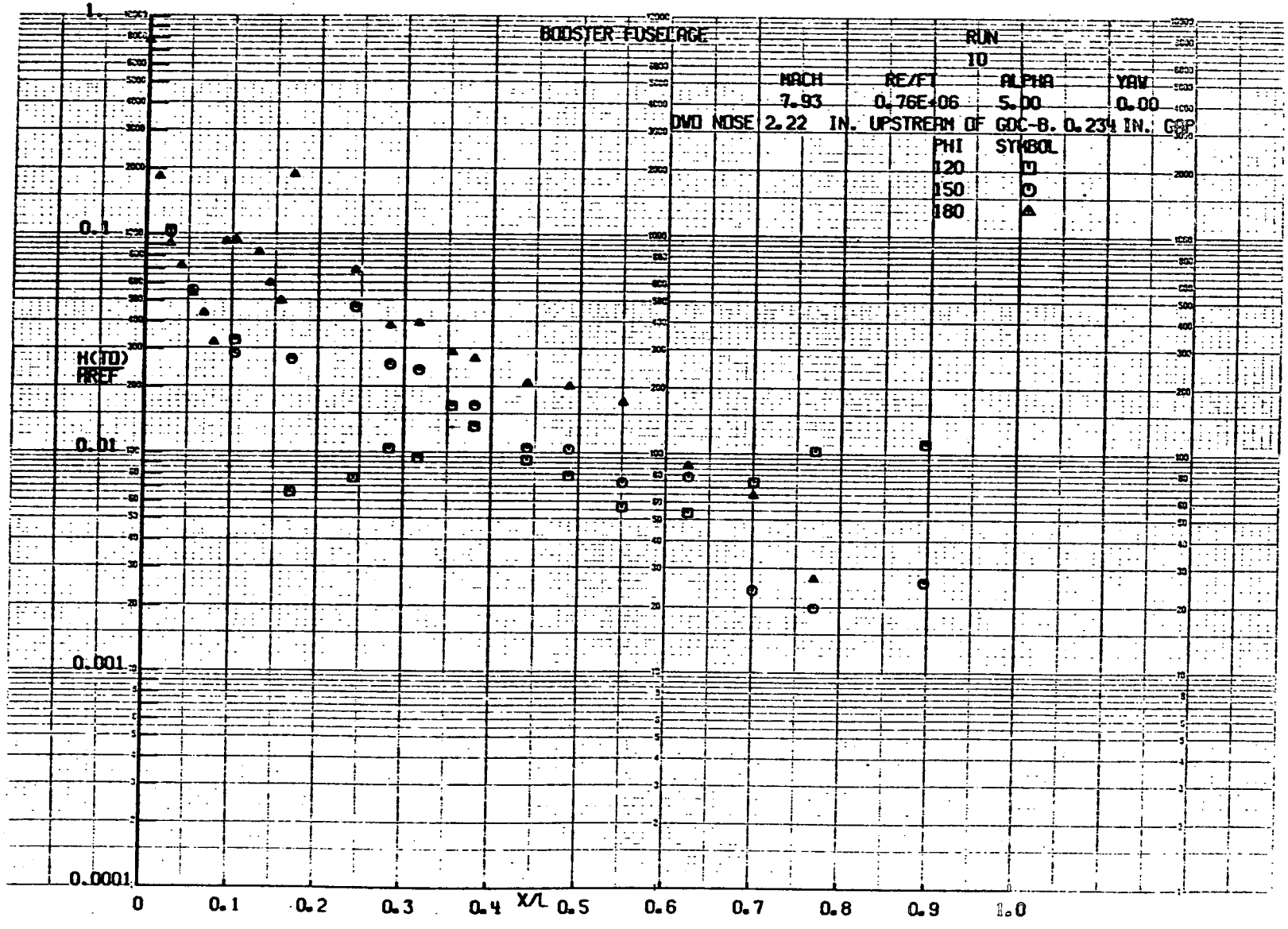
0.6
0.7
0.8
0.9
1.0


BOOSTER FUSELAGE
RUN
ID
MACH
7.93
RE/FT
0.76E+06
ALPHA
5.00
YAW
0.00
DVD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
PHI
SYMBOL
0
30
60
90
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
0
0.1
0.2
0.3
0.4
X/L
0.5
0.6
0.7
0.8
0.9
1.0


BOOSTER FUSELAGE
RUN
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MACH
7.93
RE/FT
0.76E+06
ALPHA
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YAW
0.00
DMD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
PHI
STMBOL
120
150
180
1.
0.1
0.01
0.001
0.0001
H(TD)
HREF
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0.3
0.4
X/L
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0.6
0.7
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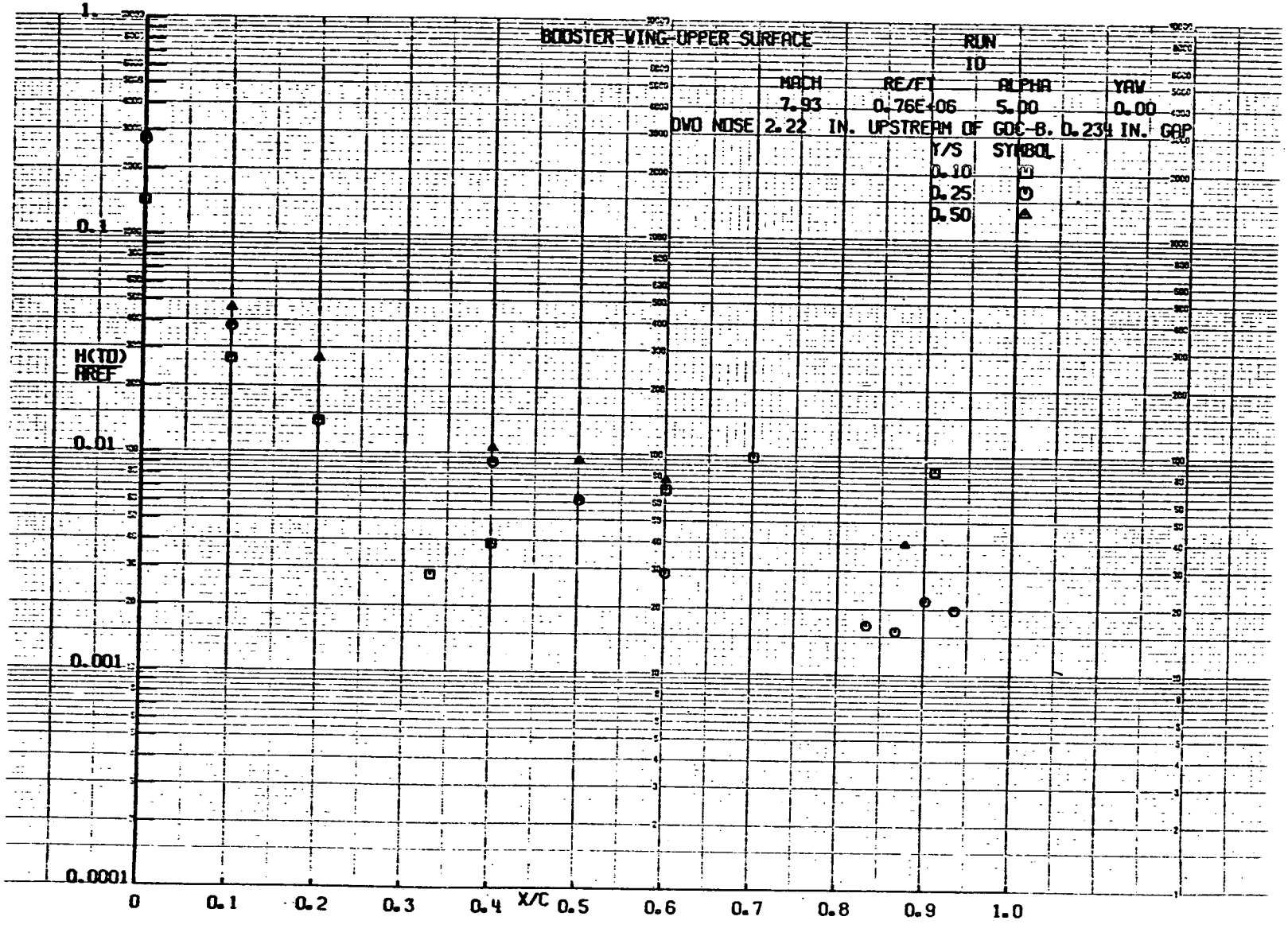
0.9
1.0


BOOSTER WING-UPPER SURFACE
RUN
10
MACH
7.93
RE/FT
0.76E+06
ALPHA
5.00
YAW
0.00
DVO NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
Y/S
SYMBOL
0.10
0.25
0.50
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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0.3
0.4
X/C
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0.6
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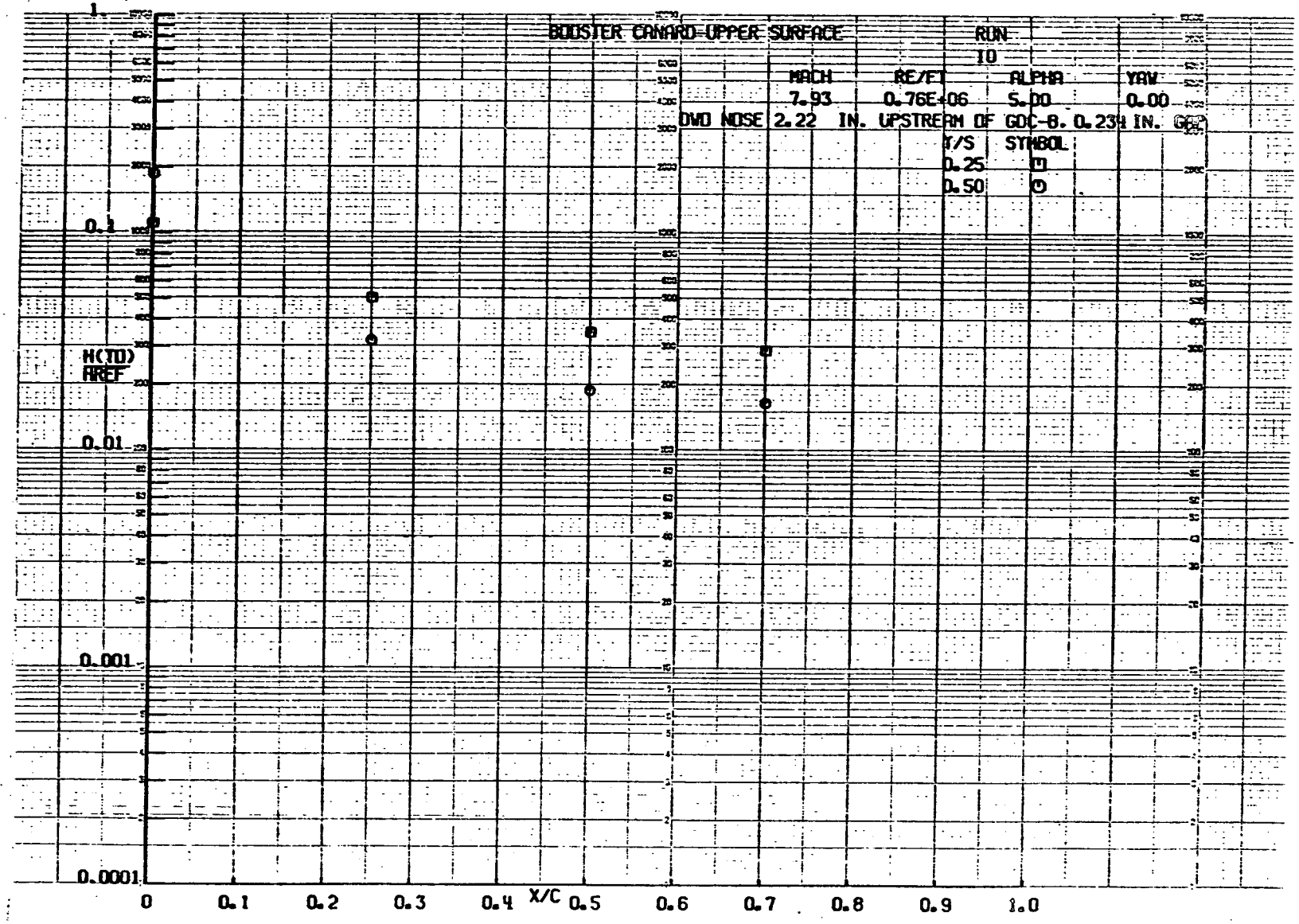
BOOSTER CANARD-UPPER SURFACE
RUN
10
MACH
7.93
RE/FT
0.76E+06
ALPHA
5.00
YAW
0.00
DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GDC
T/S
SYMBOL
0.25
0.50
1.
0.1
0.01
0.001
0.0001
N(TD)
AREF
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0.2
0.3
0.4
X/C
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0.6
0.7
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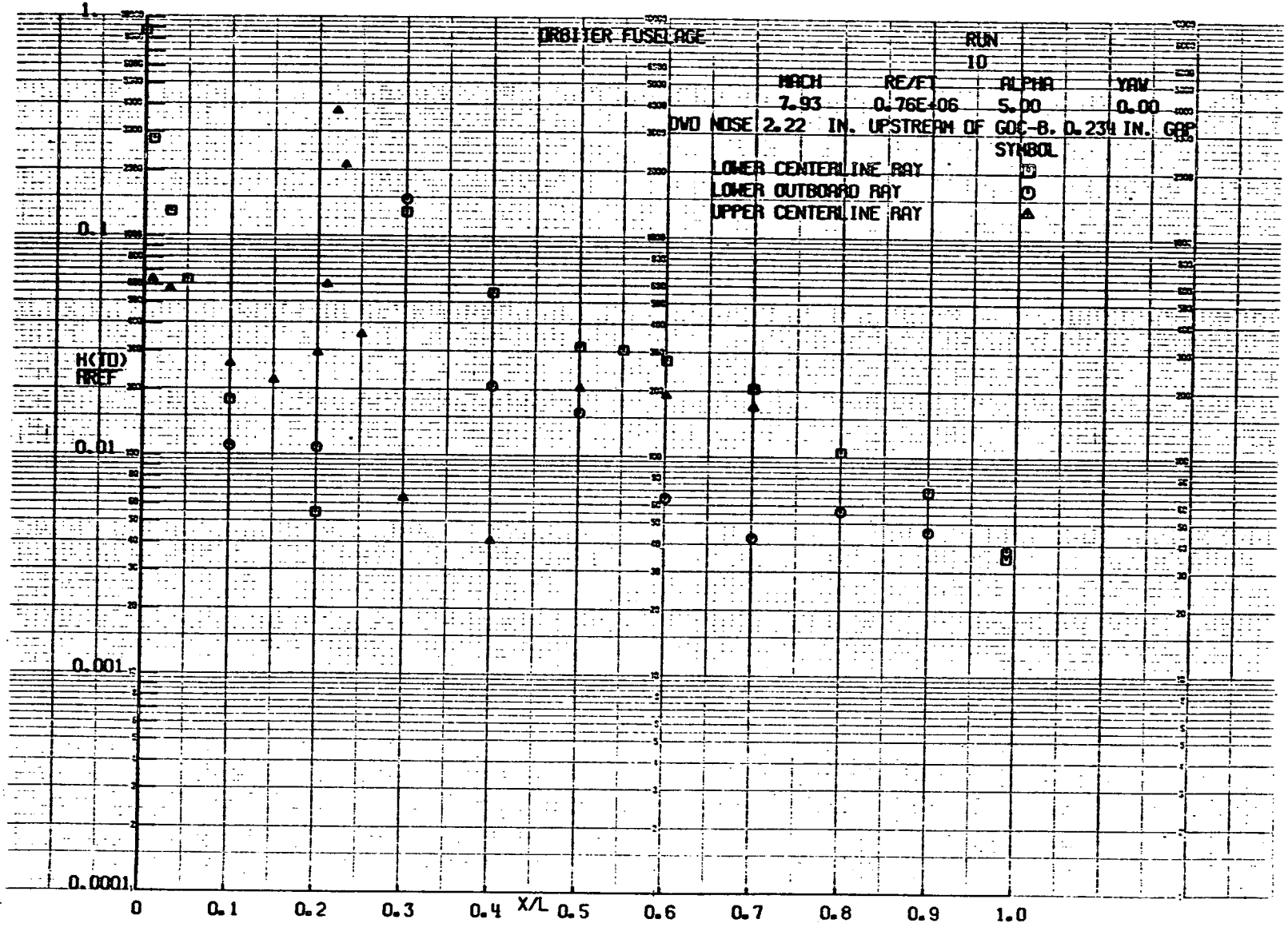
0.9
1.0


ORBITER FUSELAGE
RUN
10
MACH
7.93
RE/FT
0.76E+06
ALPHA
5.00
YAW
0.00
OVO NOSE 2.22 IN. UPSTREAM OF GOC-8. 0.234 IN. GAP
SYMBOL
LOWER CENTERLINE RAY
LOWER OUTBOARD RAY
UPPER CENTERLINE RAY
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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0.3
0.4
X/L
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0.6
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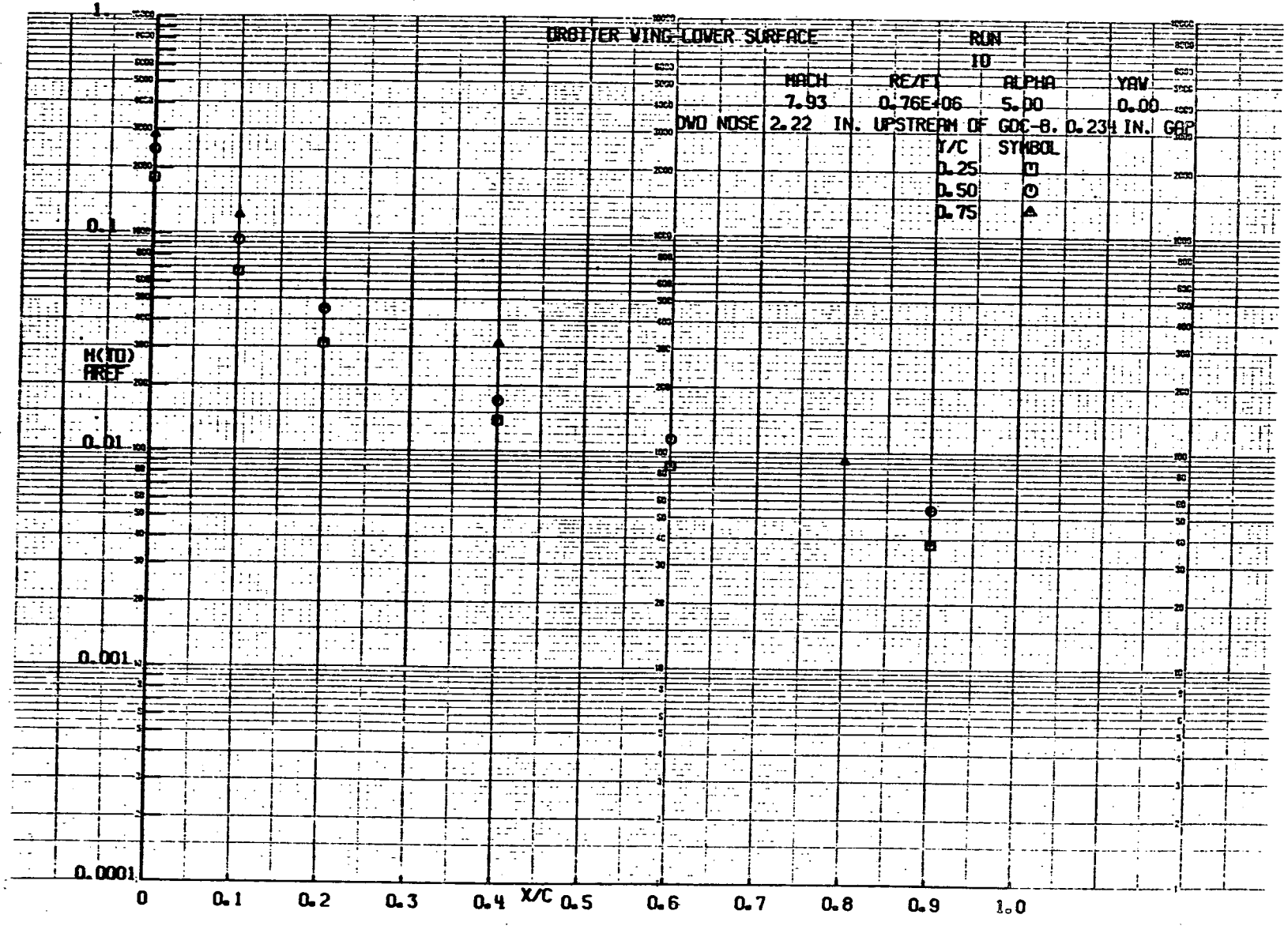
0.9
1.0


ORBITER WING-LOWER SURFACE
RUN
10
MACH
7.93
RE/FT
0.76E+06
ALPHA
5.00
YAW
0.00
DWD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.234 IN. GAP
T/C
SYMBOL
0.25
0.50
0.75
H(T0)
HREF
1.
0.1
0.01
0.001
0.0001
0
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0.3
0.4
X/C
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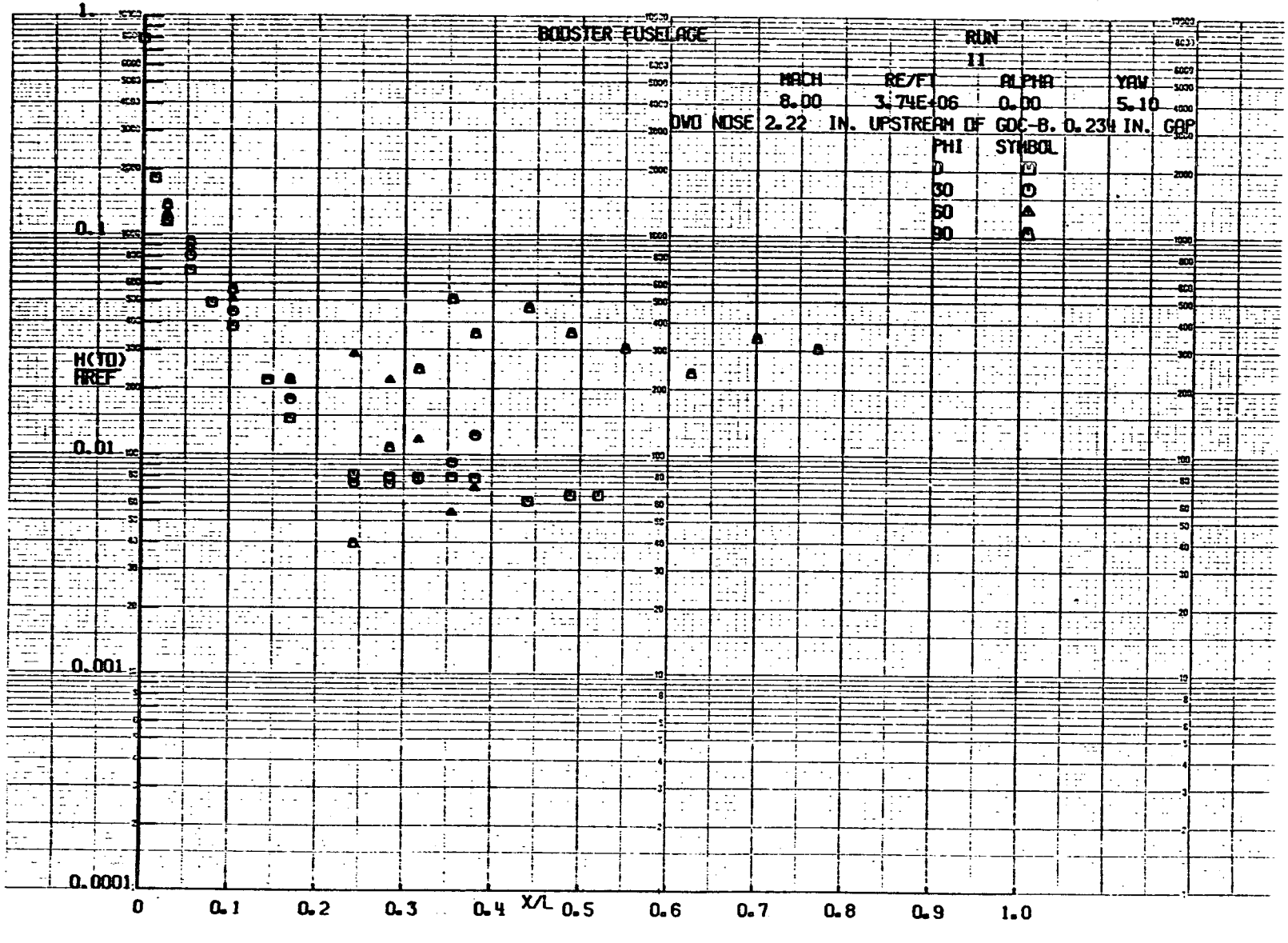
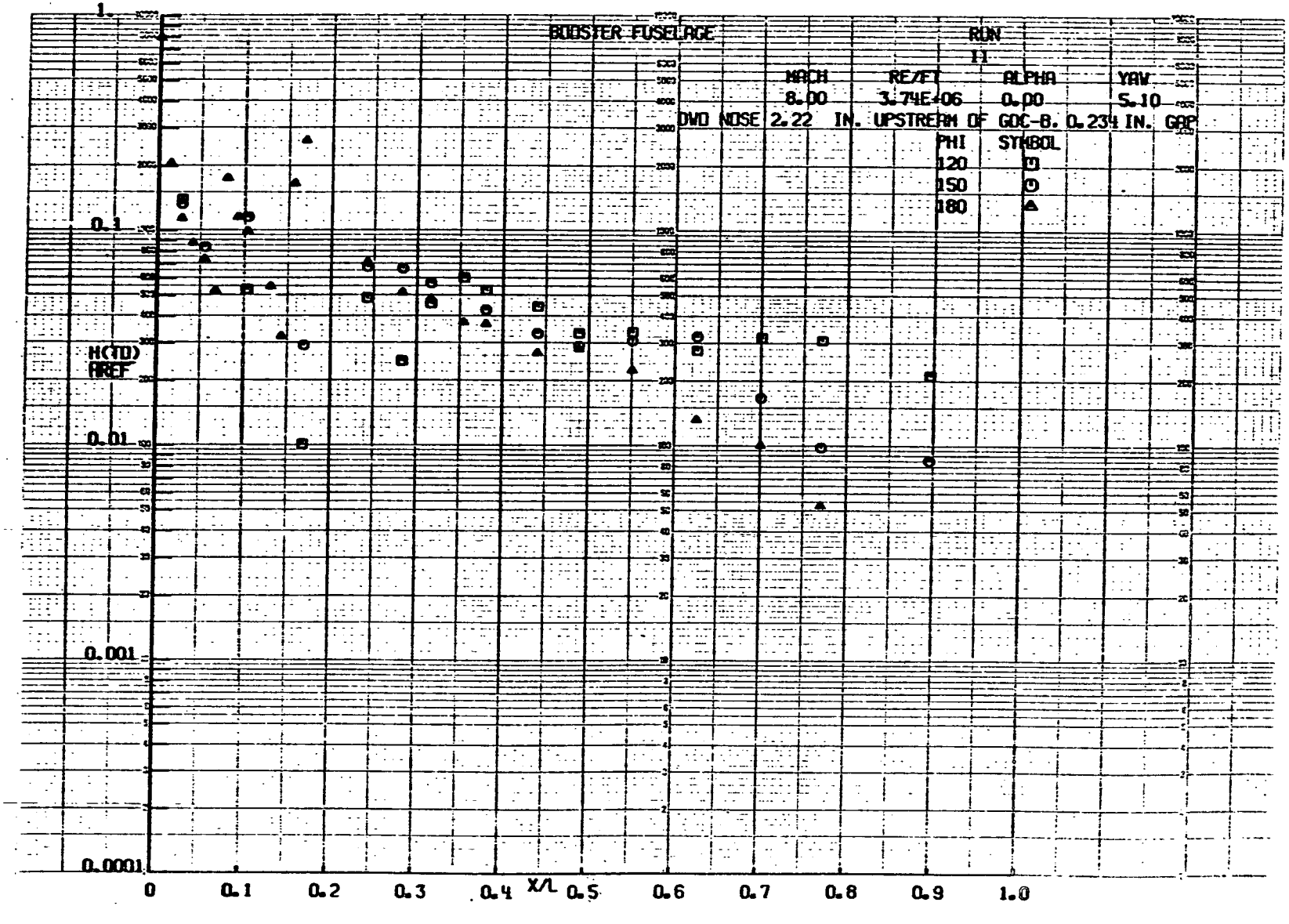
0.6
0.7
0.8
0.9
1.0


BOOSTER FUSELAGE
RUN
11
MACH
8.00
RE/FT
3.74E+06
ALPHA
0.00
YAW
5.10
DWO NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
PHI
SYMBOL
0
30
60
90
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
0
0.1
0.2
0.3
0.4
X/L
0.5
0.6
0.7
0.8
0.9
1.0


BOOSTER FUSELAGE
RUN 11
MACH 8.00
RE/FT 3.74E+06
ALPHA 0.00
YAW 5.10
DWD NOSE 2.22 IN. UPSTREAM OF GDC-8. 0.234 IN. GRP
PHI SYMBOL
120
150
180
H(TD)/HREF
1.
0.1
0.01
0.001
0.0001
0
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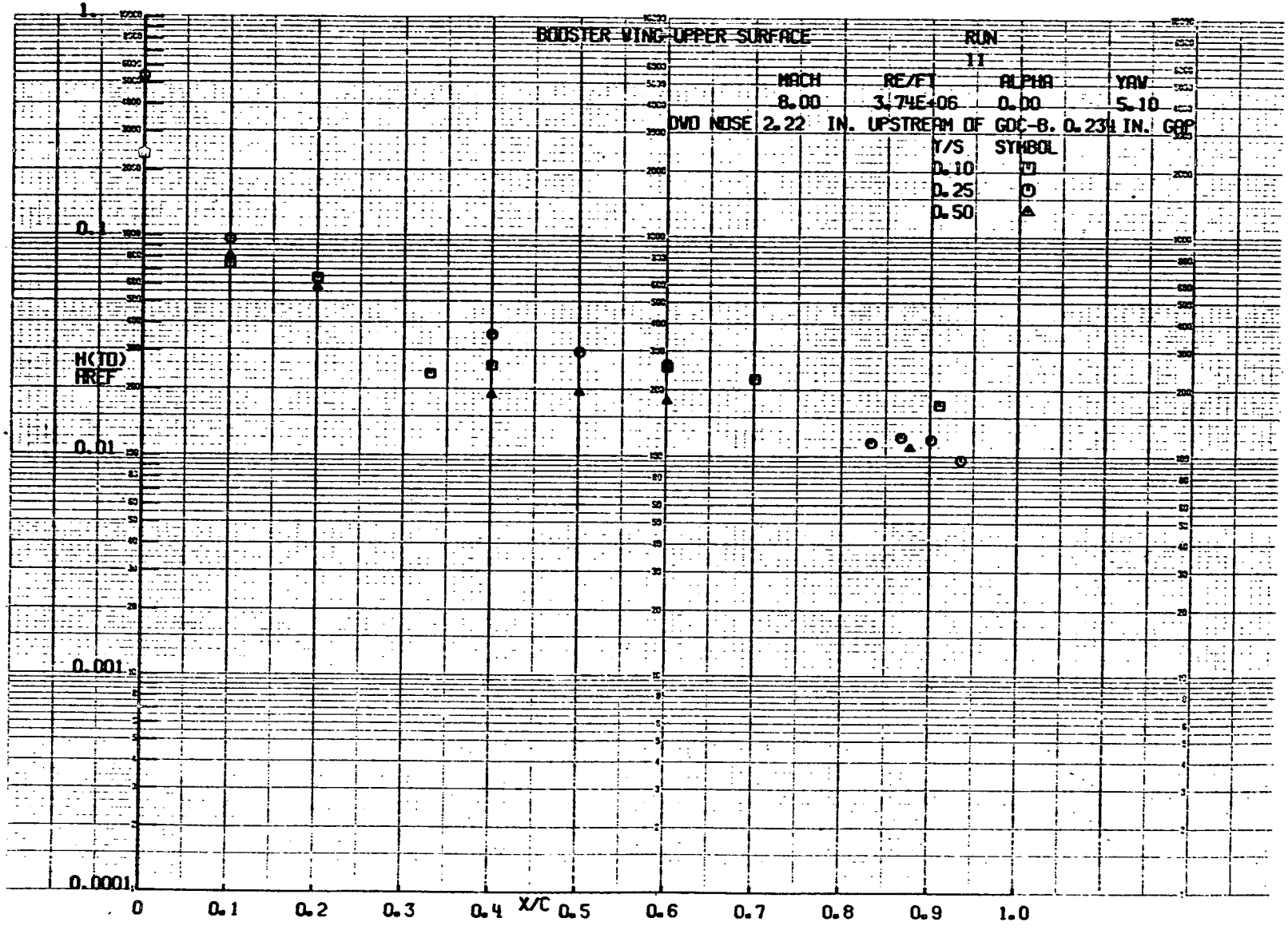
0.2
0.3
0.4
X/L
0.5
0.6
0.7
0.8
0.9
1.0


BOOSTER WING-UPPER SURFACE
RUN
11
MACH
8.00
RE/FT
3.74E+06
ALPHA
0.00
YAW
5.10
DVD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
T/S
SYMBOL
0.10
0.25
0.50
H(TD)
HREF
1.
0.1
0.01
0.001
0.0001
0
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0.3
0.4
X/C
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0.7
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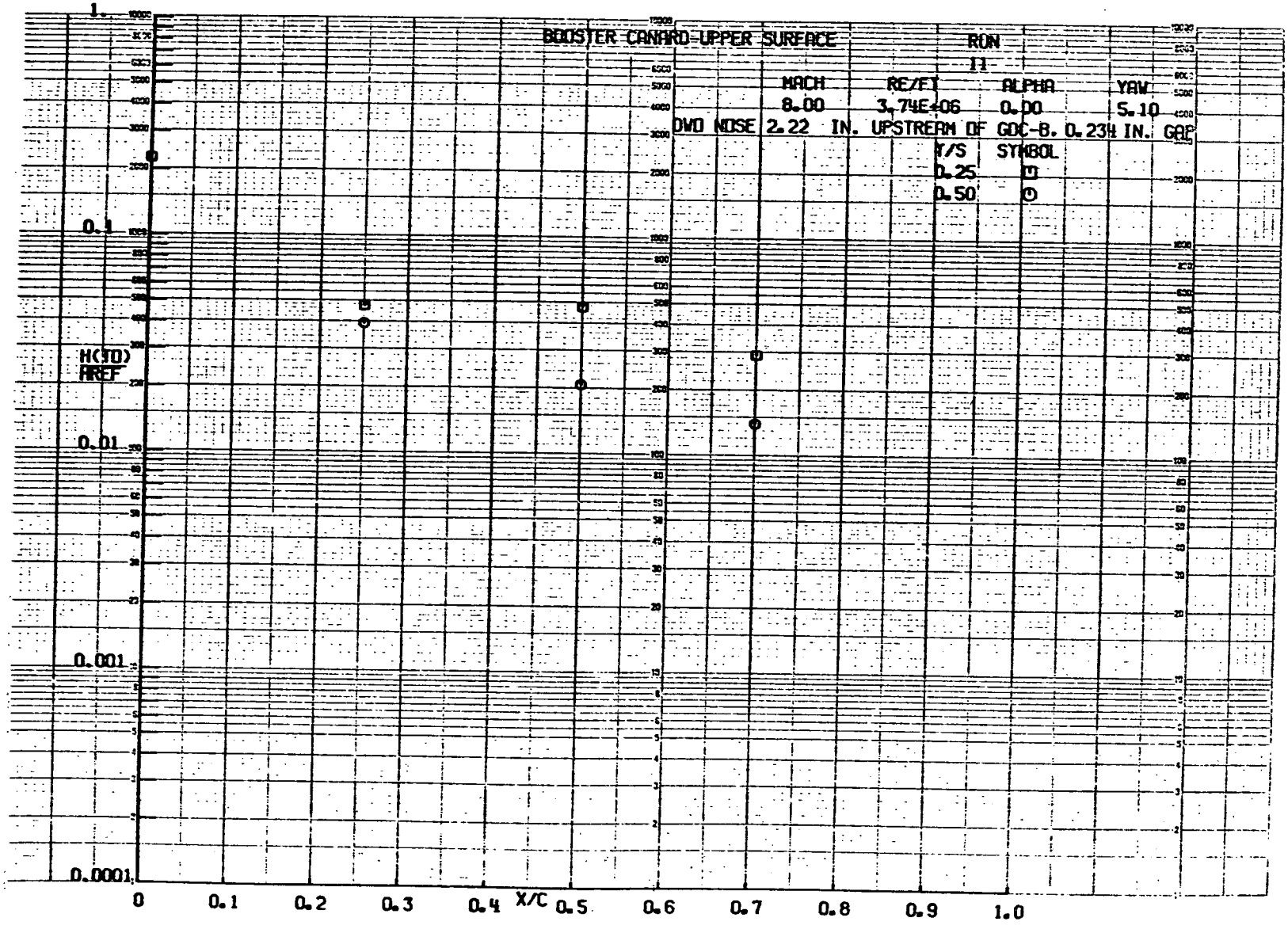
0.9
1.0


BOOSTER CANARD-UPPER SURFACE
RUN
11
MACH
8.00
RE/FT
3.74E+06
ALPHA
0.00
YAW
5.10
DWD NOSE 2.22 IN. UPSTREAM OF GDC-B. 0.234 IN. GAP
Y/S
SYMBOL
0.25
0.50
1.
0.1
H(TO)
AREF
0.01
0.001
0.0001
0
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0.4
X/C
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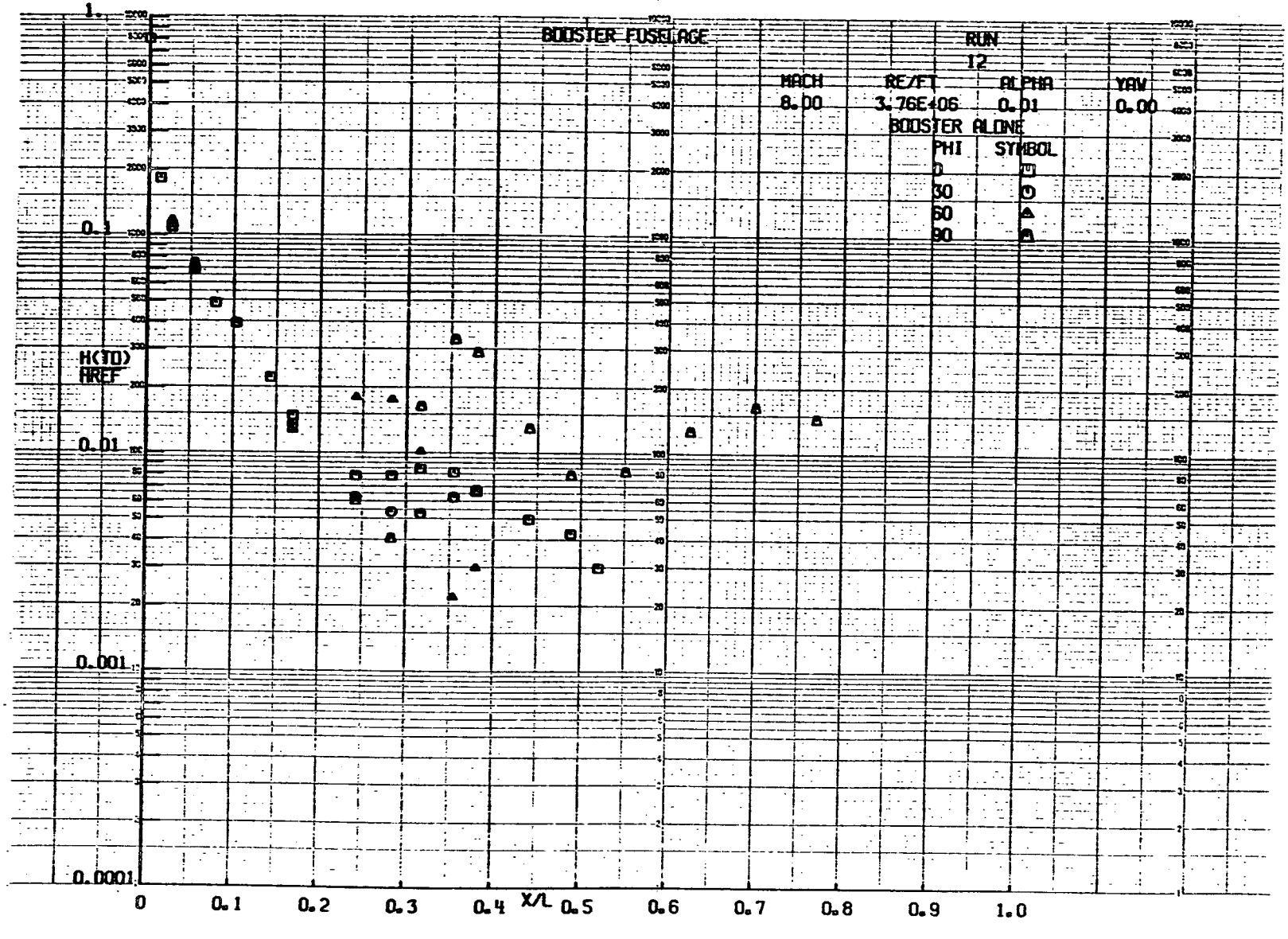
BOOSTER FUSELAGE
RUN
12
MACH
8.00
RE/FT
3.76E+06
ALPHA
0.01
YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
0
30
60
90
H(TD)
AREF
1.
0.1
0.01
0.001
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X/L
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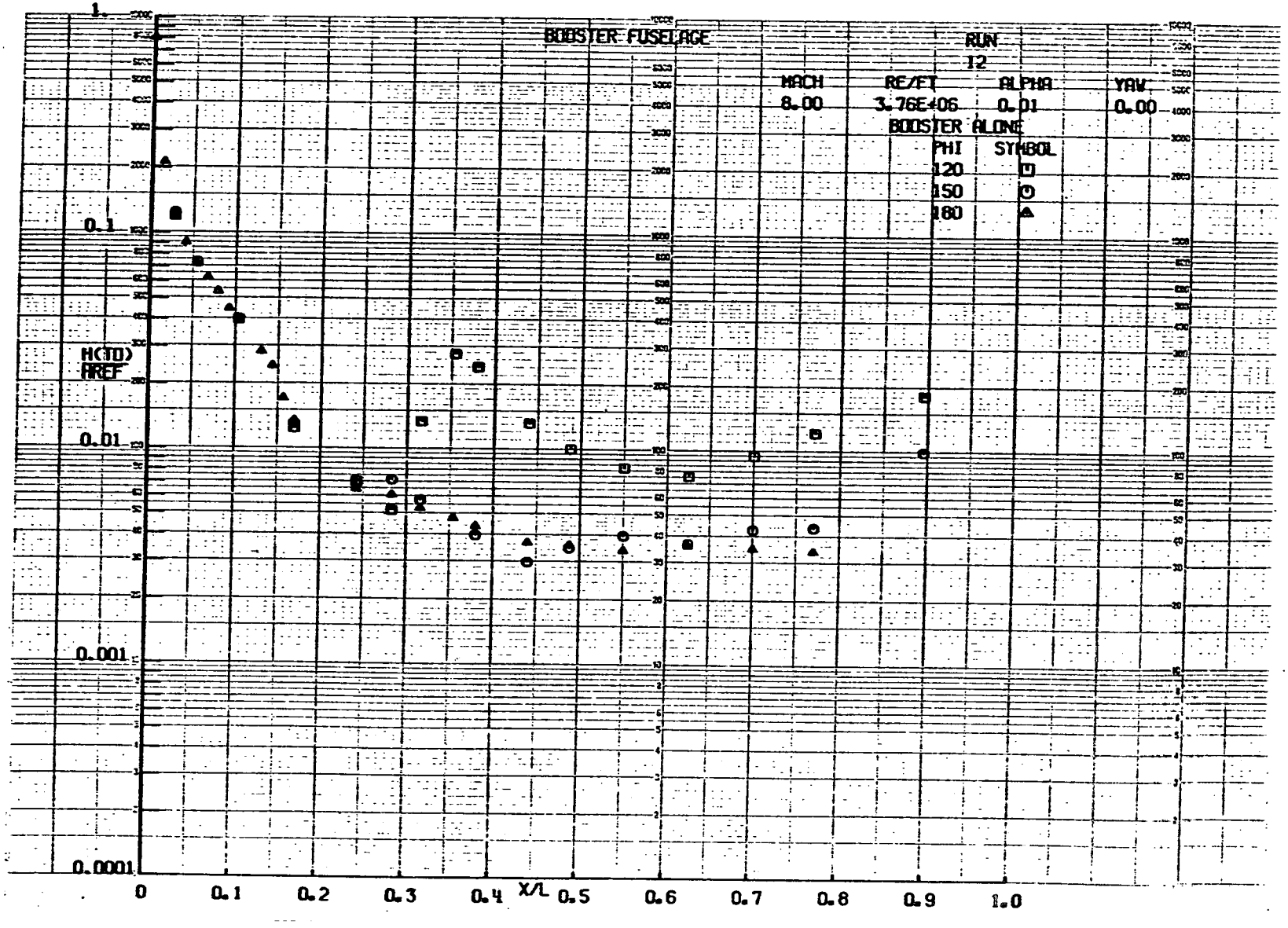
BOOSTER FUSELAGE
RUN
12
MACH
8.00
RE/FT
3.76E+06
ALPHA
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YAW
0.00
BOOSTER ALONE
PHI
120
150
180
SYMBOL
1.
0.1
0.01
0.001
0.0001
HCTD)
AREF
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X/L
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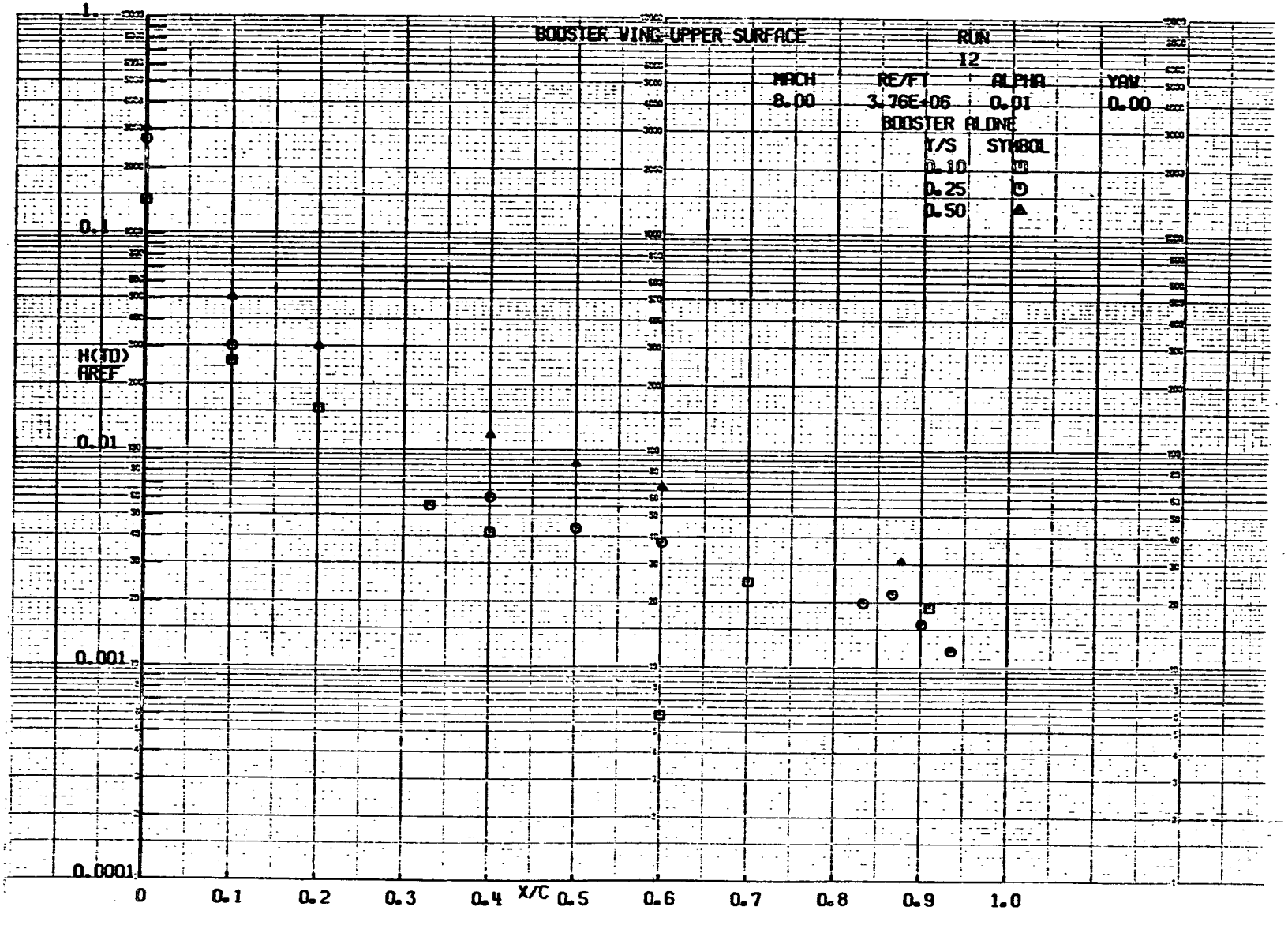
BOOSTER WING-UPPER SURFACE
RUN
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MACH
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RE/FT
3.76E+06
ALPHA
0.01
YAW
0.00
BOOSTER ALONE
T/S
SYMBOL
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0.50
H(TD)
AREF
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0.01
0.001
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X/C
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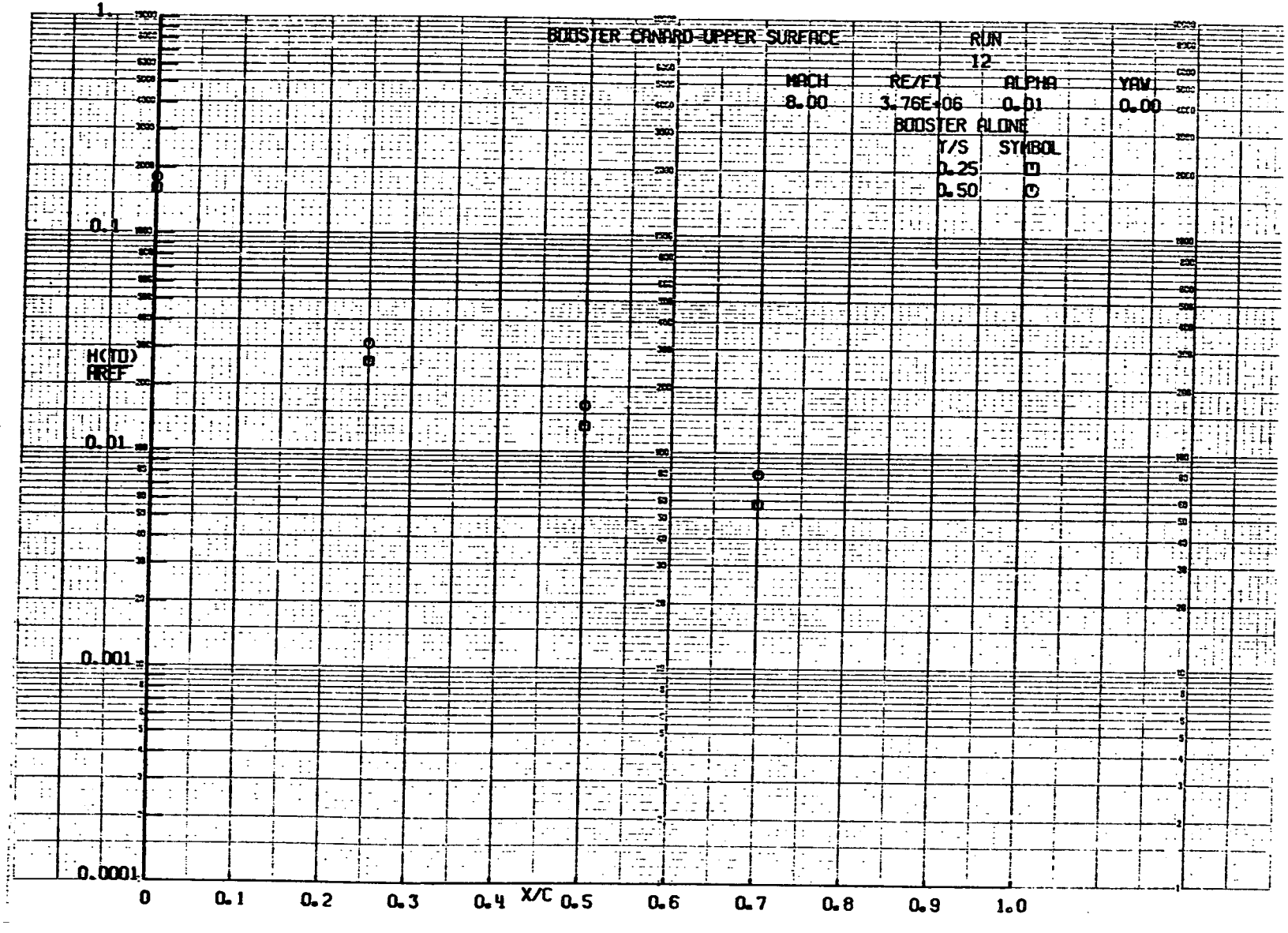
BOOSTER CANARD-UPPER SURFACE
RUN
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RE/FT
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ALPHA
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YAW
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BOOSTER ALONE
T/S
SYMBOL
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0.50
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0.0001
H(TD)
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X/C
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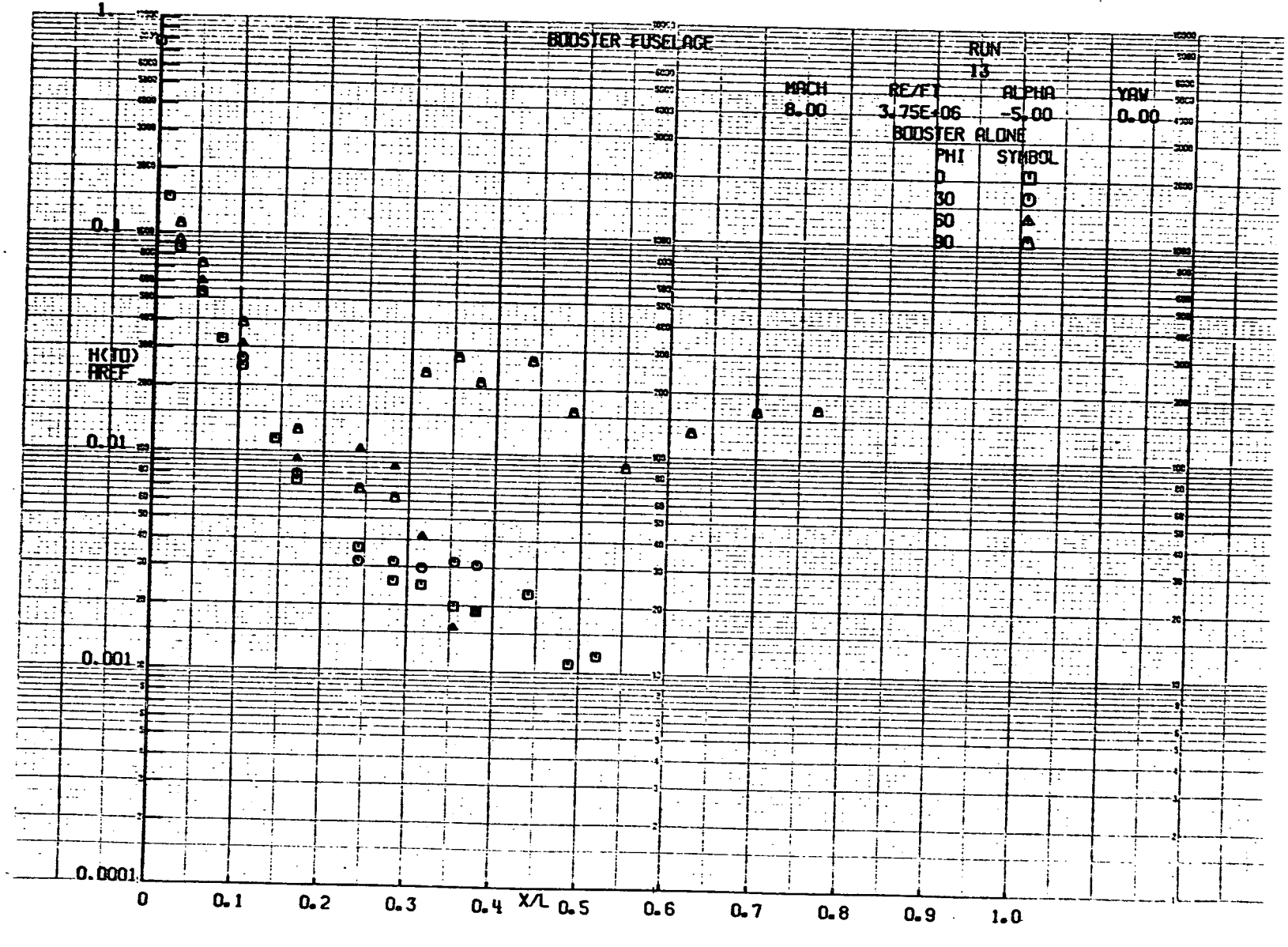
BOOSTER FUSELAGE
RUN
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RE/FT
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ALPHA
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YAW
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BOOSTER ALONE
PHI
SYMBOL
0
30
60
90
H(TD)
AREF
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0.01
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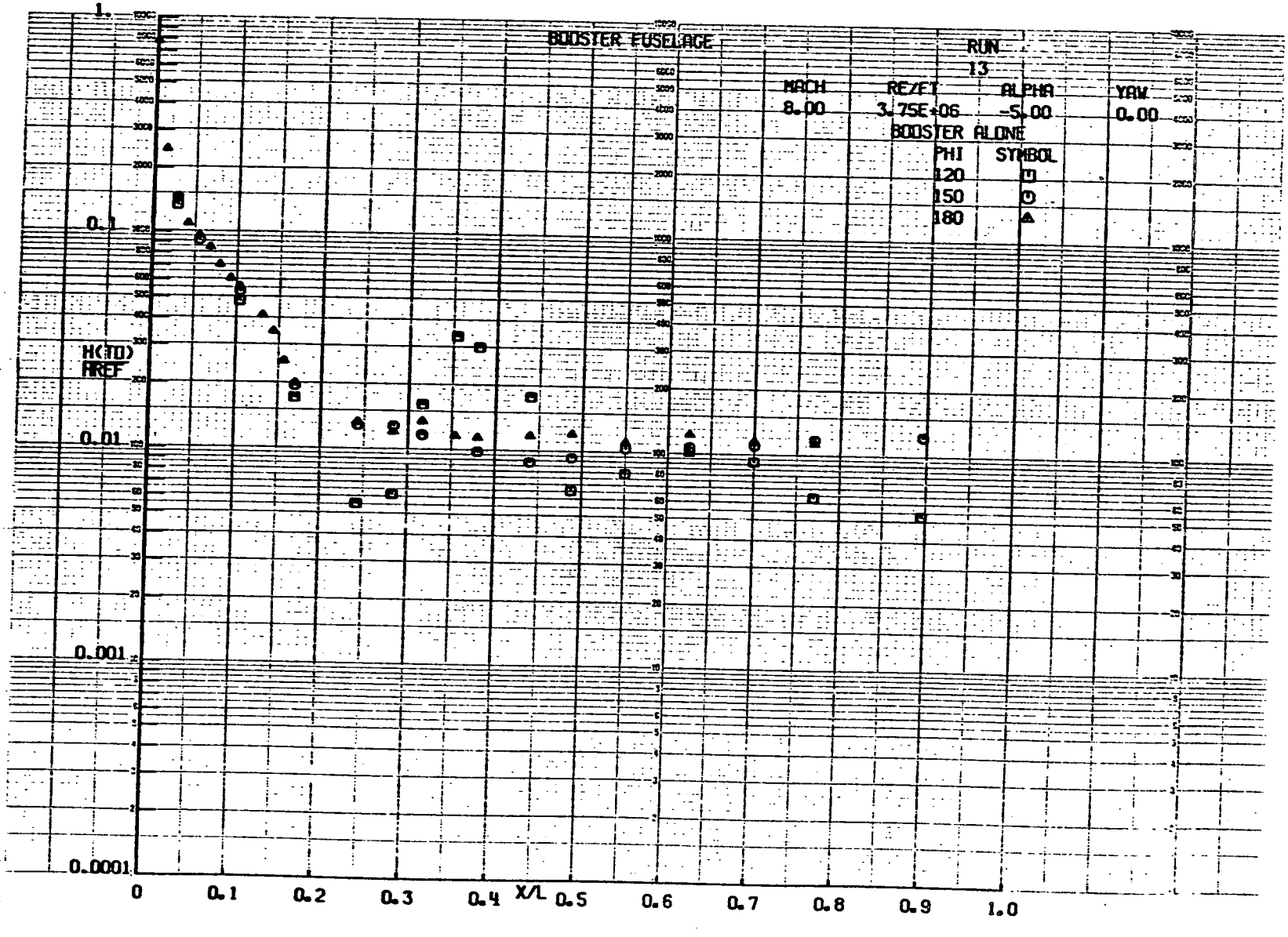
BOOSTER FUSELAGE
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YAW
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BOOSTER ALONE
PHI
SYMBOL
120
150
180
H(TD)
AREF
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X/L
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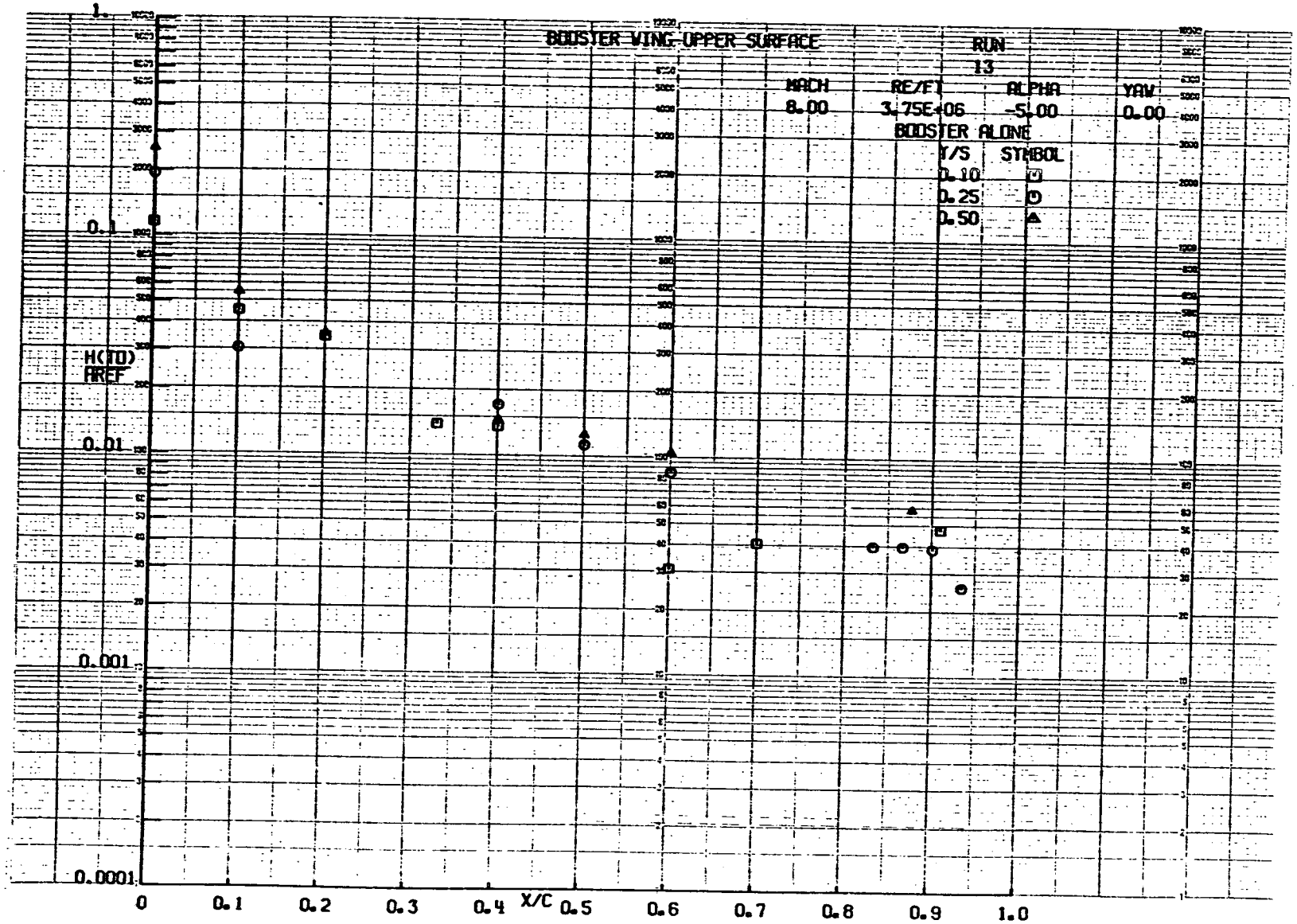
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ALPHA
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BOOSTER ALONE
Y/S
SYMBOL
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H(TD)
AREF
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X/C
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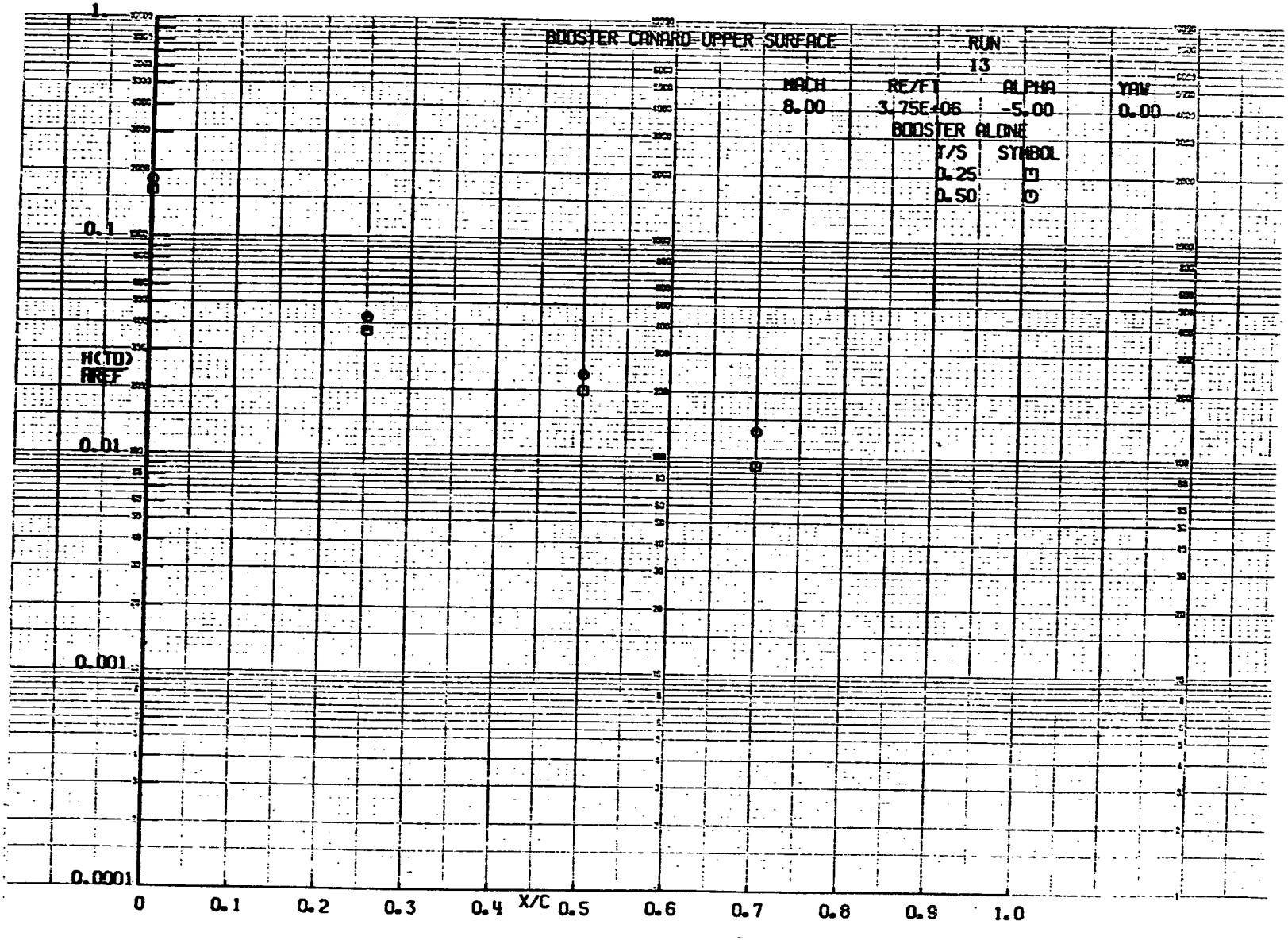
BOOSTER CANARD-UPPER SURFACE
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ALPHA
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YAW
0.00
BOOSTER ALONE
Y/S
SYMBOL
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0.50
H(TD)
REF
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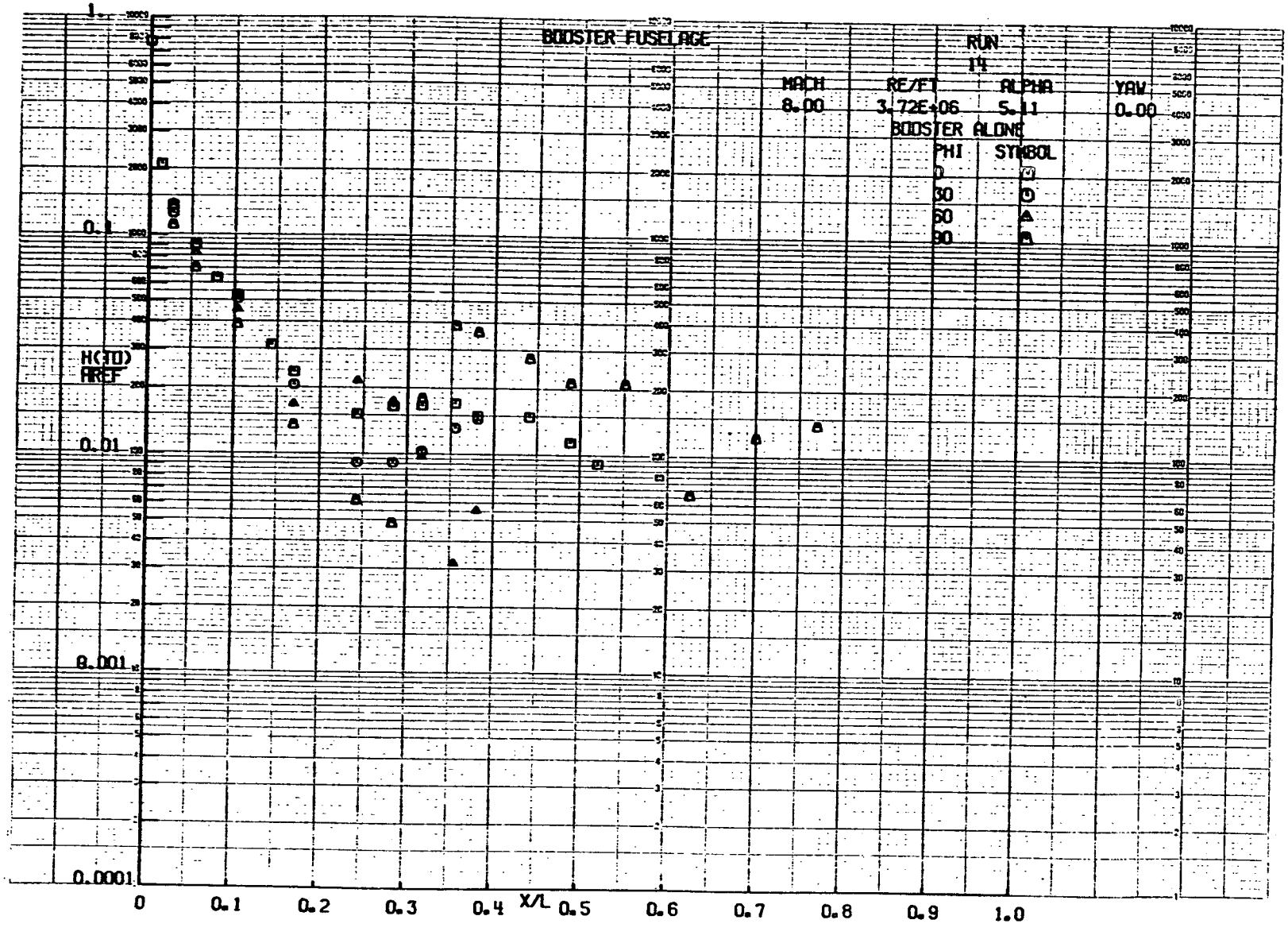
BOOSTER FUSELAGE
RUN
14
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RE/FT
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ALPHA
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YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
0
30
60
90
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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X/L
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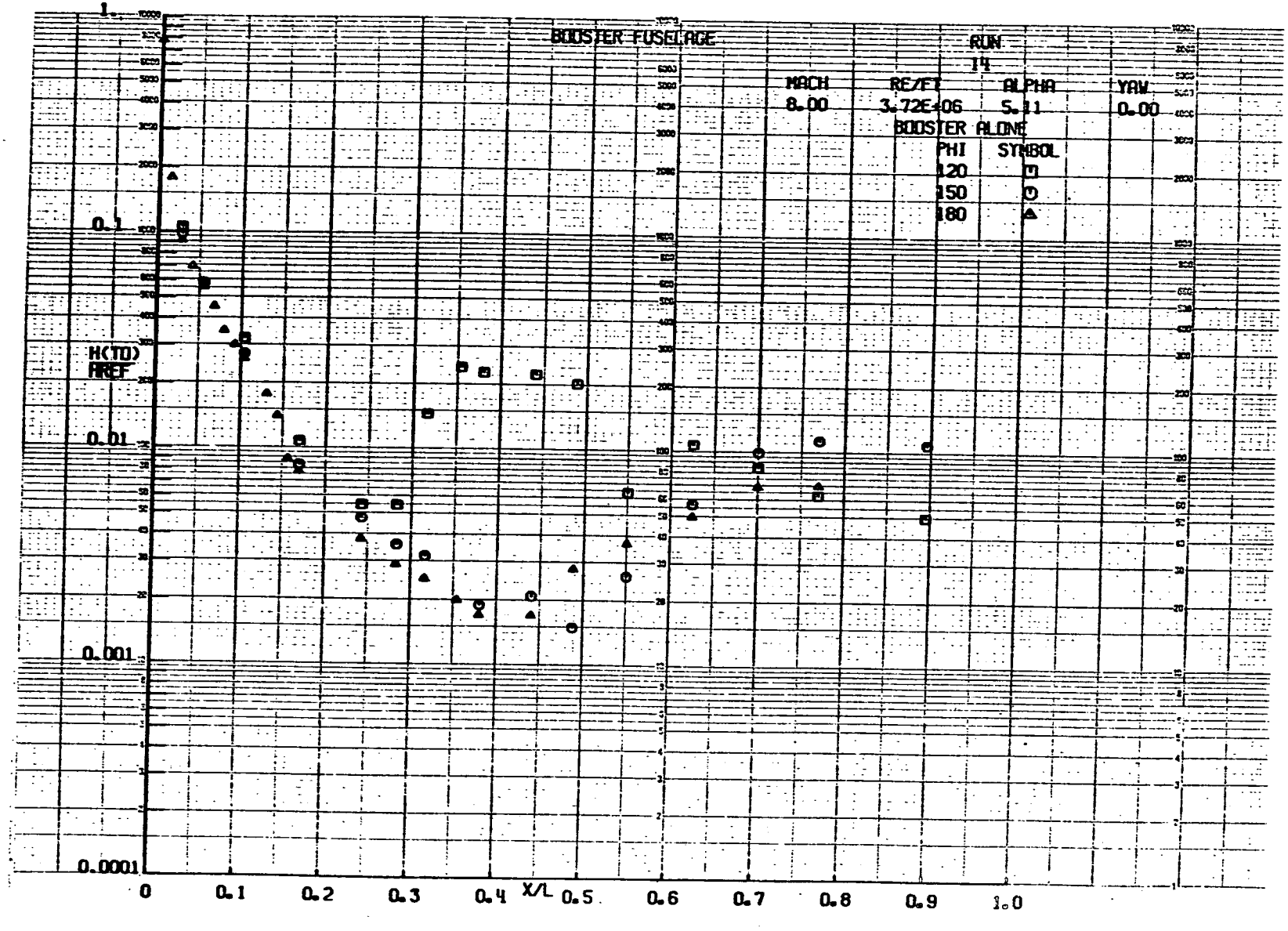
BOOSTER FUSELAGE
RUN
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ALPHA
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YAW
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BOOSTER ALONE
PHI
SYMBOL
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150
180
H(TD)
AREF
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X/L
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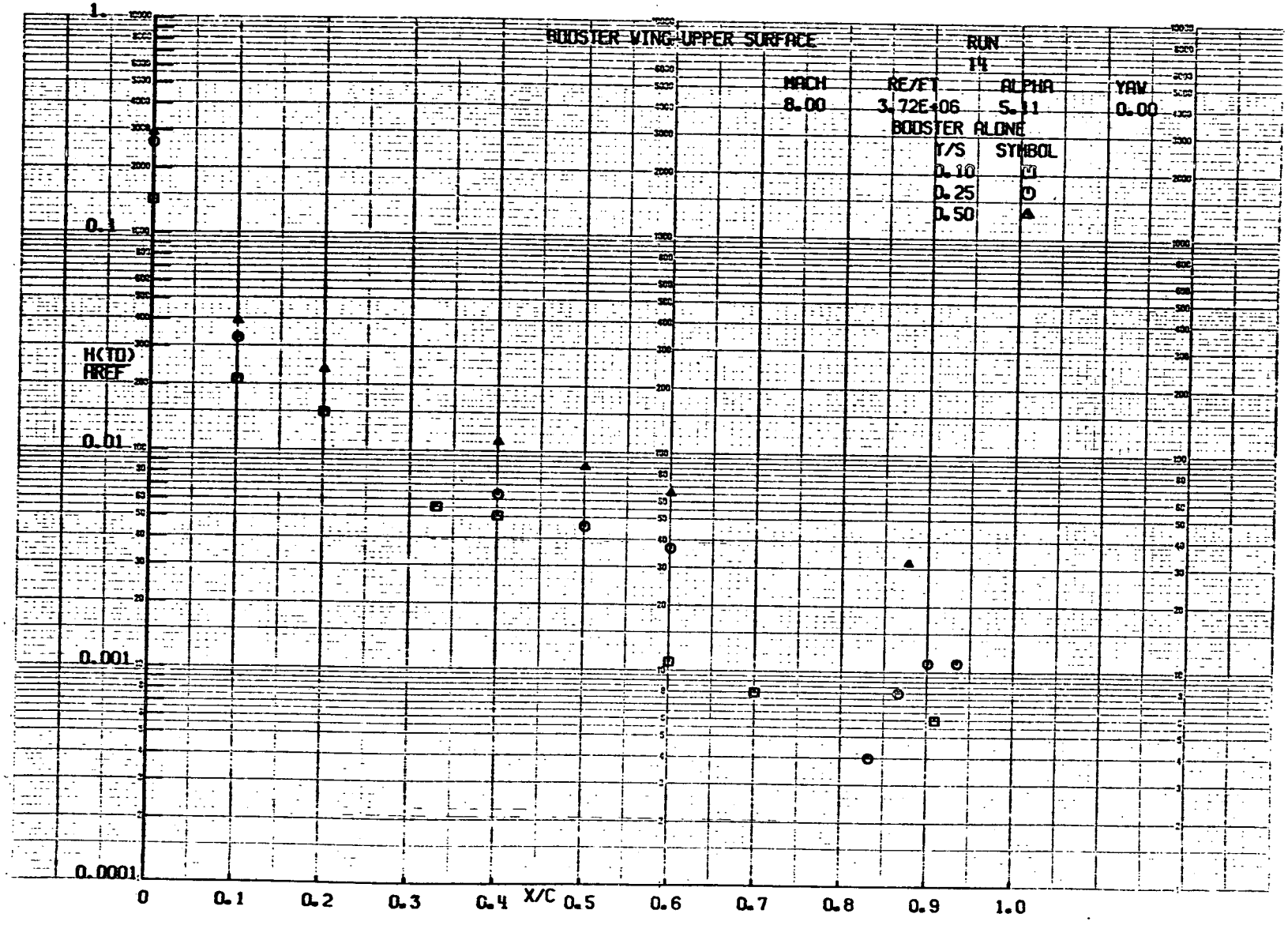
BOOSTER VING UPPER SURFACE
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ALPHA
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YAW
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BOOSTER ALONE
T/S
STMBOL
0.10
0.25
0.50
H(TD)
AREF
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X/C
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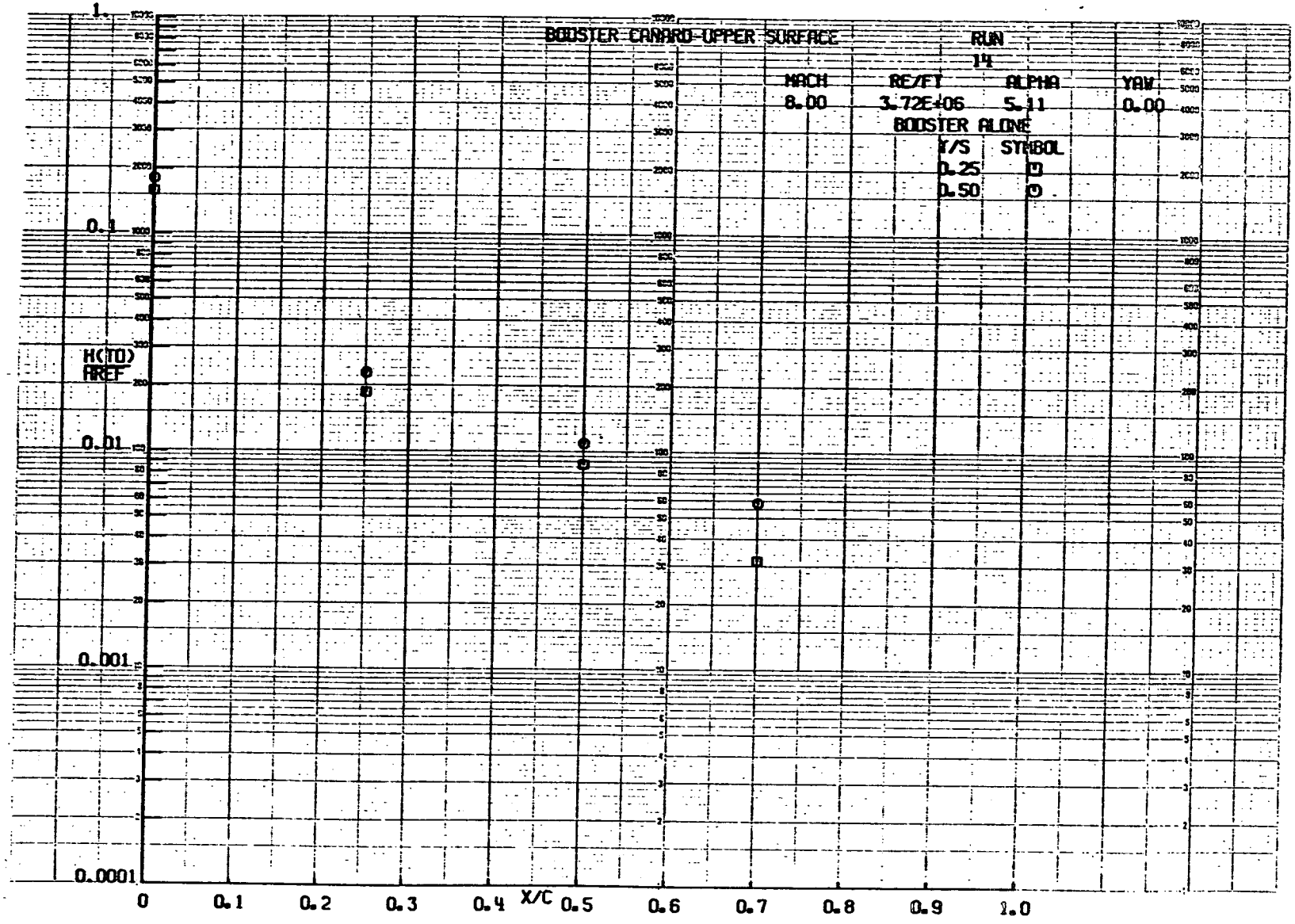
1.0


BOOSTER CANARD-UPPER SURFACE
RUN
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RE/FT
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ALPHA
5.11
YAW
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BOOSTER ALONE
Y/S
SYMBOL
0.25
0.50
1.
0.1
0.01
0.001
0.0001
H(TO)
AREF
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X/C
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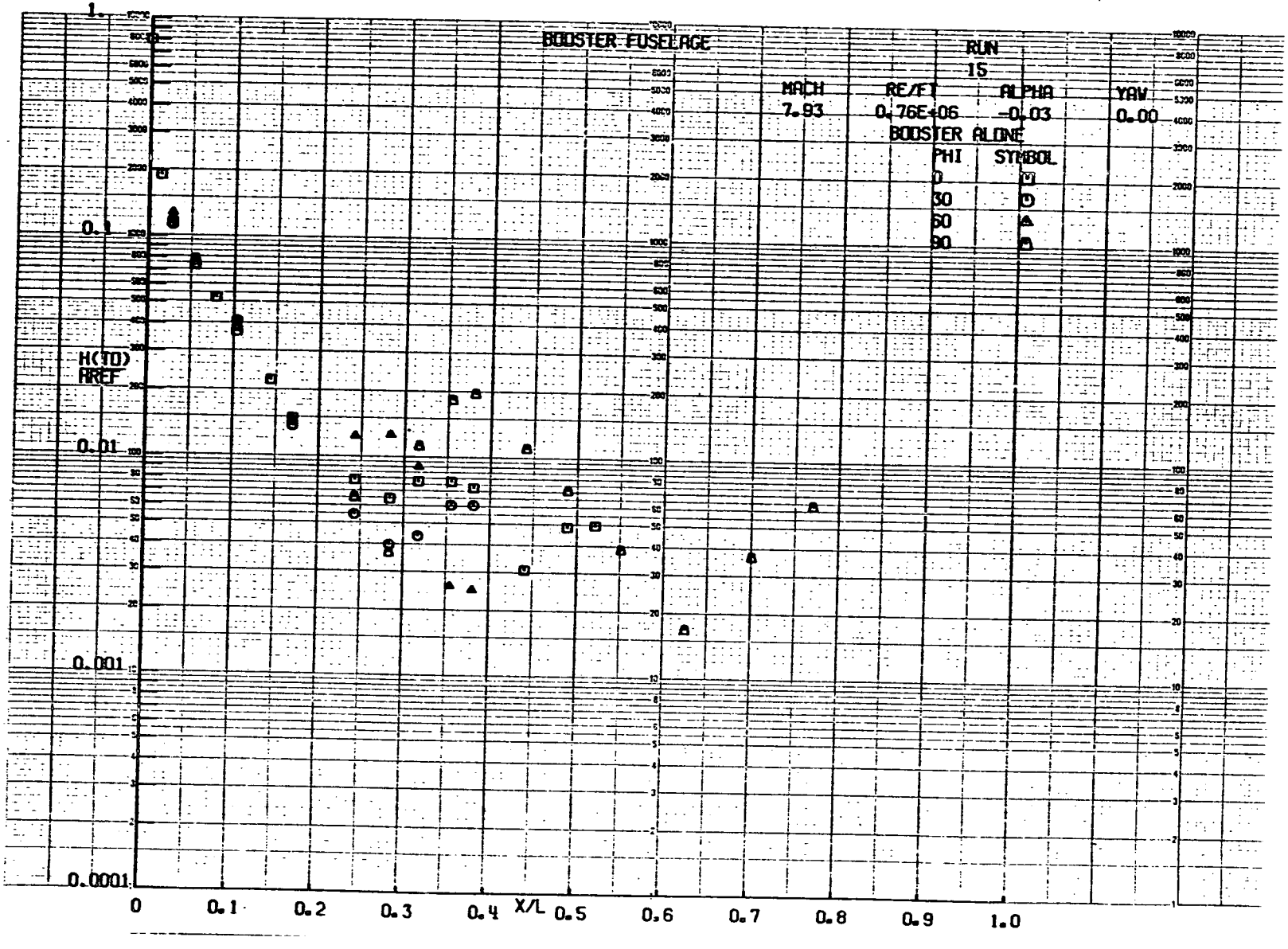
1.0


BOOSTER FUSELAGE
RUN
15
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RE/FT
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ALPHA
-0.03
YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
0
30
60
90
H(TO)
AREF
1.
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0.01
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0.0001
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0.3
0.4
X/L
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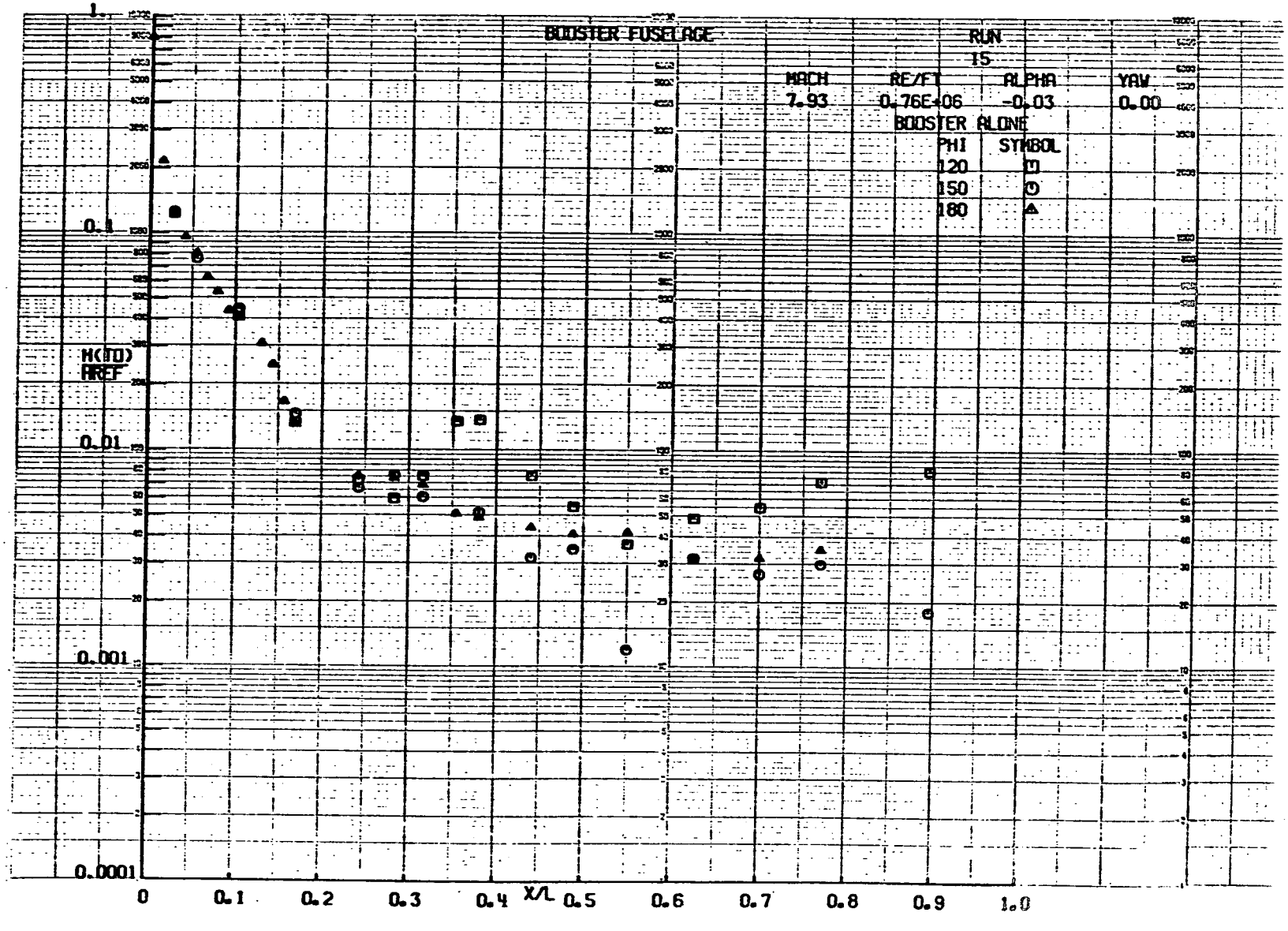
BOOSTER FUSELAGE
RUN
15
MACH
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RE/FT
0.76E+06
ALPHA
-0.03
YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
120
150
180
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
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0.3
0.4
X/L
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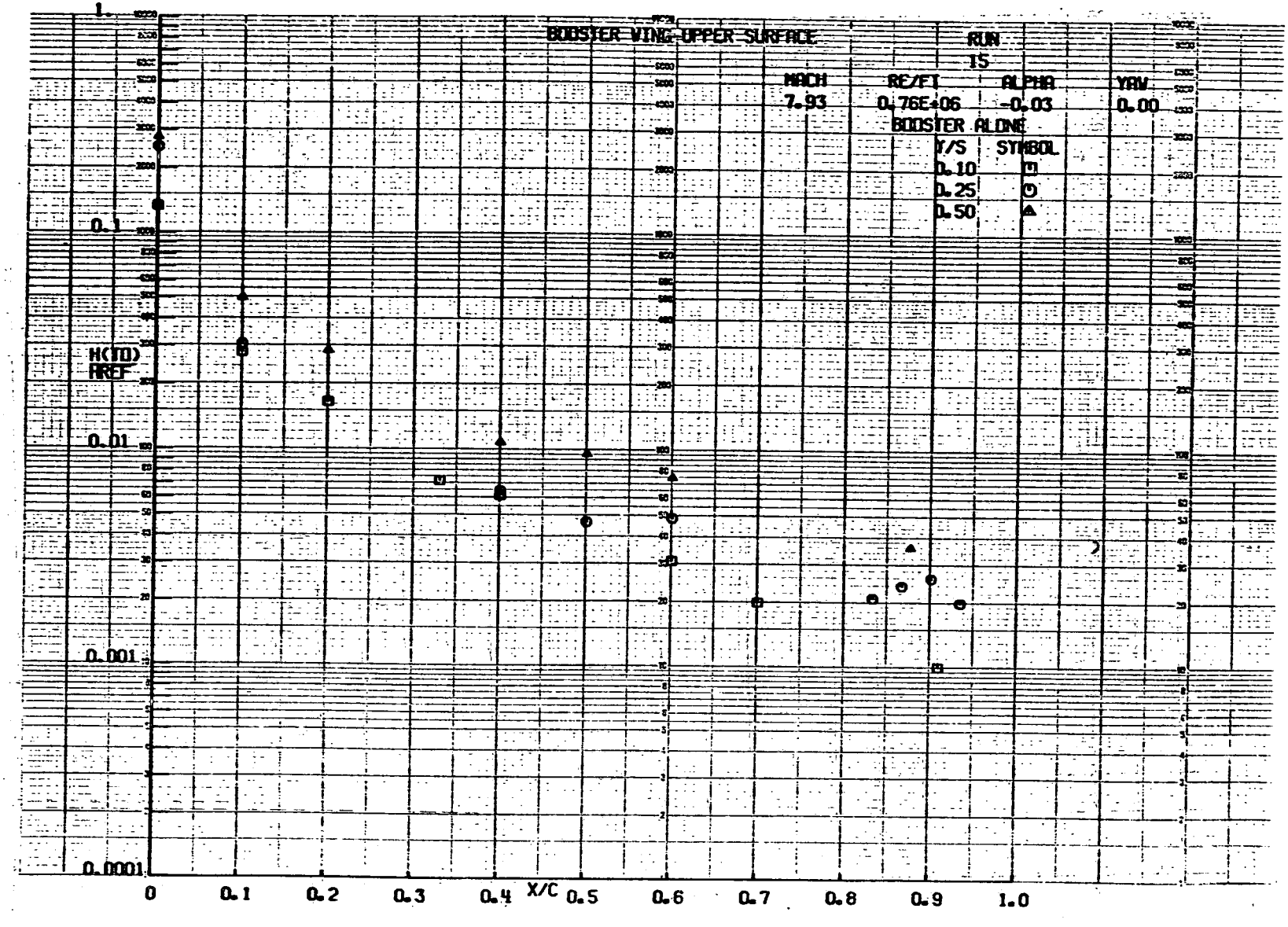
BOOSTER WING-UPPER SURFACE
RUN
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7.93
RE/FT
0.76E+06
ALPHA
-0.03
YAW
0.00
BOOSTER ALONE
Y/S
SYMBOL
0.10
0.25
0.50
H(TD)
HREF
1.
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0.01
0.001
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0.3
0.4
X/C
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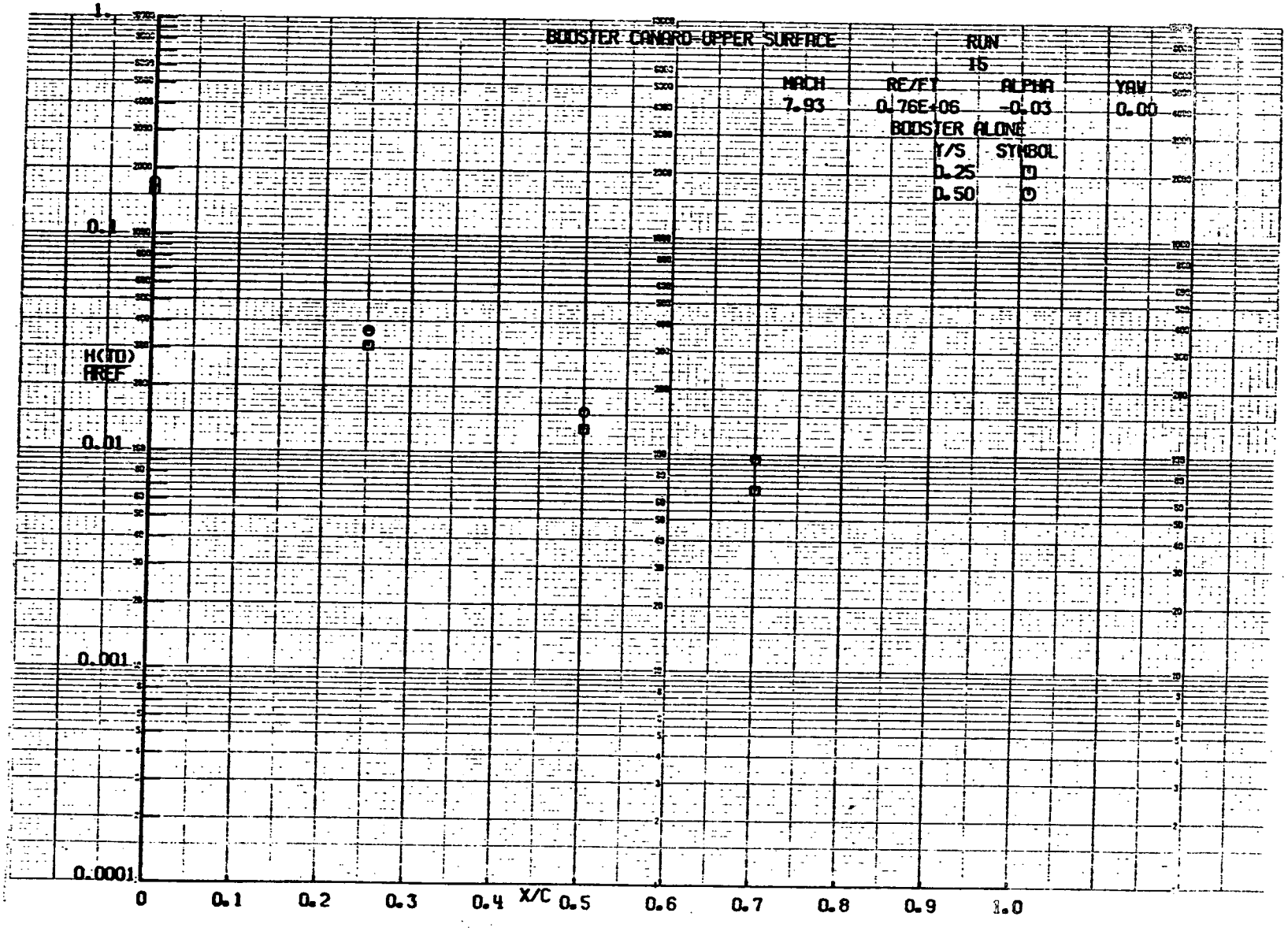
0.6
0.7
0.8
0.9
1.0


BOOSTER CANARD-UPPER SURFACE
RUN
15
MACH
7.93
RE/FT
0.76E+06
ALPHA
-0.03
YAW
0.00
BOOSTER ALONE
Y/S
SYMBOL
0.25
0.50
1.
0.1
H(TD)
AREF
0.01
0.001
0.0001
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0.2
0.3
0.4
X/C
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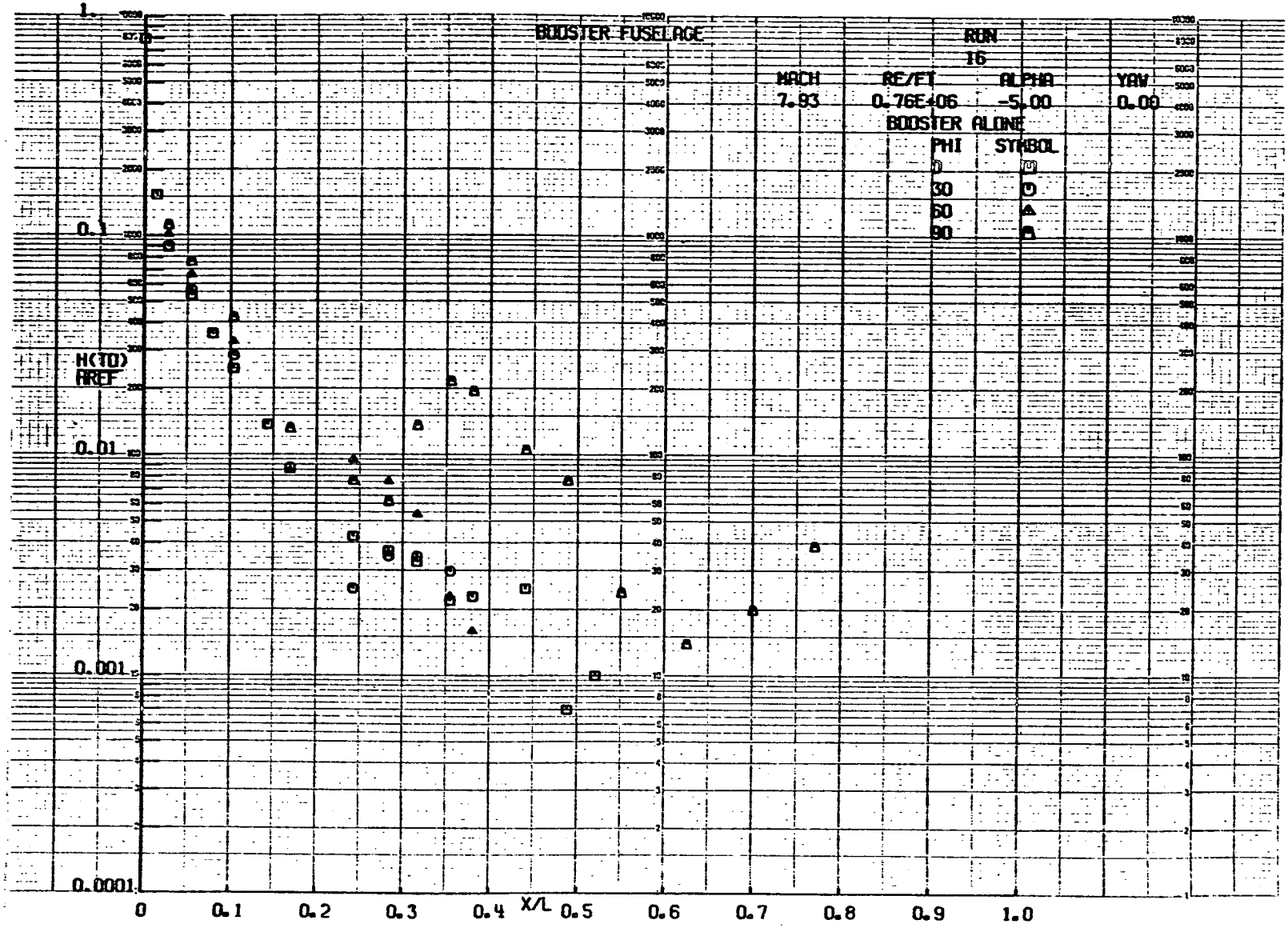
0.6
0.7
0.8
0.9
1.0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RUN
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MACH
7.93
RE/FT
0.76E+06
ALPHA
-5.00
YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
0
30
60
90
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
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0.2
0.3
0.4
X/L
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0.6
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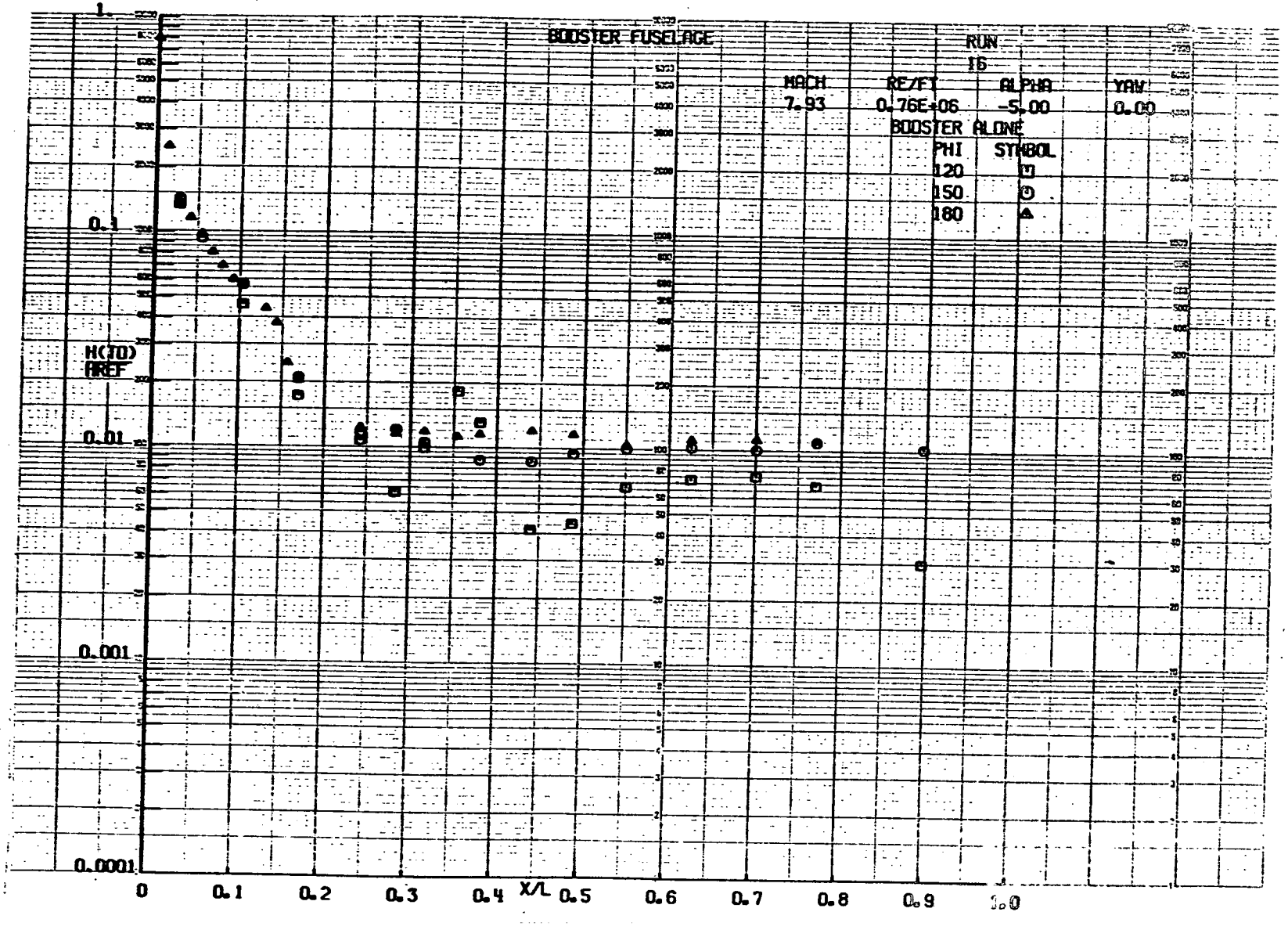
BOOSTER FUSELAGE
RUN
16
MACH
7.93
RE/FT
0.76E+06
ALPHA
-5.00
YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
120
150
180
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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X/L
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0.6
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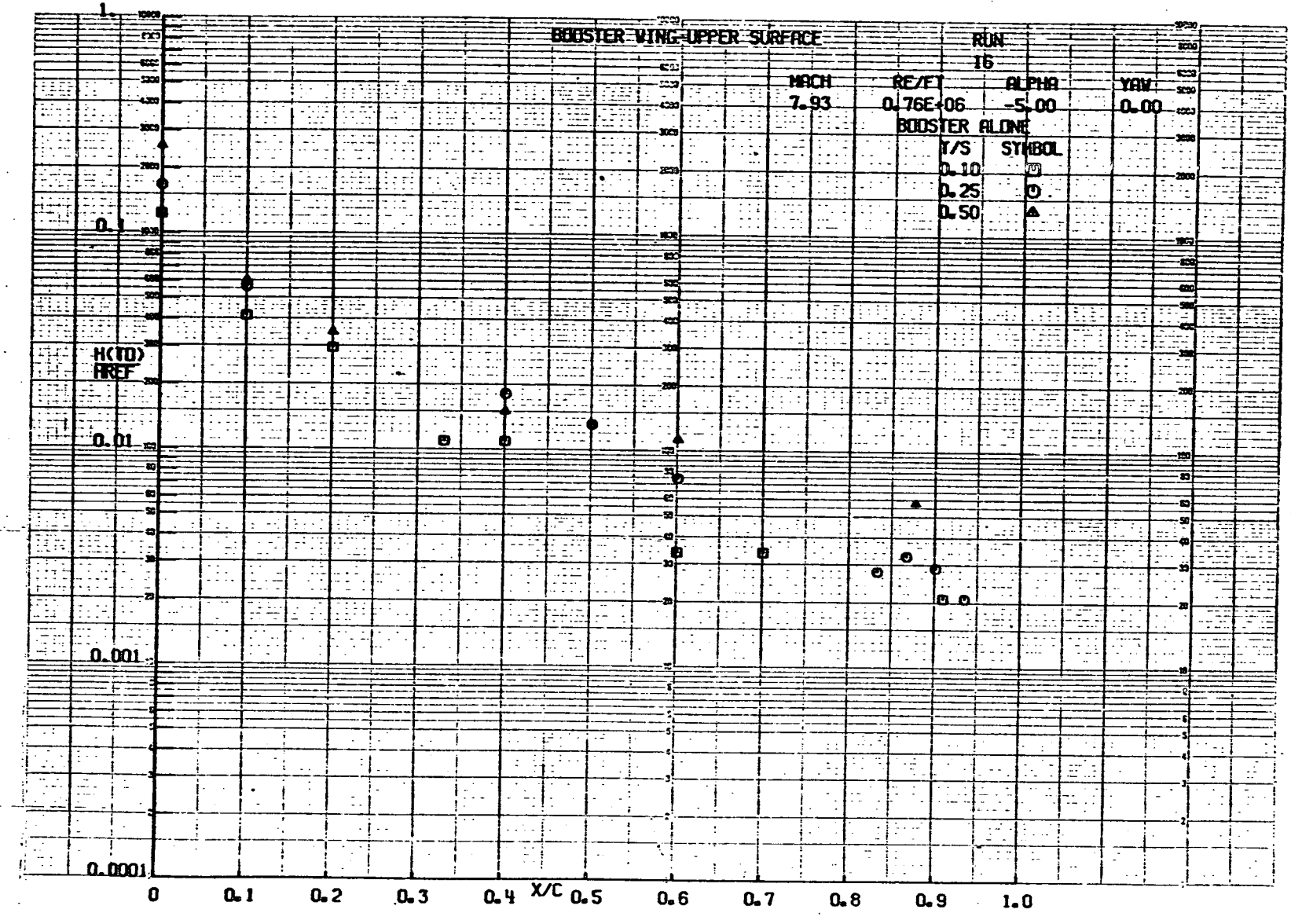
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RUN
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RE/FT
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ALPHA
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YAW
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BOOSTER ALONE
T/S
SYMBOL
0.10
0.25
0.50
H(TD)
HREF
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0.1
0.01
0.001
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X/C
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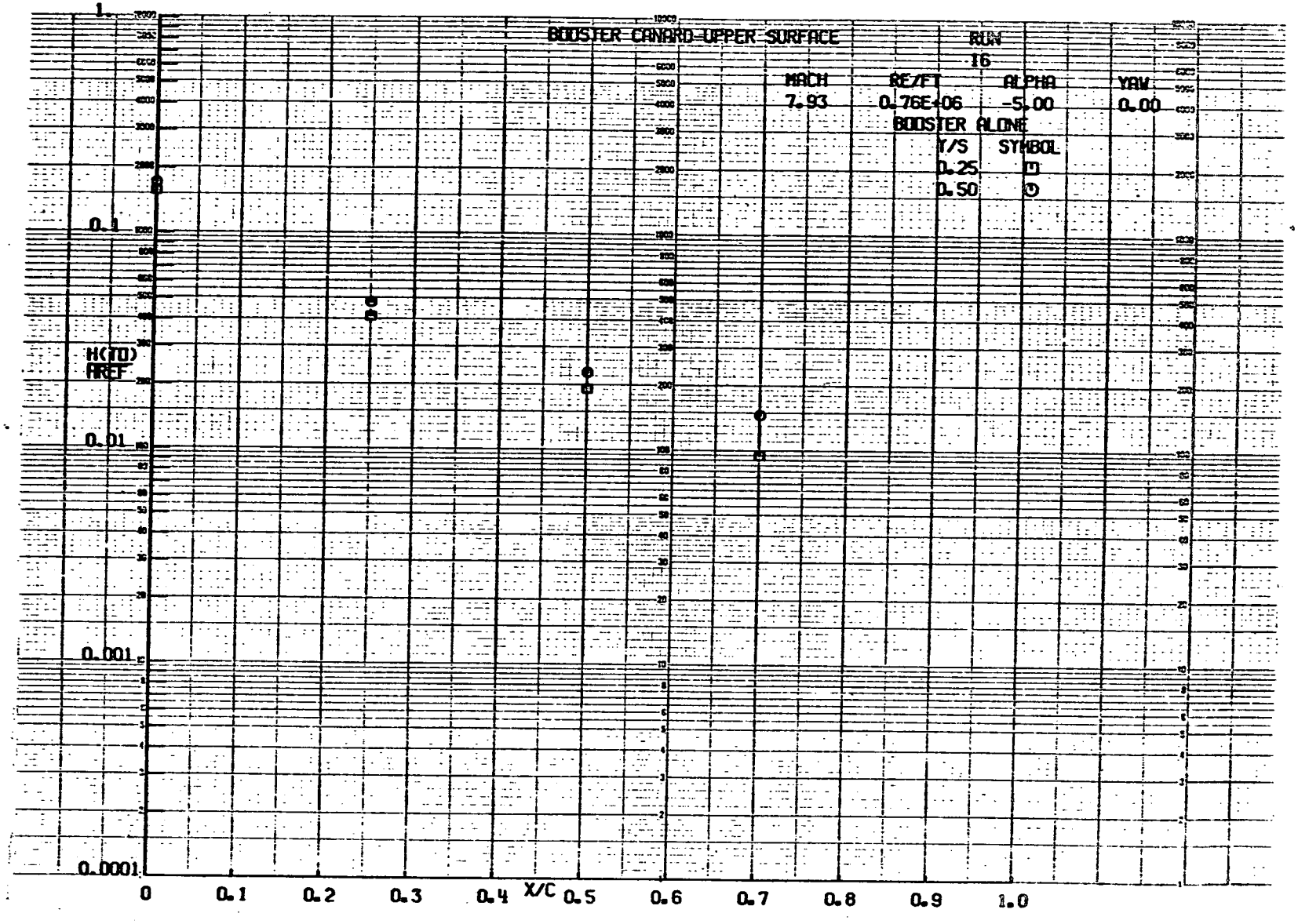
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RUN
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RE/FT
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ALPHA
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BOOSTER ALONE
T/S
SYMBOL
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0.50
1.
0.1
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0.001
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H(TD)
AREF
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X/C
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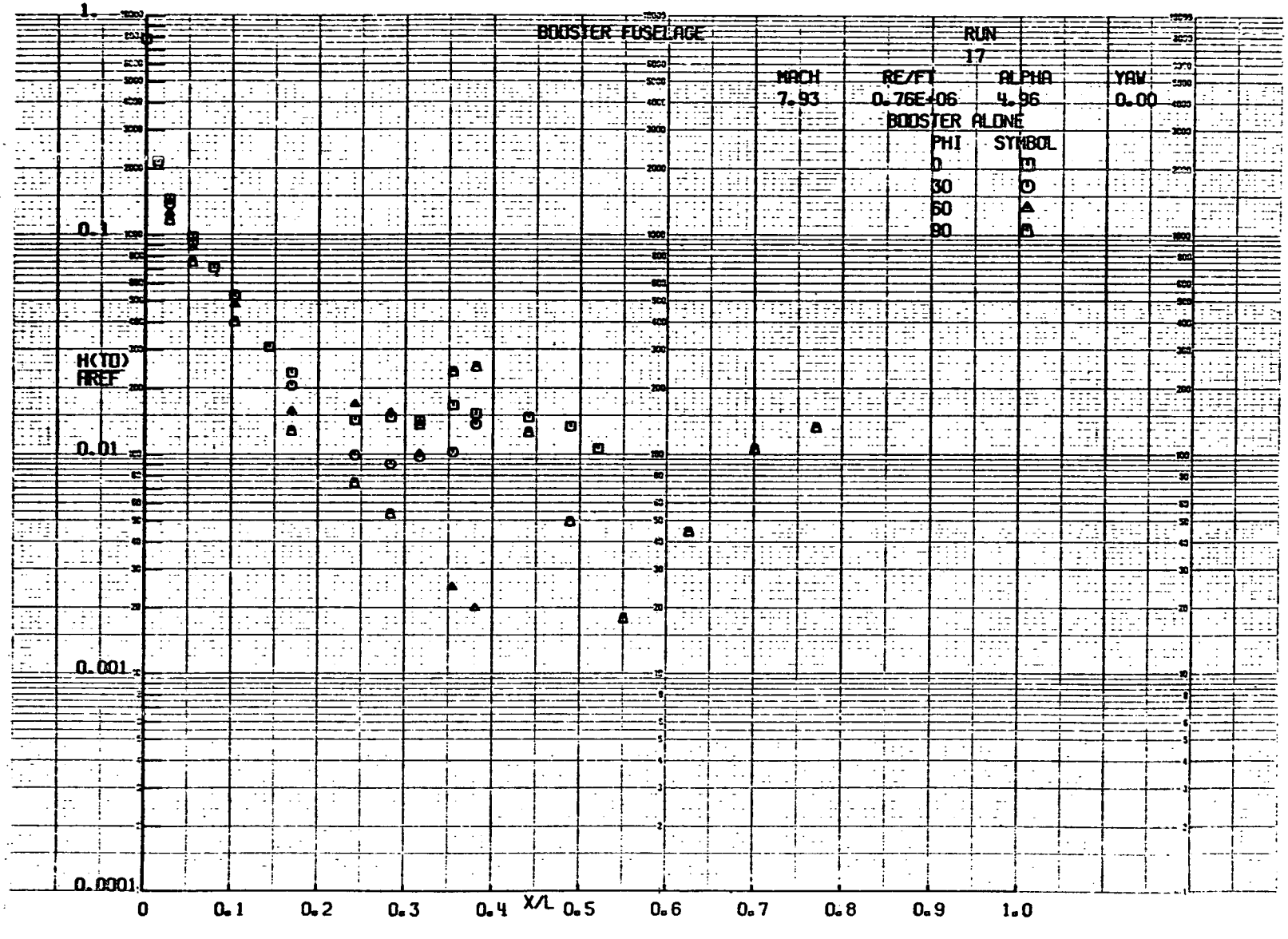
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RUN
17
MACH
7.93
RE/FT
0.76E+06
ALPHA
4.96
YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
0
30
60
90
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
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0.3
0.4
X/L
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0.6
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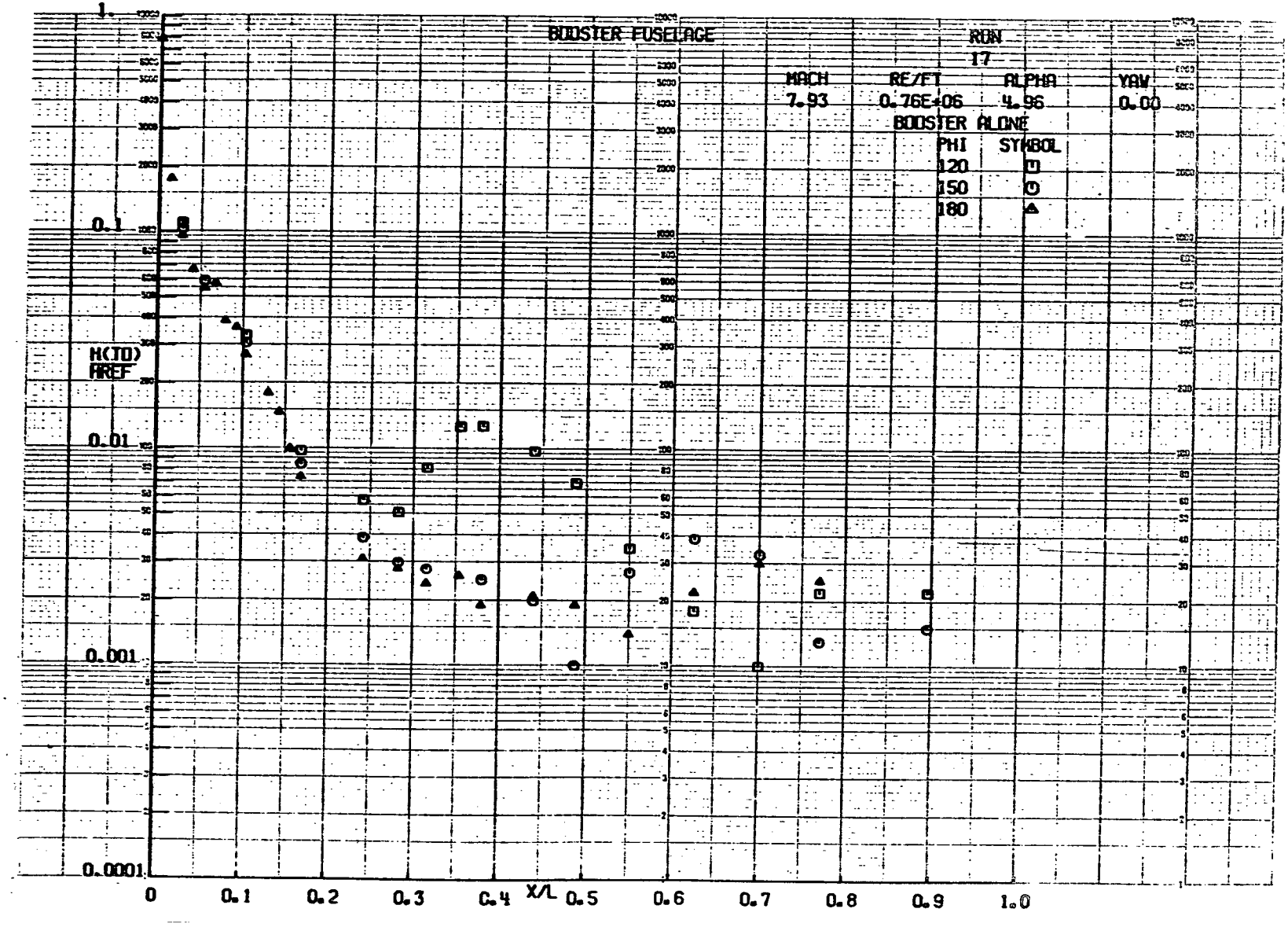
0.9
1.0


BOOSTER FUSELAGE
RUN
17
MACH
7.93
RE/FT
0.76E+06
ALPHA
4.96
YAW
0.00
BOOSTER ALONE
PHI
SYMBOL
120
150
180
1.
0.1
0.01
0.001
0.0001
H(TD)
AREF
0
0.1
0.2
0.3
0.4
X/L
0.5
0.6
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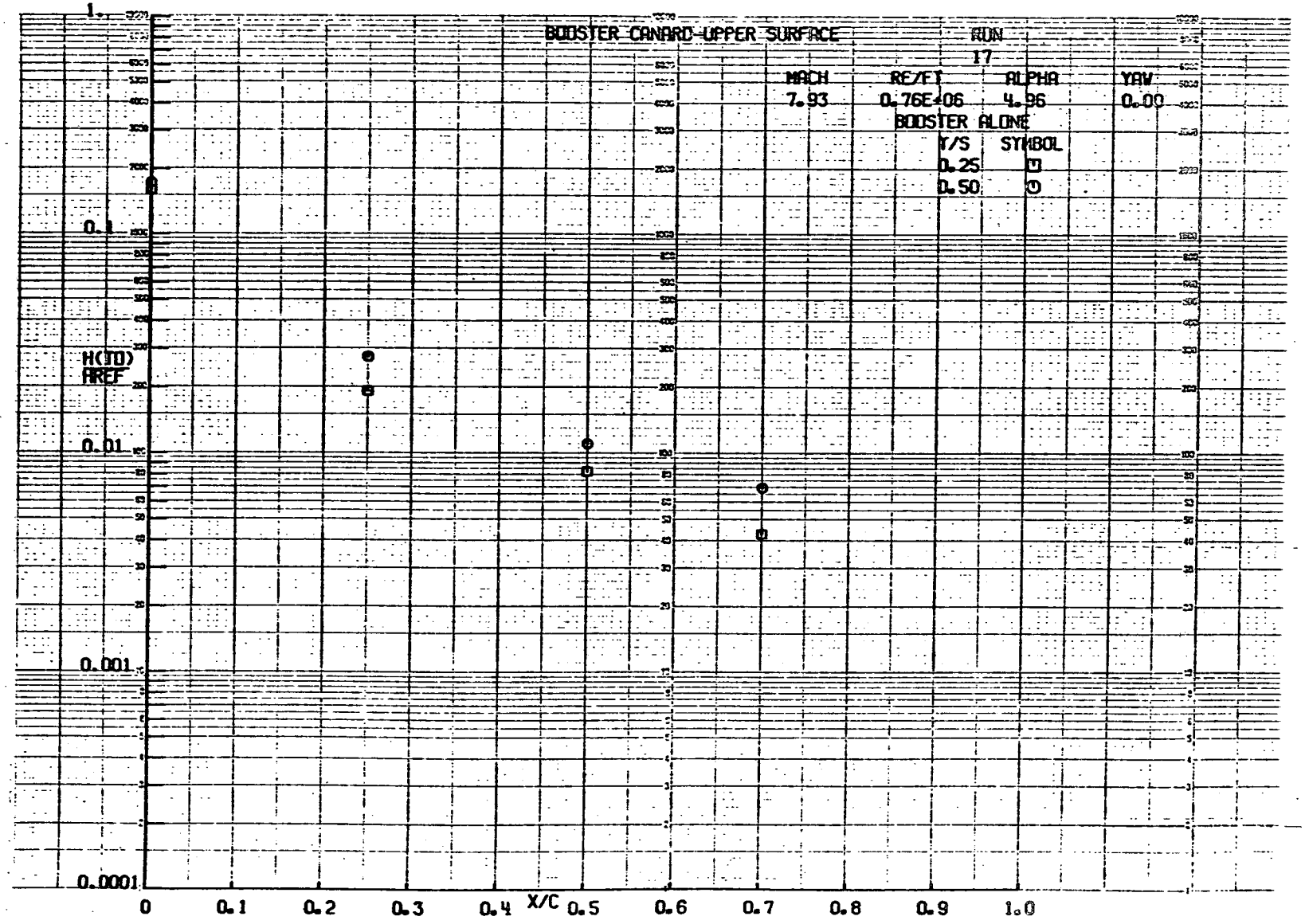
0.9
1.0


BOOSTER CANARD UPPER SURFACE
RUN
17
MACH
7.93
RE/FT
0.76E+06
ALPHA
4.96
YAW
0.00
BOOSTER ALONE
T/S
SYMBOL
0.25
0.50
1.
0.1
H(TD)
AREF
0.01
0.001
0.0001
0
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0.3
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X/C
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0.6
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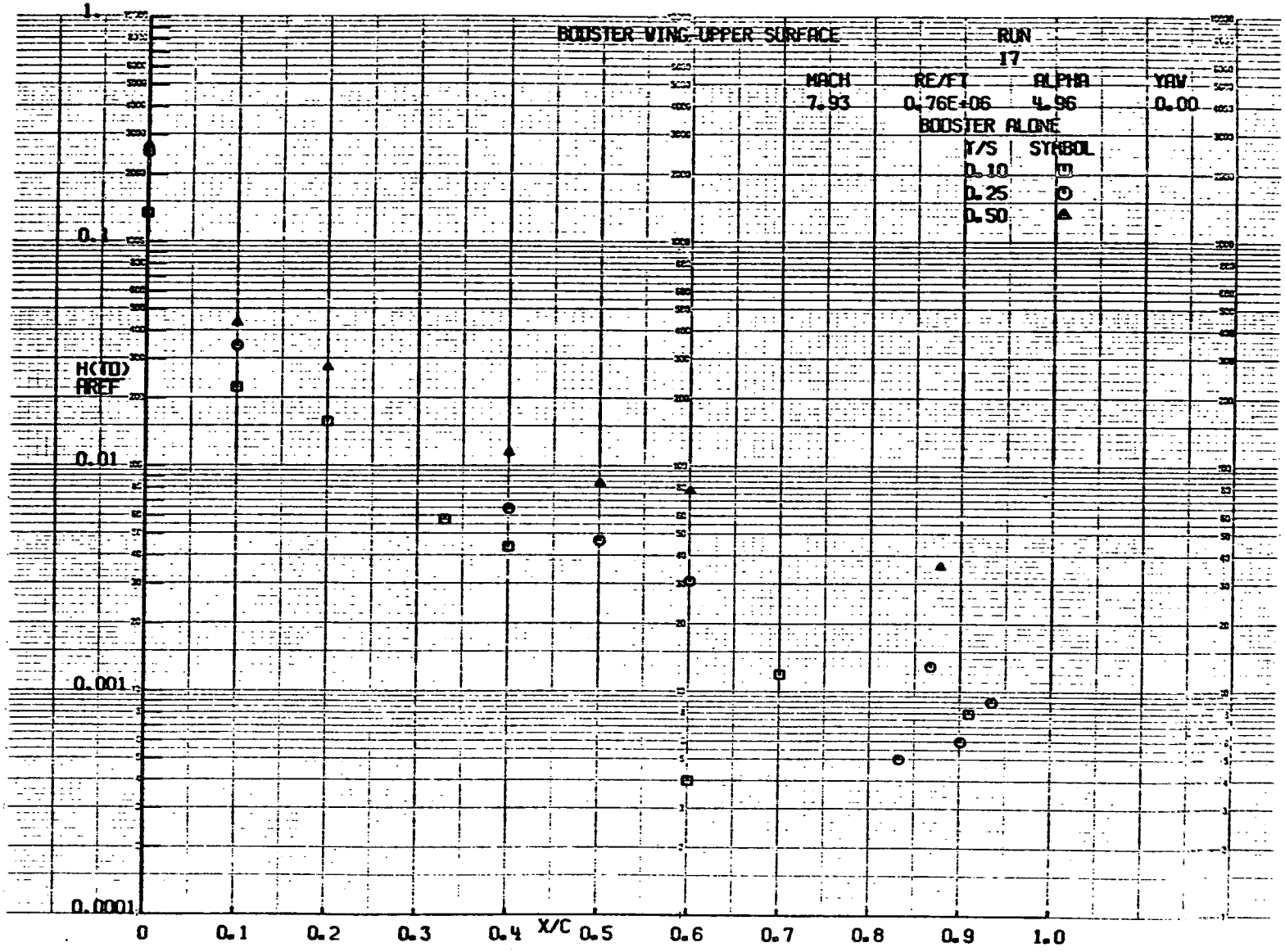
BOOSTER WING UPPER SURFACE
RUN
17
MACH
7.93
RE/FT
0.76E+06
ALPHA
4.96
YAW
0.00
BOOSTER ALONE
T/S
SYMBOL
0.10
0.25
0.50
H(TD)
AREF
1.
0.1
0.01
0.001
0.0001
0
0.1
0.2
0.3
0.4
X/C
0.5
0.6
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0.8
0.9
1.0

A P P E N D I X

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

ORB FUSE 2.22 IN. UPSTREAM OF GCC-B, .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-PODPT	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
M07	GCC-B+CAB	8.00	852.5	1338	.02	.02	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.0	.058	3.??	3860	7.643E-05	7.408E-08	3.78E 06	6.847E-02	2.910E-02	1

	TC NO	TW	QTACT	Q-DOT	H(TOT)	H(TOT)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
B	1	559	222.791	41.651	5.348E-02	.7810	6.4574E-02	.9431	7.2049E-02	1.0522	0	0
B	2	438	58.755	10.611	1.262E-02	.1844	1.5015E-02	.2193	1.6585E-02	.2422	.0137	0
B	3	501	67.582	12.230	1.461E-02	.2133	1.7380E-02	.2539	1.9214E-02	.2806	.0137	180.000
B	4	488	37.157	6.678	7.855E-03	.1147	9.3221E-03	.1361	1.0282E-02	.1502	.0274	0
B	5	487	36.629	6.214	7.301E-03	.1066	8.6634E-03	.1265	9.5548E-03	.1395	.0274	30.000
B	6	488	35.721	6.420	7.553E-03	.1103	8.9569E-03	.1309	9.8849E-03	.1444	.0274	60.000
B	7	489	47.301	6.703	7.896E-03	.1153	9.3739E-03	.1369	1.0342E-02	.1510	.0274	90.000
B	8	491	37.549	6.952	8.203E-03	.1198	9.7419E-03	.1423	1.0750E-02	.1570	.0274	120.000
B	9	490	49.067	7.216	8.509E-03	.1243	1.0103E-02	.1475	1.1147E-02	.1628	.0274	150.000
B	10	488	47.122	6.374	8.088E-03	.1181	9.5991E-03	.1402	1.0589E-02	.1546	.0274	180.000
B	11	489	28.956	5.208	6.129E-03	.0895	7.2753E-03	.1063	8.0255E-03	.1172	.0406	180.000
B	12	484	23.461	4.205	4.921E-03	.0719	5.8359E-03	.0852	6.4329E-03	.0939	.0543	0
B	13	484	23.464	4.205	4.921E-03	.0719	5.8344E-03	.0852	6.4315E-03	.0939	.0543	30.000
B	14	483	22.632	4.050	4.735E-03	.0692	5.6138E-03	.0820	6.1876E-03	.0904	.0543	60.000
B	15	484	26.784	4.437	5.196E-03	.0759	6.1615E-03	.0900	6.7927E-03	.0992	.0543	90.000
B	17	486	24.304	4.355	5.114E-03	.0747	6.0683E-03	.0886	6.6894E-03	.0977	.0543	150.000
B	18	487	21.955	4.308	5.061E-03	.0739	6.0098E-03	.0877	6.6240E-03	.0967	.0543	180.000
B	19	487	16.671	2.991	3.514E-03	.0513	4.1689E-03	.0609	4.5977E-03	.0671	.0670	180.000
B	20	485	16.836	3.018	3.538E-03	.0517	4.1961E-03	.0613	4.6267E-03	.0676	.0790	0
B	21	503	56.967	9.961	1.193E-02	.1742	1.4207E-02	.2075	1.5716E-02	.2294	.0790	180.000
B	22	500	43.701	7.905	9.434E-03	.1378	1.1227E-02	.1640	1.2407E-02	.1812	.0920	180.000
B	23	494	11.937	2.151	2.549E-03	.0372	3.0290E-03	.0442	3.3450E-03	.0489	.1030	0
B	24	494	12.627	2.276	2.697E-03	.0394	3.2098E-03	.0468	3.5394E-03	.0517	.1030	15.000
B	25	495	12.076	2.177	2.581E-03	.0377	3.0678E-03	.0448	3.3872E-03	.0495	.1030	30.000
B	26	492	12.121	2.182	2.579E-03	.0377	3.0630E-03	.0447	3.3896E-03	.0494	.1030	45.000
B	27	492	12.407	2.234	2.641E-03	.0386	3.1369E-03	.0456	3.4623E-03	.0506	.1030	60.000
B	28	493	12.401	2.233	2.642E-03	.0386	3.1391E-03	.0458	3.4650E-03	.0506	.1030	75.000
B	29	492	12.504	2.251	2.661E-03	.0389	3.1609E-03	.0462	3.4883E-03	.0509	.1030	90.000
B	30	493	13.168	2.371	2.804E-03	.0410	3.3317E-03	.0487	3.6775E-03	.0537	.1030	105.000
B	31	493	12.452	2.242	2.651E-03	.0387	3.1498E-03	.0460	3.4766E-03	.0508	.1030	120.000
B	32	491	7.641	1.375	1.623E-03	.0237	1.9273E-03	.0281	2.1268E-03	.0311	.1030	135.000
B	33	552	38.804	7.026	8.409E-03	.1228	1.0012E-02	.1462	1.1067E-02	.1616	.1030	150.000
B	34	535	41.303	7.496	8.985E-03	.1312	1.0703E-02	.1563	1.1835E-02	.1728	.1030	165.000
B	35	554	41.735	7.568	9.076E-03	.1325	1.0811E-02	.1579	1.1953E-02	.1746	.1030	180.000
B	37	507	11.723	2.140	2.576E-03	.0376	3.0700E-03	.0448	3.3960E-03	.0496	.1300	180.000
B	38	515	6.414	1.170	1.421E-03	.0208	1.6969E-03	.0248	1.8743E-03	.0274	.1430	0
B	39	513	7.920	1.363	1.652E-03	.0241	1.9720E-03	.0288	2.1833E-03	.0319	.1430	180.000
B	40	550	146.395	18.046	2.289E-02	.3343	2.7572E-02	.4027	3.0711E-02	.4485	.1560	180.000
B	41	522	3.906	.821	1.006E-03	.0147	1.2038E-03	.0176	1.3347E-03	.0195	.1690	0
B	42	522	3.454	.698	8.548E-04	.0125	1.0223E-03	.0149	1.1335E-03	.0166	.1690	15.000
B	43	522	3.646	.706	8.643E-04	.0126	1.0337E-03	.0151	1.1460E-03	.0167	.1690	30.000
B	44	520	3.705	.730	8.921E-04	.0130	1.0665E-03	.0156	1.1821E-03	.0173	.1690	45.000
B	45	520	3.651	.688	8.403E-04	.0123	1.0045E-03	.0147	1.1134E-03	.0163	.1690	60.000
B	46	518	3.748	.705	8.599E-04	.0126	1.0276E-03	.0150	1.1346E-03	.0166	.1690	75.000
B	47	519	3.422	.656	8.007E-04	.0117	9.5708E-04	.0140	1.0607E-03	.0155	.1690	90.000
B	48	518	1.891	.356	4.339E-04	.0063	5.1867E-04	.0076	5.7450E-04	.0084	.1690	105.000
B	49	520	6.977	1.314	1.607E-03	.0235	1.9209E-03	.0281	2.1241E-03	.0311	.1690	120.000
B	50	523	13.933	2.063	2.532E-03	.0370	3.0298E-03	.0442	3.3599E-03	.0491	.1690	135.000
B	51	521	7.792	1.511	1.846E-03	.0270	2.2103E-03	.0323	2.4501E-03	.0358	.1690	150.000
B	52	541	57.268	10.917	1.370E-02	.2001	1.6466E-02	.2405	1.8314E-02	.2675	.1690	165.000
B	53	541	56.876	10.530	1.321E-02	.1929	1.5870E-02	.2318	1.7640E-02	.2576	.1690	180.000
B	400	518	2.473	.452	5.512E-04	.0080	6.5864E-04	.0096	7.2979E-04	.0107	.2420	0
B	402	517	1.656	.311	3.793E-04	.0055	4.5313E-04	.0066	5.0200E-04	.0073	.2420	30.000
B	404	517	3.874	.762	9.280E-04	.0136	1.1086E-03	.0162	1.2282E-03	.0179	.2420	60.000
B	406	511	2.197	.401	4.850E-04	.0071	5.7898E-04	.0084	6.4038E-04	.0094	.2420	90.000
B	407	512	3.955	.741	8.969E-04	.0131	1.0702E-03	.0156	1.1846E-03	.0173	.2420	105.000
B	408	514	9.494	1.864	2.263E-03	.0330	2.7018E-03	.0395	2.9920E-03	.0437	.2420	120.000
B	409	515	8.365	1.647	2.001E-03	.0292	2.3898E-03	.0349	2.6468E-03	.0387	.2420	135.000
B	410	516	9.821	1.942	2.363E-03	.0345	2.8231E-03	.0412	3.1272E-03	.0457	.2420	150.000
B	411	520	14.634	2.883	3.524E-03	.0515	4.2128E-03	.0615	4.6694E-03	.0682	.2420	165.000
B	412	522	16.935	3.284	4.022E-03	.0587	4.8106E-03	.0703	5.3312E-03	.0779	.2420	180.000
B	413	514	2.293	.443	5.375E-04	.0078	6.4168E-04	.0094	7.1057E-04	.0104	.2830	0
B	415	513	1.439	.282	3.421E-04	.0050	4.0830E-04	.0060	4.5206E-04	.0066	.2830	30.000
B	417	511	1.941	.328	3.971E-04	.0058	4.7375E-04	.0069	5.2436E-04	.0077	.2830	60.000
B	419	503	5.564	1.011	1.211E-03	.0177	1.4426E-03	.0211	1.5949E-03	.0233	.2830	90.000
B	420	503	10.801	1.819	2.177E-03	.0318	2.5917E-03	.0378	2.8649E-03	.0418	.2830	105.000
B	421	505	8.630	1.428	1.714E-03	.0250	2.0420E-03	.0298	2.2581E-03	.0330	.2830	120.000
B	422	506	7.115	1.291	1.551E-03	.0226	1.8479E-03	.0270	2.0431E-03	.0298	.2830	135.000
B	423	508	9.772	1.952	2.358E-03	.0344	2.8107E-03	.0410	3.1093E-03	.0454	.2830	150.000
B	424	508	9.229	1.775	2.138E-03	.0312	2.5486E-03	.0372	2.8194E-03	.0412	.2830	165.000
B	425	509	11.413	2.192	2.650E-03	.0387	3.1605E-03	.0462	3.4971E-03	.0511	.2830	180.000
B	426	515	2.307	.446	5.415E-04	.0079	6.4666E-04	.0094	7.1615E-04	.0105	.3160	0
B	428	514	1.394	.274	3.327E-04	.0049	3.9713E-04	.0058	4.3972E-04	.0064	.3160	30.000
B	430	509	1.219	.235	2.887E-04	.0042	3.4427E-04	.0050	3.8092E-04	.0056	.3160	60.000
B	432	517	13.969	2.348	2.824E-03	.0412	3.3664E-03	.0492	3.7236E-03	.0544	.3160	90.000
B	433	[illegible]	2.843	.467	5.569E-04	.0081	6.6248E-04	.0097	7.3188E-04	.0107	.3160	105.000
B	434	546	14.394	2.267	2.723E-03	.0398	3.2467E-03	.0474	3.5845E-03	.0524	.3160	120.000
B	435	543	4.831	.901	1.079E-03	.0158	1.2846E-03	.0188	1.4200E-03	.0207	.3160	135.000
B	436	545	7.142	1.375	1.674E-03	.0244	1.9930E-03	.0291	2.2047E-03	.0322	.3160	150.000
B	437	507	8.652	1.671	2.010E-03	.0294	2.3993E-03	.0350	2.6494E-03	.0387	.3160	165.000
B	438	507	9.621	1.888	2.271E-03	.0332	2.7066E-03	.0395	2.9937E-03	.0437	.3160	180.000
B	439	518	1.924	.375	4.616E-04	.0067	5.5162E-04	.0081	6.1120E-04	.0089	.3540	0
B	441	517	1.243	.250	3.050E-04	.0045	3.6438E-04	.0053	4.0368E-04	.0059	.3540	30.000
B	443	516	1.318	.222	2.698E-04	.0039	3.2218E-04	.0047	3.5685E-04	.0052	.3540	60.000
B	445	516	12.279	2.175	2.645E-03	.0386	3.1590E-03	.0461	3.4940E-03	.0511	.3540	90.000
B	446	511	6.922	1.205	1.457E-03	.0213	1.7387E-03	.0254	1.9246E-03	.0281	.3540	105.000
B	447	517	15.040	2.812	3.422E-03	.0500	4.0886E-03	.0597	4.5246E-03	.0662	.3540	120.000
B	448	514	6.082	1.143	1.387E-03	.0203	1.6596E-03	.0242	1.8330E-03	.0268	.3540	135.000
B	450	515	6.061	1.132	1.383E-03	.0202	1.6509E-03	.0241	1.8248E-03	.0267	.3540	165.000
B	451	513	7.242	1.359	1.648E-03	.0241	1.9669E-03	.0287	2.1777E-03	.0318	.3540	180.000
B	452	524	1.548	.310	3.808E-04	.0056	4.5579E-04	.0067	5.0549E-04	.0074	.3800	0
B	454	524	1.063	.210	2.581E-04	.0038	3.0886E-04	.0045	3.4252E-04	.0050	.3800	30.000
B	456	522	1.711	.277	3.390E-04	.0050	4.0546E-04	.0059	4.4988E-04	.0066	.3800	60.000
B	458	523	10.451	1.923	2.359E-03	.0344	2.8220E-03	.0412	3.1242E-03	.0457	.3800	90.000
B	459	526	21.267	4.136	5.094E-03	.0744	6.0947E-03	.0891	6.7076E-03	.0980	.3800	105.000

GROUP
38

50 INCH HYPERSONIC TUNNEL B
V11162

DWG CLOSE 2.22 IN. UPSTREAM OF GDC-B, .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
B07	GDC-B+CWU	8.00	859.5	1340	.03	.03	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.1	.088	1.944	3863	7.607E-05	7.417E-08	3.76E 06	6.837E-02	2.923E-02	2

FUSELAGE-BOOSTER

TC NO	TW	DT/DT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	PHI
B 460	508	4.278	1.688	2.025E-03	.0296	2.4133E-03	.0353	2.6693E-03	.0390	.3800	120.000
B 461	508	8.168	1.484	1.783E-03	.0261	2.1247E-03	.0311	2.3502E-03	.0344	.3800	135.000
B 462	507	3.161	.591	7.096E-04	.0104	8.4566E-04	.0124	9.3533E-04	.0137	.3800	150.000
B 463	510	5.375	1.006	1.212E-03	.0177	1.4452E-03	.0211	1.5990E-03	.0234	.3800	165.000
B 464	509	7.053	1.320	1.588E-03	.0232	1.8935E-03	.0277	2.0948E-03	.0306	.3800	180.000
B 106	521	1.623	.315	3.843E-04	.0056	4.5948E-04	.0067	5.0930E-04	.0074	.4400	0
B 109	518	10.621	1.961	2.362E-03	.0345	2.8216E-03	.0413	3.1260E-03	.0457	.4400	90.000
B 110	515	7.167	1.312	1.590E-03	.0233	1.8987E-03	.0278	2.1027E-03	.0308	.4400	120.000
B 111	514	1.925	.351	4.251E-04	.0062	5.0738E-04	.0074	5.6178E-04	.0082	.4400	150.000
B 112	515	5.285	.964	1.169E-03	.0171	1.3961E-03	.0204	1.5461E-03	.0226	.4400	180.000
B 113	522	.891	.176	2.148E-04	.0031	2.5683E-04	.0038	2.8471E-04	.0042	.4880	0
B 116	517	8.374	1.485	1.805E-03	.0264	2.1564E-03	.0315	2.3848E-03	.0349	.4880	90.000
B 117	513	5.199	.947	1.146E-03	.0168	1.3671E-03	.0200	1.5134E-03	.0221	.4880	120.000
B 118	512	1.315	.240	2.894E-04	.0042	3.4525E-04	.0050	3.8216E-04	.0056	.4880	150.000
B 119	513	4.374	.797	9.644E-04	.0141	1.1509E-03	.0168	1.2741E-03	.0186	.4880	180.000
B 120	523	.681	.134	1.646E-04	.0024	1.9689E-04	.0029	2.1832E-04	.0032	.5200	0
B 195	513	14.707	2.788	3.450E-03	.0505	4.1370E-03	.0605	4.5941E-03	.0672	.5500	43.000
B 127	520	5.267	.964	1.176E-03	.0172	1.4055E-03	.0206	1.5577E-03	.0228	.5500	90.000
B 128	518	4.971	.908	1.105E-03	.0162	1.3200E-03	.0193	1.4623E-03	.0214	.5500	105.000
B 129	515	6.342	1.157	1.403E-03	.0205	1.6750E-03	.0245	1.8549E-03	.0271	.5500	120.000
B 130	511	1.664	.303	3.656E-04	.0053	4.3604E-04	.0064	4.8257E-04	.0071	.5500	150.000
B 131	509	3.717	.676	8.133E-04	.0119	9.6972E-04	.0142	1.0729E-03	.0157	.5500	180.000
B 138	521	3.743	.685	8.372E-04	.0122	1.0011E-03	.0146	1.1097E-03	.0162	.6250	90.000
B 139	518	3.100	.567	6.891E-04	.0101	8.2328E-04	.0120	9.1209E-04	.0133	.6250	105.000
B 140	514	5.125	.934	1.131E-03	.0165	1.3496E-03	.0197	1.4941E-03	.0219	.6250	120.000
B 141	510	1.448	.263	3.170E-04	.0046	3.7803E-04	.0055	4.1826E-04	.0061	.6250	150.000
B 142	509	2.053	.373	4.490E-04	.0066	5.3926E-04	.0078	5.9215E-04	.0087	.6250	180.000
B 150	522	5.061	1.037	1.267E-03	.0185	1.5148E-03	.0222	1.6791E-03	.0246	.7000	90.000
B 151	518	4.031	.737	8.972E-04	.0131	1.0720E-03	.0157	1.1878E-03	.0174	.7000	105.000
B 152	516	3.018	.551	6.689E-04	.0098	7.9887E-04	.0117	8.8481E-04	.0129	.7000	120.000
B 153	513	1.651	.301	3.640E-04	.0053	4.3435E-04	.0064	4.8084E-04	.0070	.7000	150.000
B 154	511	1.105	.195	2.354E-04	.0034	2.8079E-04	.0041	3.1073E-04	.0045	.7000	180.000
B 159	526	6.718	1.197	1.471E-03	.0215	1.7608E-03	.0258	1.9532E-03	.0286	.7700	90.000
B 160	521	3.395	.603	7.363E-04	.0108	8.8031E-04	.0129	9.7572E-04	.0143	.7700	120.000
B 161	517	1.126	.200	2.425E-04	.0035	2.8968E-04	.0042	3.2087E-04	.0047	.7700	150.000
B 162	514	.760	.135	1.629E-04	.0024	1.9448E-04	.0028	2.1533E-04	.0031	.7700	180.000
B 171	524	2.371	.435	5.330E-04	.0078	6.3769E-04	.0093	7.0715E-04	.0103	.8950	120.000
B 172	521	1.234	.226	2.761E-04	.0040	3.3018E-04	.0048	3.6600E-04	.0054	.8950	150.000

UPPER WING SURFACE-BOOSTER

TC NO	TW	DT/DT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
B 200	518	54.738	8.422	1.050E-02	.1536	1.2612E-02	.1845	1.4018E-02	.2050	0	.100
B 201	526	14.833	1.730	2.127E-03	.0311	2.5458E-03	.0372	2.8242E-03	.0413	.1000	.100
B 202	526	11.056	1.552	1.907E-03	.0279	2.2826E-03	.0334	2.5320E-03	.0370	.2000	.100
B 203	528	3.678	.762	9.385E-04	.0137	1.1241E-03	.0164	1.2475E-03	.0182	.3300	.100
B 204	527	5.338	.937	1.153E-03	.0169	1.3810E-03	.0202	1.5323E-03	.0224	.4000	.100
B 205	525	5.087	.906	1.112E-03	.0163	1.3312E-03	.0195	1.4765E-03	.0216	.6000	.100
B 206	528	3.655	.631	7.771E-04	.0114	9.3059E-04	.0136	1.0326E-03	.0151	.7000	.100
B 207	527	4.664	.443	5.452E-04	.0080	6.5292E-04	.0095	7.2445E-04	.0106	.9100	.100
B 217	556	102.440	12.653	1.615E-02	.2361	1.9475E-02	.2849	2.1714E-02	.3176	0	.200
B 218	532	47.138	4.598	5.691E-03	.0832	6.8221E-03	.0998	7.5752E-03	.1108	.0500	.200
B 219	528	28.234	2.748	3.385E-03	.0495	4.0543E-03	.0593	4.4991E-03	.0658	.1000	.200
B 220	528	14.567	1.309	1.611E-03	.0236	1.9296E-03	.0282	2.1411E-03	.0313	.2000	.200
B 221	524	3.993	.776	9.509E-04	.0139	1.1378E-03	.0166	1.2618E-03	.0185	.4000	.200
B 222	523	1.867	.332	4.065E-04	.0059	4.8624E-04	.0071	5.3913E-04	.0079	.6000	.200
B 223	524	1.241	.212	2.594E-04	.0038	3.1036E-04	.0045	3.4419E-04	.0050	.7000	.200
B 230	558	107.751	14.808	1.894E-02	.2770	2.2857E-02	.3343	2.5493E-02	.3729	0	.250
B 231	526	23.650	2.772	3.406E-03	.0498	4.0768E-03	.0596	4.5225E-03	.0661	.1000	.250
B 232	524	4.297	.834	1.023E-03	.0150	1.2240E-03	.0179	1.3574E-03	.0199	.4000	.250
B 233	523	3.569	.677	8.296E-04	.0121	9.9241E-04	.0145	1.1004E-03	.0161	.5000	.250
B 234	523	2.557	.469	5.741E-04	.0084	6.8679E-04	.0100	7.6152E-04	.0111	.6000	.250
B 235	526	1.652	.122	1.505E-04	.0022	1.8018E-04	.0026	1.9989E-04	.0029	.8330	.250
B 236	526	1.960	.160	1.969E-04	.0029	2.3573E-04	.0034	2.6148E-04	.0038	.8670	.250
B 237	525	1.842	.149	1.831E-04	.0027	2.1918E-04	.0032	2.4312E-04	.0036	.9010	.250
B 238	525	1.601	.123	1.504E-04	.0022	1.8004E-04	.0026	1.9967E-04	.0029	.9350	.250
B 248	565	112.111	12.859	1.659E-02	.2427	2.0061E-02	.2934	2.2403E-02	.3277	0	.300
B 249	526	15.533	1.888	2.319E-03	.0339	2.7767E-03	.0406	3.0803E-03	.0451	.1000	.300
B 250	529	15.990	1.800	2.220E-03	.0325	2.6602E-03	.0389	2.9526E-03	.0432	.2000	.300
B 251	526	5.178	1.007	1.237E-03	.0181	1.4807E-03	.0217	1.6425E-03	.0240	.4000	.300
B 252	526	3.700	.731	8.977E-04	.0131	1.0745E-03	.0157	1.1919E-03	.0174	.6000	.300
B 263	568	129.823	16.131	2.089E-02	.3056	2.5282E-02	.3698	2.8249E-02	.4132	0	.400
B 264	530	20.799	2.533	3.128E-03	.0458	3.7488E-03	.0548	4.1614E-03	.0609	.1000	.400
B 265	527	4.571	.889	1.093E-03	.0160	1.3082E-03	.0191	1.4514E-03	.0212	.4000	.400
B 266	528	3.817	.743	9.148E-04	.0134	1.0956E-03	.0160	1.2157E-03	.0178	.6000	.400
B 277	580	168.025	16.337	2.150E-02	.3145	2.6108E-02	.3819	2.9238E-02	.4277	0	.500
B 278	511	20.510	2.688	3.323E-03	.0486	3.9822E-03	.0582	4.4211E-03	.0647	.1000	.500
B 279	530	12.565	1.533	1.894E-03	.0277	2.2693E-03	.0332	2.5192E-03	.0368	.2000	.500
B 280	525	4.435	.862	1.057E-03	.0155	1.2648E-03	.0185	1.4027E-03	.0205	.4000	.500
B 281	526	3.964	.753	9.249E-04	.0135	1.1071E-03	.0162	1.2261E-03	.0180	.5000	.500
B 282	527	3.212	.607	7.471E-04	.0109	8.9444E-04	.0131	9.9233E-04	.0145	.6000	.500
B 283	526	3.513	.332	4.082E-04	.0060	4.8867E-04	.0071	5.4212E-04	.0079	.8770	.500
B 296	578	150.640	19.561	2.566E-02	.3753	3.1134E-02	.4554	3.4850E-02	.5097	0	.600
B 297	532	25.517	3.346	4.143E-03	.0606	4.9664E-03	.0726	5.5147E-03	.0807	.1000	.600
B 298	530	16.867	2.039	2.518E-03	.0368	3.0176E-03	.0441	3.3498E-03	.0490	.2000	.600
B 299	526	2.461	.554	6.806E-04	.0100	8.1474E-04	.0119	9.0377E-04	.0132	.4000	.600
B 300	530	3.398	.598	7.380E-04	.0108	8.8427E-04	.0129	9.8155E-04	.0144	.6000	.600
B 301	529	3.764	.358	4.418E-04	.0065	5.2929E-04	.0077	5.8745E-04	.0086	.7930	.600
B 302	528	3.179	.301	3.706E-04	.0054	4.4384E-04	.0065	4.9253E-04	.0072	.8510	.600
B 315	544	55.673	5.829	7.320E-03	.1071	8.8007E-03	.1287	9.7911E-03	.1432	.1000	.700
B 316	536	24.461	2.552	3.175E-03	.0464	3.8094E-03	.0557	4.2327E-03	.0619	.2000	.700
B 317	532	4.300	.699	8.648E-04	.0126	1.0367E-03	.0152	1.1511E-03	.0168	.5000	.700

UPPER CANARD SURFACE-BOOSTER

TC NO	TW	DT/DT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/S
B 350	520	82.589	7.780	9.491E-03	.1388	1.1346E-02	.1660	1.2575E-02	.1839	0	.250
B 351	506	38.947	3.643	4.369E-03	.0639	5.2051E-03	.0761	5.7561E-03	.0842	.2500	.250
B 352	500	16.046	2.697	3.209E-03	.0469	3.8178E-03	.0558	4.2179E-03	.0617	.5000	.250
B 353	495	8.022	1.345	1.593E-03	.0233	1.8929E-03	.0277	2.0899E-03	.0306	.7000	.250
B 357	510	111.504	10.564	1.305E-02	.1909	1.5638E-02	.2287	1.7340E-02	.2534	0	.500
B 358	501	23.759	2.213	2.639E-03	.0386	3.1404E-03	.0459	3.4703E-03	.0508	.2500	.500
B 359	497	9.986	1.501	1.781E-03	.0260	2.1176E-03	.0310	2.3387E-03	.0342	.5000	.500
B 360	495	5.572	.934	1.105E-03	.0162	1.3138E-03	.0192	1.4505E-03	.0212	.7000	.500

GROUP
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VT1162

[illegible] 2.22 IN. UPSTREAM OF GDC-H, .234 IN. GAP

T	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	857	GDC-H+GWO	8.00	857.4	1339	-.02	-.02	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.0	.088	1.934	3861	7.594E-05	7.811E-08	3.75E 06	6.828E-02	2.926E-02	3

FUSELAGE-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	555	258.722	46.847	5.979E-02	.8757	7.2109E-02	1.0561	8.0392E-02	1.1775	0	-0
0	2	489	85.827	13.604	1.601E-02	.2345	1.9001E-02	.2783	2.0960E-02	.3070	.0100	-0
0	7	465	33.318	5.721	6.548E-03	.0959	7.7329E-03	.1133	8.5022E-03	.1245	.0300	-0
0	12	459	13.343	2.490	2.831E-03	.0415	3.3393E-03	.0489	3.6686E-03	.0537	.0500	-0
0	19	462	1.620	.288	3.283E-04	.0048	3.8747E-04	.0057	4.2584E-04	.0062	.1000	-0
0	29	458	4.050	.692	7.863E-04	.0115	9.2732E-04	.0136	1.0186E-03	.0149	.2000	-0
0	44	479	56.954	9.572	1.114E-02	.1631	1.3191E-02	.1932	1.4531E-02	.2128	.3000	-0
0	54	480	19.644	3.716	4.328E-03	.0634	5.1270E-03	.0751	5.6488E-03	.0827	.4000	-0
0	66	486	12.563	2.252	2.640E-03	.0387	3.1316E-03	.0459	3.4529E-03	.0506	.5000	-0
0	76	494	11.371	1.808	2.139E-03	.0313	2.5411E-03	.0372	2.8051E-03	.0411	.5500	-0
0	80	498	9.059	1.692	2.014E-03	.0295	2.3950E-03	.0351	2.6457E-03	.0387	.6000	-0
0	89	505	6.076	1.102	1.323E-03	.0194	1.5756E-03	.0231	1.7423E-03	.0255	.7000	-0
0	98	496	8.449	1.435	1.702E-03	.0249	2.0233E-03	.0296	2.2343E-03	.0327	.8000	-0
0	104	507	2.344	.413	4.963E-04	.0073	5.9146E-04	.0087	6.5415E-04	.0096	.9000	-0
0	114	502	1.244	.232	2.773E-04	.0041	3.3020E-04	.0048	3.6498E-04	.0053	.9900	-0
0	20	465	1.696	.124	1.415E-04	.0021	1.6709E-04	.0024	1.8372E-04	.0027	.1000	-.383
0	31	458	3.411	.671	7.622E-04	.0112	8.9882E-04	.0132	9.8731E-04	.0145	.2000	-.466
0	46	485	72.563	14.530	1.701E-02	.2491	2.0172E-02	.2954	2.2239E-02	.3257	.3000	-.504
0	56	479	19.231	3.635	4.226E-03	.0619	5.0049E-03	.0733	5.5131E-03	.0807	.4000	-.526
0	69	474	11.807	2.101	2.428E-03	.0356	2.8721E-03	.0421	3.1615E-03	.0463	.5000	-.830
0	83	490	4.062	.887	1.045E-03	.0153	1.2401E-03	.0182	1.3681E-03	.0200	.6000	-.748
0	92	498	4.134	.747	8.884E-04	.0130	1.0567E-03	.0155	1.1673E-03	.0171	.7000	-.704
0	101	503	3.225	.653	7.808E-04	.0114	9.2972E-04	.0136	1.0277E-03	.0151	.8000	-.669
0	107	502	2.304	.405	4.841E-04	.0071	5.7632E-04	.0084	6.3700E-04	.0093	.9000	-.678
0	117	505	1.964	.383	4.592E-04	.0067	5.4707E-04	.0080	6.0493E-04	.0089	.9900	-.660
0	5	472	37.071	5.615	6.479E-03	.0949	7.6626E-03	.1122	8.4324E-03	.1235	.0100	0
0	10	472	30.232	5.215	6.016E-03	.0881	7.1149E-03	.1042	7.8301E-03	.1147	.0300	0
0	24	484	16.657	3.071	3.594E-03	.0526	4.2611E-03	.0624	4.6975E-03	.0688	.1000	0
0	28	489	17.940	2.748	3.233E-03	.0474	3.8376E-03	.0562	4.2332E-03	.0620	.1500	0
0	35	495	20.256	3.551	4.207E-03	.0616	4.9998E-03	.0732	5.5201E-03	.0808	.2000	0
0	36	527	114.576	18.573	2.288E-02	.3351	2.7396E-02	.4012	3.0347E-02	.4452	.2100	0
0	37	564	212.101	38.581	4.981E-02	.7295	6.0213E-02	.8819	6.7238E-02	.9848	.2200	0
0	38	541	141.456	22.341	2.801E-02	.4103	3.3666E-02	.4931	3.7443E-02	.5484	.2300	0
0	40	494	8.693	1.322	1.566E-03	.0229	1.8605E-03	.0272	2.0539E-03	.0301	.2500	0
0	53	494	.912	.150	1.772E-04	.0026	2.1060E-04	.0031	2.3247E-04	.0034	.3000	0
0	62	498	4.635	.714	8.490E-04	.0124	1.0097E-03	.0148	1.1153E-03	.0163	.4000	0
0	75	500	10.156	1.783	2.126E-03	.0311	2.5292E-03	.0370	2.7946E-03	.0409	.5000	0
0	87	505	10.467	1.776	2.130E-03	.0312	2.5373E-03	.0372	2.8055E-03	.0411	.6000	0
0	96	508	9.040	1.594	1.918E-03	.0281	2.2866E-03	.0335	2.5293E-03	.0370	.7000	0
0	111	509	2.558	.410	4.944E-04	.0072	5.8955E-04	.0086	6.5227E-04	.0096	.9000	.610
0	120	518	14.631	1.651	2.011E-03	.0295	2.4028E-03	.0352	2.6621E-03	.0390	.9900	.305
0	4	470	29.117	4.256	4.898E-03	.0717	5.7898E-03	.0848	6.3699E-03	.0933	.0100	1.000
0	14	468	18.811	3.138	3.602E-03	.0528	4.2567E-03	.0623	4.6819E-03	.0686	.0500	1.000
0	22	474	11.076	1.914	2.213E-03	.0324	2.6187E-03	.0384	2.8828E-03	.0422	.1000	1.000
0	33	462	7.885	1.694	1.933E-03	.0283	2.2819E-03	.0334	2.5080E-03	.0367	.2000	1.000
0	48	469	14.545	2.352	2.704E-03	.0396	3.1964E-03	.0468	3.5163E-03	.0515	.3000	1.000
0	59	477	26.644	4.890	5.673E-03	.0831	6.7168E-03	.0984	7.3970E-03	.1083	.4000	1.000
0	72	479	30.517	5.927	6.889E-03	.1009	8.1590E-03	.1195	8.9872E-03	.1316	.5000	1.000
0	78	488	13.380	1.978	2.325E-03	.0341	2.7594E-03	.0404	3.0436E-03	.0446	.5500	1.000
0	85	491	9.195	1.605	1.893E-03	.0277	2.2486E-03	.0329	2.4812E-03	.0363	.6000	1.000
0	77	482	4.087	.624	7.279E-04	.0107	8.6270E-04	.0126	9.5076E-04	.0139	.5500	-1.000
0	84	487	4.598	.898	1.055E-03	.0154	1.2514E-03	.0183	1.3801E-03	.0202	.6000	-1.000
0	94	498	4.610	.980	1.165E-03	.0171	1.3899E-03	.0203	1.5309E-03	.0224	.7000	-1.000
0	39	502	30.576	5.861	7.001E-03	.1025	8.3339E-03	.1221	9.2106E-03	.1349	.2400	.486
0	42	493	8.468	1.659	1.961E-03	.0287	2.3299E-03	.0341	2.5716E-03	.0377	.2700	.465
0	51	496	10.039	2.025	2.404E-03	.0352	2.8578E-03	.0419	3.1559E-03	.0462	.3000	.433
0	41	497	22.254	4.373	5.196E-03	.0761	6.1788E-03	.0905	6.8244E-03	.1000	.2700	.465
0	52	494	3.645	.734	8.696E-04	.0127	1.0335E-03	.0151	1.1409E-03	.0167	.3000	.361

LOWER WING SURFACE-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	510	49.915	8.814	1.064E-02	.1558	1.2684E-02	.1858	1.4036E-02	.2056	0	.250
0	136	501	13.254	2.328	2.780E-03	.0407	3.3091E-03	.0485	3.6570E-03	.0536	.1000	.250
0	137	501	7.066	1.166	1.392E-03	.0204	1.6967E-03	.0243	1.8309E-03	.0268	.2000	.250
0	138	504	9.702	1.759	2.108E-03	.0309	2.5105E-03	.0368	2.7757E-03	.0407	.4000	.250
0	140	505	7.049	1.203	1.442E-03	.0211	1.7179E-03	.0252	1.8994E-03	.0278	.6000	.250
0	142	503	3.037	.485	5.810E-04	.0085	6.9180E-04	.0101	7.6475E-04	.0112	.9000	.250
0	149	523	63.246	11.592	1.420E-02	.2081	1.6993E-02	.2489	1.8842E-02	.2760	0	.500
0	150	508	19.823	3.814	4.591E-03	.0672	5.4726E-03	.0802	6.0541E-03	.0887	.1000	.500
0	151	507	10.562	2.035	2.445E-03	.0358	2.9139E-03	.0427	3.2229E-03	.0472	.2000	.500
0	152	509	13.134	2.248	2.711E-03	.0397	3.2323E-03	.0473	3.5765E-03	.0524	.4000	.500
0	154	508	7.528	1.328	1.598E-03	.0234	1.9091E-03	.0279	2.1075E-03	.0309	.6000	.500
0	157	506	2.821	.497	5.964E-04	.0087	7.1065E-04	.0104	7.8590E-04	.0115	.9000	.500
0	171	533	78.043	13.963	1.733E-02	.2538	2.0782E-02	.3044	2.3082E-02	.3381	0	.750
0	172	518	31.512	5.421	6.603E-03	.0967	7.8894E-03	.1156	8.7410E-03	.1280	.1000	.750
0	175	509	5.471	1.083	1.305E-03	.0191	1.5559E-03	.0228	1.7215E-03	.0252	.4000	.750
0	178	508	2.427	.428	5.154E-04	.0075	6.1464E-04	.0090	6.7974E-04	.0100	.8000	.750

UPPER WING SURFACE-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
0	129	499	13.063	1.944	2.315E-03	.0339	2.7563E-03	.0403	3.0429E-03	.0446	.1000	.100
0	130	494	5.562	.920	1.094E-03	.0160	1.3019E-03	.0191	1.4382E-03	.0211	.2000	.100
0	131	503	3.130	.567	6.788E-04	.0099	8.0832E-04	.0118	8.9357E-04	.0131	.4000	.100
0	132	502	1.931	.360	4.305E-04	.0063	5.1249E-04	.0075	5.6646E-04	.0083	.7000	.100
0	133	501	1.644	.281	3.352E-04	.0049	3.9901E-04	.0058	4.4097E-04	.0065	.9000	.100
0	158	506	19.061	2.840	3.410E-03	.0499	4.0039E-03	.0595	4.4939E-03	.0658	.1000	.500
0	159	507	12.204	1.956	2.352E-03	.0344	2.8031E-03	.0411	3.1005E-03	.0454	.2000	.500
0	160	508	8.285	1.328	1.598E-03	.0234	1.9092E-03	.0279	2.1075E-03	.0309	.4000	.500
0	161	509	2.418	.414	4.985E-04	.0073	5.9461E-04	.0087	6.5765E-04	.0096	.8000	.500
0	162	507	3.707	.495	5.946E-04	.0087	7.0862E-04	.0104	7.8375E-04	.0115	.9000	.500

VERTICAL STABILIZER-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/S
0	187	544	132.202	21.636	2.723E-02	.3989	3.2753E-02	.4797	3.6447E-02	.5338	0	.100
0	188	514	19.750	3.389	4.106E-03	.0601	4.9015E-03	.0718	5.4270E-03	.0795	.1000	.100
0	189	509	4.317	.716	8.618E-04	.0126	1.0275E-03	.0150	1.1368E-03	.0167	.4000	.100
0	192	540	93.768	17.865	2.238E-02	.3278	2.6891E-02	.3939	2.9903E-02	.4380	0	.250
0	193	513	24.560	4.213	5.100E-03	.0747	6.0867E-03	.0891	6.7385E-03	.0987	.1000	.250
0	196	511	6.549	1.087	1.313E-03	.0192	1.5657E-03	.0229	1.7329E-03	.0254	.4000	.250
0	197	520	41.032	7.507	9.165E-03	.1342	1.0955E-02	.1605	1.2141E-02	.1778	.1000	.500
0	198	510	5.942	1.045	1.265E-03	.0185	1.5082E-03	.0221	1.6688E-03	.0244	.4000	.500
0	201	552	145.646	27.978	3.551E-02	.5201	4.2797E-02	.6268	4.7689E-02	.6985	0	.750
0	202	528	63.448	7.205	8.891E-03	.1302	1.0651E-02	.1560	1.1821E-02	.1731	.1000	.750
0	203	515	9.610	1.083	1.314E-03	.0192	1.5685E-03	.0230	1.7349E-03	.0254	.4000	.750

GROUP
38

5/26/71

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

TWO NOSE 2.22 IN. UPSTREAM OF GDC-H, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	H07	GDC-H+LWD	8.00	841.1	1344	-4.99	-4.99	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.4	.088	1.951	3869	7.597E-05	7.843E-08	3.75E 06	6.847E-02	2.926E-02	1

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
H	1	545	229.628	42.609	5.332E-02	.7787	6.4104E-02	.9362	7.1316E-02	1.0415
H	2	475	50.818	9.012	1.036E-02	.1514	1.2260E-02	.1791	1.3494E-02	.1971
H	3	447	80.322	14.414	1.682E-02	.2457	1.9950E-02	.2914	2.1997E-02	.3213
H	4	461	31.230	5.517	6.259E-03	.0914	7.3857E-03	.1079	8.1159E-03	.1185
H	5	442	30.911	5.458	6.186E-03	.0903	7.2973E-03	.1066	8.0179E-03	.1171
H	6	465	36.492	6.101	6.938E-03	.1013	8.1894E-03	.1196	9.0015E-03	.1315
H	7	448	37.128	6.591	7.519E-03	.1098	8.8811E-03	.1297	9.7656E-03	.1426
H	8	475	44.281	8.086	9.247E-03	.1351	1.0927E-02	.1596	1.2019E-02	.1755
H	9	473	47.561	8.695	9.978E-03	.1457	1.1797E-02	.1723	1.2981E-02	.1896
H	10	474	48.629	8.906	1.023E-02	.1494	1.2098E-02	.1767	1.3314E-02	.1944
H	11	470	38.857	6.899	7.895E-03	.1153	9.3299E-03	.1363	1.0263E-02	.1499
H	12	455	16.824	2.958	3.327E-03	.0486	3.9201E-03	.0573	4.3035E-03	.0629
H	13	454	17.872	3.138	3.523E-03	.0514	4.1486E-03	.0606	4.5533E-03	.0665
H	14	454	21.781	3.826	4.298E-03	.0628	5.0626E-03	.0739	5.5568E-03	.0812
H	15	456	25.804	4.538	5.108E-03	.0746	6.0193E-03	.0879	6.6085E-03	.0965
H	17	463	24.012	4.241	4.811E-03	.0703	5.6762E-03	.0829	6.2372E-03	.0911
H	18	473	48.787	8.678	9.965E-03	.1455	1.1784E-02	.1721	1.2968E-02	.1894
H	19	503	133.156	24.123	2.867E-02	.4187	3.4119E-02	.4983	3.7704E-02	.5507
H	20	456	11.814	2.078	2.339E-03	.0342	2.7563E-03	.0403	3.0261E-03	.0442
H	21	485	85.669	15.348	1.785E-02	.2607	2.1162E-02	.3091	2.3324E-02	.3406
H	22	465	26.745	4.732	5.381E-03	.0786	6.3519E-03	.0928	6.9819E-03	.1020
H	23	460	8.468	1.494	1.690E-03	.0247	1.9928E-03	.0291	2.1891E-03	.0320
H	24	460	9.081	1.602	1.812E-03	.0265	2.1371E-03	.0312	2.3477E-03	.0343
H	25	460	9.304	1.641	1.855E-03	.0271	2.1880E-03	.0320	2.4034E-03	.0351
H	26	457	9.777	1.720	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	2.082	2.342E-03	.0342	2.7595E-03	.0403	3.0293E-03	.0442
H	30	454	7.191	1.263	1.418E-03	.0207	1.6698E-03	.0244	1.8327E-03	.0268
H	31	463	33.851	5.979	6.782E-03	.0990	8.0019E-03	.1169	8.7928E-03	.1284
H	32	468	42.586	7.547	8.608E-03	.1257	1.0167E-02	.1485	1.1180E-02	.1633
H	33	474	54.569	9.711	1.116E-02	.1630	1.3196E-02	.1927	1.4523E-02	.2121
H	34	463	20.934	3.698	4.196E-03	.0613	4.9508E-03	.0723	5.4403E-03	.0795
H	35	460	10.887	1.920	2.171E-03	.0317	2.5599E-03	.0374	2.8120E-03	.0411
H	37	465	15.633	2.766	3.147E-03	.0460	3.7156E-03	.0543	4.0843E-03	.0597
H	38	473	4.132	.735	8.441E-04	.0123	9.9816E-04	.0146	1.0984E-03	.0160
H	39	500	103.396	18.698	2.214E-02	.3233	2.6328E-02	.3845	2.9088E-02	.4247
H	40	487	48.577	7.947	9.269E-03	.1354	1.0993E-02	.1606	1.2120E-02	.1770
H	41	478	2.345	.480	5.541E-04	.0081	6.5586E-04	.0096	7.2220E-04	.0105
H	42	478	2.218	.436	5.037E-04	.0074	5.9623E-04	.0087	6.5651E-04	.0096
H	43	477	2.514	.475	5.473E-04	.0080	6.4774E-04	.0095	7.1317E-04	.0104
H	44	476	2.809	.539	6.211E-04	.0091	7.3497E-04	.0107	8.0912E-04	.0118
H	45	476	2.182	.400	4.606E-04	.0067	5.4493E-04	.0080	5.9985E-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	1.4862E-03	.0217
H	48	476	8.502	1.559	1.796E-03	.0262	2.1246E-03	.0310	2.3388E-03	.0342
H	49	477	9.558	1.754	2.022E-03	.0295	2.3928E-03	.0349	2.6344E-03	.0385
H	50	478	11.886	2.183	2.521E-03	.0368	2.9843E-03	.0436	3.2862E-03	.0480
H	51	481	15.858	3.001	3.475E-03	.0507	4.1155E-03	.0601	4.5334E-03	.0662
H	52	488	35.904	6.635	7.748E-03	.1132	9.1909E-03	.1342	1.0134E-02	.1480
H	53	484	31.966	5.726	6.660E-03	.0973	7.8940E-03	.1153	8.7002E-03	.1271
B	400	483	1.014	.182	2.109E-04	.0031	2.4992E-04	.0037	2.7540E-04	.0040
B	402	482	.639	.118	1.364E-04	.0020	1.6163E-04	.0024	1.7808E-04	.0026
B	404	481	3.624	.697	8.080E-04	.0118	9.5701E-04	.0140	1.0542E-03	.0154
B	406	471	3.605	.642	7.352E-04	.0107	8.6890E-04	.0127	9.5584E-04	.0140
B	407	470	4.271	.780	8.921E-04	.0130	1.0541E-03	.0154	1.1594E-03	.0169
B	408	471	8.217	1.571	1.800E-03	.0263	2.1273E-03	.0311	2.3402E-03	.0342
B	409	472	6.443	1.233	1.413E-03	.0206	1.6710E-03	.0244	1.8385E-03	.0269
B	410	477	14.764	2.835	3.270E-03	.0478	3.8703E-03	.0565	4.2614E-03	.0622
B	411	478	11.746	2.256	2.603E-03	.0380	3.0809E-03	.0450	3.3923E-03	.0495
B	412	479	12.530	2.368	2.737E-03	.0400	3.2405E-03	.0473	3.5686E-03	.0521
B	413	486	.659	.125	1.459E-04	.0021	1.7298E-04	.0025	1.9070E-04	.0028
B	415	484	.645	.124	1.447E-04	.0021	1.7149E-04	.0025	1.8901E-04	.0028
B	417	483	3.239	.539	6.257E-04	.0091	7.4142E-04	.0108	8.1698E-04	.0119
B	419	470	3.881	.691	7.907E-04	.0115	9.3446E-04	.0136	1.0279E-03	.0150
B	420	469	10.201	1.681	1.920E-03	.0280	2.2683E-03	.0331	2.4945E-03	.0364
B	421	468	7.993	1.292	1.475E-03	.0215	1.7427E-03	.0255	1.9164E-03	.0280
B	422	468	7.290	1.292	1.475E-03	.0215	1.7421E-03	.0254	1.9157E-03	.0280
B	423	472	11.027	2.161	2.476E-03	.0362	2.9265E-03	.0427	3.2196E-03	.0470
B	424	472	10.413	1.960	2.248E-03	.0328	2.6582E-03	.0388	2.9248E-03	.0427
B	425	474	8.154	1.536	1.764E-03	.0258	2.0862E-03	.0305	2.2958E-03	.0335
B	426	488	.332	.063	7.372E-05	.0011	8.7460E-05	.0013	9.6444E-05	.0014
B	428	488	1.446	.280	3.271E-04	.0048	3.8794E-04	.0057	4.2775E-04	.0062
B	430	482	1.476	.272	3.153E-04	.0046	3.7348E-04	.0055	4.1148E-04	.0060
B	432	475	9.645	1.596	1.835E-03	.0268	2.1712E-03	.0317	2.3897E-03	.0349
B	433	466	2.190	.411	4.675E-04	.0068	5.5200E-04	.0081	6.0683E-04	.0089
B	434	469	10.755	1.655	1.892E-03	.0276	2.2351E-03	.0326	2.4582E-03	.0359
B	435	467	5.130	.936	1.067E-03	.0156	1.2601E-03	.0184	1.3855E-03	.0202
B	436	472	9.112	1.743	1.997E-03	.0292	2.3606E-03	.0345	2.5970E-03	.0379
B	437	473	8.131	1.531	1.759E-03	.0257	2.0795E-03	.0304	2.2884E-03	.0334
B	438	474	7.573	1.456	1.668E-03	.0243	1.9699E-03	.0288	2.1678E-03	.0317
B	439	491	.258	.058	6.755E-05	.0010	8.0178E-05	.0012	8.8445E-05	.0013
B	441	492	3.281	.651	7.642E-04	.0112	9.0730E-04	.0133	1.0010E-03	.0146
B	443	489	1.562	.248	2.894E-04	.0042	3.4338E-04	.0050	3.7868E-04	.0055
B	445	481	8.755	1.519	1.761E-03	.0257	2.0855E-03	.0305	2.2975E-03	.0336
B	446	476	7.171	1.222	1.408E-03	.0206	1.6655E-03	.0243	1.8315E-03	.0268
B	447	479	14.791	2.524	2.919E-03	.0426	3.4558E-03	.0505	3.8060E-03	.0556
B	448	477	5.525	1.014	1.170E-03	.0171	1.3847E-03	.0202	1.5246E-03	.0223
B	450	481	6.181	1.138	1.318E-03	.0193	1.5616E-03	.0228	1.7203E-03	.0251
B	451	480	7.274	1.337	1.546E-03	.0226	1.8311E-03	.0267	2.0187E-03	.0295
B	452	496	.315	.060	7.098E-05	.0010	8.4338E-05	.0012	9.3102E-05	.0014
B	454	497	4.233	.809	9.549E-04	.0139	1.1350E-03	.0166	1.2531E-03	.0183
B	456	494	1.528	.243	2.858E-04	.0042	3.3949E-04	.0050	3.7468E-04	.0055
B	458	489	9.110	1.637	1.915E-03	.0280	2.2723E-03	.0332	2.5061E-03	.0366
B	459	490	15.921	3.030	3.546E-03	.0518	4.2075E-03	.0614	4.6407E-03	.0678

FUSELAGE-BOOSTER

X/L	PHI
0	0
.1137	0
.1137	[illegible]
.0274	0
.0274	30.000
.0274	60.000
.0274	90.000
.0274	120.000
.0274	150.000
.0274	180.000
.0406	180.000
.0543	0
.0543	30.000
.0543	60.000
.0543	90.000
.0543	150.000
.0543	180.000
.0670	180.000
.0790	0
.0790	180.000
.0920	180.000
.1030	0
.1030	15.000
.1030	30.000
.1030	45.000
.1030	60.000
.1030	75.000
.1030	90.000
.1030	105.000
.1030	120.000
.1030	135.000
.1030	150.000
.1030	165.000
.1030	180.000
.1300	180.000
.1430	0
.1430	180.000
.1560	180.000
.1690	0
.1690	15.000
.1690	30.000
.1690	45.000
.1690	60.000
.1690	75.000
.1690	90.000
.1690	105.000
.1690	120.000
.1690	135.000
.1690	150.000
.1690	165.000
.1690	180.000
.2420	0
.2420	30.000
.2420	60.000
.2420	90.000
.2420	105.000
.2420	120.000
.2420	135.000
.2420	150.000
.2420	165.000
.2420	180.000
.2830	0
.2830	30.000
.2830	60.000
.2830	90.000
.2830	105.000
.2830	120.000
.2830	135.000
.2830	150.000
.2830	165.000
.2830	180.000
.3160	0
.3160	30.000
.3160	60.000
.3160	90.000
.3160	105.000
.3160	120.000
.3160	135.000
.3160	150.000
.3160	165.000
.3160	180.000
.3540	0
.3540	30.000
.3540	60.000
.3540	90.000
.3540	105.000
.3540	120.000
.3540	135.000
.3540	165.000
.3540	180.000
.3800	0
.3800	30.000
.3800	60.000
.3800	90.000
.3800	105.000

GROUP
41

VT1162

BWD POSE 2.22 IN. UPSTREAM OF GDC-R. .234 IN. GAP

#	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREWEND	ROLL-MODEL	YAW
	807	GDC-R=1.WD	8.00	859.6	1345	-5.01	-5.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RREF-FR (R= .009FT)	SIFR (R= .009FT)	SWITCH POSITION
97.5	.0888	3.944	3871	7.577E-05	7.849E-08	3.74E 06	6.842E-02	2.930E-02	2

TC NO	TW	DTWALL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
H 460	483	8.918	1.595	1.849E-03	.0270	2.1906E-03	.0320	2.4135E-03	.0353
H 461	482	5.770	1.032	1.195E-03	.0175	1.4160E-03	.0207	1.5600E-03	.0228
H 462	484	5.808	1.071	1.244E-03	.0182	1.4742E-03	.0215	1.6247E-03	.0237
B 463	487	6.829	1.261	1.468E-03	.0215	1.7409E-03	.0254	1.9142E-03	.0280
H 464	486	6.734	1.243	1.447E-03	.0212	1.7160E-03	.0251	1.8916E-03	.0276
H 106	501	.440	.044	9.978F-05	.0015	1.1868E-04	.0017	1.3110E-04	.0019
H 109	495	8.228	1.494	1.758E-03	.0257	2.0888E-03	.0305	2.3056E-03	.0337
B 110	495	9.052	1.632	1.918F-03	.0280	2.2783E-03	.0333	2.5145E-03	.0368
B 111	494	4.601	.825	9.731F-04	.0142	1.1557E-03	.0169	1.2753E-03	.0186
H 112	495	5.454	.983	1.156E-03	.0169	1.3735E-03	.0201	1.5160E-03	.0222
B 113	504	1.595	.311	3.701E-04	.0054	4.4056E-04	.0064	4.8892E-04	.0071
B 116	496	4.854	.850	1.001E-03	.0146	1.1899E-03	.0174	1.3136E-03	.0192
H 117	495	7.290	1.314	1.545E-03	.0226	1.8346E-03	.0268	2.0248E-03	.0296
H 118	495	3.864	.696	8.186E-04	.0120	9.7241E-04	.0142	1.0732E-03	.0157
B 119	496	5.046	.910	1.071F-03	.0157	1.2727E-03	.0186	1.4049E-03	.0205
H 120	507	1.909	.373	4.448E-04	.0065	5.2976E-04	.0077	5.8567E-04	.0086
H 195	514	14.760	3.773	4.538F-03	.0663	5.4136E-03	.0791	5.9919E-03	.0876
H 127	502	4.109	.744	8.821F-04	.0129	1.0496E-03	.0153	1.1546E-03	.0169
B 128	499	3.918	.708	8.369E-04	.0122	9.9513E-04	.0145	1.0940E-03	.0161
H 130	494	7.030	1.271	1.499E-03	.0219	1.7816E-03	.0260	1.9672E-03	.0288
B 131	492	3.967	.715	8.399E-04	.0123	9.9762E-04	.0146	1.1010E-03	.0161
H 138	503	5.013	.902	1.057E-03	.0154	1.2563E-03	.0183	1.3837E-03	.0202
H 139	501	5.076	.918	1.087E-03	.0159	1.2936E-03	.0189	1.4288E-03	.0209
B 140	496	5.877	1.060	1.249E-03	.0183	1.4838E-03	.0217	1.6379E-03	.0239
B 141	492	3.319	.598	7.005E-04	.0102	8.3165E-04	.0122	9.1755E-04	.0134
B 142	492	2.989	.538	6.307E-04	.0092	7.4877E-04	.0109	8.2609E-04	.0121
H 150	504	4.550	.832	9.896E-04	.0145	1.17H0E-03	.0172	1.3020E-03	.0190
H 151	502	2.824	.512	6.072E-04	.0089	7.2249E-04	.0106	7.9825E-04	.0117
H 152	500	5.314	.961	1.138F-03	.0166	1.3533E-03	.0198	1.4948E-03	.0218
H 153	496	2.518	.454	5.351E-04	.0078	6.3587E-04	.0093	7.0196E-04	.0103
H 154	494	1.656	.290	3.404E-04	.0050	4.0429E-04	.0059	4.4618E-04	.0065
H 159	509	5.095	.899	1.075F-03	.0157	1.2807E-03	.0187	1.4165E-03	.0207
H 160	505	2.846	.501	5.960F-04	.0087	7.0961E-04	.0104	7.8439E-04	.0115
H 161	501	2.189	.384	4.552E-04	.0067	5.4163E-04	.0079	5.9809E-04	.0087
H 162	498	.982	.172	2.030E-04	.0030	2.4126E-04	.0035	2.6639E-04	.0039
H 171	509	2.954	.544	6.504E-04	.0095	7.7500E-04	.0113	8.5716E-04	.0125
B 172	506	1.094	.199	2.364E-04	.0035	2.8150E-04	.0041	3.1117E-04	.0045

FUSELAGE-BOOSTER

X/L	PHI
.3800	120.000
.3800	135.000
.3800	150.000
.3800	165.000
.3800	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4880	0
.4880	90.000
.4880	120.000
.4880	150.000
.4880	180.000
.5200	0
.5500	43.000
.5500	90.000
.5500	105.000
.5500	120.000
.5500	150.000
.5500	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.7700	90.000
.7700	120.000
.7700	150.000
.7700	180.000
.8950	120.000
.8950	150.000

TC NO	TW	DTWALL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
H 200	519	44.711	6.805	8.232E-03	.1203	9.8325E-03	.1437	1.0891E-02	.1592
H 201	511	21.601	2.725	3.271F-03	.0478	3.9004E-03	.0570	4.3153E-03	.0631
H 202	512	16.056	2.242	2.692E-03	.0393	3.2107E-03	.0469	3.5529E-03	.0519
B 203	515	4.615	.990	1.192E-03	.0174	1.4224E-03	.0208	1.5746E-03	.0230
B 204	514	3.382	.938	1.129E-03	.0165	1.3470E-03	.0197	1.4910E-03	.0218
B 205	513	2.582	.457	5.486E-04	.0080	6.5438E-04	.0096	7.2417E-04	.0106
B 206	514	2.441	.414	4.976F-04	.0073	5.9371E-04	.0087	6.5715E-04	.0096
B 207	517	4.007	.377	4.546F-04	.0066	5.4265E-04	.0079	6.0089E-04	.0088
B 217	541	102.850	12.609	1.569E-02	.2293	1.8838E-02	.2753	2.0943E-02	.3061
B 218	521	47.319	4.586	5.563E-03	.0813	6.6481E-03	.0972	7.3665E-03	.1077
B 219	516	28.317	2.737	3.298E-03	.0482	3.9367E-03	.0575	4.3585E-03	.0637
B 220	516	16.342	1.456	1.755E-03	.0257	2.0949E-03	.0306	2.3193E-03	.0339
B 221	514	5.335	1.030	1.240E-03	.0181	1.4792E-03	.0216	1.6373E-03	.0239
B 222	513	3.303	.584	7.019E-04	.0103	8.3720E-04	.0122	9.2649E-04	.0135
B 223	514	3.038	.515	6.191E-04	.0090	7.3859E-04	.0108	8.1747E-04	.0119
B 230	536	95.824	13.009	1.607E-02	.2349	1.9275E-02	.2817	2.1409E-02	.3129
B 231	517	26.610	3.102	3.743E-03	.0547	4.4680E-03	.0653	4.9474E-03	.0723
B 232	516	9.024	.971	1.171E-03	.0171	1.3972E-03	.0204	1.5469E-03	.0226
B 233	514	4.301	.807	9.714E-04	.0142	1.1590E-03	.0169	1.2829E-03	.0187
B 234	514	3.618	.660	7.961E-04	.0116	9.4765E-04	.0138	1.0487E-03	.0153
B 235	517	3.764	.267	3.221E-04	.0047	3.8490E-04	.0056	4.2589E-04	.0062
B 236	517	3.960	.319	3.852E-04	.0056	4.5990E-04	.0067	5.0927E-04	.0074
B 237	516	3.422	.276	3.331E-04	.0049	3.9763E-04	.0058	4.4027E-04	.0064
B 238	516	3.143	.240	2.888E-04	.0042	3.4464E-04	.0050	3.8156E-04	.0056
B 248	552	121.155	13.804	1.740F-02	.2543	2.0957E-02	.3063	2.3340E-02	.3411
B 249	519	22.914	2.773	3.356E-03	.0490	4.0080E-03	.0586	4.4387E-03	.0649
B 250	521	18.951	2.123	2.576E-03	.0376	3.0783E-03	.0450	3.4111E-03	.0499
B 251	518	9.767	1.116	1.349F-03	.0197	1.6113E-03	.0236	1.7847E-03	.0261
B 252	516	4.093	.805	9.705E-04	.0142	1.1586E-03	.0169	1.2827E-03	.0187
B 263	553	115.778	14.277	1.802E-02	.2634	2.1709E-02	.3173	2.4183E-02	.3534
B 264	523	27.906	3.348	4.115E-03	.0601	4.9201E-03	.0719	5.4533E-03	.0797
B 265	521	9.060	1.175	1.426F-03	.0208	1.7041E-03	.0249	1.8883E-03	.0276
B 266	520	4.356	.844	1.022F-03	.0149	1.2209E-03	.0178	1.3529E-03	.0198
B 277	567	146.624	14.164	1.820F-02	.2660	2.2006E-02	.3216	2.4971E-02	.3591
B 278	525	26.601	3.478	4.239F-03	.0619	5.0709E-03	.0741	5.6223E-03	.0822
B 279	526	21.275	2.585	3.154E-03	.0461	3.7730E-03	.0551	4.1838E-03	.0611
B 280	522	9.080	1.175	1.432E-03	.0209	1.7122E-03	.0250	1.8975E-03	.0277
B 281	526	4.707	.887	1.074E-03	.0157	1.2828E-03	.0187	1.4212E-03	.0208
B 282	520	4.028	.759	9.188E-04	.0134	1.0976E-03	.0160	1.2159E-03	.0178
B 283	519	4.172	.392	4.768E-04	.0069	5.6700E-04	.0083	6.2811E-04	.0092
B 296	567	130.411	16.941	2.162F-02	.3160	2.6139E-02	.3820	2.9146E-02	.4266
B 297	529	33.735	4.023	4.928E-03	.0720	5.8999E-03	.0862	6.5455E-03	.0957
B 298	528	22.925	2.704	3.381F-03	.0496	4.0476E-03	.0592	4.4899E-03	.0656
B 299	525	9.761	.847	1.033E-03	.0151	1.2396E-03	.0181	1.3700E-03	.0200
B 300	526	5.436	.954	1.164E-03	.0170	1.3923E-03	.0203	1.5438E-03	.0226
B 301	524	5.957	.562	6.842F-04	.0100	8.1013E-04	.0120	9.0690E-04	.0133
B 302	523	4.650	.435	5.336E-04	.0078	6.3707E-04	.0093	7.0714E-04	.0103
B 315	544	60.418	7.163	8.935F-03	.1306	1.0736E-02	.1569	1.1940E-02	.1745
B 316	535	30.620	3.191	3.937F-03	.0575	4.7206E-03	.0690	5.2423E-03	.0766
B 317	531	8.395	1.039	1.276E-03	.0186	1.5280E-03	.0223	1.6958E-03	.0248

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.0631	.100
.1000	.100
.2000	.100
.3300	.100
.4000	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0500	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.4000	.250
.5000	.250
.6000	.250
.8330	.250
.8670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.8770	.500
0	.600
.1000	.600
.2000	.600
.4000	.600
.6000	.600
.7930	.600
.8910	.600
.1000	.700
.2000	.700
.5000	.700

TC NO	TW	DTWALL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
B 350	514	100.487	9.465	1.138E-02	.1663	1.3578E-02	.1984	1.5028E-02	.2196
B 351	496	45.545	4.230	4.980F-03	.0728	5.9179E-03	.0865	6.5323E-03	.0955
B 352	491	18.455	2.751	3.220F-03	.0471	3.8213E-03	.0558	4.2152E-03	.0616
B 353	486	7.792	1.298	1.510F-03	.0221	1.7906E-03	.0262	1.9737E-03	.0288
B 357	518	108.886	10.242	1.238E-02	.1809	1.4778E-02	.2160	1.6366E-02	.2392
B 358	493	32.332	2.998	3.518E-03	.0514	4.1779E-03	.0611	4.6101E-03	.0674
B 359	490	12.265	1.835	2.144E-03	.0313	2.5439E-03	.0372	2.8051E-03	.0410
B 360	487	6.869	1.138	1.326F-03	.0196	1.5718E-03	.0230	1.7328E-03	.0253

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2800	.250
.5000	.250
.7000	.250
0	.500
.2800	.500
.5000	.500
.7000	.500

GROUP
41

HWO JOSE 2.22 IN. UPSTREAM OF GDC-H. .234 IN. GAP

I.	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	H07	CGC-H+CHD	8.00	858.0	1347	-4.94	-4.94	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.6	.088	3.937	3872	7.555E-05	7.857E-08	3.72E 06	6.837E-02	2.935E-02	3

FUSELAGE-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	562	255.154	46.174	5.912E-02	.8647	7.1374E-02	1.0439	7.9626E-02	1.1646	0	-0
0	2	497	70.502	11.229	1.321E-02	.1932	1.5699E-02	.2296	1.7330E-02	.2535	.0100	-0
0	7	482	20.779	3.606	4.168E-03	.0610	4.9361E-03	.0722	5.4372E-03	.0795	.0300	-0
0	12	475	6.140	1.157	1.327E-03	.0194	1.5698E-03	.0230	1.7276E-03	.0253	.0500	-0
0	19	473	1.706	.303	3.469E-04	.0051	4.1006E-04	.0060	4.5114E-04	.0066	.1000	-0
0	29	475	9.373	1.620	1.859E-03	.0272	2.1992E-03	.0322	2.4204E-03	.0354	.2000	-0
0	44	488	24.556	4.150	4.832E-03	.0707	5.7310E-03	.0838	6.3186E-03	.0924	.3000	-0
0	54	492	14.222	2.711	3.172E-03	.0464	3.7654E-03	.0551	4.1540E-03	.0608	.4000	-0
0	66	473	9.375	1.688	1.976E-03	.0289	2.3462E-03	.0343	2.5885E-03	.0379	.5000	-0
0	76	493	9.921	1.576	1.847E-03	.0270	2.1924E-03	.0321	2.4190E-03	.0354	.5500	-0
0	80	496	7.859	1.467	1.725E-03	.0252	2.0502E-03	.0300	2.2631E-03	.0331	.6000	-0
0	89	503	5.825	1.055	1.251E-03	.0183	1.4887E-03	.0218	1.6450E-03	.0241	.7000	-0
0	98	500	7.169	1.224	1.446E-03	.0211	1.7193E-03	.0251	1.8990E-03	.0278	.8000	-0
0	104	506	2.346	.413	4.911E-04	.0072	5.8473E-04	.0086	6.4633E-04	.0095	.9000	-0
0	114	505	1.145	.214	2.537E-04	.0037	3.0204E-04	.0044	3.3380E-04	.0049	.9900	-0
0	20	474	1.750	.128	1.471E-04	.0022	1.7390E-04	.0025	1.9137E-04	.0028	.1000	-.303
0	31	477	8.110	1.616	1.857E-03	.0272	2.1972E-03	.0321	2.4187E-03	.0354	.2000	-.466
0	46	493	31.620	6.365	7.458E-03	.1091	8.8548E-03	.1295	9.7699E-03	.1429	.3000	-.504
0	56	494	13.391	2.555	2.998E-03	.0438	3.5601E-03	.0521	3.9267E-03	.0575	.4000	-.526
0	69	497	14.470	2.614	3.078E-03	.0450	3.6583E-03	.0535	4.0389E-03	.0591	.5000	-.630
0	83	497	4.971	.950	1.118E-03	.0164	1.3286E-03	.0194	1.4667E-03	.0215	.6000	-.748
0	92	504	3.956	.717	8.505E-04	.0124	1.0122E-03	.0148	1.1186E-03	.0164	.7000	-.704
0	101	508	5.477	1.112	1.325E-03	.0194	1.5785E-03	.0231	1.7453E-03	.0255	.8000	-.669
0	107	507	3.254	.574	6.831E-04	.0100	8.1355E-04	.0119	8.9945E-04	.0132	.9000	-.678
0	117	507	2.500	.481	5.720E-04	.0084	6.8119E-04	.0100	7.5306E-04	.0110	.9900	-.660
0	5	487	48.703	7.455	8.676E-03	.1269	1.0288E-02	.1505	1.1342E-02	.1659	.0100	0
0	10	487	40.539	7.058	8.206E-03	.1200	9.7293E-03	.1423	1.0725E-02	.1569	.0300	0
0	24	487	25.438	4.698	5.464E-03	.0799	6.4788E-03	.0948	7.1420E-03	.1045	.1000	0
0	28	491	27.228	4.177	4.881E-03	.0714	5.7931E-03	.0847	6.3898E-03	.0935	.1500	0
0	35	497	24.400	4.275	5.031E-03	.0736	5.9791E-03	.0875	6.6007E-03	.0965	.2000	0
0	36	543	166.287	27.195	3.384E-02	.4950	4.0653E-02	.5946	4.5203E-02	.6612	.2100	0
0	37	582	263.595	48.371	6.324E-02	.9250	7.6760E-02	1.1227	8.5944E-02	1.2570	.2200	0
0	38	512	104.523	17.050	2.092E-02	.3060	2.5060E-02	.3665	2.7813E-02	.4068	.2300	0
0	40	497	6.110	.941	1.108E-03	.0162	1.3169E-03	.0193	1.4539E-03	.0213	.2500	0
0	53	498	1.909	.314	3.693E-04	.0054	4.3897E-04	.0064	4.8467E-04	.0071	.3000	0
0	62	507	17.103	2.649	3.152E-03	.0461	3.7542E-03	.0549	4.1503E-03	.0607	.4000	0
0	75	503	14.470	2.544	3.015E-03	.0441	3.5879E-03	.0525	3.9643E-03	.0580	.5000	0
0	87	503	11.022	1.890	2.240E-03	.0328	2.6655E-03	.0390	2.9452E-03	.0431	.6000	0
0	96	506	10.068	1.773	2.109E-03	.0309	2.5117E-03	.0367	2.7765E-03	.0406	.7000	0
0	111	508	7.965	1.260	1.512E-03	.0221	1.8009E-03	.0263	1.9914E-03	.0291	.9000	.610
0	120	514	19.888	2.240	2.689E-03	.0393	3.2074E-03	.0469	3.5496E-03	.0519	.9900	.305
0	4	485	29.072	4.291	4.980E-03	.0728	5.9021E-03	.0863	6.5046E-03	.0951	.0100	1.000
0	14	481	19.350	3.254	3.757E-03	.0550	4.4490E-03	.0651	4.9001E-03	.0717	.0500	1.000
0	22	482	13.485	2.341	2.707E-03	.0396	3.2066E-03	.0469	3.5325E-03	.0517	.1000	1.000
0	33	480	6.980	1.211	1.397E-03	.0204	1.6546E-03	.0242	1.8223E-03	.0267	.2000	1.000
0	48	495	22.297	3.665	4.301E-03	.0629	5.1085E-03	.0747	5.6376E-03	.0825	.3000	1.000
0	59	497	23.969	4.455	5.243E-03	.0767	6.2303E-03	.0911	6.8781E-03	.1006	.4000	1.000
0	72	494	22.167	4.346	5.096E-03	.0745	6.0511E-03	.0885	6.6770E-03	.0977	.5000	1.000
0	78	495	12.120	1.800	2.113E-03	.0309	2.5097E-03	.0367	2.7699E-03	.0405	.5500	1.000
0	85	495	6.882	1.204	1.414E-03	.0207	1.6798E-03	.0246	1.8538E-03	.0271	.6000	1.000
0	77	492	10.095	1.550	1.813E-03	.0265	2.1521E-03	.0315	2.3741E-03	.0347	.5500	-1.000
0	84	495	9.357	1.836	2.157E-03	.0315	2.5617E-03	.0375	2.8273E-03	.0414	.6000	-1.000
0	94	501	8.110	1.727	2.042E-03	.0299	2.4289E-03	.0355	2.6826E-03	.0392	.7000	-1.000
0	39	509	41.334	7.956	9.492E-03	.1388	1.1309E-02	.1654	1.2506E-02	.1829	.2400	.406
0	42	499	10.072	1.981	2.335E-03	.0342	2.7763E-03	.0406	3.0656E-03	.0448	.2700	.446
0	51	500	9.872	1.996	2.357E-03	.0345	2.8030E-03	.0410	3.0958E-03	.0453	.3000	.433
0	41	503	18.619	3.670	4.348E-03	.0636	5.1735E-03	.0757	5.7160E-03	.0836	.2700	.406
0	52	498	3.659	.739	8.706E-04	.0127	1.0340E-03	.0151	1.1425E-03	.0167	.3000	.261

LOWER WING SURFACE-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	518	43.054	7.637	9.211E-03	.1347	1.0998E-02	.1609	1.2179E-02	.1781	0	.250
0	136	506	7.751	1.366	1.625E-03	.0238	1.9346E-03	.0283	2.1386E-03	.0313	.1000	.250
0	137	507	4.087	.677	8.052E-04	.0118	9.5894E-04	.0140	1.0601E-03	.0155	.2000	.250
0	138	510	7.425	1.351	1.614E-03	.0236	1.9235E-03	.0281	2.1275E-03	.0311	.4000	.250
0	140	511	6.650	1.146	1.371E-03	.0200	1.6330E-03	.0239	1.8074E-03	.0264	.6000	.250
0	142	510	2.924	.470	5.620E-04	.0082	6.6970E-04	.0098	7.4084E-04	.0108	.9000	.250
0	149	528	80.958	11.204	1.368E-02	.2001	1.6373E-02	.2395	1.8160E-02	.2656	0	.500
0	150	514	12.511	2.415	2.890E-03	.0424	3.4572E-03	.0506	3.8260E-03	.0560	.1000	.500
0	151	511	5.257	1.012	1.212E-03	.0177	1.4446E-03	.0211	1.5982E-03	.0234	.2000	.500
0	152	511	3.114	.533	6.382E-04	.0093	7.6083E-04	.0111	8.4165E-04	.0123	.4000	.500
0	154	512	2.634	.466	5.585E-04	.0082	6.6585E-04	.0097	7.3666E-04	.0108	.6000	.500
0	157	513	3.117	.551	6.614E-04	.0097	7.8880E-04	.0115	8.7298E-04	.0128	.9000	.500
0	171	543	79.460	14.303	1.781E-02	.2604	2.1392E-02	.3129	2.3787E-02	.3479	0	.750
0	172	523	27.060	4.665	5.667E-03	.0829	6.7739E-03	.0991	7.5074E-03	.1098	.1000	.750
0	175	515	3.934	.781	9.391E-04	.0137	1.1206E-03	.0164	1.2404E-03	.0181	.4000	.750
0	178	514	.949	.168	2.016E-04	.0029	2.4054E-04	.0035	2.6621E-04	.0039	.8000	.750

UPPER WING SURFACE-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
0	129	506	26.511	3.963	4.715E-03	.0690	5.6152E-03	.0821	6.2074E-03	.0908	.1000	.100
0	130	505	13.764	2.276	2.704E-03	.0396	3.2190E-03	.0471	3.5578E-03	.0520	.2000	.100
0	131	504	9.159	1.124	1.334E-03	.0195	1.5878E-03	.0232	1.7547E-03	.0257	.4000	.100
0	132	504	2.996	.559	6.632E-04	.0097	7.8926E-04	.0115	8.7217E-04	.0128	.7000	.100
0	133	507	2.960	.508	6.019E-04	.0088	7.1682E-04	.0105	7.9240E-04	.0116	.9000	.100
0	158	522	46.727	7.049	8.545E-03	.1250	1.0213E-02	.1494	1.1317E-02	.1655	.1000	.500
0	159	519	35.849	5.785	6.990E-03	.1022	8.3484E-03	.1221	9.2469E-03	.1352	.2000	.500
0	160	516	20.004	3.222	3.877E-03	.0567	4.6269E-03	.0677	5.1223E-03	.0749	.4000	.500
0	161	516	3.460	.594	7.152E-04	.0105	8.5355E-04	.0125	9.4491E-04	.0138	.6000	.500
0	162	514	7.857	1.059	1.272E-03	.0186	1.5178E-03	.0222	1.6799E-03	.0246	.9000	.500

VERTICAL STABILIZER-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/B
0	187	553	132.816	21.836	2.751E-02	.4024	3.3130E-02	.4846	3.6900E-02	.5397	0	.100
0	188	517	20.831	3.581	4.317E-03	.0631	5.1832E-03	.0784	5.7060E-03	.0835	.1000	.100
0	189	516	6.224	1.036	1.244E-03	.0182	1.4841E-03	.0217	1.6428E-03	.0240	.4000	.100
0	192	547	100.086	19.135	2.392E-02	.3499	2.8764E-02	.4207	3.2004E-02	.4681	0	.250
0	193	521	26.248	4.524	5.480E-03	.0802	6.5488E-03	.0958	7.2561E-03	.1061	.1000	.250
0	194	518	5.488	.914	1.103E-03	.0161	1.3164E-03	.0193	1.4578E-03	.0213	.4000	.250
0	197	535	67.791	12.511	1.542E-02	.2256	1.8483E-02	.2703	2.0525E-02	.3002	.1000	.500
0	198	520	8.680	1.543	1.865E-03	.0273	2.2284E-03	.0326	2.4684E-03	.0361	.4000	.500
0	201	541	184.909	35.898	4.688E-02	.6857	5.6890E-02	.8321	6.3687E-02	.9315	0	.750
0	202	543	81.039	9.344	1.162E-02	.1700	1.3989E-02	.2042	1.5520E-02	.2270	.1000	.750
0	203	525	11.742	1.341	1.619E-03	.0237	1.9306E-03	.0283	2.1488E-03	.0314	.4000	.750

GROUP
41

NOT REPRODUCIBLE

5/26/71

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

UWO FOSE 2.22 IN. UPSTREAM OF GDC-B, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
-	807	GDC-B+CWO	8.00	857.4	1349	5.01	5.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.8	.088	3.934	3876	7.537E-05	7.870E-08	3.71E 06	6.837E-02	2.939E-02	1

	TC NO	TW	QTHL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
B	1	551	227.957	42.422	5.313E-02	.7772	6.3938E-02	.9352	7.1173E-02	1.0411	0	0
B	2	485	69.380	12.432	1.439E-02	.2104	1.7048E-02	.2494	1.8786E-02	.2748	.0137	0
B	3	484	59.941	10.731	1.240E-02	.1814	1.4689E-02	.2149	1.6183E-02	.2367	.0137	180.000
B	4	478	46.604	8.312	9.539E-03	.1395	1.1286E-02	.1651	1.2424E-02	.1817	.0274	0
B	5	476	44.182	7.875	9.025E-03	.1320	1.0675E-02	.1561	1.1750E-02	.1719	.0274	30.000
B	6	476	44.618	7.952	9.114E-03	.1333	1.0780E-02	.1577	1.1865E-02	.1736	.0274	60.000
B	7	476	37.529	6.688	7.662E-03	.1121	9.0623E-03	.1326	9.9739E-03	.1459	.0274	90.000
B	8	474	34.985	6.407	7.319E-03	.1071	8.6528E-03	.1266	9.5200E-03	.1392	.0274	120.000
B	9	473	33.545	6.142	7.013E-03	.1026	8.2905E-03	.1213	9.1209E-03	.1334	.0274	150.000
B	10	473	30.366	5.557	6.341E-03	.0927	7.4941E-03	.1096	8.2439E-03	.1206	.0274	180.000
B	11	471	23.262	4.134	4.706E-03	.0688	5.5599E-03	.0813	6.1146E-03	.0894	.0406	180.000
B	12	471	31.558	5.608	6.387E-03	.0934	7.5471E-03	.1104	8.3008E-03	.1214	.0543	0
B	13	471	31.129	5.529	6.297E-03	.0921	7.4402E-03	.1088	8.1830E-03	.1197	.0543	30.000
B	14	471	27.754	4.935	5.618E-03	.0822	6.6373E-03	.0971	7.2995E-03	.1068	.0543	60.000
B	15	470	24.750	4.392	4.996E-03	.0731	5.9017E-03	.0863	6.4899E-03	.0949	.0543	90.000
B	17	469	19.519	3.463	3.936E-03	.0576	4.6490E-03	.0680	5.1119E-03	.0748	.0543	150.000
B	18	469	19.084	3.385	3.848E-03	.0563	4.5447E-03	.0665	4.9972E-03	.0731	.0543	180.000
B	19	470	15.407	2.735	3.111E-03	.0455	3.6749E-03	.0538	4.0412E-03	.0591	.0670	180.000
B	20	472	23.545	4.185	4.772E-03	.0698	5.6398E-03	.0825	6.2037E-03	.0907	.0790	0
B	21	470	10.969	1.947	2.215E-03	.0324	2.6160E-03	.0383	2.8767E-03	.0421	.0790	180.000
B	22	477	26.787	4.776	5.476E-03	.0801	6.4778E-03	.0948	7.1301E-03	.1043	.0920	180.000
B	23	474	17.990	3.202	3.661E-03	.0536	4.3292E-03	.0633	4.7635E-03	.0697	.1030	0
B	24	475	17.258	3.073	3.516E-03	.0514	4.1577E-03	.0608	4.5752E-03	.0669	.1030	15.000
B	25	475	16.385	2.918	3.339E-03	.0488	3.9485E-03	.0578	4.3451E-03	.0636	.1030	30.000
B	26	472	16.865	2.997	3.416E-03	.0500	4.0361E-03	.0590	4.4394E-03	.0649	.1030	45.000
B	27	474	15.677	2.789	3.187E-03	.0466	3.7676E-03	.0551	4.1452E-03	.0606	.1030	60.000
B	28	473	14.264	2.540	2.899E-03	.0424	3.4263E-03	.0501	3.7693E-03	.0551	.1030	75.000
B	29	473	13.438	2.385	2.726E-03	.0399	3.2225E-03	.0471	3.5449E-03	.0519	.1030	90.000
B	30	472	12.665	2.252	2.569E-03	.0376	3.0359E-03	.0444	3.3397E-03	.0488	.1030	105.000
B	31	472	11.454	2.036	2.323E-03	.0340	2.7450E-03	.0402	3.0203E-03	.0442	.1030	120.000
B	32	472	10.272	1.825	2.081E-03	.0304	2.4591E-03	.0360	2.7049E-03	.0396	.1030	135.000
B	33	470	5.702	1.012	1.151E-03	.0168	1.3602E-03	.0199	1.4958E-03	.0219	.1030	150.000
B	34	482	35.915	6.424	7.410E-03	.1084	8.7798E-03	.1284	9.6665E-03	.1414	.1030	165.000
B	35	479	34.996	6.247	7.178E-03	.1050	8.4968E-03	.1243	9.3527E-03	.1368	.1030	180.000
B	37	482	25.392	4.722	5.448E-03	.0797	6.4526E-03	.0944	7.1078E-03	.1040	.1300	180.000
B	38	481	10.323	1.845	2.125E-03	.0311	2.5160E-03	.0368	2.7715E-03	.0405	.1430	0
B	39	484	22.043	3.947	4.561E-03	.0667	5.4033E-03	.0790	5.9530E-03	.0871	.1430	180.000
B	40	482	9.711	1.584	1.828E-03	.0267	2.1650E-03	.0317	2.3849E-03	.0349	.1560	180.000
B	41	482	6.442	1.322	1.525E-03	.0223	1.8062E-03	.0264	1.9895E-03	.0291	.1690	0
B	42	482	6.301	1.243	1.433E-03	.0210	1.6960E-03	.0248	1.8684E-03	.0273	.1690	15.000
B	43	482	6.012	1.136	1.313E-03	.0192	1.5544E-03	.0227	1.7121E-03	.0250	.1690	30.000
B	44	481	5.462	1.051	1.211E-03	.0177	1.4333E-03	.0210	1.5785E-03	.0231	.1690	45.000
B	45	480	5.056	.930	1.070E-03	.0157	1.2670E-03	.0185	1.3953E-03	.0204	.1690	60.000
B	46	480	4.863	.894	1.029E-03	.0151	1.2185E-03	.0178	1.3419E-03	.0196	.1690	75.000
B	47	481	4.042	.744	8.570E-04	.0125	1.0147E-03	.0148	1.1175E-03	.0163	.1690	90.000
B	48	480	3.731	.686	7.894E-04	.0115	9.3444E-04	.0137	1.0240E-03	.0151	.1690	105.000
B	49	478	2.130	.391	4.494E-04	.0066	5.3176E-04	.0078	5.8542E-04	.0086	.1690	120.000
B	50	481	6.207	1.142	1.316E-03	.0192	1.5582E-03	.0228	1.7161E-03	.0251	.1690	135.000
B	51	482	7.523	1.425	1.644E-03	.0241	1.9479E-03	.0285	2.1452E-03	.0314	.1690	150.000
B	52	485	13.814	2.545	2.951E-03	.0432	3.4976E-03	.0512	3.8541E-03	.0564	.1690	165.000
B	53	512	91.074	16.589	1.982E-02	.2899	2.3629E-02	.3456	2.6141E-02	.3824	.1690	180.000
B	400	488	4.482	.877	1.018E-03	.0149	1.2076E-03	.0177	1.3313E-03	.0195	.2420	0
B	402	488	2.959	.547	6.352E-04	.0093	7.5329E-04	.0110	8.3044E-04	.0121	.2420	30.000
B	404	489	6.244	1.207	1.403E-03	.0205	1.6641E-03	.0243	1.8346E-03	.0268	.2420	60.000
B	406	481	.741	.133	1.529E-04	.0022	1.8098E-04	.0026	1.9931E-04	.0029	.2420	90.000
B	407	482	3.448	.635	7.321E-04	.0107	8.6692E-04	.0127	9.5488E-04	.0140	.2420	105.000
B	408	482	5.337	1.028	1.185E-03	.0173	1.4038E-03	.0205	1.5463E-03	.0226	.2420	120.000
B	409	486	12.464	2.406	2.788E-03	.0408	3.3045E-03	.0483	3.6419E-03	.0533	.2420	135.000
B	410	486	12.604	2.434	2.821E-03	.0413	3.3441E-03	.0489	3.6857E-03	.0539	.2420	150.000
B	411	488	15.028	2.905	3.375E-03	.0494	4.0021E-03	.0585	4.4121E-03	.0645	.2420	165.000
B	412	492	28.647	5.458	6.365E-03	.0931	7.5533E-03	.1105	8.3310E-03	.1219	.2420	180.000
B	413	494	4.622	.882	1.032E-03	.0151	1.2257E-03	.0179	1.3525E-03	.0198	.2830	0
B	415	494	2.805	.544	6.361E-04	.0093	7.5523E-04	.0110	8.3325E-04	.0122	.2830	30.000
B	417	494	5.956	.998	1.167E-03	.0171	1.3862E-03	.0203	1.5295E-03	.0224	.2830	60.000
B	419	483	3.945	.706	8.173E-04	.0120	9.0010E-04	.0142	1.0065E-03	.0156	.2830	90.000
B	420	481	7.528	1.251	1.442E-03	.0211	1.7074E-03	.0250	1.8806E-03	.0275	.2830	105.000
B	421	482	4.324	.706	8.135E-04	.0119	9.6335E-04	.0141	1.0610E-03	.0155	.2830	120.000
B	422	483	6.437	1.152	1.331E-03	.0195	1.5769E-03	.0231	1.7372E-03	.0254	.2830	135.000
B	423	485	9.841	1.787	2.070E-03	.0303	2.4520E-03	.0359	2.7030E-03	.0395	.2830	150.000
B	424	489	19.312	3.605	4.287E-03	.0627	5.0866E-03	.0744	5.6080E-03	.0820	.2830	165.000
B	425	487	20.114	3.822	4.436E-03	.0649	5.2596E-03	.0769	5.7977E-03	.0848	.2830	180.000
B	426	496	4.782	.914	1.072E-03	.0157	1.2735E-03	.0186	1.4056E-03	.0206	.3160	0
B	428	497	3.856	.603	7.084E-04	.0104	8.4172E-04	.0123	9.2914E-04	.0136	.3160	30.000
B	430	495	2.863	.528	6.092E-04	.0089	7.2343E-04	.0106	7.9831E-04	.0117	.3160	60.000
B	432	495	7.950	1.336	1.539E-03	.0225	1.8239E-03	.0267	2.0098E-03	.0294	.3160	90.000
B	433	478	3.714	.702	8.053E-04	.0118	9.5282E-04	.0139	1.0489E-03	.0153	.3160	105.000
B	434	483	7.162	1.209	1.391E-03	.0203	1.6477E-03	.0241	1.8181E-03	.0266	.3160	120.000
B	435	482	3.559	.655	7.547E-04	.0111	8.9490E-04	.0131	9.8876E-04	.0144	.3160	135.000
B	436	487	10.806	2.087	2.420E-03	.0354	2.8683E-03	.0420	3.1614E-03	.0462	.3160	150.000
B	437	487	13.341	2.535	2.941E-03	.0430	3.4860E-03	.0510	3.8436E-03	.0562	.3160	165.000
B	438	488	16.656	3.215	3.740E-03	.0547	4.4346E-03	.0649	4.8886E-03	.0715	.3160	180.000
B	439	499	5.811	.975	1.147E-03	.0168	1.3623E-03	.0199	1.5053E-03	.0220	.3840	0
B	441	500	3.810	.762	8.969E-04	.0131	1.0662E-03	.0156	1.1774E-03	.0172	.3840	30.000
B	443	498	1.811	.289	3.394E-04	.0050	4.0330E-04	.0059	4.4531E-04	.0065	.3840	60.000
B	445	493	8.727	1.526	1.783E-03	.0261	2.1146E-03	.0310	2.3381E-03	.0342	.3840	90.000
B	446	492	12.935	2.225	2.597E-03	.0380	3.0829E-03	.0451	3.4001E-03	.0497	.3840	105.000
B	447	491	10.009	1.721	2.009E-03	.0294	2.3788E-03	.0348	2.6234E-03	.0384	.3840	120.000
B	448	488	4.321	.801	9.303E-04	.0136	1.1033E-03	.0161	1.2163E-03	.0178	.3840	135.000
B	450	494	12.550	2.330	2.725E-03	.0399	3.2346E-03	.0473	3.5694E-03	.0522	.3840	165.000
B	451	493	15.782	2.922	3.415E-03	.0499	4.0594E-03	.0593	4.4723E-03	.0654	.3840	180.000
B	452	501	4.960	.941	1.109E-03	.0162	1.3192E-03	.0193	1.4570E-03	.0213	.3800	0
B	454	501	4.743	.909	1.072E-03	.0157	1.2743E-03	.0186	1.4076E-03	.0206	.3800	30.000
B	456	500	1.971	.319	3.706E-04	.0054	4.4063E-04	.0064	4.8641E-04	.0071	.3800	60.000
B	458	497	7.940	1.434	1.684E-03	.0246	2.0000E-03	.0293	2.2087E-03	.0323	.3800	90.000
B	459	503	25.156	4.825	5.700E-03	.0834	6.7012E-03	.0982	7.4914E-03	.1096	.3800	105.000

GROUP
44

BWB FUSE 2.22 IN. UPSTREAM OF GUC-H= .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R
407	GUC-H-GWB	8.00	456.2	1349

ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREMEND	ROLL-MODEL	YAW
5.18	5.18	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	REF-FM (M= .009FT)	SIFM (M= .009FT)	SWITCH POSITION
97.7	.0888	8.929	3875	7.529E-05	7.868E-08	3.71E 06	6.832E-02	2.940E-02	2

TC NO	TW	DTWALL	Q-DOT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.85TO)	M(.85TO)/MREF
H 160	491	8.501	1.529	1.783E-03	.0261	2.1154E-03	.0310	2.3330E-03	.0342
H 161	489	3.852	.692	8.043E-04	.0118	9.53A9E-04	.0140	1.0517E-03	.0154
H 162	491	6.902	1.278	1.490E-03	.0218	1.76R2E-03	.0259	1.9502E-03	.0285
H 163	494	11.014	2.043	2.389F-03	.0350	2.83A0E-03	.0415	3.1240E-03	.0458
H 164	494	12.372	2.295	2.684E-03	.0393	3.1866E-03	.0466	3.5158E-03	.0515
B 106	503	4.555	.882	1.043F-03	.0153	1.2404E-03	.0182	1.3704E-03	.0201
H 109	504	14.033	2.584	3.012E-03	.0441	3.5850E-03	.0525	3.9614E-03	.0580
H 110	500	9.323	1.687	1.988F-03	.0291	2.3644E-03	.0346	2.6113E-03	.0382
H 111	498	4.516	.816	9.585F-04	.0140	1.1390E-03	.0167	1.2574E-03	.0184
H 112	500	10.017	1.811	2.133E-03	.0312	2.5364E-03	.0371	2.8009E-03	.0410
B 113	504	3.160	.618	7.347E-04	.0108	8.7495E-04	.0128	9.6710E-04	.0142
H 116	507	11.734	2.069	2.459E-03	.0360	2.9290E-03	.0429	3.2341E-03	.0474
B 117	501	5.145	.931	1.099E-03	.0161	1.3069E-03	.0191	1.4435E-03	.0211
H 118	501	4.105	.743	8.761F-04	.0128	1.0418E-03	.0152	1.1506E-03	.0168
H 119	501	7.065	1.279	1.509E-03	.0221	1.7951E-03	.0263	1.9827E-03	.0290
B 120	509	2.458	.481	5.725E-04	.0084	6.8194E-04	.0100	7.5404E-04	.0110
H 195	520	21.775	4.395	5.303E-03	.0776	6.3335E-03	.0927	7.0153E-03	.1027
H 127	512	12.589	2.294	2.743E-03	.0402	3.2704E-03	.0479	3.6143E-03	.0530
B 128	509	8.397	1.527	1.818F-03	.0266	2.1654E-03	.0317	2.3945E-03	.0351
B 129	504	3.869	.701	8.307E-04	.0122	9.8854E-04	.0145	1.0923E-03	.0160
H 130	501	8.213	.581	6.859E-04	.0100	8.1563E-04	.0119	9.0084E-04	.0132
H 131	498	6.104	1.103	1.296E-03	.0190	1.5407E-03	.0226	1.7008E-03	.0249
H 138	515	11.466	2.092	2.508E-03	.0367	2.9919E-03	.0438	3.3113E-03	.0485
H 139	511	6.569	1.192	1.422F-03	.0208	1.6943E-03	.0248	1.8752E-03	.0274
H 140	504	4.021	.729	8.636E-04	.0126	1.0277E-03	.0150	1.1356E-03	.0166
B 142	499	2.980	.535	6.526E-04	.0096	7.7615E-04	.0114	8.5726E-04	.0125
H 150	514	10.958	2.006	2.293F-04	.0092	7.4792E-04	.0109	8.2578E-04	.0121
H 151	511	6.217	1.132	2.405E-03	.0352	2.8684E-03	.0420	3.1745E-03	.0465
H 152	508	5.285	.961	1.352F-03	.0198	1.6112E-03	.0236	1.7822E-03	.0261
H 153	504	2.403	.438	1.143E-03	.0167	1.3616E-03	.0199	1.5055E-03	.0220
H 154	501	1.427	.251	5.157E-04	.0075	6.1369E-04	.0090	6.7811E-04	.0099
B 159	518	11.907	2.113	2.955F-04	.0043	3.5133E-04	.0051	3.8802E-04	.0057
B 160	511	3.386	.598	2.544F-03	.0372	3.0377E-03	.0445	3.3639E-03	.0492
H 161	506	1.685	.297	7.139E-04	.0105	8.5088E-04	.0125	9.4116E-04	.0138
B 162	503	.934	.164	3.523E-04	.0052	4.1947E-04	.0061	4.6366E-04	.0068
H 171	512	1.085	.563	1.942E-04	.0028	2.3099E-04	.0034	2.5520E-04	.0037
B 172	507	.830	.151	6.723E-04	.0098	8.0143E-04	.0117	8.8661E-04	.0130
				1.792F-04	.0026	2.1338E-04	.0031	2.3591E-04	.0035

FUSELAGE-BOOSTER

X/L	PHI
.3800	120.000
.3800	135.000
.3800	150.000
.3800	165.000
.3800	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4880	0
.4880	90.000
.4880	120.000
.4880	150.000
.4880	180.000
.5200	0
.5500	45.000
.5500	90.000
.5500	105.000
.5500	120.000
.5500	150.000
.5500	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.7700	90.000
.7700	120.000
.7700	150.000
.7700	180.000
.8950	120.000
.8950	150.000

B 200	531	54.824	8.403	1.028E-02	.1505	1.2311E-02	.1802	1.3640E-02	.2000
H 201	520	13.344	1.551	1.873E-03	.0274	2.2366E-03	.0327	2.4774E-03	.0363
H 202	517	4.842	1.235	1.488E-03	.0218	1.7742E-03	.0260	1.9665E-03	.0288
B 203	517	1.841	.376	4.555E-04	.0067	5.4362E-04	.0080	6.0146E-04	.0088
B 204	518	1.972	.344	4.145F-04	.0061	4.9487E-04	.0072	5.4796E-04	.0080
H 205	518	1.967	.349	4.201E-04	.0061	5.0146E-04	.0073	5.5526E-04	.0081
B 206	519	2.703	.460	5.539F-04	.0081	6.6144E-04	.0097	7.3256E-04	.0107
H 207	521	4.702	.443	5.357E-04	.0078	6.4008E-04	.0094	7.0914E-04	.0104
H 217	551	107.017	13.181	1.652E-02	.2419	1.9884E-02	.2911	2.2136E-02	.3240
B 218	527	13.706	3.276	3.992E-03	.0584	4.7762E-03	.0699	5.2965E-03	.0775
B 219	522	19.359	1.478	2.273E-03	.0333	2.7158E-03	.0398	3.0042E-03	.0440
H 220	520	10.323	.922	1.114E-03	.0163	1.3304E-03	.0195	1.4738E-03	.0216
B 221	518	2.867	.555	6.680E-04	.0098	7.9749E-04	.0117	8.8307E-04	.0129
B 222	517	.867	.159	1.914E-04	.0028	2.2844E-04	.0033	2.5292E-04	.0037
B 223	518	.658	.112	1.345F-04	.0020	1.6056E-04	.0024	1.7779E-04	.0026
B 230	555	119.807	16.432	2.070F-02	.3031	2.4943E-02	.3651	2.7787E-02	.4068
H 231	521	18.108	2.116	2.558E-03	.0375	3.0568E-03	.0447	3.3866E-03	.0496
B 232	519	2.935	.568	6.852E-04	.0100	8.1816E-04	.0120	9.0611E-04	.0133
B 233	518	2.140	.403	4.852E-04	.0071	5.7929E-04	.0085	6.4150E-04	.0094
B 234	519	1.464	.268	3.228E-04	.0047	3.8541E-04	.0056	4.2684E-04	.0062
B 235	521	.634	.046	5.532E-05	.0008	6.6093E-05	.0010	7.3220E-05	.0011
A 236	522	1.028	.083	1.004E-04	.0015	1.1998E-04	.0018	1.3293E-04	.0019
H 237	521	1.167	.094	1.140E-04	.0017	1.3615E-04	.0020	1.5085E-04	.0022
H 238	521	1.132	.087	1.047E-04	.0015	1.2503E-04	.0018	1.3852E-04	.0020
H 248	546	115.177	13.220	1.690E-02	.2474	2.0418E-02	.2989	2.2742E-02	.3336
B 249	525	15.308	1.859	2.258E-03	.0331	2.7006E-03	.0395	2.9939E-03	.0438
B 250	524	10.204	1.145	1.389E-03	.0203	1.6607E-03	.0243	1.8407E-03	.0269
B 251	521	3.077	.597	7.209E-04	.0106	8.6125E-04	.0126	9.5412E-04	.0140
B 252	522	1.879	.370	4.479E-04	.0066	5.3520E-04	.0078	5.9246E-04	.0087
B 263	569	131.715	16.374	2.100E-02	.3074	2.5389E-02	.3717	2.8356E-02	.4150
B 264	528	22.638	2.755	3.358E-03	.0492	4.0193E-03	.0588	4.4580E-03	.0653
B 265	524	3.048	.592	7.183E-04	.0105	8.5887E-04	.0126	9.5199E-04	.0139
B 266	525	2.418	.431	5.227E-04	.0077	6.2504E-04	.0091	6.9287E-04	.0101
B 277	582	104.309	15.994	2.087E-02	.3055	2.5332E-02	.3708	2.8361E-02	.4152
B 278	530	14.013	2.359	2.880E-03	.0422	3.4472E-03	.0505	3.8240E-03	.0560
B 279	530	12.701	1.547	1.890E-03	.0277	2.2630E-03	.0331	2.5107E-03	.0368
B 280	526	3.324	.647	7.869E-04	.0115	9.4124E-04	.0138	1.0436E-03	.0153
B 281	525	2.578	.487	5.911E-04	.0087	7.0676E-04	.0103	7.8344E-04	.0115
B 282	526	2.300	.435	5.280E-04	.0077	6.3152E-04	.0092	7.0013E-04	.0102
B 283	525	2.334	.221	2.683F-04	.0039	3.2091E-04	.0047	3.5575E-04	.0052
B 296	573	170.008	22.026	2.840E-02	.4157	3.4375E-02	.5032	3.8418E-02	.5624
B 297	531	19.679	2.578	3.152E-03	.0461	3.7738E-03	.0552	4.1871E-03	.0613
B 298	531	13.141	1.587	1.940E-03	.0284	2.3226E-03	.0340	2.5770E-03	.0377
B 299	527	1.927	.448	5.452F-04	.0080	6.5235E-04	.0095	7.2342E-04	.0106
B 300	530	2.367	.413	5.045E-04	.0074	6.0400E-04	.0088	6.7010E-04	.0098
B 301	529	2.441	.231	2.819E-04	.0041	3.3739E-04	.0049	3.7424E-04	.0055
B 302	528	2.280	.216	2.631E-04	.0039	3.1486E-04	.0046	3.4922E-04	.0051
B 315	542	46.946	4.916	8.095E-03	.0892	7.3184E-03	.1071	8.1351E-03	.1191
B 316	536	19.750	2.059	2.539F-03	.0371	3.0390E-03	.0445	3.3748E-03	.0494
B 317	534	3.574	.582	7.139E-04	.0104	8.5547E-04	.0125	9.4967E-04	.0139

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.1000	.100
.2000	.100
.3300	.100
.4000	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0500	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.4000	.250
.5000	.250
.6000	.250
.8330	.250
.8670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.6000	.500
.8770	.500
0	.600
.1000	.600
.2000	.600
.4000	.600
.6000	.600
.7930	.600
.8510	.600
.1000	.700
.2000	.700
.5000	.700

B 350	513	94.390	8.858	1.060E-02	.1552	1.2844E-02	.1881	1.3991E-02	.2048
B 351	492	24.052	2.228	2.602E-03	.0381	3.0885E-03	.0452	3.4069E-03	.0499
B 352	488	8.764	1.134	1.319F-03	.0193	1.5637E-03	.0229	1.7240E-03	.0252
B 353	490	5.953	.994	1.157E-03	.0169	1.3729E-03	.0201	1.5138E-03	.0222
B 357	523	104.835	10.265	1.243F-02	.1819	1.4750E-02	.2174	1.6455E-02	.2409
B 358	492	12.558	1.167	1.363E-03	.0200	1.6182E-03	.0237	1.7851E-03	.0261
B 359	493	9.994	1.498	1.790E-03	.0256	2.0769E-03	.0304	2.2911E-03	.0335
B 360	492	6.867	1.140	1.338F-03	.0196	1.5883E-03	.0232	1.7520E-03	.0256

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2500	.250
.5000	.250
.7000	.250
0	.500
.2500	.500
.5000	.500
.7000	.500

GROUP
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NOT REPRODUCIBLE

V11162

OWO JOSE 2.22 IN. UPSTREAM OF GDC-H, .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
867	GDC-H+CWO	8.00	856.4	1346	5.16	5.16	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.5	.088	3.930	3871	7.548E-05	7.850E-08	3.72E 06	6.830E-02	2.936E-02	3

FUSELAGE-ORBITER

	TC NO	TW	DTWALL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	577	259.589	47.531	6.188E-02	.9061	7.5021E-02	1.0985	8.3933E-02	1.2290	0	-0
0	2	520	98.599	15.924	1.930E-02	.2826	2.3062E-02	.3377	2.5552E-02	.3741	.0100	-0
0	7	564	43.603	7.670	9.111E-03	.1334	1.0864E-02	.1588	1.1963E-02	.1755	.0300	-0
0	12	442	20.186	3.848	4.510E-03	.0660	5.3541E-03	.0784	5.9071E-03	.0865	.0500	-0
0	19	446	6.050	1.092	1.270E-03	.0186	1.5054E-03	.0220	1.6593E-03	.0243	.1000	-0
0	29	445	1.867	.325	3.770E-04	.0055	4.4682E-04	.0065	4.9242E-04	.0072	.2000	-0
0	44	519	64.338	11.761	1.422E-02	.2083	1.6989E-02	.2488	1.8818E-02	.2755	.3000	-0
0	54	514	34.142	6.591	7.922E-03	.1160	9.4506E-03	.1384	1.0460E-02	.1532	.4000	-0
0	66	508	20.389	3.705	4.424E-03	.0648	5.2713E-03	.0772	5.8292E-03	.0854	.5000	-0
0	76	505	14.722	2.366	2.814E-03	.0412	3.3497E-03	.0490	3.7024E-03	.0542	.5500	-0
0	80	507	13.530	2.530	3.018E-03	.0442	3.5992E-03	.0526	3.9753E-03	.0582	.6000	-0
0	89	510	8.317	1.513	1.812E-03	.0265	2.1603E-03	.0316	2.3898E-03	.0350	.7000	-0
0	98	505	4.021	.686	8.165E-04	.0120	9.7212E-04	.0142	1.0745E-03	.0157	.8000	-0
0	104	509	1.605	.283	3.383E-04	.0050	4.0308E-04	.0059	4.4578E-04	.0065	.9000	-0
0	114	509	.540	.101	1.208E-04	.0018	1.4396E-04	.0021	1.5921E-04	.0023	.9900	-0
0	20	489	8.636	.639	7.453F-04	.0109	8.8415E-04	.0129	9.7495E-04	.0143	.1000	-.303
0	31	486	2.410	.483	5.620F-04	.0082	6.6626E-04	.0098	7.3441E-04	.0108	.2000	-.466
0	46	520	62.669	12.815	1.552E-02	.2272	1.8541E-02	.2715	2.0540E-02	.3008	.3000	-.504
0	56	509	17.687	3.406	4.072E-03	.0596	4.8572E-03	.0710	5.3667E-03	.0786	.4000	-.526
0	69	508	11.422	2.076	2.479E-03	.0363	2.9534E-03	.0432	3.2660E-03	.0478	.5000	-.830
0	83	507	7.981	1.535	1.831F-03	.0268	2.1810E-03	.0319	2.4116E-03	.0353	.6000	-.748
0	92	510	4.716	.858	1.026E-03	.0150	1.2227E-03	.0179	1.3524E-03	.0198	.7000	-.704
0	101	512	3.841	.782	9.379E-04	.0137	1.1184E-03	.0164	1.2375E-03	.0181	.8000	-.669
0	107	510	2.509	.443	5.305F-04	.0078	6.3241E-04	.0093	6.9957E-04	.0102	.9000	-.678
0	117	511	1.564	.301	3.610E-04	.0053	4.3039E-04	.0063	4.7613E-04	.0070	.9900	-.660
0	5	495	24.432	3.758	4.418E-03	.0647	5.2487E-03	.0769	5.7931E-03	.0848	.0100	0
0	10	492	18.610	3.252	3.811E-03	.0558	4.5252E-03	.0663	4.9926E-03	.0731	.0300	0
0	24	491	8.559	1.592	1.862E-03	.0273	2.2103E-03	.0324	2.4381E-03	.0357	.1000	0
0	28	494	9.555	1.469	1.725F-03	.0253	2.0494E-03	.0300	2.2617E-03	.0331	.1500	0
0	35	503	14.016	2.465	2.927E-03	.0429	3.4831E-03	.0510	3.8489E-03	.0564	.2000	0
0	36	514	50.072	8.057	9.691F-03	.1419	1.1562E-02	.1693	1.2797E-02	.1874	.2100	0
0	37	563	170.131	30.923	3.950E-02	.5784	4.7702E-02	.6985	5.3225E-02	.7793	.2200	0
0	38	539	97.610	15.399	1.910E-02	.2796	2.2923E-02	.3356	2.5474E-02	.3730	.2300	0
0	40	510	14.820	2.300	2.754E-03	.0403	3.2834E-03	.0481	3.6322E-03	.0532	.2500	0
0	53	506	2.274	.376	4.486F-04	.0066	5.3430E-04	.0078	5.9070E-04	.0086	.3000	0
0	62	507	2.336	.362	4.313E-04	.0063	5.1369E-04	.0075	5.6794E-04	.0083	.4000	0
0	75	507	8.552	1.507	1.796F-03	.0263	2.1392E-03	.0313	2.3650E-03	.0346	.5000	0
0	87	507	9.799	1.675	1.999E-03	.0293	2.3807E-03	.0349	2.6324E-03	.0385	.6000	0
0	96	508	7.717	1.361	1.625F-03	.0238	1.9364E-03	.0284	2.1414E-03	.0314	.7000	0
0	111	509	1.993	.320	3.819F-04	.0056	4.5504E-04	.0067	5.0324E-04	.0074	.9000	.610
0	120	514	10.201	1.149	1.382E-03	.0202	1.6484E-03	.0241	1.8245E-03	.0267	.9900	.305
0	4	498	26.529	3.945	4.653F-03	.0681	5.5302E-03	.0810	6.1060E-03	.0894	.0100	1.000
0	14	494	19.165	3.250	3.815E-03	.0559	4.5306E-03	.0663	4.9996E-03	.0732	.0500	1.000
0	22	490	6.622	1.159	1.349E-03	.0198	1.6010E-03	.0234	1.7656E-03	.0259	.1000	1.000
0	33	493	10.062	1.759	2.064E-03	.0302	2.4510E-03	.0359	2.7046E-03	.0396	.2000	1.000
0	48	506	12.314	2.038	2.427F-03	.0355	2.8900E-03	.0423	3.1948E-03	.0468	.3000	1.000
0	59	510	17.681	3.311	3.960E-03	.0580	4.7203E-03	.0691	5.2211E-03	.0764	.4000	1.000
0	72	506	16.727	3.305	3.938E-03	.0577	4.6907E-03	.0687	5.1859E-03	.0759	.5000	1.000
0	78	503	9.069	1.353	1.607E-03	.0235	1.9119E-03	.0280	2.1127E-03	.0309	.5500	1.000
0	85	502	4.502	.791	9.383F-04	.0137	1.1164E-03	.0163	1.2335E-03	.0181	.6000	1.000
0	77	498	2.742	.422	4.985E-04	.0073	5.9254E-04	.0087	6.5428E-04	.0096	.5500	-1.000
0	84	500	1.961	.374	4.424E-04	.0065	5.2616E-04	.0077	5.8114E-04	.0085	.6000	-1.000
0	94	504	1.873	.400	4.749F-04	.0070	5.6527E-04	.0083	6.2473E-04	.0091	.7000	-1.000
0	39	512	27.958	5.393	6.471E-03	.0947	7.7169E-03	.1130	8.5390E-03	.1250	.2400	.486
0	42	507	8.059	1.601	1.910E-03	.0280	2.2749E-03	.0333	2.5153E-03	.0368	.2700	.465
0	51	512	12.969	2.640	3.167E-03	.0464	3.7765E-03	.0553	4.1787E-03	.0612	.3000	.433
0	41	513	20.034	3.975	4.777E-03	.0699	5.6980E-03	.0834	6.3062E-03	.0923	.2700	.465
0	52	507	4.086	.829	9.890E-04	.0145	1.1780E-03	.0172	1.3024E-03	.0191	.3000	.361

LOWER WING SURFACE-ORBITER

	TC NO	TW	DTWALL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	531	57.057	10.197	1.252E-02	.1833	1.4997E-02	.2196	1.6644E-02	.2437	0	.250
0	136	517	21.392	3.793	4.580E-03	.0671	5.4682E-03	.0801	6.0554E-03	.0887	.1000	.250
0	137	517	11.191	1.864	2.249F-03	.0329	2.6853E-03	.0393	2.9735E-03	.0435	.2000	.250
0	138	515	4.441	.810	9.749E-04	.0143	1.1633E-03	.0170	1.2877E-03	.0189	.4000	.250
0	140	515	2.603	.447	5.379E-04	.0079	6.4181E-04	.0094	7.1046E-04	.0104	.6000	.250
0	142	516	1.376	.222	2.670E-04	.0039	3.1862E-04	.0047	3.5274E-04	.0052	.9000	.250
0	149	540	67.954	12.584	1.563F-02	.2288	1.8763E-02	.2747	2.0855E-02	.3054	0	.500
0	150	527	25.879	5.033	6.147E-03	.0900	7.3560E-03	.1077	8.1581E-03	.1195	.1000	.500
0	151	522	13.302	2.581	3.135F-03	.0459	3.7480E-03	.0549	4.1539E-03	.0608	.2000	.500
0	152	520	6.670	1.149	1.392F-03	.0204	1.6635E-03	.0244	1.8430E-03	.0270	.4000	.500
0	154	518	4.149	.736	8.899E-04	.0130	1.0628E-03	.0156	1.1771E-03	.0172	.6000	.500
0	157	519	2.124	.377	4.564E-04	.0067	5.4521E-04	.0080	6.0397E-04	.0088	.9000	.500
0	171	551	78.470	14.179	1.785E-02	.2614	2.1496E-02	.3148	2.3938E-02	.3505	0	.750
0	172	536	39.502	6.865	8.481E-03	.1242	1.0171E-02	.1489	1.1298E-02	.1654	.1000	.750
0	175	524	7.779	1.552	1.888E-03	.0277	2.2581E-03	.0331	2.5031E-03	.0367	.4000	.750
0	178	522	2.405	.428	5.192F-04	.0076	6.2061E-04	.0091	6.8775E-04	.0101	.8000	.750

UPPER WING SURFACE-ORBITER

	TC NO	TW	DTWALL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
1	129	504	9.254	1.392	1.662E-03	.0243	1.9799E-03	.0290	2.1895E-03	.0321	.1000	.100
1	130	517	3.543	.587	6.992F-04	.0102	8.3277E-04	.0122	9.2071E-04	.0135	.2000	.100
1	131	507	.941	.171	2.036F-04	.0030	2.4250E-04	.0036	2.6812E-04	.0039	.4000	.100
0	132	507	.272	.051	6.069F-05	.0009	7.2287E-05	.0011	7.9920E-05	.0012	.7000	.100
0	133	511	.406	.070	8.360E-05	.0012	9.9655E-05	.0015	1.1024E-04	.0016	.9000	.100
0	158	519	16.165	2.435	2.946E-03	.0431	3.5194E-03	.0515	3.8986E-03	.0571	.1000	.500
0	159	518	8.846	1.425	1.722E-03	.0252	2.0565E-03	.0301	2.2776E-03	.0333	.2000	.500
0	160	518	3.881	.626	7.558E-04	.0111	9.0249E-04	.0132	9.9947E-04	.0146	.4000	.500
0	161	519	2.194	.376	4.566F-04	.0067	5.4527E-04	.0080	6.0345E-04	.0088	.8000	.500
0	162	518	1.414	.190	2.298F-04	.0034	2.7439E-04	.0040	3.0391E-04	.0044	.9000	.500

VERTICAL STABILIZER-ORBITER

	TC NO	TW	DTWALL	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/S
0	187	540	71.733	11.713	1.455F-02	.2130	1.7463E-02	.2557	1.9410E-02	.2842	0	.100
0	188	520	14.551	2.512	3.042E-03	.0445	3.6338E-03	.0532	4.0255E-03	.0589	.1000	.100
0	189	517	5.137	.856	1.033F-03	.0151	1.2334E-03	.0181	1.3659E-03	.0200	.4000	.100
0	192	536	53.669	10.205	1.261F-02	.1846	1.5118E-02	.2214	1.6792E-02	.2459	0	.250
0	193	521	15.305	2.637	3.198F-03	.0468	3.8212E-03	.0560	4.2340E-03	.0620	.1000	.250
0	194	521	3.788	.632	7.664F-04	.0112	9.1973E-04	.0134	1.0146E-03	.0149	.4000	.250
0	197	531	34.606	6.371	7.823E-03	.1146	9.3716E-03	.1372	1.0401E-02	.1523	.1000	.500
0	198	522	5.285	.940	1.141F-03	.0167	1.3639E-03	.0200	1.5114E-03	.0221	.4000	.500
0	201	559	90.207	17.360	2.208F-02	.3233	2.6641E-02	.3901	2.9708E-02	.4350	0	.750
0	202	538	44.324	5.060	6.265E-03	.0917	7.5174E-03	.1101	8.3522E-03	.1223	.1000	.750
0	203	527	7.158	.812	9.917F-04	.0145	1.1867E-03	.0174	1.3161E-03	.0193	.4000	.750

GROUP

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

OWO NOSE 1.72 IN. UPSTREAM OF GDC-B, .234 IN. GAP

RUN #	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	807	GDC-B+OWO	8.00	858.5	1341	.04	.04	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.2	.088	3.939	3865	7.590E-05	7.825E-08	3.75E 06	6.834E-02	2.927E-02	1

	TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
H	1	591	214.260	40.691	5.425E-02	.7937	6.6057E-02	.9666	7.4127E-02	1.0847	0	0
B	2	534	53.456	9.864	1.221E-02	.1787	1.4644E-02	.2143	1.6263E-02	.2380	.0137	0
B	3	515	63.331	11.687	1.450E-02	.2121	1.7390E-02	.2545	1.9318E-02	.2827	.0137	180.000
B	4	527	33.852	6.219	7.636E-03	.1117	9.1422E-03	.1338	1.0142E-02	.1484	.0274	0
B	5	526	32.884	6.039	7.410E-03	.1084	8.8694E-03	.1298	9.8385E-03	.1440	.0274	30.000
H	6	527	35.681	6.555	8.048E-03	.1178	9.6348E-03	.1410	1.0688E-02	.1564	.0274	60.000
H	7	526	34.021	6.245	7.655E-03	.1120	9.1619E-03	.1341	1.0162E-02	.1487	.0274	90.000
H	8	526	35.687	6.746	8.276E-03	.1211	9.9059E-03	.1449	1.0988E-02	.1608	.0274	120.000
B	9	527	35.669	6.745	8.282E-03	.1212	9.9148E-03	.1451	1.0999E-02	.1609	.0274	150.000
B	10	526	35.824	6.772	8.309E-03	.1216	9.9453E-03	.1455	1.1032E-02	.1614	.0274	180.000
H	11	524	27.615	5.063	6.191E-03	.0906	7.4062E-03	.1084	8.2117E-03	.1202	.0406	180.000
H	12	520	21.917	4.010	4.883E-03	.0714	5.8355E-03	.0854	6.4666E-03	.0946	.0543	0
B	13	520	22.333	4.087	4.978E-03	.0728	5.9497E-03	.0871	6.5934E-03	.0965	.0543	30.000
B	14	520	22.614	4.139	5.043E-03	.0738	6.0278E-03	.0882	6.6802E-03	.0977	.0543	60.000
B	15	520	22.478	4.113	5.008E-03	.0733	5.9858E-03	.0876	6.6331E-03	.0971	.0543	90.000
B	17	520	22.337	4.088	4.977E-03	.0728	5.9482E-03	.0870	6.5915E-03	.0965	.0543	150.000
B	18	520	23.169	4.242	5.162E-03	.0755	6.1688E-03	.0903	6.8354E-03	.1000	.0543	180.000
B	19	518	19.839	3.626	4.402E-03	.0644	5.2588E-03	.0769	5.8255E-03	.0852	.0670	180.000
H	20	517	15.832	2.893	3.511E-03	.0514	4.1932E-03	.0614	4.6447E-03	.0680	.0790	0
B	21	517	16.327	2.982	3.618E-03	.0529	4.3211E-03	.0632	4.7861E-03	.0700	.0790	180.000
B	22	525	45.377	8.326	1.020E-02	.1492	1.2199E-02	.1785	1.3529E-02	.1980	.0920	180.000
H	23	512	11.625	2.118	2.555E-03	.0374	3.0483E-03	.0446	3.3740E-03	.0494	.1030	0
H	24	513	12.393	2.259	2.729E-03	.0399	3.2562E-03	.0476	3.6046E-03	.0527	.1030	15.000
H	25	513	12.087	2.203	2.662E-03	.0389	3.1763E-03	.0465	3.5162E-03	.0515	.1030	30.000
H	26	510	12.136	2.208	2.658E-03	.0389	3.1690E-03	.0464	3.5065E-03	.0513	.1030	45.000
B	27	511	12.293	2.238	2.696E-03	.0394	3.2153E-03	.0470	3.5582E-03	.0521	.1030	60.000
H	28	511	12.103	2.204	2.655E-03	.0389	3.1670E-03	.0463	3.5048E-03	.0513	.1030	75.000
H	29	512	12.218	2.225	2.682E-03	.0393	3.1998E-03	.0468	3.5413E-03	.0518	.1030	90.000
H	30	512	12.172	2.217	2.671E-03	.0391	3.1863E-03	.0466	3.5263E-03	.0516	.1030	105.000
B	31	511	12.384	2.255	2.717E-03	.0398	3.2414E-03	.0474	3.5872E-03	.0525	.1030	120.000
B	32	510	8.486	1.544	1.856E-03	.0272	2.2132E-03	.0324	2.4486E-03	.0358	.1030	135.000
H	33	516	29.716	5.426	6.577E-03	.0962	7.8535E-03	.1149	8.6978E-03	.1273	.1030	150.000
H	34	518	34.051	6.223	7.556E-03	.1106	9.0262E-03	.1321	9.9948E-03	.1463	.1030	165.000
H	35	520	37.522	6.864	8.353E-03	.1222	9.9817E-03	.1461	1.1068E-02	.1618	.1030	180.000
H	37	508	18.687	3.396	4.077E-03	.0597	4.8597E-03	.0711	5.3785E-03	.0787	.1300	180.000
H	38	502	6.992	1.266	1.508E-03	.0221	1.7943E-03	.0263	1.9828E-03	.0290	.1430	0
H	39	501	7.564	1.369	1.629E-03	.0238	1.9391E-03	.0284	2.1426E-03	.0314	.1430	180.000
B	40	517	48.848	8.135	9.866E-03	.1444	1.1783E-02	.1724	1.3050E-02	.1910	.1560	180.000
B	41	498	4.158	.862	1.022E-03	.0150	1.2152E-03	.0178	1.3422E-03	.0196	.1690	0
H	42	499	3.946	.787	9.334E-04	.0137	1.1101E-03	.0162	1.2261E-03	.0179	.1690	15.000
H	43	498	4.015	.768	9.111E-04	.0133	1.0835E-03	.0159	1.1967E-03	.0175	.1690	30.000
H	44	498	4.396	.855	1.014E-03	.0148	1.2058E-03	.0176	1.3318E-03	.0195	.1690	45.000
B	45	499	3.592	.669	7.942E-04	.0116	9.4468E-04	.0138	1.0436E-03	.0153	.1690	60.000
B	46	499	3.917	.729	8.659E-04	.0127	1.0300E-03	.0151	1.1378E-03	.0166	.1690	75.000
B	47	500	3.797	.707	8.404E-04	.0123	9.9980E-04	.0146	1.1046E-03	.0162	.1690	90.000
H	48	499	3.219	.599	7.104E-04	.0104	8.4491E-04	.0124	9.3323E-04	.0137	.1690	105.000
H	49	498	4.017	.747	8.853E-04	.0130	1.0527E-03	.0154	1.1626E-03	.0170	.1690	120.000
H	50	501	9.391	1.749	2.082E-03	.0305	2.4769E-03	.0362	2.7360E-03	.0400	.1690	135.000
B	51	502	9.979	1.913	2.278E-03	.0333	2.7107E-03	.0397	2.9954E-03	.0438	.1690	150.000
B	52	512	38.139	7.150	8.618E-03	.1261	1.0280E-02	.1504	1.1377E-02	.1665	.1690	165.000
B	53	526	75.170	13.800	1.692E-02	.2476	2.0249E-02	.2963	2.2459E-02	.3286	.1690	180.000
H	400	503	2.530	.458	5.467E-04	.0080	6.5081E-04	.0095	7.1931E-04	.0105	.2420	0
B	402	505	1.639	.306	3.656E-04	.0053	4.3542E-04	.0064	4.8137E-04	.0070	.2420	30.000
B	404	508	4.816	.942	1.130E-03	.0165	1.3461E-03	.0197	1.4888E-03	.0218	.2420	60.000
B	406	505	1.038	.189	2.256E-04	.0033	2.6870E-04	.0039	2.9706E-04	.0043	.2420	90.000
B	407	507	5.055	.945	1.132E-03	.0166	1.3489E-03	.0197	1.4917E-03	.0218	.2420	105.000
H	408	508	8.119	1.588	1.906E-03	.0279	2.2711E-03	.0332	2.5121E-03	.0368	.2420	120.000
H	409	508	10.126	1.981	2.376E-03	.0348	2.8322E-03	.0414	3.1326E-03	.0458	.2420	135.000
H	410	510	10.396	2.035	2.447E-03	.0358	2.9174E-03	.0427	3.2276E-03	.0472	.2420	150.000
H	411	512	14.166	2.778	3.351E-03	.0490	3.9980E-03	.0585	4.4251E-03	.0648	.2420	165.000
H	412	511	16.960	3.269	3.936E-03	.0576	4.6947E-03	.0687	5.1951E-03	.0760	.2420	180.000
B	413	512	2.592	.500	6.025E-04	.0088	7.1868E-04	.0105	7.9538E-04	.0116	.2830	0
B	415	514	1.319	.259	3.129E-04	.0046	3.7339E-04	.0055	4.1338E-04	.0060	.2830	30.000
B	417	516	3.073	.521	6.315E-04	.0092	7.5402E-04	.0110	8.3502E-04	.0122	.2830	60.000
B	419	514	5.099	.933	1.128E-03	.0165	1.3462E-03	.0197	1.4905E-03	.0218	.2830	90.000
B	420	513	9.173	1.554	1.876E-03	.0275	2.2389E-03	.0328	2.4783E-03	.0363	.2830	105.000
B	421	517	10.066	1.676	2.033E-03	.0298	2.4285E-03	.0355	2.6900E-03	.0394	.2830	120.000
B	422	515	6.436	1.174	1.421E-03	.0208	1.6957E-03	.0248	1.8775E-03	.0275	.2830	135.000
B	423	516	8.757	1.763	2.136E-03	.0313	2.5505E-03	.0373	2.8245E-03	.0413	.2830	150.000
B	424	516	9.198	1.779	2.156E-03	.0315	2.5748E-03	.0377	2.8516E-03	.0417	.2830	165.000
B	425	516	10.119	1.956	2.369E-03	.0347	2.8291E-03	.0414	3.1331E-03	.0458	.2830	180.000
H	426	514	2.247	.434	5.247E-04	.0077	6.2623E-04	.0092	6.9334E-04	.0101	.3160	0
B	428	517	1.260	.248	3.011E-04	.0044	3.5961E-04	.0053	3.9829E-04	.0058	.3160	30.000
B	430	516	1.314	.247	2.989E-04	.0044	3.5685E-04	.0052	3.9516E-04	.0058	.3160	60.000
B	432	516	10.422	1.768	2.143E-03	.0314	2.5585E-03	.0374	2.8335E-03	.0415	.3160	90.000
B	433	509	7.488	.479	5.756E-04	.0084	6.8614E-04	.0100	7.5905E-04	.0111	.3160	105.000
B	434	515	12.683	2.008	2.431E-03	.0356	2.9025E-03	.0425	3.2141E-03	.0470	.3160	120.000
B	435	513	4.567	.860	1.039E-03	.0152	1.2391E-03	.0181	1.3716E-03	.0201	.3160	135.000
B	436	513	6.913	1.357	1.639E-03	.0240	1.9556E-03	.0286	2.1649E-03	.0317	.3160	150.000
B	437	515	8.266	1.597	1.934E-03	.0283	2.3092E-03	.0338	2.5571E-03	.0374	.3160	165.000
B	438	516	9.765	1.919	2.326E-03	.0340	2.7772E-03	.0406	3.0757E-03	.0450	.3160	180.000
B	439	513	1.947	.382	4.608E-04	.0067	5.4980E-04	.0080	6.0857E-04	.0089	.3540	0
B	441	515	1.428	.287	3.477E-04	.0051	4.1514E-04	.0061	4.5968E-04	.0067	.3540	30.000
B	443	516	1.234	.199	2.411E-04	.0035	2.8791E-04	.0042	3.1886E-04	.0047	.3540	60.000
B	445	518	9.729	1.728	2.097E-03	.0307	2.5051E-03	.0367	2.7753E-03	.0406	.3540	90.000
B	446	515	7.848	1.369	1.655E-03	.0242	1.9761E-03	.0289	2.1880E-03	.0320	.3540	105.000
B	447	519	14.929	2.609	3.171E-03	.0464	3.7887E-03	.0554	4.1974E-03	.0614	.3540	120.000
B	448	511	4.521	.847	1.021E-03	.0149	1.2179E-03	.0178	1.3479E-03	.0197	.3540	135.000
B	450	514	5.996	1.129	1.359E-03	.0199	1.6224E-03	.0237	1.7961E-03	.0263	.3540	165.000
B	451	514	7.148	1.341	1.621E-03	.0237	1.9339E-03	.0283	2.1409E-03	.0313	.3540	180.000
B	452	511	1.890	.364	4.388E-04	.0064	5.2339E-04	.0077	5.7918E-04	.0085	.3800	0
B	454	512	1.483	.286	3.451E-04	.0051	4.1176E-04	.0060	4.5574E-04	.0067	.3800	30.000
B	456	514	1.762	.284	3.427E-04	.0050	4.0905E-04	.0060	4.5287E-04	.0066	.3800	60.000
B	458	516	9.549	1.753	2.125E-03	.0311	2.5370E-03	.0371	2.8097E-03	.0411	.3800	90.000
B	459	521	21.348	4.137	5.041E-03	.0738	6.0264E-03	.0882	6.6788E-03	.0977	.3800	105.000

GROUP
47

50 INCH HYPERSONIC TUNNEL H
VF1162

RUN CODE 1.72 IN. UPSTREAM OF GOC=H. .234 IN. GAP

JOB	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R
A	807	GOC=H=L=W=0	8.00	459.3	1341

ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
-.02	-.02	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	PREF-FH (H= .009FT)	SIFH (H= .009FT)	SWITCH POSITION
97.2	.0888	1.943	3864	7.5990E-05	7.8269E-08	3.75E 06	6.837E-02	2.495E-02	2

TC NO	IN	DT=0.1	Q=DOT	H(TO)	H(TO)/HREF	P(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
H 460	505	9.934	1.406	2.155E-03	.0315	2.5864E-03	.0375	2.8374E-03	.0415
H 461	503	6.277	1.137	1.356E-03	.0198	1.6145E-03	.0236	1.7844E-03	.0261
H 462	503	3.389	.632	7.540F-04	.0110	8.9760E-04	.0131	9.9208E-04	.0145
H 463	505	5.434	1.016	1.219E-03	.0178	1.4446E-03	.0212	1.5943E-03	.0234
H 464	505	6.976	1.303	1.558F-03	.0228	1.8557E-03	.0271	2.0517E-03	.0300
H 106	509	1.330	.256	3.077E-04	.0045	3.6679E-04	.0054	4.0575E-04	.0059
H 109	511	10.459	1.904	2.293E-03	.0335	2.7352E-03	.0400	3.0268E-03	.0443
H 110	510	7.308	1.329	1.599E-03	.0234	1.9060E-03	.0279	2.1087E-03	.0308
H 111	508	1.752	.318	3.824E-04	.0056	4.5578E-04	.0067	5.0416E-04	.0074
H 112	510	5.748	1.042	1.253E-03	.0183	1.4946E-03	.0219	1.6534E-03	.0242
H 113	512	.840	.165	1.987E-04	.0029	2.3698E-04	.0035	2.6228E-04	.0038
H 116	515	8.172	1.446	1.753F-03	.0256	2.0935E-03	.0306	2.3182E-03	.0339
H 117	513	5.968	1.086	1.304F-03	.0191	1.5562E-03	.0228	1.7225E-03	.0252
H 118	512	1.421	.256	3.123F-04	.0046	3.7252E-04	.0054	4.1230E-04	.0060
H 119	513	3.963	.722	8.722F-04	.0128	1.0408E-03	.0152	1.1521E-03	.0169
H 120	513	.882	.134	1.616F-04	.0024	1.9278E-04	.0028	2.1341E-04	.0031
H 195	525	16.009	3.241	3.972E-03	.0581	4.7539E-03	.0695	5.2725E-03	.0771
H 127	517	5.653	1.033	1.254E-03	.0183	1.4978E-03	.0219	1.6589E-03	.0243
H 128	516	4.719	.861	1.044E-03	.0153	1.2467E-03	.0182	1.3806E-03	.0202
H 129	514	5.288	.964	1.167E-03	.0171	1.3926E-03	.0204	1.5419E-03	.0226
H 130	513	1.347	.246	2.965F-04	.0043	3.5384E-04	.0052	3.9169E-04	.0057
H 131	512	3.956	.721	8.698F-04	.0127	1.0379E-03	.0152	1.1493E-03	.0168
H 138	519	4.733	.866	1.053F-03	.0154	1.2580E-03	.0184	1.3939E-03	.0204
H 139	518	3.107	.568	6.898E-04	.0101	8.2400E-04	.0121	9.1291E-04	.0134
H 140	516	6.054	1.106	1.339E-03	.0196	1.5993E-03	.0234	1.7711E-03	.0259
H 141	515	1.559	.285	3.445E-04	.0050	4.1121E-04	.0060	4.5534E-04	.0067
H 142	516	3.019	.551	6.676E-04	.0098	7.9717E-04	.0117	8.8280E-04	.0129
H 150	518	5.467	1.003	1.218F-03	.0178	1.4545E-03	.0213	1.6112E-03	.0236
H 151	516	4.037	.737	8.935F-04	.0131	1.0669E-03	.0156	1.1816E-03	.0173
H 152	515	3.345	.610	7.393E-04	.0108	8.8261E-04	.0129	9.7736E-04	.0143
H 153	515	1.523	.278	3.364E-04	.0049	4.0158E-04	.0059	4.4467E-04	.0065
H 154	515	1.269	.228	2.762E-04	.0040	3.2977E-04	.0048	3.6515E-04	.0053
H 159	519	7.495	1.331	1.620E-03	.0237	1.9354E-03	.0283	2.1445E-03	.0314
H 160	516	3.708	.657	7.960F-04	.0116	9.5041E-04	.0139	1.0525E-03	.0154
H 161	514	1.165	.199	2.406F-04	.0035	2.8707E-04	.0042	3.1781E-04	.0046
H 162	513	.971	.172	2.076F-04	.0030	2.4770E-04	.0036	2.7420E-04	.0040
H 171	516	2.724	.497	6.027E-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

FUSELAGE-BOOSTER

X/L	PHI
.3800	120.000
.3800	135.000
.3800	150.000
.3800	165.000
.3800	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4880	0
.4880	90.000
.4880	120.000
.4880	150.000
.4880	180.000
.5200	0
.5900	45.000
.5900	90.000
.5900	105.000
.5900	120.000
.5900	150.000
.5900	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.7700	90.000
.7700	120.000
.7700	150.000
.7700	180.000
.8950	120.000
.8950	150.000

B 200	537	54.925	8.444	1.050F-02	.1535	1.2597E-02	.1842	1.3947E-02	.2047
B 201	526	14.770	1.723	2.113F-03	.0309	2.5284E-03	.0370	2.8045E-03	.0410
H 202	523	10.049	1.409	1.722F-03	.0252	2.0596E-03	.0301	2.2834E-03	.0334
B 203	521	3.340	.689	8.400E-04	.0123	1.0042E-03	.0147	1.1130E-03	.0163
B 204	522	4.630	.811	9.897F-04	.0145	1.1834E-03	.0173	1.3118E-03	.0192
B 205	522	3.655	.650	7.927E-04	.0116	9.4786E-04	.0139	1.0506E-03	.0154
B 206	523	3.698	.630	7.701E-04	.0113	9.2106E-04	.0135	1.0212E-03	.0149
B 207	525	5.043	.476	5.832F-04	.0085	6.9784E-04	.0102	7.7388E-04	.0113
B 217	557	100.782	12.449	1.587E-02	.2322	1.9166E-02	.2800	2.1348E-02	.3122
B 218	532	45.032	4.393	5.432E-03	.0794	6.5115E-03	.0952	7.2301E-03	.1057
B 219	529	27.383	2.666	3.283F-03	.0480	3.9326E-03	.0575	4.3642E-03	.0638
B 220	525	14.186	1.269	1.556E-03	.0228	1.8616E-03	.0272	2.0646E-03	.0302
B 221	522	3.883	.755	9.219F-04	.0135	1.1024E-03	.0161	1.2221E-03	.0179
B 222	521	1.714	.305	3.715F-04	.0054	4.4411E-04	.0065	4.9224E-04	.0072
B 223	521	1.225	.208	2.544E-04	.0037	3.0416E-04	.0044	3.3714E-04	.0049
B 230	559	105.580	14.507	1.894F-02	.2712	2.2376E-02	.3273	2.4957E-02	.3650
H 231	526	21.977	2.575	3.198E-03	.0462	3.7802E-03	.0553	4.1929E-03	.0613
b 232	523	3.953	.767	9.373F-04	.0137	1.1210E-03	.0164	1.2428E-03	.0182
B 233	522	3.052	.576	7.030E-04	.0103	8.4072E-04	.0123	9.3198E-04	.0136
B 234	522	2.274	.417	5.047F-04	.0076	6.0835E-04	.0089	6.7438E-04	.0099
B 235	525	1.155	.084	1.023E-04	.0015	1.2262E-04	.0018	1.3577E-04	.0020
B 236	525	1.413	.114	1.402E-04	.0021	1.6775E-04	.0025	1.8604E-04	.0027
B 237	525	1.271	.103	1.261E-04	.0018	1.5086E-04	.0022	1.6731E-04	.0024
B 238	524	1.172	.098	1.199F-04	.0016	1.4353E-04	.0019	1.5966E-04	.0021
B 248	566	111.262	12.765	1.646E-02	.2407	1.9901E-02	.2911	2.2224E-02	.3251
B 249	526	14.279	1.735	2.127F-03	.0311	2.5463E-03	.0372	2.8242E-03	.0413
B 250	527	12.468	1.446	1.777E-03	.0260	2.1271E-03	.0311	2.3598E-03	.0345
B 251	524	4.391	.852	1.044E-03	.0153	1.2508E-03	.0183	1.3848E-03	.0203
B 252	524	3.017	.596	7.297E-04	.0107	8.7305E-04	.0128	9.6818E-04	.0142
B 263	569	133.177	16.558	2.145E-02	.3137	2.5998E-02	.3797	2.9007E-02	.4243
B 264	530	20.517	2.499	3.083E-03	.0451	3.6961E-03	.0540	4.1005E-03	.0600
B 265	526	4.315	.839	1.030F-03	.0151	1.2324E-03	.0180	1.3670E-03	.0200
B 266	527	2.774	.540	6.633E-04	.0097	7.9421E-04	.0116	8.8116E-04	.0129
B 277	591	166.459	16.191	2.130E-02	.3115	2.5860E-02	.3782	2.8962E-02	.4236
B 278	531	20.784	2.724	3.365E-03	.0492	4.0330E-03	.0590	4.4774E-03	.0655
B 279	531	12.140	1.479	1.825E-03	.0267	2.1874E-03	.0320	2.4262E-03	.0355
B 280	525	4.248	.825	1.011E-03	.0148	1.2102E-03	.0177	1.3422E-03	.0196
B 281	526	3.775	.714	8.759F-04	.0128	1.0485E-03	.0153	1.1631E-03	.0170
B 282	527	3.343	.632	7.769E-04	.0114	9.3026E-04	.0136	1.0321E-03	.0151
B 283	528	3.564	.337	4.146E-04	.0061	4.9669E-04	.0073	5.5048E-04	.0081
B 296	577	144.408	18.750	2.456E-02	.3591	2.9787E-02	.4357	3.3338E-02	.4876
B 297	532	27.328	3.584	4.432E-03	.0648	5.3137E-03	.0777	5.9002E-03	.0863
B 298	531	18.002	2.174	2.682E-03	.0392	3.2144E-03	.0470	3.5682E-03	.0522
B 299	527	2.429	.547	6.719F-04	.0098	8.0438E-04	.0118	8.9234E-04	.0131
B 300	530	3.236	.569	7.024F-04	.0103	8.4166E-04	.0123	9.3426E-04	.0137
B 301	531	3.558	.337	4.159F-04	.0061	4.9839E-04	.0073	5.5322E-04	.0081
B 302	530	2.999	.284	3.504F-04	.0051	4.1981E-04	.0061	4.6599E-04	.0068
B 315	544	55.256	5.785	7.256E-03	.1061	8.7230E-03	.1276	9.7040E-03	.1419
B 316	536	24.338	2.538	3.154F-03	.0461	3.7866E-03	.0554	4.2050E-03	.0615
B 317	533	4.368	.710	8.784F-04	.0128	1.0531E-03	.0154	1.1693E-03	.0171

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.1000	.100
.2000	.100
.3300	.100
.4000	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0500	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.4000	.250
.5000	.250
.6000	.250
.8330	.250
.8670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.6000	.500
.8770	.500
0	.600
.1000	.600
.2000	.600
.4000	.600
.6000	.600
.7930	.600
.8510	.600
.1000	.700
.2000	.700
.5000	.700

A 350	527	44.901	8.028	9.860F-03	.1442	1.1804E-02	.1726	1.3095E-02	.1915
B 351	509	28.877	2.702	3.245F-03	.0475	3.8682E-03	.0566	4.2790E-03	.0626
B 352	508	13.025	2.200	2.641F-03	.0386	3.1479E-03	.0460	3.4820E-03	.0509
B 353	506	7.182	1.212	1.452F-03	.0212	1.7296E-03	.0253	1.9127E-03	.0280
B 357	537	104.980	10.362	1.249F-02	.1885	1.5967E-02	.2262	1.7187E-02	.2514
A 358	510	21.068	1.973	2.374F-03	.0367	2.8314E-03	.0414	3.1329E-03	.0458
B 359	507	4.367	1.410	1.690F-03	.0247	2.0142E-03	.0295	2.2270E-03	.0326
A 360	506	5.411	.913	1.093F-03	.0160	1.3026E-03	.0190	1.4402E-03	.0211

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2500	.250
.5000	.250
.7000	.250
0	.500
.2500	.500
.5000	.500
.7000	.500

UWD FUSL 1.72 IN. UPSTREAM OF GDC-H, .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
807	GDC-H+G.WO	8.00	858.3	1341	.06	.06	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.2	.088	3.938	3864	7.591E-05	7.822E-08	3.75E 06	6.833E-02	2.927E-02	3

	TC NO	TW	DTHCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
											FUSELAGE-ORBITER	
0	1	578	248.453	45.517	5.971E-02	.8738	7.2452E-02	1.0603	8.1108E-02	1.1870	0	-0
0	2	515	82.040	13.207	1.599E-02	.2339	1.9083E-02	.2793	2.1129E-02	.3092	.0100	-0
0	7	498	10.941	5.425	6.436E-03	.0942	7.6542E-03	.1120	8.4538E-03	.1237	.0300	-0
0	12	491	12.440	2.370	2.790E-03	.0408	3.3126E-03	.0485	3.6551E-03	.0535	.0500	-0
0	19	488	1.533	.275	3.228E-04	.0047	3.8298E-04	.0056	4.2239E-04	.0062	.1000	-0
0	29	491	7.932	1.385	1.629E-03	.0238	1.9337E-03	.0283	2.1334E-03	.0312	.2000	-0
0	44	521	35.660	6.145	7.494E-03	.1097	8.9586E-03	.1311	9.9291E-03	.1453	.3000	-0
0	54	520	19.341	3.756	4.574E-03	.0669	5.4671E-03	.0800	6.0582E-03	.0887	.4000	-0
0	66	517	11.497	2.100	2.548E-03	.0373	3.0428E-03	.0445	3.3702E-03	.0493	.5144	-1
0	76	519	10.241	1.652	2.010E-03	.0294	2.4016E-03	.0351	2.6609E-03	.0389	.5514	-1
0	80	521	7.346	1.394	1.699E-03	.0249	2.0311E-03	.0297	2.2511E-03	.0329	.6088	-1
0	89	521	5.615	1.026	1.254E-03	.0184	1.4997E-03	.0219	1.6622E-03	.0243	.7000	-0
0	98	522	9.861	1.669	2.038E-03	.0298	2.4376E-03	.0357	2.7021E-03	.0395	.8000	-0
0	134	519	2.271	.403	4.903E-04	.0072	5.8589E-04	.0086	6.4913E-04	.0095	.9000	-0
0	114	518	1.018	.191	2.326E-04	.0034	2.7789E-04	.0041	3.0784E-04	.0045	.9900	-0
0	20	490	1.088	.138	1.625E-04	.0024	1.9284E-04	.0028	2.1273E-04	.0031	.1000	-.383
0	31	490	4.470	.898	1.055E-03	.0154	1.2526E-03	.0183	1.3818E-03	.0202	.2000	-.466
0	46	524	38.688	7.925	9.702E-03	.1420	1.1606E-02	.1699	1.2869E-02	.1883	.3000	-.504
0	56	520	15.596	3.021	3.680E-03	.0539	4.3979E-03	.0644	4.8734E-03	.0713	.4000	-.526
0	69	514	9.712	1.770	2.140E-03	.0313	2.5541E-03	.0374	2.8275E-03	.0414	.5000	-.830
0	83	520	4.051	.789	9.562E-04	.0140	1.1429E-03	.0167	1.2665E-03	.0185	.6000	-.748
0	92	521	3.525	.645	7.874E-04	.0115	9.4144E-04	.0138	1.0435E-03	.0153	.7000	-.704
0	101	520	2.300	.470	5.733E-04	.0084	6.8532E-04	.0100	7.5948E-04	.0111	.8000	-.669
0	107	519	2.139	.380	4.623E-04	.0068	5.5243E-04	.0081	6.1213E-04	.0090	.9000	-.678
0	117	519	1.499	.290	3.532E-04	.0052	4.2208E-04	.0062	4.6767E-04	.0068	.9900	-.660
0	5	497	33.385	5.141	6.093E-03	.0892	7.2440E-03	.1060	7.9997E-03	.1171	.0100	0
0	10	497	28.543	5.000	5.924E-03	.0867	7.0427E-03	.1031	7.7770E-03	.1138	.0300	0
0	24	502	15.998	2.982	3.553E-03	.0520	4.2289E-03	.0619	4.6733E-03	.0684	.1000	0
0	28	504	17.177	2.657	3.176E-03	.0465	3.7826E-03	.0554	4.1818E-03	.0612	.1500	0
0	35	510	19.799	3.496	4.210E-03	.0616	5.0203E-03	.0735	5.5551E-03	.0813	.2000	0
0	36	542	111.752	18.266	2.287E-02	.3347	2.7481E-02	.4022	3.0564E-02	.4473	.2100	0
0	37	540	207.944	36.121	5.010E-02	.7332	6.0811E-02	.8900	6.8093E-02	.9966	.2200	0
0	38	558	134.677	21.459	2.741E-02	.4011	3.3074E-02	.4840	3.6885E-02	.5398	.2300	0
0	40	515	8.153	1.269	1.536E-03	.0225	1.8332E-03	.0268	2.0299E-03	.0297	.2500	0
0	53	516	.955	.159	1.926E-04	.0028	2.2998E-04	.0034	2.5468E-04	.0037	.3000	0
0	62	518	4.431	.691	8.398E-04	.0123	1.0031E-03	.0147	1.1113E-03	.0163	.4000	0
0	75	519	9.769	1.734	2.111E-03	.0309	2.5226E-03	.0369	2.7982E-03	.0409	.5000	0
0	87	522	10.101	1.742	2.127E-03	.0311	2.5438E-03	.0372	2.8199E-03	.0413	.6000	0
0	96	521	9.662	1.713	2.089E-03	.0306	2.4977E-03	.0366	2.7682E-03	.0405	.7000	0
0	111	519	3.228	.521	6.342E-04	.0093	7.5787E-04	.0111	8.3977E-04	.0123	.9000	.610
0	120	528	14.906	1.693	2.083E-03	.0305	2.4951E-03	.0365	2.7687E-03	.0405	.9900	.305
0	4	496	27.551	4.094	4.849E-03	.0710	5.7638E-03	.0844	6.3644E-03	.0931	.0100	1.000
0	14	494	18.014	3.055	3.609E-03	.0528	4.2879E-03	.0628	4.7332E-03	.0693	.0500	1.000
0	22	496	11.131	1.950	2.309E-03	.0338	2.7449E-03	.0402	3.0310E-03	.0444	.1000	1.000
0	33	495	8.501	1.488	1.759E-03	.0257	2.0906E-03	.0306	2.3080E-03	.0338	.2000	1.000
0	48	518	19.557	3.258	3.958E-03	.0579	4.7270E-03	.0692	5.2372E-03	.0766	.3000	1.000
0	59	519	26.714	5.028	6.117E-03	.0895	7.3089E-03	.1070	8.0980E-03	.1185	.4000	1.000
0	72	512	18.643	3.695	4.458E-03	.0652	5.3186E-03	.0778	5.8859E-03	.0861	.5000	1.000
0	78	519	11.807	1.778	2.165E-03	.0317	2.5868E-03	.0379	2.8663E-03	.0419	.5500	1.000
0	85	519	8.152	1.447	1.762E-03	.0258	2.1051E-03	.0308	2.3326E-03	.0341	.6000	1.000
0	77	514	2.728	.424	5.132E-04	.0075	6.1253E-04	.0090	6.7817E-04	.0099	.5500	-1.000
0	84	516	2.607	.518	6.285E-04	.0092	7.5052E-04	.0110	8.3124E-04	.0122	.6000	-1.000
0	94	519	3.900	.839	1.022E-03	.0150	1.2208E-03	.0179	1.3527E-03	.0198	.7000	-1.000
0	39	519	29.350	5.690	6.920E-03	.1013	8.2684E-03	.1210	9.1609E-03	.1341	.2400	.466
0	42	514	8.485	1.684	2.037E-03	.0298	2.4318E-03	.0356	2.6924E-03	.0394	.2700	.465
0	51	520	9.952	2.035	2.479E-03	.0363	2.9630E-03	.0434	3.2835E-03	.0481	.3000	.433
0	41	520	22.203	4.421	5.383E-03	.0788	6.4338E-03	.0942	7.1295E-03	.1043	.2700	.465
0	52	516	3.731	.762	9.239E-04	.0135	1.1034E-03	.0161	1.2221E-03	.0179	.3000	.361
											LOWER WING SURFACE-ORBITER	
											X/C	Y/C
0	135	538	49.316	8.849	1.103E-02	.1614	1.3237E-02	.1937	1.4712E-02	.2153	0	.250
0	136	525	12.624	2.249	2.758E-03	.0404	3.3009E-03	.0483	3.6611E-03	.0536	.1000	.250
0	137	526	12.153	2.034	2.497E-03	.0365	2.9882E-03	.0437	3.3145E-03	.0485	.2000	.250
0	138	525	10.477	1.923	2.359E-03	.0345	2.8229E-03	.0413	3.1310E-03	.0458	.4000	.250
0	140	524	6.284	1.084	1.327E-03	.0194	1.5878E-03	.0232	1.7606E-03	.0258	.6000	.250
0	142	519	2.618	.423	5.142E-04	.0075	6.1452E-04	.0090	6.8091E-04	.0100	.9000	.250
0	149	543	57.219	10.605	1.329E-02	.1945	1.5976E-02	.2338	1.7771E-02	.2601	0	.500
0	150	529	18.022	3.509	4.321E-03	.0632	5.1760E-03	.0758	5.7440E-03	.0841	.1000	.500
0	151	527	10.955	2.131	2.619E-03	.0383	3.1362E-03	.0459	3.4794E-03	.0509	.2000	.500
0	152	526	7.183	1.241	1.524E-03	.0223	1.8242E-03	.0267	2.0236E-03	.0296	.4000	.500
0	154	524	4.654	.830	1.023E-03	.0150	1.2240E-03	.0179	1.3572E-03	.0199	.6000	.500
0	157	521	2.160	.384	4.681E-04	.0069	5.5962E-04	.0082	6.2024E-04	.0091	.9000	.500
0	171	555	76.821	13.905	1.769E-02	.2588	2.1323E-02	.3121	2.3748E-02	.3478	0	.750
0	172	536	30.042	5.222	6.492E-03	.0950	7.7901E-03	.1140	8.6598E-03	.1267	.1000	.750
0	175	527	5.550	1.104	1.362E-03	.0199	1.6307E-03	.0239	1.8090E-03	.0265	.4000	.750
0	178	523	1.954	.348	4.251E-04	.0062	5.0848E-04	.0074	5.6376E-04	.0083	.8000	.750
											UPPER WING SURFACE-ORBITER	
											X/C	Y/S
0	129	522	13.209	1.993	2.430E-03	.0356	2.9127E-03	.0426	3.2291E-03	.0473	.1000	.100
0	130	520	6.415	1.070	1.304E-03	.0191	1.5591E-03	.0228	1.7279E-03	.0253	.2000	.100
0	131	520	2.833	.518	6.315E-04	.0092	7.5483E-04	.0110	8.3649E-04	.0122	.4000	.100
0	132	518	1.432	.269	3.274E-04	.0048	3.9116E-04	.0057	4.3333E-04	.0063	.7000	.100
0	133	516	1.307	.225	2.726E-04	.0040	3.2552E-04	.0048	3.6053E-04	.0053	.9000	.100
0	158	527	19.156	2.899	3.564E-03	.0522	4.2676E-03	.0625	4.7349E-03	.0693	.1000	.500
0	159	527	11.447	1.855	2.279E-03	.0334	2.7289E-03	.0399	3.0274E-03	.0443	.2000	.500
0	160	526	7.184	1.164	1.429E-03	.0209	1.7108E-03	.0250	1.8968E-03	.0278	.4000	.500
0	161	527	2.920	.505	6.207E-04	.0091	7.4322E-04	.0109	8.2498E-04	.0121	.6000	.500
0	162	521	2.808	.378	4.612E-04	.0067	5.5136E-04	.0081	6.1111E-04	.0089	.9000	.500
											VERTICAL STABILIZER-ORBITER	
											X/C	Z/S
0	187	560	129.736	21.405	2.741E-02	.4011	3.3085E-02	.4842	3.6910E-02	.5402	0	.100
0	188	529	18.716	3.240	3.993E-03	.0584	4.7829E-03	.0700	5.3088E-03	.0777	.1000	.100
0	189	526	3.709	.621	7.621E-04	.0112	9.1226E-04	.0134	1.0119E-03	.0148	.4000	.100
0	192	557	90.030	17.307	2.209E-02	.3233	2.6648E-02	.3900	2.9718E-02	.4349	0	.250
0	193	532	22.731	3.941	4.873E-03	.0713	5.8418E-03	.0855	6.4883E-03	.0949	.1000	.250
0	194	530	5.908	.992	1.224E-03	.0179	1.4661E-03	.0215	1.6278E-03	.0238	.4000	.250
0	197	541	39.944	7.397	9.292E-03	.1394	1.1117E-02	.1627	1.2303E-02	.1809	.1000	.500
0	198	532	5.625	1.006	1.243E-03	.0182	1.4898E-03	.0218	1.6541E-03	.0242	.4000	.500
0	201	581	130.170	20.488	3.484E-02	.5099	4.2307E-02	.6192	4.7291E-02	.6934	0	.750
0	202	550	62.233	7.152	9.048E-03	.1324	1.0896E-02	.1595	1.2138E-02	.1776	.1000	.750
0	203	536	9.247	1.060	1.317E-03	.0193	1.5808E-03	.0231	1.7543E-03	.0257	.4000	.750

GROUP
47

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

OWD NOSE 2.72 IN. UPSTREAM OF GDC-B, .236 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PHEHEND	ROLL-MODEL	YAW
5	807	GDC-B+OWD	8.00	857.3	1342	+02	+02	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RREF-FH (IN= .009FT)	SIFH (IN= .009FT)	SWITCH POSITION
97.3	.0884	1.934	3966	7.575E-05	7.830E-08	3.74E 06	6.830E-02	2.930E-02	1

TC NO	Tm	DTWALL	G-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
H 1	596	208.137	39.610	5.306E-02	.7768	6.4690E-02	.9471	7.2653E-02	1.0637	.0	0
H 2	531	54.827	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	.2564	1.9453E-02	.2848	.0137	180.000
H 4	525	33.469	6.142	7.517F-03	.1101	8.9941E-03	.1317	9.9763E-03	.1460	.0274	0
H 5	524	33.344	6.117	7.479F-03	.1095	8.9479E-03	.1310	9.9220E-03	.1453	.0274	30.000
H 6	526	33.461	6.143	7.524E-03	.1102	9.0036E-03	.1318	9.9858E-03	.1462	.0274	60.000
H 7	526	34.564	6.347	7.778E-03	.1139	9.3096E-03	.1363	1.0326E-02	.1512	.0274	90.000
H 8	525	35.422	6.693	8.194E-03	.1200	9.8046E-03	.1435	1.0874E-02	.1592	.0274	120.000
H 9	526	36.250	6.852	8.395E-03	.1229	1.0047E-02	.1471	1.1143E-02	.1631	.0274	150.000
H 10	525	34.163	6.455	7.903E-03	.1157	9.4574E-03	.1385	1.0489E-02	.1536	.0274	180.000
H 11	524	27.331	5.011	6.121E-03	.0896	7.3219E-03	.1072	8.1178E-03	.1189	.0406	180.000
H 12	520	20.508	3.752	4.566E-03	.0668	5.4566E-03	.0799	6.0465E-03	.0885	.0543	0
H 13	520	21.348	3.907	4.755F-03	.0696	5.6834E-03	.0832	6.2982E-03	.0922	.0543	30.000
H 14	520	21.629	3.959	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	6.6346E-03	.0972	.0543	90.000
H 17	521	23.308	4.267	5.197E-03	.0761	6.2121E-03	.0910	6.8846E-03	.1008	.0543	120.000
H 18	522	22.872	4.190	5.107E-03	.0748	6.1065E-03	.0894	6.7685E-03	.0991	.0543	150.000
H 19	527	36.087	6.630	8.133E-03	.1191	9.7363E-03	.1425	1.0801E-02	.1581	.0670	180.000
H 20	518	15.382	2.811	3.410E-03	.0499	4.0725E-03	.0596	4.5111E-03	.0660	.0790	180.000
H 21	531	47.035	8.659	1.067F-02	.1562	1.2786E-02	.1872	1.4192E-02	.2078	.0790	0
H 22	528	49.154	9.045	1.111E-02	.1627	1.3306E-02	.1948	1.4763E-02	.2162	.0790	180.000
H 23	514	12.414	2.263	2.733F-03	.0400	3.2609E-03	.0477	3.6098E-03	.0529	.0920	180.000
H 24	515	12.123	2.212	2.673F-03	.0391	3.1908E-03	.0467	3.5328E-03	.0517	.1030	0
H 25	515	11.980	2.186	2.643E-03	.0387	3.1551E-03	.0462	3.4934E-03	.0511	.1030	15.000
H 26	513	11.879	2.165	2.611E-03	.0382	3.1151E-03	.0456	3.4481E-03	.0505	.1030	30.000
H 27	514	12.247	2.233	2.697E-03	.0395	3.2184E-03	.0471	3.5629E-03	.0522	.1030	45.000
H 28	515	11.982	2.186	2.642E-03	.0387	3.1536E-03	.0462	3.4917E-03	.0511	.1030	60.000
H 29	515	12.147	2.216	2.678F-03	.0392	3.1967E-03	.0468	3.5343E-03	.0518	.1030	75.000
H 30	516	12.093	2.207	2.670E-03	.0391	3.1875E-03	.0467	3.5295E-03	.0517	.1030	90.000
H 31	513	8.420	1.535	1.851E-03	.0271	2.2091E-03	.0323	2.4454E-03	.0358	.1030	105.000
H 32	516	17.038	3.111	3.767E-03	.0552	4.4986E-03	.0659	4.9820E-03	.0729	.1030	120.000
H 33	524	46.007	8.605	1.075E-02	.1102	9.6590E-03	.1414	1.0711E-02	.1568	.1030	135.000
H 34	526	41.415	7.606	9.329E-03	.1365	1.1161E-02	.1634	1.2380E-02	.1813	.1030	150.000
H 35	523	34.622	6.348	7.753E-03	.1135	9.2736E-03	.1358	1.0282E-02	.1505	.1030	165.000
H 37	510	9.666	1.820	1.227E-03	.0180	1.6632E-03	.0214	1.6190E-03	.0237	.1300	180.000
H 38	506	6.994	1.270	1.519E-03	.0222	1.8097E-03	.0265	2.0012E-03	.0293	.1430	0
H 39	511	14.696	2.676	3.220F-03	.0471	3.8401E-03	.0562	4.2494E-03	.0622	.1430	180.000
H 40	541	166.693	18.007	2.247E-02	.3289	2.6985E-02	.3951	3.0003E-02	.4393	.1560	180.000
H 41	504	4.190	.871	1.039E-03	.0152	1.2367E-03	.0181	1.3669E-03	.0200	.1690	0
H 42	514	3.877	.775	9.251E-04	.0135	1.1015E-03	.0161	1.2176E-03	.0178	.1690	15.000
H 43	514	3.978	.764	9.116E-04	.0133	1.0854E-03	.0159	1.1999E-03	.0176	.1690	30.000
H 44	505	4.032	.787	9.397E-04	.0138	1.1191E-03	.0164	1.2371E-03	.0181	.1690	45.000
H 45	505	4.302	.803	9.600E-04	.0141	1.1434E-03	.0167	1.2641E-03	.0185	.1690	60.000
H 46	506	4.207	.786	9.399F-04	.0138	1.1190E-03	.0164	1.2380E-03	.0181	.1690	75.000
H 47	508	3.362	.629	7.534E-04	.0110	8.9774E-04	.0131	9.9288E-04	.0145	.1690	90.000
H 48	506	3.155	.590	7.051E-04	.0103	8.3990E-04	.0123	9.2869E-04	.0136	.1690	105.000
H 49	507	8.477	1.585	1.899E-03	.0278	2.2627E-03	.0331	2.5024E-03	.0366	.1690	120.000
H 50	510	10.347	1.947	2.338E-03	.0342	2.7873E-03	.0408	3.0836E-03	.0451	.1690	135.000
H 51	510	10.746	2.070	2.488E-03	.0364	2.9670E-03	.0434	3.2828E-03	.0481	.1690	150.000
H 52	528	63.621	12.035	1.477E-02	.2163	1.7607E-02	.2590	1.9623E-02	.2873	.1690	165.000
H 53	523	47.939	8.789	1.073E-02	.1572	1.2839E-02	.1880	1.4234E-02	.2084	.1690	180.000
H 400	506	2.796	.508	6.074E-04	.0089	7.2358E-04	.0106	8.0012E-04	.0117	.2420	0
H 402	508	1.802	.300	3.591E-04	.0053	4.2791E-04	.0063	4.7326E-04	.0069	.2420	30.000
H 404	511	2.958	.587	7.063F-04	.0103	8.4232E-04	.0123	9.3202E-04	.0136	.2420	60.000
H 406	511	3.641	.665	8.003E-04	.0117	9.5456E-04	.0140	1.0563E-03	.0155	.2420	90.000
H 407	511	2.936	.550	6.615F-04	.0097	7.8887E-04	.0115	8.7288E-04	.0128	.2420	105.000
H 408	514	10.403	2.003	2.418E-03	.0354	2.8851E-03	.0422	3.1939E-03	.0468	.2420	120.000
H 409	512	8.856	1.352	1.629F-03	.0238	1.9431E-03	.0284	2.1505E-03	.0315	.2420	135.000
H 410	514	9.472	1.460	2.246F-03	.0329	2.6803E-03	.0392	2.9673E-03	.0434	.2420	150.000
H 411	517	14.054	2.763	3.348F-03	.0490	3.9980E-03	.0585	4.4279E-03	.0648	.2420	165.000
H 412	516	13.870	2.682	3.248E-03	.0476	3.8701E-03	.0568	4.2949E-03	.0629	.2420	180.000
H 413	514	2.446	.482	5.814E-04	.0085	6.9302E-04	.0102	7.6805E-04	.0112	.2830	0
H 415	514	1.278	.251	3.032E-04	.0044	3.6101E-04	.0053	4.0047E-04	.0059	.2830	30.000
H 417	516	1.476	.250	3.032F-04	.0044	3.6209E-04	.0053	4.0094E-04	.0059	.2830	60.000
H 419	517	5.269	.954	1.156F-03	.0169	1.3804E-03	.0202	1.5288E-03	.0224	.2830	90.000
H 420	515	10.030	1.701	2.057E-03	.0301	2.4561E-03	.0360	2.7195E-03	.0398	.2830	105.000
H 421	517	6.641	1.106	1.340E-03	.0196	1.6007E-03	.0234	1.7729E-03	.0260	.2830	120.000
H 422	518	7.640	1.397	1.696F-03	.0248	2.0260E-03	.0297	2.2444E-03	.0329	.2830	135.000
H 423	519	8.671	1.749	2.123E-03	.0311	2.5366E-03	.0371	2.8102E-03	.0411	.2830	150.000
H 424	520	8.734	1.692	2.058F-03	.0301	2.4588E-03	.0360	2.7245E-03	.0399	.2830	165.000
H 425	520	11.170	2.164	2.631F-03	.0385	3.1447E-03	.0460	3.4845E-03	.0510	.2830	180.000
B 426	515	2.059	.398	4.813E-04	.0070	5.7466E-04	.0084	6.3630E-04	.0093	.3160	0
B 428	517	1.034	.205	2.481E-04	.0036	2.9627E-04	.0043	3.2814E-04	.0048	.3160	30.000
B 430	515	1.448	.272	3.288E-04	.0048	3.9249E-04	.0057	4.3458E-04	.0064	.3160	60.000
B 432	519	11.295	1.920	2.331E-03	.0341	2.7851E-03	.0408	3.0855E-03	.0452	.3160	90.000
B 433	511	1.941	.374	4.504F-04	.0066	5.3721E-04	.0079	5.9449E-04	.0087	.3160	105.000
B 434	520	15.180	2.598	2.916E-03	.0427	3.4842E-03	.0510	3.8607E-03	.0565	.3160	120.000
B 435	515	4.276	.803	9.707E-04	.0142	1.1586E-03	.0170	1.2828E-03	.0188	.3160	135.000
B 436	517	7.270	1.438	1.734E-03	.0254	2.0711E-03	.0303	2.2941E-03	.0336	.3160	150.000
B 437	517	7.364	1.425	1.727E-03	.0253	2.0631E-03	.0302	2.2852E-03	.0335	.3160	165.000
B 438	517	11.282	1.928	1.973F-03	.0289	2.3560E-03	.0345	2.6094E-03	.0382	.3160	180.000
B 439	515	1.985	.396	4.709E-04	.0069	5.6207E-04	.0082	6.2229E-04	.0091	.3540	0
B 441	516	.917	.185	2.233E-04	.0033	2.6664E-04	.0039	2.9527E-04	.0043	.3540	30.000
B 443	518	1.519	.295	3.969F-04	.0043	3.9462E-04	.0052	3.9281E-04	.0058	.3540	60.000
B 445	521	12.983	2.308	2.812F-03	.0412	3.3614E-03	.0492	3.7256E-03	.0545	.3540	90.000
B 446	517	6.336	1.106	1.340E-03	.0196	1.5999E-03	.0234	1.7719E-03	.0259	.3540	105.000
B 447	521	15.656	2.740	3.336F-03	.0488	3.9879E-03	.0584	4.4191E-03	.0647	.3540	120.000
B 448	517	7.319	1.376	1.668E-03	.0244	1.9921E-03	.0292	2.2065E-03	.0323	.3540	135.000
H 450	517	5.371	1.010	1.225E-03	.0179	1.4630E-03	.0214	1.6209E-03	.0237	.3540	165.000
B 451	517	7.156	1.346	1.630F-03	.0239	1.9472E-03	.0285	2.1566E-03	.0316	.3540	180.000
B 452	514	1.924	.294	3.553E-04	.0052	4.2307E-04	.0062	4.6935E-04	.0069	.3800	0
B 454	515	1.003	.194	2.342E-04	.0034	2.7951E-04	.0041	3.0966E-04	.0045	.3800	30.000
B 456	516	1.942	.313	3.789F-04	.0055	4.5269E-04	.0066	5.0112E-04	.0073	.3800	60.000
B 458	520	11.121	2.035	2.476E-03	.0362	2.9590E-03	.0433	3.2799E-03	.0480	.3800	90.000
B 459	523	20.488	4.054	4.951F-03	.0725	5.9210E-03	.0867	6.5648E-03	.0961	.3800	105.000

GROUP
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BWO NOSE 2.72 IN. UPSTREAM OF GDC-B, .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
B07	GDC-B+C+WO	8.00	848.5	1344	0	0	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.4	.088	3.939	3868	7.576E-05	7.041E-08	3.74E 06	6.836E-02	2.930E-02	2

FUSELAGE-BOOSTER

TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	PHI
B 460	501	8.208	1.485	1.761E-03	.0258	2.0952E-03	.0305	2.3147E-03	.0339	.3000	120.000
B 461	501	8.727	1.579	1.873E-03	.0274	2.2280E-03	.0326	2.4613E-03	.0360	.3000	135.000
B 462	500	2.894	.535	6.386E-04	.0093	7.5960E-04	.0111	8.3908E-04	.0123	.3000	150.000
B 463	502	5.473	1.020	1.212E-03	.0177	1.4424E-03	.0211	1.5938E-03	.0233	.3000	165.000
B 464	502	6.493	1.210	1.438E-03	.0210	1.7109E-03	.0250	1.8904E-03	.0277	.3000	180.000
B 106	511	.750	.145	1.737E-04	.0025	2.0716E-04	.0030	2.2921E-04	.0034	.4400	0
B 109	512	11.725	2.135	2.565E-03	.0375	3.0593E-03	.0447	3.3852E-03	.0495	.4400	90.000
B 110	508	5.853	1.064	1.272E-03	.0186	1.5160E-03	.0222	1.6765E-03	.0245	.4400	120.000
B 111	507	2.071	.376	4.495E-04	.0066	5.3554E-04	.0078	5.9220E-04	.0087	.4400	150.000
B 112	509	5.143	.938	1.119E-03	.0164	1.3338E-03	.0195	1.4752E-03	.0214	.4400	180.000
B 113	514	.680	.133	1.607E-04	.0024	1.9180E-04	.0028	2.1230E-04	.0031	.4800	0
B 116	513	8.398	1.485	1.788E-03	.0282	2.1335E-03	.0312	2.3614E-03	.0345	.4800	90.000
B 117	510	5.327	.969	1.162E-03	.0170	1.3852E-03	.0203	1.5323E-03	.0224	.4800	120.000
B 118	509	1.681	.306	3.664E-04	.0054	4.3671E-04	.0064	4.8307E-04	.0071	.4800	150.000
B 119	511	4.099	.746	8.953E-04	.0131	1.0675E-03	.0156	1.1811E-03	.0173	.4800	180.000
B 120	516	.584	.115	1.385E-04	.0020	1.6530E-04	.0024	1.8303E-04	.0027	.5200	0
B 195	526	11.360	2.301	2.812E-03	.0411	3.3650E-03	.0492	3.7418E-03	.0546	.5500	45.000
B 127	516	5.680	1.037	1.253E-03	.0183	1.4964E-03	.0219	1.6571E-03	.0242	.5500	90.000
B 128	515	4.906	.895	1.081E-03	.0158	1.2897E-03	.0189	1.4279E-03	.0209	.5500	105.000
B 129	512	6.400	1.166	1.402E-03	.0205	1.6725E-03	.0245	1.8510E-03	.0271	.5500	120.000
B 130	509	1.563	.284	3.407E-04	.0050	4.0607E-04	.0059	4.4918E-04	.0066	.5500	150.000
B 131	508	3.923	.713	8.523E-04	.0125	1.0155E-03	.0149	1.1230E-03	.0164	.5500	180.000
B 138	518	4.782	.874	1.059E-03	.0155	1.2648E-03	.0185	1.4010E-03	.0205	.6250	90.000
B 139	516	3.498	.639	7.714E-04	.0113	9.2087E-04	.0135	1.0197E-03	.0149	.6250	105.000
B 140	512	4.330	.789	9.481E-04	.0139	1.1308E-03	.0165	1.2514E-03	.0183	.6250	120.000
B 141	509	1.255	.228	2.732E-04	.0040	3.2563E-04	.0048	3.6016E-04	.0053	.6250	150.000
B 142	508	1.872	.340	4.070E-04	.0060	4.8491E-04	.0071	5.3628E-04	.0078	.6250	180.000
B 150	519	5.669	1.037	1.257E-03	.0184	1.5017E-03	.0220	1.6636E-03	.0243	.7000	90.000
B 151	517	4.411	.808	9.743E-04	.0143	1.1634E-03	.0170	1.2884E-03	.0188	.7000	105.000
B 152	515	2.772	.506	6.103E-04	.0089	7.2836E-04	.0107	8.0638E-04	.0118	.7000	120.000
B 153	512	1.471	.268	3.220E-04	.0047	3.8406E-04	.0056	4.2499E-04	.0062	.7000	150.000
B 154	509	.807	.142	1.706E-04	.0025	2.0330E-04	.0030	2.2488E-04	.0033	.7000	180.000
B 159	522	6.712	1.193	1.452E-03	.0212	1.7357E-03	.0254	1.9237E-03	.0281	.7700	90.000
B 160	518	3.146	.558	6.755E-04	.0099	8.0670E-04	.0118	8.9349E-04	.0131	.7700	120.000
B 161	514	1.178	.208	2.511E-04	.0037	2.9965E-04	.0044	3.3169E-04	.0049	.7700	150.000
B 162	511	.327	.069	8.252E-05	.0012	9.8398E-05	.0014	1.0887E-04	.0016	.7700	180.000
B 171	520	2.253	.420	5.092E-04	.0074	6.0841E-04	.0089	6.7410E-04	.0099	.8950	120.000
B 172	518	1.023	.167	2.264E-04	.0033	2.7047E-04	.0040	2.9958E-04	.0044	.8950	150.000

UPPER WING SURFACE-BOOSTER

TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
B 200	537	54.633	8.401	1.041E-02	.1523	1.2491E-02	.1827	1.3877E-02	.2030	0	.100
B 201	525	15.268	1.780	2.172E-03	.0318	2.5987E-03	.0380	2.8814E-03	.0421	.1000	.100
B 202	525	12.673	1.779	2.172E-03	.0318	2.5989E-03	.0380	2.8819E-03	.0422	.2000	.100
B 203	526	4.092	.846	1.034E-03	.0151	1.2375E-03	.0181	1.3723E-03	.0201	.3300	.100
B 204	526	5.669	.995	1.216E-03	.0178	1.4546E-03	.0213	1.6131E-03	.0236	.4000	.100
B 205	524	5.627	1.002	1.222E-03	.0179	1.4613E-03	.0214	1.6202E-03	.0237	.6000	.100
B 206	526	3.922	.669	8.184E-04	.0120	9.7940E-04	.0143	1.0862E-03	.0159	.7000	.100
B 207	526	4.361	.412	5.042E-04	.0074	6.0342E-04	.0088	6.6925E-04	.0098	.9100	.100
B 217	557	101.408	12.533	1.593E-02	.2331	1.9217E-02	.2811	2.1424E-02	.3134	0	.200
B 218	533	48.509	4.733	5.836E-03	.0854	6.9944E-03	.1023	7.7655E-03	.1136	.0500	.200
B 219	529	29.065	2.830	3.471E-03	.0508	4.1559E-03	.0608	4.6110E-03	.0674	.1000	.200
B 220	528	15.611	1.401	1.717E-03	.0251	2.0551E-03	.0301	2.2798E-03	.0333	.2000	.200
B 221	525	4.224	.821	1.003E-03	.0147	1.1996E-03	.0175	1.3302E-03	.0195	.4000	.200
B 222	524	1.642	.301	3.674E-04	.0054	4.3947E-04	.0064	4.8723E-04	.0071	.6000	.200
B 223	525	1.432	.244	2.980E-04	.0044	3.5652E-04	.0052	3.9531E-04	.0058	.7000	.200
B 230	560	105.908	14.564	1.858E-02	.2718	2.2429E-02	.3281	2.5018E-02	.3659	0	.250
B 231	527	24.332	2.854	3.494E-03	.0511	4.1825E-03	.0612	4.6395E-03	.0679	.1000	.250
B 232	526	4.338	.843	1.031E-03	.0151	1.2342E-03	.0181	1.3688E-03	.0200	.4000	.250
B 233	526	3.430	.650	7.940E-04	.0116	9.5001E-04	.0139	1.0535E-03	.0154	.5000	.250
B 234	525	2.500	.459	5.606E-04	.0082	6.7069E-04	.0098	7.4374E-04	.0109	.6000	.250
B 235	528	2.274	.165	2.018E-04	.0030	2.4156E-04	.0035	2.6797E-04	.0039	.8330	.250
B 236	528	2.612	.212	2.594E-04	.0038	3.1055E-04	.0045	3.4450E-04	.0050	.8670	.250
B 237	527	2.359	.191	2.342E-04	.0034	2.8032E-04	.0041	3.1095E-04	.0045	.9010	.250
B 238	527	1.993	.153	1.871E-04	.0027	2.2389E-04	.0033	2.4832E-04	.0036	.9350	.250
B 248	567	110.214	12.657	1.630E-02	.2384	1.9712E-02	.2883	2.2016E-02	.3220	0	.300
B 249	528	15.240	1.853	2.270E-03	.0332	2.7177E-03	.0398	3.0148E-03	.0441	.1000	.300
B 250	532	15.919	1.794	2.210E-03	.0323	2.6478E-03	.0387	2.9343E-03	.0430	.2000	.300
B 251	528	6.056	1.179	1.446E-03	.0211	1.7309E-03	.0253	1.9204E-03	.0281	.4000	.300
B 252	528	4.008	.793	9.715E-04	.0142	1.1629E-03	.0170	1.2901E-03	.0189	.6000	.300
B 263	572	126.984	15.808	2.047E-02	.2994	2.4780E-02	.3625	2.7647E-02	.4051	0	.400
B 264	513	20.072	2.448	3.017E-03	.0441	3.6162E-03	.0529	4.0147E-03	.0587	.1000	.400
B 265	531	4.418	.861	1.060E-03	.0155	1.2695E-03	.0186	1.4090E-03	.0206	.4000	.400
B 266	533	3.003	.586	7.223E-04	.0106	8.6564E-04	.0127	9.6104E-04	.0141	.6000	.400
B 277	586	161.282	15.725	2.074E-02	.3034	2.5212E-02	.3688	2.8256E-02	.4133	0	.500
B 278	535	21.438	2.815	3.480E-03	.0509	4.1728E-03	.0610	4.6344E-03	.0678	.1000	.500
B 279	535	13.520	1.651	2.042E-03	.0299	2.4496E-03	.0358	2.7208E-03	.0398	.2000	.500
B 280	531	4.673	.911	1.121E-03	.0164	1.3429E-03	.0196	1.4906E-03	.0218	.4000	.500
B 281	531	3.971	.753	9.260E-04	.0135	1.1095E-03	.0162	1.2315E-03	.0180	.5000	.500
B 282	532	3.180	.603	7.424E-04	.0109	8.8965E-04	.0130	9.8754E-04	.0144	.6000	.500
B 283	531	3.135	.297	3.656E-04	.0053	4.3798E-04	.0064	4.8613E-04	.0071	.8770	.500
B 296	575	162.419	21.668	2.741E-02	.4009	3.3214E-02	.4858	3.7150E-02	.5434	0	.600
B 297	535	26.165	3.437	4.251E-03	.0622	5.0980E-03	.0746	5.6624E-03	.0828	.1000	.600
B 298	536	17.112	2.072	2.564E-03	.0375	3.0750E-03	.0450	3.4156E-03	.0500	.2000	.600
B 299	533	2.465	.557	6.875E-04	.0101	8.2411E-04	.0121	9.1503E-04	.0134	.4000	.600
B 300	536	3.324	.587	7.267E-04	.0106	8.7180E-04	.0128	9.6850E-04	.0142	.6000	.600
B 301	535	3.679	.349	4.318E-04	.0063	5.1782E-04	.0076	5.7510E-04	.0084	.7930	.600
B 302	534	3.168	.301	3.712E-04	.0054	4.4507E-04	.0065	4.9422E-04	.0072	.8510	.600
B 315	549	56.194	5.901	7.425E-03	.1086	8.9357E-03	.1307	9.9480E-03	.1455	.1000	.700
B 316	542	25.917	2.712	3.383E-03	.0495	4.0646E-03	.0595	4.5198E-03	.0661	.2000	.700
B 317	540	4.558	.744	9.251E-04	.0135	1.1107E-03	.0162	1.2345E-03	.0181	.5000	.700

UPPER CANARD SURFACE-BOOSTER

TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/S
B 350	521	84.674	7.978	9.690E-03	.1417	1.1581E-02	.1694	1.2832E-02	.1877	0	.250
B 351	509	46.423	4.344	5.202E-03	.0761	6.1991E-03	.0907	6.8566E-03	.1003	.2500	.250
B 352	505	16.036	2.703	3.221E-03	.0471	3.8358E-03	.0561	4.2401E-03	.0620	.5000	.250
B 353	502	8.815	1.483	1.762E-03	.0258	2.0966E-03	.0307	2.3166E-03	.0339	.7000	.250
B 357	533	111.462	10.576	1.305E-02	.1908	1.5638E-02	.2287	1.7363E-02	.2540	0	.500
B 358	506	24.671	2.305	2.751E-03	.0402	3.2767E-03	.0479	3.6228E-03	.0530	.2500	.500
B 359	504	10.270	1.550	1.845E-03	.0270	2.1967E-03	.0321	2.4279E-03	.0355	.5000	.500
B 360	501	5.429	.913	1.084E-03	.0159	1.2897E-03	.0189	1.4249E-03	.0208	.7000	.500

GROUP
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VT1162

DWO NOSE 2.72 IN. UPSTREAM OF GDC-H. .884 IN. GAP

RN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	R07	GDC-H+LWO	8.00	858.9	1347	.03	.03	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.6	.088	1.741	3873	7.562E-05	7.858E-08	3.73E 06	6.841E-02	2.936E-02	3

FUSELAGE-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	582	248.869	45.672	5.970F-02	.8728	7.2460E-02	1.0593	8.1128E-02	1.1860	0	-0
0	2	517	83.075	13.387	1.612F-02	.2357	1.9244E-02	.2813	2.1306E-02	.3115	.0100	-0
0	7	499	30.482	5.345	6.312F-03	.0923	7.5052E-03	.1097	8.2884E-03	.1212	.0300	-0
0	12	492	12.600	2.401	2.809F-03	.0411	3.3349E-03	.0488	3.6790E-03	.0538	.0500	-0
0	19	487	1.355	.243	2.828F-04	.0041	3.3535E-04	.0049	3.6970E-04	.0054	.1000	-0
0	29	488	3.037	.529	6.163F-04	.0090	7.3089E-04	.0107	8.0563E-04	.0118	.2000	-0
0	44	513	94.735	16.439	2.021F-02	.2954	2.4219E-02	.3540	2.6887E-02	.3930	.3000	-0
0	54	517	26.458	5.118	6.169E-03	.0902	7.3641E-03	.1077	8.1542E-03	.1192	.4000	-0
0	66	515	13.127	2.396	2.881E-03	.0421	3.4380E-03	.0503	3.8058E-03	.0556	.5000	-0
0	76	514	12.202	1.963	2.356F-03	.0344	2.8109E-03	.0411	3.1108E-03	.0455	.5500	-0
0	80	515	8.622	1.619	1.946F-03	.0285	2.3221E-03	.0339	2.5703E-03	.0376	.6000	-0
0	89	519	6.255	1.144	1.382E-03	.0202	1.6508E-03	.0241	1.8264E-03	.0267	.7000	-0
0	98	517	7.368	1.270	1.532E-03	.0224	1.8285E-03	.0267	2.0248E-03	.0296	.8000	-0
0	104	520	2.022	.359	4.345E-04	.0064	5.1908E-04	.0076	5.7505E-04	.0084	.9000	-0
0	114	519	.833	.157	1.893F-04	.0028	2.2604E-04	.0033	2.5036E-04	.0037	.9900	-0
0	20	489	1.451	.110	1.285F-04	.0019	1.5242E-04	.0022	1.6806E-04	.0025	.1000	-.383
0	31	491	2.835	.570	6.656E-04	.0097	7.8986E-04	.0115	8.7118E-04	.0127	.2000	-.466
0	46	545	118.150	24.505	3.055F-02	.4465	3.6710E-02	.5366	4.0829E-02	.5969	.3000	-.504
0	56	514	14.249	2.751	3.301E-03	.0483	3.9372E-03	.0576	4.3572E-03	.0637	.4000	-.526
0	69	515	13.809	2.520	3.030F-03	.0443	3.6155E-03	.0529	4.0022E-03	.0585	.5000	-.830
0	83	514	5.946	1.148	1.378E-03	.0201	1.6443E-03	.0240	1.8198E-03	.0266	.6000	-.748
0	92	518	3.702	.677	8.164E-04	.0119	9.7480E-04	.0142	1.0795E-03	.0158	.7000	-.704
0	101	521	3.278	.671	8.125E-04	.0119	9.7087E-04	.0142	1.0757E-03	.0157	.8000	-.669
0	107	520	2.293	.407	4.923E-04	.0072	5.8813E-04	.0086	6.5150E-04	.0095	.9000	-.678
0	117	520	1.954	.386	4.674F-04	.0068	5.5843E-04	.0082	6.1865E-04	.0090	.9900	-.660
0	5	498	34.790	5.360	6.315E-03	.0923	7.5061E-03	.1097	8.2877E-03	.1212	.0100	0
0	10	497	28.101	4.925	5.798E-03	.0848	6.8904E-03	.1007	7.6071E-03	.1112	.0300	0
0	24	499	16.340	3.040	3.584E-03	.0524	4.2604E-03	.0623	4.7044E-03	.0688	.1000	0
0	28	501	17.359	2.679	3.167F-03	.0463	3.7672E-03	.0551	4.1612E-03	.0608	.1500	0
0	35	509	20.236	3.571	4.262F-03	.0623	5.0778E-03	.0742	5.6155E-03	.0821	.2000	0
0	36	542	113.306	18.515	2.299E-02	.3361	2.7608E-02	.4036	3.0690E-02	.4486	.2100	0
0	37	580	209.842	36.474	5.018E-02	.7335	6.0869E-02	.8898	6.8128E-02	.9959	.2200	0
0	38	558	136.753	21.786	2.760E-02	.4035	3.3284E-02	.4866	3.7101E-02	.5424	.2300	0
0	40	513	8.325	1.294	1.553E-03	.0227	1.8522E-03	.0271	2.0497E-03	.0300	.2500	0
0	53	513	.889	.148	1.772F-04	.0026	2.1160E-04	.0031	2.3395E-04	.0034	.3000	0
0	62	518	4.244	.662	7.980E-04	.0117	9.5271E-04	.0139	1.0550E-03	.0154	.4000	0
0	75	519	9.677	1.718	2.075E-03	.0303	2.4777E-03	.0362	2.7443E-03	.0401	.5000	0
0	87	521	10.275	1.770	2.143E-03	.0313	2.5590E-03	.0374	2.8360E-03	.0415	.6000	0
0	96	522	8.419	1.497	1.814F-03	.0265	2.1682E-03	.0317	2.4026E-03	.0351	.7000	0
0	111	520	2.377	.384	4.644E-04	.0068	5.5485E-04	.0081	6.1469E-04	.0090	.9000	.610
0	120	528	14.213	1.614	1.970F-03	.0288	2.3581E-03	.0345	2.6195E-03	.0382	.9900	.305
0	4	498	27.525	4.094	4.821E-03	.0705	5.7290E-03	.0838	6.3260E-03	.0925	.0100	1.000
0	14	495	18.010	3.055	3.585E-03	.0524	4.2577E-03	.0622	4.6986E-03	.0687	.0500	1.000
0	22	494	11.344	1.984	2.327E-03	.0340	2.7632E-03	.0404	3.0492E-03	.0446	.1000	1.000
0	33	496	7.827	1.371	1.612F-03	.0236	1.9194E-03	.0280	2.1143E-03	.0309	.2000	1.000
0	48	510	9.899	1.642	1.962E-03	.0287	2.3380E-03	.0342	2.5859E-03	.0378	.3000	1.000
0	59	515	17.057	3.203	3.849E-03	.0563	4.5920E-03	.0671	5.0836E-03	.0743	.4000	1.000
0	72	515	28.183	5.597	6.730E-03	.0984	8.0302E-03	.1174	8.8890E-03	.1299	.5000	1.000
0	78	515	18.183	2.732	3.284E-03	.0480	3.9177E-03	.0573	4.3365E-03	.0634	.5500	1.000
0	85	513	9.220	1.631	1.956F-03	.0286	2.3333E-03	.0341	2.5821E-03	.0377	.6000	1.000
0	77	510	6.460	1.002	1.197E-03	.0175	1.4262E-03	.0208	1.5773E-03	.0231	.5500	-1.000
0	84	512	7.015	1.390	1.665E-03	.0243	1.9846E-03	.0290	2.1957E-03	.0321	.6000	-1.000
0	94	516	6.175	1.326	1.596F-03	.0233	1.9041E-03	.0278	2.1080E-03	.0308	.7000	-1.000
0	39	518	30.380	5.880	7.096E-03	.1037	8.4739E-03	.1239	9.3842E-03	.1372	.2400	.486
0	42	513	8.232	1.633	1.959F-03	.0286	2.3361E-03	.0342	2.5852E-03	.0378	.2700	.465
0	51	518	9.891	2.021	2.439E-03	.0357	2.9126E-03	.0426	3.2256E-03	.0472	.3000	.433
0	41	519	22.488	4.476	5.409F-03	.0791	6.4603E-03	.0944	7.1598E-03	.1046	.2700	.465
0	52	515	4.017	.819	9.848F-04	.0144	1.1790E-03	.0172	1.3007E-03	.0190	.3000	.361

LOWER WING SURFACE-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	533	55.871	9.998	1.229F-02	.1796	1.4726E-02	.2153	1.6347E-02	.2390	0	.250
0	136	522	12.932	2.299	2.787F-03	.0407	3.3312E-03	.0487	3.6914E-03	.0540	.1000	.250
0	137	520	7.164	1.195	1.446F-03	.0211	1.7274E-03	.0253	1.9137E-03	.0280	.2000	.250
0	138	522	8.349	1.530	1.855F-03	.0271	2.2100E-03	.0324	2.4563E-03	.0359	.4000	.250
0	140	523	7.830	1.351	1.639E-03	.0240	1.9590E-03	.0286	2.1711E-03	.0317	.6000	.250
0	142	520	3.704	.598	7.238E-04	.0106	8.6471E-04	.0126	9.5797E-04	.0140	.9000	.250
0	149	541	60.892	11.274	1.399E-02	.2045	1.6801E-02	.2456	1.8675E-02	.2730	0	.500
0	150	525	17.762	3.456	4.206E-03	.0615	5.0300E-03	.0735	5.5771E-03	.0815	.1000	.500
0	151	524	9.439	1.832	2.225E-03	.0325	2.6607E-03	.0389	2.9491E-03	.0431	.2000	.500
0	152	526	11.388	1.967	2.395F-03	.0350	2.8652E-03	.0419	3.1767E-03	.0464	.4000	.500
0	154	523	7.803	1.389	1.686F-03	.0247	2.0162E-03	.0295	2.2347E-03	.0327	.6000	.500
0	157	522	2.799	.498	6.030E-04	.0088	7.2060E-04	.0105	7.9848E-04	.0117	.9000	.500
0	171	553	75.371	13.629	1.716E-02	.2509	2.0670E-02	.3022	2.3022E-02	.3365	0	.750
0	172	534	30.228	5.247	6.452E-03	.0943	7.7334E-03	.1131	8.5857E-03	.1255	.1000	.750
0	175	524	4.859	.970	1.178F-03	.0172	1.4082E-03	.0206	1.5608E-03	.0228	.4000	.750
0	178	523	2.257	.402	4.874E-04	.0071	5.8262E-04	.0085	6.4571E-04	.0094	.8000	.750

UPPER WING SURFACE-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
0	129	516	11.082	1.666	2.005E-03	.0293	2.3925E-03	.0350	2.6487E-03	.0387	.1000	.100
0	130	515	3.849	.645	7.799F-04	.0114	9.3058E-04	.0136	1.0301E-03	.0151	.2000	.100
0	131	517	3.766	.688	8.294F-04	.0121	9.9018E-04	.0145	1.0966E-03	.0160	.4000	.100
0	132	516	2.321	.436	5.254F-04	.0077	6.2704E-04	.0092	6.9423E-04	.0101	.7000	.100
0	133	518	1.946	.335	4.036F-04	.0059	4.8191E-04	.0070	5.3366E-04	.0078	.9000	.100
0	158	526	16.539	2.498	3.034F-03	.0443	3.6260E-03	.0530	4.0200E-03	.0588	.1000	.500
0	159	524	12.915	2.090	2.540E-03	.0371	3.0369E-03	.0444	3.3663E-03	.0492	.2000	.500
0	160	523	9.326	1.508	1.830E-03	.0267	2.1871E-03	.0320	2.4238E-03	.0354	.4000	.500
0	161	526	2.184	.377	4.595E-04	.0067	5.4968E-04	.0080	6.0946E-04	.0089	.8000	.500
0	162	522	3.624	.488	5.915F-04	.0086	7.0695E-04	.0103	7.8336E-04	.0115	.9000	.500

VERTICAL STABILIZER-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/S
0	187	561	130.462	21.540	2.741F-02	.4007	3.3084E-02	.4836	3.6901E-02	.5394	0	.100
0	188	510	20.246	3.506	4.291F-03	.0627	5.1373E-03	.0751	5.6998E-03	.0833	.1000	.100
0	189	526	4.293	.719	8.749F-04	.0128	1.0465E-03	.0153	1.1603E-03	.0170	.4000	.100
0	192	557	91.124	17.518	2.219E-02	.3244	2.6752E-02	.3911	2.9819E-02	.4359	0	.250
0	193	532	23.252	4.038	4.953F-03	.0724	5.9320E-03	.0867	6.5844E-03	.0963	.1000	.250
0	194	529	6.172	1.035	1.265F-03	.0185	1.5137E-03	.0221	1.6791E-03	.0245	.4000	.250
0	197	539	49.689	7.925	9.314E-03	.1362	1.1178E-02	.1634	1.2420E-02	.1816	.1000	.500
0	198	528	5.962	1.064	1.300F-03	.0190	1.5558E-03	.0227	1.7258E-03	.0252	.4000	.500
0	201	570	141.456	27.374	3.525F-02	.5153	4.2051E-02	.6235	4.7651E-02	.6966	0	.750
0	202	547	63.051	7.232	9.039F-03	.1321	1.0868E-02	.1589	1.2042E-02	.1768	.1000	.750
0	203	531	9.022	1.026	1.258F-03	.0184	1.5070E-03	.0220	1.6724E-03	.0244	.4000	.750

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

OWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .118 IN. GAP

RUN NO	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	807	GDC-B+OWO	8.00	861.3	1344	-.01	-.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.4	.088	3.952	3868	7.600E-05	7.841E-08	3.75E 06	6.848E-02	2.926E-02	1

	TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
B	1	603	206.867	39.506	5.333E-02	.7789	6.5155E-02	.9515	7.3275E-02	1.0701	0	0
B	2	542	51.055	9.835	1.226E-02	.1791	1.4731E-02	.2151	1.6379E-02	.2392	.1137	0
B	3	544	62.966	11.683	1.461E-02	.2134	1.7567E-02	.2565	1.9541E-02	.2854	.1137	[illegible]
B	4	535	33.834	6.242	7.714E-03	.1127	9.2500E-03	.1351	1.0273E-02	.156[illegible]	.1274	0
B	5	532	32.066	5.908	7.279E-03	.1063	8.7235E-03	.1274	9.6844E-03	.1416	.1274	[illegible]
B	6	533	34.423	6.346	7.826E-03	.1143	9.3806E-03	.1370	1.0415E-02	.1521	.0274	60.000
B	7	534	33.427	6.165	7.610E-03	.1111	9.1233E-03	.1332	1.0131E-02	.1479	.0274	90.000
B	8	533	34.977	6.617	8.186E-03	.1195	9.8118E-03	.1433	1.0894E-02	.1591	.0274	120.000
B	9	534	35.791	6.796	8.392E-03	.1225	1.0061E-02	.1469	1.1173E-02	.1632	.0274	150.000
B	10	534	34.124	6.479	7.998E-03	.1168	9.5890E-03	.1400	1.0648E-02	.1555	.0274	180.000
B	11	532	27.608	5.086	6.265E-03	.0915	7.5074E-03	.1096	8.3340E-03	.1217	.0406	180.000
B	12	527	21.540	3.958	4.846E-03	.0708	5.8003E-03	.0847	6.4319E-03	.0940	.0543	0
B	13	527	21.955	4.034	4.940E-03	.0721	5.9129E-03	.0864	6.5589E-03	.0958	.0543	30.000
B	14	528	22.367	4.111	5.037E-03	.0736	6.0300E-03	.0881	6.6893E-03	.0977	.0543	60.000
B	15	528	21.950	4.034	4.942E-03	.0722	5.9158E-03	.0864	6.5624E-03	.0958	.0543	90.000
B	17	528	22.920	4.214	5.165E-03	.0754	6.1843E-03	.0903	6.8610E-03	.1002	.0543	150.000
B	18	529	20.389	3.751	4.605E-03	.0673	5.5154E-03	.0805	6.1201E-03	.0894	.0543	180.000
B	19	544	55.058	10.219	1.278E-02	.1866	1.5360E-02	.2243	1.7086E-02	.2495	.0670	180.000
B	20	524	15.183	2.784	3.395E-03	.0496	4.0597E-03	.0593	4.5007E-03	.0657	.0790	0
B	21	541	48.274	8.937	1.113E-02	.1625	1.3365E-02	.1952	1.4858E-02	.2170	.0790	180.000
B	22	534	44.973	8.297	1.025E-02	.1497	1.2290E-02	.1795	1.3649E-02	.1993	.0920	180.000
B	23	520	11.920	2.181	2.647E-03	.0386	3.1623E-03	.0462	3.5037E-03	.0512	.1030	0
B	24	520	11.987	2.194	2.663E-03	.0389	3.1815E-03	.0465	3.5251E-03	.0515	.1030	15.000
B	25	520	11.705	2.142	2.600E-03	.0380	3.1072E-03	.0454	3.4428E-03	.0503	.1030	30.000
B	26	518	11.560	2.113	2.557E-03	.0373	3.0538E-03	.0446	3.3823E-03	.0494	.1030	45.000
B	27	518	11.513	2.104	2.547E-03	.0372	3.0418E-03	.0444	3.3691E-03	.0492	.1030	60.000
B	28	519	12.041	2.202	2.670E-03	.0390	3.1900E-03	.0466	3.5340E-03	.0516	.1030	75.000
B	29	519	12.227	2.236	2.712E-03	.0396	3.2398E-03	.0473	3.5892E-03	.0524	.1030	90.000
B	30	520	12.084	2.211	2.682E-03	.0392	3.2050E-03	.0468	3.5510E-03	.0519	.1030	105.000
B	31	517	6.760	1.235	1.498E-03	.0219	1.7887E-03	.0261	1.9810E-03	.0289	.1030	120.000
B	32	523	21.457	3.932	4.788E-03	.0699	5.7250E-03	.0836	6.3458E-03	.0927	.1030	135.000
B	33	530	39.228	7.219	8.872E-03	.1296	1.0626E-02	.1552	1.1793E-02	.1722	.1030	150.000
B	34	531	38.361	7.065	8.694E-03	.1270	1.0417E-02	.1521	1.1562E-02	.1689	.1030	165.000
B	35	525	23.801	4.369	5.337E-03	.0779	6.3856E-03	.0933	7.0811E-03	.1034	.1030	180.000
B	37	524	29.016	5.320	6.485E-03	.0947	7.7552E-03	.1133	8.5973E-03	.1256	.1300	180.000
B	38	511	6.641	1.209	1.452E-03	.0212	1.7312E-03	.0253	1.9154E-03	.0280	.1430	0
B	39	557	119.236	22.260	2.828E-02	.4129	3.4096E-02	.4979	3.8008E-02	.5551	.1430	180.000
B	40	532	63.034	10.588	1.304E-02	.1904	1.5624E-02	.2282	1.7344E-02	.2533	.1560	180.000
B	41	509	4.128	.861	1.031E-03	.0151	1.2283E-03	.0179	1.3586E-03	.0198	.1690	0
B	42	509	3.818	.766	9.168E-04	.0134	1.0926E-03	.0160	1.2085E-03	.0176	.1690	15.000
B	43	509	4.027	.775	9.288E-04	.0136	1.1070E-03	.0162	1.2245E-03	.0179	.1690	30.000
B	44	509	4.199	.822	9.834E-04	.0144	1.1722E-03	.0171	1.2964E-03	.0189	.1690	45.000
B	45	509	2.926	.547	6.553E-04	.0096	7.8099E-04	.0114	8.6380E-04	.0126	.1690	60.000
B	46	511	3.868	.725	8.696E-04	.0127	1.0368E-03	.0151	1.1471E-03	.0168	.1690	75.000
B	47	511	2.888	.541	6.502E-04	.0095	7.7537E-04	.0113	8.5796E-04	.0125	.1690	90.000
B	48	510	3.550	.665	7.978E-04	.0117	9.5120E-04	.0139	1.0523E-03	.0154	.1690	105.000
B	49	512	7.840	1.470	1.764E-03	.0258	2.1058E-03	.0308	2.3301E-03	.0340	.1690	120.000
B	50	512	6.640	1.245	1.495E-03	.0218	1.7834E-03	.0260	1.9734E-03	.0288	.1690	135.000
B	51	516	22.402	4.330	5.227E-03	.0763	6.2396E-03	.0911	6.9086E-03	.1009	.1690	150.000
B	52	520	30.902	5.823	7.071E-03	.1033	8.4503E-03	.1234	9.3634E-03	.1367	.1690	165.000
B	53	538	72.746	13.457	1.678E-02	.2439	2.0043E-02	.2927	2.2272E-02	.3253	.1690	180.000
B	400	510	2.525	.459	5.511E-04	.0080	6.5696E-04	.0096	7.2680E-04	.0106	.2420	0
B	402	510	1.673	.313	3.758E-04	.0055	4.4802E-04	.0065	4.9564E-04	.0072	.2420	30.000
B	404	511	2.104	.412	4.950E-04	.0072	5.9019E-04	.0086	6.5249E-04	.0095	.2420	60.000
B	406	514	5.763	1.058	1.274E-03	.0186	1.5201E-03	.0222	1.6826E-03	.0246	.2420	90.000
B	407	514	6.364	1.200	1.446E-03	.0211	1.7251E-03	.0252	1.9095E-03	.0279	.2420	105.000
B	408	516	10.055	1.984	2.396E-03	.0350	2.8597E-03	.0418	3.1644E-03	.0462	.2420	120.000
B	409	514	6.887	1.352	1.629E-03	.0238	1.9443E-03	.0284	2.1522E-03	.0314	.2420	135.000
B	410	514	7.379	1.445	1.747E-03	.0255	2.0845E-03	.0304	2.3076E-03	.0337	.2420	150.000
B	411	517	10.817	2.127	2.571E-03	.0375	3.0691E-03	.0448	3.3987E-03	.0496	.2420	165.000
B	412	519	15.867	3.072	3.721E-03	.0543	4.4452E-03	.0649	4.9241E-03	.0719	.2420	180.000
B	413	514	2.651	.512	6.165E-04	.0090	7.3566E-04	.0107	8.1432E-04	.0119	.2830	0
B	415	513	1.021	.200	2.411E-04	.0035	2.8765E-04	.0042	3.1837E-04	.0046	.2830	30.000
B	417	514	2.146	.364	4.385E-04	.0064	5.2332E-04	.0076	5.7932E-04	.0085	.2830	60.000
B	419	516	4.645	.860	1.038E-03	.0152	1.2398E-03	.0181	1.3728E-03	.0200	.2830	90.000
B	420	520	14.851	2.525	3.063E-03	.0447	3.6597E-03	.0534	4.0546E-03	.0592	.2830	105.000
B	421	515	3.875	.645	7.783E-04	.0114	9.2895E-04	.0136	1.0285E-03	.0150	.2830	120.000
B	422	517	6.049	1.114	1.348E-03	.0197	1.6091E-03	.0235	1.7820E-03	.0260	.2830	135.000
B	423	516	4.340	.884	1.068E-03	.0156	1.2744E-03	.0186	1.4111E-03	.0206	.2830	150.000
B	424	517	7.368	1.425	1.722E-03	.0251	2.0561E-03	.0300	2.2769E-03	.0333	.2830	165.000
B	425	519	10.077	1.951	2.364E-03	.0345	2.8232E-03	.0412	3.1273E-03	.0457	.2830	180.000
B	426	516	1.938	.374	4.521E-04	.0066	5.3967E-04	.0079	5.9754E-04	.0087	.3160	0
B	428	515	.831	.164	1.974E-04	.0029	2.3560E-04	.0034	2.6083E-04	.0038	.3160	30.000
B	430	514	2.682	.503	6.062E-04	.0089	7.2325E-04	.0106	8.0055E-04	.0117	.3160	60.000
B	432	518	9.331	1.585	1.919E-03	.0280	2.2914E-03	.0335	2.5340E-03	.0371	.3160	90.000
B	433	512	1.723	.332	3.992E-04	.0058	4.7603E-04	.0070	5.2675E-04	.0077	.3160	105.000
B	434	516	9.787	1.551	1.874E-03	.0274	2.2371E-03	.0327	2.4773E-03	.0362	.3160	120.000
B	435	515	3.989	.749	9.032E-04	.0132	1.0778E-03	.0157	1.1932E-03	.0174	.3160	135.000
B	436	515	3.719	.730	8.804E-04	.0129	1.0506E-03	.0153	1.1630E-03	.0170	.3160	150.000
B	437	516	5.869	1.134	1.370E-03	.0200	1.6352E-03	.0239	1.8106E-03	.0264	.3160	165.000
B	438	517	7.789	1.532	1.852E-03	.0270	2.2115E-03	.0323	2.4491E-03	.0358	.3160	180.000
B	439	515	1.368	.269	3.238E-04	.0047	3.8647E-04	.0056	4.2784E-04	.0062	.3540	0
B	441	515	1.089	.215	2.643E-04	.0039	3.1546E-04	.0046	3.4923E-04	.0051	.3540	30.000
B	443	516	2.445	.394	4.759E-04	.0070	5.6816E-04	.0083	6.2914E-04	.0092	.3540	60.000
B	445	521	12.311	2.187	2.657E-03	.0388	3.1747E-03	.0464	3.5178E-03	.0514	.3540	90.000
B	446	516	6.901	1.204	1.455E-03	.0213	1.7373E-03	.0254	1.9238E-03	.0281	.3540	105.000
B	447	518	9.027	1.577	1.909E-03	.0279	2.2799E-03	.0333	2.5252E-03	.0369	.3540	120.000
B	448	516	6.149	1.156	1.397E-03	.0204	1.6676E-03	.0244	1.8466E-03	.0270	.3540	135.000
B	450	516	3.049	.573	6.923E-04	.0101	8.2653E-04	.0121	9.1523E-04	.0134	.3540	165.000
B	451	517	5.983	1.125	1.360E-03	.0199	1.6236E-03	.0237	1.7980E-03	.0263	.3540	180.000
B	452	515	.884	.171	2.061E-04	.0030	2.4601E-04	.0036	2.7237E-04	.0040	.3800	0
B	454	516	1.905	.368	4.452E-04	.0065	5.3147E-04	.0078	5.8892E-04	.0086	.3800	30.000
B	456	517	2.660	.429	5.186E-04	.0076	6.1926E-04	.0090	6.8541E-04	.0100	.3800	60.000
B	458	521	13.128	2.403	2.920E-03	.0426	3.4897E-03	.0510	3.8671E-03	.0565	.3800	90.000
B	459	523	21.888	4.245	5.173E-03	.0755	6.1866E-03	.0903	6.8582E-03	.1002	.3800	105.000

GROUP
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VON KARMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL B
VT1162

DWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .114 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
807	GDC-B+DWO	8.00	859.3	1342	-.01	-.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RREF-FN (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.2	.0HH	3.943	3865	7.595E-05	7.828E-08	3.75E 06	6.83HE-02	2.926E-02	2

TC NO	TW	DTWLT	G-DOT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.85TO)	M(.85TO)/MREF	FUSELAGE-BOOSTER X/L	PHI
B 460	508	5.524	1.004	1.203E-03	.0176	1.4341E-03	.0210	1.5861E-03	.0232	.3800	120.000
B 461	509	5.471	.995	1.195E-03	.0175	1.4266E-03	.0208	1.5760E-03	.0230	.3800	135.000
B 462	511	2.469	.463	5.569E-04	.0081	6.6615E-04	.0097	7.3492E-04	.0107	.3800	150.000
B 463	512	1.969	.369	4.453E-04	.0065	5.3124E-04	.0078	5.8799E-04	.0086	.3800	165.000
B 464	514	5.144	.975	1.178E-03	.0172	1.4061E-03	.0206	1.5567E-03	.0228	.3800	180.000
B 106	515	.222	.043	5.175E-05	.0008	6.1772E-05	.0009	6.8396E-05	.0010	.4400	0
B 109	515	11.486	2.096	2.536E-03	.0371	3.0276E-03	.0443	3.3522E-03	.0490	.4400	90.000
B 110	511	4.382	.798	9.596E-04	.0140	1.1463E-03	.0167	1.2662E-03	.0185	.4400	120.000
B 111	512	2.957	.539	6.487E-04	.0095	7.7381E-04	.0113	8.5636E-04	.0125	.4400	150.000
B 112	513	3.723	.678	8.182E-04	.0120	9.7617E-04	.0143	1.0805E-03	.0158	.4400	180.000
B 113	518	.575	.113	1.375E-04	.0020	1.6425E-04	.0024	1.8196E-04	.0027	.4880	0
B 116	517	7.204	1.277	1.548E-03	.0226	1.8480E-03	.0270	2.0467E-03	.0299	.4880	90.000
B 117	512	4.472	.815	9.816E-04	.0144	1.1710E-03	.0171	1.2960E-03	.0190	.4880	120.000
B 118	512	3.221	.587	7.068E-04	.0103	8.4310E-04	.0123	9.3317E-04	.0136	.4880	150.000
B 119	513	4.540	.827	9.980F-04	.0146	1.1907E-03	.0174	1.3179E-03	.0193	.4880	180.000
B 120	520	.544	.107	1.303E-04	.0019	1.5576E-04	.0023	1.7261E-04	.0025	.5200	0
B 195	531	18.980	3.853	4.751F-03	.0695	5.6921E-03	.0832	6.3182E-03	.0924	.5500	45.000
B 127	519	5.153	.943	1.148E-03	.0168	1.3699E-03	.0200	1.5179E-03	.0222	.5500	90.000
B 128	517	4.576	.836	1.013E-03	.0148	1.2098E-03	.0177	1.3399E-03	.0196	.5500	105.000
B 129	515	6.154	1.123	1.358E-03	.0199	1.6214E-03	.0237	1.7953E-03	.0263	.5500	120.000
B 130	511	2.865	.522	6.278E-04	.0092	7.4868E-04	.0109	8.2846E-04	.0121	.5500	150.000
B 131	508	3.905	.710	8.515E-04	.0125	1.0149E-03	.0148	1.1226E-03	.0164	.5500	180.000
B 138	522	5.214	.955	1.166E-03	.0170	1.3930E-03	.0204	1.5451E-03	.0226	.6250	90.000
B 139	519	4.100	.750	9.117E-04	.0133	1.0884E-03	.0159	1.2070E-03	.0177	.6250	105.000
B 140	515	5.708	1.042	1.260E-03	.0184	1.5062E-03	.0220	1.6656E-03	.0244	.6250	120.000
B 141	511	2.763	.503	6.060E-04	.0089	7.2279E-04	.0106	7.9983E-04	.0117	.6250	150.000
B 142	509	1.377	.250	3.004E-04	.0044	3.5813E-04	.0052	3.9615E-04	.0058	.6250	180.000
B 150	523	6.215	1.134	1.392E-03	.0204	1.6652E-03	.0244	1.8462E-03	.0270	.7000	90.000
B 151	521	4.656	.853	1.039E-03	.0152	1.2422E-03	.0182	1.3767E-03	.0201	.7000	105.000
B 152	519	3.259	.596	7.245E-04	.0106	8.6860E-04	.0127	9.5913E-04	.0140	.7000	120.000
B 153	516	1.844	.337	4.074E-04	.0060	4.8642E-04	.0071	5.3864E-04	.0079	.7000	150.000
B 154	512	.710	.128	1.512E-04	.0022	1.8032E-04	.0026	1.9956E-04	.0029	.7000	180.000
B 159	527	6.808	1.214	1.490E-03	.0218	1.7832E-03	.0261	1.9781E-03	.0289	.7700	90.000
B 160	522	3.577	.636	7.760E-04	.0113	9.2709E-04	.0136	1.0286E-03	.0150	.7700	120.000
B 161	518	.994	.176	2.139E-04	.0031	2.5591E-04	.0037	2.8303E-04	.0041	.7700	150.000
B 162	514	.282	.050	6.033E-05	.0009	7.2000E-05	.0011	7.9722E-05	.0012	.7700	180.000
B 171	525	2.509	.460	5.634E-04	.0082	6.7408E-04	.0099	7.4751E-04	.0109	.8950	120.000
B 172	522	.760	.139	1.697E-04	.0029	2.0296E-04	.0030	2.2496E-04	.0033	.8950	150.000

										UPPER WING SURFACE-BOOSTER X/C	Y/S
B 200	539	43.587	8.711	8.366E-03	.1223	1.0040E-02	.1469	1.1167E-02	.1633	0	.100
B 201	529	15.479	1.809	2.227E-03	.0326	2.6679E-03	.0390	2.9803E-03	.0433	.1000	.100
B 202	529	12.734	1.791	2.204E-03	.0322	2.6309E-03	.0386	2.9291E-03	.0428	.2000	.100
B 203	530	4.120	.854	1.052E-03	.0154	1.2560E-03	.0184	1.3981E-03	.0204	.3300	.100
B 204	530	5.375	.945	1.165E-03	.0170	1.3953E-03	.0204	1.5486E-03	.0226	.4000	.100
B 205	528	4.472	.798	9.811E-04	.0143	1.1769E-03	.0172	1.3037E-03	.0191	.6000	.100
B 206	530	3.391	.580	7.144E-04	.0104	8.5592E-04	.0125	9.4998E-04	.0139	.7000	.100
B 207	531	3.773	.357	4.408E-04	.0064	5.2819E-04	.0077	5.8626E-04	.0086	.9100	.100
B 217	562	102.157	12.654	1.622E-02	.2373	1.9904E-02	.2866	2.1866E-02	.3198	0	.200
B 218	537	48.379	4.732	5.881E-03	.0850	7.0579E-03	.1032	7.8427E-03	.1147	.0900	.200
B 219	533	28.844	2.815	3.481E-03	.0509	4.1741E-03	.0610	4.6351E-03	.0678	.1000	.200
B 220	532	14.898	1.340	1.655F-03	.0242	1.9903E-03	.0290	2.2018E-03	.0322	.2000	.200
B 221	529	4.446	.866	1.066E-03	.0156	1.2706E-03	.0187	1.4169E-03	.0207	.4000	.200
B 222	528	1.817	.324	3.986E-04	.0058	4.7733E-04	.0070	5.2965E-04	.0077	.6000	.200
B 223	529	1.310	.224	2.754E-04	.0040	3.2979E-04	.0048	3.6504E-04	.0054	.7000	.200
B 230	566	109.585	15.111	1.947E-02	.2847	2.3936E-02	.3442	2.6283E-02	.3844	0	.250
B 231	531	22.880	2.689	3.317E-03	.0485	3.9753E-03	.0581	4.4129E-03	.0645	.1000	.250
B 232	531	4.698	.916	1.129E-03	.0165	1.3527E-03	.0198	1.5015E-03	.0220	.4000	.250
B 233	530	3.874	.734	9.036E-04	.0132	1.0829E-03	.0158	1.2016E-03	.0176	.5000	.250
B 234	530	2.908	.535	6.589E-04	.0096	7.9026E-04	.0115	8.7894E-04	.0128	.6000	.250
B 235	531	2.284	.166	4.040E-04	.0030	2.6913E-04	.0036	2.7213E-04	.0040	.8330	.250
B 236	531	2.453	.199	4.458E-04	.0036	2.9499E-04	.0043	3.2703E-04	.0048	.8670	.250
B 237	531	2.304	.187	4.312E-04	.0034	2.7701E-04	.0041	3.0749E-04	.0045	.9010	.250
B 238	530	2.102	.162	1.991E-04	.0029	2.3048E-04	.0035	2.6469E-04	.0039	.9350	.250
B 248	571	109.990	12.657	1.643E-02	.2403	1.9898E-02	.2910	2.2244E-02	.3253	0	.300
B 249	533	15.165	1.850	2.288E-03	.0339	2.7430E-03	.0401	3.0467E-03	.0446	.1000	.300
B 250	535	14.056	1.587	1.968E-03	.0288	2.3003E-03	.0345	2.6218E-03	.0383	.2000	.300
B 251	533	5.921	1.156	1.430E-03	.0209	1.7140E-03	.0251	1.9034E-03	.0278	.4000	.300
B 252	532	3.945	.782	9.668E-04	.0141	1.1590E-03	.0169	1.2868E-03	.0188	.6000	.300
B 263	576	121.134	15.112	1.973E-02	.2886	2.3427E-02	.3499	2.6771E-02	.3915	0	.400
B 264	536	19.606	2.396	2.976F-03	.0435	3.5708E-03	.0522	3.9675E-03	.0580	.1000	.400
B 265	535	4.013	.784	9.720E-04	.0142	1.1690E-03	.0171	1.2950E-03	.0189	.4000	.400
B 266	535	2.517	.492	6.093E-04	.0089	7.3087E-04	.0107	8.1182E-04	.0119	.6000	.400
B 277	598	156.939	15.333	2.040E-02	.2984	2.4030E-02	.3593	2.7867E-02	.4075	0	.500
B 278	539	20.595	2.709	3.369E-03	.0493	4.0442E-03	.0591	4.4950E-03	.0657	.1000	.500
B 279	538	12.166	1.481	1.845E-03	.0270	2.2151E-03	.0324	2.4620E-03	.0360	.2000	.500
B 280	537	4.171	.816	1.013E-03	.0148	1.2162E-03	.0178	1.3513E-03	.0198	.4000	.500
B 281	535	3.674	.695	8.663E-04	.0127	1.0392E-03	.0152	1.1544E-03	.0169	.5000	.500
B 282	535	2.927	.556	6.901E-04	.0101	8.2709E-04	.0121	9.1963E-04	.0134	.6000	.500
B 283	534	3.614	.286	3.548E-04	.0052	4.2517E-04	.0062	4.7224E-04	.0069	.8770	.500
B 294	587	145.756	14.022	2.522E-02	.3688	3.0876E-02	.4486	3.4397E-02	.5031	0	.600
B 297	540	29.115	3.309	4.129E-03	.0604	4.9590E-03	.0725	5.5141E-03	.0806	.1000	.600
B 298	539	16.936	2.055	2.561E-03	.0375	3.0797E-03	.0450	3.4190E-03	.0500	.2000	.600
B 299	537	7.459	.557	6.928E-04	.0101	8.3196E-04	.0122	9.2404E-04	.0135	.4000	.600
B 300	540	2.714	.480	5.990E-04	.0088	7.1965E-04	.0105	7.9986E-04	.0117	.6000	.600
B 301	538	3.473	.330	4.112E-04	.0060	4.9361E-04	.0072	5.4858E-04	.0080	.7930	.600
B 302	537	2.703	.257	3.197E-04	.0047	3.8369E-04	.0056	4.2638E-04	.0062	.8810	.600
B 315	554	60.315	6.350	8.061E-03	.1179	9.7195E-03	.1421	1.0827E-02	.1583	.1000	.700
B 316	547	25.301	2.653	3.337E-03	.0488	4.0149E-03	.0587	4.4685E-03	.0654	.2000	.700
B 317	544	4.614	.755	9.471F-04	.0139	1.1387E-03	.0167	1.2668E-03	.0185	.5000	.700

										UPPER CANARD SURFACE-BOOSTER X/L	Y/S
B 350	529	75.761	7.156	8.762E-03	.1281	1.0489E-02	.1533	1.1628E-02	.1701	0	.250
B 351	515	42.136	3.958	4.788E-03	.0700	5.7166E-03	.0836	6.3497E-03	.0926	.2500	.250
B 352	510	12.871	2.176	2.615E-03	.0382	3.1177E-03	.0456	3.4492E-03	.0504	.5000	.250
B 353	507	7.486	1.264	1.514E-03	.0221	1.8063E-03	.0264	1.9956E-03	.0292	.7000	.250
B 357	537	96.660	9.186	1.142F-02	.1669	1.3699E-02	.2003	1.5222E-02	.2226	0	.500
B 358	515	27.482	2.681	3.122F-03	.0457	3.7272E-03	.0545	4.1270E-03	.0604	.2500	.500
B 359	510	10.464	1.585	1.906E-03	.0279	2.2721E-03	.0332	2.5139E-03	.0368	.5000	.500
B 360	508	5.805	.980	1.176F-03	.0172	1.4019E-03	.0205	1.5501E-03	.0227	.7000	.500

VT1162

OWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .118 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
6	H07	GDC-B+OWO	8.00	857.5	1338	-.03	-.03	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.0	.088	3.935	3860	7.598E-05	7.808E-08	3.76E 06	6.828E-02	2.925E-02	3

FUSELAGE-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	581	247.298	45.368	5.993E-02	.8778	7.2803E-02	1.0663	8.1561E-02	1.1946	0	-0
0	2	517	82.477	13.295	1.619E-02	.2371	1.9343E-02	.2833	2.1430E-02	.3139	.0100	-0
0	7	500	30.184	5.299	6.321E-03	.0926	7.5225E-03	.1102	8.3121E-03	.1217	.0300	-0
0	12	493	11.308	2.156	2.549E-03	.0373	3.0283E-03	.0444	3.3425E-03	.0490	.0500	-0
0	19	488	1.518	.273	3.206E-04	.0047	3.8046E-04	.0056	4.1966E-04	.0061	.1000	-0
0	29	493	6.105	1.067	1.262E-03	.0185	1.4994E-03	.0220	1.6551E-03	.0242	.2000	-0
0	44	530	63.105	10.927	1.351E-02	.1979	1.6190E-02	.2371	1.7972E-02	.2632	.3000	-0
0	54	522	19.780	3.838	4.703E-03	.0689	5.6259E-03	.0824	6.2379E-03	.0914	.4000	-0
0	66	518	8.722	1.594	1.943E-03	.0285	2.3211E-03	.0340	2.5717E-03	.0377	.5000	-0
0	76	518	6.658	1.074	1.309E-03	.0192	1.5640E-03	.0229	1.7329E-03	.0254	.5500	-0
0	80	519	4.429	.834	1.017E-03	.0149	1.2153E-03	.0178	1.3466E-03	.0197	.6000	-0
0	89	520	4.309	.788	9.633E-04	.0141	1.1817E-03	.0169	1.2764E-03	.0187	.7000	-0
0	98	523	9.300	1.604	1.968E-03	.0288	2.3546E-03	.0345	2.6110E-03	.0382	.8000	-0
0	104	520	1.246	.221	2.704E-04	.0040	3.2329E-04	.0047	3.5831E-04	.0052	.9000	-0
0	114	520	.668	.126	1.530E-04	.0022	1.8363E-04	.0027	2.0351E-04	.0030	.9900	-0
0	20	489	1.507	.112	1.314E-04	.0019	1.5597E-04	.0023	1.7207E-04	.0025	.1000	-.383
0	31	493	4.554	.917	1.088E-03	.0159	1.2893E-03	.0189	1.4232E-03	.0208	.2000	-.466
0	46	530	60.961	12.547	1.553E-02	.2275	1.8614E-02	.2726	2.0666E-02	.3027	.3000	-.504
0	56	520	11.283	2.187	2.674E-03	.0392	3.1968E-03	.0468	3.5434E-03	.0519	.4000	-.526
0	69	518	8.392	1.534	1.871E-03	.0274	2.2360E-03	.0327	2.4777E-03	.0363	.5000	-.630
0	83	519	3.933	.761	9.288E-04	.0136	1.1099E-03	.0163	1.2299E-03	.0180	.6000	-.748
0	92	519	1.904	.348	4.250E-04	.0062	5.0803E-04	.0074	5.6299E-04	.0082	.7000	-.704
0	101	521	1.373	.281	3.430E-04	.0050	4.1090E-04	.0060	4.5547E-04	.0067	.8000	-.669
0	107	521	1.821	.324	3.961E-04	.0058	4.7366E-04	.0069	5.2508E-04	.0077	.9000	-.678
0	117	521	1.160	.225	2.750E-04	.0040	3.2886E-04	.0048	3.6455E-04	.0053	.9900	-.660
0	5	501	35.014	5.403	6.449E-03	.0945	7.6751E-03	.1124	8.4814E-03	.1242	.0100	0
0	10	498	28.940	5.074	6.040E-03	.0885	7.1845E-03	.1052	7.9364E-03	.1162	.0300	0
0	24	499	16.452	3.062	3.650E-03	.0535	4.3424E-03	.0636	4.7977E-03	.0703	.1000	0
0	28	503	17.337	2.679	3.206E-03	.0470	3.8170E-03	.0559	4.2203E-03	.0618	.1500	0
0	35	512	20.202	3.571	4.318E-03	.0633	5.1525E-03	.0755	5.7033E-03	.0835	.2000	0
0	36	543	114.171	18.673	2.348E-02	.3439	2.8234E-02	.4135	3.1412E-02	.4601	.2100	0
0	37	581	208.918	38.321	5.060E-02	.7411	6.1460E-02	.9002	6.8849E-02	1.0084	.2200	0
0	38	559	135.129	21.547	2.766E-02	.4051	3.3398E-02	.4892	3.7263E-02	.5458	.2300	0
0	40	516	8.124	1.268	1.538E-03	.0225	1.8365E-03	.0269	2.0342E-03	.0298	.2500	0
0	53	518	.852	.142	1.729E-04	.0025	2.0660E-04	.0030	2.2891E-04	.0034	.3000	0
0	62	523	4.629	.723	8.868E-04	.0130	1.0608E-03	.0155	1.1762E-03	.0172	.4000	0
0	75	522	10.357	1.842	2.257E-03	.0331	2.6997E-03	.0395	2.9933E-03	.0438	.5000	0
0	87	524	9.971	1.721	2.114E-03	.0310	2.5303E-03	.0371	2.8063E-03	.0411	.6000	0
0	96	524	9.319	1.659	2.037E-03	.0298	2.4374E-03	.0357	2.7032E-03	.0396	.7000	0
0	111	523	3.352	.542	6.644E-04	.0097	7.9408E-04	.0116	8.8133E-04	.0129	.9000	.610
0	120	530	14.473	1.645	2.034E-03	.0298	2.4379E-03	.0357	2.7063E-03	.0396	.9900	.305
0	4	500	28.201	4.199	5.006E-03	.0733	5.9566E-03	.0872	6.5014E-03	.0964	.0100	1.000
0	14	495	17.860	3.031	3.594E-03	.0526	4.2722E-03	.0626	4.7172E-03	.0691	.0500	1.000
0	22	495	9.999	1.750	2.078E-03	.0304	2.4670E-03	.0361	2.7239E-03	.0399	.1000	1.000
0	30	498	6.846	1.200	1.427E-03	.0209	1.6970E-03	.0249	1.8753E-03	.0275	.2000	1.000
0	48	523	30.555	5.108	6.268E-03	.0918	7.4990E-03	.1098	8.3169E-03	.1218	.3000	1.000
0	59	527	32.301	6.118	7.533E-03	.1103	9.0216E-03	.1321	1.0011E-02	.1466	.4000	1.000
0	72	521	25.267	5.035	6.161E-03	.0902	7.3683E-03	.1079	8.1642E-03	.1196	.5000	1.000
0	78	521	10.931	1.640	2.018E-03	.0295	2.4095E-03	.0353	2.6708E-03	.0391	.5500	1.000
0	85	518	7.617	1.352	1.649E-03	.0241	1.9782E-03	.0289	2.1832E-03	.0320	.6000	1.000
0	77	516	3.614	.563	6.844E-04	.0100	8.1743E-04	.0120	9.0543E-04	.0133	.5500	-1.000
0	84	516	3.900	.775	9.426E-04	.0138	1.1260E-03	.0165	1.2472E-03	.0183	.6000	-1.000
0	94	518	4.478	.963	1.174E-03	.0172	1.4026E-03	.0205	1.5941E-03	.0228	.7000	-1.000
0	39	520	29.786	5.771	7.051E-03	.1033	8.4290E-03	.1236	9.3430E-03	.1368	.2400	.406
0	42	517	7.979	1.586	1.930E-03	.0283	2.3049E-03	.0338	2.5533E-03	.0374	.2700	.465
0	51	523	9.863	2.020	2.477E-03	.0363	2.9633E-03	.0434	3.2858E-03	.0481	.3000	.433
0	41	522	21.606	4.308	5.277E-03	.0773	6.3116E-03	.0924	6.9977E-03	.1025	.2700	.465
0	52	519	3.678	.752	9.177E-04	.0134	1.0969E-03	.0161	1.2156E-03	.0170	.3000	.361

LOWER WING SURFACE-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	534	47.913	8.576	1.066E-02	.1561	1.2787E-02	.1873	1.4205E-02	.2080	0	.250
0	136	524	11.608	2.066	2.537E-03	.0372	3.0363E-03	.0445	3.3675E-03	.0493	.1000	.250
0	137	525	10.431	1.746	2.147E-03	.0314	2.5702E-03	.0376	2.8511E-03	.0418	.2000	.250
0	138	525	7.726	1.418	1.743E-03	.0255	2.0889E-03	.0306	2.3137E-03	.0339	.4000	.250
0	140	524	5.325	.919	1.129E-03	.0165	1.3509E-03	.0198	1.4982E-03	.0219	.6000	.250
0	142	523	2.281	.369	4.521E-04	.0066	5.4088E-04	.0079	5.9974E-04	.0088	.9000	.250
0	149	543	56.113	10.399	1.307E-02	.1915	1.5718E-02	.2302	1.7486E-02	.2561	0	.500
0	150	529	15.925	3.101	3.831E-03	.0561	4.5899E-03	.0672	5.0945E-03	.0746	.1000	.500
0	151	528	11.022	2.145	2.646E-03	.0388	3.1694E-03	.0464	3.5172E-03	.0515	.2000	.500
0	152	527	7.459	1.298	1.590E-03	.0233	1.9038E-03	.0279	2.1125E-03	.0309	.4000	.500
0	154	525	4.248	.757	9.302E-04	.0136	1.1133E-03	.0163	1.2349E-03	.0181	.6000	.500
0	157	525	1.881	.335	4.117E-04	.0060	4.9272E-04	.0072	5.4652E-04	.0080	.9000	.500
0	171	552	73.624	13.306	1.692E-02	.2477	2.0383E-02	.2985	2.2711E-02	.3326	0	.750
0	172	537	30.032	5.221	6.515E-03	.0954	7.8211E-03	.1146	8.6924E-03	.1273	.1000	.750
0	175	528	6.571	1.314	1.621E-03	.0237	1.9418E-03	.0284	2.1549E-03	.0316	.4000	.750
0	178	525	2.001	.354	4.381E-04	.0064	5.2441E-04	.0077	5.8169E-04	.0085	.8000	.750

UPPER WING SURFACE-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
0	129	521	12.704	1.916	2.345E-03	.0343	2.8043E-03	.0411	3.1088E-03	.0455	.1000	.100
0	130	518	4.314	.719	8.763E-04	.0128	1.0471E-03	.0153	1.1602E-03	.0170	.2000	.100
0	131	519	2.943	.538	6.567E-04	.0096	7.8490E-04	.0115	8.6978E-04	.0127	.4000	.100
0	132	519	1.614	.304	3.707E-04	.0054	4.4307E-04	.0065	4.9098E-04	.0072	.7000	.100
0	133	519	1.223	.211	2.571E-04	.0038	3.0733E-04	.0045	3.4060E-04	.0050	.9000	.100
0	158	526	16.930	2.561	3.154E-03	.0462	3.7763E-03	.0553	4.1898E-03	.0614	.1000	.500
0	159	526	12.291	1.992	2.453E-03	.0359	2.9369E-03	.0430	3.2585E-03	.0477	.2000	.500
0	160	526	6.506	1.054	1.298E-03	.0190	1.5543E-03	.0228	1.7244E-03	.0253	.4000	.500
0	161	528	2.511	.434	5.364E-04	.0079	6.4262E-04	.0094	7.1320E-04	.0104	.8000	.500
0	162	524	2.817	.380	4.669E-04	.0068	5.5881E-04	.0082	6.1980E-04	.0091	.9000	.500

VERTICAL STABILIZER-ORBITER

	TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/S
0	187	562	129.570	21.405	2.758E-02	.4040	3.3331E-02	.4882	3.7208E-02	.5450	0	.100
0	188	531	18.136	3.143	3.898E-03	.0570	4.6691E-03	.0684	5.1844E-03	.0759	.1000	.100
0	189	528	4.170	.699	8.623E-04	.0126	1.0328E-03	.0151	1.1462E-03	.0168	.4000	.100
0	192	559	89.970	17.309	2.220E-02	.3252	2.6807E-02	.3926	2.9906E-02	.4380	0	.250
0	193	535	24.224	4.207	5.234E-03	.0767	6.2799E-03	.0920	6.9769E-03	.1022	.1000	.250
0	194	531	6.114	1.027	1.272E-03	.0186	1.5255E-03	.0223	1.6939E-03	.0248	.4000	.250
0	197	541	39.809	7.371	9.246E-03	.1354	1.1111E-02	.1627	1.2358E-02	.1810	.1000	.500
0	198	531	5.466	.977	1.209E-03	.0177	1.4494E-03	.0212	1.6093E-03	.0236	.4000	.500
0	201	579	138.006	28.828	3.538E-02	.5178	4.2919E-02	.6286	4.8069E-02	.7040	0	.750
0	202	549	62.996	7.184	9.102E-03	.1333	1.0960E-02	.1605	1.2206E-02	.1788	.1000	.750
0	203	535	9.189	1.047	1.303E-03	.0191	1.5628E-03	.0229	1.7342E-03	.0254	.4000	.750

GROUP
49

5/26/71

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
7	807	GDC-B+LWO	8.00	858.1	1362	-.02	-.02	0	0	0

OWO FUSE 2.22 IN. UPSTREAM OF GDC-B, .318 IN. GAP

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.3	.088	3.938	3866	7.580E-05	7.832E-08	3.74E 06	6.834E-02	2.929E-02	1

	TC NO	TW	DT*CT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
B	1	587	220.445	41.783	5.531E-02	.8094	6.7270E-02	.9844	7.5421E-02	1.1037	0	0
B	2	532	54.361	10.016	1.236E-02	.1809	1.6812E-02	.2168	1.6444E-02	.2406	.0137	0
B	3	537	63.526	11.737	1.457E-02	.2133	1.7490E-02	.2559	1.9434E-02	.2844	.0137	180.000
B	4	526	34.161	6.271	7.677E-03	.1123	9.1860E-03	.1344	1.0188E-02	.1491	.0274	0
B	5	525	33.607	6.166	7.546E-03	.1104	9.0286E-03	.1321	1.0012E-02	.1465	.0274	30.000
B	6	526	35.685	6.553	8.029E-03	.1175	9.6100E-03	.1406	1.0659E-02	.1560	.0274	60.000
B	7	527	34.541	6.346	7.784E-03	.1139	9.3190E-03	.1364	1.0338E-02	.1513	.0274	90.000
B	8	526	35.405	6.693	8.199E-03	.1200	9.8122E-03	.1436	1.0883E-02	.1593	.0274	120.000
B	9	527	35.948	6.796	8.336E-03	.1220	9.9782E-03	.1460	1.1069E-02	.1620	.0274	150.000
B	10	527	34.551	6.533	8.009E-03	.1172	9.5865E-03	.1403	1.0634E-02	.1556	.0274	180.000
B	11	525	27.170	4.985	6.097E-03	.0892	7.2950E-03	.1068	8.0896E-03	.1184	.0406	180.000
B	12	521	22.324	4.087	4.973E-03	.0728	5.9437E-03	.0870	6.5866E-03	.0964	.0543	0
B	13	521	22.180	4.061	4.945E-03	.0724	5.9107E-03	.0865	6.5506E-03	.0959	.0543	30.000
B	14	521	21.901	4.016	4.881E-03	.0714	5.8346E-03	.0854	6.4662E-03	.0946	.0543	60.000
B	15	521	22.861	4.190	5.102E-03	.0747	6.0984E-03	.0892	6.7587E-03	.0989	.0543	90.000
B	17	523	22.719	4.164	5.079E-03	.0743	6.0732E-03	.0889	6.7323E-03	.0985	.0543	150.000
B	18	523	23.129	4.241	5.177E-03	.0758	6.1916E-03	.0906	6.8644E-03	.1005	.0543	180.000
B	19	521	18.954	3.470	4.224E-03	.0618	5.0495E-03	.0739	5.5961E-03	.0819	.0670	180.000
B	20	519	15.420	2.820	3.423E-03	.0501	4.0894E-03	.0598	4.5304E-03	.0663	.0790	0
B	21	528	27.247	5.010	6.153E-03	.0900	7.3680E-03	.1078	8.1750E-03	.1196	.0790	180.000
B	22	528	38.034	6.989	8.576E-03	.1255	1.0267E-02	.1502	1.1391E-02	.1667	.0920	180.000
B	23	516	12.113	2.211	2.676E-03	.0392	3.1990E-03	.0468	3.5381E-03	.0518	.1030	0
B	24	517	12.317	2.250	2.725E-03	.0399	3.2546E-03	.0476	3.6046E-03	.0527	.1030	15.000
B	25	517	11.733	2.143	2.595E-03	.0380	3.0904E-03	.0453	3.4314E-03	.0502	.1030	30.000
B	26	515	12.005	2.190	2.646E-03	.0387	3.1609E-03	.0462	3.4970E-03	.0512	.1030	45.000
B	27	516	11.973	2.186	2.644E-03	.0387	3.1560E-03	.0462	3.4957E-03	.0512	.1030	60.000
B	28	516	11.758	2.147	2.600E-03	.0380	3.1041E-03	.0454	3.4377E-03	.0503	.1030	75.000
B	29	517	12.175	2.224	2.694E-03	.0394	3.2171E-03	.0471	3.5633E-03	.0521	.1030	90.000
B	30	518	12.154	2.228	2.702E-03	.0395	3.2270E-03	.0472	3.5744E-03	.0523	.1030	105.000
B	31	518	12.027	2.198	2.667E-03	.0390	3.1864E-03	.0466	3.5286E-03	.0516	.1030	120.000
B	32	516	7.420	1.354	1.638E-03	.0240	1.9593E-03	.0286	2.1691E-03	.0317	.1030	135.000
B	33	528	37.747	6.938	8.517E-03	.1246	1.0107E-02	.1492	1.1313E-02	.1655	.1030	150.000
B	34	525	33.322	6.116	7.484E-03	.1095	8.9557E-03	.1311	9.9319E-03	.1453	.1030	165.000
B	35	527	40.977	7.526	9.233E-03	.1351	1.1052E-02	.1617	1.2260E-02	.1794	.1030	180.000
B	37	519	18.839	3.445	4.183E-03	.0612	4.9974E-03	.0731	5.5365E-03	.0810	.1300	180.000
B	38	509	7.171	1.304	1.564E-03	.0229	1.8639E-03	.0273	2.0617E-03	.0302	.1430	0
B	39	514	8.863	1.616	1.950E-03	.0285	2.3260E-03	.0341	2.5759E-03	.0377	.1430	180.000
B	40	511	5.324	.884	1.062E-03	.0155	1.2660E-03	.0185	1.4013E-03	.0205	.1560	180.000
B	41	507	4.063	.846	1.013E-03	.0148	1.2066E-03	.0177	1.3341E-03	.0195	.1690	0
B	42	507	3.761	.753	9.015E-04	.0132	1.0741E-03	.0157	1.1878E-03	.0174	.1690	15.000
B	43	507	4.157	.799	9.566E-04	.0140	1.1396E-03	.0167	1.2603E-03	.0184	.1690	30.000
B	44	507	4.156	.813	9.727E-04	.0142	1.1590E-03	.0170	1.2817E-03	.0188	.1690	45.000
B	45	508	4.415	.826	9.891E-04	.0145	1.1787E-03	.0172	1.3030E-03	.0191	.1690	60.000
B	46	509	4.056	.759	9.113E-04	.0133	1.0864E-03	.0159	1.2018E-03	.0176	.1690	75.000
B	47	511	3.881	.727	8.753E-04	.0128	1.0440E-03	.0153	1.1552E-03	.0169	.1690	90.000
B	48	509	2.744	.514	6.166E-04	.0090	7.3306E-04	.0108	8.1320E-04	.0119	.1690	105.000
B	49	511	6.007	1.125	1.353E-03	.0198	1.6131E-03	.0236	1.7840E-03	.0261	.1690	120.000
B	50	512	9.366	1.757	2.116E-03	.0310	2.5240E-03	.0369	2.7935E-03	.0409	.1690	135.000
B	51	514	11.891	2.296	2.773E-03	.0406	3.3091E-03	.0484	3.6635E-03	.0536	.1690	150.000
B	52	513	9.694	1.818	2.191E-03	.0321	2.6130E-03	.0383	2.8930E-03	.0423	.1690	165.000
B	53	535	64.300	11.865	1.469E-02	.2150	1.7621E-02	.2579	1.9572E-02	.2864	.1690	180.000
B	400	510	2.049	.482	5.791E-04	.0085	6.9044E-04	.0101	7.6388E-04	.0112	.2420	0
B	402	511	1.661	.311	3.743E-04	.0055	4.4631E-04	.0065	4.9384E-04	.0072	.2420	30.000
B	404	513	4.563	.895	1.079E-03	.0158	1.2879E-03	.0188	1.4256E-03	.0209	.2420	60.000
B	406	513	1.452	.265	3.198E-04	.0047	3.8191E-04	.0056	4.2227E-04	.0062	.2420	90.000
B	407	514	4.583	.868	1.039E-03	.0152	1.2390E-03	.0181	1.3726E-03	.0201	.2420	105.000
B	408	515	5.944	1.167	1.410E-03	.0206	1.6830E-03	.0246	1.8640E-03	.0273	.2420	120.000
B	409	518	12.446	2.445	2.972E-03	.0435	3.5506E-03	.0519	3.9326E-03	.0575	.2420	135.000
B	410	518	12.093	2.386	2.888E-03	.0423	3.4499E-03	.0505	3.8216E-03	.0559	.2420	150.000
B	411	519	13.517	2.461	3.232E-03	.0473	3.8628E-03	.0565	4.2798E-03	.0626	.2420	165.000
B	412	518	12.845	2.486	3.017E-03	.0442	3.6042E-03	.0527	3.9927E-03	.0584	.2420	180.000
B	413	514	2.232	.431	5.201E-04	.0076	6.2064E-04	.0091	6.8708E-04	.0101	.2830	0
B	415	516	1.333	.262	3.171E-04	.0046	3.7864E-04	.0055	4.1931E-04	.0061	.2830	30.000
B	417	519	2.958	.509	6.183E-04	.0090	7.3804E-04	.0108	8.1048E-04	.0120	.2830	60.000
B	419	518	5.416	.993	1.204E-03	.0176	1.4380E-03	.0210	1.5934E-03	.0233	.2830	90.000
B	420	516	6.077	1.167	1.413E-03	.0207	1.6870E-03	.0247	1.8683E-03	.0273	.2830	105.000
B	421	523	12.244	2.047	2.497E-03	.0365	2.9860E-03	.0437	3.3100E-03	.0484	.2830	120.000
B	422	521	8.936	1.636	1.992E-03	.0291	2.3801E-03	.0348	2.6385E-03	.0386	.2830	135.000
B	423	521	8.056	1.635	1.989E-03	.0291	2.3770E-03	.0348	2.6346E-03	.0386	.2830	150.000
B	424	523	11.452	2.222	2.711E-03	.0397	3.2419E-03	.0474	3.5939E-03	.0526	.2830	165.000
B	425	522	12.274	2.381	2.902E-03	.0425	3.4690E-03	.0508	3.8450E-03	.0563	.2830	180.000
B	426	517	2.066	.402	4.877E-04	.0071	5.8260E-04	.0085	6.4508E-04	.0094	.3160	0
B	428	519	1.318	.266	3.199E-04	.0047	3.7702E-04	.0055	4.1810E-04	.0061	.3160	30.000
B	430	519	1.552	.292	3.567E-04	.0052	4.2072E-04	.0062	4.6942E-04	.0069	.3160	60.000
B	432	519	9.254	1.573	1.910E-03	.0280	2.2026E-03	.0324	2.5287E-03	.0370	.3160	90.000
B	433	513	2.621	.506	6.098E-04	.0089	7.2791E-04	.0106	8.0526E-04	.0118	.3160	105.000
B	434	521	12.464	1.976	2.397E-03	.0351	2.8660E-03	.0419	3.1746E-03	.0465	.3160	120.000
B	435	517	4.809	.904	1.096E-03	.0160	1.3006E-03	.0191	1.4493E-03	.0212	.3160	135.000
B	436	520	9.109	1.794	2.181E-03	.0319	2.6004E-03	.0381	2.8808E-03	.0423	.3160	150.000
B	437	519	9.224	1.787	2.172E-03	.0318	2.5947E-03	.0380	2.8748E-03	.0421	.3160	165.000
B	438	520	9.168	1.794	2.182E-03	.0319	2.6072E-03	.0382	2.8890E-03	.0423	.3160	180.000
B	439	517	2.065	.406	4.919E-04	.0072	5.8793E-04	.0086	6.5054E-04	.0095	.3540	0
B	441	518	1.461	.279	3.575E-04	.0052	4.2709E-04	.0062	4.7313E-04	.0069	.3540	30.000
B	443	519	1.225	.196	2.401E-04	.0035	2.8682E-04	.0042	3.1777E-04	.0047	.3540	60.000
B	445	523	10.754	1.421	2.343E-03	.0343	2.8019E-03	.0410	3.1050E-03	.0454	.3540	90.000
B	446	519	6.164	1.077	1.307E-03	.0191	1.5620E-03	.0229	1.7300E-03	.0253	.3540	105.000
B	447	522	17.817	3.120	3.804E-03	.0557	4.5480E-03	.0666	5.0442E-03	.0738	.3540	120.000
B	448	517	3.800	.715	8.661E-04	.0127	1.0346E-03	.0151	1.1457E-03	.0168	.3540	135.000
B	450	520	6.533	1.231	1.490E-03	.0219	1.7084E-03	.0262	1.9817E-03	.0290	.3540	165.000
B	451	520	8.007	1.508	1.834E-03	.0268	2.1913E-03	.0321	2.4241E-03	.0355	.3540	180.000
B	452	517	1.798	.340	4.122E-04	.0060	4.9720E-04	.0072	5.4820E-04	.0080	.3800	0
B	454	518	1.398	.263	3.149E-04	.0047	3.8001E-04	.0056	4.2137E-04	.0062	.3800	30.000
B	456	519	1.481	.239	2.900E-04	.0042	3.4042E-04	.0051	3.8376E-04	.0056	.3800	60.000
B	458	521	10.129	1.859	2.259E-03	.0331	2.7007E-03	.0399	2.9933E-03	.0438	.3800	90.000
B	459	524	18.491	3.592	4.390E-03	.0642	5.2917E-03	.0769	5.8212E-03	.0852	.3800	105.000

GROUP
90

RUN 6058 2.27 IN. UPSTREAM OF GDC-B, .31H IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
7	807	GDC-H-L-B	4.00	857.8	1345	.05	.05	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (H= .009FT)	STFR (H= .009FT)	SWITCH POSITION
97.5	.0888	3.936	3870	7.562E-05	7.848E-08	3.73E 06	6.835E-02	2.933E-02	2

TC NO	TW	DTWLT	Q-DOT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.85TO)	M(.85TO)/MREF
H 160	569	11.319	2.058	2.462E-03	.0360	2.934OE-03	.0429	3.2451E-03	.0475
H 161	566	5.484	.995	1.185E-03	.0173	1.4112E-03	.0206	1.5600E-03	.0228
H 162	566	5.507	1.029	1.226E-03	.0179	1.4596E-03	.0214	1.6135E-03	.0236
B 163	567	7.178	1.342	1.601E-03	.0234	1.9073E-03	.0279	2.1090E-03	.0309
B 164	566	7.654	1.431	1.705E-03	.0250	2.0311E-03	.0297	2.2456E-03	.0329
B 106	516	1.347	.260	3.138E-04	.0046	3.7448E-04	.0055	4.1461E-04	.0061
H 109	516	9.930	1.813	2.187E-03	.0320	2.6101E-03	.0382	2.8900E-03	.0423
B 110	514	8.179	1.492	1.795E-03	.0263	2.1414E-03	.0313	2.3703E-03	.0347
H 111	512	3.445	.628	7.530E-04	.0110	8.9792E-04	.0131	9.9354E-04	.0145
B 112	512	5.837	1.063	1.276E-03	.0187	1.5219E-03	.0223	1.6840E-03	.0246
B 113	519	1.008	.198	2.401E-04	.0035	2.8680E-04	.0042	3.1769E-04	.0046
H 116	519	7.847	1.393	1.687E-03	.0247	2.0147E-03	.0295	2.2319E-03	.0327
H 117	516	5.447	.994	1.198E-03	.0175	1.4304E-03	.0209	1.5837E-03	.0232
B 118	514	3.061	.558	6.719E-04	.0098	8.0116E-04	.0117	8.8677E-04	.0130
H 119	514	5.172	.943	1.134E-03	.0166	1.3534E-03	.0198	1.4980E-03	.0219
B 120	520	.744	.147	1.777E-04	.0026	2.1225E-04	.0031	2.3514E-04	.0034
B 195	531	16.301	3.310	4.065E-03	.0595	4.8698E-03	.0712	5.4046E-03	.0791
B 127	521	5.731	1.050	1.274E-03	.0186	1.5228E-03	.0223	1.6875E-03	.0247
H 128	520	5.245	.960	1.163E-03	.0170	1.3892E-03	.0203	1.5390E-03	.0225
H 129	517	4.224	.771	9.309E-04	.0136	1.1113E-03	.0163	1.2306E-03	.0180
H 130	514	2.852	.520	6.257E-04	.0092	7.4651E-04	.0109	8.2629E-04	.0121
H 131	511	4.146	.755	9.042E-04	.0132	1.0780E-03	.0158	1.1926E-03	.0174
H 138	524	4.203	.771	9.388E-04	.0137	1.1227E-03	.0164	1.2446E-03	.0182
H 139	522	3.108	.569	6.910E-04	.0101	8.2590E-04	.0121	9.1522E-04	.0134
H 140	517	2.189	.400	4.827E-04	.0071	5.7632E-04	.0084	6.3820E-04	.0093
B 141	515	2.564	.468	5.631E-04	.0082	6.7191E-04	.0098	7.4378E-04	.0109
B 142	513	2.489	.454	5.452E-04	.0080	6.5037E-04	.0095	7.1978E-04	.0105
H 150	524	5.745	1.054	1.283E-03	.0188	1.5345E-03	.0225	1.7011E-03	.0249
H 151	522	4.116	.754	9.156E-04	.0134	1.0943E-03	.0160	1.2127E-03	.0177
B 152	520	1.987	.364	4.404E-04	.0064	5.2615E-04	.0077	5.8288E-04	.0085
B 153	517	1.746	.319	3.850E-04	.0056	4.5958E-04	.0067	5.0891E-04	.0074
B 154	514	1.031	.183	2.197E-04	.0032	2.6211E-04	.0038	2.9014E-04	.0042
H 159	527	6.503	1.160	1.417E-03	.0207	1.6960E-03	.0248	1.8810E-03	.0275
H 160	523	3.505	.624	7.583E-04	.0111	9.0667E-04	.0133	1.0050E-03	.0147
H 161	519	1.240	.220	2.662E-04	.0039	3.1796E-04	.0047	3.5219E-04	.0052
H 162	516	.359	.064	7.667E-05	.0011	9.1520E-05	.0013	1.0134E-04	.0015
H 171	524	2.218	.407	4.951E-04	.0072	5.9204E-04	.0087	6.5630E-04	.0096
H 172	521	.576	.105	1.280E-04	.0019	1.5298E-04	.0022	1.6952E-04	.0025

FUSELAGE-BOOSTER

X/L	PHI
.3800	120.000
.3800	135.000
.3800	150.000
.3800	165.000
.3800	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4800	0
.4800	90.000
.4800	120.000
.4800	150.000
.4800	180.000
.5200	0
.5500	45.000
.5500	90.000
.5500	105.000
.5500	120.000
.5500	150.000
.5500	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.8950	120.000
.8950	150.000

H 200	544	54.287	8.377	1.045E-02	.1529	1.2556E-02	.1837	1.3964E-02	.2043
B 201	532	14.945	1.749	2.191E-03	.0318	2.5768E-03	.0377	2.8602E-03	.0418
H 202	530	9.956	1.401	1.719E-03	.0252	2.0588E-03	.0301	2.2846E-03	.0334
B 203	529	3.331	.690	8.454E-04	.0124	1.0122E-03	.0148	1.1230E-03	.0164
B 204	529	4.446	.782	9.579E-04	.0140	1.1470E-03	.0168	1.2726E-03	.0186
H 205	528	3.909	.697	8.936E-04	.0125	1.0218E-03	.0149	1.1335E-03	.0166
H 206	530	3.820	.653	8.013E-04	.0117	9.5958E-04	.0140	1.0648E-03	.0156
H 207	530	4.769	.452	5.544E-04	.0081	6.6400E-04	.0097	7.3684E-04	.0108
B 217	564	97.499	12.093	1.549E-02	.2266	1.8711E-02	.2738	2.0884E-02	.3056
B 218	539	44.990	4.405	5.465E-03	.0800	6.5600E-03	.0960	7.2902E-03	.1067
B 219	535	26.319	2.571	3.171E-03	.0464	3.8014E-03	.0556	4.2213E-03	.0618
B 220	532	14.038	1.263	1.552E-03	.0227	1.8600E-03	.0272	2.0645E-03	.0302
B 221	529	3.991	.777	9.524E-04	.0139	1.1405E-03	.0167	1.2653E-03	.0185
B 222	528	1.763	.314	3.848E-04	.0056	4.6059E-04	.0067	5.1092E-04	.0075
B 223	528	1.231	.210	2.573E-04	.0038	3.0802E-04	.0045	3.4169E-04	.0050
B 230	561	109.835	15.112	1.927E-02	.2820	2.3266E-02	.3404	2.5954E-02	.3797
H 231	533	22.858	2.689	3.309E-03	.0484	3.9661E-03	.0580	4.4030E-03	.0644
H 232	530	3.660	.713	8.743E-04	.0128	1.0470E-03	.0153	1.1617E-03	.0170
B 233	529	2.917	.552	6.763E-04	.0099	8.0976E-04	.0118	8.9836E-04	.0131
B 234	529	2.272	.418	5.117E-04	.0075	6.1265E-04	.0090	6.7968E-04	.0099
B 235	531	1.240	.090	1.104E-04	.0016	1.3222E-04	.0019	1.4672E-04	.0021
H 236	531	1.020	.132	1.615F-04	.0024	1.9344E-04	.0028	2.1466E-04	.0031
B 237	530	1.514	.123	1.508E-04	.0022	1.8063E-04	.0026	2.0044E-04	.0029
B 238	530	1.277	.098	1.203E-04	.0018	1.4409E-04	.0021	1.5988E-04	.0023
B 248	573	108.020	12.442	1.612E-02	.2358	1.9521E-02	.2856	2.1824E-02	.3193
B 249	533	14.774	1.802	2.218E-03	.0325	2.6587E-03	.0389	2.9516E-03	.0432
B 250	535	13.434	1.516	1.871E-03	.0274	2.2429E-03	.0328	2.4907E-03	.0364
B 251	531	4.464	.870	1.069E-03	.0156	1.2810E-03	.0187	1.4218E-03	.0208
B 252	531	3.020	.599	7.355E-04	.0108	8.8109E-04	.0129	9.7791E-04	.0143
B 263	572	137.708	17.143	2.216E-02	.3242	2.6825E-02	.3925	2.9980E-02	.4386
B 264	538	21.127	2.584	3.198E-03	.0468	3.8377E-03	.0561	4.2636E-03	.0624
B 265	536	4.411	.861	1.061E-03	.0155	1.2720E-03	.0186	1.4123E-03	.0207
B 266	533	2.845	.565	6.956E-04	.0102	8.3363E-04	.0122	9.2548E-04	.0135
B 277	598	156.216	15.260	2.020E-02	.2956	2.4579E-02	.3596	2.7566E-02	.4033
B 278	539	20.827	2.742	3.401E-03	.0498	4.0823E-03	.0597	4.5367E-03	.0664
B 279	539	12.176	1.490	1.847E-03	.0270	2.2173E-03	.0324	2.4639E-03	.0360
B 280	536	4.342	.848	1.044E-03	.0153	1.2516E-03	.0183	1.3896E-03	.0203
B 281	534	3.876	.736	9.074E-04	.0133	1.0878E-03	.0159	1.2079E-03	.0177
B 282	535	3.311	.626	7.764E-04	.0114	9.3103E-04	.0136	1.0340E-03	.0151
B 283	534	3.742	.355	4.379E-04	.0064	5.2495E-04	.0077	5.8289E-04	.0085
H 296	548	146.640	19.061	2.490E-02	.3643	3.0210E-02	.4420	3.3814E-02	.4947
B 297	540	26.656	3.510	4.357E-03	.0637	5.2298E-03	.0765	5.8124E-03	.0850
B 298	539	18.045	2.189	2.717E-03	.0397	3.2612E-03	.0477	3.6243E-03	.0530
B 299	537	2.315	.524	6.485F-04	.0095	7.7797E-04	.0114	8.6421E-04	.0126
B 300	539	3.037	.537	6.657E-04	.0097	7.9900E-04	.0117	8.8790E-04	.0130
B 301	537	3.665	.349	4.316E-04	.0063	5.1778E-04	.0076	5.7525E-04	.0084
B 302	537	2.933	.279	3.451E-04	.0050	4.1399E-04	.0061	4.5991E-04	.0067
D 315	550	54.362	5.712	7.185F-03	.1051	8.6492E-03	.1265	9.6300E-03	.1409
B 316	546	23.791	2.494	3.119E-03	.0456	3.7497E-03	.0549	4.1716E-03	.0610
B 317	542	4.066	.665	8.275E-04	.0121	9.9401E-04	.0145	1.1052E-03	.0162

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.1000	.100
.2000	.100
.3300	.100
.4000	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0500	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.4000	.250
.5000	.250
.6000	.250
.8330	.250
.8670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.6000	.500
.7930	.500
.8510	.500
.1000	.700
.2000	.700
.5000	.700

B 350	530	84.050	7.960	9.761F-03	.1428	1.1690E-02	.1710	1.2971E-02	.1898
B 351	511	28.553	2.675	3.209E-03	.0469	3.8209E-03	.0559	4.2271E-03	.0618
B 352	512	12.970	2.195	2.634E-03	.0385	3.1412E-03	.0460	3.4757E-03	.0509
B 353	510	7.141	1.207	1.446E-03	.0212	1.7233E-03	.0252	1.9063E-03	.0279
B 357	541	108.988	10.388	1.292E-02	.1891	1.5520E-02	.2271	1.7254E-02	.2524
B 358	512	21.604	2.026	2.431E-03	.0356	2.8996E-03	.0424	3.2086E-03	.0469
B 359	510	8.272	1.253	1.500E-03	.0219	1.7876E-03	.0262	1.9774E-03	.0289
B 360	510	4.950	.837	1.002E-03	.0147	1.1940E-03	.0175	1.3207E-03	.0193

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2500	.250
.5000	.250
.7000	.250
0	.500
.2500	.500
.5000	.500
.7000	.500

GROUP
90

50 INCH HYPERSONIC TUNNEL H
V11162

RUN CLOSE .222 IN. UPSTREAM OF GDC-A, .31R IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	807	GDC-A+B+D	6.00	458.5	1346	.05	.05	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RHEF-FR (M= .009FT)	SIFR (M= .009FT)	SWITCH POSITION
97.5	.088	1.939	3871	7.566E-05	7.853E-08	3.73E 06	6.83ME-02	2.933E-02	3

TC	NO	IN	DELT	G-DOT	H(TO)	H(10)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF

FUSELAGE-ORBITER

X/L	Y/YMAX
0	-0
.0100	-0
.0300	-0
.0500	-0
.1000	-0
.2000	-0
.3000	-0
.4000	-0
.5000	-0
.6000	-0
.7000	-0
.8000	-0
.9000	-0
.9900	-0
.1000	-.383
.2000	-.486
.3000	-.504
.4000	-.526
.5000	-.630
.6000	-.748
.7000	-.704
.8000	-.669
.9000	-.678
.9900	-.660
.0100	0
.0300	0
.1000	0
.1500	0
.2000	0
.2100	0
.2200	0
.2300	0
.2500	0
.3000	0
.4000	0
.5000	0
.6000	0
.7000	0
.9000	.610
.9900	.305
.0100	1.000
.0500	1.000
.1000	1.000
.2000	1.000
.3000	1.000
.4000	1.000
.5000	1.000
.5500	1.000
.6000	1.000
.5500	-1.000
.6000	-1.000
.7000	-1.000
.2400	.486
.2700	.465
.3000	.433
.2700	.465
.3000	.361

LOWER WING SURFACE-ORBITER

X/C	Y/C
0	.250
.1000	.250
.2000	.250
.4000	.250
.6000	.250
.9000	.250
0	.500
.1000	.500
.2000	.500
.4000	.500
.6000	.500
.9000	.500
0	.750
.1000	.750
.4000	.750
.8000	.750

UPPER WING SURFACE-ORBITER

X/C	Y/S
.1000	.100
.2000	.100
.4000	.100
.7000	.100
.9000	.100
.1000	.500
.2000	.500
.4000	.500
.8000	.500
.9000	.500

VERTICAL STABILIZER-ORBITER

X/C	Z/S
0	.100
.1000	.100
.4000	.100
0	.250
.1000	.250
.4000	.250
.1000	.500
.4000	.500
.7000	.750
.1000	.750
.4000	.750

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

DWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBERD	ROLL-MODEL	YAW
8	807	GDC-B+DWO	7.93	153.0	1277	-.04	-.04	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FH (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
94.1	.017	.730	3769	1.480E-05	7.573E-08	7.37E 05	2.918E-02	6.595E-02	1

RUN	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
B	1	564	87.535	16.399	2.298E-02	.7876	2.7991E-02	.9593	3.1416E-02	1.0767	0	0
B	2	536	20.864	3.853	5.199E-03	.1782	6.2820E-03	.2153	7.0122E-03	.2403	.0137	0
B	3	539	24.720	4.571	6.190E-03	.2121	7.4838E-03	.2565	8.3576E-03	.2864	.0137	180.000
B	4	534	13.325	2.458	3.307E-03	.1133	3.9938E-03	.1369	4.4563E-03	.1527	.0274	0
B	5	534	12.724	2.346	3.155E-03	.1081	3.8092E-03	.1305	4.2498E-03	.1456	.0274	30.000
B	6	534	13.372	2.466	3.316E-03	.1136	4.0037E-03	.1372	4.4668E-03	.1531	.0274	60.000
B	7	534	13.653	2.518	3.386E-03	.1160	4.0884E-03	.1401	4.5614E-03	.1563	.0274	90.000
B	8	535	14.105	2.679	3.610E-03	.1237	4.3604E-03	.1494	4.8661E-03	.1668	.0274	120.000
B	9	536	14.445	2.745	3.702E-03	.1269	4.4725E-03	.1533	4.9918E-03	.1711	.0274	150.000
B	10	535	14.082	2.675	3.603E-03	.1235	4.3516E-03	.1491	4.8561E-03	.1664	.0274	180.000
B	11	534	10.561	1.948	2.622E-03	.0899	3.1659E-03	.1085	3.5325E-03	.1211	.0400	180.000
B	12	531	8.559	1.575	2.110E-03	.0723	2.5456E-03	.0872	2.8384E-03	.0973	.0543	0
B	13	530	8.560	1.576	2.110E-03	.0723	2.5453E-03	.0872	2.8388E-03	.0973	.0543	30.000
B	14	530	8.886	1.636	2.190E-03	.0751	2.6419E-03	.0905	2.9458E-03	.1010	.0543	60.000
B	15	531	8.699	1.601	2.148E-03	.0735	2.5883E-03	.0887	2.8862E-03	.0989	.0543	90.000
B	17	531	8.780	1.619	2.170E-03	.0744	2.6186E-03	.0897	2.9203E-03	.1001	.0543	150.000
B	18	532	8.830	1.627	2.184E-03	.0749	2.6364E-03	.0904	2.9407E-03	.1008	.0543	180.000
B	19	531	8.232	1.516	2.032E-03	.0696	2.4513E-03	.0840	2.7336E-03	.0937	.0670	180.000
B	20	527	5.827	1.071	1.428E-03	.0489	1.7208E-03	.0590	1.9176E-03	.0657	.0790	0
B	21	535	18.100	3.340	4.498E-03	.1542	5.4326E-03	.1862	6.0673E-03	.2078	.0790	180.000
B	22	534	17.964	3.313	4.458E-03	.1528	5.3827E-03	.1845	6.0058E-03	.2058	.0920	180.000
B	23	525	4.342	.797	1.059E-03	.0363	1.2756E-03	.0437	1.4208E-03	.0487	.1030	0
B	24	525	4.558	.844	1.122E-03	.0385	1.3517E-03	.0463	1.5057E-03	.0516	.1030	15.000
B	25	525	4.597	.844	1.122E-03	.0385	1.3519E-03	.0463	1.5060E-03	.0516	.1030	30.000
B	26	523	4.465	.818	1.085E-03	.0372	1.3057E-03	.0447	1.4538E-03	.0498	.1030	45.000
B	27	524	4.578	.840	1.114E-03	.0382	1.3419E-03	.0460	1.4945E-03	.0512	.1030	60.000
B	28	524	4.297	.788	1.047E-03	.0359	1.2605E-03	.0432	1.4038E-03	.0481	.1030	75.000
B	29	525	4.506	.827	1.098E-03	.0376	1.3229E-03	.0453	1.4735E-03	.0505	.1030	90.000
B	30	525	4.925	.904	1.202E-03	.0412	1.4474E-03	.0496	1.6123E-03	.0553	.1030	105.000
B	31	525	3.805	.698	9.281E-04	.0318	1.1179E-03	.0383	1.2452E-03	.0427	.1030	120.000
B	32	525	3.416	.627	8.337E-04	.0286	1.0042E-03	.0344	1.1187E-03	.0383	.1030	135.000
B	33	529	10.780	1.983	2.650E-03	.0908	3.1960E-03	.1095	3.5627E-03	.1221	.1030	150.000
B	34	531	16.878	3.108	4.168E-03	.1428	5.0290E-03	.1724	5.6084E-03	.1922	.1030	165.000
B	35	532	14.482	2.668	3.578E-03	.1226	4.3178E-03	.1480	4.8155E-03	.1650	.1030	180.000
B	37	525	3.024	.555	7.376E-04	.0253	8.8846E-04	.0304	9.8964E-04	.0339	.1300	180.000
B	38	521	2.639	.483	6.385E-04	.0219	7.6813E-04	.0263	8.5495E-04	.0293	.1430	0
B	39	526	7.884	1.448	1.927E-03	.0661	2.3223E-03	.0796	2.5874E-03	.0887	.1430	180.000
B	40	514	32.032	5.386	7.248E-03	.2484	8.7523E-03	.3000	9.7655E-03	.3347	.1560	180.000
B	41	519	1.617	.339	4.476E-04	.0153	5.3836E-04	.0185	5.9905E-04	.0205	.1690	0
B	42	519	1.519	.306	4.043E-04	.0139	4.8625E-04	.0167	5.4108E-04	.0185	.1690	15.000
B	43	519	1.646	.319	4.288E-04	.0144	5.0605E-04	.0173	5.6312E-04	.0193	.1690	30.000
B	44	519	1.703	.335	4.428E-04	.0152	5.3226E-04	.0182	5.9230E-04	.0203	.1690	45.000
B	45	519	1.539	.290	3.828E-04	.0131	4.6002E-04	.0158	5.1191E-04	.0175	.1690	60.000
B	46	521	1.723	.325	4.294E-04	.0147	5.1658E-04	.0177	5.7497E-04	.0197	.1690	75.000
B	47	523	1.461	.276	3.652E-04	.0125	4.3964E-04	.0151	4.8951E-04	.0168	.1690	90.000
B	48	521	.904	.170	2.258E-04	.0077	2.7132E-04	.0093	3.0202E-04	.0104	.1690	105.000
B	49	521	1.946	.376	4.978E-04	.0171	5.9906E-04	.0205	6.6685E-04	.0229	.1690	120.000
B	50	524	4.437	.838	1.112E-03	.0381	1.3394E-03	.0459	1.4916E-03	.0511	.1690	135.000
B	51	524	3.688	.716	9.509E-04	.0326	1.1451E-03	.0392	1.2753E-03	.0437	.1690	150.000
B	52	529	17.321	3.279	4.383E-03	.1502	5.2854E-03	.1811	5.8917E-03	.2019	.1690	165.000
B	53	529	18.576	3.417	4.869E-03	.1566	5.5105E-03	.1889	6.1431E-03	.2105	.1690	180.000
B	400	518	1.076	.197	2.592E-04	.0089	3.1162E-04	.0107	3.4670E-04	.0119	.2420	0
B	402	518	.705	.133	1.748E-04	.0060	2.1010E-04	.0072	2.3373E-04	.0080	.2420	30.000
B	404	518	1.050	.207	2.724E-04	.0093	3.2751E-04	.0112	3.6438E-04	.0125	.2420	60.000
B	406	520	.735	.135	1.782E-04	.0061	2.1443E-04	.0073	2.3864E-04	.0082	.2420	90.000
B	407	520	.872	.164	2.171E-04	.0074	2.6111E-04	.0089	2.9061E-04	.0100	.2420	105.000
B	408	523	3.952	.780	1.034E-03	.0384	1.2448E-03	.0427	1.3861E-03	.0475	.2420	120.000
B	409	523	2.982	.588	7.797E-04	.0267	9.3851E-04	.0322	1.0449E-03	.0358	.2420	135.000
B	410	524	3.289	.649	8.613E-04	.0295	1.0370E-03	.0355	1.1549E-03	.0396	.2420	150.000
B	411	524	4.810	.950	1.262E-03	.0432	1.5198E-03	.0521	1.6927E-03	.0580	.2420	165.000
B	412	525	5.159	1.002	1.332E-03	.0457	1.6047E-03	.0550	1.7875E-03	.0613	.2420	180.000
B	413	520	.923	.179	2.362E-04	.0081	2.8417E-04	.0097	3.1625E-04	.0108	.2830	0
B	415	519	.464	.091	1.204E-04	.0041	1.4485E-04	.0050	1.6118E-04	.0055	.2830	30.000
B	417	520	.770	.131	1.728E-04	.0059	2.0790E-04	.0071	2.3135E-04	.0079	.2830	60.000
B	419	522	1.161	.213	2.824E-04	.0097	3.3994E-04	.0117	3.7846E-04	.0130	.2830	90.000
B	420	522	1.981	.337	4.469E-04	.0153	5.3786E-04	.0184	5.9882E-04	.0205	.2830	105.000
B	421	523	1.582	.264	3.507E-04	.0120	4.2218E-04	.0145	4.7010E-04	.0161	.2830	120.000
B	422	524	2.441	.448	5.944E-04	.0204	7.1573E-04	.0245	7.9712E-04	.0273	.2830	135.000
B	423	524	3.017	.611	8.111E-04	.0278	9.7687E-04	.0335	1.0880E-03	.0373	.2830	150.000
B	424	524	3.884	.755	1.003E-03	.0344	1.2079E-03	.0414	1.3453E-03	.0461	.2830	165.000
B	425	525	4.060	.789	1.050E-03	.0360	1.2645E-03	.0433	1.4086E-03	.0483	.2830	180.000
B	426	521	.944	.183	2.422E-04	.0083	2.9141E-04	.0100	3.2438E-04	.0111	.3160	0
B	428	520	.531	.105	1.385E-04	.0047	1.6663E-04	.0057	1.8544E-04	.0064	.3160	30.000
B	430	517	.404	.076	1.000E-04	.0034	1.2021E-04	.0041	1.3372E-04	.0046	.3160	60.000
B	432	521	1.221	.208	2.750E-04	.0094	3.3089E-04	.0113	3.6832E-04	.0126	.3160	90.000
B	433	520	.465	.090	1.191E-04	.0041	1.4325E-04	.0049	1.5943E-04	.0055	.3160	105.000
B	434	523	5.001	.795	1.055E-03	.0361	1.2696E-03	.0435	1.4137E-03	.0484	.3160	120.000
B	435	523	1.963	.376	4.985E-04	.0171	6.0014E-04	.0206	6.6824E-04	.0229	.3160	135.000
B	436	522	2.713	.535	7.089E-04	.0243	8.5326E-04	.0292	9.4998E-04	.0326	.3160	150.000
B	437	524	3.058	.594	7.876E-04	.0270	9.4836E-04	.0325	1.0561E-03	.0362	.3160	165.000
B	438	524	3.410	.673	8.946E-04	.0307	1.0774E-03	.0369	1.2001E-03	.0411	.3160	180.000
B	439	520	.837	.165	2.179E-04	.0075	2.6219E-04	.0090	2.9181E-04	.0100	.3540	0
B	441	520	.557	.120	1.590E-04	.0054	1.9118E-04	.0066	2.1275E-04	.0073	.3540	30.000
B	443	520	.398	.064	8.483E-05	.0029	1.0204E-04	.0035	1.1356E-04	.0039	.3540	60.000
B	445	522	1.561	.278	3.678E-04	.0126	4.4266E-04	.0152	4.9283E-04	.0169	.3540	90.000
B	446	521	1.464	.256	3.390E-04	.0116	4.0794E-04	.0140	4.5410E-04	.0156	.3540	105.000
B	447	525	6.116	1.073	1.426E-03	.0489	1.7170E-03	.0588	1.9125E-03	.0655	.3540	120.000
B	448	522	1.469	.277	3.666E-04	.0126	4.4124E-04	.0151	4.9121E-04	.0168	.3540	135.000
B	450	524	2.380	.449	5.962E-04	.0204	7.1786E-04	.0246	7.9944E-04	.0274	.3540	165.000
B	451	524	2.895	.547	7.257E-04	.0249	8.7387E-04	.0299	9.7324E-04	.0334	.3540	180.000
B	452	521	.682	.132	1.749E-04	.0060	2.1052E-04	.0072	2.3436E-04	.0080	.3800	0
B	454	521	.450	.087	1.155E-04	.0040	1.3891E-04	.0048	1.5462E-04	.0053	.3800	30.000
B	456	522	.314	.051	6.705E-05	.0023	8.0690E-05	.0028	8.9826E-05	.0031	.3800	60.000
B	458	522	1.124	.208	2.727E-04	.0093	3.2826E-04	.0112	3.6545E-04	.0125	.3800	90.000
B	459	525	4.833	.939	1.248E-03	.0428	1.5026E-03	.0515	1.6736E-03	.0574	.3800	105.000

GROUP
51

50 INCH HYPERSONIC TUNNEL B
VT1162

GWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
B07	GDC-B+GWO	7.93	149.9	1269	.03	.03	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
93.5	.016	.716	3757	1.459E-05	7.525E-08	7.28E 05	2.885E-02	6.638E-02	2

FUSELAGE-BOOSTER

TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	PHI
B 460	526	3.115	.572	7.695E-04	.0267	9.2795E-04	.0322	1.0345E-03	.0359	.3800	120.000
B 461	524	1.252	.237	3.142E-04	.0110	3.8352E-04	.0133	4.2740E-04	.0148	.3800	135.000
B 462	525	1.442	.272	3.663E-04	.0127	4.4165E-04	.0153	4.9229E-04	.0171	.3800	150.000
B 463	526	2.438	.461	6.199E-04	.0215	7.4797E-04	.0259	8.3335E-04	.0289	.3800	165.000
B 464	526	2.629	.497	6.694E-04	.0232	8.0732E-04	.0280	9.0008E-04	.0312	.3800	180.000
B 106	524	.828	.161	2.158E-04	.0075	2.6005E-04	.0090	2.8978E-04	.0100	.4400	0
B 109	527	1.481	.272	3.664E-04	.0127	4.4193E-04	.0153	4.9273E-04	.0171	.4400	90.000
B 110	526	1.305	.240	3.275E-04	.0112	3.8887E-04	.0135	4.3351E-04	.0150	.4400	120.000
B 111	525	.948	.174	2.337E-04	.0081	2.8180E-04	.0098	3.1409E-04	.0109	.4400	150.000
B 112	526	2.100	.385	5.186E-04	.0180	6.2531E-04	.0217	6.9706E-04	.0242	.4400	180.000
B 113	526	.382	.075	1.015E-04	.0035	1.2244E-04	.0042	1.3650E-04	.0047	.4880	0
B 116	530	2.624	.465	6.336E-04	.0220	7.6491E-04	.0265	8.5330E-04	.0296	.4880	90.000
B 117	529	1.637	.301	4.065E-04	.0141	4.9060E-04	.0170	5.4720E-04	.0190	.4880	120.000
B 118	527	1.052	.193	2.604E-04	.0090	3.1411E-04	.0109	3.5024E-04	.0121	.4880	150.000
B 119	528	1.909	.351	4.730E-04	.0164	5.7069E-04	.0198	6.3640E-04	.0221	.4880	180.000
B 120	527	.387	.077	1.031E-04	.0036	1.2432E-04	.0043	1.3861E-04	.0048	.5200	0
B 195	531	2.177	.442	5.988E-04	.0208	7.2306E-04	.0251	8.0679E-04	.0280	.5500	43.000
B 127	530	1.387	.255	3.452E-04	.0120	4.1676E-04	.0144	4.6493E-04	.0161	.5500	90.000
B 128	529	.668	.123	1.659E-04	.0057	2.0010E-04	.0069	2.2327E-04	.0077	.5500	105.000
B 129	528	1.532	.282	3.803E-04	.0132	4.5890E-04	.0159	5.1183E-04	.0177	.5500	120.000
B 130	527	.950	.176	2.364E-04	.0082	2.8516E-04	.0099	3.1794E-04	.0110	.5500	150.000
B 131	524	1.778	.326	4.377E-04	.0152	5.2754E-04	.0183	5.8788E-04	.0204	.5500	180.000
B 138	530	.818	.150	2.036E-04	.0071	2.4575E-04	.0085	2.7415E-04	.0095	.6250	90.000
B 139	530	.845	.155	2.102E-04	.0073	2.5301E-04	.0088	2.0316E-04	.0098	.6250	105.000
B 140	526	.654	.120	1.617E-04	.0056	1.9908E-04	.0068	2.1748E-04	.0075	.6250	120.000
B 141	525	.993	.182	2.450E-04	.0085	2.9537E-04	.0102	3.2923E-04	.0114	.6250	150.000
B 142	525	.957	.183	2.457E-04	.0085	2.9615E-04	.0103	3.3006E-04	.0114	.6250	180.000
B 150	528	1.281	.236	3.180E-04	.0110	3.8376E-04	.0133	4.2800E-04	.0148	.7000	90.000
B 151	528	.879	.162	2.178E-04	.0075	2.6270E-04	.0091	2.9301E-04	.0102	.7000	105.000
B 152	526	.423	.078	1.047E-04	.0036	1.2629E-04	.0044	1.4080E-04	.0049	.7000	120.000
B 153	525	.736	.135	1.820E-04	.0063	2.1943E-04	.0076	2.4456E-04	.0085	.7000	150.000
B 154	524	.670	.119	1.599E-04	.0055	1.9276E-04	.0067	2.1479E-04	.0074	.7000	180.000
B 159	529	2.249	.401	5.425E-04	.0180	6.5477E-04	.0227	7.3032E-04	.0253	.7700	90.000
B 160	526	.807	.144	1.930E-04	.0067	2.3302E-04	.0081	2.6022E-04	.0090	.7700	120.000
B 161	524	.236	.042	5.695E-05	.0020	6.8738E-05	.0024	7.6446E-05	.0027	.7700	150.000
B 162	523	.220	.039	5.257E-05	.0018	6.3390E-05	.0022	7.0849E-05	.0024	.7700	180.000
B 171	524	.848	.156	2.088E-04	.0072	2.5160E-04	.0087	2.8046E-04	.0097	.8950	120.000
B 172	523	.162	.036	3.981E-05	.0014	4.7079E-05	.0017	5.3492E-05	.0019	.8950	150.000

UPPER WING SURFACE-BOOSTER

TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
B 200	539	15.854	2.446	3.342E-03	.1158	4.0450E-03	.1402	4.5404E-03	.1567	0	.100
B 201	534	4.016	.471	6.399E-04	.0222	7.7382E-04	.0266	8.6343E-04	.0299	.1000	.100
B 202	533	3.071	.433	5.882E-04	.0204	7.1070E-04	.0246	7.9343E-04	.0275	.2000	.100
B 203	532	.935	.194	2.638E-04	.0091	3.1760E-04	.0110	3.5451E-04	.0123	.3300	.100
B 204	532	1.245	.228	3.093E-04	.0107	3.7361E-04	.0129	4.1696E-04	.0145	.4000	.100
B 205	530	.717	.128	1.731E-04	.0060	2.0896E-04	.0072	2.3311E-04	.0081	.6000	.100
B 206	530	.814	.139	1.885E-04	.0065	2.2795E-04	.0079	2.5341E-04	.0088	.7000	.100
B 207	530	.877	.083	1.128E-04	.0039	1.3580E-04	.0047	1.5197E-04	.0053	.9100	.100
B 217	548	44.761	5.504	7.631E-03	.2645	9.2609E-03	.3210	1.0307E-02	.3593	0	.200
B 218	537	18.208	1.781	2.435E-03	.0844	2.9450E-03	.1021	3.2910E-03	.1141	.0500	.200
B 219	538	10.152	.997	1.364E-03	.0473	1.6501E-03	.0572	1.8437E-03	.0639	.1000	.200
B 220	535	5.151	.464	6.318E-04	.0219	7.6073E-04	.0265	8.8270E-04	.0296	.2000	.200
B 221	532	1.417	.278	3.747E-04	.0130	4.5293E-04	.0157	5.0904E-04	.0179	.4000	.200
B 222	530	.863	.154	2.088E-04	.0072	2.5179E-04	.0087	2.8090E-04	.0097	.6000	.200
B 223	530	.655	.112	1.514E-04	.0052	1.8277E-04	.0063	2.0399E-04	.0071	.7000	.200
B 230	549	36.862	5.040	7.002E-03	.2427	8.4804E-03	.2940	9.8101E-03	.3300	0	.250
B 231	536	8.427	1.000	1.364E-03	.0473	1.6501E-03	.0572	1.8418E-03	.0638	.1000	.250
B 232	532	1.316	.257	3.489E-04	.0121	4.2181E-04	.0146	4.7004E-04	.0163	.4000	.250
B 233	531	.980	.108	2.517E-04	.0087	3.0402E-04	.0105	3.3926E-04	.0118	.5000	.250
B 234	530	.673	.124	1.676E-04	.0058	2.0230E-04	.0070	2.2970E-04	.0076	.6000	.250
B 235	530	.752	.057	7.777E-05	.0027	9.3986E-05	.0033	1.0476E-04	.0036	.8330	.250
B 236	530	.990	.080	1.088E-04	.0038	1.3116E-04	.0046	1.4049E-04	.0051	.8670	.250
B 237	530	.803	.065	8.821E-05	.0031	1.0690E-04	.0037	1.1081E-04	.0041	.9010	.250
B 238	530	.724	.056	7.574E-05	.0026	9.1024E-05	.0032	1.0800E-04	.0035	.9350	.250
B 248	550	42.629	6.853	6.753E-03	.2341	8.2016E-03	.2843	9.1070E-03	.3184	0	.300
B 249	536	6.628	.810	1.104E-03	.0383	1.3379E-03	.0464	1.4941E-03	.0518	.1000	.300
B 250	536	4.730	.534	7.287E-04	.0253	8.8119E-04	.0305	9.8421E-04	.0341	.2000	.300
B 251	533	1.283	.250	3.404E-04	.0118	4.1137E-04	.0143	4.5982E-04	.0159	.4000	.300
B 252	532	.788	.140	1.908E-04	.0066	2.3011E-04	.0080	2.5641E-04	.0089	.6000	.300
B 263	552	48.374	5.963	8.318E-03	.2883	1.0108E-02	.3504	1.1346E-02	.3926	0	.400
B 264	539	8.217	1.096	1.377E-03	.0477	1.6061E-03	.0578	1.8019E-03	.0645	.1000	.400
B 265	535	1.636	.319	4.342E-04	.0151	5.2801E-04	.0182	5.8033E-04	.0201	.4000	.400
B 266	535	.837	.104	2.227E-04	.0077	2.6920E-04	.0093	3.0059E-04	.0104	.6000	.400
B 277	558	59.772	5.747	8.088E-03	.2801	9.8382E-03	.3409	1.1034E-02	.3824	0	.500
B 278	539	7.700	1.015	1.390E-03	.0482	1.6879E-03	.0583	1.8809E-03	.0652	.1000	.500
B 279	538	5.441	.006	9.110E-04	.0316	1.1020E-03	.0382	1.2319E-03	.0427	.2000	.500
B 280	536	1.818	.355	4.844E-04	.0168	5.8671E-04	.0203	6.5413E-04	.0227	.4000	.500
B 281	534	1.569	.286	3.896E-04	.0135	4.7087E-04	.0163	5.2971E-04	.0182	.5000	.500
B 282	534	1.265	.240	3.269E-04	.0113	3.9457E-04	.0137	4.4692E-04	.0153	.6000	.500
B 283	533	1.356	.124	1.746E-04	.0061	2.1099E-04	.0073	2.3680E-04	.0082	.8770	.500
B 296	555	57.121	7.032	1.020E-02	.3536	1.2408E-02	.4326	1.3943E-02	.4850	0	.600
B 297	539	11.203	1.079	2.028E-03	.0703	2.4440E-03	.0847	2.7322E-03	.0947	.1000	.600
B 298	538	6.113	.741	1.014E-03	.0351	1.2204E-03	.0429	1.3703E-03	.0475	.2000	.600
B 299	537	.777	.176	2.402E-04	.0083	2.9090E-04	.0101	3.2400E-04	.0113	.4000	.600
B 300	537	1.331	.235	3.209E-04	.0111	3.8818E-04	.0135	4.3364E-04	.0150	.6000	.600
B 301	535	1.355	.129	1.755E-04	.0061	2.1222E-04	.0074	2.3700E-04	.0082	.7930	.600
B 302	535	1.175	.112	1.920E-04	.0067	2.3381E-04	.0086	2.0827E-04	.0071	.8510	.600
B 315	544	23.612	2.079	3.421E-03	.1186	4.1672E-03	.1447	4.6346E-03	.1608	.1000	.700
B 316	541	10.193	1.046	1.464E-03	.0508	1.7739E-03	.0615	1.9829E-03	.0687	.2000	.700
B 317	539	1.854	.302	4.146E-04	.0144	5.0192E-04	.0174	5.6098E-04	.0194	.3000	.700

UPPER CANARD SURFACE-BOOSTER

TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/S
B 390	539	13.120	1.249	1.712E-03	.0593	2.0722E-03	.0718	2.3199E-03	.0803	0	.250
B 391	539	26.971	1.998	2.733E-03	.0947	3.3070E-03	.1146	3.6963E-03	.1281	.2500	.250
B 392	536	8.046	1.381	1.882E-03	.0653	2.2707E-03	.0789	2.5420E-03	.0881	.5000	.250
B 393	534	3.523	.614	8.347E-04	.0289	1.0087E-03	.0350	1.1261E-03	.0390	.7000	.250
B 397	549	14.181	3.204	4.507E-03	.1562	5.4640E-03	.1894	6.1144E-03	.2119	0	.500
B 398	536	5.854	.862	1.147E-03	.0398	1.3870E-03	.0481	1.5496E-03	.0537	.2500	.500
B 399	533	3.625	.494	6.305E-04	.0219	7.6179E-04	.0264	8.5030E-04	.0295	.5000	.500
B 300	537	1.897	.324	4.394E-04	.0152	5.3166E-04	.0184	5.9319E-04	.0206	.7000	.500

GROUP
91

DWG NOSE 2.22 IN. UPSTREAM OF GUC-H, .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
807	GUC-H,WB	7.93	149.0	1249	.03	.03	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RREF-FR (IN= .009FT)	SIFH (IN= .009FT)	SWITCH POSITION
92.0	.018	.711	3727	1.474E-05	7.408E-08	7.41E 05	2.869E-02	6.595E-02	3

	TC NO	TM	DT=LI	Q-OUT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-ORBITER X/L	FUSELAGE-ORBITER Y/YMAX
0	1	535	100.722	18.043	2.527E-02	.8810	3.0032E-02	1.0678	3.4265E-02	1.1945	0	-0
0	2	508	32.137	5.154	6.955E-03	.2425	8.3667E-03	.2918	9.3096E-03	.3245	.0100	-0
0	7	503	11.576	2.036	2.730E-03	.0952	3.2796E-03	.1143	3.6465E-03	.1271	.0300	-0
0	12	540	4.819	.923	1.231E-03	.0429	1.4768E-03	.0515	1.6439E-03	.0572	.0500	-0
0	19	541	.850	.154	2.055E-04	.0072	2.4674E-04	.0086	2.7421E-04	.0096	.1000	-0
0	29	530	1.155	.203	2.700E-04	.0094	3.2506E-04	.0113	3.6122E-04	.0126	.2000	-0
0	44	514	12.197	2.094	2.849E-03	.0993	3.4320E-03	.1196	3.8235E-03	.1333	.3000	-0
0	54	520	4.471	.866	1.188E-03	.0414	1.4339E-03	.0500	1.5943E-03	.0558	.4000	-0
0	66	525	2.577	.473	6.534E-04	.0228	7.8970E-04	.0275	8.8165E-04	.0307	.5000	-0
0	78	528	2.564	.416	5.769E-04	.0201	6.9784E-04	.0243	7.7963E-04	.0272	.5500	-0
0	80	529	2.541	.481	6.677E-04	.0233	8.0780E-04	.0282	9.0246E-04	.0315	.5500	-0
0	89	528	1.713	.319	4.369E-04	.0152	5.2844E-04	.0184	5.9030E-04	.0206	.6000	-0
0	98	527	3.613	.625	8.643E-04	.0301	1.0449E-03	.0364	1.1668E-03	.0407	.7000	-0
0	104	526	.920	.164	2.267E-04	.0079	2.7408E-04	.0096	3.0604E-04	.0107	.8000	-0
0	114	525	.515	.097	1.343E-04	.0047	1.6230E-04	.0057	1.8119E-04	.0063	.9000	-0
0	20	503	1.316	.098	1.316E-04	.0046	1.5802E-04	.0055	1.7569E-04	.0061	.9900	-0
0	31	502	1.371	.277	3.709E-04	.0129	4.4524E-04	.0155	4.9488E-04	.0173	.1000	-.383
0	46	516	17.046	3.478	4.741E-03	.1653	5.7137E-03	.1992	6.3671E-03	.2220	.2000	-.466
0	56	518	3.153	.610	8.351E-04	.0291	1.0073E-03	.0351	1.1231E-03	.0392	.3000	-.504
0	69	523	2.297	.604	8.322E-04	.0290	1.0051E-03	.0350	1.1217E-03	.0391	.4000	-.526
0	83	526	1.234	.240	3.318F-04	.0116	4.0103E-04	.0140	4.4778E-04	.0156	.5000	-.830
0	92	525	.816	.150	2.070E-04	.0072	2.5020E-04	.0087	2.7934E-04	.0097	.6000	-.748
0	101	526	.671	.138	1.903E-04	.0066	2.3003E-04	.0080	2.5684E-04	.0090	.7000	-.704
0	107	526	.341	.070	9.628E-05	.0034	1.1634E-04	.0041	1.2990E-04	.0045	.8000	-.669
0	117	525	.187	.036	5.029E-05	.0018	6.0779E-05	.0021	6.7896E-05	.0024	.9000	-.678
0	5	503	13.543	2.093	2.805E-03	.0978	3.3607E-03	.1175	3.7485E-03	.1306	.9900	-.660
0	10	503	10.513	1.849	2.478E-03	.0864	2.9761E-03	.1041	3.3048E-03	.1153	.0100	0
0	24	508	5.859	1.104	1.489E-03	.0519	1.7910E-03	.0624	1.9930E-03	.0695	.0300	0
0	28	511	5.889	.914	1.238E-03	.0432	1.4903E-03	.0520	1.6543E-03	.0578	.1000	0
0	35	513	4.822	.853	1.158E-03	.0404	1.3950E-03	.0486	1.5537E-03	.0542	.1500	0
0	36	517	17.313	4.791	3.811E-03	.1328	4.5845E-03	.1602	5.1212E-03	.1785	.2000	0
0	37	534	57.068	10.323	1.443E-02	.5032	1.7488E-02	.6097	1.9558E-02	.6818	.2100	0
0	38	527	12.873	5.151	7.129E-03	.2485	8.6195E-03	.3005	9.6257E-03	.3356	.2200	0
0	40	517	3.941	.614	8.386E-04	.0292	1.0111E-03	.0352	1.1270E-03	.0393	.2300	0
0	53	519	.476	.079	1.088E-04	.0038	1.3127E-04	.0046	1.4638E-04	.0051	.2500	0
0	62	523	1.071	.167	2.304E-04	.0080	2.7820E-04	.0097	3.1049E-04	.0108	.3000	0
0	75	525	2.755	.491	6.773E-04	.0236	8.1843E-04	.0285	9.1362E-04	.0318	.4000	0
0	87	528	3.050	.528	7.310E-04	.0255	8.8409E-04	.0308	9.8766E-04	.0344	.5000	0
0	96	527	2.728	.486	6.738E-04	.0235	8.1479E-04	.0284	9.0999E-04	.0317	.6000	0
0	111	526	.505	.092	1.132E-04	.0039	1.3691E-04	.0048	1.5288E-04	.0053	.7000	0
0	120	529	3.722	.623	9.874E-04	.0205	7.1969E-04	.0248	7.9405E-04	.0277	.9000	.610
0	4	504	10.651	1.598	2.133E-03	.0743	2.5819E-03	.0893	2.8446E-03	.0993	.9900	.605
0	14	503	6.893	1.179	1.574E-03	.0549	1.8908E-03	.0659	2.1011E-03	.0732	.0100	1.000
0	22	505	3.376	.594	7.982E-04	.0278	9.6919E-04	.0334	1.0667E-03	.0372	.0500	1.000
0	28	506	2.621	.461	6.192E-04	.0216	7.4396E-04	.0259	8.2732E-04	.0288	.1000	1.000
0	48	515	5.216	.868	1.181E-03	.0412	1.4233E-03	.0496	1.5858E-03	.0553	.2000	1.000
0	59	521	9.830	1.652	2.542E-03	.0886	3.0686E-03	.1070	3.4228E-03	.1193	.3000	1.000
0	72	521	8.636	1.728	2.363E-03	.0824	2.8530E-03	.0995	3.1828E-03	.1110	.4000	1.000
0	78	525	1.724	.261	3.598E-04	.0125	4.3472E-04	.0152	4.8529E-04	.0169	.5000	1.000
0	85	524	1.786	.318	4.379E-04	.0153	5.2900E-04	.0184	5.9038E-04	.0206	.5900	1.000
0	77	523	1.174	.184	2.529E-04	.0088	3.0548E-04	.0106	3.4090E-04	.0119	.6000	1.000
0	84	523	.885	.177	2.438E-04	.0085	2.9344E-04	.0102	3.2743E-04	.0114	.5800	-1.000
0	94	522	.713	.154	2.110E-04	.0074	2.5474E-04	.0089	2.8419E-04	.0099	.6000	-1.000
0	39	519	12.134	2.398	3.220E-03	.1123	3.8853E-03	.1354	4.3327E-03	.1510	.7000	-1.000
0	42	517	3.519	.698	9.537E-04	.0332	1.1501E-03	.0401	1.2828E-03	.0447	.2400	.406
0	51	521	4.236	.867	1.180E-03	.0411	1.4354E-03	.0500	1.6011E-03	.0558	.2700	.405
0	41	520	7.140	1.422	1.950E-03	.0680	2.3535E-03	.0820	2.6248E-03	.0915	.3000	.433
0	52	519	1.457	.298	4.078E-04	.0142	4.9194E-04	.0171	5.4855E-04	.0191	.3700	.405
											.3000	.361

	TC NO	TM	DT=LI	Q-OUT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	LOWER WING SURFACE-ORBITER X/C	LOWER WING SURFACE-ORBITER Y/S
0	135	526	17.912	3.193	4.416E-03	.1539	5.3386E-03	.1861	5.9612E-03	.2078	0	.250
0	136	521	5.217	.927	1.273E-03	.0444	1.5370E-03	.0536	1.7146E-03	.0598	.1000	.250
0	137	520	2.055	.443	6.079E-04	.0212	7.3365E-04	.0256	8.1830E-04	.0285	.2000	.250
0	138	523	1.757	.322	4.431E-04	.0154	5.3503E-04	.0187	5.9699E-04	.0208	.4000	.250
0	140	524	1.097	.189	2.611E-04	.0091	3.1540E-04	.0110	3.5208E-04	.0123	.6000	.250
0	142	523	.579	.094	1.209E-04	.0045	1.5563E-04	.0054	1.7365E-04	.0061	.9000	.250
0	149	527	22.518	4.137	5.729E-03	.1997	6.9278E-03	.2415	7.7371E-03	.2697	0	.500
0	150	523	7.292	1.418	1.948E-03	.0679	2.3519E-03	.0820	2.6243E-03	.0915	.1000	.500
0	151	522	4.365	.853	1.173E-03	.0409	1.4168E-03	.0494	1.5808E-03	.0551	.2000	.500
0	152	524	3.050	.534	7.362E-04	.0257	8.8922E-04	.0310	9.9239E-04	.0346	.4000	.500
0	154	523	1.639	.292	4.017E-04	.0140	4.8517E-04	.0169	5.4144E-04	.0189	.6000	.500
0	157	522	.783	.134	1.917E-04	.0067	2.3144E-04	.0081	2.5823E-04	.0090	.9000	.500
0	171	534	27.717	4.962	6.937E-03	.2418	8.4054E-03	.2930	9.4002E-03	.3277	0	.750
0	172	528	12.236	2.116	2.932E-03	.1022	3.5459E-03	.1236	3.9603E-03	.1381	.1000	.750
0	175	524	2.372	.473	6.522E-04	.0227	7.8776E-04	.0275	8.7915E-04	.0306	.4000	.750
0	178	522	1.015	.180	2.482E-04	.0087	2.9964E-04	.0104	3.3432E-04	.0117	.8000	.750

	TC NO	TM	DT=LI	Q-OUT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	UPPER WING SURFACE-ORBITER X/C	UPPER WING SURFACE-ORBITER Y/S
0	129	521	4.515	.881	1.354E-04	.0326	1.1292E-03	.0394	1.2597E-03	.0439	.1000	.100
0	130	520	1.970	.329	4.509E-04	.0157	5.4408E-04	.0190	6.0680E-04	.0212	.2000	.100
0	131	520	.633	.116	1.488E-04	.0055	1.9167E-04	.0067	2.1376E-04	.0075	.4000	.100
0	132	522	.476	.090	1.233E-04	.0043	1.4888E-04	.0052	1.6610E-04	.0058	.7000	.100
0	133	522	.339	.058	8.031E-05	.0028	9.6956E-05	.0034	1.0817E-04	.0038	.9000	.100
0	158	528	6.342	.963	1.321E-03	.0460	1.5937E-03	.0556	1.7774E-03	.0620	.1000	.500
0	159	528	3.059	.597	8.194E-04	.0286	9.8882E-04	.0345	1.1029E-03	.0384	.2000	.500
0	160	528	2.632	.428	5.820E-04	.0203	7.0233E-04	.0245	7.8411E-04	.0273	.4000	.500
0	181	524	.429	.074	1.022F-04	.0036	1.2350E-04	.0043	1.3788E-04	.0048	.8000	.500
0	182	522	1.166	.149	2.049F-04	.0071	2.4734E-04	.0086	2.7602E-04	.0096	.9000	.500

	TC NO	TM	DT=LI	Q-OUT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	VERTICAL STABILIZER-ORBITER X/C	VERTICAL STABILIZER-ORBITER Z/S
0	187	539	34.857	5.688	8.007E-03	.2791	9.7157E-03	.3387	1.0870E-02	.3792	0	.100
0	188	529	5.122	.887	1.231E-03	.0429	1.4897E-03	.0519	1.6643E-03	.0580	.1000	.100
0	189	526	1.041	.242	3.350E-04	.0117	4.0498E-04	.0141	4.8218E-04	.0168	.4000	.100
0	192	539	32.773	6.239	8.781E-03	.3061	1.0854E-02	.3714	1.1926E-02	.4158	0	.250
0	193	530	4.352	1.020	2.253E-03	.0785	2.7267E-03	.0981	3.0471E-03	.1062	.1000	.250
0	196	527	2.428	.407	5.639E-04	.0196	6.8137E-04	.0238	7.6049E-04	.0265	.4000	.250
0	197	530	16.675	3.031	4.212F-03	.1468	5.0972E-03	.1777	5.6936E-03	.1986	.1000	.500
0	198	524	2.619	.441	6.080E-04	.0212	7.3620E-04	.0256	8.2065E-04	.0286	.4000	.500
0	201	543	51.928	9.911	1.404F-02	.4894	1.7057E-02	.5944	1.9111E-02	.6662	0	.750
0	202	531	24.417	2.777	3.867F-03	.1348	4.6813E-03	.1632	5.2323E-03	.1824	.1000	.750
0	203	524	3.498	.398	5.458F-04	.0190	6.5932E-04	.0230	7.3846E-04	.0257	.4000	.750

OWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
9	M07	GDC-B+OWO	7.93	147.2	1238	-5.01	-5.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
91.2	.016	.703	3710	1.469E-05	7.339E-08	7.43E 05	2.847E-02	6.597E-02	2

FUSELAGE-BOOSTER

TC NO	TW	QTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	PHI
B 460	527	3.419	.628	8.844E-04	.0311	1.0710E-03	.0376	1.1973E-03	.0421	.3800	120.000
B 461	527	1.626	.299	4.201E-04	.0148	5.0863E-04	.0179	5.6854E-04	.0200	.3800	135.000
B 462	528	1.726	.327	4.606E-04	.0162	5.5796E-04	.0196	6.2348E-04	.0219	.3800	150.000
B 463	529	2.188	.414	5.843E-04	.0205	7.0796E-04	.0249	7.9170E-04	.0278	.3800	165.000
B 464	530	2.049	.388	5.479E-04	.0192	6.6396E-04	.0233	7.4260E-04	.0261	.3800	180.000
B 106	523	-.042	-.008	-1.137E-05	-.0004	-1.3767E-05	-.0005	-1.5354E-05	-.0005	.4400	0
B 109	526	1.609	.295	4.149E-04	.0146	5.0217E-04	.0176	5.6122E-04	.0197	.4400	90.000
B 110	526	1.645	.302	4.246E-04	.0149	5.1410E-04	.0181	5.7462E-04	.0202	.4400	120.000
B 111	527	1.326	.244	3.430E-04	.0120	4.1533E-04	.0146	4.6432E-04	.0163	.4400	150.000
B 112	528	1.904	.350	4.933E-04	.0173	5.9758E-04	.0210	6.6817E-04	.0235	.4400	180.000
B 113	524	.311	.061	8.615E-05	.0030	1.0424E-04	.0037	1.1647E-04	.0041	.4880	0
B 116	527	2.889	.515	7.251E-04	.0255	8.7810E-04	.0308	9.8162E-04	.0345	.4880	90.000
B 117	527	1.172	.215	3.028E-04	.0106	3.6662E-04	.0129	4.0982E-04	.0144	.4880	120.000
B 118	527	1.100	.202	2.847E-04	.0100	3.4482E-04	.0121	3.8950E-04	.0135	.4880	150.000
B 119	528	1.759	.323	4.558E-04	.0160	5.5220E-04	.0194	6.1766E-04	.0217	.4880	180.000
B 120	525	.220	.043	6.099E-05	.0021	7.3864E-05	.0026	8.2468E-05	.0029	.5200	0
B 195	529	1.814	.368	5.194E-04	.0182	6.2926E-04	.0221	7.0372E-04	.0247	.5500	43.000
B 127	527	1.310	.241	3.388E-04	.0119	4.1027E-04	.0144	4.5867E-04	.0161	.5500	90.000
B 128	527	.890	.164	2.302E-04	.0081	2.7878E-04	.0098	3.1157E-04	.0109	.5500	105.000
B 129	527	1.798	.330	4.649E-04	.0163	5.6289E-04	.0198	6.2973E-04	.0221	.5500	120.000
B 130	526	1.185	.218	3.055E-04	.0107	3.6981E-04	.0130	4.1328E-04	.0145	.5500	150.000
B 131	523	1.581	.290	4.053E-04	.0142	4.9020E-04	.0172	5.4793E-04	.0192	.5500	180.000
B 138	528	.447	.082	1.157E-04	.0041	1.4000E-04	.0049	1.5662E-04	.0055	.6250	90.000
B 139	528	1.209	.222	3.131E-04	.0110	3.7923E-04	.0133	4.2400E-04	.0149	.6250	105.000
B 140	525	1.590	.292	4.093E-04	.0144	4.9592E-04	.0174	5.5343E-04	.0194	.6250	120.000
B 141	522	.812	.149	2.082E-04	.0073	2.5172E-04	.0088	2.8115E-04	.0099	.6250	150.000
B 142	521	.897	.164	2.293E-04	.0081	2.7726E-04	.0097	3.0958E-04	.0109	.6250	180.000
B 150	526	.731	.134	1.884E-04	.0066	2.2800E-04	.0080	2.5409E-04	.0090	.7000	90.000
B 151	525	.799	.147	2.055E-04	.0072	2.4870E-04	.0087	2.7789E-04	.0098	.7000	105.000
B 152	524	1.387	.254	3.565E-04	.0125	4.3132E-04	.0152	4.8189E-04	.0169	.7000	120.000
B 153	521	.702	.129	1.794E-04	.0063	2.1864E-04	.0076	2.4212E-04	.0085	.7000	150.000
B 154	520	.463	.082	1.147E-04	.0040	1.3089E-04	.0049	1.5471E-04	.0054	.7000	180.000
B 159	526	1.173	.209	2.934E-04	.0103	3.5510E-04	.0125	3.9693E-04	.0139	.7700	90.000
B 160	522	.663	.118	1.640E-04	.0058	1.9925E-04	.0070	2.2251E-04	.0078	.7700	120.000
B 161	519	.223	.040	5.505E-05	.0019	6.6500E-05	.0023	7.4237E-05	.0026	.7700	150.000
B 162	519	.215	.038	5.321E-05	.0019	6.4270E-05	.0023	7.1741E-05	.0025	.7700	180.000
B 171	518	.756	.138	1.922E-04	.0068	2.3209E-04	.0082	2.5900E-04	.0091	.8950	120.000
B 172	516	.340	.062	8.613E-05	.0030	1.0397E-04	.0037	1.1599E-04	.0041	.8950	150.000

UPPER WING SURFACE-BOOSTER

TC NO	TW	QTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
B 200	536	13.561	2.084	2.971E-03	.1044	3.6071E-03	.1267	4.0390E-03	.1419	0	.100
B 201	535	9.282	1.088	1.548E-03	.0544	1.8708E-03	.0657	2.1029E-03	.0739	.1000	.100
B 202	533	4.900	.691	9.808E-04	.0349	1.1895E-03	.0418	1.3316E-03	.0468	.2000	.100
B 203	531	1.033	.214	3.033E-04	.0107	3.6776E-04	.0129	4.1160E-04	.0145	.3300	.100
B 204	531	1.181	.208	2.943E-04	.0103	3.5070E-04	.0123	3.9910E-04	.0140	.4000	.100
B 205	528	.161	.029	4.062E-05	.0014	4.9207E-05	.0017	5.5021E-05	.0019	.6000	.100
B 206	528	.410	.070	9.871E-05	.0035	1.1904E-04	.0042	1.3365E-04	.0047	.7800	.100
B 207	527	.803	.076	1.068E-04	.0038	1.2936E-04	.0045	1.4600E-04	.0051	.9100	.100
B 217	544	17.509	4.604	6.641E-03	.2333	8.0847E-03	.2840	9.0704E-03	.3186	0	.200
B 218	537	17.379	1.696	2.424E-03	.0852	2.9430E-03	.1034	3.2970E-03	.1158	.0500	.200
B 219	536	10.013	.979	1.390E-03	.0490	1.6900E-03	.0594	1.8979E-03	.0667	.1000	.200
B 220	534	6.196	.558	7.934E-04	.0270	9.6283E-04	.0338	1.0779E-03	.0379	.2000	.200
B 221	531	1.654	.323	4.564E-04	.0160	5.5391E-04	.0194	6.1903E-04	.0217	.4000	.200
B 222	528	.962	.172	2.419E-04	.0085	2.9306E-04	.0103	3.2767E-04	.0115	.6000	.200
B 223	527	.763	.130	1.834E-04	.0064	2.2201E-04	.0078	2.4821E-04	.0087	.7000	.200
B 230	544	33.649	4.587	6.609E-03	.2322	8.0435E-03	.2826	9.0222E-03	.3170	0	.250
B 231	535	8.978	1.057	1.508E-03	.0529	1.8267E-03	.0642	2.0490E-03	.0719	.1000	.250
B 232	532	1.655	.331	4.684E-04	.0165	5.6792E-04	.0200	6.3547E-04	.0223	.4000	.250
B 233	530	1.411	.267	3.779E-04	.0133	4.5706E-04	.0161	5.1179E-04	.0180	.5000	.250
B 234	529	1.145	.211	2.970E-04	.0104	3.6079E-04	.0126	4.0233E-04	.0141	.6000	.250
B 235	527	.935	.068	9.537E-05	.0034	1.1849E-04	.0041	1.2912E-04	.0045	.8330	.250
B 236	527	.846	.069	9.659E-05	.0034	1.1600E-04	.0041	1.3077E-04	.0046	.8670	.250
B 237	527	.995	.081	1.130E-04	.0040	1.3751E-04	.0048	1.5373E-04	.0054	.9010	.250
B 238	527	.774	.059	8.381E-05	.0029	1.0111E-04	.0036	1.1302E-04	.0040	.9350	.250
B 248	547	40.908	4.649	6.734E-03	.2366	8.2046E-03	.2882	9.2103E-03	.3236	0	.300
B 249	536	8.113	.991	1.414E-03	.0497	1.7170E-03	.0603	1.9231E-03	.0676	.1000	.300
B 250	536	6.237	.704	1.004E-03	.0353	1.2109E-03	.0420	1.3090E-03	.0460	.2000	.300
B 251	533	1.930	.377	5.341E-04	.0188	6.4780E-04	.0228	7.2490E-04	.0255	.4000	.300
B 252	530	1.070	.212	2.995E-04	.0105	3.6300E-04	.0128	4.0612E-04	.0143	.6000	.300
B 263	550	34.921	4.791	6.963E-03	.2446	8.4097E-03	.2954	9.5394E-03	.3350	0	.400
B 264	538	9.701	1.187	1.697E-03	.0596	2.0623E-03	.0724	2.3100E-03	.0812	.1000	.400
B 265	535	1.999	.391	5.557E-04	.0195	6.7462E-04	.0237	7.5510E-04	.0265	.4000	.400
B 266	532	1.250	.244	3.455E-04	.0121	4.1902E-04	.0147	4.6889E-04	.0165	.6000	.400
B 277	546	49.802	4.783	7.015E-03	.2464	8.5700E-03	.3011	9.6397E-03	.3386	0	.500
B 278	539	9.304	1.225	1.753E-03	.0616	2.1304E-03	.0748	2.3874E-03	.0839	.1000	.500
B 279	530	6.365	.776	1.109E-03	.0390	1.3478E-03	.0474	1.5101E-03	.0531	.2000	.500
B 280	535	2.134	.417	5.932E-04	.0208	7.2003E-04	.0253	8.0618E-04	.0283	.4000	.500
B 281	533	1.727	.328	4.648E-04	.0163	5.6300E-04	.0198	6.3099E-04	.0222	.5000	.500
B 282	533	1.492	.283	4.014E-04	.0141	4.8082E-04	.0171	5.4402E-04	.0191	.6000	.500
B 283	531	1.609	.152	2.158E-04	.0076	2.6163E-04	.0092	2.9270E-04	.0103	.8770	.500
B 296	552	48.292	6.183	9.013E-03	.3166	1.0997E-02	.3863	1.2356E-02	.4341	0	.600
B 297	539	11.636	1.532	2.195E-03	.0771	2.6670E-03	.0937	2.9899E-03	.1050	.1000	.600
B 298	538	7.456	.904	1.292E-03	.0454	1.5699E-03	.0552	1.7589E-03	.0618	.2000	.600
B 299	535	1.285	.291	4.142E-04	.0146	5.0281E-04	.0177	5.6303E-04	.0198	.4000	.600
B 300	536	1.096	.299	4.267E-04	.0150	5.1006E-04	.0179	5.8016E-04	.0204	.6000	.600
B 301	534	1.845	.175	2.490E-04	.0087	3.0216E-04	.0106	3.3827E-04	.0119	.7930	.600
B 302	534	1.541	.146	2.079E-04	.0073	2.5226E-04	.0089	2.8240E-04	.0099	.8810	.600
B 315	545	23.676	2.479	3.577E-03	.1257	4.3549E-03	.1530	4.8860E-03	.1716	.1000	.700
B 316	541	10.841	1.134	1.620E-03	.0569	1.9702E-03	.0692	2.2190E-03	.0780	.2000	.700
B 317	539	2.358	.389	5.509E-04	.0193	6.6006E-04	.0232	7.4963E-04	.0263	.5000	.700

UPPER CANARD SURFACE-BOOSTER

TC NO	TW	QTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/S
B 380	538	28.200	2.683	4.037E-03	.1418	4.6021E-03	.1616	5.2237E-03	.1835	0	.250
B 381	531	9.326	.884	1.251E-03	.0439	1.5109E-03	.0533	1.6967E-03	.0596	.2000	.250
B 382	530	3.644	.623	8.802E-04	.0309	1.0667E-03	.0375	1.1931E-03	.0419	.5000	.250
B 383	529	2.157	.369	5.200E-04	.0183	6.2995E-04	.0221	7.0444E-04	.0247	.7000	.250
B 387	540	34.409	3.277	4.701E-03	.1652	5.7190E-03	.2008	6.4072E-03	.2251	0	.500
B 388	532	11.663	1.106	1.969E-03	.0691	1.9026E-03	.0668	2.1293E-03	.0748	.2500	.500
B 389	531	3.987	.611	8.642E-04	.0304	1.0470E-03	.0368	1.1719E-03	.0412	.5000	.500
B 390	528	2.334	.399	5.674E-04	.0199	6.8131E-04	.0239	7.6183E-04	.0268	.7000	.500

GROUP
08

5/26/71

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

DWO NOSE 2.22 IN. UPSTREAM OF GDC-8, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
9	807	GDC-8+DWO	7.93	148.5	1243	-5.02	-5.02	0	0	0

T-INF (DEG R)	P-INF (PSIA)	U-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	XREF-FR (R= .009FT)	SIFR (R= .009FT)	SWITCH POSITION
91.5	.016	.739	5718	1.476E-05	7.370E-08	7.45E 05	2.861E-02	6.385E-02	1

TC NO	TW	DTWEI	G-DOT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.85TO)	M(.85TO)/MREF	FUSELAGE-BOOSTER X/L	FUSELAGE-BOOSTER PHI
B 1	540	44.620	15.660	2.229E-02	.7790	2.7080E-02	.9465	3.0340E-02	1.0604	0	0
B 2	514	17.630	3.215	4.411E-03	.1542	5.3175E-03	.1859	5.9266E-03	.2071	.0137	0
B 3	517	28.711	5.245	7.228E-03	.2526	8.7214E-03	.3048	9.7264E-03	.3399	.0137	180.000
B 4	513	10.350	1.886	2.584E-03	.0903	3.1144E-03	.1089	3.4705E-03	.1213	.0274	0
B 5	512	10.540	1.920	2.629E-03	.0919	3.1686E-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	12.954	2.362	3.238E-03	.1132	3.9029E-03	.1364	4.3494E-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	17.078	3.203	4.387E-03	.1533	5.2874E-03	.1848	5.8917E-03	.2059	.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	2.289	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	1.8625E-03	.0651	2.0747E-03	.0725	.0543	0
B 13	510	6.528	1.188	1.621E-03	.0567	1.9523E-03	.0682	2.1743E-03	.0760	.0543	30.000
B 14	510	7.282	1.325	1.808E-03	.0632	2.1772E-03	.0761	2.4248E-03	.0847	.0543	60.000
B 15	510	8.435	1.535	2.096E-03	.0733	2.5244E-03	.0882	2.8110E-03	.0983	.0543	90.000
B 16	509	7.360	1.342	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	34.400	6.297	8.720E-03	.3048	1.0532E-02	.3681	1.1794E-02	.4108	.0670	180.000
B 19	521	4.262	.776	1.061E-03	.0371	1.2777E-03	.0447	1.4233E-03	.0497	.0790	0
B 20	511	10.188	3.318	4.556E-03	.1592	5.4936E-03	.1920	6.1235E-03	.2140	.0790	180.000
B 21	515	5.559	1.012	1.383E-03	.0483	1.6684E-03	.0582	1.8558E-03	.0649	.0920	180.000
B 22	511	2.903	.529	7.231E-04	.0253	8.7115E-04	.0304	9.7053E-04	.0339	.1030	0
B 23	512	3.212	.585	8.000E-04	.0280	9.6667E-04	.0337	1.0748E-03	.0376	.1030	15.000
B 24	512	3.151	.574	7.850E-04	.0274	9.4906E-04	.0331	1.0538E-03	.0368	.1030	30.000
B 25	512	3.615	.657	8.963E-04	.0313	1.0792E-03	.0377	1.2017E-03	.0420	.1030	45.000
B 26	509	3.615	.657	8.963E-04	.0313	1.0792E-03	.0377	1.2017E-03	.0420	.1030	60.000
B 27	510	3.838	.698	9.531E-04	.0333	1.1479E-03	.0401	1.2785E-03	.0447	.1030	75.000
B 28	510	4.219	.768	1.047E-03	.0366	1.2614E-03	.0441	1.4049E-03	.0491	.1030	90.000
B 29	510	3.652	.664	9.068E-04	.0317	1.0920E-03	.0382	1.2162E-03	.0425	.1030	105.000
B 30	510	3.116	.567	7.731E-04	.0270	9.3083E-04	.0325	1.0366E-03	.0362	.1030	120.000
B 31	513	9.243	1.685	2.309E-03	.0807	2.7827E-03	.0973	3.1018E-03	.1084	.1030	135.000
B 32	515	13.677	2.495	3.425E-03	.1197	4.1303E-03	.1444	4.6039E-03	.1609	.1030	150.000
B 33	516	14.930	2.726	3.750E-03	.1311	4.5231E-03	.1581	5.0432E-03	.1763	.1030	165.000
B 34	511	5.064	.922	1.260E-03	.0440	1.5176E-03	.0530	1.6906E-03	.0591	.1030	180.000
B 35	510	2.167	.394	5.385E-04	.0188	6.4857E-04	.0227	7.2239E-04	.0252	.1300	180.000
B 37	516	6.666	1.217	1.670E-03	.0584	2.0216E-03	.0707	2.2542E-03	.0788	.1430	0
B 38	514	1.540	.281	3.857E-04	.0135	4.6503E-04	.0163	5.1836E-04	.0181	.1430	180.000
B 39	524	20.604	3.778	5.253E-03	.1836	6.3901E-03	.2219	7.0907E-03	.2478	.1430	0
B 40	523	12.717	2.129	2.950E-03	.1031	3.5690E-03	.1246	3.9800E-03	.1391	.1860	180.000
B 41	516	.957	.200	2.755E-04	.0096	3.3238E-04	.0116	3.7056E-04	.0130	.1690	0
B 42	515	.961	.193	2.659E-04	.0093	3.2064E-04	.0112	3.5748E-04	.0125	.1690	15.000
B 43	516	1.092	.211	2.903E-04	.0101	3.5018E-04	.0122	3.9043E-04	.0136	.1690	30.000
B 44	515	1.017	.200	2.748E-04	.0096	3.3142E-04	.0116	3.6948E-04	.0129	.1690	45.000
B 45	516	.815	.153	2.109E-04	.0074	2.5446E-04	.0089	2.8376E-04	.0099	.1690	60.000
B 46	516	.834	.157	2.156E-04	.0075	2.6006E-04	.0091	2.8982E-04	.0101	.1690	75.000
B 47	518	1.813	.341	4.703E-04	.0164	5.6758E-04	.0198	6.3288E-04	.0221	.1690	90.000
B 48	517	3.154	.681	8.280E-04	.0289	9.9922E-04	.0349	1.1144E-03	.0390	.1690	105.000
B 49	517	3.086	.580	7.994E-04	.0279	9.6469E-04	.0337	1.0756E-03	.0376	.1690	120.000
B 50	519	3.761	.708	9.784E-04	.0342	1.1813E-03	.0413	1.3179E-03	.0461	.1690	135.000
B 51	519	5.364	1.039	1.436E-03	.0502	1.7343E-03	.0606	1.9350E-03	.0676	.1690	150.000
B 52	522	9.498	1.791	2.483E-03	.0868	2.9966E-03	.1048	3.3461E-03	.1170	.1690	165.000
B 53	522	8.510	1.556	2.164E-03	.0756	2.6152E-03	.0914	2.9194E-03	.1020	.1690	180.000
B 400	516	.521	.095	1.310E-04	.0046	1.5801E-04	.0055	1.7619E-04	.0062	.2420	0
B 402	516	.393	.074	1.017E-04	.0036	1.2271E-04	.0043	1.3682E-04	.0048	.2420	30.000
B 404	516	.655	.129	1.771E-04	.0062	2.1370E-04	.0075	2.3829E-04	.0083	.2420	60.000
B 406	518	1.213	.222	3.066E-04	.0107	3.7004E-04	.0129	4.1272E-04	.0144	.2420	90.000
B 407	518	1.248	.235	3.239E-04	.0113	3.9089E-04	.0137	4.3599E-04	.0152	.2420	105.000
B 408	519	1.992	.392	5.419E-04	.0189	6.5429E-04	.0229	7.2998E-04	.0255	.2420	120.000
B 409	520	1.952	.392	5.431E-04	.0190	6.5588E-04	.0229	7.3185E-04	.0256	.2420	135.000
B 410	523	3.983	.786	1.092E-03	.0382	1.3202E-03	.0461	1.4741E-03	.0515	.2420	150.000
B 411	524	3.612	.713	9.912E-04	.0346	1.1983E-03	.0419	1.3380E-03	.0468	.2420	165.000
B 412	524	3.695	.718	9.984E-04	.0349	1.2071E-03	.0422	1.3480E-03	.0471	.2420	180.000
B 413	518	.256	.049	6.826E-05	.0024	8.2302E-05	.0029	9.1886E-05	.0032	.2830	0
B 415	517	.325	.064	8.818E-05	.0031	1.0648E-04	.0037	1.1866E-04	.0041	.2830	30.000
B 417	518	1.175	.200	2.753E-04	.0096	3.3230E-04	.0116	3.7066E-04	.0130	.2830	60.000
B 419	519	1.072	.197	2.717E-04	.0095	3.2804E-04	.0115	3.6599E-04	.0128	.2830	90.000
B 420	520	1.177	.200	2.767E-04	.0097	3.3404E-04	.0117	3.7283E-04	.0130	.2830	105.000
B 421	522	1.967	.260	3.604E-04	.0126	4.3502E-04	.0152	4.8000E-04	.0170	.2830	120.000
B 422	524	2.125	.390	5.421E-04	.0189	6.5844E-04	.0229	7.3193E-04	.0256	.2830	135.000
B 423	526	3.314	.671	9.364E-04	.0327	1.1299E-03	.0396	1.2686E-03	.0442	.2830	150.000
B 424	528	2.664	.507	7.086E-04	.0248	8.5760E-04	.0300	9.5849E-04	.0335	.2830	165.000
B 425	528	2.850	.555	7.754E-04	.0271	9.3862E-04	.0328	1.0487E-03	.0367	.2830	180.000
B 426	519	.247	.048	6.598E-05	.0023	7.9849E-05	.0028	8.8740E-05	.0031	.3160	0
B 428	519	.336	.066	9.157E-05	.0032	1.1054E-04	.0039	1.2231E-04	.0043	.3160	30.000
B 430	517	.762	.132	1.819E-04	.0064	2.1998E-04	.0077	2.4485E-04	.0086	.3160	60.000
B 432	520	1.562	.266	3.674E-04	.0128	4.4367E-04	.0155	4.9806E-04	.0173	.3160	90.000
B 433	519	.988	.178	2.427E-04	.0085	2.9300E-04	.0102	3.2687E-04	.0114	.3160	105.000
B 434	522	2.488	.391	5.422E-04	.0190	6.5512E-04	.0229	7.3127E-04	.0256	.3160	120.000
B 435	524	1.953	.369	5.120E-04	.0179	6.1900E-04	.0217	6.9223E-04	.0242	.3160	135.000
B 436	526	2.837	.561	7.023E-04	.0273	9.4640E-04	.0331	1.0573E-03	.0370	.3160	150.000
B 437	527	2.368	.460	6.428E-04	.0225	7.7778E-04	.0272	8.6899E-04	.0304	.3160	165.000
B 438	528	2.749	.544	7.615E-04	.0266	9.2180E-04	.0322	1.0304E-03	.0360	.3160	180.000
B 439	519	.206	.041	5.610E-05	.0020	6.7723E-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 443	520	.553	.085	1.235E-04	.0043	1.4908E-04	.0052	1.6634E-04	.0058	.3540	60.000
B 445	523	1.297	.231	3.204E-04	.0112	3.8710E-04	.0135	4.3226E-04	.0151	.3540	90.000
B 446	523	1.632	.286	3.972E-04	.0139	4.8005E-04	.0168	5.3597E-04	.0187	.3540	105.000
B 447	526	3.016	.688	1.228E-03	.0429	1.4853E-03	.0519	1.6593E-03	.0580	.3540	120.000
B 448	526	1.643	.311	4.331E-04	.0151	5.2396E-04	.0183	5.8533E-04	.0205	.3540	135.000
B 450	529	1.935	.380	5.137E-04	.0180	6.2204E-04	.0217	6.9539E-04	.0243	.3540	165.000
B 451	528	2.358	.466	6.243E-04	.0218	7.5576E-04	.0264	8.4467E-04	.0295	.3540	180.000
B 452	528	.274	.054	7.487E-05	.0026	9.0423E-05	.0032	1.0091E-04	.0035	.3800	0
B 454	521	.702	.138	1.885E-04	.0066	2.2771E-04	.0080	2.5413E-04	.0089	.3800	30.000
B 456	521	.470	.076	1.053F-04	.0037	1.2727E-04	.0044	1.4205E-04	.0050	.3800	60.000
B 458	523	.934	.172	2.388E-04	.0083	2.8869E-04	.0101	3.2233E-04	.0113	.3800	90.000
B 459	526	4.407	.857	1.196E-03	.0418	1.4469E-03	.0506	1.6165E-03	.0565	.3800	105.000

GROUP
92

50 INCH HYPERSONIC TUNNEL H
VT1162

DWO POSE 2.22 IN. UPSTREAM OF GDC-H, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
0	807	GDC-B+DWO	7.93	147.7	1234	-5.03	-5.03	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
90.9	.016	.705	3705	1.478E-05	7.320E-08	7.48E 05	2.850E-02	6.576E-02	3

FUSELAGE-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	547	90.053	16.241	2.362E-02	.8288	2.8793E-02	1.0102	3.2331E-02	1.1344	0	-0
0	2	518	25.035	4.038	5.638E-03	.1978	6.8120E-03	.2390	7.6038E-03	.2668	.0100	-0
0	7	513	7.550	1.336	1.851E-03	.0649	2.2320E-03	.0783	2.4897E-03	.0874	.0300	-0
0	12	510	2.540	.489	6.758E-04	.0237	8.1465E-04	.0286	9.0794E-04	.0319	.0500	-0
0	19	510	.672	.122	1.687E-04	.0059	2.0332E-04	.0071	2.2658E-04	.0079	.1000	-0
0	29	514	3.319	.587	8.152E-04	.0286	9.8372E-04	.0345	1.0971E-03	.0385	.2000	-0
0	44	523	3.336	.576	8.087E-04	.0284	9.7843E-04	.0343	1.0931E-03	.0384	.3000	-0
0	54	527	3.212	.625	8.836E-04	.0310	1.0704E-03	.0376	1.1970E-03	.0420	.4000	-0
0	66	530	2.025	.373	5.288E-04	.0186	6.4110E-04	.0225	7.1726E-04	.0252	.5000	-0
0	76	531	2.108	.342	4.868E-04	.0171	5.9043E-04	.0207	6.6075E-04	.0232	.5500	-0
0	80	532	1.751	.332	4.727E-04	.0166	5.7346E-04	.0201	6.4187E-04	.0225	.6000	-0
0	89	530	1.527	.281	3.988E-04	.0140	4.8351E-04	.0170	5.4097E-04	.0190	.7000	-0
0	98	530	1.846	.320	4.535E-04	.0159	5.4978E-04	.0193	6.1507E-04	.0216	.8000	-0
0	104	527	.610	.109	1.538E-04	.0054	1.8634E-04	.0065	2.0835E-04	.0073	.9000	-0
0	114	526	.356	.075	1.057E-04	.0037	1.2809E-04	.0045	1.4316E-04	.0050	.9900	-0
0	20	511	.652	.052	7.166E-05	.0025	8.6390E-05	.0030	9.6241E-05	.0034	.1000	-.383
0	31	514	2.425	.494	6.863E-04	.0241	8.2822E-04	.0291	9.2375E-04	.0324	.2000	-.466
0	46	527	9.513	1.953	2.759E-03	.0968	3.3424E-03	.1173	3.7372E-03	.1311	.3000	-.504
0	56	527	4.032	.785	1.110E-03	.0389	1.3443E-03	.0472	1.5033E-03	.0527	.4000	-.526
0	69	530	4.722	.869	1.235E-03	.0433	1.4971E-03	.0525	1.6751E-03	.0588	.5000	-.830
0	83	531	.767	.153	2.181E-04	.0077	2.6450E-04	.0093	2.9601E-04	.0104	.6000	-.748
0	92	529	.619	.114	1.614E-04	.0057	1.9564E-04	.0069	2.1887E-04	.0077	.7000	-.704
0	101	529	.735	.151	2.140E-04	.0075	2.5939E-04	.0091	2.9014E-04	.0102	.8000	-.669
0	107	528	.590	.105	1.490E-04	.0052	1.8093E-04	.0063	2.0190E-04	.0071	.9000	-.678
0	117	527	.392	.076	1.079E-04	.0038	1.3071E-04	.0046	1.4617E-04	.0051	.9900	-.660
0	5	515	16.355	2.545	3.535E-03	.1240	4.2664E-03	.1497	4.7588E-03	.1670	.0100	0
0	10	515	13.786	2.442	3.395E-03	.1191	4.0983E-03	.1438	4.5719E-03	.1604	.0300	0
0	24	517	7.790	1.465	2.041E-03	.0716	2.4646E-03	.0865	2.7502E-03	.0965	.1000	0
0	28	520	9.039	1.411	1.974E-03	.0693	2.3859E-03	.0837	2.6640E-03	.0935	.1500	0
0	35	524	6.796	1.210	1.703E-03	.0598	2.0614E-03	.0723	2.3036E-03	.0808	.2000	0
0	36	530	26.390	4.285	6.080E-03	.2133	7.3717E-03	.2586	8.2476E-03	.2894	.2100	0
0	37	548	65.354	11.787	1.717E-02	.6024	2.0932E-02	.7345	2.3510E-02	.8249	.2200	0
0	38	537	31.978	5.039	7.223E-03	.2534	8.7761E-03	.3079	9.8332E-03	.3450	.2300	0
0	40	527	1.955	.313	4.416E-04	.0155	5.3601E-04	.0188	5.9809E-04	.0210	.2500	0
0	53	527	.636	.108	1.505E-04	.0053	1.8234E-04	.0064	2.0388E-04	.0072	.3000	0
0	62	529	2.640	.414	5.874E-04	.0206	7.1208E-04	.0250	7.9662E-04	.0280	.4000	0
0	75	530	4.026	.719	1.020E-03	.0358	1.2369E-03	.0434	1.3830E-03	.0486	.5000	0
0	87	530	2.960	.513	7.282E-04	.0256	8.8382E-04	.0310	9.8804E-04	.0347	.6000	0
0	96	529	2.609	.466	6.603E-04	.0232	8.0046E-04	.0281	8.9538E-04	.0314	.7000	0
0	111	529	.914	.148	2.103E-04	.0074	2.5486E-04	.0089	2.8511E-04	.0100	.9000	.610
0	120	534	5.967	.682	9.742E-04	.0342	1.1827E-03	.0415	1.3245E-03	.0465	.9900	.305
0	4	515	10.431	1.567	2.178E-03	.0764	2.6284E-03	.0922	2.9322E-03	.1029	.0100	1.000
0	14	513	6.561	1.126	1.561E-03	.0548	1.8837E-03	.0661	2.1007E-03	.0737	.0500	1.000
0	22	512	3.121	.552	7.638E-04	.0268	9.2123E-04	.0323	1.0271E-03	.0360	.1000	1.000
0	88	515	2.021	.358	4.977E-04	.0175	6.0086E-04	.0211	6.7023E-04	.0235	.2000	1.000
0	48	528	7.011	1.175	1.664E-03	.0584	2.0166E-03	.0708	2.2555E-03	.0791	.3000	1.000
0	59	528	5.313	1.005	1.422E-03	.0499	1.7231E-03	.0605	1.9270E-03	.0676	.4000	1.000
0	72	527	3.504	.701	9.906E-04	.0348	1.2001E-03	.0421	1.3420E-03	.0471	.5000	1.000
0	78	530	2.553	.387	5.498E-04	.0193	6.6662E-04	.0234	7.4548E-04	.0262	.5500	1.000
0	85	529	1.452	.259	3.672E-04	.0129	4.4503E-04	.0156	4.9781E-04	.0175	.6000	1.000
0	77	529	1.700	.267	3.781E-04	.0133	4.5834E-04	.0161	5.1274E-04	.0180	.5500	-1.000
0	84	529	1.491	.298	4.231E-04	.0148	5.1286E-04	.0180	5.7363E-04	.0201	.6000	-1.000
0	94	528	1.599	.346	4.890E-04	.0172	5.9326E-04	.0208	6.6381E-04	.0233	.7000	-1.000
0	39	530	12.078	2.353	3.338E-03	.1171	4.0402E-03	.1420	4.5271E-03	.1588	.2400	.406
0	42	526	3.361	.672	9.478E-04	.0333	1.1476E-03	.0403	1.2831E-03	.0450	.2700	.465
0	51	528	3.890	.799	1.132E-03	.0397	1.3720E-03	.0481	1.5345E-03	.0538	.3000	.433
0	41	529	7.062	1.538	2.180E-03	.0765	2.6431E-03	.0927	2.9568E-03	.1037	.2700	.465
0	52	527	1.344	.276	3.901E-04	.0137	4.7251E-04	.0166	5.2834E-04	.0185	.3000	.361

LOWER WING SURFACE-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	534	11.865	2.128	3.030E-03	.1063	3.6876E-03	.1294	4.1293E-03	.1449	0	.250
0	136	529	2.434	.434	6.154E-04	.0216	7.4608E-04	.0262	8.3421E-04	.0293	.1000	.250
0	137	529	1.947	.268	3.793E-04	.0133	4.5977E-04	.0161	5.1476E-04	.0180	.2000	.250
0	138	530	2.162	.398	5.651E-04	.0198	6.8528E-04	.0240	7.6072E-04	.0269	.4000	.250
0	140	530	1.399	.242	3.442E-04	.0121	4.1730E-04	.0146	4.6647E-04	.0164	.6000	.250
0	142	528	.822	.133	1.888E-04	.0066	2.2880E-04	.0080	2.5590E-04	.0090	.9000	.250
0	149	535	18.222	3.369	4.818E-03	.1690	5.8510E-03	.2053	6.5557E-03	.2300	0	.500
0	150	531	3.860	.753	1.070E-03	.0375	1.2977E-03	.0455	1.4522E-03	.0510	.1000	.500
0	151	531	1.868	.364	5.177E-04	.0182	6.2707E-04	.0220	7.0263E-04	.0247	.2000	.500
0	152	531	1.105	.192	2.723E-04	.0096	3.3019E-04	.0116	3.6991E-04	.0130	.4000	.500
0	154	530	.867	.151	2.148E-04	.0075	2.6041E-04	.0091	2.9138E-04	.0102	.6000	.500
0	157	528	.671	.120	1.697E-04	.0060	2.0570E-04	.0072	2.3008E-04	.0081	.9000	.500
0	171	543	26.318	4.739	6.851E-03	.2404	8.3401E-03	.2926	9.3575E-03	.3283	0	.750
0	172	536	10.316	1.793	2.569E-03	.0901	3.1205E-03	.1095	3.4960E-03	.1227	.1000	.750
0	175	531	1.351	.271	3.852E-04	.0135	4.6721E-04	.0164	5.2288E-04	.0183	.4000	.750
0	178	529	.624	.111	1.579E-04	.0055	1.9134E-04	.0067	2.1404E-04	.0075	.8000	.750

UPPER WING SURFACE-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
0	129	530	6.492	.984	1.398E-03	.0490	1.6970E-03	.0596	1.8941E-03	.0665	.1000	.100
0	130	528	3.164	.535	7.581E-04	.0266	9.1871E-04	.0322	1.0275E-03	.0361	.2000	.100
0	131	520	1.324	.249	3.470E-04	.0122	4.2049E-04	.0148	4.7026E-04	.0165	.4000	.100
0	132	528	.568	.094	1.361E-04	.0048	1.6486E-04	.0058	1.8436E-04	.0065	.7000	.100
0	133	527	.654	.113	1.597E-04	.0056	1.9380E-04	.0068	2.1635E-04	.0076	.9000	.100
0	158	532	8.853	1.343	1.913E-03	.0671	2.3200E-03	.0814	2.5976E-03	.0911	.1000	.500
0	159	532	5.836	.948	1.349E-03	.0473	1.6371E-03	.0574	1.8324E-03	.0643	.2000	.500
0	160	533	3.139	.511	7.279E-04	.0255	8.8330E-04	.0310	9.8891E-04	.0347	.4000	.500
0	161	535	.804	.140	1.997E-04	.0070	2.4253E-04	.0085	2.7164E-04	.0095	.8000	.500
0	162	529	1.634	.221	3.134E-04	.0110	3.7900E-04	.0133	4.2493E-04	.0149	.9000	.500

VERTICAL STABILIZER-ORBITER

	TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/S
0	187	552	52.053	8.651	1.267E-02	.4446	1.5469E-02	.5428	1.7388E-02	.6101	0	.100
0	188	535	8.223	1.430	2.052E-03	.0720	2.4960E-03	.0875	2.7949E-03	.0981	.1000	.100
0	189	535	1.798	.307	4.320E-04	.0152	5.2390E-04	.0184	5.8869E-04	.0207	.4000	.100
0	192	568	39.914	6.872	1.002E-02	.3516	1.2212E-02	.4285	1.3717E-02	.4813	0	.250
0	193	539	10.482	1.829	2.626E-03	.0921	3.1929E-03	.1120	3.5790E-03	.1256	.1000	.250
0	194	538	2.313	.390	5.601E-04	.0197	6.8084E-04	.0239	7.6310E-04	.0268	.4000	.250
0	197	566	26.561	4.930	7.156E-03	.2511	8.7170E-03	.3059	9.7862E-03	.3434	.1000	.500
0	198	538	3.290	.590	8.477E-04	.0297	1.0303E-03	.0361	1.1547E-03	.0405	.4000	.500
0	201	563	69.477	13.398	1.995E-02	.7001	2.4490E-02	.8579	2.7559E-02	.9668	0	.750
0	202	547	31.660	3.632	5.281E-03	.1853	6.4369E-03	.2258	7.2279E-03	.2536	.1000	.750
0	203	539	4.257	.688	6.999E-04	.0246	8.5107E-04	.0299	9.5411E-04	.0335	.4000	.750

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

DWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .236 IN. GAP

RUN NO	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
10	807	GDC-B+DWO	7.93	148.8	1234	5.13	5.13	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (RN .009FT)	STFR (RN .009FT)	SWITCH POSITION
90.9	.016	.710	3704	1.490E-05	7.319E-08	7.95E 05	2.860E-02	6.549E-02	1

TC NO	TW	DT/DT	G-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
B 1	547	82.647	15.352	2.236E-02	.7819	2.726E-02	.9531	3.061E-02	1.0704	0	0
B 2	524	23.957	4.394	6.194E-03	.2166	7.497E-03	.2621	8.378E-03	.2930	.0137	0
B 3	523	20.473	3.752	5.279E-03	.1846	6.388E-03	.2233	7.137E-03	.2495	.0137	180.000
B 4	523	15.523	2.845	4.001E-03	.1399	4.841E-03	.1693	5.409E-03	.1891	.0274	0
B 5	522	15.109	2.768	3.888E-03	.1359	4.703E-03	.1644	5.254E-03	.1837	.0274	30.000
B 6	522	16.160	2.960	4.158E-03	.1454	5.030E-03	.1759	5.619E-03	.1964	.0274	60.000
B 7	521	13.151	2.408	3.378E-03	.1181	4.085E-03	.1428	4.562E-03	.1595	.0274	90.000
B 8	520	11.405	2.148	3.010E-03	.1052	3.639E-03	.1272	4.064E-03	.1420	.0274	120.000
B 9	520	11.099	2.090	2.929E-03	.1024	3.541E-03	.1238	3.954E-03	.1382	.0274	150.000
B 10	520	9.860	1.857	2.601E-03	.0909	3.144E-03	.1099	3.511E-03	.1227	.0274	180.000
B 11	519	8.058	1.474	2.063E-03	.0721	2.493E-03	.0872	2.784E-03	.0974	.0406	180.000
B 12	520	10.020	1.834	2.571E-03	.0899	3.108E-03	.1087	3.471E-03	.1214	.0543	0
B 13	520	10.048	1.838	2.574E-03	.0900	3.112E-03	.1088	3.475E-03	.1215	.0543	30.000
B 14	518	9.633	1.761	2.463E-03	.0861	2.976E-03	.1040	3.322E-03	.1161	.0543	60.000
B 15	518	8.204	1.500	2.097E-03	.0733	2.534E-03	.0886	2.828E-03	.0989	.0543	90.000
B 17	517	6.262	1.144	1.598E-03	.0559	1.930E-03	.0675	2.154E-03	.0753	.0543	150.000
B 18	518	6.049	1.106	1.548E-03	.0540	1.870E-03	.0654	2.088E-03	.0729	.0543	180.000
B 19	518	4.924	.900	1.257E-03	.0440	1.519E-03	.0531	1.695E-03	.0593	.0670	180.000
B 20	519	7.731	1.414	1.979E-03	.0692	2.392E-03	.0836	2.670E-03	.0934	.0790	0
B 21	519	3.593	.657	9.190E-04	.0321	1.111E-03	.0388	1.240E-03	.0433	.0790	180.000
B 22	523	10.331	1.894	2.665E-03	.0932	3.225E-03	.1128	3.603E-03	.1260	.0920	180.000
B 23	519	5.905	1.080	1.511E-03	.0528	1.826E-03	.0638	2.039E-03	.0713	.1030	0
B 24	519	6.091	1.114	1.560E-03	.0546	1.885E-03	.0659	2.105E-03	.0736	.1030	15.000
B 25	519	5.905	1.080	1.510E-03	.0528	1.825E-03	.0638	2.037E-03	.0712	.1030	30.000
B 26	516	5.587	1.020	1.422E-03	.0497	1.717E-03	.0600	1.916E-03	.0670	.1030	45.000
B 27	516	5.328	.973	1.356E-03	.0474	1.637E-03	.0573	1.827E-03	.0639	.1030	60.000
B 28	516	4.787	.874	1.219E-03	.0426	1.472E-03	.0515	1.642E-03	.0574	.1030	75.000
B 29	516	4.600	.840	1.171E-03	.0410	1.414E-03	.0495	1.578E-03	.0552	.1030	90.000
B 30	517	4.294	.784	1.094E-03	.0383	1.321E-03	.0462	1.475E-03	.0516	.1030	105.000
B 31	517	3.704	.677	9.451E-04	.0330	1.142E-03	.0399	1.274E-03	.0446	.1030	120.000
B 32	517	3.232	.591	8.245E-04	.0288	9.959E-04	.0348	1.111E-03	.0389	.1030	135.000
B 33	518	3.208	.586	8.192E-04	.0286	9.898E-04	.0346	1.105E-03	.0386	.1030	150.000
B 34	523	11.407	2.090	2.940E-03	.1028	3.557E-03	.1244	3.975E-03	.1389	.1030	165.000
B 35	522	10.572	1.936	2.720E-03	.0951	3.290E-03	.1150	3.676E-03	.1285	.1030	180.000
B 37	524	9.203	1.688	2.378E-03	.0831	2.878E-03	.1006	3.217E-03	.1125	.1300	180.000
B 38	519	3.577	.654	9.148E-04	.0320	1.106E-03	.0387	1.234E-03	.0432	.1430	0
B 39	524	6.679	1.225	1.726E-03	.0604	2.089E-03	.0728	2.335E-03	.0817	.1430	180.000
B 40	524	6.074	1.016	1.430E-03	.0500	1.731E-03	.0605	1.934E-03	.0676	.1600	180.000
B 41	518	2.180	.457	6.384E-04	.0223	7.713E-04	.0270	8.609E-04	.0301	.1690	0
B 42	518	2.203	.444	6.203E-04	.0217	7.494E-04	.0262	8.365E-04	.0292	.1690	15.000
B 43	518	2.103	.407	5.684E-04	.0199	6.867E-04	.0240	7.665E-04	.0268	.1690	30.000
B 44	518	1.971	.388	5.417E-04	.0189	6.545E-04	.0229	7.305E-04	.0255	.1690	45.000
B 45	518	1.947	.366	5.119E-04	.0179	6.185E-04	.0216	6.904E-04	.0241	.1690	60.000
B 46	519	1.784	.336	4.698E-04	.0166	5.678E-04	.0199	6.339E-04	.0222	.1690	75.000
B 47	521	1.455	.274	3.849E-04	.0135	4.655E-04	.0163	5.199E-04	.0182	.1690	90.000
B 48	520	1.357	.256	3.585E-04	.0123	4.334E-04	.0150	4.840E-04	.0169	.1690	105.000
B 49	520	.719	.135	1.897E-04	.0066	2.293E-04	.0080	2.561E-04	.0090	.1690	120.000
B 50	521	1.449	.273	3.836E-04	.0134	4.639E-04	.0162	5.181E-04	.0181	.1690	135.000
B 51	523	2.820	.547	7.708E-04	.0270	9.327E-04	.0326	1.042E-03	.0364	.1690	150.000
B 52	526	9.538	1.803	2.549E-03	.0891	3.087E-03	.1079	3.451E-03	.1207	.1690	165.000
B 53	531	20.651	3.802	5.410E-03	.1891	6.562E-03	.2294	7.344E-03	.2567	.1690	180.000
B 400	519	1.644	.301	4.203E-04	.0147	5.080E-04	.0178	5.671E-04	.0198	.2420	0
B 402	518	1.032	.194	2.714E-04	.0095	3.279E-04	.0115	3.660E-04	.0128	.2420	30.000
B 404	519	1.706	.336	4.698E-04	.0164	5.678E-04	.0198	6.339E-04	.0221	.2420	60.000
B 406	520	.330	.061	8.491E-05	.0030	1.026E-04	.0036	1.146E-04	.0040	.2420	90.000
B 407	521	.912	.183	2.578E-04	.0090	3.118E-04	.0109	3.482E-04	.0121	.2420	105.000
B 408	522	.796	.157	2.206E-04	.0077	2.668E-04	.0093	2.981E-04	.0104	.2420	120.000
B 409	525	3.562	.704	9.933E-04	.0347	1.203E-03	.0420	1.344E-03	.0470	.2420	135.000
B 410	526	4.805	.950	1.343E-03	.0470	1.626E-03	.0569	1.818E-03	.0636	.2420	150.000
B 411	528	4.614	.913	1.293E-03	.0452	1.567E-03	.0548	1.752E-03	.0613	.2420	165.000
B 412	529	7.147	1.392	1.976E-03	.0691	2.395E-03	.0837	2.680E-03	.0937	.2420	180.000
B 413	521	1.585	.307	4.316E-04	.0151	5.219E-04	.0183	5.829E-04	.0204	.2830	0
B 415	520	1.020	.201	2.815E-04	.0098	3.403E-04	.0119	3.800E-04	.0133	.2830	30.000
B 417	520	1.574	.268	3.755E-04	.0131	4.539E-04	.0159	5.069E-04	.0177	.2830	60.000
B 419	523	1.141	.210	2.950E-04	.0103	3.570E-04	.0125	3.988E-04	.0140	.2830	90.000
B 420	524	.632	.108	1.517E-04	.0053	1.836E-04	.0064	2.052E-04	.0072	.2830	105.000
B 421	525	1.267	.212	2.990E-04	.0105	3.620E-04	.0127	4.046E-04	.0142	.2830	120.000
B 422	528	2.619	.481	6.826E-04	.0239	8.272E-04	.0290	9.251E-04	.0324	.2830	135.000
B 423	530	2.534	.515	7.323E-04	.0256	8.879E-04	.0310	9.935E-04	.0347	.2830	150.000
B 424	533	4.127	.805	1.150E-03	.0402	1.396E-03	.0488	1.563E-03	.0546	.2830	165.000
B 425	533	3.949	.771	1.100E-03	.0384	1.335E-03	.0467	1.495E-03	.0522	.2830	180.000
B 426	523	1.739	.338	4.748E-04	.0165	5.745E-04	.0201	6.419E-04	.0224	.3160	0
B 428	521	1.074	.212	2.960E-04	.0104	3.580E-04	.0126	3.998E-04	.0141	.3160	30.000
B 430	520	.881	.166	2.329E-04	.0081	2.816E-04	.0098	3.144E-04	.0110	.3160	60.000
B 432	525	1.914	.328	4.603E-04	.0161	5.573E-04	.0195	6.229E-04	.0218	.3160	90.000
B 433	524	.724	.141	1.982E-04	.0069	2.399E-04	.0084	2.681E-04	.0094	.3160	105.000
B 434	526	1.211	.193	2.724E-04	.0095	3.299E-04	.0115	3.688E-04	.0129	.3160	120.000
B 435	528	1.645	.311	4.410E-04	.0154	5.344E-04	.0187	5.977E-04	.0209	.3160	135.000
B 436	531	2.440	.485	6.896E-04	.0241	8.364E-04	.0292	9.361E-04	.0327	.3160	150.000
B 437	532	3.225	.629	8.974E-04	.0314	1.089E-03	.0381	1.219E-03	.0426	.3160	165.000
B 438	535	3.962	.787	1.128E-03	.0394	1.370E-03	.0479	1.534E-03	.0535	.3160	180.000
B 439	523	1.686	.332	4.682E-04	.0164	5.665E-04	.0198	6.330E-04	.0221	.3540	0
B 441	522	1.234	.249	3.502E-04	.0122	4.236E-04	.0148	4.732E-04	.0166	.3540	30.000
B 443	522	.863	.091	1.279E-04	.0045	1.547E-04	.0054	1.728E-04	.0060	.3540	60.000
B 445	527	1.003	.179	2.528E-04	.0088	3.062E-04	.0107	3.425E-04	.0120	.3540	90.000
B 446	527	2.220	.390	5.524E-04	.0193	6.692E-04	.0234	7.483E-04	.0262	.3540	105.000
B 447	529	1.088	.232	4.710E-04	.0165	5.709E-04	.0200	6.387E-04	.0223	.3540	120.000
B 448	530	1.099	.208	2.958E-04	.0103	3.587E-04	.0125	4.013E-04	.0140	.3540	135.000
B 450	534	2.332	.442	6.338E-04	.0222	7.694E-04	.0269	8.617E-04	.0301	.3540	165.000
B 451	534	3.052	.580	8.287E-04	.0290	1.006E-03	.0352	1.127E-03	.0394	.3540	180.000
B 452	524	1.594	.311	4.368E-04	.0153	5.287E-04	.0185	5.908E-04	.0207	.3880	0
B 454	526	1.303	.253	3.568E-04	.0125	4.321E-04	.0151	4.831E-04	.0169	.3880	30.000
B 456	526	.983	.094	1.328E-04	.0046	1.608E-04	.0056	1.798E-04	.0063	.3880	60.000
B 458	527	.732	.134	1.903E-04	.0067	2.305E-04	.0081	2.578E-04	.0090	.3880	90.000
B 459	531	6.114	1.192	1.698E-03	.0594	2.060E-03	.0720	2.305E-03	.0806	.3880	105.000

GROUP
93

VON KARMAN GAS DYNAMICS FACILITY
90 INCH HYPERSONIC TUNNEL B
VT1162

DWO NOSE 2.22 IN. UPSTREAM OF GDC-B. .234 IN. GAP

CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
807	GDC-B+DWO	7.93	150.2	1235	5.11	5.11	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	SIFH (R= .009FT)	SWITCH POSITION
90.9	.016	.717	3705	1.503E-05	7.321E-08	7.61E 05	2.874E-02	6.522E-02	2

TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
B 460	527	1.468	.270	3.809E-04	.0133	4.0137E-04	.0141	5.1585E-04	.0179
B 461	527	.879	.162	2.282E-04	.0079	2.7662E-04	.0096	3.0907E-04	.0108
B 462	530	1.781	.337	4.783E-04	.0166	5.7989E-04	.0202	6.4876E-04	.0226
B 463	530	2.347	.445	6.315E-04	.0220	7.6972E-04	.0266	8.5679E-04	.0298
B 464	531	2.850	.548	7.785E-04	.0271	9.4414E-04	.0328	1.0566E-03	.0368
B 106	526	1.560	.303	4.276E-04	.0149	5.1775E-04	.0180	5.7875E-04	.0201
B 109	528	3.142	.577	8.167E-04	.0284	9.8963E-04	.0344	1.1065E-03	.0385
B 110	527	1.033	.190	2.684E-04	.0093	3.2594E-04	.0113	3.6357E-04	.0126
B 111	529	1.167	.215	3.039E-04	.0106	3.6838E-04	.0128	4.1276E-04	.0143
B 112	530	2.317	.426	6.050E-04	.0210	7.3364E-04	.0255	8.2058E-04	.0285
B 113	527	1.346	.266	3.761E-04	.0131	4.5560E-04	.0159	5.0944E-04	.0177
B 116	529	4.935	.881	1.249E-03	.0435	1.5139E-03	.0527	1.6936E-03	.0589
B 117	527	.872	.160	2.264E-04	.0079	2.7427E-04	.0095	3.0069E-04	.0107
B 118	528	1.156	.213	3.009E-04	.0105	3.6471E-04	.0127	4.0792E-04	.0142
B 119	529	2.241	.412	5.849E-04	.0203	7.0861E-04	.0247	7.9273E-04	.0276
B 120	527	1.181	.233	3.300E-04	.0115	3.9979E-04	.0139	4.4704E-04	.0156
B 195	533	7.085	1.440	2.051E-03	.0714	2.4887E-03	.0866	2.7859E-03	.0969
B 127	530	4.165	.766	1.088E-03	.0379	1.3190E-03	.0459	1.4758E-03	.0513
B 128	528	1.623	.298	4.225E-04	.0147	5.1202E-04	.0178	5.7269E-04	.0199
B 129	527	.630	.116	1.635E-04	.0057	1.9808E-04	.0069	2.2147E-04	.0077
B 130	526	.818	.150	2.120E-04	.0074	2.5667E-04	.0089	2.8694E-04	.0100
B 131	525	1.915	.351	4.950E-04	.0172	5.9928E-04	.0209	6.6979E-04	.0233
B 138	531	4.536	.835	1.186E-03	.0413	1.4381E-03	.0500	1.6092E-03	.0560
B 139	528	1.234	.227	3.213E-04	.0112	3.8938E-04	.0135	4.3551E-04	.0152
B 140	525	.600	.110	1.551E-04	.0054	1.8777E-04	.0065	2.0986E-04	.0073
B 141	523	.885	.162	2.286E-04	.0079	2.7908E-04	.0096	3.0824E-04	.0107
B 142	522	.991	.182	2.550E-04	.0089	3.0843E-04	.0107	3.4486E-04	.0120
B 150	529	4.796	.882	1.250E-03	.0435	1.5190E-03	.0527	1.6947E-03	.0590
B 151	527	1.737	.319	4.506E-04	.0157	5.4573E-04	.0190	6.1016E-04	.0212
B 152	524	.833	.153	2.152E-04	.0075	2.6066E-04	.0091	2.9108E-04	.0101
B 153	522	.270	.049	6.929E-05	.0024	8.3800E-05	.0029	9.3803E-05	.0033
B 154	521	.746	.132	1.856E-04	.0065	2.2440E-04	.0078	2.5060E-04	.0087
B 159	528	4.217	.752	1.064E-03	.0370	1.2893E-03	.0449	1.4419E-03	.0502
B 160	523	1.191	.212	2.977E-04	.0104	3.6012E-04	.0125	4.0233E-04	.0140
B 161	519	.235	.042	5.844E-05	.0020	7.0620E-05	.0025	7.8850E-05	.0027
B 162	518	.316	.056	7.826E-05	.0027	9.4559E-05	.0033	1.0555E-04	.0037
B 171	519	1.256	.230	3.210E-04	.0112	3.8790E-04	.0135	4.3315E-04	.0151
B 172	517	.289	.053	7.348E-05	.0026	8.8743E-05	.0031	9.9025E-05	.0034

FUSELAGE-BOOSTER

X/L	PHI
.3000	120.000
.3000	135.000
.3000	150.000
.3000	165.000
.3000	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4800	0
.4800	90.000
.4800	120.000
.4800	150.000
.4800	180.000
.5200	0
.5200	45.000
.5200	90.000
.5200	105.000
.5200	120.000
.5200	150.000
.5200	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.7700	90.000
.7700	120.000
.7700	150.000
.7700	180.000
.8950	120.000
.8950	150.000

TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
B 200	536	14.774	2.886	4.133E-03	.1430	5.0212E-03	.1747	5.6254E-03	.1957
B 201	532	4.671	.547	1.784E-04	.0271	9.6436E-04	.0329	1.0571E-03	.0368
B 202	532	2.015	.284	4.040E-04	.0141	4.9017E-04	.0171	5.4865E-04	.0191
B 203	531	.270	.056	7.963E-05	.0020	9.0986E-05	.0034	1.0810E-04	.0038
B 204	531	.449	.079	1.124E-04	.0039	1.3030E-04	.0047	1.5262E-04	.0053
B 205	529	.791	.141	2.001E-04	.0070	2.4290E-04	.0084	2.7133E-04	.0094
B 206	529	1.179	.202	2.856E-04	.0099	3.4009E-04	.0120	3.8712E-04	.0135
B 207	528	1.853	.175	2.483E-04	.0086	3.0009E-04	.0105	3.3649E-04	.0117
B 217	545	40.400	4.961	7.193E-03	.2503	8.7016E-03	.3048	9.8341E-03	.3421
B 218	536	13.169	1.287	1.842E-03	.0641	2.2373E-03	.0778	2.5022E-03	.0872
B 219	535	7.447	.727	1.039E-03	.0362	1.2622E-03	.0439	1.4136E-03	.0492
B 220	534	3.744	.337	4.806E-04	.0167	5.8037E-04	.0203	6.5317E-04	.0227
B 221	531	.810	.158	2.245E-04	.0078	2.7239E-04	.0095	3.0480E-04	.0106
B 222	528	.323	.058	8.162E-05	.0028	9.8980E-05	.0034	1.1062E-04	.0038
B 223	528	.339	.058	8.204E-05	.0029	9.9600E-05	.0035	1.1117E-04	.0039
B 230	545	39.569	5.399	7.831E-03	.2725	9.5396E-03	.3319	1.0707E-02	.3725
B 231	534	6.547	.770	1.099E-03	.0382	1.3362E-03	.0464	1.4940E-03	.0520
B 232	532	.949	.185	2.633E-04	.0092	3.1962E-04	.0111	3.5751E-04	.0124
B 233	530	.660	.125	1.775E-04	.0062	2.1919E-04	.0075	2.4077E-04	.0084
B 234	529	.321	.059	8.369E-05	.0029	1.0143E-04	.0035	1.1346E-04	.0039
B 235	528	.463	.034	4.764E-05	.0017	5.7678E-05	.0020	6.4275E-05	.0022
B 236	528	.412	.033	4.728E-05	.0016	5.7201E-05	.0020	6.4061E-05	.0022
B 237	528	.547	.044	6.268E-05	.0022	7.5937E-05	.0026	8.4920E-05	.0030
B 238	527	.527	.040	5.713E-05	.0020	6.9201E-05	.0024	7.7379E-05	.0027
B 248	549	43.353	4.931	7.190E-03	.2501	8.7083E-03	.3091	9.6495E-03	.3427
B 249	535	5.846	.714	1.020E-03	.0355	1.2301E-03	.0431	1.3878E-03	.0483
B 250	535	4.455	.503	7.187E-04	.0250	8.7868E-04	.0304	9.7731E-04	.0340
B 251	533	.941	.184	2.619E-04	.0091	3.1700E-04	.0111	3.5586E-04	.0124
B 252	531	.636	.126	1.791E-04	.0062	2.1715E-04	.0076	2.4299E-04	.0085
B 203	549	48.336	5.947	8.669E-03	.3016	1.0972E-02	.3678	1.1875E-02	.4132
B 264	537	7.877	.963	1.381E-03	.0480	1.6770E-03	.0584	1.8800E-03	.0654
B 265	535	1.191	.233	3.327E-04	.0116	4.0306E-04	.0141	4.0243E-04	.0157
B 266	533	.962	.194	2.761E-04	.0096	3.3911E-04	.0117	3.7820E-04	.0131
B 277	554	59.184	5.688	8.348E-03	.2904	1.0190E-02	.3540	1.1470E-02	.3991
B 278	538	7.019	.923	1.324E-03	.0461	1.6093E-03	.0560	1.8034E-03	.0627
B 279	538	4.447	.544	7.802E-04	.0271	9.4810E-04	.0330	1.0624E-03	.0370
B 280	533	1.091	.213	3.037E-04	.0106	3.6860E-04	.0128	4.1269E-04	.0144
B 281	534	.997	.186	2.699E-04	.0094	3.2798E-04	.0114	3.6678E-04	.0128
B 282	534	.812	.154	2.200E-04	.0077	2.6700E-04	.0093	2.9896E-04	.0104
B 283	532	.857	.081	1.155E-04	.0040	1.4001E-04	.0049	1.5686E-04	.0055
B 296	953	95.662	7.137	1.047E-02	.3642	1.2701E-02	.4417	1.4369E-02	.4999
B 297	938	8.964	1.130	1.622E-03	.0564	1.9710E-03	.0686	2.2088E-03	.0768
B 298	937	9.169	.629	9.013E-04	.0314	1.0991E-03	.0382	1.2270E-03	.0427
B 299	936	.824	.187	2.669E-04	.0093	3.2419E-04	.0113	3.6310E-04	.0126
B 300	937	.902	.196	2.286E-04	.0080	2.7770E-04	.0097	3.1122E-04	.0108
B 301	935	.987	.094	1.341E-04	.0047	1.6280E-04	.0057	1.8235E-04	.0063
B 302	935	.852	.081	1.156E-04	.0040	1.4033E-04	.0049	1.5717E-04	.0055
B 315	942	17.610	1.842	2.657E-03	.0926	3.2331E-03	.1125	3.6260E-03	.1262
B 316	940	6.824	.713	1.027E-03	.0357	1.2000E-03	.0434	1.4000E-03	.0487
B 317	940	1.411	.230	3.317E-04	.0115	4.0361E-04	.0140	4.5231E-04	.0157

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.1000	.100
.2000	.100
.3300	.100
.4800	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0800	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.4000	.250
.5000	.250
.6000	.250
.8330	.250
.8670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.6000	.500
.8770	.500
0	.600
.1000	.600
.2000	.600
.4000	.600
.6000	.600
.7930	.600
.8810	.600
.1000	.700
.2000	.700
.5000	.700

TC NO	TW	DTWDT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
B 250	533	23.548	2.234	3.185E-03	.1108	3.8856E-03	.1345	4.3275E-03	.1506
B 251	531	10.815	1.029	1.458E-03	.0506	1.7606E-03	.0614	1.9795E-03	.0687
B 252	529	4.175	.714	1.012E-03	.0352	1.2260E-03	.0427	1.3722E-03	.0477
B 253	529	3.438	.588	8.330E-04	.0290	1.0097E-03	.0351	1.1295E-03	.0393
B 257	542	34.235	3.740	5.398E-03	.1878	6.5878E-03	.2285	7.3064E-03	.2543
B 258	528	6.894	.652	9.240E-04	.0321	1.1197E-03	.0390	1.2826E-03	.0436
B 259	529	2.510	.384	5.444E-04	.0189	6.5902E-04	.0230	7.3007E-04	.0257
B 260	528	1.971	.337	4.766E-04	.0166	5.7752E-04	.0201	6.4989E-04	.0225

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2800	.250
.5000	.250
.7000	.250
0	.500
.2800	.500
.5000	.500
.7000	.500

VT1167

TWO NOSE 2.22 IN. UPSTREAM OF GDC-8, .234 IN. GAP

RUN NO	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
	807	GDC-8+LAO	7.93	151.4	1233	5.00	5.00	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
90.8	.016	.723	3703	1.917E-05	7.313E-08	7.60E 05	2.885E-02	6.491E-02	3

FUSELAGE-ORBITER

TC	NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	541	97.327	17.489	2.527E-02	.8758	3.0740E-02	1.0690	3.4481E-02	1.1952	0	-0
0	2	516	35.918	5.786	8.066E-03	.2796	9.7411E-03	.3376	1.0869E-02	.3764	.0100	-0
0	7	511	15.379	2.717	3.763E-03	.1304	4.5303E-03	.1573	5.0593E-03	.1754	.0300	-0
0	12	505	6.952	1.335	1.834E-03	.0636	2.2080E-03	.0765	2.4587E-03	.0852	.0500	-0
0	19	504	2.091	.379	5.198E-04	.0180	6.2590E-04	.0217	6.9045E-04	.0241	.1000	-0
0	29	502	.661	.116	1.590E-04	.0055	1.9127E-04	.0066	2.1248E-04	.0074	.2000	-0
0	44	519	15.601	2.686	3.762E-03	.1304	4.5471E-03	.1576	5.0771E-03	.1760	.3000	-0
0	54	523	5.913	1.148	1.616E-03	.0560	1.9992E-03	.0693	2.1847E-03	.0757	.4000	-0
0	66	526	3.529	.648	9.167E-04	.0318	1.1106E-03	.0385	1.2416E-03	.0430	.5000	-0
0	76	528	3.878	.629	8.924E-04	.0309	1.0017E-03	.0375	1.2100E-03	.0419	.5500	-0
0	80	530	2.984	.565	8.039E-04	.0278	9.7431E-04	.0338	1.0902E-03	.0378	.6000	-0
0	89	528	2.269	.421	5.964E-04	.0207	7.2270E-04	.0251	8.0843E-04	.0280	.7000	-0
0	98	525	1.250	.216	3.046E-04	.0106	3.6080E-04	.0120	4.1231E-04	.0143	.8000	-0
0	104	524	.799	.142	2.005E-04	.0070	2.4270E-04	.0084	2.7130E-04	.0094	.9000	-0
0	114	522	.377	.071	1.001E-04	.0035	1.2109E-04	.0042	1.3929E-04	.0047	.9900	-0
0	20	506	3.100	.232	3.188E-04	.0111	3.8390E-04	.0133	4.2769E-04	.0148	.1000	-.383
0	31	504	1.130	.229	3.141E-04	.0109	3.7003E-04	.0131	4.2087E-04	.0146	.2000	-.466
0	46	520	15.051	3.079	4.320E-03	.1497	5.2843E-03	.1831	5.8347E-03	.2022	.3000	-.504
0	56	519	2.232	.432	6.053E-04	.0210	7.3160E-04	.0254	8.1085E-04	.0283	.4000	-.526
0	69	522	1.784	.327	4.594E-04	.0159	5.5973E-04	.0193	6.2083E-04	.0215	.5000	-.530
0	83	528	.679	.132	1.873E-04	.0065	2.2691E-04	.0079	2.5370E-04	.0088	.6000	-.540
0	92	526	.476	.087	1.237E-04	.0043	1.4970E-04	.0052	1.6740E-04	.0058	.7000	-.704
0	101	525	.565	.116	1.639E-04	.0057	1.9091E-04	.0069	2.2193E-04	.0077	.8000	-.669
0	107	524	.531	.095	1.338E-04	.0046	1.6160E-04	.0056	1.8062E-04	.0063	.9000	-.678
0	117	524	.397	.077	1.086E-04	.0038	1.3147E-04	.0046	1.4693E-04	.0051	.9900	-.660
0	5	506	8.625	1.335	1.837E-03	.0637	2.2117E-03	.0767	2.4033E-03	.0854	.0100	0
0	10	506	6.875	1.211	1.667E-03	.0578	2.0075E-03	.0696	2.2360E-03	.0775	.0300	0
0	24	508	2.940	.550	7.589E-04	.0263	9.1453E-04	.0317	1.0190E-03	.0353	.1000	0
0	28	511	2.959	.459	6.357E-04	.0220	7.6682E-04	.0260	8.5444E-04	.0296	.1500	0
0	35	515	3.446	.610	8.500E-04	.0295	1.0203E-03	.0356	1.1450E-03	.0397	.2000	0
0	36	518	7.737	1.248	1.744E-03	.0605	2.1077E-03	.0731	2.3528E-03	.0816	.2100	0
0	37	532	42.679	7.630	1.088E-02	.3771	1.3109E-02	.4579	1.4774E-02	.5121	.2200	0
0	38	528	27.684	4.339	6.150E-03	.2132	7.4820E-03	.2583	8.3346E-03	.2889	.2300	0
0	40	521	4.728	.738	1.036E-03	.0359	1.2527E-03	.0434	1.3991E-03	.0485	.2500	0
0	53	520	.788	.132	1.845E-04	.0064	2.2309E-04	.0077	2.4915E-04	.0086	.3000	0
0	62	521	.534	.083	1.172E-04	.0041	1.4173E-04	.0049	1.5832E-04	.0055	.4000	0
0	75	524	2.364	.421	5.932E-04	.0206	7.1796E-04	.0249	8.0238E-04	.0278	.5000	0
0	87	526	2.268	.392	5.544E-04	.0192	6.7155E-04	.0233	7.5087E-04	.0260	.6000	0
0	96	525	1.946	.347	4.898E-04	.0170	5.9312E-04	.0206	6.6306E-04	.0230	.7000	0
0	111	525	.193	.031	4.410E-05	.0015	5.3409E-05	.0019	5.9708E-05	.0021	.9000	.610
0	120	528	1.978	.225	3.180E-04	.0110	3.8630E-04	.0134	4.3221E-04	.0150	.9900	.305
0	4	510	10.185	1.526	2.108E-03	.0731	2.5409E-03	.0881	2.8318E-03	.0982	.0100	1.000
0	14	508	7.035	1.203	1.658E-03	.0575	1.9972E-03	.0692	2.2249E-03	.0771	.0500	1.000
0	22	507	3.331	.587	8.085E-04	.0280	9.7306E-04	.0330	1.0848E-03	.0376	.1000	1.000
0	23	508	3.338	.589	8.120E-04	.0281	9.7036E-04	.0339	1.0901E-03	.0378	.2000	1.000
0	48	520	3.930	.656	9.188E-04	.0318	1.1100E-03	.0385	1.2404E-03	.0430	.3000	1.000
0	59	520	3.862	.728	1.021E-03	.0354	1.2347E-03	.0428	1.3790E-03	.0478	.4000	1.000
0	72	521	4.258	.848	1.192E-03	.0413	1.4413E-03	.0500	1.6100E-03	.0558	.5000	1.000
0	78	526	2.199	.333	4.703E-04	.0163	5.6972E-04	.0197	6.3701E-04	.0221	.5500	1.000
0	85	526	1.129	.201	2.843E-04	.0090	3.4426E-04	.0119	3.8488E-04	.0133	.6000	1.000
0	77	525	.899	.141	1.985E-04	.0069	2.4032E-04	.0083	2.6863E-04	.0093	.5500	-1.000
0	84	525	.651	.130	1.842E-04	.0064	2.2301E-04	.0077	2.4930E-04	.0086	.6000	-1.000
0	94	525	.617	.133	1.878E-04	.0065	2.2741E-04	.0079	2.5419E-04	.0088	.7000	-1.000
0	39	523	10.658	2.068	2.911E-03	.1009	3.5229E-03	.1221	3.9359E-03	.1364	.2400	.486
0	42	520	2.864	.570	7.996E-04	.0277	9.6677E-04	.0335	1.0796E-03	.0374	.2700	.465
0	51	523	3.436	.704	9.906E-04	.0343	1.1987E-03	.0415	1.3393E-03	.0464	.3000	.433
0	41	521	3.826	.762	1.070E-03	.0371	1.2946E-03	.0449	1.4460E-03	.0501	.2700	.465
0	52	521	1.391	.285	3.996E-04	.0139	4.0330E-04	.0160	5.3940E-04	.0187	.3000	.361

LOWER WING SURFACE-ORBITER

TC	NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	533	20.487	3.665	5.232E-03	.1813	6.3499E-03	.2201	7.1094E-03	.2464	0	.250
0	136	527	7.738	1.380	1.955E-03	.0678	2.3695E-03	.0821	2.6500E-03	.0919	.1000	.250
0	137	527	3.835	.642	9.093E-04	.0315	1.1016E-03	.0382	1.2319E-03	.0427	.2000	.250
0	138	527	1.557	.288	4.047E-04	.0140	4.9029E-04	.0170	5.4819E-04	.0190	.4000	.250
0	140	527	1.028	.178	2.516E-04	.0087	3.0485E-04	.0106	3.4089E-04	.0118	.6000	.250
0	142	526	.486	.079	1.109E-04	.0038	1.3428E-04	.0047	1.5038E-04	.0052	.9000	.250
0	149	535	26.724	4.931	7.062E-03	.2448	8.5763E-03	.2973	9.6065E-03	.3330	0	.500
0	150	530	9.796	1.909	2.714E-03	.0941	3.2911E-03	.1141	3.6827E-03	.1276	.1000	.500
0	151	528	4.751	.925	1.312E-03	.0455	1.5904E-03	.0551	1.7791E-03	.0617	.2000	.500
0	152	528	2.028	.351	4.973E-04	.0172	6.0273E-04	.0209	6.7416E-04	.0234	.4000	.500
0	154	527	1.320	.235	3.335E-04	.0116	4.0407E-04	.0140	4.5189E-04	.0157	.6000	.500
0	157	525	.633	.113	1.592E-04	.0055	1.9279E-04	.0067	2.1547E-04	.0075	.9000	.500
0	171	541	31.767	5.708	8.242E-03	.2857	1.0028E-02	.3476	1.1247E-02	.3898	0	.750
0	172	534	14.209	2.466	3.525E-03	.1222	4.2800E-03	.1483	4.7929E-03	.1661	.1000	.750
0	175	529	3.209	.642	9.117E-04	.0316	1.1052E-03	.0383	1.2364E-03	.0429	.4000	.750
0	178	526	1.054	.188	2.656E-04	.0092	3.2163E-04	.0111	3.5959E-04	.0125	.8000	.750

UPPER WING SURFACE-ORBITER

TC	NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
0	129	526	3.460	.523	7.403E-04	.0257	8.9678E-04	.0311	1.0027E-03	.0348	.1000	.100
0	130	524	1.319	.221	3.111E-04	.0108	3.7659E-04	.0131	4.2088E-04	.0146	.2000	.100
0	131	524	.347	.073	1.025E-04	.0036	1.2410E-04	.0043	1.3869E-04	.0048	.4000	.100
0	132	526	.171	.032	4.551E-05	.0016	5.5080E-05	.0019	6.1553E-05	.0021	.7000	.100
0	133	522	.164	.028	3.977E-05	.0014	4.8122E-05	.0017	5.3765E-05	.0019	.9000	.100
0	158	526	5.176	.783	1.108E-03	.0384	1.3419E-03	.0465	1.5005E-03	.0520	.1000	.500
0	159	526	3.367	.546	7.720E-04	.0268	9.3520E-04	.0324	1.0457E-03	.0362	.2000	.500
0	160	528	1.356	.220	3.117E-04	.0108	3.7767E-04	.0131	4.2239E-04	.0146	.4000	.500
0	161	527	.502	.087	1.227E-04	.0043	1.4866E-04	.0052	1.6623E-04	.0058	.8000	.500
0	162	529	.455	.067	9.422E-05	.0033	1.1408E-04	.0040	1.2752E-04	.0044	.9000	.500

VERTICAL STABILIZER-ORBITER

TC	NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/S
0	187	537	16.701	2.723	3.913E-03	.1356	4.7555E-03	.1648	5.3295E-03	.1847	0	.100
0	188	530	3.153	.546	7.761E-04	.0269	9.4109E-04	.0326	1.0530E-03	.0365	.1000	.100
0	189	528	.901	.151	2.140E-04	.0074	2.5929E-04	.0090	2.9002E-04	.0101	.4000	.100
0	192	538	15.679	2.983	4.289E-03	.1486	5.2128E-03	.1807	5.8424E-03	.2025	0	.250
0	193	531	6.510	1.128	1.608E-03	.0557	1.9507E-03	.0676	2.1834E-03	.0757	.1000	.250
0	194	531	2.730	.458	6.523E-04	.0226	7.9126E-04	.0274	8.8595E-04	.0307	.4000	.250
0	197	533	12.890	2.376	3.398E-03	.1177	4.1220E-03	.1429	4.6157E-03	.1600	.1000	.500
0	198	528	1.814	.324	4.586E-04	.0159	5.5977E-04	.0193	6.2160E-04	.0215	.4000	.500
0	201	541	34.666	6.609	9.554E-03	.3312	1.1627E-02	.4030	1.3042E-02	.4520	0	.750
0	202	533	17.277	1.967	2.812E-03	.0975	3.4131E-03	.1183	3.8219E-03	.1325	.1000	.750
0	203	528	2.718	.309	4.379E-04	.0152	5.3074E-04	.0184	5.9368E-04	.0206	.4000	.750

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

OWO NOSE 2.22 IN. UPSTREAM OF GDC-H, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREMEND	ROLL-MODEL	YAW
11	807	GDC-H+OWO	8.00	861.3	1360	.00	5.05	0	-90.00	5.0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FN (H= .009FT)	STFN (H= .009FT)	SWITCH POSITION
97.4	.0HH	3.952	3869	7.599E-05	7.842E-08	3.75E 06	6.84HE-04	2.926E-02	1

	TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	FUSELAGE-BOOSTER PHI
B	1	602	211.806	40.425	5.447E-02	.7956	6.6514E-02	.9713	7.4783E-02	1.0921	0	0
B	2	546	53.808	9.988	1.251E-02	.1827	1.5048E-02	.2198	1.6743E-02	.2445	.0137	0
B	3	569	60.752	11.296	1.421E-02	.2075	1.7098E-02	.2497	1.9035E-02	.2780	.0137	180.000
B	4	539	34.590	6.395	7.939E-03	.1159	9.5285E-03	.1391	1.0589E-02	.1546	.0274	0
B	5	540	35.107	6.497	8.042E-03	.1180	9.7052E-03	.1417	1.0788E-02	.1575	.0274	30.000
B	6	542	37.278	6.906	8.613E-03	.1258	1.0348E-02	.1511	1.1506E-02	.1680	.0274	60.000
B	7	542	41.170	7.627	9.510E-03	.1389	1.1425E-02	.1668	1.2704E-02	.1855	.0274	90.000
B	8	540	40.666	7.746	9.632E-03	.1407	1.1564E-02	.1689	1.2854E-02	.1877	.0274	120.000
B	9	540	38.732	7.376	9.168E-03	.1339	1.1007E-02	.1607	1.2233E-02	.1786	.0274	150.000
B	10	538	33.208	6.318	7.836E-03	.1144	9.4035E-03	.1373	1.0449E-02	.1526	.0274	180.000
B	11	535	26.446	4.880	6.035E-03	.0881	7.2382E-03	.1057	8.0396E-03	.1174	.0406	180.000
B	12	536	20.724	3.827	4.738E-03	.0692	5.6831E-03	.0830	6.3132E-03	.0922	.0543	0
B	13	537	24.188	4.469	5.538E-03	.0809	6.6443E-03	.0970	7.3819E-03	.1078	.0543	30.000
B	14	537	26.409	4.880	6.049E-03	.0883	7.2581E-03	.1060	8.0642E-03	.1178	.0543	60.000
B	15	538	28.206	5.213	6.466E-03	.0944	7.7600E-03	.1133	8.6225E-03	.1259	.0543	90.000
B	17	536	25.314	4.674	5.785E-03	.0845	6.9389E-03	.1013	7.7079E-03	.1126	.0543	150.000
B	18	534	22.280	4.110	5.079E-03	.0741	6.0855E-03	.0889	6.7590E-03	.0987	.0543	180.000
B	19	534	15.629	2.920	3.607E-03	.0527	4.3247E-03	.0632	4.8027E-03	.0701	.0670	180.000
B	20	537	14.780	2.731	3.384E-03	.0496	4.0606E-03	.0593	4.5114E-03	.0659	.0790	0
B	21	550	51.627	9.603	1.209E-02	.1766	1.4553E-02	.2125	1.6203E-02	.2366	.0790	180.000
B	22	543	34.349	6.367	7.950E-03	.1161	9.5534E-03	.1395	1.0625E-02	.1552	.0920	180.000
B	23	537	11.540	2.132	2.640E-03	.0386	3.1677E-03	.0463	3.5191E-03	.0514	.1030	0
B	24	537	12.644	2.337	2.897E-03	.0423	3.4760E-03	.0508	3.8620E-03	.0564	.1030	15.000
B	25	537	13.532	2.500	3.097E-03	.0452	3.7159E-03	.0543	4.1278E-03	.0603	.1030	30.000
B	26	536	14.632	2.701	3.340E-03	.0488	4.0063E-03	.0585	4.4499E-03	.0650	.1030	45.000
B	27	536	15.399	2.843	3.516E-03	.0513	4.2169E-03	.0616	4.6838E-03	.0684	.1030	60.000
B	28	536	15.626	2.885	3.570E-03	.0521	4.2822E-03	.0625	4.7566E-03	.0695	.1030	75.000
B	29	535	17.123	3.159	3.904E-03	.0570	4.6810E-03	.0684	5.1986E-03	.0759	.1030	90.000
B	30	535	16.424	3.031	3.746E-03	.0547	4.4910E-03	.0656	4.9887E-03	.0729	.1030	105.000
B	31	535	16.148	2.980	3.682E-03	.0538	4.4190E-03	.0645	4.9033E-03	.0716	.1030	120.000
B	32	534	10.815	1.995	2.463E-03	.0360	2.9524E-03	.0431	3.2785E-03	.0479	.1030	135.000
B	33	543	34.495	6.394	7.982E-03	.1166	9.5012E-03	.1401	1.0667E-02	.1558	.1030	150.000
B	34	541	34.807	6.448	8.029E-03	.1173	9.6040E-03	.1408	1.0722E-02	.1566	.1030	165.000
B	35	539	29.713	5.496	6.827E-03	.0997	8.1950E-03	.1197	9.1083E-03	.1330	.1030	180.000
B	37	538	16.536	3.056	3.790E-03	.0553	4.5401E-03	.0664	5.0536E-03	.0738	.1300	180.000
B	38	534	6.816	1.220	1.506E-03	.0220	1.8066E-03	.0264	2.0041E-03	.0293	.1430	0
B	39	539	9.627	1.781	2.212E-03	.0323	2.6597E-03	.0388	2.9515E-03	.0431	.1430	180.000
B	40	555	53.139	9.037	1.145E-02	.1672	1.3000E-02	.2015	1.5379E-02	.2246	.1560	180.000
B	41	534	3.865	.818	1.009E-03	.0147	1.2090E-03	.0177	1.3424E-03	.0196	.1690	0
B	42	533	4.437	.902	1.112E-03	.0162	1.3320E-03	.0195	1.4792E-03	.0216	.1690	15.000
B	43	534	5.108	.997	1.230E-03	.0180	1.4749E-03	.0215	1.6377E-03	.0239	.1690	30.000
B	44	534	5.201	1.032	1.273E-03	.0186	1.5266E-03	.0223	1.6951E-03	.0248	.1690	45.000
B	45	533	6.387	1.212	1.495E-03	.0218	1.7919E-03	.0262	1.9895E-03	.0291	.1690	60.000
B	46	535	6.125	1.163	1.437E-03	.0210	1.7230E-03	.0252	1.9144E-03	.0280	.1690	75.000
B	47	537	6.442	1.225	1.517E-03	.0222	1.8199E-03	.0266	2.0218E-03	.0295	.1690	90.000
B	48	536	5.655	1.079	1.331E-03	.0194	1.5969E-03	.0233	1.7739E-03	.0259	.1690	105.000
B	49	535	2.975	.569	6.985E-04	.0102	8.3771E-04	.0122	9.3040E-04	.0136	.1690	120.000
B	50	541	12.811	2.441	3.038E-03	.0444	3.6070E-03	.0533	4.0550E-03	.0592	.1690	135.000
B	51	539	8.287	1.622	2.014E-03	.0296	2.4179E-03	.0353	2.6865E-03	.0392	.1690	150.000
B	52	547	29.310	5.603	7.028E-03	.1026	8.4934E-03	.1234	9.4071E-03	.1374	.1690	165.000
B	53	564	75.776	14.197	1.819E-02	.2656	2.1976E-02	.3209	2.4525E-02	.3581	.1690	180.000
B	400	530	2.480	.456	5.607E-04	.0082	6.7195E-04	.0098	7.4525E-04	.0109	.2420	0
B	402	531	2.209	.419	5.144E-04	.0075	6.1618E-04	.0090	6.8385E-04	.0100	.2420	30.000
B	406	534	8.079	1.604	1.979E-03	.0289	2.3721E-03	.0346	2.6340E-03	.0385	.2420	60.000
B	406	532	1.195	.221	2.720E-04	.0040	3.2593E-04	.0048	3.6182E-04	.0053	.2420	90.000
B	407	535	4.060	.771	9.527E-04	.0139	1.1420E-03	.0167	1.2680E-03	.0185	.2420	105.000
B	408	541	13.594	2.709	3.372E-03	.0492	4.0403E-03	.0591	4.5015E-03	.0657	.2420	120.000
B	409	541	17.158	3.428	4.268E-03	.0623	5.1290E-03	.0749	5.6986E-03	.0832	.2420	135.000
B	410	542	18.851	3.759	4.688E-03	.0685	5.6320E-03	.0823	6.2633E-03	.0915	.2420	150.000
B	411	545	22.005	4.399	5.500E-03	.0803	6.6115E-03	.0966	7.3551E-03	.1074	.2420	165.000
B	412	544	20.071	3.942	4.929E-03	.0720	5.9250E-03	.0865	6.5907E-03	.0962	.2420	180.000
B	413	533	2.283	.445	5.488E-04	.0080	6.5977E-04	.0096	7.3016E-04	.0107	.2830	0
B	415	531	2.078	.412	5.062E-04	.0074	6.0843E-04	.0089	6.7303E-04	.0098	.2830	30.000
B	417	533	7.133	1.222	1.505E-03	.0220	1.8041E-03	.0263	2.0029E-03	.0292	.2830	60.000
B	419	535	3.271	.609	7.481F-04	.0109	8.9710E-04	.0131	9.9631E-04	.0145	.2830	90.000
B	420	536	10.362	1.778	2.202E-03	.0322	2.6413E-03	.0386	2.9341E-03	.0428	.2830	105.000
B	421	539	8.149	1.374	1.706E-03	.0249	2.0476E-03	.0299	2.2753E-03	.0332	.2830	120.000
B	422	543	12.747	2.362	2.948E-03	.0431	3.5427E-03	.0517	3.9398E-03	.0575	.2830	135.000
B	423	545	17.992	3.681	4.605E-03	.0673	5.5360E-03	.0809	6.1589E-03	.0899	.2830	150.000
B	424	548	15.523	3.054	3.833E-03	.0560	4.6115E-03	.0673	5.1324E-03	.0749	.2830	165.000
B	425	547	14.447	2.841	3.562E-03	.0520	4.2866E-03	.0626	4.7679E-03	.0696	.2830	180.000
B	426	533	2.266	.442	5.456E-04	.0080	6.5401E-04	.0096	7.2617E-04	.0106	.3160	0
B	428	532	2.192	.436	5.364F-04	.0078	6.4278E-04	.0094	7.1351E-04	.0104	.3160	30.000
B	430	531	3.474	.658	8.092E-04	.0118	9.6961E-04	.0142	1.0789E-03	.0157	.3160	60.000
B	432	538	7.966	1.368	1.697F-03	.0248	2.0366E-03	.0297	2.2630E-03	.0330	.3160	90.000
B	433	533	2.741	.535	6.594E-04	.0096	7.9039E-04	.0115	8.7747E-04	.0128	.3160	105.000
B	434	544	15.764	2.536	3.168E-03	.0463	3.8069E-03	.0556	4.2340E-03	.0618	.3160	120.000
B	435	542	11.943	2.278	2.840E-03	.0415	3.4117E-03	.0498	3.7936E-03	.0554	.3160	135.000
B	436	545	15.753	3.146	3.937E-03	.0575	4.7330E-03	.0691	5.2653E-03	.0769	.3160	150.000
B	437	545	16.329	3.208	4.015F-03	.0586	4.8271E-03	.0705	5.3701E-03	.0784	.3160	165.000
B	438	545	13.334	2.662	3.330E-03	.0486	4.0028E-03	.0585	4.4527E-03	.0650	.3160	180.000
B	439	533	2.252	.447	5.504E-04	.0080	6.5967E-04	.0096	7.3235E-04	.0107	.3540	0
B	441	532	2.581	.518	6.384E-04	.0093	7.6503E-04	.0112	8.4926E-04	.0124	.3540	30.000
B	443	531	1.899	.308	3.794E-04	.0055	4.5490E-04	.0066	5.0455E-04	.0074	.3540	60.000
B	445	543	15.820	2.845	3.550F-03	.0518	4.2567E-03	.0623	4.7424E-03	.0693	.3540	90.000
B	446	541	12.785	2.262	2.817E-03	.0411	3.3827E-03	.0494	3.7606E-03	.0549	.3540	105.000
B	447	545	18.824	3.338	4.176E-03	.0610	5.0200E-03	.0733	5.5844E-03	.0816	.3540	120.000
O	448	542	8.227	1.566	1.955E-03	.0285	2.3470E-03	.0343	2.6104E-03	.0381	.3540	135.000
B	450	546	11.968	2.286	2.863F-03	.0418	3.4424E-03	.0503	3.8299E-03	.0559	.3540	165.000
B	451	545	10.794	2.061	2.579F-03	.0377	3.1005E-03	.0453	3.4491E-03	.0504	.3540	180.000
B	452	534	2.258	.441	5.439F-04	.0079	6.5204E-04	.0095	7.2400E-04	.0106	.3800	0
B	454	534	3.536	.690	8.519F-04	.0124	1.0213E-03	.0149	1.1340E-03	.0166	.3800	30.000
B	456	533	2.412	.392	4.837E-04	.0071	5.7973E-04	.0085	6.4369E-04	.0094	.3800	60.000
B	458	540	10.709	1.982	2.444F-03	.0360	2.9304E-03	.0432	3.2844E-03	.0480	.3800	90.000
B	459	545	22.560	4.431	5.543F-03	.0809	6.6639E-03	.0973	7.4126E-03	.1082	.3800	105.000

GROUP
96

VON KARMAN GAS DYNAMICS FACILITY
90 INCH HYPERSONIC TUNNEL B
V11162

DWO NOSE 2.22 IN. UPSTREAM OF GDC-B, .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
11	A07	GDC-M+DWO	8.00	856.5	1342	.00	5.10	0	-90.00	5.1

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RREF-FR (RE .009FT)	SIFR (RE .009FT)	SWITCH POSITION
97.2	.0MM	3.930	3865	7.870E-05	7.82RE-08	3.76E 06	6.827E-02	2.931E-02	2

TC NO	TM	DTWL1	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
B 440	544	15.644	2.401	3.636E-03	.0933	4.3700E-03	.0640	4.8617E-03	.0712
B 441	543	9.399	1.742	2.180E-03	.0319	2.6199E-03	.0384	2.9140E-03	.0427
B 442	545	12.317	2.352	2.951E-03	.0432	3.5488E-03	.0520	3.9485E-03	.0578
B 443	545	11.625	2.220	2.786E-03	.0408	3.3496E-03	.0491	3.7268E-03	.0546
B 444	544	10.544	2.013	2.523E-03	.0370	3.0335E-03	.0444	3.3746E-03	.0494
B 104	536	1.756	.343	4.252E-04	.0062	5.1013E-04	.0075	5.6671E-04	.0083
B 109	544	13.053	2.576	3.230E-03	.0473	3.8829E-03	.0569	4.3147E-03	.0633
B 110	545	13.169	2.444	3.067E-03	.0449	3.6885E-03	.0540	4.1041E-03	.0601
B 111	545	9.825	1.823	2.288E-03	.0335	2.7511E-03	.0403	3.0611E-03	.0448
B 112	544	7.960	1.472	1.845E-03	.0270	2.2173E-03	.0325	2.4666E-03	.0361
B 113	537	1.821	.362	4.504E-04	.0066	5.4051E-04	.0079	6.0063E-04	.0088
B 116	545	11.001	1.981	2.486E-03	.0364	2.9809E-03	.0438	3.3262E-03	.0487
B 117	544	9.876	1.832	2.297E-03	.0336	2.7617E-03	.0405	3.0725E-03	.0450
B 118	545	8.582	1.592	1.998E-03	.0293	2.4019E-03	.0352	2.6726E-03	.0391
B 119	544	8.306	1.541	1.932E-03	.0283	2.3226E-03	.0340	2.5839E-03	.0379
B 120	538	1.834	.365	4.537E-04	.0066	5.4453E-04	.0080	6.0512E-04	.0089
B 195	550	25.530	5.238	6.610E-03	.0969	7.9665E-03	.1167	8.8716E-03	.1300
B 127	545	9.066	1.682	2.110E-03	.0309	2.5371E-03	.0372	2.8228E-03	.0414
B 128	544	9.443	1.818	2.276E-03	.0187	2.9340E-03	.0225	1.7064E-03	.0250
B 129	545	9.986	1.853	2.325E-03	.0341	2.7962E-03	.0410	3.1113E-03	.0456
B 130	545	9.089	1.686	2.116E-03	.0310	2.5441E-03	.0373	2.8305E-03	.0415
B 131	540	6.685	1.237	1.543E-03	.0226	1.8533E-03	.0271	2.0606E-03	.0302
B 138	544	7.015	1.301	1.631E-03	.0239	1.9610E-03	.0287	2.1816E-03	.0320
B 139	544	6.853	1.271	1.594E-03	.0233	1.9164E-03	.0281	2.1321E-03	.0312
B 140	544	8.241	1.528	1.914E-03	.0280	2.3012E-03	.0337	2.5599E-03	.0375
B 141	543	9.559	1.772	2.218E-03	.0325	2.6660E-03	.0391	2.9653E-03	.0434
B 142	540	3.936	.728	9.077E-04	.0133	1.0900E-03	.0160	1.2117E-03	.0178
B 150	544	10.178	1.887	2.365E-03	.0346	2.8431E-03	.0416	3.1624E-03	.0463
B 151	544	10.751	1.994	2.501E-03	.0366	3.0066E-03	.0440	3.3449E-03	.0490
B 152	545	9.436	1.750	2.196E-03	.0322	2.6400E-03	.0387	2.9372E-03	.0430
B 153	541	4.971	.920	1.149E-03	.0168	1.3790E-03	.0202	1.5342E-03	.0225
B 154	539	3.074	.552	6.879E-04	.0101	8.2603E-04	.0121	9.1824E-04	.0135
B 159	544	9.394	1.691	2.119E-03	.0310	2.5466E-03	.0373	2.8331E-03	.0415
B 160	544	9.439	1.699	2.129E-03	.0312	2.5592E-03	.0375	2.8469E-03	.0417
B 161	539	3.013	.541	6.741E-04	.0099	8.0937E-04	.0119	8.9967E-04	.0132
B 162	536	1.620	.290	3.605E-04	.0053	4.3258E-04	.0063	4.8061E-04	.0070
B 171	541	6.313	1.168	1.458E-03	.0214	1.7517E-03	.0257	1.9475E-03	.0285
B 172	537	2.544	.470	5.840E-04	.0086	7.0003E-04	.0103	7.7886E-04	.0114

FUSELAGE-BOOSTER

X/L	PHI
.3800	120.000
.3800	135.000
.3800	150.000
.3800	165.000
.3800	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4880	0
.4880	90.000
.4880	120.000
.4880	150.000
.4880	180.000
.5200	0
.5500	45.000
.5500	90.000
.5500	105.000
.5500	120.000
.5500	150.000
.5500	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.7700	90.000
.7700	120.000
.7700	150.000
.7700	180.000
.8950	120.000
.8950	150.000

TC NO	TM	DTWL1	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
B 200	573	74.519	12.457	1.620E-02	.2373	1.9020E-02	.2874	2.1930E-02	.3214
B 201	556	33.971	4.028	5.126E-03	.0751	6.1813E-03	.0935	6.8908E-03	.1009
B 202	552	24.533	3.494	4.427E-03	.0648	5.3332E-03	.0781	5.9416E-03	.0870
B 203	545	6.157	1.287	1.616E-03	.0237	1.9832E-03	.0285	2.1022E-03	.0317
B 204	547	7.879	1.399	1.760E-03	.0258	2.1176E-03	.0310	2.3570E-03	.0345
B 205	544	7.754	1.396	1.750E-03	.0256	2.1042E-03	.0308	2.3410E-03	.0343
B 206	544	7.132	1.229	1.540E-03	.0226	1.8517E-03	.0271	2.0600E-03	.0302
B 207	546	9.772	.934	1.174E-03	.0172	1.4126E-03	.0207	1.5718E-03	.0230
B 217	547	189.369	23.861	3.203E-02	.4692	3.9063E-02	.5722	4.3862E-02	.6428
B 218	566	88.797	8.819	1.137E-02	.1666	1.3749E-02	.2014	1.5355E-02	.2249
B 219	560	53.957	5.341	6.829E-03	.1000	8.2432E-03	.1208	9.1953E-03	.1347
B 220	554	28.222	2.569	3.264E-03	.0478	3.9342E-03	.0576	4.3866E-03	.0642
B 221	547	8.543	1.690	2.127E-03	.0312	2.5585E-03	.0375	2.8477E-03	.0417
B 222	543	5.218	.939	1.176E-03	.0172	1.4131E-03	.0207	1.5718E-03	.0230
B 223	543	3.959	.682	8.533E-04	.0125	1.0295E-03	.0150	1.1405E-03	.0167
B 230	595	197.419	27.613	3.696E-02	.5415	4.5056E-02	.6600	5.0594E-02	.7411
B 231	554	43.775	5.210	6.618E-03	.0969	7.9773E-03	.1169	8.8406E-03	.1302
B 232	547	9.861	1.939	2.441E-03	.0358	2.9363E-03	.0430	3.2643E-03	.0479
B 233	546	8.485	1.621	2.037E-03	.0298	2.4498E-03	.0359	2.7262E-03	.0399
B 234	545	7.682	1.425	1.788E-03	.0262	2.1496E-03	.0315	2.3917E-03	.0350
B 235	548	8.587	.629	7.928E-04	.0116	9.5418E-04	.0140	1.0623E-03	.0156
B 236	547	8.155	.668	8.412E-04	.0123	1.0121E-03	.0148	1.1265E-03	.0165
B 237	547	7.949	.651	8.193E-04	.0120	9.8563E-04	.0144	1.0970E-03	.0161
B 238	546	6.799	.527	6.628E-04	.0097	7.9727E-04	.0117	8.8728E-04	.0130
B 248	610	170.886	20.025	2.738E-02	.4010	3.3526E-02	.4911	3.7768E-02	.5533
B 249	554	25.482	3.143	3.988F-03	.0584	4.8006E-03	.0704	5.3562E-03	.0785
B 250	555	25.190	2.874	3.653E-03	.0535	4.4030E-03	.0645	4.9083E-03	.0719
B 251	550	11.111	2.188	2.762F-03	.0405	3.3250E-03	.0487	3.7029E-03	.0542
B 252	547	7.581	1.519	1.906E-03	.0279	2.2927E-03	.0336	2.5517E-03	.0374
B 263	604	205.452	25.977	3.522E-02	.5159	4.3094E-02	.6307	4.8440E-02	.7096
B 264	557	33.684	4.161	5.301E-03	.0776	6.3934E-03	.0937	7.1281E-03	.1044
B 265	549	9.156	1.015	1.280E-03	.0187	1.5402E-03	.0226	1.7148E-03	.0251
B 266	547	3.663	.720	9.066E-04	.0133	1.0907E-03	.0160	1.2140E-03	.0178
B 277	605	262.762	25.845	3.506F-02	.5136	4.2866E-02	.6279	4.8230E-02	.7065
B 278	557	32.711	4.348	5.543E-03	.0812	6.6876E-03	.0980	7.4568E-03	.1092
B 279	556	25.306	3.125	3.977E-03	.0583	4.7958E-03	.0703	5.3462E-03	.0783
B 280	546	9.233	1.029	1.292E-03	.0189	1.5545E-03	.0228	1.7298E-03	.0253
B 281	546	9.533	1.057	1.329E-03	.0195	1.5989E-03	.0234	1.7794E-03	.0261
B 282	546	9.094	.973	1.224E-03	.0179	1.4710E-03	.0216	1.6379E-03	.0240
B 283	546	6.222	.595	7.477E-04	.0110	8.9950E-04	.0132	1.0011E-03	.0147
B 298	578	191.991	24.935	3.269E-02	.4783	3.9600E-02	.5802	4.4332E-02	.6496
B 287	553	31.966	4.238	5.371E-03	.0787	6.4715E-03	.0960	7.2101E-03	.1056
B 298	554	31.934	3.905	4.958E-03	.0726	5.9761E-03	.0875	6.6598E-03	.0976
B 299	546	1.968	.448	5.633E-04	.0083	6.7760E-04	.0099	7.5410E-04	.0110
B 300	548	2.012	.357	4.502E-04	.0066	5.4173E-04	.0079	6.0306E-04	.0088
B 301	549	3.148	.301	3.801E-04	.0056	4.5750E-04	.0067	5.0940E-04	.0075
B 302	560	1.988	.187	2.360E-04	.0035	2.8397E-04	.0042	3.1613E-04	.0046
B 315	558	61.165	6.491	8.227E-03	.1205	9.9281E-03	.1454	1.1067E-02	.1621
B 316	556	32.662	3.620	4.351E-03	.0637	5.2499E-03	.0768	5.8476E-03	.0857
B 317	549	4.740	.778	9.816E-04	.0144	1.1817E-03	.0173	1.3158E-03	.0193

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.1000	.100
.2000	.100
.3300	.100
.4000	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0500	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.4000	.250
.5000	.250
.6000	.250
.8330	.250
.8670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.6000	.500
.8770	.500
0	.600
.1000	.600
.2000	.600
.4000	.600
.6000	.600
.7930	.600
.8510	.600
.1000	.700
.2000	.700
.5000	.700

TC NO	TM	DTWL1	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF
B 390	584	120.798	11.768	1.593E-02	.2275	1.8873E-02	.2765	2.1169E-02	.3098
B 391	568	27.076	2.590	3.264F-03	.0478	3.9270E-03	.0575	4.3726E-03	.0641
B 392	562	15.177	2.613	3.268F-03	.0479	3.9260E-03	.0575	4.3866E-03	.0640
B 393	559	9.328	1.603	1.996E-03	.0292	2.3960E-03	.0351	2.6604E-03	.0390
B 397	567	120.243	11.727	1.593E-02	.2276	1.8893E-02	.2768	2.1182E-02	.3103
B 390	565	22.997	2.154	2.704E-03	.0396	3.2923E-03	.0476	3.6148E-03	.0530
B 399	557	7.461	1.141	1.426E-03	.0209	1.7107E-03	.0251	1.9009E-03	.0278
B 400	558	4.523	.778	9.620F-04	.0141	1.1541E-03	.0169	1.2820E-03	.0188

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2500	.250
.5000	.250
.7000	.250
0	.300
.2500	.300
.5000	.300
.7000	.300

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-PODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	800	GUC-H	8.00	896.3	1367	.04	.04	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	PREF-FN (RE .009FT)	STFN (M= .009FT)	SWITCH POSITION
97.6	.0MR	3.929	3872	7.940E-09	7.857E-08	3.72E 06	6.830E-02	2.938E-02	1

TC NO	TW	DTWCT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	FUSELAGE-BOOSTER PHI
8 1	610	710.739	40.362	5.476E-02	.0017	4.0996E-02	.9809	7.5626E-02	1.1043	0	0
8 2	955	93.116	4.909	1.252E-02	.1003	1.9090E-02	.2209	1.6816E-02	.2402	.0137	0
8 3	957	61.474	11.476	1.492E-02	.2126	1.7900E-02	.2563	1.9511E-02	.2857	.0137	180.000
8 4	950	31.737	5.905	7.413E-03	.1089	8.9217E-03	.1306	9.9322E-03	.1454	.0274	0
8 5	949	32.306	6.007	7.532E-03	.1103	9.0020E-03	.1327	1.0087E-02	.1477	.0274	30.000
8 6	948	34.533	6.419	8.040E-03	.1177	9.6711E-03	.1416	1.0763E-02	.1576	.0274	60.000
8 7	948	33.292	6.188	7.750E-03	.1135	9.3221E-03	.1365	1.0375E-02	.1519	.0274	90.000
8 8	949	34.380	6.581	8.250E-03	.1208	9.9293E-03	.1453	1.1047E-02	.1617	.0274	120.000
8 9	949	35.486	6.793	8.520E-03	.1247	1.0251E-02	.1501	1.1411E-02	.1671	.0274	150.000
8 10	949	34.386	6.581	8.249E-03	.1208	9.9281E-03	.1453	1.1046E-02	.1617	.0274	180.000
8 11	947	26.539	4.930	6.166E-03	.0903	7.4163E-03	.1086	8.2498E-03	.1208	.0406	180.000
8 12	946	20.468	3.800	4.748E-03	.0695	5.7079E-03	.0836	6.3502E-03	.0930	.0543	0
8 13	945	20.754	3.851	4.806E-03	.0704	5.7706E-03	.0846	6.4253E-03	.0941	.0543	30.000
8 14	946	20.749	3.851	4.807E-03	.0704	5.7709E-03	.0846	6.4295E-03	.0941	.0543	60.000
8 15	946	22.132	4.108	5.130E-03	.0751	6.1670E-03	.0903	6.8612E-03	.1005	.0543	90.000
8 16	946	21.725	4.031	5.029E-03	.0736	6.0440E-03	.0885	6.7237E-03	.0984	.0543	120.000
8 17	945	21.301	3.954	4.937E-03	.0723	5.9369E-03	.0869	6.6017E-03	.0967	.0543	150.000
8 18	946	18.547	3.440	4.289E-03	.0628	5.1561E-03	.0755	5.7324E-03	.0839	.0678	180.000
8 19	945	14.479	2.687	3.354E-03	.0491	4.0321E-03	.0590	4.4852E-03	.0657	.0790	0
8 20	946	15.917	2.953	3.682E-03	.0539	4.4258E-03	.0648	4.9218E-03	.0721	.0790	180.000
8 21	945	15.917	2.953	3.682E-03	.0539	4.4258E-03	.0648	4.9218E-03	.0721	.0790	180.000
8 22	944	13.313	2.469	3.077E-03	.0450	3.6975E-03	.0541	4.1122E-03	.0602	.0928	180.000
8 23	944	11.678	2.166	2.698E-03	.0395	3.2419E-03	.0475	3.6048E-03	.0528	.1030	0
8 24	944	11.286	2.093	2.606E-03	.0382	3.1310E-03	.0458	3.4818E-03	.0510	.1030	15.000
8 25	944	11.724	2.174	2.707E-03	.0396	3.2526E-03	.0476	3.6178E-03	.0530	.1030	30.000
8 26	941	11.071	2.050	2.546E-03	.0373	3.0597E-03	.0448	3.3982E-03	.0498	.1030	45.000
8 27	942	11.624	2.153	2.678E-03	.0392	3.2120E-03	.0470	3.5707E-03	.0523	.1030	60.000
8 28	942	11.302	2.093	2.599E-03	.0381	3.1216E-03	.0457	3.4701E-03	.0508	.1030	75.000
8 29	942	11.829	2.191	2.723E-03	.0399	3.2700E-03	.0479	3.6352E-03	.0532	.1030	90.000
8 30	942	11.989	2.221	2.761E-03	.0404	3.3165E-03	.0486	3.6873E-03	.0540	.1030	105.000
8 31	942	11.923	2.208	2.744E-03	.0402	3.2958E-03	.0482	3.6632E-03	.0536	.1030	120.000
8 32	942	12.035	2.230	2.772E-03	.0406	3.3292E-03	.0487	3.7016E-03	.0542	.1030	135.000
8 33	943	12.009	2.225	2.766E-03	.0405	3.3209E-03	.0487	3.6960E-03	.0541	.1030	150.000
8 34	943	12.146	2.251	2.800E-03	.0410	3.3630E-03	.0492	3.7401E-03	.0548	.1030	165.000
8 35	943	11.843	2.204	2.742E-03	.0401	3.2936E-03	.0482	3.6023E-03	.0536	.1030	180.000
8 37	943	8.406	1.558	1.938E-03	.0284	2.3274E-03	.0341	2.5878E-03	.0379	.1300	180.000
8 38	942	6.606	1.224	1.522E-03	.0223	1.8279E-03	.0268	2.0323E-03	.0298	.1430	0
8 39	944	7.178	1.331	1.657E-03	.0243	1.9910E-03	.0292	2.2141E-03	.0324	.1430	180.000
8 40	943	5.589	.944	1.174E-03	.0172	1.4107E-03	.0207	1.5684E-03	.0230	.1960	180.000
8 41	942	3.846	.617	1.010E-03	.0140	1.2130E-03	.0179	1.3561E-03	.0199	.1600	0
8 42	942	3.518	.719	8.938E-04	.0131	1.0731E-03	.0157	1.1930E-03	.0175	.1690	15.000
8 43	942	3.808	.747	9.284E-04	.0136	1.1150E-03	.0163	1.2396E-03	.0181	.1690	30.000
8 44	942	3.762	.750	9.325E-04	.0137	1.1199E-03	.0164	1.2451E-03	.0182	.1690	45.000
8 45	942	3.671	.700	8.702E-04	.0127	1.0451E-03	.0153	1.1619E-03	.0170	.1690	60.000
8 46	942	4.044	.771	9.588E-04	.0140	1.1515E-03	.0169	1.2803E-03	.0187	.1690	75.000
8 47	944	3.782	.722	8.986E-04	.0132	1.0790E-03	.0158	1.2005E-03	.0176	.1690	90.000
8 48	943	3.632	.693	8.616E-04	.0126	1.0350E-03	.0152	1.1507E-03	.0168	.1690	105.000
8 49	942	3.610	.688	8.556E-04	.0125	1.0276E-03	.0150	1.1424E-03	.0167	.1690	120.000
8 50	943	3.471	.662	8.240E-04	.0121	9.8991E-04	.0145	1.1007E-03	.0161	.1690	135.000
8 51	942	3.678	.722	8.969E-04	.0131	1.0773E-03	.0158	1.1977E-03	.0175	.1690	150.000
8 52	943	3.723	.710	8.838E-04	.0129	1.0609E-03	.0155	1.1795E-03	.0173	.1690	165.000
8 53	943	3.997	.741	9.212E-04	.0135	1.1062E-03	.0162	1.2304E-03	.0180	.1690	180.000
8 400	938	2.374	.439	5.428E-04	.0079	6.5000E-04	.0095	7.2310E-04	.0106	.2420	0
8 402	936	1.837	.349	4.309E-04	.0063	5.1670E-04	.0076	5.7395E-04	.0084	.2420	30.000
8 404	938	5.024	1.000	1.237E-03	.0181	1.4837E-03	.0217	1.6484E-03	.0241	.2420	60.000
8 406	937	1.832	.340	4.195E-04	.0061	5.0320E-04	.0074	5.5909E-04	.0082	.2420	90.000
8 407	938	2.077	.395	4.884E-04	.0072	5.8599E-04	.0086	6.5099E-04	.0095	.2420	105.000
8 408	938	1.978	.393	4.863E-04	.0071	5.8350E-04	.0086	6.4822E-04	.0095	.2420	120.000
8 409	938	2.092	.416	5.146E-04	.0075	6.1752E-04	.0090	6.8600E-04	.0100	.2420	135.000
8 410	938	1.911	.380	4.702E-04	.0069	5.6416E-04	.0083	6.2676E-04	.0092	.2420	150.000
8 411	939	1.865	.371	4.593E-04	.0067	5.5112E-04	.0081	6.1230E-04	.0090	.2420	165.000
8 412	939	1.839	.360	4.456E-04	.0065	5.3473E-04	.0078	5.9414E-04	.0087	.2420	180.000
8 413	938	2.222	.435	5.374E-04	.0079	6.4469E-04	.0094	7.1617E-04	.0105	.2830	0
8 415	939	1.510	.300	3.692E-04	.0054	4.4301E-04	.0065	4.9224E-04	.0072	.2830	30.000
8 417	936	5.704	.979	1.207E-03	.0177	1.4477E-03	.0212	1.6082E-03	.0235	.2830	60.000
8 419	939	1.238	.229	2.828E-04	.0041	3.3939E-04	.0050	3.7696E-04	.0055	.2830	90.000
8 420	936	4.011	.688	8.491E-04	.0124	1.0188E-03	.0149	1.1318E-03	.0166	.2830	105.000
8 421	936	1.720	.290	3.572E-04	.0052	4.2833E-04	.0063	4.7571E-04	.0070	.2830	120.000
8 422	937	1.723	.318	3.927E-04	.0058	4.7107E-04	.0069	5.2320E-04	.0077	.2830	135.000
8 423	936	1.961	.400	4.931E-04	.0072	5.9119E-04	.0087	6.5666E-04	.0096	.2830	150.000
8 424	937	1.973	.386	4.766E-04	.0070	5.7117E-04	.0084	6.3466E-04	.0093	.2830	165.000
8 425	938	1.709	.334	4.133E-04	.0061	4.9956E-04	.0073	5.5489E-04	.0081	.2830	180.000
8 426	938	2.398	.469	5.799E-04	.0085	6.9504E-04	.0102	7.7280E-04	.0113	.3160	0
8 428	939	1.464	.292	3.592E-04	.0053	4.3062E-04	.0063	4.7816E-04	.0070	.3160	30.000
8 430	931	3.005	.570	6.985E-04	.0102	8.3068E-04	.0122	9.2049E-04	.0136	.3160	60.000
8 432	936	5.308	.911	1.124E-03	.0165	1.3402E-03	.0197	1.4876E-03	.0219	.3160	90.000
8 433	934	.783	.153	1.881E-04	.0028	2.2560E-04	.0033	2.5035E-04	.0037	.3160	105.000
8 434	936	4.660	.747	9.208E-04	.0135	1.1042E-03	.0162	1.2264E-03	.0180	.3160	120.000
8 435	934	1.204	.229	2.815E-04	.0041	3.3769E-04	.0049	3.7467E-04	.0055	.3160	135.000
8 436	935	1.631	.324	3.989E-04	.0058	4.7820E-04	.0070	5.3106E-04	.0078	.3160	150.000
8 437	935	1.717	.336	4.133E-04	.0061	4.9557E-04	.0073	5.5030E-04	.0081	.3160	165.000
8 438	935	1.466	.291	3.587E-04	.0053	4.2990E-04	.0063	4.7747E-04	.0070	.3160	180.000
8 439	937	2.204	.454	5.608E-04	.0082	6.7257E-04	.0098	7.4700E-04	.0109	.3840	0
8 441	936	1.726	.351	4.318E-04	.0063	5.1790E-04	.0076	5.7401E-04	.0084	.3840	30.000
8 443	932	.741	.120	1.477E-04	.0022	1.7707E-04	.0026	1.9644E-04	.0029	.3840	60.000
8 445	930	10.382	1.653	2.294E-03	.0336	2.7520E-03	.0403	3.0588E-03	.0448	.3840	90.000
8 446	936	1.424	.251	3.087E-04	.0045	3.7006E-04	.0054	4.1085E-04	.0060	.3840	105.000
8 447	919	8.746	1.540	1.910E-03	.0280	2.2904E-03	.0337	2.5541E-03	.0374	.3840	120.000
8 448	936	1.208	.269	3.021E-04	.0044	3.6223E-04	.0053	4.0243E-04	.0059	.3840	135.000
8 450	910	1.209	.249	3.030E-04	.0044	3.6337E-04	.0053	4.0309E-04	.0059	.3840	165.000
8 451	917	1.410	.260	3.312E-04	.0048	3.9723E-04	.0058	4.4123E-04	.0065	.3840	180.000
8 452	940	1.895	.371	4.500E-04	.0067	5.3100E-04	.0081	6.1331E-04	.0090	.3800	0
8 454	930	1.917	.379	4.620E-04	.0068	5.5010E-04	.0081	6.1782E-04	.0090	.3800	30.000
8 456	936	1.008	.164	2.028E-04	.0030	2.4202E-04	.0036	2.6974E-04	.0039	.3800	60.000
8 460	940	6.719	1.613	2.000E-03	.0293	2.4005E-03	.0352	2.6683E-03	.0391	.3800	90.000
8 499	938	3.291	.644	7.960E-04	.0117	9.5407E-04	.0140	1.0609E-03	.0155	.3800	105.000

GROUP
99

NOT REPRODUCIBLE

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

OWO NOSE 2.22 IN. UPSTREAM OF GDC-H. .234 IN. GAP

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
11	807	GDC-H+OWO	8.00	856.7	1342	.00	5.11	0	-90.00	5.1

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (RN .009FT)	STFR (RN .009FT)	SWITCH POSITION
97.2	.088	3.931	3866	7.571E-05	7.629E-08	3.74E 06	6.82RE-02	2.931E-02	3

FUSELAGE-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/YMAX
0	1	613	234.782	43.702	5.992E-02	.8776	7.3420E-02	1.0755	8.2758E-02	1.2121	0	-0
0	2	547	73.400	12.030	1.514E-02	.2217	1.8210E-02	.2667	2.0469E-02	.2969	.0100	-0
0	7	533	28.848	5.161	6.381E-03	.0935	7.6507E-03	.1121	8.4966E-03	.1244	.0300	-0
0	12	528	12.381	2.403	2.952E-03	.0432	3.5340E-03	.0518	3.9208E-03	.0574	.0500	-0
0	19	522	2.004	.367	4.479E-04	.0066	5.3856E-04	.0078	5.9365E-04	.0087	.1000	-0
0	29	530	3.453	.617	7.592E-04	.0111	9.0040E-04	.0133	1.0094E-03	.0148	.2000	-0
0	44	564	74.107	13.073	1.681E-02	.2463	2.0327E-02	.2977	2.2649E-02	.3323	.3000	-0
0	54	551	21.928	4.322	5.466E-03	.0801	6.5803E-03	.0964	7.3313E-03	.1074	.4000	-0
0	66	551	15.237	2.837	3.589E-03	.0526	4.3229E-03	.0633	4.8147E-03	.0705	.5000	-0
0	76	553	14.907	2.450	3.104E-03	.0455	3.7400E-03	.0548	4.1667E-03	.0610	.5500	-0
0	80	550	10.856	2.079	2.626E-03	.0385	3.1622E-03	.0463	3.5216E-03	.0516	.6000	-0
0	89	546	7.560	1.404	1.764E-03	.0258	2.1217E-03	.0311	2.3612E-03	.0346	.7000	-0
0	98	549	10.816	1.893	2.388E-03	.0350	2.8740E-03	.0421	3.2005E-03	.0469	.8000	-0
0	104	540	3.401	.611	7.615E-04	.0112	9.1456E-04	.0134	1.0167E-03	.0149	.9000	-0
0	114	538	1.976	.376	4.676E-04	.0068	5.6128E-04	.0082	6.2376E-04	.0091	.9900	-0
0	20	526	6.507	.492	6.031E-04	.0088	7.2184E-04	.0106	8.0066E-04	.0117	.1000	-.383
0	31	531	3.204	.659	8.132E-04	.0119	9.7490E-04	.0143	1.0818E-03	.0158	.2000	-.466
0	46	579	95.766	20.210	2.650E-02	.3881	3.2158E-02	.4710	3.6001E-02	.5273	.3000	-.504
0	56	553	24.665	4.867	6.172E-03	.0904	7.4373E-03	.1089	8.2869E-03	.1214	.4000	-.526
0	69	551	13.817	2.572	3.250E-03	.0476	3.9143E-03	.0573	4.3595E-03	.0639	.5000	-.630
0	83	553	12.975	2.560	3.247E-03	.0476	3.9120E-03	.0573	4.3593E-03	.0638	.6000	-.748
0	92	548	8.105	1.506	1.898E-03	.0278	2.2837E-03	.0334	2.5423E-03	.0372	.7000	-.784
0	101	546	8.739	1.813	2.276E-03	.0333	2.7376E-03	.0401	3.0463E-03	.0446	.8000	-.669
0	107	541	4.069	.731	9.126E-04	.0134	1.0962E-03	.0161	1.2188E-03	.0179	.9000	-.678
0	117	540	3.065	.601	7.490E-04	.0110	8.9953E-04	.0132	1.0000E-03	.0146	.9900	-.666
0	5	534	34.828	5.478	6.776E-03	.0993	8.1253E-03	.1190	9.0233E-03	.1322	.0100	0
0	10	531	26.377	4.713	5.809E-03	.0851	6.9587E-03	.1019	7.7251E-03	.1131	.0300	0
0	24	530	14.704	2.786	3.432E-03	.0503	4.1114E-03	.0602	4.5632E-03	.0668	.1000	0
0	28	534	16.273	2.560	3.168E-03	.0464	3.7986E-03	.0556	4.2186E-03	.0618	.1500	0
0	35	535	13.917	2.493	3.090E-03	.0453	3.7066E-03	.0543	4.1174E-03	.0603	.2000	0
0	36	565	96.269	15.925	2.050E-02	.3002	2.4774E-02	.3629	2.7662E-02	.4051	.2100	0
0	37	595	175.204	32.357	4.334E-02	.6348	5.2830E-02	.7739	5.9336E-02	.8691	.2200	0
0	38	579	125.708	20.243	2.653E-02	.3886	3.2190E-02	.4716	3.6042E-02	.5279	.2300	0
0	40	540	9.371	1.479	1.843E-03	.0270	2.2132E-03	.0324	2.4603E-03	.0360	.2500	0
0	53	540	1.426	.241	3.000E-04	.0044	3.6026E-04	.0053	4.0049E-04	.0059	.3000	0
0	62	546	8.508	1.347	1.691E-03	.0248	2.0341E-03	.0298	2.2634E-03	.0332	.4000	0
0	75	543	5.265	.947	1.185E-03	.0174	1.4246E-03	.0209	1.5846E-03	.0232	.5000	0
0	87	542	4.113	.717	8.962E-04	.0131	1.0768E-03	.0158	1.1974E-03	.0175	.6000	0
0	96	540	4.834	.868	1.083E-03	.0159	1.3007E-03	.0191	1.4460E-03	.0212	.7000	0
0	111	540	2.807	.458	5.710E-04	.0084	6.8569E-04	.0100	7.6224E-04	.0112	.9800	.610
0	120	547	14.540	1.668	2.098E-03	.0307	2.5233E-03	.0370	2.8084E-03	.0411	.9900	.305
0	4	537	36.153	5.499	6.830E-03	.1000	8.1955E-03	.1200	9.1060E-03	.1334	.0100	1.000
0	14	532	24.958	4.326	5.344E-03	.0783	6.4050E-03	.0938	7.1121E-03	.1042	.0500	1.000
[illegible]	[illegible]	528	19.007	3.392	4.169E-03	.0611	4.9925E-03	.0731	5.5396E-03	.0811	.1000	1.000
[illegible]	[illegible]	537	17.656	3.166	3.932E-03	.0576	4.7192E-03	.0691	5.2436E-03	.0768	.2000	1.000
0	48	546	7.101	1.202	1.509E-03	.0221	1.8150E-03	.0266	2.0197E-03	.0296	.3000	1.000
0	59	555	29.312	5.629	7.155E-03	.1048	8.6260E-03	.1264	9.6156E-03	.1408	.4000	1.000
0	72	554	25.608	5.196	6.599E-03	.0966	7.9540E-03	.1165	8.8644E-03	.1298	.5000	1.000
0	78	554	17.076	2.622	3.328E-03	.0487	4.0108E-03	.0587	4.4696E-03	.0655	.5500	1.000
0	85	551	12.506	2.259	2.856E-03	.0418	3.4401E-03	.0504	3.8315E-03	.0561	.6000	1.000
0	77	553	11.893	1.890	2.398E-03	.0351	2.8876E-03	.0423	3.2174E-03	.0471	.5500	-1.000
0	84	552	10.431	2.114	2.675E-03	.0392	3.2227E-03	.0472	3.5899E-03	.0526	.6000	-1.000
0	94	549	9.989	2.185	2.759E-03	.0403	3.3197E-03	.0486	3.6916E-03	.0541	.7000	-1.000
0	39	547	36.906	7.259	9.135E-03	.1338	1.0990E-02	.1610	1.2233E-02	.1792	.2400	.486
0	42	542	12.939	2.608	3.262E-03	.0478	3.9194E-03	.0574	4.3589E-03	.0638	.2700	.465
0	51	547	14.928	3.099	3.901E-03	.0571	4.6931E-03	.0687	5.2238E-03	.0765	.3000	.433
0	41	551	31.444	6.370	8.055E-03	.1180	9.7019E-03	.1421	1.0806E-02	.1583	.2700	.465
0	52	543	7.134	1.478	1.850E-03	.0271	2.2230E-03	.0326	2.4736E-03	.0362	.3000	.361

LOWER WING SURFACE-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/C
0	135	573	72.839	13.305	1.729E-02	.2533	2.0945E-02	.3068	2.3419E-02	.3430	0	.250
0	136	552	22.606	4.086	5.174E-03	.0758	6.2334E-03	.0913	6.9441E-03	.1017	.1000	.250
0	137	552	22.881	3.885	4.919E-03	.0720	5.9250E-03	.0868	6.6014E-03	.0967	.2000	.250
0	138	548	16.440	3.055	3.849E-03	.0564	4.6323E-03	.0678	5.1568E-03	.0755	.4000	.250
0	140	544	9.440	1.647	2.064E-03	.0302	2.4816E-03	.0363	2.7606E-03	.0404	.6000	.250
0	142	541	3.940	.644	8.038E-04	.0118	9.6559E-04	.0141	1.0737E-03	.0157	.9000	.250
0	149	572	79.431	14.944	1.941E-02	.2843	2.3506E-02	.3443	2.6280E-02	.3849	0	.500
0	150	550	23.322	4.594	5.800E-03	.0849	6.9827E-03	.1023	7.7787E-03	.1139	.1000	.500
0	151	546	15.747	3.099	3.906E-03	.0572	4.7007E-03	.0688	5.2333E-03	.0766	.2000	.500
0	152	549	15.653	2.739	3.453E-03	.0506	4.1564E-03	.0609	4.6276E-03	.0678	.4000	.500
0	154	545	9.457	1.703	2.136E-03	.0313	2.5688E-03	.0376	2.8581E-03	.0419	.6000	.500
0	157	541	4.531	.814	1.017E-03	.0149	1.2211E-03	.0179	1.3577E-03	.0199	.9000	.500
0	171	564	89.687	16.316	2.096E-02	.3070	2.5326E-02	.3709	2.8269E-02	.4140	0	.750
0	172	558	32.714	5.752	7.339E-03	.1075	8.8552E-03	.1297	9.8752E-03	.1446	.1000	.750
0	175	543	5.288	1.066	1.335E-03	.0195	1.6039E-03	.0235	1.7839E-03	.0261	.4000	.750
0	178	541	2.271	.408	5.097E-04	.0075	6.1239E-04	.0090	6.8096E-04	.0100	.8000	.750

UPPER WING SURFACE-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
0	129	551	21.237	3.256	4.119E-03	.0603	4.9619E-03	.0727	5.5265E-03	.0809	.1000	.100
0	130	548	11.394	1.931	2.433E-03	.0356	2.9286E-03	.0429	3.2603E-03	.0478	.2000	.100
0	131	545	7.611	1.412	1.772E-03	.0259	2.1303E-03	.0312	2.3703E-03	.0347	.4000	.100
0	132	540	3.202	.610	7.610E-04	.0111	9.1400E-04	.0134	1.0161E-03	.0149	.7000	.100
0	133	540	2.364	.412	5.133E-04	.0075	6.1651E-04	.0090	6.8537E-04	.0100	.9000	.100
0	158	551	27.730	4.250	5.370E-03	.0787	6.4667E-03	.0947	7.2020E-03	.1055	.1000	.500
0	159	549	18.915	3.103	3.914E-03	.0573	4.7107E-03	.0690	5.2449E-03	.0768	.2000	.500
0	160	548	12.224	2.005	2.526E-03	.0370	3.0400E-03	.0445	3.3843E-03	.0496	.4000	.500
0	161	540	7.146	1.249	1.553E-03	.0227	1.8646E-03	.0273	2.0730E-03	.0304	.8000	.500
0	162	542	5.913	.806	1.008E-03	.0148	1.2110E-03	.0177	1.3468E-03	.0197	.9000	.500

VERTICAL STABILIZER-ORBITER

	TC NO	TW	QTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Z/S
0	187	571	69.714	11.569	1.499E-02	.2196	1.8150E-02	.2658	2.0286E-02	.2971	0	.100
0	188	551	28.004	4.905	6.199E-03	.0908	7.4646E-03	.1093	8.3132E-03	.1218	.1000	.100
0	189	546	15.444	2.614	3.285E-03	.0481	3.9516E-03	.0579	4.3976E-03	.0644	.4000	.100
0	192	576	99.425	19.295	2.519E-02	.3690	3.0547E-02	.4474	3.4177E-02	.5006	0	.250
0	193	550	32.293	5.694	7.140E-03	.1046	8.5967E-03	.1259	9.5733E-03	.1402	.1000	.250
0	194	543	8.590	1.452	1.817E-03	.0266	2.1830E-03	.0320	2.4291E-03	.0356	.4000	.250
0	197	557	56.085	10.473	1.335E-02	.1955	1.6099E-02	.2358	1.7940E-02	.2629	.1000	.500
0	198	541	8.832	1.587	1.980E-03	.0290	2.3700E-03	.0348	2.6448E-03	.0387	.4000	.500
0	201	591	153.327	29.971	3.991E-02	.5846	4.8597E-02	.7118	5.4529E-02	.7987	0	.750
0	202	564	72.077	8.141	1.072E-02	.1570	1.2949E-02	.1897	1.4495E-02	.2117	.1000	.750
0	203	543	10.528	1.709	1.508E-03	.0221	1.8130E-03	.0266	2.0168E-03	.0295	.4000	.750

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
[illegible]	800	GDC-B	8.00	860.8	1342	.01	.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.2	.088	3.950	3866	7.607E-05	7.029E-08	3.70E 06	6.844E-02	2.924E-02	2

FUSELAGE-BOOSTER

TC NO	TW	DTMLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	PHI
H 460	535	7.260	1.340	1.661E-03	.0243	1.9923E-03	.0291	2.2131E-03	.0323	.3800	120.000
H 461	532	1.610	.297	3.661E-04	.0053	4.3076E-04	.0064	4.8710E-04	.0071	.3800	135.000
H 462	534	1.152	.219	2.708E-04	.0040	3.2469E-04	.0047	3.6060E-04	.0053	.3800	150.000
H 463	535	1.347	.256	3.169E-04	.0046	3.8011E-04	.0056	4.2220E-04	.0062	.3800	165.000
H 464	535	1.275	.242	2.998E-04	.0044	3.5961E-04	.0053	3.9942E-04	.0058	.3800	180.000
H 106	537	1.417	.277	3.445E-04	.0050	4.1349E-04	.0060	4.5943E-04	.0067	.4400	0
H 109	537	3.911	.723	8.975E-04	.0131	1.0771E-03	.0157	1.1968E-03	.0175	.4400	90.000
H 110	537	3.962	.732	9.091E-04	.0133	1.0909E-03	.0159	1.2121E-03	.0177	.4400	120.000
H 111	535	.911	.168	2.084E-04	.0030	2.5002E-04	.0037	2.7774E-04	.0041	.4400	150.000
H 112	535	1.110	.205	2.539E-04	.0037	3.0452E-04	.0044	3.3826E-04	.0049	.4400	180.000
H 113	537	1.197	.238	2.959E-04	.0043	3.5511E-04	.0052	3.9460E-04	.0058	.4880	0
H 116	536	2.461	.441	5.473E-04	.0080	6.5660E-04	.0096	7.2953E-04	.0107	.4880	90.000
H 117	536	3.026	.559	6.938E-04	.0101	8.3252E-04	.0122	9.2499E-04	.0135	.4880	120.000
H 118	535	1.042	.192	2.380E-04	.0035	2.8540E-04	.0042	3.1709E-04	.0046	.4880	150.000
H 119	535	1.088	.201	2.488E-04	.0036	2.9841E-04	.0044	3.3146E-04	.0048	.4880	180.000
H 120	537	.836	.166	2.067E-04	.0030	2.4804E-04	.0036	2.7563E-04	.0040	.5200	0
H 195	545	17.579	3.597	4.511E-03	.0659	5.4232E-03	.0792	6.0337E-03	.0882	.5500	43.000
H 127	536	2.442	.460	5.711E-04	.0083	6.8518E-04	.0100	7.6124E-04	.0111	.5500	90.000
H 128	537	4.333	.800	9.944E-04	.0145	1.1933E-03	.0174	1.3260E-03	.0194	.5500	105.000
H 129	534	2.494	.460	5.698E-04	.0083	6.8332E-04	.0100	7.5896E-04	.0111	.5500	120.000
H 130	532	1.209	.223	2.752E-04	.0040	3.2993E-04	.0048	3.6632E-04	.0054	.5500	150.000
H 131	529	1.016	.187	2.299E-04	.0034	2.7541E-04	.0040	3.0564E-04	.0045	.5500	180.000
H 138	537	3.819	.706	8.769E-04	.0128	1.0524E-03	.0154	1.1694E-03	.0171	.6250	90.000
H 139	536	4.334	.801	9.939E-04	.0145	1.1926E-03	.0174	1.3251E-03	.0194	.6250	105.000
H 140	533	2.281	.421	5.200E-04	.0076	6.2330E-04	.0091	6.9223E-04	.0101	.6250	120.000
H 141	532	1.119	.206	2.544E-04	.0037	3.0492E-04	.0045	3.3851E-04	.0049	.6250	150.000
H 142	532	1.070	.197	2.434E-04	.0036	2.9170E-04	.0043	3.2385E-04	.0047	.6250	180.000
H 150	535	4.941	.912	1.131E-03	.0165	1.3563E-03	.0198	1.5067E-03	.0220	.7000	90.000
H 151	535	5.520	1.019	1.263E-03	.0185	1.5160E-03	.0221	1.6828E-03	.0246	.7000	105.000
H 152	534	2.839	.524	6.481E-04	.0095	7.7720E-04	.0114	8.6317E-04	.0126	.7000	120.000
H 153	532	1.293	.238	2.942E-04	.0043	3.5268E-04	.0052	3.9158E-04	.0057	.7000	150.000
H 154	533	1.075	.192	2.378E-04	.0035	2.8509E-04	.0042	3.1650E-04	.0046	.7000	180.000
B 159	537	4.494	.806	1.002E-03	.0146	1.2026E-03	.0176	1.3363E-03	.0195	.7700	90.000
H 160	536	3.760	.674	8.364E-04	.0122	1.0036E-03	.0147	1.1150E-03	.0163	.7700	120.000
H 161	535	1.356	.243	3.008E-04	.0044	3.6076E-04	.0053	4.0067E-04	.0059	.7700	150.000
H 162	534	1.034	.185	2.293E-04	.0034	2.7500E-04	.0040	3.0543E-04	.0045	.7700	180.000
H 171	539	5.437	1.006	1.253E-03	.0183	1.5051E-03	.0220	1.6731E-03	.0244	.8950	120.000
H 172	538	2.977	.550	6.848E-04	.0100	8.2211E-04	.0120	9.1368E-04	.0134	.8950	150.000

UPPER WING SURFACE-BOOSTER

TC NO	TW	DTMLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
H 200	552	50.175	7.778	9.850E-03	.1439	1.1866E-02	.1734	1.3219E-02	.1932	0	.100
H 201	541	12.066	1.419	1.773E-03	.0259	2.1295E-03	.0311	2.3678E-03	.0346	.1000	.100
H 202	539	6.088	.861	1.072E-03	.0157	1.2868E-03	.0188	1.4302E-03	.0209	.2000	.100
H 203	539	1.478	.308	3.838E-04	.0056	4.6003E-04	.0067	5.1225E-04	.0075	.3300	.100
B 204	539	1.317	.233	2.897E-04	.0042	3.4788E-04	.0051	3.8656E-04	.0056	.4000	.100
B 205	537	.188	.034	4.181E-05	.0006	5.0174E-05	.0007	5.5747E-05	.0008	.6000	.100
H 206	538	.801	.138	1.712E-04	.0025	2.0546E-04	.0030	2.2832E-04	.0033	.7000	.100
H 207	539	1.124	.107	1.331E-04	.0019	1.5984E-04	.0023	1.7766E-04	.0026	.9100	.100
H 217	570	99.296	12.350	1.600E-02	.2337	1.9361E-02	.2829	2.1637E-02	.3162	0	.200
H 218	545	29.337	2.882	3.616E-03	.0528	4.3479E-03	.0635	4.8377E-03	.0707	.0500	.200
B 219	541	15.254	1.495	1.868E-03	.0273	2.2467E-03	.0328	2.4961E-03	.0365	.1000	.200
B 220	539	6.710	.606	7.551E-04	.0110	9.0667E-04	.0132	1.0078E-03	.0147	.2000	.200
H 221	539	1.719	.337	4.192E-04	.0061	5.0334E-04	.0074	5.5948E-04	.0082	.4000	.200
B 222	537	.993	.178	2.213E-04	.0032	2.6596E-04	.0039	2.9509E-04	.0043	.6000	.200
B 223	538	.762	.131	1.627E-04	.0024	1.9522E-04	.0029	2.1694E-04	.0032	.7000	.200
B 230	572	104.632	14.473	1.879E-02	.2746	2.2750E-02	.3325	2.5442E-02	.3718	0	.250
B 231	541	14.101	1.666	2.081E-03	.0304	2.5002E-03	.0365	2.7800E-03	.0406	.1000	.250
B 232	540	1.713	.335	4.182E-04	.0061	5.0216E-04	.0073	5.5822E-04	.0082	.4000	.250
B 233	539	1.261	.240	2.988E-04	.0044	3.5871E-04	.0052	3.9870E-04	.0058	.5000	.250
H 234	538	1.117	.206	2.568E-04	.0038	3.0831E-04	.0045	3.4264E-04	.0050	.6000	.250
H 235	539	1.495	.109	1.358E-04	.0020	1.6307E-04	.0024	1.8128E-04	.0026	.8330	.250
B 236	540	1.482	.121	1.507E-04	.0022	1.8101E-04	.0026	2.0122E-04	.0029	.8670	.250
B 237	539	1.071	.087	1.088E-04	.0016	1.3069E-04	.0019	1.4521E-04	.0021	.9010	.250
H 238	538	.866	.067	8.320E-05	.0012	9.9871E-05	.0015	1.1099E-04	.0016	.9350	.250
B 248	577	110.671	12.773	1.671E-02	.2441	2.0267E-02	.2961	2.2681E-02	.3314	0	.300
H 249	542	12.705	1.558	1.948E-03	.0285	2.3413E-03	.0342	2.6039E-03	.0380	.1000	.300
H 250	542	8.479	.961	1.202E-03	.0176	1.4439E-03	.0211	1.6058E-03	.0235	.2000	.300
B 251	541	1.872	.367	4.579E-04	.0067	5.5002E-04	.0080	6.1154E-04	.0089	.4000	.300
B 252	539	1.242	.247	3.082E-04	.0045	3.7012E-04	.0054	4.1144E-04	.0060	.6000	.300
B 263	582	123.259	15.624	2.030E-02	.2966	2.4656E-02	.3603	2.7619E-02	.4036	0	.400
B 264	546	20.884	2.566	3.224E-03	.0471	3.8777E-03	.0567	4.3153E-03	.0631	.1000	.400
B 265	543	2.581	.506	6.330E-04	.0092	7.6100E-04	.0111	8.4717E-04	.0124	.4000	.400
B 266	542	1.840	.322	4.021E-04	.0059	4.8314E-04	.0071	5.3720E-04	.0079	.6000	.400
B 277	594	159.311	15.593	2.085E-02	.3046	2.5400E-02	.3713	2.8527E-02	.4168	0	.500
B 278	547	20.870	2.754	3.472E-03	.0507	4.1773E-03	.0610	4.6496E-03	.0679	.1000	.500
B 279	548	13.286	1.634	2.058E-03	.0301	2.4771E-03	.0362	2.7576E-03	.0403	.2000	.500
B 280	542	3.297	.607	8.089E-04	.0118	9.7202E-04	.0142	1.0810E-03	.0158	.4000	.500
B 281	542	2.640	.476	5.957E-04	.0087	7.1075E-04	.0105	7.9600E-04	.0116	.5000	.500
B 282	542	1.965	.375	4.604E-04	.0067	5.6202E-04	.0082	6.2590E-04	.0091	.6000	.500
B 283	540	1.777	.166	2.111E-04	.0031	2.5209E-04	.0037	2.8193E-04	.0041	.0770	.500
B 286	562	131.511	17.192	2.291E-02	.3348	2.7900E-02	.4077	3.1313E-02	.4575	0	.600
B 297	560	23.095	3.052	3.837E-03	.0561	4.6194E-03	.0674	5.1366E-03	.0751	.1000	.600
B 298	546	15.906	1.937	2.434E-03	.0356	2.9271E-03	.0428	3.2574E-03	.0476	.2000	.600
B 299	544	2.496	.568	7.112E-04	.0104	8.5491E-04	.0125	9.5103E-04	.0139	.4000	.600
B 300	545	2.449	.434	5.447E-04	.0080	6.5490E-04	.0096	7.2864E-04	.0106	.6000	.600
B 301	543	2.321	.221	2.774E-04	.0041	3.3337E-04	.0049	3.7083E-04	.0054	.7930	.600
B 302	543	2.193	.209	2.616E-04	.0038	3.1462E-04	.0046	3.4969E-04	.0051	.0810	.600
B 315	560	56.919	5.799	7.413E-03	.1083	8.9506E-03	.1308	9.9822E-03	.1459	.1000	.700
B 316	552	22.885	2.406	3.049E-03	.0445	3.6672E-03	.0536	4.0850E-03	.0597	.2000	.700
B 317	548	4.122	.676	8.510E-04	.0124	1.0240E-03	.0150	1.1399E-03	.0167	.5000	.700

UPPER CANARD SURFACE-BOOSTER

TC NO	TW	DTMLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/S
B 350	565	88.994	8.588	1.105E-02	.1615	1.3362E-02	.1952	1.4920E-02	.2180	0	.250
B 351	539	14.996	1.428	1.778E-03	.0260	2.1399E-03	.0312	2.3737E-03	.0347	.2500	.250
B 352	536	4.264	.732	9.083E-04	.0133	1.0900E-03	.0159	1.2108E-03	.0177	.5000	.250
B 353	534	1.856	.318	3.937E-04	.0058	4.7205E-04	.0069	5.2425E-04	.0077	.7000	.250
B 357	571	98.708	9.594	1.239E-02	.1811	1.5000E-02	.2193	1.6773E-02	.2451	0	.500
B 358	538	18.202	1.732	2.154E-03	.0315	2.5862E-03	.0378	2.8742E-03	.0420	.2500	.500
B 359	535	5.937	.912	1.131E-03	.0165	1.3560E-03	.0198	1.5070E-03	.0220	.5000	.500
B 360	534	2.579	.442	5.472E-04	.0080	6.5821E-04	.0096	7.2879E-04	.0106	.7000	.500

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
13	800	OOC-H	8.00	841.7	1361	-5.01	-5.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	PREF-PH (HB .009FT)	HREF (HB .009FT)	SWITCH POSITION
97.2	.088	3.954	3864	7.620E-06	7.6640E-08	3.70E 06	6.867E-04	6.854E-02	1

	TC NO	TW	QDOT	W-DOT	H(TO)	H(TO)/HHEF	H(.9TU)	H(.9TU)/HHEF	H(.85TU)	H(.85TU)/HHEF	FUSELAGE-BOOSTER X/L	PHI
B	1	540	211.104	40.067	5.334E-02	.7790	5.8138E-02	.8486	7.2640E-02	1.0660	0	0
B	2	522	45.310	8.302	1.014E-02	.1481	1.2130E-02	.1771	1.3441E-02	.1963	.0137	0
B	3	536	73.545	13.563	1.680E-02	.2454	2.0160E-02	.2942	2.2373E-02	.3266	.0137	180.000
B	4	519	26.720	4.885	5.939E-03	.0867	7.0990E-03	.1036	7.8013E-03	.1140	.0276	0
B	5	517	26.464	4.834	5.868E-03	.0857	7.0060E-03	.1023	7.7645E-03	.1133	.0276	30.000
B	6	517	29.134	5.323	6.460E-03	.0944	7.7198E-03	.1127	8.5466E-03	.1246	.0276	60.000
B	7	521	34.404	6.298	7.677E-03	.1121	9.1766E-03	.1340	1.0170E-02	.1484	.0276	90.000
B	8	521	40.013	7.541	9.198E-03	.1343	1.0993E-02	.1606	1.2196E-02	.1779	.0276	120.000
B	9	523	43.190	8.148	9.957E-03	.1454	1.1908E-02	.1739	1.3202E-02	.1926	.0276	150.000
B	10	523	43.060	8.123	9.924E-03	.1449	1.1948E-02	.1743	1.3168E-02	.1922	.0276	180.000
B	11	521	33.685	6.166	7.526E-03	.1098	9.0187E-03	.1316	9.9743E-03	.1457	.0406	180.000
B	12	516	16.619	3.034	3.678E-03	.0537	4.3913E-03	.0641	4.8613E-03	.0710	.0543	0
B	13	516	16.761	3.060	3.709E-03	.0542	4.4283E-03	.0647	4.9042E-03	.0716	.0543	30.000
B	14	516	18.736	3.420	4.144E-03	.0605	4.9488E-03	.0723	5.4801E-03	.0800	.0543	60.000
B	15	517	22.666	4.140	5.021E-03	.0733	5.9947E-03	.0876	6.6418E-03	.0970	.0543	90.000
B	17	519	28.340	5.193	6.320E-03	.0923	7.5530E-03	.1103	8.3642E-03	.1222	.0543	150.000
B	18	521	29.629	5.424	6.612E-03	.0966	7.9039E-03	.1154	8.7599E-03	.1279	.0543	180.000
B	19	521	26.116	4.781	5.829E-03	.0851	6.9680E-03	.1018	7.7277E-03	.1128	.0670	180.000
B	20	518	10.174	1.860	2.260E-03	.0330	2.7005E-03	.0394	2.9910E-03	.0437	.0790	0
B	21	522	21.607	3.958	4.831E-03	.0706	5.7772E-03	.0844	6.4040E-03	.0935	.0790	180.000
B	22	523	18.653	3.418	4.176E-03	.0610	4.9997E-03	.0729	5.5360E-03	.0804	.0920	180.000
B	23	522	7.576	1.388	1.695E-03	.0248	2.0260E-03	.0296	2.2467E-03	.0328	.1030	0
B	24	522	7.669	1.405	1.718E-03	.0251	2.0520E-03	.0300	2.2747E-03	.0332	.1030	15.000
B	25	523	8.298	1.521	1.858E-03	.0271	2.2220E-03	.0325	2.4634E-03	.0360	.1030	30.000
B	26	520	9.059	1.658	2.020E-03	.0295	2.4149E-03	.0353	2.6763E-03	.0391	.1030	45.000
B	27	521	9.642	1.765	2.152E-03	.0314	2.5720E-03	.0376	2.8510E-03	.0416	.1030	60.000
B	28	522	10.853	1.988	2.426E-03	.0354	2.9009E-03	.0424	3.2155E-03	.0470	.1030	75.000
B	29	522	12.067	2.210	2.698E-03	.0394	3.2260E-03	.0471	3.5760E-03	.0522	.1030	90.000
B	30	523	13.253	2.429	2.968E-03	.0433	3.5490E-03	.0518	3.9352E-03	.0575	.1030	105.000
B	31	523	14.767	2.707	3.310E-03	.0483	3.9590E-03	.0578	4.3094E-03	.0641	.1030	120.000
B	32	524	15.623	2.865	3.507E-03	.0512	4.1997E-03	.0613	4.6528E-03	.0680	.1030	135.000
B	33	523	16.401	3.007	3.677E-03	.0537	4.3984E-03	.0642	4.8768E-03	.0712	.1030	150.000
B	34	524	16.953	3.110	3.807E-03	.0556	4.5540E-03	.0665	5.0509E-03	.0738	.1030	165.000
B	35	524	17.095	3.136	3.838E-03	.0560	4.5917E-03	.0671	5.0917E-03	.0744	.1030	180.000
B	37	531	12.491	2.299	2.837E-03	.0414	3.3992E-03	.0496	3.7733E-03	.0551	.1300	180.000
B	38	531	3.473	.639	7.891E-04	.0115	9.4559E-04	.0138	1.0497E-03	.0153	.1430	0
B	39	533	10.450	1.926	2.384E-03	.0348	2.8591E-03	.0418	3.1751E-03	.0464	.1430	180.000
B	40	534	8.357	1.405	1.740E-03	.0254	2.0871E-03	.0305	2.3180E-03	.0339	.1560	180.000
B	41	532	1.972	.417	5.153E-04	.0075	6.1772E-04	.0090	6.8589E-04	.0100	.1690	0
B	42	533	1.977	.402	4.969E-04	.0073	5.9573E-04	.0087	6.6151E-04	.0097	.1690	15.000
B	43	532	2.283	.445	5.504E-04	.0080	6.5979E-04	.0096	7.3257E-04	.0107	.1690	30.000
B	44	532	2.361	.474	5.857E-04	.0086	7.0196E-04	.0103	7.7934E-04	.0114	.1690	45.000
B	45	532	2.713	.514	6.354E-04	.0093	7.6158E-04	.0111	8.4553E-04	.0123	.1690	60.000
B	46	532	3.379	.641	7.921E-04	.0116	9.4946E-04	.0139	1.0542E-03	.0154	.1690	75.000
B	47	533	3.720	.706	8.739E-04	.0128	1.0470E-03	.0153	1.1636E-03	.0170	.1690	90.000
B	48	532	3.857	.732	9.045E-04	.0132	1.0842E-03	.0158	1.2039E-03	.0176	.1690	105.000
B	49	532	5.044	.956	1.182E-03	.0173	1.4165E-03	.0207	1.5727E-03	.0230	.1690	120.000
B	50	533	5.065	.961	1.188E-03	.0174	1.4246E-03	.0208	1.5818E-03	.0231	.1690	135.000
B	51	533	5.550	1.083	1.341E-03	.0196	1.6079E-03	.0235	1.7856E-03	.0261	.1690	150.000
B	52	533	5.944	1.128	1.397E-03	.0204	1.6746E-03	.0245	1.8597E-03	.0272	.1690	165.000
B	53	534	6.036	1.113	1.378E-03	.0201	1.6529E-03	.0241	1.8357E-03	.0268	.1690	180.000
B	400	530	1.113	.205	2.526E-04	.0037	3.0270E-04	.0044	3.3600E-04	.0049	.2420	0
B	402	529	.929	.176	2.166E-04	.0032	2.5951E-04	.0038	2.8801E-04	.0042	.2420	30.000
B	404	531	2.929	.580	7.163E-04	.0105	8.5837E-04	.0125	9.5287E-04	.0139	.2420	60.000
B	406	529	2.080	.384	4.725E-04	.0069	5.6599E-04	.0083	6.2812E-04	.0092	.2420	90.000
B	407	529	2.472	.468	5.760E-04	.0084	6.8990E-04	.0101	7.6559E-04	.0112	.2420	105.000
B	408	529	1.574	.312	3.834E-04	.0056	4.5920E-04	.0067	5.0956E-04	.0074	.2420	120.000
B	409	529	3.332	.660	8.116E-04	.0119	9.7208E-04	.0142	1.0787E-03	.0158	.2420	135.000
B	410	527	3.665	.725	8.906E-04	.0130	1.0663E-03	.0156	1.1830E-03	.0173	.2420	150.000
B	411	527	3.580	.710	8.722E-04	.0127	1.0443E-03	.0153	1.1586E-03	.0169	.2420	165.000
B	412	528	3.849	.745	9.205E-04	.0134	1.1022E-03	.0161	1.2229E-03	.0179	.2420	180.000
B	413	528	.755	.147	1.807E-04	.0026	2.1636E-04	.0032	2.4002E-04	.0035	.2830	0
B	415	527	.910	.180	2.211E-04	.0032	2.6676E-04	.0039	2.9374E-04	.0043	.2830	30.000
B	417	528	2.033	.484	5.955E-04	.0087	7.1320E-04	.0104	7.9137E-04	.0116	.2830	60.000
B	419	527	1.906	.351	4.310E-04	.0063	5.1599E-04	.0075	5.7241E-04	.0084	.2830	90.000
B	420	526	6.203	1.059	1.308E-03	.0190	1.5590E-03	.0227	1.7258E-03	.0252	.2830	105.000
B	421	525	2.054	.344	4.213E-04	.0062	5.0417E-04	.0074	5.5917E-04	.0082	.2830	120.000
B	422	525	2.950	.542	6.641E-04	.0097	7.9466E-04	.0116	8.8125E-04	.0129	.2030	135.000
B	423	524	3.574	.723	8.841E-04	.0129	1.0576E-03	.0154	1.1727E-03	.0171	.2830	150.000
B	424	522	3.323	.645	7.874E-04	.0115	9.4162E-04	.0138	1.0439E-03	.0152	.2830	165.000
B	425	523	3.482	.676	8.263E-04	.0121	9.8032E-04	.0144	1.0958E-03	.0160	.2830	180.000
B	426	529	.707	.138	1.697E-04	.0025	2.0324E-04	.0030	2.2555E-04	.0033	.3160	0
B	428	528	.828	.164	2.020E-04	.0030	2.4196E-04	.0035	2.6848E-04	.0039	.3160	30.000
B	430	527	1.252	.237	2.906E-04	.0042	3.4783E-04	.0051	3.8585E-04	.0056	.3160	60.000
B	432	529	7.751	1.325	1.632E-03	.0238	1.9554E-03	.0286	2.1702E-03	.0317	.3160	90.000
B	433	525	1.292	.251	3.073E-04	.0045	3.6774E-04	.0054	4.0782E-04	.0060	.3160	105.000
B	434	527	5.688	.907	1.114E-03	.0163	1.3331E-03	.0195	1.4740E-03	.0216	.3160	120.000
B	435	525	7.239	.423	5.182E-04	.0076	6.2007E-04	.0091	6.8767E-04	.0100	.3160	135.000
B	436	525	3.360	.661	8.098E-04	.0118	9.6902E-04	.0142	1.0746E-03	.0157	.3160	150.000
B	437	524	3.558	.691	8.451E-04	.0123	1.0109E-03	.0148	1.1209E-03	.0164	.3160	165.000
B	438	523	3.851	.760	9.293E-04	.0136	1.1116E-03	.0162	1.2325E-03	.0180	.3160	180.000
B	439	530	.564	.112	1.377E-04	.0020	1.6495E-04	.0024	1.8308E-04	.0027	.3540	0
B	441	529	.803	.179	2.208E-04	.0032	2.6644E-04	.0039	2.9348E-04	.0043	.3540	30.000
B	443	529	.561	.091	1.120E-04	.0016	1.3613E-04	.0020	1.4884E-04	.0022	.3540	60.000
B	445	534	8.750	1.566	1.941E-03	.0283	2.3278E-03	.0340	2.5854E-03	.0378	.3540	90.000
B	446	530	3.084	.542	6.687E-04	.0098	8.0115E-04	.0117	8.8922E-04	.0130	.3540	105.000
B	447	535	10.628	1.874	2.324E-03	.0339	2.7070E-03	.0407	3.0957E-03	.0452	.3540	120.000
B	448	530	1.576	.298	3.678E-04	.0054	4.4069E-04	.0064	4.8912E-04	.0071	.3540	135.000
B	450	531	3.299	.618	7.621E-04	.0111	9.1318E-04	.0133	1.0137E-03	.0148	.3540	165.000
B	451	530	3.444	.652	8.041E-04	.0117	9.6338E-04	.0141	1.0693E-03	.0156	.3540	180.000
B	452	533	.527	.103	1.272E-04	.0019	1.5267E-04	.0022	1.6931E-04	.0025	.3800	0
B	454	533	.876	.171	2.114E-04	.0031	2.5360E-04	.0037	2.8146E-04	.0041	.3800	30.000
B	456	532	.648	.105	1.303E-04	.0019	1.5617E-04	.0023	1.7341E-04	.0025	.3800	60.000
B	458	536	6.444	1.190	1.478E-03	.0216	1.7740E-03	.0259	1.9710E-03	.0288	.3800	90.000
B	499	537	8.941	1.759	2.186E-03	.0319	2.6239E-03	.0383	2.9157E-03	.0426	.3800	105.000

GROUP
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AEDC(AMO,INC.) ARNOLD AFS, TENNESSEE
VON KARMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL B
VT1102

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
14	M00	GDC-M	4.00	857.0	1360	5.00	5.00	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	XREF-FR (= .009FT)	SIFM (= .009FT)	SWITCH POSITION
97.4	.0888	3.932	3868	7.560E-05	7.839E-08	3.73E 06	6.830E-02	2.932E-02	1

	TC NO	TM	DTHET	G-DOT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.85TO)	M(.85TO)/MREF	FUSELAGE-BOOSTER A/L	FUSELAGE-BOOSTER PHI
B	1	597	208.576	39.713	5.317E-02	.7785	6.903E-02	.9693	7.282+E-02	1.0662	0	0
B	2	537	83.403	11.711	1.451E-02	.2125	1.761E-02	.2569	1.936+E-02	.2832	.0137	0
B	3	536	53.754	7.915	1.225E-02	.1793	1.400E-02	.2150	1.630E-02	.2388	.0137	180.000
B	4	532	41.926	7.629	9.397E-03	.1376	1.120E-02	.1649	1.250E-02	.1830	.0274	0
H	5	530	38.342	7.065	8.684E-03	.1271	1.040E-02	.1523	1.194E-02	.1690	.0274	30.000
H	6	529	42.319	7.784	9.559E-03	.1400	1.140E-02	.1676	1.270E-02	.1860	.0274	60.000
H	7	528	39.106	8.264	7.687E-03	.1125	9.202E-03	.1347	1.021E-02	.1495	.0274	90.000
H	8	525	31.364	5.926	7.240E-03	.1060	8.662E-03	.1268	9.605E-03	.1406	.0274	120.000
H	9	525	29.270	5.529	6.754E-03	.0989	8.080E-03	.1183	8.960+E-03	.1312	.0274	150.000
H	10	524	27.178	5.133	6.266E-03	.0917	7.495E-03	.1097	8.311E-03	.1217	.0274	180.000
H	11	525	21.152	3.981	4.738E-03	.0694	5.667E-03	.0830	6.284+E-03	.0920	.0406	180.000
H	12	529	27.517	5.041	6.219E-03	.0910	7.442E-03	.1090	8.284E-03	.1209	.0543	0
H	13	528	27.346	5.038	6.176E-03	.0904	7.390+E-03	.1083	8.203E-03	.1201	.0543	30.000
H	14	525	25.339	4.651	5.685E-03	.0832	6.802E-03	.0996	7.549E-03	.1104	.0543	60.000
H	15	524	21.716	3.983	4.861E-03	.0712	5.814E-03	.0851	6.447+E-03	.0944	.0543	90.000
H	17	522	17.955	3.290	4.006E-03	.0586	4.790E-03	.0701	5.304E-03	.0777	.0543	150.000
H	18	523	17.101	3.135	3.822E-03	.0560	4.570E-03	.0669	5.066E-03	.0742	.0543	180.000
H	19	524	13.855	2.549	3.110E-03	.0455	3.720E-03	.0545	4.125+E-03	.0604	.0670	180.000
H	20	527	14.441	2.572	3.175E-03	.0464	3.797E-03	.0556	4.209E-03	.0616	.0797	0
H	21	524	10.699	1.962	2.394E-03	.0350	2.863E-03	.0419	3.174E-03	.0465	.0790	180.000
H	22	524	9.176	1.683	2.055E-03	.0301	2.458E-03	.0360	2.725E-03	.0399	.0920	180.000
H	23	527	14.225	2.981	3.650E-03	.0534	4.300E-03	.0630	4.846E-03	.0709	.1030	0
H	24	527	15.385	2.827	3.461E-03	.0507	4.140E-03	.0607	4.595E-03	.0673	.1030	15.000
H	25	528	15.608	2.869	3.519E-03	.0515	4.213E-03	.0617	4.674E-03	.0684	.1030	30.000
H	26	526	14.741	2.715	3.320E-03	.0486	3.972E-03	.0582	4.405E-03	.0645	.1030	45.000
H	27	525	13.931	2.557	3.128E-03	.0458	3.738E-03	.0547	4.146E-03	.0607	.1030	60.000
H	28	525	12.582	2.309	2.820E-03	.0413	3.373E-03	.0494	3.740E-03	.0548	.1030	75.000
H	29	524	12.027	2.208	2.691E-03	.0394	3.219E-03	.0471	3.569E-03	.0523	.1030	90.000
H	30	524	10.956	2.009	2.450E-03	.0359	2.930E-03	.0429	3.248E-03	.0476	.1030	105.000
H	31	523	9.929	1.820	2.220E-03	.0325	2.658E-03	.0389	2.947E-03	.0431	.1030	120.000
H	32	523	9.228	1.692	2.063E-03	.0302	2.469E-03	.0361	2.737E-03	.0400	.1030	135.000
H	33	524	8.431	1.546	1.887E-03	.0276	2.256E-03	.0330	2.502E-03	.0366	.1030	150.000
H	34	524	8.199	1.504	1.834E-03	.0269	2.193E-03	.0321	2.431E-03	.0356	.1030	165.000
H	35	525	7.914	1.452	1.771E-03	.0260	2.120E-03	.0310	2.351E-03	.0344	.1030	180.000
H	37	527	5.409	.994	1.216E-03	.0178	1.455E-03	.0213	1.614E-03	.0236	.1300	180.000
H	38	529	9.568	1.760	2.161E-03	.0316	2.587E-03	.0379	2.870E-03	.0420	.1430	0
H	39	528	4.264	.784	9.607E-04	.0141	1.150E-03	.0168	1.279E-03	.0187	.1430	180.000
B	40	528	2.971	.498	6.111E-04	.0089	7.316E-04	.0107	8.117E-04	.0119	.1560	180.000
B	41	528	6.246	1.326	1.626E-03	.0238	1.947E-03	.0285	2.161E-03	.0316	.1690	0
B	42	528	5.961	1.204	1.477E-03	.0216	1.767E-03	.0259	1.961E-03	.0287	.1690	15.000
B	43	528	5.965	1.161	1.423E-03	.0208	1.703E-03	.0249	1.890E-03	.0277	.1690	30.000
H	44	527	5.315	1.051	1.287E-03	.0188	1.541E-03	.0226	1.709+E-03	.0250	.1690	45.000
B	45	528	4.986	.943	1.156E-03	.0169	1.384E-03	.0203	1.535+E-03	.0225	.1690	60.000
B	46	528	4.544	.860	1.053E-03	.0154	1.261E-03	.0185	1.399+E-03	.0205	.1690	75.000
B	47	529	4.014	.760	9.330E-04	.0137	1.117E-03	.0164	1.239+E-03	.0182	.1690	90.000
B	48	528	3.125	.591	7.255E-04	.0106	8.687E-04	.0127	9.638E-04	.0141	.1690	105.000
B	49	528	3.173	.600	7.356E-04	.0108	8.806E-04	.0129	9.768+E-04	.0143	.1690	120.000
B	50	528	2.834	.498	6.114E-04	.0090	7.320E-04	.0107	8.121E-04	.0119	.1690	135.000
B	51	528	2.396	.466	5.720E-04	.0084	6.848E-04	.0100	7.598E-04	.0111	.1690	150.000
B	52	528	2.142	.406	4.978E-04	.0073	5.958E-04	.0087	6.608E-04	.0097	.1690	165.000
B	53	529	2.373	.436	5.352E-04	.0078	6.407E-04	.0094	7.110E-04	.0104	.1690	180.000
B	400	526	4.640	.852	1.043E-03	.0153	1.248E-03	.0183	1.384E-03	.0203	.2420	0
B	402	525	2.731	.516	6.306E-04	.0092	7.549E-04	.0110	8.368E-04	.0122	.2420	30.000
B	404	526	6.134	1.213	1.484E-03	.0217	1.779E-03	.0260	1.969+E-03	.0288	.2420	60.000
B	406	524	1.896	.369	4.257E-04	.0062	5.098E-04	.0075	5.656E-04	.0083	.2420	90.000
B	407	524	1.842	.348	4.243E-04	.0062	5.079E-04	.0074	5.628E-04	.0082	.2420	105.000
B	408	523	1.549	.306	3.728E-04	.0055	4.467E-04	.0065	4.951E-04	.0072	.2420	120.000
B	409	523	1.427	.282	3.434E-04	.0050	4.106E-04	.0060	4.552E-04	.0067	.2420	135.000
B	410	522	1.370	.270	3.288E-04	.0048	3.933E-04	.0058	4.359E-04	.0064	.2420	150.000
B	411	521	1.165	.222	2.697E-04	.0039	3.223E-04	.0047	3.573E-04	.0052	.2420	165.000
B	412	522	1.041	.212	2.577E-04	.0038	3.080E-04	.0045	3.415E-04	.0050	.2420	180.000
B	413	525	4.784	.930	1.136E-03	.0166	1.359E-03	.0199	1.507+E-03	.0221	.2830	0
B	415	525	2.601	.514	6.274E-04	.0092	7.500E-04	.0110	8.321E-04	.0122	.2830	30.000
B	417	525	5.742	.979	1.196E-03	.0175	1.431E-03	.0210	1.587E-03	.0232	.2830	60.000
B	419	521	1.501	.276	3.349E-04	.0049	4.003E-04	.0059	4.436E-04	.0065	.2830	90.000
B	420	520	3.218	.547	6.650E-04	.0097	7.947E-04	.0116	8.806E-04	.0129	.2830	105.000
B	421	520	1.844	.309	3.749E-04	.0055	4.480E-04	.0066	4.966E-04	.0073	.2830	120.000
B	422	518	1.143	.216	2.642E-04	.0039	3.156E-04	.0046	3.496E-04	.0051	.2830	135.000
B	423	517	1.016	.209	2.478E-04	.0036	2.960E-04	.0043	3.276E-04	.0048	.2830	150.000
B	424	516	.904	.175	2.111E-04	.0031	2.520E-04	.0037	2.791E-04	.0041	.2830	165.000
B	425	516	.843	.163	1.971E-04	.0029	2.353E-04	.0034	2.605E-04	.0038	.2830	180.000
B	426	527	4.801	.934	1.149E-03	.0168	1.370E-03	.0201	1.519E-03	.0223	.3160	0
B	428	526	2.937	.582	7.123E-04	.0104	8.496E-04	.0125	9.414E-04	.0138	.3160	30.000
B	430	523	2.911	.549	6.699E-04	.0098	7.991E-04	.0117	8.851E-04	.0130	.3160	60.000
B	432	524	5.933	1.011	1.233E-03	.0181	1.471E-03	.0216	1.630E-03	.0239	.3160	90.000
B	433	520	.676	.130	1.575E-04	.0023	1.880E-04	.0028	2.089E-04	.0031	.3160	105.000
B	434	521	5.170	.821	9.992E-04	.0146	1.192E-03	.0175	1.323E-03	.0194	.3160	120.000
B	435	519	1.116	.210	2.546E-04	.0037	3.041E-04	.0045	3.369E-04	.0049	.3160	135.000
B	436	515	.922	.181	2.107E-04	.0032	2.517E-04	.0038	2.809E-04	.0042	.3160	150.000
B	437	516	.776	.150	1.811E-04	.0027	2.161E-04	.0032	2.393E-04	.0035	.3160	165.000
B	438	516	.717	.141	1.703E-04	.0025	2.032E-04	.0030	2.251E-04	.0033	.3160	180.000
B	439	529	6.844	.959	1.177E-03	.0172	1.409E-03	.0206	1.561E-03	.0229	.3540	0
B	441	528	3.663	.743	9.109E-04	.0133	1.090E-03	.0160	1.210E-03	.0177	.3540	30.000
B	443	526	1.084	.176	2.150E-04	.0032	2.572E-04	.0038	2.854E-04	.0042	.3540	60.000
B	445	532	12.193	2.173	2.678E-03	.0392	3.210E-03	.0470	3.563E-03	.0522	.3540	90.000
B	446	529	1.027	.220	2.911E-04	.0043	3.470E-04	.0050	3.870E-04	.0056	.3540	105.000
B	447	528	7.665	1.347	1.651E-03	.0242	1.976E-03	.0289	2.193E-03	.0321	.3540	120.000
B	448	524	1.049	.211	2.797E-04	.0040	3.340E-04	.0048	3.704E-04	.0054	.3540	135.000
B	450	522	.952	.184	2.267E-04	.0033	2.710E-04	.0039	3.007E-04	.0044	.3540	150.000
B	451	521	.865	.112	1.362E-04	.0020	1.627E-04	.0024	1.803E-04	.0026	.3540	180.000
B	452	532	6.249	.836	1.034E-03	.0151	1.235E-03	.0181	1.370E-03	.0201	.3800	0
B	456	531	4.162	.812	9.991E-04	.0146	1.194E-03	.0175	1.324E-03	.0194	.3800	30.000
B	456	530	1.929	.313	3.852E-04	.0056	4.601E-04	.0068	5.101E-04	.0075	.3800	60.000
B	458	534	11.006	2.029	2.508E-03	.0367	2.995E-03	.0440	3.323E-03	.0488	.3800	90.000
B	459	530	4.282	.824	1.028E-03	.0150	1.227E-03	.0180	1.362E-03	.0199	.3800	105.000

GROUP
07

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

[illegible]	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
[illegible]	800	GDC-B	8.00	859.5	1341	-5.00	-5.00	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
97.2	.088	3.944	3864	7.602E-05	7.823E-08	3.75E 06	6.838E-02	2.925E-02	2

FUSELAGE-BOOSTER

TC NO	TW	DT*CT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	PHI
B 460	525	9.197	1.687	2.067E-03	.0302	2.4739E-03	.0362	2.7436E-03	.0401	.3000	120.000
B 461	520	1.506	.275	3.354E-04	.0049	4.0085E-04	.0059	4.4419E-04	.0065	.3000	135.000
B 462	522	2.953	.557	6.799E-04	.0099	8.1308E-04	.0119	9.0132E-04	.0132	.3000	150.000
B 463	523	3.960	.747	9.134E-04	.0134	1.0924E-03	.0160	1.2111E-03	.0177	.3000	165.000
B 464	523	3.421	.645	7.890E-04	.0115	9.4369E-04	.0138	1.0462E-03	.0153	.3000	180.000
B 106	532	.655	.128	1.581E-04	.0023	1.8993E-04	.0028	2.1045E-04	.0031	.4400	0
B 109	533	8.221	1.516	1.876E-03	.0274	2.2690E-03	.0329	2.4981E-03	.0365	.4400	90.000
B 110	530	5.399	.993	1.225E-03	.0179	1.4073E-03	.0215	1.6205E-03	.0238	.4400	120.000
B 111	528	2.688	.494	6.079E-04	.0089	7.2798E-04	.0106	8.0777E-04	.0118	.4400	150.000
B 112	528	3.555	.654	8.044E-04	.0118	9.6338E-04	.0141	1.0640E-03	.0156	.4400	180.000
B 113	534	.369	.061	7.612E-05	.0011	9.1292E-05	.0013	1.0140E-04	.0015	.4800	0
B 116	532	4.950	.885	1.094E-03	.0160	1.3118E-03	.0192	1.4566E-03	.0213	.4800	90.000
B 117	528	2.004	.368	4.536E-04	.0066	5.4324E-04	.0079	6.0282E-04	.0088	.4800	120.000
B 118	528	2.841	.522	6.426E-04	.0094	7.0959E-04	.0113	8.5395E-04	.0125	.4800	150.000
B 119	528	3.663	.673	8.286E-04	.0121	9.9239E-04	.0145	1.1012E-03	.0161	.4800	180.000
B 120	535	.343	.066	8.468E-05	.0012	1.0159E-04	.0015	1.1266E-04	.0017	.5200	0
B 195	544	18.412	3.766	4.728E-03	.0691	5.6847E-03	.0831	6.3247E-03	.0925	.5500	43.000
B 127	534	2.663	.491	6.086E-04	.0089	7.2090E-04	.0107	8.1068E-04	.0119	.5500	90.000
B 128	533	2.803	.517	6.392E-04	.0093	7.6641E-04	.0112	8.5107E-04	.0124	.5500	105.000
B 129	530	2.424	.446	5.502E-04	.0080	6.5924E-04	.0096	7.3174E-04	.0107	.5500	120.000
B 130	527	3.174	.583	7.166E-04	.0105	8.8796E-04	.0125	9.5185E-04	.0139	.5500	150.000
B 131	524	3.412	.626	7.656E-04	.0112	9.1591E-04	.0134	1.0156E-03	.0149	.5500	180.000
B 138	536	3.935	.727	9.032E-04	.0132	1.0839E-03	.0159	1.2043E-03	.0176	.6250	90.000
B 139	534	2.449	.452	5.596E-04	.0082	6.7115E-04	.0098	7.4541E-04	.0109	.6250	105.000
B 140	531	3.113	.573	7.072E-04	.0103	8.4748E-04	.0124	9.4075E-04	.0138	.6250	120.000
B 141	529	3.270	.601	7.406E-04	.0108	8.8710E-04	.0130	9.8447E-04	.0144	.6250	150.000
B 142	529	3.739	.688	8.464E-04	.0124	1.0137E-03	.0148	1.1249E-03	.0165	.6250	180.000
B 150	535	4.917	.908	1.126E-03	.0165	1.3813E-03	.0198	1.5012E-03	.0220	.7000	90.000
B 151	533	1.495	.276	3.411E-04	.0080	4.0800E-04	.0060	4.5414E-04	.0066	.7000	105.000
B 152	532	2.804	.517	6.389E-04	.0093	7.6587E-04	.0112	8.5039E-04	.0124	.7000	120.000
B 153	531	3.349	.617	7.621E-04	.0111	9.1340E-04	.0134	1.0141E-03	.0148	.7000	150.000
B 154	532	3.601	.664	7.960E-04	.0116	9.5412E-04	.0140	1.0594E-03	.0155	.7000	180.000
B 159	538	5.210	.935	1.164E-03	.0170	1.3975E-03	.0204	1.5532E-03	.0227	.7700	90.000
B 160	535	1.965	.352	4.366E-04	.0064	5.2377E-04	.0077	5.8182E-04	.0085	.7700	120.000
B 161	535	3.671	.657	8.155E-04	.0119	9.7819E-04	.0143	1.0866E-03	.0159	.7700	150.000
B 162	535	3.455	.626	7.770E-04	.0114	9.3219E-04	.0136	1.0356E-03	.0151	.7700	180.000
B 171	539	1.576	.292	3.635E-04	.0053	4.3646E-04	.0064	4.8516E-04	.0071	.8950	120.000
B 172	539	3.678	.680	8.479E-04	.0124	1.0180E-03	.0149	1.1316E-03	.0165	.8950	150.000

UPPER WING SURFACE-BOOSTER

TC NO	TW	DT*CT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/C	Y/S
B 200	549	40.590	6.283	7.936E-03	.1161	9.8544E-03	.1397	1.0639E-02	.1556	0	.100
B 201	542	21.206	2.496	3.125E-03	.0457	3.7557E-03	.0549	4.1772E-03	.0611	.1000	.100
B 202	542	13.468	1.908	2.389E-03	.0349	2.8704E-03	.0420	3.1924E-03	.0467	.2000	.100
B 203	541	3.673	.766	9.575E-04	.0140	1.1503E-03	.0168	1.2791E-03	.0187	.3300	.100
B 204	540	4.233	.749	9.346E-04	.0137	1.1225E-03	.0164	1.2479E-03	.0182	.4000	.100
B 205	537	.944	.169	2.107E-04	.0031	2.5289E-04	.0037	2.8104E-04	.0041	.6000	.100
B 206	539	1.313	.226	2.813E-04	.0041	3.3702E-04	.0049	3.7551E-04	.0055	.7000	.100
B 207	540	2.738	.261	3.255E-04	.0048	3.9100E-04	.0057	4.3470E-04	.0064	.9100	.100
B 217	560	71.923	8.900	1.140E-02	.1666	1.3757E-02	.2012	1.5347E-02	.2244	0	.200
B 218	543	31.444	3.086	3.869E-03	.0566	4.6514E-03	.0680	5.1743E-03	.0757	.0500	.200
B 219	545	36.111	3.547	4.456E-03	.0652	5.3593E-03	.0784	5.9634E-03	.0872	.1000	.200
B 220	541	18.447	1.667	2.085E-03	.0305	2.5044E-03	.0366	2.7849E-03	.0407	.2000	.200
B 221	539	5.299	1.038	1.295E-03	.0189	1.5546E-03	.0227	1.7281E-03	.0253	.4000	.200
B 222	538	2.390	.425	5.338E-04	.0078	6.4072E-04	.0094	7.1208E-04	.0104	.6000	.200
B 223	539	1.751	.301	3.753E-04	.0055	4.5066E-04	.0066	5.0095E-04	.0073	.7000	.200
B 230	565	74.890	10.324	1.330E-02	.1946	1.6083E-02	.2352	1.7959E-02	.2626	0	.250
B 231	539	14.306	1.688	2.105E-03	.0308	2.5275E-03	.0370	2.8095E-03	.0411	.1000	.250
B 232	540	4.834	.947	1.183E-03	.0173	1.4200E-03	.0208	1.5797E-03	.0231	.4000	.250
B 233	539	3.296	.627	7.826E-04	.0114	9.3902E-04	.0137	1.0447E-03	.0153	.5000	.250
B 234	539	2.564	.474	5.913E-04	.0086	7.1003E-04	.0104	7.8928E-04	.0115	.6000	.250
B 235	541	2.980	.217	2.719E-04	.0040	3.2664E-04	.0048	3.6322E-04	.0053	.8330	.250
B 236	541	2.705	.221	2.763E-04	.0040	3.3189E-04	.0049	3.6906E-04	.0054	.8670	.250
B 237	540	2.630	.215	2.682E-04	.0039	3.2211E-04	.0047	3.5813E-04	.0052	.9010	.250
B 238	539	1.846	.143	1.779E-04	.0026	2.1362E-04	.0031	2.3746E-04	.0035	.9350	.250
B 248	572	91.580	10.540	1.370E-02	.2004	1.6590E-02	.2426	1.8558E-02	.2714	0	.300
B 249	541	17.202	2.107	2.633E-03	.0385	3.1633E-03	.0463	3.5173E-03	.0514	.1000	.300
B 250	543	12.768	1.448	1.815E-03	.0265	2.1813E-03	.0319	2.4264E-03	.0355	.2000	.300
B 251	540	4.186	.820	1.025E-03	.0150	1.2308E-03	.0180	1.3685E-03	.0200	.4000	.300
B 252	541	2.866	.571	7.136E-04	.0104	8.5722E-04	.0125	9.5314E-04	.0139	.6000	.300
B 263	580	104.575	13.069	1.716E-02	.2510	2.0834E-02	.3047	2.3327E-02	.3412	0	.400
B 264	545	24.631	3.025	3.801E-03	.0556	4.5719E-03	.0669	5.0875E-03	.0744	.1000	.400
B 265	543	4.110	.807	1.011E-03	.0148	1.2149E-03	.0178	1.3514E-03	.0198	.4000	.400
B 266	544	2.717	.533	6.691E-04	.0098	8.0436E-04	.0118	8.9483E-04	.0131	.6000	.400
B 277	543	132.258	12.941	1.731E-02	.2532	2.1098E-02	.3086	2.3687E-02	.3464	0	.500
B 278	547	22.672	2.997	3.775E-03	.0552	4.5417E-03	.0664	5.0883E-03	.0739	.1000	.500
B 279	548	15.777	1.940	2.445E-03	.0358	2.9426E-03	.0430	3.2787E-03	.0479	.2000	.500
B 280	544	4.084	.802	1.007E-03	.0147	1.2107E-03	.0177	1.3470E-03	.0197	.4000	.500
B 281	543	3.664	.608	8.630E-04	.0126	1.0374E-03	.0152	1.1540E-03	.0169	.5000	.500
B 282	544	2.998	.572	7.179E-04	.0105	8.6311E-04	.0126	9.6021E-04	.0140	.6000	.500
B 283	543	3.344	.321	4.024E-04	.0059	4.8377E-04	.0071	5.3815E-04	.0079	.8770	.500
B 296	547	129.341	16.676	2.237E-02	.3272	2.7212E-02	.3980	3.0512E-02	.4462	0	.600
B 297	549	29.823	3.967	4.986E-03	.0729	6.0022E-03	.0878	6.6836E-03	.0977	.1000	.600
B 298	548	20.311	2.475	3.121E-03	.0456	3.7597E-03	.0549	4.1811E-03	.0611	.2000	.600
B 299	546	2.774	.632	7.941E-04	.0116	9.5513E-04	.0140	1.0629E-03	.0155	.4000	.600
B 300	548	3.466	.616	7.773E-04	.0114	9.3560E-04	.0137	1.0416E-03	.0152	.6000	.600
B 301	547	3.365	.322	4.051E-04	.0059	4.8746E-04	.0071	5.4259E-04	.0079	.7930	.600
B 302	546	3.085	.295	3.709E-04	.0054	4.4613E-04	.0065	4.9651E-04	.0073	.8810	.600
B 315	561	62.695	6.626	8.500E-03	.1243	1.0266E-02	.1501	1.1456E-02	.1675	.1000	.700
B 316	555	27.253	2.871	3.653E-03	.0534	4.4063E-03	.0644	4.9093E-03	.0718	.2000	.700
B 317	552	5.216	.857	1.086E-03	.0159	1.3081E-03	.0191	1.4573E-03	.0213	.5000	.700

UPPER CANARD SURFACE-BOOSTER

TC NO	TW	DT*CT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	X/L	Y/S
B 350	550	92.565	8.866	1.122E-02	.1640	1.3508E-02	.1976	1.5045E-02	.2200	0	.250
B 351	525	21.962	2.077	2.547E-03	.0372	3.0482E-03	.0446	3.3809E-03	.0494	.2500	.250
B 352	527	6.575	1.122	1.378E-03	.0202	1.6502E-03	.0241	1.8306E-03	.0268	.5000	.250
B 353	525	3.001	.512	6.272E-04	.0092	7.5053E-04	.0110	8.3236E-04	.0122	.7000	.250
B 357	555	102.557	9.864	1.252E-02	.1831	1.5096E-02	.2208	1.6826E-02	.2461	0	.500
B 358	529	25.241	2.394	2.947E-03	.0431	3.5301E-03	.0516	3.9174E-03	.0573	.2500	.500
B 359	528	8.713	1.333	1.640E-03	.0240	1.9639E-03	.0287	2.1791E-03	.0319	.5000	.500
B 360	525	4.364	.744	9.127E-04	.0133	1.0922E-03	.0160	1.2114E-03	.0177	.7000	.500

GROUP

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
14	H00	GDC-R	4.00	857.8	1347	5.11	5.11	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RREF-FR (RE .009FT)	STFR (RE .009FT)	SWITCH POSITION
97.6	.088	3.936	3874	7.549E-05	7.861E-08	3.72E 06	6.837E-02	2.936E-02	2

TC NO	TN	DTHDT	G-DOT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.85TO)	M(.85TO)/MREF

FUSELAGE-BOOSTER

X/L	PHI
.3800	120.000
.3800	135.000
.3800	150.000
.3800	165.000
.3800	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4880	0
.4880	90.000
.4880	120.000
.4880	150.000
.4880	180.000
.5200	0
.5500	45.000
.5500	90.000
.5500	105.000
.5500	120.000
.5500	150.000
.5500	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.7700	90.000
.7700	120.000
.7700	150.000
.7700	180.000
.8950	120.000
.8950	150.000

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.1000	.100
.2000	.100
.3300	.100
.4000	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0500	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.4000	.250
.5000	.250
.6000	.250
.8330	.250
.8670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.6000	.500
.7930	.500
.8510	.500
.1000	.700
.2000	.700
.5000	.700

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2500	.250
.5000	.250
.7000	.250
0	.500
.2500	.500
.5000	.500
.7000	.500

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
15	800	GDC-H	7.93	148.5	1226	-.01	-.01	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	RREF-FN (R= .009FT)	SIFN (R= .009FT)	SWITCH POSITION
90.3	.016	.709	3692	1.497E-05	7.268E-08	7.60E 05	2.854E-02	6.930E-02	1

	TC NO	FN	DTWDT	Q-DOT	M(TO)	M(TO)/MREF	M(.9TO)	M(.9TO)/MREF	M(.85TO)	M(.85TO)/MREF	FUSELAGE-BOOSTER X/L	FUSELAGE-BOOSTER PHI
B	1	506	90.747	16.469	2.288E-02	.8017	2.757BE-02	.9662	3.0732E-02	1.0767	0	0
B	2	47H	22.871	4.079	5.453E-03	.1910	6.9210E-03	.2205	7.2492E-03	.2533	.0137	0
B	3	482	25.530	4.567	6.142E-03	.2152	7.9930E-03	.2576	8.1590E-03	.2859	.0137	180.000
B	4	475	13.471	2.487	3.313E-03	.1161	3.9596E-03	.1387	4.3876E-03	.1537	.0274	0
B	5	474	13.085	2.432	3.236E-03	.1134	3.8660E-03	.1355	4.2840E-03	.1501	.0274	30.000
B	6	474	15.481	2.755	3.666E-03	.1284	4.3804E-03	.1535	4.8933E-03	.1706	.0274	60.000
B	7	477	14.388	2.565	3.424E-03	.1200	4.0937E-03	.1434	4.5375E-03	.1590	.0274	90.000
B	8	477	14.337	2.631	3.515E-03	.1232	4.2038E-03	.1473	4.6602E-03	.1633	.0274	120.000
B	9	478	14.611	2.684	3.591E-03	.1258	4.2995E-03	.1505	4.7626E-03	.1669	.0274	150.000
B	10	479	14.560	2.675	3.581E-03	.1254	4.2833E-03	.1501	4.7493E-03	.1664	.0274	180.000
B	11	479	11.450	2.044	2.736E-03	.0958	3.2729E-03	.1147	3.6286E-03	.1271	.0406	180.000
B	12	471	8.944	1.589	2.106E-03	.0738	2.5140E-03	.0881	2.7849E-03	.0976	.0543	0
M	13	471	9.167	1.628	2.156F-03	.0755	2.5738E-03	.0902	2.8500E-03	.0998	.0543	30.000
B	14	472	9.185	1.632	2.164E-03	.0758	2.5863E-03	.0905	2.8620E-03	.1003	.0543	60.000
B	15	473	9.537	1.696	2.244E-03	.0790	2.6921E-03	.0943	2.9822E-03	.1045	.0543	90.000
B	17	477	9.173	1.635	2.183E-03	.0765	2.6104E-03	.0915	2.8935E-03	.1014	.0543	120.000
B	18	478	9.645	1.721	2.302E-03	.0807	2.7539E-03	.0965	3.0529E-03	.1070	.0543	150.000
A	19	479	7.472	1.334	1.789E-03	.0625	2.1395E-03	.0748	2.3679E-03	.0830	.0543	180.000
B	20	472	6.370	1.132	1.503E-03	.0527	1.7940E-03	.0629	1.9878E-03	.0696	.0679	180.000
B	21	479	6.385	1.140	1.527E-03	.0535	1.8272E-03	.0640	2.0262E-03	.0710	.0790	0
A	22	480	5.225	.933	1.252E-03	.0439	1.4909E-03	.0525	1.6625E-03	.0582	.0790	180.000
B	23	476	4.445	.792	1.056E-03	.0370	1.2622E-03	.0442	1.3988E-03	.0490	.0920	180.000
H	24	476	4.903	.874	1.165E-03	.0408	1.3926E-03	.0488	1.5434E-03	.0541	.1030	0
B	25	476	5.000	.891	1.188E-03	.0416	1.4201E-03	.0498	1.5739E-03	.0551	.1030	15.000
B	26	474	4.692	.835	1.111E-03	.0389	1.3271E-03	.0465	1.4704E-03	.0515	.1030	30.000
B	27	474	4.571	.814	1.083E-03	.0379	1.2935E-03	.0453	1.4331E-03	.0502	.1030	45.000
B	28	475	4.859	.865	1.152E-03	.0404	1.3760E-03	.0482	1.5253E-03	.0534	.1030	60.000
B	29	475	4.832	.861	1.147E-03	.0402	1.3713E-03	.0480	1.5197E-03	.0532	.1030	75.000
B	30	476	4.780	.852	1.137E-03	.0398	1.3595E-03	.0476	1.5068E-03	.0528	.1030	90.000
B	31	478	4.945	.882	1.179E-03	.0413	1.4106E-03	.0494	1.5631E-03	.0548	.1030	105.000
B	32	478	5.063	.903	1.208E-03	.0423	1.4459E-03	.0506	1.6026E-03	.0561	.1030	120.000
B	33	479	5.371	.959	1.286E-03	.0450	1.5382E-03	.0539	1.7058E-03	.0598	.1030	135.000
B	34	480	4.860	.865	1.160E-03	.0406	1.3876E-03	.0486	1.5392E-03	.0539	.1030	150.000
B	35	481	4.837	.864	1.160E-03	.0406	1.3887E-03	.0487	1.5403E-03	.0540	.1030	165.000
H	37	485	3.637	.652	8.806E-04	.0309	1.0553E-03	.0370	1.1716E-03	.0410	.1300	180.000
B	38	483	2.646	.473	6.373E-04	.0223	7.6321E-04	.0267	8.4687E-04	.0297	.1430	0
H	39	486	2.869	.520	7.038E-04	.0246	8.4338E-04	.0295	9.3642E-04	.0328	.1430	180.000
B	40	486	2.157	.353	4.770E-04	.0167	5.7107E-04	.0200	6.3491E-04	.0222	.1560	180.000
B	41	485	1.546	.318	4.291E-04	.0150	5.1423E-04	.0180	5.7084E-04	.0200	.1690	0
B	42	485	1.453	.287	3.874E-04	.0136	4.6421E-04	.0163	5.1527E-04	.0181	.1690	15.000
B	43	485	1.544	.293	3.958E-04	.0139	4.7386E-04	.0166	5.2599E-04	.0184	.1690	30.000
H	44	486	1.403	.270	3.649E-04	.0128	4.3720E-04	.0153	4.8527E-04	.0170	.1690	45.000
H	45	485	1.692	.312	4.211E-04	.0148	5.0437E-04	.0177	5.6006E-04	.0196	.1690	60.000
R	46	485	1.632	.301	4.068E-04	.0142	4.8709E-04	.0171	5.4071E-04	.0189	.1690	75.000
B	47	487	1.548	.295	3.994E-04	.0140	4.7881E-04	.0168	5.3166E-04	.0186	.1690	90.000
B	48	486	1.535	.283	3.831E-04	.0134	4.5921E-04	.0161	5.0983E-04	.0179	.1690	105.000
B	49	486	1.530	.282	3.815E-04	.0134	4.5727E-04	.0160	5.0764E-04	.0178	.1690	120.000
H	50	486	1.456	.269	3.637E-04	.0127	4.3600E-04	.0153	4.8411E-04	.0170	.1690	135.000
B	51	486	1.636	.311	4.202E-04	.0147	5.0369E-04	.0176	5.5926E-04	.0196	.1690	150.000
B	52	487	1.514	.280	3.785E-04	.0133	4.5376E-04	.0159	5.0367E-04	.0177	.1690	165.000
B	53	487	1.540	.276	3.742E-04	.0131	4.4862E-04	.0157	4.9819E-04	.0175	.1690	180.000
B	400	491	.923	.106	2.259E-04	.0079	2.7114E-04	.0095	3.0130E-04	.0106	.2420	0
B	402	491	.620	.115	1.562E-04	.0055	1.8748E-04	.0066	2.0834E-04	.0073	.2420	30.000
B	404	491	1.356	.263	3.577E-04	.0125	4.2930E-04	.0150	4.7709E-04	.0167	.2420	60.000
B	406	488	.774	.139	1.890E-04	.0066	2.2672E-04	.0079	2.5182E-04	.0088	.2420	90.000
B	407	488	.817	.151	2.047E-04	.0072	2.4553E-04	.0086	2.7271E-04	.0096	.2420	105.000
B	408	488	.796	.154	2.087E-04	.0073	2.5032E-04	.0088	2.7803E-04	.0097	.2420	120.000
B	409	488	.945	.183	2.479E-04	.0087	2.9731E-04	.0104	3.3024E-04	.0116	.2420	135.000
B	410	488	.728	.141	1.905E-04	.0067	2.2843E-04	.0080	2.5369E-04	.0089	.2420	150.000
B	411	488	.869	.156	2.121E-04	.0074	2.5433E-04	.0089	2.8247E-04	.0099	.2420	165.000
B	412	488	.839	.160	2.164E-04	.0076	2.5951E-04	.0091	2.8824E-04	.0101	.2420	180.000
B	413	496	.704	.135	1.846E-04	.0065	2.2194E-04	.0078	2.4688E-04	.0086	.2830	0
B	415	497	.434	.084	1.156E-04	.0040	1.3864E-04	.0049	1.5456E-04	.0054	.2830	30.000
B	417	497	1.571	.264	3.620E-04	.0127	4.3920E-04	.0152	4.8417E-04	.0170	.2830	60.000
B	419	488	.435	.078	1.060E-04	.0037	1.2717E-04	.0045	1.4123E-04	.0049	.2830	90.000
B	420	486	.865	.149	2.016E-04	.0071	2.4160E-04	.0085	2.6833E-04	.0094	.2830	105.000
B	421	487	.773	.126	1.711E-04	.0060	2.0513E-04	.0072	2.2779E-04	.0080	.2830	120.000
B	422	488	.748	.134	1.820E-04	.0064	2.1821E-04	.0076	2.4235E-04	.0085	.2830	135.000
B	423	488	.817	.162	2.192E-04	.0077	2.6286E-04	.0092	2.9193E-04	.0102	.2830	150.000
B	424	489	.679	.129	1.751E-04	.0061	2.1004E-04	.0074	2.3331E-04	.0082	.2830	165.000
B	425	488	.819	.156	2.109E-04	.0074	2.5208E-04	.0089	2.8084E-04	.0098	.2830	180.000
B	426	500	.840	.161	2.215E-04	.0078	2.6653E-04	.0093	2.9667E-04	.0104	.3160	0
B	428	501	.466	.091	1.255E-04	.0044	1.5104E-04	.0053	1.6815E-04	.0059	.3160	30.000
B	430	500	1.017	.189	2.608E-04	.0091	3.1379E-04	.0110	3.4926E-04	.0122	.3160	60.000
B	432	488	1.444	.241	3.266E-04	.0114	3.9171E-04	.0137	4.3506E-04	.0152	.3160	90.000
B	433	485	.402	.076	1.029E-04	.0036	1.2334E-04	.0043	1.3691E-04	.0048	.3160	105.000
B	434	487	1.036	.161	2.183E-04	.0076	2.6173E-04	.0092	2.9063E-04	.0102	.3160	120.000
B	435	488	.627	.118	1.570E-04	.0055	1.8826E-04	.0066	2.0908E-04	.0073	.3160	135.000
B	436	487	.663	.128	1.732E-04	.0061	2.0758E-04	.0073	2.3049E-04	.0081	.3160	150.000
B	437	486	.785	.149	2.013E-04	.0071	2.4124E-04	.0085	2.6783E-04	.0094	.3160	165.000
B	438	487	.756	.146	1.976E-04	.0069	2.3684E-04	.0083	2.6304E-04	.0092	.3160	180.000
B	439	502	.826	.161	2.222E-04	.0078	2.6791E-04	.0094	2.9786E-04	.0104	.3540	0
B	441	502	.628	.125	1.729E-04	.0061	2.0819E-04	.0073	2.3148E-04	.0081	.3540	30.000
B	443	502	.242	.055	7.944E-05	.0028	9.5027E-05	.0033	1.0114E-04	.0035	.3540	60.000
B	445	495	2.207	.386	5.282E-04	.0185	6.3458E-04	.0222	7.0563E-04	.0247	.3540	90.000
B	446	491	.289	.050	6.760E-05	.0024	8.1001E-05	.0028	9.0010E-05	.0032	.3540	105.000
B	447	492	1.691	.284	3.874E-04	.0136	4.6511E-04	.0163	5.1698E-04	.0181	.3540	120.000
B	448	490	.527	.098	1.326E-04	.0046	1.5915E-04	.0056	1.7694E-04	.0062	.3540	135.000
B	450	491	.625	.116	1.576E-04	.0055	1.8011E-04	.0066	2.1015E-04	.0074	.3540	165.000
B	451	489	.581	.108	1.440E-04	.0051	1.7521E-04	.0061	1.9464E-04	.0068	.3540	180.000
B	452	504	.786	.151	2.089E-04	.0073	2.5165E-04	.0088	2.8032E-04	.0098	.3800	0
B	454	504	.657	.126	1.746E-04	.0061	2.1032E-04	.0074	2.3428E-04	.0082	.3800	30.000
B	456	503	.319	.051	7.064E-05	.0025	8.5072E-05	.0030	9.4752E-05	.0033	.3800	60.000
B	458	498	2.280	.412	5.657E-04	.0198	6.8022E-04	.0238	7.9683E-04	.0265	.3800	90.000
B	490	494	.603	.115	1.575E-04	.0055	1.8920E-04	.0066	2.1039E-04	.0074	.3800	105.000

GROUP
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AEDC(ARO,INC.) ARNOLD AFS, TENNESSEE
VON KARMAN GAS DYNAMICS FACILITY
90 INCH HYPERSONIC TUNNEL B
VT1102

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
16	800	GDC-B	7.93	151.0	1225	-5.00	-5.00	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FN (IN .009FT)	STFN (IN .009FT)	SWITCH POSITION
90.2	.016	.721	3691	1.923E-05	7.209E-08	7.74E 05	2.878E-02	6.474E-02	1

TC NO	TW	DIRECT	G-DOT	M(TO)	M(TO)/HREF	P(.9TO)	M(.9TO)/HREF	M(.85TO)	M(.85TO)/HREF	FUSELAGE-BODY TOR X/L	PHI
B 1	523	17.772	16.086	2.290E-02	.7957	2.7738E-02	.9638	3.1014E-02	1.0778	0	0
B 2	497	17.973	3.249	4.459E-03	.1549	5.3621E-03	.1863	5.9660E-03	.2073	.0137	0
B 3	501	28.731	5.200	7.185E-03	.2497	8.6402E-03	.3005	9.6306E-03	.3346	.0137	180.000
B 4	496	10.400	1.876	2.573E-03	.0894	3.0924E-03	.1075	3.4397E-03	.1195	.0274	0
B 5	495	10.525	1.898	2.600E-03	.0903	3.1239E-03	.1085	3.4742E-03	.1207	.0274	30.000
B 6	496	11.855	2.139	2.932E-03	.1019	3.5237E-03	.1224	3.9193E-03	.1362	.0274	60.000
B 7	496	13.186	2.378	3.261E-03	.1133	3.9187E-03	.1362	4.3586E-03	.1514	.0274	90.000
B 8	496	15.225	2.825	3.882E-03	.1349	4.6661E-03	.1621	5.1907E-03	.1804	.0274	120.000
B 9	496	16.136	2.997	4.110E-03	.1428	4.9396E-03	.1716	5.4944E-03	.1909	.0274	150.000
B 10	496	14.846	2.758	3.784E-03	.1315	4.5493E-03	.1581	5.0606E-03	.1758	.0274	180.000
B 11	497	13.484	2.634	3.342E-03	.1161	4.0183E-03	.1396	4.4704E-03	.1553	.0406	180.000
B 12	495	6.261	1.129	1.547E-03	.0538	1.8597E-03	.0646	2.0683E-03	.0719	.0543	0
B 13	494	6.649	1.198	1.639E-03	.0569	1.9684E-03	.0684	2.1887E-03	.0760	.0543	30.000
B 14	493	7.773	1.400	1.913E-03	.0665	2.2972E-03	.0798	2.5539E-03	.0887	.0543	60.000
B 15	493	9.014	1.624	2.216E-03	.0770	2.6610E-03	.0925	2.9581E-03	.1028	.0543	90.000
B 17	494	10.965	1.975	2.701E-03	.0938	3.2448E-03	.1127	3.6068E-03	.1253	.0543	150.000
B 18	495	11.428	2.061	2.824E-03	.0981	3.3936E-03	.1179	3.7743E-03	.1311	.0543	180.000
B 19	495	9.361	1.688	2.310E-03	.0803	2.7761E-03	.0965	3.0873E-03	.1073	.0670	180.000
B 20	496	4.182	.754	1.034E-03	.0359	1.2433E-03	.0432	1.3829E-03	.0481	.0790	0
B 21	494	8.150	1.469	2.010E-03	.0698	2.4150E-03	.0839	2.6854E-03	.0933	.0790	180.000
B 22	494	7.032	1.267	1.732E-03	.0602	2.0802E-03	.0723	2.3128E-03	.0804	.0926	180.000
B 23	495	2.868	.522	7.150E-04	.0248	8.5909E-04	.0298	9.5534E-04	.0332	.1030	0
B 24	495	2.961	.534	7.306E-04	.0254	8.7787E-04	.0305	9.7624E-04	.0339	.1030	15.000
B 25	494	3.323	.599	8.193E-04	.0285	9.8431E-04	.0342	1.0945E-03	.0380	.1030	30.000
B 26	491	3.511	.632	8.607E-04	.0299	1.0332E-03	.0359	1.1483E-03	.0399	.1030	45.000
B 27	492	3.872	.697	9.497E-04	.0330	1.1401E-03	.0396	1.2671E-03	.0440	.1030	60.000
B 28	492	4.249	.765	1.042E-03	.0362	1.2514E-03	.0435	1.3909E-03	.0483	.1030	75.000
B 29	491	5.014	.902	1.229E-03	.0427	1.4757E-03	.0513	1.6401E-03	.0570	.1030	90.000
B 30	491	5.396	.971	1.323E-03	.0460	1.5878E-03	.0552	1.7646E-03	.0613	.1030	105.000
B 31	491	5.444	.979	1.335E-03	.0464	1.6021E-03	.0557	1.7805E-03	.0619	.1030	120.000
B 32	491	6.399	1.151	1.569E-03	.0545	1.8833E-03	.0654	2.0931E-03	.0727	.1030	135.000
B 33	492	6.729	1.211	1.653E-03	.0574	1.9846E-03	.0690	2.2060E-03	.0767	.1030	150.000
B 34	492	6.824	1.228	1.676E-03	.0582	2.0130E-03	.0699	2.2376E-03	.0777	.1030	165.000
B 35	493	6.675	1.202	1.643E-03	.0571	1.9737E-03	.0686	2.1943E-03	.0762	.1030	180.000
B 37	494	5.172	.932	1.274E-03	.0443	1.5309E-03	.0532	1.7022E-03	.0591	.1300	180.000
B 38	491	1.623	.292	3.976E-04	.0138	4.7720E-04	.0166	5.3031E-04	.0184	.1430	0
B 39	493	4.435	.799	1.091E-03	.0379	1.3108E-03	.0455	1.4573E-03	.0506	.1430	180.000
B 40	492	3.178	.572	7.819E-04	.0247	9.5479E-04	.0297	9.9010E-04	.0330	.1960	180.000
B 41	490	.898	.185	2.516E-04	.0087	3.0190E-04	.0105	3.3541E-04	.0117	.1690	0
B 42	490	.872	.173	2.349E-04	.0082	2.8186E-04	.0098	3.1315E-04	.0109	.1690	15.000
B 43	489	.978	.186	2.530E-04	.0088	3.0349E-04	.0105	3.3717E-04	.0117	.1690	30.000
B 44	489	1.030	.199	2.709E-04	.0094	3.2500E-04	.0113	3.6107E-04	.0125	.1690	45.000
B 45	490	.976	.181	2.457E-04	.0085	2.9482E-04	.0102	3.2758E-04	.0114	.1690	60.000
B 46	491	1.442	.267	3.637E-04	.0126	4.3607E-04	.0152	4.8810E-04	.0169	.1690	75.000
B 47	493	1.513	.280	3.828E-04	.0133	4.5972E-04	.0160	5.1105E-04	.0178	.1690	90.000
B 48	492	1.648	.305	4.161E-04	.0145	4.9958E-04	.0174	5.5824E-04	.0193	.1690	105.000
B 49	491	1.989	.368	5.020E-04	.0174	6.0258E-04	.0209	6.6969E-04	.0233	.1690	120.000
B 50	492	2.133	.395	5.385E-04	.0187	6.4647E-04	.0225	7.1881E-04	.0250	.1690	135.000
B 51	492	2.345	.447	6.091E-04	.0212	7.3119E-04	.0254	8.1265E-04	.0282	.1690	150.000
B 52	493	2.265	.420	5.730E-04	.0199	6.8809E-04	.0239	7.6490E-04	.0266	.1690	165.000
B 53	492	2.391	.430	5.878E-04	.0204	7.0545E-04	.0245	7.8418E-04	.0272	.1690	180.000
B 400	494	.498	.090	1.227E-04	.0043	1.4735E-04	.0051	1.6383E-04	.0057	.2420	0
B 402	494	.288	.053	7.306E-05	.0025	8.7769E-05	.0030	9.7598E-05	.0034	.2420	30.000
B 404	494	1.025	.199	2.721E-04	.0095	3.2685E-04	.0114	3.6344E-04	.0126	.2420	60.000
B 406	494	.903	.163	2.229E-04	.0077	2.6778E-04	.0093	2.9772E-04	.0103	.2420	90.000
B 407	494	1.113	.206	2.821E-04	.0098	3.3898E-04	.0118	3.7681E-04	.0131	.2420	105.000
B 408	494	1.170	.227	3.103E-04	.0108	3.7276E-04	.0130	4.1446E-04	.0144	.2420	120.000
B 409	495	1.171	.227	3.111E-04	.0108	3.7384E-04	.0130	4.1572E-04	.0144	.2420	135.000
B 410	494	1.283	.249	3.406E-04	.0118	4.0922E-04	.0142	4.5505E-04	.0158	.2420	150.000
B 411	495	1.279	.248	3.399E-04	.0118	4.0838E-04	.0142	4.5416E-04	.0158	.2420	165.000
B 412	495	1.364	.260	3.568E-04	.0124	4.2874E-04	.0149	4.7684E-04	.0166	.2420	180.000
B 413	500	.399	.076	1.055E-04	.0037	1.2693E-04	.0044	1.4129E-04	.0049	.2830	0
B 415	501	.373	.073	1.004E-04	.0035	1.2078E-04	.0042	1.3446E-04	.0047	.2830	30.000
B 417	500	.937	.158	2.174E-04	.0076	2.6163E-04	.0091	2.9126E-04	.0101	.2830	60.000
B 419	495	.722	.131	1.788E-04	.0062	2.1486E-04	.0075	2.3896E-04	.0083	.2830	90.000
B 420	495	1.076	.180	2.470E-04	.0086	2.9678E-04	.0103	3.3005E-04	.0115	.2830	105.000
B 421	495	.796	.131	1.793E-04	.0062	2.1546E-04	.0075	2.3963E-04	.0083	.2830	120.000
B 422	496	1.123	.203	2.782E-04	.0097	3.3440E-04	.0116	3.7198E-04	.0129	.2830	135.000
B 423	497	1.286	.256	3.515E-04	.0122	4.2251E-04	.0147	4.7002E-04	.0163	.2830	150.000
B 424	496	1.366	.261	3.582E-04	.0124	4.3064E-04	.0150	4.7906E-04	.0166	.2830	165.000
B 425	497	1.275	.244	3.347E-04	.0116	4.0237E-04	.0140	4.4764E-04	.0156	.2830	180.000
B 426	504	.356	.068	9.472E-05	.0033	1.1410E-04	.0040	1.2711E-04	.0044	.3160	0
B 428	505	.369	.072	1.002E-04	.0035	1.2069E-04	.0042	1.3447E-04	.0047	.3160	30.000
B 430	502	.568	.112	1.542E-04	.0054	1.8569E-04	.0065	2.0879E-04	.0072	.3160	60.000
B 432	496	1.789	.287	3.934E-04	.0137	4.7285E-04	.0164	5.2601E-04	.0183	.3160	90.000
B 433	494	.330	.063	8.628E-05	.0030	1.0366E-04	.0036	1.1527E-04	.0040	.3160	105.000
B 434	495	1.367	.211	2.888E-04	.0100	3.4706E-04	.0121	3.8600E-04	.0134	.3160	120.000
B 435	497	.911	.169	2.327E-04	.0081	2.7975E-04	.0097	3.1125E-04	.0108	.3160	135.000
B 436	495	1.147	.223	3.047E-04	.0106	3.6613E-04	.0127	4.0715E-04	.0141	.3160	150.000
B 437	495	1.384	.264	3.621E-04	.0126	4.3528E-04	.0151	4.8402E-04	.0168	.3160	165.000
B 438	496	1.283	.249	3.418E-04	.0119	4.1080E-04	.0143	4.5694E-04	.0159	.3160	180.000
B 439	504	.236	.046	6.390E-05	.0022	7.6980E-05	.0027	8.5771E-05	.0030	.3540	0
B 441	506	.306	.061	8.505E-05	.0030	1.0250E-04	.0036	1.1422E-04	.0040	.3540	30.000
B 443	506	.295	.047	8.557E-05	.0023	7.9024E-05	.0027	8.8057E-05	.0031	.3540	60.000
B 445	500	2.589	.455	6.272E-04	.0218	7.5478E-04	.0262	8.4026E-04	.0292	.3540	90.000
B 446	498	.743	.128	1.762E-04	.0061	2.1194E-04	.0074	2.3582E-04	.0082	.3540	105.000
B 447	499	2.239	.387	5.328E-04	.0185	6.4093E-04	.0223	7.1334E-04	.0248	.3540	120.000
B 448	496	.606	.113	1.545E-04	.0054	1.8578E-04	.0065	2.0667E-04	.0072	.3540	135.000
B 450	498	1.215	.226	3.104E-04	.0108	3.7329E-04	.0130	4.1536E-04	.0144	.3540	165.000
B 451	497	1.277	.237	3.257E-04	.0113	3.9160E-04	.0136	4.3568E-04	.0151	.3540	180.000
B 452	506	.243	.047	6.493E-05	.0023	7.8085E-05	.0027	8.7209E-05	.0030	.3800	0
B 454	506	.243	.047	6.494E-05	.0023	7.8088E-05	.0027	8.7219E-05	.0030	.3800	30.000
B 456	506	.208	.033	4.432E-05	.0016	5.8033E-05	.0019	6.2219E-05	.0022	.3800	60.000
B 458	502	2.250	.407	5.632E-04	.0196	6.7801E-04	.0236	7.5497E-04	.0262	.3800	90.000
B 459	500	2.339	.448	6.180E-04	.0215	7.4377E-04	.0258	8.2799E-04	.0288	.3800	105.000

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

NOT REPRODUCIBLE

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
15	806	GDC-B	7.93	148.7	1225	-.03	-.03	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
90.2	.016	.710	3691	1.500E-05	7.263E-08	7.62E 05	2.856E-02	6.523E-02	2

TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF		
										FUSELAGE-BOOSTER X/L	PHI
B 460	496	1.553	.287	3.944E-04	.0138	4.7412E-04	.0166	5.2740E-04	.0185	.3800	120.000
B 461	493	.446	.080	1.097E-04	.0038	1.3180E-04	.0046	1.4652E-04	.0051	.3800	135.000
B 462	495	.565	.109	1.486E-04	.0052	1.7858E-04	.0063	1.9859E-04	.0070	.3800	150.000
B 463	494	.546	.101	1.387E-04	.0049	1.6662E-04	.0058	1.8529E-04	.0065	.3800	165.000
B 464	494	.546	.101	1.387E-04	.0049	1.6662E-04	.0058	1.8529E-04	.0065	.3800	180.000
B 106	509	.334	.064	6.987E-05	.0031	1.0841E-04	.0038	1.2087E-04	.0042	.4400	0
B 109	506	1.273	.231	3.211E-04	.0112	3.8704E-04	.0136	4.3130E-04	.0151	.4400	90.000
B 110	502	.866	.157	2.171E-04	.0076	2.6143E-04	.0092	2.9116E-04	.0102	.4400	120.000
B 111	499	.368	.067	9.173E-05	.0032	1.1036E-04	.0039	1.2284E-04	.0043	.4400	150.000
B 112	498	.507	.092	1.261E-04	.0044	1.5166E-04	.0053	1.6876E-04	.0059	.4400	180.000
B 113	512	.514	.101	1.413E-04	.0049	1.7069E-04	.0060	1.9045E-04	.0067	.4800	0
B 116	510	.834	.147	2.060E-04	.0072	2.4866E-04	.0087	2.7734E-04	.0097	.4800	90.000
B 117	507	.620	.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	1.5580E-04	.0055	.4800	180.000
B 120	513	.517	.101	1.425E-04	.0050	1.7219E-04	.0060	1.9218E-04	.0067	.5200	0
B 195	519	5.368	1.087	1.541E-03	.0539	1.8642E-03	.0653	2.0829E-03	.0729	.5500	43.000
B 127	514	.428	.078	1.100E-04	.0039	1.3294E-04	.0047	1.4840E-04	.0052	.5500	90.000
B 128	514	1.456	.265	3.735E-04	.0131	4.5129E-04	.0158	5.0373E-04	.0176	.5500	105.000
B 129	511	.418	.076	1.067E-04	.0037	1.2883E-04	.0045	1.4372E-04	.0050	.5500	120.000
B 130	505	.136	.025	3.439E-05	.0012	4.1449E-05	.0015	4.6188E-05	.0016	.5500	150.000
B 131	500	.481	.087	1.200E-04	.0042	1.4447E-04	.0051	1.6083E-04	.0056	.5500	180.000
B 138	519	.186	.034	4.824E-05	.0017	5.8359E-05	.0020	6.5201E-05	.0023	.6250	90.000
B 139	518	.661	.121	1.711E-04	.0060	2.0697E-04	.0072	2.3121E-04	.0081	.6250	105.000
B 140	515	.542	.099	1.392E-04	.0049	1.6823E-04	.0059	1.8780E-04	.0066	.6250	120.000
B 141	511	.358	.065	9.126E-05	.0032	1.1016E-04	.0039	1.2288E-04	.0043	.6250	150.000
B 142	509	.353	.064	8.959E-05	.0031	1.0808E-04	.0038	1.2051E-04	.0042	.6250	180.000
B 150	520	.403	.074	1.046E-04	.0037	1.2664E-04	.0044	1.4151E-04	.0050	.7000	90.000
B 151	519	.310	.057	8.042E-05	.0028	9.7303E-05	.0034	1.0872E-04	.0038	.7000	105.000
B 152	518	.612	.112	1.583E-04	.0055	1.9146E-04	.0067	2.1388E-04	.0075	.7000	120.000
B 153	515	.297	.054	7.622E-05	.0027	9.2112E-05	.0032	1.0283E-04	.0036	.7000	150.000
B 154	514	.372	.066	9.253E-05	.0032	1.1178E-04	.0039	1.2476E-04	.0044	.7000	180.000
B 159	523	.723	.129	1.833E-04	.0064	2.2213E-04	.0078	2.4841E-04	.0087	.7700	90.000
B 160	522	.815	.145	2.060E-04	.0072	2.4946E-04	.0087	2.7888E-04	.0098	.7700	120.000
B 161	520	.336	.060	8.455E-05	.0030	1.0232E-04	.0036	1.1433E-04	.0040	.7700	150.000
B 162	519	.353	.070	9.869E-05	.0035	1.1940E-04	.0042	1.3340E-04	.0047	.7700	180.000
B 171	522	.887	.163	2.314E-04	.0081	2.8029E-04	.0098	3.1338E-04	.0110	.0900	120.000
B 172	521	.193	.035	5.029E-05	.0018	6.0896E-05	.0021	6.8009E-05	.0024	.0900	180.000
										UPPER WING SURFACE-BOOSTER X/C	Y/S
B 200	531	17.297	2.651	3.824E-03	.1339	4.6439E-03	.1626	5.2018E-03	.1821	0	.100
B 201	529	4.772	.558	8.018E-04	.0281	9.7322E-04	.0341	1.0897E-03	.0382	.1000	.100
B 202	526	2.360	.331	4.745E-04	.0166	5.7539E-04	.0201	6.4385E-04	.0225	.2000	.100
B 203	523	.698	.144	2.052E-04	.0072	2.4868E-04	.0087	2.7798E-04	.0097	.3300	.100
B 204	524	.710	.124	1.775E-04	.0062	2.1515E-04	.0075	2.4063E-04	.0084	.4000	.100
B 205	524	.351	.063	8.923E-05	.0031	1.0814E-04	.0038	1.2096E-04	.0042	.6000	.100
B 206	524	.231	.039	5.623E-05	.0020	6.8142E-05	.0024	7.6214E-05	.0027	.7000	.100
B 207	525	.209	.020	2.824E-05	.0010	3.4237E-05	.0012	3.8302E-05	.0013	.9100	.100
B 217	541	35.228	4.316	6.313E-03	.2211	7.6909E-03	.2693	8.6329E-03	.3023	0	.200
B 218	532	10.576	1.031	1.488E-03	.0521	1.8080E-03	.0633	2.0254E-03	.0709	.0500	.200
B 219	530	5.887	.573	8.253E-04	.0289	1.0019E-03	.0351	1.1219E-03	.0393	.1000	.200
B 220	526	2.499	.224	3.207E-04	.0112	3.8887E-04	.0136	4.3512E-04	.0152	.2000	.200
B 221	524	.724	.141	2.007E-04	.0070	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	.6000	.200
B 223	523	.348	.059	8.447E-05	.0030	1.0234E-04	.0036	1.1448E-04	.0040	.7000	.200
B 230	544	35.861	4.889	7.181E-03	.2514	8.7954E-03	.3080	9.8327E-03	.3443	0	.250
B 231	529	5.194	.610	8.756E-04	.0307	1.0625E-03	.0372	1.1895E-03	.0417	.1000	.250
B 232	525	.671	.130	1.863E-04	.0065	2.2580E-04	.0079	2.5258E-04	.0088	.4000	.250
B 233	525	.495	.093	1.335E-04	.0047	1.6183E-04	.0057	1.8103E-04	.0063	.5000	.250
B 234	524	.529	.097	1.387E-04	.0049	1.6806E-04	.0059	1.8798E-04	.0066	.6000	.250
B 235	524	.580	.042	5.989E-05	.0021	7.2578E-05	.0025	8.1176E-05	.0028	.8330	.250
B 236	524	.584	.047	6.748E-05	.0024	8.1779E-05	.0029	9.1471E-05	.0032	.8670	.250
B 237	524	.633	.051	7.317E-05	.0026	8.8685E-05	.0031	9.9198E-05	.0035	.9010	.250
B 238	525	.511	.039	5.594E-05	.0020	6.7800E-05	.0024	7.5840E-05	.0027	.9350	.250
B 248	547	41.467	4.712	6.954E-03	.2435	8.4885E-03	.2972	9.5410E-03	.3341	0	.300
B 249	529	4.726	.575	8.269E-04	.0290	1.0035E-03	.0351	1.1236E-03	.0393	.1000	.300
B 250	528	3.272	.368	5.278E-04	.0185	6.4034E-04	.0224	7.1672E-04	.0251	.2000	.300
B 251	525	.889	.173	2.470E-04	.0086	2.9948E-04	.0105	3.3501E-04	.0117	.4000	.300
B 252	525	.548	.118	1.689E-04	.0059	2.0475E-04	.0072	2.2904E-04	.0080	.6000	.300
B 263	548	46.853	5.761	8.507E-03	.2979	1.0385E-02	.3636	1.1674E-02	.4088	0	.400
B 264	532	7.878	.961	1.387E-03	.0486	1.6843E-03	.0590	1.8870E-03	.0661	.1000	.400
B 265	527	.925	.180	2.577E-04	.0090	3.1250E-04	.0109	3.4971E-04	.0122	.4000	.400
B 266	528	.577	.112	1.611E-04	.0056	1.9548E-04	.0068	2.1880E-04	.0077	.6000	.400
B 277	554	55.640	5.338	7.953E-03	.2785	9.7277E-03	.3406	1.0958E-02	.3834	0	.500
B 278	532	7.528	.907	1.426E-03	.0499	1.7327E-03	.0607	1.9413E-03	.0680	.1000	.500
B 279	531	4.627	.564	8.126E-04	.0285	9.8684E-04	.0346	1.1053E-03	.0387	.2000	.500
B 280	526	1.103	.214	3.071E-04	.0108	3.7244E-04	.0130	4.1675E-04	.0146	.4000	.500
B 281	525	1.016	.192	2.746E-04	.0096	3.3287E-04	.0117	3.7240E-04	.0130	.5000	.500
B 282	525	.797	.151	2.150E-04	.0075	2.6066E-04	.0091	2.9159E-04	.0102	.6000	.500
B 283	525	.760	.072	1.026E-04	.0036	1.2434E-04	.0044	1.3909E-04	.0049	.8770	.500
B 296	547	46.508	6.202	9.155E-03	.3206	1.1175E-02	.3913	1.2561E-02	.4398	0	.600
B 297	532	10.829	1.420	2.050E-03	.0718	2.4909E-03	.0872	2.7907E-03	.0977	.1000	.600
B 298	530	6.772	.817	1.176E-03	.0412	1.4280E-03	.0500	1.5991E-03	.0560	.2000	.600
B 299	528	.917	.207	2.966E-04	.0104	3.5985E-04	.0126	4.0280E-04	.0141	.4000	.600
B 300	527	.981	.172	2.470E-04	.0086	2.9961E-04	.0105	3.3532E-04	.0117	.6000	.600
B 301	527	.852	.081	1.154E-04	.0040	1.3995E-04	.0049	1.5661E-04	.0055	.7930	.600
B 302	527	.603	.057	8.172E-05	.0029	9.9114E-05	.0035	1.1092E-04	.0039	.8510	.600
B 315	537	19.746	2.060	2.993E-03	.1048	3.6409E-03	.1275	4.0829E-03	.1430	.1000	.700
B 316	533	8.661	.902	1.304E-03	.0457	1.5850E-03	.0555	1.7761E-03	.0622	.2000	.700
B 317	530	1.596	.259	3.727E-04	.0131	4.5248E-04	.0158	5.0667E-04	.0177	.5000	.700
										UPPER CANARD SURFACE-BOOSTER X/L	Y/S
B 350	510	34.631	3.244	4.541E-03	.1590	5.4812E-03	.1919	6.1138E-03	.2141	0	.250
B 351	502	6.872	.641	8.865E-04	.0310	1.0678E-03	.0374	1.1888E-03	.0416	.2500	.250
B 352	504	1.584	.267	3.703E-04	.0130	4.4613E-04	.0156	4.9701E-04	.0174	.5000	.250
B 353	505	.838	.141	1.964E-04	.0069	2.3669E-04	.0083	2.6374E-04	.0092	.7000	.250
B 357	517	37.298	3.507	4.959E-03	.1735	5.9924E-03	.2098	6.6927E-03	.2343	0	.500
B 358	505	7.993	.748	1.037E-03	.0363	1.2497E-03	.0438	1.3925E-03	.0488	.2500	.500
B 359	506	2.119	.320	4.455E-04	.0156	5.3704E-04	.0188	5.9853E-04	.0210	.5000	.500
B 360	507	1.163	.196	2.734E-04	.0096	3.2958E-04	.0115	3.6735E-04	.0129	.7000	.500

GROUP

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
16	800	GUC-B	7.93	149.7	1223	-5.00	-5.00	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	SIER (R= .009FT)	SWITCH POSITION
90.1	.016	.715	6689	1.512E-05	7.255E-08	7.69E 05	2.865E-02	6.496E-02	2

	TC NO	TW	DTHLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
B	460	497	1.525	.275	3.789E-04	.0132	4.5562E-04	.0159	5.0694E-04	.0177	.3800	120.000
B	461	494	.637	.115	1.574E-04	.0055	1.8908E-04	.0066	2.1027E-04	.0073	.3800	135.000
B	462	496	.950	.184	2.529E-04	.0088	3.0410E-04	.0106	3.3812E-04	.0118	.3800	150.000
B	463	497	1.259	.234	3.217E-04	.0112	3.8680E-04	.0135	4.3035E-04	.0150	.3800	165.000
B	464	496	1.305	.242	3.335E-04	.0116	4.0103E-04	.0140	4.4618E-04	.0156	.3800	180.000
B	106	508	.261	.050	7.024E-05	.0025	8.4744E-05	.0030	9.4497E-05	.0033	.4400	0
B	109	506	1.199	.216	3.033E-04	.0106	3.6569E-04	.0128	4.0758E-04	.0142	.4400	90.000
B	110	503	.474	.086	1.193E-04	.0042	1.4369E-04	.0050	1.6007E-04	.0056	.4400	120.000
B	111	501	.992	.180	2.486E-04	.0087	2.9932E-04	.0104	3.3331E-04	.0116	.4400	150.000
B	112	500	1.383	.250	3.460E-04	.0121	4.1641E-04	.0145	4.6362E-04	.0162	.4400	180.000
B	113	513	.073	.014	2.023E-05	.0007	2.4442E-05	.0009	2.7278E-05	.0010	.4880	0
B	116	511	.886	.157	2.199E-04	.0077	2.6553E-04	.0093	2.9626E-04	.0103	.4880	90.000
B	117	509	.507	.092	1.290E-04	.0045	1.5566E-04	.0054	1.7358E-04	.0061	.4880	120.000
B	118	506	1.079	.196	2.731E-04	.0095	3.2921E-04	.0115	3.6694E-04	.0128	.4880	150.000
B	119	505	1.327	.241	3.350E-04	.0117	4.0370E-04	.0141	4.4986E-04	.0157	.4880	180.000
B	120	514	.106	.021	2.938E-05	.0010	3.5501E-05	.0012	3.9627E-05	.0014	.5200	0
B	195	519	1.581	.319	4.526E-04	.0158	5.4764E-04	.0191	6.1191E-04	.0214	.5800	45.000
B	127	516	.263	.048	6.793E-05	.0024	8.2123E-05	.0029	9.1702E-05	.0032	.5800	90.000
B	128	515	.417	.076	1.074E-04	.0038	1.2986E-04	.0045	1.4499E-04	.0051	.5800	105.000
B	129	512	.746	.136	1.917E-04	.0067	2.3154E-04	.0081	2.5839E-04	.0090	.5800	120.000
B	130	508	1.137	.207	2.886E-04	.0101	3.4809E-04	.0122	3.8811E-04	.0135	.5800	150.000
B	131	503	1.192	.216	2.997E-04	.0105	3.6099E-04	.0126	4.0210E-04	.0140	.5800	180.000
B	138	520	.150	.027	3.891E-05	.0014	4.7100E-05	.0016	5.2639E-05	.0018	.6250	90.000
B	139	519	.343	.063	8.916E-05	.0031	1.0791E-04	.0038	1.2059E-04	.0042	.6250	105.000
B	140	516	.810	.148	2.092E-04	.0073	2.5296E-04	.0088	2.8251E-04	.0099	.6250	120.000
B	141	513	1.153	.210	2.958E-04	.0103	3.5730E-04	.0125	3.9879E-04	.0139	.6250	150.000
B	142	511	1.259	.229	3.218E-04	.0112	3.8850E-04	.0136	4.3345E-04	.0151	.6250	180.000
B	150	520	.221	.040	5.747E-05	.0020	6.9576E-05	.0024	7.7769E-05	.0027	.7000	90.000
B	151	520	.365	.067	9.495E-05	.0033	1.1496E-04	.0040	1.2849E-04	.0045	.7000	105.000
B	152	520	.834	.154	2.182E-04	.0076	2.6414E-04	.0092	2.9520E-04	.0103	.7000	120.000
B	153	517	1.122	.205	2.903E-04	.0101	3.5118E-04	.0123	3.9229E-04	.0137	.7000	150.000
B	154	516	1.256	.230	3.250E-04	.0113	3.9296E-04	.0137	4.3888E-04	.0153	.7000	180.000
B	159	524	.435	.077	1.106E-04	.0039	1.3409E-04	.0047	1.4998E-04	.0052	.7700	90.000
B	160	522	.780	.139	1.978E-04	.0069	2.3966E-04	.0084	2.6799E-04	.0094	.7700	120.000
B	161	521	1.249	.222	3.161E-04	.0110	3.8286E-04	.0134	4.2802E-04	.0149	.7700	150.000
B	162	521	1.255	.223	3.172E-04	.0111	3.8411E-04	.0134	4.2937E-04	.0150	.7700	180.000
B	171	524	.328	.060	8.585E-05	.0030	1.0404E-04	.0036	1.1636E-04	.0041	.8950	120.000
B	172	524	1.167	.207	2.952E-04	.0103	3.5779E-04	.0125	4.0018E-04	.0140	.8950	150.000

	TC NO	TW	DTHLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	UPPER WING SURFACE-BOOSTER X/C	Y/S
B	200	532	15.938	2.444	3.537E-03	.1235	4.2977E-03	.1500	4.8157E-03	.1681	0	.100
B	201	530	7.071	.827	1.193E-03	.0417	1.4491E-03	.0506	1.6231E-03	.0567	.1000	.100
B	202	528	4.217	.593	8.519E-04	.0297	1.0336E-03	.0361	1.1571E-03	.0404	.2000	.100
B	203	525	1.062	.220	3.144E-04	.0110	3.8118E-04	.0133	4.2947E-04	.0149	.3300	.100
B	204	526	1.248	.219	3.143E-04	.0110	3.8125E-04	.0133	4.2665E-04	.0149	.4000	.100
B	205	526	.378	.067	9.685E-05	.0034	1.1722E-04	.0041	1.3118E-04	.0046	.6000	.100
B	206	526	.403	.069	9.879E-05	.0034	1.1977E-04	.0042	1.3403E-04	.0047	.7000	.100
B	207	528	.439	.042	5.974E-05	.0021	7.2481E-05	.0025	8.1136E-05	.0028	.9100	.100
B	217	539	28.608	3.501	5.114F-03	.1785	6.2270E-03	.2174	6.9873E-03	.2439	0	.200
B	218	533	16.727	1.632	2.362E-03	.0825	2.8704E-03	.1002	3.2165E-03	.1123	.0900	.200
B	219	532	9.473	.972	1.406E-03	.0491	1.7077E-03	.0596	1.9133E-03	.0668	.1000	.200
B	220	529	5.937	.533	7.676E-04	.0268	9.3181E-04	.0325	1.0434E-03	.0364	.2000	.200
B	221	527	1.874	.365	5.239E-04	.0183	6.3559E-04	.0222	7.1145E-04	.0248	.4000	.200
B	222	527	.861	.154	2.204E-04	.0077	2.6728E-04	.0093	2.9914E-04	.0104	.6000	.200
B	223	526	.560	.096	1.370E-04	.0048	1.6617E-04	.0058	1.8596E-04	.0065	.7000	.200
B	230	540	24.155	3.286	4.805E-03	.1677	5.8524E-03	.2043	6.5479E-03	.2293	0	.250
B	231	531	9.603	1.129	1.630E-03	.0569	1.9805E-03	.0691	2.2187E-03	.0774	.1000	.250
B	232	529	1.874	.365	5.253E-04	.0183	6.3753E-04	.0223	7.1381E-04	.0249	.4000	.250
B	233	528	1.399	.269	3.810E-04	.0133	4.6243E-04	.0161	5.1772E-04	.0181	.6000	.250
B	234	528	.810	.146	2.139E-04	.0075	2.5956E-04	.0091	2.9056E-04	.0101	.8000	.250
B	235	527	.763	.055	7.936E-05	.0028	9.6289E-05	.0034	1.0778E-04	.0038	.8330	.250
B	236	528	.812	.066	9.458E-05	.0033	1.1479E-04	.0040	1.2846E-04	.0045	.8670	.250
B	237	528	.704	.057	8.210E-05	.0029	9.9624E-05	.0035	1.1152E-04	.0039	.9010	.250
B	238	528	.550	.042	6.069E-05	.0021	7.3644E-05	.0026	8.2438E-05	.0029	.9350	.250
B	248	544	31.703	3.597	5.295E-03	.1848	6.4581E-03	.2254	7.2549E-03	.2532	0	.300
B	249	530	5.096	.621	8.950E-04	.0312	1.0868E-03	.0379	1.2171E-03	.0425	.1000	.300
B	250	530	4.328	.487	7.020E-04	.0245	8.5315E-04	.0298	9.5949E-04	.0334	.2000	.300
B	251	529	1.621	.316	4.550E-04	.0159	5.5234E-04	.0193	6.1852E-04	.0216	.4000	.300
B	252	528	.888	.176	2.528F-04	.0088	3.0680E-04	.0107	3.4350E-04	.0120	.6000	.300
B	263	547	41.066	5.047	7.459E-03	.2604	9.1050E-03	.3178	1.0234E-02	.3572	0	.400
B	264	534	9.539	1.164	1.689E-03	.0590	2.0534E-03	.0717	2.3017E-03	.0803	.1000	.400
B	265	531	1.525	.297	4.297E-04	.0150	5.2191E-04	.0182	5.8467E-04	.0204	.4000	.400
B	266	532	1.247	.243	3.520F-04	.0123	4.2776E-04	.0149	4.7930E-04	.0167	.6000	.400
B	277	551	51.004	6.888	9.272E-03	.3238	1.1268E-02	.3933	1.2624E-02	.4406	0	.500
B	278	535	9.045	1.188	1.727E-03	.0603	2.1003E-03	.0733	2.3549E-03	.0822	.1000	.500
B	279	534	5.662	.691	1.003E-03	.0350	1.2199E-03	.0426	1.3676E-03	.0477	.2000	.500
B	280	531	1.531	.299	4.314E-04	.0151	5.2401E-04	.0183	5.8705E-04	.0205	.4000	.500
B	281	531	1.305	.262	3.787E-04	.0132	4.5993E-04	.0161	5.1517E-04	.0180	.5000	.500
B	282	530	1.184	.224	3.236F-04	.0113	3.9303E-04	.0137	4.4022E-04	.0154	.6000	.500
B	283	530	1.269	.115	1.652E-04	.0058	2.0060E-04	.0070	2.2467E-04	.0078	.8770	.500
B	296	550	47.742	6.113	9.077E-03	.3168	1.1092E-02	.3872	1.2477E-02	.4355	0	.600
B	297	536	11.265	1.478	2.149F-03	.0750	2.6141E-03	.0912	2.9313E-03	.1023	.1000	.600
B	298	534	6.845	.834	1.210E-03	.0422	1.4708E-03	.0513	1.6486E-03	.0575	.2000	.600
B	299	533	1.080	.244	3.540F-04	.0124	4.3030E-04	.0150	4.8227E-04	.0168	.4000	.600
B	300	534	1.321	.233	3.374E-04	.0118	4.1018E-04	.0143	4.5973E-04	.0160	.6000	.600
B	301	533	1.405	.133	1.929E-04	.0067	2.3439E-04	.0082	2.6268E-04	.0092	.7930	.600
B	302	533	1.206	.114	1.655F-04	.0058	2.0116E-04	.0070	2.2541E-04	.0079	.8910	.600
B	315	542	22.740	2.378	3.488E-03	.1217	4.2505E-03	.1484	4.7722E-03	.1666	.1000	.700
B	316	539	9.861	1.030	1.505E-03	.0525	1.8319E-03	.0639	2.0556E-03	.0718	.2000	.700
B	317	537	1.932	.315	4.585E-04	.0160	5.5791E-04	.0195	6.2573E-04	.0218	.5000	.700

	TC NO	TW	DTHLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	UPPER CANARD SURFACE-BOOSTER X/L	Y/S
B	350	513	34.198	3.204	4.509E-03	.1574	5.4465E-03	.1901	6.0786E-03	.2122	0	.250
B	351	505	9.153	.855	1.189E-03	.0415	1.4333E-03	.0500	1.5972E-03	.0558	.2500	.250
B	352	508	2.342	.396	5.526E-04	.0193	6.6655E-04	.0233	7.4315E-04	.0259	.5000	.250
B	353	509	1.155	.195	2.728E-04	.0095	3.2916E-04	.0115	3.6705E-04	.0128	.7000	.250
B	357	518	36.863	3.467	4.914E-03	.1715	5.9444E-03	.2075	6.6408E-03	.2318	0	.500
B	358	509	10.568	.985	1.383E-03	.0483	1.6692E-03	.0583	1.8614E-03	.0650	.2500	.500
B	359	510	3.169	.471	6.594E-04	.0230	7.9576E-04	.0278	8.8756E-04	.0310	.5000	.500
B	360	510	1.776	.300	4.208E-04	.0147	5.0794E-04	.0177	5.6657E-04	.0198	.7000	.500

GROUP
 A0

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	M00	GDC-H	7.93	148.3	1222	5.02	5.02	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (R= .009FT)	STFR (R= .009FT)	SWITCH POSITION
90.0	.018	.708	3687	1.499E-05	7.248E-08	7.62E 05	2.851E-02	6.523E-02	1

	TC NO	TW	DTWLT	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF	FUSELAGE-BOOSTER X/L	PHI
H	1	510	47.804	15.973	2.242E-02	.7864	2.7063E-02	.9492	3.0189E-02	1.0589	0	0
H	2	484	25.458	4.565	6.181E-03	.2168	7.4063E-03	.2598	8.2215E-03	.2884	.0137	0
B	3	483	20.749	3.715	5.027E-03	.1763	6.0240E-03	.2113	6.6867E-03	.2345	.0137	180.000
B	4	480	17.343	3.097	4.170E-03	.1463	4.9912E-03	.1751	5.5365E-03	.1942	.0274	0
B	5	478	16.448	2.963	3.952E-03	.1386	4.7280E-03	.1658	5.2428E-03	.1839	.0274	30.000
B	6	480	14.933	2.667	3.591E-03	.1260	4.2984E-03	.1508	4.7641E-03	.1672	.0274	60.000
B	7	480	13.963	2.490	3.354E-03	.1176	4.0147E-03	.1408	4.4535E-03	.1562	.0274	90.000
B	8	480	12.693	2.333	3.142E-03	.1102	3.7603E-03	.1319	4.1712E-03	.1463	.0274	120.000
B	9	480	11.945	2.196	2.958E-03	.1037	3.5406E-03	.1242	3.9275E-03	.1378	.0274	150.000
B	10	480	11.050	2.032	2.738E-03	.0960	3.2779E-03	.1150	3.6364E-03	.1275	.0274	180.000
H	11	479	7.952	1.420	1.910E-03	.0670	2.2856E-03	.0802	2.5351E-03	.0889	.0406	180.000
H	12	479	11.709	2.091	2.813E-03	.0987	3.3667E-03	.1181	3.7342E-03	.1310	.0543	0
H	13	477	11.027	1.966	2.639E-03	.0926	3.1570E-03	.1107	3.5005E-03	.1228	.0543	30.000
B	14	476	10.480	1.868	2.503E-03	.0878	2.9933E-03	.1050	3.3194E-03	.1164	.0543	60.000
H	15	476	9.057	1.614	2.162E-03	.0758	2.5855E-03	.0907	2.8662E-03	.1005	.0543	90.000
H	17	477	7.118	1.269	1.703E-03	.0597	2.0371E-03	.0715	2.2586E-03	.0792	.0543	150.000
H	18	478	6.533	1.166	1.567E-03	.0550	1.8757E-03	.0658	2.0802E-03	.0730	.0543	180.000
H	19	479	6.892	1.230	1.655E-03	.0581	1.9812E-03	.0695	2.1974E-03	.0771	.0670	180.000
H	20	481	8.423	1.505	2.030E-03	.0712	2.4302E-03	.0852	2.6962E-03	.0946	.0790	0
H	21	480	4.598	.821	1.107E-03	.0388	1.3249E-03	.0465	1.4697E-03	.0516	.0790	180.000
H	22	481	4.264	.766	1.033E-03	.0362	1.2368E-03	.0434	1.3719E-03	.0481	.0920	180.000
H	23	483	6.222	1.114	1.507E-03	.0529	1.8054E-03	.0633	2.0040E-03	.0703	.1030	0
H	24	483	6.438	1.152	1.559E-03	.0547	1.8675E-03	.0655	2.0727E-03	.0727	.1030	15.000
B	25	483	6.321	1.131	1.529E-03	.0536	1.8312E-03	.0642	2.0324E-03	.0713	.1030	30.000
H	26	480	5.973	1.067	1.437E-03	.0504	1.7197E-03	.0603	1.9076E-03	.0669	.1030	45.000
H	27	479	5.758	1.028	1.384E-03	.0485	1.6563E-03	.0581	1.8372E-03	.0644	.1030	60.000
H	28	479	5.396	.963	1.297E-03	.0455	1.5522E-03	.0544	1.7217E-03	.0604	.1030	75.000
B	29	479	4.819	.860	1.158E-03	.0406	1.3855E-03	.0486	1.5368E-03	.0539	.1030	90.000
B	30	480	4.432	.791	1.066E-03	.0374	1.2754E-03	.0447	1.4148E-03	.0496	.1030	105.000
B	31	480	3.974	.710	9.557E-04	.0335	1.1440E-03	.0401	1.2690E-03	.0445	.1030	120.000
B	32	480	3.833	.685	9.229E-04	.0324	1.1049E-03	.0388	1.2258E-03	.0430	.1030	135.000
B	33	481	3.657	.654	8.818E-04	.0309	1.0559E-03	.0370	1.1716E-03	.0411	.1030	150.000
B	34	481	3.394	.607	8.189E-04	.0287	9.8070E-04	.0344	1.0882E-03	.0382	.1030	165.000
H	35	482	3.203	.573	7.733E-04	.0271	9.2615E-04	.0325	1.0277E-03	.0360	.1030	180.000
B	37	488	2.100	.377	5.129E-04	.0180	6.1523E-04	.0216	6.8342E-04	.0240	.1300	180.000
B	38	489	3.603	.647	8.830E-04	.0310	1.0597E-03	.0372	1.1775E-03	.0413	.1430	0
B	39	491	1.701	.306	4.182E-04	.0147	5.0208E-04	.0176	5.5805E-04	.0196	.1430	180.000
B	40	491	1.267	.206	2.844E-04	.0100	3.4145E-04	.0120	3.7956E-04	.0133	.1560	180.000
B	41	490	2.395	.494	6.746E-04	.0237	8.0982E-04	.0284	9.0001E-04	.0316	.1690	0
B	42	490	2.206	.437	5.973E-04	.0210	7.1704E-04	.0252	7.9688E-04	.0280	.1690	15.000
B	43	490	2.269	.432	5.897E-04	.0207	7.0784E-04	.0248	7.8663E-04	.0276	.1690	30.000
H	44	489	1.923	.372	5.076E-04	.0178	6.0924E-04	.0214	6.7700E-04	.0237	.1690	45.000
H	45	491	1.781	.330	4.506E-04	.0158	5.4098E-04	.0190	6.0128E-04	.0211	.1690	60.000
B	46	490	1.770	.328	4.478E-04	.0157	5.3760E-04	.0189	5.9751E-04	.0210	.1690	75.000
B	47	492	1.447	.268	3.671E-04	.0129	4.4096E-04	.0155	4.9024E-04	.0172	.1690	90.000
B	48	492	1.332	.247	3.377E-04	.0118	4.0553E-04	.0142	4.5083E-04	.0158	.1690	105.000
B	49	491	1.098	.203	2.781E-04	.0098	3.3390E-04	.0117	3.7115E-04	.0130	.1690	120.000
B	50	492	1.144	.212	2.901E-04	.0102	3.4838E-04	.0122	3.8730E-04	.0136	.1690	135.000
H	51	492	.930	.177	2.425E-04	.0085	2.9127E-04	.0102	3.2379E-04	.0114	.1690	150.000
H	52	492	.801	.148	2.034E-04	.0071	2.4432E-04	.0086	2.7163E-04	.0095	.1690	165.000
H	53	492	.861	.155	2.123E-04	.0074	2.5504E-04	.0089	2.8357E-04	.0099	.1690	180.000
H	400	495	1.656	.298	4.103E-04	.0144	4.9312E-04	.0173	5.4850E-04	.0192	.2420	0
H	402	494	1.120	.208	2.852E-04	.0100	3.4276E-04	.0120	3.8121E-04	.0134	.2420	30.000
H	404	494	1.822	.353	4.850E-04	.0170	5.8280E-04	.0204	6.4812E-04	.0227	.2420	60.000
B	406	491	.869	.157	2.144E-04	.0075	2.5745E-04	.0090	2.8617E-04	.0100	.2420	90.000
B	407	491	.737	.136	1.867E-04	.0065	2.2419E-04	.0079	2.4922E-04	.0087	.2420	105.000
B	408	491	.627	.121	1.661E-04	.0058	1.9950E-04	.0070	2.2177E-04	.0078	.2420	120.000
B	409	492	.511	.099	1.357E-04	.0048	1.6301E-04	.0057	1.8123E-04	.0064	.2420	135.000
B	410	492	.415	.080	1.108E-04	.0039	1.3208E-04	.0046	1.4683E-04	.0051	.2420	150.000
H	411	492	.340	.066	9.032E-05	.0032	1.0849E-04	.0038	1.2061E-04	.0042	.2420	165.000
B	412	493	.333	.063	8.696E-05	.0031	1.0446E-04	.0037	1.1615E-04	.0041	.2420	180.000
B	413	500	1.588	.304	4.212E-04	.0148	5.0696E-04	.0178	5.6445E-04	.0198	.2830	0
B	415	498	.970	.189	2.605E-04	.0091	3.1343E-04	.0110	3.4884E-04	.0122	.2830	30.000
B	417	498	1.909	.321	4.425E-04	.0155	5.3234E-04	.0187	5.9248E-04	.0208	.2830	60.000
B	419	489	.622	.112	1.530E-04	.0054	1.8365E-04	.0064	2.0407E-04	.0072	.2830	90.000
H	420	488	.736	.123	1.675E-04	.0059	2.0098E-04	.0070	2.2329E-04	.0078	.2830	105.000
B	421	489	.648	.106	1.449E-04	.0051	1.7391E-04	.0061	1.9324E-04	.0068	.2830	120.000
B	422	490	.412	.074	1.010E-04	.0035	1.2130E-04	.0043	1.3481E-04	.0047	.2830	135.000
B	423	490	.318	.063	8.626E-05	.0030	1.0355E-04	.0036	1.1508E-04	.0040	.2830	150.000
B	424	492	.481	.092	1.257E-04	.0044	1.5101E-04	.0053	1.6790E-04	.0059	.2830	165.000
B	425	491	.311	.059	8.095E-05	.0028	9.7193E-05	.0034	1.0803E-04	.0038	.2830	180.000
B	426	503	1.513	.290	4.036E-04	.0142	4.8623E-04	.0171	5.4168E-04	.0190	.3160	0
H	428	502	1.027	.201	2.786E-04	.0098	3.3554E-04	.0118	3.7374E-04	.0131	.3160	30.000
B	430	498	1.116	.208	2.868E-04	.0101	3.4505E-04	.0121	3.8406E-04	.0135	.3160	60.000
B	432	490	1.713	.286	3.911E-04	.0137	4.6956E-04	.0165	5.2187E-04	.0183	.3160	90.000
H	433	488	.257	.049	6.659E-05	.0023	7.9885E-05	.0028	8.8741E-05	.0031	.3160	105.000
B	434	489	1.044	.171	2.326E-04	.0082	2.7911E-04	.0098	3.1013E-04	.0109	.3160	120.000
H	435	490	.486	.090	1.228E-04	.0043	1.4740E-04	.0052	1.6380E-04	.0057	.3160	135.000
B	436	489	.302	.056	7.959E-05	.0028	9.5498E-05	.0033	1.0010E-04	.0037	.3160	150.000
H	437	488	.483	.092	1.251E-04	.0044	1.5011E-04	.0053	1.6677E-04	.0058	.3160	165.000
B	438	487	.265	.051	6.963E-05	.0024	8.3512E-05	.0029	9.2759E-05	.0033	.3160	180.000
B	439	504	1.761	.344	4.785E-04	.0168	5.7667E-04	.0202	6.4257E-04	.0225	.3540	0
B	441	504	1.053	.211	2.929E-04	.0103	3.5294E-04	.0124	3.9323E-04	.0138	.3540	30.000
B	443	502	.316	.050	7.006E-05	.0025	8.4385E-05	.0030	9.3995E-05	.0033	.3540	60.000
B	445	496	2.831	.496	6.832E-04	.0240	8.2155E-04	.0288	9.1409E-04	.0321	.3540	90.000
B	446	493	.335	.058	7.891E-05	.0028	9.4784E-05	.0033	1.0539E-04	.0037	.3540	105.000
B	447	494	1.532	.264	3.622E-04	.0127	4.3518E-04	.0153	4.8391E-04	.0170	.3540	120.000
B	448	492	.492	.084	1.146E-04	.0040	1.3764E-04	.0048	1.5302E-04	.0054	.3540	135.000
B	450	492	.259	.048	6.554E-05	.0023	7.8740E-05	.0028	8.7535E-05	.0031	.3540	165.000
B	451	491	.290	.054	7.350E-05	.0026	8.8256E-05	.0031	9.8099E-05	.0034	.3540	180.000
B	452	506	1.639	.315	4.396E-04	.0154	5.3003E-04	.0186	5.9079E-04	.0207	.3800	0
B	454	505	1.469	.282	3.933E-04	.0138	4.7410E-04	.0166	5.2838E-04	.0185	.3800	30.000
B	456	504	.256	.041	5.705E-05	.0020	6.8741E-05	.0024	7.6549E-05	.0027	.3800	60.000
B	458	499	2.867	.518	7.171E-04	.0252	8.6306E-04	.0303	9.6043E-04	.0337	.3800	90.000
B	459	496	.714	.136	1.879E-04	.0066	2.2592E-04	.0079	2.5137E-04	.0088	.3800	105.000

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

RUN	CONFIG	MODEL	MACH NO	PO PSIA	TO DEG R	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	B03	60C-H	7.93	149.1	1219	4.96	4.96	0	0	0

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF-FR (H= .0098FT)	STFM (H= .0098FT)	SWITCH POSITION
89.8	.016	.712	3683	1.511E-05	7.431E-08	7.69E 05	2.858E-02	6.497E-02	2

PC NO	TW	DTW(I)	Q-DOT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.85TO)	H(.85TO)/HREF

FUSELAGE-BOOSTER

X/L	PHI
.3000	120.000
.3000	135.000
.3000	150.000
.3000	165.000
.3000	180.000
.4400	0
.4400	90.000
.4400	120.000
.4400	150.000
.4400	180.000
.4880	0
.4880	90.000
.4880	120.000
.4880	150.000
.4880	180.000
.5200	0
.5500	45.000
.5500	90.000
.5500	105.000
.5500	120.000
.5500	150.000
.5500	180.000
.6250	90.000
.6250	105.000
.6250	120.000
.6250	150.000
.6250	180.000
.7000	90.000
.7000	105.000
.7000	120.000
.7000	150.000
.7000	180.000
.7700	90.000
.7700	120.000
.7700	150.000
.7700	180.000
.8950	120.000
.8950	150.000

UPPER WING SURFACE-BOOSTER

X/C	Y/S
0	.100
.1000	.100
.2000	.100
.3300	.100
.4000	.100
.6000	.100
.7000	.100
.9100	.100
0	.200
.0500	.200
.1000	.200
.2000	.200
.4000	.200
.6000	.200
.7000	.200
0	.250
.1000	.250
.2000	.250
.4000	.250
.5000	.250
.6000	.250
.6670	.250
.9010	.250
.9350	.250
0	.300
.1000	.300
.2000	.300
.4000	.300
.6000	.300
0	.400
.1000	.400
.4000	.400
.6000	.400
0	.500
.1000	.500
.2000	.500
.4000	.500
.5000	.500
.6000	.500
.8770	.500
0	.600
.1000	.600
.2000	.600
.4000	.600
.6000	.600
.7930	.600
.8510	.600
.1000	.700
.2000	.700
.5000	.700

UPPER CANARD SURFACE-BOOSTER

X/L	Y/S
0	.250
.2500	.250
.5000	.250
.7000	.250
0	.500
.2500	.500
.5000	.500
.7000	.500

B 160	498	1.463	.264	3.662E-04	.0128	4.4074E-04	.0154	4.9064E-04	.0172	
B 161	495	.442	.080	1.099E-04	.0038	1.3216E-04	.0046	1.4704E-04	.0051	
B 162	497	.282	.052	7.243E-05	.0025	8.7137E-05	.0030	9.6981E-05	.0034	
B 163	497	.250	.055	7.672E-05	.0027	9.2300E-05	.0032	1.0273E-04	.0036	
B 164	496	.211	.036	5.431E-05	.0019	6.5325E-05	.0023	7.2700E-05	.0025	
B 106	510	1.554	.299	4.217E-04	.0148	5.0916E-04	.0178	5.6808E-04	.0199	
B 109	507	1.420	.258	3.623E-04	.0127	4.3723E-04	.0153	4.8761E-04	.0171	
B 110	505	1.069	.199	2.787E-04	.0098	3.3601E-04	.0118	3.7492E-04	.0131	
B 111	501	.227	.041	5.728E-05	.0020	6.8999E-05	.0024	7.6861E-05	.0027	
B 112	500	.237	.043	5.951E-05	.0021	7.1658E-05	.0025	7.9803E-05	.0028	
B 113	514	1.381	.271	3.865E-04	.0135	4.6487E-04	.0163	5.1915E-04	.0182	
B 116	512	.572	.101	1.431E-04	.0050	1.7291E-04	.0061	1.9303E-04	.0068	
B 117	510	.780	.142	2.002E-04	.0070	2.4171E-04	.0085	2.6970E-04	.0094	
B 118	506	.116	.021	2.952E-05	.0010	3.5590E-05	.0012	3.9685E-05	.0014	
B 119	505	.214	.039	5.427E-05	.0019	6.5436E-05	.0023	7.2942E-05	.0026	
B 120	515	1.096	.215	3.057E-04	.0107	3.6977E-04	.0129	4.1301E-04	.0145	
B 198	521	7.158	1.446	2.072E-03	.0725	2.5101E-03	.0878	2.8072E-03	.0982	
H 127	516	.196	.036	5.082E-05	.0018	6.1480E-05	.0022	6.8686E-05	.0024	
B 128	516	.446	.081	1.158E-04	.0041	1.4011E-04	.0049	1.5652E-04	.0055	
B 129	513	.385	.070	9.930E-05	.0035	1.2002E-04	.0042	1.3400E-04	.0047	
B 130	508	.300	.054	7.661E-05	.0027	9.2468E-05	.0032	1.0314E-04	.0036	
B 131	503	.153	.028	3.874E-05	.0014	4.6689E-05	.0016	5.2026E-05	.0018	
B 138	521	.441	.090	1.285F-04	.0045	1.5573E-04	.0054	1.7414E-04	.0061	
B 139	520	.237	.043	6.206E-05	.0022	7.5170E-05	.0026	8.4045E-05	.0029	
B 140	517	.199	.036	5.179E-05	.0018	6.2654E-05	.0022	7.0007E-05	.0024	
B 141	514	.431	.078	1.112E-04	.0039	1.3441E-04	.0047	1.5008E-04	.0053	
B 142	511	.242	.044	6.224E-05	.0022	7.5183E-05	.0026	8.3904E-05	.0029	
B 150	522	1.159	.212	3.044E-04	.0107	3.6884E-04	.0129	4.1259E-04	.0144	
B 151	521	.469	.086	1.228E-04	.0043	1.4876E-04	.0052	1.6635E-04	.0058	
B 152	520	.108	.020	2.814E-05	.0010	3.4082E-05	.0012	3.8101E-05	.0013	
B 153	517	.362	.066	9.417E-05	.0033	1.1396E-04	.0040	1.2734E-04	.0045	
B 154	516	.342	.061	8.616E-05	.0030	1.0422E-04	.0036	1.1643E-04	.0041	
B 159	525	1.495	.266	3.839E-04	.0134	4.6518E-04	.0163	5.2063E-04	.0182	
B 160	523	.250	.044	6.370E-05	.0022	7.7216E-05	.0027	8.6379E-05	.0030	
B 161	521	.148	.026	3.759E-05	.0013	4.5543E-05	.0016	5.0932E-05	.0018	
B 162	521	.283	.050	7.185F-05	.0025	8.7041E-05	.0030	9.7326E-05	.0034	
B 171	523	.244	.045	6.425E-05	.0022	7.7897E-05	.0027	8.7152E-05	.0030	
H 172	522	.160	.029	4.212E-05	.0015	5.1051E-05	.0018	5.7102E-05	.0020	
B 200	533	17.283	2.651	3.859E-03	.1350	4.6919E-03	.1642	5.2545E-03	.1841	
B 201	529	3.799	.444	8.432E-04	.0295	1.0119E-03	.0273	8.7508E-04	.0306	
B 202	527	2.229	.313	4.520E-04	.0158	5.4853E-04	.0192	6.1413E-04	.0215	
B 203	525	.558	.115	1.661E-04	.0058	2.0145E-04	.0070	2.2544E-04	.0079	
B 204	526	.494	.087	1.250E-04	.0044	1.5164E-04	.0053	1.6979E-04	.0059	
B 205	527	.040	.007	1.028E-05	.0004	1.2473E-05	.0004	1.3965E-05	.0005	
B 206	526	.140	.024	3.445E-05	.0012	4.1809E-05	.0015	4.6805E-05	.0016	
B 207	528	.158	.015	2.160E-05	.0008	2.6225E-05	.0009	2.9368E-05	.0010	
B 217	541	35.776	4.384	8.464E-03	.2262	7.8812E-03	.2758	8.8515E-03	.3098	
B 218	533	12.194	1.190	1.733E-03	.0607	2.1079E-03	.0738	2.3631E-03	.0827	
B 219	531	6.511	.635	9.213E-04	.0322	1.1194E-03	.0392	1.2544E-03	.0439	
B 220	527	2.743	.246	3.559E-04	.0124	4.3155E-04	.0151	4.8321E-04	.0169	
B 221	527	1.878	.132	1.902E-04	.0067	2.3089E-04	.0081	2.5851E-04	.0090	
B 222	526	1.323	.058	8.319E-05	.0029	1.0095E-04	.0035	1.1302E-04	.0040	
B 223	526	1.182	.031	4.479E-05	.0016	5.4303E-05	.0019	6.0793E-05	.0021	
B 230	544	35.715	4.870	7.211E-03	.2524	8.8003E-03	.3080	9.8899E-03	.3461	
B 231	530	5.794	.680	9.869E-04	.0345	1.1984E-03	.0419	1.3425E-03	.0470	
B 232	527	.659	.128	1.853E-04	.0065	2.2495E-04	.0079	2.5189E-04	.0088	
B 233	528	.496	.094	1.355E-04	.0047	1.6455E-04	.0058	1.8427E-04	.0064	
B 234	528	.329	.060	8.730E-05	.0031	1.0598E-04	.0037	1.1867E-04	.0042	
H 235	528	.143	.010	1.502E-05	.0005	1.8234E-05	.0006	2.0418E-05	.0007	
B 236	528	.323	.026	3.790F-05	.0013	4.6009E-05	.0016	5.1525E-05	.0018	
B 237	528	.147	.012	1.725E-05	.0006	2.0946E-05	.0007	2.3459E-05	.0008	
B 238	528	.229	.018	2.541E-05	.0009	3.0854E-05	.0011	3.4556E-05	.0012	
B 240	544	40.707	4.618	6.835E-03	.2392	8.3412E-03	.2919	9.3735E-03	.3280	
B 249	531	5.070	.618	8.960E-04	.0314	1.0894E-03	.0381	1.2207E-03	.0427	
B 250	529	3.407	.383	5.557E-04	.0194	6.7495E-04	.0236	7.5611E-04	.0265	
B 251	528	.813	.158	2.289E-04	.0080	2.7795E-04	.0097	3.1129E-04	.0109	
B 252	529	.419	.083	1.201E-04	.0042	1.4583E-04	.0051	1.6333E-04	.0057	
B 263	547	43.958	5.404	8.039E-03	.2813	9.8213E-03	.3437	1.1045E-02	.3865	
B 264	533	7.644	.932	1.357E-03	.0475	1.6498E-03	.0577	1.8494E-03	.0647	
B 265	530	1.022	.199	2.891E-04	.0101	3.5129E-04	.0123	3.9360E-04	.0138	
B 266	530	.654	.128	1.850E-04	.0065	2.2479E-04	.0079	2.5186E-04	.0088	
B 277	553	53.583	5.139	7.713F-03	.2699	9.4408E-03	.3304	1.0632E-02	.3721	
B 278	534	6.500	.853	1.244E-03	.0435	1.5132E-03	.0530	1.6967E-03	.0594	
B 279	533	4.413	.538	7.837E-04	.0274	9.5290E-04	.0333	1.0682E-03	.0374	
B 280	530	1.166	.227	3.293E-04	.0115	3.9996E-04	.0140	4.4806E-04	.0157	
B 281	530	.878	.166	2.411E-04	.0084	2.9294E-04	.0103	3.2820E-04	.0115	
B 282	530	.612	.154	2.233E-04	.0078	2.7130E-04	.0095	3.0398E-04	.0106	
B 283	530	.756	.072	1.039E-04	.0036	1.2618E-04	.0044	1.4136E-04	.0049	
B 296	549	53.979	6.908	1.031E-02	.3607	1.2598E-02	.4409	1.4174E-02	.4960	
B 297	533	8.415	1.131	1.640E-03	.0577	2.0041E-03	.0701	2.2470E-03	.0786	
B 298	533	4.367	.528	7.689E-04	.0269	9.3492E-04	.0327	1.0481E-03	.0367	
B 299	532	.732	.165	2.494E-04	.0084	2.9223E-04	.0102	3.2753E-04	.0115	
B 300	533	.987	.160	2.328E-04	.0081	2.8304E-04	.0099	3.1732E-04	.0111	
B 301	533	.827	.078	1.143E-04	.0040	1.3896E-04	.0049	1.5578E-04	.0055	
B 302	533	.751	.071	1.038E-04	.0036	1.2620E-04	.0044	1.4148E-04	.0050	
B 315	538	17.087	1.784	2.619E-03	.0916	3.1898E-03	.1116	3.5801E-03	.1253	
B 316	537	6.767	.706	1.034E-03	.0362	1.2583E-03	.0440	1.4117E-03	.0494	
B 317	536	1.335	.218	3.182E-04	.0111	3.8726E-04	.0136	4.3442E-04	.0152	
B 350	512	34.453	3.230	4.568F-03	.1598	5.5195E-03	.1932	6.1614E-03	.2156	
B 351	503	4.240	.395	5.515F-04	.0193	6.6461E-04	.0233	7.4052E-04	.0259	
B 352	506	1.000	.170	2.376F-04	.0083	2.8654E-04	.0100	3.1944E-04	.0112	
B 353	507	.523	.088	1.238E-04	.0043	1.4932E-04	.0052	1.6691E-04	.0058	
B 357	519	36.834	3.467	4.948E-03	.1731	5.9904E-03	.2096	6.6958E-03	.2343	
B 358	506	6.049	.569	7.924F-04	.0277	9.5575E-04	.0334	1.0656E-03	.0373	
B 359	508	1.492	.226	3.170F-04	.0111	3.8257E-04	.0134	4.2669E-04	.0149	
H 360	508	.848	.143	2.012F-04	.0070	2.4284E-04	.0085	2.7085E-04	.0095	

GROUP