

# *Contrails*

## FOREWORD

This volume consists of Appendix IV to Volume I of this report. Review and approval expressed in Volume I includes this volume.

## APPENDIX IV DATA REDUCTION PROGRAM AND TABULATED EXPERIMENTAL DATA

The data reduction program is outlined in this section followed by a tabulation of the reduced experimental data.

### Tunnel Operating Conditions

The following tunnel operating conditions are known:

1. Tunnel stagnation temperature  $T_{t_0}$ , °R
2. Tunnel stagnation pressure  $P_{t_0}$ , psf
3. Free stream Mach number  $M_0$

### Compression Surface and Cylinder Measurements

The following measurements on the compression surface and cylinder are obtained from the model instrumentation:

4. Wall static pressure  $P_w$ , psf
5. Wall temperature  $T_w$ , °R

### Boundary Layer Measurements

The following measurements are obtained from the survey probes at each probe position in the boundary layer:

6. Boundary layer pitot pressure  $P_{t_2}$ , psf, obtained directly from the pitot probe.
7. Boundary layer indicated total temperature  $T_{t_1}$ , °R, read directly from the temperature probe.
8. Boundary layer static pressure  $P$ , psf, obtained from the static probe. The actual static pressure profiles used in the data reduction program were obtained by the method discussed in the text using the derived static pressures.

### Probe Location

9. The survey station  $X$ , distance along model centerline between wall survey plane and station zero, and the normal distance of the pitot probe from the wall  $y_{np}$  at that station are to be measured.

# Contracts

The normal distances of the static and temperature probes are computed as follows.

Static probe height -

$$y_{ns} = \frac{\Delta h_s \cos \alpha}{\sin \phi_s} - r_o \cos \alpha + y_{np} \sin^2 \alpha + \Delta y_s \frac{\sin^2 \alpha}{\cos \phi_s}$$

with

$$\phi_s = \tan^{-1} \frac{\Delta h_s}{r_o + y_{np} \cos \alpha + \Delta y_s}$$

Temperature probe height -

$$y_{nt} = \frac{\Delta h_t \cos \alpha}{\sin \phi_t} - r_o \cos \alpha + y_{np} \sin^2 \alpha + \Delta y_t \frac{\sin^2 \alpha}{\cos \phi_t}$$

with

$$\phi_t = \tan^{-1} \frac{\Delta h_t}{r_o + y_{np} \cos \alpha + \Delta y_t}$$

where

$y_{np}$  pitot probe normal height.

$y_{ns}$  static probe normal height.

$y_{nt}$  temperature probe normal height.

$\Delta h_s$  horizontal distance between static and pitot probes, measured.

$\Delta h_t$  horizontal distance between temperature and pitot probes, measured.

$\Delta y_s$  vertical distance between static and pitot probes, measured.

$\Delta y_t$  vertical distance between temperature and pitot probes, measured.

$\alpha$  angle between survey station surface and model centerline.

$r_o$  radius of model at survey station.

## Computations

The Mach numbers obtained from the probes are computed.

$$10. \quad P_{t_2}/P = \left(\frac{6}{5} M\right)^{7/2} \left(\frac{6}{7M^2 - 1}\right)^{5/2}$$

# Contracts

where  $P_{t_2}$  from 6  
 $P$  from 8  
 $M$  is Mach number in boundary layer

11 a) A total temperature calibration curve of recovery factor  $r_p$  versus Reynolds number  $R_{d_2}$  is input, where

$$R_{d_2} = d \frac{P_{t_2} M_2}{\mu_t} \sqrt{\frac{3.5}{C_V T_t}} \left(\frac{T_t}{T}\right)^{-1.5} \frac{\left(\frac{T}{T_t}\right)_2 + \frac{198.6}{T_t}}{1 + \frac{198.6}{T_t}}$$

Using  $d = .00333$  ft

$$C_V = 4290 \text{ ft}^2/\text{sec}^2 \text{ } ^\circ\text{R}$$

$$\gamma = 1.4$$

$$\mu_t = \frac{2.27 T_t^{3/2}}{T_t + 198.6} \times 10^{-8} \frac{\text{lb sec}}{\text{ft}^2}$$

where  $T_t$  from 7, use  $T_{t_1}$

$$M_2 = \sqrt{\frac{M^2 + 5}{7M^2 - 1}}$$

$M$  from 10

$$T/T_t = (1 + .2 M_2^2)^{-1}$$

The total temperature calibration curve  $r_p$  versus  $R_{d_2}$  was obtained by placing the temperature probe in the tunnel free stream at various tunnel stagnation pressures. Then the values  $r_p = (T_{t_1} - T_\infty)/(T_{t_0} - T_\infty)$  and  $R_{d_2}$  are computed.

The probe Reynolds number  $R_{d_2}$  is computed at each point in the boundary layer and from the temperature  $R_{d_2}$  calibration curve, the probe recovery factor  $r_p$  is obtained.

11 b) The total temperature  $T_t$  at each survey point in the boundary layer is computed.

# Contrails

$$T_t = \frac{T_{t_1}}{r_p + (1 - r_p) (1 + .2 M^2)^{-1}}$$

$T_{t_1}$  from 7

$r_p$  from 11 a)

$M$  from 10

12 The static temperature at each point in the boundary layer is computed.

$$T = T_t / (1 + .2 M^2)$$

$T_t$  from 11 b)

$M$  from 10

13 The density  $\rho$  at each point in the boundary layer is computed

$$\rho = \frac{P}{gR'T} \quad \text{where}$$

$$g = 32.2 \text{ ft/sec}^2$$

$$R' = 53.35 \frac{\text{ft lb}}{\text{lb}^{\circ}\text{R}}$$

$P$  from 8

$T$  from 12

$\rho$  in slugs/ft<sup>3</sup>

14 The velocity  $u$  at each point in the boundary layer is computed

$$u = M \sqrt{\gamma g R' T}$$

$$\gamma = 1.4$$

$M$  from 10

$T$  from 12

$u$  in fps

15 The total pressure  $P_t$  at each point is computed.

$$P_t = P_{t_2} \left( \frac{6 M^2}{M^2 + 5} \right)^{-7/2} \left( \frac{6}{7 M^2 - 1} \right)^{-5/2}$$

# Contrails

- 16 The boundary layer thickness  $\delta$  at a given station X is defined as the value at  $y_{np}$  where the total pressure  $P_t$  is 95 percent of the maximum total pressure  $P_t$  measure in the survey, or

$$y_{np} = \delta \text{ at } P_t = .95 P_{t_{\max}}$$

- 17 The displacement thickness  $\delta_e^*$  is calculated at each survey station

$$\begin{aligned} \delta_e^* &= \int_0^{\delta} \left(1 - \frac{\rho u}{\rho_e u_e}\right) dy', \text{ inches} \\ &= \sum_0^{\delta} \left(1 - \frac{\rho u}{\rho_e u_e}\right) \Delta y' \end{aligned}$$

The axisymmetric models are corrected for body radius by letting

$$dy' = \left(1 + \frac{y}{r_0} \cos \alpha\right) dy$$

where

$$\begin{aligned} r_0 &\text{ local surface radius} \\ \alpha &\text{ angle between local surface and model centerline} \end{aligned}$$

The integrals are evaluated by computing the integral at each probe position. Then taking increments of  $\Delta y = .001$  inches, the integrands are obtained between data points by parabolic interpolation and the summation computed from  $y = 0$  to  $y = \delta$ .

The subscript  $\delta$  represents the conditions at  $y = \delta$ . The boundary condition  $u = 0$  at  $y = 0$  is used.

- 18 The momentum thickness  $\theta$  at each survey station X.

$$\theta_e = \int_0^{\delta} \left(1 - \frac{u}{u_e}\right) \frac{\rho u}{\rho_e u_e} dy', \text{ inches}$$

- 19 The form factor H at each station X is computed

$$H_e = \delta_e^* / \theta_e$$

## Special Integral Parameters

The method for computing the special integral parameters is given below. The inviscid Mach number  $M_1$  is computed at each y:

$$20 \quad M_1 = \left\{ 5 \left[ \left( \frac{P}{P_{t_{\max}}} \right)^{-2/7} - 1 \right] \right\}^{1/2}$$

The ratios are computed

# Contrails

$$21 \quad \frac{\rho_1 u_1}{\rho_e u_e} = \frac{M_1}{M_e} \left( \frac{1 + .2 M_e^2}{1 + .2 M_1^2} \right)^3$$

$$\frac{u_1}{u_e} = \frac{M_1}{M_e} \left( \frac{1 + .2 M_1^2}{1 + .2 M_e^2} \right)^{-1/2}$$

The following integrals are computed.

$$22 \quad \delta_1^* = \int_0^\delta \left( 1 - \frac{\rho_1 u_1}{\rho_e u_e} \right) dy'$$

$$= - \int_0^\delta \frac{\rho_1 u_1}{\rho_e u_e} dy' + \delta$$

and

$$23 \quad \theta_1 = \int_0^\delta \frac{\rho u}{\rho_e u_e} \left( 1 - \frac{u_1}{u_e} \right) dy'$$

$$= \delta - \delta_e^* - \int_0^\delta \frac{\rho u u_1}{\rho_e u_e} dy'$$

Then the parameters are computed

$$24 \quad \delta_2^* = \delta_e^* - \delta_1^*$$

$$\theta_2 = \theta_e - \theta_1$$

Then finally the integral parameters  $\delta_w^*$  and  $\theta_w$  are found.

$$25 \quad \delta_w^* = \frac{\rho_e u_e}{(\rho_1 u_1)_w} \delta_2^*$$

$$\theta_w = \frac{\rho_e u_e^2}{(\rho_1 u_1^2)_w} \theta_2 \quad \text{and}$$

$$H_w = \delta_w^* / \theta_w \quad \text{where}$$

subscript w is at the wall

# Contrails

The energy thickness  $\Phi$  is computed

$$\begin{aligned}
 26 \quad \Phi &= \int_0^{\delta} \left( 1 - \frac{T_t^*}{T_{t_e}^*} \right) \frac{\rho u}{\rho_e u_e} dy' \\
 &= \delta - \delta_e^* - \int_0^{\delta} \frac{T_t - T_w}{T_{t_o} - T_w} dy'
 \end{aligned}$$

The following Reynolds numbers are computed at each station X.

$$\begin{aligned}
 27 \quad \text{RSR} &= \frac{\rho' U_e S}{\mu'} \\
 \text{RS DELTA} &= \frac{\rho_e U_e S}{\mu_e} \\
 \text{RS THETA R} &= \frac{\rho' U_e \theta_e}{\mu'} \\
 \text{R THETA D} &= \frac{\rho_e U_e \theta_e}{\mu_e} \quad \text{where} \\
 \mu_e &= \frac{2.27 T_e^{3/2}}{T_e + 198.6} \times 10^{-8} \quad \frac{\text{lb sec}}{\text{ft}^2} \\
 \mu' &= \frac{2.27 (T')^{3/2}}{T' + 198.6} \times 10^{-8} \quad \frac{\text{lb sec}}{\text{ft}^2}
 \end{aligned}$$

S Distance along model surface

with the recovery temperature

$$T' = .45 T_w + (.55 + .035 M_e^2) T_e$$

28 The recovery factor at each station X is computed

$$\text{Recovery Factor} = \frac{T_w - T_e}{T_{t_o} - T_e}$$

29 The average total pressure in the boundary layer is computed

$$\text{Total Pressure Recovery} = \frac{1}{\delta} \int_0^{\delta} \frac{P_t}{P_{t_{\max}}} dy$$

# Contrails

30 The heat transfer parameter  $C_T$  is found

$$C_T = (T_{aw} - T_w) / T_e \quad \text{where}$$

$$T_{aw} = T_e (1 + 1.792 M_e^2)$$

## 31 Heat Transfer Measurements

The heat flux through the model wall was computed from Fourier's law at each plug location.

$$q = -k \frac{\Delta T}{\Delta y} \quad \text{where}$$

$k$  - thermal conductivity of the plug

$\Delta T$  - read directly from the differential thermocouple plug

$\Delta y$  - plug thickness

The plug thicknesses are listed below.

Station	Y - Inches
-16.25	.093
- 7.50	.093
- 3.75	.091
0.	.091
18.75	.170
29.	.168
33.	.170
34.5	.164
36.	.155

The differential thermocouples at stations -16.25, -7.5, 0, and during a portion of the testing 29 were damaged beyond immediate repair and were not recorded.

The differential thermocouple readings along with the differences between absolute stainless steel-constantan thermocouple readings are tabulated below for the various test conditions on the heat transfer model. The differences are always taken as the reading outside the model surface minus the inside reading.

# Contrails

TABLE A-I

DIFFERENTIAL THERMOCOUPLE READINGS

$M_o$	$P_{t_o}$ psi	$T_w$ $^{\circ}R$	Station	$\Delta T$ Differential $^{\circ}F$	$\Delta T$ Difference $^{\circ}F$
5	150	400	- 3.75	.32	.52
			18.75	2.88	2.38
			33.	8.68	12.90
			34.5	15.44	10.12
			36.	141.05	117.03
5	150	490	- 3.75	.24	2.06
			18.75	2.24	1.7
			33.	5.88	5.05
			34.5	8.72	7.68
			36.	50.37	38.55
5	150	572	- 3.75	.04	.38
			18.75	.96	- .49
			33.	1.52	-3.39
			34.5	1.60	-2.37
			36.	32.72	-28.1
5	40	400	- 3.75	.44	.09
			18.75	1.20	.77
			33.	2.72	- 4.43
			34.5	2.28	1.47
			36.	115.77	89.60
5	40	490	- 3.5	.88	-4.32
			18.75	.80	.53
			33.	1.28	2.42
			34.5	4.12	3.57
			36.	41.80	39.27
5	40	578	- 3.5	.40	2.36
			18.75	0.	.11
			33.	1.16	2.14
			34.5	.60	1.90
			36.	3.48	-2.85
6	200	400	- 3.5	.92	.83
			18.75	4.16	2.95
			33.	9.04	13.25
			34.5	16.60	11.12
			36.	136.01	113.26
6	200	506	- 3.5	.16	.47
			18.75	2.36	2.28
			33.	6.08	5.82
			34.5	9.56	8.40
			36.	32.08	25.01

# Contrails

TABLE A-I

DIFFERENTIAL THERMOCOUPLE READINGS (cont'd)

$M_0$	$P_{t_0}$ psi	$T_{w}$ $^{\circ}R$	Station	$\Delta T$ Differential $^{\circ}F$	$\Delta T$ Difference $^{\circ}F$
6	200	640	- 3.5	.84	- .24
			18.75	.24	.16
			33.	0.	5.18
			34.5	.44	1.55
			36.	101.13	-88.63
6	100	400	- 3.5	1.	.09
			18.75	2.52	1.49
			33.	7.	1.99
			34.5	8.2	4.65
			36.	132.17	126.61
6	100	506	- 3.5	.56	.14
			18.75	.84	1.06
			33.	3.80	12.01
			34.5	5.92	5.80
			36.	39.56	42.73
6	100	645	- 3.5	.36	.12
			18.75	.36	.32
			33.	1.56	-5.30
			34.5	.80	.92
			36.	89.97	-88.33
8	800	490	- 3.5	1.08	.95
			18.75	7.20	6.19
			29.	19.84	15.94
			33.	28.92	24.69
			34.5	44.40	39.06
			36.	149.41	141.09
8	800	590	- 3.5	1.4	1.46
			18.75	6.96	6.62
			29.	10.36	9.69
			33.	33.80	29.64
			34.5	52.81	48.47
			36.	144.53	143.47
8	800	850	- 3.5	.62	.66
			18.75	2.25	1.92
			29.	1.08	1.08
			33.	17.13	16.78
			34.5	26.88	26.64
			36.	78.09	75.13

# Contrails

## DIFFERENTIAL THERMOCOUPLE READINGS (cont'd)

$M_o$	$P_{t_o}$ psi	$T_w$ $^{\circ}R$	Station	$\Delta T$ Differential $^{\circ}F$	$\Delta T$ Difference $^{\circ}F$
8	800	1150	- 3.5	.18	- .23
			18.75	.56	- .57
			29.	.67	.59
			33.	.25	- .15
			34.5	.28	.15
			36.	.18	0.
8	335	490	- 3.5	1.04	.95
			18.75	4.28	3.66
			29.	6.32	5.14
			33.	15.48	12.95
			34.5	25.96	21.88
			36.	84.61	77.97
8	335	590	- 3.5	1.24	1.24
			18.75	3.24	2.92
			29.	4.36	4.22
			33.	15.48	14.38
			34.5	24.36	23.14
			36.	75.89	74.89
8	335	850	- 3.5	1.35	1.38
			18.75	1.91	1.89
			29.	2.72	2.7
			33.	6.92	6.72
			34.5	11.32	11.44
			36.	33.80	33.36
8	335	1178	- 3.5	.49	.7
			18.75	.11	0.
			29.	1.34	1.19
			33.	.84	.63
			34.5	.99	.70
			36.	1.23	.77

A summary of the boundary layer surveys on the various models, identified by run number, is given in Table A-II. The reduced experimental data in tabular form obtained in this test program follows Table A-II in the same order, by run number, as shown in Table A-II.

These reduced data were obtained from the data reduction program discussed earlier. The tunnel, model, survey station, and test conditions are identified on the top heading. In the top half of the page, the Mach number, static and total temperature, and velocity profiles are tabulated. The integral parameters, Reynolds numbers, and other parameters identified in the data reduction section

# Contours

above are given in the middle of the page. The parameters H and DELTA STAR are the form factor H and displacement thickness  $\delta^*$ , respectively. The parameter PTMAX is the maximum total pressure measured in the boundary layer. Additional boundary layer profiles, including total and static pressure profiles, are given on the bottom half of the data reduction pages.

# Contracts

TABLE A-II

SUMMARY OF WIND TUNNEL RUNS  
UNCOOLED MODELS

Run	$M_o$	$P_{t_o}$ psi	Model	Cylinder Inches	Survey Station	Trip	Page
185	4	75	5	9	-.5	Front Vortex Generators	22
184					8.5		
183					14.		
182					17.		
181					18.		
192	4	10			-.5		29
191					8.5		
190					14.		
189					17.		
187					18.		
222	6	200			-.5		36
221					8.5		
220					14.		
218					17.		
217					18.		
227	6	100			-.5		41
226					8.5		
225					14.		
224					17.		
223					18.		
169	4	75		17	-.5		46
168					8.5		
167					14.		
166					17.		
165					18.		
177	4	10	5	17	-.5		51
176					14.		
175					17.		
174					18.		
147	5	150	5	17	-.5		55
150					8.5		
151					14.		
153					17.		
154					18.		

# Contrails

TABLE A-II

SUMMARY OF WIND TUNNEL RUNS (cont'd)  
UNCOOLED MODELS

Run	M <sub>0</sub>	P <sub>t0</sub> psi	Model	Cylinder Inches	Survey Station	Trip	Page
160	5	40	5	17	-.5	Front Vortex Generators	62
159					8.5		
158					14.		
157					17.		
156					18.		
130	6	200	5	17	-.5		69
131					8.5		
132					14.		
133					17.		
134					18.		
138	6	100	5	17	-.5		76
142					8.5		
143					14.		
144					17.		
145					18.		
170	4	75	6	17	-.5		83
171					8.5		
172					14.		
173					17.		
174					18.		
181	6	200	6	17	-.5		91
182					8.5		
183					14.		
184					17.		
185					18.		
236	4	75	10	17	-.5		98
235					12.5		
234					20.		
233					22.		
230					24.		
232					23.		
245	4	10	10	17	-.5		109
244					12.5		
243					20.		
242					22.		
241					23.		
240					24.		

# Contrails

TABLE A-II

SUMMARY OF WIND TUNNEL RUNS (cont'd)  
UNCOOLED MODELS

Run	M <sub>o</sub>	P <sub>t<sub>o</sub></sub> psi	Model	Cylinder Inches	Survey Station	Trip	Page
254	5	150	10	17	- .5	Front Vortex Generators	117
253					12.5		
252					20.		
250					22.		
249					23.		
248					24.		
262	5	40	10	17	- .5		123
261					12.5		
260					20.		
259					22.		
258					23.		
257					24.		
270	6	200	10	17	- .5		129
269					12.5		
268					20.		
267					22.		
266					23.		
265					24.		
280	6	100	10	17	- .5		135
279					12.5		
278					20.		
277					22.		
276					23.		
275					24.		
126	6	200	5	17	- 3.5		141
127					- 9.5		
139	6	100	5	17	- 3.5		
140					- 9.5		
148	5	150	5	17	- 3.5		
149					- 9.5		
161	5	40	5	17	- 3.5		
162					- 9.5		
170	4	75	5	17	- 3.5		
171					- 9.5		
186	4	75	5	9	- 4.5		152
193	4	10			- 4.5		
201	5	150	5	9	- 4.5		155
199	5	40			- 4.5		

# Contrails

## UNCOOLED MACH 10 MODEL

Run	M <sub>o</sub>	P <sub>t<sub>o</sub></sub> psi	Model	Cylinder Inches	Survey Station	Trips	Page
28	8	800	10	17	- 9.5	Front Vortex Generators	157
27					- 3.5		
26					- .5		
42					12.5		
43					20.		
44					22.		
45					23.		
46					24.		
34	8	500	10	17	- 9.5		166
33					- 3.5		
32					- .5		
40					12.5		
48					20.		
55					22.		
54					23.		
53					24.		
79	8	800	10	9	- 4.5		178
86					- .5		
85					12.5		
84					20.		
83					22.		
95					23.		
96					24.		
104					8		
102	- .5						
105	12.5						
106	20.						
107	22.						
108	23.						
109	24.						

# Contrails

## HEAT TRANSFER MODEL (cont'd)

Run	M <sub>0</sub>	P <sub>t0</sub> psi	T <sub>w</sub>	Cylinder Inches	Survey Station	Trip	Page
5	5	150	400	12	0	Front Vortex Generators	193
4					18.75		
3					29.		
153					33.		
154					34.5		
155					36.		
17	5	150	490	12	0		204
16					18.75		
15					29.		
58					33.		
57					34.5		
56					36.		
11	5	150	572	12	0		215
10					18.75		
9					29.		
46					33.		
47					34.5		
48					36.		
36	5	40	400	12	0		226
35					18.75		
34					29.		
158					33.		
159					34.5		
160					36.		
23	5	40	490	12	0		236
22					18.75		
21					29.		
53					33.		
52					34.5		
51					36.		
29	5	40	578	12	0		245
28					18.75		
27					29.		
64					33.		
63					34.5		
62					36.		

# Contrails

## HEAT TRANSFER MODEL (cont'd)

Run	M <sub>o</sub>	P <sub>t<sub>o</sub></sub> psi	T <sub>w</sub>	Cylinder Inches	Survey Station	Trip	Page
114	6	200	400	12	0.	Front Vortex Generators	256
113					18.75		
112					29.		
142					33.		
143					34.5		
144					36.		
107	6	200	506	12	0.		264
108					18.75		
109					29.		
69					33.		
68					34.5		
67					36.		
94	6	200	640	12	0.		274
95					18.75		
96					29.		
84					33.		
83					34.5		
82					36.		
130	6	100	400	12	0.		283
131					18.75		
132					29.		
147					33.		
148					34.5		
149					36.		
122	6	100	506	12	0.		293
123					18.75		
124					29.		
74					33.		
73					34.5		
72					36.		
102	6	100	645	12	0.		303
136					18.75		
135					29.		
79					33.		
89					34.5		
88					36.		
11	8	800	490	26	0.		310
20					18.75		
21					29.		
119					33.		
120					34.5		
121					36.		

# Contrails

## HEAT TRANSFER MODEL (cont'd)

Run	M <sub>o</sub>	P <sub>t<sub>o</sub></sub> psi	T <sub>w</sub>	Cylinder Inches	Survey Station	Trip	Page
3	8	800	590	26	0.	Front Vortex Generators	318
16					18.75		
17					29.		
53					33.		
52					34.5		
51					36.		
62	8	800	850	26	0.		324
65					18.75		
57					29.		
56					33.		
58					34.5		
59					36.		
106	8	800	1150	26	0.		332
105					18.75		
104					29.		
115					33.		
114					34.5		
113					36.		
75	8	335	490	26	0.		340
74					18.75		
73					29.		
38					33.		
37					34.5		
36					36.		
78	8	335	590	26	0.		348
7					18.75		
8					29.		
47					33.		
48					34.5		
45					36.		
68	8	335	850	26	0.		355
67					18.75		
35					29.		
34					33.		
33					34.5		
32					36.		
84	8	335	1178	26	0.		363
83					18.75		
82					29.		
93					33.		
92					34.5		
91					36.		

# Contrails

## HEAT TRANSFER MODEL (Cont'd)

Run	M <sub>o</sub>	P <sub>t<sub>o</sub></sub> psi	T <sub>w</sub> °R	Cylinder Inches	Survey Station	Trip	Page
6	5	150	400	12	-7.5	Front Vortex Generators	371
18			490		-7.5		
12			572		-7.5		
37		40	400		-7.5		
24			490		-7.5		
30			578		-7.5		
115	6	200	400		-7.5		
106			506		-7.5		
93			640		-7.5		
129		100	400		-7.5		
121			506		-7.5		
101			640		-7.5		
12	8	800	490	26	-7.5	Front & Rear Vortex Generators	
14			590		-7.5		
63			850		-7.5		
107			1150		-7.5		
76		335	490		-7.5		
5			590		-7.5		
69			850		-7.5		
85			1178		-7.5		

# *Contracts*

## TABULATION OF EXPERIMENTAL BOUNDARY LAYER DATA

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A HIGH COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE T10 T11 GEN. CYL. 9.90  
 5. 4. 10. 3. 306. 185. -0.50 1034C.40 587.00 539.00

Y MACH TOT.TEMP. STAT.TEMP. VELOCITY Y1/T10

0.	0.	539.00	539.00	0.	0.9152
0.0100	1.09	554.95	448.59	1130.4	0.9454
0.0233	1.65	569.82	368.72	1554.3	0.9707
0.0446	2.18	587.46	301.01	1855.1	1.0008
0.0658	2.41	598.13	276.59	1965.4	1.0190
0.0869	2.67	605.50	247.31	2074.4	1.0315
0.1083	2.94	609.51	223.72	2152.9	1.0383
0.1399	3.18	613.20	203.03	2219.8	1.0446
0.1723	3.26	601.67	192.63	2216.8	1.0250
0.2041	3.28	587.97	186.68	2195.7	1.0017
0.2356	3.32	582.75	181.72	2195.0	0.9928
0.2675	3.39	581.79	176.25	2207.3	0.9911
0.2997	3.60	583.20	162.34	2248.6	0.9935
0.3314	3.71	582.13	155.30	2264.5	0.9917
0.3740	3.82	582.11	148.28	2283.0	0.9917
0.4164	3.91	582.09	143.35	2295.9	0.9916
0.4588	3.93	582.09	142.23	2298.8	0.9916
0.5014	3.93	582.09	142.23	2296.8	0.9916
0.5444	3.93	584.20	142.75	2302.9	0.9952

DELTA DELTA STAR H RSR RS DELTA RTHTA R RTHTA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4074 0.1370 9.18 560114. 4080260. 984. 7165. 398.49 0.892 0.43319 -0.017

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(2), THETA STAR(W), H(W), M(E), PTIMAX.  
 -0.0138 -0.001 0.1377 0.1375 0.00004 0.01489 0.01487 9.25 3.90 9887.7

Y Y/DELTA U/(UDELTA) RHO \* U P11 P1 RHO U PRIME M PRIME P11/PTE P11/PTIMAX

0.0100	0.	0.49287	0.10470	71.3	71.31	0.059	3.894	0.007
0.0233	0.05714	0.67769	0.17515	150.2	71.31	0.059	3.894	0.015
0.0446	0.10945	0.80882	0.25606	327.2	71.31	0.059	3.894	0.032
0.0658	0.16162	0.85693	0.29524	740.5	71.31	0.059	3.894	0.075
0.0869	0.21343	0.90445	0.34850	1060.5	71.31	0.059	3.894	0.107
0.1083	0.26584	0.93864	0.39983	1637.5	71.31	0.059	3.894	0.158
0.1399	0.34341	0.96785	0.45428	2380.2	71.31	0.059	3.894	0.241
0.1723	0.42294	0.96652	0.47813	3414.3	71.31	0.059	3.894	0.345
0.2041	0.50100	0.95731	0.48868	3840.2	71.31	0.059	3.894	0.388
0.2356	0.57932	0.95700	0.50185	3954.1	71.31	0.059	3.894	0.400
0.2675	0.65662	0.96237	0.52033	4211.0	71.31	0.059	3.894	0.426
0.2997	0.73566	0.98039	0.57550	4659.7	71.31	0.059	3.894	0.451
0.3314	0.81348	0.98732	0.60584	6266.8	71.31	0.059	3.894	0.634
0.3740	0.91805	0.99538	0.63971	7271.4	71.31	0.059	3.894	0.703
0.4074	1.00000	1.00000	0.66063	8548.6	71.31	0.059	3.894	0.827
0.4164	1.02212	1.00099	0.66544	9393.3	71.31	0.059	3.894	0.950
0.4588	1.12620	1.00226	0.67150	9621.3	71.31	0.059	3.894	0.973
0.5014	1.23077	1.00226	0.67150	9887.7	71.31	0.059	3.894	1.000
0.5444	1.33632	1.00407	0.67029	9887.7	71.31	0.059	3.894	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON-COOLING  
 MODEL MACH MU. DAY TEST RUN X PTE TT0 TT1  
 5. 4. 10. 3. 306. 84. 8.50 10361.09 586.06 531.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	531.00	531.00	C.	0.9061
0.0100	1.38	562.19	406.98	1365.5	0.9594
0.0171	1.49	575.45	399.17	1455.3	0.9820
0.0277	2.02	593.86	326.96	1790.7	1.0134
0.0362	2.09	603.62	322.32	1835.3	1.0301
0.0535	2.24	610.73	304.32	1918.5	1.0422
0.0703	2.51	610.78	270.50	2021.9	1.0423
0.0912	2.57	617.23	266.46	2052.8	1.0533
0.1127	2.44	618.92	283.14	2002.5	1.0562
0.1551	2.48	609.68	273.46	2004.5	1.0404
0.1869	2.55	598.41	260.53	2014.8	1.0212
0.2294	2.74	590.83	236.07	2064.4	1.0082
0.2720	3.01	587.17	208.60	2132.4	1.0020
0.3253	3.39	586.65	177.62	2216.8	1.0011
0.3782	3.61	587.29	162.87	2252.1	1.0022
0.4314	3.66	586.38	159.56	2264.5	1.0007
0.4805	3.67	586.45	158.56	2267.3	1.0008
0.5376	3.69	586.51	157.82	2269.4	1.0009
0.5906	3.72	586.62	155.96	2274.6	1.0011
0.6437	3.74	585.67	154.18	2276.8	0.9994

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV. FMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4077 0.1524 7.01 1786085. 10180395. 2217. 12648. 401.24 0.871 0.36973 0.070

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA PRIME, THETA(2), THETA(1), H(M), MIEI, PTIMAX,  
 -0.0463 -0.018 0.1707 0.1623 0.1623 0.0092 0.0204 0.01989 8.16 3.66 10494.0

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI	PHO U PRIME	V PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.0100	0.02453	0.60263	0.22103	233.2	113.17	0.077	3.603	0.011	0.011
0.0171	0.04187	0.64222	0.24004	230.3	113.26	0.077	3.603	0.034	0.033
0.0277	0.06801	0.79024	0.36059	212.5	113.00	0.077	3.603	0.039	0.039
0.0362	0.09381	0.81128	0.37532	175.1	112.34	0.077	3.604	0.088	0.087
0.0535	0.13119	0.84674	0.41448	132.0	112.43	0.077	3.604	0.097	0.098
0.0703	0.17247	0.89229	0.49091	109.8	112.72	0.077	3.605	0.125	0.123
0.0912	0.22368	0.90595	0.50546	230.2	112.50	0.077	3.606	0.188	0.186
0.1127	0.27641	0.88637	0.46494	177.1	112.49	0.077	3.606	0.206	0.203
0.1551	0.38040	0.88696	0.48027	165.9	112.35	0.077	3.609	0.179	0.177
0.1869	0.45840	0.88914	0.50380	205.4	111.81	0.077	3.611	0.198	0.196
0.2294	0.56264	0.91107	0.56742	2761.8	111.36	0.077	3.614	0.267	0.263
0.2720	0.66712	0.94115	0.65929	4141.1	110.58	0.076	3.618	0.395	0.400
0.3253	0.79784	0.97829	0.79824	7168.1	109.77	0.076	3.624	0.694	0.685
0.3782	0.92759	0.99651	0.87760	9671.4	108.64	0.075	3.631	0.933	0.922
0.4077	1.00000	1.00000	0.89161	9969.3	107.92	0.075	3.640	0.950	0.950
0.4314	1.05807	0.99934	0.87119	10208.2	107.29	0.074	3.650	0.985	0.973
0.4805	1.17849	1.00056	0.88155	10295.2	105.81	0.073	3.664	0.994	0.981
0.5376	1.31654	1.00151	0.86951	10268.2	103.78	0.072	3.684	0.991	0.978
0.5906	1.44853	1.00381	0.85785	10417.9	100.95	0.071	3.704	1.005	0.993
0.6437	1.57377	1.00479	0.84520	10494.0	98.23	0.071	3.704	1.003	1.000

HYPERSONIC BOUNDARY LAYER WIND TUNNEL DATA REDUCTION - TUNNEL A NON CIRCULAR  
 MODEL MACH NO. DAY TEST RUN X Y Z ITO ITO ITO GEN. CYL.  
 5. 10. 3. 306. 83. 14.00 10474.71 586.00 537.00 9.50

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	IT/ITO
0.	0.	537.00	537.00	0.	0.9164
0.0100	1.34	558.60	410.59	1333.5	0.9532
0.0159	1.30	566.45	422.94	1313.0	0.9656
0.0223	1.30	573.56	428.76	1319.9	0.9798
0.0309	1.64	586.35	381.15	1570.1	1.0006
0.0416	1.90	598.34	347.20	1737.0	1.0211
0.0736	2.17	614.16	316.34	1891.5	1.0491
0.0902	2.19	613.22	313.04	1899.1	1.0465
0.1119	2.41	610.99	282.54	1986.4	1.0427
0.1328	2.43	606.97	277.68	1989.0	1.0358
0.1648	2.28	601.27	295.21	1917.5	1.0261
0.1965	2.36	600.59	284.25	1949.5	1.0249
0.2393	2.52	597.08	263.45	2022.0	1.0189
0.2815	2.74	593.00	236.80	2068.7	1.0119
0.3242	3.00	587.65	209.76	2130.7	1.0028
0.3667	3.23	585.92	189.45	2182.5	0.9959
0.4087	3.32	585.04	182.68	2198.6	0.9984
0.4518	3.38	584.15	178.07	2208.8	0.9968
0.4944	3.41	584.37	175.79	2215.5	0.9972
0.5368	3.42	584.59	174.96	2218.4	0.9976
0.5791	3.45	582.69	172.53	2219.8	0.9943
0.6214	3.48	586.07	171.16	2232.6	1.0001

DELTA STAR H RSR RS DELTA RTHETA R RTHETA O RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4357 0.1307 4.89 3814510. 15501094. 4413. 17935. 411.24 0.879 0.40606 0.030

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(W), THETA STAR(W), THETA(2), THETA(W), THETA(W), PTIMAX,  
 -0.0552 -0.036 0.1663 0.1464 0.00214 0.02460 0.02195 6.57 3.36 10594.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME, M PRIME	PTI/PTE, PTI/PTIMAX
0.	0.	0.	0.	196.7	196.70	0.019	0.019
0.0100	0.02295	0.60455	0.37072	575.4	195.91	0.055	0.054
0.0159	0.03659	0.59529	0.35404	544.2	192.72	0.052	0.051
0.0223	0.05121	0.59793	0.35043	541.3	195.52	0.052	0.051
0.0309	0.07088	0.71183	0.46788	880.2	174.93	0.085	0.083
0.0416	0.09541	0.78749	0.56649	1305.7	194.34	0.126	0.123
0.0736	0.16886	0.65755	0.67021	1961.4	192.37	0.189	0.185
0.0902	0.20712	0.86096	0.67722	2015.8	191.59	0.194	0.190
0.1119	0.25683	0.90038	0.77920	2826.7	190.21	0.273	0.267
0.1328	0.30480	0.90172	0.78607	2915.7	188.83	0.281	0.275
0.1648	0.37825	0.86934	0.70502	2246.3	186.28	0.217	0.212
0.1965	0.45101	0.88382	0.73494	2521.6	183.92	0.243	0.238
0.2393	0.54324	0.90785	0.79780	3157.7	180.18	0.304	0.298
0.2815	0.64610	0.93786	0.90111	4399.8	177.03	0.424	0.415
0.3242	0.74410	0.96598	1.02448	6370.2	173.10	0.614	0.601
0.3667	0.84165	0.98945	1.13545	8800.3	169.16	0.848	0.831
0.4087	0.93805	0.99678	1.15597	9689.7	164.84	0.934	0.915
0.4518	1.00000	1.00000	1.16197	10064.6	162.31	0.950	0.950
0.4944	1.03597	1.00137	1.16297	10288.3	160.90	0.992	0.971
0.5368	1.13475	1.00444	1.14836	10473.6	156.38	1.010	0.989
0.5791	1.23206	1.00573	1.12185	10354.4	151.95	0.998	0.977

# Contracts

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/(UDELTA)	RHO * U	PII	PI,	RHO U PRIME,	M PRIME	PII/PTE,	PII/PIIMAX
0.5791	1.32915	1.00638	1.10660	10450.4	147.61	0.092	3.421	1.007	0.986
0.6214	1.42624	1.01219	1.08390	10594.3	142.61	0.090	3.446	1.021	1.000

ACOUSTIC BOUNDARY LAYER AEDL WIND TUNNEL DATA REDUCTION - TUNNEL A NON CEILED  
 MODEL NAME WBL MAY 1957 RUN X TTD T W GEN. CVL.  
 4. 10. 2. 376. 182. 17.00 10366.62 585.50 535.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	THETA	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	535.00	535.00	0.	0.9137	0.	0.	0.	0.	421.04	0.866	0.44414	0.037
0.0100	1.38	564.47	408.35	1369.5	0.9641	0.	0.	0.	0.	0.	0.	0.	0.
0.0149	1.24	573.59	438.38	1274.5	0.9797	0.	0.	0.	0.	0.	0.	0.	0.
0.0213	1.24	583.05	437.82	1320.9	0.9958	0.	0.	0.	0.	0.	0.	0.	0.
0.0276	1.57	594.26	397.98	1531.7	1.0133	0.	0.	0.	0.	0.	0.	0.	0.
0.0362	1.70	603.26	340.45	1625.0	1.0252	0.	0.	0.	0.	0.	0.	0.	0.
0.0468	1.80	607.97	369.31	1593.3	1.0384	0.	0.	0.	0.	0.	0.	0.	0.
0.0618	2.00	615.00	332.95	1840.8	1.0504	0.	0.	0.	0.	0.	0.	0.	0.
0.0745	1.89	611.53	356.70	1749.7	1.0445	0.	0.	0.	0.	0.	0.	0.	0.
0.0955	1.93	609.71	348.88	1770.2	1.0413	0.	0.	0.	0.	0.	0.	0.	0.
0.1169	1.92	608.68	350.89	1759.9	1.0396	0.	0.	0.	0.	0.	0.	0.	0.
0.1380	1.94	606.79	346.20	1769.4	1.0364	0.	0.	0.	0.	0.	0.	0.	0.
0.1702	1.99	605.06	337.09	1794.2	1.0334	0.	0.	0.	0.	0.	0.	0.	0.
0.2018	2.08	602.35	323.18	1831.4	1.0288	0.	0.	0.	0.	0.	0.	0.	0.
0.2337	2.22	599.68	302.59	1889.2	1.0242	0.	0.	0.	0.	0.	0.	0.	0.
0.2658	2.37	595.70	280.94	1944.6	1.0174	0.	0.	0.	0.	0.	0.	0.	0.
0.2976	2.54	590.58	257.86	1999.3	1.0087	0.	0.	0.	0.	0.	0.	0.	0.
0.3295	2.69	586.45	239.94	2040.3	1.0016	0.	0.	0.	0.	0.	0.	0.	0.
0.3719	2.86	582.32	221.13	2083.1	0.9946	0.	0.	0.	0.	0.	0.	0.	0.
0.4143	2.97	581.59	210.18	2112.4	0.9933	0.	0.	0.	0.	0.	0.	0.	0.
0.4569	3.03	580.97	204.46	2126.8	0.9923	0.	0.	0.	0.	0.	0.	0.	0.
0.4992	3.07	582.45	201.89	2138.2	0.9948	0.	0.	0.	0.	0.	0.	0.	0.

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.4188	0.0874	2.42	8587532.	21332864.	11791.	29291.	421.04	0.866	0.44414	0.037

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W),	DELTA STAR(W),	THETA(2),	THETA(W),	H(W),	M(E),	PTIMAX,
-0.0649	-0.075	0.1621	0.1247	0.00674	0.02934	0.02342	5.32	2.98	10468.0

  

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U	PRIME	M	PTI/PRIME	PTI/PTIMAX
0.	0.	0.	0.	424.2	424.22	0.180	2.708	0.041	0.041	0.041
0.0100	0.02388	0.64783	0.82401	1309.5	421.67	0.180	2.710	0.126	0.126	0.125
0.0149	0.03560	0.60289	0.71289	1078.3	420.83	0.180	2.712	0.104	0.104	0.103
0.0213	0.05098	0.62482	0.73752	1143.4	419.55	0.179	2.714	0.110	0.110	0.109
0.0276	0.06580	0.72454	0.93705	1690.0	417.86	0.179	2.718	0.163	0.163	0.161
0.0362	0.08648	0.76870	1.03469	2051.0	415.74	0.179	2.721	0.198	0.198	0.196
0.0468	0.11169	0.80098	1.10496	2367.6	413.61	0.178	2.727	0.228	0.228	0.226
0.0618	0.14746	0.87074	1.32010	3509.9	409.80	0.177	2.732	0.339	0.339	0.335
0.0745	0.17797	0.82766	1.16280	2684.4	406.83	0.176	2.750	0.259	0.259	0.256
0.0955	0.22807	0.83735	1.18518	2828.7	400.89	0.175	2.761	0.273	0.273	0.270
0.1169	0.27911	0.83247	1.15540	2718.3	395.37	0.173	2.780	0.262	0.262	0.260
0.1380	0.32949	0.83696	1.15840	2772.9	389.01	0.172	2.798	0.267	0.267	0.265
0.1702	0.40637	0.84873	1.17223	2928.4	377.98	0.169	2.798	0.282	0.282	0.280
0.2018	0.48182	0.86629	1.21439	3251.1	367.80	0.166	2.821	0.314	0.314	0.311
0.2337	0.55799	0.89366	1.29171	3890.9	355.07	0.162	2.842	0.375	0.375	0.372
0.2658	0.63463	0.91985	1.38584	4770.1	343.62	0.159	2.870	0.460	0.460	0.456
0.2976	0.71056	0.94574	1.48913	5993.3	329.62	0.155	2.897	0.578	0.578	0.573
0.3295	0.78672	0.96513	1.56588	7214.3	316.04	0.151	2.936	0.696	0.696	0.689
0.3719	0.88796	0.98536	1.63688	8837.4	298.23	0.145	2.976	0.852	0.852	0.844
0.4143	0.98919	0.99921	1.64452	9898.1	280.33	0.140	2.976	0.955	0.955	0.946
0.4188	1.00000	1.00000	1.64244	9944.6	279.25					0.950

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/(DELTA) RHO * U	PI	RHO U PRIME, M PRIME	PTI/PTE,	PTI/PTIMAX
0.4569	1.09091	1.00604	10335.3	0.136	3.009	0.987
0.4992	1.19190	1.01145	10468.0	0.132	3.036	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA PRODUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X TITN TITM TITC  
 5. 4. 10. 3. 306. 181. 18.00 10381.82 585.50 546.00 9.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TIT/TITN	PIE	TITN	TITM	TITC	RHO U	PRIME	M	PRIME	PTI/PIE	PTI/PTIMAX	TOT. PRESS. RECOV.	CT
0.	0.	546.00	546.00	C.	0.9325												
0.0100	1.30	566.92	423.92	1310.7	0.9683											0.41887	0.048
0.0134	1.29	572.04	428.47	1313.4	0.9770												
0.0176	1.34	579.28	425.72	1358.3	0.9894												
0.0219	1.41	586.50	419.07	1418.3	1.0017												
0.0262	1.48	593.69	413.38	1471.8	1.0140												
0.0323	1.65	604.66	390.88	1602.6	1.0327												
0.0391	1.58	609.15	407.08	1558.1	1.0404												
0.0474	1.62	616.35	404.07	1597.0	1.0527												
0.0560	1.62	613.41	402.77	1590.8	1.0477												
0.0665	1.67	612.46	393.89	1620.5	1.0460												
0.0776	1.67	609.71	391.20	1620.2	1.0413												
0.0878	1.67	607.73	389.89	1617.8	1.0380												
0.1024	1.82	605.58	364.63	1701.4	1.0343												
0.1197	1.83	601.04	360.62	1699.5	1.0265												
0.1409	1.85	597.64	354.22	1710.1	1.0207												
0.1624	2.00	598.21	332.70	1786.0	1.0217												
0.1833	2.17	597.99	307.68	1867.6	1.0213												
0.2048	2.49	595.91	266.61	1989.0	1.0178												
0.2259	2.91	594.30	221.03	2117.6	1.0150												

  

DELTA	DELTA STAR	H	RSR	RS	DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.2227	0.0025	0.06	17924704.	24080651.	26315.			435.50	0.889	0.41887	0.048

  

PHI:	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	M(1),	PTIMAX,
-0.0804	-0.109	0.1112	0.0643	0.01443	0.02806	0.01798	3.58	10437.4

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U	PRIME,	M	PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	861.7	861.70						
0.0100	0.04491	0.62498	1.52908	2347.6	848.77	0.274	2.257	0.083	0.226	0.083	0.083
0.0134	0.06009	0.62623	1.51129	2326.8	846.19	0.274	2.258	0.226	0.224	0.226	0.225
0.0176	0.07918	0.64764	1.56344	2471.7	841.02	0.273	2.262	0.238	0.224	0.238	0.237
0.0219	0.09859	0.67626	1.65162	2716.2	837.57	0.272	2.265	0.262	0.262	0.262	0.260
0.0262	0.11754	0.70178	1.72703	2955.4	832.50	0.271	2.269	0.285	0.285	0.285	0.283
0.0323	0.14525	0.76415	1.97615	3808.5	827.23	0.270	2.273	0.367	0.367	0.367	0.365
0.0391	0.17552	0.74292	1.81791	3341.1	815.17	0.268	2.282	0.322	0.322	0.322	0.320
0.0474	0.21280	0.76148	1.85934	3539.3	807.41	0.267	2.288	0.341	0.341	0.341	0.339
0.0560	0.25156	0.75852	1.83033	3467.3	795.35	0.264	2.298	0.334	0.334	0.334	0.332
0.0665	0.29885	0.77267	1.86935	3655.7	779.84	0.262	2.311	0.352	0.352	0.352	0.350
0.0776	0.34848	0.77256	1.81537	3555.5	752.26	0.256	2.334	0.342	0.342	0.342	0.341
0.0878	0.39443	0.77139	1.80206	3524.4	745.37	0.255	2.340	0.339	0.339	0.339	0.338
0.1024	0.45991	0.81126	1.95623	4247.8	719.52	0.249	2.362	0.409	0.409	0.409	0.407
0.1197	0.53761	0.81036	1.86452	4058.3	679.02	0.241	2.399	0.391	0.391	0.391	0.389
0.1409	0.63283	0.81541	1.76947	3924.3	629.04	0.230	2.448	0.378	0.378	0.378	0.376
0.1624	0.72939	0.85161	1.79507	4473.5	573.89	0.218	2.585	0.431	0.431	0.431	0.429
0.1833	0.82326	0.89049	1.79804	5203.5	508.40	0.203	2.585	0.501	0.501	0.501	0.499
0.2048	0.91983	0.94840	1.83539	7048.8	422.23	0.181	2.706	0.679	0.679	0.679	0.675
0.2227	1.00000	1.00000	1.83195	9915.5	342.71						0.950
0.2259	1.01460	1.00974	1.82796	10437.4	327.45	0.154	2.872	1.005	1.005	1.005	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTO TW GEN. CYL.  
 5. 4. 10. 3. 306. 192. -0.50 1398.10 584.00 563.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/YTO	YTO	TW	GEN. CYL.
0.	0.	563.00	563.00	0.	0.9640			
0.0100	1.02	576.34	476.80	1093.6	0.9869			
0.0183	0.73	572.46	517.70	811.1	0.9802			
0.0289	0.69	571.97	521.62	777.7	0.9794			
0.0502	0.92	572.57	489.47	999.2	0.9804			
0.0712	1.81	578.07	349.97	1655.4	0.9898			
0.1038	2.62	573.00	241.47	1995.7	0.9812			
0.1351	2.91	577.56	214.50	2088.5	0.9890			
0.1669	3.05	555.38	194.38	2082.6	0.9510			
0.1990	3.21	533.19	174.36	2076.3	0.9130			
0.2419	3.53	539.31	154.68	2149.6	0.9235			
0.3051	3.88	540.95	134.95	2208.5	0.9263			
0.3477	3.97	540.02	130.15	2219.0	0.9247			
0.3903	4.00	540.08	128.52	2223.6	0.9248			
0.4328	4.01	536.88	127.27	2218.3	0.9193			
0.4750	4.01	539.02	127.85	2222.6	0.9230			
0.5177	4.01	537.95	127.52	2220.5	0.9212			
0.5603	4.01	543.31	128.86	2231.4	0.9303			

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3539 0.1529 10.68 74375. 670178. 125. 1129. 396.48 0.954 0.36890 -0.507

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(2), THETA STAR(W), THETA(1), THETA(2), THETA(W), H(LM), M(E), PTIMAX, M(E), PTIMAX.  
 0.4546 -0.001 0.1542 0.1537 0.00006 0.01426 0.01422 10.81 3.98 1494.3

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	9.7	9.69			0.007	0.006
0.0100	0.02826	0.49258	0.01295	18.8	9.69	0.055	3.973	0.013	0.013
0.0183	0.05179	0.36535	0.00885	13.8	9.69	0.055	3.973	0.010	0.009
0.0289	0.08172	0.35031	0.00842	13.4	9.69	0.055	3.973	0.010	0.009
0.0502	0.14196	0.45008	0.01153	16.8	9.69	0.055	3.973	0.012	0.011
0.0712	0.20112	0.74565	0.02671	56.1	9.69	0.055	3.973	0.040	0.038
0.1038	0.29329	0.89895	0.04667	199.5	9.69	0.055	3.973	0.143	0.134
0.1351	0.38173	0.94073	0.05498	310.5	9.69	0.055	3.973	0.222	0.208
0.1669	0.47159	0.93806	0.06050	382.1	9.69	0.055	3.973	0.273	0.256
0.1990	0.56229	0.93522	0.06725	484.6	9.69	0.055	3.973	0.347	0.324
0.2419	0.68350	0.96827	0.07848	767.1	9.69	0.055	3.973	0.549	0.513
0.3051	0.86208	0.99480	0.09242	1249.7	9.69	0.055	3.973	0.894	0.836
0.3477	0.98245	0.99953	0.09628	1410.2	9.69	0.055	3.973	1.009	0.944
0.3539	1.00000	1.00000	0.09664	1419.6	9.69	0.055	3.973	1.009	0.950
0.3903	1.10282	1.00160	0.09771	1474.5	9.69	0.055	3.973	1.055	0.987
0.4328	1.22290	0.99922	0.09843	1494.3	9.69	0.055	3.973	1.069	1.000
0.4750	1.34214	1.00113	0.09817	1491.5	9.69	0.055	3.973	1.067	0.998
0.5177	1.46279	1.00022	0.09833	1494.3	9.69	0.055	3.973	1.069	1.000
0.5603	1.58316	1.00510	0.09779	1491.5	9.69	0.055	3.973	1.067	0.998

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X TTD TTT TTTT  
 5. 4. 10. 3. 306. 191. 8.50 1393.99 583.50 534.00 9.00

GEN. CYL. 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	534.00	534.00	0.	0.9152
0.0100	0.57	536.66	504.43	622.3	0.9197
0.0164	0.53	533.26	505.17	580.9	0.9139
0.0246	1.14	537.96	427.02	1154.5	0.9219
0.0352	1.82	545.18	327.35	1617.7	0.9343
0.0507	2.15	551.03	286.62	1782.3	0.9444
0.0671	2.32	556.44	268.04	1861.4	0.9536
0.0883	2.42	556.03	256.29	1897.6	0.9529
0.1099	2.46	558.45	252.16	1918.3	0.9571
0.1418	2.57	565.48	243.65	1966.3	0.9691
0.1841	2.75	570.77	227.56	2030.6	0.9782
0.2159	2.82	570.09	219.70	2051.7	0.9770
0.2585	2.98	568.68	204.76	2091.0	0.9746
0.3008	3.16	564.24	188.23	2125.4	0.9670
0.3434	3.33	557.48	173.51	2147.8	0.9554
0.3968	3.48	551.61	160.97	2166.4	0.9454
0.4495	3.58	550.89	154.45	2182.4	0.9441
0.5029	3.64	551.15	151.10	2192.3	0.9446
0.5559	3.69	550.39	147.61	2199.8	0.9433
0.6091	3.70	548.35	146.52	2197.2	0.9398
0.6622	3.71	545.22	145.55	2191.3	0.9344
0.7154	3.71	574.22	153.14	2249.2	0.9841

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4933 0.1349 5.89 277848. 1517312. 363. 1983. 393.52 0.885 0.46025 -0.162

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 0.2198 -0.038 0.1728 0.1547 0.00204 0.02087 0.01885 8.20 3.63 1433.9

Y Y/DELTA U/U(DELTA) RHO \* U P11 P1 P1. RHO U PRIME, M PRIME P1/P1E, P11/PT1MAX

Y	Y/DELTA	U/U(DELTA)	RHO * U	P11	P1	P1.	RHO U PRIME, M PRIME	P1/P1E, P11/PT1MAX
0.	0.	0.	0.	17.6	17.55	0.013	0.013	0.012
0.0100	0.02027	0.28402	0.01259	21.8	17.52	0.016	0.016	0.015
0.0164	0.03318	0.26514	0.01173	21.1	17.50	0.015	0.015	0.015
0.0246	0.04980	0.52691	0.02754	39.2	17.48	0.028	0.028	0.027
0.0352	0.07141	0.73835	0.05024	104.0	17.45	0.075	0.075	0.073
0.0507	0.10271	0.81347	0.06303	171.4	17.40	0.123	0.123	0.120
0.0671	0.13602	0.84957	0.07017	223.6	17.34	0.160	0.160	0.156
0.0883	0.17901	0.86611	0.07444	259.5	17.26	0.186	0.186	0.181
0.1099	0.22277	0.87552	0.07617	277.8	17.18	0.199	0.199	0.194
0.1418	0.28744	0.89747	0.08007	324.3	17.03	0.233	0.233	0.226
0.1841	0.37318	0.92680	0.08762	421.2	16.85	0.302	0.302	0.294
0.2159	0.43764	0.93643	0.09074	469.4	16.68	0.337	0.337	0.327
0.2585	0.52400	0.95435	0.09787	587.2	16.45	0.421	0.421	0.410
0.3008	0.60974	0.97006	0.10659	755.5	16.20	0.542	0.542	0.527
0.3434	0.69609	0.98028	0.11496	947.7	15.94	0.680	0.680	0.661
0.3968	0.80434	0.98876	0.12223	1161.2	15.59	0.833	0.833	0.810
0.4495	0.91116	0.99607	0.12530	1304.2	15.22	0.950	0.950	0.910
0.4933	1.00000	1.00000	0.12560	1362.2	14.90	1.000	1.000	0.950
0.5029	1.01941	1.00060	0.12540	1374.9	14.83	1.000	1.000	0.959
0.5559	1.12684	1.00400	0.12438	1433.9	14.32	1.029	1.029	1.000
0.6091	1.23468	1.00282	0.12336	1431.7	14.12	1.027	1.027	0.998

# Contracts

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	P1,	KHO U PRIME,	M PRIME	PT1/PTF,	PT1/PT1MAX
0.6622	1.34232	1.00012	0.12217	1416.9	13.93	0.072	3.677	1.016	0.988
0.7154	1.45016	1.02657	0.11753	1402.1	13.73	0.072	3.687	1.006	0.978

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 4. 10. 3. 306. 190. 14.00 1391.26 581.00 539.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/FTD
0.	0.	539.00	539.00	0.	0.9277
0.0100	0.80	538.91	477.13	861.6	0.9276
0.0125	0.78	537.66	478.73	841.5	0.9254
0.0192	1.26	541.45	410.56	1254.0	0.9319
0.0275	1.65	544.53	352.27	1519.8	0.9372
0.0381	1.88	547.77	320.26	1653.3	0.9428
0.0549	2.04	558.43	305.25	1744.0	0.9612
0.0762	2.15	564.58	293.48	1804.7	0.9717
0.0975	2.25	570.63	283.68	1856.7	0.9822
0.1293	2.37	576.89	271.57	1915.2	0.9929
0.1617	2.49	580.90	259.13	1966.1	0.9998
0.2041	2.65	582.97	242.52	2022.4	1.0034
0.2363	2.77	580.47	228.99	2054.9	0.9991
0.2781	2.92	580.17	214.06	2097.2	0.9986
0.3212	3.07	579.73	200.72	2133.9	0.9978
0.3634	3.19	579.13	191.07	2159.2	0.9968
0.4057	3.28	577.40	183.33	2175.8	0.9938
0.4484	3.33	574.51	178.19	2182.0	0.9888
0.5011	3.39	572.72	173.93	2188.8	0.9857
0.5545	3.38	569.62	173.09	2182.6	0.9804
0.6077	3.43	567.86	169.45	2187.8	0.9774
0.6606	3.45	566.26	173.53	2226.8	1.0091

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4407 0.1015 3.88 545632. 2170980. 617. 2455. 410.28 0.896 0.47959 -0.029

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA(1), THETA(2), THETA(M), H(M), M(E), PTIMAX, M(E), PTIMAX,  
 0.0426 -0.041 0.1421 0.1233 0.00276 0.02337 0.02059 5.99 3.33 1425.4

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	P1,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	28.3	28.32	0.115	0.020	0.020	0.020
0.0100	0.02269	0.39491	0.02974	43.3	28.27	0.115	0.031	0.030	0.030
0.0125	0.02848	0.38570	0.02892	42.4	28.24	0.115	0.030	0.030	0.030
0.0192	0.04348	0.57479	0.05016	74.2	28.18	0.115	0.053	0.052	0.052
0.0275	0.06231	0.69662	0.07063	129.0	28.10	0.115	0.093	0.091	0.091
0.0381	0.08650	0.75779	0.08435	183.5	28.04	0.115	0.132	0.129	0.129
0.0549	0.12469	0.79939	0.09269	230.6	27.84	0.114	0.166	0.162	0.162
0.0762	0.17282	0.82719	0.09898	272.8	27.63	0.114	0.196	0.191	0.191
0.0975	0.22126	0.85104	0.10456	316.5	27.42	0.113	0.227	0.222	0.222
0.1293	0.29340	0.87785	0.11138	378.7	27.11	0.112	0.272	0.266	0.266
0.1617	0.36692	0.90120	0.11834	451.5	26.77	0.111	0.325	0.317	0.317
0.2041	0.46313	0.92699	0.12745	564.9	26.23	0.110	0.406	0.396	0.396
0.2363	0.53620	0.94189	0.13507	670.0	25.83	0.109	0.482	0.470	0.470
0.2781	0.63105	0.96128	0.14423	828.1	25.27	0.107	0.595	0.581	0.581
0.3212	0.72885	0.97807	0.15299	1011.3	24.70	0.106	0.727	0.710	0.710
0.3634	0.82460	0.98968	0.15853	1167.2	24.08	0.104	0.839	0.819	0.819
0.4057	0.92059	0.99731	0.16159	1295.6	23.37	0.102	0.931	0.909	0.909
0.4484	1.00000	1.00000	0.16219	1354.1	22.83	0.100	0.983	0.950	0.950
0.5011	1.01748	1.00015	0.16208	1367.0	22.72	0.098	1.021	0.996	0.996
0.5545	1.13707	1.00327	0.16069	1419.8	21.91	0.097	1.004	0.980	0.980
0.6077	1.25824	1.00043	0.15871	1396.8	21.60	0.097	1.004	0.980	0.980

# Contracts

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI.	RHO U PRIME, M	PRIME	PTI/PTE,	PTI/PTIMAX
0.6077	1.37896	1.00280	0.15562	1425.4	20.69	0.094	3.393	1.025	1.000
0.6606	1.49899	1.02065	0.15036	1425.4	20.11	0.092	3.413	1.025	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 4. 10. 3. 306. 189. 17.00 1396.73 578.50 534.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	534.00	534.00	0.	0.9231					422.90	0.879	0.47043	0.074
0.0100	0.95	535.52	453.00	995.6	0.9257								
0.0142	1.20	537.07	417.11	1200.5	0.9284								
0.0185	1.42	539.46	383.68	1368.1	0.9325								
0.0245	1.61	543.25	358.19	1491.1	0.9391								
0.0313	1.70	549.21	348.43	1553.1	0.9494								
0.0395	1.76	558.02	344.63	1601.2	0.9646								
0.0503	1.83	572.09	342.93	1659.3	0.9889								
0.0630	1.91	580.00	336.03	1712.0	1.0026								
0.0797	1.97	585.75	329.61	1754.2	1.0125								
0.1015	2.06	591.72	320.27	1805.9	1.0228								
0.1224	2.14	594.58	310.11	1848.7	1.0278								
0.1541	2.27	596.74	294.18	1906.6	1.0315								
0.1862	2.40	597.62	277.97	1960.2	1.0334								
0.2180	2.55	597.89	260.09	2014.5	1.0335								
0.2497	2.68	596.65	244.94	2055.6	1.0314								
0.2923	2.86	594.61	225.29	2106.4	1.0278								
0.3350	3.03	585.06	205.99	2134.0	1.0113								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.3214	0.0807	2.18	1145838.	2865896.	1215.	3039.	422.90	0.879	0.47043	0.074			
PHI.	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	MIEI),	PTIMAX.				
-0.0704	-0.054	0.1147	0.0896	0.00498	0.02288	0.01850	4.84	2.98	1433.9				
Y	Y/DELTA	U/UI(DELTA)	RMO * U	PTI	PI,	RMO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	56.7	56.69			0.041	0.040				
0.0100	0.03112	0.46793	0.07217	101.2	56.35	0.178	2.724	0.072	0.071				
0.0142	0.04412	0.56422	0.09422	136.1	56.18	0.177	2.726	0.097	0.095				
0.0185	0.05753	0.64297	0.11625	184.4	55.96	0.177	2.729	0.132	0.129				
0.0245	0.07614	0.70078	0.13545	239.9	55.84	0.177	2.730	0.172	0.167				
0.0313	0.09724	0.72993	0.14445	273.5	55.62	0.176	2.733	0.196	0.191				
0.0395	0.12303	0.75251	0.14964	298.6	55.28	0.176	2.737	0.214	0.208				
0.0503	0.15660	0.77982	0.15439	328.4	54.76	0.175	2.743	0.235	0.229				
0.0630	0.19606	0.80461	0.16123	366.9	54.31	0.174	2.748	0.263	0.256				
0.0797	0.24815	0.82444	0.16613	400.8	53.57	0.172	2.757	0.287	0.280				
0.1015	0.31582	0.84872	0.17285	451.0	52.61	0.170	2.769	0.323	0.315				
0.1224	0.38085	0.86884	0.17920	503.5	51.59	0.168	2.782	0.361	0.351				
0.1541	0.47949	0.89604	0.18775	591.1	49.72	0.164	2.806	0.423	0.412				
0.1862	0.57937	0.92127	0.19637	697.2	47.79	0.160	2.832	0.499	0.486				
0.2180	0.67832	0.94677	0.20519	837.4	45.47	0.155	2.865	0.600	0.584				
0.2497	0.77695	0.96607	0.21290	982.2	43.54	0.151	2.894	0.703	0.685				
0.2923	0.90951	0.98997	0.22052	1209.1	40.48	0.144	2.942	0.866	0.843				
0.3214	1.00000	1.00000	0.22343	1362.2	38.23								
0.3350	1.04237	1.00295	0.22415	1433.9	37.13	0.137	2.999	1.027	1.000				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TW GEN. CYL.  
 5. 4. 10. 3. 306. 187. 18.00 1399.40 580.00 538.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/FTO
0.	0.	538.00	538.00	0.	0.9276
0.0100	1.13	552.69	440.16	1162.7	0.9529
0.0143	1.11	555.51	446.12	1146.4	0.9578
0.0207	1.32	562.72	417.12	1322.6	0.9702
0.0269	1.41	568.68	406.50	1395.9	0.9805
0.0354	1.50	578.76	399.28	1468.4	0.9979
0.0458	1.58	588.82	392.49	1535.8	1.0152
0.0569	1.65	594.69	384.52	1589.0	1.0253
0.0671	1.73	597.49	374.19	1637.9	1.0301
0.0823	1.83	600.61	359.30	1702.7	1.0355
0.0992	1.97	604.07	339.54	1782.7	1.0415
0.1207	2.20	607.26	308.59	1894.3	1.0470
0.1419	2.50	608.90	270.93	2015.0	1.0498
0.1634	2.97	610.49	220.99	2163.2	1.0526

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1601 0.0019 0.06 2452517. 3220833. 2753. 3616. 435.12 0.880 0.41781 0.147

PHI: DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.0549 -0.079 0.0811 0.0464 0.00981 0.02268 0.01435 3.24 2.89 1496.7

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME, M PRIME	PTI/PTE, PTI/PTIMAX
0.	0.	0.	115.4	115.42	0.264	0.082
0.0100	0.06246	0.54362	251.7	113.46	0.264	0.180
0.0143	0.08938	0.53598	0.16814	112.30	0.262	0.173
0.0207	0.12922	0.61836	0.20512	111.03	0.260	0.226
0.0269	0.16820	0.65262	0.21984	109.88	0.259	0.254
0.0354	0.22129	0.68654	0.23001	393.6	0.255	0.281
0.0458	0.28599	0.71804	0.23869	107.34	0.253	0.263
0.0569	0.35563	0.74292	0.24401	104.69	0.251	0.289
0.0671	0.41890	0.76578	0.25022	101.34	0.247	0.311
0.0823	0.51408	0.79607	0.25497	98.11	0.242	0.337
0.0992	0.61982	0.83349	0.25951	92.34	0.234	0.373
0.1207	0.75386	0.88564	0.26213	84.83	0.222	0.426
0.1419	0.88626	0.94210	0.25659	73.29	0.203	0.560
0.1601	1.00000	1.00000	0.24607	1007.6	0.178	0.673
0.1634	1.02055	1.01139	0.24360	1421.9	0.145	0.950
				1496.7	2.720	1.000
				42.71	2.935	1.070

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TTD  
 5. 6. 10. 9. 306. 222. -0.50 24198.50 726.70 650.00 9.00  
 GEN. CYL.

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TI/TTO
0.	0.	650.00	650.00	0.	0.8945
0.0100	0.44	653.10	628.23	546.6	0.8987
0.0184	0.80	658.16	584.02	943.7	0.9057
0.0271	1.21	665.41	514.67	1345.7	0.9157
0.0375	2.03	677.54	371.60	1917.2	0.9324
0.0543	2.49	681.45	304.36	2128.4	0.9377
0.0750	2.83	683.47	262.68	2248.4	0.9405
0.1077	3.12	684.86	232.46	2331.3	0.9424
0.1395	3.41	686.04	206.57	2400.1	0.9440
0.1713	3.66	686.91	186.85	2451.1	0.9452
0.2145	4.13	687.60	156.14	2526.8	0.9462
0.2576	4.67	688.26	128.40	2593.5	0.9471
0.3413	5.38	688.07	101.36	2654.9	0.9468
0.3849	5.71	687.77	91.31	2676.9	0.9464
0.4262	5.92	687.50	85.82	2688.6	0.9461
0.4688	5.92	687.50	85.86	2688.5	0.9461
0.5219	5.91	687.51	86.06	2688.1	0.9461
0.5755	5.89	687.54	86.50	2687.2	0.9461

DELTA STAR H RSR Q'S DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4156 0.2209 17.06 135909. 3601726. 207. 5484. 445.39 0.880 0.25422 0.25422 -0.285

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA PRIME, THETA(1), THETA(2), PTIMAX, M(1), PTIMAX,  
 0.1453 -0.0006 0.2267 0.2241 0.00010 0.01285 0.01270 17.64 5.89 26314.5

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	18.1	18.09	0.012	5.871	0.001	0.001
0.0100	0.02406	0.20346	0.00917	20.7	18.09	0.012	5.871	0.001	0.001
0.0184	0.04435	0.35127	0.01703	27.5	18.09	0.012	5.871	0.001	0.001
0.0271	0.06529	0.50089	0.02756	44.4	18.09	0.012	5.871	0.002	0.002
0.0375	0.09029	0.71359	0.05437	148.0	18.09	0.012	5.871	0.006	0.006
0.0543	0.13079	0.79222	0.07370	303.8	18.09	0.012	5.871	0.013	0.012
0.0750	0.18238	0.83687	0.09020	513.9	18.09	0.012	5.871	0.021	0.020
0.1077	0.25917	0.86773	0.10569	793.9	18.09	0.012	5.871	0.033	0.030
0.1395	0.33570	0.89332	0.12245	1207.5	18.09	0.012	5.871	0.050	0.046
0.1713	0.41222	0.91230	0.13825	1723.2	18.09	0.012	5.871	0.071	0.065
0.2145	0.51618	0.94051	0.17055	3241.7	18.09	0.012	5.871	0.134	0.123
0.2576	0.61989	0.96530	0.21286	6448.7	18.09	0.012	5.871	0.266	0.245
0.3413	0.82131	0.98818	0.27603	14740.0	18.09	0.012	5.871	0.609	0.560
0.3849	0.92623	0.99636	0.30894	21209.9	18.09	0.012	5.871	0.876	0.806
0.4156	1.00000	1.00000	0.32669	24998.8	18.09	0.012	5.871	0.950	0.950
0.4262	1.02562	1.00071	0.33014	26314.5	18.09	0.012	5.871	1.087	1.000
0.4688	1.12813	1.00068	0.32998	26272.1	18.09	0.012	5.871	1.086	0.998
0.5219	1.25591	1.00052	0.32915	26059.4	18.09	0.012	5.871	1.077	0.990
0.5755	1.38490	1.00018	0.32740	25610.3	18.09	0.012	5.871	1.058	0.973

HYPERSONIC BOUNDARY LAYER AEOC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITD TTD TM GEN. CYL.  
 5. 6. 12. 18. 306. 221. 8.50 24198.45 726.50 650.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	650.00	650.00	0.	0.8947
0.0100	0.86	657.85	573.90	1004.2	0.9055
0.0178	0.80	657.04	582.47	946.6	0.9044
0.0284	1.55	667.56	450.21	1615.9	0.9189
0.0410	1.88	671.31	393.87	1825.7	0.9240
0.0621	2.14	674.12	351.36	1969.1	0.9279
0.0837	2.29	675.46	329.07	2040.0	0.9297
0.1154	2.55	677.31	294.29	2145.1	0.9323
0.1481	2.80	678.62	263.76	2232.5	0.9341
0.1790	3.14	680.63	228.80	2329.9	0.9369
0.2111	3.52	681.67	196.24	2414.9	0.9383
0.2432	3.96	682.38	164.96	2493.2	0.9393
0.2745	4.36	682.44	142.36	2547.3	0.9394
0.3173	4.86	682.56	119.32	2601.3	0.9395
0.3597	5.16	682.53	108.00	2627.2	0.9395
0.4020	5.26	682.69	104.34	2635.9	0.9397
0.4446	5.31	682.96	102.97	2639.7	0.9401
0.4871	5.33	683.22	102.28	2641.8	0.9404
0.5299	5.36	683.53	101.31	2644.7	0.9409
0.5829	5.40	683.90	100.10	2648.3	0.9414

DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1895 11.00 585561. 8952376. 576. 8806. 451.20 0.877 0.25965 -0.268

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(2), THETA STAR(W ), THETA PRIME, THETA(2), THETA(W), M(W), M(E), PTIMAX,  
 0.1446 -0.036 0.2280 0.2012 0.00064 0.01659 0.01471 13.67 5.24 24176.3

Y	Y/DELTA	U/UIDELTA	RMO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	39.5	39.47	0.022	5.083	0.002	0.002
0.0100	0.02608	0.38122	0.04020	63.6	39.43	0.022	5.083	0.003	0.003
0.0178	0.04639	0.35933	0.03733	60.1	39.43	0.022	5.083	0.002	0.002
0.0284	0.07411	0.61342	0.08239	156.4	39.40	0.022	5.084	0.006	0.006
0.0410	0.10683	0.69305	0.10617	254.1	39.31	0.022	5.085	0.011	0.011
0.0621	0.16206	0.74751	0.12799	383.4	39.20	0.022	5.088	0.016	0.016
0.0837	0.21833	0.77440	0.14101	483.7	39.04	0.022	5.092	0.020	0.020
0.1154	0.30091	0.81433	0.16427	715.4	38.68	0.021	5.100	0.030	0.030
0.1481	0.38618	0.84749	0.18919	1048.0	38.36	0.021	5.107	0.043	0.043
0.1790	0.46675	0.88445	0.22479	1720.3	37.89	0.021	5.118	0.071	0.071
0.2111	0.55045	0.91674	0.28855	2925.7	37.45	0.021	5.128	0.121	0.121
0.2432	0.63416	0.94647	0.32464	5307.3	36.86	0.021	5.141	0.219	0.220
0.2745	0.71577	0.96697	0.37819	8750.1	36.27	0.020	5.156	0.362	0.362
0.3173	0.82738	0.98749	0.44925	15835.1	35.37	0.020	5.178	0.654	0.654
0.3597	0.93794	0.99734	0.48722	21813.5	34.37	0.020	5.203	0.901	0.902
0.3835	1.00000	1.00000	0.49322	22967.5	33.78	0.019	5.231	0.986	0.987
0.4020	1.04824	1.00065	0.49028	23864.3	33.31	0.019	5.261	0.999	1.000
0.4446	1.15932	1.02027	0.48053	24176.3	32.17	0.018	5.289	0.992	0.993
0.4871	1.27014	1.02885	0.46918	24014.0	31.18	0.018	5.324	0.989	0.990
0.5299	1.38174	1.00398	0.45622	23925.1	29.99	0.018	5.366	0.989	0.989
0.5829	1.51994	1.00535	0.44109	23852.8	28.61	0.017	5.366	0.966	0.987

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MD. DAY TEST RUN X PTF TTD TW GEN. CYL.  
 5. 6. 12. 18. 306. 220. 14.00 24247.24 726.50 650.00 9.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	650.00	650.00	0.	0.8947								
0.0100	1.64	666.01	433.76	1670.4	0.9167								
0.0151	1.54	664.98	451.33	1602.1	0.9153								
0.0217	1.84	668.34	398.14	1801.7	0.9199								
0.0301	2.25	671.61	333.63	2015.1	0.9244								
0.0407	2.42	672.66	309.50	2088.8	0.9259								
0.0557	2.58	673.41	288.80	2149.6	0.9269								
0.0705	2.75	674.10	268.55	2207.3	0.9279								
0.0875	2.78	674.27	265.24	2216.8	0.9281								
0.1087	2.89	674.74	252.87	2251.3	0.9288								
0.1407	3.04	675.27	237.17	2294.2	0.9295								
0.1727	3.24	675.78	218.11	2344.9	0.9302								
0.1940	3.40	676.04	203.86	2381.7	0.9305								
0.2151	3.59	676.30	189.32	2418.8	0.9309								
0.2469	3.95	676.81	164.51	2480.9	0.9316								
0.2892	4.27	676.94	145.43	2527.0	0.9318								
0.3319	4.53	677.09	132.65	2557.5	0.9320								
0.3743	4.66	677.38	126.94	2571.6	0.9324								
0.4176	4.74	677.77	123.45	2580.6	0.9329								
0.4595	4.79	678.25	121.45	2586.4	0.9336								
0.5017	4.84	678.79	119.43	2592.3	0.9343								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.3713	0.1187	6.67	1560043.	14984894.	1201.	11535.	458.68	0.872	0.34486	-0.236	

  

PHI	DELTA STAR PRIME	DELTA STAR(2)	DELTA STAR(W)	THETA PRIME	THETA(2)	THETA(W)	H(W)	M(E)	PTIMAX.
0.1851	-0.045	0.1641	0.1386	0.00128	0.01651	0.01406	9.85	4.65	24105.1

  

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	PI1	RHO U PRIME	M PRIME	PT1/PIE	PT1/PTIMAX
0.	0.	0.	0.	84.1	84.12			0.003	0.003
0.0100	0.02693	0.64969	0.18838	376.6	83.95	0.036	4.453	0.016	0.016
0.0151	0.04077	0.62312	0.17331	325.3	83.79	0.036	4.454	0.013	0.013
0.0217	0.05857	0.70075	0.22071	513.0	83.71	0.036	4.455	0.021	0.021
0.0301	0.08111	0.78373	0.29428	967.8	83.62	0.036	4.456	0.040	0.040
0.0407	0.10971	0.81240	0.32752	1260.6	83.29	0.036	4.459	0.052	0.052
0.0557	0.14995	0.83605	0.36009	1607.5	83.03	0.036	4.461	0.066	0.066
0.0705	0.18983	0.85851	0.39646	2074.7	82.79	0.036	4.464	0.086	0.086
0.0875	0.23569	0.86218	0.39984	2150.8	82.11	0.036	4.470	0.089	0.089
0.1087	0.29273	0.87560	0.42197	2524.4	81.35	0.036	4.478	0.104	0.105
0.1407	0.37891	0.89230	0.45231	3125.6	80.25	0.035	4.489	0.129	0.130
0.1727	0.46509	0.91201	0.49586	4144.4	79.16	0.035	4.500	0.171	0.172
0.1940	0.52245	0.92635	0.52972	5167.7	77.82	0.035	4.513	0.213	0.214
0.2151	0.57927	0.94075	0.56984	6595.0	76.55	0.034	4.527	0.272	0.274
0.2469	0.66491	0.96490	0.65934	10598.3	75.04	0.034	4.543	0.437	0.440
0.2892	0.77882	0.98283	0.72910	15670.7	72.01	0.033	4.576	0.646	0.650
0.3319	0.89381	0.99471	0.77489	20726.6	68.98	0.032	4.611	0.855	0.860
0.3743	1.00000	1.00000	0.77698	22899.9	65.94	0.031	4.650	0.951	0.957
0.4176	1.12461	1.00370	0.77558	23063.6	65.71	0.030	4.696	0.994	1.000
0.4595	1.23744	1.00594	0.75717	24105.1	62.16	0.028	4.745	0.994	1.000
0.5017	1.35109	1.00824	0.72653	24102.3	58.55	0.027	4.798	0.992	0.997

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION -- TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTC ITO TW GEN. CYL.  
 5. 6. 12. 18. 306. 218. 17.00 24197.43 724.50 639.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITO
0.	0.	639.00	639.00	0.	0.8820
0.0100	1.91	690.28	399.23	1869.9	0.9528
0.0169	1.90	711.82	413.92	1891.8	0.9825
0.0232	2.14	729.82	380.23	2049.4	1.0073
0.0298	2.52	745.01	328.50	2236.9	1.0283
0.0360	2.66	755.22	312.19	2307.0	1.0424
0.0451	2.83	763.33	293.78	2375.1	1.0536
0.0549	2.91	776.15	287.93	2421.9	1.0713
0.0655	3.02	789.03	279.47	2474.2	1.0891
0.0808	3.08	791.39	273.10	2495.3	1.0923
0.0977	3.13	786.43	265.96	2500.5	1.0855
0.1189	3.22	777.41	253.08	2509.8	1.0730
0.1404	3.27	769.38	245.63	2508.4	1.0619
0.1616	3.41	760.47	228.79	2527.3	1.0496
0.1940	3.61	750.63	208.46	2532.1	1.0361
0.2249	3.76	744.87	194.23	2572.0	1.0281
0.2572	3.92	745.54	182.84	2600.0	1.0290
0.2887	4.04	750.38	176.00	2626.9	1.0357
0.3315	4.12	749.11	170.34	2636.9	1.0340
0.3742	4.20	809.23	178.81	2752.0	1.1169

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2677 0.0233 1.91 4702736. 20135089. 2181. 9337. 485.73 0.843 0.843 0.51873 0.270  
 PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.1032 -0.058 0.0811 0.0606 0.0606 0.00323 0.00896 0.00684 8.86 3.97 23981.8

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	243.6	243.65	0.074	3.647	0.010	0.010
0.0100	0.03736	0.71671	0.66292	1551.0	242.91	0.074	3.648	0.068	0.069
0.0169	0.06302	0.72509	0.64556	1616.8	242.42	0.074	3.651	0.067	0.067
0.0232	0.08670	0.78569	0.75830	2365.6	241.46	0.074	3.653	0.098	0.099
0.0298	0.11139	0.85737	0.95606	4232.8	240.97	0.074	3.656	0.175	0.177
0.0360	0.13444	0.88425	1.03335	5284.3	239.99	0.074	3.659	0.218	0.220
0.0451	0.16832	0.91033	1.12480	6752.1	238.78	0.073	3.663	0.279	0.282
0.0549	0.20500	0.92829	1.16427	7639.9	237.56	0.073	3.669	0.316	0.319
0.0655	0.24460	0.94833	1.21541	8910.0	235.61	0.072	3.681	0.368	0.372
0.0808	0.30198	0.95641	1.23359	9598.6	231.71	0.071	3.695	0.397	0.400
0.0977	0.36500	0.95842	1.24391	10094.5	227.07	0.071	3.715	0.421	0.421
0.1189	0.44415	0.96197	1.27687	11225.3	220.98	0.070	3.741	0.464	0.468
0.1404	0.52447	0.96143	1.26852	11594.8	213.19	0.068	3.775	0.479	0.483
0.1616	0.60366	0.96869	1.30942	13620.3	203.44	0.066	3.829	0.563	0.568
0.1940	0.72669	0.97817	1.34609	16728.0	188.83	0.063	3.881	0.691	0.698
0.2249	0.84012	0.98581	1.35921	19457.8	176.16	0.060	3.943	0.804	0.811
0.2572	0.96077	0.99655	1.34254	22183.0	162.03	0.057	4.001	0.917	0.925
0.2877	1.00900	1.00000	1.33176	22782.7	157.79	0.054	4.085	0.991	0.990
0.2887	1.07944	1.00684	1.30320	23981.8	149.35	0.050	4.184	0.988	0.988
0.3315	1.23832	1.01068	1.20872	23901.4	134.01	0.046		0.997	0.997
0.3742	1.39783	1.05484	1.05531	23204.6	117.68			0.959	0.968

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 6. 12. 18. 306. 217. 18.00 24237.90 724.50 648.00 9.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	648.00	648.00	0.	0.8944
0.0100	1.90	696.57	405.26	1870.8	0.9614
0.0142	1.89	711.08	414.31	1888.2	0.9815
0.0186	1.99	724.44	403.65	1963.1	0.9999
0.0229	2.25	734.86	364.63	2109.0	1.0143
0.0291	2.35	746.78	355.08	2169.3	1.0308
0.0354	2.43	756.73	347.70	2216.7	1.0445
0.0415	2.50	761.35	337.79	2255.8	1.0509
0.0508	2.56	769.47	333.42	2288.8	1.0621
0.0610	2.63	778.63	326.80	2329.9	1.0747
0.0740	2.68	771.67	317.25	2336.5	1.0651
0.0893	2.80	760.95	292.25	2373.0	1.0503
0.1056	3.00	752.58	269.31	2409.5	1.0388
0.1268	3.09	742.83	254.85	2421.3	1.0253
0.1484	3.22	738.75	239.96	2447.9	1.0197
0.1694	3.37	741.96	226.67	2488.1	1.0241
0.1908	3.54	744.86	212.07	2530.0	1.0281
0.2119	3.65	745.83	203.63	2552.2	1.0294
0.2328	3.73	670.73	177.53	2434.2	0.9258

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.1841 -0.0179 -1.17 12625446. 29642679. 6653. 15620. 502.87 0.850 0.60034 0.192

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTLMAX,  
 -0.0634 -0.070 0.0524 0.0325 0.00634 0.00891 0.00581 5.59 3.50 24929.1

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTLMAX
0.	0.	0.	0.	654.5	654.48			0.027	0.026
0.0100	0.05433	0.74269	1.75146	4335.2	651.17	0.138	2.993	0.179	0.174
0.0142	0.07720	0.74962	1.72418	4300.5	649.30	0.137	2.995	0.177	0.173
0.0186	0.10122	0.77937	1.83626	5018.3	648.00	0.137	2.997	0.207	0.201
0.0229	0.12447	0.83727	2.17895	7513.3	646.56	0.137	2.998	0.310	0.301
0.0291	0.15805	0.86121	2.29486	8697.1	644.38	0.136	3.000	0.359	0.349
0.0354	0.19249	0.88005	2.38255	9754.0	641.38	0.136	3.003	0.402	0.391
0.0415	0.22569	0.89554	2.48273	10968.3	638.06	0.136	3.007	0.453	0.440
0.0508	0.27584	0.90866	2.52332	11780.0	630.86	0.135	3.015	0.486	0.473
0.0610	0.33153	0.92295	2.56914	12912.1	618.48	0.133	3.028	0.533	0.518
0.0740	0.40188	0.92760	2.55579	13367.5	595.58	0.130	3.053	0.552	0.536
0.0893	0.48523	0.94206	2.53841	15284.4	536.54	0.122	3.123	0.631	0.613
0.1056	0.57373	0.95659	2.49076	17429.2	477.79	0.113	3.202	0.719	0.699
0.1268	0.68891	0.96124	2.35481	17985.1	425.38	0.105	3.281	0.742	0.721
0.1484	0.80627	0.97183	2.28363	19670.2	384.19	0.098	3.351	0.812	0.789
0.1694	0.92036	0.98778	2.21872	22013.5	346.90	0.092	3.422	0.908	0.883
0.1841	1.00000	1.00000	2.13622	23682.6	314.52			0.950	0.950
0.1908	1.03663	1.00441	2.09297	24450.4	301.10	0.084	3.522	1.009	0.981
0.2119	1.15127	1.01324	1.93601	24929.1	265.10	0.077	3.612	1.029	1.000
0.2328	1.26482	0.96637	1.83032	24016.4	229.10	0.070	3.717	0.991	0.963

HYPERSONIC BOUNDARY LAYER ADCDC WIND TUNNEL DATA REDUCTION - TUNNEL A NCH COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TM GEN. CYL.  
 5. 6. 10. 9. 306. 227. -0.50 12059.70 723.00 657.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	657.00	657.00	0.	0.9087
0.0100	0.89	670.99	578.52	1054.0	0.9281
0.0195	0.67	670.69	615.66	813.0	0.9276
0.0306	0.67	674.70	619.65	813.2	0.9332
0.0406	1.06	686.75	561.04	1229.0	0.9499
0.0554	1.49	702.16	486.77	1608.6	0.9712
0.0726	1.89	716.75	418.95	1891.5	0.9914
0.0936	2.18	729.58	373.32	2068.8	1.0091
0.1255	2.80	746.55	291.27	2338.7	1.0326
0.1574	3.42	756.57	226.14	2524.4	1.0464
0.1903	4.13	758.45	171.78	2654.8	1.0490
0.2213	4.70	750.97	138.39	2712.8	1.0387
0.2531	5.26	739.03	113.29	2741.8	1.0222
0.2858	5.62	730.39	99.71	2752.6	1.0102
0.3277	5.79	728.10	94.51	2759.0	1.0070
0.3699	5.83	726.98	93.26	2759.2	1.0055
0.4129	5.84	726.96	92.85	2760.1	1.0055
0.4550	5.86	726.95	92.47	2760.9	1.0055
0.5188	5.86	728.03	92.49	2763.2	1.0070

DELTA DELTA STAR H RSR RS DELTA RTHEA R RTHEA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3520 0.1939 21.15 66776. 1583529. 72. 1708. 457.88 0.895 0.29547 0.045

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STARIM ), IMETA PRIME, IMETA(2), IMETA(M), M(M), M(EI), PTIMAX,  
 -0.0476 -0.005 0.1986 0.1963 0.00008 0.00909 0.00899 21.84 5.83 12444.4

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME, M PRIME	PTI/PIE, PTL/PTIMAX
0.	0.	0.	0.	9.1	9.09	0.012	0.001
0.0100	0.02841	0.38189	0.00965	15.3	9.09	5.813	0.001
0.0195	0.05545	0.29456	0.00700	12.3	9.09	5.813	0.001
0.0306	0.08687	0.29467	0.00695	12.2	9.09	5.813	0.001
0.0406	0.11525	0.44529	0.01161	18.5	9.09	5.813	0.001
0.0554	0.15753	0.58286	0.01751	32.8	9.09	5.813	0.003
0.0726	0.20628	0.68535	0.02392	59.6	9.09	5.813	0.005
0.0936	0.26579	0.74961	0.02936	94.9	9.09	5.813	0.008
0.1255	0.35653	0.84740	0.04254	243.1	9.09	5.813	0.020
0.1574	0.44715	0.91468	0.05915	622.9	9.09	5.813	0.050
0.1903	0.54062	0.96194	0.08189	1644.8	9.09	5.813	0.132
0.2213	0.62869	0.98295	0.10387	3385.2	9.09	5.813	0.272
0.2531	0.71903	0.99346	0.12824	6448.5	9.09	5.813	0.535
0.2858	0.81192	0.99738	0.14628	9675.6	9.09	5.813	0.778
0.3277	0.90396	0.99967	0.15469	11542.9	9.09	5.813	0.928
0.3520	1.00000	1.00000	0.15667	11822.1	9.09	5.813	0.950
0.3699	1.05084	0.99977	0.15678	12027.7	9.09	5.813	0.967
0.4129	1.17300	1.00008	0.15752	12214.1	9.09	5.813	0.981
0.4550	1.29260	1.00037	0.15821	12390.5	9.09	5.813	0.996
0.5188	1.47385	1.00121	0.15831	12444.4	9.09	5.813	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A RUN COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE ITD TW GEN. CYL.  
 5. 6. 12. 18. 306. 226. 8.50 11950.85 723.50 650.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	IT/ITD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	650.00	650.00	0.	0.8984								
0.0100	1.01	675.93	561.25	1173.8	0.9342					466.13	0.879	0.39659	0.228
0.0212	1.15	691.68	547.90	1314.3	0.9560								
0.0334	2.23	722.25	317.06	2206.3	0.9983								
0.0547	3.22	743.15	241.80	2454.2	1.0272								
0.0758	3.43	752.68	224.46	2519.1	1.0403								
0.1078	3.64	769.55	211.21	2589.9	1.0636								
0.1401	3.83	776.56	197.63	2637.3	1.0733								
0.1723	4.00	784.45	187.04	2679.0	1.0842								
0.2036	4.18	791.24	175.76	2719.2	1.0936								
0.2355	4.40	794.68	163.32	2754.1	1.0984								
0.2672	4.61	793.68	151.09	2778.5	1.0970								
0.3097	4.89	781.37	135.34	2785.9	1.0800								
0.3524	5.07	761.38	123.90	2767.4	1.0524								
0.3948	5.17	742.24	117.14	2740.4	1.0259								
0.4377	5.24	729.61	112.26	2723.4	1.0084								
0.4802	5.26	725.54	111.12	2716.9	1.0028								
0.5232	5.28	725.79	110.54	2718.7	1.0032								
0.5646	5.32	724.98	108.82	2720.7	1.0021								
0.6288	5.37	731.75	108.20	2737.0	1.0114								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.3964	0.1272	21.09	294999.	380553.	102.	1336.	466.13	0.879	0.39659	0.228			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX.				
-0.2147	-0.027	0.1545	0.1407	0.0064	0.00539	0.00493	28.54	5.17	11973.2				
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	20.3	20.28	0.022	5.050	0.002	0.002	0.002			
0.0100	0.02522	0.42845	0.02471	38.9	20.27	0.022	5.050	0.003	0.003	0.003			
0.0212	0.05343	0.47974	0.02832	45.8	20.26	0.022	5.051	0.004	0.004	0.004			
0.0334	0.08435	0.80536	0.08209	361.2	20.25	0.022	5.052	0.030	0.030	0.030			
0.0547	0.13811	0.89583	0.11930	1026.7	20.17	0.022	5.055	0.086	0.086	0.086			
0.0758	0.19128	0.91953	0.13184	1392.2	20.16	0.022	5.055	0.116	0.116	0.116			
0.1078	0.27192	0.94538	0.14332	1852.0	20.06	0.022	5.060	0.155	0.155	0.155			
0.1401	0.35340	0.96265	0.15451	2389.8	19.87	0.022	5.068	0.200	0.200	0.200			
0.1723	0.43462	0.97789	0.16476	2982.4	19.74	0.022	5.073	0.249	0.249	0.249			
0.2036	0.51358	0.99258	0.17550	3768.6	19.47	0.022	5.085	0.315	0.315	0.315			
0.2355	0.59404	1.00530	0.18902	4888.4	19.24	0.021	5.096	0.409	0.409	0.409			
0.2672	0.67400	1.01420	0.20336	6305.2	18.98	0.021	5.108	0.528	0.528	0.528			
0.3097	0.78121	1.01692	0.22246	8576.8	18.55	0.021	5.128	0.716	0.716	0.716			
0.3524	0.88892	1.01016	0.23613	10437.1	18.14	0.021	5.147	0.872	0.872	0.872			
0.3948	0.99587	1.00031	0.24162	11350.8	17.73	0.020	5.167	0.948	0.948	0.948			
0.4377	1.00000	1.00000	0.24172	11374.5	17.71	0.020	5.198	1.002	1.002	1.000			
0.4802	1.21129	0.99172	0.23694	11829.8	16.63	0.019	5.223	0.990	0.990	0.988			
0.5232	1.31976	0.99240	0.23072	11678.2	16.10	0.018	5.252	0.977	0.977	0.975			
0.5646	1.42419	0.99313	0.22571	11625.2	15.49	0.018	5.286	0.989	0.989	0.988			
0.6288	1.58613	0.99906	0.21606	11791.9	14.66	0.018	5.336	0.987	0.987	0.985			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 6. 12. 18. 306. 225. 14.00 11999.23 723.50 649.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ATTO
0.	0.	649.00	649.00	0.	0.8970
0.0100	1.39	676.51	488.64	1502.3	0.9350
0.0174	2.09	694.24	369.76	1974.4	0.9596
0.0254	2.66	707.93	293.48	2231.4	0.9785
0.0347	3.22	719.13	265.26	2335.1	0.9940
0.0445	3.88	729.47	252.22	2394.5	1.0083
0.0553	4.53	739.65	239.94	2450.2	1.0223
0.0698	5.28	748.57	228.01	2500.8	1.0346
0.0916	6.11	756.49	214.87	2550.9	1.0456
0.1126	7.04	764.38	203.83	2595.1	1.0565
0.1444	8.09	775.49	192.97	2645.4	1.0719
0.1764	9.37	786.41	183.30	2687.3	1.0842
0.2081	10.81	790.02	173.61	2721.3	1.0919
0.2406	12.42	790.32	164.11	2742.8	1.0924
0.2717	14.21	784.06	155.96	2747.0	1.0837
0.3147	16.18	769.33	147.01	2734.3	1.0633
0.3574	18.35	742.89	138.97	2693.6	1.0268
0.4006	20.74	730.40	135.08	2674.3	1.0095
0.4425	23.37	730.78	134.10	2677.4	1.0101
0.4845	26.26	731.18	133.03	2680.7	1.0106
0.5278	29.43	731.60	131.75	2684.5	1.0112

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3106 0.0666 6.90 761724. 6161250. 318. 2573. 482.37 0.871 0.48066 0.387  
 PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(M), THETA STAR(M), THETA STAR(M), H(M), M(IE), PT1MAX,  
 -0.1703 -0.026 0.0925 0.0811 0.0089 0.00876 0.00773 10.49 4.59 11884.6

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PL1	RHO U PRIME	M PRIME	PT1/PTE	PT1/PT1MAX
0.	0.	0.	0.	42.2	42.25	0.037	4.438	0.004	0.004
0.0100	0.03219	0.54901	0.07553	131.6	42.16	0.037	4.439	0.011	0.011
0.0174	0.05598	0.72152	0.13104	382.0	42.12	0.037	4.440	0.032	0.032
0.0254	0.08187	0.81545	0.18622	916.3	42.03	0.037	4.443	0.076	0.077
0.0347	0.11158	0.85334	0.21479	1373.8	41.88	0.037	4.444	0.114	0.116
0.0445	0.14313	0.87505	0.23140	1721.2	41.83	0.037	4.444	0.143	0.145
0.0553	0.17818	0.89540	0.24762	2140.4	41.62	0.037	4.448	0.178	0.180
0.0698	0.22457	0.91389	0.26457	2654.7	41.40	0.036	4.453	0.221	0.223
0.0916	0.29501	0.93219	0.28318	3352.3	40.94	0.036	4.461	0.279	0.282
0.1126	0.36249	0.94835	0.29932	4120.8	40.35	0.036	4.473	0.347	0.347
0.1444	0.46586	0.96675	0.31516	5133.5	38.46	0.035	4.491	0.428	0.432
0.1764	0.56787	0.98205	0.32806	6225.9	38.40	0.035	4.513	0.519	0.524
0.2081	0.66992	0.99448	0.34379	7566.7	37.64	0.034	4.529	0.637	0.637
0.2406	0.77455	1.00235	0.35591	8958.1	36.55	0.033	4.552	0.747	0.754
0.2717	0.87467	1.00385	0.36811	10217.7	35.87	0.033	4.568	0.860	0.860
0.3106	1.00000	1.00000	0.37646	11290.4	34.89	0.032	4.593	0.950	0.950
0.3147	1.01309	0.99923	0.37689	11402.5	34.78	0.032	4.622	0.997	0.997
0.3574	1.15056	0.98435	0.37893	11851.0	33.55	0.031	4.652	0.990	1.000
0.4006	1.28963	0.97731	0.37293	11884.6	32.33	0.030	4.684	0.979	0.988
0.4425	1.42451	0.97843	0.36168	11745.8	31.09	0.029	4.718	0.967	0.977
0.4845	1.55972	0.97963	0.35014	11608.7	29.92	0.028	4.756	0.959	0.968
0.5278	1.69911	0.98103	0.33851	11506.0	28.51	0.028	4.756	0.959	0.968

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MG. DAY TEST RUN X PTE TFO TW GEN. CYL.  
 5. 6. 12. 18. 306. 224. 17.00 12067.62 723.50 642.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ATTO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	642.00	642.00	0.	0.8874								
0.0100	1.83	678.47	405.90	1809.6	0.9378			827.	3791.	485.42	0.851	0.52417	0.254
0.0155	1.83	689.85	412.85	1824.2	0.9535								
0.0223	2.19	705.06	359.67	2037.0	0.9745								
0.0283	2.53	717.45	315.26	2198.1	0.9916								
0.0365	2.66	732.71	303.48	2270.8	1.0127								
0.0471	2.82	749.06	289.38	2350.0	1.0353								
0.0577	2.93	760.99	280.35	2403.0	1.0518								
0.0681	3.03	766.51	270.05	2442.2	1.0594								
0.0891	3.17	772.23	256.29	2489.7	1.0673								
0.1111	3.26	776.85	248.94	2518.4	1.0737								
0.1318	3.36	780.44	239.35	2549.6	1.0787								
0.1533	3.46	784.04	230.74	2578.2	1.0837								
0.1856	3.63	785.77	215.96	2616.4	1.0861								
0.2171	3.77	781.09	203.29	2634.7	1.0796								
0.2487	3.92	768.06	188.62	2638.4	1.0616								
0.2809	4.05	741.32	173.10	2612.8	1.0246								
0.3125	4.13	736.57	167.12	2615.6	1.0181								
0.3446	4.19	746.83	165.75	2642.2	1.0322								
0.3871	4.28	690.72	148.16	2553.1	0.9547								

DELTA DELTA STAR H 2.82 2184256. 10012981. 827. 3791. 485.42 0.851 0.52417 0.254

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), THETA STAR(M 1), THETA PRIME, THETA(2), THETA(M), M(M), MIE), PTIMAX, -0.1375 -0.055 0.0829 0.0628 0.00292 0.00703 0.00543 11.57 4.02 12256.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	112.7	112.72				0.009
0.0100	0.03660	0.69168	0.29221	679.2	112.49	0.070	3.718	0.009	0.056
0.0155	0.05688	0.69726	0.28876	676.4	112.16	0.070	3.720	0.056	0.055
0.0223	0.08166	0.77861	0.36977	1181.8	112.05	0.070	3.721	0.096	0.096
0.0283	0.10365	0.84018	0.45339	1984.3	111.60	0.069	3.724	0.165	0.162
0.0365	0.13356	0.86797	0.48503	2432.8	111.25	0.069	3.726	0.202	0.198
0.0471	0.17246	0.89823	0.52267	3082.5	110.46	0.068	3.731	0.256	0.251
0.0577	0.21108	0.91848	0.54721	3610.3	109.57	0.068	3.737	0.300	0.295
0.0681	0.24936	0.93347	0.57320	4191.1	108.78	0.068	3.742	0.348	0.342
0.0891	0.32604	0.95161	0.59975	5031.5	105.96	0.067	3.761	0.418	0.411
0.1111	0.40664	0.96258	0.60458	5506.1	102.57	0.066	3.785	0.457	0.449
0.1318	0.48240	0.97453	0.61572	6210.3	99.20	0.064	3.809	0.515	0.507
0.1533	0.56109	0.98546	0.62235	6913.4	95.59	0.063	3.837	0.574	0.564
0.1856	0.67931	1.00005	0.63651	8284.8	90.17	0.060	3.879	0.688	0.676
0.2171	0.79461	1.00704	0.64264	9462.3	85.10	0.058	3.922	0.785	0.772
0.2487	0.91027	1.00847	0.64583	10796.5	79.24	0.055	3.975	0.896	0.881
0.2732	1.00000	1.00000	0.64669	11644.1	74.62				0.950
0.2809	1.02812	0.99866	0.64438	11909.7	73.27	0.052	4.034	0.989	0.972
0.3125	1.14378	0.99973	0.62191	12256.9	68.20	0.050	4.088	1.017	1.000
0.3446	1.26127	1.00990	0.58117	12150.5	62.57	0.047	4.154	1.009	0.991
0.3871	1.41683	0.97585	0.54902	11963.3	54.68	0.043	4.258	0.993	0.976

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TW GEN. CYL.  
 5. 6. 12. 18. 306. 223. 18.00 11981.09 722.50 645.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	665.00	645.00	0.	0.8927
0.0100	1.87	691.25	407.04	1847.8	0.9567
0.0129	1.86	700.44	414.56	1853.3	0.9695
0.0175	2.08	714.10	383.21	1993.8	0.9884
0.0243	2.08	732.93	358.92	2119.7	1.0144
0.0321	2.39	752.24	350.38	2197.2	1.0412
0.0410	2.48	769.29	345.01	2257.7	1.0648
0.0515	2.59	779.33	332.69	2316.4	1.0787
0.0621	2.68	779.93	320.03	2350.6	1.0795
0.0770	2.82	779.76	301.62	2396.7	1.0793
0.0982	2.97	778.67	281.79	2443.2	1.0777
0.1194	3.05	776.07	271.81	2461.3	1.0742
0.1404	3.16	772.64	257.41	2487.9	1.0694
0.1622	3.30	761.97	239.94	2504.3	1.0546
0.1833	3.44	753.35	223.59	2522.8	1.0427
0.2045	3.53	747.58	214.25	2531.3	1.0347
0.2258	3.61	729.35	202.31	2516.3	1.0095
0.2468	3.67	626.86	170.04	2342.7	0.8676
0.2784	3.88	540.29	134.94	2206.8	0.7478

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1016 -0.0040 -0.35 5585220. 13922202. 2231. 5561. 506.45 0.844 0.60047 0.240

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR(1), THETA(1), H(M), M(E), PTIMAX,  
 -0.0982 -0.050 0.0462 0.0312 0.0042 0.00714 0.00502 6.20 3.43 11589.5

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	P1,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	292.9	292.90	0.134	3.022	0.024	0.025
0.0100	0.05508	0.73278	0.76713	1851.1	290.02	0.134	3.023	0.154	0.160
0.0129	0.07132	0.73494	0.75467	1816.5	289.73	0.133	3.025	0.152	0.157
0.0175	0.09655	0.79068	0.87571	2351.8	288.86	0.133	3.030	0.213	0.220
0.0243	0.13389	0.84061	0.98674	3489.2	286.75	0.132	3.036	0.291	0.301
0.0321	0.17702	0.87135	1.03702	4115.3	283.81	0.128	3.046	0.343	0.355
0.0410	0.22581	0.89533	1.06654	4630.6	279.72	0.125	3.068	0.386	0.400
0.0515	0.28342	0.91861	1.09916	5330.1	270.94	0.120	3.094	0.445	0.460
0.0621	0.34197	0.93216	1.11557	5890.3	260.67	0.113	3.137	0.492	0.508
0.0770	0.42425	0.95046	1.13236	6795.0	244.57	0.108	3.200	0.567	0.586
0.0982	0.54107	0.96890	1.12456	7807.8	222.60	0.102	3.247	0.652	0.674
0.1194	0.65761	0.97608	1.09718	8178.8	207.95	0.096	3.307	0.683	0.706
0.1404	0.77327	0.98663	1.07214	8919.8	190.38	0.090	3.368	0.744	0.770
0.1622	0.89334	0.99312	1.05981	9945.9	174.27	0.085	3.436	0.830	0.858
0.1816	1.00000	1.00000	1.04245	11010.0	159.40	0.080	3.500	0.950	0.950
0.1833	1.00955	1.00045	1.03984	11105.3	158.17	0.079	3.580	0.956	0.989
0.2045	1.12631	1.00381	0.99404	11458.7	144.40	0.073	3.670	0.913	0.943
0.2258	1.24362	0.99788	0.93402	11466.2	128.88	0.062	3.838	0.967	1.000
0.2468	1.35928	0.92902	0.91232	10933.0	113.65				
0.2784	1.53333	0.87513	0.85971	11589.5	90.22				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITO TW GEN. CYL.  
 5. 4. 10. 2. 306. 169. -0.50 10298.28 583.00 530.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITO
0.		530.00	530.00	0.	0.9091
0.0100	1.02	547.10	452.73	1064.7	0.9384
0.0168	1.22	553.31	426.24	1235.6	0.9491
0.0379	1.89	569.93	331.91	1691.0	0.9776
0.0592	2.15	578.97	300.83	1828.0	0.9931
0.0806	2.37	586.47	276.26	1930.5	1.0060
0.1021	2.58	589.44	253.15	2010.0	1.0111
0.1335	2.86	590.43	224.12	2097.8	1.0127
0.1652	3.12	593.16	201.05	2170.4	1.0174
0.1974	3.33	593.35	184.02	2217.6	1.0178
0.2289	3.47	590.36	173.06	2239.1	1.0126
0.2715	3.56	585.29	165.49	2245.8	1.0039
0.3144	3.65	582.21	158.78	2255.5	0.9986
0.3566	3.73	582.20	154.17	2267.7	0.9986
0.3989	3.81	585.35	150.02	2286.9	1.0040
0.4414	3.88	589.55	146.80	2306.3	1.0112
0.4845	3.92	592.71	145.71	2317.4	1.0167
0.5278	3.93	588.48	143.93	2311.0	1.0094
0.5690	3.94	583.20	142.29	2301.5	1.0003

DELTA DELTA STAR H RSR RS DELTA RTHETA R KTHETA D RECOV. TEMP. RECOV. FACT. RECOV. 0.879 396.97 0.879 0.47545 0.106  
 0.4604 0.1431 7.13 1094521. 7676316. 1331. 9333.

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M J), DELTA STAR(M), THETA STAR(1), THETA STAR(2), THETA(M), H(M), M(E), PTIMAX, M(E), PTIMAX.  
 -0.0265 -0.001 0.1442 0.1439 0.00006 0.02000 0.01996 7.21 3.90 9851.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PIE	PTI/PTIMAX
0.	0.	0.	0.	70.7	70.67			0.007	0.007
0.0100	0.02172	0.46027	0.09685	137.1	70.67	0.059	3.898	0.013	0.014
0.0168	0.03649	0.53412	0.11937	176.2	70.67	0.059	3.898	0.017	0.018
0.0379	0.08243	0.73099	0.20980	468.9	70.67	0.059	3.898	0.046	0.048
0.0592	0.12453	0.79019	0.25022	698.9	70.67	0.059	3.898	0.068	0.071
0.0806	0.17504	0.83451	0.28776	985.2	70.67	0.059	3.898	0.096	0.100
0.1021	0.22178	0.86889	0.32697	1361.5	70.67	0.059	3.898	0.132	0.138
0.1335	0.28999	0.90684	0.38545	2097.5	70.67	0.059	3.898	0.204	0.213
0.1652	0.33885	0.93621	0.44453	3117.2	70.67	0.059	3.898	0.303	0.316
0.1974	0.42879	0.95860	0.49623	4254.2	70.67	0.059	3.898	0.413	0.432
0.2289	0.49722	0.96789	0.53278	5181.9	70.67	0.059	3.898	0.503	0.526
0.2715	0.58975	0.97079	0.55881	5879.6	70.67	0.059	3.898	0.571	0.597
0.3144	0.68294	0.97498	0.58496	6672.6	70.67	0.059	3.898	0.648	0.677
0.3566	0.77461	0.98025	0.60570	7396.4	70.67	0.059	3.898	0.718	0.751
0.3989	0.86649	0.98858	0.62772	8292.0	70.67	0.059	3.898	0.805	0.842
0.4414	0.95881	0.99697	0.64695	9173.9	70.67	0.059	3.898	0.891	0.931
0.4845	1.00000	1.00000	0.65068	9359.3	70.67	0.059	3.898	0.891	0.950
0.5278	1.05243	1.00175	0.65493	9595.2	70.67	0.059	3.898	0.932	0.974
0.5690	1.14648	0.99899	0.66117	9766.9	70.67	0.059	3.898	0.948	0.991
0.5690	1.23398	0.99490	0.66607	9851.9	70.67	0.059	3.898	0.957	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD  
 5. 4. 10. 2. 306. 168. 8.50 10298.88 582.50 524.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	524.00	524.00	0.	0.8996					403.20	0.860	0.47060	0.202
0.0100	1.51	541.81	371.62	1429.9	0.9301				9887.				
0.0173	1.53	547.06	373.00	1446.1	0.9392								
0.0286	2.08	557.98	298.51	1765.6	0.9579								
0.0394	2.00	563.72	313.01	1735.5	0.9678								
0.0608	2.33	576.79	276.21	1900.3	0.9902								
0.0815	2.55	584.82	254.46	1992.2	1.0040								
0.1028	2.73	591.80	237.26	2063.8	1.0160								
0.1346	2.97	591.22	214.15	2128.4	1.0150								
0.1664	3.15	587.30	196.98	2165.5	1.0082								
0.1983	3.27	585.40	186.69	2188.6	1.0050								
0.2301	3.35	586.59	180.63	2208.4	1.0070								
0.2624	3.53	590.20	168.68	2250.3	1.0132								
0.2939	3.62	598.74	165.68	2280.9	1.0279								
0.3365	3.65	604.06	164.54	2297.9	1.0370								
0.3797	3.68	602.05	162.56	2297.8	1.0336								
0.4214	3.69	592.76	159.09	2282.5	1.0176								
0.4643	3.71	584.50	155.98	2268.9	1.0034								
0.5068	3.72	582.47	154.70	2267.0	0.9999								
0.5489	3.73	582.52	153.87	2269.3	1.0000								
0.5919	3.74	576.33	151.56	2259.0	0.9894								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.3198	0.0853	4.72	2619965.	13942199.	1858.	9887.	403.20	0.860	0.47060	0.202			
PHI,	DELTA STAR PRIME,	DELTA STAR(12),	DELTA STAR(W ),	THETA STAR(W ),	THETA STAR(12),	THETA(12),	THETA(W),	H(W),	M(E),	PTIMAX,			
-0.0225	-0.009	0.0942	0.0942	0.0906	0.00048	0.01762	0.01699	5.33	3.64	10474.7			
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	113.5	113.52	0.078	3.599	0.011	0.011	0.011			
0.0100	0.03127	0.62353	0.25426	424.4	113.41	0.078	3.599	0.041	0.041	0.041			
0.0173	0.05410	0.63057	0.25618	433.3	113.41	0.078	3.599	0.042	0.042	0.042			
0.0286	0.08949	0.76990	0.39042	1011.6	113.29	0.078	3.600	0.098	0.098	0.097			
0.0394	0.12314	0.75678	0.36583	887.7	113.24	0.078	3.600	0.086	0.086	0.085			
0.0608	0.19021	0.82864	0.45325	1487.8	113.07	0.077	3.601	0.144	0.144	0.142			
0.0815	0.25475	0.86873	0.51476	2076.2	112.84	0.077	3.603	0.202	0.202	0.198			
0.1028	0.32145	0.89996	0.57074	2760.0	112.61	0.077	3.604	0.268	0.268	0.263			
0.1346	0.42089	0.92811	0.64803	3917.5	112.04	0.077	3.608	0.380	0.380	0.374			
0.1664	0.52033	0.94427	0.71405	5101.3	111.48	0.077	3.611	0.495	0.495	0.487			
0.1983	0.62008	0.95437	0.75802	6042.8	110.68	0.076	3.617	0.587	0.587	0.577			
0.2301	0.71952	0.96301	0.78281	6781.6	109.89	0.076	3.622	0.647	0.647	0.647			
0.2624	0.82052	0.98129	0.84712	8731.8	108.98	0.076	3.628	0.848	0.848	0.834			
0.2939	0.91902	0.99463	0.86688	9695.3	108.07	0.075	3.634	0.941	0.941	0.926			
0.3198	1.00000	1.00000	0.86768	9951.0	107.23	0.075	3.643	0.950	0.950	0.950			
0.3365	1.05223	1.00202	0.86831	10115.9	106.71	0.075	3.651	0.982	0.982	0.966			
0.3797	1.18731	1.00200	0.86859	10310.7	105.46	0.074	3.651	1.001	1.001	0.984			
0.4214	1.31771	0.99533	0.86923	10381.0	103.98	0.073	3.661	1.008	1.008	0.991			
0.4643	1.45185	0.98940	0.86791	10430.2	102.40	0.073	3.672	1.013	1.013	0.996			
0.5068	1.58475	0.98854	0.86076	10441.5	100.81	0.072	3.684	1.014	1.014	0.997			
0.5489	1.71640	0.98956	0.85261	10474.7	99.22	0.071	3.695	1.017	1.017	1.000			
0.5919	1.85086	0.98507	0.84787	10468.2	97.63	0.070	3.707	1.016	1.016	0.999			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN K PTE ITO TH GEN. CYL.  
 5. 4. 10. 2. 306. 167. 14.00 10298.88 582.50 532.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TO
0.		532.00		G.	0.9133
0.0100	1.66	553.63	356.41	1539.3	0.9504
0.0149	1.63	558.55	364.90	1525.3	0.9589
0.0212	1.57	564.37	377.43	1498.6	0.9689
0.0297	1.78	572.84	351.27	1631.5	0.9834
0.0403	2.18	584.17	299.00	1850.9	1.0029
0.0533	2.39	593.26	276.77	1949.9	1.0185
0.0681	2.57	601.37	259.47	2026.7	1.0324
0.0850	2.73	608.31	244.00	2092.1	1.0443
0.1067	2.89	609.89	228.12	2141.6	1.0470
0.1276	3.01	607.03	216.31	2166.6	1.0421
0.1594	3.14	605.12	203.97	2195.3	1.0388
0.1912	3.21	604.17	197.07	2211.5	1.0372
0.2341	3.28	603.27	191.69	2223.7	1.0357
0.2657	3.30	603.40	189.74	2229.3	1.0359
0.2975	3.33	599.36	186.46	2227.2	1.0289
0.3401	3.35	584.83	180.00	2205.4	1.0040
0.3825	3.37	561.91	177.57	2204.0	0.9990

DELTA DELTA STAR H RSR RS DELTA RTMETHA R RTMETHA D RECOV. TEMP. RECOV. FACT. RECOV. RECOV. CI  
 0.2336 0.0470 4.45 5008906. 20333910. 1700. 6902. 416.87 0.871 0.56746 0.148

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), DELTA STAR(M ), THETA STAR(M ), THETA STAR(W ), THETA STAR(M ), THETA STAR(W ), MIE), PTIMAX,  
 -0.0721 -0.008 0.0551 0.0522 0.0060 0.00996 0.00948 5.50 3.28 10417.7

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.				195.1	195.12			0.019	0.019
0.0100	0.04281	0.69225	0.49002	909.6	194.73	0.111	3.219	0.088	0.087
0.0149	0.06396	0.68595	0.47402	863.6	194.63	0.111	3.219	0.084	0.083
0.0212	0.09068	0.67396	0.44960	794.5	194.34	0.111	3.220	0.077	0.076
0.0297	0.12737	0.73374	0.52539	1075.2	194.14	0.111	3.221	0.104	0.103
0.0403	0.17258	0.83241	0.69884	2019.6	193.75	0.111	3.222	0.196	0.194
0.0533	0.22815	0.87694	0.79296	2785.3	193.17	0.110	3.224	0.270	0.267
0.0681	0.29168	0.91147	0.87469	3642.7	192.19	0.110	3.228	0.354	0.350
0.0850	0.36386	0.94087	0.95627	4683.5	191.41	0.110	3.231	0.455	0.450
0.1067	0.43681	0.96315	1.03852	5932.7	189.85	0.109	3.236	0.576	0.569
0.1276	0.54629	0.97437	1.10004	6978.5	188.49	0.109	3.241	0.678	0.670
0.1594	0.68243	0.98729	1.16614	8363.6	185.95	0.108	3.250	0.812	0.803
0.1912	0.81858	0.99456	1.19801	9243.7	183.22	0.107	3.260	0.898	0.887
0.2336	1.00000	1.00000	1.21074	9896.8	179.17	0.105	3.276	0.950	0.950
0.2341	1.00224	1.00004	1.21068	9904.9	179.12	0.105	3.276	0.962	0.951
0.2657	1.13753	1.00257	1.20488	10095.0	176.00	0.104	3.288	0.980	0.969
0.2975	1.27367	1.00164	1.20052	10271.8	172.49	0.103	3.302	0.997	0.986
0.3401	1.45606	0.99181	1.20070	10398.9	168.19	0.101	3.319	1.010	0.998
0.3825	1.63758	0.99121	1.18253	10417.7	163.51	0.099	3.339	1.012	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTO TW GEN. CYL.  
 5. 4. 10. 2. 306. 166. 17.00 10309.97 581.50 531.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	531.00	531.00	0.	0.9132			0.860	0.63023	0.068
0.0100	1.48	552.99	384.86	1421.2	0.9510					
0.0136	1.48	557.04	388.07	1424.8	0.9579					
0.0180	1.52	563.43	385.87	1460.6	0.9689					
0.0243	1.82	571.20	342.97	1655.9	0.9823					
0.0308	2.00	578.81	321.31	1758.8	0.9954					
0.0388	2.07	586.12	315.12	1804.4	1.0079					
0.0497	2.25	594.36	295.36	1895.3	1.0221					
0.0602	2.29	599.56	292.34	1921.2	1.0311					
0.0708	2.38	603.61	282.53	1964.0	1.0380					
0.0856	2.48	605.56	272.11	2001.5	1.0414					
0.1034	2.56	602.26	260.07	2027.6	1.0357					
0.1239	2.66	597.93	247.71	2051.2	1.0283					
0.1451	2.73	596.85	239.98	2070.6	1.0264					
0.1664	2.78	591.74	232.70	2076.9	1.0176					
0.1982	2.85	584.66	223.23	2083.8	1.0054					
0.2305	2.90	579.72	216.56	2088.8	0.9969					
0.2622	2.95	576.90	212.16	2093.3	0.9921					
0.2944	2.95	575.17	209.87	2094.9	0.9891					
0.3256	2.96	575.55	209.09	2098.2	0.9898					
0.3580	2.98	575.87	207.61	2103.4	0.9903					

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2034 0.0271 2.82 10456596. 29370537. 2939. 8256. 424.36 0.860 0.63023 0.068

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(M), THETA STAR(M), THETA STAR(M), THETA(2), THETA(M), H(M), PTIMAX, MIE), PTIMAX,  
 -0.0394 -0.016 0.0432 0.0383 0.00178 0.00785 0.00708 5.41 2.85 10399.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	407.4	407.38			0.040	0.039
0.0100	0.04917	0.68176	0.87391	1444.2	406.16	0.177	2.728	0.140	0.139
0.0136	0.06678	0.68347	0.86710	1436.3	405.34	0.177	2.730	0.139	0.138
0.0180	0.08866	0.70064	0.89218	1521.8	404.53	0.177	2.731	0.148	0.146
0.0243	0.11935	0.79434	1.13458	2404.5	403.31	0.176	2.733	0.233	0.231
0.0308	0.15170	0.84373	1.28372	3157.8	402.49	0.176	2.734	0.306	0.304
0.0388	0.19085	0.86556	1.33738	3517.8	400.86	0.176	2.737	0.341	0.338
0.0497	0.24460	0.90918	1.48660	4596.2	397.60	0.175	2.742	0.446	0.442
0.0602	0.29598	0.92159	1.51311	4881.9	395.16	0.174	2.746	0.474	0.469
0.0708	0.34811	0.94216	1.58737	5586.0	391.90	0.173	2.752	0.542	0.537
0.0856	0.42089	0.96013	1.65863	6363.0	387.01	0.172	2.760	0.617	0.612
0.1034	0.50847	0.97263	1.73027	7198.5	380.90	0.170	2.770	0.698	0.692
0.1239	0.60928	0.98397	1.79453	8127.0	371.94	0.168	2.786	0.788	0.781
0.1451	0.71353	0.99327	1.82682	8816.3	363.38	0.165	2.801	0.855	0.848
0.1664	0.81927	0.99628	1.83677	9262.0	353.20	0.162	2.820	0.898	0.891
0.1982	0.97464	0.99961	1.83690	9820.3	337.72	0.158	2.849	0.944	0.944
0.2034	1.00000	1.00000	1.83558	9879.4	335.51			0.950	0.950
0.2305	1.13348	1.00199	1.82464	10190.1	324.68	0.154	2.875	0.988	0.980
0.2622	1.28936	1.00416	1.80331	10399.3	313.68	0.151	2.898	1.009	1.000
0.2944	1.44771	1.00494	1.76988	10369.4	304.31	0.148	2.918	1.006	0.997
0.3256	1.60113	1.00654	1.73176	10249.0	296.17	0.145	2.936	0.994	0.986
0.3580	1.76046	1.00899	1.70262	10251.5	288.43	0.143	2.953	0.994	0.986

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TFO TTT  
 5. 4. 10. 2. 306. 165. 18.0C 10271.23 584.00 542.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TFO
0.	0.	542.00	542.00	0.	0.9281
0.0100	1.48	560.85	389.71	1433.9	0.9604
0.0120	1.48	562.92	391.31	1435.9	0.9639
0.0162	1.52	566.97	387.79	1467.2	0.9708
0.0226	1.65	572.80	371.13	1556.5	0.9808
0.0290	1.76	576.49	357.13	1630.7	0.9906
0.0397	1.86	586.84	346.59	1698.9	1.0049
0.0505	1.95	593.16	336.41	1756.3	1.0157
0.0610	2.02	598.36	329.82	1796.2	1.0246
0.0715	2.08	601.52	322.46	1831.0	1.0300
0.0821	2.15	603.64	313.69	1866.4	1.0336
0.0929	2.22	602.66	303.67	1895.2	1.0319
0.1033	2.26	599.63	295.97	1910.0	1.0268
0.1163	2.33	596.57	286.17	1931.1	1.0215
0.1269	2.39	592.52	276.74	1947.8	1.0146
0.1419	2.43	588.54	269.75	1957.0	1.0078
0.1566	2.47	584.67	263.71	1963.7	1.0011
0.1778	2.51	584.05	257.88	1979.5	1.0001
0.1989	2.54	583.39	254.47	1987.9	0.9990
0.2201	2.59	579.58	247.24	1998.2	0.9924

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1338 0.0176 1.77 19557680. 39333782. 5258. 10574. 450.00 0.865 0.62841 0.058

PMI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA STAR(2), THETA(M), M(W), M(E), PTIMAX,  
 -0.0201 -0.011 0.0287 0.0251 0.00188 0.00805 0.00725 3.46 2.41 10376.0

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RMD U	PRIME	M	PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	839.7	839.66	0.272	2.268	0.082	0.081	0.082	0.081
0.0100	0.07476	0.73452	1.77850	2966.4	829.58	0.271	2.269	0.289	0.286	0.289	0.286
0.0120	0.09009	0.73553	1.77008	2956.1	827.91	0.271	2.271	0.288	0.285	0.288	0.285
0.0162	0.12112	0.75158	1.81956	3119.1	825.39	0.270	2.277	0.304	0.301	0.304	0.301
0.0226	0.16926	0.79735	1.99856	3735.4	817.83	0.268	2.282	0.364	0.360	0.364	0.360
0.0290	0.21696	0.83536	2.15802	4387.4	811.11	0.266	2.291	0.427	0.423	0.427	0.423
0.0397	0.29666	0.87026	2.28545	5054.3	800.20	0.263	2.302	0.492	0.487	0.492	0.487
0.0505	0.37778	0.89967	2.39070	5720.6	785.92	0.261	2.310	0.557	0.551	0.557	0.551
0.0610	0.45620	0.92010	2.46188	6240.0	775.85	0.259	2.321	0.608	0.601	0.608	0.601
0.0715	0.53440	0.93794	2.52241	6759.1	762.41	0.256	2.334	0.658	0.651	0.658	0.651
0.0821	0.61358	0.95606	2.59358	7395.2	748.14	0.253	2.347	0.720	0.713	0.720	0.713
0.0929	0.69447	0.97085	2.66557	8071.2	733.02	0.250	2.359	0.786	0.778	0.786	0.778
0.1033	0.77230	0.97841	2.70260	8507.5	718.75	0.246	2.377	0.828	0.820	0.828	0.820
0.1163	0.86949	0.98923	2.75017	9149.9	699.44	0.242	2.397	0.891	0.882	0.891	0.882
0.1269	0.96369	0.99775	2.77880	9731.7	677.61	0.237	2.417	0.947	0.938	0.947	0.938
0.1338	1.00000	1.00000	2.78148	9859.1	669.58	0.232	2.442	0.971	0.959	0.971	0.959
0.1419	1.06068	1.00248	2.77554	10072.6	656.61	0.223	2.482	0.998	0.987	0.998	0.987
0.1566	1.17078	1.00590	2.73957	10246.5	631.42	0.215	2.521	1.000	0.982	1.000	0.982
0.1778	1.32928	1.01402	2.65507	10376.0	593.64	0.207	2.563	0.992	0.982	0.992	0.982
0.1989	1.48703	1.01829	2.54144	10186.7	558.37	0.207	2.563	1.004	0.994	1.004	0.994
0.2201	1.64552	1.02357	2.46329	10317.0	523.11						

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 4. 10. 2. 306. 177. -0.50 1393.99 582.00 567.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	567.00	567.00	0.	0.9742
0.0100	1.52	581.70	397.51	1487.6	0.9995
0.0261	1.45	574.29	404.90	1426.5	0.9867
0.0477	2.32	575.31	277.09	1892.8	0.9885
0.0683	2.56	569.80	246.59	1970.5	0.9790
0.1009	2.80	560.32	218.52	2026.4	0.9628
0.1321	2.96	553.41	200.81	2058.2	0.9509
0.1746	3.18	546.49	180.57	2096.7	0.9390
0.2177	3.40	542.64	164.06	2132.6	0.9324
0.2602	3.57	540.84	152.09	2161.1	0.9293
0.3027	3.73	540.07	142.96	2184.2	0.9280

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECDV. TEMP. RECDV. FACT. TOT. PRESS. RECDV. CT  
 0.2916 0.1017 8.61 129496. 953861. 93. 683. 404.25 0.966 0.41351 -0.465

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(1), THETA PRIME, THETA(2), THETA(M), M(W), M(E), PTIMAX, PTL/PTIMAX  
 0.4945 0.001 0.1008 0.1011 -0.0005 0.01186 0.01189 8.50 3.69 962.1

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PIE	PTI/PTIMAX
0.	0.	0.	0.	9.2	9.18	0.072	3.690	0.007	0.010
0.0100	0.03430	0.68294	0.02002	34.8	9.18	0.072	3.690	0.025	0.036
0.0261	0.08952	0.65492	0.01885	31.2	9.18	0.072	3.690	0.022	0.032
0.0477	0.16353	0.86901	0.03654	118.4	9.18	0.072	3.690	0.085	0.123
0.0683	0.23422	0.90468	0.04275	172.2	9.18	0.072	3.690	0.124	0.179
0.1009	0.34606	0.93033	0.04961	247.8	9.18	0.072	3.690	0.178	0.258
0.1321	0.45307	0.94492	0.05483	319.0	9.18	0.072	3.690	0.229	0.332
0.1746	0.59884	0.96260	0.06212	442.8	9.18	0.072	3.690	0.318	0.460
0.2177	0.74666	0.97910	0.06954	604.1	9.18	0.072	3.690	0.433	0.628
0.2602	0.89243	0.99216	0.07601	778.5	9.18	0.072	3.690	0.558	0.809
0.2916	1.00000	1.00000	0.08023	914.0	9.18	0.072	3.690	0.950	0.950
0.3027	1.003819	1.00278	0.08173	962.1	9.18	0.072	3.690	0.690	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE Y TFO YW GEN. CYL.  
 5. 4. 10. 2. 306. 176. 14.00 1395.36 584.50 537.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/TFO
0.	0.	537.00	537.00	U.	0.9187
0.0100	0.93	544.53	463.85	984.5	0.9316
0.0165	0.95	542.72	459.80	998.1	0.9285
0.0271	1.67	549.86	352.35	1540.4	0.9407
0.0379	1.98	550.55	308.54	1705.1	0.9419
0.0483	2.10	550.52	292.01	1762.3	0.9419
0.0697	2.25	550.68	273.48	1824.9	0.9421
0.0910	2.37	552.54	260.44	1873.3	0.9453
0.1229	2.52	555.60	244.42	1933.5	0.9506
0.1547	2.66	564.82	233.54	1995.0	0.9663
0.1975	2.83	570.94	219.55	2054.6	0.9768
0.2401	2.97	576.91	208.50	2103.8	0.9870
0.2820	3.10	578.57	197.80	2136.8	0.9898
0.3253	3.20	579.02	189.66	2162.8	0.9906
0.3677	3.28	578.31	183.77	2177.1	0.9894
0.4104	3.33	576.47	179.50	2184.4	0.9863
0.4534	3.36	573.53	175.80	2185.9	0.9812
0.4959	3.34	568.14	175.91	2170.8	0.9720
0.5382	3.41	566.53	170.51	2181.8	0.9693
0.5799	3.44	558.23	165.95	2170.9	0.9551

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4064 0.0719 2.98 747615. 2957005. 581. 2296. 409.94 0.883 0.53803 -0.009

PMI. DELTA STAR PRIME DELTA STAR(2), DELTA STAR(W), DELTA STAR(W), THETA(2), THETA(W), H(W), MIE), PTIMAX.  
 0.1130 -0.038 0.1104 0.0962 0.1104 0.0282 0.02134 0.01887 5.10 3.32 1449.6

Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.02460	0.	0.	28.8	28.76			0.021	0.020
0.0100	0.04069	0.45078	0.03553	50.4	28.73		3.179	0.036	0.035
0.0165	0.06675	0.45698	0.03633	51.3	28.70		3.179	0.037	0.035
0.0271	0.09330	0.70531	0.07311	136.3	28.58		3.180	0.098	0.094
0.0379	0.11893	0.78073	0.09223	217.4	28.64		3.181	0.156	0.150
0.0483	0.11893	0.80689	0.10051	263.0	28.58		3.182	0.188	0.181
0.0697	0.17156	0.83555	0.11080	330.1	28.50		3.185	0.237	0.228
0.0910	0.22389	0.85773	0.11872	394.0	28.33		3.189	0.282	0.272
0.1229	0.30238	0.88530	0.12923	436.5	28.04		3.196	0.356	0.343
0.1547	0.38062	0.91344	0.13755	608.0	27.64		3.205	0.436	0.419
0.1975	0.48592	0.94076	0.14708	765.0	26.97		3.222	0.548	0.528
0.2401	0.59073	0.96328	0.15419	924.2	26.23		3.241	0.662	0.638
0.2820	0.69362	0.97929	0.15980	1085.5	25.36		3.264	0.778	0.749
0.3253	0.80036	0.99028	0.16336	1222.4	24.59		3.285	0.876	0.843
0.3677	0.90468	0.99685	0.16476	1319.6	23.87		3.306	0.946	0.910
0.4064	1.00000	1.00000	0.16480	1377.1	23.27				0.950
0.4104	1.00973	1.00017	0.16474	1383.0	23.21		3.325	0.991	0.954
0.4534	1.11523	1.00080	0.16355	1415.9	22.63		3.344	1.015	0.977
0.4959	1.22009	0.99392	0.16273	1370.3	22.63		3.342	0.982	0.945
0.5382	1.32417	0.99897	0.15948	1434.4	21.37		3.382	0.990	0.990
0.5799	1.42676	0.99400	0.15826	1449.6	20.76		3.402	1.039	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TT0  
 5. 4. 10. 2. 306. 175. 17.00 1387.15 583.00 531.00 17.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	YT/TT0
0.	0.	531.00	531.00	0.	0.9108
0.0100	1.18	547.01	428.48	1193.3	0.9383
0.0145	1.15	548.75	434.24	1172.9	0.9413
0.0208	1.08	551.09	446.84	1119.1	0.9453
0.0293	1.28	557.34	420.06	1284.2	0.9560
0.0398	1.74	567.13	352.82	1604.6	0.9728
0.0532	1.88	573.44	335.71	1690.0	0.9836
0.0675	1.99	579.60	323.86	1752.8	0.9942
0.0892	2.12	588.05	309.65	1828.8	1.0087
0.1101	2.23	594.14	298.14	1885.8	1.0191
0.1312	2.33	599.09	287.22	1935.6	1.0276
0.1527	2.42	601.84	277.00	1975.5	1.0323
0.1843	2.54	604.70	264.54	2021.6	1.0372
0.2165	2.66	605.50	251.17	2063.2	1.0386
0.2479	2.76	605.13	239.94	2094.6	1.0380
0.2801	2.87	603.80	227.85	2125.2	1.0357
0.3121	2.98	601.40	216.38	2150.7	1.0316

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2951 0.0467 1.87 1484162. 3694076. 1083. 2695. 427.89 0.856 0.52238 0.145

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA PRIME, THETA(2), THETA(W), M(W), M(E), PTIMAX,  
 -0.0631 -0.043 0.0898 0.0733 0.00434 0.02067 0.01737 4.22 2.92 1426.4

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PII	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.03389	0.	57.3	57.25	0.180	2.712	0.041	0.040
0.0100	0.04907	0.55835	0.09267	134.3	57.11	0.180	2.713	0.097	0.094
0.0145	0.07066	0.52365	0.08313	118.7	56.97	0.179	2.714	0.093	0.091
0.0208	0.09926	0.60089	0.10107	152.7	56.74	0.179	2.717	0.086	0.083
0.0293	0.13501	0.75079	0.14974	297.6	56.51	0.179	2.719	0.110	0.107
0.0398	0.18025	0.79075	0.16491	366.2	56.22	0.178	2.723	0.264	0.257
0.0675	0.22871	0.82016	0.17604	428.1	55.82	0.177	2.727	0.309	0.300
0.0892	0.30221	0.85572	0.18914	518.8	54.96	0.175	2.737	0.374	0.364
0.1101	0.37310	0.86237	0.19898	603.2	53.99	0.174	2.749	0.435	0.423
0.1312	0.44461	0.90569	0.20795	694.0	52.96	0.172	2.762	0.500	0.487
0.1527	0.51746	0.92435	0.21484	781.6	51.70	0.169	2.777	0.563	0.548
0.1843	0.62455	0.94590	0.22230	901.6	49.93	0.165	2.800	0.650	0.632
0.2165	0.73367	0.96539	0.22800	1036.2	47.63	0.161	2.831	0.747	0.726
0.2479	0.84007	0.98008	0.23064	1155.1	45.34	0.156	2.863	0.833	0.810
0.2801	0.94919	0.99441	0.23181	1292.2	42.65	0.150	2.904	0.932	0.906
0.2951	1.00000	1.00000	0.23133	1355.1	41.34	0.144	2.949	0.932	0.906
0.3121	1.05763	1.00634	0.23079	1426.4	39.85	0.144	2.949	1.028	1.000

HYPERSONIC BOUNDARY LAYER AELC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE YTD TM GEN. CYL.  
 5. 4. 10. 2. 306. 174. 18.00 1385.78 575.50 534.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	534.00	534.00	0.	0.9279
0.0100	1.23	554.62	426.20	1242.1	0.9637
0.0128	1.22	555.57	428.21	1236.9	0.9654
0.0192	1.18	560.29	438.25	1210.8	0.9736
0.0259	1.19	564.42	440.59	1219.7	0.9807
0.0343	1.45	572.00	403.04	1424.7	0.9939
0.0450	1.55	578.05	390.65	1500.4	1.0044
0.0557	1.62	582.83	381.48	1555.3	1.0127
0.0702	1.72	588.80	370.17	1620.7	1.0231
0.0875	1.82	592.79	356.06	1686.4	1.0300
0.1084	1.94	594.84	338.73	1754.1	1.0336
0.1299	2.08	597.04	319.67	1825.4	1.0374
0.1512	2.25	598.44	297.05	1902.9	1.0399
0.1724	2.46	600.21	271.64	1986.8	1.0429
0.1943	2.62	598.39	251.95	2040.1	1.0398
0.2149	2.72	597.05	240.72	2069.0	1.0374

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2019 0.0187 0.64 3001432. 4837128. 2386. 3845. 437.52 0.874 0.50510 0.110

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR(1), THETA PRIME, THETA(2), THETA(W), H(W), MIE), PTIMAX,  
 -0.0452 -0.060 0.0785 0.0549 0.00823 0.02113 0.01586 3.46 2.66 1483.0

Y	Y/DELTA	U/DELTA	RHO = U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	116.4	116.44	0.268	0.084	0.079	0.079
0.0100	0.04953	0.60497	0.19693	291.5	115.97	0.268	0.210	0.197	0.197
0.0128	0.06335	0.60245	0.19480	287.9	115.74	0.268	0.208	0.194	0.194
0.0192	0.09525	0.58973	0.18576	272.6	115.39	0.266	0.197	0.184	0.184
0.0259	0.12844	0.59406	0.18538	273.5	114.93	0.266	0.287	0.184	0.184
0.0343	0.16974	0.69391	0.23527	389.0	114.23	0.265	0.291	0.262	0.262
0.0450	0.22284	0.73079	0.25329	446.0	113.18	0.265	0.297	0.301	0.301
0.0557	0.27579	0.75753	0.26611	493.8	112.02	0.260	0.304	0.333	0.333
0.0702	0.34781	0.78935	0.28071	558.5	110.04	0.256	0.315	0.377	0.377
0.0875	0.43335	0.82138	0.29499	636.5	106.89	0.249	0.334	0.429	0.429
0.1084	0.53692	0.85434	0.30846	733.7	102.23	0.240	0.403	0.495	0.495
0.1299	0.64341	0.88908	0.31768	850.0	95.48	0.226	0.613	0.573	0.573
0.1512	0.74892	0.92679	0.32293	1004.1	86.52	0.206	0.725	0.677	0.677
0.1724	0.85392	0.96768	0.31758	1195.0	74.52	0.192	0.862	0.806	0.806
0.1943	0.96240	0.99364	0.31205	1365.6	66.14	0.184	0.985	0.921	0.921
0.2019	1.00000	1.00000	0.31069	1408.8	64.12	0.184	1.070	0.950	0.950
0.2149	1.06443	1.00773	0.30906	1483.0	61.71	0.184	1.070	1.000	1.000

HYPERSONIC BOUNDARY LAYER ACDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X TTD PTE TTD GEN. CYL.  
 5. 10. 1. 306. 147. -0.50 18641.70 644.00 586.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	586.00	586.00	0.	0.9099
0.0100	0.89	601.36	519.79	990.0	0.9338
0.0201	1.15	610.84	483.60	1236.4	0.9485
0.0310	1.78	624.46	381.73	1707.7	0.9697
0.0416	2.02	632.11	348.39	1846.2	0.9815
0.0628	2.30	641.73	312.45	1988.9	0.9965
0.0845	2.53	645.29	282.80	2086.8	1.0020
0.1160	2.86	649.44	246.61	2199.9	1.0085
0.1483	3.13	649.37	219.12	2273.5	1.0083
0.1795	3.39	650.11	197.19	2332.7	1.0095
0.2224	3.62	650.49	179.77	2378.1	1.0101
0.2646	3.88	655.97	163.85	2431.5	1.0186
0.3037	4.07	663.45	153.72	2474.6	1.0302
0.3076	4.07	663.45	153.87	2474.3	1.0302
0.3495	4.18	670.95	149.52	2502.9	1.0419
0.3927	4.47	676.31	135.27	2549.5	1.0502
0.4349	4.66	667.69	124.95	2553.5	1.0368
0.4769	4.77	653.67	117.90	2537.1	1.0150
0.5197	4.80	645.08	114.85	2523.9	1.0017
0.5626	4.82	641.86	113.73	2518.9	0.9967
0.6152	4.82	641.86	113.56	2519.3	0.9967
0.6682	4.81	644.01	114.50	2522.2	1.0000

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4918 0.2167 13.63 616360. 7772217. 594. 7488. 421.20 0.890 0.33954 0.074

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M ), THETA STAR(M ), THETA STAR(2), THETA(M), M(M), MIE), PTIMAX,  
 -0.1092 -0.001 0.2180 0.2176 0.00004 0.01586 0.01583 13.75 4.78 17395.1

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M'PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	40.5	40.52	0.028	4.780	0.002	0.002
0.0100	0.02033	0.39105	0.04497	67.5	40.52	0.028	4.780	0.004	0.004
0.0201	0.04085	0.48840	0.06037	91.8	40.52	0.028	4.780	0.005	0.005
0.0310	0.06305	0.67456	0.10563	226.9	40.52	0.028	4.780	0.012	0.013
0.0416	0.08467	0.72928	0.12513	326.0	40.52	0.028	4.780	0.017	0.019
0.0628	0.12767	0.78566	0.15031	503.2	40.52	0.028	4.780	0.027	0.029
0.0845	0.17179	0.82434	0.17424	727.3	40.52	0.028	4.780	0.039	0.042
0.1160	0.23586	0.86900	0.21064	1201.2	40.52	0.028	4.780	0.064	0.069
0.1483	0.30153	0.89808	0.24500	1815.8	40.52	0.028	4.780	0.097	0.104
0.1795	0.36497	0.92144	0.27933	2636.9	40.52	0.028	4.780	0.141	0.152
0.2224	0.45220	0.93937	0.31235	3652.0	40.52	0.028	4.780	0.196	0.210
0.2646	0.53801	0.96048	0.35039	5202.5	40.52	0.028	4.780	0.279	0.299
0.3037	0.61751	0.97752	0.38011	6768.1	40.52	0.028	4.780	0.363	0.389
0.3076	0.62544	0.97737	0.37968	6744.9	40.52	0.028	4.780	0.362	0.388
0.3495	0.71063	0.98867	0.39524	7750.3	40.52	0.028	4.780	0.416	0.446
0.3927	0.79847	1.00709	0.44502	11323.1	40.52	0.028	4.780	0.607	0.651
0.4349	0.88427	1.00867	0.48256	14295.3	40.52	0.028	4.780	0.767	0.822
0.4769	0.97697	1.00218	0.50810	16261.7	40.52	0.028	4.780	0.872	0.935
0.4918	1.00000	1.00000	0.51263	16525.3	40.52	0.028	4.780	0.935	0.950
0.5197	1.05669	0.99698	0.51890	17018.1	40.52	0.028	4.780	0.913	0.978
0.5626	1.14392	0.99501	0.52295	17304.2	40.52	0.028	4.780	0.928	0.995

# Contracts

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.6152	1.25087	0.99516	0.52382	17395.1	40.52	0.028	4.780	0.933	1.000
0.6682	1.35864	0.99630	0.52011	17099.5	40.52	0.028	4.780	0.917	0.983

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NUM COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITTO  
 5. 10. 1.306. 150. 8.50 18641.70 643.00 571.00  
 GEN. CYL. 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITTO	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	571.00	571.00	0.	0.8880								
0.0100	1.66	592.50	382.03	1590.1	0.9215								
0.0161	1.65	596.49	386.33	1589.0	0.9277								
0.0219	2.20	604.23	306.54	1891.2	0.9397								
0.0291	2.40	609.55	283.28	1979.8	0.9480								
0.0365	2.57	614.50	264.88	2049.5	0.9557								
0.0473	2.73	621.35	249.78	2112.8	0.9663								
0.0581	2.88	629.28	236.25	2173.0	0.9787								
0.0791	3.11	637.29	217.40	2246.0	0.9911								
0.1005	3.29	639.76	202.17	2292.8	0.9950								
0.1219	3.41	640.96	192.52	2321.1	0.9968								
0.1534	3.60	641.09	178.77	2356.7	0.9970								
0.1852	3.73	641.24	169.34	2381.1	0.9973								
0.2171	3.87	650.98	162.65	2422.1	1.0124								
0.2597	4.10	671.26	154.14	2492.5	1.0439								
0.3024	4.29	688.18	147.16	2549.4	1.0703								
0.3456	4.42	693.45	141.52	2575.1	1.0785								
0.3875	4.49	678.68	135.11	2555.5	1.0555								
0.4299	4.50	657.60	130.09	2517.4	1.0227								
0.4831	4.52	642.97	126.36	2491.3	0.9999								
0.5363	4.55	643.23	125.25	2494.6	1.0004								
0.5789	4.57	643.41	124.44	2497.0	1.0006								
DELTA	DELTA STAR	M	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.3616	0.0953	4.79	1661163.	13683644.	1294.	10660.	429.91	0.857	0.43263	0.444			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(M 1),	THETA STAR(1),	THETA STAR(2),	THETA(M),	H(M),	MIE),	PTIMAX,				
-0.0695	-0.016	0.1114	0.1042	0.00058	0.01931	0.01813	5.75	4.45	18683.7				
Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	72.1	72.11			0.004	0.004				
0.0100	0.02766	0.61807	0.17472	334.7	72.04			0.018	0.018				
0.0161	0.04456	0.61763	0.17257	329.3	72.01			0.018	0.018				
0.0219	0.06071	0.73507	0.25858	773.5	71.93			0.041	0.041				
0.0291	0.08062	0.76954	0.29250	1049.7	71.83			0.056	0.056				
0.0365	0.10100	0.79660	0.32348	1364.6	71.75			0.073	0.073				
0.0473	0.13076	0.82124	0.35294	1738.7	71.61			0.093	0.093				
0.0581	0.16069	0.84461	0.38261	2202.0	71.39			0.118	0.118				
0.0791	0.21890	0.87300	0.42804	3066.9	71.10			0.165	0.165				
0.1005	0.27795	0.89121	0.46796	3991.9	70.82			0.214	0.214				
0.1219	0.33714	0.90218	0.49546	4749.3	70.53			0.255	0.255				
0.1534	0.42426	0.91604	0.53731	6108.9	69.95			0.328	0.328				
0.1852	0.51220	0.92549	0.57192	7376.8	69.81			0.396	0.396				
0.2171	0.60043	0.94145	0.59756	8832.7	68.87			0.474	0.474				
0.2597	0.71825	0.96881	0.64073	11720.7	68.00			0.629	0.629				
0.3024	0.83634	0.99094	0.67698	14831.5	67.07			0.796	0.796				
0.3456	0.95582	1.00090	0.70265	17261.7	66.27			0.926	0.926				
0.3616	1.00000	1.00000	0.70995	17749.5	65.92			0.995	0.995				
0.3875	1.07170	0.99328	0.71926	18541.2	65.26			1.000	1.000				
0.4299	1.18897	0.97850	0.72534	18683.7	64.33			1.000	1.000				
0.4831	1.33610	0.96833	0.72072	19644.3	62.74			1.000	1.000				

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(Delta)	RHO	U	PTI	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.5363	1.48324	0.96962	0.70384	18617.8	60.65	0.035	4.509	0.999	0.999	0.996
0.5789	1.60105	0.97054	0.69219	18607.2	59.21	0.034	4.528	0.998	0.998	0.996

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X YTD TW GEN. CYL.  
 5. 10. 1. 306. 151. 14.00 18652.90 643.00 577.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	577.00	577.00	0.	0.8974								
0.0100	1.98	617.60	346.19	1805.7	0.9605								
0.0134	1.92	624.45	359.44	1784.3	0.9712								
0.0176	1.89	633.53	369.70	1780.4	0.9853								
0.0238	1.94	645.28	368.00	1825.2	1.0035								
0.0348	3.04	665.27	233.59	2277.3	1.0346								
0.0452	2.79	674.25	263.21	2222.2	1.0486								
0.0674	3.19	680.25	224.13	2340.9	1.0579								
0.0879	3.37	679.63	208.07	2380.2	1.0570								
0.1088	3.51	679.10	196.28	2408.4	1.0562								
0.1412	3.64	679.50	186.51	2433.7	1.0568								
0.1724	3.74	682.91	179.70	2458.7	1.0621								
0.2044	3.84	688.37	174.13	2485.6	1.0706								
0.2371	3.91	692.73	170.44	2504.9	1.0773								
0.2684	3.97	691.84	166.38	2512.5	1.0760								
0.3002	4.01	684.65	162.37	2504.9	1.0648								
0.3328	4.03	668.03	157.39	2476.8	1.0389								
0.3640	4.05	651.41	152.37	2448.5	1.0131								
0.3959	4.05	647.33	151.41	2440.9	1.0067								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.2580	0.0444	4.20	3666016.	20933285.	1246.	7115.	443.79	0.861	0.56462	0.365			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W),	DELTA STAR(M),	THETA STAR(M),	THETA STAR(W),	THETA STAR(M),	THETA STAR(W),	M(E),	PTIMAX,			
-0.1282	-0.013	0.0578	0.0530	0.00068	0.00990	0.00912	5.01	3.96	18718.8				
Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PL1	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.71894	0.	141.6	141.64								
0.0100	0.03875	0.71894	0.42920	1071.0	141.22	0.061	3.861	0.008	0.008	0.008	0.008	0.008	0.008
0.0134	0.05201	0.71091	0.40763	974.0	140.93	0.061	3.862	0.057	0.057	0.057	0.057	0.057	0.057
0.0176	0.06821	0.70884	0.39466	926.6	140.65	0.061	3.864	0.052	0.052	0.052	0.052	0.052	0.052
0.0238	0.09212	0.72668	0.40521	1001.1	140.22	0.061	3.866	0.050	0.050	0.050	0.050	0.050	0.050
0.0348	0.13483	0.90670	0.79415	5450.8	139.80	0.061	3.866	0.054	0.054	0.054	0.054	0.054	0.054
0.0452	0.17525	0.88475	0.68490	3745.8	139.23	0.061	3.868	0.292	0.292	0.292	0.292	0.292	0.292
0.0674	0.26117	0.93200	0.83869	6712.6	137.82	0.060	3.871	0.201	0.201	0.201	0.201	0.201	0.201
0.0879	0.34085	0.94764	0.91005	8599.0	136.54	0.060	3.879	0.360	0.360	0.360	0.360	0.360	0.360
0.1088	0.42165	0.95890	0.96605	10409.7	135.12	0.059	3.886	0.461	0.461	0.461	0.461	0.461	0.461
0.1412	0.54722	0.96894	1.01119	12276.7	133.00	0.059	3.894	0.558	0.558	0.558	0.558	0.558	0.558
0.1724	0.68013	0.97892	1.04338	14001.4	130.88	0.059	3.905	0.658	0.658	0.658	0.658	0.658	0.658
0.2044	0.79215	0.98961	1.06851	15782.1	128.47	0.058	3.917	0.751	0.751	0.751	0.751	0.751	0.751
0.2371	0.91888	0.99732	1.07828	17043.8	125.92	0.057	3.931	0.846	0.846	0.846	0.846	0.846	0.846
0.2580	1.00000	1.00000	1.08659	17782.9	124.52	0.057	3.946	0.914	0.914	0.914	0.914	0.914	0.914
0.2684	1.04018	1.00034	1.08922	18149.0	123.79	0.056	3.959	0.973	0.973	0.973	0.973	0.973	0.973
0.3002	1.16342	0.99731	1.09116	18687.3	121.39	0.055	3.973	1.002	1.002	1.002	1.002	1.002	1.002
0.3328	1.28976	0.98614	1.08702	18675.1	118.55	0.054	3.991	1.001	1.001	1.001	1.001	1.001	1.001
0.3640	1.41068	0.97487	1.08483	18718.8	115.86	0.054	4.008	1.004	1.004	1.004	1.004	1.004	1.004
0.3959	1.53431	0.97182	1.06435	18310.1	113.31	0.053	4.025	0.982	0.982	0.982	0.982	0.982	0.982

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A VON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 5. 10. 1. 306. 153. 17.00 18666.80 643.00 573.00 573.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	573.00	573.00	0.	0.8911								
0.0100	1.75	603.93	375.28	1657.4	0.9392					453.58	0.840	0.62702	0.277
0.0138	1.76	611.15	378.18	1673.0	0.9505				7408.				
0.0182	1.91	619.36	358.40	1770.6	0.9632								
0.0227	2.24	629.07	313.94	1945.8	0.9783								
0.0289	2.44	638.61	291.54	2042.0	0.9932								
0.0376	2.61	650.94	275.20	2124.6	1.0123								
0.0479	2.79	662.10	258.78	2201.2	1.0297								
0.0585	2.93	671.20	246.99	2257.5	1.0438								
0.0712	3.03	679.34	239.08	2299.8	1.0565								
0.0841	3.14	683.31	230.03	2333.6	1.0627								
0.1053	3.25	682.24	219.30	2358.3	1.0610								
0.1267	3.32	679.25	211.88	2369.6	1.0564								
0.1479	3.37	680.53	208.16	2382.2	1.0584								
0.1692	3.41	678.60	204.01	2387.8	1.0554								
0.1904	3.45	677.75	200.46	2394.6	1.0540								
0.2118	3.47	676.90	198.75	2396.7	1.0527								
0.2329	3.47	674.06	197.47	2392.8	1.0483								
0.2541	3.47	670.14	196.73	2384.8	1.0422								
0.2859	3.47	656.76	192.81	2360.9	1.0214								

  

DELTA	DELTA STAR	M	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.1634	0.0189	2.44	9086306.	32829368.	2050.	7408.	453.58	0.840	0.62702	0.277

  

PHI.	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	PTIMAX,
-0.0553	-0.013	0.0321	0.0278	0.00099	0.00675	0.00593	4.69	3.40 19461.1

  

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PL,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0100	0.06120	0.69458	348.9	348.91	0.107	3.253	0.019	0.018
0.0138	0.08433	0.70111	1828.1	345.77	0.107	3.256	0.098	0.094
0.0182	0.11132	0.74204	1847.6	344.37	0.107	3.259	0.099	0.095
0.0227	0.13899	0.81542	2327.0	342.98	0.107	3.263	0.125	0.120
0.0289	0.17681	0.85574	3886.3	341.23	0.106	3.267	0.208	0.200
0.0376	0.23005	0.89038	5275.4	339.14	0.105	3.274	0.283	0.271
0.0479	0.29303	0.92249	6831.1	335.65	0.105	3.282	0.366	0.351
0.0585	0.35802	0.94607	8880.3	331.47	0.104	3.293	0.476	0.456
0.0712	0.43605	0.96380	10803.9	326.58	0.104	3.293	0.579	0.555
0.0841	0.51445	0.97796	12440.4	321.70	0.103	3.303	0.666	0.639
0.1053	0.64444	0.98832	14235.3	315.07	0.101	3.317	0.763	0.731
0.1267	0.77540	0.99304	16119.7	303.55	0.099	3.343	0.864	0.828
0.1479	0.90515	0.99833	17289.8	293.08	0.096	3.367	0.926	0.888
0.1634	1.00000	1.00000	18008.8	285.06	0.095	3.387	0.965	0.925
0.1692	1.03550	1.00069	18488.0	279.95				0.950
0.1904	1.16525	1.00352	18667.4	278.08	0.093	3.404	1.000	0.959
0.2118	1.29622	1.00443	19289.4	271.45	0.092	3.421	1.033	0.991
0.2329	1.42535	1.00279	19461.1	266.92	0.091	3.432	1.043	1.000
0.2541	1.55509	0.99943	19227.9	261.68	0.090	3.446	1.030	0.988
0.2859	1.74971	0.98940	18809.5	257.84	0.089	3.457	1.008	0.967
			18399.7	252.26	0.087	3.472	0.986	0.945

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTO TW GEN. CYL.  
 5. 14. 1. 306. 154. 18.00 18652.90 645.00 589.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RS	DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	589.00	589.00	0.	0.9132					478.94	0.856	0.64538	0.155
0.0100	1.87	614.06	362.05	1740.0	0.9520			4766.	11565.				
0.0132	1.86	619.18	366.56	1742.1	0.9600								
0.0167	1.83	625.58	373.96	1738.7	0.9699								
0.0212	1.87	633.67	373.27	1768.7	0.9824								
0.0277	2.09	642.96	343.39	1897.1	0.9968								
0.0338	2.19	651.12	332.17	1957.5	1.0095								
0.0424	2.30	661.16	321.42	2020.3	1.0250								
0.0533	2.41	669.98	309.77	2080.3	1.0387								
0.0554	2.43	671.93	307.71	2091.8	1.0418								
0.0664	2.49	676.80	302.00	2122.0	1.0493								
0.1361	2.88	667.98	251.38	2237.2	1.0356								
0.1447	2.89	665.14	249.46	2234.7	1.0312								
0.1549	2.90	662.54	247.12	2234.0	1.0272								
0.1656	2.92	659.77	243.43	2236.5	1.0229								
0.1763	2.96	657.94	238.58	2244.6	1.0201								
0.1871	2.99	656.08	235.02	2249.1	1.0172								
0.1978	3.02	654.21	231.38	2253.8	1.0143								
0.2181	3.07	650.37	225.72	2258.7	1.0083								
0.2401	3.09	645.51	222.05	2255.5	1.0008								

  

Y	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.1300	0.0075	0.83	19599210.	47563648.	4766.	11565.	478.94	0.856	0.64538	0.155

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W 1),	THETA PRIME,	THETA(2),	THETA(W),	H(W),	M(E),	PTIMAX,
-0.0447	-0.019	0.0266	0.0222	0.00241	0.00657	0.00566	3.93	2.84	18884.1

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI1	RHO U PRIME,	M PRIME	PT1/PTE,	PT1/PTIMAX
0.	0.	0.	0.	823.2	823.16	0.189	2.657	0.044	0.044
0.0100	0.07689	0.77943	2.30464	5229.3	823.02	0.189	2.657	0.280	0.277
0.0132	0.10188	0.78039	2.27023	5135.5	819.81	0.189	2.660	0.275	0.272
0.0167	0.12818	0.77884	2.21867	4959.1	818.99	0.189	2.660	0.266	0.263
0.0212	0.16317	0.79231	2.25893	5215.5	818.17	0.189	2.661	0.280	0.276
0.0277	0.21269	0.84981	2.62305	7319.3	814.87	0.188	2.664	0.392	0.388
0.0338	0.26013	0.87686	2.78950	8566.7	812.40	0.188	2.666	0.459	0.454
0.0424	0.32603	0.90498	2.95416	10069.0	806.64	0.187	2.670	0.540	0.533
0.0533	0.40954	0.93186	3.12408	11879.7	798.41	0.186	2.677	0.637	0.629
0.0554	0.42607	0.93704	3.15602	12260.2	796.77	0.186	2.678	0.657	0.649
0.0664	0.51057	0.95054	3.23499	13313.7	790.18	0.185	2.684	0.714	0.705
0.1300	1.00000	1.00000	3.16864	17939.9	627.40	0.156	2.863	0.985	0.973
0.1361	1.04652	1.00215	3.11585	18379.7	600.87	0.154	2.876	0.977	0.965
0.1447	1.11265	1.00103	3.07178	18215.6	588.52	0.150	2.905	0.954	0.942
0.1549	1.19108	1.00073	2.96994	17792.0	563.83	0.146	2.930	0.953	0.941
0.1656	1.27336	1.00184	2.90372	17779.3	542.43	0.140	2.955	0.976	0.964
0.1763	1.35563	1.00349	2.86509	18203.1	522.67	0.137	2.976	0.986	0.974
0.1871	1.43868	1.00750	2.82269	18400.9	506.21	0.132	2.998	0.998	0.986
0.1978	1.52096	1.00961	2.77961	18614.1	489.75	0.132	3.033	1.012	1.000
0.2181	1.67705	1.01179	2.71154	18884.1	465.05	0.127	3.077	0.978	0.966
0.2401	1.84622	1.01036	2.57697	18237.4	435.42				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PIC TFO TTTO  
 5. 10. 2. 306. 160. -0.50 5055.90 639.00 589.00 17.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	589.00	589.00	0.	0.9218
0.0100	0.95	603.53	511.38	1052.2	0.9445
0.0178	1.08	609.02	493.27	1179.2	0.9531
0.0282	1.33	617.50	456.66	1390.1	0.9663
0.0391	1.98	630.33	353.46	1823.8	0.9864
0.0604	2.45	641.65	291.24	2051.8	1.0041
0.0816	2.68	648.75	266.68	2142.5	1.0153
0.1138	2.96	655.56	238.39	2238.7	1.0259
0.1453	3.19	658.51	217.22	2302.5	1.0305
0.1878	3.49	657.06	191.55	2364.9	1.0283
0.2304	3.77	651.11	169.59	2405.2	1.0189
0.2728	4.02	639.61	150.93	2423.0	1.0010
0.3158	4.28	637.79	136.64	2453.7	0.9981
0.3684	4.54	648.98	126.79	2504.7	1.0156
0.4214	4.74	654.50	119.13	2536.1	1.0243
0.4744	4.87	659.92	115.05	2558.5	1.0327
0.5276	4.94	657.76	111.71	2561.3	1.0294
0.5809	4.98	650.19	109.22	2549.3	1.0175
0.6339	5.00	642.61	107.23	2536.1	1.0057
0.6870	5.00	638.28	106.29	2528.1	0.9989
0.7509	5.00	637.20	106.29	2525.5	0.9972

DELTA DELTA STAR H RSR AS DELTA R THETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5518 0.2169 11.24 164850. 2332108. 193. 2728. 421.09 0.905 0.39419 0.084

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA STAR(2), THETA(W), H(W), M(E), PTIMAX, MIE), PTLIMAX,  
 -0.1218 -0.003 0.2200 0.2191 0.00009 0.01921 0.01913 11.45 4.96 5690.7

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	10.7	10.72	0.024	4.959	0.002	0.002
0.0100	0.01812	0.41139	0.01286	19.1	10.72	0.024	4.959	0.004	0.003
0.0178	0.03220	0.46105	0.01494	22.4	10.72	0.024	4.959	0.004	0.004
0.0282	0.05109	0.54349	0.01902	30.8	10.72	0.024	4.959	0.006	0.005
0.0391	0.07083	0.71308	0.03224	81.2	10.72	0.024	4.959	0.016	0.014
0.0604	0.10939	0.80219	0.04402	170.2	10.72	0.024	4.959	0.034	0.030
0.0816	0.14790	0.83766	0.05019	240.8	10.72	0.024	4.959	0.048	0.042
0.1138	0.20624	0.87528	0.05867	369.7	10.72	0.024	4.959	0.073	0.065
0.1453	0.26333	0.90023	0.06623	520.2	10.72	0.024	4.959	0.103	0.091
0.1878	0.34035	0.92461	0.07714	801.6	10.72	0.024	4.959	0.159	0.141
0.2304	0.41756	0.94037	0.08861	1189.0	10.72	0.024	4.959	0.235	0.209
0.2728	0.49440	0.94734	0.10030	1680.1	10.72	0.024	4.959	0.332	0.295
0.3158	0.57233	0.95935	0.11220	2356.0	10.72	0.024	4.959	0.466	0.414
0.3684	0.66766	0.97928	0.12342	3253.2	10.72	0.024	4.959	0.643	0.572
0.4214	0.76371	0.99156	0.13301	4168.1	10.72	0.024	4.959	0.824	0.732
0.4744	0.85976	1.00032	0.13894	4846.6	10.72	0.024	4.959	0.959	0.852
0.5276	0.95618	1.00141	0.14325	5312.1	10.72	0.024	4.959	1.051	0.933
0.5518	1.00000	1.00000	0.14464	5406.2	10.72	0.024	4.959	1.092	0.950
0.5809	1.05277	0.99673	0.14583	5519.5	10.72	0.024	4.959	1.117	0.993
0.6339	1.14883	0.99157	0.14776	5648.9	10.72	0.024	4.959	1.126	1.000
0.6870	1.24506	0.98843	0.14861	5690.7	10.72	0.024	4.959	1.119	0.994
0.7509	1.36087	0.98742	0.14845	5656.1	10.72	0.024	4.959	1.119	0.994

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTF TTD TW GFN. CYL.  
 5. 5. 10. 2. 306. 159. 8.50 5117.40 639.00 570.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	570.00	570.00	0.	0.8920
0.0100	0.92	583.70	498.54	1011.5	0.9135
0.0166	0.87	586.02	508.34	966.1	0.9171
0.0296	1.78	604.84	370.05	1679.5	0.9465
0.0439	2.35	615.04	292.38	1968.8	0.9625
0.0610	2.57	621.83	268.39	2060.6	0.9731
0.0822	2.74	626.04	250.68	2123.6	0.9797
0.1137	2.95	629.20	230.02	2189.9	0.9847
0.1465	3.15	636.69	213.26	2255.5	0.9964
0.1879	3.42	646.23	193.80	2331.4	1.0113
0.2309	3.68	655.47	177.06	2397.4	1.0258
0.2732	3.91	664.47	163.53	2453.2	1.0399
0.3161	4.13	667.90	151.57	2490.6	1.0457
0.3578	4.29	668.20	142.90	2512.1	1.0457
0.4111	4.43	659.03	133.82	2511.9	1.0313
0.4648	4.49	648.52	129.07	2496.1	1.0149
0.5179	4.49	642.19	127.46	2486.8	1.0050
0.5705	4.51	639.13	125.94	2483.0	1.0002
0.6241	4.54	638.22	124.68	2483.9	0.9988
0.6769	4.57	637.34	122.92	2486.0	0.9974

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOVER. TEMP. RECOVER. FACT. TOT. PRESS. RECOVER. CT  
 0.4217 0.1420 7.86 467330. 4076752. 331. 2887. 421.17 0.864 0.39066 0.244

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA STAR(2), THETA STAR(3), M(1), P1/PT1MAX,  
 -0.0693 -0.021 0.1629 0.1516 0.00066 0.01741 0.01627 9.32 4.45 5142.8

Y	Y/DELTA	U/(UDELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	P11/PT1E,	P11/PT1MAX
0.	0.	0.	0.	20.0	20.03	0.039	4.365	0.004	0.004
0.0100	0.02371	0.40293	0.02365	34.7	20.01	0.039	4.365	0.007	0.007
0.0166	0.03937	0.38485	0.02215	32.9	20.00	0.039	4.365	0.006	0.006
0.0296	0.07015	0.65905	0.05281	111.5	19.97	0.039	4.367	0.022	0.022
0.0439	0.10401	0.78431	0.07828	269.3	19.95	0.039	4.367	0.053	0.052
0.0610	0.14456	0.82067	0.08862	375.0	19.81	0.039	4.373	0.073	0.073
0.0822	0.19503	0.84595	0.09739	485.7	19.73	0.039	4.374	0.095	0.094
0.1137	0.26963	0.87238	0.10934	667.3	19.71	0.039	4.377	0.130	0.130
0.1465	0.34742	0.89849	0.12071	900.7	19.59	0.039	4.382	0.176	0.175
0.1879	0.44560	0.92874	0.13604	1314.0	19.41	0.038	4.389	0.257	0.256
0.2309	0.54757	0.95504	0.15155	1875.2	19.21	0.038	4.397	0.366	0.365
0.2732	0.64788	0.97726	0.16597	2567.6	18.99	0.038	4.406	0.502	0.499
0.3161	0.74962	0.99216	0.17969	3370.9	18.77	0.038	4.416	0.659	0.655
0.3578	0.84851	1.00075	0.18978	4096.4	18.53	0.037	4.426	0.800	0.797
0.4111	0.97490	1.00065	0.19934	4830.8	18.23	0.037	4.439	0.944	0.939
0.4217	1.00000	1.00000	0.20050	4885.7	18.17	0.036	4.450	0.998	0.990
0.4648	1.10225	0.99516	0.20263	5109.5	17.97	0.036	4.461	0.995	0.990
0.5179	1.22818	0.99063	0.20152	5089.9	17.73	0.036	4.481	0.995	0.990
0.5705	1.35291	0.98914	0.19858	5094.7	17.29	0.035	4.505	0.995	0.990
0.6241	1.49002	0.98946	0.19483	5093.4	16.78	0.035	4.533	1.005	1.000
0.6769	1.60524	0.99033	0.19094	5142.8	16.20	0.034	4.533	1.005	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH 5. 10. 2. 306. 158. 14.00 5100.8C PTE TTD TM GEN. CYL.  
 5. MACH TOT.TEMP. STAT.TEMP. VELOCITY TT/TTD 639.00 576.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	576.00	576.00	0.	0.9014
0.0100	1.28	595.26	447.88	1330.7	0.9316
0.0150	1.28	598.36	450.02	1335.0	0.9364
0.0215	2.05	610.77	331.47	1831.8	0.9558
0.0302	2.39	619.59	289.71	1990.8	0.9696
0.0407	2.55	625.77	272.57	2059.9	0.9793
0.0512	2.69	632.73	260.11	2115.8	0.9902
0.0666	2.81	641.00	248.27	2172.1	1.0031
0.0830	2.95	649.18	237.22	2224.7	1.0159
0.1259	3.21	661.98	215.98	2314.8	1.0360
0.1467	3.33	666.55	206.99	2349.7	1.0431
0.1679	3.44	670.02	199.11	2378.5	1.0485
0.1897	3.54	672.45	191.68	2403.3	1.0524
0.2209	3.68	674.95	181.82	2434.0	1.0563
0.2533	3.80	674.18	173.17	2453.4	1.0551
0.2849	3.90	670.17	165.64	2462.0	1.0488
0.3168	3.97	662.89	159.87	2458.3	1.0374
0.3487	4.01	655.62	155.24	2451.8	1.0260
0.3913	4.05	647.31	151.45	2440.7	1.0130
0.4342	4.06	642.22	149.23	2433.7	1.0050
0.4765	4.09	640.41	147.15	2434.3	1.0022
0.5186	4.11	638.54	145.70	2433.3	0.9993

DELTA DELTA STAR H NSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3227 0.0731 5.90 1002998. 6139908. 400. 2448. 434.57 0.869 0.48013 0.209

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(W 1), THETA STAR W 1, THETA PRIME, THETA(2), THETA(W), H(W), MIE), PTIMAX,  
 -0.0989 -0.018 0.0915 0.0837 0.00086 0.0155 0.01063 7.88 3.98 5169.6

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	38.1	38.13	0.060	3.879	0.007	0.007
0.0100	0.03099	0.5415C	0.06588	103.0	38.05	0.060	3.880	0.020	0.020
0.0150	0.04649	0.54326	0.06571	103.0	38.02	0.060	3.881	0.020	0.020
0.0215	0.06669	0.74545	0.12217	322.2	37.94	0.060	3.882	0.063	0.062
0.0302	0.09375	0.81013	0.15175	542.2	37.90	0.060	3.883	0.106	0.105
0.0407	0.12604	0.83828	0.16657	693.6	37.83	0.060	3.886	0.136	0.134
0.0512	0.15877	0.86101	0.17873	846.6	37.71	0.060	3.888	0.166	0.164
0.0666	0.20653	0.88395	0.19166	1039.8	37.60	0.060	3.892	0.204	0.201
0.0830	0.25732	0.90533	0.20419	1266.9	37.37	0.059	3.892	0.248	0.245
0.1259	0.39018	0.94198	0.23002	1856.7	36.83	0.059	3.903	0.364	0.359
0.1467	0.45464	0.95620	0.24212	2193.5	36.61	0.059	3.908	0.430	0.424
0.1679	0.52034	0.96793	0.25186	2529.2	36.19	0.058	3.916	0.496	0.489
0.1897	0.58791	0.97802	0.26185	2898.7	35.84	0.058	3.923	0.568	0.561
0.2209	0.68460	0.99051	0.27571	3483.9	35.35	0.057	3.934	0.683	0.674
0.2533	0.78501	0.99840	0.28706	4048.9	34.77	0.057	3.946	0.794	0.783
0.2849	0.88294	1.00189	0.29555	4546.3	34.13	0.056	3.960	0.891	0.879
0.3168	0.98180	1.00040	0.30064	4871.3	33.55	0.055	3.973	0.955	0.942
0.3227	1.00000	1.00000	0.30122	4911.1	33.44	0.055	3.988	0.997	0.984
0.3487	1.08060	0.99776	0.30247	5087.7	32.87	0.054	4.007	1.013	1.000
0.3913	1.21269	0.99324	0.30075	5169.6	32.03	0.054	4.031	1.006	0.993
0.4342	1.34564	0.99037	0.29494	5132.6	31.04	0.053			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	P1,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.4765	1.47674	0.99063	0.28741	5127.0	29.82	0.051	4.061	1.005	0.992
0.5186	1.60721	0.99022	0.28015	5073.6	28.79	0.050	4.088	0.995	0.981

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NUM COOLED  
 MODEL MACH MD. DAY TEST RUN X PTC TTD TW GEN. CYL.  
 5. 7. 14. 2. 306. 157. 17.00 5125.10 639.00 571.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	571.00	571.00	0.	0.8936
0.0100	1.68	602.58	384.98	1616.9	0.9430
0.0133	1.65	607.42	393.99	1601.3	0.9506
0.0172	1.62	612.30	401.84	1590.1	0.9582
0.0238	1.81	623.33	376.18	1723.1	0.9755
0.0302	2.16	634.31	327.71	1919.2	0.9927
0.0384	2.31	644.55	312.34	1997.8	1.0087
0.0473	2.42	653.51	300.44	2059.6	1.0227
0.0578	2.56	661.44	286.85	2121.4	1.0351
0.0693	2.65	667.15	277.16	2164.5	1.0441
0.0832	2.74	670.69	268.55	2198.0	1.0496
0.0999	2.83	673.19	259.02	2230.7	1.0535
0.1222	2.92	675.72	249.38	2263.2	1.0575
0.1427	3.00	676.04	241.37	2285.2	1.0580
0.1637	3.08	676.39	233.28	2307.3	1.0585
0.1964	3.20	673.71	220.71	2332.9	1.0543
0.2273	3.29	667.80	210.72	2343.3	1.0451
0.2596	3.39	659.85	200.36	2349.5	1.0326
0.2915	3.47	652.94	191.96	2353.3	1.0218
0.3232	3.53	647.01	185.35	2355.1	1.0125
0.3549	3.57	642.11	181.21	2353.1	1.0049
0.3871	3.59	640.23	179.24	2353.3	1.0019

DELTA DELTA STAR H RSR RS DELTA RTHEA R RTHEA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2893 0.0370 3.03 2374249. 8945581. 845. 3186. 443.48 0.848 0.57004 0.179

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.0999 -0.036 0.0727 0.0612 0.00259 0.00962 0.00823 7.43 3.46 3167.1

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	88.8	88.76	0.105	3.277	0.017	0.017
0.0100	0.03457	0.68711	0.21699	425.4	88.67	0.105	3.277	0.083	0.082
0.0133	0.04615	0.68049	0.20999	403.5	88.67	0.105	3.277	0.079	0.078
0.0172	0.05936	0.67574	0.20404	386.5	88.50	0.105	3.279	0.075	0.075
0.0238	0.08242	0.73227	0.23572	517.2	88.32	0.105	3.280	0.101	0.100
0.0302	0.10457	0.81561	0.30123	890.6	88.27	0.105	3.280	0.174	0.172
0.0384	0.13278	0.84899	0.32816	1111.6	88.05	0.105	3.282	0.217	0.215
0.0473	0.16345	0.87525	0.35064	1332.5	87.79	0.104	3.284	0.260	0.258
0.0578	0.19995	0.90151	0.37635	1626.0	87.34	0.104	3.288	0.317	0.315
0.0693	0.23943	0.91986	0.39583	1882.2	86.99	0.104	3.290	0.367	0.364
0.0832	0.28776	0.93408	0.41145	2123.9	86.28	0.103	3.296	0.414	0.411
0.0999	0.34525	0.94796	0.42847	2416.9	85.39	0.103	3.303	0.472	0.468
0.1222	0.42245	0.96178	0.44355	2746.9	83.88	0.101	3.315	0.536	0.532
0.1427	0.49332	0.97112	0.45536	3035.3	82.55	0.100	3.327	0.592	0.587
0.1637	0.56591	0.98051	0.46548	3352.7	80.77	0.099	3.342	0.654	0.649
0.1964	0.67896	0.99139	0.48105	3881.3	78.11	0.097	3.365	0.757	0.751
0.2273	0.78578	0.99585	0.48772	4264.8	75.27	0.094	3.390	0.832	0.825
0.2596	0.89744	0.99846	0.48941	4642.8	71.63	0.091	3.425	0.906	0.899
0.2893	1.00000	1.00000	0.48541	4908.7	68.15	0.088	3.462	0.962	0.950
0.2915	1.00772	1.00009	0.48505	4928.7	67.90	0.086	3.496	0.962	0.954
0.3232	1.11731	1.00082	0.47904	5142.1	64.71	0.086	3.496	1.003	0.995

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI.	RHO U PRIME, M	PRIME	PTI/PIE.	PTI/PTIMAX
0.3549	1.22689	1.00000	0.46677	5167.1	0.083	3.530	1.008	1.000
0.3871	1.33821	1.00009	0.45834	5160.2	0.081	3.551	1.007	0.999

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 7. 14. 2. 306. 156. 18.00 5076.40 638.50 541.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTN
0.	0.	541.00	541.00	0.	0.8473
0.0100	1.68	578.18	368.83	1585.9	0.9055
0.0129	1.67	585.27	375.56	1587.3	0.9166
0.0172	1.71	595.81	375.84	1625.6	0.9331
0.0215	1.87	606.18	355.98	1733.7	0.9494
0.0279	2.00	619.24	343.87	1818.8	0.9698
0.0366	2.08	636.21	340.92	1883.5	0.9964
0.0472	2.17	652.22	335.21	1951.5	1.0215
0.0575	2.25	664.03	329.45	2004.9	1.0400
0.0681	2.32	673.74	324.63	2048.0	1.0552
0.0789	2.40	679.37	316.24	2088.7	1.0640
0.0893	2.45	680.70	309.40	2112.1	1.0661
0.1005	2.53	681.18	299.12	2142.4	1.0668
0.1108	2.60	680.56	289.72	2166.9	1.0659
0.1258	2.70	679.19	276.49	2199.5	1.0637
0.1429	2.81	674.87	261.16	2229.4	1.0570
0.1575	2.92	671.27	248.66	2253.3	1.0513
0.1747	2.96	666.35	241.63	2258.9	1.0436
0.1959	3.00	661.35	235.75	2261.2	1.0358
0.2175	3.03	653.11	230.42	2253.5	1.0229

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACI. TOT. PRESS. RECOV. CT  
 0.1785 0.0083 0.56 5739573. 11854880. 2289. 4729. 450.15 0.755 0.59584 0.59584 0.335

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(2), THETA(1), THETA(2), THETA(1), THETA(2), MIEI, PTIMAX, MIEI, PTIMAX,  
 -0.0379 -0.035 0.0437 0.0329 0.00402 0.01072 0.00841 3.91 2.97 5029.9

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.0100	0.05603	0.70172	0.52984	213.0	212.98	0.185	2.680	0.042	0.042
0.0129	0.07239	0.70233	0.51868	1020.0	211.49	0.185	2.680	0.201	0.203
0.0172	0.09638	0.71930	0.52977	995.1	210.63	0.185	2.683	0.196	0.198
0.0215	0.12036	0.76713	0.59470	1054.4	210.21	0.184	2.684	0.208	0.210
0.0279	0.15611	0.80479	0.64063	1350.3	209.57	0.184	2.686	0.266	0.268
0.0366	0.20502	0.83341	0.66229	1628.9	207.87	0.182	2.692	0.321	0.324
0.0472	0.26453	0.86351	0.68993	1826.6	205.74	0.181	2.698	0.360	0.363
0.0575	0.32202	0.88712	0.71063	2089.8	203.39	0.179	2.706	0.412	0.415
0.0681	0.38153	0.90617	0.72336	2329.8	200.41	0.177	2.715	0.459	0.463
0.0789	0.44204	0.92420	0.73765	2534.3	196.79	0.174	2.727	0.499	0.504
0.0893	0.50060	0.93454	0.74967	2785.4	191.68	0.172	2.744	0.549	0.554
0.1005	0.56313	0.94797	0.75904	2977.2	188.48	0.169	2.755	0.586	0.592
0.1108	0.62084	0.95881	0.76573	3241.5	181.88	0.165	2.779	0.639	0.644
0.1258	0.70489	0.97324	0.76012	3490.7	175.71	0.158	2.801	0.688	0.694
0.1429	0.80071	0.98646	0.74151	3809.7	163.99	0.149	2.847	0.750	0.757
0.1575	0.88251	0.99701	0.74328	4135.5	149.08	0.144	2.910	0.815	0.822
0.1747	0.97889	0.99950	0.74248	4550.4	140.78	0.141	2.947	0.896	0.905
0.1785	1.00000	1.00000	0.74257	4747.5	136.31	0.139	2.969	0.935	0.944
0.1959	1.09768	1.00053	0.74389	4921.5	133.11	0.137	2.985	0.969	0.978
0.2175	1.21871	0.99711	0.74757	5029.9	131.19	0.137	2.994	0.991	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITO M GEN. CYL.  
 5. 6. 9. 27. 306. 130. -0.50 24259.40 728.50 640.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	T/T	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	640.00	640.00	0.	0.8785						454.64	0.860	0.28910	0.415
0.0100	1.04	697.18	573.55	1218.7	0.9570									
0.0211	1.00	699.47	583.46	1180.5	0.9602									
0.0318	1.24	707.12	541.05	1412.5	0.9707									
0.0423	1.99	722.45	403.04	1958.9	0.9917									
0.0641	2.46	732.33	331.43	2194.6	1.0053									
0.0850	2.73	738.36	296.99	2302.7	1.0135									
0.1166	3.03	748.53	263.42	2414.1	1.0275									
0.1488	3.36	760.62	233.24	2517.1	1.0441									
0.1919	3.73	772.66	204.47	2612.7	1.0606									
0.2339	4.11	780.00	178.06	2689.2	1.0707									
0.2764	4.51	786.69	155.18	2754.4	1.0799									
0.3188	4.88	792.09	137.67	2803.9	1.0873									
0.3612	5.24	792.54	122.20	2837.8	1.0879									
0.4038	5.52	783.66	110.56	2843.7	1.0757									
0.4465	5.74	766.23	101.02	2827.0	1.0518									
0.4891	5.84	747.84	95.63	2799.2	1.0266									
0.5313	5.87	737.05	93.42	2780.7	1.0117									
0.5734	5.89	731.64	92.18	2771.7	1.0043									
0.6159	5.89	731.64	92.18	2771.7	1.0043									
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT				
0.4901	0.2537	28.86	224964.	5910510.	120.	3149.	454.64	0.860	0.28910	0.415				
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX.				
-0.1839	-0.000	0.2540	0.2850	0.00001	0.00878	0.00982	29.02	5.84	5.84	25574.0				
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX					
0.	0.	0.	0.	15.4	15.37	0.001	0.001	0.001	0.001					
0.0100	0.02041	0.43546	0.02247	35.9	18.15	0.012	5.840	0.001	0.001					
0.0211	0.04316	0.42182	0.02140	34.2	18.15	0.012	5.840	0.001	0.001					
0.0318	0.06485	0.50470	0.02761	46.3	18.15	0.012	5.840	0.002	0.002					
0.0423	0.08625	0.69994	0.05140	140.0	18.15	0.012	5.840	0.006	0.005					
0.0641	0.13082	0.78416	0.07003	291.1	18.15	0.012	5.840	0.012	0.011					
0.0850	0.17350	0.82279	0.08200	439.8	18.15	0.012	5.840	0.018	0.017					
0.1166	0.23792	0.86260	0.09692	702.1	18.15	0.012	5.840	0.029	0.027					
0.1488	0.30363	0.89939	0.11413	1136.7	18.15	0.012	5.840	0.047	0.044					
0.1919	0.39157	0.93354	0.13514	1904.0	18.15	0.012	5.840	0.078	0.074					
0.2339	0.47727	0.96086	0.15972	3193.3	18.15	0.012	5.840	0.132	0.125					
0.2764	0.56399	0.98418	0.18772	5324.3	18.15	0.012	5.840	0.219	0.208					
0.3188	0.65051	1.00187	0.21540	8292.2	18.15	0.012	5.840	0.342	0.324					
0.3612	0.73703	1.01399	0.24561	12611.0	18.15	0.012	5.840	0.520	0.493					
0.4038	0.82395	1.01608	0.27203	17211.6	18.15	0.012	5.840	0.709	0.673					
0.4465	0.91108	1.01010	0.24596	21815.1	18.15	0.012	5.840	0.899	0.853					
0.4891	0.99801	1.00019	0.30958	24277.7	18.15	0.012	5.840	1.001	0.949					
0.4901	1.00000	1.00000	0.30979	24295.3	18.15	0.012	5.840	1.032	0.950					
0.5313	1.08412	0.99356	0.31479	25035.7	18.15	0.012	5.840	1.054	0.979					
0.5734	1.17002	0.99037	0.31802	25574.0	18.15	0.012	5.840	1.000	1.000					
0.6159	1.25675	0.99037	0.31802	25574.0	18.15	0.012	5.840	1.054	1.000					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON-COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 7. 14. 27. 306. 131. 8.50 24265.50 725.00 640.00 17.00

Y	MACH	TDI.TEMP.	STAT.TEMP.	VELOCITY	TY/TTD
0.	640.00	640.00	0.	0.8828	
0.0100	670.46	484.76	1493.6	0.9248	
0.0220	1.31	684.86	510.63	0.9446	
0.0373	2.20	712.20	361.41	0.9823	
0.0588	2.67	730.52	300.60	2272.7	1.0076
0.0875	2.89	736.91	275.58	2354.2	1.0164
0.1221	3.18	741.89	245.23	2442.7	1.0233
0.1544	3.42	748.15	223.60	2510.4	1.0319
0.1858	3.51	754.85	217.48	2540.8	1.0412
0.2182	3.88	771.57	192.45	2637.7	1.0642
0.2601	4.19	791.26	175.45	2720.0	1.0914
0.3028	4.60	803.21	153.40	2794.1	1.1079
0.3453	4.93	801.00	136.52	2825.4	1.1048
0.3879	5.16	784.10	123.99	2816.1	1.0815
0.4302	5.26	756.55	115.64	2774.9	1.0435
0.4727	5.34	735.51	109.85	2741.6	1.0145
0.5133	5.37	733.64	108.58	2740.3	1.0119
0.5579	5.36	732.78	108.55	2738.5	1.0107

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4242 0.1636 11.48 873281. 10690150. 488. 5968. 464.78 0.860 0.31920 0.456

PMI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M ), THETA PRIME, THETA(2), THETA(M), M(M), M(E), PTIMAX,  
 -0.1851 -0.045 0.2089 0.1809 0.0090 0.0134 0.0162 15.57 5.25 24343.6

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	40.4	40.39	0.022	5.068	0.002	0.002
0.0100	0.02358	0.53723	0.07251	125.7	40.39	0.022	5.068	0.005	0.005
0.0220	0.05189	0.52038	0.06668	112.8	40.39	0.022	5.069	0.005	0.005
0.0373	0.08805	0.73838	0.13355	433.5	40.35	0.022	5.069	0.018	0.018
0.0588	0.13855	0.81744	0.17705	899.3	40.19	0.022	5.072	0.037	0.037
0.0875	0.20640	0.84677	0.19864	1247.8	39.91	0.022	5.078	0.051	0.051
0.1221	0.28786	0.87860	0.22927	1902.6	39.50	0.022	5.087	0.078	0.078
0.1544	0.36401	0.90293	0.25498	2670.8	38.98	0.021	5.099	0.110	0.110
0.1858	0.43803	0.91390	0.26121	2989.3	38.37	0.021	5.112	0.123	0.123
0.2182	0.51442	0.94873	0.30193	4878.4	37.81	0.021	5.125	0.201	0.200
0.2601	0.61320	0.97832	0.33367	7195.9	36.94	0.021	5.146	0.297	0.296
0.3028	0.71387	1.00497	0.38152	11809.0	35.95	0.020	5.169	0.487	0.485
0.3453	0.81406	1.01625	0.42085	17075.7	34.90	0.020	5.195	0.704	0.701
0.3879	0.91450	1.01290	0.44633	21448.9	33.73	0.019	5.226	0.881	0.881
0.4242	1.00000	1.00000	0.45608	23126.4	32.84	0.019	5.254	0.965	0.950
0.4302	1.01422	0.99806	0.45687	23405.4	32.68	0.018	5.291	1.000	0.961
0.4727	1.11442	0.98611	0.45580	24343.6	31.34	0.018	5.320	1.003	1.000
0.5133	1.21485	0.98564	0.44608	24324.4	30.33	0.018	5.342	1.002	0.999
0.5579	1.31528	0.98499	0.43520	23462.9	29.61	0.018	5.342	0.975	0.972

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE Y TO 645.00 GEN. CYL. 17.00  
 5. 7. 14. 27. 306. 132. 14.00 24283.80 727.50

Y	MACH	TOI	TEMP.	STAT	TEMP.	VELOCITY	TT/TT0	RSR	RS	DELTA	THETA	R	THETA	D	RECOV	TEMP.	RECOV	FACT.	TOI	PRESS	RECOV	CF	
0.	0.	645.00	645.00	0.	0.	0.9866																	
0.0100	2.05	677.29	367.70	1928.6	0.9310																		
0.0157	1.99	683.02	381.36	1903.7	0.9389																		
0.0264	2.26	696.58	344.80	2055.8	0.9575																		
0.0398	2.74	711.61	284.37	2265.6	0.9782																		
0.0495	2.96	719.88	261.03	2347.9	0.9892																		
0.0704	3.19	734.23	241.69	2437.5	1.0092																		
0.0915	3.40	740.97	223.69	2492.9	1.0185																		
0.1234	3.53	748.59	214.27	2533.6	1.0290																		
0.1552	3.71	761.53	203.02	2590.3	1.0468																		
0.1883	3.85	780.82	197.32	2647.7	1.0733																		
0.2297	4.09	802.33	184.79	2723.8	1.1029																		
0.2737	4.37	815.51	169.41	2786.1	1.1210																		
0.3146	4.55	808.58	157.52	2796.7	1.1114																		
0.3575	4.68	785.80	145.95	2772.5	1.0801																		
0.3999	4.76	751.24	135.62	2719.6	1.0326																		
0.4419	4.81	740.05	131.34	2704.3	1.0173																		
0.4844	4.86	739.42	129.20	2707.6	1.0164																		
0.5269	4.91	736.58	126.63	2707.0	1.0125																		
DELTA	DELTA	STAR	H	RSR	RS	DELTA	THETA	R	THETA	D	RECOV	TEMP.	RECOV	FACT.	TOI	PRESS	RECOV	CF					
0.3550	0.0656	4.28	2105010.	15832623.	1101.																		
PHI	DELTA	STAR	PRIME,	DELTA	STAR(2),	DELTA	STAR(W	),	THETA	PRIME,	THETA(2),	THETA(W),	H(W),	M(E),	PTI	MAX,							
-0.1861	-0.050	0.1191	0.0982	0.0982	0.00170	0.01457	0.01213	8.10	4.68	24399.6													
Y	Y/DELTA	U/U(DELTA)	RHO	* U	PTI	PI,	RHO	U	PRIME,	M	PRIME	PTI/PIE,	PTI/PTI	MAX									
0.	0.	0.	0.	0.	85.8	85.75																	
0.02817	0.69503	0.26180	0.26180	726.6	85.67																		
0.0157	0.04415	0.68607	0.24891	658.0	85.58																		
0.0264	0.07435	0.7408b	0.29671	1001.0	85.41																		
0.0398	0.11207	0.81648	0.39568	2113.0	85.24																		
0.0495	0.13937	0.84614	0.44446	2954.1	84.81																		
0.0704	0.19847	0.87666	0.49383	4115.1	84.21																		
0.0915	0.25769	0.89840	0.54122	5513.4	83.35																		
0.1234	0.34764	0.91309	0.56364	6520.8	81.81																		
0.1552	0.43723	0.93352	0.59479	8177.9	80.01																		
0.1883	0.53048	0.95418	0.61009	9618.9	78.03																		
0.2297	0.64711	0.98162	0.64590	12827.2	75.20																		
0.2737	0.77106	1.00406	0.68613	17524.8	71.60																		
0.3146	0.88629	1.00791	0.70704	20945.5	69.34																		
0.3550	1.00000	1.00000	0.71274	23179.6	64.63																		
0.3575	1.00714	0.79919	0.71280	23320.0	64.40																		
0.3999	1.12659	0.78010	0.70839	24256.3	60.63																		
0.4419	1.24492	0.77458	0.68928	24399.6	57.45																		
0.4844	1.36465	0.77578	0.66072	24264.5	54.11																		
0.5269	1.48438	0.77556	0.63656	24256.2	51.11																		

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON-COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE T10 T11 TW GEN. CYL.  
 5. 7. 14. 27. 306. 133. 17.00 24308.20 728.00 638.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/T10
0.	0.	638.00	638.00	0.	0.8764
0.0100	2.06	676.82	365.52	1933.9	0.9297
0.0107	2.08	677.96	362.78	1945.9	0.9313
0.0149	2.04	687.07	374.35	1938.3	0.9438
0.0212	2.00	699.23	389.20	1929.9	0.9605
0.0319	2.19	719.90	367.54	2057.5	0.9889
0.0425	2.56	738.10	319.87	2241.6	1.0139
0.0530	2.73	751.54	301.62	2324.9	1.0323
0.0678	2.90	766.88	286.35	2402.7	1.0534
0.0850	2.97	769.32	278.18	2429.1	1.0568
0.1061	3.04	773.83	271.45	2456.7	1.0630
0.1272	3.08	776.14	267.61	2471.7	1.0661
0.1490	3.17	781.75	259.79	2504.1	1.0738
0.1698	3.26	789.44	253.02	2538.6	1.0844
0.1955	3.42	797.41	239.19	2589.6	1.0953
0.2232	3.54	801.12	228.88	2622.0	1.1004
0.2549	3.74	796.76	209.85	2655.4	1.0944
0.2866	3.97	787.26	189.42	2680.0	1.0814
0.3187	4.17	766.15	171.41	2673.0	1.0524
0.3607	4.28	752.18	161.29	2664.4	1.0332
0.4037	4.36	744.25	154.84	2661.0	1.0223
0.4459	4.37	741.14	153.98	2655.9	1.0180

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.0193 0.98 6016928. 23812454. 3458. 13683. 487.76 0.837 0.45605 0.406

PHI. DELTA STAR PRIME. DELTA STAR(2). DELTA STAR(W 1). THETA STAR(1). THETA STAR(2). THETA(W). H(W). MIE1. PTIMAX.  
 -0.101 0.1208 0.0818 0.00531 0.01439 0.01001 8.17 4.12 24642.0

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI.	RHO U PRIME	H PRIME	PT1/PTE.	PT1/PTIMAX
0.	0.	0.	0.	234.9	234.86	0.010	0.010	0.010	0.010
0.0100	0.03222	0.72300	0.72330	2027.0	234.63	0.071	3.691	0.083	0.082
0.0107	0.03444	0.72750	0.73291	2092.3	234.51	0.071	3.692	0.086	0.085
0.0149	0.04794	0.72464	0.70712	1963.2	234.39	0.071	3.692	0.081	0.080
0.0212	0.06846	0.72153	0.67519	1816.4	233.69	0.071	3.694	0.075	0.074
0.0319	0.10290	0.71621	0.75917	2447.9	232.75	0.071	3.697	0.101	0.099
0.0425	0.13688	0.83803	0.94652	4326.6	231.81	0.071	3.700	0.178	0.176
0.0530	0.17071	0.86920	1.03370	5620.4	230.16	0.071	3.705	0.231	0.228
0.0678	0.21839	0.89828	1.11494	7168.7	228.05	0.070	3.712	0.295	0.291
0.0850	0.27393	0.90814	1.14354	7906.1	224.76	0.069	3.722	0.325	0.321
0.1061	0.34180	0.91847	1.15799	8589.9	219.59	0.068	3.739	0.353	0.349
0.1272	0.40978	0.92407	1.15396	8908.5	214.43	0.067	3.756	0.366	0.362
0.1490	0.48001	0.93620	1.16734	9824.0	207.85	0.066	3.779	0.404	0.399
0.1698	0.54701	0.94908	1.17392	10773.8	200.81	0.064	3.804	0.443	0.437
0.1955	0.62981	0.96816	1.20304	12901.3	190.71	0.062	3.842	0.531	0.524
0.2232	0.71904	0.98026	1.19301	14339.0	178.73	0.060	3.890	0.590	0.582
0.2549	0.82117	0.99274	1.20346	17408.3	163.23	0.056	3.957	0.716	0.706
0.2866	0.92329	1.00194	1.19648	21241.7	145.14	0.052	4.045	0.862	0.874
0.3104	1.00000	1.00000	1.17398	23409.9	131.99	0.048	4.141	0.950	0.950
0.3187	1.02670	0.99934	1.16303	24164.6	128.00	0.044	4.240	0.981	0.981
0.3607	1.16200	0.99610	1.08284	24642.0	112.50			1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4037	1.30053	0.99485	1.00183	24357.1	100.05	0.040	4.331	1.002	0.988
0.4459	1.43648	0.99295	1.00323	24421.3	99.82	0.040	4.333	1.005	0.991

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION -- TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 7. 14. 27. 306. 134. 18.00 24259.40 728.70 647.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	647.00	647.00	0.	0.8879								
0.0100	1.74	691.73	431.00	1769.9	0.9493					514.03	0.838	0.38877	0.373
0.0124	1.73	700.09	437.75	1775.3	0.9607								
0.0157	1.70	710.47	449.45	1770.8	0.9750								
0.0199	1.70	722.92	457.92	1784.3	0.9921								
0.0242	1.77	734.37	452.45	1840.4	1.0078								
0.0284	1.87	743.67	436.73	1920.3	1.0205								
0.0346	2.02	756.94	416.90	2021.2	1.0388								
0.0347	2.01	757.04	418.33	2017.2	1.0389								
0.0454	2.14	773.59	402.97	2110.1	1.0616								
0.0560	2.25	783.14	388.57	2177.2	1.0747								
0.0667	2.35	783.48	371.78	2224.0	1.0752								
0.0772	2.44	781.99	356.81	2260.1	1.0731								
0.0878	2.56	781.66	337.65	2309.6	1.0727								
0.0984	2.74	782.84	313.54	2374.5	1.0743								
0.1094	2.97	785.77	283.92	2455.4	1.0783								
0.1201	3.40	789.54	238.48	2573.0	1.0835								
0.1302	3.54	791.29	225.66	2606.8	1.0859								
0.1431	3.58	792.66	222.51	2617.2	1.0878								
0.1601	3.59	792.86	221.31	2620.4	1.0881								
0.1770	3.60	784.57	218.33	2608.2	1.0767								
0.1983	3.62	775.59	214.47	2596.4	1.0643								
0.2196	3.61	780.26	216.76	2601.9	1.0708								
0.2408	3.63	766.59	210.83	2584.0	1.0520								
0.2621	3.65	757.14	206.57	2571.8	1.0390								
0.2942	3.65	747.57	203.77	2556.0	1.0259								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.1287	-0.0044	-0.20	19261149.	33187713.	11557.	19913.	514.03	0.838	0.38877	0.373			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	DELTA STAR(W ),	THETA STAR(W ),	THETA STAR(W ),	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX.		
-0.0593	-0.078	0.0738	0.0386	0.0386	0.00623	0.01594	0.00897	4.31	3.54	24288.4			
Y	Y/DELTA	U/UI(DELTA)	RMO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	786.10	786.10			0.032	0.032				
0.0100	0.07771	0.67902	1.86958	4092.4	781.38	0.157	2.855	0.169	0.168				
0.0124	0.09628	0.68111	1.82970	4005.5	774.31	0.156	2.861	0.165	0.165				
0.0157	0.12177	0.67939	1.76854	3825.8	770.38	0.155	2.865	0.158	0.158				
0.0199	0.15503	0.68456	1.73120	3769.7	762.52	0.154	2.872	0.155	0.155				
0.0242	0.18782	0.70607	1.78858	4111.2	754.66	0.153	2.878	0.169	0.169				
0.0284	0.22062	0.73673	1.91324	4811.5	746.80	0.152	2.885	0.198	0.198				
0.0346	0.26880	0.77544	2.07622	5927.6	735.00	0.151	2.896	0.244	0.244				
0.0347	0.26934	0.77392	2.05404	5828.5	731.07	0.150	2.899	0.240	0.240				
0.0454	0.35319	0.80956	2.15865	6935.5	707.50	0.147	2.921	0.286	0.286				
0.0560	0.43525	0.83530	2.20709	7856.9	676.05	0.143	2.951	0.324	0.323				
0.0667	0.51809	0.85325	2.23305	8704.2	640.67	0.138	2.987	0.359	0.358				
0.0772	0.60007	0.86709	2.21943	9371.2	601.37	0.133	3.029	0.386	0.386				
0.0878	0.68214	0.88609	2.20877	10461.3	554.20	0.126	3.084	0.431	0.431				
0.0984	0.76497	0.91098	2.16794	12083.5	491.31	0.117	3.165	0.498	0.498				
0.1094	0.85014	0.94205	2.07963	14554.7	412.70	0.104	3.284	0.600	0.599				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.1201	0.93329	0.98715	1.97673	20762.4	314.44	0.087	3.473	0.856	0.855
0.1287	1.00000	1.00000	1.95572	23073.9	290.11				0.950
0.1302	1.01178	1.00011	1.95770	23482.1	290.86	0.083	3.528	0.968	0.967
0.1431	1.11203	1.00410	1.93945	24146.0	283.00	0.082	3.547	0.995	0.994
0.1601	1.24413	1.00534	1.92529	24288.4	279.07	0.081	3.557	1.001	1.000
0.1770	1.37546	1.00065	1.92051	24270.2	275.92	0.080	3.565	1.000	0.999
0.1983	1.54098	0.99611	1.88520	24034.2	267.27	0.079	3.588	0.991	0.990
0.2196	1.70650	0.99823	1.83636	23235.0	262.56	0.078	3.600	0.958	0.957
0.2408	1.87125	0.99136	1.84976	23745.8	259.02	0.077	3.610	0.979	0.978
0.2621	2.03677	0.98671	1.85907	24158.8	256.27	0.076	3.618	0.996	0.995
0.2942	2.28622	0.98063	1.87302	24238.6	256.27	0.076	3.618	0.999	0.998

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNPL A NON COOLED  
 MO. DAY TEST RUN X PIE TTO  
 MODEL MACH 6. 7. 16. 306. 138. -0.50 11993.20 724.50 650.00  
 GEN. CYL. 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	650.00	650.00	0.	0.8972					455.10	0.882	0.31740	0.135
0.0100	1.24	676.14	517.04	1382.6	0.9333								
0.0207	1.26	683.76	519.15	1408.3	0.9438								
0.0356	1.40	696.02	500.03	1534.5	0.9607								
0.0571	2.16	720.29	373.16	2042.1	0.9942								
0.0674	2.76	730.68	290.00	2300.9	1.0085								
0.0886	3.04	739.21	259.81	2399.9	1.0203								
0.1211	3.33	746.92	231.91	2487.4	1.0309								
0.1525	3.59	754.02	211.14	2553.8	1.0408								
0.1953	3.95	766.38	186.08	2640.4	1.0578								
0.2375	4.22	775.19	169.88	2696.7	1.0700								
0.2801	4.57	778.55	150.63	2746.6	1.0746								
0.3230	4.91	778.53	133.81	2783.1	1.0746								
0.3648	5.18	772.05	121.07	2796.6	1.0656								
0.4084	5.49	759.22	108.09	2796.9	1.0479								
0.4512	5.67	745.02	100.35	2783.0	1.0283								
0.4921	5.79	732.98	95.18	2768.1	1.0117								
0.5347	5.84	726.40	92.78	2759.0	1.0026								
0.5775	5.86	723.12	91.79	2754.0	0.9981								
0.6305	5.87	722.03	91.60	2752.1	0.9966								
0.6837	5.86	717.70	91.18	2743.5	0.9906								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.5141	0.2501	33.68	138628.	3232207.	65.	1455.	455.10	0.882	0.31740	0.135			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(M ),	DELTA STAR(2),	THETA STAR(2),	THETA STAR(2),	THETA(2),	THETA(2),	THETA(2),	THETA(2),	PTIMAX,		
-0.1734	-0.004	0.2542	0.2542	0.2526	0.00008	0.00735	0.00731	34.58	5.83	13215.9			
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	9.6	9.61	0.012	5.817	0.001	0.001				
0.0100	0.01945	0.50046	0.01497	24.6	9.61	0.012	5.817	0.002	0.002				
0.0207	0.04024	0.50904	0.01517	25.2	9.61	0.012	5.817	0.002	0.002				
0.0356	0.06922	0.55544	0.01718	30.6	9.61	0.012	5.817	0.003	0.003				
0.0571	0.11102	0.73921	0.03064	96.0	9.61	0.012	5.817	0.008	0.007				
0.0674	0.13108	0.83289	0.04443	244.0	9.61	0.012	5.817	0.020	0.018				
0.0886	0.17237	0.86870	0.05172	373.3	9.61	0.012	5.817	0.031	0.028				
0.1211	0.23555	0.90039	0.06006	576.2	9.61	0.012	5.817	0.048	0.044				
0.1525	0.29662	0.92444	0.06773	827.1	9.61	0.012	5.817	0.069	0.063				
0.1953	0.37987	0.95576	0.07945	1362.4	9.61	0.012	5.817	0.114	0.103				
0.2375	0.46195	0.97614	0.08889	1950.6	9.61	0.012	5.817	0.163	0.148				
0.2801	0.54481	0.99420	0.10210	3016.6	9.61	0.012	5.817	0.252	0.228				
0.3230	0.62825	1.00741	0.11646	4564.9	9.61	0.012	5.817	0.381	0.345				
0.3648	0.70956	1.01229	0.12933	6292.3	9.61	0.012	5.817	0.525	0.476				
0.4084	0.79436	1.01241	0.14489	8825.7	9.61	0.012	5.817	0.736	0.668				
0.4512	0.87761	1.00738	0.15529	10715.1	9.61	0.012	5.817	0.893	0.811				
0.4921	0.95716	1.00199	0.16285	12180.9	9.61	0.012	5.817	1.016	0.922				
0.5141	1.00000	1.00000	0.16528	12555.1	9.61	0.012	5.817	1.076	0.976				
0.5347	1.04002	0.99871	0.16651	12904.7	9.61	0.012	5.817	1.100	0.998				
0.5775	1.12327	0.99690	0.16800	13188.5	9.61	0.012	5.817	1.102	1.000				
0.6305	1.22636	0.99619	0.16824	13215.9	9.61	0.012	5.817	1.096	0.995				
0.6837	1.32783	0.99309	0.16848	13148.0	9.61	0.012	5.817						

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TIO  
 5. 6. 10. 1. 306. 142. 8.50 12005.30 728.50 641.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ATIO
0.	0.	641.00	641.00	0.	0.8799
0.0100	1.00	665.58	554.18	1156.9	0.9136
0.0161	0.97	672.21	565.23	1133.7	0.9227
0.0263	1.35	689.10	505.53	1485.1	0.9459
0.0366	2.39	711.81	332.06	2135.9	0.9771
0.0472	2.75	721.67	287.85	2282.9	0.9906
0.0687	2.99	732.71	263.18	2375.0	1.0058
0.0903	3.19	738.97	243.47	2439.9	1.0144
0.1106	3.34	746.06	230.51	2488.7	1.0241
0.1425	3.56	755.66	213.97	2551.0	1.0373
0.1744	3.82	769.43	196.64	2623.3	1.0562
0.2066	4.07	779.71	180.85	2682.3	1.0703
0.2382	4.33	786.56	165.65	2731.2	1.0797
0.2809	4.62	788.96	149.86	2770.9	1.0830
0.3125	4.83	781.43	137.92	2780.5	1.0727
0.3448	5.03	772.31	127.34	2783.6	1.0601
0.3872	5.20	755.52	117.86	2767.8	1.0371
0.4291	5.30	740.72	111.86	2748.6	1.0168
0.4722	5.31	731.15	110.29	2731.1	1.0036
0.5144	5.33	727.05	108.90	2725.1	0.9980
0.5572	5.35	726.19	107.85	2725.6	0.9968
0.6003	5.39	677.05	99.31	2634.5	0.9294

DELTA STAR H RSR RS DELTA RTHEIA R RTHEIA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4036 0.1455 13.24 436234. 5521625. 198. 2377. 462.74 0.857 0.34724 0.368

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(1), THETA STAR(2), THETA(W), HI(W), M(E), PTIMAX, M(E), PTIMAX,  
 -0.1363 -0.038 0.1836 0.1598 0.00079 0.01020 0.00892 17.91 5.25 12202.1

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M' PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	20.2	20.16	0.022	5.075	0.002	0.002
0.0100	0.02478	0.41904	0.02442	39.1	20.08	0.022	5.077	0.003	0.003
0.0161	0.03992	0.41066	0.02342	36.8	20.04	0.022	5.078	0.005	0.005
0.0263	0.06506	0.53792	0.03427	59.2	20.02	0.022	5.080	0.024	0.024
0.0366	0.09073	0.77369	0.07480	287.8	19.96	0.022	5.084	0.041	0.041
0.0472	0.11707	0.82694	0.09186	496.0	19.88	0.022	5.087	0.059	0.058
0.0687	0.17019	0.86030	0.10410	712.8	19.80	0.021	5.095	0.080	0.078
0.0903	0.22376	0.88377	0.11454	955.6	19.62	0.021	5.102	0.099	0.097
0.1106	0.27403	0.90148	0.12251	1188.0	19.47	0.021	5.113	0.132	0.130
0.1425	0.35307	0.92404	0.13346	1590.3	19.21	0.021	5.127	0.187	0.184
0.1744	0.43210	0.95021	0.14699	2241.0	18.91	0.021	5.140	0.258	0.254
0.2066	0.51189	0.97158	0.16097	3099.4	18.63	0.020	5.175	0.356	0.350
0.2382	0.59018	0.98931	0.17604	4274.6	18.32	0.020	5.190	0.499	0.491
0.2809	0.69598	1.00370	0.19287	5993.5	17.90	0.020	5.206	0.635	0.624
0.3125	0.77427	1.00715	0.20673	7619.2	17.60	0.020	5.231	0.791	0.778
0.3448	0.85430	1.00829	0.22006	9492.7	17.28	0.019	5.256	0.933	0.918
0.3872	0.95935	1.00257	0.22978	11199.4	16.79	0.019	5.267	1.000	0.992
0.4036	1.00000	1.00000	0.23201	11592.0	16.61	0.019	5.292	1.005	0.988
0.4291	1.06317	0.99563	0.23360	12202.1	16.33	0.019			
0.4722	1.16995	0.98927	0.23270	12098.9	16.13	0.018			
0.5144	1.27451	0.98711	0.22870	12060.9	15.68				

---

HYPersonic BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTC,	PTI/PTLMAX
0.5572	1.38055	0.98726	0.22353	12024.7	15.18	0.018	5.321	1.002	0.985
0.6003	1.48734	0.95429	0.22560	12074.2	14.60	0.018	5.356	1.006	0.990

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NUN COOLEY  
 MODEL MACH NO. DAY TEST RUN X PTE YTD TW GEN. CYL.  
 5. 6. 10. 1. 306. 143. 14.00 12000.40 729.00 645.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	645.00	645.00	0.	0.8848
0.0100	1.50	680.06	469.65	1589.9	0.9329
0.0142	1.71	690.00	435.21	1749.6	0.9465
0.0213	2.39	708.48	330.00	2132.4	0.9718
0.0317	2.76	724.40	287.59	2290.8	0.9937
0.0424	2.90	735.81	274.14	2355.1	1.0093
0.0524	3.01	743.96	264.09	2401.0	1.0205
0.0638	3.17	749.10	248.68	2451.9	1.0276
0.0844	3.33	758.27	235.64	2505.8	1.0402
0.1058	3.50	767.30	222.26	2558.9	1.0525
0.1269	3.63	774.00	212.93	2596.3	1.0617
0.1487	3.76	781.86	204.15	2634.5	1.0725
0.1799	3.96	790.86	191.32	2683.8	1.0849
0.2228	4.21	794.56	174.94	2728.4	1.0899
0.2542	4.38	789.51	163.31	2742.8	1.0830
0.2867	4.52	776.91	152.53	2738.8	1.0657
0.3181	4.63	762.13	144.14	2724.8	1.0455
0.3502	4.71	749.55	138.09	2710.4	1.0282
0.3822	4.75	741.26	134.37	2700.2	1.0168
0.4140	4.78	735.17	132.00	2691.9	1.0085
0.4454	4.80	732.27	130.48	2688.8	1.0045
0.4808	4.83	706.97	124.92	2644.4	0.9698

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3361 0.0802 8.96 1038007. 8696316. 299. 2502. 474.97 0.857 0.4472 0.326

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.1453 -0.035 0.1148 0.0976 0.076 0.0976 0.00110 0.00785 0.00672 14.51 4.68 12491.4

Y	Y/DELTA	U/(UDELTA)	RHO * U	PT1	PI1	RHO U PRIME	M' PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	41.9	41.90	0.035	4.487	0.003	0.003
0.0100	0.02975	0.58524	0.08216	152.2	41.65	0.035	4.489	0.013	0.012
0.0142	0.04227	0.64402	0.09737	208.6	41.57	0.035	4.492	0.017	0.017
0.0213	0.06334	0.78491	0.15587	600.3	41.40	0.035	4.495	0.050	0.048
0.0317	0.09425	0.84323	0.19157	1046.9	41.27	0.035	4.499	0.087	0.084
0.0424	0.12623	0.86690	0.20556	1301.0	41.07	0.035	4.503	0.108	0.104
0.0524	0.15597	0.88382	0.21643	1532.9	40.86	0.035	4.508	0.128	0.123
0.0638	0.18983	0.90255	0.23328	1926.4	40.60	0.034	4.516	0.161	0.154
0.0844	0.25117	0.92236	0.24899	2402.1	40.19	0.034	4.526	0.200	0.192
0.1058	0.31475	0.94193	0.26621	3033.8	39.68	0.034	4.537	0.253	0.243
0.1269	0.37752	0.95567	0.27805	3583.9	39.14	0.034	4.550	0.299	0.287
0.1487	0.44237	0.96974	0.28955	4233.1	38.51	0.033	4.566	0.353	0.339
0.1799	0.53519	0.98789	0.30860	5422.2	37.76	0.033	4.592	0.452	0.434
0.2228	0.66281	1.00430	0.33242	7304.1	36.59	0.032	4.614	0.609	0.585
0.2542	0.75622	1.00962	0.34855	8848.3	35.62	0.032	4.636	0.737	0.708
0.2867	0.85291	1.00815	0.36257	10334.8	34.65	0.031	4.658	0.861	0.827
0.3181	0.94632	1.00298	0.37155	11466.3	33.73	0.031	4.684	0.955	0.918
0.3361	1.00000	1.00000	0.37368	11866.8	33.16	0.030	4.710	1.015	0.975
0.3502	1.04182	0.99767	0.37380	12178.7	32.68	0.029	4.739	1.041	1.000
0.3822	1.13701	0.99393	0.37092	12491.4	31.08	0.029	4.739	1.041	1.000
0.4140	1.23162	0.99088	0.36348	12471.9	30.59	0.029	4.739	1.039	0.998

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PYE	PTI/PTIMAX
0.4454	1.32503	0.98974	0.35571	12403.9	29.63	0.028	4.765	1.034	0.993
0.4888	1.45414	0.97338	0.34938	12214.3	28.33	0.027	4.803	1.018	0.978

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH 7. 14. 1.306. 144. 17.00 12012.50 726.00 635.00  
 MD. DAY TEST RUN X PTE TT0 TW GEN. CYL.  
 5. 7. 14. 1.306. 144. 17.00 12012.50 726.00 635.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	635.00	635.00	0.	0.8747						
0.0100	1.93	686.55	393.72	1875.6	0.9457						
0.0129	1.91	695.75	401.60	1879.9	0.9583						
0.0175	1.87	707.82	415.75	1873.2	0.9750						
0.0220	1.92	719.61	414.67	1914.0	0.9912						
0.0283	2.29	735.89	359.89	2125.4	1.0136						
0.0334	2.49	749.59	335.00	2231.8	1.0325						
0.0433	2.60	760.66	323.80	2291.0	1.0477						
0.0535	2.74	768.67	307.83	2353.0	1.0588						
0.0653	2.83	771.16	296.91	2387.0	1.0622						
0.0791	2.95	773.74	282.54	2429.2	1.0658						
0.0959	3.03	777.20	274.01	2458.7	1.0705						
0.1178	3.12	781.74	265.83	2489.6	1.0768						
0.1388	3.24	785.31	253.79	2527.0	1.0817						
0.1603	3.30	787.78	247.54	2547.6	1.0851						
0.1821	3.42	786.09	235.59	2571.7	1.0828						
0.2122	3.58	779.34	218.88	2594.9	1.0735						
0.2444	3.75	766.37	200.80	2606.7	1.0556						
0.2766	3.92	752.38	184.96	2610.9	1.0363						
0.3088	4.08	740.53	171.07	2615.6	1.0200						
0.3390	4.13	733.64	166.29	2610.8	1.0105						

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.2947	0.0367	2.94	2876776.	12750883.	1050.	4654.	482.53	0.834	0.47805	0.290

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	H(W),	M(E),	PTI MAX,
-0.1275	-0.064	0.1005	0.0757	0.00332	0.00919	0.00707	10.71	4.01	11915.4

  

Y	Y/DELTA	U/(U(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTI MAX
0.	0.	0.	112.7	112.72				
0.0100	0.03393	0.71767	0.31133	112.16	0.071	3.700	0.009	0.009
0.0129	0.04373	0.71929	0.30586	112.14	0.071	3.700	0.065	0.066
0.0175	0.05934	0.71674	0.29416	112.05	0.071	3.700	0.064	0.064
0.0220	0.07468	0.73236	0.30103	111.93	0.071	3.701	0.060	0.061
0.0283	0.09588	0.81323	0.38401	111.60	0.071	3.703	0.064	0.065
0.0334	0.1197	0.85394	0.43273	111.48	0.071	3.704	0.114	0.115
0.0433	0.14677	0.87658	0.45727	111.48	0.071	3.704	0.156	0.157
0.0535	0.18168	0.90030	0.49150	110.36	0.070	3.708	0.183	0.185
0.0633	0.22158	0.91332	0.51326	110.36	0.070	3.711	0.226	0.228
0.0791	0.26834	0.92949	0.54269	109.57	0.070	3.716	0.258	0.260
0.0959	0.32554	0.94077	0.55989	108.33	0.069	3.725	0.306	0.309
0.1178	0.39967	0.95258	0.57203	107.00	0.069	3.733	0.343	0.345
0.1388	0.47092	0.96689	0.59181	104.83	0.068	3.749	0.381	0.384
0.1603	0.54387	0.97479	0.59348	102.01	0.067	3.768	0.443	0.446
0.1821	0.61783	0.98400	0.60867	98.97	0.065	3.790	0.474	0.478
0.2122	0.71995	0.99287	0.62603	95.70	0.064	3.815	0.541	0.545
0.2444	0.82945	0.99739	0.63945	90.63	0.062	3.855	0.643	0.648
0.2766	0.93845	0.99901	0.63972	84.54	0.059	3.906	0.764	0.771
0.2947	1.00000	1.00000	0.63487	77.78	0.056	3.968	0.879	0.886
0.3088	1.04770	1.00081	0.62862	73.77				0.950
0.3390	1.15016	0.99895	0.60431	70.56	0.052	4.041	0.991	0.999
				66.06	0.050	4.091	0.992	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PIE TTC MW GEN. CYL.  
 5. 7. 14. 1.306. 145. 18.00 12041.57 723.50 643.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTO
0.	0.	643.00	643.00	0.	0.8887
0.0100	1.98	698.04	391.89	1917.8	0.9648
0.0124	1.97	707.31	397.72	1928.5	0.9776
0.0171	1.94	722.59	412.52	1930.0	0.9987
0.0211	1.92	733.82	422.85	1932.9	1.0143
0.0276	2.16	751.80	388.17	2090.1	1.0391
0.0358	2.30	768.08	373.40	2177.5	1.0616
0.0447	2.40	779.04	361.58	2239.5	1.0768
0.0549	2.49	782.80	349.14	2282.5	1.0820
0.0655	2.58	781.38	335.03	2315.7	1.0800
0.0786	2.66	781.96	323.18	2347.7	1.0808
0.0914	2.77	782.63	309.30	2384.6	1.0817
0.1060	2.87	782.30	294.90	2419.8	1.0813
0.1234	3.01	781.12	277.21	2460.2	1.0796
0.1445	3.26	776.31	247.86	2519.7	1.0730
0.1656	3.42	766.72	229.74	2539.9	1.0597
0.1876	3.48	749.36	219.17	2523.8	1.0357
0.2078	3.51	742.22	214.56	2517.8	1.0259
0.2300	3.52	739.18	212.10	2516.4	1.0217
0.2506	3.53	739.21	211.50	2517.9	1.0217

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOVER.FACT. RECOVER.TEMP. TOT.PRESS.RECOV. CT  
 0.1854 0.0065 0.51 7220829. 18184411. 2497. 6289. 503.20 0.840 0.54214 0.239

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA STAR(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.1002 -0.053 0.0597 0.0397 0.00421 0.00857 0.00595 6.67 3.47 12062.3

Y	Y/DELTA	U/(UIDELTA)	RHO * U	PTI	PLI	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	292.9	292.90	0.131	0.024	0.024	0.024
0.0100	0.05393	0.75955	0.82934	2193.8	290.85	0.130	0.182	0.182	0.182
0.0124	0.06698	0.76380	0.81926	2175.0	289.97	0.130	0.181	0.180	0.180
0.0171	0.09243	0.76439	0.78568	2050.1	288.21	0.130	0.170	0.170	0.170
0.0211	0.11368	0.76550	0.76449	1976.3	287.04	0.129	0.164	0.164	0.164
0.0276	0.14901	0.82778	0.88950	2866.5	283.52	0.127	0.238	0.238	0.238
0.0358	0.19285	0.86240	0.94943	3488.0	279.42	0.126	0.290	0.289	0.289
0.0447	0.24101	0.88694	0.99358	4042.0	275.32	0.124	0.336	0.335	0.335
0.0549	0.29634	0.90398	1.02196	4527.7	268.29	0.124	0.376	0.375	0.375
0.0655	0.35345	0.91712	1.05101	5056.3	260.97	0.122	0.420	0.419	0.419
0.0786	0.42367	0.92980	1.06618	5550.3	251.89	0.119	0.461	0.460	0.460
0.0914	0.49291	0.94443	1.08549	6227.1	241.64	0.116	0.517	0.516	0.516
0.1060	0.57165	0.95836	1.08525	6901.7	226.99	0.111	0.573	0.572	0.572
0.1234	0.66548	0.97436	1.06438	7723.0	205.91	0.105	0.641	0.640	0.640
0.1445	0.77927	0.99790	1.04958	8635.5	177.20	0.095	0.799	0.799	0.799
0.1656	0.89307	1.00593	1.03772	10940.0	161.09	0.089	0.907	0.907	0.907
0.1854	1.00000	1.00000	1.04498	11459.2	156.23	0.087	0.950	0.950	0.950
0.2078	1.01171	0.99955	1.04548	11516.0	155.18	0.086	0.979	0.978	0.978
0.2300	1.12065	0.99716	1.04732	11792.8	153.18	0.086	0.996	0.994	0.994
0.2506	1.24037	0.99661	1.04880	11988.3	151.72	0.086	0.996	0.994	0.994
0.2506	1.35146	0.99721	1.04831	12062.3	151.13	0.086	0.996	1.002	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 6. 4. 10. 8. 306. 170. -0.50 10470.82 583.00 529.50 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.0100	0.17	529.50	529.50	0.	0.9082
0.0200	1.17	537.59	421.42	1181.4	0.9221
0.0280	1.62	543.65	356.98	1497.5	0.9325
0.0370	1.83	548.53	328.15	1627.2	0.9409
0.0530	2.14	554.48	316.68	1690.2	0.9511
0.0710	2.29	566.37	295.60	1803.6	0.9715
0.0870	2.45	572.85	278.99	1878.9	0.9826
0.1030	2.58	574.61	261.09	1940.7	0.9856
0.1220	2.75	575.20	247.13	1985.3	0.9866
0.1380	2.87	578.01	230.05	2044.6	0.9914
0.1530	3.03	579.60	218.76	2082.1	0.9942
0.1710	3.15	580.92	204.72	2126.0	0.9964
0.1890	3.30	581.50	194.80	2155.4	0.9974
0.2060	3.42	581.65	182.71	2189.2	0.9977
0.2220	3.53	581.89	174.54	2212.2	0.9981
0.2390	3.60	581.33	166.50	2232.4	0.9971
0.2700	3.70	580.12	161.41	2242.8	0.9951
0.3050	3.77	579.39	154.73	2258.7	0.9938
0.3390	3.82	579.12	150.80	2268.4	0.9933
0.3730	3.86	581.80	148.33	2282.0	0.9979
0.4060	3.89	586.60	147.24	2297.5	1.0062
0.4390	3.91	592.28	147.02	2312.8	1.0159
0.5000	3.92	596.53	147.08	2323.7	1.0232
0.5080	3.92	597.35	146.83	2326.5	1.0246
0.5760	3.92	596.65	146.75	2324.9	1.0234
0.6410	3.92	683.20	167.75	2488.5	1.1719
		323.69	79.41	1713.1	0.5552

DELTA DELTA STAR H RSR RS DELTA RTMETHA R RTMETHA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3973 0.1241 6.47 1108327. 7700081. 1288. 8947. 396.77 0.877 0.47200 0.102

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M ), THETA STAR(1), THETA STAR(2), THETA(M), H(M), M(IE), PTIMAX,  
 0.0217 -0.000 0.1244 0.1243 0.00002 0.01915 0.01914 6.50 3.08 9795.6

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME, M PRIME	PTI/PTIE, PTI/PTIMAX
0.0100	0.02517	0.51170	71.6	71.64	0.007	0.007
0.0200	0.05034	0.64862	168.0	71.64	0.016	0.017
0.0280	0.07047	0.70478	312.2	71.64	0.030	0.032
0.0370	0.09312	0.73210	432.6	71.64	0.041	0.044
0.0530	0.13339	0.78120	508.9	71.64	0.049	0.052
0.0710	0.17869	0.81382	697.5	71.64	0.060	0.071
0.0870	0.21896	0.84060	888.7	71.64	0.060	0.085
0.1030	0.25923	0.85990	1132.8	71.64	0.060	0.091
0.1220	0.30704	0.88557	1378.2	71.64	0.060	0.116
0.1380	0.34731	0.90182	1601.1	71.64	0.060	0.132
0.1530	0.38506	0.92083	2168.8	71.64	0.060	0.141
0.1710	0.43036	0.93357	2757.8	71.64	0.060	0.172
0.1890	0.47567	0.94823	3292.0	71.64	0.060	0.207
0.2060	0.51845	0.9581d	4123.7	71.64	0.060	0.221
			4847.4	71.64	0.060	0.263
				71.64	0.060	0.314
				71.64	0.060	0.394
				71.64	0.060	0.421
				71.64	0.060	0.463

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.2220	0.55872	0.96694	0.55966	5697.1	71.64	0.060	3.884	0.544	0.582
0.2390	0.60150	0.97144	0.57999	6304.7	71.64	0.060	3.884	0.602	0.644
0.2700	0.67952	0.97832	0.60935	7278.6	71.64	0.060	3.884	0.695	0.743
0.3050	0.76761	0.98253	0.62790	7951.0	71.64	0.060	3.884	0.759	0.812
0.3390	0.85318	0.98842	0.64220	8562.1	71.64	0.060	3.884	0.818	0.874
0.3730	0.93875	0.99511	0.65132	9041.6	71.64	0.060	3.884	0.864	0.923
0.3973	1.00000	1.00000	0.65558	9305.9	71.64	0.060	3.884	0.898	0.950
0.4060	1.02180	1.00176	0.65664	9399.9	71.64	0.060	3.884	0.919	0.960
0.4390	1.10485	1.00647	0.65949	9626.2	71.64	0.060	3.884	0.929	0.983
0.5000	1.25838	1.00767	0.66139	9730.2	71.64	0.060	3.884	0.927	0.993
0.5080	1.27851	1.00699	0.66130	9709.3	71.64	0.060	3.884	0.933	0.991
0.5760	1.44965	1.07785	0.61921	9766.8	71.64	0.060	3.884	0.933	0.997
0.6410	1.61324	0.74200	0.90048	9795.6	71.64	0.060	3.884	0.936	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
MODEL MACH MO. DAY TEST RUN X PTE TT0 TT10  
6. 4. 10. 8. 306. 171. 8.50 10470.82 582.50 528.50  
GEN. CYL. 17.00

Table with columns: Y, MACH, TOT. TEMP., STAT. TEMP., VELOCITY, TT/TT0. Rows include values for Y from 0. to 0.6400.

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
0.3640 0.0790 4.43 2424765. 13616199. 1694. 9315. 403.35 0.872 0.52628 0.167

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), DELTA STAR(W 2), THETA PRIME, THETA(2), THETA(W), H(W), MIE), PTIMAX,  
-0.0252 -0.010 0.0888 0.0854 0.00056 0.01727 0.01666 5.13 3.70 10495.8

Table with columns: Y, Y/DELTA U/(U(DELTA) RHO \* U, P1, RHO U PRIME, M PRIME, PTI/PTE, PII/PTIMAX. Rows include values for Y from 0. to 0.2040.

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/Delta	U/U(Delta)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.2200	0.60441	0.96133	0.75137	6835.7	102.13	0.072	3.676	0.653	0.651
0.2380	0.55386	0.96677	0.76111	7191.4	101.77	0.072	3.678	0.687	0.685
0.2710	0.74452	0.97940	0.78234	8024.2	101.14	0.072	3.683	0.766	0.765
0.3030	0.83243	0.98929	0.79842	8749.3	100.46	0.072	3.688	0.836	0.834
0.3370	0.92584	0.99702	0.81598	9544.4	99.67	0.071	3.693	0.912	0.909
0.3640	1.00000	1.00000	0.82513	9971.0	99.06	0.071	3.699	0.963	0.950
0.3710	1.01925	1.00028	0.82693	10081.8	98.88	0.071	3.705	0.988	0.985
0.4000	1.09892	0.99928	0.83187	10340.1	98.10	0.071	3.706	0.988	0.986
0.4050	1.11266	0.99861	0.83185	10347.7	97.94	0.070	3.712	1.002	1.000
0.4380	1.20332	0.99522	0.83489	10495.8	97.10	0.070	3.729	1.000	0.998
0.5060	1.39013	0.99451	0.82250	10470.9	94.79	0.069	3.747	1.000	0.995
0.5720	1.57146	0.97029	0.82973	10440.4	92.54	0.068	3.768	1.002	1.000
0.6400	1.75827	0.96639	0.81982	10494.5	89.87	0.067	3.768	1.002	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TCST RUN X PTE TT0 TT1  
 6. 4. 10. 8. 306. 172. 14.00 10472.69 583.00 530.40 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	530.40	530.40	C.	0.9078
0.0100	1.92	555.12	334.25	1629.0	0.9522
0.0200	2.10	570.74	302.83	1794.0	0.9790
0.0270	2.19	581.50	297.45	1847.3	0.9974
0.0340	2.35	590.36	281.11	1927.5	1.0126
0.0520	2.54	589.70	257.71	1997.1	1.0115
0.0700	2.66	588.84	243.61	2036.6	1.0100
0.0840	2.74	586.83	234.37	2057.8	1.0066
0.1040	2.83	583.71	224.71	2076.8	1.0012
0.1210	2.88	582.84	218.93	2090.9	0.9997
0.1360	2.93	582.91	214.32	2104.3	0.9998
0.1550	2.99	584.46	209.81	2121.6	1.0025
0.1700	3.04	590.86	206.51	2138.0	1.0069
0.1860	3.09	590.86	202.98	2158.7	1.0135
0.2050	3.15	595.53	199.44	2181.4	1.0215
0.2200	3.20	598.92	196.11	2199.8	1.0273
0.2440	3.29	603.32	190.53	2226.9	1.0349
0.2780	3.38	605.73	184.69	2249.1	1.0390
0.3000	3.42	605.41	181.50	2256.7	1.0384
0.3120	3.44	602.93	179.23	2256.2	1.0342
0.3450	3.48	594.77	173.99	2248.4	1.0202
0.3800	3.49	591.56	171.91	2245.4	1.0147
0.4130	3.50	591.62	171.18	2247.5	1.0148
0.4470	3.51	590.90	170.79	2246.6	1.0136
0.5140	3.53	590.75	169.27	2250.2	1.0133
0.5970	3.54	589.08	167.82	2249.7	1.0104

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3109 0.0396 2.32 4810347. 19068585. 2619. 10381. 411.54 0.870 0.56995 0.160

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), M(W), MIC), PTIMAX,  
 -0.0525 -0.030 0.0693 0.06C1 0.00221 0.01483 0.01304 4.61 3.44 10555.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	179.3	179.28	0.	0.	0.017	0.017
0.0100	0.03217	0.72194	0.50908	1058.3	179.28	0.104	3.284	0.101	0.100
0.0200	0.06433	0.79510	0.61822	1646.0	174.10	0.104	3.285	0.157	0.156
0.0270	0.08685	0.81871	0.64668	1867.0	178.71	0.104	3.287	0.178	0.177
0.0340	0.10937	0.85426	0.71233	2393.3	178.29	0.104	3.288	0.229	0.227
0.0520	0.16277	0.88510	0.80019	3211.8	177.22	0.104	3.292	0.307	0.304
0.0700	0.22517	0.90258	0.85713	3863.7	175.96	0.103	3.297	0.369	0.366
0.0840	0.27020	0.91198	0.89375	4339.4	174.71	0.103	3.302	0.414	0.411
0.1040	0.33453	0.92040	0.93064	4882.3	172.93	0.102	3.310	0.466	0.463
0.1210	0.38922	0.92667	0.95074	5259.6	170.95	0.101	3.318	0.502	0.498
0.1360	0.43747	0.93262	0.96721	5610.0	169.06	0.100	3.325	0.536	0.531
0.1550	0.49858	0.94026	0.98182	6012.6	166.64	0.100	3.335	0.574	0.570
0.1700	0.54683	0.94755	0.99279	6372.5	164.58	0.099	3.343	0.608	0.604
0.1860	0.59230	0.95670	1.00537	6827.7	162.25	0.099	3.353	0.652	0.647
0.2050	0.65942	0.96678	1.01686	7340.4	159.56	0.097	3.365	0.701	0.695
0.2200	0.70767	0.97495	1.02645	7817.2	157.05	0.096	3.376	0.746	0.741

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLFD.

Y	Y/DELTA	U/U(Delta)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.2440	0.78487	0.98696	1.04269	8650.6	153.11	0.094	3.393	0.626	0.620
0.2780	0.89423	0.99676	1.05070	9460.5	148.09	0.092	3.417	0.903	0.896
0.3000	0.96500	1.00015	1.05331	9854.3	145.40	0.091	3.429	0.941	0.934
0.3109	1.00000	1.00000	1.05506	10028.1	144.02				0.950
0.3120	1.00360	0.99992	1.05526	10046.0	143.87	0.090	3.437	0.959	0.952
0.3450	1.10975	0.99646	1.05966	10394.2	140.73	0.089	3.452	0.993	0.985
0.3600	1.22233	0.99512	1.05465	10475.0	138.58	0.088	3.463	1.000	0.992
0.4130	1.32848	0.99605	1.05056	10539.6	137.33	0.088	3.469	1.006	0.998
0.4470	1.43785	0.99567	1.04431	10496.5	136.25	0.087	3.475	1.002	0.994
0.5140	1.65336	0.99728	1.02968	10555.9	132.94	0.086	3.492	1.008	1.000
0.5970	1.92035	0.99703	1.00683	10445.7	128.90	0.084	3.514	0.997	0.990

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD FM  
 6. 4. 10. 8. 306. 173. 17.00 10442.45 584.00 533.20 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	533.20	533.20	0.	0.9130
0.0100	1.62	563.83	370.08	1525.7	0.9655
0.0220	1.95	588.42	334.72	1745.8	1.0076
0.0300	2.11	600.01	318.09	1840.4	1.0274
0.0380	2.22	597.33	301.47	1885.3	1.0228
0.0560	2.37	595.24	280.80	1943.6	1.0193
0.0740	2.48	593.13	265.86	1982.9	1.0156
0.0880	2.54	592.26	258.80	2001.5	1.0141
0.1050	2.60	592.93	251.72	2024.6	1.0153
0.1210	2.67	594.23	244.79	2048.9	1.0175
0.1390	2.74	595.56	238.18	2072.1	1.0198
0.1570	2.82	597.02	230.84	2097.4	1.0223
0.1740	2.90	597.76	222.95	2122.0	1.0236
0.1890	2.98	597.96	215.65	2142.6	1.0239
0.2000	3.02	598.12	212.25	2153.1	1.0242
0.2060	3.04	598.22	210.37	2158.6	1.0243
0.2220	3.07	596.47	206.39	2164.8	1.0213
0.2390	3.09	593.57	203.69	2164.2	1.0164
0.3080	3.12	593.16	201.48	2169.2	1.0157

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2047 0.0170 1.22 9676607. 26349088. 3933. 10711. 423.66 0.864 0.59368 0.117

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(M), THETA(M), H(M), M(E), PTIMAX,  
 -0.0368 -0.030 0.0475 0.0387 0.00317 0.01083 0.00906 4.27 3.03 10592.4

Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	361.6	361.58	0.162	2.818	0.035	0.034
0.0100	0.04885	0.70716	0.86611	1573.9	360.57	0.162	2.820	0.151	0.149
0.0220	0.10746	0.80921	1.09228	2588.9	359.41	0.162	2.824	0.248	0.244
0.0300	0.14654	0.85303	1.20551	3296.3	357.61	0.161	2.827	0.316	0.311
0.0380	0.18562	0.87388	1.29651	3896.1	355.80	0.161	2.836	0.373	0.368
0.0560	0.27355	0.90089	1.41453	4864.3	350.74	0.158	2.848	0.466	0.459
0.0740	0.36147	0.91908	1.49750	5715.5	344.59	0.156	2.859	0.547	0.540
0.0880	0.42986	0.92773	1.52756	6146.1	338.98	0.154	2.875	0.589	0.580
0.1050	0.51290	0.93845	1.55050	6636.0	330.85	0.151	2.894	0.635	0.626
0.1210	0.59106	0.94970	1.56854	7168.0	321.63	0.148	2.917	0.686	0.677
0.1390	0.67898	0.96043	1.57260	7669.7	310.24	0.144	2.947	0.734	0.724
0.1570	0.76691	0.97219	1.57165	8259.8	296.86	0.139	2.979	0.791	0.780
0.1740	0.84995	0.98356	1.56805	8922.5	282.76	0.135	3.009	0.854	0.842
0.1890	0.92322	0.99311	1.56325	9564.6	270.28	0.133	3.025	0.916	0.903
0.2000	0.97695	0.99799	1.56019	9916.6	263.96	0.132	3.034	0.950	0.936
0.2047	1.00000	1.00000	1.55819	10062.8	261.25	0.130	3.051	0.967	0.954
0.2060	1.00626	1.00054	1.55758	10102.5	260.52	0.129	3.059	0.997	0.983
0.2220	1.08442	1.00341	1.55129	10415.7	253.83	0.125	3.092	1.014	1.000
0.2390	1.16746	1.00314	1.55239	10592.4	250.76	0.125	3.092	1.001	0.987
0.3080	1.50451	1.00347	1.49824	10456.8	238.83				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NGN COOLED  
 MODEL MACH NO. DAY TEST RUN X PIE TTD TM GEN. CYL.  
 6. 4. 10. 8. 306. 174. 18.00 10475.71 584.00 535.90 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	535.90	535.90	0.	0.9176					442.90	0.850	0.58705	0.079
0.0100	1.33	570.59	421.82	1336.9	0.9770			684.9	11827.				
0.0220	1.72	596.05	375.21	1628.8	1.0206								
0.0300	1.83	600.36	359.51	1701.0	1.0280								
0.0390	1.90	594.85	346.19	1728.4	1.0186								
0.0570	2.04	593.59	324.05	1799.5	1.0164								
0.0710	2.12	591.96	311.09	1836.9	1.0136								
0.0900	2.27	591.01	291.64	1896.5	1.0120								
0.1050	2.53	590.27	258.97	1995.0	1.0107								
0.1230	2.57	588.05	253.37	2005.2	1.0069								
0.1390	2.59	587.50	250.96	2010.8	1.0060								
0.1570	2.60	588.85	250.53	2016.1	1.0083								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.1027	0.0080	0.70	21249601.	36695042.	684.9	11827.	442.90	0.850	0.58705	0.079			
-0.0129	-0.022	0.0304	0.0235	0.00374	0.00772	0.00631	3.72	2.50	10506.4				
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX				
0.	0.	0.	0.	905.6	905.62	0.283	2.223	0.086	0.086				
0.0100	0.09733	0.67334	1.66395	2593.7	901.09	0.280	2.233	0.248	0.248				
0.0220	0.21413	0.82040	2.24258	4479.8	886.60	0.278	2.240	0.428	0.426				
0.0300	0.29200	0.85676	2.41682	5275.7	876.64	0.276	2.251	0.504	0.502				
0.0390	0.37960	0.87054	2.50535	5727.3	861.24	0.269	2.278	0.547	0.545				
0.0570	0.55479	0.90636	2.67237	6870.7	825.92	0.261	2.311	0.656	0.654				
0.0710	0.69106	0.92522	2.69832	7454.3	784.26	0.244	2.384	0.712	0.709				
0.0900	0.87599	0.95520	2.65242	8293.8	700.04	0.217	2.510	0.981	0.978				
0.1027	1.00000	1.00000	2.59087	9981.1	588.02	0.211	2.543	0.993	0.990				
0.1230	1.19718	1.00996	2.51816	10401.1	546.09	0.208	2.556	1.003	1.000				
0.1390	1.35292	1.01276	2.49865	10506.4	535.22	0.206	2.566	1.002	0.999				
0.1570	1.52811	1.01543	2.47131	10492.3	527.07								

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITG TW GEN. CYL.  
 6. 6. 10. 8. 306. 181. -0.50 24592.32 725.00 540.90 17.00

Y	MACH	TUT.T(IMP.	STAT.TEMP.	VFEGCIFY	YI/FTO
0.	0.	540.90	540.90	0.	0.7461
0.0100	1.01	539.70	448.52	1045.7	0.7444
0.0140	1.16	543.49	428.72	1174.2	0.7494
0.0210	1.60	560.72	370.17	1513.0	0.7734
0.0300	2.06	595.86	322.60	1811.9	0.8219
0.0350	2.51	689.11	305.57	2146.6	0.9505
0.0800	2.77	711.48	280.16	2276.4	0.9814
0.1050	3.24	713.77	257.46	2341.4	0.9845
0.1300	3.24	714.55	231.01	2415.2	0.9884
0.1560	3.42	723.34	216.52	2467.5	0.9977
0.1800	3.66	731.39	198.58	2530.0	1.0088
0.2050	3.87	738.90	185.05	2579.5	1.0192
0.2310	4.10	745.45	170.68	2627.8	1.0282
0.2550	4.27	749.69	161.62	2658.0	1.0341
0.2810	4.51	755.26	149.08	2698.6	1.0417
0.3070	4.70	761.84	140.69	2731.7	1.0508
0.3320	4.96	767.47	129.56	2768.4	1.0586
0.3660	5.24	768.34	118.25	2794.7	1.0598
0.3980	5.49	763.37	108.75	2800.7	1.0529
0.4340	5.69	753.71	100.82	2791.8	1.0292
0.4660	5.76	746.59	97.81	2782.6	1.0218
0.5000	5.79	740.78	94.76	2780.8	1.0199
0.5320	5.80	739.41	95.73	2781.2	1.0188
0.6000	5.83	738.66	94.83	2779.8	1.0179
0.6700	5.83	737.96	94.74	2778.2	1.0177
0.7070	5.80	737.83	95.36	2778.2	1.0177

DELTA DELTA STAR H RSR K5 DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4893 0.2398 17.05 330765. 5945372. 282. 5069. 409.53 0.707 0.30240 1.391

PHI, DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(W ), DELTA STAR(2), THETA(21), THETA(W), H(W), MIEI, PTIMAX,  
 -0.0440 -0.002 0.2421 0.2412 0.00004 0.01403 0.01398 17.25 5.78 24766.9

Y	Y/DELTA	L/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	18.9	18.78	0.013	5.778	0.001	0.001
0.0100	0.02044	0.37576	0.02453	35.9	18.78	0.013	5.778	0.001	0.001
0.0140	0.02861	0.42152	0.02997	43.1	18.78	0.013	5.778	0.002	0.002
0.0210	0.04292	0.54318	0.04472	80.3	18.78	0.013	5.778	0.003	0.003
0.0300	0.06131	0.65046	0.06145	160.8	18.78	0.013	5.778	0.007	0.006
0.0350	0.11240	0.77062	0.07685	323.4	18.78	0.013	5.778	0.013	0.013
0.0800	0.16349	0.81722	0.08890	490.2	18.78	0.013	5.778	0.020	0.020
0.1050	0.21459	0.84056	0.09750	666.2	18.78	0.013	5.778	0.027	0.027
0.1300	0.26567	0.86707	0.11439	987.0	18.78	0.013	5.778	0.040	0.040
0.1560	0.31880	0.88585	0.12469	1279.6	18.78	0.013	5.778	0.052	0.052
0.1800	0.36785	0.90829	0.13934	1800.4	18.78	0.013	5.778	0.073	0.073
0.2050	0.41893	0.92605	0.15252	2389.0	18.78	0.013	5.778	0.097	0.096
0.2310	0.47207	0.94337	0.16844	3269.2	18.78	0.013	5.778	0.133	0.132
0.2550	0.52111	0.95423	0.17904	4036.6	18.78	0.013	5.778	0.164	0.163
0.2810	0.57425	0.96604	0.19205	5495.5	18.78	0.013	5.778	0.223	0.222
0.3070	0.62739	0.98070	0.21743	6937.7	18.78	0.013	5.778	0.282	0.280

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(Delta)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTF,	PTI/PTIMAX
0.3320	0.67847	0.99384	0.23378	9499.9	18.78	0.013	5.778	0.386	0.384
0.3660	0.74795	1.00329	0.25858	13131.6	18.79	0.013	5.778	0.534	0.530
0.3980	0.81335	1.00677	0.28214	17207.3	18.78	0.013	5.778	0.700	0.695
0.4340	0.88692	1.00545	0.30394	21454.0	18.78	0.013	5.778	0.872	0.866
0.4660	0.95231	1.00227	0.31228	23068.7	18.78	0.013	5.778	0.938	0.931
0.4893	1.00000	1.00000	0.31556	23528.6	18.79	0.013	5.778	0.965	0.950
0.5000	1.02179	0.99897	0.31627	23738.7	18.78	0.013	5.778	0.978	0.971
0.5320	1.08719	0.99832	0.31782	24047.7	18.78	0.013	5.778	1.007	1.000
0.6000	1.22615	0.99844	0.32087	24766.9	18.78	0.013	5.778	1.007	1.000
0.6700	1.36920	0.99797	0.32103	24766.9	18.78	0.013	5.778	1.007	1.000
0.7070	1.44481	0.99738	0.31875	24191.2	18.78	0.013	5.778	0.984	0.977

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NEW COOLED  
 MODEL MACH HO. DAY TEST RUN X PTE PTO TM GEN. CYL.  
 6. 6. 10. 8. 306. 182. 8.50 24592.32 724.00 643.50 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	643.50	643.50	0.	0.8888
0.0100	1.04	655.31	540.07	1181.7	0.9065
0.0200	1.91	674.33	407.84	1789.3	0.9314
0.0320	1.98	687.30	385.05	1905.6	0.9493
0.0400	2.12	699.10	368.73	1992.2	0.9656
0.0650	2.35	719.48	341.51	2130.9	0.9938
0.0890	2.52	728.46	320.43	2214.0	1.0062
0.1170	2.73	737.27	295.73	2303.1	1.0183
0.1410	2.91	744.30	276.82	2369.9	1.0280
0.1660	3.09	751.18	257.74	2434.8	1.0375
0.1900	3.34	758.01	234.65	2507.5	1.0470
0.2150	3.58	764.14	214.73	2569.1	1.0554
0.2380	3.85	769.01	194.22	2627.8	1.0622
0.2580	4.04	772.76	181.32	2665.6	1.0673
0.2850	4.36	774.44	161.26	2714.2	1.0697
0.3100	4.65	772.66	145.30	2745.3	1.0672
0.3340	4.91	767.41	131.68	2763.6	1.0600
0.3850	5.26	749.55	114.77	2761.5	1.0353
0.4170	5.37	743.58	109.96	2759.0	1.0270
0.4200	5.37	743.25	109.93	2758.4	1.0266
0.4500	5.41	738.81	107.63	2753.7	1.0235
0.4850	5.44	740.99	106.99	2759.8	1.0235
0.5210	5.46	739.05	106.04	2757.7	1.0208

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4114 0.1968 12.87 772422. 10850193. 463. 6504. 461.16 0.869 0.26244 0.316

PHI, DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(W 1), THETA STAR(21), THETA(W 1), H(W 1), MIEI, PTILMAX,  
 -0.1078 -0.042 0.2390 0.2094 0.00069 0.01460 0.01285 16.29 5.36 24670.2

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PIE	PTI/PTILMAX
0.	0.	0.	0.	35.5	35.50	0.020	5.192	0.001	0.001
0.0100	0.02431	0.42815	0.04525	70.2	35.50	0.020	5.192	0.003	0.003
0.0200	0.05348	0.64828	0.09074	206.3	35.50	0.020	5.192	0.008	0.008
0.0320	0.07778	0.69042	0.10225	269.4	35.46	0.020	5.193	0.011	0.011
0.0400	0.09723	0.72181	0.11152	332.4	35.43	0.020	5.194	0.014	0.013
0.0650	0.15800	0.77208	0.12823	479.9	35.28	0.020	5.198	0.019	0.019
0.0890	0.21633	0.80218	0.14119	621.3	35.07	0.020	5.203	0.025	0.025
0.1170	0.28439	0.83447	0.15793	891.5	34.90	0.020	5.210	0.035	0.035
0.1410	0.34273	0.85864	0.17219	1100.3	34.52	0.020	5.217	0.045	0.045
0.1660	0.40350	0.88216	0.18825	1445.6	34.20	0.019	5.225	0.059	0.059
0.1900	0.46183	0.90851	0.21096	2053.0	33.88	0.019	5.233	0.083	0.083
0.2150	0.52260	0.93084	0.23360	2848.6	33.51	0.019	5.243	0.116	0.115
0.2380	0.57851	0.95210	0.26109	4091.1	33.12	0.019	5.254	0.166	0.166
0.2580	0.62712	0.96579	0.28064	5235.6	32.76	0.019	5.263	0.213	0.212
0.2850	0.69275	0.98338	0.31677	7840.4	32.30	0.019	5.276	0.319	0.318
0.3100	0.75352	0.99468	0.35013	11027.4	31.80	0.018	5.289	0.448	0.447
0.3340	0.81185	1.00129	0.38327	14975.4	31.34	0.018	5.302	0.609	0.607
0.3850	0.93582	1.00055	0.42473	21564.5	30.30	0.018	5.333	0.877	0.874
0.4114	1.00000	1.00000	0.43400	23436.7	29.74	0.018	5.353	0.950	0.950
0.4170	1.01360	0.99963	0.43331	23833.4	29.64	0.018	5.353	0.969	0.966

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/Delta	U/(U/Delta)	RMO * U	PTI	Pi	RMO U	PRIME	PTI/PTE	PTI/PTIMAX
0.4200	1.02089	0.99940	0.43256	23778.4	29.59	0.018	5.354	0.967	0.964
0.4500	1.09381	0.99771	0.43178	24544.5	28.96	0.017	5.373	0.998	0.995
0.4850	1.17889	0.99993	0.42413	24670.2	28.22	0.017	5.397	1.003	1.000
0.5210	1.26639	0.99915	0.41712	24604.2	27.53	0.017	5.419	1.000	0.997

HYPERSONIC BOUNDARY LAYER AFDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLFD  
 MODEL MACH MG. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 6. 6. 10. 8. 306. 183. 14.00 24573.60 725.00 653.70 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	653.70	653.70	0.	0.9017
0.0100	1.50	678.74	468.96	1587.5	0.9362
0.0170	1.92	692.79	398.00	1881.9	0.9556
0.0260	2.09	709.91	379.60	1992.1	0.9792
0.0350	2.20	725.55	368.01	2072.6	1.0008
0.0600	2.43	747.46	343.37	2203.3	1.0310
0.0850	2.62	753.96	317.52	2289.8	1.0399
0.1100	2.79	757.99	296.75	2354.0	1.0455
0.1360	3.00	764.09	272.41	2430.4	1.0539
0.1620	3.21	769.00	251.26	2491.6	1.0593
0.1860	3.43	771.19	230.29	2549.2	1.0637
0.2190	3.77	774.25	201.20	2623.8	1.0679
0.2460	4.05	770.44	190.14	2663.0	1.0627
0.2720	4.31	763.11	161.89	2687.6	1.0526
0.2950	4.52	756.08	148.80	2701.1	1.0429
0.3210	4.66	747.80	139.77	2702.7	1.0314
0.3500	4.80	742.36	132.36	2707.1	1.0240
0.3950	4.82	741.89	131.50	2708.0	1.0233
0.3880	4.91	738.41	126.64	2711.0	1.0185
0.4230	4.94	739.07	125.78	2714.4	1.0194
0.4560	4.96	737.72	124.46	2714.3	1.0175

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3664 0.1327 9.03 1750426. 16617377. 821. 7702. 472.25 0.880 0.31767 0.179

PHI, DELTA STAR PRIME, DELTA STAR(12), DELTA STAR(W ), THEIA PRIME, THEIA(2), THEIA(W), H(W), MIEI, PTIMAX,  
 -0.1161 -0.053 0.1858 0.1523 0.00125 0.01344 0.0112 13.69 4.86 24595.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	69.7	69.71	0.032	4.619	0.003	0.003
0.0100	0.02730	0.58602	0.13736	254.0	69.64	0.032	4.621	0.010	0.010
0.0170	0.04640	0.69467	0.19157	483.9	69.54	0.032	4.622	0.020	0.020
0.0260	0.07097	0.73534	0.21219	620.8	69.40	0.031	4.624	0.025	0.025
0.0350	0.09554	0.76505	0.22726	745.3	69.26	0.031	4.631	0.030	0.030
0.0600	0.16377	0.81333	0.25686	1045.6	68.70	0.031	4.639	0.043	0.043
0.0850	0.23201	0.84526	0.28560	1402.3	67.97	0.031	4.650	0.057	0.057
0.1100	0.30025	0.86894	0.31011	1787.1	67.10	0.030	4.664	0.073	0.073
0.1360	0.37122	0.89716	0.34301	2438.7	65.99	0.030	4.678	0.099	0.099
0.1620	0.44219	0.91973	0.37478	3238.3	64.87	0.030	4.692	0.132	0.132
0.1860	0.50770	0.94100	0.41095	4379.1	63.72	0.029	4.736	0.178	0.178
0.2190	0.59778	0.96855	0.47089	6927.1	61.97	0.029	4.758	0.282	0.282
0.2460	0.67148	0.98302	0.52030	9772.7	60.40	0.028	4.780	0.397	0.397
0.2720	0.74245	0.99207	0.56944	13386.7	58.87	0.028	4.805	0.544	0.544
0.2950	0.80523	0.99706	0.60644	16955.8	57.34	0.027	4.836	0.689	0.689
0.3210	0.87620	0.99768	0.62640	19695.4	55.59	0.026	4.840	0.801	0.801
0.3500	0.95535	0.99929	0.63883	22397.9	53.61	0.026	4.840	0.911	0.911
0.3950	0.96900	0.99961	0.63988	22747.3	53.33	0.026	4.840	0.925	0.925
0.3664	1.00000	1.00000	0.64097	23366.1	52.54	0.026	4.873	0.950	0.950
0.3880	1.05908	1.00075	0.63955	24545.4	51.27	0.025	4.896	0.998	0.998
0.4230	1.15461	1.00198	0.62759	24542.8	49.91	0.025	4.920	0.998	0.998
0.4560	1.24469	1.00195	0.61651	24595.9	48.52	0.025	4.920	1.001	1.001

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TTT  
 6. 10. 8. 306. 184. 17.00 24639.84 725.00 640.10 17.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO
0.	0.	640.10	640.10	0.	0.8829
0.0100	1.67	686.71	440.76	1719.0	0.9472
0.0200	2.00	722.29	400.72	1965.5	0.9963
0.0280	2.12	747.39	393.04	2063.3	1.0309
0.0380	2.18	755.28	386.95	2103.6	1.0418
0.0430	2.33	756.67	362.66	2175.7	1.0437
0.0870	2.44	757.57	345.89	2223.9	1.0449
0.1120	2.57	759.09	326.99	2278.4	1.0470
0.1370	2.74	761.40	304.28	2343.4	1.0502
0.1650	2.99	760.28	272.73	2420.2	1.0487
0.1890	3.23	757.35	245.42	2480.0	1.0446
0.2120	3.49	752.68	219.41	2531.1	1.0382
0.2370	3.78	747.02	193.93	2577.7	1.0304
0.2600	4.04	743.31	174.39	2614.4	1.0253
0.2640	4.08	742.78	171.73	2619.3	1.0245
0.2890	4.27	740.45	159.63	2641.6	1.0213
0.3140	4.38	739.47	153.09	2654.2	1.0200
0.3410	4.41	736.54	150.53	2653.3	1.0159

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2979 0.0624 2.69 5251938. 23227321. 3545. 15680. 476.45 0.851 0.32486 0.233

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA STAR(2), THETA(M), H(M), MIE), PTIMAX,  
 -0.0746 -0.110 0.1722 0.1107 0.00413 0.01911 0.01265 8.75 4.31 24638.9

Y	Y/DELTA	U/(UDELTA)	RHD * U	PTI	PI,	RHD U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	197.7	197.71	0.064	3.816	0.008	0.008
0.0100	0.03357	0.64927	0.44883	932.4	197.51	0.064	3.818	0.038	0.038
0.0200	0.06714	0.74240	0.56306	1549.0	197.02	0.063	3.821	0.063	0.063
0.0280	0.09400	0.77933	0.60052	1861.6	196.33	0.063	3.824	0.076	0.076
0.0380	0.12757	0.79456	0.61875	2029.5	195.34	0.062	3.838	0.082	0.082
0.0430	0.21150	0.82179	0.67037	2516.1	191.78	0.062	3.855	0.102	0.102
0.0870	0.29207	0.84001	0.70217	2914.4	187.43	0.060	3.878	0.118	0.118
0.1120	0.37600	0.86059	0.73766	3463.3	181.70	0.059	3.909	0.141	0.141
0.1370	0.45993	0.88515	0.78164	4317.1	174.18	0.056	3.953	0.175	0.175
0.1650	0.55393	0.91414	0.84848	5935.2	164.10	0.054	4.000	0.241	0.241
0.1890	0.63450	0.93672	0.90799	7961.3	154.22	0.051	4.056	0.323	0.323
0.2120	0.71172	0.95604	0.96214	10702.4	143.14	0.048	4.133	0.434	0.434
0.2370	0.79564	0.97365	1.00143	14504.9	129.30	0.045	4.212	0.589	0.589
0.2600	0.87286	0.98748	1.01896	18650.1	116.65	0.044	4.224	0.757	0.757
0.2640	0.88629	0.98933	1.02082	19330.1	114.87	0.042	4.288	0.785	0.785
0.2890	0.97022	0.99775	1.01985	22733.8	105.78	0.040	4.336	0.923	0.923
0.2979	1.00000	1.00000	1.01561	23407.0	103.28	0.040	4.371	0.950	0.950
0.3140	1.05415	1.00252	1.00460	24630.8	99.45	0.039	4.371	1.000	1.000
0.3410	1.14479	1.00220	0.97667	24638.9	95.10	0.039	4.371	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD  
 6. 10. 8. 306. 185. 18.00 24524.64 726.00 642.70 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TI/TTO
0.	0.	642.70	642.70	0.	0.8853
0.0100	1.56	696.76	469.13	1653.7	0.9597
0.0190	1.72	733.00	461.37	1806.5	1.0096
0.0280	1.79	756.87	460.27	1881.3	1.0398
0.0330	1.90	757.44	439.35	1954.8	1.0433
0.0800	2.12	750.50	395.52	2065.1	1.0337
0.1020	2.46	751.23	340.41	2221.6	1.0348
0.1290	2.95	748.76	273.19	2390.3	1.0313
0.1370	3.38	743.61	226.23	2493.1	1.0243
0.1780	3.65	739.33	202.14	2540.4	1.0184
0.1800	3.66	739.21	201.13	2542.5	1.0182
0.2040	3.89	735.58	182.66	2577.3	1.0132
0.2350	3.98	739.45	177.32	2598.7	1.0185

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1981 -0.0016 -0.05 17893297. 30308806. 15063. 25514. 489.28 0.845 0.38243 0.200

PMI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(2), THETA(M), H(M), MIE), PTIMAX,  
 -0.0439 -0.131 0.1291 0.0569 0.00831 0.02162 0.01033 5.51 3.80 24572.2

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTL	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	706.0	706.03	0.	0.	0.029	0.029
0.0100	0.05049	0.64464	1.43558	2790.6	698.97	0.145	2.937	0.114	0.114
0.0190	0.09592	0.70421	1.56567	3469.0	686.26	0.143	2.949	0.141	0.141
0.0280	0.14134	0.73337	1.59569	3785.2	670.02	0.141	2.965	0.154	0.154
0.0330	0.26758	0.76204	1.58511	4113.5	611.42	0.133	3.026	0.168	0.167
0.0800	0.40389	0.80502	1.57871	4883.7	518.93	0.120	3.136	0.199	0.199
0.1020	0.51496	0.86603	1.57057	6594.3	413.03	0.104	3.292	0.269	0.268
0.1290	0.65127	0.93178	1.60173	10709.1	314.18	0.087	3.482	0.437	0.436
0.1370	0.79263	0.97187	1.61390	16182.3	251.35	0.075	3.640	0.660	0.659
0.1780	0.89865	0.99031	1.60272	20480.5	218.87	0.068	3.740	0.835	0.833
0.1800	0.90875	0.99113	1.59910	20663.0	217.10	0.068	3.745	0.843	0.841
0.1981	1.00000	1.00000	1.55947	23343.6	197.63	0.062	3.854	1.000	0.998
0.2060	1.04001	1.00470	1.53818	24518.9	187.10	0.057	3.943	1.000	0.998
0.2350	1.18642	1.01304	1.41682	24572.2	165.92	0.057	3.943	1.002	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH 10. 4. 10. 22. 306. 236. -0.50 10368.00 583.00 528.00 17.00  
 TTD TM GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	528.00	528.00	0.	0.9057								
0.0100	0.87	576.97	500.58	958.0	0.9897								
0.0210	0.95	577.82	489.11	1032.3	0.9911								
0.0315	1.48	583.64	405.35	1463.5	1.0011								
0.0436	1.72	585.97	367.88	1618.7	1.0051								
0.0636	1.87	587.40	344.90	1706.8	1.0075								
0.0847	2.03	587.51	321.52	1787.6	1.0077								
0.1165	2.22	595.03	299.50	1884.3	1.0206								
0.1487	2.40	602.29	279.92	1968.0	1.0331								
0.1913	2.59	608.36	259.72	2046.6	1.0435								
0.2332	2.73	608.83	244.45	2092.3	1.0443								
0.2757	2.88	604.12	227.23	2127.9	1.0362								
0.3184	3.02	598.18	212.18	2153.5	1.0260								
0.3607	3.19	595.34	196.33	2189.4	1.0212								
0.4038	3.34	592.28	183.28	2216.7	1.0159								
0.4568	3.56	586.32	166.20	2246.6	1.0057								
0.5096	3.76	583.22	152.09	2275.9	1.0004								
0.5631	3.90	583.19	144.48	2295.8	1.0003								
0.6164	3.93	583.18	142.86	2300.0	1.0003								
0.6697	3.94	583.18	141.98	2302.3	1.0003								
0.7753	3.95	580.01	141.01	2296.5	0.9949								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.5826	0.2696	9.19	1109859.	8010647.	1973.		393.33	0.875	0.33639	0.065			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )
-0.0795	-0.008	0.2776	0.2747	0.00036	0.02898	0.02870	9.57	3.92	10006.7				
Y	Y/DELTA	U/(U(DELTA) RHO * U	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX							
0.	0.	0.01716	0.41668	0.07906	70.9	70.9	0.059	3.907	0.007	0.007	0.007	0.007	
0.0210	0.03601	0.44902	0.08719	0.08719	116.5	70.9	0.059	3.907	0.011	0.011	0.012	0.012	
0.0315	0.05409	0.63656	0.14915	0.14915	127.0	70.9	0.059	3.907	0.012	0.012	0.013	0.013	
0.0436	0.07951	0.70403	0.18176	0.18176	253.9	70.9	0.059	3.907	0.024	0.024	0.025	0.025	
0.0636	0.10913	0.74238	0.20443	0.20443	361.6	70.9	0.059	3.907	0.035	0.035	0.036	0.036	
0.0847	0.14544	0.77751	0.22967	0.22967	457.0	70.9	0.059	3.907	0.044	0.044	0.046	0.046	
0.1165	0.19997	0.81955	0.25989	0.25989	584.7	70.9	0.059	3.907	0.056	0.056	0.058	0.058	
0.1487	0.25524	0.85597	0.29043	0.29043	783.7	70.9	0.059	3.907	0.076	0.076	0.078	0.078	
0.1913	0.32836	0.89016	0.32552	0.32552	1036.0	70.9	0.059	3.907	0.100	0.100	0.104	0.104	
0.2332	0.40028	0.91002	0.35357	0.35357	1394.6	70.9	0.059	3.907	0.135	0.135	0.139	0.139	
0.2757	0.48028	0.91030	0.35399	0.35399	1728.7	70.9	0.059	3.907	0.167	0.167	0.173	0.173	
0.3184	0.54652	0.93664	0.41926	0.41926	1734.0	70.9	0.059	3.907	0.167	0.167	0.173	0.173	
0.3607	0.61913	0.95229	0.46068	0.46068	2172.6	70.9	0.059	3.907	0.210	0.210	0.217	0.217	
0.4038	0.69311	0.96414	0.49962	0.49962	2667.3	70.9	0.059	3.907	0.257	0.257	0.267	0.267	
0.4568	0.78408	0.97714	0.55839	0.55839	3442.5	70.9	0.059	3.907	0.332	0.332	0.344	0.344	
0.5096	0.87471	0.98988	0.61814	0.61814	4301.1	70.9	0.059	3.907	0.415	0.415	0.430	0.430	
0.5631	0.96654	0.99854	0.65642	0.65642	5846.2	70.9	0.059	3.907	0.564	0.564	0.584	0.584	
0.6164	1.00000	1.00000	0.66300	0.66300	7828.5	70.9	0.059	3.907	0.755	0.755	0.782	0.782	
0.5826	1.00000	1.00000	0.66300	0.66300	9506.3	70.9	0.059	3.907	0.904	0.904	0.936	0.936	
0.6164	1.05802	1.00037	0.66508	0.66508	9745.4	70.9	0.059	3.907	0.940	0.940	0.974	0.974	

# Contracts

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.6697	1.14951	1.00137	0.66987	9958.0	70.90	0.059	3.907	0.960	0.995
0.7753	1.33077	0.99887	0.67279	10006.7	70.90	0.059	3.907	0.965	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 10. 4. 10. 22. 306. 235. 12.50 10368.00 583.00 529.00 17.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	529.00	529.00	0.	0.9074								
0.0100	1.29	581.12	436.09	1320.0	0.9968								
0.0190	1.41	582.41	416.49	1411.8	0.9990								
0.0343	1.95	587.11	333.98	1743.9	1.0071								
0.0551	2.21	588.72	297.55	1870.3	1.0098								
0.0767	2.38	585.39	274.60	1932.3	1.0041								
0.1083	2.58	585.19	251.43	2002.4	1.0038								
0.1401	2.72	585.65	236.07	2049.3	1.0046								
0.1719	2.83	584.84	224.39	2081.0	1.0032								
0.2043	2.92	583.98	215.68	2103.5	1.0017								
0.2356	3.01	584.19	208.10	2125.6	1.0020								
0.2679	3.08	586.47	202.78	2147.0	1.0060								
0.2996	3.16	590.91	197.05	2175.3	1.0136								
0.3316	3.27	596.36	189.65	2210.5	1.0229								
0.3739	3.42	600.67	179.57	2249.2	1.0303								
0.4165	3.58	603.90	169.44	2284.6	1.0358								
0.4591	3.69	603.95	161.91	2304.5	1.0359								
0.5012	3.78	608.21	157.40	2327.2	1.0432								
0.5551	3.83	586.19	149.01	2291.8	1.0055								
0.6078	3.85	580.99	146.58	2284.5	0.9965								
0.6608	3.85	579.97	146.22	2282.8	0.9948								
0.7138	3.85	578.95	145.95	2280.8	0.9930								
0.7671	3.85	578.97	145.76	2281.4	0.9931								
0.8201	3.85	578.98	145.94	2280.9	0.9931								
DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT			
0.5251	0.1743	6.75	2430362.	15220261.	2126.	13316.	399.79	0.874	0.41164	0.140			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	DELTA STAR(1),	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	MIN),	MAX),	PTIMAX,	
-0.0984	-0.011	0.1849	0.1800	0.00050	0.02532	0.02470	7.29	3.81	10348.8				
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.01905	0.57191	0.	89.1	89.09	0.066	0.009	0.008	0.008				
0.0190	0.03624	0.61170	0.15711	243.3	89.08	0.066	3.778	0.023	0.023				
0.0343	0.06531	0.75557	0.27079	641.1	89.00	0.066	3.778	0.028	0.027				
0.0551	0.10496	0.81035	0.32565	968.7	88.91	0.066	3.779	0.062	0.061				
0.0767	0.14606	0.83721	0.36456	1257.7	88.91	0.066	3.780	0.093	0.092				
0.1083	0.20626	0.86759	0.41218	1708.4	88.83	0.066	3.780	0.121	0.119				
0.1401	0.26682	0.88792	0.44883	2134.0	88.74	0.066	3.780	0.165	0.162				
0.1719	0.32738	0.90163	0.47854	2531.5	88.56	0.066	3.783	0.206	0.202				
0.2043	0.38909	0.91139	0.50275	2889.9	88.47	0.066	3.783	0.244	0.240				
0.2356	0.44870	0.92097	0.52440	3265.9	88.11	0.065	3.786	0.279	0.274				
0.2679	0.51022	0.93023	0.54303	3621.3	88.02	0.065	3.787	0.315	0.310				
0.2996	0.57059	0.94248	0.56444	4097.9	87.76	0.065	3.789	0.349	0.343				
0.3316	0.63153	0.95773	0.59416	4624.1	87.49	0.065	3.791	0.395	0.388				
0.3739	0.71210	0.97452	0.63657	5971.0	87.22	0.065	3.794	0.465	0.457				
0.4165	0.79323	0.98986	0.68242	7424.0	86.86	0.065	3.797	0.576	0.566				
0.4591	0.87436	0.99846	0.71741	8871.4	86.51	0.065	3.800	0.716	0.704				
0.5012	0.95454	1.00832	0.74143	9761.2	86.06	0.064	3.803	0.836	0.822				
0.5251	1.00000	1.00000	0.75595	10021.4	85.94			0.941	0.925				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.5551	1.05719	0.99295	0.76804	10348.6	85.71	0.064	3.807	0.998	0.981
0.6078	1.15756	0.98981	0.77266	10548.8	85.08	0.064	3.812	1.017	1.000
0.6608	1.25850	0.98905	0.76992	10519.4	84.64	0.064	3.816	1.015	0.997
0.7138	1.35944	0.98819	0.76659	10465.9	84.19	0.064	3.820	1.009	0.992
0.7671	1.46095	0.98844	0.76373	10460.5	83.75	0.063	3.823	1.009	0.992
0.8201	1.56189	0.98825	0.76185	10405.7	83.66	0.063	3.824	1.004	0.986

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE YTD YTM GEN. CYL.  
 10. 4. 10. 22. 306. 234. 20.00 10368.00 583.00 530.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	530.00	530.00	0.	0.9091
0.0100	1.45	568.58	400.82	1419.7	0.9753
0.0182	1.53	569.26	387.77	1476.6	0.9764
0.0289	1.99	572.45	318.88	1745.4	0.9819
0.0415	2.19	573.38	292.60	1836.6	0.9835
0.0568	2.38	576.28	270.71	1916.0	0.9885
0.0779	2.56	586.36	253.87	1998.6	1.0058
0.0990	2.70	586.74	238.36	2045.8	1.0064
0.1307	2.85	588.11	224.31	2090.6	1.0088
0.1627	2.96	586.29	212.67	2118.6	1.0057
0.1948	3.04	584.40	205.16	2134.5	1.0024
0.2265	3.13	585.66	197.80	2158.6	1.0046
0.2582	3.21	590.06	192.88	2184.4	1.0121
0.2907	3.31	595.62	186.43	2217.2	1.0217
0.3326	3.44	606.43	179.93	2263.6	1.0402
0.3752	3.53	611.90	175.01	2291.0	1.0496
0.4175	3.59	609.99	170.51	2297.8	1.0463
0.4608	3.62	601.76	166.38	2287.0	1.0322
0.5025	3.62	590.34	162.83	2266.3	1.0126
0.5449	3.63	584.11	160.85	2255.0	1.0019
0.5878	3.64	581.04	159.15	2251.3	0.9966
0.6305	3.66	580.05	157.74	2252.5	0.9949
0.6947	3.65	582.13	159.03	2254.6	0.9985

DELTA DELTA STAR M MSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4243 0.0879 3.75 4319928. 20692605. 2731. 13084. 408.78 0.872 0.51095 0.197

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(W), THETA STAR(M), THETA(2), THETA(M), M(W), M(E), PTIMAX,  
 -0.0817 -0.023 0.1109 0.1017 0.00137 0.02206 0.02037 4.99 3.60 10833.0

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	132.0	131.96	0.013	0.013	0.012	0.012
0.0100	0.02357	0.61797	0.27153	447.3	131.57	0.085	3.505	0.043	0.042
0.0182	0.04280	0.64277	0.29133	503.3	131.30	0.085	3.506	0.049	0.047
0.0289	0.06823	0.75976	0.41833	1016.8	131.17	0.085	3.507	0.098	0.096
0.0415	0.09773	0.79948	0.47926	1380.3	131.04	0.085	3.507	0.133	0.130
0.0568	0.13396	0.83404	0.53987	1842.7	130.91	0.085	3.508	0.178	0.173
0.0779	0.18356	0.86999	0.59806	2441.4	130.38	0.084	3.511	0.235	0.230
0.0990	0.23334	0.89053	0.64740	3029.3	129.46	0.084	3.516	0.292	0.285
0.1307	0.30802	0.91003	0.69797	3750.9	128.53	0.084	3.521	0.362	0.353
0.1627	0.38344	0.92224	0.73915	4430.0	127.34	0.083	3.528	0.427	0.417
0.1948	0.45909	0.92914	0.76479	4921.4	126.16	0.083	3.534	0.475	0.463
0.2265	0.53380	0.93964	0.79292	5569.6	124.70	0.082	3.542	0.537	0.524
0.2582	0.60850	0.95087	0.81333	6172.3	123.25	0.081	3.551	0.595	0.580
0.2907	0.68510	0.96513	0.84130	7076.4	121.41	0.081	3.561	0.683	0.666
0.3326	0.78384	0.98533	0.87438	8383.5	119.29	0.080	3.574	0.809	0.788
0.3752	0.88424	0.99727	0.89584	9386.3	117.45	0.079	3.585	0.905	0.883
0.4175	0.98393	1.00022	0.91185	10056.6	116.13	0.078	3.593	0.970	0.946
0.4243	1.00000	1.00000	0.91373	10101.4	115.93	0.078	3.600	0.997	0.950
0.4608	1.08597	0.99554	0.92057	10341.1	114.94	0.078	3.605	0.997	0.973
0.5025	1.18425	0.98650	0.92570	10357.5	114.15	0.077	3.605	0.999	0.974

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.5449	1.28417	0.98158	0.92700	10355.5	113.49	0.077	3.609	0.999	0.974
0.5878	1.38528	0.97999	0.92670	10454.0	112.43	0.077	3.616	1.008	0.983
0.6305	1.48591	0.98048	0.92779	10633.0	111.51	0.076	3.622	1.026	1.000
0.6947	1.63721	0.98140	0.91461	10390.6	110.72	0.076	3.627	1.002	0.977

HYPERSONIC BOUNDARY LAYER AEOC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CVL.  
 10. 4. 10. 22. 306. 233. 22.00 10368.00 583.00 531.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	531.00	531.00	0.	0.9108								
0.0100	1.42	575.92	409.80	1412.7	0.9879								
0.0172	1.64	577.59	375.98	1556.3	0.9907								
0.0285	2.03	579.97	317.46	1775.9	0.9948								
0.0403	2.21	580.82	293.78	1857.0	0.9963								
0.0552	2.38	583.52	273.44	1930.1	1.0009								
0.0770	2.56	595.53	257.49	2015.2	1.0215								
0.0979	2.69	594.90	243.44	2054.8	1.0204								
0.1189	2.80	595.43	231.90	2089.8	1.0213								
0.1403	2.88	592.69	222.65	2108.5	1.0166								
0.1720	3.00	593.15	212.19	2139.3	1.0174								
0.2041	3.10	594.58	203.17	2168.5	1.0199								
0.2359	3.21	598.04	195.26	2199.8	1.0258								
0.2680	3.29	603.50	190.31	2228.0	1.0352								
0.2999	3.38	609.96	186.03	2256.8	1.0462								
0.3421	3.45	612.25	181.35	2275.3	1.0502								
0.3846	3.49	608.24	176.74	2276.8	1.0433								
0.4275	3.51	600.01	173.34	2264.1	1.0292								
0.4703	3.53	590.73	169.46	2249.7	1.0133								
0.5120	3.55	583.56	165.61	2240.8	1.0010								
0.5553	3.55	581.53	165.00	2237.0	0.9975								
DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT													
0.3473	0.0608	3.07	5632634.	23048678.	2859.				11701.	413.82	0.871	0.53917	0.200
PHE. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,													
-0.0901	-0.026		0.0865	0.0767					0.00172	0.01812	0.01624	4.72	3.45 10519.8
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RMO U	PRIME	M	PRIME	PTI/PIE	PTI/PTIMAX		
0.	0.	0.	0.	168.3	168.34					0.016	0.016	0.016	0.016
0.0100	0.02879	0.62064	0.33744	552.8	168.00				0.100	3.327	0.053	0.053	0.053
0.0172	0.04961	0.68373	0.40437	753.4	167.66				0.100	3.328	0.073	0.073	0.073
0.0285	0.08211	0.78020	0.54593	1380.4	167.49				0.100	3.329	0.133	0.133	0.133
0.0403	0.11606	0.81582	0.61440	1812.6	166.82				0.100	3.332	0.175	0.175	0.175
0.0552	0.15887	0.84793	0.68192	2353.8	165.81				0.099	3.336	0.227	0.224	0.224
0.0770	0.22167	0.88534	0.75228	3103.8	164.97				0.099	3.339	0.299	0.295	0.295
0.0979	0.28182	0.90275	0.80387	3728.7	163.45				0.098	3.346	0.360	0.354	0.354
0.1189	0.34234	0.91811	0.84940	4387.4	161.77				0.098	3.353	0.423	0.417	0.417
0.1403	0.40395	0.92631	0.88242	4922.3	159.92				0.097	3.361	0.475	0.468	0.468
0.1720	0.46522	0.93987	0.91966	5717.4	156.55				0.096	3.376	0.551	0.543	0.543
0.2041	0.58764	0.95267	0.94739	6531.9	152.34				0.094	3.395	0.630	0.621	0.621
0.2359	0.67920	0.96641	0.97679	7481.9	148.81				0.093	3.411	0.722	0.711	0.711
0.2680	0.77163	0.97883	0.99329	8269.4	145.61				0.091	3.426	0.798	0.786	0.786
0.2999	0.86347	0.99146	1.01374	9154.2	143.42				0.090	3.437	0.883	0.870	0.870
0.3421	0.98497	0.99958	1.02755	9938.9	140.56				0.089	3.451	0.959	0.945	0.945
0.3473	1.00000	1.00000	1.02862	9993.8	140.16							0.950	0.950
0.3846	1.10734	1.00027	1.03102	10385.6	137.36				0.088	3.467	1.002	0.987	0.987
0.4275	1.23086	0.99466	1.02232	10365.6	134.33				0.087	3.482	1.000	0.985	0.985
0.4703	1.35409	0.98834	1.01562	10384.2	131.30				0.085	3.499	1.002	0.987	0.987
0.5120	1.47415	0.98443	1.00987	10519.8	128.10				0.084	3.516	1.015	1.000	1.000
0.5553	1.59882	0.98277	0.99865	10390.5	126.42				0.083	3.525	1.002	0.988	0.988

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE ITO ITD TW GEN. CYL.  
 10. 4. 10. 22. 306. 232. 23.00 10368.00 584.50 535.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITD
0.	0.	535.00	535.00	0.	0.9153
0.0100	1.42	582.31	415.52	1415.5	0.9962
0.0159	1.49	582.82	403.67	1467.0	0.9971
0.0224	1.85	585.13	347.30	1690.4	1.0011
0.0285	1.96	585.65	331.93	1745.9	1.0020
0.0376	2.12	586.42	309.21	1824.9	1.0033
0.0476	2.23	587.06	293.91	1876.7	1.0044
0.0605	2.36	593.95	280.98	1939.1	1.0162
0.0774	2.47	603.77	272.40	1995.2	1.0330
0.0987	2.58	602.22	258.21	2033.0	1.0303
0.1264	2.70	600.61	244.43	2068.6	1.0276
0.1478	2.77	599.85	236.46	2089.4	1.0263
0.1793	2.87	599.17	226.08	2117.1	1.0251
0.2112	2.99	601.68	216.05	2152.4	1.0294
0.2432	3.10	605.20	207.44	2186.0	1.0354
0.2749	3.19	608.65	200.88	2213.3	1.0413
0.3178	3.28	611.07	193.87	2238.8	1.0455
0.3601	3.34	607.09	188.18	2243.4	1.0387
0.4026	3.39	600.01	181.83	2241.4	1.0265
0.4455	3.40	590.78	178.25	2226.2	1.0107
0.4877	3.43	581.60	173.24	2215.0	0.9950
0.5299	3.46	580.77	170.99	2218.8	0.9936
0.5727	3.48	579.93	169.30	2221.1	0.9922

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3571 0.0396 1.87 7536025. 25119578. 3981. 13270. 417.78 0.875 0.57643 0.154

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M ), THETA STAR(M ), THETA PRIME, THETA(2), THETA(M), M(M), MIEI), PTIMAX,  
 -0.1239 -0.048 0.0873 0.0710 0.00379 0.01741 0.01446 4.91 3.33 10386.3

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	226.5	226.51	0.123	3.115	0.022	0.022
0.0100	0.02801	0.63088	0.54917	737.3	226.29	0.122	3.118	0.071	0.071
0.0159	0.04436	0.65384	0.47725	815.0	225.38	0.122	3.118	0.079	0.078
0.0224	0.06276	0.75337	0.63850	1397.6	225.15	0.122	3.119	0.135	0.135
0.0285	0.07987	0.77814	0.68936	1641.1	224.93	0.122	3.121	0.158	0.158
0.0376	0.10527	0.81334	0.77114	2106.5	224.25	0.121	3.124	0.203	0.203
0.0476	0.13325	0.83641	0.83092	2515.5	223.34	0.121	3.127	0.243	0.242
0.0605	0.16932	0.86421	0.89442	3054.6	222.44	0.120	3.133	0.295	0.294
0.0774	0.21685	0.88926	0.94063	3573.0	220.40	0.119	3.143	0.345	0.344
0.0987	0.27633	0.90607	0.99655	4209.0	217.23	0.118	3.157	0.406	0.405
0.1264	0.35399	0.92195	1.04882	4946.4	212.70	0.116	3.171	0.477	0.476
0.1478	0.41393	0.93123	1.07179	5413.1	208.17	0.114	3.194	0.522	0.521
0.1793	0.50214	0.94358	1.09874	6102.6	201.37	0.110	3.227	0.589	0.588
0.2112	0.59148	0.95931	1.11370	6915.5	191.86	0.107	3.257	0.667	0.666
0.2432	0.68110	0.97427	1.12655	7781.7	183.48	0.104	3.285	0.751	0.749
0.2749	0.76988	0.98646	1.13136	8532.6	176.23	0.101	3.314	0.823	0.822
0.3178	0.89002	0.99780	1.13698	9394.5	168.98	0.100	3.334	0.906	0.905
0.3571	1.00000	1.00000	1.14047	9867.0	164.48	0.100	3.358	0.955	0.954
0.3601	1.00849	0.99984	1.14067	9903.5	164.22	0.097	3.358	0.954	0.954
0.4026	1.12751	0.99897	1.13892	10348.7	158.56	0.097	3.358	0.954	0.954

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/Delta	U/UIDelta	RHO * U	PT1	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.4455	1.24766	0.99221	1.12092	10210.2	154.03	0.096	3.378	0.985	0.983
0.4877	1.36584	0.98719	1.10531	10287.0	148.37	0.093	3.404	0.992	0.990
0.5299	1.48403	0.98888	1.08750	10366.3	143.84	0.091	3.426	1.002	1.000
0.5727	1.60389	0.98991	1.06489	10362.7	139.31	0.089	3.448	0.999	0.998

HYPERSONIC BOUNDARY LAYER AECU WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TW 582.00 532.00  
 10. 4. 10. 22. 306. 230. 24.00 10368.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TFO
0.	0.	532.00	532.00	0.	0.9141
0.0100	1.28	604.13	455.02	1338.4	1.0380
0.0129	1.32	604.47	447.71	1372.3	1.0386
0.0172	1.51	605.82	416.02	1510.0	1.0409
0.0213	1.59	606.33	403.11	1562.5	1.0418
0.0279	1.76	607.20	374.84	1670.8	1.0433
0.0341	1.87	607.68	357.48	1733.7	1.0441
0.0425	2.00	608.26	337.93	1802.1	1.0451
0.0530	2.18	608.94	312.77	1886.3	1.0463
0.0638	2.33	610.55	292.39	1955.1	1.0491
0.0765	2.45	613.13	278.28	2005.7	1.0535
0.0895	2.57	609.38	262.57	2041.2	1.0470
0.1041	2.66	605.62	250.73	2064.8	1.0406
0.1253	2.80	603.96	235.21	2104.8	1.0377
0.1466	2.92	602.38	222.81	2135.4	1.0350
0.1789	3.02	603.05	213.16	2164.3	1.0362
0.2104	3.10	603.67	206.53	2184.3	1.0372
0.2425	3.16	604.20	201.74	2198.9	1.0381
0.2744	3.21	603.69	197.30	2209.6	1.0373
0.3059	3.25	596.99	191.94	2206.0	1.0258
0.3379	3.29	592.61	186.92	2207.7	1.0182
0.3697	3.23	587.57	190.26	2184.8	1.0096

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECUV. TEMP. RECUV. FACT. TOT. PRESS. RECUV. CT  
 0.2135 0.0047 0.27 16653333. 29734157. 7179. 12817. 422.30 0.867 0.62120 0.147

PHI, DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(W 1), DELTA STAR(2), THETA(W), H(W), MIE), PTIMAX,  
 -0.1024 -0.055 0.0599 0.0366 0.00547 0.01229 0.00806 4.54 3.11 10536.1

Y	Y/DELTA	U(U/DELTA)	RHO * U	PT1	PI1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	510.3	510.34	0.201	2.592	0.049	0.048
0.0100	0.04684	0.61228	0.87029	1369.4	507.78	0.201	2.595	0.132	0.130
0.0129	0.06052	0.62779	0.90233	1444.8	505.23	0.199	2.605	0.139	0.137
0.0172	0.08056	0.69079	1.05234	1854.2	497.58	0.196	2.619	0.179	0.176
0.0213	0.09972	0.71480	1.10074	2034.1	487.37	0.193	2.636	0.196	0.193
0.0279	0.13064	0.76433	1.23263	2567.7	474.61	0.189	2.657	0.248	0.244
0.0341	0.15958	0.79313	1.29792	2941.6	459.30	0.183	2.694	0.284	0.279
0.0425	0.19902	0.82441	1.34788	3393.8	433.79	0.174	2.746	0.327	0.322
0.0530	0.24806	0.86292	1.40775	4125.3	400.61	0.166	2.793	0.398	0.392
0.0638	0.29888	0.89437	1.45146	4901.6	372.55	0.160	2.835	0.473	0.465
0.0765	0.35813	0.91753	1.46807	5550.0	349.58	0.154	2.875	0.535	0.527
0.0895	0.41912	0.93378	1.49101	6268.7	329.17	0.149	2.912	0.605	0.595
0.1041	0.48760	0.94459	1.49380	6818.2	311.31	0.142	2.958	0.658	0.647
0.1253	0.58690	0.96287	1.51404	7877.7	290.38	0.136	3.005	0.748	0.748
0.1466	0.68667	0.97689	1.51046	8788.8	270.48	0.129	3.057	0.848	0.834
0.1789	0.83796	0.99007	1.47938	9524.1	250.07	0.124	3.103	0.919	0.904
0.2104	0.98550	0.99924	1.44030	9978.6	233.73	0.120	3.139	0.962	0.947
0.2135	1.00000	1.00000	1.43678	10009.3	232.36	0.116	3.174	0.993	0.950
0.2425	1.13586	1.00591	1.40664	10297.3	221.49	0.111	3.217	1.016	1.000
0.2744	1.28528	1.01082	1.37205	10536.1	210.26	0.111	3.217	1.016	1.000
0.3059	1.43282	1.00915	1.32259	10481.2	197.50	0.111	3.217	1.011	0.995

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.3379	1.58271	1.00993	1.24672	10278.4	181.17	0.105	3.276	0.991	0.976
0.3697	1.73166	0.99945	1.19508	9244.9	178.62	0.104	3.286	0.892	0.877

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 10. 4. 10. 22. 306. 445. -0.50 1368.00 591.50 553.00 17.00

Y	MACH	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CI
0.	0.	553.00	553.00	0.	0.9510						
0.0100	0.80	534.93	474.85	649.6	0.9199						
0.0320	0.69	533.41	487.25	744.7	0.9173						
0.0533	1.26	542.09	411.67	1251.7	0.9322						
0.0853	2.17	555.47	285.53	1800.8	0.9552						
0.1170	2.42	559.72	258.09	1903.6	0.9625						
0.1595	2.63	557.75	234.52	1970.6	0.9592						
0.2027	2.81	563.99	218.34	2037.8	0.9699						
0.2447	2.99	568.96	203.70	2094.8	0.9784						
0.2869	3.15	570.50	191.18	2134.7	0.9811						
0.3401	3.36	568.86	174.41	2176.9	0.9783						
0.3936	3.55	566.05	160.67	2206.9	0.9734						
0.4581	3.74	561.05	147.54	2228.9	0.9648						
0.5212	3.86	553.64	138.90	2232.2	0.9521						
0.5845	3.91	547.27	134.66	2226.4	0.9411						
0.6486	3.93	546.22	133.67	2226.3	0.9393						
0.7119	3.93	547.30	133.86	2228.7	0.9412						
0.7760	3.93	548.37	134.19	2230.7	0.9430						
0.8394	3.93	547.31	133.64	2229.3	0.9412						
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CI	
0.5612	0.2305	10.86	150089.	1224294.	193.	1576.	395.88	0.936	0.39889	-0.345	
PHI,	DELTA STAR	PRIME,	DELTA STAR(2),	DELTA STAR(W),	THETA STAR(W),	THETA PRIME,	THETA(2),	THETA(W),	M(E),	PTIMAX,	
0.3444	-0.002	0.2330	0.2332	0.00012	0.02112	0.02105	11.03	3.90	1391.6		
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX		
0.	0.	0.38133	0.01044	10.0	10.01	0.059	3.896	0.007	0.007		
0.0100	0.01782	0.33425	0.00892	15.2	10.01	0.059	3.896	0.011	0.011		
0.0320	0.05710	0.56184	0.01774	13.7	10.01	0.059	3.896	0.010	0.010		
0.0533	0.09496	0.80830	0.03679	26.2	10.01	0.059	3.896	0.019	0.019		
0.0853	0.15206	0.85443	0.04303	102.8	10.01	0.059	3.896	0.075	0.075		
0.1170	0.20849	0.88450	0.04902	150.4	10.01	0.059	3.896	0.110	0.108		
0.1595	0.28423	0.91467	0.05445	207.7	10.01	0.059	3.896	0.152	0.149		
0.2027	0.36121	0.94025	0.05999	277.4	10.01	0.059	3.896	0.203	0.199		
0.2447	0.43606	0.95817	0.06514	364.6	10.01	0.059	3.896	0.267	0.262		
0.2869	0.51126	0.97710	0.07281	459.5	10.01	0.059	3.896	0.336	0.330		
0.3401	0.60606	0.99055	0.08013	627.4	10.01	0.059	3.896	0.451	0.451		
0.3936	0.70140	1.00043	0.08813	821.8	10.01	0.059	3.896	0.601	0.591		
0.4581	0.81634	1.00192	0.09375	1073.5	10.01	0.059	3.896	0.785	0.771		
0.5212	0.92878	1.00000	0.09569	1322.0	10.01	0.059	3.896	0.925	0.910		
0.5612	1.00000	0.99934	0.09645	1354.9	10.01	0.059	3.896	0.990	0.950		
0.5845	1.04158	0.99227	0.09716	1381.1	10.01	0.059	3.896	1.010	0.974		
0.6486	1.15581	1.00034	0.09713	1383.7	10.01	0.059	3.896	1.011	0.992		
0.7119	1.26861	1.00123	0.09697	1381.1	10.01	0.059	3.896	1.010	0.992		
0.7760	1.38283	1.00061	0.09731	1391.6	10.01	0.059	3.896	1.017	1.000		
0.8394	1.49581										

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X TPO TTT  
 10. 4. 6. 23. 306. 244. 12.50 1368.00 581.50 542.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO
0.	0.70	542.00	542.00	0.	0.9321
0.0100	0.70	517.19	470.70	747.3	0.8894
0.0228	0.99	520.98	435.96	1010.7	0.8959
0.0440	1.86	532.04	314.59	1616.3	0.9150
0.0653	2.14	534.44	279.41	1750.4	0.9191
0.0981	2.34	543.25	259.72	1845.6	0.9342
0.1290	2.47	544.06	244.83	1896.0	0.9356
0.1609	2.60	545.82	231.99	1941.7	0.9386
0.2031	2.78	550.95	216.64	2004.1	0.9475
0.2561	2.98	562.51	202.72	2079.1	0.9673
0.3096	3.18	570.82	189.23	2141.1	0.9816
0.3628	3.35	574.57	177.25	2184.8	0.9881
0.4159	3.53	577.24	165.51	2224.1	0.9927
0.4689	3.63	573.35	157.43	2235.3	0.9860
0.5222	3.72	570.46	151.57	2243.3	0.9810
0.5859	3.79	565.41	146.22	2244.1	0.9723
0.6498	3.83	562.37	143.09	2244.4	0.9671
0.7140	3.84	559.21	141.78	2239.4	0.9617
0.7774	3.83	557.06	141.55	2234.2	0.9580
0.8414	3.83	559.24	141.89	2239.2	0.9617
0.9052	3.83	558.15	141.96	2236.1	0.9598
0.9684	3.82	558.14	142.23	2235.3	0.9598

DELTA DELTA STAR M ASR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5806 0.1747 5.93 366053. 2294829. 365. 2290. 397.90 0.909 0.44518 -0.135

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(W), THETA STAR(M), THETA STAR(W), THETA(1), THETA(2), THETA(M), H(M), M(E), PTIMAX, M(E), PTIMAX,  
 0.2213 -0.032 0.2065 0.1913 0.00152 0.02793 0.02602 7.35 3.78 1450.1

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	PI.	RHO U PRIME,	M PRIME	PT1/PTE.	PTI/PTIMAX
0.	0.01722	0.33298	0.	13.7	13.68	0.071	3.698	0.010	0.009
0.0228	0.03927	0.45030	0.01266	19.0	13.68	0.071	3.699	0.014	0.013
0.0440	0.07579	0.72015	0.01846	25.5	13.67	0.071	3.702	0.019	0.018
0.0653	0.11254	0.77989	0.04074	85.6	13.61	0.071	3.704	0.063	0.059
0.0981	0.16893	0.82232	0.04964	131.6	13.60	0.071	3.704	0.096	0.091
0.1290	0.22219	0.84477	0.05619	179.6	13.57	0.070	3.706	0.131	0.124
0.1609	0.27713	0.86514	0.06105	221.3	13.53	0.070	3.710	0.162	0.153
0.2031	0.34982	0.89292	0.07196	268.9	13.46	0.070	3.716	0.197	0.185
0.2561	0.44110	0.92632	0.07912	350.2	13.35	0.069	3.722	0.256	0.241
0.3096	0.53325	0.95398	0.08630	471.2	13.24	0.069	3.730	0.344	0.325
0.3628	0.62888	0.97344	0.09293	624.1	13.09	0.068	3.738	0.456	0.430
0.4159	0.71634	0.99094	0.10006	793.5	12.94	0.068	3.747	0.580	0.547
0.4689	0.80763	0.99595	0.10416	1012.5	12.78	0.067	3.758	0.740	0.698
0.5222	0.89943	0.99952	0.10711	1160.5	12.59	0.067	3.768	0.848	0.800
0.5806	1.00000	1.00000	0.10892	1284.7	12.42	0.066	3.782	0.939	0.886
0.5859	1.00915	0.99987	0.10901	1386.0	12.21	0.065	3.799	1.013	0.956
0.6498	1.11921	0.99998	0.10940	1440.7	11.97	0.065	3.800	1.053	0.994
0.7140	1.22979	0.99776	0.10951	1450.1	11.90	0.065	3.804	1.060	1.000
0.7774	1.33899	0.99547	0.10935	1437.7	11.89	0.065		1.051	0.991
0.8414	1.44922	0.99766	0.10877	1437.8	11.83	0.064		1.051	0.992

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO = U	PT1	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PT1MAX
0.9052	1.55911	0.99629	0.10858	1425.8	11.83	0.064	3.804	1.042	0.983
0.9684	1.66796	0.99595	0.10833	1416.2	11.83	0.064	3.804	1.035	0.977

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE YTO TW GEN. CYL.  
 10. 4. 10. 22. 306. 243. 20.00 1368.00 581.00 544.00 17.00

Y MACH TOT.TEMP. STAT.TEMP. VELOCITY TT/ATTO

0.	544.00	544.00	0.	0.9363
0.0100	0.75	510.30	783.3	0.8783
0.0240	0.79	510.80	823.3	0.8792
0.0451	1.87	523.23	307.84	1608.6
0.0660	2.16	532.82	275.66	0.9171
0.0985	2.35	551.03	261.50	1865.0
0.1306	2.51	553.14	244.80	1924.7
0.1621	2.65	563.45	234.44	1988.1
0.2046	2.83	569.68	219.04	2052.5
0.2472	2.99	575.81	206.82	2105.5
0.2896	3.14	583.01	196.07	2156.1
0.3427	3.30	585.83	183.99	2197.2
0.4491	3.43	584.20	174.38	2218.9
0.5018	3.53	580.31	166.35	2230.1
0.5550	3.60	577.41	160.83	2237.1
0.6087	3.65	573.34	157.12	2236.2
0.6619	3.65	570.23	155.48	2232.2
0.7145	3.67	571.31	155.92	2233.9
0.7782	3.67	571.57	154.45	2238.6
0.8421	3.69	568.54	152.74	2235.0

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECDV.TEMP. RECDV.FACT. TOT.PRESS.RECDV. CT  
 0.5064 0.1270 4.62 605843. 3097469. 450. 2298. 405.95 0.912 0.47462 -0.064

PMI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), DELTA STAR(W ), THETA STAR(W ), THETA PRIME, THETA(2), THETA(W), M(W), M(E), PTIMAX,  
 0.0957 -0.038 0.1648 0.1474 0.00209 0.02540 0.02294 6.43 3.60 1471.5

Y V/DELTA U/V(DELTA) RHO \* U PT1 PI, RHO U PRIME, M PRIME PTI/PTE. PTL/PTIMAX

0.	0.01975	0.35010	0.	18.8	18.76	0.014	0.013
0.0240	0.04735	0.36799	0.01859	27.1	18.71	0.020	0.018
0.0451	0.09909	0.71898	0.01971	28.1	18.67	0.021	0.019
0.0660	0.13040	0.78562	0.05679	119.4	18.65	0.087	0.081
0.0985	0.19443	0.83359	0.06902	186.5	18.58	0.136	0.127
0.1306	0.25787	0.86024	0.07672	250.8	18.46	0.183	0.170
0.1621	0.32007	0.88861	0.08381	317.2	18.29	0.232	0.216
0.2046	0.40399	0.91736	0.08984	391.3	18.18	0.286	0.266
0.2472	0.48910	0.94105	0.09794	509.0	17.94	0.372	0.346
0.2896	0.57182	0.96366	0.10506	637.8	17.71	0.466	0.433
0.3427	0.67667	0.98205	0.11168	790.2	17.43	0.578	0.537
0.3955	0.78093	0.99175	0.11881	983.5	17.07	0.719	0.668
0.4491	0.88676	0.99674	0.12367	1148.0	16.68	0.839	0.780
0.5018	0.99082	0.99989	0.12736	1292.7	16.30	0.945	0.879
0.5550	1.00000	1.00000	0.12880	1393.4	15.89	1.019	0.947
0.6087	1.20190	0.99946	0.12887	1445.5	15.86	1.057	0.950
0.6619	1.30594	0.99846	0.12871	1453.7	15.39	1.063	0.988
0.7145	1.41080	1.00032	0.12813	1445.3	15.35	1.057	0.982
0.7782	1.53658	1.00054	0.12764	1471.5	15.12	1.076	1.000
0.8421	1.66275	0.99896	0.12518	1445.2	14.87	1.056	0.982
			0.12302	1435.6	14.43	1.049	0.976

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE PTD TTD TWT GEN. CYL.  
 10. 4. 10. 22. 306. 242. 22.00 1368.00 581.00 543.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	543.00	543.00	0.	0.9346
0.0100	0.78	520.61	463.91	825.3	0.8961
0.0201	1.36	527.64	385.75	1305.6	0.9082
0.0302	1.81	532.16	321.09	1592.4	0.9159
0.0452	2.08	534.37	286.98	1724.0	0.9197
0.0630	2.21	546.90	276.86	1801.2	0.9413
0.0837	2.33	559.29	268.36	1869.5	0.9626
0.1155	2.50	567.80	252.81	1945.3	0.9773
0.1474	2.64	575.13	240.33	2005.6	0.9899
0.1899	2.83	582.65	226.05	2075.6	1.0028
0.2326	3.01	587.88	208.66	2134.5	1.0118
0.2746	3.18	591.88	195.71	2181.6	1.0187
0.3173	3.32	593.57	185.15	2215.1	1.0216
0.3704	3.45	587.71	173.80	2229.9	1.0115
0.4234	3.52	585.89	168.33	2239.7	1.0084
0.4771	3.55	583.95	165.69	2241.6	1.0051
0.5194	3.55	579.74	164.51	2233.5	0.9978
0.5723	3.57	577.76	162.94	2232.4	0.9944
0.6254	3.58	576.84	161.88	2232.8	0.9928
0.6783	3.59	575.88	161.16	2232.1	0.9912
0.7314	3.60	571.76	159.00	2226.8	0.9841

DELTA DELTA STAR H RSR RS DELTA RTHETA R KTHETA O RECDV. TEMP. RECDV. FACT. TOT. PRESS. RECDV. CT  
 0.4022 0.0901 3.74 783472. 3421282. 483. 2109. 410.83 0.908 0.47897 0.002

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA PRIME, THETA(2), THETA(M), H(M), M(E), PTIMAX,  
 0.0091 -0.040 0.1305 0.1121 0.00244 0.02165 0.01886 5.94 3.50 1492.0

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTI,	PTI/PTIMAX
0.	0.	0.	0.	23.5	23.52	0.017	0.016	0.017	0.016
0.0100	0.02486	0.36897	0.02433	35.1	23.47	0.026	0.024	0.026	0.024
0.0201	0.04995	0.58369	0.04619	70.1	23.42	0.051	0.047	0.051	0.047
0.0302	0.07521	0.71192	0.06761	137.1	23.40	0.099	0.092	0.099	0.092
0.0452	0.11250	0.77075	0.08157	205.3	23.30	0.099	0.150	0.099	0.138
0.0630	0.15658	0.80525	0.08789	251.2	23.19	0.098	0.184	0.098	0.168
0.0837	0.20810	0.83582	0.09354	301.2	23.04	0.098	0.220	0.098	0.202
0.1155	0.28716	0.86770	0.10216	386.9	22.79	0.097	0.283	0.097	0.259
0.1474	0.36547	0.89663	0.10919	476.1	22.46	0.096	0.348	0.096	0.319
0.1899	0.47214	0.92795	0.11805	620.3	21.97	0.095	0.453	0.095	0.416
0.2326	0.57830	0.95426	0.12614	794.4	21.16	0.093	0.581	0.093	0.532
0.2746	0.68272	0.97535	0.13257	981.8	20.41	0.091	0.718	0.091	0.658
0.3173	0.78888	0.99031	0.13753	1163.8	19.73	0.089	0.851	0.089	0.780
0.3704	0.92090	0.99694	0.14239	1354.2	19.05	0.087	0.990	0.087	0.950
0.4022	1.00000	1.00000	0.14352	1417.4	18.74	0.085	1.067	0.085	1.000
0.4234	1.05267	1.00133	0.14384	1459.5	18.55	0.084	1.091	0.084	1.000
0.4771	1.18618	1.00218	0.14311	1492.0	18.15	0.083	1.079	0.083	1.000
0.5194	1.29135	0.99855	0.14213	1476.2	17.97	0.082	1.081	0.082	0.991
0.5723	1.42287	0.99805	0.14060	1478.6	17.61	0.081	1.079	0.081	0.989
0.6254	1.55489	0.99821	0.13890	1476.2	17.28	0.080	1.079	0.080	0.989
0.6783	1.68641	0.99792	0.13739	1468.3	17.02	0.080	1.073	0.080	0.984
0.7314	1.81843	0.99556	0.13624	1472.1	16.70	0.079	1.076	0.079	0.987

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE IFO IIM GEN. CYL.  
 10. 4. 10. 22. 306. 241. 23.00 1368.00 580.00 545.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	545.00	545.00	0.	0.9397
0.0100	0.93	519.49	442.94	959.0	0.8957
0.0172	1.03	520.66	429.47	1046.7	0.8977
0.0235	1.48	525.50	364.97	1388.8	0.9060
0.0322	1.86	529.01	312.58	1612.5	0.9121
0.0408	1.95	529.78	300.86	1658.4	0.9134
0.0555	2.09	544.01	290.63	1744.7	0.9380
0.0724	2.18	563.57	288.86	1816.7	0.9717
0.0939	2.30	570.78	277.41	1877.4	0.9841
0.1150	2.40	574.65	267.34	1921.4	0.9908
0.1474	2.53	582.94	255.17	1984.4	1.0051
0.1790	2.67	587.99	242.71	2036.7	1.0138
0.2107	2.80	593.03	230.70	2086.4	1.0225
0.2429	2.93	595.84	219.69	2125.8	1.0273
0.2743	3.05	596.54	208.41	2159.4	1.0285
0.3169	3.19	596.22	196.20	2192.2	1.0280
0.3599	3.31	594.71	186.58	2214.3	1.0254
0.4018	3.38	589.75	179.58	2219.9	1.0168
0.4446	3.43	586.86	174.91	2224.6	1.0118
0.4869	3.44	582.72	173.24	2218.0	1.0047
0.5282	3.45	580.79	171.46	2217.6	1.0014
0.5718	3.48	577.83	169.12	2215.9	0.9963

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3981 0.0694 2.48 1016704. 3662121. 708. 2551. 416.09 0.912 0.49559 0.015

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA STAR(2), THETA(W), H(W), MIE), PTILMAX,  
 -0.0437 -0.058 0.1274 0.1030 0.00408 0.02387 0.01972 5.22 3.37 1480.5

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTILMAX
0.0100	0.02512	0.43197	0.03860	30.7	30.66	0.118	3.151	0.022	0.021
0.0172	0.04320	0.47147	0.04310	53.5	30.60	0.118	3.156	0.039	0.036
0.0235	0.05913	0.62556	0.06756	109.2	30.35	0.118	3.153	0.044	0.040
0.0322	0.08090	0.72634	0.09141	191.8	30.47	0.118	3.157	0.080	0.074
0.0408	0.10240	0.74703	0.09738	219.7	30.41	0.118	3.157	0.140	0.130
0.0555	0.13935	0.78592	0.10552	270.7	30.32	0.117	3.160	0.161	0.148
0.0724	0.18187	0.81832	0.11009	311.7	30.17	0.117	3.163	0.198	0.183
0.0939	0.23592	0.84565	0.11714	371.2	30.04	0.116	3.171	0.228	0.211
0.1150	0.28885	0.86551	0.12274	426.8	29.71	0.115	3.180	0.271	0.251
0.1474	0.37022	0.89387	0.13031	518.3	29.31	0.114	3.193	0.312	0.288
0.1790	0.44959	0.91744	0.13731	621.5	28.76	0.112	3.209	0.379	0.350
0.2107	0.52922	0.93981	0.14329	740.6	28.08	0.107	3.253	0.454	0.420
0.2429	0.61009	0.95757	0.14830	864.3	27.19	0.104	3.283	0.541	0.500
0.2743	0.68896	0.97270	0.15214	998.9	26.30	0.101	3.318	0.632	0.584
0.3169	0.79596	0.98748	0.15588	1171.4	25.20	0.098	3.353	0.731	0.675
0.3599	0.90396	0.99743	0.15751	1316.9	23.94	0.096	3.375	0.856	0.890
0.3981	1.00000	1.00000	0.15867	1406.4	22.78	0.094	3.396	0.963	0.950
0.4018	1.00920	0.99994	0.15877	1415.0	22.04	0.093	3.408	1.034	0.956
0.4446	1.11670	1.00204	0.15858	1480.5	21.40	0.094	3.408	1.082	1.000
0.4869	1.22295	0.99908	0.15689	1467.9	21.03	0.093	3.408	1.073	0.992

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO • U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.5292	1.32919	0.99891	0.15456	1467.2	20.51	0.091	3.425	1.072	0.991
0.5718	1.43619	0.99815	0.15213	1469.2	19.93	0.090	3.446	1.074	0.992

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TM GEN. CYL.  
 10. 4. 10. 22. 306. 240. 24.00 1368.00 580.00 537.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	YY/TT0
0.	0.	537.00	537.00	0.	0.9259
0.0100	1.17	567.15	445.99	1206.5	0.9778
0.0143	1.18	567.32	443.72	1218.6	0.9781
0.0204	1.49	570.69	395.09	1452.5	0.9840
0.0265	1.63	572.06	372.78	1547.3	0.9863
0.0374	1.72	572.80	360.08	1598.6	0.9876
0.0502	1.80	573.58	347.59	1647.7	0.9889
0.0649	1.88	573.34	335.52	1690.3	0.9885
0.0849	2.03	587.20	321.72	1785.9	1.0124
0.1078	2.17	594.73	306.28	1861.6	1.0254
0.1267	2.31	598.03	289.93	1923.9	1.0311
0.1501	2.47	602.55	271.75	1993.5	1.0389
0.1818	2.68	606.34	248.95	2072.1	1.0454
0.2137	2.84	606.45	232.54	2119.4	1.0456
0.2458	2.96	605.28	219.51	2152.8	1.0436
0.2774	3.09	602.98	207.37	2180.1	1.0396
0.3093	3.17	597.21	198.53	2188.5	1.0297
0.3412	3.20	592.21	194.41	2186.1	1.0211
0.3838	3.22	586.19	190.34	2180.7	1.0107
0.4255	3.29	583.50	184.52	2189.3	1.0060
0.4685	3.35	584.06	179.71	2204.0	1.0070

DELTA DELTA STAR M RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2811 0.0174 0.55 2037398. 4074139. 1558. 3116. 424.35 0.885 0.51745 0.117

PMI, DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(M), THETA STAR(M), THETA STAR(21), THETA(M), H(W), MIE), PTIMAX,  
 -0.0982 -0.085 0.1025 0.0667 0.00829 0.02322 0.01605 4.16 3.10 1430.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	63.1	63.12	0.190	2.652	0.046	0.044
0.0100	0.03558	0.55303	0.09899	145.6	62.80	0.190	2.652	0.106	0.102
0.0143	0.05081	0.55858	0.10009	147.8	62.55	0.190	2.655	0.108	0.103
0.0204	0.07276	0.66578	0.13385	226.3	62.48	0.189	2.656	0.165	0.158
0.0265	0.09414	0.70925	0.15066	278.9	62.29	0.189	2.658	0.204	0.195
0.0374	0.13303	0.73276	0.16016	314.3	61.92	0.187	2.662	0.230	0.220
0.0502	0.17861	0.75527	0.16892	353.0	61.16	0.186	2.670	0.258	0.247
0.0649	0.23094	0.77478	0.17785	395.2	60.59	0.186	2.676	0.289	0.276
0.0849	0.30925	0.81862	0.18577	471.8	57.43	0.180	2.710	0.345	0.330
0.1078	0.38354	0.85330	0.19111	550.6	53.96	0.173	2.751	0.402	0.385
0.1287	0.45790	0.88188	0.19523	636.4	50.49	0.166	2.794	0.465	0.445
0.1501	0.53404	0.91379	0.19829	753.0	46.39	0.158	2.850	0.550	0.526
0.1818	0.64682	0.94980	0.20049	932.2	41.34	0.147	2.926	0.681	0.652
0.2137	0.76032	0.97150	0.20110	1084.7	37.87	0.139	2.984	0.793	0.758
0.2458	0.87453	0.98680	0.19945	1215.1	34.90	0.132	3.039	0.888	0.850
0.2774	0.98696	0.99930	0.19718	1349.5	32.19	0.125	3.093	0.986	0.944
0.2811	1.00000	1.00000	0.19699	1358.8	31.94	0.120	3.134	1.046	0.950
0.3093	1.10046	1.00317	0.19459	1430.3	30.29	0.117	3.164	1.045	0.999
0.3412	1.21395	1.00207	0.18981	1429.3	28.97	0.112	3.210	1.015	0.970
0.3838	1.36552	0.99960	0.18075	1387.8	27.08	0.106	3.268	1.022	0.978
0.4255	1.51388	1.00354	0.17191	1398.2	24.87	0.101	3.323	1.039	0.994
0.4685	1.66687	1.01028	0.16417	1421.7	22.97				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MD. DAY TEST RUN X PTE TTD TTT  
 10. 5. 10. 22. 306. 254. -0.50 18792.00 644.00 579.00 17.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	579.00	579.00	0.	0.8991
0.0100	0.79	632.63	561.92	921.7	0.9824
0.0239	0.79	632.56	562.68	910.3	0.9822
0.0451	1.72	644.71	405.04	1696.9	1.0011
0.0661	1.96	647.16	366.58	1836.0	1.0049
0.0979	2.19	650.52	331.38	1958.1	1.0101
0.1299	2.41	664.72	308.09	2069.9	1.0322
0.1725	2.66	673.57	279.23	2176.6	1.0459
0.2152	2.92	683.59	252.22	2276.5	1.0615
0.2153	2.92	683.56	252.80	2274.9	1.0614
0.3106	3.62	688.80	184.49	2412.1	1.0385
0.3637	4.05	649.85	152.00	2445.6	1.0091
0.4171	4.43	644.65	131.12	2483.9	1.0010
0.4704	4.70	643.42	116.66	2510.9	0.9991
0.5336	4.90	643.12	110.93	2528.6	0.9986
0.5973	4.94	643.08	109.51	2531.8	0.9986
0.6618	4.94	643.08	109.52	2531.8	0.9986
0.7249	4.93	643.08	109.67	2531.5	0.9986
0.7886	4.93	643.09	109.86	2531.0	0.9986

DELTA DELTA STAR H 14.55 RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5316 0.2895 14.55 613141. 8341233. 739. 10060. 414.76 0.878 0.26820 0.079  
 PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.0648 -0.001 0.2905 0.2905 0.0002 0.0198 0.01985 14.62 4.89 19258.1

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PL1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	39.2	39.25	0.025	4.892	0.002	0.002
0.0100	0.01881	0.36456	0.03751	59.4	39.25	0.025	4.892	0.003	0.003
0.0239	0.04504	0.36241	0.03724	59.1	39.25	0.025	4.892	0.003	0.003
0.0451	0.08488	0.67116	0.09580	199.7	39.25	0.025	4.892	0.011	0.010
0.0661	0.12429	0.72619	0.11453	286.9	39.25	0.025	4.892	0.015	0.015
0.0979	0.18424	0.77449	0.13513	416.0	39.25	0.025	4.892	0.022	0.022
0.1299	0.24436	0.81871	0.15364	579.0	39.25	0.025	4.892	0.031	0.030
0.1725	0.32450	0.86091	0.17826	855.7	39.25	0.025	4.892	0.046	0.044
0.2152	0.40483	0.90042	0.20640	1286.3	39.25	0.025	4.892	0.068	0.067
0.2153	0.40501	0.89979	0.20579	1275.9	39.25	0.025	4.892	0.068	0.066
0.3106	0.58429	0.95408	0.22990	3560.2	39.25	0.025	4.892	0.189	0.185
0.3637	0.68418	0.96731	0.36793	6340.9	39.25	0.025	4.892	0.337	0.329
0.4171	0.78463	0.98244	0.43321	10343.2	39.25	0.025	4.892	0.550	0.537
0.4704	0.88490	0.99313	0.448392	14572.6	39.25	0.025	4.892	0.775	0.757
0.5316	1.00000	1.00000	0.52056	18295.2	39.25	0.025	4.892	0.950	0.950
0.5336	1.00379	1.00014	0.52129	18417.7	39.25	0.025	4.892	0.980	0.956
0.5973	1.12362	1.00142	0.52869	19258.1	39.25	0.025	4.892	1.025	1.000
0.6618	1.24495	1.00141	0.52865	19253.6	39.25	0.025	4.892	1.025	1.000
0.7249	1.36366	1.00128	0.52786	19162.8	39.25	0.025	4.892	1.020	0.995
0.7886	1.48349	1.00110	0.52684	19045.4	39.25	0.025	4.892	1.013	0.989

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE IFO ITO M GEN. CYL.  
 10. 5. 10. 22. 306. 253. 12.50 18792.00 643.00 580.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITO
0.	0.	580.00	580.00	0.	0.9020
0.0100	1.00	648.03	539.95	1139.5	1.0078
0.0205	1.08	648.27	524.90	1217.4	1.0082
0.0361	1.93	659.32	377.17	1841.1	1.0254
0.0565	2.18	661.32	339.20	1967.2	1.0285
0.0778	2.34	661.72	315.92	2038.2	1.0291
0.1098	2.53	668.33	293.42	2122.3	1.0394
0.1423	2.65	672.14	279.22	2172.7	1.0453
0.1720	2.74	672.54	268.74	2202.5	1.0459
0.2159	2.91	673.32	249.99	2255.2	1.0472
0.2584	3.07	676.02	234.71	2302.6	1.0513
0.3009	3.34	683.02	211.66	2379.7	1.0622
0.3441	3.60	689.75	191.69	2446.1	1.0727
0.3858	3.91	692.26	170.47	2503.7	1.0766
0.4391	4.29	681.58	145.44	2537.9	1.0600
0.4923	4.57	660.36	127.70	2529.7	1.0270
0.5558	4.68	646.69	120.00	2515.5	1.0057
0.6198	4.69	643.54	119.09	2510.1	1.0008
0.6833	4.70	642.56	118.54	2509.1	0.9993
0.7478	4.71	642.66	118.27	2510.0	0.9995
0.8107	4.71	642.70	118.34	2509.9	0.9995

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5327 0.2641 13.86 1466778. 15979004. 947. 10316. 420.63 0.879 0.27466 0.129

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR(2), THETA(W), H(W), MIE), PTIMAX,  
 -0.1849 -0.021 0.2851 0.2735 0.00049 0.01856 0.01784 15.33 4.65 18740.7

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PT1/PTE,	PT1/PTIMAX
0.	0.	0.	0.	54.0	54.04	0.032	4.605	0.003	0.003
0.0100	0.01877	0.45226	0.06645	102.3	54.04	0.043	4.254	0.005	0.005
0.0205	0.03858	0.48318	0.11357	175.9	84.04	0.032	4.605	0.009	0.009
0.0361	0.06782	0.73071	0.15369	361.6	54.04	0.032	4.605	0.020	0.020
0.0565	0.10614	0.78075	0.18244	558.7	53.99	0.032	4.605	0.030	0.030
0.0778	0.14608	0.80894	0.20234	715.8	53.83	0.032	4.608	0.038	0.038
0.1098	0.20612	0.84231	0.22662	959.0	53.77	0.032	4.609	0.051	0.051
0.1423	0.26713	0.86230	0.24380	1163.8	53.77	0.032	4.609	0.062	0.062
0.1720	0.32288	0.87416	0.25653	1331.9	53.72	0.032	4.609	0.071	0.071
0.2159	0.40529	0.89506	0.28152	1717.5	53.56	0.032	4.612	0.091	0.092
0.2584	0.48507	0.91386	0.30460	2160.8	53.29	0.032	4.616	0.115	0.115
0.3009	0.56485	0.94446	0.34765	3203.5	53.07	0.032	4.619	0.170	0.171
0.3441	0.64595	0.97083	0.39258	4665.8	52.80	0.031	4.623	0.248	0.249
0.3858	0.72422	0.99370	0.44954	7089.2	52.53	0.031	4.628	0.377	0.378
0.4391	0.82428	1.00727	0.53080	11631.6	52.21	0.031	4.633	0.619	0.621
0.4923	0.92415	1.00400	0.59882	16313.9	51.88	0.031	4.638	0.868	0.871
0.5327	1.00000	1.00000	0.62005	17803.6	51.51	0.031	4.646	0.993	0.990
0.5558	1.04335	0.99836	0.62709	18654.9	51.34	0.031	4.651	0.997	0.995
0.6198	1.16349	0.99623	0.62723	18735.8	51.07	0.031	4.659	0.997	1.000
0.6833	1.28269	0.99583	0.62321	18740.7	50.53	0.030	4.668	0.995	1.000
0.7478	1.40377	0.99616	0.61813	18694.2	49.99	0.030	4.672	0.995	0.998
0.8107	1.52185	0.99614	0.61507	18578.5	49.77	0.030	4.672	0.989	0.991

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITO TW GEN. CYL.  
 10. 7. 14. 22. 306. 252. 20.00 18792.00 641.50 576.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITO
0.	0.	576.00	576.00	0.	0.8979
0.0100	1.66	633.59	405.01	1657.1	0.9877
0.0206	2.20	637.84	323.49	1943.3	0.9943
0.0380	2.47	639.22	287.79	2054.8	0.9965
0.0589	2.68	640.17	262.32	2130.6	0.9979
0.0801	2.87	643.95	243.51	2193.3	1.0038
0.1119	2.95	647.32	236.67	2221.1	1.0091
0.1439	3.02	645.39	228.57	2237.8	1.0061
0.1759	3.09	643.45	221.43	2251.7	1.0030
0.2079	3.17	650.97	216.55	2284.5	1.0148
0.2396	3.28	653.24	207.47	2314.2	1.0183
0.2822	3.43	669.30	199.42	2375.9	1.0433
0.3246	3.66	686.57	186.68	2450.7	1.0703
0.3679	3.88	697.33	173.58	2508.4	1.0870
0.4204	4.11	694.15	158.35	2537.1	1.0821
0.4731	4.26	674.13	145.82	2519.3	1.0509
0.5265	4.33	655.27	137.96	2493.0	1.0215
0.5799	4.38	643.83	133.28	2476.6	1.0036
0.6329	4.39	640.87	132.17	2472.1	0.9990
0.6855	4.42	643.25	131.05	2480.6	1.0027
0.7385	4.46	644.56	129.47	2487.6	1.0048

DELTA DELTA STAR H PSR RS DELTA RTHEIA R RTHEIA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5141 0.1610 8.77 2818507. 22498750. 1395. 11139. 426.84 0.870 0.39094 0.208

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA PRIME, THETA(2), THETA(W), THETA(M), M(E), PTIMAX,  
 -0.1741 -0.027 0.1880 0.1749 0.00096 0.01739 0.01625 10.77 4.32 18572.9

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	85.7	85.67	0.044	4.232	0.005	0.005
0.0100	0.01945	0.66334	0.20421	410.2	85.66	0.044	4.233	0.022	0.022
0.0206	0.04005	0.77791	0.29956	921.2	85.58	0.044	4.233	0.049	0.050
0.0380	0.07187	0.82251	0.35602	1397.6	85.58	0.044	4.233	0.074	0.075
0.0589	0.11462	0.85286	0.40500	1943.0	85.58	0.044	4.234	0.103	0.105
0.0801	0.15589	0.87798	0.44869	2571.1	85.49	0.044	4.234	0.137	0.138
0.1119	0.21765	0.88910	0.46657	2887.1	85.32	0.044	4.235	0.154	0.155
0.1439	0.27989	0.89576	0.48623	3224.4	85.24	0.044	4.236	0.172	0.174
0.1759	0.34213	0.90134	0.49945	3526.1	84.29	0.044	4.245	0.188	0.190
0.2079	0.40437	0.91447	0.51498	3945.8	83.74	0.043	4.249	0.210	0.212
0.2396	0.46603	0.92635	0.54172	4616.6	83.35	0.043	4.253	0.246	0.249
0.2822	0.54889	0.95107	0.57329	5719.8	82.58	0.043	4.261	0.304	0.308
0.3246	0.63135	0.98098	0.62512	7797.4	81.72	0.042	4.269	0.415	0.420
0.3679	0.71557	1.00411	0.68021	10498.2	80.78	0.042	4.278	0.559	0.565
0.4204	0.81769	1.01559	0.74376	14050.9	79.67	0.042	4.289	0.748	0.757
0.4731	0.92019	1.00847	0.78907	16652.3	78.38	0.041	4.301	0.886	0.897
0.5141	1.03000	1.00000	0.80596	17644.3	77.23	0.041	4.317	0.955	0.950
0.5265	1.02405	0.99791	0.80904	17943.3	76.84	0.040	4.336	0.966	0.966
0.5799	1.12772	0.99138	0.81159	18572.9	74.96	0.039	4.360	1.000	1.000
0.6329	1.23101	0.98958	0.79263	18257.7	72.73	0.038	4.391	0.972	0.983
0.6855	1.33331	0.99297	0.77095	18313.5	69.90	0.038	4.420	0.975	0.986
0.7385	1.43640	0.99577	0.75479	18563.0	67.42	0.037	4.420	0.988	0.999

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X TTD TW GEN. CYL.  
 10. 5. 10. 22. 306. 250. 22.00 18792.00 642.50 574.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	VT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	574.00	574.00	0.	0.8934					435.79	0.860	0.45640	0.387
0.0100	1.49	621.55	429.74	1518.0	0.9674								
0.0185	2.04	625.90	341.61	1848.1	0.9742								
0.0293	2.45	628.04	285.56	2028.4	0.9775								
0.0442	2.67	628.79	259.35	2106.8	0.9787								
0.0612	2.87	634.78	239.40	2179.5	0.9880								
0.0831	3.02	642.39	227.03	2233.9	0.9998								
0.1037	3.11	644.67	219.29	2260.6	1.0034								
0.1353	3.18	644.83	213.23	2277.1	1.0036								
0.1678	3.26	646.08	206.70	2297.5	1.0056								
0.2104	3.41	652.77	196.54	2341.2	1.0160								
0.2527	3.60	666.83	185.36	2405.1	1.0379								
0.2843	3.78	679.75	176.00	2460.1	1.0580								
0.3381	4.01	691.72	163.94	2518.0	1.0766								
0.3908	4.17	692.02	154.76	2540.6	1.0771								
0.4434	4.25	677.53	147.16	2524.2	1.0545								
0.4978	4.26	658.79	142.34	2490.9	1.0254								
0.5498	4.30	646.42	137.64	2472.3	1.0061								
0.6030	4.31	642.36	136.04	2466.3	0.9998								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.4089	0.0748	3.02	4047692.	23532583.	2561.	14891.	435.79	0.860	0.45640	0.387			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA STAR(W ),	THETA(2),	THETA(W),	M(W),	MIE1,	PTIMAX,				
-0.1183	-0.055	0.1300	0.1070	0.00243	0.02231	0.01859	5.76	4.20	18584.4				
Y	Y/DELTA	U/(DELTA) RHO * U	PT1	PL1	RHO U PRIME,	M PRIME	PT1/PTIE,	PTI/PTIMAX					
0.	0.	0.	119.1	119.13	0.055	3.983	0.006	0.006					
0.0100	0.02446	0.59781	433.1	119.01	0.055	3.983	0.023	0.023					
0.0185	0.04514	0.72778	989.8	118.89	0.055	3.983	0.053	0.053					
0.0293	0.07163	0.79880	1870.2	118.54	0.055	3.986	0.100	0.101					
0.0442	0.10814	0.82965	2627.8	118.42	0.055	3.986	0.140	0.141					
0.0612	0.14964	0.85828	3562.3	117.34	0.054	3.993	0.190	0.192					
0.0831	0.20322	0.87970	4444.8	116.63	0.054	3.998	0.237	0.239					
0.1037	0.25360	0.89024	5033.7	115.56	0.054	4.005	0.268	0.271					
0.1353	0.33088	0.89673	5483.1	114.01	0.053	4.015	0.292	0.295					
0.1678	0.41036	0.90477	6052.5	112.10	0.053	4.027	0.322	0.326					
0.2104	0.51454	0.92196	7198.5	107.81	0.051	4.057	0.383	0.387					
0.2527	0.61799	0.94712	9142.8	103.53	0.050	4.088	0.487	0.492					
0.2843	0.69527	0.96878	11329.0	100.07	0.049	4.113	0.603	0.610					
0.3381	0.82684	0.99161	14666.7	95.07	0.047	4.153	0.780	0.789					
0.3908	0.95972	1.00049	17231.8	91.13	0.046	4.185	0.917	0.920					
0.4434	1.08436	1.00000	17655.2	90.00	0.045	4.211	0.982	0.993					
0.4978	1.21739	0.99405	18461.7	88.16	0.044	4.232	0.973	0.984					
0.5498	1.34456	0.98092	18292.3	85.77	0.043	4.259	0.989	1.000					
0.6030	1.47466	0.97125	18368.2	80.29	0.042	4.283	0.977	0.988					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TT0 TT10  
 10. 5. 10. 22. 306. 249. 23.00 18792.00 642.00 577.00  
 GEN. CYL. 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.0100	577.00	577.00	0.	0.8988
0.	0.0162	622.15	418.16	1565.5	0.9691
0.	0.0255	624.16	375.15	1729.6	0.9722
0.	0.0363	626.57	313.70	1938.8	0.9760
0.	0.0456	627.31	286.55	2023.3	0.9771
0.	0.0607	627.78	268.52	2077.5	0.9778
0.	0.0781	637.62	254.87	2144.3	0.9932
0.	0.0994	645.21	246.77	2187.9	1.0050
0.	0.1215	647.49	242.22	2206.6	1.0085
0.	0.1529	647.87	233.67	2230.7	1.0091
0.	0.1849	648.18	227.52	2248.0	1.0096
0.	0.2163	652.73	220.50	2278.7	1.0167
0.	0.2475	661.49	213.42	2320.1	1.0304
0.	0.2800	672.57	201.46	2379.0	1.0476
0.	0.3219	685.76	189.89	2440.7	1.0682
0.	0.3656	692.88	172.90	2499.4	1.0793
0.	0.4082	690.29	161.31	2520.9	1.0752
0.	0.4501	683.23	155.33	2518.4	1.0642
0.	0.4928	653.10	147.07	2465.6	1.0173
0.	0.5346	653.25	145.61	2469.6	1.0175
0.	0.5346	647.17	142.22	2463.0	1.0081

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3714 0.0480 1.64 5720485. 25773371. 4173. 18801. 440.38 0.865 0.43400 0.359

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.1162 -0.085 0.1330 0.0984 0.00429 0.02498 0.01869 5.21 4.06 18669.5

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.0100	0.02693	0.62074	0.36572	168.34	0.069	3.734	0.009	0.009
0.	0.0162	0.04362	0.68582	0.44993	167.66	0.069	3.734	0.036	0.036
0.	0.0255	0.06866	0.76875	0.60195	167.49	0.069	3.734	0.053	0.053
0.	0.0363	0.09771	0.80229	0.68562	167.16	0.068	3.738	0.100	0.101
0.	0.0456	0.12292	0.82378	0.74978	166.55	0.068	3.739	0.138	0.139
0.	0.0607	0.16352	0.85027	0.80870	166.32	0.068	3.739	0.173	0.174
0.	0.0781	0.21018	0.86754	0.84526	164.97	0.068	3.745	0.217	0.219
0.	0.0994	0.26764	0.87494	0.85777	163.62	0.067	3.751	0.252	0.253
0.	0.1215	0.32715	0.88453	0.88489	161.60	0.066	3.760	0.269	0.270
0.	0.1529	0.41169	0.89139	0.89160	159.88	0.066	3.772	0.300	0.302
0.	0.1849	0.49786	0.90357	0.90212	154.07	0.065	3.791	0.322	0.324
0.	0.2163	0.58240	0.91998	0.91105	149.82	0.064	3.816	0.356	0.358
0.	0.2475	0.66641	0.94334	0.93817	143.33	0.062	3.846	0.401	0.404
0.	0.2800	0.75392	0.96780	0.95178	136.35	0.060	3.885	0.493	0.497
0.	0.3219	0.86674	0.99106	0.98116	127.09	0.057	3.937	0.609	0.609
0.	0.3656	0.98440	0.99960	0.98868	116.49	0.054	4.002	0.799	0.804
0.	0.3714	1.00000	1.00000	0.98877	108.58	0.051	4.055	0.937	0.943
0.	0.4082	1.09911	0.99858	0.98437	107.79	0.050	4.086	0.990	0.996
0.	0.4501	1.21193	0.97767	0.98825	104.20	0.049	4.109	0.993	1.000
0.	0.4928	1.32690	0.97923	0.95651	101.17	0.048	4.142	0.985	0.992
0.	0.5346	1.43945	0.97663	0.92576	96.79	0.046	4.183	0.981	0.988
0.	0.5346	1.43945	0.97663	18441.1	91.74	0.046	4.183	0.981	0.988

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTC TH GEN. CVL.  
 10. 5. 10. 22. 306. 248. 24.00 18792.00 642.00 572.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	IT/ATIC	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	572.00	572.00	0.	0.8910	14872973.	32463560.	12100.	26412.	436.54	0.855	0.55418	0.334
0.0100	1.61	653.70	429.98	1639.4	0.	0.1379	0.0633						
0.0133	1.66	654.11	420.98	1673.5	1.0189								
0.0195	1.88	655.57	384.21	1805.6	1.0211								
0.0262	2.08	656.41	351.39	1914.3	1.0224								
0.0367	2.24	656.71	327.91	1987.5	1.0229								
0.0477	2.37	656.76	309.48	2042.6	1.0230								
0.0579	2.43	655.26	305.22	2079.8	1.0362								
0.0727	2.49	667.71	298.66	2105.6	1.0400								
0.0896	2.56	665.15	288.39	2127.5	1.0361								
0.1112	2.70	659.63	268.94	2166.5	1.0275								
0.1323	2.88	660.19	248.56	2223.8	1.0283								
0.1534	3.22	664.39	215.76	2321.6	1.0349								
0.1746	3.50	669.76	194.12	2390.4	1.0432								
0.1962	3.81	680.88	187.68	2434.2	1.0606								
0.2279	3.81	683.71	175.08	2472.0	1.0650								
0.2596	3.65	685.28	172.89	2481.1	1.0674								
0.2915	3.90	682.71	169.04	2494.2	1.0634								
0.3236	4.05	676.84	157.92	2496.9	1.0543								
0.3554	3.99	669.92	159.83	2475.5	1.0435								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT			
0.3115	-0.0347	-1.03	14872973.	32463560.	12100.	26412.	436.54	0.855	0.55418	0.334			
PHI.	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W 1),	THETA STAR(W 1),	THETA PRIME,	THETA(2),	THETA(W),	H(W),	M(E),	PTIMAX,			
-0.1466	-0.173	0.1379	0.0633	0.01119	0.02232	0.01096	5.78	4.02	21354.4				
Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	PI1	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	423.9	423.94	0.115	3.181	0.023	0.020				
0.0100	0.03210	0.65679	0.93711	1827.6	421.82	0.115	3.181	0.097	0.086				
0.0133	0.04276	0.67046	0.97605	1970.3	421.39	0.114	3.182	0.105	0.092				
0.0195	0.06266	0.72335	1.14342	2709.7	417.58	0.114	3.188	0.144	0.127				
0.0262	0.08408	0.76690	1.31200	3682.5	413.34	0.112	3.195	0.196	0.172				
0.0367	0.11769	0.79624	1.42981	4602.4	404.86	0.111	3.209	0.245	0.216				
0.0477	0.15316	0.81831	1.52432	5518.5	396.38	0.109	3.224	0.294	0.258				
0.0579	0.18600	0.83321	1.54007	5930.0	387.90	0.106	3.238	0.316	0.278				
0.0727	0.23355	0.84356	1.53248	6233.0	373.06	0.102	3.265	0.332	0.292				
0.0896	0.28777	0.85234	1.51252	6556.9	351.87	0.097	3.305	0.349	0.307				
0.1112	0.35698	0.86795	1.51227	7445.1	322.19	0.087	3.366	0.396	0.349				
0.1323	0.42472	0.89090	1.43647	8415.2	275.56	0.075	3.475	0.448	0.394				
0.1534	0.49245	0.93008	1.36879	11186.1	218.33	0.068	3.640	0.595	0.524				
0.1746	0.56051	0.95766	1.35357	14391.7	188.65	0.065	3.746	0.766	0.674				
0.1962	0.62985	0.97518	1.32629	15960.5	175.51	0.061	3.798	0.849	0.747				
0.2279	0.73161	0.99032	1.31131	18758.2	159.40	0.058	3.869	0.998	0.878				
0.2596	0.83338	0.99398	1.25840	18658.6	150.90	0.056	3.911	0.993	0.874				
0.2915	0.93579	0.99521	1.19792	18521.2	139.50	0.053	4.015	0.986	0.867				
0.3115	1.00000	1.00000	1.21613	20286.7	134.26	0.051	4.063	0.986	0.868				
0.3236	1.03884	1.00030	1.20686	21354.4	131.00								
0.3554	1.14092	0.99175	1.10950	18535.4	122.94								

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNPL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD PTE GEN. CYL.  
 10. 5. 10. 22. 306. 262. -0.50 5126.40 637.50 578.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	578.00	578.00	0.	0.9067								
0.0100	0.69	606.20	553.79	793.5	0.9509					413.87	0.887	0.35492	0.075
0.0203	0.71	606.61	550.53	820.8	0.9515								
0.0327	0.99	611.40	511.24	1097.0	0.9591								
0.0542	1.97	627.01	352.91	1814.7	0.9836								
0.0859	2.51	632.54	279.56	2059.3	0.9922								
0.1284	2.85	634.54	241.39	2173.3	0.9954								
0.1707	3.16	643.21	215.02	2268.1	1.0090								
0.2134	3.46	651.51	192.32	2348.7	1.0220								
0.2557	3.73	659.60	174.55	2414.0	1.0347								
0.3092	4.06	666.62	155.23	2478.6	1.0457								
0.3622	4.32	663.60	140.32	2507.3	1.0409								
0.4259	4.60	656.53	125.28	2526.3	1.0298								
0.4897	4.79	646.89	115.55	2526.5	1.0147								
0.5535	4.90	641.49	110.62	2525.4	1.0063								
0.6172	4.93	640.40	109.15	2526.3	1.0045								
0.6805	4.94	639.32	108.59	2524.8	1.0028								
0.7444	4.94	639.32	108.73	2524.7	1.0028								
0.8083	4.94	639.32	108.78	2524.6	1.0029								

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5526 0.2457 15.39 169333. 2312777. 164. 2238. 413.87 0.887 0.35492 0.075  
 PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(Z), THETA PRIME, THETA(2), THETA(W), THETA(Z), PTIMAX, M(E), PTIMAX,  
 -0.1134 -0.000 0.2459 0.2458 0.00001 0.01596 0.01595 15.41 4.90 5334.7

Y	Y/DELTA	U/UT(DELTA)	RHO * U	PFI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	10.8	10.81			0.002	0.002
0.0100	0.01810	0.31418	0.00902	14.8	10.81	0.025	4.897	0.003	0.003
0.0203	0.03677	0.32500	0.00939	15.2	10.81	0.025	4.897	0.003	0.003
0.0327	0.05918	0.43437	0.01351	20.2	10.81	0.025	4.897	0.004	0.004
0.0542	0.09812	0.71856	0.03238	80.8	10.81	0.025	4.897	0.016	0.015
0.0859	0.15544	0.81542	0.04639	188.3	10.81	0.025	4.897	0.037	0.035
0.1284	0.23237	0.86058	0.05670	318.4	10.81	0.025	4.897	0.062	0.060
0.1707	0.30892	0.89810	0.06643	500.4	10.81	0.025	4.897	0.098	0.094
0.2134	0.38620	0.93004	0.07691	773.4	10.81	0.025	4.897	0.151	0.145
0.2557	0.46275	0.95586	0.08710	1133.8	10.81	0.025	4.897	0.221	0.213
0.3092	0.55957	0.98147	0.10056	1773.9	10.81	0.025	4.897	0.346	0.333
0.3622	0.65548	0.99282	0.11253	2486.0	10.81	0.025	4.897	0.485	0.466
0.4259	0.77076	1.00035	0.12700	3560.8	10.81	0.025	4.897	0.695	0.667
0.4897	0.88623	1.00044	0.13771	4487.5	10.81	0.025	4.897	0.875	0.841
0.5526	1.00000	1.00000	0.14373	5068.0	10.81	0.025	4.897	0.950	0.950
0.5535	1.00169	1.00000	0.14379	5076.6	10.81	0.025	4.897	0.990	0.990
0.6172	1.11697	1.00036	0.14578	5288.7	10.81	0.025	4.897	1.032	0.991
0.6805	1.23152	0.99977	0.14630	5334.7	10.81	0.025	4.897	1.041	1.000
0.7444	1.34716	0.99973	0.14624	5327.8	10.81	0.025	4.897	1.039	0.999
0.8083	1.46281	0.99969	0.14617	5320.1	10.81	0.025	4.897	1.038	0.997

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE PTO TW GEN. CYL.  
 10. 5. 10. 22. 306. 261. 12.50 5126.40 637.50 579.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TT0	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX	TOT.PRESS.RECOV. CT
0.	0.	579.00	579.00	0.	0.9082					0.48250
0.0100	0.66	593.40	545.24	760.7	0.9308					0.807
0.0212	0.85	601.58	521.72	979.5	0.9437	417.25	3432.	417.25	0.807	0.807
0.0318	1.55	615.06	416.13	1545.9	0.9648					0.807
0.0470	2.03	624.14	342.44	1839.7	0.9790					0.807
0.0679	2.29	626.36	305.99	1961.9	0.9825					0.807
0.0999	2.50	625.69	277.85	2044.2	0.9815					0.807
0.1318	2.69	629.95	257.94	2114.1	0.9882					0.807
0.1749	2.93	638.74	234.77	2203.0	1.0019					0.807
0.2171	3.18	648.32	214.75	2282.3	1.0170					0.807
0.2592	3.41	656.67	197.67	2348.3	1.0301					0.807
0.3018	3.63	662.91	182.28	2403.0	1.0399					0.807
0.3530	3.91	667.93	164.53	2459.2	1.0477					0.807
0.4081	4.15	666.17	149.81	2490.7	1.0450					0.807
0.4611	4.33	657.77	138.59	2497.5	1.0318					0.807
0.5251	4.47	647.17	129.47	2493.9	1.0152					0.807
0.5894	4.54	639.80	124.87	2487.2	1.0036					0.807
0.6524	4.58	638.91	122.81	2490.0	1.0022					0.807
0.7159	4.62	639.10	121.12	2494.6	1.0025					0.807
0.7804	4.67	637.15	118.66	2495.8	0.9995					0.807
0.8438	4.72	645.94	118.52	2517.2	1.0132					0.807

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV. CT
0.7488	0.2003	8.90	461575.	450165.	352.	3432.	417.25	0.807	0.48250

  

PMI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX,
-0.1300	-0.071	0.2714	0.2403	0.00226	0.02024	0.01804	13.32	4.65	5180.1

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	16.9	16.92				
0.0100	0.01335	0.30480	0.01375	22.8	16.92	0.035	4.504	0.003	0.003
0.0212	0.02628	0.39247	0.01851	27.8	16.92	0.035	4.504	0.004	0.004
0.0318	0.04248	0.61945	0.03662	66.4	16.92	0.035	4.504	0.005	0.005
0.0470	0.06283	0.73715	0.05296	138.3	16.92	0.035	4.504	0.013	0.013
0.0679	0.09072	0.78611	0.06308	207.2	16.89	0.035	4.506	0.027	0.027
0.0999	0.13345	0.81913	0.07224	288.8	16.85	0.035	4.507	0.040	0.040
0.1318	0.17601	0.84710	0.08031	382.8	16.82	0.035	4.509	0.056	0.056
0.1749	0.23357	0.88274	0.09140	555.3	16.72	0.035	4.509	0.074	0.074
0.2171	0.28992	0.91450	0.10268	792.7	16.58	0.034	4.520	0.107	0.107
0.2592	0.34614	0.94095	0.11384	1099.0	16.45	0.034	4.520	0.153	0.153
0.3018	0.40303	0.96287	0.12529	1496.4	16.31	0.034	4.527	0.212	0.212
0.3550	0.47407	0.98541	0.13999	2167.0	16.07	0.034	4.533	0.289	0.289
0.4081	0.54499	1.00074	0.15374	2942.6	15.87	0.034	4.545	0.423	0.423
0.4611	0.61576	1.00074	0.16416	3641.7	15.63	0.033	4.555	0.574	0.574
0.5251	0.70123	0.99931	0.17187	4276.3	15.31	0.033	4.568	0.710	0.710
0.5894	0.78710	0.99663	0.17379	4559.4	14.97	0.033	4.584	0.826	0.826
0.6524	0.87123	0.99776	0.17290	4700.1	14.64	0.032	4.603	0.880	0.880
0.7159	0.95603	0.99958	0.17177	4830.5	14.31	0.032	4.621	0.907	0.907
0.7488	1.00000	1.00000	0.17136	4921.1	14.14	0.031	4.639	0.917	0.917
0.7804	1.04216	1.00007	0.17108	5008.0	13.96	0.031	4.660	0.942	0.942
0.8438	1.12683	1.00865	0.16961	5180.1	13.70	0.031	4.675	0.977	0.977

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A MUN COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 10. 5. 10. 22. 306. 260. 20.00 5126.40 637.50 576.00 17.00

Y	MACH	TOI.TFMP.	STAT.TEMP.	VELOCITY	YI/TIIN	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	576.00	576.00	0.	0.9035					420.41	0.879	0.48520	0.093
0.0100	0.99	613.92	513.07	1100.7	0.9630								
0.0204	1.57	622.26	417.00	1570.4	0.9761								
0.0346	2.24	628.92	313.93	1945.3	0.9865								
0.0558	2.50	630.79	280.68	2050.9	0.9895								
0.0785	2.67	633.03	260.91	2114.4	0.9930								
0.1089	2.87	638.53	240.94	2185.5	1.0016								
0.1408	3.06	646.84	225.13	2250.9	1.0147								
0.1834	3.29	656.24	206.95	2323.3	1.0294								
0.2261	3.52	664.31	190.93	2364.8	1.0421								
0.2684	3.72	670.03	177.94	2431.4	1.0510								
0.3216	3.95	674.06	163.48	2476.7	1.0574								
0.3747	4.13	670.34	152.06	2495.3	1.0515								
0.4279	4.25	658.91	142.95	2489.7	1.0336								
0.4809	4.33	648.45	136.27	2480.6	1.0172								
0.5339	4.40	643.32	132.05	2478.4	1.0091								
0.5871	4.44	640.32	129.74	2476.7	1.0044								
0.6403	4.46	640.60	128.66	2480.0	1.0049								
0.6935	4.48	639.75	127.57	2480.6	1.0035								
0.7466	4.52	639.98	125.85	2485.3	1.0039								
0.7995	4.59	640.28	122.98	2492.9	1.0044								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT			
0.5631	0.1346	8.99	815595.	6737939.	330.	2723.	420.41	0.879	0.48520	0.093			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W 1,	DELTA STAR(W 1,	THETA STAR(1),	THETA STAR(2),	THETA(W),	H(W),	MI(E),	PTLMAX,			
-0.1509	-0.051	0.1853	0.1853	0.1639	0.00185	0.01312	0.01168	14.03	4.42	5592.7			
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTLMAX				
0.	0.	0.	0.	24.3	24.32				0.005	0.004			
0.0100	0.01776	0.4442	0.03037	45.5	24.30	0.042	4.279	0.009	0.009	0.008			
0.0204	0.03621	0.63402	0.05326	98.5	24.27	0.042	4.279	0.019	0.019	0.018			
0.0346	0.06150	0.78540	0.08746	275.7	24.22	0.042	4.281	0.054	0.054	0.049			
0.0558	0.09906	0.82804	0.10303	411.8	24.20	0.042	4.282	0.080	0.080	0.074			
0.0785	0.13938	0.85367	0.11369	535.7	24.08	0.042	4.286	0.104	0.104	0.096			
0.1089	0.19339	0.88240	0.12701	728.2	24.03	0.042	4.287	0.142	0.142	0.130			
0.1408	0.25004	0.90878	0.13957	963.3	23.96	0.042	4.290	0.188	0.188	0.172			
0.1834	0.32569	0.93801	0.15511	1346.3	23.71	0.042	4.298	0.263	0.263	0.241			
0.2261	0.40151	0.96283	0.17080	1843.9	23.47	0.041	4.306	0.360	0.360	0.330			
0.2684	0.47663	0.98167	0.18454	2401.2	23.18	0.041	4.315	0.468	0.468	0.429			
0.3216	0.57110	0.99995	0.20074	3236.9	22.74	0.040	4.330	0.631	0.631	0.579			
0.3747	0.66540	1.00746	0.21278	4002.6	22.25	0.040	4.347	0.781	0.781	0.716			
0.4279	0.75987	1.00520	0.22065	4571.4	21.74	0.039	4.366	0.892	0.892	0.817			
0.4809	0.85399	1.00151	0.22468	4978.7	21.18	0.039	4.386	0.971	0.971	0.890			
0.5339	0.94811	1.00062	0.22531	5257.9	20.60	0.038	4.408	1.026	1.026	0.940			
0.5631	1.00000	1.00000	0.22462	5313.1	20.33	0.037	4.429	1.045	1.045	0.958			
0.5871	1.04258	0.99994	0.22317	5358.3	20.06	0.036	4.459	0.952	0.952	0.922			
0.6403	1.13706	1.00127	0.21716	5324.9	19.34	0.035	4.484	1.032	1.032	0.946			
0.6935	1.23153	1.00151	0.21218	5289.1	18.73	0.035	4.510	1.048	1.048	0.961			
0.7466	1.32583	1.00342	0.20849	5373.3	18.12	0.035	4.545	1.091	1.091	1.000			
0.7995	1.41977	1.00651	0.20512	5592.7	17.37								

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD  
 10. 5. 10. 22. 306. 259. 22.00 5126.40 637.50 576.00 17.00

Y	MACH	TOT.ITMP.	STAT.TEMP.	VELOCITY	YI/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	576.00	576.00	0.	0.9035					426.19	0.876	0.47561	0.150
0.0100	0.95	615.92	520.92	1068.4	0.9662					2738.			
0.0170	1.58	624.26	415.79	1582.6	0.9792								
0.0272	2.18	630.19	323.47	1919.6	0.9885								
0.0381	2.37	631.85	297.90	2003.0	0.9911								
0.0529	2.53	632.97	278.09	2064.8	0.9929								
0.0697	2.64	637.90	265.89	2114.1	1.0006								
0.0908	2.80	643.99	251.03	2172.8	1.0102								
0.1230	3.00	653.34	233.01	2247.2	1.0248								
0.1550	3.19	660.49	218.01	2305.6	1.0361								
0.1869	3.35	667.72	205.38	2356.8	1.0474								
0.2185	3.51	672.64	194.07	2397.8	1.0551								
0.2617	3.72	677.62	179.61	2446.0	1.0629								
0.3037	3.92	677.03	166.51	2476.5	1.0620								
0.3469	4.06	669.91	155.77	2485.3	1.0508								
0.3997	4.18	657.53	146.45	2477.9	1.0314								
0.4525	4.24	648.26	140.81	2469.1	1.0169								
0.5164	4.30	642.18	136.84	2464.0	1.0073								
0.5691	4.34	641.42	134.55	2467.7	1.0061								
0.6225	4.36	640.68	133.29	2468.9	1.0050								
0.6755	4.41	641.08	131.24	2474.9	1.0056								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.4403	0.0952	6.48	1103404.	7283150.	415.	2738.	426.19	0.876	0.47561	0.150

  

PHI,	DELTA STAR PRIME,	DELTA STAR(21),	DELTA STAR(W 1),	DELTA STAR(W 2),	THETA(1),	THETA(2),	THETA(M),	H(M),	MIEI),	PTIMAX,
-0.1567	-0.054	0.1491	0.1255	0.00219	0.01251	0.01064	11.80	4.23	5367.5	

  

Y	V/DELTA	U/(WDELTA)	RHO * U	P/PI	PL,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	32.1	32.05	0.052	4.037	0.006	0.006
0.0100	0.02271	0.43240	0.03823	57.5	31.99	0.052	4.037	0.011	0.011
0.0170	0.03855	0.64051	0.07087	132.5	31.96	0.052	4.037	0.026	0.025
0.0272	0.06185	0.77693	0.11039	329.5	31.93	0.052	4.038	0.064	0.061
0.0381	0.08650	0.81068	0.12495	443.2	31.89	0.052	4.039	0.086	0.083
0.0529	0.12014	0.83571	0.13729	564.6	31.73	0.052	4.043	0.110	0.105
0.0697	0.15823	0.85564	0.14687	678.1	31.70	0.052	4.043	0.132	0.126
0.0908	0.20634	0.87939	0.15891	822.1	31.51	0.052	4.048	0.166	0.159
0.1230	0.27939	0.90950	0.17508	1150.1	31.16	0.051	4.056	0.224	0.214
0.1550	0.35207	0.93316	0.18962	1489.4	30.77	0.051	4.066	0.291	0.277
0.1869	0.42453	0.95387	0.20231	1874.8	30.26	0.050	4.079	0.366	0.349
0.2185	0.49631	0.97047	0.21368	2300.8	29.68	0.050	4.093	0.449	0.429
0.2617	0.59443	0.98999	0.22867	3005.9	28.82	0.049	4.116	0.586	0.560
0.3037	0.68983	1.00234	0.24167	3779.7	27.89	0.048	4.141	0.737	0.704
0.3469	0.78796	1.00588	0.24941	4425.4	26.83	0.046	4.170	0.863	0.824
0.3997	0.90789	1.00290	0.25281	4918.0	25.64	0.045	4.205	0.959	0.916
0.4403	1.00000	1.00000	0.25200	5099.1	24.84	0.044	4.237	1.005	0.960
0.4525	1.02782	0.99932	0.25151	5153.8	24.62	0.043	4.271	1.029	0.983
0.5164	1.17297	0.99725	0.24717	5274.9	23.56	0.041	4.303	1.043	0.996
0.5691	1.29267	0.99875	0.24149	5345.3	22.60	0.040	4.331	1.035	0.989
0.6225	1.41397	0.99926	0.23525	5306.9	21.80	0.039	4.367	1.000	0.989
0.6755	1.53435	1.00167	0.22893	5367.5	20.83				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 10. 5. 10. 22. 306. 258. 23.00 5126.40 637.50 579.00 17.00

Y	MACH	IDT.TEMP.	STAT.TEMP.	VELOCITY	TT/FTO
0.	0.	579.00	579.00	0.	0.9082
0.0100	1.16	625.14	492.84	1260.7	0.9806
0.0201	2.11	635.82	336.08	1897.7	0.9974
0.0280	2.27	637.03	314.16	1969.5	0.9993
0.0389	2.40	637.88	296.85	2024.1	1.0006
0.0539	2.53	638.69	280.64	2074.0	1.0019
0.0748	2.68	647.18	265.68	2140.8	1.0152
0.0960	2.81	654.33	253.90	2193.3	1.0264
0.1283	3.00	661.73	235.93	2261.8	1.0380
0.1596	3.16	662.44	221.48	2301.6	1.0391
0.1915	3.41	674.23	202.66	2380.2	1.0576
0.2339	3.59	679.04	189.47	2425.2	1.0652
0.2778	3.82	678.79	173.55	2463.7	1.0648
0.3191	3.97	670.78	161.31	2474.0	1.0522
0.3612	4.08	660.55	152.37	2470.9	1.0362
0.4043	4.13	650.18	147.28	2458.0	1.0199
0.4466	4.16	644.07	144.60	2449.6	1.0103
0.4888	4.20	642.34	141.94	2451.9	1.0076
0.5527	4.27	640.85	137.79	2458.4	1.0053

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3526 0.0729 4.54 1479265. 7782525. 593. 3118. 434.23 0.879 0.44639 0.200

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(W), THETA STAR(1), THETA STAR(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.1485 -0.055 0.1281 0.1012 0.00242 0.01365 0.01096 9.23 4.07 5305.9

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0100	0.02836	0.50995	43.3	43.29	0.064	0.008	0.008	0.008
0.0201	0.05688	0.76758	99.3	43.20	0.064	0.019	0.019	0.019
0.0280	0.07946	0.79664	401.2	43.07	0.064	0.078	0.078	0.076
0.0389	0.11034	0.81874	509.8	42.94	0.064	0.099	0.099	0.096
0.0539	0.15282	0.83891	623.3	42.85	0.064	0.122	0.122	0.117
0.0748	0.21203	0.86595	757.4	42.59	0.064	0.148	0.148	0.143
0.0960	0.27228	0.88717	951.1	42.16	0.063	0.186	0.179	0.179
0.1283	0.36382	0.91486	1141.8	41.55	0.063	0.223	0.215	0.215
0.1596	0.45258	0.93099	1495.6	40.47	0.062	0.292	0.282	0.282
0.1915	0.54304	0.96277	1812.6	39.17	0.060	0.354	0.342	0.342
0.2339	0.66327	0.98097	2427.6	36.14	0.057	0.474	0.458	0.458
0.2778	0.78776	0.99654	3074.1	35.28	0.056	0.600	0.579	0.579
0.3191	0.90487	1.00071	3928.7	33.20	0.054	0.766	0.740	0.740
0.3526	1.00000	1.00000	4652.2	31.73	0.052	0.908	0.877	0.877
0.3612	1.02426	0.99944	5040.6	30.56	0.051	1.003	0.950	0.950
0.4043	1.14648	0.99424	5139.7	30.30	0.050	1.030	0.969	0.969
0.4466	1.26643	0.99083	5281.8	29.22	0.048	1.024	0.995	0.995
0.4888	1.38609	0.99176	5246.9	28.14	0.047	1.026	0.989	0.989
0.5527	1.56730	0.99439	5257.3	26.66	0.044	1.026	0.991	0.991
			5305.9	24.46		4.233	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITD TM GEN. CYL.  
 10. 5. 10. 22. 306. 257. 24.00 4856.60 637.50 572.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	IT/ITD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS-RECOV.	CT
0.	0.	572.00	572.00	0.	0.8973					441.78	0.857	0.49419	0.245
0.0100	1.52	611.71	418.98	1521.6	0.9595					4296.			
0.0162	1.78	628.57	384.88	1711.0	0.9860								
0.0247	1.97	644.60	362.85	1839.8	1.0111								
0.0358	2.09	659.15	351.43	1922.7	1.0340								
0.0525	2.27	664.81	327.19	2014.0	1.0428								
0.0739	2.49	668.57	298.88	2107.4	1.0487								
0.0949	2.69	673.10	275.41	2185.8	1.0558								
0.1274	2.97	680.19	245.56	2285.1	1.0670								
0.1589	3.21	682.63	222.87	2350.2	1.0708								
0.1909	3.43	680.63	203.36	2394.6	1.0677								
0.2229	3.58	674.06	189.27	2413.3	1.0573								
0.2546	3.73	660.13	174.49	2415.4	1.0355								
0.2863	3.78	650.15	168.40	2405.8	1.0198								
0.3179	3.83	646.59	164.46	2406.7	1.0143								
0.3497	3.90	645.20	159.49	2415.6	1.0121								
0.3817	3.95	645.72	156.86	2423.4	1.0129								
0.4136	3.98	645.03	154.59	2427.3	1.0118								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS-RECOV.	CT			
0.2393	0.0153	0.77	3648607.	9899687.	1761.		4296.	0.857	0.49419	0.245			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W J),	THETA STAR(W J),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX,			
-0.1183	-0.083	0.0983	0.0571	0.00536	0.01452	0.00889	6.42	3.67	4856.6				
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	109.8	109.80			0.023	0.023	0.023			
0.0100	0.04178	0.62985	0.23212	412.5	109.69	0.125	3.091	0.085	0.085	0.085			
0.0162	0.06769	0.70824	0.28015	602.0	108.15	0.124	3.100	0.124	0.124	0.124			
0.0247	0.10308	0.76155	0.31500	796.7	106.62	0.123	3.110	0.164	0.164	0.164			
0.0358	0.14971	0.79587	0.32552	922.8	102.11	0.120	3.139	0.190	0.190	0.190			
0.0525	0.21932	0.83363	0.34063	1135.6	94.98	0.114	3.188	0.234	0.234	0.234			
0.0739	0.30882	0.87233	0.35411	1442.9	86.19	0.107	3.254	0.297	0.297	0.297			
0.0949	0.39660	0.90476	0.36558	1804.2	79.06	0.102	3.314	0.371	0.371	0.371			
0.1274	0.53231	0.94585	0.37505	2446.7	69.17	0.093	3.406	0.504	0.504	0.504			
0.1589	0.66393	0.97282	0.37916	3103.3	61.71	0.086	3.486	0.639	0.639	0.639			
0.1909	0.79763	0.99117	0.38043	3803.5	55.45	0.080	3.562	0.783	0.783	0.783			
0.2229	0.93134	0.99894	0.37933	4352.4	51.06	0.076	3.620	0.896	0.896	0.896			
0.2393	1.00000	1.00000	0.37652	4613.8	48.29			0.950	0.950	0.950			
0.2546	1.06379	0.99981	0.37195	4856.6	46.12	0.071	3.693	1.000	1.000	1.000			
0.2863	1.19624	0.99580	0.35645	4842.1	42.82	0.068	3.747	0.997	0.997	0.997			
0.3179	1.32827	0.99620	0.33704	4763.1	39.53	0.064	3.805	0.981	0.981	0.981			
0.3497	1.46114	0.99989	0.31977	4825.0	36.23	0.061	3.869	0.994	0.994	0.994			
0.3817	1.59485	1.00313	0.30641	4817.7	34.04	0.058	3.915	0.992	0.992	0.992			
0.4136	1.72813	1.00474	0.29734	4822.2	32.50	0.056	3.950	0.993	0.993	0.993			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNPL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 10. 6. 10. 22. 306. 270. -0.50 24393.60 724.00 643.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	643.00	643.00	0.	0.8881
0.0100	0.97	673.41	566.80	1131.8	0.9301
0.0211	0.86	678.64	590.51	1029.0	0.9373
0.0365	1.71	702.74	442.60	1767.9	0.9706
0.0529	2.39	715.83	334.31	2140.9	0.9887
0.0747	2.72	719.10	290.21	2269.9	0.9932
0.1063	3.07	715.62	248.32	2369.4	0.9884
0.1378	3.40	717.95	216.72	2453.9	0.9916
0.1812	3.86	722.69	181.79	2549.2	0.9982
0.2227	4.28	731.75	156.97	2627.8	1.0107
0.2656	4.70	745.88	137.86	2702.7	1.0302
0.3717	5.59	777.10	107.33	2836.6	1.0733
0.4253	5.78	769.42	100.05	2835.8	1.0627
0.4785	5.86	732.77	93.22	2771.9	1.0121
0.5421	5.88	725.21	91.70	2758.8	1.0017
0.6063	5.88	725.21	92.07	2758.8	1.0017
0.6691	5.86	725.23	92.07	2758.8	1.0017
0.7328	5.87	726.30	92.10	2760.3	1.0032

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4572 0.2200 16.96 263939. 5867353. 208. 4613. 456.68 0.871 0.31591 0.412

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W J), THETA STAR(2), THETA(1W), M(W), M(E), PTIMAX,  
 -0.1204 -0.006 0.2259 0.2235 0.00011 0.01287 0.01274 17.55 5.84 25225.2

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	18.1	18.13	0.012	0.001	0.001	0.001
0.0100	0.02187	0.40348	0.02110	33.1	18.13	0.012	5.828	0.001	0.001
0.0211	0.04626	0.36682	0.01841	29.5	18.13	0.012	5.828	0.001	0.001
0.0365	0.07981	0.63025	0.04220	91.5	18.13	0.012	5.828	0.004	0.004
0.0529	0.11562	0.76324	0.06766	260.5	18.13	0.012	5.828	0.011	0.010
0.0747	0.16347	0.80923	0.08264	434.2	18.13	0.012	5.828	0.018	0.017
0.1063	0.23250	0.84470	0.10081	736.7	18.13	0.012	5.828	0.030	0.029
0.1378	0.30140	0.87482	0.11963	1199.8	18.13	0.012	5.828	0.049	0.048
0.1812	0.39633	0.90878	0.14815	2271.4	18.13	0.012	5.828	0.093	0.090
0.2227	0.48710	0.93681	0.17687	3965.8	18.13	0.012	5.828	0.163	0.157
0.2656	0.58093	0.96353	0.20714	6680.5	18.13	0.012	5.828	0.274	0.265
0.3717	0.81300	1.01126	0.27923	18517.0	18.13	0.012	5.828	0.734	0.734
0.4253	0.93023	1.01097	0.29946	22870.3	18.13	0.012	5.828	0.938	0.907
0.4572	1.00000	1.00000	0.30892	23963.9	18.13	0.012	5.828	0.938	0.907
0.4785	1.04659	0.98819	0.31417	24694.3	18.13	0.012	5.828	1.012	0.979
0.5421	1.18570	0.98352	0.31787	25225.2	18.13	0.012	5.828	1.034	1.000
0.6063	1.32612	0.98352	0.31787	25225.2	18.13	0.012	5.828	1.034	1.000
0.6691	1.46348	0.98324	0.31648	24868.8	18.13	0.012	5.828	1.019	0.986
0.7328	1.60281	0.98405	0.31667	24977.4	18.13	0.012	5.828	1.024	0.990

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN K PLE TTD TW GEN. CYL.  
 10. 6. 14. 22. 306. 269. 12.50 24393.60 726.00 644.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TFD
0.	0.	644.00	644.00	0.	0.8871
0.0100	0.92	689.90	590.51	1092.7	0.9503
0.0219	1.61	701.06	461.63	1696.0	0.9657
0.0369	2.34	708.94	337.70	2111.9	0.9765
0.0535	2.58	710.69	304.90	2208.0	0.9789
0.0751	2.79	713.35	279.03	2284.2	0.9826
0.1078	3.08	714.90	246.44	2372.4	0.9847
0.1389	3.34	720.04	222.56	2444.7	0.9918
0.1815	3.58	729.67	196.37	2531.2	1.0051
0.2235	4.17	735.58	164.18	2620.0	1.0132
0.2669	4.39	753.35	155.25	2680.6	1.0377
0.3093	4.72	770.65	141.39	2749.5	1.0615
0.3514	5.02	784.57	129.71	2804.9	1.0807
0.4041	5.29	790.69	119.82	2839.4	1.0894
0.4586	5.42	780.14	113.37	2830.3	1.0746
0.5126	5.49	753.37	107.35	2785.9	1.0377
0.5636	5.51	735.24	104.00	2753.8	1.0127
0.6168	5.54	727.86	102.05	2742.0	1.0026
0.6699	5.55	726.89	101.52	2741.0	1.0012
0.7241	5.58	726.99	100.63	2743.2	1.0014
0.7769	5.57	727.12	100.78	2743.1	1.0015

DELTA DELTA STAR H RSR RS DELTA RTMETHA R RTMETHA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5046 0.1890 12.88 720461. 11342444. 358. 5638. 463.08 0.867 0.37291 0.431

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA PRIME, THETA(2), THETA(W), MW), M(E), PTIMAX,  
 -0.1778 -0.028 0.2170 0.2006 0.00053 0.01414 0.01311 15.30 5.48 24362.2

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PL	RHO U PRIME, M PRIME	PTI/PIF, PTI/PTIMAX
0.	0.	0.	0.	28.5	28.48	0.001	0.001
0.0100	0.01982	0.39099	0.03071	49.1	28.48	0.017	0.002
0.0219	0.04344	0.60687	0.06097	122.9	28.48	0.017	0.002
0.0369	0.07311	0.75567	0.10378	381.8	28.48	0.017	0.005
0.0535	0.10601	0.79004	0.12017	550.6	28.48	0.017	0.016
0.0751	0.14878	0.81734	0.13573	760.2	28.45	0.017	0.023
0.1078	0.21365	0.84867	0.15880	1177.3	28.31	0.017	0.031
0.1389	0.27529	0.87476	0.18066	1719.3	28.23	0.017	0.048
0.1815	0.35972	0.90570	0.21007	2766.1	27.97	0.017	0.071
0.2235	0.44296	0.93743	0.24207	4955.5	26.03	0.016	0.114
0.2669	0.52898	0.95915	0.27509	6882.2	26.34	0.016	0.203
0.3093	0.61301	0.98382	0.30692	10240.2	27.09	0.017	0.282
0.3514	0.69645	1.00363	0.33698	14556.0	26.75	0.017	0.420
0.4041	0.80090	1.01598	0.36379	19467.8	26.35	0.016	0.597
0.4586	0.90891	1.01272	0.37704	22158.1	25.92	0.016	0.799
0.5046	1.00000	1.00000	0.38418	23144.1	25.53	0.016	0.910
0.5126	1.01594	0.99684	0.38504	23316.6	25.46	0.016	0.950
0.5636	1.11701	0.98536	0.38671	23546.2	25.06	0.016	0.967
0.6168	1.2245	0.98111	0.38572	23873.6	24.64	0.016	0.979
0.6699	1.32769	0.98077	0.38310	23917.9	24.35	0.015	0.982
0.7241	1.43511	0.98155	0.38183	24362.2	24.04	0.015	1.000
0.7769	1.53976	0.98153	0.37720	23996.0	23.78	0.015	0.985

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST MUN X PTE TTD TW GEN. CYL.  
 10. 6. 14. 22. 306. 268. 20.00 24393.60 726.50 632.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	R	THETA R	RSR	RS DELTA	THETA R	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	632.00	632.00	0.	0.8699						0.843	0.44259	0.596
0.0100	1.87	738.04	433.87	1911.6	1.0159	367.	4361.	1497163.	17804967.	367.	466.71	0.44259	0.596
0.0219	2.58	744.51	320.05	2258.2	1.0248								
0.0388	2.95	747.12	272.43	2388.1	1.0284								
0.0604	3.22	749.13	244.15	2463.1	1.0311								
0.0857	3.47	762.65	223.37	2545.3	1.0498								
0.1074	3.68	770.47	207.96	2599.6	1.0605								
0.1284	3.83	775.98	196.97	2637.4	1.0681								
0.1705	4.15	783.53	176.19	2701.2	1.0785								
0.2133	4.43	789.03	159.95	2749.1	1.0861								
0.2564	4.69	789.03	146.34	2778.7	1.0861								
0.3085	4.92	797.56	136.45	2818.2	1.0978								
0.3623	5.06	783.75	128.19	2806.4	1.0788								
0.4155	5.13	759.26	121.26	2768.5	1.0451								
0.4683	5.17	743.44	117.34	2742.6	1.0233								
0.5212	5.13	736.31	117.57	2726.4	1.0135								
0.5752	5.14	736.67	117.38	2727.6	1.0140								
0.6273	5.15	731.62	116.11	2719.3	1.0070								
0.6814	5.19	730.88	114.37	2721.5	1.0060								

DELTA DELTA STAR H 11.71 1497163. 17804967.  
 0.3860 0.1063  
 PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA PRIME, THETA(2), THETA(M), H(M), M(E), PTIMAX,  
 -0.1834 -0.020 0.1266 0.1178 0.00053 0.00854 0.00797 14.78 5.10 26799.2

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	47.8	47.84			0.002	0.002
0.0100	0.02591	0.68449	0.12268	306.8	47.79	0.023	5.006	0.013	0.011
0.0219	0.05679	0.80859	0.19627	916.6	47.74	0.023	5.007	0.038	0.034
0.0388	0.10047	0.85510	0.24335	1627.4	47.64	0.023	5.008	0.067	0.061
0.0604	0.15646	0.88196	0.27979	2408.5	47.60	0.023	5.009	0.099	0.090
0.0857	0.22201	0.91141	0.31444	3482.9	47.36	0.023	5.014	0.143	0.130
0.1074	0.27825	0.93083	0.34423	4626.0	47.26	0.023	5.015	0.190	0.173
0.1284	0.33266	0.94439	0.36724	5712.6	47.07	0.023	5.019	0.234	0.213
0.1705	0.44173	0.96722	0.41663	8650.0	46.64	0.023	5.027	0.355	0.323
0.2133	0.55262	0.98437	0.46228	12306.7	46.16	0.022	5.036	0.505	0.459
0.2564	0.66428	0.99497	0.50648	16660.9	45.78	0.022	5.043	0.683	0.622
0.3085	0.79926	1.00913	0.53883	21616.6	44.77	0.022	5.062	0.886	0.807
0.3860	0.93865	1.00468	0.55895	24762.9	43.82	0.022	5.081	1.015	0.924
0.4155	1.00000	1.00000	0.56501	25459.2	43.39	0.021	5.100	1.079	0.950
0.4683	1.07648	0.99133	0.57018	26327.3	42.86	0.021	5.120	1.099	1.000
0.5212	1.21327	0.98205	0.57006	26799.2	41.86	0.021	5.142	1.030	0.937
0.5752	1.35033	0.97626	0.55200	25113.6	40.85	0.020	5.168	1.007	0.916
0.6273	1.49023	0.97669	0.53695	23959.2	39.66	0.020	5.193	0.991	0.902
0.6814	1.62521	0.97370	0.52549	24183.4	38.51	0.019	5.227	1.000	0.913
	1.76538	0.97449	0.51403	24459.9	37.07				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TTD GEN. CYL.  
 10. 6. 10. 22. 306. 267. 22.00 24393.60 725.50 630.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	630.00	630.00	0.	0.8684								
0.0100	1.58	732.17	467.54	1714.3	1.0092								
0.0197	2.12	738.01	389.22	2047.0	1.0172								
0.0305	2.37	740.41	348.55	2169.7	1.0205								
0.0411	2.54	741.47	323.77	2240.1	1.0220								
0.0567	2.65	742.14	309.23	2280.5	1.0229								
0.0726	2.72	741.55	298.51	2307.1	1.0221								
0.0945	2.86	746.42	283.50	2358.3	1.0288								
0.1271	2.96	751.11	272.80	2397.2	1.0353								
0.1581	3.10	754.81	258.67	2441.4	1.0404								
0.1897	3.26	766.78	192.49	2626.7	1.0569								
0.2331	3.56	766.63	217.03	2569.6	1.0567								
0.2747	3.87	789.46	197.69	2666.3	1.0882								
0.3169	4.18	798.31	177.45	2731.1	1.1004								
0.3597	4.48	793.08	158.39	2761.4	1.0931								
0.4126	4.72	776.30	142.46	2759.5	1.0700								
0.4659	4.85	750.14	131.38	2726.5	1.0340								
0.5197	4.91	736.70	126.42	2707.7	1.0154								
0.5728	4.98	732.87	123.15	2706.5	1.0102								
0.6255	5.01	731.16	121.40	2706.6	1.0078								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.4612	0.1379	9.33	2235065.	19863901.	845.	7512.	464.65	0.839	0.36813	0.436			
PHI.	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	THETA STAR(1),	THETA STAR(2),	THETA STAR(1),	THETA STAR(2),	THETA STAR(1),	THETA STAR(2),	M(E),	PTI/MAX.		
-0.1783	-0.061	0.1989	0.1658	0.00165	0.01313	0.01104	15.02	4.84	24381.8				
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTI,	PTI/PTI/MAX				
0.	0.	0.	0.	68.7	68.73	0.031	4.626	0.003	0.003				
0.0100	0.02168	0.62822	0.14025	284.1	68.46	0.031	4.627	0.012	0.012				
0.0197	0.04269	0.75015	0.20957	642.0	68.39	0.031	4.628	0.026	0.026				
0.0305	0.06609	0.79511	0.24779	954.4	68.32	0.031	4.630	0.039	0.039				
0.0411	0.08905	0.82092	0.27487	1239.3	68.18	0.031	4.631	0.051	0.051				
0.0567	0.12303	0.83573	0.29239	1457.2	68.04	0.031	4.635	0.060	0.060				
0.0726	0.15744	0.84545	0.30487	1635.9	67.70	0.031	4.648	0.067	0.067				
0.0945	0.20495	0.86420	0.32647	1994.7	67.36	0.031	4.658	0.082	0.082				
0.1271	0.27560	0.87846	0.34135	2309.1	66.67	0.031	4.658	0.095	0.095				
0.1581	0.34282	0.89468	0.36210	2794.7	65.84	0.031	4.658	0.115	0.115				
0.1897	0.41134	0.9257	0.51642	8194.3	64.95	0.030	4.669	0.336	0.336				
0.2331	0.50544	0.94165	0.43669	5243.9	63.30	0.030	4.690	0.215	0.215				
0.2747	0.59564	0.97711	0.48613	7872.6	61.86	0.029	4.709	0.323	0.323				
0.3169	0.68715	1.00084	0.53808	11587.8	60.00	0.029	4.735	0.475	0.475				
0.3597	0.77995	1.01192	0.58928	16296.2	58.01	0.028	4.763	0.668	0.668				
0.4126	0.89466	1.01124	0.62368	20872.2	55.26	0.027	4.803	0.856	0.856				
0.4612	1.00000	1.00000	0.63556	23162.7	52.80	0.026	4.845	0.959	0.959				
0.4659	1.01023	0.99914	0.63577	23985.3	50.17	0.025	4.884	0.983	0.983				
0.5197	1.12689	0.99227	0.62616	23968.3	50.17	0.024	4.932	1.000	1.000				
0.5728	1.24203	0.99181	0.60728	24381.8	47.42	0.024	4.975	1.000	1.000				
0.6255	1.35630	0.99185	0.58572	24175.0	45.09	0.024	4.975	0.991	0.991				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTC TT0 TT1 GEN. CYL.  
 10. 6. 10. 22. 306. 266. 23.00 24393.60 727.00 632.60 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	632.00	632.00	0.	0.8693
0.0100	1.24	741.70	568.30	1443.4	1.0202
0.0168	1.59	746.33	494.84	1730.2	1.0266
0.0245	1.85	749.46	445.36	1911.4	1.0309
0.0340	1.99	750.86	418.22	1999.0	1.0328
0.0487	2.09	751.80	401.08	2052.7	1.0341
0.0656	2.20	760.11	385.48	2121.5	1.0455
0.0869	2.34	769.60	367.72	2197.3	1.0586
0.1190	2.53	774.39	339.54	2285.7	1.0652
0.1506	2.76	777.01	307.75	2374.4	1.0688
0.1836	3.03	782.60	275.65	2467.9	1.0765
0.2254	3.43	791.65	236.08	2583.5	1.0889
0.2673	3.85	793.84	199.97	2671.1	1.0919
0.3102	4.25	788.94	170.88	2724.9	1.0852
0.3951	4.73	758.97	138.49	2730.3	1.0440
0.4384	4.81	744.47	132.17	2712.2	1.0240
0.4799	4.90	736.39	126.96	2705.8	1.0129
0.5232	4.89	734.50	126.97	2701.6	1.0103
0.5653	4.96	732.91	123.64	2705.5	1.0081

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA O RECOV. TEMP. RECOV. FACT. TOT. PRESS.-RECOV. CT  
 0.4295 0.1403 7.26 3372642. 21532771. 1626. 10379. 464.92 0.840 0.3501 0.383

PHI DELTA STAR PRIME, DELTA STAR(12), DELTA STAR(W 1), THETA STAR(W 1), THETA PRIME, THETA(12), THETA(W 1), H(W 1), M(1), PTLMAX,  
 -0.1624 -0.106 0.2466 0.1649 0.00244 0.01690 0.01153 14.29 4.81 24876.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PL1	RHO U PRIME	M PRIME	PT1/PTE	PT1/PTLMAX
0.	0.	0.	0.	101.6	101.59	0.040	4.330	0.004	0.004
0.0100	0.02328	0.53122	0.14975	257.0	101.19	0.040	4.335	0.011	0.010
0.0168	0.03905	0.63974	0.20585	423.8	100.58	0.040	4.336	0.017	0.017
0.0245	0.05714	0.70348	0.25125	621.1	100.47	0.040	4.339	0.025	0.025
0.0340	0.07923	0.73574	0.27870	775.9	100.07	0.040	4.348	0.032	0.031
0.0487	0.11348	0.75568	0.29477	891.3	98.85	0.040	4.360	0.037	0.036
0.0656	0.15267	0.78081	0.31242	1048.9	97.43	0.039	4.380	0.043	0.042
0.0869	0.20231	0.80870	0.33072	1259.8	94.99	0.039	4.432	0.052	0.051
0.1190	0.27707	0.84124	0.34866	1592.6	88.89	0.037	4.479	0.065	0.064
0.1506	0.35064	0.87387	0.37677	2143.4	83.81	0.036	4.525	0.088	0.086
0.1836	0.42748	0.90829	0.41284	3051.8	79.14	0.034	4.585	0.125	0.123
0.2254	0.52480	0.95084	0.46834	5071.6	73.45	0.033	4.642	0.208	0.204
0.2673	0.62235	0.98307	0.53292	8535.5	68.47	0.031	4.691	0.350	0.343
0.3102	0.72224	1.00486	0.67217	13641.1	64.51	0.030	4.772	0.559	0.548
0.3951	0.91991	1.00486	0.67217	22546.9	58.52	0.028	4.803	0.924	0.906
0.4295	1.00000	1.00000	0.67568	23632.5	56.77	0.027	4.856	0.980	0.950
0.4384	1.02072	0.99821	0.67415	23913.4	56.38	0.026	4.891	1.020	1.000
0.4799	1.11735	0.99587	0.65730	24676.3	52.93	0.025	4.952	0.970	0.951
0.5232	1.21816	0.99432	0.62974	23650.2	50.80	0.024	4.952	0.982	0.963
0.5653	1.31619	0.99574	0.60231	23957.6	47.24	0.024	4.952	0.982	0.963

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TTD GEN. CYL.  
 10. 6. 10. 22. 306. 265. 24.00 24393.60 725.00 625.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/T	TT	TT/TTD
0.	0.	625.00	625.00	0.	0.8621		
0.0100	1.32	776.80	575.19	1556.3	1.0714		
0.0151	1.34	776.95	572.42	1567.5	1.0717		
0.0151	1.32	776.81	575.08	1556.8	1.0715		
0.0213	1.49	778.60	538.61	1698.0	1.0739		
0.0304	1.62	779.85	511.14	1796.8	1.0757		
0.0405	1.70	780.70	493.91	1856.2	1.0768		
0.0533	1.77	781.45	480.45	1901.6	1.0779		
0.0756	1.99	777.60	434.39	2030.6	1.0726		
0.0960	2.23	773.93	388.06	2153.1	1.0675		
0.1170	2.46	774.80	351.25	2255.8	1.0687		
0.1488	2.91	778.02	288.45	2425.2	1.0731		
0.1809	3.36	780.08	239.04	2549.5	1.0760		
0.2128	3.77	781.40	203.21	2635.6	1.0778		
0.2557	4.23	771.00	168.51	2690.4	1.0634		
0.2979	4.52	758.21	149.14	2705.0	1.0458		
0.3402	4.61	746.25	142.12	2694.1	1.0293		
0.3825	4.69	739.77	137.06	2690.9	1.0204		
0.4255	4.73	739.57	134.90	2695.3	1.0201		
0.4688	4.87	739.52	128.94	2708.4	1.0200		

DELTA DELTA STAR H RSR RS DELTA RTMETHA R RTMETHA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2928 0.0543 1.77 9793202. 24363026. 7309. 18182. 470.56 0.826 0.31466 0.469

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(2), THETA PRIME, THETA(1), THETA(2), THETA(W), M(W), M(E), PTIMAX.  
 -0.1278 -0.178 0.2321 0.0979 0.00571 0.02504 0.01119 8.74 4.69 24459.8

Y	Y/DELTA	U/(DELTA) RHO	U	PTI	P1,	RHO U PRIME,	M PRIME	PTI/PTI,	PTI/PTIMAX
0.	0.	0.	0.	294.9	794.91			0.012	
0.0100	0.03415	0.57528	0.46169	838.3	292.85	0.083	3.528	0.034	0.034
0.0151	0.05150	0.57942	0.46584	850.5	291.96	0.083	3.530	0.035	0.035
0.0151	0.05150	0.57544	0.46050	836.3	291.96	0.083	3.530	0.034	0.034
0.0213	0.07291	0.62766	0.53091	1049.8	289.02	0.082	3.537	0.043	0.043
0.0304	0.10375	0.66415	0.57988	1242.1	283.12	0.081	3.552	0.051	0.051
0.0405	0.13844	0.68612	0.60058	1361.8	274.27	0.080	3.574	0.056	0.056
0.0533	0.18198	0.70290	0.60529	1440.3	262.47	0.077	3.606	0.059	0.059
0.0756	0.25814	0.75058	0.62252	1754.2	228.56	0.071	3.705	0.072	0.072
0.0960	0.32801	0.79587	0.61970	2147.5	191.69	0.063	3.833	0.088	0.088
0.1170	0.39955	0.83382	0.64006	2726.7	171.05	0.058	3.917	0.112	0.111
0.1488	0.50814	0.89646	0.68624	4514.7	140.08	0.051	4.067	0.185	0.185
0.1809	0.61776	0.94240	0.75140	7591.5	120.91	0.046	4.179	0.311	0.310
0.2128	0.72670	0.97421	0.80231	11836.5	106.17	0.042	4.279	0.485	0.484
0.2557	0.87320	0.99447	0.85047	18730.6	91.42	0.038	4.397	0.768	0.766
0.2928	1.00000	1.00000	0.85326	23236.8	81.63		4.498	0.950	0.950
0.3402	1.01371	0.99989	0.85084	23852.2	80.51	0.035	4.498	0.975	0.975
0.3825	1.16177	0.99583	0.81434	24459.8	73.73	0.033	4.569	1.000	1.000
0.4255	1.30622	0.99466	0.75908	24241.9	66.35	0.031	4.654	0.991	0.991
0.4688	1.45306	0.99627	0.70723	23438.6	60.75	0.029	4.727	0.961	0.958
0.4688	1.60093	1.00113	0.64970	23986.0	53.08	0.026	4.839	0.981	0.981

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITO TW GEN. CYL.  
 10. 6. 10. 22. 306. 280. -0.50 12096.00 725.50 655.00 17.00

Y	MACH	INT. TEMP.	STAT. TEMP.	VELOCITY	TT/IT0
0.	0.	655.00	655.00	0.	0.9028
0.0100	1.07	695.21	565.13	1250.1	0.9583
0.0229	0.93	692.07	590.23	1106.1	0.9539
0.0439	2.11	714.55	377.41	2012.5	0.9849
0.0652	2.87	722.04	272.69	2323.4	0.9952
0.0971	3.31	724.29	226.77	2444.8	0.9983
0.1293	3.63	728.22	200.65	2517.6	1.0037
0.1719	4.00	739.44	176.36	2600.9	1.0192
0.2142	4.37	752.63	156.05	2677.2	1.0374
0.2562	4.73	764.78	139.53	2740.7	1.0541
0.3098	5.17	776.52	122.54	2803.0	1.0703
0.3629	5.52	777.81	109.74	2833.0	1.0721
0.4169	5.76	764.67	100.16	2825.5	1.0540
0.4689	5.88	746.12	94.38	2798.2	1.0284
0.5219	5.92	734.13	91.65	2778.2	1.0119
0.5754	5.93	729.77	90.81	2770.6	1.0059
0.6294	5.93	728.69	90.78	2768.3	1.0044
0.6812	5.92	727.61	90.86	2765.8	1.0029
0.7349	5.92	727.61	90.86	2765.8	1.0029

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4758 0.2139 23.69 134628. 3177319. 74. 1739. 460.20 0.888 0.34033 0.229

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.1783 -0.001 0.2147 0.2144 0.00001 0.00902 0.00901 23.81 5.88 13847.1

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	9.4	9.41				0.001
0.0100	0.02102	0.44729	0.01213	19.4	9.41	0.012	5.882	0.001	0.001
0.0229	0.04823	0.39577	0.01028	16.4	9.41	0.012	5.882	0.001	0.001
0.0439	0.09233	0.72008	0.02924	87.9	9.41	0.012	5.882	0.007	0.006
0.0652	0.13711	0.83131	0.04673	284.3	9.41	0.012	5.882	0.024	0.021
0.0971	0.20418	0.87474	0.05912	548.0	9.41	0.012	5.882	0.045	0.040
0.1293	0.27175	0.90077	0.06881	857.2	9.41	0.012	5.882	0.071	0.062
0.1719	0.36128	0.93060	0.08088	1420.6	9.41	0.012	5.882	0.117	0.103
0.2142	0.45018	0.95788	0.09408	2318.7	9.41	0.012	5.882	0.192	0.167
0.2562	0.53845	0.98062	0.10772	3628.6	9.41	0.012	5.882	0.300	0.262
0.3098	0.65110	1.00290	0.12544	6028.9	9.41	0.012	5.882	0.498	0.435
0.3629	0.76270	1.01365	0.14158	8923.0	9.41	0.012	5.882	0.738	0.644
0.4169	0.87619	1.01095	0.15471	11573.1	9.41	0.012	5.882	0.957	0.836
0.4689	0.98548	1.00118	0.16259	13074.4	9.41	0.012	5.882	1.081	0.944
0.4758	1.00000	1.00000	0.16321	13154.7	9.41	0.012	5.882	1.081	0.944
0.5219	1.09686	0.99404	0.16624	13690.7	9.41	0.012	5.882	1.132	0.989
0.5754	1.20930	0.99132	0.16732	13847.1	9.41	0.012	5.882	1.145	1.000
0.6294	1.32279	0.99050	0.16723	13790.5	9.41	0.012	5.882	1.140	0.996
0.6812	1.43166	0.98960	0.16693	13676.9	9.41	0.012	5.882	1.131	0.988
0.7349	1.54452	0.98960	0.16693	13676.9	9.41	0.012	5.882	1.131	0.988

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE  
 10. 6. 10. 22. 306. 279. 12.50 12096.00 727.00 651.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	651.00	651.00	0.	0.8955					
0.0100	0.99	697.83	583.91	1169.9	0.9599					
0.0259	1.27	703.56	531.55	1437.6	0.9678					
0.0383	2.11	717.09	379.67	2013.4	0.9864					
0.0556	2.61	722.13	305.31	2237.8	0.9933					
0.0789	2.90	724.83	270.49	2336.3	0.9970					
0.1109	3.17	730.22	242.54	2420.5	1.0044					
0.1426	3.42	739.61	221.61	2494.6	1.0173					
0.1749	3.66	750.01	203.61	2562.1	1.0317					
0.2169	3.96	761.35	184.31	2633.0	1.0473					
0.2594	4.27	771.62	166.12	2697.1	1.0614					
0.3127	4.64	778.71	146.69	2755.5	1.0711					
0.3658	4.97	778.80	131.27	2789.1	1.0713					
0.4191	5.21	767.89	119.41	2791.2	1.0562					
0.4736	5.37	751.53	111.02	2774.0	1.0337					
0.5254	5.44	739.65	106.75	2757.5	1.0174					
0.5788	5.48	733.32	104.77	2748.0	1.0087					
0.6316	5.49	731.22	104.16	2744.7	1.0059					
0.6849	5.50	730.20	103.56	2743.8	1.0044					
0.7388	5.52	730.26	102.96	2745.2	1.0045					
0.7907	5.53	729.24	102.62	2743.7	1.0031					
0.8443	5.52	729.36	102.71	2743.8	1.0033					

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.5199	0.2105	20.21	347185.	5987465.	123.	2113.	462.70	0.877	0.35956	0.222

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W),	DELTA STAR(W),	THETA(2),	THETA(W),	H(W),	MIE),	PTIMAX,
-0.1755	-0.013	0.2230	0.2163	0.00024	0.01017	0.00988	21.90	5.44	12187.0

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	13.9	13.88				
0.0100	0.01924	0.42398	0.01619	25.9	13.87	0.017	5.401	0.001	0.001
0.0259	0.04980	0.52100	0.02185	37.0	13.87	0.017	5.401	0.002	0.002
0.0383	0.07369	0.72969	0.04285	128.4	13.87	0.017	5.401	0.003	0.003
0.0556	0.10702	0.81102	0.05923	282.2	13.87	0.017	5.401	0.011	0.011
0.0789	0.15180	0.84673	0.06979	436.8	13.87	0.017	5.401	0.023	0.023
0.1109	0.21332	0.87724	0.08064	656.7	13.87	0.017	5.401	0.036	0.036
0.1426	0.27429	0.90411	0.09087	940.9	13.85	0.017	5.402	0.054	0.054
0.1749	0.33642	0.92856	0.10127	1324.9	13.81	0.017	5.405	0.078	0.077
0.2169	0.41721	0.95424	0.11485	1976.5	13.80	0.017	5.406	0.110	0.109
0.2594	0.49896	0.97749	0.13001	2968.6	13.74	0.017	5.410	0.163	0.162
0.3127	0.60148	0.99867	0.14966	4713.3	13.67	0.017	5.414	0.245	0.244
0.3658	0.70362	1.01085	0.16842	6920.0	13.60	0.017	5.419	0.390	0.387
0.4191	0.80615	1.01159	0.18396	9109.5	13.51	0.017	5.425	0.572	0.568
0.4736	0.91098	1.00535	0.19523	10822.7	13.41	0.017	5.432	0.753	0.747
0.5199	1.00000	1.00000	0.20024	11577.6	13.33	0.017	5.438	0.895	0.888
0.5254	1.01051	0.99936	0.20056	11667.6	13.33	0.016	5.438	0.950	0.950
0.5788	1.11333	0.99592	0.20196	11988.7	13.21	0.016	5.445	0.991	0.984
0.6316	1.21489	0.99474	0.20141	12026.1	13.12	0.016	5.452	0.994	0.987
0.6849	1.31742	0.99441	0.20037	12082.6	12.98	0.016	5.462	0.999	0.991
0.7388	1.42109	0.99492	0.19927	12187.0	12.83	0.016	5.472	1.008	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/DELTA	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.7907	1.52092	0.99436	0.19679	12083.5	12.63	0.016	5.486	0.999	0.992
0.8443	1.62402	0.99442	0.19446	11922.6	12.49	0.016	5.496	0.986	0.978

HYPERSONIC BOUNDARY LAYER AEOC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MD. DAY TEST RUN X PTE TTD TM GEN. CYL.  
 10. 6. 10. 22. 306. 278. 20.00 12096.00 726.00 644.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	644.00	644.00	0.	0.8871
0.0100	1.09	703.61	568.63	1273.4	0.2692
0.0208	1.18	705.17	552.33	1355.0	0.9713
0.0357	2.36	720.94	340.47	2138.0	0.9930
0.0577	2.83	724.19	278.40	2314.2	0.9975
0.0787	3.04	737.10	258.54	2397.8	1.0153
0.1098	3.29	748.04	236.02	2480.2	1.0304
0.1419	3.54	766.04	218.30	2565.2	1.0551
0.1745	3.77	777.32	202.49	2627.9	1.0707
0.2162	4.05	785.21	183.54	2688.6	1.0816
0.2587	4.31	788.81	167.52	2732.0	1.0865
0.3018	4.55	786.26	153.01	2758.2	1.0830
0.3441	4.74	775.80	141.29	2761.0	1.0686
0.3872	4.88	760.82	132.04	2748.5	1.0480
0.4288	4.98	749.07	125.54	2737.0	1.0318
0.4819	5.07	737.47	120.27	2723.0	1.0158
0.5348	5.10	734.52	118.25	2721.0	1.0117
0.5880	5.12	733.83	117.54	2721.0	1.0108
0.6411	5.16	733.18	115.91	2723.2	1.0099
0.6942	5.22	733.60	113.62	2729.2	1.0105

DELTA DELTA STAR H RSR RS DELTA RTHEIA R RTHEIA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4564 0.1475 16.72 716639. 8846880. 171. 2106. 465.61 0.864 0.40696 0.277

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(W), THETA STAR(M), THETA STAR(M), THETA STAR(M), M(E), PTIMAX,  
 -0.1762 -0.026 0.1739 0.1615 0.00066 0.00816 0.00760 21.25 5.03 12124.7

Y	Y/DELTA	U/(U(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	23.3	23.33	0.024	4.942	0.002	0.002
0.0100	0.02191	0.46652	0.03041	49.1	23.30	0.024	4.942	0.004	0.004
0.0208	0.04556	0.49642	0.03331	54.8	23.30	0.024	4.942	0.005	0.005
0.0357	0.07827	0.78324	0.08526	321.9	23.30	0.024	4.942	0.027	0.027
0.0577	0.12652	0.84782	0.11276	661.0	23.28	0.024	4.943	0.055	0.055
0.0787	0.17256	0.87842	0.12556	909.2	23.23	0.024	4.944	0.075	0.075
0.1098	0.24060	0.90862	0.14212	1315.6	23.21	0.024	4.945	0.109	0.109
0.1419	0.31094	0.93978	0.15813	1869.5	23.09	0.024	4.950	0.155	0.154
0.1745	0.38237	0.96273	0.17376	2546.9	22.98	0.024	4.954	0.211	0.210
0.2162	0.47375	0.98495	0.19492	3698.4	22.84	0.024	4.959	0.306	0.305
0.2587	0.56688	1.00088	0.21502	5126.0	22.63	0.024	4.967	0.424	0.423
0.3018	0.66132	1.01047	0.23522	6888.2	22.39	0.024	4.976	0.569	0.568
0.3441	0.75401	1.01147	0.25233	8596.7	22.16	0.023	4.985	0.711	0.709
0.3872	0.84846	1.00690	0.26454	10016.1	21.81	0.023	4.998	0.826	0.828
0.4288	0.93961	1.00268	0.27173	11099.8	21.39	0.023	5.015	0.918	0.915
0.4564	1.00000	1.00000	0.27430	11918.4	21.11	0.022	5.037	0.984	0.982
0.4819	1.05597	0.99759	0.27512	11906.4	20.85	0.022	5.066	0.995	0.993
0.5348	1.17189	0.99684	0.27022	12039.0	20.15	0.021	5.101	0.973	0.971
0.5880	1.28846	0.99685	0.26116	11772.2	19.36	0.021	5.138	0.979	0.976
0.6411	1.40482	0.99768	0.25431	11836.7	18.57	0.021	5.138	0.977	0.975
0.6942	1.40482	0.99764	0.25420	11820.9	18.57	0.021	5.138	0.977	0.975
0.6942	1.52117	0.99982	0.24812	12124.7	17.73	0.020	5.178	1.002	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NOV COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 10. 6. 10. 22. 306. 277. 22.00 12096.00 725.50 640.00 17.00

Y	MACH	TOT.ITEMP.	STAT.TEMP.	VELOCITY	TT/ITD
0.	0.	640.00	640.00	0.	0.8822
0.0100	1.10	706.85	569.76	1283.3	0.9743
0.0170	1.19	708.42	552.37	1369.2	0.9765
0.0279	2.28	722.07	353.62	2103.9	0.9953
0.0387	2.58	724.71	310.81	2329.9	0.9989
0.0555	2.79	727.16	284.20	2306.9	1.0023
0.0770	3.01	746.31	265.67	2403.0	1.0287
0.0980	3.19	759.81	250.23	2474.3	1.0473
0.1297	3.44	773.49	229.64	2556.1	1.0662
0.1618	3.68	783.17	211.27	2621.2	1.0795
0.2043	3.98	791.65	189.61	2689.4	1.0912
0.2481	4.29	790.00	168.69	2732.1	1.0889
0.2889	4.54	781.97	152.77	2749.4	1.0778
0.3319	4.72	766.32	140.35	2742.3	1.0563
0.3749	4.84	750.56	131.99	2726.1	1.0345
0.4168	4.89	740.11	127.80	2712.2	1.0201
0.4699	4.92	735.06	125.63	2705.8	1.0132
0.5227	4.97	733.32	123.57	2706.5	1.0108
0.5760	5.04	732.73	120.62	2711.8	1.0100

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3817 0.1034 9.94 1084203. 9964214. 289. 468.12 0.856 0.41071 0.338

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(W 1), THETA PRIME, THETA(2), THETA(1), M(W), M(E), PTIMAX,  
 -0.1632 -0.048 0.1518 0.1267 0.00133 0.00907 0.00764 16.59 4.85 12175.5

Y	Y/DELTA	U/U(DELTA)	RHO * U	PIL	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	33.9	33.85			0.003	0.003
0.0100	0.02620	0.47118	0.04425	71.7	33.72	0.031	4.638	0.006	0.006
0.0170	0.04446	0.50270	0.04865	80.5	33.68	0.031	4.638	0.007	0.007
0.0279	0.07307	0.77244	0.11677	409.8	33.68	0.031	4.638	0.034	0.034
0.0387	0.10134	0.81870	0.14067	651.4	33.65	0.031	4.639	0.054	0.053
0.0555	0.14546	0.84696	0.15851	898.0	33.51	0.031	4.642	0.074	0.074
0.0770	0.20164	0.88224	0.17520	1235.1	33.24	0.031	4.649	0.102	0.101
0.0980	0.25679	0.90842	0.18997	1608.6	32.97	0.031	4.656	0.133	0.132
0.1297	0.33982	0.93847	0.21078	2279.3	32.50	0.030	4.668	0.188	0.187
0.1618	0.42392	0.96237	0.23053	3127.5	31.89	0.030	4.683	0.259	0.257
0.2043	0.53527	0.98741	0.25545	4597.0	30.91	0.029	4.709	0.380	0.378
0.2481	0.65003	1.00308	0.28018	6599.2	29.69	0.029	4.742	0.546	0.542
0.2889	0.75692	1.00943	0.29819	8628.0	28.44	0.028	4.778	0.713	0.709
0.3319	0.86959	1.00683	0.31026	10365.9	27.25	0.027	4.813	0.857	0.851
0.3749	0.98225	1.00087	0.31574	11505.5	26.24	0.026	4.845	0.951	0.945
0.3817	1.00000	1.00000	0.31597	11566.7	26.09			0.950	0.950
0.4168	1.09203	0.99579	0.31439	11884.0	25.42	0.026	4.872	0.982	0.976
0.4699	1.23115	0.99344	0.30801	11890.9	24.54	0.025	4.901	0.983	0.977
0.5227	1.36949	0.99370	0.29854	11909.8	23.39	0.024	4.942	0.978	0.978
0.5760	1.50913	0.99563	0.28869	12175.5	22.04	0.023	4.993	1.007	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 10. 6. 10. 22. 306. 276. 23.00 12096.00 725.50 641.00 17.00

Y	MACH	IOI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	641.00	641.00	0.	0.8835
0.0100	1.33	728.74	538.41	1512.2	1.0045
0.0171	1.64	733.14	475.78	1758.4	1.0105
0.0258	2.41	741.33	342.23	2189.7	1.0218
0.0360	2.59	742.48	316.70	2261.7	1.0234
0.0490	2.73	743.60	298.37	2312.8	1.0249
0.0697	2.93	755.51	277.93	2395.3	1.0414
0.0910	3.09	766.92	263.48	2459.3	1.0571
0.1233	3.32	779.48	243.45	2537.7	1.0744
0.1549	3.53	786.72	224.85	2598.1	1.0844
0.1872	3.77	789.67	205.58	2649.0	1.0885
0.2195	3.99	788.24	188.34	2684.6	1.0865
0.2510	4.23	782.54	170.92	2710.7	1.0786
0.2929	4.49	768.30	152.86	2719.2	1.0590
0.3355	4.65	751.77	141.17	2708.4	1.0362
0.3784	4.73	741.59	135.27	2698.9	1.0222
0.4208	4.78	736.78	132.12	2695.2	1.0155
0.4631	4.82	734.12	130.00	2694.0	1.0119
0.5167	4.90	733.77	126.35	2701.4	1.0114

DELTA DELTA STAR H RSR RS DELTA RTHEA R RTHEA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3335 0.0736 5.86 1550804. 10840495. 485. 3390. 473.23 0.895 0.40322 0.338  
 PHI: DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W); THETA PRIME, THETA(2), THETA(W), HI(W), M(E), PTIMAX,  
 -0.1572 -0.065 0.1389 0.1064 0.00212 0.01042 0.00809 13.14 4.64 11886.7

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI.	RHO U PRIME, M PRIME	PTI/PTE, PTI/PTIMAX
0.	0.	0.	0.	48.4	48.37	0.004	0.004
0.0100	0.02999	0.55823	0.07892	139.1	48.22	4.332	0.012
0.0171	0.05140	0.64911	0.10364	218.6	48.13	4.334	0.018
0.0258	0.07727	0.80833	0.17924	719.2	48.08	4.334	0.059
0.0360	0.10792	0.83491	0.19926	944.8	47.89	4.338	0.079
0.0490	0.14684	0.85377	0.21519	1164.4	47.64	4.342	0.096
0.0697	0.20888	0.88424	0.23682	1561.8	47.16	4.350	0.131
0.0910	0.27299	0.90786	0.25359	1961.8	46.63	4.359	0.162
0.1233	0.36972	0.93678	0.27585	2667.4	45.42	4.379	0.224
0.1549	0.46448	0.95910	0.29537	3515.1	43.87	4.407	0.291
0.1872	0.56133	0.97788	0.31594	4674.3	42.08	4.440	0.393
0.2195	0.65819	0.99103	0.33303	6013.5	40.10	4.478	0.506
0.2510	0.75264	1.00066	0.34818	7737.2	37.68	4.528	0.651
0.2929	0.87828	1.00379	0.36146	9927.4	34.87	4.591	0.835
0.3335	1.00000	1.00000	0.36450	11292.4	32.70	4.645	0.950
0.3784	1.00802	0.99982	0.36443	11359.9	32.60	4.645	0.956
0.4208	1.13466	0.99632	0.35764	11869.5	30.76	4.693	0.999
0.4631	1.26180	0.99495	0.34497	11886.7	29.02	4.741	1.000
0.5167	1.39864	0.99451	0.32999	11695.0	27.33	4.791	0.967
0.5167	1.54936	0.99722	0.31333	11872.2	25.15	4.861	0.999

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTD M GEN. CYL.  
 10. 6. 10. 22. 306. 275. 24.00 12096.00 725.50 631.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/YTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECUV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	631.00	631.00	0.	0.8697								
0.0100	1.88	777.61	455.95	1965.8	1.0718					481.49	0.831	0.45009	0.487
0.0162	1.88	777.62	456.35	1964.6	1.0718								
0.0224	2.14	780.05	407.39	2115.9	1.0752								
0.0309	2.38	781.96	366.50	2234.1	1.0778								
0.0418	2.54	783.32	341.82	2303.1	1.0797								
0.0542	2.74	784.92	314.24	2377.9	1.0819								
0.0697	2.98	780.42	280.89	2449.8	1.0757								
0.0843	3.20	789.19	258.85	2524.2	1.0878								
0.1074	3.46	790.56	233.25	2587.5	1.0897								
0.1286	3.69	795.90	213.85	2644.3	1.0970								
0.1499	3.90	792.60	196.10	2677.0	1.0925								
0.1714	4.08	786.93	181.89	2696.1	1.0847								
0.1925	4.23	779.10	170.16	2704.8	1.0739								
0.2134	4.35	770.16	161.08	2705.1	1.0616								
0.2354	4.40	762.12	156.59	2697.2	1.0505								
0.2676	4.47	751.29	150.23	2687.2	1.0356								
0.2995	4.54	743.50	145.40	2680.6	1.0248								
0.3305	4.61	737.78	140.43	2678.9	1.0169								

DELTA DELTA STAR M 1.17 4119769. 12926155. 1341.  
 0.2026 0.0158  
 PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA PRIME, THETA(12), THETA(W), M(W), M(E), PTIMAX,  
 -0.1253 -0.075 0.0911 0.0495 0.00335 0.01006 0.00570 8.69 4.30 12195.5

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PIE	PTI/PTIMAX
0.	0.	0.	0.	129.3	129.25			0.011	0.011
0.0100	0.04935	0.72650	0.32373	834.8	128.87	0.076	3.617	0.069	0.068
0.0162	0.07995	0.72607	0.32098	826.5	127.96	0.076	3.622	0.068	0.068
0.0224	0.11046	0.78197	0.37746	1211.6	124.73	0.075	3.640	0.100	0.099
0.0309	0.15270	0.82567	0.42008	1678.0	118.27	0.072	3.678	0.139	0.138
0.0418	0.20615	0.85114	0.43639	2025.1	111.16	0.069	3.723	0.167	0.166
0.0542	0.26760	0.87881	0.44735	2498.9	101.46	0.065	3.789	0.207	0.205
0.0697	0.34381	0.90535	0.45979	3234.7	90.48	0.061	3.873	0.267	0.265
0.0863	0.42588	0.93286	0.46635	4061.7	82.08	0.057	3.946	0.336	0.333
0.1074	0.53007	0.95627	0.48036	5327.1	74.32	0.053	4.020	0.440	0.437
0.1286	0.63470	0.97727	0.48891	6748.5	67.86	0.050	4.088	0.558	0.553
0.1499	0.73983	0.98933	0.49553	8269.6	62.30	0.047	4.154	0.684	0.678
0.1714	0.84594	0.99639	0.50233	9796.8	58.16	0.045	4.206	0.810	0.803
0.1925	0.95008	0.99959	0.50159	11123.6	54.16	0.043	4.262	0.920	0.912
0.2026	1.00000	1.00000	0.49883	11585.7	52.26				0.950
0.2134	1.05323	0.99971	0.49451	12078.6	50.54	0.041	4.315	0.999	0.990
0.2354	1.16181	0.99679	0.48125	12195.5	47.95	0.039	4.357	1.008	1.000
0.2676	1.32073	0.99310	0.45127	12109.4	43.30	0.037	4.437	1.001	0.993
0.2995	1.47817	0.99066	0.42626	11998.0	39.68	0.035	4.507	0.992	0.984
0.3305	1.63117	0.99003	0.40513	12114.0	36.45	0.033	4.576	1.001	0.993

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NOT COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTD TW GEN. CYL.  
 5. 6. 9. 26. 306. 26. -3.50 24254.44 728.50 540.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	540.00	540.00	0.	0.7412	2368.	407.73	0.703	0.26178	1.397
0.0208	0.68	647.13	592.65	809.0	0.9883	127.				
0.0310	1.49	678.35	470.28	1581.1	0.9312					
0.0521	2.34	718.61	343.15	2123.8	0.9864					
0.0719	2.70	739.28	300.70	2295.5	1.0148					
0.0925	2.96	747.10	271.43	2390.5	1.0255					
0.1249	3.24	761.32	245.16	2490.2	1.0451					
0.1572	3.51	772.89	222.77	2570.8	1.0609					
0.1894	3.72	782.20	207.86	2626.8	1.0737					
0.2214	4.00	789.47	189.15	2687.8	1.0837					
0.2655	4.35	794.21	165.79	2747.7	1.0902					
0.3067	4.81	798.72	140.30	2791.1	1.0827					
0.3486	5.21	776.44	120.77	2806.6	1.0658					
0.3911	5.56	758.84	105.61	2801.4	1.0416					
0.4335	5.79	743.60	96.57	2788.1	1.0207					
0.4772	5.87	735.97	93.17	2778.9	1.0103					
0.5189	5.95	734.92	93.61	2775.7	1.0088					
0.5618	5.85	734.92	93.61	2775.7	1.0088					
0.6162	5.85	734.92	93.58	2775.8	1.0038					
0.6682	5.86	734.91	93.33	2776.3	1.0088					

DELTA STAR M H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4516 0.2474 38.13 263428. 4928295. 127. 2368. 407.73 0.703 0.26178 1.397

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.0656 -0.007 0.2545 0.2513 0.0012 0.00637 0.00629 39.94 5.84 25130.2

Y	V/DELTA	U/UI(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	18.1	18.14	0.012	5.824	0.001	0.001
0.0208	0.04617	0.29062	0.01443	24.7	18.14	0.012	5.824	0.001	0.001
0.0310	0.06867	0.56796	0.03554	65.4	18.14	0.012	5.824	0.003	0.003
0.0521	0.11529	0.76295	0.06542	241.1	18.14	0.012	5.824	0.010	0.010
0.0719	0.15920	0.82459	0.08069	422.7	18.14	0.012	5.824	0.017	0.017
0.0925	0.20495	0.85875	0.09310	627.6	18.14	0.012	5.824	0.026	0.026
0.1249	0.27659	0.89456	0.10737	957.5	18.14	0.012	5.824	0.039	0.038
0.1572	0.34812	0.92351	0.12199	1411.2	18.14	0.012	5.824	0.058	0.056
0.1894	0.41943	0.94362	0.13358	1875.3	18.14	0.012	5.824	0.077	0.075
0.2214	0.49029	0.96553	0.15100	2745.3	18.14	0.012	5.824	0.113	0.109
0.2655	0.58795	0.98704	0.17519	4364.9	18.14	0.012	5.824	0.180	0.174
0.3067	0.67919	1.00263	0.21028	7641.7	18.14	0.012	5.824	0.315	0.304
0.3486	0.77197	1.00822	0.24566	12225.0	18.14	0.012	5.824	0.504	0.486
0.3911	0.86609	1.00634	0.28039	18038.5	18.14	0.012	5.824	0.744	0.718
0.4335	0.95999	1.00156	0.30520	22987.8	18.14	0.012	5.824	0.948	0.915
0.4516	1.00000	1.00000	0.31127	23873.6	18.14	0.012	5.824	0.950	0.950
0.4772	1.05676	0.99828	0.31528	25130.2	18.14	0.012	5.824	1.036	1.000
0.5189	1.14910	0.99712	0.31344	24598.8	18.14	0.012	5.824	1.014	0.979
0.5618	1.24411	0.99712	0.31344	24598.8	18.14	0.012	5.824	1.014	0.979
0.6162	1.36457	0.99714	0.31355	24626.1	18.14	0.012	5.824	1.015	0.980
0.6682	1.47973	0.99733	0.31445	24857.4	18.14	0.012	5.824	1.025	0.989

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - FUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTC PTD TW GEN. CYL.  
 5. 6. 9. 26. 306. 127. -9.50 24259.44 725.50 540.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	540.00	540.00	0.	0.7443
0.0100	0.72	673.15	609.46	874.7	0.9278
0.0201	0.61	679.46	632.27	753.0	0.9365
0.0329	1.67	708.31	454.94	1744.7	0.9763
0.0456	2.64	729.28	305.21	2257.1	1.0052
0.0693	2.93	749.01	275.47	2362.7	1.0310
0.0906	3.11	760.67	259.15	2454.6	1.0485
0.1114	3.38	775.69	236.62	2544.8	1.0692
0.1328	3.51	783.59	226.42	2587.2	1.0801
0.1539	3.65	782.99	213.82	2614.9	1.0792
0.1871	3.99	776.57	185.95	2663.8	1.0704
0.2179	4.42	767.30	156.11	2709.7	1.0576
0.2516	5.00	747.41	124.69	2735.2	1.0302
0.2819	5.40	666.55	97.68	2614.2	0.9187
0.3249	5.76	703.83	92.26	2710.6	0.9701
0.3683	5.82	744.65	95.90	2791.8	1.0264
0.4099	5.82	731.74	94.24	2767.5	1.0086
0.4523	5.83	731.72	93.89	2768.2	1.0086
0.4951	5.83	731.72	93.89	2768.2	1.0086
0.5382	5.82	731.74	94.24	2767.5	1.0086

DELTA DELTA STAR H RSR RS DELTA RIMETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3409 0.1831 20.87 147101. 2821452. 172. 3299. 403.38 0.707 0.25717 1.223

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA(2), THETA(W), M(W), M(E), PTIMAX,  
 -0.0084 -0.010 0.1936 0.1886 0.00017 0.00860 0.00839 22.48 5.81 23969.1

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTIE,	PTI/PTIMAX
0.	0.	0.02934	0.31897	0.01517	18.14	0.013	5.779	0.001	0.001
0.0100	0.05912	0.27457	0.01259	23.3	18.14	0.013	5.779	0.001	0.001
0.0201	0.09646	0.63621	0.04054	85.4	18.14	0.013	5.779	0.004	0.004
0.0456	0.13366	0.82308	0.07817	382.6	18.14	0.013	5.779	0.016	0.016
0.0693	0.20334	0.86885	0.09143	598.6	18.14	0.013	5.779	0.025	0.025
0.0906	0.26595	0.89509	0.10012	786.0	18.14	0.013	5.779	0.032	0.033
0.1114	0.32682	0.92799	0.11369	1157.2	18.14	0.013	5.779	0.048	0.048
0.1328	0.38961	0.94344	0.12079	1398.9	18.14	0.013	5.779	0.058	0.058
0.1539	0.45151	0.95355	0.12927	1704.7	18.14	0.013	5.779	0.070	0.071
0.1871	0.54891	0.97135	0.15143	2700.4	18.14	0.013	5.779	0.111	0.113
0.2179	0.63927	0.98812	0.18348	4775.5	18.14	0.013	5.779	0.197	0.199
0.2516	0.73814	0.99740	0.23187	9565.4	18.14	0.013	5.779	0.394	0.399
0.2819	0.82704	0.95330	0.28291	15058.9	18.14	0.013	5.779	0.621	0.628
0.3249	0.95319	0.98843	0.31058	22250.3	18.14	0.013	5.779	0.917	0.928
0.3409	1.00000	1.00000	0.31312	22770.6	18.14	0.013	5.779	0.950	0.950
0.3683	1.08051	1.01803	0.30772	23665.6	18.14	0.013	5.779	0.976	0.987
0.4099	1.20256	1.00916	0.31042	23665.6	18.14	0.013	5.779	0.976	0.987
0.4523	1.32695	1.00943	0.31164	23969.1	18.14	0.013	5.779	0.988	1.000
0.4951	1.45252	1.00943	0.31164	23969.1	18.14	0.013	5.779	0.988	1.000
0.5382	1.57897	1.00916	0.31042	23665.6	18.14	0.013	5.779	0.976	0.987

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A WGN COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITO TW GEN. CYL.  
 5. 6. 9. 26. 306. 139. -3.50 12005.28 727.00 650.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/ITO
0.	0.	650.00	650.00	0.	0.8941
0.0100	1.21	677.76	523.72	1360.4	0.9323
0.0161	1.18	682.27	533.14	1338.5	0.9385
0.0266	1.25	693.03	527.84	1408.8	0.9533
0.0371	1.84	712.80	425.94	1856.4	0.9805
0.0581	2.68	735.93	302.57	2281.7	1.0123
0.0796	3.06	748.46	260.54	2421.1	1.0295
0.1124	3.33	760.72	236.22	2510.2	1.0464
0.1437	3.57	774.42	217.84	2585.9	1.0652
0.1859	3.93	785.75	192.04	2670.7	1.0808
0.2203	4.39	789.04	162.58	2743.4	1.0853
0.2709	4.84	784.69	137.81	2787.7	1.0794
0.3139	5.26	772.54	118.18	2803.8	1.0626
0.3772	5.75	744.45	97.85	2787.1	1.0240
0.4192	5.93	733.44	91.36	2777.4	1.0089
0.4625	5.99	729.02	89.16	2772.6	1.0028
0.5048	6.01	726.83	88.44	2769.4	0.9998
0.5469	6.01	725.74	88.25	2767.4	0.9983
0.5892	6.00	724.66	88.31	2765.0	0.9968

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TCMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4410 0.2235 34.80 107766. 2741751. 51. 1304. 453.88 0.879 0.29516 0.150

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR(1), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX.  
 -0.1370 -0.006 0.2294 0.2269 0.00010 0.00632 0.00626 36.27 5.97 14428.0

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	9.0	9.05	0.011	0.001	0.001	0.001
0.0100	0.02268	0.49036	0.01369	22.3	9.05	0.011	5.960	0.002	0.002
0.0161	0.03644	0.48247	0.01324	21.5	9.05	0.011	5.960	0.002	0.002
0.0266	0.06023	0.50780	0.01407	23.5	9.05	0.011	5.960	0.002	0.002
0.0371	0.08417	0.66915	0.02298	54.9	9.05	0.011	5.960	0.005	0.004
0.0581	0.13179	0.82246	0.03976	203.1	9.05	0.011	5.960	0.017	0.014
0.0796	0.18061	0.87269	0.04899	363.6	9.05	0.011	5.960	0.030	0.025
0.1124	0.25487	0.90482	0.05602	542.3	9.05	0.011	5.960	0.045	0.038
0.1437	0.32584	0.93208	0.06258	766.4	9.05	0.011	5.960	0.064	0.053
0.1859	0.42153	0.96267	0.07332	1253.8	9.05	0.011	5.960	0.104	0.087
0.2283	0.51768	0.98886	0.08896	2278.7	9.05	0.011	5.960	0.190	0.158
0.2709	0.61427	1.00485	0.10665	3985.9	9.05	0.011	5.960	0.332	0.276
0.3139	0.71178	1.01065	0.12508	6463.0	9.05	0.011	5.960	0.538	0.448
0.3772	0.85531	1.00463	0.15016	10989.1	9.05	0.011	5.960	0.915	0.762
0.4192	0.95055	1.00111	0.16027	13264.6	9.05	0.011	5.960	1.105	0.919
0.4410	1.00000	1.00000	0.16297	13706.6	9.05	0.011	5.960	1.178	0.950
0.4625	1.04873	0.99938	0.16394	14142.3	9.05	0.011	5.960	1.199	0.998
0.5048	1.14465	0.99823	0.16509	14398.6	9.05	0.011	5.960	1.202	1.000
0.5469	1.24011	0.99753	0.16531	14428.0	9.05	0.011	5.960	1.193	0.993
0.5892	1.33603	0.99664	0.16507	14323.0	9.05	0.011	5.960		

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTTO TW GFM. CVL.  
 5. 6. 9. 26. 306. 140. -9.50 12005.28 728.30 650.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/PTO
0.	0.	650.00	650.00	0.	0.8925
0.0100	1.20	678.46	527.37	1347.3	0.9316
0.0165	1.19	684.52	533.15	1348.5	0.9399
0.0278	1.15	683.55	541.23	1307.6	0.9386
0.0377	1.14	700.92	555.97	1319.6	0.9624
0.0592	1.23	715.19	549.86	1409.3	0.9820
0.0800	1.48	727.00	505.93	1629.7	0.9982
0.1013	1.80	734.38	445.57	1862.7	1.0084
0.1336	2.53	755.07	330.47	2258.6	1.0368
0.1658	3.37	766.29	234.11	2528.5	1.0522
0.1971	4.22	756.34	165.99	2663.2	1.0385
0.2393	5.15	733.57	116.22	2723.4	1.0072
0.2820	5.66	728.25	98.41	2750.8	0.9999
0.3244	5.88	725.89	91.81	2760.0	0.9967
0.3674	5.92	724.76	90.59	2760.2	0.9951
0.4096	5.94	724.74	89.92	2761.6	0.9951
0.4528	5.95	725.81	89.72	2764.4	0.9966
0.5054	5.96	725.80	89.58	2764.7	0.9966
0.5586	5.97	725.79	89.25	2765.4	0.9965

DELTA DELTA STAR H XSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CF  
 0.3764 0.2032 21.69 59761. 1491212. 75. 1862. 453.22 0.877 0.32619 0.096

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(1), DELTA STAR(2), THETA(1), THETA(2), THETA(1), THETA(2), M(E), PTIMAX,  
 -0.0151 -0.000 0.2036 0.2034 0.00001 0.00936 0.00936 21.74 5.92 13874.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PIE	PTI/PTIMAX
0.	0.	0.	0.	9.0	9.05	0.001	0.001	0.001	0.001
0.0100	0.02656	0.48806	0.01347	21.9	9.05	0.012	5.922	0.002	0.002
0.0165	0.04383	0.48853	0.01333	21.7	9.05	0.012	5.922	0.002	0.002
0.0278	0.07382	0.47369	0.01274	20.5	9.05	0.012	5.922	0.002	0.001
0.0377	0.10012	0.47806	0.01251	20.4	9.05	0.012	5.922	0.002	0.001
0.0592	0.15734	0.51055	0.01351	22.7	9.05	0.012	5.922	0.002	0.002
0.0800	0.21257	0.59037	0.01698	32.2	9.05	0.012	5.922	0.003	0.002
0.1013	0.26910	0.67479	0.02204	52.0	9.05	0.012	5.922	0.004	0.004
0.1336	0.35490	0.81819	0.03603	163.1	9.05	0.012	5.922	0.014	0.012
0.1658	0.46344	0.91600	0.05694	574.1	9.05	0.012	5.922	0.048	0.041
0.1971	0.52359	0.96876	0.08458	1827.3	9.05	0.012	5.922	0.152	0.132
0.2393	0.63569	0.98658	0.12354	5717.0	9.05	0.012	5.922	0.476	0.412
0.2820	0.74912	0.99650	0.14736	9973.9	9.05	0.012	5.922	0.831	0.719
0.3244	0.86175	0.99986	0.15849	12576.4	9.05	0.012	5.922	1.048	0.906
0.3674	0.97598	0.99993	0.16064	13107.5	9.05	0.012	5.922	1.092	0.945
0.3764	1.00000	1.00000	0.16098	13181.1	9.05	0.012	5.922	1.120	0.950
0.4096	1.08808	1.00043	0.16192	13451.0	9.05	0.012	5.922	1.135	0.969
0.4528	1.20284	1.00143	0.16244	13625.4	9.05	0.012	5.922	1.141	0.982
0.5054	1.34257	1.00154	0.16271	13698.6	9.05	0.012	5.922	1.141	0.987
0.5586	1.48389	1.00178	0.16334	13874.9	9.05	0.012	5.922	1.156	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
MODEL MACH NO. DAY TEST RUN X PTE YTD  
5. 10. 1. 306. 148. -3.50 18654.20 643.00 588.00 17.00  
GEN. CYL.

Table with columns: Y, MACH, TOT.TEMP., STAT.TEMP., VELOCITY, TT/TTD, etc. Data rows include values like 0., 0.0100, 0.0157, 0.0268, etc.

DELTA STAR H M RSR RS DELTA RTHEA R RTHEA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
0.4464 0.2016 14.33 501427. 6285524. 523. 6531. 422.13 0.895 0.32393 0.047

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(N), THETA PRIME, THETA(2), THETA(M), THETA(N), M(E), PTIMAX,  
-0.1233 -0.004 0.2052 0.2038 0.0010 0.01397 0.01388 14.69 4.76 16803.5

Table with columns: Y, Y/DELTA, U/(DELTA), RHO, U, P, P1, RHO U PRIME, M PRIME, P1/PTE, P1/PTIMAX, etc. Data rows include values like 0., 0.0100, 0.0157, 0.0268, etc.

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTT0 TTT1  
 5. 10. 1. 306. 149. -9.50 18641.70 643.00 585.00 17.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RHETA R	RHETA U	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	585.00	585.00	0.	0.7058					419.16	0.890	0.33473	0.020
0.0100	0.92	600.82	513.43	1024.6	0.9344								
0.0232	1.24	616.14	470.95	1320.7	0.9582								
0.0334	1.97	632.71	356.02	1823.2	0.9840								
0.0446	2.17	641.83	330.07	1935.3	0.9982								
0.0545	2.30	649.10	315.51	2001.9	1.0095								
0.0764	2.64	660.60	275.82	2150.0	1.0274								
0.0975	2.89	667.53	249.54	2240.9	1.0382								
0.1181	3.09	670.50	230.29	2299.7	1.0428								
0.1503	3.38	669.16	204.05	2363.8	1.0407								
0.1823	3.56	668.48	188.76	2400.7	1.0396								
0.2141	3.76	669.77	175.11	2437.8	1.0416								
0.2461	3.99	670.90	160.56	2476.1	1.0434								
0.2777	4.21	670.97	147.79	2507.1	1.0435								
0.3112	4.44	664.62	134.23	2524.3	1.0336								
0.3415	4.63	654.93	123.86	2525.9	1.0186								
0.3840	4.75	643.03	116.81	2514.3	1.0000								
0.4262	4.78	640.85	115.08	2513.3	0.9967								
0.4692	4.79	641.91	114.90	2516.2	0.9983								
0.5123	4.79	639.77	114.31	2512.5	0.9950								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA U	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.3907	0.1736	16.35	280598.	3533874.	397.	4999.	419.16	0.890	0.33473	0.020

  

PHI,	DELTA STAR	PRIME,	DELTA STAR(Z),	DELTA STAR(M ),	THETA PRIME,	THETA(Z),	THETA(M),	THETA(W),	HI(W),	M(E),	PTIMAX,
-0.0935	-0.002	0.1756	0.1748	0.00006	0.01055	0.01051	16.63	4.76	16793.6		

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI.	RHO U PRIME.	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	40.5	40.50				
0.0100	0.02560	0.40765	0.04709	70.2	40.50	0.028	4.751	0.002	0.002
0.0232	0.05941	0.52546	0.06617	103.7	40.50	0.028	4.751	0.004	0.004
0.0334	0.08559	0.72536	0.12083	303.0	40.50	0.028	4.751	0.006	0.006
0.0446	0.11405	0.76997	0.13835	415.2	40.50	0.028	4.751	0.016	0.016
0.0545	0.13955	0.79648	0.14972	505.8	40.50	0.028	4.751	0.022	0.022
0.0764	0.19545	0.85540	0.18393	861.0	40.50	0.028	4.751	0.027	0.030
0.0975	0.24968	0.89156	0.21190	1267.9	40.50	0.028	4.751	0.046	0.051
0.1181	0.30228	0.91495	0.23564	1705.6	40.50	0.028	4.751	0.068	0.075
0.1503	0.38470	0.94046	0.27335	2586.3	40.50	0.028	4.751	0.091	0.102
0.1823	0.46660	0.95513	0.30011	3385.2	40.50	0.028	4.751	0.139	0.154
0.2141	0.54799	0.96988	0.32848	4431.4	40.50	0.028	4.751	0.182	0.202
0.2461	0.62990	0.98513	0.36390	6039.6	40.50	0.028	4.751	0.238	0.264
0.2777	0.71078	0.99745	0.40027	8074.5	40.50	0.028	4.751	0.324	0.360
0.3112	0.79652	1.00429	0.44373	10937.6	40.50	0.028	4.751	0.433	0.481
0.3415	0.87408	1.00495	0.48120	13767.3	40.50	0.028	4.751	0.587	0.651
0.3840	0.98286	1.00034	0.50790	15849.9	40.50	0.028	4.751	0.739	0.820
0.3907	1.00000	1.00000	0.51035	15953.9	40.50	0.028	4.751	0.850	0.944
0.4262	1.09087	0.99992	0.51533	16504.9	40.50	0.028	4.751	0.885	0.950
0.4692	1.20093	1.00109	0.51672	16688.8	40.50	0.028	4.751	0.895	0.994
0.5123	1.31125	0.99962	0.51861	16793.6	40.50	0.028	4.751	0.901	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH 5. 10. 1. 306. 161. -3.50 5113.58 630.00 589.00 17.00  
 MACH TOT. TEMP. STAT. TEMP. VELOCITY TT/TT0  
 PTE TTD TW GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	589.00	589.00	0.	0.9218
0.0100	0.95	598.40	507.12	1047.2	0.9365
0.0168	0.88	597.22	517.00	981.7	0.9346
0.0273	0.95	597.44	505.79	1049.3	0.9350
0.0381	1.70	608.70	385.69	1636.8	0.9526
0.0594	2.51	616.45	272.86	2031.7	0.9647
0.0812	2.90	617.01	240.79	2126.0	0.9656
0.1016	3.00	617.83	220.97	2183.5	0.9669
0.1339	3.27	619.71	197.81	2251.4	0.9698
0.1655	3.50	622.42	180.17	2305.0	0.9741
0.2080	3.79	626.29	161.97	2361.8	0.9801
0.2506	4.09	633.10	145.78	2419.6	0.9908
0.2932	4.33	641.05	134.94	2465.8	1.0032
0.3369	4.63	655.43	124.18	2526.3	1.0237
0.3997	4.77	660.89	119.08	2551.3	1.0343
0.4419	4.87	663.06	115.61	2564.6	1.0377
0.4954	4.93	660.90	112.80	2566.1	1.0343
0.5481	4.95	649.01	109.88	2545.0	1.0157
0.6012	4.96	640.35	108.23	2528.4	1.0021

DELTA DELTA STAR H 8.63 135715. 1832126. 214. 2887. 423.51 0.905 0.39051 0.143  
 0.4828 0.1836

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA PRIME, THETA(2), THETA(M), M(M), PTIMAX,  
 -0.0452 -0.002 0.1851 0.0005 0.02123 0.02118 8.72 4.92 5471.3

Y	Y/DELTA	U/(DELTA)	RHO = U	PT1	PI1	RMO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX	TOT. PRESS. RECOV. CT
0.	0.	0.	0.	10.9	10.86	0.025	4.915	0.002	0.002	0.39051
0.0100	0.02071	0.40781	0.01307	19.4	10.86	0.025	4.915	0.004	0.004	0.143
0.0168	0.03473	0.38231	0.01201	18.0	10.86	0.025	4.915	0.004	0.003	
0.0273	0.05652	0.40865	0.01313	19.4	10.86	0.025	4.915	0.010	0.010	
0.0381	0.07901	0.63744	0.02685	53.6	10.86	0.025	4.915	0.037	0.034	
0.0594	0.12308	0.79123	0.04711	188.2	10.86	0.025	4.915	0.057	0.053	
0.0812	0.16813	0.82794	0.05587	292.5	10.86	0.025	4.915	0.078	0.073	
0.1016	0.21042	0.85035	0.06252	396.9	10.86	0.025	4.915	0.116	0.108	
0.1339	0.27731	0.87676	0.07201	591.0	10.86	0.025	4.915	0.163	0.152	
0.1655	0.34276	0.69766	0.08095	832.1	10.86	0.025	4.915	0.241	0.226	
0.2080	0.43078	0.91979	0.09226	1234.5	10.86	0.025	4.915	0.362	0.339	
0.2506	0.51901	0.94229	0.10501	1853.3	10.86	0.025	4.915	0.496	0.464	
0.2932	0.60723	0.96029	0.11562	2537.6	10.86	0.025	4.915	0.717	0.670	
0.3369	0.73916	0.98385	0.12872	3688.4	10.86	0.025	4.915	0.855	0.799	
0.3997	0.82780	0.99358	0.13556	4373.6	10.86	0.025	4.915	0.960	0.897	
0.4419	0.91520	0.99874	0.14036	4906.8	10.86	0.025	4.915	0.960	0.950	
0.4828	1.00000	1.00000	0.14318	5197.7	10.86	0.025	4.915	1.034	0.966	
0.4954	1.02600	0.99933	0.14394	5286.9	10.86	0.025	4.915	1.063	0.994	
0.5481	1.13514	0.99111	0.14655	5438.1	10.86	0.025	4.915	1.070	1.000	
0.6012	1.24512	0.98466	0.14782	5471.3	10.86	0.025	4.915			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - FUNNEL A YOUNG COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 10. 2. 306. 162. -9.50 5113.58 639.00 586.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX	RECOV. FACT.	RECOV. TEMP.	RECOV. PRESS.	RECOV. CT
0.	0.	588.00	588.00	0.	0.9202					0.902	427.11	0.39572	0.232
0.0100	0.75	589.99	530.05	848.6	0.9233								
0.0200	0.59	595.03	533.75	784.9	0.9155								
0.0310	1.57	595.37	398.08	1539.5	0.9317								
0.0420	2.36	600.32	283.60	1950.7	0.9395								
0.0630	2.84	596.78	227.93	2105.1	0.9339								
0.0840	3.05	593.23	207.12	2153.7	0.9284								
0.1160	3.35	590.82	181.96	2216.3	0.9246								
0.1480	3.62	593.65	163.86	2272.3	0.9290								
0.1800	3.87	600.49	150.01	2326.4	0.9397								
0.2110	4.12	611.65	138.99	2363.0	0.9572								
0.2540	4.49	633.76	126.17	2469.4	0.9918								
0.2860	4.62	655.42	124.52	2525.5	1.0257								
0.3170	4.73	674.91	123.27	2574.3	1.0562								
0.3600	4.81	674.94	119.87	2582.3	1.0562								
0.4020	4.85	660.90	115.97	2558.7	1.0343								
0.4300	4.85	649.02	113.62	2536.2	1.0157								
0.4450	4.85	643.62	112.72	2525.5	1.0072								
0.4870	4.86	638.21	111.61	2515.3	0.9988								
0.5300	4.86	637.13	111.25	2513.5	0.9971								

DELTA DELTA STAR H RSR RS DELTA RTHTA K RTHTA D RECOV. FACT. RECOV. TEMP. RECOV. PRESS. RECOV. CT  
 0.3681 0.1299 6.14 74641. 921919. 211. 2600. 427.11 0.902 0.39572 0.232

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 0.0382 -0.001 0.1311 0.1307 0.0004 0.02113 0.02108 6.20 4.82 4881.7

Y	V/DELTA	U/(DELTA) RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	10.9	10.86				
0.0100	0.02717	0.32890	15.8	10.86	0.027	4.819	0.002	0.002
0.0200	0.05433	0.30421	15.0	10.86	0.027	4.819	0.003	0.003
0.0310	0.08422	0.59667	44.4	10.86	0.027	4.819	0.009	0.009
0.0420	0.11410	0.75601	149.9	10.86	0.027	4.819	0.029	0.031
0.0630	0.17115	0.81586	315.4	10.86	0.027	4.819	0.062	0.065
0.0840	0.22820	0.83473	431.8	10.86	0.027	4.819	0.084	0.088
0.1160	0.31513	0.85897	669.8	10.86	0.027	4.819	0.131	0.137
0.1480	0.40206	0.88066	982.8	10.86	0.027	4.819	0.192	0.201
0.1800	0.48899	0.90163	1393.6	10.86	0.027	4.819	0.273	0.285
0.2110	0.57321	0.92356	1941.6	10.86	0.027	4.819	0.380	0.398
0.2540	0.69002	0.95708	3084.5	10.86	0.027	4.819	0.603	0.632
0.2860	0.77696	0.97881	3633.4	10.86	0.027	4.819	0.711	0.744
0.3170	0.86117	0.99774	4169.8	10.86	0.027	4.819	0.854	0.854
0.3600	0.97799	1.00083	4599.1	10.86	0.027	4.819	0.899	0.942
0.3681	1.00000	1.00000	4637.6	10.86	0.027	4.819	0.899	0.950
0.4020	1.09209	0.99166	4798.6	10.86	0.027	4.819	0.938	0.983
0.4300	1.16815	0.98294	4836.7	10.86	0.027	4.819	0.946	0.991
0.4450	1.20890	0.97880	4830.3	10.86	0.027	4.819	0.945	0.989
0.4870	1.32300	0.97484	4855.8	10.86	0.027	4.819	0.950	0.995
0.5300	1.43981	0.97417	4881.7	10.86	0.027	4.819	0.955	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 5. 4. 10. 2. 306. 170. -3.50 10296.10 583.00 534.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	Y/TTD
0.	0.	534.00	534.00	0.	0.9160
0.0100	1.05	547.38	449.09	1086.7	0.9389
0.0185	1.10	552.00	444.92	1134.2	0.9468
0.0716	2.32	584.12	281.56	1906.5	1.0019
0.0930	2.54	591.41	258.23	2000.7	1.0144
0.1144	2.78	596.45	234.58	2085.1	1.0231
0.1462	3.08	599.39	207.04	2171.1	1.0281
0.2098	3.47	598.77	175.46	2255.1	1.0271
0.2530	3.55	591.56	167.70	2256.6	1.0147
0.2949	3.61	584.33	162.29	2251.7	1.0023
0.3371	3.72	582.20	154.54	2266.7	0.9986
0.3807	3.80	585.36	150.81	2284.9	1.0040
0.4223	3.87	590.62	147.78	2306.6	1.0131
0.4648	3.91	593.78	146.48	2318.1	1.0185
0.5073	3.92	587.43	144.15	2307.7	1.0076

DELTA DELTA STAR H RSK RS DELTA RTHETA R THETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4366 0.1376 7.56 885858. 6207242. 1193. 8363. 399.06 0.888 0.48071 0.079

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(2), THETA PRIME, THETA(W), M(W), M(E), PTIMAX,  
 -0.0496 -0.002 0.1397 0.1391 0.1391 0.00011 0.01808 0.01801 7.72 3.89 9651.3

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	70.6	70.64	0.060	3.883	0.007	0.007
0.0100	0.02291	0.47009	0.09959	141.2	70.64	0.060	3.883	0.014	0.015
0.0185	0.04245	0.49065	0.10492	150.2	70.64	0.060	3.883	0.015	0.016
0.0716	0.16397	0.82476	0.27868	908.4	70.64	0.060	3.883	0.088	0.094
0.0930	0.21294	0.86548	0.31887	1284.1	70.64	0.060	3.883	0.125	0.133
0.1144	0.26205	0.90199	0.36583	1851.6	70.64	0.060	3.883	0.180	0.192
0.1462	0.33490	0.93920	0.43158	2916.1	70.64	0.060	3.883	0.283	0.302
0.2098	0.48058	0.97556	0.52899	5186.2	70.64	0.060	3.883	0.504	0.537
0.2530	0.57954	0.97619	0.55381	5823.1	70.64	0.060	3.883	0.566	0.603
0.2949	0.67552	0.97409	0.57106	6256.5	70.64	0.060	3.883	0.608	0.648
0.3371	0.77218	0.98056	0.60367	7330.8	70.64	0.060	3.883	0.712	0.760
0.3807	0.87206	0.98842	0.62357	8138.2	70.64	0.060	3.883	0.790	0.843
0.4223	0.96735	0.99780	0.64238	9014.7	70.64	0.060	3.883	0.876	0.934
0.4366	1.00000	1.00000	0.64655	9168.7	70.64	0.060	3.883	0.920	0.950
0.4648	1.06470	1.00282	0.65136	9474.0	70.64	0.060	3.883	0.920	0.982
0.5073	1.16205	0.99831	0.65891	9651.3	70.64	0.060	3.883	0.937	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE ITO TM GEN. CYL.  
 5. 4. 10. 2. 306. 171. -9.50 10296.10 583.00 533.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TF0
0.	0.	533.00	533.00	0.	0.9142
0.0100	1.15	549.49	434.85	1173.6	0.9425
0.0160	1.20	554.09	430.55	1218.3	0.9504
0.0270	1.64	565.64	367.35	1543.4	0.9702
0.0477	2.20	582.43	295.40	1857.0	0.9990
0.0693	2.54	594.55	259.61	2006.0	1.0198
0.0904	2.84	602.95	231.01	2113.9	1.0342
0.1224	3.21	609.10	198.83	2220.1	1.0448
0.1545	3.41	606.08	182.07	2257.0	1.0396
0.1868	3.45	599.80	177.40	2252.7	1.0288
0.2179	3.48	595.63	174.26	2249.9	1.0217
0.2498	3.55	593.66	168.30	2260.6	1.0183
0.2820	3.67	593.84	160.77	2281.0	1.0186
0.3245	3.77	595.93	155.00	2301.6	1.0222
0.3676	3.88	596.95	148.61	2320.9	1.0239
0.4094	3.92	590.60	144.75	2314.4	1.0130
0.4519	3.93	583.21	142.60	2300.7	1.0004

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECLV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3763 0.1129 8.03 493438. 3441737. 924. 6448. 399.54 0.885 0.47979 0.112

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W J), THETA PRIME, THETA(2), THETA(W), M(W), MIE), PTIMAX,  
 -0.0930 -0.002 0.1150 0.1145 0.00012 0.01394 0.01388 8.25 3.90 9772.2

Y	Y/DELTA	U/U(DELTA)	RHO = U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTIE,	PTI/PTIMAX
0.	0.	0.	0.	70.6	70.64	0.059	3.893	0.007	0.007
0.0100	0.02658	0.50551	0.11107	160.2	70.64	0.059	3.893	0.016	0.016
0.0160	0.04263	0.52477	0.11646	170.8	70.64	0.059	3.893	0.017	0.017
0.0270	0.07165	0.66482	0.17292	320.0	70.64	0.059	3.893	0.031	0.033
0.0477	0.12688	0.79989	0.25873	760.3	70.64	0.059	3.893	0.074	0.078
0.0693	0.18423	0.86407	0.31802	1284.1	70.64	0.059	3.893	0.125	0.131
0.0904	0.24018	0.91055	0.37662	2029.3	70.64	0.059	3.893	0.197	0.208
0.1224	0.32530	0.95631	0.45956	3554.4	70.64	0.059	3.893	0.345	0.364
0.1545	0.41062	0.97218	0.51018	4753.7	70.64	0.059	3.893	0.462	0.486
0.1868	0.49646	0.97033	0.52261	5019.6	70.64	0.059	3.893	0.488	0.514
0.2179	0.57912	0.96915	0.53138	5214.5	70.64	0.059	3.893	0.506	0.534
0.2498	0.66390	0.97374	0.55283	5823.1	70.64	0.059	3.893	0.566	0.596
0.2820	0.74947	0.98252	0.58394	6842.1	70.64	0.059	3.893	0.665	0.700
0.3245	0.86243	0.99140	0.61115	7871.9	70.64	0.059	3.893	0.765	0.806
0.3676	0.97698	0.99970	0.64277	9177.0	70.64	0.059	3.893	0.891	0.939
0.4094	1.00000	1.00000	0.64718	9283.6	70.64	0.059	3.893	0.941	0.950
0.4519	1.08807	0.99691	0.65805	9691.5	70.64	0.059	3.893	0.992	0.992
0.4519	1.20102	0.99103	0.66403	9772.2	70.64	0.059	3.893	0.949	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NCM COOLED  
 MODEL MACH NO. DAY TEST RUN X PIF TTD TM GEN. CYL.  
 5. 4. 10. 3. 306. 186. -4.50 10296.10 586.50 539.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/TTC	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	539.00	539.00	0.	0.9190					399.19	0.892	0.50190	-0.013
0.0100	1.16	558.77	440.55	1191.8	0.9527								
0.0155	1.14	563.66	447.50	1181.3	0.9611								
0.0263	1.84	579.91	345.02	1679.8	0.9888								
0.0364	2.19	589.62	301.30	1861.1	1.0053								
0.0473	2.37	595.90	280.24	1947.4	1.0160								
0.0584	2.61	600.04	254.41	2037.7	1.0231								
0.0687	2.80	601.78	234.27	2101.2	1.0260								
0.0900	3.16	605.86	201.76	2203.4	1.0330								
0.1112	3.43	606.09	180.64	2260.8	1.0334								
0.1326	3.41	596.59	179.22	2239.2	1.0172								
0.1535	3.42	587.13	176.11	2222.1	1.0011								
0.1748	3.41	585.02	176.02	2216.7	0.9975								
0.2068	3.42	581.88	174.26	2212.9	0.9921								
0.2386	3.49	582.01	169.24	2226.8	0.9923								
0.2701	3.72	582.20	154.66	2266.4	0.9927								
0.3025	3.74	582.20	153.37	2269.8	0.9927								
0.3448	3.86	582.17	146.46	2287.9	0.9926								
0.3873	3.89	583.22	144.62	2295.5	0.9944								
0.4298	3.90	583.22	144.21	2296.5	0.9944								
0.4724	3.90	581.10	143.53	2292.8	0.9908								
0.5152	3.90	585.33	144.57	2301.1	0.9980								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.3555	0.0986	8.68	232454.	2083322.	738.	5269.	399.19	0.892	0.50190	-0.013			
PHI	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W )	DELTA STAR(W )	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX.				
-0.0037	-0.001	0.0996	0.0994	0.0994	0.00006	0.01130	0.01127	8.81	3.87	9432.8			
Y	Y/DELTA	U/(DELTA) RHO + U	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX							
0.	0.	0.	0.	0.	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.007
0.0100	0.02813	0.52033	0.11134	162.3	70.64	70.64	0.061	3.866	0.016	0.016	0.016	0.016	0.016
0.0155	0.04362	0.51577	0.10865	158.4	70.64	70.64	0.061	3.866	0.015	0.015	0.015	0.015	0.015
0.0263	0.07386	0.73341	0.20038	434.8	70.64	70.64	0.061	3.866	0.042	0.042	0.042	0.042	0.042
0.0364	0.10235	0.81256	0.25422	740.5	70.64	70.64	0.061	3.866	0.072	0.072	0.072	0.072	0.072
0.0473	0.13298	0.85022	0.28600	990.3	70.64	70.64	0.061	3.866	0.096	0.096	0.096	0.096	0.096
0.0584	0.16417	0.88966	0.32965	1423.2	70.64	70.64	0.061	3.866	0.138	0.138	0.138	0.138	0.138
0.0687	0.19311	0.91739	0.36915	1918.9	70.64	70.64	0.061	3.866	0.186	0.186	0.186	0.186	0.186
0.0900	0.25316	0.96198	0.44946	3314.4	70.64	70.64	0.061	3.866	0.322	0.322	0.322	0.322	0.322
0.1112	0.31276	0.98706	0.51509	4887.0	70.64	70.64	0.061	3.866	0.475	0.475	0.475	0.475	0.475
0.1326	0.37295	0.97764	0.51422	4753.7	70.64	70.64	0.061	3.866	0.462	0.462	0.462	0.462	0.462
0.1535	0.43174	0.97017	0.51931	4779.0	70.64	70.64	0.061	3.866	0.464	0.464	0.464	0.464	0.464
0.1748	0.49165	0.96778	0.51829	4727.4	70.64	70.64	0.061	3.866	0.459	0.459	0.459	0.459	0.459
0.2068	0.58165	0.96615	0.52265	4805.5	70.64	70.64	0.061	3.866	0.467	0.467	0.467	0.467	0.467
0.2386	0.67109	0.97223	0.54152	5326.9	70.64	70.64	0.061	3.866	0.517	0.517	0.517	0.517	0.517
0.2701	0.75969	0.98948	0.60309	7309.9	70.64	70.64	0.061	3.866	0.710	0.710	0.710	0.710	0.710
0.3025	0.85082	0.99097	0.60908	7527.4	70.64	70.64	0.061	3.866	0.731	0.731	0.731	0.731	0.731
0.3448	0.96979	0.99889	0.64294	8845.1	70.64	70.64	0.061	3.866	0.859	0.859	0.859	0.859	0.859
0.3555	1.00000	1.00000	0.64633	8961.2	70.64	70.64	0.061	3.866	0.904	0.904	0.904	0.904	0.904
0.3873	1.08933	1.00220	0.65329	9304.3	70.64	70.64	0.061	3.866	0.986	0.986	0.986	0.986	0.986
0.4298	1.20886	1.00266	0.65541	9395.3	70.64	70.64	0.061	3.866	0.913	0.913	0.913	0.913	0.913

# Contracts

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED

Y	Y/DELTA	U/DELTA	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.4724	1.32868	1.00103	0.65747	9432.8	70.64	0.061	3.866	0.916	1.000
0.5152	1.44906	1.00466	0.65509	9432.8	70.64	0.061	3.866	0.916	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTC ITO TW GEN. CYL.  
 5. 4. 10. 3. 306. 193. -4.50 1394.68 584.00 563.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	YT/ITO
0.	0.	563.00	563.00	0.	0.9640
0.0100	0.47	559.95	536.38	532.1	0.9588
0.0308	0.56	551.89	519.86	620.3	0.9450
0.0456	1.05	555.30	455.10	1097.2	0.9509
0.0611	1.77	563.97	346.65	1615.8	0.9657
0.0797	2.52	572.42	252.20	1961.4	0.9802
0.1012	2.87	579.60	218.61	2082.5	0.9925
0.1329	3.19	547.17	180.28	2099.5	0.9369
0.1651	3.56	539.42	152.32	2156.5	0.9237
0.1964	3.84	539.84	136.64	2200.9	0.9244
0.2284	3.93	542.11	132.71	2217.8	0.9283
0.2711	3.95	541.07	131.40	2218.5	0.9265
0.3137	3.95	541.07	131.33	2218.7	0.9265
0.3560	3.95	542.15	131.44	2221.3	0.9283
0.3986	3.96	542.16	131.16	2222.1	0.9284
0.4409	3.96	541.09	130.97	2219.7	0.9265

DELTA DELTA STAR H RSR RS DELTA RTHETA R PTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2255 0.1052 11.77 38948. 335703. 77. 667. 398.06 0.953 0.34830 -0.478

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(W), DELTA STAR(W), M(E), PTIMAX, M(E), PTIMAX,  
 0.2368 -0.000 0.1056 0.1054 0.0002 0.00892 0.00890 11.84 3.92 1388.6

Y	Y/DELTA	U/U(DELTA)	RHO = U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.24004	0.	9.7	9.67	0.058	3.920	0.007	0.007
0.0100	0.04434	0.27982	0.00559	11.2	9.67	0.058	3.920	0.008	0.008
0.0308	0.13647	0.49492	0.01358	19.4	9.67	0.058	3.920	0.009	0.009
0.0456	0.20227	0.72887	0.02626	53.1	9.67	0.058	3.920	0.014	0.014
0.0611	0.27072	0.88476	0.04381	170.3	9.67	0.058	3.920	0.038	0.038
0.0797	0.35328	0.93941	0.05367	293.4	9.67	0.058	3.920	0.123	0.123
0.1012	0.44869	0.94705	0.06561	471.0	9.67	0.058	3.920	0.210	0.210
0.1329	0.58924	0.97277	0.07976	808.0	9.67	0.058	3.920	0.338	0.338
0.1651	0.73200	0.99281	0.09075	1185.3	9.67	0.058	3.920	0.579	0.579
0.1964	0.87078	1.00000	0.09394	1319.1	9.67	0.058	3.920	0.854	0.854
0.2255	1.00000	1.00042	0.09415	1332.3	9.67	0.058	3.920	0.950	0.950
0.2711	1.01266	1.00074	0.09512	1369.8	9.67	0.058	3.920	0.955	0.955
0.3137	1.39085	1.00083	0.09518	1372.4	9.67	0.058	3.920	0.982	0.982
0.3560	1.57840	1.00201	0.09521	1377.9	9.67	0.058	3.920	0.984	0.988
0.3986	1.76727	1.00237	0.09545	1388.6	9.67	0.058	3.920	0.992	0.992
0.4409	1.95482	1.00129	0.09548	1385.9	9.67	0.058	3.920	0.996	1.000
								0.994	0.998

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A WCN COOLED  
 MODEL MACH NO. DAY TEST RUN X TUNNEL TTD TTD GEN. CYL.  
 5. 3. 10. 3. 306. 201. -4.50 18679.30 644.60 588.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	588.00	588.00	0.	0.9122
0.0100	0.85	603.93	527.87	955.9	0.9369
0.0175	0.85	609.99	533.63	957.8	0.9463
0.0258	1.60	627.72	414.41	1600.8	0.9738
0.0350	2.24	643.44	320.53	1969.6	0.9982
0.0453	2.54	654.80	286.13	2104.5	1.0158
0.0556	2.73	664.41	266.20	2187.2	1.0307
0.0714	3.10	678.99	232.48	2316.1	1.0533
0.0877	3.44	685.21	203.28	2406.2	1.0630
0.1087	3.91	694.32	170.93	2507.6	1.0771
0.1301	4.25	697.53	151.12	2562.1	1.0821
0.1556	4.54	685.85	134.02	2574.8	1.0640
0.1835	4.67	663.41	123.85	2546.0	1.0292
0.2152	4.71	650.55	119.83	2525.1	1.0092
0.2471	4.74	648.37	118.22	2523.7	1.0058

DELTA DELTA STAR M RSR RS DELTA RTHETA R THETA D RECVY. TEMP. RECVY. FACT. TOT. PRESS. RECVY. CT  
 0.2043 0.0831 18.88 16629.1 1984388. 163. 1939. 424.01 0.892 0.39710 0.081

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(2), THETA(2), THETA(M), H(M), MIE), PTIMAX,  
 -0.0802 -0.002 0.0855 0.0846 0.00007 0.00433 0.00428 19.75 4.71 15674.4

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.37771	0.04282	40.6	40.58	0.030	4.693	0.002	0.003
0.0100	0.04895	0.37844	0.04244	65.0	40.58	0.030	4.693	0.003	0.004
0.0175	0.08562	0.63252	0.09133	64.8	40.58	0.030	4.693	0.003	0.004
0.0258	0.12644	0.77823	0.14529	173.6	40.58	0.030	4.693	0.009	0.011
0.0350	0.17148	0.83155	0.17390	465.1	40.58	0.030	4.693	0.025	0.030
0.0453	0.22170	0.86422	0.19427	735.7	40.58	0.030	4.693	0.039	0.047
0.0556	0.27237	0.91513	0.23555	996.8	40.58	0.030	4.693	0.053	0.064
0.0714	0.34942	0.95074	0.27987	1727.6	40.58	0.030	4.693	0.092	0.110
0.0877	0.42940	0.99080	0.34686	2853.4	40.58	0.030	4.693	0.153	0.182
0.1087	0.53211	1.01235	0.40086	5481.6	40.58	0.030	4.693	0.293	0.350
0.1301	0.63686	1.01735	0.45423	8573.3	40.58	0.030	4.693	0.459	0.547
0.1556	0.76169	1.00595	0.43607	12301.7	40.58	0.030	4.693	0.659	0.785
0.1835	0.89826	1.00000	0.49693	14435.6	40.58	0.030	4.693	0.773	0.921
0.2043	1.00000	0.99771	0.49824	14890.7	40.58	0.030	4.693	0.810	0.950
0.2152	1.05344	0.99716	0.50472	15129.7	40.58	0.030	4.693	0.810	0.965
0.2471	1.20960	0.99716	0.50472	15674.4	40.58	0.030	4.693	0.839	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A NUM COOLED  
 MODEL MACH NO. DAY TEST RUN X PIF TTD TW GEN. CYL.  
 5. 10. 3. 306. 199. -4.50 5140.50 636.70 579.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/T	TTD	TW	GEN. CYL.
0.	0.	579.00	579.00	0.	0.9094			
0.0100	0.65	593.44	547.63	741.8	0.9321			
0.0155	0.62	598.03	555.97	710.9	0.9393			
0.0244	0.59	604.77	565.12	690.2	0.9499			
0.0346	0.90	616.82	531.58	1011.9	0.9688			
0.0473	1.57	637.09	426.32	1591.3	1.0006			
0.0624	2.37	654.60	308.53	2039.0	1.0281			
0.0792	2.90	663.74	247.83	2235.3	1.0425			
0.1005	3.30	653.21	205.89	2318.2	1.0259			
0.1324	4.09	637.37	146.75	2427.8	1.0011			
0.1643	4.09	637.38	146.47	2428.5	1.0011			
0.1959	4.49	638.04	126.74	2478.4	1.0021			
0.2279	4.69	638.16	118.11	2499.5	1.0023			
0.2709	4.75	638.17	115.83	2505.0	1.0023			
0.3128	4.78	638.17	114.77	2507.6	1.0023			
0.3555	4.78	638.17	114.43	2508.4	1.0023			
0.3981	4.79	638.17	114.26	2508.8	1.0023			
0.4405	4.79	638.17	114.22	2508.9	1.0023			

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2695 0.1118 13.68 45922. 574172. 83. 1043. 415.62 0.889 0.39454 0.041

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), DELTA STAR(W 1), THETA PRIME, THETA(2), THETA(W1, H(W1), MIE), PTIMAX,  
 -0.0819 -0.001 0.1128 0.1124 0.00003 0.00815 0.00812 13.84 4.75 4501.0

Y	Y/DELTA	U/(UDELTA)	RHO * U	PT1	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	10.9	10.92	0.028	4.747	0.002	0.002
0.0100	0.03710	0.29611	0.00862	14.5	10.92	0.028	4.747	0.003	0.003
0.0155	0.05743	0.28375	0.00813	14.1	10.92	0.028	4.747	0.003	0.003
0.0244	0.09056	0.27550	0.00777	13.8	10.92	0.028	4.747	0.003	0.003
0.0346	0.12848	0.40392	0.01211	18.4	10.92	0.028	4.747	0.004	0.004
0.0473	0.17552	0.63518	0.02374	44.5	10.92	0.028	4.747	0.009	0.010
0.0624	0.23147	0.81390	0.04204	151.9	10.92	0.028	4.747	0.030	0.034
0.0792	0.29379	0.89225	0.05737	343.2	10.92	0.028	4.747	0.067	0.076
0.1005	0.37285	0.92533	0.07162	620.9	10.92	0.028	4.747	0.121	0.138
0.1324	0.49120	0.96908	0.10523	1864.1	10.92	0.028	4.747	0.363	0.414
0.1643	0.60955	0.96936	0.10545	1876.3	10.92	0.028	4.747	0.365	0.417
0.1959	0.72678	0.98929	0.12437	3124.6	10.92	0.028	4.747	0.608	0.694
0.2279	0.84550	0.99772	0.13460	4002.3	10.92	0.028	4.747	0.779	0.889
0.2695	1.00000	1.00000	0.13765	4276.0	10.92	0.028	4.747	0.834	0.950
0.2709	1.00503	0.99991	0.13755	4284.9	10.92	0.028	4.747	0.861	0.952
0.3128	1.16048	1.00093	0.13897	4426.0	10.92	0.028	4.747	0.870	0.994
0.3555	1.31890	1.00126	0.13943	4472.2	10.92	0.028	4.747	0.874	0.999
0.3981	1.47694	1.00142	0.13966	4495.0	10.92	0.028	4.747	0.874	0.999
0.4405	1.63424	1.00146	0.13972	4501.0	10.92	0.028	4.747	0.874	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL R NON COOLED  
 MODEL MACH MD, DAY TEST RUN X -9.50 85698.1C 1345.00 1112.4C GEN. CYL.  
 10. 8. 6. 24. 106. 28. -9.50 85698.1C 1345.00 1112.4C 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTIC
0.	0.	1112.00	1112.00	0.	0.4268
0.0100	0.89	1224.52	1055.44	1425.1	0.9104
0.0322	0.95	1247.12	1056.75	1513.9	0.9272
0.0530	1.00	1279.71	1067.32	1597.4	0.9515
0.0957	1.48	1327.61	923.12	2204.4	0.9871
0.1275	2.17	1390.27	716.52	2845.1	1.0337
0.1531	2.56	1427.29	617.91	3118.3	1.0612
0.1818	3.82	1464.78	373.86	3620.2	1.0891
0.2136	5.20	1456.87	223.98	3817.3	1.0683
0.2455	6.51	1340.37	146.54	3865.5	1.0337
0.2661	6.37	1379.77	151.17	3841.9	1.0259
0.2874	7.29	1357.65	116.86	3860.9	1.0094
0.3204	7.48	1352.77	110.87	3862.6	1.0058
0.3519	7.49	1254.86	110.84	3865.9	1.0073
0.3842	7.62	1353.12	107.30	3868.7	1.0060
0.4157	7.64	1352.79	106.64	3869.2	1.0058
0.4481	7.69	1352.15	105.39	3870.2	1.0053
0.4907	7.73	1351.68	104.48	3870.9	1.0050

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TFMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4299 0.2419 40.03 39612. 1797425. 32. 1448. 776.85 0.912 0.33890 1.046

PHI. DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(M 1), DELTA STAR(M 2), THETA(1), THETA(2), THETA(M), M(M), M(E), PTIMAX,  
 -0.0280 -0.001 0.2425 0.2422 0.0001 0.0060 0.00603 40.17 7.67 85698.1

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	11.0	11.00	0.000	0.000	0.000	0.000
0.0100	0.02326	0.36826	0.00866	18.5	11.00	0.004	7.665	0.000	0.000
0.0322	0.07483	0.39121	0.00919	19.7	11.00	0.004	7.665	0.000	0.000
0.0530	0.12321	0.41280	0.00959	20.8	11.00	0.004	7.665	0.000	0.000
0.0957	0.22255	0.54966	0.01531	39.2	11.00	0.004	7.665	0.000	0.000
0.1275	0.29656	0.73521	0.02545	111.9	11.00	0.004	7.665	0.001	0.001
0.1531	0.35610	0.80582	0.03235	206.1	11.00	0.004	7.665	0.002	0.002
0.1818	0.42286	0.93553	0.04207	1309.7	11.00	0.004	7.665	0.015	0.015
0.2136	0.49682	0.98645	0.10925	7357.1	11.00	0.004	7.665	0.086	0.086
0.2455	0.57102	0.99891	0.16898	28875.0	11.00	0.004	7.665	0.337	0.337
0.2661	0.61893	0.99282	0.16292	25275.5	11.00	0.004	7.665	0.295	0.295
0.2874	0.66843	0.99773	0.21180	58809.5	11.00	0.004	7.665	0.686	0.686
0.3204	0.74523	0.99818	0.22334	69813.7	11.00	0.004	7.665	0.815	0.815
0.3519	0.81850	0.99903	0.22359	70261.1	11.00	0.004	7.665	0.820	0.820
0.3842	0.89363	0.99975	0.23112	78344.4	11.00	0.004	7.665	0.914	0.914
0.4157	0.96689	0.99988	0.23259	79992.7	11.00	0.004	7.665	0.933	0.933
0.4299	1.00000	1.00000	0.23396	81413.2	11.00	0.004	7.665	0.950	0.950
0.4481	1.04225	1.00013	0.23541	83226.1	11.00	0.004	7.665	0.971	0.971
0.4907	1.14134	1.00030	0.23751	85698.1	11.00	0.004	7.665	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTD YM GEN. CYL.  
 10. 8. 6. 24. 306. 27. -3.50 89547.10 1358.00 1168.00 17.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TF
0.	1168.00	1168.00	0.	0.8601	
0.0100	1221.99	1006.17	1610.2	0.8998	
0.0255	1.07	1235.77	1645.7	0.9108	
0.0471	1.61	1277.79	840.12	0.9409	
0.0897	2.91	1348.27	500.06	3192.2	0.9928
0.1323	3.73	1397.32	349.64	3513.7	1.0290
0.1748	4.53	1422.93	278.84	3707.4	1.0478
0.2175	5.52	1452.33	204.81	3871.4	1.0695
0.2602	6.42	1460.70	157.84	3956.3	1.0754
0.3031	7.07	1434.39	130.40	3958.0	1.0563
0.3243	7.35	1416.00	120.04	3945.8	1.0427
0.3462	7.48	1399.91	114.86	3929.2	1.0309
0.3684	7.64	1368.21	108.02	3891.0	1.0075
0.4310	7.70	1358.58	105.58	3879.9	1.0804
0.4736	7.78	1356.72	104.00	3879.4	0.9991
0.5162	7.78	1354.28	103.35	3876.7	0.9973

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECDV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4418 0.2310 77.17 67558. 3303882. 15. 733. 802.69 0.848 0.32872 0.570

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STARIM 1, THETA STARIME, THETA(2), THETA(1), H(1), M(1), PTIMAX,  
 -0.0722 -0.001 0.2321 0.2317 0.00001 0.00298 0.00298 77.80 7.72 89547.1

Y	V/DELTA	U/U(DELTA)	RHO * U	PT1	PI	RHO U PRIME	M PRIME	PT1/PTE	PTI/PTIMAX
0.	0.	0.41501	0.	0.01025	11.0	10.99		0.000	0.000
0.0100	0.02263	0.42929	0.01062	0.01748	21.7	10.99	0.004	0.000	0.000
0.0255	0.05772	0.59099	0.01748	0.04089	22.7	10.99	0.004	0.000	0.000
0.0471	0.10470	0.82274	0.04089	0.06088	47.7	10.99	0.004	0.001	0.001
0.0897	0.20312	0.90560	0.06088	0.08516	353.8	10.99	0.004	0.004	0.004
0.1323	0.29946	0.95553	0.08516	0.12108	1154.3	10.99	0.004	0.013	0.013
0.1748	0.39565	0.99778	0.12108	0.16055	3300.0	10.99	0.004	0.037	0.037
0.2175	0.49230	1.01607	0.16055	0.19442	10438.8	10.99	0.004	0.117	0.117
0.2602	0.58895	1.02012	0.19442	0.21054	26504.5	10.99	0.004	0.296	0.296
0.3031	0.68405	1.01697	0.21054	0.21912	48530.0	10.99	0.004	0.542	0.542
0.3243	0.73404	1.00268	0.21912	0.23073	61946.3	10.99	0.004	0.692	0.692
0.3462	0.78361	1.00284	0.23073	0.23538	68492.3	10.99	0.004	0.776	0.776
0.3684	0.87913	0.99997	0.23538	0.23649	79513.6	10.99	0.004	0.888	0.888
0.4310	0.97555	1.00000	0.23649	0.23827	84026.1	10.99	0.004	0.938	0.938
0.4736	1.00000	0.99986	0.23827	0.24027	85069.8	10.99	0.004	0.950	0.950
0.5162	1.07197	0.99915	0.24027		88142.0	10.99	0.004	0.984	0.984
0.5684	1.16840	0.99915	0.24027		89547.1	10.99	0.004	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH MC DAY TEST RUN K DATE TTD TM GEN. CYL.  
 10. 8. c. 24. 306. 26. -0.50 95588.70 1345.00 1184.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	1.01	1184.00	1184.00	0.	0.8803						
0.0100	1.01	1258.68	1046.27	1597.5	0.9358			809.55	0.870	0.29547	0.439
0.0373	1.27	1282.44	967.93	1943.8	0.9535						
0.0588	2.32	1333.47	642.96	2880.2	0.9914						
0.1013	3.40	1380.13	416.06	3403.3	1.0261						
0.1602	4.23	1415.88	309.15	3646.4	1.0527						
0.2082	5.05	1450.97	237.67	3817.9	1.0782						
0.2612	5.88	1481.17	187.18	3942.8	1.1012						
0.3147	6.71	1469.50	146.89	3986.2	1.0926						
0.3679	7.11	1429.28	128.49	3953.2	1.0627						
0.4213	7.64	1387.84	109.44	3919.0	1.0319						
0.4748	7.79	1362.96	103.86	3889.3	1.0134						
0.5279	7.84	1352.43	101.76	3876.2	1.0055						
0.5813	7.86	1349.98	101.10	3873.5	1.0037						

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4860 0.2631 154.15 81461.4194704. 434. 809.55 0.870 0.29547 0.439

PHI. DELTA STAR PRIME. DELTA STAR(2). DELTA STAR(1). THETA STAR(1). THETA STAR(2). THETA(W). H(W). M(E). PTIMAX.  
 -0.1562 -0.001 0.2640 0.2636 0.0001 0.00170 0.00170 155.48 7.60 95588.9

Y	Y/DELTA	U/(DELTA) RHO * U	PT1	PI.	RHO U PRIME	M PRIME	PT1/PTE	PT1/PTIMAX
0.	0.02058	0.41111	11.0	10.99	0.003	7.797	0.000	0.000
0.0100	0.07675	0.50026	21.0	10.99	0.003	7.797	0.000	0.000
0.0373	0.12100	0.74124	29.4	10.99	0.003	7.797	0.001	0.001
0.0588	0.20843	0.87585	41.1	10.99	0.003	7.797	0.001	0.001
0.1013	0.32962	0.93841	73.0	10.99	0.003	7.797	0.008	0.008
0.1602	0.42838	0.98256	102.84	10.99	0.003	7.797	0.024	0.024
0.2082	0.53743	1.01470	134.85	10.99	0.003	7.797	0.065	0.065
0.2612	0.64750	1.02586	173.72	10.99	0.003	7.797	0.160	0.160
0.3147	0.75696	1.01737	247.91.7	10.99	0.003	7.797	0.364	0.364
0.3679	0.86683	1.00857	347.88	10.99	0.003	7.797	0.528	0.528
0.4213	0.97691	1.00093	479.88.9	10.99	0.003	7.797	0.835	0.835
0.4748	1.00000	1.00000	640.99.4	10.99	0.003	7.797	0.941	0.941
0.5279	1.08617	0.99757	809.09.5	10.99	0.003	7.797	0.950	0.950
0.5813	1.19604	0.99686	940.19.7	10.99	0.003	7.797	0.984	0.984
			95588.9	10.99	0.003	7.797	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTC TW GEN. CYL.  
 10. 8. 6. 24. 306. 42. 12.50 81672.30 1557.00 120P.00 17.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/ATIC
0.	0.	1208.00	1208.00	0.	0.8902
0.0100	0.87	1283.77	1115.87	1420.2	0.9460
0.0323	2.49	1350.76	603.38	2996.5	0.9954
0.0643	3.50	1370.11	397.84	3417.7	1.0097
0.1069	4.02	1394.18	329.69	3576.1	1.0274
0.1494	4.41	1419.23	290.63	3682.2	1.0459
0.1923	4.80	1451.39	259.06	3784.8	1.0696
0.2348	5.20	1475.40	230.50	3867.3	1.0873
0.2772	5.61	1490.48	204.17	3931.1	1.0994
0.3194	6.01	1500.75	182.30	3979.9	1.1059
0.3842	6.58	1484.51	153.52	3998.8	1.0940
0.4263	6.85	1457.08	140.27	3977.3	1.0737
0.4698	7.04	1423.62	130.47	3941.5	1.0491
0.5133	7.17	1390.12	123.27	3901.2	1.0244
0.5550	7.23	1368.73	119.36	3874.2	1.0086
0.6191	7.27	1355.41	117.07	3857.1	0.9989

DELTA DELTA STAR H PRR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.5230 0.2274 186.26 240751. 8293311. 10. 343. 831.69 0.879 0.32247 0.369

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), THETA STAR(M 1), THETA PRIME, THETA(2), THETA(M), H(M), M(E), PTIMAX,  
 -0.2441 -0.024 -0.024 0.2513 0.2359 0.00024 0.00098 0.00092 256.00 7.19 09271.4

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI.	RHC U PRIME.	M PRIME	PTI/PTE.	PTI/PTIMAX
0.	0.	0.	0.	19.0	18.96	0.000	0.000	0.000	0.000
0.0100	0.01912	0.36474	0.01395	30.7	18.81	0.000	7.095	0.000	0.000
0.0323	0.06184	0.76953	0.05442	315.7	18.81	0.004	7.095	0.004	0.004
0.0643	0.12298	0.87771	0.09413	1425.4	18.81	0.017	7.095	0.017	0.016
0.1069	0.20442	0.91840	0.11874	2921.7	18.79	0.036	7.096	0.036	0.033
0.1494	0.28569	0.94565	0.13813	4814.9	18.71	0.059	7.100	0.059	0.054
0.1923	0.36772	0.97198	0.15848	7749.2	18.62	0.087	7.106	0.087	0.087
0.2348	0.44899	0.99318	0.18091	12278.0	18.51	0.150	7.113	0.150	0.138
0.2772	0.53007	1.00956	0.20623	19323.8	18.38	0.237	7.120	0.237	0.216
0.3194	0.61077	1.02209	0.23205	29202.1	18.24	0.358	7.129	0.358	0.327
0.3842	0.73468	1.02694	0.27343	50657.0	18.02	0.620	7.143	0.620	0.567
0.4263	0.81518	1.02142	0.29480	64346.3	17.86	0.788	7.153	0.788	0.721
0.4698	0.89836	1.01224	0.31085	75790.9	17.66	0.928	7.165	0.928	0.849
0.5133	0.98155	1.00189	0.32112	83858.6	17.41	1.027	7.181	1.027	0.939
0.5230	1.00000	1.00000	0.32259	84807.8	17.37	1.077	7.193	1.077	0.950
0.5550	1.06129	0.99496	0.32579	87960.4	17.23	1.093	7.214	1.093	0.985
0.6191	1.18386	0.99055	0.32455	89271.4	16.91	1.000	7.214	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NCM COOLED  
 MODEL MACH NO. DAY TEST RUN X PTF TIC TWM GEN. CYL.  
 10. 8. 6. 24. 306. 43. 20.00 81902.90 1350.00 1197.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	T/T	PT	PTI	RHO * U	RSR	RS DELTA	RTHETA 2	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT	
0.0100	0.	1197.00	1197.00	0.	0.	0.8867											
0.0372	1.21	1293.91	1002.09	1872.4	1872.4	0.9585											
0.0696	3.66	1356.73	486.44	3233.5	3233.5	1.0050											
0.1120	4.14	1391.03	377.75	3489.0	3489.0	1.0304											
0.1588	4.62	1428.37	323.09	3644.0	3644.0	1.0591											
0.2078	5.09	1458.92	276.98	3768.2	3768.2	1.0807											
0.2575	5.57	1476.44	238.64	3856.3	3856.3	1.0937											
0.3046	5.80	1485.82	206.56	3926.1	3926.1	1.1035											
0.3531	5.99	1488.53	192.33	3946.2	3946.2	1.1026											
0.3785	6.17	1485.82	181.51	3958.5	3958.5	1.1006											
0.3999	6.35	1477.41	171.34	3961.2	3961.2	1.0944											
0.4426	6.49	1462.36	161.38	3953.5	3953.5	1.0832											
0.4852	6.56	1441.05	153.44	3933.1	3933.1	1.0674											
	6.69	1421.25	147.81	3911.4	3911.4	1.0524											
	6.69	1388.61	139.63	3873.5	3873.5	1.0286											
	6.77	1367.79	134.64	3849.0	3849.0	1.0132											
DELTA: DELTA STAR M H RSR RS DELTA RTHETA 2 RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT																	
0.4374	0.1428	37.55	606105.	12711415.	62.	1304.	934.93	0.874	0.35616	0.462							
PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(4), DELTA STAR(6), DELTA STAR(8), DELTA STAR(10), DELTA STAR(12), DELTA STAR(14), DELTA STAR(16), DELTA STAR(18), DELTA STAR(20), DELTA STAR(24), DELTA STAR(28), DELTA STAR(32), DELTA STAR(36), DELTA STAR(40), DELTA STAR(44), DELTA STAR(48), DELTA STAR(52), DELTA STAR(56), DELTA STAR(60), DELTA STAR(64), DELTA STAR(68), DELTA STAR(72), DELTA STAR(76), DELTA STAR(80), DELTA STAR(84), DELTA STAR(88), DELTA STAR(92), DELTA STAR(96), DELTA STAR(100), DELTA STAR(104), DELTA STAR(108), DELTA STAR(112), DELTA STAR(116), DELTA STAR(120), DELTA STAR(124), DELTA STAR(128), DELTA STAR(132), DELTA STAR(136), DELTA STAR(140), DELTA STAR(144), DELTA STAR(148), DELTA STAR(152), DELTA STAR(156), DELTA STAR(160), DELTA STAR(164), DELTA STAR(168), DELTA STAR(172), DELTA STAR(176), DELTA STAR(180), DELTA STAR(184), DELTA STAR(188), DELTA STAR(192), DELTA STAR(196), DELTA STAR(200), DELTA STAR(204), DELTA STAR(208), DELTA STAR(212), DELTA STAR(216), DELTA STAR(220), DELTA STAR(224), DELTA STAR(228), DELTA STAR(232), DELTA STAR(236), DELTA STAR(240), DELTA STAR(244), DELTA STAR(248), DELTA STAR(252), DELTA STAR(256), DELTA STAR(260), DELTA STAR(264), DELTA STAR(268), DELTA STAR(272), DELTA STAR(276), DELTA STAR(280), DELTA STAR(284), DELTA STAR(288), DELTA STAR(292), DELTA STAR(296), DELTA STAR(300), DELTA STAR(304), DELTA STAR(308), DELTA STAR(312), DELTA STAR(316), DELTA STAR(320), DELTA STAR(324), DELTA STAR(328), DELTA STAR(332), DELTA STAR(336), DELTA STAR(340), DELTA STAR(344), DELTA STAR(348), DELTA STAR(352), DELTA STAR(356), DELTA STAR(360), DELTA STAR(364), DELTA STAR(368), DELTA STAR(372), DELTA STAR(376), DELTA STAR(380), DELTA STAR(384), DELTA STAR(388), DELTA STAR(392), DELTA STAR(396), DELTA STAR(400), DELTA STAR(404), DELTA STAR(408), DELTA STAR(412), DELTA STAR(416), DELTA STAR(420), DELTA STAR(424), DELTA STAR(428), DELTA STAR(432), DELTA STAR(436), DELTA STAR(440), DELTA STAR(444), DELTA STAR(448), DELTA STAR(452), DELTA STAR(456), DELTA STAR(460), DELTA STAR(464), DELTA STAR(468), DELTA STAR(472), DELTA STAR(476), DELTA STAR(480), DELTA STAR(484), DELTA STAR(488), DELTA STAR(492), DELTA STAR(496), DELTA STAR(500), DELTA STAR(504), DELTA STAR(508), DELTA STAR(512), DELTA STAR(516), DELTA STAR(520), DELTA STAR(524), DELTA STAR(528), DELTA STAR(532), DELTA STAR(536), DELTA STAR(540), DELTA STAR(544), DELTA STAR(548), DELTA STAR(552), DELTA STAR(556), DELTA STAR(560), DELTA STAR(564), DELTA STAR(568), DELTA STAR(572), DELTA STAR(576), DELTA STAR(580), DELTA STAR(584), DELTA STAR(588), DELTA STAR(592), DELTA STAR(596), DELTA STAR(600), DELTA STAR(604), DELTA STAR(608), DELTA STAR(612), DELTA STAR(616), DELTA STAR(620), DELTA STAR(624), DELTA STAR(628), DELTA STAR(632), DELTA STAR(636), DELTA STAR(640), DELTA STAR(644), DELTA STAR(648), DELTA STAR(652), DELTA STAR(656), DELTA STAR(660), DELTA STAR(664), DELTA STAR(668), DELTA STAR(672), DELTA STAR(676), DELTA STAR(680), DELTA STAR(684), DELTA STAR(688), DELTA STAR(692), DELTA STAR(696), DELTA STAR(700), DELTA STAR(704), DELTA STAR(708), DELTA STAR(712), DELTA STAR(716), DELTA STAR(720), DELTA STAR(724), DELTA STAR(728), DELTA STAR(732), DELTA STAR(736), DELTA STAR(740), DELTA STAR(744), DELTA STAR(748), DELTA STAR(752), DELTA STAR(756), DELTA STAR(760), DELTA STAR(764), DELTA STAR(768), DELTA STAR(772), DELTA STAR(776), DELTA STAR(780), DELTA STAR(784), DELTA STAR(788), DELTA STAR(792), DELTA STAR(796), DELTA STAR(800), DELTA STAR(804), DELTA STAR(808), DELTA STAR(812), DELTA STAR(816), DELTA STAR(820), DELTA STAR(824), DELTA STAR(828), DELTA STAR(832), DELTA STAR(836), DELTA STAR(840), DELTA STAR(844), DELTA STAR(848), DELTA STAR(852), DELTA STAR(856), DELTA STAR(860), DELTA STAR(864), DELTA STAR(868), DELTA STAR(872), DELTA STAR(876), DELTA STAR(880), DELTA STAR(884), DELTA STAR(888), DELTA STAR(892), DELTA STAR(896), DELTA STAR(900), DELTA STAR(904), DELTA STAR(908), DELTA STAR(912), DELTA STAR(916), DELTA STAR(920), DELTA STAR(924), DELTA STAR(928), DELTA STAR(932), DELTA STAR(936), DELTA STAR(940), DELTA STAR(944), DELTA STAR(948), DELTA STAR(952), DELTA STAR(956), DELTA STAR(960), DELTA STAR(964), DELTA STAR(968), DELTA STAR(972), DELTA STAR(976), DELTA STAR(980), DELTA STAR(984), DELTA STAR(988), DELTA STAR(992), DELTA STAR(996), DELTA STAR(1000)																	
Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PI	RHC	U	PRIME	M	PRIME	PTI/PTE	PTI/PTIMAX	MIEI	PTIMAX	91815.6		
0.0100	0.02286	0.48289	0.04276	38.4	38.43								0.000	0.000	0.000		
0.0372	0.08498	0.83390	0.15089	96.1	39.27			0.009	6.340	0.001	0.001	0.001	0.001	0.001	0.001		
0.0696	0.15923	0.89981	0.20648	1411.6	38.96			0.009	6.348	0.017	0.017	0.015	0.015	0.015	0.015		
0.1120	0.25606	0.93977	0.24388	3676.4	38.37			0.008	6.364	0.045	0.045	0.040	0.040	0.040	0.040		
0.1588	0.36305	0.97182	0.28140	6742.2	37.11			0.008	6.398	0.082	0.082	0.073	0.073	0.073	0.073		
0.2078	0.47508	0.99451	0.32109	11904.0	35.50			0.008	6.444	0.146	0.146	0.130	0.130	0.130	0.130		
0.2575	0.58870	1.01254	0.36250	20087.6	34.10			0.008	6.485	0.246	0.246	0.219	0.219	0.219	0.219		
0.2825	0.64586	1.01770	0.38351	32936.7	32.75			0.008	6.527	0.403	0.403	0.359	0.359	0.359	0.359		
0.3046	0.69638	1.02088	0.40062	41374.0	32.08			0.007	6.549	0.506	0.506	0.451	0.451	0.451	0.451		
0.3279	0.74965	1.02157	0.41782	49476.9	31.53			0.007	6.567	0.605	0.605	0.539	0.539	0.539	0.539		
0.3531	0.80726	1.01958	0.43377	58395.2	31.02			0.007	6.584	0.714	0.714	0.636	0.636	0.636	0.636		
0.3785	0.86533	1.01433	0.44565	68048.7	30.39			0.007	6.606	0.832	0.832	0.741	0.741	0.741	0.741		
0.3999	0.91426	1.00873	0.45219	75752.1	29.84			0.007	6.625	0.926	0.926	0.825	0.825	0.825	0.825		
0.4374	1.00000	1.00000	0.45873	80850.3	29.33			0.007	6.643	0.988	0.988	0.881	0.881	0.881	0.881		
0.4826	1.01188	0.99900	0.45913	87224.9	28.57			0.007	6.677	1.077	1.077	0.950	0.950	0.950	0.950		
0.4852	1.10927	0.99264	0.45770	88108.0	28.40			0.007	6.712	1.122	1.122	0.960	0.960	0.960	0.960		
				91815.6	27.48												

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA 3 FUNCTION - TUNNEL B MCN COOLED  
MODEL MACH MC. DAY TEST RUN X PTE TTC FM GEN. CYL.  
10. 8. 6. 24. 306. 44. 22.00 R3305.2C 1337.00 1194.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TTC	FM
0.	1.90	1194.00	1194.00	0.	0.8930	
0.0100	1305.10	750.91	2566.3	0.9761	0.9919	
0.0338	3.42	1326.14	396.45	3342.0	1.0143	
0.0551	3.74	1356.18	357.19	3464.3	1.0467	
0.0872	4.09	1399.49	321.63	3598.5	1.0926	
0.1292	4.53	1447.50	283.71	3739.2	1.0929	
0.1504	4.80	1455.44	259.90	3780.9	1.0936	
0.1733	4.99	1461.25	244.01	3824.1	1.0925	
0.1929	5.21	1462.11	227.33	3851.5	1.0935	
0.2149	5.39	1460.71	214.48	3869.4	1.0928	
0.2797	5.85	1445.26	182.83	3879.0	1.0735	
0.3007	5.96	1422.07	175.52	3869.9	1.0636	
0.3235	6.07	1406.45	167.99	3857.3	1.0519	
0.3437	6.16	1372.00	162.03	3844.0	1.0411	
0.3745	6.27	1367.50	154.93	3816.8	1.0228	
0.3859	6.06	1366.16	163.06	3801.8	1.0219	
0.4173	6.38	1347.65	147.35	3797.4	1.0080	
0.4504	6.43	1334.04	144.24	3787.1	1.0008	
0.5140	6.56	1334.52	138.84	3790.1	0.9981	

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4156 0.0696 28.59 978627. 14856888. 61. 925. 829.77 0.880 0.43906 0.212

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1, THETA STAR(1), THETA(1), H(1), M(1), PTIMAX,  
 -0.2033 -0.085 0.1550 0.1134 0.00148 0.00095 0.00070 161.40 6.33 88292.0

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.02406	0.67601	0.12066	59.5	59.46				0.001
0.0100	0.08142	0.88035	0.29819	411.1	61.08				0.005
0.0338	0.13260	0.91257	0.33962	4155.9	60.71		5.865		0.047
0.0551	0.20977	0.94791	0.39180	6409.3	60.10		5.871		0.073
0.0872	0.31087	0.98497	0.42344	10064.5	58.57		5.881		0.114
0.1292	0.36189	0.99832	0.45106	16540.8	55.14		5.905		0.187
0.1504	0.41699	1.00734	0.45496	22063.3	53.09		5.964		0.250
0.1733	0.46415	1.01457	0.48785	26761.0	50.92		6.001		0.303
0.1929	0.51708	1.01926	0.50243	33443.2	49.47		6.042		0.378
0.2149	0.61882	1.02281	0.53007	39402.8	47.90		6.071		0.400
0.2371	0.67300	1.02179	0.54245	52423.5	45.17		6.104		0.473
0.2797	0.72353	1.01940	0.55036	59481.8	43.88		6.160		0.594
0.3007	0.77839	1.01608	0.55677	64858.9	43.24		6.189		0.674
0.3235	0.82699	1.01259	0.56047	70644.0	41.62		6.213		0.779
0.3437	0.90110	1.00540	0.56136	75354.5	40.54		6.242		0.800
0.3659	0.92853	1.00147	0.51964	79904.3	39.11		6.268		0.853
0.4156	1.00000	1.00000	0.54415	85116.5	38.25		6.308		0.905
0.4173	1.00409	1.00030	0.55137	84950.3	36.77		6.327		0.950
0.4504	1.08373	0.99759	0.54022	85862.0	35.31		6.327		0.738
0.5140	1.23676	0.99837	0.51008	88292.0	32.07		6.369		0.950
							6.409		0.962
							6.509		0.972
									1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B MCN COOLEC  
 MODEL MACH NO. DAY TEST RUN X PTE TIC TW GEN. CYL.  
 10. 8. 6. 24. 306. 45. 23.00 21666.80 1342.00 1191.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC
0.	1191.00	1191.00	0.	0.2875	
0.0100	2.63	1287.58	580.82	2295.2	0.9504
0.0267	3.42	1553.42	405.02	3375.5	1.0095
0.0466	3.66	1377.66	373.96	3472.5	1.0266
0.0723	3.86	1408.75	354.56	3558.8	1.0497
0.0893	3.97	1419.41	342.17	3597.5	1.0577
0.1044	4.07	1427.08	331.37	3628.2	1.0634
0.1214	4.19	1434.94	317.56	3663.9	1.0693
0.1364	4.36	1439.59	300.30	3699.6	1.0727
0.1514	4.57	1443.47	278.67	3740.8	1.0756
0.1686	4.83	1447.19	255.43	3783.9	1.0784
0.1853	5.07	1447.81	235.89	3815.7	1.0788
0.2003	5.28	1446.44	220.25	3838.1	1.0778
0.2174	5.46	1443.10	207.52	3852.8	1.0753
0.2325	5.59	1437.88	198.10	3859.3	1.0714
0.2495	5.70	1425.61	190.17	3852.6	1.0623
0.2643	5.79	1420.57	184.63	3853.4	1.0585
0.2965	5.94	1400.60	173.74	3839.2	1.0437
0.3284	6.05	1376.79	165.69	3814.4	1.0259

DELTA STAR H RSR RS DELTA RTMFA R RTMFA D RECOVER. TEMP. RECOVER. FACT. TOT. PRESS. RECOVER. CT  
 0.2930 0.0353 3.56 1533314. 15988897. 379. 3957. 847.10 0.871 0.40500 0.484

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(W), THETA STAR(M), THETA STAR(W), THETA STAR(H), THETA STAR(L), THETA STAR(T), THETA STAR(B), THETA STAR(C)  
 -0.1410 -0.096 0.1315 0.0885 0.00209 0.00724 0.00535 16.55 5.93 80748.0

Y	Y/DELTA	U/(U(DELTA)	RHO = U	PTI	PL	RHO U PRIME, M PRIME	PTI/PTE, PTI/PTIMAX
0.	0.	0.	0.	92.9	92.88	0.001	0.001
0.0100	0.03413	0.77964	0.31812	2052.7	98.58	0.025	0.025
0.0267	0.09104	0.87862	0.47726	6703.8	98.28	0.082	0.083
0.0466	0.15920	0.90387	0.52722	9351.2	97.44	0.115	0.116
0.0723	0.24696	0.92633	0.55917	11954.3	93.61	0.146	0.148
0.0893	0.30499	0.93640	0.57393	13621.0	93.69	0.167	0.169
0.1044	0.35636	0.94440	0.58698	15251.9	92.01	0.187	0.189
0.1214	0.41439	0.95369	0.59627	17396.3	90.70	0.213	0.215
0.1364	0.46559	0.96299	0.61008	20499.7	84.99	0.251	0.254
0.1514	0.51679	0.97372	0.61839	25008.5	79.06	0.306	0.310
0.1686	0.57550	0.98492	0.63122	31657.2	73.13	0.388	0.392
0.1853	0.63251	0.99321	0.64504	39202.7	68.44	0.485	0.485
0.2003	0.68371	0.99905	0.65727	46866.8	64.73	0.575	0.582
0.2174	0.74208	1.00286	0.66817	54774.2	61.77	0.671	0.670
0.2325	0.79362	1.00457	0.67423	61195.1	59.39	0.749	0.758
0.2495	0.85165	1.00281	0.67893	66344.7	57.52	0.822	0.822
0.2643	0.90217	1.00301	0.67901	70546.7	55.84	0.864	0.874
0.2930	1.00000	1.00000	0.67207	76710.6	52.50	0.932	0.950
0.2965	1.01208	0.99932	0.67057	77471.7	52.08	0.949	0.959
0.3284	1.12097	0.99288	0.65489	80748.0	48.82	0.989	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH MC DAY TEST RUN X PTF TFC TW GEN. CYL.  
 10. 8. 6. 24. 306. 46. 24.00 83916.60 1740.00 1172.00 17.00

Y	MACH	TDI-TEMP.	STAT-TEMP.	VELOCITY	Y/TTC
0.	0.	1178.00	1178.00	0.	0.8791
0.0069	2.81	1271.89	492.63	3059.7	0.9492
0.0114	2.72	1320.26	532.21	3076.9	0.9853
0.0160	2.81	1353.19	524.88	3154.5	1.0098
0.0197	2.83	1365.20	525.45	3176.3	1.0182
0.0262	2.94	1385.04	507.57	3246.8	1.0336
0.0310	2.96	1394.05	506.89	3264.7	1.0403
0.0373	3.00	1403.03	501.66	3290.7	1.0470
0.0421	3.02	1409.03	498.57	3307.3	1.0515
0.0481	3.06	1415.02	491.53	3330.8	1.0560
0.0544	3.05	1421.14	495.88	3334.1	1.0606
0.0580	3.11	1424.09	485.53	3357.9	1.0628
0.0653	3.13	1430.22	493.72	3372.1	1.0673
0.0706	3.21	1434.18	469.47	3404.4	1.0703
0.0799	3.28	1439.36	455.96	3437.2	1.0741
0.0864	3.47	1443.33	423.21	3500.8	1.0771
0.0948	3.81	1445.66	370.23	3594.4	1.0789
0.1027	4.76	1447.00	261.96	3773.2	1.0799
0.1116	5.15	1447.24	229.52	3824.9	1.0800
0.1230	5.67	1446.35	194.39	3878.3	1.0794
0.1431	6.33	1437.74	159.61	3918.6	1.0729
0.1648	6.84	1426.30	137.68	3934.6	1.0644
0.1864	7.43	1411.77	117.21	3943.7	1.0536

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA C RTHETA D RECOV-TEMP. RECOV-FACT. TOT.PRESS-RECOV. CT  
 0.1824 -0.0364 -1.68 5748314. 35231595. 302E. 823.67 0.867 0.26701 0.26701 0.871

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(1), DELTA STAR(2), THETA(1), THETA(2), THETA(1), THETA(2), M(1), PTIMAX, M(2), PTIMAX.  
 -0.0985 -0.283 0.2469 0.0696 0.00471 0.016999 0.00495 14.06 7.32 297498.6

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI	RHC	U PRIME	# PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	315.2	315.22	0.004	0.017	0.004	0.004	0.001
0.0069	0.03766	0.77618	1.24329	9501.1	443.55	0.113	0.017	5.388	0.113	0.032
0.0114	0.06265	0.78054	1.15205	8223.2	342.00	0.098	0.017	5.392	0.098	0.028
0.0160	0.08786	0.80024	1.19157	9362.5	340.27	0.112	0.017	5.397	0.112	0.031
0.0197	0.10820	0.80574	1.19543	9595.5	339.41	0.114	0.017	5.399	0.114	0.032
0.0262	0.14361	0.82364	1.25538	11305.5	336.82	0.135	0.017	5.406	0.135	0.032
0.0310	0.17014	0.82818	1.25750	11559.3	335.09	0.138	0.017	5.411	0.138	0.039
0.0373	0.220428	0.83479	1.26757	12133.5	331.64	0.145	0.017	5.420	0.145	0.041
0.0421	0.23098	0.83898	1.27113	12480.3	328.87	0.149	0.017	5.428	0.149	0.042
0.0481	0.26370	0.84496	1.28078	13130.4	324.38	0.156	0.016	5.440	0.156	0.044
0.0544	0.29823	0.85177	1.28445	12699.3	318.68	0.151	0.016	5.456	0.151	0.043
0.0580	0.31796	0.85183	1.26332	13547.5	313.50	0.161	0.016	5.471	0.161	0.046
0.0653	0.35781	0.85542	1.23479	13511.4	304.00	0.161	0.016	5.499	0.161	0.045
0.0706	0.43704	0.86361	1.24795	14717.1	295.36	0.175	0.015	5.526	0.175	0.049
0.0799	0.47385	0.87194	1.21385	15445.5	276.36	0.184	0.015	5.587	0.184	0.052
0.0864	0.47385	0.88807	1.22380	18600.3	253.91	0.222	0.014	5.666	0.222	0.063
0.0948	0.51989	0.91183	1.17249	24383.8	207.27	0.291	0.012	5.858	0.291	0.082
0.1027	0.56292	0.95717	1.17791	53706.5	175.59	0.440	0.009	6.276	0.440	0.181
0.1116	0.61170	0.97028	1.11266	72141.6	114.59	0.860	0.008	6.448	0.860	0.242

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI.	RHC U PRIME.	M PRIME	PTI/PTE.	PTI/PTIMAX
0.1230	0.67419	0.98382	1.10435	106743.3	95.00	0.007	6.643	1.272	0.359
0.1431	0.78436	0.99406	1.06250	162949.0	74.27	0.006	6.908	1.942	0.548
0.1648	0.90330	0.99812	1.00664	216319.9	60.43	0.005	7.135	2.578	0.727
0.1824	1.00000	1.00000	0.96993	282623.6	51.14	0.004	7.372	3.545	0.950
0.1964	1.02169	1.00042	0.96169	297498.6	49.05	0.004	7.372	3.545	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PIF FTU IM GEN. CYL.  
 10. 8. 6. 25. 306. 34. -9.50 65626.70 1305.00 1051.00 17.00

Y	MACH	TOT-TEMP.	STAT-TEMP.	VELOCITY	TT/TTC
0.	0.	1051.00	1051.00	0.	0.805N
0.0100	0.99	969.96	810.86	1382.6	0.7433
0.0263	0.94	970.29	825.17	1320.4	0.7435
0.0477	0.93	993.01	842.17	1346.2	0.7609
0.0801	1.03	1042.44	859.40	1482.9	0.7988
0.1225	1.40	1117.98	802.38	1947.2	0.8567
0.1651	2.26	1208.12	598.14	2707.1	0.9258
0.2077	3.84	1300.48	328.92	3416.5	0.9965
0.2503	6.22	1247.15	148.54	3714.7	0.9940
0.2932	7.54	1265.83	102.34	3738.7	0.9700
0.3357	7.79	1259.59	95.90	3739.0	0.9652
0.3678	7.88	1258.57	93.85	3740.7	0.9644
0.3996	7.93	1257.98	92.60	3741.8	0.9640
0.4532	8.00	1254.69	90.93	3741.1	0.9615
0.5067	8.04	1255.48	90.16	3741.7	0.9621

DELTA DELTA STAR H RSR RS DELTA RTHEA R RTHEA D RECOV-TEMP. RECOV-FACT. TOT-PRESS-RECOV. CT  
 0.4340 0.2606 37.42 25367. 1416124. 24. 1315. 727.08 0.791 0.32525 0.919

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA PRIME, THETA(2), THETA(1), M(M), MIEI, PTIMAX,  
 0.0473 -0.001 0.2616 0.2611 0.0001 0.00695 0.00694 37.62 7.98 65588.0

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	6.5	6.51	0.000	0.000	0.000	0.000
0.0100	0.02304	0.36960	0.00647	12.2	6.51	0.003	7.976	0.000	0.000
0.0263	0.06060	0.35298	0.00607	11.5	6.51	0.003	7.976	0.000	0.000
0.0477	0.10987	0.35987	0.00606	11.6	6.51	0.003	7.976	0.000	0.000
0.0801	0.18468	0.39641	0.00654	12.8	6.51	0.003	7.976	0.000	0.000
0.1225	0.28227	0.52054	0.00920	20.8	6.51	0.003	7.976	0.000	0.000
0.1651	0.38043	0.72368	0.01716	76.2	6.51	0.003	7.976	0.001	0.001
0.2077	0.47859	0.91332	0.03939	800.0	6.51	0.003	7.976	0.012	0.012
0.2503	0.57675	0.99305	0.09484	12808.1	6.51	0.003	7.976	0.195	0.195
0.2932	0.67560	0.99946	0.13854	43313.9	6.51	0.003	7.976	0.660	0.660
0.3357	0.77353	0.99955	0.14787	53457.3	6.51	0.003	7.976	0.815	0.815
0.3678	0.84750	0.99999	0.15115	57477.0	6.51	0.003	7.976	0.876	0.876
0.3996	0.92077	1.00028	0.15324	60447.6	6.51	0.003	7.976	0.917	0.917
0.4340	1.00000	1.00000	0.15510	62308.6	6.51	0.003	7.976	0.950	0.950
0.4532	1.04428	0.99958	0.15595	63516.4	6.51	0.003	7.976	0.968	0.968
0.5067	1.16756	1.00025	0.15739	65588.0	6.51	0.003	7.976	0.999	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH 40. DAY TEST RUN X PTE TTD FM GEN. CYL.  
 10. 8. 6. 25. 306. 33. -3.50 72039.10 1303.00 1093.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/TTD
0.	1093.00	1093.00	0.	0.8388	
0.0100	1025.20	860.61	1406.2	0.7868	
0.0295	1.03	1036.57	1470.6	0.7955	
0.0507	1.10	1060.45	1581.2	0.8139	
0.0936	1.27	1088.45	1791.1	0.8353	
0.1363	1.75	1136.35	2278.2	0.8721	
0.1787	2.57	1193.80	2958.0	0.9162	
0.2216	3.64	1265.23	3323.1	0.9710	
0.2643	4.79	1322.22	3610.8	1.0167	
0.3071	6.25	1300.80	147.80	0.9983	
0.3393	7.19	1272.98	112.40	0.9770	
0.3709	7.64	1261.47	99.59	0.9681	
0.4137	7.89	1256.02	93.39	0.9639	
0.4563	7.94	1255.56	91.73	0.9634	
0.4991	7.99	1255.94	91.12	0.9639	
0.5521	8.02	1256.50	90.60	0.9643	
0.6166	8.15	1254.27	87.72	0.9626	

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5840 0.3213 36.74 43000. 2698024. 28. 1746. 745.01 0.827 0.36801 0.463

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(H J), THETA PRIME, THETA(2), THETA(H), H(M), M(E), PTIMAX,  
 0.0896 0.001 0.3206 0.3209 -0.00001 0.00874 0.00875 36.66 8.09 71926.1

Y	Y/DELTA	U/UIDELTA	RMO = U	PTI	P1	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	6.5	6.51	0.003	8.090	0.000	0.000
0.0100	0.01719	0.37568	0.00619	12.0	6.51	0.003	8.090	0.000	0.000
0.0295	0.05040	0.39288	0.00651	12.7	6.51	0.003	8.090	0.000	0.000
0.0507	0.08677	0.42242	0.00703	14.0	6.51	0.003	8.090	0.000	0.000
0.0936	0.14810	0.47850	0.00827	17.4	6.51	0.003	8.090	0.000	0.000
0.1363	0.23309	0.60864	0.01226	34.7	6.51	0.003	8.090	0.000	0.000
0.1787	0.30559	0.76354	0.02108	124.3	6.51	0.003	8.090	0.002	0.002
0.2214	0.37862	0.88780	0.03441	608.2	6.51	0.003	8.090	0.008	0.008
0.2643	0.45198	0.94465	0.05776	2669.2	6.51	0.003	8.090	0.037	0.037
0.3071	0.52517	0.99431	0.09546	13159.3	6.51	0.003	8.090	0.183	0.183
0.3393	0.58024	0.99757	0.12593	31802.0	6.51	0.003	8.090	0.441	0.441
0.3709	0.63428	0.99813	0.14220	47048.5	6.51	0.003	8.090	0.653	0.653
0.4137	0.70747	0.99846	0.15171	58052.4	6.51	0.003	8.090	0.806	0.806
0.4563	0.78032	0.99897	0.15452	61713.6	6.51	0.003	8.090	0.857	0.857
0.4991	0.85351	0.99940	0.15563	63249.2	6.51	0.003	8.090	0.879	0.879
0.5521	0.94415	0.99984	0.15660	64440.6	6.51	0.003	8.090	0.897	0.897
0.5840	1.00000	1.00000	0.15922	66329.6	6.51	0.003	8.090	0.950	0.950
0.6166	1.05445	1.00014	0.16178	71926.1	6.51	0.003	8.090	0.998	0.998

HYPERSONIC BOUNDARY LAYER AEOC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X TTC TM GEN. CYL.  
 10. 8. 6. 25. 306. 32. -0.50 65332.40 1304.00 1112.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC
0.0100	0.93	1112.00	1112.00	0.	0.8528
0.0287	0.90	1040.82	887.85	1355.6	0.7982
0.0497	0.90	1050.96	905.20	1323.3	0.8060
0.1029	1.15	1063.21	915.49	1332.2	0.8153
0.1564	2.10	1127.51	890.42	1687.7	0.8687
0.2099	3.11	1243.83	625.71	2579.4	0.9045
0.2634	4.32	1304.43	424.69	3137.0	0.9539
0.3163	5.59	1319.47	276.09	3514.9	1.0003
0.3699	6.89	1292.49	182.26	3696.2	1.0119
0.3953	7.32	1275.00	123.15	3748.1	0.9912
0.4342	7.64	1264.18	108.91	3742.9	0.9778
0.4767	7.88	1256.78	99.85	3740.1	0.9695
0.5299	7.95	1257.14	93.73	3736.0	0.9638
0.5833	8.00	1257.04	92.24	3741.0	0.9641
0.6372	8.02	1256.52	91.12	3742.6	0.9640
			90.73	3742.4	0.9636

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5358 0.3498 39.19 53143. 3117938. 29. 1686. 754.93 0.842 0.26742 0.261

PMI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), THETA STAR(M 1), THETA PRIME, THETA(12), THETA(M), M(M), N(1), PT1MAX,  
 0.0597 -0.001 0.3504 0.3501 0.0000 0.00892 0.00891 39.28 7.95 65332.4

Y	Y/DELTA	U/(DELTA)	RMO * U	PTI	PI,	RMO U PRIME,	M PRIME	PTI/PTE,	PTI/PT1MAX
0.0100	0.01866	0.36234	0.00588	6.6	6.61	0.003	7.952	0.000	0.000
0.0287	0.05351	0.35371	0.00563	11.5	6.61	0.003	7.952	0.000	0.000
0.0497	0.09284	0.35607	0.00560	11.1	6.61	0.003	7.952	0.000	0.000
0.1029	0.19206	0.45111	0.00730	13.2	6.61	0.003	7.952	0.000	0.000
0.1564	0.29192	0.68946	0.01588	15.1	6.61	0.003	7.952	0.001	0.001
0.2099	0.39177	0.83850	0.02845	60.8	6.61	0.003	7.952	0.004	0.004
0.2634	0.49163	0.93949	0.04903	284.2	6.61	0.003	7.952	0.023	0.023
0.3163	0.59036	0.98797	0.07810	1315.2	6.61	0.003	7.952	0.103	0.103
0.3699	0.69041	1.00183	0.11721	6747.5	6.61	0.003	7.952	0.379	0.379
0.3953	0.73782	1.00044	0.13235	24754.6	6.61	0.003	7.952	0.555	0.555
0.4342	0.81042	0.99969	0.14426	36282.9	6.61	0.003	7.952	0.731	0.731
0.4767	0.88975	0.99913	0.15359	47734.3	6.61	0.003	7.952	0.893	0.893
0.5299	0.98904	0.99993	0.15619	58352.9	6.61	0.003	7.952	0.946	0.946
0.5833	1.00000	1.00000	0.15647	61771.9	6.61	0.003	7.952	0.950	0.950
0.6372	1.08871	1.00036	0.15817	62065.8	6.61	0.003	7.952	0.986	0.986
	1.18932	1.00031	0.15885	64445.3	6.61	0.003	7.952	1.000	1.000
				65332.4	6.61				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH 8. 6. 25. 306. 40. 12.50 50826.70 1286.00 1176.00 17.00  
 10. 8. 6. 25. 306. 40. 12.50 50826.70 1286.00 1176.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TC
0.	0.	1176.00	1176.00	0.	0.9145
0.0100	0.66	1192.85	1095.95	1079.0	0.9274
0.0158	0.74	1200.47	1081.45	1195.9	0.9335
0.0209	1.22	1222.52	942.03	1835.7	0.9506
0.0265	1.47	1235.99	863.51	2115.4	0.9611
0.0374	2.40	1272.20	591.00	2860.7	0.9893
0.0498	3.25	1295.75	416.27	3250.5	1.0076
0.0649	5.76	1304.71	340.84	3402.9	1.0145
0.0818	4.05	1315.99	307.00	3481.7	1.0233
0.1013	4.24	1326.40	289.55	3532.8	1.0330
0.1229	4.44	1342.58	271.50	3587.2	1.0440
0.1462	4.61	1356.53	258.70	3631.7	1.0548
0.1722	4.81	1372.00	243.61	3681.9	1.0669
0.1993	5.04	1385.14	227.87	3728.7	1.0771
0.2322	5.33	1394.85	208.58	3775.1	1.0846
0.2637	5.62	1403.85	192.10	3815.5	1.0916
0.2957	5.89	1405.81	176.36	3842.4	1.0937
0.3277	6.15	1402.83	163.69	3858.3	1.0908
0.3596	6.38	1391.89	152.30	3859.0	1.0823
0.3917	6.57	1377.03	142.78	3850.7	1.0708
0.4235	6.73	1356.95	134.96	3831.5	1.0552
0.4558	6.85	1335.02	128.57	3807.1	1.0381
0.4981	6.96	1313.41	122.76	3782.1	1.0213
0.5410	7.05	1297.92	118.66	3764.0	1.0093
0.5843	7.10	1286.64	116.27	3753.0	1.0021
0.6262	7.13	1284.48	115.16	3749.1	0.9988
0.6693	7.14	1283.22	114.58	3747.0	0.9978
0.7115	7.14	1283.28	114.73	3746.8	0.9979

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5294 0.2018 258.60 16986. 5512323. 146. 801.78 0.906 0.36610 0.020

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), THETA STAR(M 1), THETA PRIME, THETA(2), THETA(M), M(M), M(E), PTIMAX,  
 -0.2884 -0.030 0.2317 0.2153 0.00044 0.00040 531.76 7.03 50826.7

Y	Y/DELTA	U/(DELTA) RHO * U	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	0.	0.000	0.000
0.0100	0.01889	0.28634	0.00724	0.006	0.000	0.000
0.0158	0.02979	0.31733	0.00813	0.006	0.000	0.000
0.0209	0.03948	0.48716	0.01432	0.006	0.001	0.001
0.0265	0.05000	0.56139	0.01800	0.006	0.001	0.001
0.0374	0.07066	0.75920	0.03555	0.006	0.004	0.004
0.0498	0.09408	0.86254	0.05731	0.006	0.013	0.013
0.0649	0.12255	0.90308	0.07316	0.006	0.027	0.027
0.0818	0.15460	0.92398	0.08303	0.006	0.040	0.040
0.1013	0.19134	0.93754	0.08927	0.006	0.051	0.051
0.1229	0.23213	0.95198	0.09648	0.006	0.066	0.066
0.1462	0.27614	0.96379	0.10220	0.006	0.081	0.081
0.1722	0.32525	0.97711	0.10971	0.006	0.104	0.104
0.1993	0.37644	0.98954	0.11617	0.006	0.135	0.135

HYPERSONIC BOUNDARY LAYER AECG WIND TUNNEL DATA REDUCTION - FUNNEL B NOM COOLED

Y	V/DELTA	U/(DELTA)	RHC * U	PTI	PI	RHC U PRIME	M PRIME	PTI/PIE	PTI/PTIMAX
0.2322	0.43858	1.00186	0.12991	9527.7	12.32	0.006	6.980	0.187	0.187
0.2637	0.49808	1.01256	0.14168	12916.9	12.24	0.006	6.987	0.254	0.254
0.2957	0.55852	1.01972	0.15411	17236.2	12.17	0.006	6.953	0.339	0.339
0.3277	0.61896	1.02394	0.16606	22280.8	12.09	0.006	6.960	0.438	0.438
0.3596	0.67921	1.02413	0.17712	27686.0	12.00	0.006	6.969	0.545	0.545
0.3917	0.73984	1.02192	0.18723	33193.6	11.91	0.006	6.977	0.653	0.653
0.4235	0.79991	1.01683	0.19521	38036.1	11.80	0.006	6.987	0.748	0.748
0.4558	0.86092	1.01035	0.20166	42170.5	11.69	0.006	6.998	0.830	0.830
0.4881	0.94081	1.00371	0.20708	46207.4	11.54	0.006	7.012	0.909	0.909
0.5294	1.00000	1.00000	0.20914	48285.4	11.39	0.005	7.032	0.950	0.950
0.5410	1.02184	0.99889	0.20948	49052.2	11.33	0.005	7.050	0.994	0.994
0.5843	1.10363	0.99597	0.20961	50519.7	11.14	0.005	7.068	1.000	1.000
0.6262	1.18277	0.99468	0.20799	50826.7	10.97	0.005	7.091	0.993	0.993
0.6693	1.26418	0.99439	0.20466	50487.3	10.74	0.005	7.114	0.969	0.969
0.7115	1.34388	0.99435	0.20030	49270.0	10.53	0.005			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTC TM GEN. CYL.  
 10. 8. 6. 25. 306. NR. 20.00 51101.9C 1299.00 1154.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	IT/ITC
0.	0.	1154.00	1154.00	0.	0.9824
0.0100	0.87	1172.65	1036.82	1369.3	0.9181
0.0147	1.33	1219.79	900.44	1955.7	0.9383
0.0211	2.36	1239.12	595.87	2822.8	0.9693
0.0302	3.21	1276.56	416.95	3213.8	0.9827
0.0405	3.68	1276.85	349.23	3374.1	0.9983
0.0531	3.97	1316.08	316.99	3464.5	1.0137
0.0661	4.13	1334.29	302.93	3520.0	1.0272
0.0789	4.25	1348.60	291.97	3562.9	1.0392
0.0920	4.38	1352.09	281.97	3602.3	1.0486
0.1045	4.48	1372.81	273.98	3633.5	1.0569
0.1171	4.59	1393.02	265.54	3663.9	1.0647
0.1321	4.70	1393.41	257.51	3694.1	1.0727
0.1496	4.83	1402.95	247.46	3725.9	1.0800
0.1664	4.96	1403.24	238.11	3749.4	1.0841
0.1857	5.09	1414.70	229.97	3774.3	1.0929
0.2074	5.24	1419.63	218.53	3798.6	1.0991
0.2284	5.39	1423.56	209.07	3819.8	1.0959
0.2558	5.58	1424.86	197.27	3840.3	1.0969
0.2872	5.82	1422.32	182.92	3858.9	1.0949
0.3199	6.04	1413.96	170.59	3864.9	1.0905
0.3519	6.20	1397.89	160.77	3855.2	1.0761
0.3946	6.37	1374.23	150.88	3833.7	1.0579
0.4485	6.51	1340.07	141.58	3794.5	1.0316
0.4924	6.57	1314.33	136.29	3762.0	1.0118
0.5336	6.61	1300.54	133.63	3744.2	1.0012

DELTA STAR H RSR RS DELTA RTMCA R RTMCA D RECV. TEMP. RECV. FACT. TOT. PRESS. RECOV. CT  
 0.4436 0.1175 31.17 412041. 801754. 42. 816. 907.72 0.875 0.41071 0.452  
 PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(2), THETA(1), THETA(2), THETA(W), H(W), M(W), PTIMAX.  
 -0.2312 -0.054 0.1718 0.1401 0.0000 0.00296 0.00243 57.65 6.50 51199.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHC U	PRIME	M	PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	25.2	25.21	0.009	5.198	0.000	0.000	0.000	0.000
0.0100	0.02254	0.36020	0.01438	41.1	25.20	0.009	5.199	0.001	0.001	0.001	0.001
0.0147	0.03321	0.51483	0.01188	72.7	25.19	0.009	6.201	0.007	0.007	0.007	0.007
0.0211	0.04750	0.74310	0.06939	344.8	25.14	0.009	6.204	0.025	0.025	0.025	0.025
0.0302	0.06818	0.84603	0.11264	1260.3	25.07	0.009	6.207	0.048	0.048	0.048	0.048
0.0405	0.09133	0.88823	0.14073	2466.9	24.90	0.009	6.210	0.071	0.071	0.071	0.071
0.0531	0.11974	0.91204	0.15864	3632.7	24.91	0.009	6.217	0.087	0.087	0.087	0.087
0.0661	0.14898	0.92665	0.16747	4435.9	24.73	0.009	6.224	0.102	0.102	0.102	0.102
0.0789	0.17783	0.93793	0.17471	5204.0	24.57	0.009	6.233	0.118	0.118	0.118	0.118
0.0920	0.20739	0.94831	0.18134	6038.1	24.36	0.009	6.255	0.133	0.133	0.133	0.133
0.1045	0.23559	0.95652	0.18634	6796.7	24.10	0.009	6.270	0.150	0.150	0.150	0.150
0.1171	0.26400	0.96451	0.19149	7672.9	23.83	0.009	6.286	0.169	0.169	0.169	0.169
0.1321	0.29782	0.97247	0.19621	8651.4	23.47	0.009	6.301	0.196	0.196	0.196	0.196
0.1496	0.33727	0.98083	0.20262	10021.4	23.10	0.009	6.317	0.224	0.224	0.224	0.224
0.1664	0.37515	0.98702	0.20878	11448.6	22.76	0.009	6.317	0.257	0.257	0.257	0.257
0.1857	0.41866	0.99359	0.21529	13142.0	22.42	0.009					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED

Y	V/DELTA	U/(DELTA)	RMD * U	PTI	PI.	RMD U PRIME, M	PRIME	PTI/PTE,	PTI/PTIMAX
0.2074	0.46758	0.99999	0.22345	15414.7	22.06	0.009	6.333	0.301	0.301
0.2284	0.51493	1.00555	0.23111	17882.8	21.71	0.009	6.349	0.350	0.349
0.2358	0.57670	1.01096	0.24139	21551.4	21.28	0.008	6.369	0.421	0.421
0.2879	0.64907	1.01586	0.25615	27357.0	20.83	0.008	6.392	0.535	0.534
0.3199	0.72121	1.01744	0.26894	33398.9	20.37	0.008	6.414	0.653	0.652
0.3319	0.79335	1.01488	0.27901	38705.6	19.97	0.008	6.435	0.757	0.756
0.3946	0.88962	1.00921	0.28780	44325.3	19.44	0.008	6.462	0.866	0.866
0.4436	1.00000	1.00000	0.29344	48639.3	18.87	0.008	6.497	0.959	0.959
0.4485	1.01114	0.99891	0.29375	49074.6	18.61	0.008	6.528	0.994	0.993
0.4924	1.11011	0.99035	0.29361	50848.4	18.25	0.008	6.554	1.001	1.000
0.5336	1.20299	0.98566	0.29062	51199.3	17.80	0.007			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - FUNNEL B NON COOLED  
 MODEL MACH 8. 5. 6. 306. 55. 22.00 51343.50 1353.00 1154.00 17.00  
 10. 8. 5. 6. 306. 55. 22.00 51343.50 1353.00 1154.00 17.00

Y	MACH	TOI	TEMP.	STAT	TEMP.	VELOCITY	IT/ITC
0.	0.	1154.00	1154.00	0.	0.8529		
0.0100	1.25	1312.08	998.76	1940.1	0.9698		
0.0129	1.20	1326.59	1028.92	1891.1	0.9805		
0.0173	1.40	1369.36	981.79	2157.8	1.0121		
0.0238	2.50	1391.83	619.74	3045.6	1.0287		
0.0343	3.45	1410.31	417.42	3453.8	1.0424		
0.0492	3.87	1428.92	357.94	3587.0	1.0561		
0.0684	4.11	1445.04	330.21	3659.7	1.0680		
0.0900	4.34	1457.33	306.09	3719.0	1.0771		
0.1135	4.53	1463.98	286.59	3761.0	1.0820		
0.1369	4.74	1466.20	267.03	3795.6	1.0837		
0.1629	4.97	1465.40	246.58	3826.6	1.0831		
0.1903	5.20	1460.73	228.01	3848.3	1.0796		
0.2179	5.38	1450.06	213.35	3854.6	1.0717		
0.2438	5.54	1439.14	201.38	3856.2	1.0637		
0.2692	5.67	1428.23	192.32	3853.3	1.0556		
0.2907	5.78	1417.24	184.46	3848.4	1.0475		
0.3119	5.87	1405.10	178.09	3839.4	1.0385		
0.3343	6.04	1380.69	166.29	3819.6	1.0205		
0.4035	6.19	1358.77	156.80	3800.0	1.0043		
0.4464	6.30	1348.15	150.90	3792.6	0.9964		
0.4890	6.38	1341.63	146.64	3789.0	0.9916		

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TCT.PRESS.RECOV. CT  
 0.4341 0.0662 65.66 663050. 9130353. 17. 235. 812.86 0.834 0.48105 0.474

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1M), THETA(2), M(1), PTIMAX.  
 -0.1338 -0.096 0.1623 0.1142 0.00176 -0.00075 -0.00053 -213.72 6.27 51174.4

Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PI.	RHO U PRIME.	M PRIME	PTI/PTE.	PTI/PTIMAX
0.0100	0.02303	0.51133	0.04401	38.9	38.92	0.013	5.775	0.001	0.001
0.0129	0.02971	0.49840	0.04162	101.0	38.88	0.013	5.776	0.002	0.002
0.0173	0.03992	0.56870	0.04972	124.4	38.86	0.013	5.777	0.002	0.002
0.0238	0.05475	0.80268	0.11095	657.8	38.83	0.013	5.779	0.013	0.013
0.0343	0.07910	0.91025	0.18615	2737.3	38.61	0.013	5.782	0.053	0.053
0.0492	0.11335	0.94537	0.22386	4873.6	38.34	0.013	5.789	0.095	0.095
0.0684	0.15751	0.96453	0.24431	6632.7	37.83	0.013	5.801	0.129	0.130
0.0900	0.20736	0.98015	0.26205	8717.5	37.02	0.012	5.822	0.170	0.170
0.1135	0.26144	0.99122	0.27530	10846.6	36.00	0.012	5.849	0.211	0.212
0.1369	0.31534	1.00035	0.28529	13362.1	34.45	0.012	5.891	0.260	0.261
0.1629	0.37523	1.00851	0.29634	16769.2	32.77	0.011	5.939	0.327	0.328
0.1903	0.43835	1.01425	0.30699	20775.6	31.22	0.011	5.987	0.405	0.406
0.2179	0.50192	1.01588	0.31652	24610.9	30.07	0.011	6.023	0.479	0.481
0.2438	0.56158	1.01631	0.32441	28368.7	29.08	0.010	6.056	0.553	0.554
0.2692	0.62009	1.01555	0.32898	31451.8	28.18	0.010	6.087	0.613	0.615
0.2907	0.66962	1.01427	0.33406	34550.1	27.48	0.010	6.112	0.673	0.675
0.3119	0.71845	1.01189	0.33736	37050.5	26.86	0.010	6.135	0.724	0.724
0.3343	0.76162	1.00668	0.34329	42305.2	25.65	0.010	6.180	0.827	0.827
0.4035	0.92945	1.00151	0.34324	46558.7	24.31	0.009	6.234	0.910	0.910
0.4890	1.00000	1.00000	0.34109	48615.6	23.52				0.950

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED

Y	Y/DELTA	U/(U(DELTA)	RHO * U	PT1	PI	RHC U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.4464	1.02826	0.99954	0.33970	49839.7	23.20	0.009	6.281	0.963	0.966
0.4690	1.12639	0.99860	0.33257	51174.4	22.09	0.009	6.331	0.997	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL P NON COOLED  
 MODEL MACH MO. DAY TEST RUN X PTF TTTO TTTM GEN. CYL.  
 10. 8. 6. 25. 306. 54. 23.00 46273.40 1342.00 1151.00 17.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO
0.	0.	1151.00	1151.00	0.	0.8577
0.0100	1.48	1354.44	940.79	2229.2	1.0093
0.0131	1.45	1365.04	961.52	2201.8	1.0172
0.0174	1.83	1389.66	830.42	2592.0	1.0355
0.0216	2.58	1399.16	600.75	3097.1	1.0426
0.0279	3.17	1405.98	466.25	3360.0	1.0477
0.0369	3.56	1413.95	399.44	3491.2	1.0536
0.0479	3.70	1424.86	381.91	3539.9	1.0617
0.0598	3.81	1435.28	367.17	3582.2	1.0695
0.0748	3.94	1447.08	352.96	3625.5	1.0783
0.0942	4.07	1458.34	337.56	3669.4	1.0867
0.1154	4.24	1459.34	317.87	3703.2	1.0874
0.1368	4.46	1458.88	292.80	3742.9	1.0971
0.1602	4.75	1456.39	264.50	3784.1	1.0952
0.1820	4.96	1447.52	244.49	3801.7	1.0786
0.2049	5.19	1438.18	225.45	3817.0	1.0717
0.2183	5.30	1431.29	216.43	3820.3	1.0665
0.2308	5.58	1424.34	209.04	3821.0	1.0614
0.2567	5.78	1411.69	195.38	3822.6	1.0519
0.2842	5.73	1389.68	183.82	3806.2	1.0355
0.3148	5.84	1371.91	175.16	3791.8	1.0223
0.3461	5.93	1357.54	168.84	3779.0	1.0116
0.3842	6.00	1346.22	164.03	3768.6	1.0031

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3203 0.0400 7.59 1060809. 9767293. 139. 1281. 822.73 0.836 0.44178 0.539

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1M), M(1M), M(1E), PTIMAX, M(25M).C  
 -0.1332 -0.098 0.1384 0.0677 0.00214 0.00313 0.00201 43.55 5.86 46254.0

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI.	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.0100	0.03122	0.58828	0.09526	62.0	62.01	0.019	5.258	0.001	0.001
0.0131	0.04090	0.58104	0.08228	221.1	61.76	0.019	5.260	0.005	0.005
0.0174	0.05423	0.68402	0.11198	373.3	61.66	0.019	5.261	0.008	0.008
0.0216	0.06756	0.81731	0.18439	1183.5	61.57	0.019	5.264	0.026	0.026
0.0279	0.08701	0.88669	0.25671	2911.1	61.46	0.019	5.267	0.063	0.063
0.0369	0.11523	0.92130	0.30946	5071.3	60.77	0.019	5.273	0.110	0.110
0.0479	0.14966	0.93417	0.32558	6051.0	60.27	0.019	5.280	0.131	0.131
0.0598	0.18685	0.94532	0.33837	7029.4	59.53	0.018	5.291	0.152	0.152
0.0748	0.23355	0.95676	0.34884	8132.7	58.29	0.018	5.310	0.176	0.176
0.0942	0.29424	0.96835	0.35779	9467.5	56.49	0.018	5.338	0.205	0.205
0.1154	0.36027	0.97725	0.36535	11159.8	53.82	0.017	5.381	0.241	0.241
0.1368	0.42708	0.98773	0.37269	13815.1	50.04	0.016	5.447	0.299	0.299
0.1602	0.50013	0.99860	0.37939	17828.4	45.51	0.015	5.534	0.385	0.385
0.1820	0.56819	1.00326	0.38650	21542.5	42.66	0.015	5.594	0.466	0.466
0.2049	0.63968	1.00729	0.39393	26182.9	39.93	0.014	5.655	0.566	0.566
0.2183	0.68151	1.00817	0.39793	28776.0	38.69	0.014	5.685	0.622	0.622
0.2308	0.72054	1.00836	0.40284	31232.9	37.82	0.013	5.706	0.675	0.675
0.2567	0.80140	1.00878	0.40857	36338.9	35.84	0.013	5.757	0.785	0.785

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED

Y	Y/Delta	U/(U(Delta))	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.2842	0.88725	1.00443	0.41219	40587.1	34.17	0.013	5.802	0.877	0.877
0.3148	0.98278	1.00063	0.40903	43604.7	32.43	0.012	5.852	0.942	0.943
0.3203	1.00000	1.00000	0.40814	43941.3	32.14				0.950
0.3441	1.08049	0.99726	0.40270	45514.7	30.88	0.012	5.899	0.984	0.984
0.3842	1.19944	0.99453	0.39097	46254.0	29.20	0.011	5.953	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B MCN COOLED  
 MODEL MACH NO. DAY TEST RUN X 24.00 51424.20 PTE TTC 1345.00 1140.00 TM GEN. CYL. 17.00  
 10. 8. 6. 25. 306. 53.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/TTC
0.	1140.00	1140.00	0.	0.8476	
0.0100	2.20	1180.92	599.66	2642.6	0.8780
0.0120	2.23	1147.86	595.00	2668.8	0.8832
0.0137	2.39	1190.98	556.97	2760.0	0.8855
0.0164	2.65	1263.07	500.04	2906.2	0.8945
0.0204	2.87	1219.17	461.06	3015.9	0.9057
0.0269	2.98	1237.23	444.94	3085.7	0.9199
0.0336	2.99	1257.37	454.69	3124.6	0.9423
0.0419	3.00	1247.31	463.19	3165.6	0.9645
0.0525	3.03	1335.41	470.69	3223.1	0.9929
0.0631	3.08	1372.69	473.53	3286.7	1.0206
0.0695	3.12	1392.94	472.70	3325.7	1.0356
0.0760	3.17	1420.43	472.80	3374.1	1.0561
0.0889	3.33	1435.02	445.67	3447.6	1.0669
0.1019	4.02	1429.32	338.16	3620.6	1.0627
0.1167	4.95	1419.47	240.72	3763.2	1.0554
0.1336	5.42	1410.56	205.01	3805.7	1.0487
0.1487	5.54	1400.49	196.11	3803.8	1.0413
0.1701	5.57	1335.75	192.20	3785.1	1.0300
0.1914	5.64	1371.70	186.48	3772.7	1.0195

DELTA DELTA STAR M RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1365 -0.0219 -1.13 3565584. 13201682. 1671. 6187. 834.86 0.821 0.28518 0.703

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA PRIME, THETA(2), THETA(M), H(M), MIEI, PTIMAX,  
 0.0064 -0.137 0.1153 0.0470 0.0053 0.01477 0.00427 7.50 5.87 52799.1

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0100	0.07328	0.69391	0.52904	207.1	207.07	0.039	4.363	0.004	0.004
0.0120	0.08793	0.70080	0.53738	2208.3	206.04	0.039	4.364	0.043	0.042
0.0137	0.10039	0.72473	0.59254	2311.8	205.62	0.039	4.366	0.045	0.044
0.0164	0.11996	0.76314	0.67750	2934.7	205.71	0.039	4.367	0.057	0.056
0.0204	0.14989	0.79195	0.77659	4423.8	204.79	0.039	4.371	0.086	0.084
0.0269	0.19690	0.81014	0.81737	6108.6	203.76	0.039	4.377	0.119	0.116
0.0336	0.24651	0.82050	0.80426	7257.4	202.31	0.039	4.383	0.141	0.137
0.0419	0.30733	0.83125	0.79746	7261.9	200.86	0.038	4.395	0.141	0.138
0.0525	0.38457	0.84636	0.76838	7408.3	197.75	0.038	4.416	0.141	0.140
0.0631	0.46276	0.86305	0.75035	7695.5	192.58	0.037	4.446	0.150	0.146
0.0695	0.50966	0.87330	0.73913	7937.0	180.15	0.035	4.469	0.154	0.150
0.0760	0.55677	0.88600	0.71898	8126.5	172.91	0.032	4.502	0.158	0.154
0.0889	0.65160	0.90530	0.69999	9303.0	155.30	0.025	4.900	0.181	0.176
0.1019	0.74671	0.95074	0.66528	16556.1	106.64	0.019	5.259	0.322	0.314
0.1167	0.85517	0.98816	0.64130	35056.9	70.40	0.017	5.434	0.662	0.660
0.1336	0.97901	0.99933	0.62714	49541.1	57.98	0.016	5.494	0.938	0.930
0.1365	1.00000	1.00000	0.62458	50159.1	56.74	0.015	5.548	1.027	1.000
0.1487	1.08966	0.99885	0.61313	52799.1	54.75	0.014	5.588	1.000	0.974
0.1701	1.24448	0.99412	0.58705	51421.3	51.15	0.014	5.610	1.003	0.977
0.1914	1.40256	0.99066	0.56387	51570.4	47.83	0.014	5.610	1.003	0.977

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL NAME ID. DAY TEST RUN K PTE PTD TW  
 10. 8. 6. 25. 306. 86. -0.50 74806.50 1551.00 1188.00 9.00  
 GEN. CYL.

Y	WICH	TST. TEMP.	STAT. TEMP.	VELOCITY	TOT/PTD
2.	1108.00	1108.00	0.	0.8201	
3.0100	1124.59	1063.50	856.7	0.8324	
3.0153	1129.57	1068.69	855.2	0.8361	
3.0216	1134.54	1073.89	853.6	0.8398	
3.0324	1144.94	1080.99	876.5	0.8475	
3.0514	1170.88	1054.96	1149.9	0.8667	
3.0730	1212.99	951.85	1771.2	0.8978	
3.1068	1284.33	747.77	2491.2	0.9507	
3.1477	1375.01	471.71	3294.2	1.0178	
3.1981	1415.10	226.94	3778.1	1.0476	
3.2329	1431.71	139.74	3939.7	1.0597	
3.2755	1410.84	121.80	3934.7	1.0440	
3.3180	1362.02	114.64	3871.1	1.0082	
3.3610	1340.78	111.80	3842.5	0.9924	
3.4034	1338.23	110.86	3840.0	0.9904	
3.4461	1337.93	110.23	3840.5	0.9903	
3.4888	1337.71	109.77	3840.9	0.9902	

DELTA STAR H MSR RS DELTA R THETA R K THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3703 0.2043 82.28 48139. 1950034. 14. 575. 774.95 0.804 0.35869 0.935

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), M(1), PTIMAX.  
 -0.0317 -0.000 0.2063 0.2063 0.0000 0.00251 82.35 7.42 74781.9

Y	V/DELTA	U/(DELTA)	RHO	U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.2701	0.	0.00554	11.8	11.83	0.000	0.000	0.000	0.000	0.000
0.0160	0.09180	0.22301	0.00552	14.4	11.83	0.004	7.419	0.000	0.000	0.000
0.0153	0.09180	0.22261	0.00552	14.4	11.83	0.004	7.419	0.000	0.000	0.000
0.0216	0.09180	0.22220	0.00548	14.3	11.83	0.004	7.419	0.000	0.000	0.000
0.0324	0.08759	0.22015	0.00559	14.5	11.83	0.004	7.419	0.000	0.000	0.000
0.0514	0.13879	0.30453	0.00763	14.9	11.83	0.004	7.419	0.000	0.000	0.000
0.0730	0.19724	0.44106	0.01203	27.6	11.83	0.004	7.419	0.000	0.000	0.000
0.1048	0.26304	0.64846	0.02237	71.7	11.83	0.004	7.419	0.001	0.001	0.001
0.1477	0.39891	0.83750	0.04816	906.5	11.83	0.004	7.419	0.007	0.007	0.007
0.1981	0.51342	0.98345	0.11679	7142.7	11.83	0.004	7.419	0.096	0.096	0.096
0.2329	0.62902	1.02552	0.19442	40741.6	11.83	0.004	7.419	0.545	0.545	0.545
0.2755	0.74407	1.02420	0.22277	62540.8	11.83	0.004	7.419	0.836	0.836	0.836
0.3180	0.85866	1.00767	0.23285	68409.2	11.83	0.004	7.419	0.914	0.914	0.914
0.3610	0.97499	1.00021	0.23700	70684.6	11.83	0.004	7.419	0.945	0.945	0.945
0.4034	1.09060	1.00000	0.23744	71042.8	11.83	0.004	7.419	0.950	0.950	0.950
0.4461	1.09005	0.99956	0.23884	72332.5	11.83	0.004	7.419	0.967	0.967	0.967
0.4888	1.20483	0.99969	0.24025	73728.7	11.83	0.004	7.419	0.986	0.986	0.986
0.5088	1.32815	0.99979	0.24129	74781.9	11.83	0.004	7.419	1.000	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TUNNEL GEN. CYL.  
 10. 0. 6. 25. 306. 85. 12.50 81924.90 1347.40 1198.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	1198.00	1198.00	0.	0.8891
0.0100	0.60	1208.65	1128.59	980.7	0.8970
0.0152	0.66	1212.49	1116.14	1075.9	0.8999
0.0214	1.09	1228.90	992.12	1484.6	0.9121
0.0323	1.94	1262.71	719.88	2553.7	0.9371
0.0514	3.50	1306.00	377.97	3339.0	0.9693
0.0835	6.17	1361.61	304.56	3563.6	1.0105
0.1262	8.62	1411.60	267.82	3708.9	1.0476
0.1688	5.11	1454.93	235.69	3830.4	1.0790
0.2117	5.60	1486.22	204.30	3924.4	1.1030
0.2542	6.03	1504.87	181.99	3986.3	1.1167
0.2967	6.44	1500.58	161.65	4011.0	1.1137
0.3398	6.74	1472.79	146.22	3992.2	1.0931
0.3810	6.83	1451.25	140.59	3968.1	1.0771
0.3822	6.92	1426.77	134.94	3939.5	1.0589
0.4248	7.02	1383.99	127.35	3885.5	1.0272
0.4676	7.07	1359.36	123.52	3853.2	1.0089
0.5102	7.09	1351.16	122.27	3842.3	1.0028
0.5527	7.11	1336.78	120.39	3822.8	0.9921

DELTA DELTA STAR M RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4150 0.1664 109.29 188692. 5871325. 13. 416. 831.07 0.877 0.35193 0.492

PHI DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(M), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(M), M(M), M(1), PTIMAX,  
 -0.2159 -0.019 0.1854 0.1744 0.00021 0.00151 0.00124 141.06 7.01 81921.4

Y	Y/DELTA	U/U(DELTA)	RHO = U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.02410	0.25162	0.01030	20.3	20.35	0.000	0.000	0.000
0.0100	0.03661	0.27603	0.01142	27.2	26.35	26.35	6.913	0.000	0.000
0.0214	0.05203	0.43274	0.02014	43.0	20.34	20.34	6.914	0.000	0.000
0.0323	0.07791	0.65520	0.04201	143.3	20.33	20.33	6.914	0.001	0.001
0.0514	0.12384	0.85670	0.10447	155.6	20.30	20.30	6.916	0.002	0.002
0.0835	0.20113	0.91431	0.13802	3825.3	20.24	20.24	6.919	0.019	0.019
0.1262	0.30413	0.95108	0.16285	6771.2	20.14	20.14	6.924	0.047	0.047
0.1688	0.40479	0.98276	0.19092	12037.5	19.99	19.99	6.933	0.083	0.083
0.2117	0.51818	1.00688	0.22192	20588.5	19.83	19.83	6.941	0.147	0.147
0.2542	0.61240	1.02276	0.25059	31907.8	19.53	19.53	6.952	0.251	0.251
0.2967	0.71592	1.02910	0.28128	47544.2	19.43	19.43	6.964	0.389	0.389
0.3398	0.81888	1.02427	0.30557	62902.8	19.21	19.21	6.976	0.581	0.581
0.3810	0.86997	1.01819	0.31420	67515.5	19.11	19.11	6.982	0.761	0.761
0.3822	0.92104	1.01074	0.32277	72936.3	18.97	18.97	6.990	0.824	0.824
0.4248	1.00900	1.00000	0.33155	77825.4	18.79	18.79	6.990	0.890	0.890
0.4676	1.02373	0.99690	0.33313	79294.9	18.74	18.74	7.004	0.968	0.968
0.5102	1.12687	0.98861	0.33655	81872.1	18.52	18.52	7.017	0.999	0.999
0.5527	1.22953	0.98583	0.33380	81774.8	18.23	18.23	7.034	0.998	0.998
0.5527	1.33195	0.98080	0.33222	81921.4	17.94	17.94	7.051	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X TTD TTT GEN. CYL.  
 10. 8. 6. 25. 306. 84. 20.00 83085.00 1343.00 1196.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	1.22	1194.00	1194.00	0.	0.8905
0.0100	1.22	1231.78	945.33	1842.1	0.9172
0.0132	1.47	1241.08	868.02	2118.8	0.9266
0.0195	2.29	1259.38	618.25	2788.0	0.9377
0.0281	3.13	1270.35	428.56	3180.1	0.9459
0.0409	3.67	1271.91	348.43	3338.0	0.9471
0.0423	4.03	1305.34	304.94	3463.3	0.9720
0.0943	4.48	1374.80	282.02	3623.3	1.0237
0.1245	4.73	1422.28	259.67	3737.3	1.0590
0.1583	5.04	1453.72	239.44	3819.4	1.0824
0.1902	5.33	1471.24	226.21	3876.8	1.0935
0.2222	5.60	1483.08	203.94	3920.1	1.1043
0.2542	5.83	1487.11	190.78	3946.4	1.1073
0.2969	6.11	1481.71	174.89	3942.3	1.1035
0.3396	6.32	1448.92	161.00	3933.6	1.0789
0.3822	6.44	1411.69	151.79	3890.5	1.0511
0.4251	6.50	1378.11	143.90	3847.5	1.0261
0.4676	6.55	1342.79	142.14	3829.4	1.0147
0.5316	6.60	1346.61	139.71	3823.6	1.0101

DELTA STAR H MSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3739 0.1070 17.45 483108. 9450250. 102. 2036. 843.96 0.076 0.80121 0.595

PMI. DELTA STAR PRIME, DELTA STAR(2); DELTA STAR(1); DELTA STAR(1); DELTA STAR(2); THETA PRIME, THETA(1); THETA(2); THETA(1); H(M); R(E); PTIMAX.  
 -0.1958 -0.6034 0.1411 0.1235 0.0053 0.00561 0.00492 25.08 6.43 83085.0

Y	Y/DELTA	U(U/DELTA)	RND * U	PT1	PT1	RND U PRIME, M PRIME	PT1/PTE, M PRIME	PT1/PTIMAX
0.	0.02675	0.	0.47232	0.04459	39.6	0.009	0.000	0.000
0.0100	0.03523	0.54326	0.71362	0.10394	98.1	0.009	0.001	0.001
0.0195	0.05224	0.71362	0.81540	0.16997	39.40	0.009	0.002	0.002
0.0281	0.07313	0.81540	0.85589	0.22114	85.7	0.009	0.006	0.006
0.0409	0.10948	0.85589	0.88800	0.25588	39.31	0.009	0.021	0.021
0.0423	0.14453	0.88800	0.92904	0.28842	3789.8	0.009	0.046	0.046
0.0943	0.23220	0.92904	0.95826	0.31928	34.16	0.009	0.074	0.074
0.1245	0.33836	0.95826	0.97933	0.34909	34.92	0.009	0.119	0.119
0.1583	0.42382	0.97933	0.99403	0.37960	38.53	0.009	0.176	0.176
0.1902	0.50874	1.00514	1.01107	0.40758	37.56	0.009	0.249	0.249
0.2222	0.59634	1.01107	1.01595	0.43028	37.00	0.009	0.343	0.343
0.2542	0.67993	1.01595	1.00858	0.44891	36.39	0.009	0.454	0.454
0.2969	0.79414	1.00858	1.00000	0.46771	35.70	0.008	0.568	0.568
0.3396	0.90835	1.00000	0.99755	0.48797	34.81	0.008	0.742	0.742
0.3739	1.02230	0.99755	0.98653	0.48424	33.78	0.008	0.889	0.889
0.4251	1.13705	0.98653	0.98108	0.47807	32.90	0.008	0.965	0.965
0.4676	1.25073	0.98108	0.98038	0.47573	32.67	0.008	0.986	0.986
0.5316	1.42191	0.98038	0.98038	0.47573	31.44	0.007	1.000	1.000
					30.46	0.007	0.985	0.985

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE YTD  
 10. 8. 6. 25. 306. 83. 22.00 82110.40 1344.00 1194.00  
 GEN. CYL. 9.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTC
0.	0.	1194.00	1194.00	0.	0.8884
0.0100	1.82	1242.38	748.28	2436.4	0.9244
0.0115	1.78	1244.15	762.71	2405.0	0.9257
0.0123	1.87	1247.20	733.30	2484.7	0.9280
0.0167	2.47	1253.25	585.21	2875.1	0.9325
0.0229	3.08	1257.59	439.78	3144.1	0.9357
0.0335	3.52	1271.37	368.22	3297.6	0.9460
0.0529	3.87	1312.70	328.32	3438.9	0.9747
0.0789	4.24	1374.67	299.12	3594.6	1.0228
0.1075	4.53	1432.30	280.52	3719.6	1.0657
0.1384	4.84	1453.54	255.65	3745.6	1.0815
0.1707	5.15	1467.45	232.81	3851.3	1.0919
0.2029	5.43	1470.13	213.06	3886.2	1.0938
0.2342	5.65	1461.69	197.71	3896.8	1.0874
0.2678	5.85	1452.94	184.94	3903.0	1.0811
0.2982	6.02	1429.98	173.53	3885.2	1.0640
0.3302	6.14	1405.36	164.70	3860.7	1.0457
0.3622	6.19	1383.10	159.54	3834.0	1.0291
0.3945	6.23	1365.22	155.92	3811.6	1.0156
0.4282	6.31	1348.20	150.55	3793.2	1.0031
0.4611	6.36	1344.12	147.77	3791.1	1.0001

DELTA STAR H MSR RS DELTA RTHETA R RTHETA D RECDV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3218 0.0049 27.12 794057. 11611009. 61. 893. 846.87 0.873 0.42388 0.530

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), DELTA STAR(M 2), THETA STAR(M 1), THETA STAR(M 2), THETA STAR(M 1), THETA STAR(M 2), MIE), PTIMAX,  
 -0.1511 -0.050 0.1151 0.0912 0.00096 0.00144 0.00115 79.84 6.11 82107.4

Y	Y/DELTA	U/(DELTA) RMO + U	PT1	PL1	RHO U PRIME, M PRIME	PT1/PTE, PT1/PTIMAX
0.	0.	0.	61.6	61.63	0.001	0.001
0.0100	0.03108	0.42999	342.0	61.38	0.004	0.004
0.0115	0.03571	0.62187	340.1	61.35	0.004	0.004
0.0123	0.03819	0.64248	393.5	61.32	0.005	0.005
0.0167	0.05199	0.74342	994.5	61.26	0.012	0.012
0.0229	0.07107	0.81297	2517.6	61.17	0.031	0.031
0.0335	0.10420	0.85268	4747.2	60.89	0.058	0.058
0.0529	0.16449	0.88921	7699.3	60.24	0.094	0.094
0.0789	0.24529	0.92948	12324.9	59.23	0.150	0.150
0.1075	0.33408	0.96185	17405.2	57.87	0.212	0.212
0.1384	0.43011	0.98952	23579.8	56.08	0.299	0.299
0.1707	0.53049	0.99585	33905.9	53.93	0.413	0.413
0.2029	0.63054	1.00068	44410.4	51.46	0.541	0.541
0.2342	0.72783	1.00762	54513.2	49.61	0.664	0.664
0.2678	0.8225	1.00922	64412.0	47.39	0.784	0.784
0.2982	0.92672	1.00461	73257.0	45.61	0.892	0.892
0.3218	1.00000	1.00000	78002.1	44.32	0.950	0.950
0.3302	1.02617	0.99828	79696.5	43.91	0.971	0.971
0.3622	1.12561	0.99137	81811.0	42.65	0.996	0.996
0.3945	1.22599	0.98558	81908.0	41.23	0.998	0.998
0.4282	1.42396	0.98082	81981.8	38.15	0.998	0.998
0.4611	1.55728	0.98028	82107.4	36.18	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X TUNNEL ID TW GEN. CYL.  
 10. 8. 6. 25. 306. 95. 23.00 83383.00 1340.00 1189.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/FTO	RS DELTA	KTHETA R	KTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	1.189	0.00	1.189	0.00	0.8873			3550.	847.32	0.870	0.36281	0.504
0.0100	2.04	1250.33	676.64	2625.3	0.9331							
0.0100	2.06	1250.32	675.96	2628.8	0.9331							
0.0138	2.03	1263.01	691.76	2619.7	0.9425							
0.0176	2.08	1277.47	695.16	2667.6	0.9533							
0.0238	2.67	1295.04	533.29	3025.1	0.9664							
0.0324	3.31	1321.41	413.64	3302.4	0.9841							
0.0433	3.54	1355.54	387.34	3410.5	1.0116							
0.0602	3.77	1405.38	366.03	3533.6	1.0488							
0.0823	3.98	1443.34	346.64	3629.8	1.0771							
0.1054	4.18	1488.61	326.43	3688.1	1.0865							
0.1368	4.39	1468.91	303.08	3742.5	1.0962							
0.1817	4.90	1470.64	253.15	3824.2	1.0973							
0.2078	5.27	1461.84	223.07	3857.5	1.0908							
0.2219	5.43	1458.33	210.55	3845.6	1.0853							
0.2343	5.58	1444.12	200.18	3848.9	1.0792							
0.2584	5.80	1421.74	183.91	3856.3	1.0618							
0.2841	5.94	1397.53	173.43	3834.8	1.0429							
0.3107	6.00	1372.55	167.30	3805.2	1.0243							
0.3397	6.04	1350.78	162.60	3778.2	1.0080							
0.3724	6.11	1339.48	158.00	3767.5	0.9996							
DELTA	DELTA STAR	H	RSR	RS DELTA	KTHETA R	KTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT		
0.2743	0.0304	5.94	1360308.	13421055.	344.	3550.	847.32	0.870	0.36281	0.504		
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W 1),	DELTA STAR(2),	THETA STAR(1),	THETA STAR(2),	THETA(1),	THETA(2),	THETA(1),	THETA(2),	PTIMAX,	
-0.1320	-0.084	0.1342	0.0905	0.00170	0.00479	0.00444	19.50	5.90	83383.0			
Y	V/DELTA	U/(DELTA)	RND * U	PTI	PI.	RND U PRIME,	H PRIME	PTI/PTI,	PTI/PTIMAX			
0.0100	0.03645	0.48295	0.22149	98.4	98.37	0.017	5.373	0.001	0.001			
0.0100	0.03645	0.48335	0.22184	840.3	97.97	0.017	5.373	0.010	0.010			
0.0138	0.05842	0.68150	0.21597	843.2	97.97	0.017	5.373	0.010	0.010			
0.0176	0.06427	0.69394	0.22156	844.5	97.68	0.017	5.375	0.010	0.010			
0.0238	0.08687	0.78496	0.32187	2173.2	97.38	0.017	5.378	0.026	0.026			
0.0324	0.11807	0.93909	0.44980	5638.4	96.69	0.017	5.384	0.068	0.068			
0.0433	0.15770	0.88722	0.49204	7489.8	95.91	0.017	5.392	0.092	0.092			
0.0602	0.21931	0.91824	0.53228	10494.9	94.63	0.017	5.404	0.126	0.126			
0.0823	0.29998	0.94426	0.56295	13591.1	92.27	0.017	5.427	0.163	0.163			
0.1054	0.38422	0.95442	0.58927	16881.6	89.51	0.016	5.454	0.202	0.202			
0.1368	0.47681	0.97357	0.61432	21400.4	85.38	0.016	5.497	0.257	0.257			
0.1817	0.66236	0.99483	0.64236	35545.1	75.25	0.014	5.614	0.426	0.426			
0.2078	0.75751	1.00348	0.68882	49228.6	68.36	0.013	5.704	0.590	0.590			
0.2219	0.80891	1.00559	0.69870	56378.6	65.31	0.013	5.747	0.678	0.678			
0.2343	0.85411	1.00646	0.70451	63393.5	62.56	0.013	5.787	0.760	0.760			
0.2584	0.94269	1.00318	0.71145	74799.4	58.23	0.012	5.856	0.897	0.897			
0.2743	1.00000	1.00000	0.71209	79213.8	56.17	0.012	5.908	0.983	0.983			
0.2841	1.03565	0.99760	0.71094	81940.1	55.18	0.011	5.952	1.000	1.000			
0.3107	1.13262	0.98989	0.69871	83383.0	52.72	0.011	6.000	0.994	0.994			
0.3397	1.23833	0.98286	0.67918	82891.9	50.17	0.010	6.070	0.994	0.994			
0.3724	1.35754	0.98008	0.64916	82890.2	46.72	0.010	6.070	0.994	0.994			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE PTO TH GEN. CYL.  
 10. 8. 6. 25. 306. 96. 24.00 83623.50 1365.00 1176.00 9.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/ATIC
0.	0.	1176.00	1176.00	0.	0.8615
0.0157	2.53	1318.78	578.24	2982.7	0.9661
0.0183	2.48	1329.03	596.16	2967.2	0.9736
0.0232	2.75	1360.42	541.22	3137.1	0.9966
0.0289	2.96	1390.09	505.85	3259.3	1.0184
0.0376	3.10	1426.05	487.50	3357.9	1.0447
0.0481	3.26	1456.10	465.01	3450.6	1.0667
0.0597	3.49	1481.81	397.64	3609.0	1.0854
0.0697	4.04	1494.06	350.95	3705.8	1.0945
0.0811	4.63	1496.84	282.98	3818.8	1.0966
0.0928	4.91	1497.00	257.54	3858.8	1.0967
0.1064	5.00	1493.10	248.77	3866.4	1.0938
0.1186	5.13	1487.18	237.32	3875.0	1.0895
0.1313	5.27	1480.16	225.92	3881.8	1.0844
0.1446	5.31	1472.25	221.60	3876.2	1.0796
0.1569	5.33	1463.43	218.99	3866.6	1.0724
0.1719	5.38	1452.87	214.28	3857.5	1.0644
0.1894	5.47	1437.37	205.70	3846.7	1.0530
0.2114	5.56	1416.98	197.51	3827.6	1.0381

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECDV.TEMP. RECDV.FACT. TOT.PRESS.RECDV. CT  
 0.1271 -0.0148 -1.76 4588091. 17113662. 1167. 4353. 874.70 0.834 0.44792 0.768

PHI, DELTA STAR PRIME, DELTA STAR(Z), DELTA STAR(W), DELTA STAR(M), THETA STAR(M), THETA STAR(W), THETA STAR(Z), THETA STAR(M), H(M), M(LE), PT1MAX,  
 -0.0574 -0.073 0.0578 0.0272 0.0275 0.00569 0.00277 9.81 5.22 83623.5

Y	V/DELTA	U/(DELTA)	W/U	U	PT1	PH	RHC U PRIME	M PRIME	PT1/PTE	PT1/PT1MAX
0.	0.	0.	0.	351.2	351.22	0.041	4.321	0.004	0.004	0.004
0.0157	0.12333	0.76879	1.03447	6166.1	344.19	0.041	4.324	0.074	0.074	0.074
0.0183	0.14227	0.76880	0.99410	5670.4	342.79	0.040	4.337	0.068	0.068	0.068
0.0232	0.16256	0.80859	1.13876	8489.9	337.17	0.040	4.351	0.102	0.102	0.102
0.0289	0.22714	0.84008	1.24339	11392.9	331.20	0.039	4.363	0.136	0.136	0.136
0.0376	0.29585	0.86550	1.27566	13607.9	317.85	0.037	4.438	0.163	0.163	0.163
0.0481	0.37881	0.88939	1.28317	16124.8	296.78	0.032	4.618	0.193	0.193	0.193
0.0597	0.46955	0.93022	1.25376	23684.5	237.08	0.028	4.765	0.283	0.283	0.283
0.0697	0.54881	0.95317	1.22093	31591.5	196.44	0.023	4.995	0.378	0.378	0.378
0.0811	0.63622	0.98428	1.18746	51405.5	151.02	0.021	5.099	0.615	0.615	0.615
0.0928	0.73054	0.99460	1.16812	63345.4	133.81	0.021	5.142	0.758	0.758	0.758
0.1064	0.83742	0.99656	1.15452	67527.8	127.49	0.020	5.194	0.808	0.808	0.808
0.1186	0.93344	0.99877	1.14281	74000.1	120.12	0.019	5.239	0.885	0.885	0.885
0.1271	1.00000	1.00000	1.14143	79442.3	115.95	0.019	5.266	0.950	0.950	0.950
0.1313	1.03540	1.00052	1.14281	82173.1	114.15	0.018	5.295	0.983	0.983	0.983
0.1446	1.13808	0.99909	1.12754	83623.5	110.63	0.018	5.356	1.000	1.000	1.000
0.1569	1.23468	0.99661	1.10204	82643.9	107.12	0.016	5.439	0.988	0.988	0.988
0.1719	1.35294	0.99426	1.06998	81248.3	100.10	0.016	5.439	0.972	0.972	0.972
0.1894	1.49047	0.99148	0.99504	82368.2	91.32	0.015	5.531	0.985	0.985	0.985
0.2114	1.66383	0.98656	0.93203	81641.2	82.54	0.015	5.531	0.976	0.976	0.976

HYPersonic BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTU TW GEN. CYL.  
 10. 8. 7. 3. 306. 104. -4.50 91402.32 1347.00 1092.00 1092.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TY/TTC
0.	0.	1092.00	1092.00	0.	0.8107
0.0206	0.76	1164.66	1044.58	1201.1	0.8646
0.0287	1.14	1200.41	954.39	1719.2	0.8912
0.0438	1.90	1272.37	738.75	2532.0	0.9446
0.0661	2.84	1340.24	512.63	3153.2	0.9950
0.0906	3.47	1384.09	405.76	3429.0	1.0275
0.1225	3.96	1403.40	339.77	3574.7	1.0419
0.1655	4.90	1423.77	245.71	3762.0	1.0570
0.2076	5.79	1461.21	189.54	3908.6	1.0848
0.2511	6.64	1430.56	145.59	3929.0	1.0620
0.2932	7.25	1368.19	118.89	3874.1	1.0157
0.3358	7.52	1352.49	109.95	3863.6	1.0041
0.3575	7.59	1351.46	107.87	3865.3	1.0033
0.3795	7.63	1350.98	106.89	3866.0	1.0030
0.4211	7.70	1350.06	105.09	3867.4	1.0023
0.4641	7.76	1348.15	103.41	3867.0	1.0009
0.5066	7.80	1347.52	102.21	3867.9	1.0004

DELTA DELTA STAR H RSR AS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4537 0.2081 61.60 24240. 1125028. 18. 845. 766.35 0.795 0.37985 1.226

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(1), THETA STAR(2), THETA(M), H(M), M(EI), PTIMAX.  
 -0.0408 -0.000 0.2083 0.2082 0.00000 0.00338 61.67 7.74 91276.6

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0206	0.04538	0.31057	0.	11.0	10.97	0.004	7.743	0.000	0.000
0.0287	0.06319	0.44455	0.00735	16.1	10.97	0.004	7.743	0.000	0.000
0.0438	0.09651	0.65471	0.01152	24.5	10.97	0.004	7.743	0.000	0.000
0.0661	0.14559	0.81535	0.02191	73.6	10.97	0.004	7.743	0.001	0.001
0.0906	0.19959	0.88667	0.03932	317.0	10.97	0.004	7.743	0.003	0.003
0.1225	0.26998	0.92433	0.05407	807.0	10.97	0.004	7.743	0.009	0.009
0.1655	0.36875	0.97278	0.06725	1571.1	10.97	0.004	7.743	0.017	0.017
0.2076	0.45754	1.01049	0.09787	5138.1	10.97	0.004	7.743	0.056	0.056
0.2511	0.55341	1.01597	0.13182	13955.6	10.97	0.004	7.743	0.153	0.153
0.2932	0.64619	1.00177	0.17251	32621.9	10.97	0.004	7.743	0.357	0.357
0.3358	0.74008	0.99905	0.20830	56717.1	10.97	0.004	7.743	0.621	0.621
0.3575	0.78790	0.99948	0.22462	71616.0	10.97	0.004	7.743	0.784	0.784
0.3785	0.83419	0.99967	0.22907	76378.0	10.97	0.004	7.743	0.836	0.836
0.4211	0.92807	1.00003	0.23121	78753.8	10.97	0.004	7.743	0.862	0.862
0.4537	1.00000	1.00000	0.23525	83382.0	10.97	0.004	7.743	0.912	0.912
0.4641	1.02284	0.99993	0.23816	86712.8	10.97	0.004	7.743	0.950	0.950
0.5066	1.11651	1.00016	0.23904	87770.5	10.97	0.004	7.743	0.962	0.962
			0.24190	91276.6	10.97	0.004	7.743	0.999	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY ICST RUN X PTF ITD TW GEN. CYL.  
 10. 8. 7. 3. 306. 1C2. -C.50 86896.55 1341.00 1144.00 9.00

Y	MACH	TDI.TEMP.	STAT.TEMP.	VELOCITY	IT/ITC	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	1144.00	1144.00	0.	0.8531				790.19	0.841	0.32405	0.714
0.0140	0.64	1180.97	1091.98	1034.0	0.8807							
0.0203	0.66	1194.89	1098.30	1077.2	0.8910							
0.0312	0.70	1218.49	1108.66	1148.7	0.9086							
0.0503	1.27	1279.11	967.48	1934.9	0.9539							
0.0757	2.59	1365.42	582.67	3066.6	1.0182							
0.1037	3.32	1391.12	434.57	3390.0	1.0374							
0.1358	3.73	1405.15	371.62	3523.7	1.0478							
0.1784	4.25	1431.61	310.52	3670.0	1.0676							
0.2211	5.08	1465.28	238.18	3839.6	1.0927							
0.2636	5.78	1491.00	193.91	3947.5	1.1119							
0.3061	6.49	1473.32	156.53	3977.4	1.0987							
0.3489	7.09	1415.55	128.16	4932.7	1.0556							
0.3917	7.42	1370.24	113.98	3884.9	1.0218							
0.4128	7.53	1360.03	110.20	3875.0	1.0142							
0.4342	7.59	1352.60	107.90	3867.0	1.0087							
0.4768	7.66	1349.49	105.87	3865.3	1.0063							
0.5195	7.70	1347.86	104.74	3864.5	1.0051							
0.5624	7.74	1347.43	103.92	3865.2	1.0048							
0.6049	7.75	1347.27	103.61	3865.4	1.0047							
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT		
0.5004	0.2656	122.41	43373.	2063155.	11.	527.	790.19	0.841	0.32405	0.714		
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	DELTA STAR(2),	THETA(1),	THETA(2),	THETA(1M),	M(1),	M(2),	PTIMAX,		
-0.1080	-0.001	0.2668	0.2663	0.2663	0.00001	0.00216	0.00215	123.72	7.69	86871.8		
Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHC U	PRIME,	M	PRIME	PTI/PTE,	PTI/PTIMAX	
0.	0.	0.	0.	11.0	10.96	0.004	7.686	0.000	0.013	0.000	0.000	
0.0140	0.02796	0.26755	0.00605	14.4	10.96	0.004	7.686	0.000	0.027	0.000	0.000	
0.0203	0.04063	0.27873	0.00626	14.7	10.96	0.004	7.686	0.000	0.073	0.000	0.000	
0.0312	0.06233	0.29722	0.00661	15.2	10.96	0.004	7.686	0.000	0.159	0.000	0.000	
0.0503	0.10044	0.50065	0.01277	29.1	10.96	0.004	7.686	0.000	0.323	0.000	0.000	
0.0757	0.15126	0.79347	0.03360	213.9	10.96	0.004	7.686	0.002	0.565	0.002	0.002	
0.1037	0.20724	0.87715	0.04980	643.1	10.96	0.004	7.686	0.007	0.760	0.007	0.007	
0.1358	0.27139	0.91176	0.06054	1151.8	10.96	0.004	7.686	0.013	0.833	0.013	0.013	
0.1784	0.35653	0.94959	0.07545	2305.4	10.96	0.004	7.686	0.027	0.879	0.027	0.027	
0.2211	0.44186	0.99348	0.10291	6327.5	10.96	0.004	7.686	0.073	0.932	0.073	0.073	
0.2636	0.52680	1.02142	0.12997	13812.7	10.96	0.004	7.686	0.159	0.964	0.159	0.159	
0.3061	0.61173	1.02914	0.16222	28029.6	10.96	0.004	7.686	0.323	0.964	0.323	0.323	
0.3489	0.69727	1.01759	0.19591	49072.6	10.96	0.004	7.686	0.565	0.964	0.565	0.565	
0.3917	0.78280	1.00521	0.21759	65990.5	10.96	0.004	7.686	0.760	0.964	0.760	0.760	
0.4128	0.82497	1.00264	0.22449	72362.4	10.96	0.004	7.686	0.833	0.964	0.833	0.833	
0.4342	0.86774	1.00058	0.22880	76421.4	10.96	0.004	7.686	0.879	0.964	0.879	0.879	
0.4768	0.95287	1.00014	0.23308	81005.3	10.96	0.004	7.686	0.932	0.964	0.932	0.932	
0.5004	1.00000	1.00000	0.23467	82528.2	10.96	0.004	7.686	0.964	0.964	0.964	0.964	
0.5195	1.03821	0.99994	0.23555	83762.9	10.96	0.004	7.686	0.990	0.990	0.990	0.990	
0.5624	1.12394	1.00010	0.23746	86017.0	10.96	0.004	7.686	1.000	1.000	1.000	1.000	
0.6049	1.20888	1.00016	0.24118	86871.8	10.96	0.004	7.686	1.000	1.000	1.000	1.000	

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TM GEN. CYL.  
 10. 8. 7. 3. 306. 105. 12.50 86696.75 1340.00 1184.00 9.00

Y	MACH	TOI-TEMP.	STAT-TEMP.	VELOCITY	TT/TT0	RS DELTA	RTHETA R	RTHETA D	RECOV-TEMP.	RECOV-FACT.	TOT.PRESS-RECOV.	CT
0.	0.	1184.00	1184.00	0.	0.8836							
0.0100	0.66	1205.46	1109.69	1072.6	0.8996							
0.0127	0.69	1209.57	1104.05	1125.9	0.9027							
0.0196	0.83	1222.40	1074.16	1334.5	0.9122							
0.0307	1.00	1273.46	771.75	2455.1	0.9503							
0.0489	3.09	1324.64	456.04	3230.3	0.9885							
0.0815	3.90	1385.85	343.00	3539.6	1.0342							
0.1264	4.30	1429.16	304.49	3675.8	1.0645							
0.1667	4.83	1467.53	275.83	3783.8	1.0952							
0.2104	5.06	1497.38	244.45	3879.7	1.1176							
0.2524	5.48	1513.01	214.20	3947.1	1.1291							
0.2947	5.89	1510.86	190.16	3983.3	1.1275							
0.3379	6.33	1489.06	165.24	3980.0	1.1112							
0.3795	6.63	1454.57	148.67	3940.9	1.0855							
0.4226	6.83	1411.18	136.52	3913.2	1.0531							
0.4655	6.99	1377.41	127.91	3874.4	1.0279							
0.5092	7.12	1357.21	121.79	3852.5	1.0128							
0.5292	7.16	1353.16	120.14	3846.8	1.0098							
0.5511	7.20	1350.16	118.85	3846.1	1.0076							
0.5954	7.26	1353.23	117.24	3853.4	1.0099							
0.6374	7.29	1354.28	116.49	3856.2	1.0107							
0.6795	7.33	1357.81	115.46	3843.3	1.0133							

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV-TEMP. RECOV-FACT. TOT.PRESS-RECOV. CT  
 0.5322 0.2144 -115.89 182682. 6121352. -16. -527. 814.48 0.672 0.35290 0.337

PHI DELTA STAR PRIME DELTA STAR(2). DELTA STARIM 1. DELTA STARIM 2. THETA PRIME THETA(2). THETA(1). THETA(2). THETA(1). THETA(2). M(1). PTIMAX.  
 -0.2513 -0.033 -0.2475 0.2276 0.00034 -0.00219 -0.00202 -112.72 7.17 86675.6

Y	Y/DELTA	U/(DELTA)	RMO	U	PTI	PI	RMO U PRIME.	M PRIME	PTI/PTE.	PTI/PTIMAX
0.	0.	0.27074	0.01086	19.3	19.28					
0.0100	0.01879	0.27074	0.01086	19.3	19.28					
0.0127	0.02384	0.29258	0.01195	25.8	19.27					
0.0196	0.03677	0.34678	0.01994	26.5	19.27					
0.0307	0.05766	0.43798	0.03509	30.3	19.26					
0.0489	0.09186	0.63944	0.07934	111.1	19.25					
0.0815	0.15305	0.91980	0.11536	802.9	19.22					
0.1264	0.23410	0.95520	0.13427	2543.5	19.18					
0.1667	0.31320	0.98326	0.15165	4276.4	19.09					
0.2104	0.39531	1.00620	0.17403	6591.1	18.97					
0.2524	0.47822	1.02570	0.19834	10705.0	18.82					
0.2947	0.55369	1.03510	0.19834	16905.6	18.64					
0.3379	0.62486	1.03633	0.22487	26045.6	18.42					
0.3795	0.71302	1.02929	0.27972	40032.1	18.22					
0.4226	0.79400	1.01690	0.29691	53787.4	18.02					
0.4655	0.87460	1.00682	0.30952	63123.7	17.78					
0.5092	0.95670	1.00113	0.31806	79717.9	17.54					
0.5292	0.99428	1.00016	0.31940	82106.0	17.26					
0.5322	1.00000	1.00000	0.31967	82339.9	17.10					
0.5511	1.03543	0.99946	0.31976	83801.0	16.96					
0.5954	1.11866	1.00136	0.31737	86636.8	16.58					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED

Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RMC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.6374	1.19757	1.00209	0.31091	86362.7	16.12	0.005	7.235	0.996	0.996
0.6795	1.27467	1.00393	0.30299	86673.6	15.54	0.005	7.276	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE VFO TW GEN. CYL.  
 10. 6. 7. 3. 306. 106. 20.00 87300.60 1337.00 1190.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/FTO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	1190.00	1190.00	0.	0.8901					831.62	0.877	0.37862	0.452
0.0100	0.94	1233.53	1049.17	1488.3	0.9226			24.	520.				
0.0148	1.01	1246.21	1034.00	1596.7	0.9321								
0.0215	2.27	1292.68	636.41	2807.9	0.9469								
0.0298	3.05	1310.78	458.56	3199.8	0.9804								
0.0426	3.57	1334.59	375.55	3394.4	0.9982								
0.0638	3.90	1401.28	346.46	3559.8	1.0481								
0.0959	4.29	1446.18	308.43	3697.1	1.0817								
0.1279	4.59	1474.26	283.10	3766.1	1.1042								
0.1607	4.89	1492.32	258.28	3850.4	1.1162								
0.1959	5.24	1499.20	231.00	3903.3	1.1213								
0.2345	5.57	1498.81	207.89	3938.1	1.1210								
0.2667	5.84	1489.83	190.66	3950.7	1.1143								
0.2985	6.08	1472.43	175.29	3947.4	1.1013								
0.3305	6.28	1446.07	162.48	3926.9	1.0816								
0.3626	6.44	1416.78	152.64	3897.1	1.0597								
0.3774	6.49	1404.42	148.89	3883.8	1.0504								
0.3943	6.55	1391.10	145.28	3868.7	1.0405								
0.4266	6.61	1370.77	140.87	3843.9	1.0253								
0.4490	6.67	1356.18	137.07	3827.0	1.0143								
0.5117	6.71	1350.60	135.00	3821.5	1.0102								
0.5545	6.75	1349.27	133.29	3822.1	1.0092								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.4043	0.1269	83.48	444150.	9945115.			831.62	0.877	0.37862	0.452			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	DELTA STARIM 1,	THETA PRIME,	THETA(2),	THETA(1),	MINI,	MAXI,				
-0.2465	-0.041	0.1680	0.1438	0.00056	0.00094	0.00082	174.40	6.57	87278.8				
Y	V/DELTA	U/U(DELTA)	RND = U	PTI	PL	RND U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.03093	37.5	37.45	0.009	6.338	0.000	0.000				
0.0100	0.02473	0.38556	0.03360	65.9	37.42	0.009	6.340	0.001	0.001				
0.0148	0.03468	0.41366	0.04505	71.8	37.34	0.009	6.342	0.001	0.001				
0.0215	0.05315	0.72744	0.15144	445.3	37.29	0.009	6.343	0.005	0.005				
0.0298	0.07378	0.82896	0.19536	1470.8	37.25	0.009	6.347	0.017	0.017				
0.0426	0.10534	0.87938	0.22044	3138.3	37.10	0.009	6.353	0.036	0.036				
0.0638	0.15787	0.92225	0.25361	4903.7	36.85	0.008	6.369	0.056	0.056				
0.0959	0.23717	0.95782	0.27843	8105.2	36.31	0.008	6.385	0.093	0.093				
0.1279	0.31634	0.98086	0.30501	11569.5	35.73	0.008	6.403	0.133	0.133				
0.1607	0.39747	0.99752	0.33908	16281.0	35.11	0.008	6.423	0.186	0.186				
0.1957	0.48453	1.01124	0.37207	23964.9	34.44	0.008	6.445	0.275	0.275				
0.2345	0.58000	1.02026	0.42463	33919.6	33.71	0.008	6.466	0.389	0.389				
0.2667	0.65964	1.02351	0.44510	44063.1	33.03	0.008	6.510	0.505	0.505				
0.2985	0.73830	1.02271	0.45967	55585.5	32.36	0.008	6.535	0.637	0.637				
0.3305	0.81744	1.01736	0.46451	66565.5	31.65	0.008	6.547	0.762	0.762				
0.3626	0.89684	1.00962	0.46946	75281.4	30.90	0.007	6.559	0.863	0.863				
0.3774	0.93344	1.00617	0.46885	82774.1	30.56	0.007	6.582	0.902	0.902				
0.3943	0.97524	1.00228	0.46946	82914.9	30.01	0.007	6.582	0.939	0.939				
0.4043	1.00000	1.00000	0.46946	84937.6	29.55	0.007	6.582	0.973	0.973				
0.4266	1.05513	0.99585	0.46306	86716.2	28.46	0.007	6.621	0.993	0.993				
0.4690	1.16000	0.99147	0.46306			0.007	6.621	0.993	0.993				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED

Y	Y/DELTA	U/UIDELTA)	RHO * U	PTI	P1,	RHC U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.5117	1.26562	0.99005	0.45282	86956.2	27.45	0.007	6.659	0.996	0.996
0.5545	1.37147	0.99020	0.44182	87278.8	26.44	0.007	6.699	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TM GEN. CYL.  
 10. 8. 7. 3. 306. 1C7. 22.00 87728.57 1345.00 1184.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	1184.00	1184.00	0.	0.8803
0.0100	0.74	1218.31	1098.20	1201.2	0.9058
0.0137	2.41	1240.33	574.70	2840.6	0.9281
0.0178	2.77	1257.91	494.10	3029.2	0.9352
0.0243	3.17	1272.34	422.89	3194.5	0.9440
0.0371	3.57	1334.79	376.47	3393.1	0.9924
0.0585	3.83	1428.21	362.87	3577.5	1.0619
0.0905	4.24	1485.46	322.82	3737.3	1.1044
0.1224	4.56	1504.86	292.19	3816.9	1.1189
0.1544	4.84	1512.46	263.91	3873.0	1.1245
0.1863	5.20	1511.07	236.09	3913.7	1.1235
0.2183	5.49	1497.13	213.06	3927.7	1.1131
0.2505	5.76	1471.02	192.72	3918.8	1.0937
0.2823	5.98	1441.04	176.55	3897.6	1.0714
0.2997	6.09	1423.38	169.25	3881.6	1.0583
0.3148	6.17	1409.91	163.85	3869.1	1.0483
0.3464	6.29	1387.35	155.88	3846.4	1.0315
0.3786	6.36	1370.26	150.68	3827.8	1.0188
0.4107	6.43	1369.93	147.75	3831.9	1.0185
0.4425	6.44	1372.77	147.54	3836.6	1.0206

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3556 0.0859 -5.49 789900. 12037689. -397. -6057. 832.38 0.865 0.41240 0.455

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(W), THETA STAR(M), THETA STAR(M), H(M), MIE), PTIMAX,  
 -0.2154 -0.073 0.1586 0.1181 0.00115 -0.01680 -0.01261 -9.37 6.31 89183.7

Y	Y/DELTA	U/(DELTA)	RND * U	PTI	PI,	RND U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0100	0.02812	0.31278	0.03812	60.0	59.96	0.012	5.894	0.001	0.001
0.0137	0.03844	0.73961	0.17131	86.0	59.81	0.012	5.894	0.001	0.001
0.0178	0.05014	0.78874	0.21302	990.7	59.69	0.012	5.897	0.010	0.010
0.0243	0.06825	0.83178	0.26194	1370.0	59.63	0.012	5.899	0.018	0.018
0.0371	0.10441	0.86348	0.31111	2811.2	59.51	0.012	5.904	0.032	0.032
0.0585	0.14559	0.87310	0.33945	4972.0	59.24	0.012	5.906	0.057	0.056
0.0905	0.25447	0.97311	0.36587	7147.5	58.09	0.011	5.937	0.081	0.080
0.1224	0.34420	0.99383	0.42215	11955.9	57.20	0.011	5.967	0.136	0.134
0.1544	0.43419	1.00843	0.45633	17194.7	55.46	0.011	6.005	0.196	0.193
0.1863	0.52309	1.01904	0.49113	24048.3	53.37	0.011	6.052	0.274	0.270
0.2183	0.61308	1.02267	0.51685	33728.6	50.85	0.010	6.107	0.384	0.378
0.2505	0.70443	1.02037	0.53992	44925.5	48.12	0.010	6.209	0.504	0.496
0.2823	0.79385	1.01684	0.55842	55985.3	45.41	0.009	6.258	0.638	0.628
0.2997	0.84378	1.01068	0.56491	67444.2	43.27	0.009	6.296	0.749	0.757
0.3148	0.88524	1.00752	0.56926	77331.1	41.37	0.009	6.334	0.831	0.818
0.3464	0.97410	1.00151	0.57244	83745.3	39.81	0.009	6.379	0.882	0.867
0.3556	1.00000	1.00000	0.57194	84886.5	38.39	0.009	6.408	0.955	0.939
0.3786	1.06465	0.99666	0.56802	87936.5	36.38	0.008	6.434	0.992	0.976
0.4107	1.15492	0.99772	0.55498	89143.7	34.73	0.008	6.459	1.016	1.000
0.4425	1.24435	0.99896	0.54055	87650.6	33.68	0.008	6.488	0.999	0.985

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL 8 NON COOLED  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TTD  
 10. 8. 7. 3. 306. 108. 23.00 903N7.89 15N1.00 1187.00  
 GEN. CYL. 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	1187.00	1187.00	0.	0.8852
0.0100	2.01	1244.62	689.09	2583.4	0.9281
0.0146	1.94	1259.47	713.21	2561.8	0.9392
0.0185	2.30	1272.18	616.32	2802.7	0.9487
0.0252	2.52	1297.29	571.10	2953.7	0.9674
0.0340	3.22	1324.40	430.94	3276.3	0.9876
0.0463	3.52	1366.40	392.85	3419.9	1.0189
0.0677	3.78	1441.17	374.15	3580.4	1.0747
0.0931	4.02	1479.15	348.99	3684.8	1.1030
0.1189	4.26	1488.36	321.83	3743.6	1.1099
0.1467	4.59	1492.40	286.44	3806.3	1.1129
0.1724	4.91	1490.58	256.19	3850.9	1.1115
0.2000	5.25	1480.48	227.63	3879.6	1.1040
0.2256	5.53	1463.45	205.58	3887.4	1.0913
0.2266	5.54	1462.29	203.29	3889.1	1.0904
0.2534	6.07	1459.78	171.82	3903.0	1.0737
0.2788	5.95	1410.34	175.27	3864.5	1.0577
0.3043	6.08	1398.34	164.55	3846.9	1.0428
0.3343	6.15	1381.75	161.40	3829.0	1.0304
0.3706	6.27	1367.54	154.50	3817.5	1.0198

DELTA DELTA STAR M RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2514 0.0532 5.22 1298551. 13336110. 412. 4229. 850.32 0.868 0.29870 0.692

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), THETA STAR(M 1), THETA PRIME, THETA(2), THETA(W), H(M), M(E), PTIMAX,  
 -0.1507 -0.092 0.1453 0.0929 0.00171 0.00248 0.00549 16.90 6.06 90338.0

Y	Y/DELTA	U/DELTA	RHO * U	PTI	PI.	RHO U PRIME	M PRIME	PTI/PTE.	PTI/PTIMAX
0.	0.	0.	0.	97.3	97.30	0.016	0.001	0.001	0.001
0.0100	0.03977	0.66172	0.21127	765.9	96.72	0.016	0.008	0.008	0.008
0.0146	0.05795	0.45417	0.20180	705.6	96.42	0.016	0.008	0.008	0.008
0.0185	0.07346	0.71790	0.25990	1201.0	96.13	0.016	0.013	0.013	0.013
0.0252	0.10010	0.75656	0.28852	1491.4	95.74	0.016	0.019	0.019	0.019
0.0340	0.13506	0.83918	0.42068	482.7	94.97	0.016	0.053	0.053	0.053
0.0463	0.18410	0.87599	0.47677	7376.2	93.99	0.016	0.082	0.082	0.082
0.0677	0.24936	0.91707	0.51132	10285.8	91.71	0.016	0.114	0.114	0.114
0.0931	0.37034	0.94382	0.54113	13787.8	87.96	0.015	0.153	0.153	0.153
0.1189	0.47287	0.95882	0.56548	17746.3	83.43	0.015	0.196	0.196	0.196
0.1467	0.58343	0.97495	0.59327	24736.8	76.62	0.014	0.274	0.274	0.274
0.1724	0.68544	0.98638	0.61572	33399.4	70.30	0.013	0.370	0.370	0.370
0.2000	0.79540	0.99373	0.64257	45399.1	64.70	0.012	0.502	0.502	0.502
0.2256	0.89721	0.99572	0.66681	58249.8	60.52	0.012	0.645	0.645	0.645
0.2266	0.90119	0.99617	0.67138	60122.8	60.23	0.012	0.666	0.666	0.666
0.2514	1.00000	1.00000	0.68899	85021.1	52.26	0.010	0.950	0.950	0.950
0.2534	1.00778	0.99970	0.68256	87843.3	51.57	0.010	0.972	0.972	0.972
0.2788	1.10879	0.98984	0.68750	80671.7	53.51	0.011	0.893	0.893	0.893
0.3043	1.21021	0.98534	0.67962	86601.0	50.50	0.010	0.959	0.959	0.959
0.3343	1.32952	0.98076	0.65905	87537.3	47.68	0.010	0.969	0.969	0.969
0.3706	1.47388	0.97781	0.63037	90338.0	43.78	0.009	1.000	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B NON COOLED  
 MODEL MACH NO. DAY TEST RUN K PTE JTD TM GEN. CYL.  
 10. 8. 7. 3. 506. 109. 24.00 87053.73 1341.00 1168.00 9.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	(T/TT0)	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	1168.00	1168.00	0.	0.8710					857.02	0.887	0.88217	0.680
0.0085	2.44	1236.53	564.75	2840.9	0.9221				5780.				
0.0106	2.42	1262.73	582.01	2859.7	0.9416								
0.0154	2.53	1300.64	571.31	2940.1	0.9499								
0.0193	2.81	1322.03	512.83	3117.9	0.9859								
0.0259	2.96	1386.04	502.87	3257.3	1.0336								
0.0307	3.02	1426.15	504.42	3327.7	1.0635								
0.0341	3.06	1444.24	503.05	3362.6	1.0770								
0.0449	3.29	1603.42	468.20	3492.4	1.1062								
0.0554	3.82	1485.71	378.49	3647.2	1.1079								
0.0667	4.21	1484.86	326.94	3729.7	1.1073								
0.0770	4.44	1480.99	299.86	3764.9	1.1044								
0.0917	4.73	1475.12	269.67	3803.5	1.1000								
0.1027	4.94	1469.20	250.15	3826.9	1.0956								
0.1152	5.13	1459.31	232.78	3838.7	1.0882								
0.1422	5.44	1435.60	207.63	3840.9	1.0705								
0.1543	5.50	1424.87	202.27	3832.5	1.0625								
0.1666	5.53	1413.13	198.66	3819.7	1.0538								
0.1791	5.60	1401.50	192.47	3811.2	1.0451								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT	
0.1360	-0.0104	-0.95	4724076.	17491988.	1561.		5780.	857.02	0.887	0.88217	0.680

  

PHI	DELTA STAR PRIME	DELTA STAR(2)	DELTA STAR(W 1)	DELTA STAR(2)	THETA PRIME	THETA(2)	THETA(W)	H(W)	M(E)	PTIMAX
-0.0748	-0.086	0.0761	0.0324	0.00280	0.00816	0.00362	8.97	5.38	87070.5	

  

Y	Y/DELTA	U/U(DELTA)	RMO * U	PTI	PI	RHC U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.73920	0.	352.7	352.66	0.040	4.338	0.004	0.004
0.0085	0.06273	0.74411	1.02743	5444.4	350.54	0.040	4.340	0.063	0.063
0.0106	0.07818	0.77021	1.00107	5260.1	349.66	0.040	4.345	0.060	0.060
0.0154	0.11304	0.81129	1.04868	6184.5	347.37	0.040	4.353	0.071	0.071
0.0193	0.14187	0.84756	1.21805	9458.1	343.84	0.039	4.380	0.109	0.109
0.0259	0.19026	0.86587	1.25448	11555.0	332.38	0.038	4.399	0.133	0.133
0.0307	0.22549	0.87496	1.24709	12329.5	324.44	0.038	4.416	0.142	0.142
0.0341	0.25050	0.90872	1.23618	12726.5	317.39	0.035	4.510	0.146	0.146
0.0449	0.33015	0.94900	1.18000	15971.2	282.12	0.028	4.745	0.183	0.183
0.0554	0.40715	0.97048	1.17206	25355.3	211.59	0.025	4.898	0.291	0.291
0.0667	0.49077	0.98016	1.15510	35202.2	176.33	0.023	5.105	0.404	0.404
0.0770	0.56601	0.99020	1.13817	52991.2	157.81	0.021	5.183	0.485	0.485
0.0917	0.67412	0.99577	1.12847	62156.4	138.42	0.020	5.263	0.609	0.609
0.1027	0.75531	0.99882	1.11139	73352.1	115.67	0.019	5.401	0.714	0.714
0.1152	0.84724	1.00000	1.07886	82717.0	102.07	0.017	5.451	0.819	0.819
0.1360	1.00900	1.00000	1.06810	86125.8	99.10	0.016	5.493	0.989	0.989
0.1422	1.04582	0.99941	1.03559	87024.5	93.81	0.016	5.557	1.000	1.000
0.1543	1.13481	0.99722	1.00354	85992.1	89.57	0.015	5.557	0.988	0.988
0.1666	1.22527	0.99390	1.00354	85992.1	89.57	0.015	5.557	0.988	0.988
0.1791	1.31720	0.99167	0.96426	87070.5	83.58	0.015	5.557	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - FUNNEL A COOLED HEAT TRANSFER  
MODEL MACH NO. DAY TEST RUN X PTE YTO TW GEN. CYL.  
8. 5. 9. 25. 306. 5. 0. 18335.38 645.00 435.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	IT/TTO
0.	0.	435.00	435.00	0.	0.6744
0.0100	1.05	487.94	399.88	1028.6	0.7565
0.0202	1.12	520.43	416.59	1116.9	0.8069
0.0276	1.36	539.49	393.52	1324.3	0.8364
0.0374	1.59	559.44	371.05	1504.4	0.8673
0.0441	1.66	570.19	368.28	1557.5	0.8840
0.0626	1.91	591.66	342.29	1730.9	0.9173
0.0789	1.99	602.21	337.92	1781.9	0.9337
0.0964	2.14	611.76	319.96	1872.3	0.9485
0.1119	2.21	619.65	314.13	1915.9	0.9607
0.1281	2.30	628.26	305.23	1970.0	0.9740
0.1636	2.48	643.58	287.95	2067.0	0.9978
0.1978	2.70	651.81	264.85	2156.1	1.0106
0.2318	2.88	653.70	245.52	2214.4	1.0135
0.2638	3.08	651.59	225.12	2263.5	1.0102
0.2963	3.29	648.35	205.02	2307.8	1.0052
0.3332	3.55	646.97	183.86	2358.8	1.0031
0.3711	3.84	644.20	163.36	2403.5	0.9988
0.4378	4.24	640.77	139.30	2454.5	0.9934
0.5043	4.58	639.55	122.97	2491.2	0.9915
0.5726	4.81	638.73	113.41	2512.2	0.9903
0.6706	4.86	638.58	111.69	2515.9	0.9900
0.7422	4.86	638.63	111.70	2516.0	0.9901
0.8261	4.86	638.63	111.46	2516.6	0.9901

DELTA DELTA STAR H RSR RS DELIA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
0.5886 0.3037 11.75 625393. 6071879. 1347. 13078. 349.50 0.606 0.27671 1.324

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STARIME, THETA(2), THETA(W), M(W), M(E), PTIMAX,  
0.0118 -0.013 0.3170 0.3112 0.00034 0.02551 0.02506 12.42 4.84 18172.2

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PI	RHO U PRIME, M PRIME	PTI/PIE, PII/PTIMAX
0.	0.	0.	0.	40.36	0.002	0.002
0.0100	0.01699	0.40899	0.06050	81.0	4.820	0.004
0.0202	0.03435	0.44411	0.06305	88.0	4.820	0.005
0.0276	0.04682	0.52656	0.07915	121.6	4.820	0.007
0.0374	0.06352	0.59820	0.09536	169.9	4.820	0.009
0.0441	0.07488	0.61929	0.09946	186.4	4.820	0.010
0.0626	0.10628	0.68824	0.11893	274.1	4.820	0.015
0.0789	0.13412	0.70853	0.12402	305.0	4.820	0.017
0.0964	0.16373	0.74448	0.13762	390.1	4.820	0.021
0.1119	0.19010	0.76180	0.14344	435.2	4.820	0.024
0.1281	0.21762	0.78331	0.15179	505.0	4.820	0.028
0.1636	0.27793	0.82189	0.16883	673.7	4.820	0.037
0.1978	0.33603	0.85733	0.19146	943.9	4.820	0.051
0.2318	0.39379	0.88052	0.21212	1243.1	4.820	0.068
0.2638	0.44815	0.90003	0.23648	1665.2	4.820	0.092
0.2963	0.50336	0.91765	0.26474	2270.0	4.820	0.125
0.3332	0.55605	0.93790	0.30173	3299.1	4.820	0.182
0.3711	0.63043	0.95569	0.34604	4915.8	4.820	0.271

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.4378	0.74374	0.97597	0.41460	8425.7	40.36	0.027	4.820	0.460	0.464
0.5043	0.85672	0.99056	0.47645	12948.5	40.36	0.027	4.820	0.706	0.713
0.5726	0.97275	0.99891	0.52097	17112.0	40.36	0.027	4.820	0.933	0.942
0.5886	1.00000	1.00000	0.52685	17263.6	40.36	0.027	4.820	0.984	0.950
0.6706	1.13923	1.00041	0.52978	18037.6	40.36	0.027	4.820	0.984	0.993
0.7422	1.26087	1.00045	0.52976	18037.6	40.36	0.027	4.820	0.984	0.993
0.8261	1.40340	1.00067	0.53101	18172.2	40.36	0.027	4.820	0.991	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLE HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X K PTE TTD TW GEN. CYL.  
 8. 5. 9. 25. 306. 4. 18.75 18286.99 645.00 434.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	434.00	434.00	0.	0.6729
0.-0100	1.37	513.94	373.71	1298.0	0.7968
0.0193	1.84	559.50	333.92	1646.2	0.8674
0.0281	2.04	586.59	319.52	1791.2	0.9094
0.0356	2.10	599.54	318.00	1839.1	0.9295
0.0458	2.28	615.08	301.30	1941.6	0.9536
0.0538	2.37	619.93	291.91	1985.1	0.9611
0.0616	2.44	625.68	285.76	2020.8	0.9701
0.0868	2.63	639.14	268.03	2111.5	0.9909
0.1031	1.40	637.26	458.64	1464.9	0.9880
0.1278	2.76	647.36	256.27	2167.6	1.0037
0.1539	2.85	649.36	247.03	2198.5	1.0068
0.1797	2.89	650.58	243.10	2212.5	1.0086
0.2048	2.92	650.95	240.66	2220.2	1.0092
0.2375	2.97	650.12	234.84	2233.6	1.0079
0.2731	3.04	650.22	228.47	2250.9	1.0081
0.3089	3.11	651.74	221.73	2272.9	1.0104
0.3398	3.22	652.79	212.54	2299.8	1.0121
0.3731	3.37	653.00	199.73	2333.6	1.0124
0.4571	3.87	648.07	162.36	2415.6	1.0048
0.5457	4.37	641.25	133.15	2470.7	0.9942
0.6347	4.55	638.30	124.07	2485.5	0.9896
0.7169	4.57	638.26	123.37	2487.1	0.9896
0.7992	4.57	638.34	123.48	2487.0	0.9897
0.8977	4.56	638.45	123.73	2486.7	0.9898
0.9816	4.57	638.54	123.19	2488.2	0.9900
1.0660	4.59	637.68	122.45	2488.0	0.9887
1.1490	4.61	637.63	121.50	2490.1	0.9886
1.2340	4.62	637.76	121.21	2491.1	0.9888
1.3170	4.63	637.83	120.46	2493.1	0.9889

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.6191 0.2809 10.82 2309469. 18330177. 1948. 15463. 353.32 0.595 0.29018 1.204

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA STAR(1), THETA STAR(2), M(E), PTIMAX, M(E), PTIMAX,  
 0.0021 -0.013 0.2939 0.2885 0.00039 0.02557 0.02512 11.48 4.54 18765.6

Y	Y/DELTA	U/(DELTA)	RHO * U	PTL	PL	RHO U PRIME, M PRIME	PTI/PIE, PII/PTIMAX
0.	0.	0.	0.	60.0	60.00	0.003	0.003
0.0100	0.01615	0.52213	0.12143	183.0	60.00	4.521	0.010
0.0193	0.03118	0.66224	0.17237	365.4	60.00	4.521	0.019
0.0281	0.04536	0.72057	0.19600	503.1	60.00	4.521	0.027
0.0356	0.05744	0.73983	0.20220	552.1	60.00	4.521	0.029
0.0458	0.07395	0.78105	0.22530	729.4	60.00	4.521	0.039
0.0538	0.08687	0.79857	0.23777	837.6	60.00	4.521	0.045
0.0616	0.09957	0.81293	0.24724	932.0	60.00	4.521	0.051
0.0868	0.14023	0.84940	0.27543	1256.4	60.00	4.521	0.067
0.1031	0.16654	0.58929	0.11167	189.7	60.00	4.521	0.010
0.1278	0.20644	0.87197	0.29573	1537.3	60.00	4.521	0.082
0.1539	0.24861	0.88442	0.31116	1767.2	60.00	4.521	0.094

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLEY HEAT TRANSFER

Y	Y/DELTA	U/(U(DELTA) RHO * U	RHO * U	PTI	PI,	RHO U PRIME, M	PRIME	PTI/PTE,	PTI/PTIMAX
0.1797	0.29028	0.89005	0.31821	1881.4	60.00	0.034	4.521	0.103	0.100
0.2048	0.33083	0.89312	0.32255	1953.0	60.00	0.034	4.521	0.107	0.104
0.2375	0.38365	0.89853	0.33253	2118.1	60.00	0.034	4.521	0.116	0.113
0.2731	0.44116	0.90550	0.34445	2333.3	60.00	0.034	4.521	0.128	0.124
0.3089	0.49899	0.91433	0.35839	2612.4	60.00	0.034	4.521	0.143	0.139
0.3398	0.54890	0.92515	0.37832	3046.8	60.00	0.034	4.521	0.167	0.162
0.3731	0.60269	0.93873	0.40849	3791.8	60.00	0.034	4.521	0.207	0.202
0.4571	0.73839	0.97174	0.52018	7623.9	60.00	0.034	4.521	0.417	0.406
0.5437	0.88151	0.99388	0.64807	14692.2	59.94	0.034	4.522	0.803	0.783
0.6191	1.00000	1.00000	0.69569	17827.4	59.90	0.034	4.523	1.011	0.950
0.6347	1.02527	0.99987	0.69902	18496.1	59.88	0.034	4.527	1.026	0.986
0.7169	1.15806	1.00051	0.69989	18765.6	59.58	0.034	4.532	1.016	1.000
0.7992	1.29100	1.00046	0.69433	18384.6	59.16	0.034	4.541	0.999	0.990
0.8977	1.45012	1.00034	0.68512	19259.7	58.50	0.034	4.554	0.999	0.973
0.9816	1.58565	1.00096	0.67795	18265.4	57.60	0.033	4.567	0.999	0.973
1.0660	1.72198	1.00084	0.67129	18274.9	56.70	0.033	4.584	1.005	0.974
1.1490	1.85606	1.00171	0.66278	18375.5	55.50	0.033	4.597	1.005	0.979
1.2340	1.99337	1.00212	0.65389	18245.7	54.60	0.032	4.597	0.998	0.972
1.3170	2.12744	1.00291	0.64543	18281.5	53.52	0.032	4.613	1.000	0.974

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TT0 CT  
 8. 5. 9. 25. 306. 3. 29.00 18299.09 645.00 424.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS-RECOV.	CT
0.	0.	424.00	424.00	0.	0.6574								
0.0100	1.74	549.22	341.93	1578.1	0.8515								
0.0159	1.91	578.62	334.24	1713.5	0.8971								
0.0237	2.14	602.12	314.88	1857.6	0.9335								
0.0346	2.38	610.65	286.03	1974.8	0.9468								
0.0509	2.66	629.74	261.17	2104.3	0.9763								
0.0695	2.86	641.27	243.43	2186.2	0.9942								
0.0841	2.96	646.10	234.56	2223.5	1.0017								
0.1018	3.08	649.69	224.69	2259.6	1.0073								
0.1179	3.11	651.26	222.03	2270.8	1.0097								
0.1344	3.15	652.13	218.13	2283.4	1.0111								
0.1521	3.16	651.57	217.80	2282.8	1.0102								
0.1683	3.17	650.94	216.57	2284.4	1.0092								
0.2035	3.21	650.32	212.78	2292.7	1.0083								
0.2375	3.22	650.03	211.73	2294.7	1.0078								
0.2693	3.25	650.24	208.67	2303.2	1.0081								
0.3047	3.31	650.40	204.17	2315.4	1.0084								
0.3377	3.36	649.74	199.38	2326.1	1.0073								
0.3715	3.45	649.48	191.88	2344.7	1.0069								
0.4059	3.59	647.96	181.21	2368.0	1.0046								
0.4473	3.74	645.35	170.07	2389.5	1.0005								
0.4793	3.85	644.14	162.19	2406.2	0.9987								
0.5139	3.96	642.36	155.49	2418.5	0.9959								
0.5558	4.05	640.12	149.52	2427.8	0.9924								
0.5983	4.12	638.83	145.38	2434.8	0.9904								
0.6399	4.17	637.94	142.26	2440.3	0.9891								
0.6738	4.20	636.99	140.91	2441.3	0.9876								
0.7579	4.25	636.81	138.22	2447.4	0.9873								
0.8426	4.29	636.97	136.25	2452.7	0.9876								
0.9253	4.31	637.07	135.12	2455.7	0.9877								
1.0090	4.33	637.16	133.90	2458.9	0.9878								
1.0930	4.35	637.29	132.97	2461.5	0.9880								
1.1760	4.38	637.46	131.71	2465.0	0.9883								
DELTA DELTA STAR	H	7.13	5020080.	27546988.	2815.								
0.6790	0.1644				15448.					355.02	0.562	0.45389	1.146
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	DELTA STAR(2),	DELTA STAR(W),	H(W),	PTIMAX,						
0.0047	-0.046	0.2042	0.1881	0.00166	0.02140	0.01981	9.49	4.20	18433.7				
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	100.3	100.30	0.049	4.106	0.005	0.005				
0.0100	0.01473	0.64636	0.26971	526.8	100.30	0.049	4.106	0.029	0.029				
0.0159	0.02340	0.70181	0.29958	684.6	100.30	0.049	4.106	0.037	0.037				
0.0257	0.03789	0.76086	0.34476	969.7	100.30	0.049	4.106	0.053	0.053				
0.0346	0.05101	0.80887	0.40348	1426.1	100.30	0.049	4.106	0.078	0.078				
0.0509	0.07494	0.86187	0.47079	2183.0	100.29	0.049	4.106	0.119	0.118				
0.0695	0.10236	0.89545	0.52431	2973.0	100.20	0.049	4.106	0.162	0.161				
0.0841	0.12379	0.91073	0.55286	3471.6	100.10	0.049	4.107	0.190	0.188				
0.1018	0.14992	0.92551	0.58535	4106.6	99.89	0.049	4.109	0.224	0.223				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/Delta	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/DTF,	PTI/PTIMAX
0.1179	0.17363	0.93010	0.59471	4313.3	99.79	0.049	4.109	0.236	0.234
0.1344	0.19793	0.93525	0.60807	4605.8	99.69	0.049	4.110	0.252	0.250
0.1521	0.22399	0.93501	0.60824	4612.3	99.59	0.049	4.111	0.252	0.250
0.1683	0.24785	0.93566	0.61088	4679.2	99.39	0.049	4.112	0.256	0.254
0.2035	0.29969	0.93907	0.62088	4936.0	98.89	0.049	4.116	0.270	0.268
0.2375	0.34976	0.93987	0.62194	4993.4	98.49	0.049	4.119	0.273	0.271
0.2693	0.39659	0.94338	0.63020	5234.1	97.99	0.048	4.123	0.286	0.284
0.3047	0.44972	0.94834	0.64350	5619.1	97.39	0.048	4.128	0.307	0.305
0.3377	0.49732	0.95272	0.65793	6047.0	96.79	0.048	4.133	0.320	0.328
0.3715	0.54709	0.96035	0.68554	6870.0	96.28	0.048	4.137	0.375	0.373
0.4059	0.59775	0.96991	0.72855	8272.6	95.68	0.048	4.141	0.452	0.449
0.4473	0.65872	0.97873	0.77594	10088.4	94.78	0.047	4.149	0.551	0.547
0.4793	0.70585	0.98556	0.81237	11731.9	93.98	0.047	4.155	0.641	0.636
0.5139	0.75680	0.99059	0.84535	13367.6	93.28	0.047	4.161	0.731	0.725
0.5558	0.81850	0.99437	0.87204	14965.8	92.17	0.046	4.170	0.818	0.812
0.5983	0.88109	0.99726	0.88967	16216.2	91.17	0.046	4.178	0.886	0.880
0.6399	0.94235	0.99951	0.89820	17161.3	89.87	0.046	4.189	0.938	0.931
0.6738	0.99228	0.99991	0.89803	17472.5	88.96	0.045	4.197	0.955	0.948
0.6790	1.00000	1.00000	0.89785	17512.1	88.81	0.045	4.197	0.955	0.950
0.7579	1.11613	1.00244	0.88993	18107.6	86.25	0.044	4.221	0.990	0.982
0.8426	1.24086	1.00458	0.87521	18433.7	83.45	0.043	4.247	1.007	1.000
0.9253	1.36265	1.00581	0.85495	18373.3	80.74	0.042	4.272	1.004	0.997
1.0090	1.48591	1.00712	0.83779	18402.8	78.30	0.042	4.296	1.006	0.998
1.0930	1.60962	1.00818	0.81894	18300.6	75.92	0.041	4.320	1.000	0.993
1.1760	1.73185	1.00962	0.80113	18324.8	73.47	0.040	4.346	1.001	0.994

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TTT  
 8. 5. 9. 25. 306. 153. 33.00 18323.28 641.50 420.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	420.00	420.00	0.	0.6547					360.45	0.542	0.61555	1.080
0.0100	1.69	594.37	378.25	1611.3	0.9265				10103.				
0.0168	1.77	626.63	384.78	1704.6	0.9768								
0.0255	1.95	634.45	359.63	1817.1	0.9890								
0.0341	2.34	642.01	306.61	2007.3	1.0008								
0.0510	2.65	650.33	270.30	2136.7	1.0138								
0.0726	3.00	653.97	234.02	2246.2	1.0194								
0.0847	3.07	654.88	226.75	2267.9	1.0209								
0.1020	3.24	654.53	211.17	2307.9	1.0203								
0.1212	3.34	653.52	202.56	2327.6	1.0187								
0.1382	3.42	652.35	195.02	2344.0	1.0169								
0.1720	3.52	648.64	186.46	2356.4	1.0111								
0.2024	3.56	646.86	182.80	2361.2	1.0084								
0.2351	3.59	645.03	180.27	2363.0	1.0055								
0.2693	3.62	643.83	177.90	2365.9	1.0036								
0.3044	3.66	642.88	174.93	2371.0	1.0021								
0.3363	3.71	641.88	171.36	2377.6	1.0006								
0.3698	3.78	641.84	166.65	2389.3	1.0005								
0.4057	3.84	641.08	162.36	2398.2	0.9994								
0.4386	3.89	641.01	159.30	2405.7	0.9992								
0.5207	3.97	640.23	154.10	2416.7	0.9980								
0.5721	3.98	640.00	153.36	2417.9	0.9977								
0.6575	4.05	640.59	149.85	2428.1	0.9986								
0.7212	4.07	640.00	148.34	2430.4	0.9977								
0.7975	4.12	640.49	145.56	2438.4	0.9984								
DELTA DELTA STAR	H	4.09	8444778.	34739480.	2456.								
0.4521	0.0537												
PHI.	DELTA STAR PRIME	DELTA STAR(2).	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )	DELTA STAR(W )
-0.0039	-0.040	0.0936	0.0817	0.00226	0.01089	0.00960	8.51	3.91	18423.0				
Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U	PRIME,	M	PRIME	PTI/PTE,	PTI/PTIMAX		
0.	0.	0.	0.	160.0	159.98	0.067	3.759	0.009	0.042	0.009	0.009		
0.0100	0.02212	0.66909	0.39670	777.3	159.82	0.067	3.759	0.042	0.042	0.042	0.042		
0.0168	0.03718	0.70781	0.41213	880.1	159.66	0.067	3.759	0.042	0.042	0.042	0.042		
0.0255	0.05631	0.75452	0.46910	1162.1	159.34	0.067	3.761	0.063	0.063	0.063	0.063		
0.0341	0.07545	0.83353	0.60479	2106.2	158.54	0.067	3.765	0.115	0.115	0.115	0.115		
0.0510	0.11287	0.88727	0.72953	3421.7	158.38	0.066	3.771	0.187	0.187	0.187	0.187		
0.0726	0.16069	0.93270	0.87859	5731.3	157.10	0.066	3.774	0.313	0.313	0.313	0.313		
0.0847	0.18737	0.94174	0.91182	6403.3	156.46	0.066	3.778	0.350	0.350	0.350	0.350		
0.1020	0.22561	0.95834	0.99126	8160.4	155.66	0.066	3.778	0.445	0.445	0.445	0.445		
0.1212	0.26808	0.96652	1.03688	9341.9	154.86	0.066	3.782	0.510	0.510	0.510	0.510		
0.1382	0.30568	0.97332	1.07667	10524.0	153.74	0.065	3.787	0.574	0.574	0.574	0.574		
0.1720	0.38044	0.97847	1.11797	11921.7	151.82	0.065	3.796	0.651	0.651	0.651	0.651		
0.2024	0.44768	0.98046	1.12938	12507.8	150.06	0.064	3.805	0.683	0.683	0.683	0.683		
0.2351	0.52001	0.98120	1.12903	12810.5	147.59	0.064	3.816	0.699	0.699	0.699	0.699		
0.2693	0.59565	0.98243	1.12813	13127.7	145.59	0.063	3.827	0.713	0.713	0.713	0.713		
0.3044	0.67329	0.98456	1.12954	13608.8	143.03	0.062	3.840	0.739	0.739	0.739	0.739		
0.3363	0.74385	0.98726	1.13686	14304.7	140.63	0.062	3.852	0.776	0.776	0.776	0.776		

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.3698	0.81795	0.99215	1.15472	15497.5	138.23	0.061	3.865	0.846	0.841
0.4057	0.89735	0.99583	1.16348	16538.0	135.19	0.060	3.881	0.903	0.898
0.4386	0.97012	0.99893	1.16696	17333.0	132.63	0.059	3.896	0.946	0.941
0.4921	1.00000	1.00000	1.16647	17501.8	131.44				0.950
0.5207	1.15172	1.00351	1.14760	18358.9	125.59	0.057	3.936	1.002	0.997
0.5721	1.26541	1.00403	1.11549	18027.9	121.43	0.056	3.961	0.984	0.979
0.6575	1.45430	1.00825	1.07692	18423.0	114.07	0.054	4.008	1.005	1.000
0.7212	1.59519	1.00920	1.04466	18255.3	109.43	0.052	4.039	0.996	0.991
0.7975	1.76396	1.01254	1.00407	18381.8	102.87	0.050	4.086	1.003	0.998

HYPersonic BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 8. 5. 9. 25. 306. 154. 34.50 18420.05 641.50 415.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	415.00	415.00	0.	0.6469					361.09	0.523	0.61980	1.053
0.0100	1.70	602.64	382.05	1627.9	0.9394								
0.0196	1.75	644.16	399.17	1715.6	1.0041								
0.0293	1.87	640.16	376.56	1779.6	0.9979								
0.0367	2.20	644.05	327.60	1949.8	1.0040								
0.0529	2.62	649.63	274.08	2124.1	1.0127								
0.0702	2.84	651.02	249.00	2197.7	1.0148								
0.0863	3.00	652.25	233.14	2243.9	1.0168								
0.1035	3.13	651.55	219.88	2277.3	1.0157								
0.1193	3.20	650.07	213.13	2291.1	1.0134								
0.1381	3.27	647.92	206.34	2303.3	1.0100								
0.1530	3.29	646.58	204.53	2304.5	1.0079								
0.1875	3.34	644.49	199.65	2311.8	1.0047								
0.2221	3.39	643.41	195.24	2320.4	1.0030								
0.2566	3.44	642.55	191.02	2329.1	1.0016								
0.2883	3.52	641.61	184.79	2342.7	1.0002								
0.3228	3.60	640.68	178.67	2355.9	0.9987								
0.3569	3.67	639.89	173.35	2367.5	0.9975								
0.4215	3.79	639.35	165.21	2386.7	0.9966								
0.4889	3.86	639.92	161.03	2398.6	0.9975								
0.5563	3.87	639.74	159.89	2401.0	0.9973								
0.6237	3.91	639.97	157.69	2407.1	0.9976								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.4086	0.0262	1.64	12227896.	39788128.	4164.	13550.	361.09	0.523	0.61980	1.053			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W),	DELTA STAR(M),	DELTA STAR(H),	DELTA STAR(T),	DELTA STAR(L),	DELTA STAR(S),	DELTA STAR(B),	DELTA STAR(F),	DELTA STAR(C),	DELTA STAR(I),	DELTA STAR(O),
-0.0027	-0.064	0.0898	0.0721	0.00414	0.01180	0.00964	7.48	3.77	19021.8				
Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U	PRIME,	M' PRIME	PTI/PRIME,	PTI/PTIMAX			
0.	0.	0.	0.	226.9	226.94	0.083	3.532	0.012	0.012	0.012			
0.0100	0.02447	0.68300	0.56230	1116.4	226.49	0.083	3.533	0.061	0.059	0.059			
0.0196	0.04789	0.71979	0.56604	1206.7	226.04	0.083	3.533	0.066	0.063	0.063			
0.0293	0.07163	0.74663	0.62116	1445.1	225.58	0.082	3.536	0.078	0.076	0.076			
0.0367	0.08991	0.81806	0.78072	2398.5	225.13	0.082	3.542	0.130	0.126	0.126			
0.0529	0.12936	0.89119	1.00840	4578.1	223.31	0.082	3.543	0.249	0.241	0.241			
0.0702	0.17170	0.92205	1.14607	6440.1	222.86	0.081	3.548	0.350	0.339	0.339			
0.0863	0.21115	0.94145	1.24088	8104.3	221.27	0.081	3.555	0.440	0.426	0.426			
0.1035	0.25329	0.95546	1.32296	9819.1	219.23	0.081	3.560	0.516	0.516	0.516			
0.1193	0.29196	0.96127	1.36321	10785.8	217.64	0.081	3.567	0.586	0.567	0.567			
0.1381	0.33796	0.96636	1.40073	11815.7	215.37	0.080	3.592	0.641	0.621	0.621			
0.1530	0.37443	0.96687	1.40052	12578.5	213.32	0.080	3.574	0.630	0.630	0.630			
0.1875	0.45886	0.96992	1.40404	12578.5	208.11	0.078	3.611	0.683	0.661	0.661			
0.2221	0.54353	0.97355	1.40341	13167.6	202.66	0.077	3.633	0.715	0.692	0.692			
0.2566	0.62307	0.97719	1.39623	13719.0	196.53	0.075	3.659	0.745	0.721	0.721			
0.2883	0.70554	0.98288	1.39972	14778.5	189.50	0.074	3.687	0.802	0.777	0.777			
0.3228	0.78997	0.98845	1.40008	15909.6	182.24	0.072	3.720	0.864	0.836	0.836			
0.3569	0.87342	0.99329	1.38510	16820.1	174.07	0.070	3.776	0.913	0.884	0.884			
0.4086	1.00000	1.00000	1.36326	18070.7	163.46	0.066	3.818	0.950	0.950	0.950			
0.4215	1.03151	1.00135	1.35706	18382.0	161.72	0.064	3.818	0.998	0.998	0.998			
0.4889	1.19646	1.00635	1.31965	19021.8	152.05	0.064	3.818	1.000	1.000	1.000			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLEF HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PT1/PIE,	PT1/PTIMAX
0.5563	1.36140	1.00737	1.25497	18378.0	143.43	0.061	3.861	0.998	0.966
0.6237	1.52635	1.00992	1.20786	18288.5	135.80	0.059	3.902	0.993	0.961

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 8. 5. 9. 25. 306. 155. 36.00 18323.28 641.50 412.50 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	412.50	412.50	0.	0.6430
0.0100	2.07	613.87	329.87	1847.1	0.7569
0.0218	2.09	690.17	369.18	1963.8	1.0759
0.0312	2.09	647.49	345.28	1905.4	1.0093
0.0378	2.10	650.67	346.25	1912.4	1.0143
0.0466	2.14	659.84	345.04	1944.7	1.0286
0.0633	2.45	642.69	292.21	2052.0	1.0019
0.0796	2.56	638.52	275.77	2087.6	0.9954
0.0966	2.66	635.60	263.59	2114.1	0.9908
0.1125	2.74	633.21	252.70	2138.1	0.9871
0.1307	2.86	631.76	239.81	2170.0	0.9848
0.1483	2.95	630.39	229.67	2194.1	0.9827
0.1645	3.03	630.42	221.97	2215.2	0.9827
0.1799	3.05	631.46	220.57	2221.8	0.9843
0.1972	3.08	632.64	218.16	2231.5	0.9862
0.2151	3.13	633.94	213.98	2246.2	0.9882
0.2328	3.20	634.88	208.40	2263.5	0.9897
0.2474	3.27	650.68	207.34	2307.9	1.0143
0.2653	3.34	666.38	206.23	2351.2	1.0386

DELTA STAR H RSR RS DELTA RTHETA R KTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.1555 0.0119 1.22 31691937. 62352633. 6405. 12602. 380.48 0.450 0.60124 0.780

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 0.0043 -0.025 0.0366 0.0298 0.00269 0.00711 0.00595 5.01 3.00 18736.2

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	676.2	676.22	0.168	2.781	0.037	0.036
0.0100	0.06429	0.83757	5938.8	675.55	0.167	2.787	0.324	0.317
0.0218	0.14008	0.89046	5980.5	669.46	0.167	2.791	0.326	0.319
0.0312	0.20077	0.86402	6009.0	665.40	0.166	2.793	0.328	0.321
0.0378	0.24288	0.86716	6028.3	662.70	0.166	2.797	0.329	0.322
0.0466	0.29939	0.88183	6370.3	658.64	0.164	2.810	0.348	0.340
0.0633	0.40727	0.93046	10189.7	645.79	0.164	2.828	0.556	0.544
0.0796	0.51167	0.94661	11878.3	628.89	0.161	2.850	0.648	0.634
0.0966	0.62128	0.95862	13235.7	607.93	0.158	2.879	0.722	0.706
0.1125	0.72324	0.96950	14483.6	581.55	0.153	2.923	0.790	0.773
0.1307	0.84025	0.98398	16154.5	544.36	0.147	2.971	0.882	0.862
0.1483	0.95340	0.99491	17349.8	506.49	0.141	3.013	0.962	0.926
0.1555	1.00000	1.00000	17799.4	491.06	0.135	3.039	0.947	0.950
0.1645	1.05754	1.00447	18354.6	475.39	0.132	3.076	1.002	0.980
0.1799	1.15655	1.00746	18147.6	457.13	0.127	3.119	0.990	0.969
0.1972	1.26777	1.01185	17972.8	432.78	0.125	3.179	0.981	0.959
0.2151	1.38284	1.01852	18159.9	405.73	0.115	3.235	0.991	0.969
0.2328	1.49663	1.02639	18319.6	371.25	0.109	3.235	1.000	0.978
0.2474	1.59049	1.04650	18736.2	342.17	0.101	3.320	1.023	1.000
0.2653	1.70557	1.06615	18331.6	302.27	0.101	3.320	1.000	0.978

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TM GEN. CYL.  
 8. 5. 9. 25. 306. 17. 0. 18423.94 643.00 496.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	496.00	496.00	0.	0.7714
0.0100	0.83	541.84	476.13	888.5	0.8427
0.0180	0.78	560.92	500.31	853.3	0.8723
0.0272	0.81	575.08	508.31	895.6	0.8944
0.0446	1.39	590.26	426.43	1402.9	0.9180
0.0605	1.69	600.52	382.22	1619.4	0.9339
0.0779	1.83	608.10	364.17	1711.9	0.9457
0.1117	2.10	623.05	330.84	1873.6	0.9690
0.1436	2.29	635.33	310.57	1975.2	0.9881
0.1773	2.49	646.24	288.45	2073.3	1.0050
0.2121	2.67	653.72	269.47	2148.6	1.0167
0.2445	2.86	654.41	248.25	2209.0	1.0126
0.2786	3.08	651.07	224.41	2264.0	1.0126
0.3116	3.29	646.82	204.23	2305.9	1.0059
0.3456	3.54	645.11	184.27	2353.0	1.0033
0.3811	3.78	644.00	166.63	2394.8	1.0016
0.4131	4.02	641.75	151.74	2426.3	0.9981
0.4454	4.19	639.79	141.95	2445.6	0.9950
0.4791	4.37	638.94	132.68	2466.2	0.9937
0.5131	4.54	637.06	124.32	2481.9	0.9908
0.5473	4.69	636.65	117.72	2496.9	0.9901
0.5795	4.80	636.60	113.44	2507.0	0.9900
0.6141	4.86	636.58	111.10	2512.6	0.9900
0.6489	4.87	636.58	110.88	2513.1	0.9900
0.6818	4.87	636.58	110.88	2513.1	0.9900
0.7149	4.86	636.58	111.10	2512.6	0.9900
0.7486	4.87	636.58	110.75	2513.4	0.9900
0.7831	4.88	636.58	110.39	2514.3	0.9900
0.8151	4.88	636.58	110.39	2514.3	0.9900
0.8486	4.88	636.58	110.39	2514.3	0.9900

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA O RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.6001 0.3234 12.50 540267. 6070483. 1164. 13084. 376.53 0.723 0.25814 0.770

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(M), THETA STAR(M), THETA STAR(M), H(M), M(E), PTIMAX,  
 0.0099 -0.004 0.3270 0.3254 0.00009 0.02577 0.02565 12.68 4.84 18462.8

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	40.1	40.10			0.002	0.002
0.0100	0.01667	0.35386	0.04360	63.0	40.10	0.026	4.839	0.003	0.003
0.0180	0.02998	0.33983	0.03985	59.8	40.10	0.026	4.839	0.003	0.003
0.0272	0.04528	0.35670	0.04117	61.8	40.10	0.026	4.839	0.007	0.007
0.0446	0.07433	0.55873	0.07686	125.1	40.10	0.026	4.839	0.011	0.011
0.0605	0.10076	0.64496	0.09899	194.9	40.10	0.026	4.839	0.013	0.013
0.0779	0.12981	0.68177	0.10983	241.2	40.10	0.026	4.839	0.020	0.020
0.1117	0.18615	0.74620	0.13232	367.5	40.10	0.026	4.839	0.027	0.027
0.1436	0.23931	0.78666	0.14859	491.0	40.10	0.026	4.839	0.037	0.037
0.1773	0.29548	0.82570	0.16793	674.9	40.10	0.026	4.839	0.048	0.048
0.2121	0.35347	0.85569	0.18629	891.7	40.10	0.026	4.839	0.065	0.065
0.2445	0.40747	0.87974	0.20789	1192.5	40.10	0.026	4.839	0.065	0.065

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA) RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0-2786	0.46429	0.90168	0.23572	1668.1	40.10	4.839	0.091	0.090
0-3116	0.51929	0.91836	0.26380	2267.1	40.10	4.839	0.123	0.123
0-3456	0.57595	0.93710	0.29834	3219.5	40.10	4.839	0.175	0.174
0-3811	0.63511	0.95375	0.33577	4550.6	40.10	4.839	0.247	0.246
0-4131	0.68844	0.96630	0.37357	6237.8	40.10	4.839	0.339	0.338
0-4454	0.74227	0.97398	0.40252	7794.2	40.10	4.839	0.423	0.422
0-4791	0.79843	0.98219	0.43428	9827.4	40.10	4.839	0.533	0.532
0-5131	0.85509	0.98845	0.46642	12213.2	40.10	4.839	0.663	0.662
0-5473	0.91209	0.99440	0.49556	14751.3	40.10	4.839	0.801	0.799
0-5795	0.96575	0.99845	0.51635	16788.3	40.10	4.839	0.911	0.909
0-6001	1.00000	1.00000	0.52478	17539.7	40.10	4.839	0.911	0.950
0-6141	1.02341	1.00066	0.52836	18053.4	40.10	4.839	0.980	0.978
0-6489	1.08141	1.00087	0.52955	18182.5	40.10	4.839	0.987	0.985
0-6818	1.13624	1.00087	0.52955	18182.5	40.10	4.839	0.987	0.985
0-7149	1.19140	1.00066	0.52836	18053.4	40.10	4.839	0.980	0.978
0-7486	1.24756	1.00099	0.53023	18256.8	40.10	4.839	0.991	0.989
0-7831	1.30506	1.00133	0.53212	18462.8	40.10	4.839	1.000	1.000
0-8151	1.35839	1.00133	0.53212	18462.8	40.10	4.839	1.002	1.000
0-8486	1.41421	1.00133	0.53212	18462.8	40.10	4.839	1.002	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD, DAY TEST RUN X PTE TTD TW GEN. CYL.  
 8. 5. 9. 30. 306. 16. 18.75 18447.84 643.50 493.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ATTO	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CI
0.	0.	493.00	493.00	0.	0.7661					373.30	0.720	0.24501	
0.-0100	1.40	565.51	406.71	1381.2	0.8788								
0.-0173	1.48	584.54	406.74	1461.5	0.9084								
0.-0259	1.73	599.91	375.90	1640.5	0.9323								
0.-0348	2.07	607.92	328.01	1833.8	0.9447								
0.-0509	2.39	613.44	286.02	1983.3	0.9533								
0.-0688	2.60	634.90	270.53	2092.2	0.9866								
0.-0848	2.73	641.11	257.62	2146.4	0.9963								
0.-1158	2.92	651.18	240.42	2221.4	1.0119								
0.-1471	3.05	652.99	228.30	2258.8	1.0147								
0.-1804	3.14	653.68	220.19	2282.1	1.0158								
0.-2166	3.15	653.71	218.87	2285.6	1.0159								
0.-2488	3.19	653.21	215.07	2294.3	1.0151								
0.-2812	3.27	652.44	208.23	2310.1	1.0139								
0.-3079	3.38	653.00	199.18	2335.0	1.0148								
0.-3347	3.44	653.70	194.19	2349.6	1.0159								
0.-3663	3.56	654.27	184.87	2374.7	1.0167								
0.-3993	3.76	654.72	171.23	2410.1	1.0174								
0.-4339	3.96	653.10	157.60	2439.8	1.0149								
0.-4671	4.20	650.04	143.65	2466.5	1.0102								
0.-5014	4.46	646.08	129.66	2490.8	1.0040								
0.-5342	4.69	642.39	118.86	2507.9	0.9983								
0.-5669	4.89	640.05	110.60	2522.0	0.9946								
0.-6013	5.00	639.30	106.49	2530.0	0.9935								
0.-6355	5.04	638.64	104.86	2532.3	0.9925								
0.-6679	5.06	638.03	104.21	2532.4	0.9915								
0.-7035	5.07	638.02	104.05	2532.8	0.9915								
0.-7354	5.06	638.03	104.21	2532.4	0.9915								
0.-7696	5.06	638.04	104.37	2532.1	0.9915								
DELTA DELTA STAR	M	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CI				
0.-6166	0.3024	13.36	1723743.	21523311.	1268.	15829.	373.30	0.720	0.24501	0.857			
PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(1), THETA STAR(2), THETA STAR(W), M(E), PTIMAX, M(E), PTIMAX,													
-0.-0079	-0.002	0.3041	0.3034	0.00004	0.02259	0.02254	13.46	5.02	27800.5				
Y	Y/DELTA	U/(DELTA) RHO = U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX					
0.	0.	0.54566	48.7	48.70	0.023	5.021	0.003	0.002					
0.-0100	0.01622	0.57738	154.4	48.70	0.023	5.021	0.008	0.006					
0.-0173	0.02812	0.64806	173.3	48.70	0.023	5.021	0.009	0.006					
0.-0259	0.04194	0.72442	250.1	48.70	0.023	5.021	0.014	0.009					
0.-0348	0.05639	0.78351	422.0	48.70	0.023	5.021	0.023	0.015					
0.-0509	0.08254	0.82654	703.6	48.70	0.023	5.021	0.038	0.025					
0.-0688	0.11167	0.84794	964.4	48.70	0.023	5.021	0.052	0.035					
0.-0848	0.13760	0.87757	1184.1	48.70	0.023	5.021	0.064	0.043					
0.-1158	0.18781	0.89233	1592.5	48.70	0.023	5.021	0.086	0.057					
0.-1471	0.23858	0.90152	1927.3	48.70	0.023	5.021	0.104	0.069					
0.-1804	0.29259	0.90293	2195.4	48.70	0.023	5.021	0.119	0.079					
0.-2166	0.35130	0.90635	2242.4	48.70	0.023	5.021	0.122	0.081					
0.-2488	0.40352	0.90635	2377.9	48.70	0.023	5.021	0.129	0.086					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/UI(Delta)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.2812	0.45607	0.91261	0.31480	2651.7	48.70	0.023	5.021	0.144	0.095
0.3079	0.49938	0.92243	0.33266	3107.5	48.70	0.023	5.021	0.168	0.112
0.3347	0.54284	0.92820	0.34334	3408.7	48.70	0.023	5.021	0.185	0.123
0.3663	0.59410	0.93813	0.36451	4061.4	48.70	0.023	5.021	0.220	0.146
0.3993	0.64762	0.95210	0.39940	5323.5	48.70	0.023	5.021	0.289	0.191
0.4339	0.70374	0.96365	0.43928	7054.4	48.70	0.023	5.021	0.382	0.254
0.4671	0.75758	0.97439	0.48723	9599.8	48.70	0.023	5.021	0.520	0.345
0.5014	0.81321	0.98399	0.54511	13448.9	48.70	0.023	5.021	0.729	0.484
0.5342	0.86641	0.99074	0.59872	17872.5	48.70	0.023	5.021	0.969	0.643
0.5669	0.91945	0.99633	0.64708	22706.8	48.70	0.023	5.021	1.231	0.817
0.6013	0.97524	0.99948	0.67414	25813.3	48.70	0.023	5.021	1.399	0.929
0.6166	1.00000	1.00000	0.67995	26410.5	48.70	0.023	5.021		0.950
0.6355	1.03071	1.00040	0.68527	27151.1	48.70	0.023	5.021	1.472	0.977
0.6679	1.08326	1.00043	0.68956	27654.6	48.70	0.023	5.021	1.499	0.995
0.7035	1.14100	1.00057	0.69070	27800.5	48.70	0.023	5.021	1.507	1.000
0.7354	1.19273	1.00043	0.68956	27654.6	48.70	0.023	5.021	1.499	0.995
0.7696	1.24820	1.00029	0.68842	27510.2	48.70	0.023	5.021	1.491	0.990

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOL'D HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TTT TTTM GEN. CYL. TM  
 8. 5. 9. 30. 306. 15. 29.00 18338.40 644.00 495.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	495.00	495.00	0.	0.7646
0.0100	1.49	575.96	399.12	1457.6	0.8943
0.0186	1.76	750.72	464.44	1854.5	1.1657
0.0251	1.90	587.96	342.04	1718.9	0.9130
0.0435	2.27	625.83	307.96	1954.2	0.9718
0.0598	2.51	637.83	281.73	2068.3	0.9904
0.0776	2.71	645.13	261.26	2147.5	1.0017
0.1089	2.88	652.33	245.27	2211.4	1.0129
0.1428	2.98	652.70	234.62	2241.1	1.0135
0.1779	3.02	652.15	230.47	2250.8	1.0127
0.2116	3.03	651.02	229.57	2250.2	1.0109
0.2439	3.04	650.05	228.18	2251.3	1.0094
0.2786	3.07	649.75	225.55	2257.5	1.0089
0.3128	3.10	649.85	222.28	2266.4	1.0091
0.3452	3.20	650.10	213.08	2291.3	1.0095
0.3774	3.30	650.39	204.48	2314.5	1.0099
0.4107	3.45	650.08	192.09	2345.7	1.0094
0.4439	3.57	648.18	182.67	2364.8	1.0065
0.4785	3.73	645.65	170.70	2388.7	1.0026
0.5120	3.87	643.39	161.01	2407.3	0.9990
0.5451	3.98	641.35	153.70	2420.4	0.9959
0.5784	4.08	639.40	147.79	2430.2	0.9929
0.6134	4.15	638.07	143.60	2437.3	0.9908
0.6490	4.20	637.05	140.70	2441.9	0.9892
0.6827	4.23	635.97	138.84	2443.9	0.9875
0.7145	4.25	635.71	137.57	2446.3	0.9871
0.7471	4.28	635.87	136.15	2450.2	0.9874
0.7796	4.29	635.91	135.79	2451.2	0.9874
0.8140	4.30	636.07	135.56	2452.1	0.9877
0.8475	4.30	635.37	135.28	2451.1	0.9866

DELTA DELTA STAR H RSR RS DELTA RTHETA R KTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.6755 0.1896 6.65 4478047. 27548035. 3104. 19093. 386.27 0.705 0.39276 0.643

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 0.0035 -0.059 0.2485 0.2192 0.0224 0.02626 0.02334 9.39 4.23 18626.5

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	P1	RHO U PRIME	M PRIME	PT1/PTE	PT1/PTIMAX
0.	0.	0.	0.	104.5	104.49	0.006	0.006	0.006	0.006
0.0100	0.01480	0.59653	0.22233	377.2	104.49	0.050	4.082	0.021	0.020
0.0186	0.02761	0.75899	0.24310	561.0	104.49	0.050	4.082	0.031	0.030
0.0251	0.03711	0.70348	0.30595	695.9	104.49	0.050	4.082	0.038	0.037
0.0435	0.06447	0.79978	0.38594	1248.8	104.38	0.050	4.083	0.068	0.067
0.0598	0.08854	0.84651	0.44606	1820.6	104.28	0.050	4.084	0.099	0.098
0.0776	0.11492	0.87890	0.49842	2462.2	104.07	0.050	4.085	0.134	0.132
0.1089	0.16120	0.90505	0.54451	3180.2	103.65	0.050	4.088	0.173	0.171
0.1428	0.21139	0.91722	0.57455	3706.9	103.23	0.050	4.091	0.202	0.199
0.1779	0.26334	0.92117	0.57790	3870.7	101.56	0.049	4.104	0.211	0.208
0.2116	0.31323	0.92092	0.58181	3912.6	101.87	0.049	4.102	0.213	0.210
0.2439	0.36104	0.92137	0.58022	3936.7	100.93	0.049	4.109	0.215	0.211

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/U(Delta)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.2786	0.41241	0.92392	0.58498	4070.1	100.31	0.049	4.113	0.222	0.219
0.3128	0.46304	0.92758	0.58973	4241.4	99.26	0.048	4.121	0.231	0.228
0.3452	0.51100	0.93777	0.61538	4871.9	98.22	0.048	4.129	0.266	0.262
0.3774	0.55866	0.94726	0.64087	5576.5	97.17	0.048	4.138	0.304	0.299
0.4107	0.60796	0.96000	0.68395	6854.2	96.13	0.047	4.146	0.374	0.368
0.4439	0.65710	0.96785	0.72351	8071.6	95.92	0.047	4.147	0.440	0.433
0.4785	0.70832	0.97762	0.76334	9852.5	93.62	0.047	4.166	0.537	0.529
0.5120	0.75791	0.98524	0.80648	11807.7	92.57	0.046	4.175	0.644	0.634
0.5451	0.80691	0.99061	0.83795	13554.4	91.32	0.046	4.185	0.739	0.728
0.5784	0.85620	0.99462	0.86194	15152.5	89.96	0.045	4.197	0.826	0.813
0.6134	0.90801	0.99751	0.87830	16423.4	88.81	0.045	4.207	0.896	0.882
0.6490	0.96071	0.99941	0.88651	17314.9	87.66	0.045	4.217	0.944	0.930
0.6755	1.00000	1.00000	0.88728	17695.2	86.75	0.044	4.227	0.971	0.950
0.6827	1.01060	1.00019	0.88732	17797.8	86.51	0.044	4.235	0.990	0.956
0.7145	1.03767	1.00120	0.88665	18151.2	85.57	0.044	4.246	1.014	0.974
0.7471	1.10593	1.00279	0.88547	18590.2	84.45	0.043	4.252	1.016	0.998
0.7796	1.15404	1.00319	0.88140	18626.5	83.80	0.043	4.258	1.014	1.000
0.8140	1.20496	1.00358	0.87548	18586.5	83.07	0.043	4.258	1.014	0.998
0.8475	1.25455	1.00316	0.86898	18480.6	82.31	0.043	4.265	1.008	0.992

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X TTD PTE TTU TW GEN. CYL. 12.00  
 8. 5. 9. 30. 306. 58. 33.00 18483.84 444.00 495.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	495.00	495.00	0.	0.7686
0.0100	1.60	578.62	383.30	1531.9	0.8985
0.0245	1.94	622.23	354.36	1793.9	0.9662
0.0328	2.13	635.41	332.64	1907.2	0.9867
0.0400	2.29	643.96	314.16	1990.5	0.9999
0.0580	2.56	652.61	282.68	2108.1	1.0134
0.0742	2.60	654.76	278.10	2127.2	1.0167
0.0910	2.65	655.62	272.28	2146.0	1.0180
0.1080	2.70	655.44	266.08	2162.8	1.0178
0.1239	2.71	654.51	264.86	2163.6	1.0163
0.1417	2.74	653.42	261.64	2169.5	1.0146
0.1750	2.76	651.45	258.23	2173.5	1.0116
0.2087	2.82	650.43	251.12	2190.3	1.0100
0.2431	2.83	649.52	249.25	2192.9	1.0086
0.2761	2.95	649.59	236.57	2227.5	1.0087
0.3096	2.98	650.68	234.75	2235.4	1.0104
0.3765	3.20	651.06	213.42	2293.0	1.0110
0.4423	3.46	648.96	191.04	2345.5	1.0077
0.5106	3.74	643.13	169.23	2386.1	0.9986
0.5785	3.91	638.22	157.25	2403.8	0.9910
0.6446	3.99	636.40	151.83	2412.8	0.9882
0.7115	4.03	635.63	149.71	2416.1	0.9870
0.7819	4.08	635.29	146.68	2422.8	0.9865
0.8452	4.11	635.71	145.08	2427.8	0.9871

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.6138 0.1550 5.23 7341013. 34900879. 4806. 22851. 391.99 0.696 0.40116 0.597

PMI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.0084 -0.075 0.2298 0.1920 0.00339 0.02621 0.02218 8.65 3.96 18822.4

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	162.3	162.29	0.067	3.763	0.009	0.009
0.0100	0.01629	0.63581	0.37791	685.9	162.29	0.067	3.767	0.037	0.036
0.0245	0.04000	0.74459	0.47631	1158.5	161.48	0.067	3.768	0.063	0.062
0.0328	0.05344	0.79160	0.53837	1552.5	161.15	0.067	3.769	0.084	0.082
0.0400	0.06519	0.82617	0.59432	1984.9	160.99	0.066	3.770	0.107	0.105
0.0580	0.09445	0.87500	0.69813	3003.7	160.67	0.066	3.773	0.163	0.160
0.0742	0.12094	0.88292	0.71390	3207.6	160.18	0.066	3.775	0.174	0.170
0.0910	0.14826	0.89072	0.73336	3459.5	159.69	0.066	3.778	0.187	0.184
0.1080	0.17596	0.89768	0.75322	3730.8	159.04	0.066	3.778	0.202	0.198
0.1239	0.20186	0.90048	0.76135	3753.6	158.23	0.066	3.782	0.203	0.199
0.1417	0.23086	0.90048	0.76135	3875.2	157.58	0.066	3.785	0.210	0.206
0.1750	0.28512	0.90213	0.76405	3972.7	155.80	0.065	3.793	0.215	0.211
0.2087	0.34002	0.90908	0.78019	4293.2	153.52	0.064	3.804	0.232	0.228
0.2431	0.39607	0.91017	0.77618	4325.4	151.41	0.064	3.814	0.234	0.230
0.2761	0.44983	0.92455	0.82090	5132.8	149.63	0.063	3.822	0.278	0.273
0.3096	0.50441	0.92781	0.81848	5230.1	147.57	0.063	3.833	0.283	0.278
0.3765	0.61341	0.95172	0.89403	7081.5	142.81	0.061	3.857	0.383	0.376
0.4423	0.72061	0.97352	0.98795	9977.5	138.11	0.060	3.881	0.540	0.530

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.5106	0.83189	0.99035	1.08925	14185.9	132.59	0.058	3.912	0.767	0.754
0.5705	0.94251	0.99772	1.13762	17203.7	127.72	0.057	3.939	0.931	0.914
0.6138	1.00000	1.00000	1.13921	17881.3	124.92				0.950
0.6446	1.05021	1.00144	1.13453	18473.0	122.53	0.055	3.970	0.999	0.981
0.7115	1.15920	1.00283	1.10485	18527.7	117.50	0.054	4.002	1.002	0.984
0.7819	1.27390	1.00561	1.07144	18822.4	111.33	0.052	4.042	1.018	1.000
0.8452	1.37703	1.00768	1.03802	18746.6	106.46	0.050	4.076	1.014	0.996

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X 34.50 18423.36 644.00 498.00  
 8. 5. 7. 30. 306. 57. 34.50 18423.36 644.00 498.00  
 GEN. CYL. 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ATTO
0.	0.	498.00	498.00	0.	0.7733
0.0100	1.67	592.31	380.86	1593.9	0.9197
0.0223	1.84	628.82	375.10	1745.9	0.9764
0.0318	2.17	644.05	331.71	1937.1	1.0001
0.0391	2.29	651.64	317.53	2003.5	1.0119
0.0567	2.42	654.82	301.99	2058.9	1.0168
0.0734	2.52	656.31	288.78	2101.3	1.0191
0.0905	2.56	655.41	283.27	2114.4	1.0177
0.1063	2.58	654.53	280.84	2118.8	1.0164
0.1234	2.59	653.41	278.97	2121.0	1.0146
0.1389	2.64	651.37	271.76	2135.6	1.0114
0.1729	2.62	649.46	273.42	2125.5	1.0085
0.2074	2.66	648.62	268.32	2137.5	1.0072
0.2409	2.72	648.75	261.69	2156.4	1.0074
0.2753	2.79	648.82	253.22	2180.1	1.0075
0.3081	2.97	648.75	235.18	2229.0	1.0074
0.3416	3.05	647.70	226.64	2249.1	1.0057
0.4078	3.35	645.06	198.62	2315.9	1.0016
0.4793	3.63	640.93	176.39	2362.4	0.9952
0.5426	3.78	637.74	165.38	2382.2	0.9903
0.6088	3.85	636.60	160.61	2391.3	0.9885
0.6769	3.90	636.11	157.62	2397.6	0.9877
0.7448	3.94	635.76	154.62	2404.2	0.9872
0.8119	3.97	635.86	152.92	2408.7	0.9874

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5479 0.1066 3.25 10362751. 38444853. 7272. 26977. 397.54 0.695 0.41757 0.549

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), THETA(1), THETA(2), THETA(1), THETA(2), THETA(1), THETA(2)  
 -0.0032 -0.099 0.2055 0.1583 0.00532 0.02751 0.02165 7.31 3.79 18501.5

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	229.7	229.68	0.085	3.502	0.012	0.012
0.0100	0.01825	0.66884	0.56005	1077.4	229.68	0.085	3.506	0.058	0.058
0.0223	0.04070	0.73263	0.61977	1394.0	228.53	0.085	3.507	0.076	0.075
0.0318	0.05797	0.81287	0.77681	2328.4	228.30	0.085	3.509	0.126	0.126
0.0391	0.07135	0.84073	0.83678	2818.2	227.61	0.085	3.511	0.153	0.152
0.0567	0.10342	0.86397	0.90143	3406.8	226.92	0.084	3.514	0.185	0.184
0.0734	0.13405	0.88177	0.95818	3999.3	226.01	0.084	3.519	0.217	0.216
0.0905	0.16515	0.88729	0.97495	4223.5	224.17	0.084	3.521	0.229	0.228
0.1063	0.19403	0.88914	0.98341	4323.4	223.71	0.084	3.527	0.235	0.234
0.1234	0.22524	0.89004	0.98289	4363.5	221.87	0.083	3.531	0.237	0.236
0.1389	0.25353	0.89616	1.00959	4700.7	220.49	0.083	3.543	0.255	0.254
0.1729	0.31559	0.89193	0.98208	4478.6	216.82	0.082	3.558	0.243	0.242
0.2074	0.37856	0.89697	0.98506	4661.0	212.22	0.081	3.575	0.253	0.252
0.2409	0.43971	0.90490	0.99579	4975.4	207.40	0.080	3.594	0.270	0.269
0.2753	0.50250	0.91483	1.01158	5430.0	201.66	0.078	3.624	0.295	0.293
0.3081	0.56236	0.93538	1.06800	6742.5	193.39	0.076	3.640	0.366	0.364
0.3416	0.62351	0.94381	1.09430	7467.3	189.26	0.075	3.693	0.405	0.404
0.4078	0.74434	0.97183	1.19371	10846.7	175.71	0.071	3.693	0.589	0.586

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4753	0.86755	0.99134	1.28151	15017.6	164.22	0.068	3.742	0.815	0.812
0.5426	0.99039	0.99965	1.30501	17508.2	155.49	0.066	3.782	0.950	0.946
0.5479	1.00000	1.00000	1.30424	17576.4	154.93				0.950
0.6088	1.11122	1.00348	1.28519	18366.5	148.14	0.064	3.817	0.997	0.993
0.6769	1.23552	1.00612	1.24179	18501.5	140.10	0.061	3.858	1.004	1.000
0.7448	1.35946	1.00889	1.18818	18485.7	131.15	0.059	3.907	1.003	0.999
0.8119	1.48193	1.01078	1.13616	18147.5	123.80	0.056	3.950	0.985	0.981

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X TTD TTD GEN. CYL. PW  
 B. 5. 9. 30. 306. 56. 36.00 18496.80 643.50 499.00 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	499.00	499.00	0.	0.7754
0.0100	1.60	604.11	400.28	1564.8	0.9388
0.0288	1.91	649.47	375.81	1813.2	1.0093
0.0303	1.96	651.25	368.29	1843.8	1.0120
0.0380	2.00	660.51	367.49	1876.2	1.0264
0.0346	2.04	676.92	368.82	1923.9	1.0519
0.0715	2.06	678.66	366.48	1936.6	1.0546
0.0881	2.06	684.47	359.51	1914.1	1.0326
0.1049	2.07	651.82	350.53	1902.5	1.0129
0.1215	2.12	664.69	350.10	1944.1	1.0329
0.1600	2.13	644.24	338.07	1917.9	1.0012
0.2070	2.36	640.02	303.18	2011.7	0.9946
0.2749	2.83	637.09	244.67	2171.3	0.9900
0.3407	3.29	635.51	200.45	2286.2	0.9876
0.4073	3.57	635.23	178.66	2342.0	0.9871
0.4748	3.68	636.68	171.35	2364.4	0.9894
0.5419	3.77	637.75	165.92	2380.9	0.9911

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3931 -0.0472 -0.82 30600270. 47196049. 36497. 56292. 404.08 0.687 0.46540 0.491

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), MIE), PTIMAX,  
 0.0029 -0.251 0.2042 0.1001 0.02202 0.03576 0.01901 5.26 3.53 18950.8

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0100	0.02544	0.67076	0.	689.3	689.33	0.169	2.775	0.037	0.036
0.0288	0.07326	0.77722	1.57018	2911.1	689.33	0.168	2.781	0.157	0.154
0.0303	0.07713	0.79031	1.92042	4635.3	683.12	0.168	2.781	0.251	0.245
0.0380	0.09679	0.80424	1.99063	5017.8	682.43	0.167	2.783	0.271	0.265
0.0546	0.13879	0.82467	2.02399	5296.2	680.37	0.166	2.791	0.286	0.279
0.0715	0.18181	0.83012	2.04485	5635.1	672.78	0.166	2.799	0.305	0.297
0.0881	0.22416	0.82046	2.04605	5742.7	664.51	0.164	2.811	0.310	0.303
0.1049	0.26685	0.81550	2.02507	5603.3	652.79	0.162	2.825	0.303	0.296
0.1215	0.30908	0.83331	2.02082	5602.8	639.01	0.159	2.840	0.312	0.310
0.1400	0.35614	0.82209	2.01845	5882.7	623.84	0.156	2.861	0.312	0.305
0.2070	0.52658	0.86229	1.96681	6954.0	508.72	0.140	2.975	0.376	0.367
0.2749	0.69931	0.93070	1.90690	10506.4	368.79	0.114	3.191	0.568	0.554
0.3407	0.86669	0.97996	1.80948	15450.0	272.28	0.094	3.400	0.835	0.815
0.3931	1.00000	1.00000	1.71284	18003.3	229.68	0.082	3.548	1.011	0.950
0.4073	1.03611	1.00390	1.68482	18694.9	220.58	0.074	3.648	1.025	0.986
0.4748	1.20782	1.01349	1.54076	18950.8	191.63	0.068	3.748	1.004	1.000
0.5419	1.37851	1.02053	1.39472	18571.8	166.82				0.980

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE ITO TMO GEN. CYL.  
 8. 5. 9. 30. 306. 11. 0. 18396.00 644.00 578.00 12.00

Y MACH TOT.TEMP. STAT.TEMP. VELOCITY TT/ITD

0.	0.	578.00	578.00	0.	0.8975
0.-0100	0.70	591.16	538.41	796.1	0.9180
0.-0171	0.65	595.25	548.95	745.8	0.9243
0.-0234	0.92	600.68	513.82	1021.5	0.9327
0.-0295	1.11	604.78	484.91	1200.0	0.9391
0.-0388	1.41	609.98	435.93	1446.0	0.9472
0.-0474	1.55	612.28	413.19	1546.6	0.9507
0.-0560	1.57	614.88	411.15	1564.5	0.9548
0.-0744	1.75	619.70	383.95	1682.9	0.9623
0.-0894	1.85	622.65	369.50	1744.0	0.9669
0.-1066	1.98	627.88	351.89	1820.9	0.9750
0.-1231	2.07	633.63	340.93	1875.2	0.9839
0.-1411	2.17	640.06	329.64	1931.2	0.9939
0.-1568	2.26	644.39	318.17	1979.7	1.0006
0.-1729	2.34	649.09	309.26	2020.6	1.0079
0.-1914	2.46	652.65	295.71	2070.8	1.0134
0.-2323	2.69	655.87	267.67	2159.6	1.0184
0.-2904	3.05	651.62	227.38	2257.6	1.0118
0.-3243	3.30	648.78	203.86	2312.0	1.0074
0.-3577	3.53	647.47	185.50	2355.8	1.0054
0.-3908	3.75	647.54	169.94	2395.4	1.0055
0.-4519	4.17	644.00	144.01	2450.9	1.0000
0.-5099	4.47	639.97	128.19	2479.6	0.9937
0.-5929	4.77	637.71	114.79	2506.4	0.9902
0.-6764	4.87	637.63	111.19	2514.9	0.9901
0.-7637	4.88	637.62	110.59	2516.3	0.9901
0.-8442	4.89	637.62	110.36	2516.8	0.9901
0.-9293	4.89	637.62	110.12	2517.4	0.9901
1.-0130	4.89	637.62	110.12	2517.4	0.9901

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.-6625 0.3410 12.88 454369. 608896. 1003. 13436. 413.54 0.876 0.29624 0.044

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(1), DELTA STAR(2), THETA(1), THETA(2), THETA(1), THETA(2), MIE), PTIMAX, MIE), PTIMAX,  
 0.-0154 -0.003 0.3440 0.3427 0.00008 0.02640 0.02631 13.03 4.86 18686.3

Y Y/DELTA U/U(DELTA) RHO \* U PTL PI, RHO U PRIME, M PRIME PTI/PTE, PTL/PTIMAX

0.	0.	0.1509	0.31666	40.0	40.00	0.002	0.002	0.002	0.002
0.-0171	0.02577	0.29665	0.03446	55.5	40.00	4.851	4.851	0.003	0.003
0.-0234	0.03527	0.40634	0.03166	53.1	40.00	4.851	4.851	0.003	0.003
0.-0295	0.04457	0.47736	0.04634	69.1	40.00	0.026	0.026	0.004	0.004
0.-0388	0.05861	0.57520	0.05768	86.7	40.00	0.026	0.026	0.005	0.005
0.-0474	0.07148	0.61519	0.07732	129.6	40.00	0.026	0.026	0.007	0.007
0.-0560	0.08452	0.62231	0.08724	158.4	40.00	0.026	0.026	0.009	0.009
0.-0744	0.11224	0.66943	0.08869	163.6	40.00	4.851	4.851	0.009	0.009
0.-0894	0.13498	0.69371	0.10216	213.7	40.00	4.851	4.851	0.012	0.012
0.-1066	0.16090	0.72431	0.11001	248.5	40.00	4.851	4.851	0.014	0.014
0.-1231	0.18580	0.74592	0.12061	303.5	40.00	4.851	4.851	0.017	0.017
0.-1411	0.21297	0.76817	0.12820	350.1	40.00	4.851	4.851	0.019	0.019
			0.13655	408.1	40.00	4.851	4.851	0.022	0.022

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	V/Delta	U/(Delta)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PT1/PTE,	PT1/PT1MAX
0.1568	0.23667	0.78749	0.14503	473.0	40.00	0.026	4.851	0.026	0.025
0.1729	0.26097	0.80374	0.15229	535.8	40.00	0.026	4.851	0.029	0.029
0.1914	0.28889	0.82372	0.16323	638.9	40.00	0.026	4.851	0.035	0.034
0.2323	0.35063	0.85904	0.18805	921.2	40.00	0.026	4.851	0.050	0.049
0.2904	0.43832	0.89802	0.23142	1593.8	40.00	0.026	4.851	0.087	0.085
0.3243	0.48949	0.91966	0.26435	2300.4	40.00	0.026	4.851	0.125	0.123
0.3577	0.53990	0.93710	0.29601	3177.7	40.00	0.026	4.851	0.173	0.170
0.3908	0.58986	0.95283	0.32853	4319.7	40.00	0.026	4.851	0.235	0.231
0.4519	0.68209	0.97491	0.39668	7565.5	40.00	0.026	4.851	0.411	0.405
0.5099	0.76963	0.98633	0.45084	11120.1	40.00	0.026	4.851	0.604	0.595
0.5929	0.89491	0.99701	0.50892	16164.7	40.00	0.026	4.851	0.879	0.865
0.6625	1.00000	1.00000	0.52520	17752.0	40.00	0.026	4.851	0.982	0.950
0.6764	1.02094	1.00037	0.52720	18068.2	40.00	0.026	4.851	1.001	0.985
0.7637	1.15271	1.00093	0.53034	18410.0	40.00	0.026	4.851	1.008	0.993
0.8442	1.27421	1.00115	0.53159	18547.7	40.00	0.026	4.851	1.016	1.000
0.9293	1.40266	1.00137	0.53284	18686.3	40.00	0.026	4.851	1.016	1.000
1.0130	1.52900	1.00137	0.53284	18686.3	40.00	0.026	4.851	1.016	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X TIO TTT GEN. CYL.  
 8. 5. 9. 30. 306. 10. 18.75 18396.00 644.00 572.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TIO	RSR	RS DELTA	RTMETHA R	RTHETA O	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	572.00	572.00	0.	0.8982					407.28	0.867	0.24650	0.121
0.0100	1.28	593.08	447.56	1322.2	0.9209	1393824.	22569184.	1017.	16464.				
0.0190	1.64	606.74	395.28	1593.9	0.9421								
0.0260	1.90	615.49	357.86	1759.3	0.9557								
0.0349	2.09	623.28	332.04	1870.5	0.9678								
0.0435	2.21	629.13	317.70	1934.3	0.9769								
0.0521	2.34	635.79	302.91	1999.8	0.9872								
0.0622	2.43	639.68	293.44	2039.5	0.9933								
0.0667	2.55	641.20	278.31	2088.0	0.9956								
0.0855	2.66	649.05	269.08	2136.6	1.0078								
0.1018	2.70	651.96	265.56	2154.6	1.0124								
0.1180	2.82	654.21	252.12	2197.9	1.0159								
0.1371	2.85	655.47	249.46	2208.5	1.0178								
0.1468	2.92	655.66	242.08	2229.1	1.0181								
0.1634	2.92	654.78	242.08	2229.1	1.0181								
0.1801	3.00	654.78	233.40	2250.0	1.0167								
0.2134	3.11	654.35	222.94	2276.6	1.0161								
0.2638	3.12	653.09	221.71	2276.5	1.0141								
0.3151	3.31	654.39	205.25	2322.9	1.0161								
0.3644	3.56	656.62	185.85	2378.2	1.0196								
0.4165	3.86	658.11	165.58	2432.5	1.0219								
0.4596	4.20	655.19	144.47	2477.0	1.0174								
0.5148	4.61	648.02	123.54	2510.2	1.0062								
0.5908	5.08	641.47	104.07	2540.9	0.9961								
0.6740	5.20	639.47	99.73	2546.4	0.9930								
0.7587	5.20	638.71	99.84	2544.4	0.9918								
0.8421	5.18	638.33	100.23	2542.6	0.9912								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTMETHA R	RTHETA O	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.6418	0.3259	14.52	1393824.	22569184.	1017.	16464.	407.28	0.867	0.24650	0.121			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	DELTA STAR(M ),	THETA PRIME,	THETA(2),	THETA(M),	H(M),	M(E),	PTIMAX,			
-0.0285	-0.008	0.3335	0.3301	0.3301	0.00016	0.02228	0.02206	14.96	5.17	30686.8			
Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.51950	0.07912	46.0	45.96	45.96	0.002	0.001	0.001				
0.0100	0.01558	0.51950	0.07912	123.1	45.96	45.96	0.020	0.007	0.004				
0.0190	0.02967	0.62623	0.10799	206.0	45.96	45.96	0.020	0.011	0.007				
0.0260	0.04050	0.69122	0.13166	306.7	45.96	45.96	0.020	0.017	0.010				
0.0349	0.05438	0.73493	0.15087	416.5	45.96	45.96	0.020	0.023	0.016				
0.0435	0.06786	0.75998	0.16306	502.3	45.96	45.96	0.020	0.027	0.020				
0.0521	0.08114	0.78571	0.17681	615.8	45.96	45.96	0.020	0.033	0.020				
0.0622	0.09686	0.80133	0.18615	703.1	45.96	45.96	0.020	0.038	0.023				
0.0667	0.10401	0.82036	0.20093	853.2	45.96	45.96	0.020	0.046	0.028				
0.0855	0.13321	0.83946	0.21266	1001.9	45.96	45.96	0.020	0.054	0.033				
0.1018	0.15862	0.84653	0.21729	1065.7	45.96	45.96	0.020	0.057	0.035				
0.1180	0.18387	0.86355	0.23348	1293.7	45.96	45.96	0.020	0.070	0.042				
0.1371	0.21363	0.86774	0.23711	1351.6	45.96	45.96	0.020	0.073	0.044				
0.1468	0.22874	0.87580	0.24661	1503.0	45.96	45.96	0.020	0.082	0.049				
0.1634	0.25461	0.87580	0.24661	1503.0	45.96	45.96	0.020	0.082	0.049				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DLTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.1801	0.28063	0.88402	0.25818	1699.9	45.96	0.020	5.157	0.092	0.055
0.2134	0.33252	0.89447	0.27349	1991.0	45.96	0.020	5.157	0.108	0.065
0.2638	0.41105	0.89444	0.27500	2016.4	45.96	0.020	5.157	0.110	0.066
0.3191	0.49099	0.91267	0.30311	2660.0	45.96	0.020	5.157	0.145	0.087
0.3644	0.56781	0.93438	0.34271	3810.2	45.96	0.020	5.157	0.207	0.124
0.4165	0.64899	0.95574	0.39345	5753.8	45.96	0.020	5.157	0.313	0.188
0.4596	0.71615	0.97322	0.45918	9129.2	45.96	0.020	5.157	0.496	0.297
0.5148	0.80216	0.98625	0.54419	15194.9	45.96	0.020	5.157	0.826	0.495
0.5908	0.92058	0.99832	0.65391	26726.4	45.96	0.020	5.157	1.453	0.871
0.6418	1.00000	1.00000	0.67592	29152.5	45.96	0.020	5.157	0.950	0.950
0.6740	1.05023	1.00049	0.68386	30686.8	45.96	0.020	5.157	1.668	1.000
0.7587	1.18220	0.99969	0.68256	30443.2	45.96	0.020	5.157	1.655	0.992
0.8421	1.31216	0.99897	0.67937	29960.6	45.96	0.020	5.157	1.629	0.976

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLFD MEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TTD GEN. CYL. TTD  
 8. 5. 9. 30. 306. 9. 29.00 18456.48 644.00 570.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	YI/TIO	RSR	RS DELTA	RTMETHA R	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	570.00	570.00	0.	0.8851				420.18	0.854	0.36973	0.115
0.0100	1.36	599.58	437.26	1396.4	0.9310							
0.0179	1.51	611.23	419.39	1518.1	0.9491							
0.0269	1.82	615.35	370.26	1716.0	0.9555							
0.0352	1.89	620.62	362.41	1761.3	0.9637							
0.0437	2.15	625.88	325.86	1898.5	0.9719							
0.0519	2.30	632.05	307.01	1976.1	0.9814							
0.0599	2.41	641.14	297.03	2033.2	0.9956							
0.0670	2.66	645.02	291.77	2060.1	1.0016							
0.0842	2.64	649.36	271.26	2131.3	1.0093							
0.1025	2.72	653.15	263.30	2164.2	1.0142							
0.1191	2.81	654.51	254.00	2193.6	1.0163							
0.1345	2.85	654.41	249.78	2204.8	1.0162							
0.1502	2.88	654.48	245.86	2215.7	1.0163							
0.1855	2.91	653.06	242.17	2221.8	1.0141							
0.2192	2.92	651.76	240.83	2221.9	1.0121							
0.2545	2.94	650.77	238.07	2226.7	1.0105							
0.2845	2.98	650.57	234.11	2236.8	1.0102							
0.3187	3.04	650.79	228.82	2251.6	1.0105							
0.3516	3.12	650.99	220.54	2274.1	1.0109							
0.4051	3.33	652.49	202.99	2323.8	1.0132							
0.4536	3.47	652.23	191.14	2353.6	1.0128							
0.5189	3.82	647.64	164.99	2408.0	1.0057							
0.5799	4.03	643.39	151.25	2431.6	0.9990							
0.6617	4.20	639.37	141.17	2446.5	0.9928							
0.7471	4.27	637.01	137.32	2450.1	0.9892							
0.8243	4.29	636.04	135.77	2451.6	0.9876							
0.9063	4.30	635.97	135.41	2452.3	0.9875							

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTMETHA R	RTMETHA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.6964	0.2228	7.41	3798559.	27765112.	2777.	20298.	420.18	0.854	0.36973	0.115

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX,
-0.0209	-0.062	0.2848	0.2507	0.00220	0.02785	0.02470	10.15	4.24	18693.4

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	H PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	103.1	103.13	0.006	0.006	0.006	0.006
0.0100	0.01436	0.57011	0.19191	311.4	103.13	0.017	0.017	0.017	0.017
0.0179	0.02565	0.61978	0.21752	385.4	103.13	0.021	0.021	0.021	0.021
0.0269	0.03864	0.70055	0.27849	610.3	103.13	0.033	0.033	0.033	0.033
0.0352	0.05049	0.71905	0.29204	677.8	103.13	0.037	0.037	0.037	0.037
0.0437	0.06272	0.77509	0.34993	1012.3	103.08	0.050	0.050	0.050	0.050
0.0519	0.07458	0.80676	0.38641	1290.0	103.03	0.055	0.055	0.055	0.055
0.0599	0.08607	0.83009	0.41064	1521.2	102.96	0.069	0.069	0.069	0.069
0.0670	0.09624	0.84104	0.42301	1651.8	102.82	0.081	0.081	0.081	0.081
0.0842	0.12089	0.87013	0.47003	2179.3	102.67	0.088	0.088	0.088	0.088
0.1025	0.14719	0.88354	0.49096	2464.8	102.51	0.117	0.117	0.117	0.117
0.1191	0.17102	0.89553	0.51454	2808.7	102.26	0.132	0.132	0.132	0.132
0.1345	0.19314	0.90012	0.52458	2968.9	102.00	0.150	0.150	0.150	0.150
0.1502	0.21568	0.90456	0.53450	3133.1	101.79	0.161	0.161	0.161	0.161

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(Delta)	RHO * U	PTI	PI.	RHO U PRIME.	M PRIME	PTI/PTE.	PTI/PTIMAX
0.1855	0.26637	0.90706	0.54027	3254.8	101.07	0.049	4.110	0.176	0.174
0.2192	0.31476	0.90711	0.53889	3268.9	100.25	0.049	4.117	0.177	0.175
0.2545	0.36545	0.90906	0.54181	3357.4	99.42	0.048	4.123	0.182	0.180
0.2845	0.40853	0.91319	0.54888	3527.0	98.59	0.048	4.129	0.191	0.189
0.3187	0.45764	0.91921	0.55936	3785.4	97.56	0.048	4.137	0.205	0.202
0.3516	0.50488	0.92841	0.57998	4265.9	96.53	0.047	4.145	0.231	0.228
0.4031	0.58171	0.94872	0.63289	5649.6	94.88	0.047	4.159	0.306	0.302
0.4536	0.65135	0.96087	0.66963	6850.0	93.34	0.046	4.171	0.371	0.366
0.5189	0.74512	0.98308	0.77660	10962.9	91.32	0.046	4.188	0.593	0.585
0.5799	0.83272	0.99270	0.83902	14219.4	89.57	0.045	4.203	0.770	0.761
0.6617	0.95018	0.99879	0.88362	17301.5	87.51	0.044	4.221	0.937	0.926
0.6964	1.00000	1.00000	0.89145	17758.8	86.73				0.950
0.7471	1.07281	1.00029	0.89100	18626.9	85.70	0.044	4.237	0.998	0.986
0.8243	1.18367	1.00087	0.88379	18693.4	84.00	0.043	4.252	1.013	1.000
0.9063	1.30141	1.00116	0.86732	18453.5	82.20	0.043	4.269	1.000	0.987

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TT0 TT10  
 8. 5. 10. 1. 306. 46. 33.00 18420.48 644.50 569.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	569.00	569.00	0.	0.9829
0.0100	1.49	602.42	418.01	1488.4	0.9347
0.0172	1.63	615.48	401.27	1604.2	0.9550
0.0253	1.79	626.88	381.90	1715.6	0.9727
0.0341	2.08	636.19	341.10	1882.9	0.9871
0.0501	2.27	648.51	318.76	1990.4	1.0062
0.0671	2.41	656.86	303.37	2060.8	1.0192
0.0835	2.45	660.86	300.02	2082.1	1.0254
0.1000	2.52	661.78	291.01	2110.5	1.0268
0.1176	2.54	661.65	289.10	2115.6	1.0266
0.1354	2.55	660.51	286.74	2119.1	1.0248
0.1689	2.57	658.23	283.19	2122.6	1.0213
0.2012	2.62	654.67	275.78	2133.5	1.0158
0.2369	2.67	653.77	269.36	2149.0	1.0144
0.2681	2.74	653.98	261.90	2170.3	1.0147
0.3015	2.83	654.79	251.91	2200.0	1.0160
0.3377	2.94	655.33	240.33	2232.9	1.0168
0.4026	3.10	657.25	216.46	2301.2	1.0198
0.4696	3.50	655.76	190.41	2364.5	1.0175
0.5368	3.75	647.70	170.19	2395.2	1.0050
0.6039	3.91	641.79	158.37	2409.9	0.9958
0.6874	4.00	638.57	151.81	2418.2	0.9908
0.7954	4.04	637.32	149.42	2421.0	0.9889
0.8222	4.07	636.85	147.50	2424.7	0.9881

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.6335 0.1019 5.55 6342673. 34634436. 4595. 25092. 426.14 0.846 0.37523 0.131

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), DELTA STAR(W 2), THETA STAR(W 1), THETA STAR(W 2), THETA(W), H(W), MIE), PTIMAX,  
 -0.0484 -0.085 0.2668 0.2216 0.00367 0.02909 0.02448 9.05 3.95 18546.0

Y	Y/DELTA	L/U(DELTA)	RHO * U	PT1	PI1	RHO U PRIME	M PRIME	PT1/PTE	PT1/PTIMAX
0.	0.	0.	0.	163.0	163.01	0.068	3.750	0.009	0.009
0.0100	0.01579	0.61655	0.33786	585.1	162.84	0.068	3.751	0.032	0.032
0.0172	0.02715	0.66451	0.37895	727.1	162.68	0.068	3.751	0.039	0.039
0.0253	0.03999	0.71062	0.42538	920.9	162.52	0.068	3.752	0.050	0.050
0.0341	0.05384	0.77993	0.52192	1437.9	162.27	0.067	3.754	0.078	0.078
0.0501	0.07910	0.82445	0.58919	1945.1	161.95	0.067	3.756	0.105	0.105
0.0671	0.10600	0.85362	0.63937	2412.9	161.54	0.067	3.758	0.131	0.130
0.0835	0.13186	0.86244	0.65121	2554.5	161.05	0.067	3.760	0.139	0.138
0.1000	0.15786	0.87423	0.67848	2847.3	160.56	0.067	3.763	0.155	0.154
0.1176	0.18564	0.87633	0.68184	2900.1	159.91	0.067	3.766	0.157	0.156
0.1354	0.21374	0.87777	0.68578	2954.6	159.26	0.066	3.772	0.160	0.159
0.1689	0.24662	0.87925	0.68984	3023.9	157.95	0.066	3.780	0.164	0.163
0.2012	0.31761	0.88376	0.70467	3222.2	156.32	0.066	3.789	0.175	0.174
0.2369	0.37396	0.89017	0.71760	3438.7	154.37	0.065	3.798	0.187	0.185
0.2681	0.42321	0.89901	0.73631	3751.9	152.49	0.064	3.807	0.204	0.202
0.3015	0.47594	0.91130	0.76602	4262.4	150.54	0.064	3.819	0.231	0.230
0.3377	0.53308	0.92491	0.80170	4958.3	148.09	0.062	3.841	0.269	0.267
0.4026	0.63553	0.95321	0.89059	7013.4	143.77	0.062		0.381	0.378

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLING HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.4696	0.74129	0.97944	1.00311	10509.9	138.64	0.061	3.868	0.571	0.567
0.5368	0.84737	0.99213	1.09474	14355.9	133.50	0.059	3.896	0.779	0.774
0.6039	0.95329	0.99825	1.13532	17156.2	128.04	0.058	3.927	0.931	0.925
0.6335	1.00000	1.00000	1.13883	17618.7	125.57				0.950
0.6874	1.08510	1.00169	1.12259	18461.5	120.95	0.056	3.969	1.002	0.995
0.7554	1.19245	1.00285	1.09263	18546.0	115.74	0.054	4.002	1.007	1.000
0.8222	1.29789	1.00435	1.05853	18482.3	110.52	0.052	4.037	1.003	0.997

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X PTE TTD TW GEN. CYL.  
 8. 5. 10. 1. 306. 47. 34.50 18408.46 644.00 570.00 570.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	570.00	570.00	0.	0.8851
0.0100	1.52	613.90	420.18	1525.5	0.9533
0.0168	1.70	630.33	398.85	1667.6	0.9788
0.0251	1.88	644.41	377.67	1790.1	1.0066
0.0329	2.06	652.38	353.12	1896.1	1.0130
0.0514	2.21	656.10	332.15	1972.8	1.0188
0.0666	2.28	657.15	322.21	2006.0	1.0204
0.0841	2.31	656.20	317.17	2016.2	1.0189
0.1007	2.36	655.19	310.59	2034.7	1.0174
0.1174	2.35	653.28	310.40	2029.6	1.0144
0.1337	2.37	652.25	306.94	2036.8	1.0128
0.1504	2.37	650.02	305.88	2033.3	1.0094
0.1847	2.40	648.31	301.39	2041.5	1.0067
0.2178	2.46	647.63	292.83	2064.6	1.0056
0.2514	2.54	648.95	282.92	2097.0	1.0077
0.2674	2.60	649.64	275.63	2119.7	1.0088
0.3018	2.68	650.17	266.58	2146.7	1.0096
0.3357	2.81	651.15	252.96	2187.2	1.0111
0.4032	3.11	649.59	221.69	2267.3	1.0087
0.4699	3.42	645.92	193.56	2331.2	1.0030
0.5364	3.65	640.87	174.90	2366.0	0.9951
0.6033	3.80	638.05	164.27	2385.8	0.9908
0.6709	3.89	637.94	158.71	2399.5	0.9906
0.7399	3.96	637.67	154.39	2409.6	0.9902
0.8039	4.01	637.16	151.38	2415.8	0.9894
0.8722	4.04	637.53	149.68	2420.9	0.9900

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.6293 0.1297 3.04 9139047. 37749619. 8323. 34377. 428.90 0.846 0.39718 0.115

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.0192 -0.141 0.2709 0.1992 0.00711 0.03550 0.02676 7.44 3.83 18603.1

Y	V/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	231.8	231.84	0.085	3.501	0.013	0.012
0.0100	0.01589	0.63790	0.48946	872.2	231.38	0.085	3.502	0.047	0.047
0.0168	0.02671	0.69731	0.56310	1146.9	231.14	0.085	3.503	0.062	0.062
0.0251	0.03984	0.74854	0.63709	1496.9	230.68	0.085	3.505	0.081	0.080
0.0329	0.05234	0.79285	0.72026	1973.0	230.22	0.085	3.507	0.107	0.106
0.0514	0.08171	0.82492	0.79430	2486.2	229.52	0.084	3.510	0.135	0.134
0.0666	0.10586	0.83879	0.82920	2769.5	228.59	0.084	3.511	0.150	0.149
0.0841	0.13357	0.84389	0.84320	2896.9	227.44	0.084	3.517	0.157	0.156
0.1007	0.16002	0.85080	0.86369	3085.0	226.28	0.084	3.520	0.168	0.166
0.1174	0.18655	0.84868	0.85766	3044.6	225.12	0.084	3.525	0.165	0.164
0.1337	0.21245	0.85169	0.86502	3129.6	223.73	0.083	3.529	0.170	0.168
0.1504	0.23899	0.85024	0.86072	3108.9	222.22	0.083	3.541	0.169	0.167
0.1847	0.29350	0.85366	0.86285	3191.3	218.63	0.082	3.555	0.172	0.173
0.2178	0.34609	0.86329	0.88095	3449.7	214.45	0.081	3.570	0.187	0.185
0.2514	0.39948	0.87687	0.90665	3837.3	209.93	0.080	3.577	0.208	0.206
0.2674	0.42491	0.88636	0.93081	4175.3	207.73	0.079	3.577	0.227	0.224

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(U(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.3018	0.47957	0.89765	4585.9	702.40	0.078	3.596	0.249	0.247
0.3357	0.53344	0.91457	5389.8	196.95	0.077	3.615	0.293	0.290
0.4032	0.64070	0.94809	7948.1	184.54	0.073	3.662	0.432	0.427
0.4699	0.74669	1.09976	11724.9	172.72	0.070	3.710	0.637	0.630
0.5364	0.85236	1.27095	15184.5	161.24	0.067	3.759	0.825	0.816
0.6033	0.95867	1.27135	17351.5	150.23	0.064	3.811	0.943	0.933
0.6293	1.00000	1.00000	17672.9	146.07				0.950
0.6709	1.06609	1.00334	18186.9	139.68	0.061	3.864	0.988	0.978
0.7399	1.17573	1.00756	18590.5	129.83	0.058	3.919	1.010	0.999
0.8039	1.27743	1.01017	18603.1	121.60	0.056	3.967	1.011	1.000
0.8722	1.38596	1.01231	18186.2	114.07	0.053	4.015	0.988	0.978

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TTD TW (GEN. CYL. 574.00 12.00  
 8. 5. 10. 1. 306. 48. 36.00 18480.96 645.00 574.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	574.00	574.00	0.	0.8899	
0.0100	1.43	624.69	442.49	1479.5	0.9685
0.0165	1.60	641.74	423.68	1618.5	0.9949
0.0249	1.74	656.89	409.08	1725.4	1.0184
0.0338	1.78	666.97	408.32	1762.8	1.0341
0.0502	1.81	665.70	402.71	1777.5	1.0321
0.0665	1.81	661.13	399.77	1772.0	1.0250
0.0837	1.81	657.09	397.03	1767.6	1.0187
0.1008	1.81	653.01	395.01	1760.6	1.0124
0.1176	1.83	650.34	388.80	1772.6	1.0083
0.1339	1.85	648.65	384.59	1781.1	1.0057
0.2026	2.07	645.65	348.15	1890.5	1.0010
0.2684	2.43	642.62	294.04	2046.4	0.9963
0.3353	2.88	639.60	240.98	2188.3	0.9916
0.4027	3.30	638.27	200.81	2292.5	0.9896
0.4699	3.60	638.41	178.01	2351.8	0.9898
0.5375	3.72	639.34	169.53	2375.8	0.9912
0.6038	3.85	641.24	161.71	2400.2	0.9942
0.6713	3.97	642.20	154.89	2419.6	0.9957

DELTA DELTA STAR H RSR RS DELTA RTHEA R RTHEA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4670 -0.0404 -0.51 26979288. 44700863. 44038. 72964. 436.95 0.848 0.41454 0.091

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA PRIME, THETA(2), THETA(W), THETA(M), M(E), PTIMAX,  
 -0.0009 -0.334 0.2939 0.1351 0.02657 0.05251 0.02634 5.13 3.59 18780.4

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	695.7	695.66			0.038	0.037
0.0100	0.02142	0.62953	1.35188	2319.9	693.92	0.171	2.765	0.126	0.124
0.0165	0.03544	0.68869	1.54148	2961.7	692.53	0.171	2.766	0.160	0.158
0.0249	0.05341	0.73418	1.69768	3624.4	690.79	0.171	2.768	0.196	0.193
0.0338	0.07249	0.75006	1.73327	3838.1	689.06	0.170	2.769	0.208	0.204
0.0502	0.10759	0.75633	1.76045	3975.4	684.53	0.170	2.774	0.215	0.212
0.0665	0.14239	0.75398	1.75351	3949.1	678.97	0.169	2.779	0.214	0.210
0.0837	0.17916	0.75211	1.74320	3919.0	672.01	0.168	2.786	0.212	0.209
0.1008	0.21587	0.74913	1.72173	3851.3	662.97	0.166	2.795	0.208	0.205
0.1176	0.25184	0.75424	1.73158	3945.4	651.84	0.164	2.806	0.213	0.210
0.1339	0.28675	0.75786	1.72324	3978.9	638.62	0.162	2.819	0.215	0.212
0.2026	0.43387	0.80443	1.75647	4821.9	555.14	0.149	2.911	0.261	0.257
0.2684	0.57478	0.87074	1.80539	6870.3	445.22	0.129	3.058	0.372	0.366
0.3353	0.71805	0.93115	1.79257	10319.7	338.79	0.108	3.243	0.558	0.549
0.4027	0.86239	0.97547	1.70292	14656.6	256.00	0.090	3.437	0.793	0.780
0.4670	1.00000	1.00000	1.59088	17841.4	207.43				0.950
0.4699	1.00630	1.00071	1.58513	17987.2	205.92	0.073	3.590	0.973	0.958
0.5375	1.15107	1.01089	1.43146	18260.7	175.31	0.070	3.706	0.988	0.972
0.6038	1.29305	1.02130	1.29955	18659.3	150.26	0.064	3.818	1.010	0.994
0.6713	1.43760	1.02955	1.17777	18780.4	129.39	0.058	3.928	1.016	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE ITO TW GEN. CYL.  
 8. 5. 10. 1. 306. 35. 18.75 4923.22 645.50 427.50 12.00

Y MACH TOT.TEMP. STAT.TEMP. VELOCITY TT/TT0

0.	0.	427.50	427.50	0.	0.6623
0.0100	0.55	477.22	450.00	571.8	0.7393
0.0209	0.97	531.94	448.31	1002.4	0.8241
0.0366	0.96	546.19	461.35	1009.6	0.8462
0.0531	1.21	569.95	440.05	1249.2	0.8830
0.0696	2.11	586.59	309.80	1823.6	0.9087
0.0872	2.45	594.63	270.49	1973.4	0.9212
0.1038	2.57	601.13	258.44	2029.0	0.9313
0.1205	2.74	607.76	243.36	2092.3	0.9415
0.1364	2.82	613.96	236.93	2128.3	0.9511
0.1702	3.04	623.45	218.79	2204.9	0.9658
0.2039	3.24	632.80	204.36	2268.7	0.9803
0.2377	3.63	640.26	190.74	2323.9	0.9919
0.2728	3.72	650.08	172.83	2371.9	1.0013
0.3054	3.87	652.65	163.16	2425.0	1.0111
0.4048	4.17	651.33	145.41	2465.4	1.0090
0.4744	4.41	646.69	132.32	2485.9	1.0018
0.5397	4.53	642.55	125.71	2491.8	0.9954
0.6069	4.58	640.85	123.34	2493.4	0.9928
0.6736	4.59	640.80	122.81	2494.6	0.9927
0.7426	4.60	640.83	122.29	2495.9	0.9928
0.8089	4.60	640.87	122.51	2495.5	0.9928
0.8754	4.59	640.90	122.74	2495.0	0.9929

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.5653 0.2151 10.26 632808. 4854107. 431. 3308. 351.23 0.582 0.37700 1.289

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA PRIME, THETA(2), THETA(W), M(W), M(E), PTIMAX,  
 0.0109 -0.013 0.2280 0.2220 0.00038 0.02059 0.02008 11.06 4.56 5126.9

Y Y/DELTA U/(DELTA) RHO \* U PTL P1, RHO U PRIME, M PRIME PTL/PTE, PTL/PTIMAX

0.	0.	0.01769	0.22938	0.01201	16.2	16.21	0.003	0.003	0.003
0.0100	0.01769	0.22938	0.40207	0.02112	19.9	16.21	0.034	0.004	0.004
0.0289	0.05107	0.40207	0.40497	0.02067	29.5	16.21	0.034	0.006	0.006
0.0366	0.06476	0.40497	0.50110	0.02682	29.3	16.21	0.034	0.006	0.006
0.0531	0.09396	0.50110	0.73148	0.05561	40.1	16.21	0.034	0.008	0.008
0.0696	0.12318	0.73148	0.79156	0.06892	151.5	16.21	0.034	0.031	0.030
0.0872	0.15425	0.79156	0.81390	0.07417	255.4	16.21	0.034	0.052	0.050
0.1038	0.18361	0.81390	0.83928	0.08123	399.1	16.21	0.034	0.063	0.061
0.1205	0.21315	0.83928	0.85370	0.08486	454.2	16.21	0.034	0.081	0.078
0.1364	0.24127	0.85370	0.88443	0.09507	632.4	16.19	0.034	0.092	0.089
0.1702	0.30106	0.88443	0.91005	0.10457	844.5	16.17	0.034	0.128	0.123
0.2039	0.36067	0.91005	0.93217	0.11456	1118.3	16.14	0.034	0.172	0.165
0.2377	0.42046	0.93217	0.95144	0.12506	1469.0	16.11	0.034	0.227	0.218
0.2728	0.48255	0.95144	0.96049	0.12978	1659.3	16.08	0.034	0.298	0.287
0.3054	0.54021	0.96049	0.97273	0.13894	2053.8	16.04	0.034	0.337	0.324
0.3377	0.59735	0.97273	0.98892	0.15777	3037.7	15.97	0.034	0.417	0.401
0.4048	0.71604	0.98892	0.99715	0.17394	4101.2	15.89	0.034	0.542	0.529
0.4744	0.83915	0.99715	0.99715	0.17394	4101.2	15.89	0.034	0.617	0.600

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PT1	PI.	RHO U PRIME, M PRIME	PT1/PIE,	PT1/PT1MAX
0.5397	0.95466	0.99954	0.18260	4773.5	15.81	0.033	0.970
0.5653	1.00000	1.00000	0.18436	4870.6	15.78	0.033	0.950
0.6069	1.07353	1.00018	0.18525	5028.1	15.73	0.033	1.021
0.6736	1.19151	1.00065	0.18518	5077.2	15.95	0.033	1.031
0.7426	1.31357	1.00118	0.18510	5126.9	15.57	0.033	1.041
0.8089	1.43084	1.00099	0.18377	5069.1	15.48	0.033	1.030
0.8754	1.54947	1.00091	0.18244	5011.2	15.40	0.033	1.018

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TT/D TTD TM GEN. CYL. CT  
 B. 5. 10. 1.306. 34. 29.00 4924.37 645.50 424.00 12.00 1.165

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	424.00	424.00	0.	0.6569
0.0100	1.20	537.04	417.07	1200.6	0.8320
0.0176	1.78	566.36	346.05	1626.9	0.8774
0.0249	2.18	584.02	299.50	1848.8	0.9047
0.0341	2.25	596.75	296.11	1900.5	0.9245
0.0496	2.46	605.44	274.04	1995.3	0.9379
0.0666	2.57	614.08	264.00	2050.8	0.9513
0.0839	2.74	621.13	248.15	2116.8	0.9622
0.1008	2.83	628.68	241.52	2156.7	0.9739
0.1181	2.94	632.15	231.56	2193.8	0.9793
0.1339	3.02	636.20	225.15	2222.2	0.9856
0.1678	3.20	643.00	211.27	2277.4	0.9961
0.2015	3.34	647.42	200.29	2317.7	1.0030
0.2345	3.49	650.23	189.40	2352.9	1.0073
0.2686	3.62	651.64	179.64	2380.8	1.0092
0.3028	3.76	651.64	170.07	2405.3	1.0095
0.3349	3.87	650.69	162.73	2421.2	1.0080
0.4022	4.05	646.28	150.79	2439.8	1.0012
0.4706	4.15	643.00	144.65	2446.9	0.9961
0.5361	4.19	641.65	142.15	2449.7	0.9940
0.6044	4.21	640.70	141.13	2449.9	0.9926
0.6784	4.23	640.56	140.03	2452.2	0.9923
0.7387	4.24	640.65	139.57	2453.6	0.9925
0.7882	4.26	640.77	138.41	2456.7	0.9927
0.8717	4.33	641.04	135.14	2465.3	0.9931

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5280 0.1292 7.25 1347257. 7527602. 584. 3266. 356.45 0.560 0.49100 1.165

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), DELTA STAR(2), THETA(W), H(W), MIEI, PTIMAX,  
 0.0070 -0.022 0.1513 0.1423 0.00089 0.01694 0.01599 8.90 4.19 5058.5

Y	Y/DELTA	U/(U DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	27.0	27.03	0.049	4.119	0.005	0.005
0.0100	0.01894	0.49012	0.04533	65.5	27.03	0.049	4.119	0.013	0.013
0.0176	0.03331	0.66417	0.07404	151.6	27.03	0.049	4.119	0.031	0.031
0.0249	0.04723	0.75476	0.09722	279.9	27.03	0.049	4.119	0.057	0.055
0.0341	0.06460	0.77586	0.10103	313.9	27.02	0.049	4.120	0.064	0.062
0.0496	0.09390	0.81458	0.11450	432.6	26.99	0.048	4.120	0.088	0.086
0.0666	0.12617	0.83723	0.12197	517.3	26.95	0.048	4.122	0.105	0.102
0.0839	0.15893	0.86418	0.13374	667.6	26.91	0.048	4.123	0.136	0.132
0.1008	0.19090	0.88044	0.13978	764.5	26.87	0.048	4.124	0.155	0.151
0.1181	0.22367	0.89559	0.14808	901.8	26.83	0.048	4.125	0.183	0.178
0.1339	0.25359	0.90720	0.15396	1015.3	26.77	0.048	4.127	0.206	0.201
0.1678	0.31779	0.92974	0.16739	1310.7	26.65	0.048	4.130	0.266	0.259
0.2015	0.38162	0.94618	0.17878	1610.1	26.52	0.048	4.134	0.327	0.318
0.2345	0.44412	0.96056	0.19085	1976.8	26.37	0.048	4.138	0.391	0.371
0.2686	0.50870	0.97196	0.20247	2381.4	26.22	0.048	4.143	0.484	0.471
0.3028	0.57347	0.98195	0.21483	2870.7	26.07	0.047	4.147	0.583	0.568
0.3349	0.63426	0.98843	0.22459	3311.7	25.91	0.047	4.152	0.673	0.655

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	L/Delta	RHO	U	PTI	PI	RHO U PRIME	W PRIME	PTI/PIE	PTI/PTIMAX
0.4022	0.76172	1.99603	0.24067	460.8	25.53	0.047	4.163	0.845	0.823	
0.4706	0.89126	0.99891	0.24767	4650.4	25.11	0.045	4.176	0.944	0.919	
0.5280	1.00000	1.00000	0.24830	4505.6	24.75				0.950	
0.5361	1.01531	1.00000	0.24805	4827.4	24.70	0.046	4.188	0.980	0.954	
0.6044	1.14466	1.00000	0.24564	4841.8	24.74	0.045	4.201	0.983	0.957	
0.6704	1.26966	1.00100	0.24338	4883.3	24.85	0.045	4.215	0.992	0.965	
0.7387	1.39901	1.00100	0.23976	4850.8	24.41	0.044	4.230	0.985	0.959	
0.7882	1.49275	1.00200	0.23677	4887.9	22.49	0.043	4.247	0.993	0.966	
0.8717	1.65090	1.00645	0.23129	5058.5	21.76	0.042	4.284	1.027	1.000	

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A GULLET HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTC TTD TTT  
 8. 5. 10. 1. 306. 158. 33.00 4942.66 632.00 421.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.0100	0.131	421.00	421.00	0.	0.6661	895.	9780437.	895.	3805.	360.32	0.554	0.52047	1.041
0.0177	1.50	504.96	420.68	1316.6	0.8939								
0.0264	2.09	608.13	407.78	1481.8	0.9344								
0.0354	2.21	612.52	324.23	1846.8	0.9622								
0.0512	2.44	619.01	309.40	1908.3	0.9692								
0.0688	2.59	626.98	282.23	2011.5	0.9795								
0.0850	2.73	632.77	268.05	2076.6	0.9921								
0.1018	2.81	637.03	254.57	2131.6	1.0012								
0.1193	2.92	640.12	236.75	2201.4	1.0129								
0.1354	2.98	641.99	230.78	2222.6	1.0158								
0.1542	3.07	644.20	223.43	2248.3	1.0193								
0.1700	3.13	644.96	217.98	2264.9	1.0205								
0.2036	3.26	645.93	207.01	2296.3	1.0220								
0.2368	3.38	647.43	196.73	2326.9	1.0244								
0.2711	3.49	646.03	187.69	2346.6	1.0222								
0.3064	3.59	643.84	179.69	2361.4	1.0187								
0.3386	3.67	641.90	174.00	2370.9	1.0157								
0.3698	3.73	639.81	169.00	2378.3	1.0124								
0.4049	3.80	637.77	164.30	2385.0	1.0091								
0.4381	3.84	636.70	161.10	2390.4	1.0074								
0.5044	3.91	635.74	156.86	2398.6	1.0059								
0.5743	3.93	635.93	155.25	2403.1	1.0062								
0.6390	3.97	636.22	153.43	2408.4	1.0067								
0.7072	4.03	636.58	149.68	2418.6	1.0072								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.4679	0.0938	5.33	229770.	9780437.	895.	3805.	360.32	0.554	0.52047	1.041			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(M),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),	DELTA STAR(2),
-0.0129	-0.033	0.1268	0.1140	0.00169	0.01590	0.01442	7.91	3.88	5050.3				
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.0100	0.02137	0.54984	0.07977	43.8	43.79	0.067	3.760	0.009	0.009				
0.0177	0.03790	0.61887	0.09249	122.8	43.75	0.067	3.761	0.025	0.024				
0.0264	0.05638	0.77129	0.14475	394.1	43.68	0.067	3.762	0.032	0.032				
0.0354	0.07573	0.79698	0.15651	475.5	43.62	0.067	3.763	0.080	0.078				
0.0512	0.10935	0.84006	0.18045	679.0	43.55	0.067	3.763	0.096	0.094				
0.0688	0.14716	0.86724	0.19568	848.5	43.45	0.067	3.765	0.137	0.134				
0.0850	0.18161	0.89021	0.21097	1047.0	43.35	0.067	3.766	0.172	0.168				
0.1018	0.21759	0.90448	0.22049	1193.8	43.24	0.066	3.771	0.212	0.207				
0.1193	0.25499	0.91937	0.23250	1394.8	43.09	0.066	3.774	0.242	0.236				
0.1354	0.28940	0.92825	0.23984	1534.5	42.74	0.066	3.777	0.282	0.276				
0.1542	0.32959	0.93898	0.24949	1731.7	42.55	0.066	3.780	0.310	0.304				
0.1700	0.36336	0.94588	0.25649	1887.7	42.37	0.066	3.783	0.350	0.343				
0.2036	0.43517	0.95903	0.27115	2251.4	41.95	0.065	3.790	0.382	0.374				
0.2368	0.50614	0.97180	0.28594	2682.6	41.49	0.065	3.798	0.456	0.446				
0.2711	0.57945	0.98000	0.29843	3099.3	40.97	0.064	3.808	0.543	0.531				
0.3064	0.65490	0.98619	0.30948	3519.1	40.42	0.064	3.818	0.627	0.614				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PI	PI,	RHO U PRIME, P	PRIME	PTI/PIE,	PTI/PTIMAX
0.3386	0.72372	0.99018	0.31673	3847.2	39.89	0.063	3.827	0.778	0.762
0.3698	0.79041	0.99325	0.32279	4156.1	39.37	0.063	3.837	0.841	0.823
0.4049	0.86543	0.99606	0.32773	4466.3	38.75	0.062	3.948	0.904	0.884
0.4381	0.93639	0.99829	0.32974	4680.9	38.14	0.061	3.860	0.947	0.927
0.4679	1.00000	1.00000	0.33003	4797.8	37.59				0.950
0.5044	1.07810	1.00172	0.32850	4941.3	36.97	0.060	3.385	1.000	0.978
0.5743	1.22751	1.00361	0.31990	4934.0	35.47	0.058	3.914	0.998	0.977
0.6390	1.36580	1.00581	0.30878	4901.8	33.76	0.056	3.950	0.992	0.971
0.7072	1.51157	1.01008	0.29973	5050.3	31.84	0.054	3.994	1.022	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TTT  
 8. 5. 10. 1. 306. 159. 34.50 4890.38 636.50 419.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	419.00	419.00	0.	0.6593
0.0100	1.47	579.95	405.55	1447.5	0.9112
0.0181	1.62	611.04	401.02	1588.4	0.9600
0.0297	2.02	620.97	341.89	1831.1	0.9756
0.0367	2.28	625.94	306.73	1958.3	0.9834
0.0434	2.38	630.06	295.79	2004.0	0.9899
0.0517	2.46	633.71	286.78	2041.6	0.9956
0.0698	2.60	639.67	272.04	2101.6	1.0050
0.0851	2.71	643.56	261.18	2143.3	1.0111
0.1038	2.79	647.08	252.70	2176.7	1.0166
0.1180	2.86	649.34	246.65	2199.5	1.0202
0.1364	2.93	651.79	239.60	2225.3	1.0240
0.1534	2.99	653.23	234.41	2243.1	1.0263
0.1702	3.05	653.61	228.30	2260.4	1.0269
0.2373	3.26	654.05	209.32	2311.5	1.0276
0.2693	3.37	653.50	199.98	2334.2	1.0267
0.3040	3.46	650.96	191.68	2349.0	1.0227
0.3391	3.54	648.76	184.95	2360.5	1.0193
0.3709	3.60	646.92	179.76	2369.0	1.0164
0.4055	3.66	644.88	175.33	2375.1	1.0132
0.4418	3.71	644.78	171.91	2383.5	1.0130
0.4717	3.75	645.05	169.08	2391.3	1.0134
0.5091	3.79	645.24	166.86	2397.3	1.0137
0.5714	3.83	644.57	164.13	2402.5	1.0127
0.6399	3.89	644.94	160.48	2412.5	1.0133

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS-RECOV. CT  
 0.4266 0.0628 3.40 3131750. 10581986. 1236. 4175. 366.39 0.530 0.54682 1.020

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M ), DELTA STAR(2), THETA(2), THETA(W), H(W), MIE), PTIMAX,  
 -0.0187 -0.046 0.1089 0.0933 0.0282 0.01563 0.01356 6.88 3.69 4936.8

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	59.8	59.80	0.084	3.520	0.012	0.012
0.0100	0.02344	0.60823	0.12425	208.9	59.74	0.084	3.520	0.043	0.042
0.0181	0.04247	0.66746	0.13768	260.5	59.65	0.084	3.521	0.053	0.053
0.0297	0.06952	0.76941	0.18578	480.7	59.53	0.083	3.523	0.098	0.097
0.0367	0.08612	0.82286	0.22113	721.6	59.44	0.083	3.524	0.148	0.146
0.0434	0.10178	0.84205	0.23430	837.2	59.35	0.083	3.525	0.171	0.170
0.0517	0.12114	0.85786	0.24578	950.4	59.25	0.083	3.526	0.194	0.193
0.0698	0.16334	0.88308	0.26563	1176.5	59.01	0.083	3.529	0.241	0.238
0.0851	0.19950	0.90061	0.28108	1380.5	58.79	0.083	3.532	0.282	0.280
0.1038	0.24331	0.91465	0.29355	1571.6	58.49	0.082	3.535	0.321	0.318
0.1180	0.27660	0.92423	0.30234	1722.8	58.19	0.082	3.539	0.352	0.349
0.1364	0.31973	0.93506	0.31262	1918.0	57.77	0.082	3.544	0.392	0.389
0.1534	0.35958	0.94255	0.31987	2072.5	57.37	0.081	3.549	0.424	0.420
0.1702	0.39896	0.94982	0.32861	2261.6	56.96	0.081	3.554	0.458	0.458
0.2373	0.55624	0.97127	0.35400	2966.9	55.02	0.079	3.579	0.607	0.601
0.2693	0.63125	0.98082	0.36645	3399.1	53.88	0.078	3.594	0.695	0.689
0.3040	0.71259	0.98704	0.37557	3796.8	52.60	0.077	3.611	0.776	0.769

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI1	RHO U PRIME,	PRIME	PT1/PTE,	PT1/PT1MAX
0.3391	0.79487	0.99189	0.38069	4138.0	51.19	0.076	3.630	0.846	0.838
0.3709	0.86941	0.99546	0.38253	4404.7	49.82	0.074	3.650	0.901	0.892
0.4055	0.95051	0.99801	0.38046	4600.0	48.20	0.073	3.673	0.941	0.932
0.4266	1.00000	1.00000	0.37804	4689.9	47.26				0.950
0.4418	1.03560	1.00154	0.37587	4754.6	46.53	0.071	3.699	0.972	0.963
0.4717	1.10569	1.00481	0.37060	4877.6	44.97	0.069	3.723	0.997	0.988
0.5091	1.19335	1.00734	0.36345	4936.8	43.42	0.068	3.749	1.009	1.000
0.5714	1.33939	1.00952	0.34735	4888.5	40.73	0.065	3.795	1.000	0.990
0.6399	1.49995	1.01373	0.33000	4902.0	37.68	0.062	3.852	1.002	0.993

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH 5. 10. 1. 326. 160. 36.00 4909.82 640.00 417.00  
 TM GEN. CYL. 12.C0

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/ITO
0.	0.	417.00	417.00	0.	0.6516
0.0100	1.47	598.14	418.37	1469.6	0.9346
0.0198	1.46	618.42	433.15	1491.9	0.9663
0.0285	1.48	618.55	429.60	1506.6	0.9665
0.0352	1.53	618.64	420.92	1541.2	0.9666
0.0445	1.52	619.67	423.27	1536.1	0.9682
0.0607	1.69	639.95	407.62	1670.7	0.9999
0.0779	2.14	649.21	339.16	1930.0	1.0144
0.0939	2.24	650.60	324.78	1978.5	1.0166
0.1126	2.35	653.53	310.40	2030.3	1.0211
0.1285	2.43	654.20	299.62	2063.9	1.0222
0.1478	2.55	655.57	284.43	2111.6	1.0243
0.1628	2.66	656.39	271.78	2149.5	1.0256
0.1779	2.79	656.06	256.91	2189.8	1.0251
0.1946	2.92	654.53	242.27	2225.5	1.0227
0.2121	3.01	652.90	232.35	2247.8	1.0202
0.2299	3.11	651.16	222.20	2270.1	1.0174
0.2466	3.14	649.27	218.27	2275.5	1.0145
0.2625	3.18	648.18	214.83	2281.7	1.0128
0.2792	3.18	647.22	214.25	2280.7	1.0113
0.2957	3.21	646.21	211.16	2286.2	1.0097
0.3145	3.27	645.43	205.86	2298.0	1.0085

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.2286 0.0419 1.85 8275621. 15101238. 3869. 7061. 385.16 0.466 0.44756 0.852

PHI. DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(M ), THETA STAR(21), THETA(M), M(M), MIEI), PTIMAX, MIEI), PTIMAX,  
 -0.0054 -0.049 0.0905 0.0683 0.00404 0.01861 0.01458 4.69 3.10 5066.7

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME, M PRIME	PTI/PTE, PTL/PTIMAX
0.	0.	0.	0.	175.5	175.54	0.164	0.036
0.0100	0.04375	0.64767	0.35855	612.1	175.18	0.164	0.125
0.0198	0.08676	0.65751	0.35087	608.0	174.83	0.164	0.124
0.0285	0.12461	0.66400	0.35601	624.0	174.22	0.164	0.127
0.0352	0.15384	0.67925	0.37020	667.9	173.52	0.163	0.136
0.0445	0.19457	0.67698	0.36487	655.2	172.55	0.163	0.133
0.0607	0.26567	0.73630	0.40621	824.7	170.09	0.161	0.168
0.0779	0.34080	0.85058	0.55408	1621.6	167.11	0.159	0.330
0.0939	0.41080	0.87194	0.58193	1665.3	163.95	0.157	0.380
0.1126	0.49266	0.89480	0.60544	2151.3	158.96	0.154	0.438
0.1285	0.56223	0.90960	0.61717	2365.1	153.77	0.151	0.482
0.1478	0.64668	0.93061	0.63402	2724.6	146.57	0.147	0.538
0.1628	0.71231	0.94734	0.64471	3062.7	139.90	0.142	0.604
0.1779	0.77837	0.96508	0.65471	3508.3	131.83	0.137	0.692
0.1946	0.85144	0.98082	0.66332	4017.1	123.93	0.132	0.818
0.2121	0.92801	0.99062	0.66589	4393.6	118.14	0.128	0.895
0.2286	1.00000	1.00000	0.66995	4813.4	112.88	0.124	0.950
0.2299	1.00589	1.00048	0.66981	4847.8	112.52	0.122	0.957
0.2466	1.07896	1.00285	0.66214	4948.1	109.01	0.120	0.977
0.2625	1.14853	1.00559	0.65721	5066.7	106.20	0.117	1.000
0.2792	1.22160	1.00514	0.63475	4903.4	102.34	0.117	0.999

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLET HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.2957	1.29379	1.00755	0.61900	4919.6	98.12	0.114	3.195	1.002	0.971
0.3145	1.37605	1.01276	0.58801	4933.9	90.40	0.108	3.251	1.005	0.974

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
MODEL MACH MO. DAY TEST RUN X PIE YTD TMD GEN. CYL.  
8. 5. 10. 1. 306. 23. 0. 4932.86 640.50 441.50 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/TD	PIE	YTD	TMD	GEN. CYL.
0.	0.	481.50	481.50	0.	0.7519				
0.0100	1.12	531.12	425.17	1128.2	0.8292				
0.0198	1.11	556.50	446.76	1148.2	0.8689				
0.0281	1.41	574.88	411.73	1400.0	0.8976				
0.0359	1.82	589.82	355.26	1678.7	0.9209				
0.0521	2.03	597.80	327.64	1801.6	0.9333				
0.0700	2.26	600.07	296.41	1910.0	0.9369				
0.0872	2.42	601.60	277.24	1974.0	0.9393				
0.1198	2.69	608.31	248.64	2078.7	0.9497				
0.1541	2.93	617.26	227.44	2164.1	0.9637				
0.1868	3.14	625.32	210.44	2232.5	0.9763				
0.2197	3.35	633.13	195.01	2294.2	0.9885				
0.2558	3.59	639.13	178.99	2351.2	0.9979				
0.2904	3.78	643.08	166.43	2393.0	1.0040				
0.3209	3.97	644.74	155.38	2424.7	1.0066				
0.3555	4.15	644.11	144.78	2449.2	1.0056				
0.3880	4.31	642.20	136.07	2465.9	1.0027				
0.4235	4.47	639.37	127.75	2479.2	0.9982				
0.4553	4.53	637.15	125.01	2480.5	0.9948				
0.4892	4.60	636.22	121.62	2486.4	0.9933				
0.5219	4.69	635.18	117.84	2493.0	0.9917				
0.5574	4.74	634.49	115.32	2497.4	0.9906				
0.5904	4.79	634.48	113.47	2501.9	0.9906				
0.6241	4.81	634.48	112.57	2504.0	0.9906				
0.6589	4.84	634.47	111.68	2506.1	0.9906				
0.6907	4.85	634.47	111.20	2507.3	0.9906				
0.7239	4.86	634.46	110.76	2508.3	0.9906				
0.7578	4.86	634.46	110.76	2508.3	0.9906				
0.7938	4.86	634.46	110.76	2508.3	0.9906				

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
0.6305 0.2426 11.26 152565. 1640163. 274. 2945. 369.85 0.699 0.39365 0.878

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(W ), THETA PRIME, THETA(2), THETA(W), M(W), MIE), PTIMAX,  
0.0221 -0.000 0.2431 0.2429 0.00001 0.02153 0.02152 11.29 4.82 4940.4

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	11.0	10.98	0.027	4.819	0.002	0.002
0.0100	0.01586	0.45046	23.9	10.98	0.027	4.819	0.005	0.005
0.0198	0.03145	0.45847	23.7	10.98	0.027	4.819	0.005	0.005
0.0281	0.04453	0.55901	35.3	10.98	0.027	4.819	0.007	0.007
0.0359	0.05702	0.67028	64.8	10.98	0.027	4.819	0.013	0.013
0.0521	0.08258	0.71935	90.1	10.98	0.027	4.819	0.018	0.018
0.0700	0.11106	0.76264	129.7	10.98	0.027	4.819	0.026	0.026
0.0872	0.13830	0.78820	165.3	10.98	0.027	4.819	0.034	0.033
0.1198	0.19000	0.83000	251.6	10.98	0.027	4.819	0.051	0.051
0.1541	0.24440	0.86409	361.7	10.98	0.027	4.819	0.073	0.073
0.1868	0.29626	0.89142	496.7	10.98	0.027	4.819	0.101	0.101
0.2197	0.34844	0.91605	677.2	10.98	0.027	4.819	0.137	0.137
0.2558	0.40569	0.93878	944.8	10.98	0.027	4.819	0.191	0.191

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/(U/Delta)	RHO * U	PTI	PI.	RHO U PRIME, M	PTI/PIE,	PTI/PTIMAX
0.2904	0.46056	0.95549	0.09201	1245.6	10.98	0.027	0.253	0.252
0.3209	0.50893	0.96814	0.09986	1598.3	10.98	0.027	0.324	0.324
0.3555	0.56381	0.97794	0.10825	2039.7	10.98	0.027	0.413	0.413
0.3880	0.61535	0.98459	0.11597	2508.5	10.98	0.027	0.509	0.508
0.4235	0.67165	0.98994	0.12419	3080.6	10.98	0.027	0.625	0.624
0.4553	0.72209	0.99041	0.12697	3282.6	10.98	0.027	0.665	0.664
0.4892	0.77585	0.99279	0.13083	3595.8	10.98	0.027	0.729	0.728
0.5219	0.82771	0.99543	0.13538	3992.9	10.98	0.027	0.809	0.808
0.5574	0.88401	0.99719	0.13859	4290.8	10.98	0.027	0.870	0.869
0.5904	0.93635	0.99896	0.14110	4540.4	10.98	0.027	0.920	0.919
0.6241	0.98980	0.99984	0.14235	4669.1	10.98	0.027	0.947	0.945
0.6305	1.00000	1.00000	0.14262	4693.4	10.98	0.027	0.973	0.950
0.6589	1.04499	1.00066	0.14361	4800.3	10.98	0.027	0.988	0.972
0.6907	1.09542	1.00112	0.14429	4873.2	10.98	0.027	1.002	0.986
0.7239	1.14808	1.00153	0.14492	4940.4	10.98	0.027	1.002	1.000
0.7578	1.20184	1.00153	0.14492	4940.4	10.98	0.027	1.002	1.000
0.7936	1.25893	1.00153	0.14492	4940.4	10.98	0.027	1.002	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE ITM GEN. CYL.  
 8. 5. 10. 1. 306. 22. 18.75 4932.86 641.00 480.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/T	Y/TT0	RSR	RS DELTA	RTHETA R	RTHETA D	RECUV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	480.00	480.00	0.	0.7488						369.02	0.696	0.35080	0.927
0.0100	1.14	535.79	425.85	1149.3	0.8359									
0.0205	1.13	564.35	449.91	1172.6	0.8804									
0.0276	1.34	580.86	427.20	1358.7	0.9062									
0.0374	1.91	592.20	342.79	1731.0	0.9239									
0.0532	2.31	601.03	290.32	1932.1	0.9376									
0.0694	2.56	603.44	261.56	2026.7	0.9414									
0.0856	2.66	606.97	251.63	2066.2	0.9469									
0.1041	2.83	611.43	234.77	2127.2	0.9539									
0.1205	2.91	616.44	228.98	2157.5	0.9617									
0.1374	3.04	619.30	217.32	2197.6	0.9661									
0.1531	3.11	623.34	212.21	2222.4	0.9725									
0.1717	3.26	627.68	200.54	2265.3	0.9792									
0.2031	3.43	633.90	188.79	2312.4	0.9889									
0.2370	3.62	639.18	176.55	2357.5	0.9972									
0.2703	3.81	643.80	165.06	2398.2	1.0044									
0.3059	3.98	647.25	155.48	2430.6	1.0098									
0.3379	4.16	649.43	145.34	2460.9	1.0132									
0.3713	4.32	650.03	137.17	2482.2	1.0141									
0.4045	4.47	648.93	129.75	2497.5	1.0124									
0.4379	4.62	646.24	122.76	2507.8	1.0082									
0.4710	4.72	642.89	117.82	2511.6	1.0029									
0.5047	4.81	639.65	113.78	2513.5	0.9979									
0.5386	4.87	637.63	111.15	2514.9	0.9947									
0.5726	4.90	636.55	109.63	2516.0	0.9931									
0.6098	4.92	635.31	108.94	2514.7	0.9911									
0.6422	4.92	634.92	108.69	2514.4	0.9905									
0.6739	4.92	635.02	108.71	2514.6	0.9907									
0.7077	4.92	635.02	108.71	2514.6	0.9907									
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECUV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT				
0.5482	0.2156	11.83	505223.	5592836.	299.	3313.	369.02	0.696	0.35080	0.927				
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W J),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX,					
0.0070	-0.001	0.2167	0.2163	0.00003	0.01820	0.01817	11.91	4.88	6774.4					
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX					
0.	0.	0.	0.	14.1	14.06	0.003	0.003	0.003	0.002					
0.0100	0.01824	0.45686	0.02211	31.4	14.06	0.026	4.877	0.006	0.005					
0.0205	0.03736	0.56614	0.02135	31.1	14.06	0.026	4.877	0.006	0.005					
0.0276	0.05027	0.54013	0.02606	41.2	14.06	0.026	4.877	0.008	0.006					
0.0374	0.06820	0.68815	0.04137	95.3	14.06	0.026	4.877	0.019	0.014					
0.0532	0.09713	0.76807	0.05453	179.5	14.06	0.026	4.877	0.036	0.026					
0.0694	0.12654	0.80568	0.06348	262.3	14.06	0.026	4.877	0.053	0.039					
0.0856	0.15620	0.82138	0.06727	306.5	14.06	0.026	4.877	0.062	0.045					
0.1041	0.18989	0.84566	0.07424	400.9	14.06	0.026	4.877	0.081	0.059					
0.1205	0.21980	0.85770	0.07720	450.1	14.06	0.026	4.877	0.091	0.066					
0.1374	0.25063	0.87362	0.08285	549.4	14.06	0.026	4.877	0.111	0.081					
0.1531	0.27927	0.88351	0.08591	610.8	14.06	0.026	4.877	0.124	0.090					
0.1717	0.31320	0.90055	0.09255	762.8	14.06	0.026	4.877	0.155	0.113					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTIONS - TUNNEL A COOLED HEAT TRANSFER

Y	V/Delta	U/U(Delta)	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PII/PIE	PII/PII MAX
0.2031	0.37047	0.91929	0.10035	975.3	14.06	0.026	4.877	0.198	0.144
0.2370	0.43231	0.93721	0.10940	1269.5	14.06	0.026	4.877	0.257	0.187
0.2703	0.49305	0.95339	0.11904	1647.2	14.06	0.026	4.877	0.334	0.243
0.3059	0.55799	0.96628	0.12609	2069.8	14.06	0.026	4.877	0.420	0.306
0.3379	0.61636	0.97831	0.13873	2652.0	14.06	0.026	4.577	0.538	0.391
0.3713	0.67729	0.98679	0.14827	3257.8	14.06	0.026	4.977	0.660	0.481
0.4045	0.73785	0.99284	0.15771	3934.5	14.06	0.026	4.877	0.798	0.581
0.4379	0.79877	0.99694	0.16736	4705.9	14.06	0.026	4.877	0.954	0.695
0.4710	0.85915	0.99845	0.17465	5336.2	14.06	0.026	4.877	1.062	0.788
0.5047	0.92062	0.99922	0.18190	5924.4	14.06	0.026	4.877	1.201	0.875
0.5386	0.98266	0.99974	0.18538	6357.7	14.06	0.026	4.977	1.289	0.938
0.5482	1.00000	1.00000	0.18629	6435.7	14.06	0.026	4.877	1.345	0.950
0.5726	1.04448	1.00022	0.18804	6633.5	14.06	0.026	4.877	1.366	0.979
0.6098	1.11234	0.99970	0.18913	6735.9	14.06	0.026	4.877	1.373	0.994
0.6422	1.17144	0.99956	0.18953	6774.4	14.06	0.026	4.877	1.373	1.000
0.6739	1.22926	0.99964	0.18952	6774.4	14.06	0.026	4.877	1.373	1.000
0.7077	1.29092	0.99964	0.18952	6774.4	14.06	0.026	4.877	1.373	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE ITD TW GEN. CYL.  
 8. 5. 10. 1. 306. 21. 29.00 4915.73 644.00 481.50 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACI.	TOT. PRESS. RECOV.	CT
0.	0.	481.50	481.50	0.	0.7477	7.41	1190611.	7404146.	597.	3711.	0.676	0.42262	0.751
0.0100	0.98	547.25	459.47	1026.9	0.8498	0.1527	0.42002	0.03548	27.26	0.050	0.006	0.006	0.010
0.0189	1.00	570.10	474.35	1072.5	0.8852	0.03701	0.43865	0.03588	27.25	4.094	0.011	0.011	0.010
0.0276	1.39	584.98	421.51	1401.4	0.9084	0.05395	0.57316	0.05272	27.23	4.094	0.017	0.017	0.011
0.0357	1.84	594.83	355.45	1695.9	0.9237	0.04986	0.69360	0.07559	27.21	4.095	0.034	0.033	0.017
0.0517	2.20	607.25	308.19	1895.5	0.9429	0.10116	0.77525	0.09728	27.19	4.096	0.059	0.059	0.033
0.0694	2.39	612.72	285.59	1982.4	0.9514	0.10116	0.77525	0.09728	27.14	4.096	0.080	0.080	0.059
0.0856	2.53	617.61	271.43	2039.3	0.9590	0.13579	0.81081	0.10959	27.10	4.099	0.098	0.098	0.080
0.1191	2.75	628.05	249.81	2131.7	0.9752	0.23313	0.87185	0.13397	27.05	4.099	0.138	0.138	0.098
0.1534	2.95	636.31	232.06	2203.8	0.9881	0.30027	0.90133	0.14835	26.95	4.102	0.138	0.138	0.138
0.1858	3.11	641.88	219.16	2253.5	0.9967	0.36369	0.92169	0.15964	26.81	4.106	0.186	0.186	0.138
0.2197	3.26	645.55	206.77	2295.9	1.0024	0.43005	0.93903	0.17133	26.65	4.110	0.233	0.233	0.186
0.2543	3.41	648.26	195.02	2333.5	1.0066	0.49777	0.95438	0.18339	26.48	4.115	0.289	0.289	0.233
0.3199	3.55	649.85	184.31	2364.9	1.0091	0.56119	0.96724	0.19524	26.31	4.120	0.357	0.357	0.289
0.3533	3.68	650.39	175.20	2389.3	1.0099	0.6227	0.97722	0.20948	26.11	4.126	0.437	0.437	0.357
0.3888	3.81	650.73	166.56	2411.8	1.0105	0.6894	0.98438	0.22466	25.91	4.132	0.520	0.520	0.437
0.4205	3.93	648.75	158.95	2425.8	1.0074	0.74212	0.98915	0.24466	25.91	4.132	0.617	0.617	0.520
0.4538	4.02	645.35	152.35	2433.7	1.0021	0.79587	0.9911	0.26466	25.91	4.132	0.714	0.714	0.617
0.4894	4.10	642.92	147.65	2439.3	0.9983	0.84115	0.9940	0.28466	25.91	4.132	0.811	0.811	0.714
0.5212	4.15	641.85	144.58	2444.2	0.9967	0.87587	0.9967	0.30466	25.91	4.132	0.908	0.908	0.811
0.5557	4.18	640.15	142.47	2445.2	0.9940	0.90115	0.9915	0.32466	25.91	4.132	1.005	1.005	0.908
0.5887	4.20	638.53	140.92	2445.0	0.9915	0.9227	0.9924	0.34466	25.91	4.132	1.102	1.102	1.005
0.6227	4.21	638.24	140.23	2446.0	0.9911	0.94212	0.9900	0.36466	25.91	4.132	1.200	1.200	1.102
0.6566	4.22	637.56	139.62	2445.8	0.9900	0.96115	0.9895	0.38466	25.91	4.132	1.300	1.300	1.200
0.6891	4.23	637.26	139.21	2446.1	0.9895	0.97722	0.9898	0.40466	25.91	4.132	1.400	1.400	1.300
0.7224	4.23	637.41	139.16	2446.6	0.9898	0.9911	0.9898	0.42466	25.91	4.132	1.500	1.500	1.400
0.7557	4.23	637.44	139.05	2446.9	0.9898	0.9911	0.9898	0.44466	25.91	4.132	1.600	1.600	1.500

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACI. TOT. PRESS. RECOV. CT  
 0.5109 0.1527 7.41 1190611. 7404146. 597. 3711. 382.45 0.676 0.42262 0.751

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W J), THETA PRIME, THETA(2), THETA(W), M(W), M(E), PTIMAX,  
 0.0073 -0.022 0.1750 0.1635 0.0082 0.01979 0.01857 6.80 4.17 4928.8

Y	Y/DELTA	U/(U(DELTA) RHO * U	RHO	U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	0.	0.	0.	0.
0.0100	0.01957	0.42002	0.03548	27.3	27.26	0.006	0.006
0.0189	0.03701	0.43865	0.03588	50.2	27.25	0.010	0.010
0.0276	0.05395	0.57316	0.05272	51.8	27.23	0.011	0.011
0.0357	0.04986	0.69360	0.07559	85.7	27.21	0.017	0.017
0.0517	0.10116	0.77525	0.09728	164.8	27.19	0.034	0.033
0.0694	0.10116	0.77525	0.09728	291.5	27.14	0.050	0.050
0.0856	0.16761	0.83408	0.11840	391.9	27.10	0.080	0.080
0.1191	0.23313	0.87185	0.13397	480.6	27.05	0.098	0.098
0.1534	0.30027	0.90133	0.14835	679.0	26.95	0.138	0.138
0.1858	0.36369	0.92169	0.15964	915.2	26.81	0.186	0.186
0.2197	0.43005	0.93903	0.17133	1145.6	26.65	0.233	0.233
0.2543	0.49777	0.95438	0.18339	1423.9	26.48	0.289	0.289
0.2887	0.56119	0.96724	0.19524	1761.5	26.31	0.357	0.357
0.3199	0.62618	0.97722	0.20948	2149.3	26.11	0.437	0.437
				2553.8	25.91	0.520	0.520

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/(U/Delta)	RHO * U	PT1	PI,	RHO U PRIME, M	PRIME	PTI/PTE,	PTI/PTIMAX
0.3533	0.69156	0.98641	0.21687	3029.7	25.71	0.048	4.138	0.616	0.615
0.3888	0.76105	0.99213	0.22664	3500.9	25.49	0.048	4.144	0.712	0.710
0.4205	0.82310	0.99537	0.23515	3952.5	25.26	0.047	4.151	0.804	0.802
0.4538	0.88828	0.99766	0.24102	4313.9	25.04	0.047	4.158	0.878	0.875
0.4894	0.95796	0.99967	0.24449	4575.9	24.82	0.047	4.165	0.931	0.928
0.5109	1.00000	1.00000	0.24572	4682.4	24.68	0.046	4.171	0.963	0.950
0.5212	1.02021	1.00008	0.24616	4733.6	24.62	0.046	4.177	0.984	0.960
0.5557	1.08174	1.00001	0.24692	4837.1	24.42	0.046	4.181	0.994	0.981
0.5887	1.15233	1.00042	0.24685	4885.7	24.29	0.046	4.186	1.000	0.991
0.6227	1.21889	1.00033	0.24651	4914.0	24.15	0.046	4.190	1.003	0.997
0.6566	1.28524	1.00045	0.24587	4928.8	24.02	0.045	4.194	1.000	1.000
0.6891	1.34886	1.00065	0.24476	4914.3	23.89	0.045	4.194	1.000	0.997
0.7224	1.41404	1.00079	0.24373	4903.2	23.77	0.045	4.198	0.997	0.995

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X PTE TTD TTT  
 8. 5. 10. 1. 306. 53. 33.00 4904.78 644.50 483.50 12.00

Y	MACH	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	483.50	5.08	2031709.	9396809.	1118.	5169.	0.669	0.43925	0.696
0.0100	1.11	526.79	0.	0.	0.	0.7502				
0.0211	1.11	555.70	422.93	1117.0	0.8174					
0.0287	1.25	571.56	445.94	1148.3	0.8622					
0.0375	1.90	586.37	435.51	1278.5	0.8868					
0.0539	2.12	608.05	342.28	1719.4	0.9129					
0.0703	2.26	621.67	319.72	1861.2	0.9434					
0.0881	2.40	627.62	307.24	1943.6	0.9646					
0.1041	2.50	632.26	291.58	2009.3	0.9738					
0.1217	2.59	637.51	281.07	2054.1	0.9810					
0.1373	2.67	640.78	272.14	2095.1	0.9892					
0.1725	2.83	645.70	263.63	2128.6	0.9942					
0.2041	2.97	648.85	248.60	2184.2	1.0019					
0.2385	3.11	651.45	235.11	2229.5	1.0067					
0.2708	3.26	653.70	222.12	2271.1	1.0108					
0.3056	3.40	653.92	209.29	2310.6	1.0143					
0.3723	3.65	652.26	197.04	2342.8	1.0146					
0.4388	3.82	647.76	178.32	2386.2	1.0120					
0.5079	3.92	644.09	165.59	2406.8	1.0051					
0.5736	3.98	642.82	157.88	2416.9	0.9994					
0.6405	4.00	642.12	154.17	2422.9	0.9974					
0.7083	4.02	641.33	152.98	2424.1	0.9963					
0.7747	4.06	641.11	151.42	2426.0	0.9951					
0.8418	4.08	641.42	149.01	2431.5	0.9947					
			146.24	2434.1	0.9952					

  

Y	DELTA STAR	PRIME	DELTA STAR(21)	DELTA STAR(M)	THETA STAR(21)	THETA STAR(M)	THETA PRIME	THETA(21)	THETA(M)	H(M)	MIEI	PTIMAX
0.0010	-0.049	0.1749	0.1510	0.00218	0.02269	0.01980	7.63	3.91	5062.9			

  

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI	RHO U	PRIME	M-PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	44.3	44.34	0.068	3.753	0.009	0.009	0.009
0.0100	0.02001	0.46237	0.06816	95.5	44.29	0.067	3.754	0.019	0.019	0.019
0.0211	0.04229	0.47531	0.06636	95.5	44.23	0.067	3.755	0.023	0.023	0.023
0.0287	0.05750	0.52920	0.07553	114.4	44.16	0.067	3.756	0.060	0.060	0.058
0.0375	0.07507	0.71171	0.12902	293.5	44.08	0.067	3.758	0.085	0.085	0.082
0.0539	0.10786	0.77039	0.14911	417.0	43.96	0.067	3.760	0.105	0.105	0.102
0.0703	0.14063	0.80450	0.16159	516.6	43.84	0.067	3.763	0.130	0.130	0.126
0.0881	0.17630	0.83170	0.17535	639.0	43.67	0.067	3.766	0.151	0.151	0.147
0.1041	0.20827	0.85023	0.18511	742.2	43.47	0.066	3.770	0.173	0.173	0.168
0.1217	0.24348	0.86721	0.19391	850.5	43.23	0.066	3.774	0.196	0.196	0.190
0.1373	0.27469	0.88110	0.20233	962.8	43.01	0.066	3.782	0.237	0.237	0.237
0.1725	0.34512	0.90409	0.21789	1202.0	42.56	0.065	3.791	0.299	0.299	0.290
0.2041	0.40834	0.92284	0.23224	1467.7	42.03	0.065	3.802	0.364	0.364	0.353
0.2385	0.47716	0.94006	0.24644	1787.0	41.37	0.064	3.814	0.447	0.447	0.433
0.2708	0.54179	0.95643	0.26182	2191.8	40.70	0.063	3.830	0.541	0.541	0.524
0.3056	0.61141	0.96976	0.27614	2654.1	39.86	0.061	3.858	0.709	0.709	0.732
0.3723	0.74486	0.98771	0.29903	3590.0	38.35	0.060	3.886	0.891	0.891	0.863
0.4388	0.87790	0.99624	0.31260	4370.2	36.91	0.060				
0.4998	1.00000	1.00000	0.31651	4809.7	35.65					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.5079	1.01615	1.00041	0.31658	4867.8	35.49	0.058	3.915	0.992	0.961
0.5736	1.14759	1.00291	0.31222	5062.9	34.21	0.057	3.943	1.032	1.000
0.5405	1.28144	1.00342	0.30334	4977.8	32.45	0.055	3.973	1.015	0.983
0.7083	1.41709	1.00420	0.29409	4926.3	31.50	0.054	4.004	1.004	0.973
0.7747	1.54993	1.00644	0.28664	4980.3	30.15	0.052	4.037	1.015	0.984
0.8418	1.68418	1.00755	0.27529	4848.4	28.78	0.051	4.072	0.988	0.958

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REPLICATION - TUNNEL A CLOUD HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE ITU TM 486.00 486.00 12.00  
 8. 5. 10. 1. 306. 51. 36.00 4954.75 645.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	IT/ITU
0.	0.	486.00	486.00	0.	0.7535
0.0100	1.50	574.95	396.53	1464.0	0.8914
0.0168	1.58	601.03	400.62	1551.7	0.9318
0.0240	1.76	622.31	384.87	1689.0	0.9648
0.0325	1.91	640.86	370.58	1802.0	0.9936
0.0496	2.05	651.21	364.65	1855.5	1.0096
0.0664	2.08	652.46	353.91	1893.9	1.0116
0.0827	2.13	653.19	342.57	1931.8	1.0127
0.0997	2.21	655.37	331.02	1974.0	1.0161
0.1171	2.30	655.77	313.89	2011.8	1.0167
0.1329	2.42	656.36	302.45	2062.0	1.0176
0.1678	2.68	655.94	269.45	2154.8	1.0170
0.2008	2.95	654.16	238.64	2234.2	1.0142
0.2353	3.13	651.33	219.78	2277.0	1.0098
0.2676	3.27	648.19	206.84	2302.7	1.0049
0.3014	3.33	646.43	201.25	2312.6	1.0022
0.3344	3.39	644.90	195.64	2323.2	0.9998
0.4035	3.56	644.07	182.53	2354.8	0.9986
0.4724	3.71	644.40	171.54	2383.4	0.9991
0.5357	3.83	644.84	163.63	2404.4	0.9998
0.6033	3.92	644.49	158.45	2416.4	0.9992

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2624 0.0133 0.49 7466568. 14198716. 4207. 8001. 410.38 0.636 0.50019 0.561

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA PRIME, THETA(2), THETA(W), M(W), M(E), PTIMAX, M(E), PTIMAX,  
 -0.0053 -0.086 0.0995 0.0656 0.00767 0.01963 0.01362 4.82 3.25 5107.8

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	175.5	175.54	0.163	2.813	0.035	0.034
0.0100	0.03811	0.63666	643.0	175.18	0.163	2.815	0.130	0.126
0.0168	0.06406	0.67476	722.7	174.75	0.163	2.817	0.146	0.141
0.0240	0.09154	0.73446	936.5	174.22	0.162	2.820	0.189	0.183
0.0325	0.12401	0.78360	1179.5	173.43	0.162	2.828	0.238	0.231
0.0496	0.18895	0.86886	1304.0	171.32	0.160	2.836	0.263	0.255
0.0664	0.25291	0.82357	1439.7	169.22	0.157	2.852	0.291	0.282
0.0827	0.31533	0.84005	1581.2	165.18	0.155	2.869	0.319	0.310
0.0997	0.37982	0.85842	1758.7	161.05	0.151	2.892	0.355	0.344
0.1171	0.44628	0.87484	1938.4	155.44	0.148	2.919	0.391	0.379
0.1329	0.50650	0.89668	2246.4	149.21	0.148	3.002	0.453	0.440
0.1678	0.63950	0.93705	2963.4	131.65	0.136	3.059	0.598	0.580
0.2008	0.76527	0.97159	3884.6	113.92	0.124	3.099	0.784	0.761
0.2353	0.89675	0.99016	4498.7	100.41	0.115	3.185	0.908	0.881
0.2624	1.00000	1.00000	4852.4	91.82	0.107	3.257	0.950	0.950
0.2676	1.01985	1.00134	4920.5	90.31	0.100	3.326	0.993	0.963
0.3014	1.14867	1.00563	4853.6	81.71	0.094	3.350	0.970	0.950
0.3344	1.27444	1.01028	4840.1	74.43	0.094	3.390	0.980	0.948
0.4035	1.53778	1.02399	4983.5	60.38	0.082	3.537	1.006	0.976
0.4724	1.80037	1.03647	5067.8	49.33	0.072	3.681	1.023	0.992
0.5389	2.05181	1.04558	5107.6	42.04	0.065	3.797	1.031	1.000
0.6033	2.27924	1.05082	5038.9	37.13	0.060	3.888	1.031	0.986

HYPersonic BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
MODEL MACH NO. DAY TEST RUN X TID PTE Y 4945.10 644.50 592.50 12.00  
5. 10. 1. 306. 29. 0.  
GEN. CYL.

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	Y/TID	TID	PTC	PTC	RECQV.FACT.	RECQV.TEMP.	RTHETA D	RTHETA R	RTHETA	DELTA STAR(2)	DELTA STAR(1)	DELTA STAR(0)	PTI	PTI	PTI	M	PRIME	PTI/PTC	PTI/PTIMAX	TOT.PRESS.RECQV.	CT
0.	0.	592.50	592.50	0.	0.0038																				
0.0100	0.77	592.50	537.76	913.1	0.3198				0.883	417.07	2502.	197.											0.38962	0.015	
0.0224	0.77	595.81	534.60	876.3	0.3291																				
0.0306	1.00	602.37	502.32	1095.2	0.3346																				
0.0396	1.14	604.71	480.25	1222.8	0.3483																				
0.0553	1.75	611.27	378.97	1670.6	0.3484																				
0.0726	2.07	614.08	331.30	1943.2	0.3528																				
0.0899	2.24	615.63	307.61	1923.7	0.3552																				
0.1059	2.38	617.86	289.89	1985.0	0.3587																				
0.1223	2.56	621.02	269.30	2055.6	0.3636																				
0.1391	2.67	623.91	257.57	2097.9	0.3680																				
0.1729	2.96	629.95	228.42	2196.3	0.3774																				
0.2061	3.22	637.23	206.96	2273.6	0.3987																				
0.2403	3.48	644.59	188.62	2339.8	0.3997																				
0.2743	3.73	648.95	171.51	2394.2	1.0069																				
0.3072	3.95	652.03	158.18	2435.8	1.0117																				
0.3406	4.17	651.95	145.68	2466.2	1.0116																				
0.4083	4.52	644.43	126.81	2493.7	0.3997																				
0.4756	4.62	639.83	121.59	2495.2	0.3928																				
0.5429	4.74	638.97	116.44	2505.5	0.3914																				
0.6097	4.78	638.56	114.50	2509.2	0.3902																				
0.6768	4.80	638.68	114.07	2510.5	0.3910																				
0.7459	4.81	638.68	113.61	2511.6	0.3910																				
0.8115	4.81	638.68	113.61	2511.6	0.3910																				

DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECQV.TEMP.	RECQV.FACT.	TOT.PRESS.RECQV.	CT
0.5816	0.2362	12.32	123026.	1565826.	197.	2502.	0.883	0.38962	0.015

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(0), THETA STAR(1), THETA STAR(2), THETA STAR(1), M(1), PTIMAX, M(1), PTIMAX, 4644.6

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PTI	RHO U PRIME, M	PRIME	PTI/PTC	PTI/PTIMAX
0.	0.	0.	0.	11.03			0.002	0.002
0.0100	0.01719	0.32422	0.00972	11.03	0.028	4.764	0.003	0.003
0.0224	0.03860	0.35022	0.01056	11.03	0.028	4.764	0.003	0.004
0.0306	0.05256	0.43670	0.01400	11.03	0.028	4.764	0.004	0.004
0.0396	0.06813	0.48758	0.01636	11.03	0.028	4.764	0.005	0.005
0.0553	0.09517	0.56612	0.02832	11.03	0.028	4.764	0.012	0.013
0.0726	0.12492	0.73495	0.03575	11.03	0.028	4.764	0.019	0.021
0.0899	0.15467	0.76703	0.04018	11.03	0.028	4.764	0.025	0.027
0.1059	0.18209	0.79149	0.04400	11.03	0.028	4.764	0.032	0.034
0.1223	0.21029	0.81965	0.04905	11.03	0.028	4.764	0.042	0.044
0.1391	0.23918	0.83651	0.05233	11.03	0.028	4.764	0.049	0.053
0.1729	0.29730	0.87576	0.06178	11.03	0.028	4.764	0.078	0.083
0.2061	0.35438	0.90656	0.07058	11.03	0.028	4.764	0.114	0.122
0.2403	0.41319	0.93295	0.07970	11.03	0.028	4.764	0.164	0.175
0.2743	0.47165	0.95466	0.08954	11.03	0.028	4.764	0.234	0.249
0.3072	0.52822	0.97125	0.09894	11.03	0.028	4.764	0.317	0.338
0.3406	0.58365	0.98337	0.10877	11.03	0.028	4.764	0.423	0.450
0.4083	0.70206	0.99434	0.12635	11.03	0.028	4.764	0.660	0.702

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA)	RHO * U	PII	PI,	RHO U PRIME,	M PRIME	PTI/PI,	PTI/PTIMAX
0.4756	0.81778	0.99494	0.13186	3686.5	11.03	0.026	4.764	0.745	0.794
0.5429	0.93350	0.99904	0.13826	4268.9	11.03	0.026	4.764	0.863	0.919
0.5816	1.00000	1.00000	0.13997	4412.3	11.03	0.028	4.764	0.913	0.950
0.6097	1.04836	1.00050	0.14080	4516.7	11.03	0.028	4.764	0.926	0.972
0.6768	1.16374	1.00103	0.14141	4580.3	11.03	0.028	4.764	0.939	0.986
0.7459	1.28256	1.00146	0.14204	4644.6	11.03	0.028	4.764	0.939	1.000
0.8115	1.39535	1.00146	0.14204	4644.6	11.03	0.028	4.764	0.939	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A CORRELL HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X RIF TIC TW GEN. CYL.  
 8. 5. 10. 1. 306. 28. 18.75 4945.10 644.50 572.00 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	IT/TID	RSR	RS DELTA	PHETA R	RTHETA D	RECIV.FEMP.	RECIV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	572.00	572.00	0.	0.9575	256.	463870.	4906517.	2707.	416.22	0.861	0.37040	0.124
0.0277	1.17	604.31	471.23	1263.9	0.	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.0367	1.65	611.76	393.79	1618.2	0.9492	0.2120	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.0529	2.24	616.23	300.57	1947.4	0.9561	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.0703	2.50	618.93	275.42	2031.5	0.9603	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.0869	2.55	621.28	269.69	2055.2	0.9640	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.1029	2.63	625.15	261.73	2089.5	0.9700	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.1198	2.80	628.91	245.23	2147.0	0.9758	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.1378	2.88	633.08	238.18	2178.1	0.9823	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.1712	3.03	638.08	220.31	2240.3	0.9900	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.2039	3.25	643.10	206.60	2290.0	0.9978	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.2369	3.43	648.81	193.48	2338.8	1.0067	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.2707	3.62	652.74	180.48	2381.9	1.0128	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.3041	3.78	654.65	169.74	2413.6	1.0158	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.3387	3.96	655.10	158.54	2442.5	1.0165	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.4053	4.22	650.80	142.45	2471.3	1.0098	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.4731	4.43	644.78	130.85	2484.8	1.0004	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.5406	4.56	641.20	124.48	2491.6	0.9949	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.6071	4.60	639.85	122.42	2493.3	0.9928	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.6734	4.60	639.77	122.08	2493.9	0.9927	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.7415	4.50	637.04	122.16	2491.9	0.9915	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.8076	4.50	638.56	122.25	2490.8	0.9909	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56
0.8767	4.59	638.68	122.57	2490.1	0.9910	0.2092	0.	0.	0.0013	0.0165	0.01664	12.57	4.56

  

DELTA	DELTA STAR	H	RSR	RS DELTA	PHETA R	RTHETA D	RECIV.FEMP.	RECIV.FACT.	TOT.PRESS.RECOV.	CT
0.5441	0.2072	12.20	463870.	4906517.	256.	2707.	416.22	0.861	0.37040	0.124

  

PHI,	DELTA STAR	PRIME,	DELTA STAR(2),	DELTA STAR(W ),	DELTA STAR(W ),	DELTA STAR(W ),	H(W),	M(IE),	PTIMAX,
-0.0035	-0.005	0.2120	0.2092	0.0013	0.0165	0.01664	12.57	4.56	5227.6

  

Y	Y/DELTA	L/DELTA	RHO * U	PTI	PI,	RHO U	PRIME,	M	PRIME	PTI/PTIE,	PTI/PTIMAX
0.	0.	0.	0.	16.3	16.26	0.034	4.543	0.003	0.003	0.003	0.003
0.0277	0.05089	0.50727	0.02540	38.8	16.26	0.034	4.543	0.008	0.007	0.007	0.007
0.0367	0.06752	0.64945	0.03893	76.0	16.26	0.034	4.543	0.015	0.015	0.015	0.015
0.0529	0.09715	0.78152	0.06137	200.6	16.26	0.034	4.543	0.041	0.038	0.038	0.038
0.0703	0.12918	0.92534	0.06987	276.6	16.26	0.034	4.543	0.056	0.053	0.053	0.053
0.0869	0.15978	0.92483	0.07215	301.5	16.25	0.034	4.544	0.061	0.058	0.058	0.058
0.1029	0.18911	0.83860	0.07555	342.0	16.24	0.034	4.544	0.069	0.065	0.065	0.065
0.1198	0.22017	0.86166	0.08281	438.5	16.23	0.034	4.545	0.089	0.084	0.084	0.084
0.1378	0.25325	0.87416	0.08645	496.7	16.22	0.034	4.545	0.100	0.095	0.095	0.095
0.1712	0.31463	0.89914	0.09602	670.0	16.21	0.034	4.546	0.135	0.128	0.128	0.128
0.2039	0.37473	0.91906	0.10455	861.4	16.19	0.034	4.547	0.174	0.165	0.165	0.165
0.2369	0.43537	0.93867	0.11399	1116.5	16.17	0.034	4.548	0.226	0.214	0.214	0.214
0.2707	0.49749	0.95596	0.12420	1453.0	16.15	0.034	4.549	0.294	0.278	0.278	0.278
0.3041	0.55887	0.96868	0.13367	1817.7	16.13	0.034	4.550	0.368	0.348	0.348	0.348
0.3387	0.62246	0.98025	0.14455	2309.2	16.10	0.033	4.551	0.467	0.442	0.442	0.442
0.4053	0.74486	0.99182	0.16244	3275.5	16.07	0.033	4.553	0.662	0.627	0.627	0.627
0.4731	0.86946	0.99724	0.17727	4254.9	16.02	0.033	4.555	0.860	0.814	0.814	0.814
0.5406	0.99351	0.99995	0.18623	4953.3	15.97	0.033	4.558	1.002	0.948	0.948	0.948
0.5441	1.00600	1.00000	0.18644	4966.2	15.97	0.033	4.561	1.002	0.950	0.950	0.950
0.6071	1.11572	1.00064	0.19887	5195.6	15.92	0.033	4.561	1.051	0.994	0.994	0.994

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI.	RHO U PRIME, M	PRIME	PTI/PTIC.	PTI/PTIMAX	
0.6734	1.23757	1.00089	0.18883	5227.6	15.86	0.033	4.563	1.037	1.000
0.7415	1.36272	1.00011	0.18793	5177.3	15.81	0.033	4.566	1.047	0.990
0.8076	1.48420	0.99965	0.18702	5133.9	15.75	0.033	4.569	1.038	0.982
0.8767	1.61119	0.99936	0.18570	5066.4	15.69	0.033	4.572	1.025	0.969

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A CUBIC HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TWM SEN. CYL.  
 8. 5. 10. 1. 306. 27. 29.00 4052.45 643.00 567.50 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT*	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	567.50	567.50	0.	0.8325							
0.0100	0.94	571.35	502.99	1030.3	0.8167					0.852	0.61862	0.141
0.0181	1.60	607.16	400.42	1574.1	0.9443							
0.0265	1.99	616.83	344.80	1807.9	0.9593							
0.0346	2.14	619.13	323.42	1884.8	0.9629							
0.0508	2.40	621.66	285.42	2000.9	0.9668							
0.0679	2.49	628.44	280.56	2044.4	0.9774							
0.0848	2.69	631.37	258.35	2116.9	0.9819							
0.1020	2.77	636.86	251.77	2150.9	0.9904							
0.1187	2.90	639.32	238.12	2195.4	0.9943							
0.1350	2.98	642.59	231.18	2223.2	0.9994							
0.1682	3.14	646.87	217.36	2271.6	1.0060							
0.2018	3.30	650.57	204.37	2315.3	1.0118							
0.2357	3.45	652.37	193.06	2349.1	1.0146							
0.2697	3.59	652.98	182.30	2377.9	1.0155							
0.3043	3.72	653.08	173.09	2401.4	1.0157							
0.3364	3.83	651.43	165.82	2415.4	1.0131							
0.4038	4.01	646.66	153.63	2433.8	1.0057							
0.4710	4.11	643.50	146.88	2441.4	1.0000							
0.5373	4.16	639.93	143.21	2442.8	0.9952							
0.6048	4.19	638.33	141.53	2443.2	0.9918							
0.6729	4.21	638.75	140.38	2445.7	0.9976							
0.7402	4.24	638.52	138.93	2449.9	0.9930							
0.8066	4.29	638.72	136.53	2456.2	0.9933							
0.8737	4.34	638.94	133.99	2463.0	0.9937							
0.9399	4.42	639.22	130.29	2472.7	0.9941							
DELTA DELTA STAR	H	4.14	1013022.	7554961.	567.			4226.	417.58.	0.852	0.61862	0.141
0.8647	0.0951											
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	THETA PRIME,	THETA(2),	THETA(1),	H(W),	M(E),	PTIMAX,			
0.0102	-0.096	0.1909	0.1659	0.00442	0.01957	0.01627	10.19	4.33	5417.6			
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	H PRIME	PTI/PTE,	PTI/PTIMAX			
0.	0.	0.	0.	27.1	27.06	0.046	0.005	0.005	0.005			
0.0100	0.01157	0.41849	0.03228	47.6	27.04	0.046	0.010	0.010	0.009			
0.0181	0.02096	0.63937	0.06184	115.5	27.03	0.046	0.023	0.023	0.021			
0.0265	0.03066	0.73431	0.08254	206.9	27.02	0.046	0.046	0.042	0.038			
0.0346	0.04005	0.76560	0.09169	262.1	27.00	0.046	0.053	0.053	0.048			
0.0508	0.05870	0.81273	0.10893	396.2	26.95	0.046	0.080	0.080	0.073			
0.0679	0.07856	0.83039	0.11431	452.9	26.92	0.046	0.091	0.091	0.084			
0.0848	0.09812	0.85986	0.12841	613.6	26.90	0.046	0.124	0.124	0.113			
0.1020	0.11796	0.87367	0.13368	691.3	26.85	0.046	0.140	0.140	0.128			
0.1187	0.13728	0.89176	0.14405	850.3	26.81	0.046	0.172	0.172	0.157			
0.1350	0.15613	0.90303	0.15002	958.5	26.77	0.046	0.194	0.194	0.177			
0.1682	0.19452	0.92268	0.16250	1213.5	26.69	0.046	0.245	0.245	0.224			
0.2018	0.23338	0.94044	0.17557	1530.7	26.60	0.046	0.309	0.309	0.283			
0.2357	0.27259	0.95416	0.18780	1879.0	26.49	0.046	0.379	0.379	0.347			
0.2697	0.31191	0.96589	0.20050	2294.4	26.38	0.046	0.463	0.463	0.424			
0.3043	0.35192	0.97540	0.21227	2740.0	26.26	0.046	0.553	0.553	0.506			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COLLIF HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PII	PI	RHO U PRIME, M	PRIME	PII/PIE,	PII/PI MAX
0.3364	0.38905	0.98109	3141.0	26.14	0.245	4.197	0.634	0.580
0.4038	0.46700	0.98856	3957.4	25.87	0.045	4.206	0.799	0.730
0.4710	0.54471	0.99165	4488.3	25.57	0.045	4.214	0.906	0.828
0.5373	0.62139	0.99225	4751.7	25.19	0.044	4.226	0.959	0.877
0.6048	0.69945	0.99239	4825.8	24.76	0.044	4.239	0.974	0.891
0.6729	0.77821	0.99342	4864.3	24.27	0.043	4.255	0.982	0.898
0.7402	0.85604	0.99512	4914.1	23.61	0.042	4.276	0.992	0.907
0.8066	0.93284	0.99770	5032.8	22.73	0.041	4.306	1.016	0.929
0.8647	1.00300	1.00000	5146.7	21.94	0.040	4.338	1.043	0.950
0.8737	1.01044	1.00044	5164.4	21.81	0.039	4.379	1.094	0.953
0.9399	1.08700	1.00437	5417.6	20.71	0.039			1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF TTD  
 5. 10. 1. 306. 64. 33.00 4930.42 545.50 567.50 12.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.		567.50	567.50		0.8792
0.0100	1.25	596.43	454.89	1304.0	0.9240
0.0192	1.78	611.66	374.98	1686.3	0.9476
0.0270	1.94	618.89	353.50	1785.6	0.9588
0.0349	2.02	622.81	343.24	1832.5	0.9649
0.0514	2.21	628.41	319.02	1931.0	0.9735
0.0677	2.30	632.12	306.96	1976.4	0.9793
0.0852	2.42	636.78	293.09	2032.0	0.9865
0.1027	2.51	639.40	282.34	2071.0	0.9905
0.1181	2.59	642.50	274.69	2102.1	0.9954
0.1364	2.66	644.96	267.13	2130.5	0.9997
0.1702	2.80	648.50	252.32	2181.7	1.0046
0.2033	2.93	651.95	239.79	2225.2	1.0100
0.2357	3.08	654.41	225.46	2270.1	1.0138
0.2712	3.23	656.77	212.88	2309.3	1.0175
0.3034	3.35	658.94	202.26	2337.2	1.0177
0.3458	3.51	658.65	189.63	2369.2	1.0173
0.4129	3.69	653.26	175.28	2396.3	1.0120
0.4803	3.83	648.33	164.51	2410.9	1.0044
0.5494	3.92	644.37	158.33	2416.4	0.9982
0.6139	3.96	642.87	155.13	2420.7	0.9959
0.6823	3.98	642.43	153.85	2422.8	0.9952
0.7515	4.04	642.76	150.94	2430.8	0.9958

DELTA STAR M RSR RS DELTA RTHETA R RTHETA D RECOV. FACT. RECOV. TEMP. TOT. PRESS. RECOV. CT  
 0.5190 0.1279 5.43 1708337. 9319793. 890. 4457. 428.55 0.839 0.45203 0.173

PHI, DELTA STAR PRIME, DELTA STAR(M 1), DELTA STAR(M 2), THETA(M), H(M), M(E), PTIMAX,  
 -0.0213 -0.049 0.1769 0.1536 0.00229 0.02128 0.01867 8.23 3.89 4939.3

Y	Y/DELTA	U/(U(DELTA))	RHO * U	PTI	P1,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	44.3	44.34	0.009	3.735	0.009	0.009
0.0100	0.01927	0.53991	0.07398	114.3	44.29	0.069	3.735	0.023	0.023
0.0192	0.03693	0.69821	0.11594	245.3	44.25	0.069	3.735	0.050	0.050
0.0270	0.05208	0.73932	0.13004	313.7	44.18	0.069	3.736	0.064	0.064
0.0349	0.06724	0.75876	0.13722	354.9	44.12	0.068	3.738	0.072	0.072
0.0514	0.09907	0.79954	0.15545	476.5	43.94	0.068	3.740	0.097	0.096
0.0677	0.13037	0.81834	0.16417	548.4	43.76	0.068	3.743	0.111	0.111
0.0852	0.16422	0.84134	0.17597	658.5	43.56	0.068	3.747	0.133	0.133
0.1027	0.19786	0.85749	0.18529	757.4	43.36	0.068	3.750	0.154	0.153
0.1181	0.22753	0.87036	0.19246	844.7	43.16	0.067	3.753	0.171	0.171
0.1364	0.26279	0.88214	0.19966	939.6	42.96	0.067	3.757	0.191	0.190
0.1702	0.32791	0.90331	0.21422	1157.3	42.52	0.067	3.764	0.235	0.234
0.2033	0.39168	0.92134	0.22726	1392.8	42.03	0.066	3.773	0.282	0.282
0.2357	0.45410	0.93992	0.24346	1728.9	41.50	0.066	3.782	0.351	0.350
0.2712	0.52249	0.95614	0.25894	2113.0	40.97	0.065	3.791	0.428	0.428
0.3034	0.58453	0.97670	0.27226	2497.2	40.44	0.065	3.801	0.506	0.506
0.3458	0.66622	0.99096	0.28918	3077.5	39.68	0.064	3.815	0.623	0.623
0.4129	0.79349	0.99218	0.30567	3834.8	38.37	0.062	3.839	0.776	0.776
0.4803	0.92535	0.99823	0.31632	4501.2	37.04	0.061	3.865	0.911	0.911
0.5190	1.00000	1.00000	0.31781	4692.3	36.25				0.950

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTI-MAX
0.5494	1.05848	1.00052	0.31661	4842.0	35.60	0.059	3.295	0.772	0.980
0.6139	1.18274	1.00227	0.30999	4939.3	34.10	0.058	3.927	1.002	1.000
0.6823	1.31452	1.00313	0.29860	4841.9	32.54	0.056	3.961	0.982	0.981
0.7515	1.44784	1.00644	0.29080	4938.2	30.99	0.054	3.998	1.002	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A CUOLFI HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIC TTD GEN. CYL.  
 5. 10. 1. 316. 63. 34.5 493.31 645.00 548.00 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	568.00	568.00	0.	0.9806	
0.0100	1.22	598.95	462.09	1282.2	0.9286
0.0214	1.63	616.99	472.99	1603.5	0.9566
0.0310	1.99	625.70	349.29	1822.3	0.9701
0.0396	2.08	623.40	337.94	1871.2	0.9758
0.0557	2.23	635.23	318.55	1950.5	0.9849
0.0738	2.32	638.56	307.41	1994.6	0.9900
0.0893	2.41	641.71	297.47	2033.6	0.9949
0.1050	2.47	643.84	289.57	2063.0	0.9982
0.1225	2.54	646.28	281.58	2093.2	1.0020
0.1388	2.61	647.73	273.98	2119.0	1.0042
0.1720	2.74	651.07	260.48	2166.2	1.0094
0.2058	2.88	653.64	245.84	2213.4	1.0134
0.2404	3.03	655.86	231.49	2257.9	1.0168
0.2746	3.17	656.14	217.86	2294.7	1.0173
0.3089	3.31	656.33	205.67	2326.8	1.0176
0.3403	3.42	655.53	195.99	2349.7	1.0163
0.3901	3.56	651.22	183.98	2369.3	1.0097
0.4597	3.70	646.53	172.95	2385.3	1.0024
0.5255	3.78	643.92	166.66	2394.5	0.9983
0.5919	3.83	642.80	163.56	2399.5	0.9966
0.6603	3.87	642.67	160.57	2406.6	0.9964

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECUV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4636 0.0963 3.86 2351437. 10464866. 1293. 5574. 433.39 0.837 0.46315 0.168

PHI: DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(M), THETA(2), THETA(1M), THETA(1), PTIMAX, M(E), PTIMAX, 4939.3  
 -0.0224 -0.059 0.1552 0.1291 0.06321 0.02171 0.01833 7.04 3.71 4939.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PII	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	60.9	60.93	0.085	3.508	0.012	0.012
0.0100	0.02157	0.53741	0.09836	150.8	60.94	0.085	3.509	0.031	0.031
0.0214	0.04616	0.57203	0.14083	269.8	60.74	0.084	3.510	0.055	0.055
0.0310	0.06680	0.76376	0.18434	466.6	60.64	0.084	3.511	0.095	0.094
0.0396	0.08546	0.78427	0.19529	533.7	60.53	0.084	3.514	0.108	0.108
0.0557	0.12023	0.81749	0.21508	675.1	60.29	0.084	3.517	0.137	0.137
0.0738	0.15925	0.83596	0.22675	775.5	60.03	0.084	3.521	0.157	0.157
0.0893	0.19260	0.85233	0.23796	880.8	59.74	0.083	3.525	0.178	0.178
0.1050	0.22648	0.86465	0.24646	973.1	59.37	0.083	3.525	0.197	0.197
0.1225	0.26423	0.87730	0.25546	1080.4	58.98	0.083	3.530	0.219	0.219
0.1388	0.29939	0.88812	0.26396	1189.7	58.55	0.083	3.535	0.241	0.241
0.1720	0.37100	0.90790	0.27913	1422.1	57.61	0.082	3.546	0.288	0.288
0.2058	0.44391	0.92768	0.29693	1734.8	56.60	0.081	3.559	0.351	0.351
0.2404	0.51854	0.94634	0.31509	2122.3	55.44	0.080	3.574	0.430	0.430
0.2746	0.59230	0.96173	0.33222	2566.5	54.13	0.078	3.591	0.520	0.520
0.3089	0.66629	0.97521	0.34800	3064.7	52.79	0.077	3.608	0.621	0.621
0.3403	0.73402	0.98479	0.35964	3523.5	51.48	0.076	3.626	0.713	0.713
0.3901	0.84144	0.99300	0.37030	4117.7	49.35	0.074	3.657	0.834	0.834
0.4597	0.99156	0.99970	0.37209	4676.7	46.30	0.071	3.703	0.948	0.947
0.5255	1.00000	1.00000	0.37190	4692.3	46.14	0.071	3.747	0.950	0.950
0.6603	1.13349	1.00359	0.36470	4939.3	43.56	0.068	1.001	1.001	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PT1	PI.	RHO U PPRIME,	M PRIME	PTI/PIE.	PTI/PTIMAX
0.5919	1.27671	1.00566	4919.4	40.88	0.065	3.793	0.997	0.996
0.6603	1.42425	1.00867	4904.3	38.23	0.062	3.842	0.994	0.993

HYPERSONIC ROU/FAU LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLEI HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTF TTD TW GEN. CYL.  
 9. 5. 10. 1. 306. 62. 36.00 4.907.38 444.50 569.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	PT/TTD	RHO	U	PRIME	M	PRIME	PTI/PTE	PTI/PTIMAX	TOT. PRESS. RECOV.	CT
0.	0.0100	569.00	569.00	0.	0.2829								0.44626	0.183
0.0232	1.36	611.73	447.05	1406.5	0.7492									
0.0321	1.65	637.91	413.61	1641.5	0.9898									
0.0391	1.68	647.41	413.34	1676.9	1.0045									
0.0582	1.72	652.87	409.76	1709.0	1.0130									
0.0728	1.98	654.54	367.13	1858.2	1.0152									
0.0909	2.07	654.87	352.15	1907.0	1.0161									
0.1067	2.14	655.11	341.17	1942.1	1.0165									
0.1240	2.26	655.90	324.89	1994.2	1.0177									
0.1398	2.39	657.37	306.84	2052.1	1.0200									
0.1738	2.75	658.76	262.30	2182.4	1.0221									
0.2087	3.08	657.59	227.45	2273.2	1.0203									
0.2417	3.25	654.23	210.09	2309.9	1.0151									
0.2748	3.31	651.36	204.14	2317.9	1.0106									
0.3074	3.35	648.50	200.19	2320.8	1.0062									
0.3749	3.45	644.37	190.13	2336.1	0.9998									
0.4433	3.59	644.38	180.47	2360.8	0.9998									
0.5088	3.79	644.54	166.55	2396.3	1.0001									

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA P	RTHETA D	RECOV. FACT.	RECOV. TFMP.	RHO	U	PRIME	M	PRIME	PTI/PTE	PTI/PTIMAX	TOT. PRESS. RECOV.	CT
0.2525	0.0299	1.06	6353124.	13854904.	3678.	8022.	0.827	44R.36							0.44626	0.183	

  

PHI,	DELTA STAR	PRIME,	DELTA STAR	(2),	DELTA STAR	(W ),	THETA STAR	(W ),	THETA	(2),	THETA	(W),	M	(W),	M	(E),	PTI	MAX,
-0.0274	-0.084	0.1134	0.0735				0.00660	0.02145	0.01466	5.01	3.27	5109.9						

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO	U	PRIME,	M	PRIME	PTI/PTE	PTI/PTIMAX
0.0100	0.03961	0.60808	0.31840	174.4	174.38						0.036	0.034
0.0232	0.09204	0.70967	0.39923	520.5	173.69			0.162	2.819	0.162	0.106	0.102
0.0321	0.12733	0.72496	0.40583	786.6	172.64			0.161	2.823	0.161	0.160	0.154
0.0391	0.15482	0.73883	0.41488	825.6	171.68			0.159	2.827	0.159	0.178	0.162
0.0582	0.23066	0.78833	0.47213	1149.7	170.72			0.157	2.831	0.157	0.234	0.171
0.0728	0.28825	0.80333	0.48696	1244.3	164.44			0.154	2.842	0.154	0.254	0.225
0.0909	0.35989	0.82445	0.50484	1403.1	160.00			0.151	2.855	0.151	0.286	0.244
0.1067	0.42259	0.83954	0.51419	1521.0	155.03			0.147	2.873	0.147	0.310	0.275
0.1240	0.49111	0.86211	0.52886	1728.8	147.88			0.142	2.894	0.142	0.352	0.298
0.1398	0.55368	0.88716	0.54566	2015.3	140.03			0.126	2.925	0.126	0.411	0.394
0.1738	0.68834	0.94350	0.56641	2933.1	116.84			0.107	3.082	0.107	0.598	0.574
0.2087	0.82656	0.98276	0.57985	4091.4	99.57			0.103	3.191	0.103	0.801	0.801
0.2417	0.95726	0.99862	0.57870	4813.8	90.33			0.099	3.257	0.099	0.981	0.942
0.2525	1.00000	1.00000	0.57457	4854.4	88.64			0.099	3.298	0.099	1.006	0.950
0.2748	1.08835	1.00209	0.56302	4938.3	85.10			0.089	3.342	0.089	0.995	0.966
0.3074	1.21747	1.00330	0.53889	4881.2	79.78			0.089	3.453	0.089	0.993	0.955
0.3749	1.48480	1.00992	0.48698	4873.9	69.01			0.078	3.589	0.078	0.984	0.945
0.4433	1.75571	1.02061	0.42799	4830.1	56.15			0.069	3.751	0.069	1.041	0.965
0.5088	2.01512	1.03598	0.37572	5109.9	44.82							1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TT0 TT10 TT20  
 8. 6. 10. 14. 306. 114. 0. 24652.80 724.00 397.50 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	397.50	397.50	0.	0.5490
0.0100	2.05	579.27	314.26	1784.3	0.8001
0.0223	2.31	668.44	323.91	2034.5	0.9233
0.0306	2.18	690.71	353.57	2012.5	0.9540
0.0384	2.26	696.39	344.34	2056.6	0.9619
0.0565	2.60	699.37	297.21	2198.1	0.9660
0.0716	2.69	712.79	291.12	2250.8	0.9845
0.0884	2.94	724.53	266.06	2346.9	1.0007
0.1065	3.23	737.16	239.28	2445.7	1.0182
0.1226	3.38	745.90	227.00	2496.8	1.0302
0.1386	3.50	747.43	216.54	2525.5	1.0324
0.1719	3.86	744.03	187.25	2586.3	1.0277
0.2050	4.16	737.31	165.57	2620.8	1.0184
0.2389	4.52	730.86	143.74	2655.9	1.0095
0.2729	4.73	727.59	133.03	2672.6	1.0050
0.3057	5.09	725.69	117.38	2703.3	1.0023
0.3404	5.37	723.73	106.87	2722.3	0.9996
0.4074	5.73	723.18	95.56	2745.9	0.9989
0.4745	5.91	721.98	90.33	2754.7	0.9972
0.5414	5.95	721.71	89.37	2756.2	0.9968
0.6096	5.97	721.76	88.78	2757.6	0.9969
0.6752	5.97	721.77	88.93	2757.3	0.9969
0.7434	5.97	721.77	88.93	2757.3	0.9969
0.8101	5.97	721.77	88.93	2757.3	0.9969
0.8784	5.97	721.77	88.93	2757.3	0.9969
0.8785	5.97	721.77	88.93	2757.3	0.9969

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4896 0.2130 17.19 325617. 4837457. 336. 4995. 338.82 0.485 0.33489 2.880

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(2), THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 -0.0008 -0.005 0.2182 0.2162 0.00019 0.01229 0.01219 17.74 5.93 27733.5

Y	Y/DELTA	U/UIDELTA	RHO * U	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	18.1	18.10	0.001	0.001	0.001
0.0100	0.02043	0.64749	0.05988	153.9	18.10	0.006	0.006	0.006
0.0223	0.04559	0.73829	0.06624	228.5	18.10	0.009	0.009	0.008
0.0306	0.06244	0.73032	0.06003	188.6	18.10	0.012	0.008	0.007
0.0384	0.07851	0.74629	0.06299	212.9	18.10	0.012	0.009	0.008
0.0565	0.11546	0.79764	0.07800	361.8	18.10	0.012	0.015	0.013
0.0716	0.14624	0.81676	0.08154	415.7	18.10	0.012	0.017	0.015
0.0884	0.18052	0.85166	0.09303	603.2	18.10	0.012	0.022	0.022
0.1065	0.21753	0.88750	0.10780	928.9	18.10	0.012	0.038	0.033
0.1226	0.25041	0.90605	0.11601	1164.2	18.10	0.012	0.047	0.042
0.1386	0.28309	0.91645	0.12301	1383.0	18.10	0.012	0.056	0.050
0.1719	0.35111	0.93853	0.14567	2263.5	18.10	0.012	0.092	0.082
0.2050	0.41871	0.95105	0.16694	3372.9	18.10	0.012	0.137	0.122
0.2389	0.48796	0.96377	0.19487	5365.7	18.10	0.012	0.218	0.193
0.2729	0.55740	0.96985	0.21188	6925.0	18.10	0.012	0.281	0.250
0.3057	0.62440	0.98100	0.24289	10634.0	18.10	0.012	0.431	0.383

HYPERSONIC BOUNDARY LAYER ALLOC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	(U/DELTA) <sup>2</sup>	RHO * U	PII	PI,	RHO U PRIME,	Y PRIME	PTI/PIE,	PTI/PTIMAX
0.3404	0.69527	0.98787	0.26864	14627.1	18.10	0.012	5.921	0.593	0.527
0.4074	0.83212	0.99645	0.30305	21590.3	18.10	0.012	5.921	0.875	0.778
0.4745	0.96917	0.99965	0.32164	26130.4	18.10	0.012	5.921	1.060	0.942
0.4896	1.00000	1.00000	0.32376	26346.9	18.10	0.012	5.921	1.099	0.950
0.5414	1.10582	1.10019	0.32527	27089.8	18.10	0.012	5.921	1.125	0.977
0.6096	1.24512	1.00070	0.32760	27733.5	18.10	0.012	5.921	1.118	1.000
0.6752	1.37940	1.00059	0.32701	27571.8	18.10	0.012	5.921	1.118	0.994
0.7434	1.51840	1.00059	0.32701	27571.8	18.10	0.012	5.921	1.118	0.994
0.8101	1.65464	1.00059	0.32701	27571.8	18.10	0.012	5.921	1.118	0.994
0.8784	1.79414	1.00059	0.32701	27571.8	18.10	0.012	5.921	1.118	0.994
0.8785	1.79435	1.00059	0.32701	27571.8	18.10	0.012	5.921	1.118	0.994

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLET HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X PTE ITD TM  
 8. 6. 10. 14. 306. 113. 18.75 24638.40 724.00 401.50 12.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VFLOCITY	YI/ITD	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	401.50	401.50	0.	0.5546								
0.0100	1.50	592.34	409.04	1484.0	0.8181					349.22	0.475	0.43051	2.378
0.0188	1.92	661.47	380.13	1838.5	0.9136								
0.0273	2.28	688.73	337.97	2052.8	0.9513								
0.0367	2.77	687.62	271.47	2236.0	0.9497								
0.0527	3.06	699.92	243.39	2341.9	0.9667								
0.0695	3.37	709.49	217.02	2432.4	0.9800								
0.0864	3.55	719.19	204.51	2486.6	0.9934								
0.1027	3.77	725.27	188.50	2539.4	1.0018								
0.1199	3.90	732.43	181.29	2573.2	1.0116								
0.1359	4.05	737.40	172.03	2606.7	1.0185								
0.1694	4.35	746.42	156.28	2662.7	1.0310								
0.2022	4.52	750.07	147.36	2690.9	1.0360								
0.2389	4.73	747.26	136.58	2708.6	1.0321								
0.2707	4.89	742.45	128.42	2716.0	1.0255								
0.3054	5.02	736.07	122.04	2716.0	1.0167								
0.3383	5.14	731.34	116.37	2716.1	1.0101								
0.4048	5.30	727.38	109.97	2723.5	1.0047								
0.4711	5.35	726.08	108.00	2725.0	1.0029								
0.5401	5.36	726.15	107.48	2726.3	1.0030								
0.6058	5.38	726.25	106.86	2727.9	1.0031								
0.6739	5.40	725.39	106.14	2727.5	1.0019								
0.7409	5.41	725.35	105.81	2728.2	1.0019								
DELTA	DELTA STAR	M	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT			
0.4035	0.1194	13.22	1460732.	13797911.	429.	4049.	349.22	0.475	0.43051	2.378			
PHI,	DELTA STAR PRIME,	DELTA STAR(W 1),	DELTA STAR(W 2),	THETA STAR(W 1),	THETA STAR(W 2),	THETA(W),	M(W),	M(1E),	PTIMAX,				
-0.0089	-0.012	0.1318	0.1257	0.00028	0.00875	0.00836	15.04	5.30	24733.1				
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	33.9	33.90	0.019	5.235	0.001	0.001	0.001			
0.0100	0.02478	0.54489	0.07165	123.9	33.90	0.019	5.236	0.005	0.005	0.005			
0.0188	0.04654	0.67507	0.09548	235.5	33.88	0.019	5.236	0.010	0.010	0.010			
0.0273	0.06763	0.75377	0.11979	408.9	33.85	0.019	5.236	0.017	0.017	0.017			
0.0367	0.09105	0.82102	0.16227	874.6	33.81	0.019	5.237	0.035	0.035	0.035			
0.0527	0.13067	0.85994	0.18929	1361.6	33.76	0.019	5.239	0.055	0.055	0.055			
0.0695	0.17225	0.89314	0.22015	2129.6	33.71	0.019	5.240	0.086	0.086	0.086			
0.0864	0.21413	0.91307	0.23847	2745.4	33.66	0.019	5.241	0.111	0.111	0.111			
0.1027	0.25450	0.93245	0.26364	3752.8	33.59	0.019	5.243	0.152	0.152	0.152			
0.1199	0.29713	0.94485	0.27712	4441.6	33.51	0.019	5.245	0.180	0.180	0.180			
0.1359	0.33678	0.95697	0.29496	5448.5	33.42	0.019	5.248	0.221	0.221	0.221			
0.1694	0.41979	0.97771	0.32986	7912.1	33.23	0.019	5.253	0.321	0.321	0.321			
0.2022	0.50108	0.98806	0.35164	9832.5	33.05	0.019	5.258	0.399	0.399	0.399			
0.2389	0.59202	0.99458	0.37956	12893.6	32.85	0.019	5.263	0.511	0.511	0.509			
0.2707	0.67083	0.99730	0.40225	15165.8	32.64	0.019	5.269	0.616	0.616	0.613			
0.3054	0.75682	0.99730	0.42023	17462.9	32.41	0.019	5.275	0.709	0.709	0.706			
0.3383	0.83835	0.99807	0.43781	20018.5	32.17	0.019	5.282	0.812	0.812	0.809			
0.4035	1.00000	1.00000	0.45671	23496.4	31.67	0.019	5.282	0.812	0.812	0.809			
0.4048	1.00314	1.00004	0.45687	23564.1	31.66	0.018	5.296	0.956	0.956	0.953			
0.4711	1.16744	1.00058	0.45799	24566.4	31.15	0.018	5.310	0.996	0.996	0.992			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A SUBLET HEAT TRANSFER

Y	Y/DELTA	U/DELTA	RHO * U	PII	PI	ROU U PRIME	M PRIME	PTI/PTF	PTI/PTIMAX
0.5401	1.33843	1.00100	0.45338	24587.4	30.68	0.018	5.324	0.998	0.994
0.6038	1.50125	1.00164	0.44873	24690.2	30.17	0.018	5.339	1.002	0.998
0.6739	1.67001	1.00150	0.44383	24733.1	29.65	0.018	5.355	1.004	1.000
0.7409	1.83404	1.00177	0.43745	24560.9	29.17	0.017	5.371	0.997	0.993

HYPERSONIC BOUNDARY LAYER AEOC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PIF ITD TW GEN. CYL.  
 8. 6. 10. 14. 306. 142. 33.00 24536.16 723.50 431.50 12.00

Y	MACH	TOT. IFMP.	STAT. TEMP.	VELOCITY	IT/ITD
0.	0.	431.50	431.50	0.	0.5964
0.0100	2.02	642.19	353.62	1861.9	0.8876
0.0176	2.23	696.82	350.10	2040.9	0.9631
0.0259	2.55	707.47	307.55	2191.9	0.9778
0.0348	2.73	716.50	287.82	2269.4	0.9903
0.0525	3.20	729.88	239.90	2426.2	1.0088
0.0675	3.37	737.08	225.39	2479.4	1.0188
0.0844	3.64	740.69	203.17	2541.2	1.0238
0.1016	3.73	742.71	192.03	2572.1	1.0265
0.1181	3.93	742.74	181.63	2596.4	1.0266
0.1357	4.04	742.43	174.25	2612.7	1.0262
0.1686	4.22	738.49	161.96	2631.8	1.0207
0.2022	4.34	734.31	153.94	2640.5	1.0149
0.2357	4.42	730.29	148.74	2643.2	1.0094
0.2706	4.47	727.10	145.28	2643.8	1.0050
0.3028	4.51	724.91	142.79	2644.5	1.0019
0.3372	4.57	724.62	139.92	2650.4	1.0015
0.4035	4.64	724.14	136.43	2657.2	1.0009
0.4702	4.64	724.70	136.47	2658.4	1.0017
0.5377	4.66	724.60	135.71	2659.9	1.0015
0.6040	4.73	725.05	132.55	2668.0	1.0021
0.6729	4.74	725.47	132.19	2669.7	1.0027
0.7404	4.83	725.65	127.93	2679.7	1.0030
0.8072	4.93	725.91	123.94	2689.2	1.0033
0.8742	4.99	726.21	121.29	2695.8	1.0037
0.9414	5.07	726.53	118.27	2703.3	1.0042
1.0080	5.09	725.79	117.43	2703.5	1.0032

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3195 0.0481 6.40 5325826. 30080605. 886. 5003. 374.00 0.498 0.58431 1.646

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), DELTA STAR(W ), THETA(2), THETA(W), M(W), M(E), PTIMAX.  
 -0.0069 -0.026 0.0740 0.0654 0.0009 0.00653 0.00580 11.27 4.54 26335.3

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	98.3	98.27	0.038	0.004	0.004	0.004
0.0100	0.03130	0.70327	0.30147	793.1	98.27	0.038	4.398	0.032	0.030
0.0176	0.05506	0.77088	0.33327	1091.4	98.12	0.038	4.399	0.032	0.041
0.0259	0.08094	0.82791	0.40659	1807.5	97.91	0.038	4.401	0.074	0.069
0.0348	0.10883	0.85717	0.44875	2377.7	97.68	0.038	4.403	0.097	0.090
0.0525	0.14423	0.91640	0.57267	4773.6	97.18	0.038	4.407	0.195	0.161
0.0675	0.21140	0.93648	0.62039	6121.6	96.79	0.038	4.410	0.249	0.232
0.0844	0.26433	0.95983	0.70039	8891.4	96.10	0.038	4.416	0.362	0.338
0.1016	0.31800	0.97151	0.74388	10845.2	95.32	0.037	4.422	0.442	0.412
0.1181	0.36965	0.98067	0.78776	13079.1	94.58	0.037	4.428	0.533	0.497
0.1357	0.42474	0.98683	0.81900	14967.6	93.75	0.037	4.435	0.610	0.568
0.1686	0.52771	0.99406	0.86993	18600.9	91.88	0.036	4.451	0.758	0.706
0.2022	0.63288	0.99735	0.89713	21277.4	89.77	0.036	4.470	0.867	0.808
0.2357	0.73773	0.99837	0.90556	22936.6	87.46	0.035	4.491	0.935	0.871
0.2706	0.84697	0.99860	0.90284	23878.7	85.15	0.035	4.512	0.973	0.907

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/(U/Delta)	rho * U	PTI	P1	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.3028	0.94775	0.98885	0.89706	24506.3	83.13	0.034	4.531	0.999	0.931
0.3195	1.00000	1.00000	0.89561	25018.5	82.04				0.950
0.3372	1.05542	1.00106	0.89257	25561.9	80.87	0.033	4.554	1.042	0.971
0.4035	1.26294	1.00364	0.86755	26335.3	76.45	0.032	4.599	1.073	1.000
0.4702	1.47171	1.00409	0.82084	24955.2	72.32	0.031	4.644	1.017	0.948
0.5377	1.68298	1.00466	0.77995	24023.4	68.29	0.030	4.691	0.979	0.912
0.6040	1.89050	1.00772	0.75196	24541.6	64.12	0.029	4.743	1.000	0.932
0.6729	2.10615	1.00838	0.70014	23037.2	59.50	0.027	4.806	0.939	0.875
0.7404	2.31743	1.01215	0.66920	23830.5	54.83	0.026	4.874	0.971	0.905
0.8072	2.52651	1.01574	0.63853	24556.4	50.51	0.024	4.944	1.001	0.932
0.8742	2.73622	1.01823	0.60574	24564.9	46.77	0.023	5.009	1.001	0.933
0.9414	2.94655	1.02104	0.58434	25211.1	43.88	0.022	5.064	1.028	0.957
1.0080	3.15501	1.02113	0.56155	24574.7	41.86	0.021	5.105	1.002	0.933

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE ITD TM GEN. CYL.  
 8. 6. 10. 14. 306. 143. 34.50 24595.20 723.50 438.00 12.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	IT/ITD
0.	0.	438.00	438.00	0.	0.6054
0.0100	1.93	649.74	371.67	1827.7	0.8980
0.0188	2.11	713.84	378.45	2007.3	0.9867
0.0262	2.24	711.62	355.50	2068.4	0.9836
0.0353	2.42	718.68	330.91	2158.4	0.9933
0.0517	2.97	731.58	265.17	2367.2	1.0112
0.0696	3.21	738.13	240.76	2444.4	1.0202
0.0872	3.47	740.30	217.47	2506.2	1.0232
0.1023	3.59	740.90	207.26	2532.0	1.0241
0.1185	3.72	739.80	196.23	2555.4	1.0225
0.1365	3.83	738.55	187.99	2571.8	1.0208
0.1560	3.92	736.57	180.49	2584.7	1.0181
0.1862	4.04	731.68	171.87	2593.4	1.0113
0.2191	4.14	728.00	164.62	2601.6	1.0062
0.2537	4.22	726.00	159.13	2609.6	1.0035
0.2866	4.27	724.27	155.74	2613.5	1.0011
0.3205	4.29	723.67	154.84	2614.2	1.0002
0.3547	4.32	724.15	152.91	2619.7	1.0009
0.3904	4.37	724.66	150.46	2626.5	1.0016
0.4544	4.42	724.36	147.82	2631.8	1.0012
0.5295	4.54	723.85	141.30	2645.5	1.0005

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.2409 0.0447 5.41 7907049. 35190383. 1397. 6218. 384.64 0.492 0.53052 1.429

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STARIM 1, THETA STARIME, THETA(2), THETA(W), H(W), MIE), PTIMAX,  
 -0.0045 -0.021 0.0660 0.0575 0.0092 0.00735 0.00646 8.91 4.19 25294.0

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	150.8	150.77	0.052	4.039	0.006	0.006
0.0100	0.04152	0.70105	1061.3	150.24	0.052	4.042	0.043	0.042
0.0188	0.07797	0.76993	1379.8	149.71	0.052	4.042	0.056	0.055
0.0262	0.10899	0.79337	1693.8	149.26	0.052	4.047	0.069	0.067
0.0353	0.14652	0.82788	2244.4	148.66	0.051	4.053	0.091	0.089
0.0517	0.21457	0.90795	5143.6	147.45	0.051	4.063	0.209	0.203
0.0696	0.28914	0.93759	7344.5	145.57	0.051	4.072	0.299	0.290
0.0872	0.36205	0.96129	10462.7	143.76	0.051	4.081	0.425	0.414
0.1023	0.42474	0.97119	12273.9	142.10	0.050	4.081	0.499	0.485
0.1185	0.49200	0.98017	14588.1	140.21	0.050	4.091	0.593	0.577
0.1365	0.56673	0.98645	16578.9	137.95	0.049	4.104	0.674	0.655
0.1560	0.64770	0.99139	18610.7	135.54	0.049	4.117	0.757	0.736
0.1862	0.77308	0.99472	20918.8	131.39	0.048	4.141	0.851	0.827
0.2191	0.90968	0.99787	23058.7	126.80	0.047	4.168	0.938	0.912
0.2409	1.00000	1.00000	24029.3	123.27	0.045	4.202	0.950	0.950
0.2537	1.05334	1.00096	24602.4	121.29	0.044	4.233	1.000	0.973
0.2866	1.18993	1.00242	25294.0	116.62	0.043	4.268	1.028	1.000
0.3205	1.33068	1.00269	24590.2	111.42	0.041	4.306	1.000	0.972
0.3547	1.47268	1.00481	24530.9	106.14	0.040	4.349	0.997	0.970
0.3904	1.62090	1.00742	24633.8	100.49	0.037	4.429	1.002	0.974
0.4544	1.88662	1.00947	23643.1	90.76	0.034	4.429	0.961	0.935
0.5295	2.19843	1.01471	24610.9	80.89	0.034	4.521	1.001	0.973

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TT0 TT1 TT2  
 8. 6. 10. 14. 306. 144. 36.00 24577.92 723.50 447.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	447.00	447.00	0.	0.5178
0.0100	1.93	696.74	399.55	1889.5	0.9630
0.0186	2.17	741.20	380.90	2080.5	1.0245
0.0270	2.41	732.48	338.93	2174.4	1.0124
0.0350	2.62	733.29	309.67	2255.9	1.0135
0.0438	2.77	733.34	289.49	2309.2	1.0136
0.0561	2.88	733.07	276.22	2342.8	1.0132
0.0745	3.04	733.27	264.18	2424.0	1.0411
0.0906	3.18	751.80	248.83	2458.2	1.0391
0.1071	3.29	735.87	232.29	2459.7	1.0171
0.1248	3.39	737.86	221.34	2486.2	1.0199
0.1408	3.42	742.60	222.30	2500.2	1.0264
0.1576	3.48	763.89	223.56	2547.8	1.0558

DELTA DELTA STAR H PSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. CT  
 0.1143 0.0186 3.07 21637517. 54160676. 2712. 6789. 415.40 0.442 0.54710 1.039

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA PRIME, THETA(2), THETA(M), H(M), M(E), PTIMAX,  
 -0.0041 -0.012 0.0301 0.0259 0.0086 0.00521 0.00456 5.69 3.34 24593.0

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	71,	RHO U PRIME,	M PRIME	PI1/PTE,	PT1/PTIMAX
0.	0.	0.	0.	483.8	483.84	0.020	0.020	0.020	0.020
0.0100	0.08748	0.76440	1.32388	3364.2	480.45	0.114	3.189	0.137	0.137
0.0186	0.16315	0.84166	1.51674	4898.5	476.58	0.114	3.194	0.199	0.199
0.0270	0.23646	0.87965	1.76524	7007.5	472.23	0.113	3.201	0.285	0.285
0.0350	0.30844	0.91263	1.97777	9520.3	465.94	0.112	3.210	0.387	0.387
0.0438	0.38334	0.93417	2.13406	11880.3	459.16	0.111	3.220	0.483	0.483
0.0561	0.49112	0.94776	2.21890	13673.6	449.00	0.109	3.235	0.556	0.556
0.0745	0.65164	0.98063	2.30996	16913.6	432.07	0.107	3.261	0.688	0.688
0.0906	0.79266	0.99445	2.39233	19925.3	415.62	0.104	3.288	0.810	0.810
0.1071	0.93692	0.99505	2.45528	22518.0	397.96	0.101	3.318	0.916	0.916
0.1143	1.00000	1.00000	2.45403	23363.4	387.91	0.097	3.358	0.950	0.950
0.1248	1.09176	1.00580	2.43374	24593.0	375.22	0.095	3.387	1.000	1.000
0.1408	1.23173	1.01144	2.36061	24545.2	360.22	0.090	3.441	0.999	0.999
0.1576	1.37869	1.03071	2.21202	24563.9	333.12	0.090	3.441	0.999	0.999

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA RESTRICTION - TUNNEL A COOLET HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTIO  
 8. 6. 10. 5. 306. 107. 0. 24589.15 698.00 472.50 12.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTIO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	492.50	492.50	0.	0.7056								
0.0100	1.93	626.63	359.57	1791.2	0.8978					381.58	0.662	0.34640	1.790
0.0190	2.20	672.28	341.50	1993.5	0.9632								
0.0280	2.39	690.91	322.76	2103.1	0.9898								
0.0359	2.44	697.64	317.93	2135.8	0.9995								
0.0522	2.63	703.09	287.44	2234.6	1.0073								
0.0691	2.83	719.60	276.62	2307.5	1.0309								
0.0861	2.99	724.85	259.87	2363.5	1.0385								
0.1031	3.18	738.01	243.76	2436.8	1.0573								
0.1198	3.31	739.44	232.08	2468.9	1.0594								
0.1370	3.44	746.20	221.30	2511.2	1.0691								
0.1698	3.77	747.58	194.33	2578.1	1.0710								
0.2045	4.06	742.31	172.75	2615.8	1.0635								
0.2377	4.37	735.72	152.45	2647.1	1.0540								
0.2718	4.69	730.29	135.07	2674.1	1.0463								
0.3051	5.01	725.03	120.53	2694.9	1.0387								
0.3389	5.23	723.05	111.84	2709.8	1.0359								
0.4052	5.58	722.25	99.89	2734.4	1.0347								
0.4723	5.83	720.82	92.57	2747.3	1.0327								
0.5409	5.90	720.41	90.38	2751.2	1.0321								
0.6073	5.93	721.23	89.88	2754.1	1.0333								
0.6736	5.93	721.60	89.92	2754.8	1.0338								
0.7405	5.92	720.74	89.98	2752.8	1.0326								
0.8072	5.92	721.48	90.07	2754.2	1.0336								
0.8775	5.92	720.80	89.98	2752.9	1.0327								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.5170	0.2196	17.71	270674.	4914509.	280.	5079.	381.58	0.662	0.34640	1.790			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA STAR(W ),	THETA PRIME,	THETA(2),	THETA(W),	H(W),	MIE),	PTIMAX,			
-0.0515	-0.008	0.2279	0.2249	0.00016	0.01224	0.01208	18.61	5.90	27507.4				
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	18.8	18.79	0.012	5.877	0.001	0.001				
0.0100	0.01934	0.65114	0.05455	131.3	18.79	0.012	5.877	0.005	0.005				
0.0190	0.03679	0.72466	0.06392	201.2	18.79	0.012	5.877	0.008	0.007				
0.0280	0.05420	0.76450	0.07134	269.7	18.79	0.012	5.877	0.011	0.010				
0.0359	0.06954	0.77641	0.07356	294.1	18.79	0.012	5.877	0.012	0.011				
0.0522	0.10097	0.81232	0.08512	430.1	18.79	0.012	5.877	0.017	0.016				
0.0691	0.13368	0.83080	0.09140	535.0	18.79	0.012	5.877	0.022	0.019				
0.0861	0.16645	0.85918	0.09959	681.1	18.79	0.012	5.877	0.028	0.025				
0.1031	0.19943	0.88580	0.10946	907.4	18.79	0.012	5.877	0.037	0.033				
0.1198	0.23174	0.89747	0.11648	1084.9	18.79	0.012	5.877	0.044	0.039				
0.1370	0.26501	0.91286	0.12425	1322.9	18.79	0.012	5.877	0.054	0.048				
0.1698	0.32846	0.93719	0.14527	2098.6	18.79	0.012	5.877	0.085	0.076				
0.2045	0.39558	0.95090	0.16580	3091.0	18.79	0.012	5.877	0.126	0.112				
0.2377	0.45980	0.96227	0.19012	4639.6	18.79	0.012	5.877	0.189	0.169				
0.2718	0.52576	0.97209	0.21678	6906.8	18.79	0.012	5.877	0.281	0.251				
0.3051	0.59018	0.97963	0.24481	10031.0	18.79	0.012	5.877	0.408	0.365				
0.3389	0.65556	0.98506	0.26530	12911.7	18.79	0.012	5.877	0.525	0.469				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COULFF HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4052	0.78381	0.99400	0.29973	19101.6	18.79	0.012	5.877	0.777	0.694
0.4723	0.91361	0.99869	0.32494	24755.2	18.79	0.012	5.877	1.007	0.900
0.5170	1.00000	1.00000	0.33239	26132.1	18.79				0.950
0.5409	1.04631	1.00011	0.33331	26870.0	18.79	0.012	5.877	1.093	0.977
0.6073	1.17475	1.00115	0.33552	27507.4	18.79	0.012	5.877	1.119	1.000
0.6736	1.30300	1.00141	0.33543	27507.4	18.79	0.012	5.877	1.119	1.000
0.7405	1.43241	1.00069	0.33499	27336.8	18.79	0.012	5.877	1.112	0.994
0.8072	1.56143	1.00120	0.33482	27336.8	18.79	0.012	5.877	1.112	0.994
0.8775	1.69742	1.00073	0.33498	27336.8	18.79	0.012	5.877	1.112	0.994

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLING HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TT0 TT1  
 8. 6. 10. 5. 306. 108. 18.75 24640.27 698.00 496.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS.-RECOV.	CT
0.	0.	496.00	496.00	0.	0.7106								
0.0100	1.71	640.58	404.65	1683.6	0.9177					386.15	0.665	0.38260	1.757
0.0243	1.97	685.53	385.12	1899.8	0.9821								
0.0325	2.83	695.24	267.20	2267.7	0.9960								
0.0408	3.01	700.08	249.33	2327.1	1.0030								
0.0577	3.38	709.93	216.25	2435.4	1.0171								
0.0750	3.62	719.88	198.48	2502.8	1.0314								
0.0919	3.87	726.31	182.01	2557.2	1.0406								
0.1096	4.06	731.80	170.62	2596.5	1.0484								
0.1261	4.20	737.53	163.12	2627.0	1.0566								
0.1423	4.33	742.82	156.53	2654.0	1.0642								
0.1749	4.61	749.06	142.48	2699.5	1.0731								
0.2104	4.81	753.19	133.79	2727.9	1.0791								
0.2427	5.03	751.64	124.07	2745.8	1.0768								
0.2762	5.26	746.73	114.30	2756.4	1.0698								
0.3091	5.43	739.92	107.29	2756.9	1.0601								
0.3433	5.59	734.28	101.27	2757.7	1.0520								
0.4108	5.79	728.26	94.61	2759.1	1.0433								
0.4774	5.83	725.75	93.05	2757.0	1.0398								
0.5448	5.82	725.45	93.23	2756.0	1.0393								
0.6124	5.80	725.61	93.82	2755.0	1.0396								
0.6785	5.77	725.65	94.61	2753.4	1.0396								
0.7472	5.73	724.72	95.65	2749.1	1.0383								
0.8129	5.69	724.63	96.84	2746.3	1.0382								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS.-RECOV.	CT
0.4090	0.1431	19.09	966574.	16275378.	236.	3967.	386.15	0.665	0.38260	1.757

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(M 1),	THETA PRIME,	THETA(2),	THETA(W),	H(M),	MIE),	PTIMAX,
-0.0583	-0.001	0.1437	0.1435	0.00001	0.00749	0.00748	19.18	5.78	35361.6

  

Y	Y/DELTA	U/UIDELTA	RHO * U	PT1	PI,	RHO U PRIME,	M. PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	26.7	26.67				
0.0100	0.02445	0.61020	0.06465	133.1	26.67	0.013	5.782	0.001	0.001
0.0243	0.05936	0.68856	0.07665	200.7	26.67	0.013	5.782	0.005	0.004
0.0325	0.07956	0.82192	0.13188	757.9	26.67	0.013	5.782	0.008	0.006
0.0408	0.09973	0.84343	0.14503	989.2	26.67	0.013	5.782	0.031	0.021
0.0577	0.14110	0.88269	0.17500	1709.7	26.67	0.013	5.782	0.040	0.028
0.0750	0.18340	0.90713	0.19595	2423.5	26.67	0.013	5.782	0.069	0.048
0.0919	0.22474	0.92683	0.21831	3385.1	26.67	0.013	5.782	0.098	0.069
0.1096	0.26797	0.94110	0.23647	4357.9	26.67	0.013	5.782	0.137	0.096
0.1261	0.30831	0.95212	0.25025	5241.9	26.67	0.013	5.782	0.177	0.123
0.1423	0.34792	0.96192	0.26346	6208.7	26.67	0.013	5.782	0.213	0.148
0.1749	0.42763	0.97842	0.29440	8884.9	26.67	0.013	5.782	0.252	0.176
0.2104	0.51442	0.98671	0.31683	11290.2	26.67	0.013	5.782	0.361	0.291
0.2427	0.59340	0.99521	0.34390	14596.3	26.67	0.013	5.782	0.458	0.319
0.2762	0.67574	0.99906	0.37473	19007.5	26.67	0.013	5.782	0.592	0.413
0.3091	0.75574	0.99921	0.39928	22971.0	26.67	0.013	5.782	0.771	0.538
0.3433	0.83936	0.99951	0.42312	27369.4	26.67	0.013	5.782	0.932	0.650
0.4090	1.00000	1.00000	0.45264	33574.5	26.67	0.013	5.782	1.111	0.774
0.4108	1.00440	1.00001	0.45315	33744.4	26.67	0.013	5.782	1.369	0.955

HYPERSONIC BOUNDARY LAYER ACDC WIND TUNNEL DATA REDUCTION - TUNNEL A COEFFICIENT HEAT TRANSFER

Y	V/DELTA	U/(U DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4774	1.16723	0.99927	0.46042	35341.6	26.67	0.013	5.782	1.434	1.000
0.5448	1.33203	0.99889	0.45934	35049.7	26.67	0.013	5.782	1.422	0.992
0.6124	1.49731	0.99855	0.45632	34314.8	26.67	0.013	5.782	1.393	0.971
0.6785	1.65892	0.99795	0.45221	33321.9	26.67	0.013	5.782	1.352	0.943
0.7472	1.82689	0.99640	0.44659	31927.6	26.67	0.013	5.782	1.296	0.903
0.8129	1.98753	0.99538	0.44066	30563.1	26.67	0.013	5.782	1.240	0.865

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE ITD TW GEN. CYL.  
 8. 6. 10. 6. 306. 109. 29.00 24671.81 698.00 501.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	501.00	501.00	0.	0.7178					402.07	0.653	0.53424	1.267
0.0100	2.60	663.06	282.07	2139.4	0.9499								
0.0222	3.01	724.11	257.36	2368.0	1.0374								
0.0306	3.18	723.42	239.13	2412.1	1.0364								
0.0405	3.29	729.45	230.80	2447.6	1.0451								
0.0553	3.53	736.89	211.27	2512.9	1.0557								
0.0732	3.73	742.77	196.66	2561.4	1.0641								
0.0893	3.93	745.83	182.58	2601.3	1.0685								
0.1074	4.06	748.79	174.27	2627.2	1.0728								
0.1247	4.21	749.12	164.74	2649.7	1.0732								
0.1412	4.26	748.88	161.94	2655.5	1.0729								
0.1569	4.36	748.25	155.97	2667.5	1.0720								
0.1901	4.50	745.35	147.65	2679.7	1.0678								
0.2243	4.60	739.91	141.17	2682.0	1.0600								
0.2566	4.68	734.90	136.69	2680.8	1.0529								
0.2922	4.75	731.32	132.69	2681.7	1.0477								
0.3239	4.79	728.38	130.34	2680.4	1.0435								
0.3577	4.82	726.84	128.90	2680.2	1.0413								
0.4253	4.83	724.79	128.06	2677.5	1.0384								
0.4919	4.84	724.61	127.50	2678.4	1.0381								
0.5595	4.86	724.64	126.52	2680.6	1.0382								
0.6271	4.87	724.67	125.97	2681.9	1.0382								
0.6945	4.89	724.75	125.29	2683.6	1.0383								
0.7621	4.94	724.88	123.39	2688.1	1.0385								
0.8270	4.97	725.02	122.12	2691.3	1.0387								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.3163	0.0708	14.21	2532534.	23009702.	307.	2789.	402.07	0.653	0.53424	1.267			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W J),	THETA STAR(W J),	THETA STAR(2),	THETA(W),	M(E),	PTIMAX,					
-0.0523	-0.000	0.0711	0.0711	0.0711	0.00001	0.00497	14.31	4.78	24893.7				
Y	Y/DELTA	U/U(DELTA)	RHO = U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX				
0.	0.	0.	0.	58.0	57.97	0.028	4.780	0.002	0.002				
0.0100	0.03161	0.79810	0.25621	1154.6	57.97	0.028	4.780	0.047	0.046				
0.0222	0.07015	0.88337	0.31082	2166.1	57.97	0.028	4.780	0.088	0.087				
0.0306	0.09664	0.89981	0.34073	2791.9	57.97	0.028	4.780	0.113	0.112				
0.0405	0.12816	0.91305	0.35822	3253.5	57.97	0.028	4.780	0.132	0.131				
0.0553	0.17498	0.93742	0.40178	4594.0	57.97	0.028	4.780	0.186	0.185				
0.0732	0.23135	0.95552	0.43997	6070.6	57.97	0.028	4.780	0.246	0.244				
0.0893	0.28227	0.97039	0.48127	7987.0	57.97	0.028	4.780	0.324	0.321				
0.1074	0.33953	0.98006	0.50925	9533.5	57.97	0.028	4.780	0.386	0.383				
0.1247	0.39422	0.98843	0.54332	11625.1	57.97	0.028	4.780	0.471	0.467				
0.1412	0.44638	0.99060	0.55392	12330.5	57.97	0.028	4.780	0.500	0.495				
0.1569	0.49601	0.99509	0.57772	14020.5	57.97	0.028	4.780	0.568	0.563				
0.1901	0.60097	0.99964	0.61308	16758.2	57.97	0.028	4.780	0.679	0.673				
0.2243	0.70908	1.00050	0.64174	19109.3	57.97	0.028	4.780	0.775	0.768				
0.2566	0.81120	1.00006	0.66248	20889.4	57.97	0.028	4.780	0.847	0.839				
0.2922	0.92374	1.00040	0.68268	22764.0	57.97	0.028	4.780	0.923	0.915				
0.3163	1.00000	1.00000	0.69240	23649.0	57.99	0.028	4.780	0.970	0.950				
0.3239	1.02395	0.99992	0.69470	23920.7	57.97	0.028	4.780	0.970	0.961				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTF,	PTI/PTIMAX
0.3577	1.13081	0.99984	0.70063	24622.3	57.83	0.028	4.782	0.998	0.989
0.4253	1.34451	0.99882	0.69852	24732.4	57.34	0.027	4.790	1.002	0.994
0.4919	1.55506	0.99914	0.69971	24657.5	56.35	0.027	4.804	0.999	0.991
0.5595	1.76876	0.99998	0.68348	24893.7	55.37	0.027	4.819	1.009	1.000
0.6271	1.98247	1.00047	0.67169	24724.1	54.15	0.026	4.837	1.002	0.993
0.6945	2.19554	1.00111	0.65409	24400.6	52.41	0.026	4.865	0.989	0.980
0.7621	2.40924	1.00279	0.64169	24839.7	50.55	0.025	4.895	1.007	0.998
0.8270	2.61441	1.00397	0.62387	24774.3	48.58	0.025	4.929	1.004	0.995

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE Y TO CT  
 B. 6. 10. 6. 306. 69. 33.00 24547.68 723.73 506.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	506.00	506.00	0.	0.6992
0.0100	1.90	665.14	386.13	1830.8	0.9190
0.0182	2.34	718.92	342.51	2126.5	0.9934
0.0262	2.65	737.10	306.15	2275.4	1.0185
0.0348	2.77	737.33	291.50	2314.3	1.0188
0.0518	3.09	743.02	255.22	2420.8	1.0266
0.0690	3.28	745.12	236.56	2471.8	1.0296
0.0852	3.45	746.29	220.57	2513.1	1.0312
0.1023	3.55	746.32	212.24	2533.0	1.0312
0.1215	3.67	744.82	201.59	2554.6	1.0291
0.1361	3.76	742.63	193.80	2567.8	1.0261
0.1485	3.92	737.29	181.03	2585.1	1.0187
0.2033	4.04	732.26	171.60	2595.3	1.0118
0.2359	4.14	728.77	164.54	2603.6	1.0070
0.2691	4.25	726.20	157.71	2613.4	1.0034
0.3051	4.34	724.04	152.02	2621.5	1.0004
0.3365	4.41	723.46	147.88	2629.6	0.9996
0.3366	4.41	723.46	147.88	2629.6	0.9996
0.4038	4.56	724.09	140.18	2648.6	1.0005
0.4711	4.64	723.99	136.59	2656.5	1.0004
0.5378	4.70	724.66	133.98	2663.9	1.0013
0.6059	4.81	725.40	128.94	2676.9	1.0023
0.6726	4.81	724.84	128.68	2676.2	1.0015

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.9436	-0.0007	-0.05	4791125.	27495079.	1630.	9357.	404.65	0.631	0.64700	1.177

PHI.	DELTA STAR PRIME	DELTA STAR(2).	DELTA STAR(W )	THETA STAR(1)	THETA STAR(2)	THETA STAR(W)	M(1).	PTIMAX.
-0.0137	-0.115	0.1145	0.0858	0.00491	0.01048	0.00798	10.76	4.70 25980.0

Y	V/DELTA	U/U(DELTA)	RHO * U	PT1	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	101.5	101.51	0.039	4.362	0.004	0.004
0.0100	0.01840	0.68704	0.28043	680.9	101.51	0.039	4.363	0.028	0.026
0.0182	0.03357	0.79801	0.36647	1357.2	101.30	0.039	4.363	0.055	0.052
0.0262	0.04829	0.85387	0.43847	2192.6	101.25	0.039	4.364	0.089	0.084
0.0348	0.06396	0.86849	0.46816	2604.9	101.20	0.039	4.364	0.106	0.100
0.0518	0.09531	0.90844	0.55705	4243.3	100.80	0.039	4.367	0.173	0.163
0.0690	0.12689	0.92758	0.61180	5573.5	100.49	0.039	4.370	0.227	0.215
0.0852	0.15680	0.94309	0.66376	7123.3	99.98	0.039	4.374	0.290	0.274
0.1023	0.18819	0.95056	0.68963	8085.9	99.17	0.039	4.380	0.329	0.311
0.1215	0.22351	0.95867	0.72925	9575.0	98.76	0.039	4.383	0.390	0.369
0.1361	0.25036	0.96360	0.75621	10789.2	97.95	0.038	4.390	0.440	0.415
0.1485	0.30997	0.97010	0.80233	13146.5	96.43	0.038	4.402	0.536	0.506
0.2033	0.37398	0.97393	0.83277	15168.6	94.50	0.037	4.418	0.618	0.584
0.2359	0.43395	0.97703	0.85160	16889.8	92.37	0.037	4.436	0.688	0.650
0.2691	0.49502	0.98071	0.86982	18875.0	90.09	0.036	4.456	0.769	0.727
0.3051	0.56125	0.98375	0.87608	20558.7	87.19	0.035	4.482	0.838	0.791
0.3365	0.61901	0.98680	0.87394	21843.1	84.35	0.035	4.509	0.890	0.841
0.3366	0.61919	0.98680	0.87393	21843.1	84.35	0.035	4.509	0.890	0.841
0.4038	0.74281	0.99392	0.85768	24404.9	77.91	0.033	4.573	0.994	0.939

HYPERSONIC BOUNDARY LAYER ALOC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX	
0.4711	0.86661	0.99689	0.81210	24571.3	71.66	0.031	4.641	1.001	0.946
0.5378	0.98931	0.99966	0.77319	24559.9	66.74	0.030	4.699	1.000	0.945
0.5436	1.00000	1.00000	0.77029	24681.0	66.30				0.950
0.6059	1.11459	1.00454	0.74409	25980.0	61.51	0.028	4.767	1.058	1.000
0.6726	1.23729	1.00429	0.70109	24539.8	57.36	0.027	4.818	1.000	0.945

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TT/D TITD  
 8. 6. 10. 6. 306. 68. 34.50 2453R.03 722.15 507.50 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO
0.	0.	507.50	507.50	0.	0.7028
0.0100	2.02	676.59	372.95	1909.9	0.9369
0.0180	2.35	722.98	343.17	2136.1	1.0012
0.0269	2.69	738.56	302.45	2288.9	1.0227
0.0348	2.86	740.14	280.66	2349.5	1.0249
0.0522	3.05	743.19	260.34	2408.5	1.0291
0.0694	3.26	742.11	237.36	2462.5	1.0276
0.0854	3.38	741.28	225.76	2488.6	1.0265
0.1041	3.50	739.62	214.36	2512.0	1.0242
0.1185	3.58	737.13	206.99	2523.7	1.0207
0.1357	3.66	733.84	199.12	2534.6	1.0162
0.1697	3.80	729.58	188.00	2550.8	1.0103
0.2022	3.96	725.96	175.48	2571.6	1.0053
0.2358	4.08	723.37	167.32	2584.6	1.0017
0.2699	4.20	721.71	159.40	2599.1	0.9994
0.3036	4.27	721.81	155.32	2608.8	0.9995
0.3366	4.33	721.67	152.02	2616.0	0.9993
0.4035	4.41	721.09	147.52	2625.0	0.9985
0.4724	4.43	721.32	146.50	2627.9	0.9988
0.5384	4.57	721.93	139.29	2645.7	0.9997
0.6055	4.67	724.11	135.14	2660.0	1.0027

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2807 0.0332 3.58 7050580. 34118764. 1398. 6764. 413.76 0.620 0.54808 0.985

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(1), THETA PRIME, THETA(2), THETA(W), H(W), M(1), PTIMAX,  
 -0.0087 -0.041 0.0741 0.0606 0.00193 0.00735 0.00608 9.96 4.23 24594.3

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PII	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.73382	0.45817	153.9	153.94	0.054	4.002	0.006	0.006
0.0100	0.03563	0.82072	0.55608	1234.8	153.32	0.054	4.003	0.050	0.050
0.0180	0.06410	0.87944	0.67539	2081.0	153.17	0.054	4.003	0.085	0.085
0.0269	0.09588	0.90271	0.74486	3485.0	152.70	0.053	4.006	0.142	0.142
0.0348	0.12388	0.92538	0.81732	4548.3	151.63	0.053	4.011	0.185	0.185
0.0522	0.16598	0.94613	0.90726	5959.7	150.09	0.053	4.019	0.242	0.242
0.0694	0.24716	0.95617	0.95410	8110.8	150.09	0.053	4.026	0.330	0.330
0.0854	0.30416	0.96516	1.00115	9528.7	148.55	0.052	4.036	0.388	0.387
0.1041	0.37089	0.97382	1.02795	11186.9	146.62	0.052	4.046	0.455	0.455
0.1185	0.42220	0.98004	1.05494	12332.7	144.70	0.050	4.056	0.501	0.501
0.1357	0.48348	0.98806	1.12056	13669.4	142.24	0.050	4.077	0.556	0.556
0.1697	0.60462	0.99305	1.12228	15774.0	137.00	0.049	4.088	0.641	0.641
0.2022	0.72041	0.99862	1.1151	18988.3	131.23	0.047	4.120	0.770	0.770
0.2358	0.84012	1.00000	1.08167	20950.9	124.69	0.045	4.159	0.852	0.852
0.2699	0.96161	1.00233	1.05341	23106.1	116.99	0.042	4.208	0.939	0.939
0.2807	1.00000	1.00511	1.00966	23364.5	114.80	0.042	4.252	0.950	0.950
0.3036	1.08168	1.00966	0.90096	23914.5	110.53	0.039	4.292	0.972	0.972
0.3366	1.19926	1.01652	0.85866	24487.9	105.06	0.037	4.372	0.998	0.998
0.4035	1.43761	1.02202	0.79095	24879.9	94.82	0.034	4.448	0.996	0.996
0.4724	1.68309	1.02202	0.79095	24594.3	86.20	0.031	4.532	0.930	0.930
0.5384	1.91824	1.02202	0.79095	24594.3	77.58	0.031	4.627	1.000	1.000
0.6055	2.15731	1.02202	0.79095	24559.8	68.96	0.031	4.627	0.999	0.999

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TIC TW GEN. CYL.  
 6. 10. 6. 306. 67. 36.00 24547.68 720.56 510.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	510.00	510.00	0.	0.7079
0.0100	2.06	682.66	369.89	1938.5	0.9474
0.0192	2.29	731.39	359.60	2116.3	1.0150
0.0268	2.52	735.84	324.42	2223.2	1.0212
0.0354	2.65	734.45	305.15	2271.0	1.0193
0.0518	2.82	753.83	290.75	2358.7	1.0462
0.0683	2.93	752.63	277.03	2390.3	1.0445
0.0852	3.07	743.93	258.36	2415.3	1.0324
0.1018	3.20	726.60	238.45	2421.7	1.0084
0.1018	3.20	725.06	237.73	2419.6	1.0062
0.1188	3.31	721.77	226.48	2439.3	1.0017
0.1356	3.40	739.17	223.52	2489.0	1.0258
0.1356	3.40	738.34	222.86	2488.6	1.0247
0.1685	3.53	713.77	204.76	2472.9	0.9906
0.2023	3.69	715.14	192.39	2506.0	0.9925
0.2391	3.75	718.00	188.29	2522.7	0.9965
0.2694	3.92	720.23	176.49	2555.9	0.9995
0.3031	4.18	721.99	160.56	2597.1	1.0020
0.3386	4.39	724.17	149.13	2628.4	1.0050

DELTA STAR H RSR RS DELTA THETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3125 -0.2064 -5.75 23859506. 37453024. 17675. 27745. 415.12 0.626 0.75015 0.979

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(W), DELTA STAR(W), M(E), PTIMAX,  
 -0.0123 -0.282 0.0756 0.0294 0.02460 0.01129 0.00473 6.20 4.24 26407.1

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	P1,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	505.6	505.58			0.021	0.019
0.0100	0.03200	0.74405	1.52839	4274.8	500.53	0.112	3.209	0.174	0.162
0.0192	0.06135	0.81229	1.70376	6003.9	495.47	0.111	3.216	0.245	0.227
0.0268	0.08571	0.85332	1.96322	8640.4	491.68	0.111	3.222	0.352	0.327
0.0354	0.11339	0.87168	2.09919	10471.2	484.10	0.110	3.232	0.427	0.397
0.0518	0.16581	0.90531	2.22245	13194.6	470.19	0.108	3.252	0.538	0.500
0.0683	0.21868	0.91747	2.28764	15039.0	455.03	0.105	3.274	0.613	0.570
0.0852	0.27280	0.92705	2.36841	17614.9	434.80	0.102	3.306	0.718	0.667
0.1018	0.32580	0.92950	2.45321	20475.4	414.58	0.099	3.339	0.834	0.775
0.1018	0.32580	0.92871	2.45856	20539.3	414.58	0.099	3.339	0.837	0.778
0.1188	0.39020	0.93628	2.45902	22641.8	391.33	0.096	3.378	0.922	0.857
0.1356	0.43397	0.95532	2.37815	24104.7	366.55	0.091	3.424	0.982	0.913
0.1356	0.43397	0.95517	2.38485	24261.1	366.55	0.091	3.424	0.988	0.919
0.1685	0.53926	0.94916	2.18804	24591.9	310.93	0.082	3.540	1.002	0.931
0.2023	0.66744	0.96188	1.88025	24532.0	247.74	0.071	3.702	0.999	0.929
0.2391	0.76521	0.96826	1.53924	21349.6	197.18	0.061	3.869	0.870	0.808
0.2694	0.86218	0.98100	1.36517	22213.2	161.79	0.053	4.016	0.905	0.841
0.3031	0.97003	0.99683	1.20315	24613.7	127.66	0.045	4.196	1.003	0.932
0.3125	1.00000	1.00000	1.16928	25086.7	121.59				0.950
0.3386	1.08365	1.00884	1.07473	26407.1	104.66	0.040	4.350	1.076	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X 0. 24639.84 725.00 652.00  
 8. 6. 10. 1. 306. 94. 0. 24639.84 725.00 652.00  
 GEN. CYL. 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	652.00	652.00	0.	0.8993
0.0100	1.06	675.66	552.13	1218.2	0.9319
0.0207	1.21	687.15	530.64	1371.2	0.9478
0.0291	2.02	700.27	385.60	1944.3	0.9659
0.0367	2.13	702.89	368.30	2004.9	0.9695
0.0538	2.51	709.56	313.41	2181.6	0.9787
0.0708	2.65	716.57	297.58	2243.6	0.9884
0.0881	2.91	725.43	268.97	2341.7	1.0006
0.1041	2.97	732.91	265.20	2370.4	1.0109
0.1214	3.16	739.49	246.48	2433.7	1.0200
0.1389	3.27	745.42	237.09	2471.2	1.0282
0.1709	3.51	754.49	218.12	2538.5	1.0407
0.1989	3.72	754.47	199.92	2581.1	1.0406
0.2396	4.13	744.07	168.92	2628.6	1.0263
0.2720	4.48	734.99	146.76	2658.4	1.0138
0.3066	4.73	728.04	132.83	2674.1	1.0042
0.3387	5.05	725.33	118.70	2699.6	1.0005
0.4079	5.54	724.39	101.54	2735.5	0.9992
0.4740	5.74	723.77	95.32	2747.7	0.9983
0.5434	5.81	724.75	93.51	2753.8	0.9997
0.6075	5.82	724.30	93.29	2753.3	0.9990
0.6749	5.83	723.75	92.91	2753.0	0.9983
0.7429	5.82	723.76	93.22	2752.3	0.9983
0.8115	5.82	723.76	93.22	2752.3	0.9983
0.8752	5.82	723.76	93.22	2752.3	0.9983
0.9454	5.81	723.77	93.38	2752.0	0.9983
1.0170	5.81	723.77	93.38	2752.0	0.9983

DELTA DELTA STAR H RSR AS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5104 0.2330 17.42 196736. 4564891. 219. 5087. 455.22 0.884 0.32560 0.066

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA STAR(2), THETA(W), H(W), MIE), PTIMAX,  
 -0.0209 -0.008 0.2409 0.2378 0.00015 0.01322 0.01306 18.21 5.80 24848.6

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	H PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	18.8	18.84	0.013	5.778	0.001	0.001
0.0100	0.01959	0.44269	0.02421	38.2	18.84	0.013	5.778	0.002	0.002
0.0207	0.04064	0.49830	0.02836	46.5	18.84	0.013	5.778	0.006	0.006
0.0291	0.05708	0.70656	0.05534	152.0	18.84	0.013	5.778	0.007	0.007
0.0367	0.07199	0.72858	0.05974	180.9	18.84	0.013	5.778	0.013	0.013
0.0538	0.10538	0.79278	0.07639	328.9	18.84	0.013	5.778	0.017	0.016
0.0708	0.13876	0.81532	0.08274	408.1	18.84	0.013	5.778	0.025	0.024
0.0881	0.17266	0.85099	0.09555	606.9	18.84	0.013	5.778	0.027	0.027
0.1041	0.20397	0.86142	0.09809	660.9	18.84	0.013	5.778	0.036	0.035
0.1214	0.23787	0.88441	0.10836	881.0	18.84	0.013	5.778	0.042	0.042
0.1389	0.27216	0.89804	0.11439	1037.9	18.84	0.013	5.778	0.059	0.058
0.1709	0.33486	0.92248	0.12772	1449.7	18.84	0.013	5.778	0.080	0.079
0.1989	0.38972	0.93798	0.14169	1966.6	18.84	0.013	5.778	0.137	0.136
0.2396	0.46947	0.95524	0.17078	3378.2	18.84	0.013	5.778	0.215	0.213
0.2720	0.53295	0.96605	0.19879	5294.7	18.84	0.013	5.778		

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/(U(Delta))	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.3066	0.60074	0.97176	0.22093	7260.3	18.84	0.013	5.778	0.295	0.292
0.3387	0.66364	0.98103	0.24959	10622.0	18.84	0.013	5.778	0.431	0.427
0.4079	0.79923	0.99407	0.29566	18267.2	18.84	0.013	5.778	0.741	0.735
0.4740	0.92874	0.99852	0.31634	22716.7	18.84	0.013	5.778	0.922	0.914
0.5104	1.00000	1.00000	0.32183	23606.2	18.84	0.013	5.778	0.991	0.950
0.5434	1.06472	1.00074	0.32320	24414.1	18.84	0.013	5.778	0.997	0.983
0.6075	1.19032	1.00056	0.32389	24558.4	18.84	0.013	5.778	1.008	0.988
0.6749	1.32238	1.00042	0.32518	24848.6	18.84	0.013	5.778	0.997	0.988
0.7429	1.45562	1.00019	0.32401	24558.4	18.84	0.013	5.778	0.997	0.988
0.8115	1.59003	1.00019	0.32401	24558.4	18.84	0.013	5.778	0.997	0.988
0.8752	1.71484	1.00019	0.32401	24558.4	18.84	0.013	5.778	0.997	0.988
0.9454	1.85239	1.00007	0.32342	24414.1	18.84	0.013	5.778	0.991	0.983
1.0170	1.99268	1.00007	0.32342	24414.1	18.84	0.013	5.778	0.991	0.983

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X P/E T/O T/W GEN. CYL.  
 8. 6. 10. 1. 306. 95. 18.75 24639.84 725.50 642.50 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECDV.	CT	
0.	0.	642.50	642.50	0.	0.8856									
0.0100	1.13	672.22	536.14	1278.6	0.9266									
0.0156	1.15	682.09	539.80	1307.5	0.9402									
0.0243	2.03	703.96	385.83	1955.0	0.9703									
0.0325	2.72	714.32	288.67	2261.3	0.9846									
0.0497	3.09	723.61	248.92	2388.1	0.9974									
0.0649	3.37	728.98	222.49	2466.8	1.0048									
0.0825	3.61	736.28	203.95	2528.9	1.0149									
0.1003	3.82	742.01	189.02	2577.5	1.0228									
0.1169	3.97	747.05	179.98	2610.1	1.0297									
0.1327	4.15	751.15	168.90	2644.8	1.0353									
0.1668	4.34	759.14	159.09	2684.9	1.0464									
0.1998	4.56	761.77	147.66	2716.2	1.0500									
0.2335	4.74	759.97	138.14	2733.2	1.0475									
0.2672	4.91	754.63	129.73	2740.0	1.0402									
0.3019	5.10	746.27	120.46	2741.9	1.0296									
0.3365	5.27	739.26	112.77	2743.4	1.0190									
0.4018	5.53	731.97	102.91	2749.1	1.0089									
0.4696	5.65	728.93	98.61	2751.8	1.0047									
0.5444	5.67	728.81	98.23	2752.4	1.0046									
0.6124	5.64	728.03	98.84	2749.3	1.0035									
0.6772	5.62	727.71	99.53	2747.2	1.0030									
0.7397	5.58	727.74	100.78	2744.5	1.0031									
0.8042	5.54	726.88	101.93	2740.1	1.0019									
0.8718	5.50	726.64	102.94	2737.3	1.0016									
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECDV.	CT				
0.4493	0.1552	21.53	738231.	15008543.	173.	3514.	454.13	0.867	0.39498	0.218				
PHI,	DELTA STAR	PRIME,	DELTA STAR	(2),	DELTA STAR	(1),	THETA STAR	(1),	THETA STAR	(2),	THETA STAR	(1),	THETA STAR	(2)
-0.0709	-0.004	0.1588	0.1576	0.00008	0.00712	0.00707	22.28	5.63	30531.0					
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U	PRIME,	M	PRIME	PTI/PRIME,	PTI/PTIMAX			
0.	0.	0.46474	0.03814	27.4	27.45	0.014	5.618	0.001	0.001	0.001	0.001			
0.0100	0.02226	0.47523	0.03873	60.6	27.45	0.014	5.618	0.002	0.002	0.002	0.002			
0.0156	0.03479	0.71059	0.08103	225.2	27.45	0.014	5.618	0.003	0.003	0.003	0.003			
0.0243	0.05404	0.82194	0.12527	654.2	27.45	0.014	5.618	0.009	0.009	0.009	0.009			
0.0325	0.07243	0.86800	0.15342	1149.6	27.45	0.014	5.618	0.027	0.027	0.027	0.027			
0.0497	0.11064	0.89660	0.17731	1747.5	27.45	0.014	5.618	0.047	0.047	0.047	0.047			
0.0649	0.14450	0.91919	0.19830	2453.6	27.45	0.014	5.618	0.071	0.071	0.071	0.071			
0.0825	0.18358	0.93686	0.21807	3289.7	27.45	0.014	5.618	0.100	0.100	0.100	0.100			
0.1003	0.22325	0.94870	0.23192	3998.5	27.45	0.014	5.618	0.134	0.134	0.134	0.134			
0.1169	0.26020	0.96132	0.25042	5091.3	27.45	0.014	5.618	0.162	0.162	0.162	0.162			
0.1327	0.29536	0.97591	0.26990	6514.4	27.45	0.014	5.618	0.207	0.207	0.207	0.207			
0.1668	0.37126	0.98346	0.31641	8560.1	27.45	0.014	5.618	0.264	0.264	0.264	0.264			
0.1998	0.44471	0.99346	0.36400	10718.4	27.45	0.014	5.618	0.347	0.347	0.347	0.347			
0.2335	0.51972	0.99591	0.33775	13028.3	27.45	0.014	5.618	0.435	0.435	0.435	0.435			
0.2672	0.59473	0.99663	0.36400	16241.4	27.45	0.014	5.618	0.529	0.529	0.529	0.529			
0.3019	0.67197	0.99717	0.38904	19795.1	27.45	0.014	5.618	0.659	0.659	0.659	0.659			
0.3365	0.74898	0.99717	0.38904	19795.1	27.45	0.014	5.618	0.803	0.803	0.803	0.803			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4018	0.89433	0.99922	0.42721	26340.7	27.45	0.014	5.618	1.069	0.863
0.4493	1.00000	1.00000	0.44231	29004.5	27.45				0.950
0.4696	1.04524	1.00022	0.44629	30144.7	27.45	0.014	5.618	1.223	0.987
0.5444	1.21173	1.00042	0.44808	30531.0	27.45	0.014	5.618	1.239	1.000
0.6124	1.36308	0.99934	0.44482	29763.2	27.45	0.014	5.618	1.208	0.975
0.6772	1.50731	0.99854	0.44141	29009.3	27.45	0.014	5.618	1.177	0.950
0.7397	1.64642	0.99752	0.43550	27771.8	27.45	0.014	5.618	1.127	0.910
0.8042	1.78999	0.99596	0.42992	26584.2	27.45	0.014	5.618	1.079	0.871
0.8718	1.94045	0.99495	0.42526	25649.9	27.45	0.014	5.618	1.041	0.840

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE YTO TW GEN. CYL.  
 8. 6. 10. 1. 306. 96. 29.00 24638.40 725.00 639.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITO
0.	0.	639.00	639.00	0.	0.8814
0.0100	1.88	689.53	406.35	1851.0	0.9511
0.0215	2.51	717.41	317.60	2191.7	0.9895
0.0282	2.69	727.84	297.03	2275.0	1.0039
0.0369	2.84	735.02	281.05	2335.3	1.0138
0.0352	3.19	744.14	245.57	2447.4	1.0264
0.0707	3.35	750.06	231.09	2496.9	1.0366
0.0875	3.57	753.37	212.16	2547.9	1.0391
0.1036	3.69	755.35	203.07	2575.8	1.0419
0.1197	3.86	756.46	190.37	2607.9	1.0434
0.1386	3.96	756.31	182.86	2624.8	1.0432
0.1704	4.12	753.88	171.80	2644.4	1.0398
0.2073	4.27	748.46	161.01	2656.6	1.0324
0.2370	4.37	743.14	154.04	2660.3	1.0250
0.2723	4.48	738.56	147.34	2665.1	1.0187
0.3213	4.62	733.18	139.03	2671.7	1.0113
0.3899	4.81	728.38	129.35	2682.6	1.0047
0.4563	4.87	727.12	126.53	2686.1	1.0029
0.5056	4.91	726.21	124.64	2688.3	1.0017
0.5765	4.95	725.63	123.17	2690.3	1.0009
0.6413	4.98	725.97	121.91	2693.9	1.0013
0.7081	5.00	727.02	121.04	2698.2	1.0028

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4631 0.1003 12.81 1890818. 21998408. 360. 4188. 462.10 0.856 0.52122 0.202

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W); THETA STAR(W); THETA PRIME, THETA(2), THETA(W), THETA(M), PTIMAX,  
 -0.0617 -0.018 0.1185 0.1121 0.00056 0.00726 0.00689 16.28 4.88 24740.4

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	55.6	55.60			0.002	0.002
0.0100	0.02159	0.68900	0.14829	360.0	55.60	0.027	4.810	0.015	0.015
0.0215	0.04649	0.81581	0.22355	963.2	55.60	0.027	4.810	0.039	0.039
0.0282	0.06094	0.84683	0.24812	1280.5	55.60	0.027	4.810	0.052	0.052
0.0369	0.07961	0.86929	0.26918	1608.2	55.60	0.027	4.810	0.065	0.065
0.0552	0.11924	0.91100	0.32269	2691.8	55.57	0.027	4.810	0.109	0.109
0.0707	0.15264	0.92944	0.34957	3420.3	55.53	0.027	4.811	0.139	0.138
0.0875	0.18885	0.94916	0.38846	4680.5	55.47	0.027	4.812	0.190	0.189
0.1036	0.22371	0.95882	0.40944	5498.8	55.40	0.027	4.813	0.222	0.222
0.1197	0.25847	0.97073	0.44155	6918.6	55.32	0.027	4.814	0.281	0.280
0.1386	0.29928	0.97702	0.46183	7945.5	55.22	0.027	4.816	0.321	0.321
0.1704	0.36795	0.98434	0.49315	9732.3	54.99	0.027	4.819	0.395	0.393
0.2073	0.44763	0.98888	0.52544	11837.7	54.65	0.027	4.824	0.480	0.478
0.2370	0.51176	0.99027	0.54690	13404.1	54.35	0.027	4.829	0.544	0.542
0.2723	0.58798	0.99204	0.56868	15215.2	53.96	0.026	4.835	0.618	0.615
0.3213	0.69379	0.99449	0.59763	17976.0	53.37	0.026	4.844	0.730	0.727
0.3899	0.84192	0.99857	0.63389	22225.9	52.46	0.026	4.859	0.902	0.898
0.4563	0.98530	0.99987	0.63617	23399.2	51.43	0.026	4.876	0.950	0.946
0.5056	1.00000	1.00000	0.63631	23503.4	51.31	0.025	4.889	0.980	0.950
0.5765	1.09175	1.00069	0.63582	24153.8	50.59	0.025	4.908	0.976	0.976
0.6413	1.24485	1.00143	0.62974	24556.2	49.48	0.025	4.908	0.997	0.993

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COULCI: HEAT TRANSFER

Y	Y/DELTA	U/U(Delta)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.6413	1.38477	1.00276	0.61814	24740.4	48.01	0.024	4.934	1.004	1.000
0.7081	1.52901	1.00434	0.60296	24651.4	46.42	0.024	4.962	1.001	0.996

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A CUCULEF HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTC  
 8. 6. 10. 1. 306. 84. 33.00 24465.60 724.00 639.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RHO	U PRIME	M PRIME	PTL/PTE	PTI/PTIMAX	TOT. PRESS. RECOV.	CT
0.	0.	639.00	639.00	0.	0.8826				0.004	0.004	0.47345	0.179
0.0100	1.75	699.25	432.74	1789.3	0.9658			4.346	0.021	0.021		
0.0221	2.11	733.01	387.37	2037.7	1.0124			4.347	0.037	0.037		
0.0293	2.45	743.90	337.70	2209.1	1.0275			4.348	0.063	0.063		
0.0399	2.73	746.54	298.76	2314.2	1.0284			4.350	0.097	0.097		
0.0552	2.93	749.35	275.90	2384.9	1.0350			4.353	0.131	0.131		
0.0708	3.14	750.24	252.75	2444.8	1.0362			4.357	0.177	0.177		
0.0882	3.26	750.33	240.48	2474.9	1.0364			4.362	0.210	0.210		
0.1062	3.42	750.14	224.93	2511.9	1.0361			4.368	0.263	0.263		
0.1214	3.48	748.44	218.68	2522.8	1.0338			4.373	0.286	0.286		
0.1386	3.57	747.35	210.39	2539.9	1.0322			4.380	0.323	0.323		
0.1723	3.67	743.51	200.94	2553.1	1.0269			4.395	0.366	0.366		
0.2044	3.83	739.22	187.98	2573.4	1.0210			4.412	0.443	0.443		
0.2389	3.93	735.27	180.10	2582.6	1.0156			4.432	0.493	0.493		
0.2723	4.06	732.30	170.28	2598.5	1.0115			4.464	0.574	0.574		
0.2888	4.13	730.56	165.58	2605.3	1.0091			4.502	0.621	0.621		
0.3402	4.33	726.61	153.10	2624.9	1.0036			4.558	0.765	0.765		
0.4066	4.54	725.02	141.40	2647.9	1.0014							
0.4748	4.66	724.16	135.46	2659.4	1.0002							
0.5394	4.72	724.08	132.65	2665.6	1.0001							

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.4245	0.0752	5.60	3544114.	27673200.	1052.	8214.	466.73	0.855	0.47345	0.179
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1W),	THETA(1W),	H(W),	PTIMAX,				
-0.0484	-0.060	0.1352	0.1108	0.00219	0.01123	0.00930	11.92	4.58	24520.3	

  

Y	Y/DELTA	U(U(DELTA))	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTL/PTE,	PTI/PTIMAX
0.	0.	0.	0.	97.8	97.76	0.040	4.346	0.004	0.004
0.0100	0.02356	0.67485	0.23553	524.3	97.60	0.040	4.347	0.021	0.021
0.0221	0.05196	0.76854	0.29913	909.6	97.45	0.040	4.348	0.037	0.037
0.0293	0.06895	0.83316	0.37143	1546.1	97.22	0.040	4.350	0.063	0.063
0.0399	0.09394	0.87281	0.43881	2375.6	96.88	0.040	4.353	0.097	0.097
0.0552	0.13007	0.89949	0.48796	3198.8	95.76	0.039	4.357	0.131	0.131
0.0708	0.16682	0.92205	0.54299	4341.5	95.02	0.039	4.362	0.177	0.177
0.0882	0.20787	0.93343	0.57423	5138.3	94.39	0.039	4.368	0.210	0.210
0.1062	0.25016	0.94739	0.61832	6437.0	93.56	0.039	4.373	0.263	0.263
0.1214	0.28596	0.95147	0.63446	7000.1	91.80	0.038	4.380	0.286	0.286
0.1386	0.32647	0.95792	0.65809	7903.8	89.84	0.037	4.395	0.323	0.323
0.1723	0.40585	0.96291	0.67958	8944.9	87.69	0.036	4.412	0.366	0.366
0.2044	0.48147	0.97057	0.71662	10833.5	85.35	0.036	4.432	0.443	0.443
0.2389	0.56273	0.97403	0.73269	12057.1	84.22	0.035	4.464	0.493	0.493
0.2723	0.64141	0.98002	0.75882	14076.5	80.31	0.033	4.502	0.574	0.574
0.2888	0.68027	0.98260	0.77211	15193.3	74.89	0.032	4.558	0.621	0.621
0.3402	0.80134	0.98999	0.80231	18704.7	73.41	0.032	4.620	0.765	0.765
0.4066	0.95775	0.99867	0.81276	22857.4	69.41	0.032	4.679	0.932	0.932
0.4245	1.00000	1.00000	0.81276	23294.2	64.52	0.030	4.620	1.002	1.002
0.4748	1.11840	1.00301	0.79399	24518.6				1.000	1.000
0.5394	1.27056	1.00534	0.75548	24520.3				1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH. NO. DAY TEST RUN X PTE TTD T W GEN. CYL.  
 8. 6. 10. 1. 306. 83. 34.50 24557.76 722.50 640.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	YI/TIO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	640.00	640.00	0.	0.8858								
0.0100	1.89	702.70	410.19	1874.6	0.9726								
0.0193	2.26	730.82	362.14	2104.6	1.0115								
0.0268	2.56	745.23	322.81	2252.7	1.0315								
0.0359	2.72	745.93	300.71	2312.7	1.0324								
0.0521	2.98	748.12	269.95	2396.8	1.0355								
0.0685	3.15	747.04	250.67	2442.0	1.0340								
0.0856	3.28	746.41	237.25	2473.3	1.0331								
0.1048	3.37	744.16	227.47	2491.5	1.0300								
0.1198	3.45	742.46	219.84	2505.7	1.0276								
0.1531	3.58	736.43	206.26	2523.8	1.0193								
0.1864	3.73	731.42	193.39	2542.4	1.0123								
0.2199	3.84	728.29	184.24	2556.6	1.0080								
0.2535	4.00	725.76	172.94	2577.1	1.0045								
0.2876	4.10	724.17	166.28	2588.9	1.0023								
0.3205	4.21	722.92	159.24	2602.3	1.0006								
0.3876	4.42	721.93	147.38	2627.3	0.9992								
0.4578	4.50	722.60	142.89	2639.0	1.0001								
0.5225	4.58	722.34	139.18	2646.9	0.9998								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.3613	0.0313	2.37	539534.	32361751.	1527.	9162.	471.13	0.856	0.53492	0.153

  

PHI,	DELTA STAR	PRIME,	DELTA STAR(2),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),	DELTA STAR(W),
-0.0383	-0.076	0.1076	0.0813	0.00349	0.00976	0.00751	10.84	4.35	24383.6				

  

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.02768	0.71576	0.	148.0	148.03	0.053	4.030	0.006	0.006
0.0100	0.05342	0.80355	0.39340	972.2	147.74	0.052	4.032	0.040	0.040
0.0268	0.07413	0.86013	0.49915	1721.0	147.41	0.052	4.034	0.070	0.070
0.0359	0.09951	0.88304	0.59800	2749.3	147.07	0.052	4.036	0.112	0.112
0.0521	0.14413	0.91513	0.65705	3524.8	146.63	0.052	4.041	0.144	0.144
0.0685	0.18949	0.93238	0.75393	5163.9	145.74	0.052	4.047	0.210	0.210
0.0856	0.23702	0.94432	0.82051	6604.7	144.55	0.051	4.054	0.269	0.269
0.1048	0.29008	0.95127	0.86994	7910.9	143.22	0.051	4.064	0.322	0.322
0.1198	0.33160	0.95672	0.90173	8947.9	141.30	0.051	4.073	0.364	0.364
0.1531	0.42377	0.96361	0.92758	9887.9	139.67	0.050	4.094	0.403	0.403
0.1864	0.51595	0.97072	0.96831	11680.9	135.82	0.049	4.120	0.475	0.475
0.2199	0.60867	0.97614	1.00467	13800.0	131.16	0.047	4.151	0.562	0.562
0.2535	0.70168	0.98398	1.04499	15469.8	125.98	0.046	4.186	0.630	0.630
0.2876	0.79607	0.98848	1.04499	18222.9	120.35	0.044	4.227	0.741	0.741
0.3205	0.88713	0.99360	1.03540	19676.2	114.13	0.043	4.270	0.801	0.801
0.3613	1.00000	1.00000	1.02829	21530.5	107.99	0.039	4.376	0.877	0.877
0.3876	1.07286	1.00313	1.00107	23354.4	99.19	0.036	4.466	0.950	0.950
0.4578	1.26717	1.00762	0.97947	24531.9	94.30	0.034	4.536	0.998	0.998
0.5225	1.44626	1.01061	0.90642	24496.7	84.23			1.001	1.001
			0.85540	24583.6	77.20				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN K PTE TTD TW GEN. CYL.  
 B. 6. 10. 1. 306. 82. 36.00 24559.20 722.00 641.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	641.00	641.00	0.	0.8878
0.0100	2.07	709.16	381.86	1983.0	0.9822
0.0162	2.33	730.23	349.84	2137.7	1.0114
0.0241	2.48	750.48	336.09	2231.2	1.0394
0.0337	2.60	762.42	316.20	2262.9	1.0283
0.0508	2.75	737.74	293.96	2309.0	1.0218
0.0662	2.85	731.93	278.47	2334.0	1.0138
0.0839	2.99	725.65	260.64	2363.6	1.0051
0.0997	3.13	721.92	244.05	2396.0	0.9999
0.1166	3.35	719.16	221.44	2445.3	0.9961
0.1335	3.55	716.66	203.78	2482.3	0.9926
0.1506	3.81	717.25	183.46	2482.0	0.9926
0.1706	3.87	717.54	179.75	2541.8	0.9938
0.2002	3.93	719.66	176.12	2555.4	0.9968
0.2339					

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1981 0.0031 0.29 1656088. 54351980. 3618. 11870. 484.73 0.848 0.53629 0.848 0.116

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), DELTA STAR(M ), THETA PRIME, THETA(2), THETA(W), HI(W), M(E), PTIMAX.  
 -0.0067 -0.053 0.0565 0.0372 0.00359 0.00699 0.00478 7.78 3.75 28881.0

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	480.2	480.24			0.020	0.017
0.0100	0.06326	0.78686	1.44508	4168.8	477.60	0.103	3.303	0.170	0.144
0.0162	0.10223	0.84827	1.69191	6243.7	475.20	0.102	3.306	0.254	0.216
0.0241	0.15277	0.88537	1.81862	7822.0	470.15	0.102	3.314	0.318	0.271
0.0337	0.21332	0.89792	1.93542	9206.0	464.15	0.101	3.322	0.375	0.319
0.0508	0.32111	0.91623	2.05508	11244.8	449.02	0.099	3.345	0.458	0.369
0.0662	0.41898	0.92617	2.11078	12723.8	432.22	0.096	3.372	0.518	0.441
0.0839	0.53088	0.93789	2.14668	14628.9	406.28	0.092	3.415	0.596	0.507
0.0997	0.63046	0.95077	2.15928	16803.5	377.47	0.088	3.466	0.684	0.582
0.1166	0.73762	0.97033	2.14758	20605.1	333.77	0.081	3.553	0.839	0.713
0.1335	0.84453	0.98498	2.14739	24680.7	302.55	0.076	3.623	1.005	0.855
0.1506	0.84516	0.98488	2.14451	24614.8	302.36	0.076	3.623	1.005	0.855
0.1581	1.00000	1.00000	2.04224	27436.9	262.37	0.076	3.623	1.002	0.852
0.1706	1.07923	1.00486	1.96596	28881.0	244.44	0.066	3.777	1.176	1.000
0.2002	1.26648	1.00862	1.72121	26548.3	208.90	0.059	3.892	1.081	0.919
0.2339	1.47967	1.01400	1.49000	24307.3	176.25	0.053	4.019	0.990	0.842

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A (COOLED) HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X TTD TTE TTM TTN GEN. CYL. CT  
 8. 6. 10. 6. 306. 130. 0. 12287.23 724.00 417.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	T/TTD	T/TTN	RSR	RS DELTA	RTHETA R	RTHETA D	RECUV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	417.00	417.00	0.	0.5760									
0.-0100	0.98	556.67	466.84	1038.9	0.7689								0.34915	2.668
0.-0203	1.05	631.55	516.64	1174.9	0.8723									
0.-0276	1.68	665.97	425.95	1698.1	0.9198									
0.-0366	2.15	671.62	348.39	1970.6	0.9277									
0.-0536	2.63	681.80	285.45	2182.1	0.9417									
0.-0700	2.93	689.68	254.38	2286.8	0.9526									
0.-0868	3.12	698.17	237.16	2353.4	0.9643									
0.-1028	3.27	704.98	224.18	2403.4	0.9737									
0.-1204	3.46	711.56	209.71	2455.4	0.9828									
0.-1367	3.59	718.92	201.19	2494.0	0.9930									
0.-1729	3.95	731.22	177.55	2579.1	1.0100									
0.-2049	4.24	739.97	161.22	2636.9	1.0221									
0.-2389	4.53	744.65	145.96	2681.9	1.0285									
0.-2714	4.79	744.58	133.31	2709.9	1.0284									
0.-3043	5.05	740.20	121.45	2726.4	1.0224									
0.-3387	5.32	732.88	110.07	2735.4	1.0123									
0.-4049	5.71	724.55	96.34	2747.2	1.0008									
0.-4726	5.90	722.72	90.72	2755.5	0.9982									
0.-5392	5.94	722.47	89.68	2757.2	0.9979									
0.-6067	5.97	722.53	88.95	2758.9	0.9980									
0.-6740	5.97	722.53	88.95	2758.9	0.9980									
0.-7413	5.96	722.54	89.24	2758.3	0.9980									
0.-8088	5.96	722.54	89.24	2758.3	0.9980									
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECUV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT				
0.-5006	0.2127	18.23	161939.	2523953.	157.	2454.	347.68	0.516	0.34915	2.668				
PHI.	DELTA STAR PRIME	DELTA STAR(2)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)	DELTA STAR(W)
-0.0031	-0.008	0.2203	0.2175	0.00014	0.01138	19.11	5.94	14421.1						
Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTI	PTI/PTI MAX					
0.	0.	0.37681	0.	9.4	9.44									
0.-0100	0.01398	0.42616	0.01224	17.5	9.44	0.012	5.918	0.001	0.001	0.001				
0.-0203	0.04065	0.61591	0.01251	19.1	9.44	0.012	5.918	0.001	0.001	0.001				
0.-0276	0.05505	0.71476	0.02193	45.1	9.44	0.012	5.918	0.004	0.003	0.003				
0.-0366	0.07313	0.79149	0.03112	93.0	9.44	0.012	5.918	0.008	0.007	0.007				
0.-0536	0.10717	0.82947	0.04206	198.8	9.44	0.012	5.918	0.016	0.014	0.014				
0.-0700	0.13989	0.85361	0.04946	309.8	9.44	0.012	5.918	0.025	0.021	0.021				
0.-0868	0.17340	0.87173	0.05459	413.3	9.44	0.012	5.918	0.034	0.029	0.029				
0.-1028	0.20534	0.89062	0.05998	520.7	9.44	0.012	5.918	0.042	0.036	0.036				
0.-1204	0.24050	0.90460	0.06442	679.5	9.44	0.012	5.918	0.055	0.047	0.047				
0.-1367	0.27366	0.91849	0.06820	814.3	9.44	0.012	5.918	0.066	0.056	0.056				
0.-1729	0.34537	0.93547	0.07992	1338.5	9.44	0.012	5.918	0.109	0.093	0.093				
0.-2049	0.40929	0.95643	0.08998	1956.1	9.44	0.012	5.918	0.159	0.136	0.136				
0.-2389	0.47721	0.97276	0.10109	2832.1	9.44	0.012	5.918	0.230	0.196	0.196				
0.-2714	0.54213	0.98294	0.11143	3887.6	9.44	0.012	5.918	0.316	0.270	0.270				
0.-3043	0.60785	0.98892	0.12350	5276.9	9.44	0.012	5.918	0.429	0.366	0.366				
0.-3387	0.67656	0.99217	0.13672	7192.4	9.44	0.012	5.918	0.585	0.499	0.499				
0.-4049	0.80380	0.99645	0.15688	11015.4	9.44	0.012	5.918	0.896	0.764	0.764				

HYPERSONIC BOUNDARY LAYER ACC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/UIDELTA	RHO * U	PIL	PI	PI*	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.4726	0.94403	0.99945	0.16710	13472.7	9.44	0.012	5.918	1.096	0.934	
0.5006	1.00000	1.00000	0.16893	13700.0	9.44	0.012	5.918	1.140	0.950	
0.5392	1.07706	1.00008	0.16915	14013.0	9.44	0.012	5.918	1.174	0.972	
0.6067	1.21189	1.00070	0.17063	14421.1	9.44	0.012	5.918	1.174	1.000	
0.6740	1.34633	1.00070	0.17063	14421.1	9.44	0.012	5.918	1.161	1.000	
0.7413	1.48076	1.00048	0.17005	14259.9	9.44	0.012	5.918	1.161	0.989	
0.8088	1.61559	1.00048	0.17005	14259.9	9.44	0.012	5.918	1.161	0.989	

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TTTW GEN. CYL.  
 8. 6. 10. 6. 306. 131. 16.75 12321-36 724.00 417.00 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD	TTD	TTT	TW	GEN. CYL.
0.	0.	417.00	417.00	0.	0.5760				
0.0100	1.06	569.43	465.33	1118.4	0.7865				
0.0201	1.62	654.96	429.95	1644.1	0.9046				
0.0279	1.96	671.74	379.84	1872.6	0.9278				
0.0366	2.62	679.13	285.77	2173.9	0.9380				
0.0526	2.97	686.59	248.12	2295.1	0.9483				
0.0700	3.16	696.06	232.51	2359.9	0.9614				
0.0875	3.33	705.72	218.97	2418.2	0.9747				
0.1037	3.47	713.07	209.09	2460.7	0.9849				
0.1202	3.59	718.70	200.76	2494.5	0.9927				
0.1367	3.77	725.44	188.93	2538.8	1.0020				
0.1724	4.03	737.38	173.66	2602.4	1.0185				
0.2032	4.24	744.23	161.79	2645.2	1.0279				
0.2382	4.48	748.55	149.29	2683.2	1.0339				
0.2706	4.66	749.33	140.27	2705.0	1.0350				
0.3058	4.86	747.80	130.57	2723.1	1.0329				
0.3385	5.02	743.23	123.18	2729.3	1.0256				
0.4057	5.26	733.29	112.18	2731.6	1.0128				
0.4720	5.37	728.21	107.68	2730.4	1.0058				
0.5389	5.39	725.78	106.68	2727.2	1.0025				
0.6065	5.37	725.64	107.21	2725.7	1.0023				
0.6746	5.35	725.67	108.06	2724.0	1.0023				

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.4521	0.1586	14.88	671580.	7152601.	233.	2479.	356.07	0.501	0.38921	2.282

  

PHI:	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W 1),	THETA PRIME,	THETA(2),	THETA(W),	M(W),	M(E),	PTIMAX,
-0.0111	-0.006	0.1643	0.1620	0.0013	0.0104	0.01040	15.58	5.35	13035.8

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI1	RHO U PRIME,	M PRIME	PT1/PI1,	PT1/PTIMAX
0.	0.	0.	0.	16.1	16.11	0.018	0.001	0.001	0.001
0.0100	0.02212	0.60951	0.02256	32.7	16.11	0.018	0.003	0.003	0.003
0.0201	0.04444	0.60203	0.03590	70.3	16.11	0.018	0.006	0.006	0.005
0.0279	0.06183	0.68571	0.04629	118.5	16.11	0.018	0.010	0.010	0.009
0.0366	0.08098	0.79601	0.07142	333.4	16.11	0.018	0.027	0.027	0.026
0.0526	0.11633	0.84042	0.08695	567.9	16.11	0.018	0.046	0.046	0.044
0.0700	0.15491	0.86413	0.09529	748.0	16.11	0.018	0.061	0.061	0.057
0.0875	0.19346	0.88548	0.10369	968.4	16.11	0.018	0.079	0.079	0.074
0.1037	0.22939	0.90103	0.11049	1180.4	16.11	0.018	0.096	0.096	0.091
0.1202	0.26589	0.91341	0.11666	1398.8	16.11	0.018	0.114	0.114	0.107
0.1367	0.30239	0.92964	0.12616	1787.3	16.11	0.018	0.145	0.145	0.137
0.1724	0.38136	0.95293	0.14042	2537.0	16.08	0.018	0.206	0.206	0.195
0.2032	0.44949	0.96862	0.15312	3355.5	16.07	0.018	0.272	0.272	0.257
0.2382	0.52691	0.98251	0.16807	4530.3	16.05	0.018	0.368	0.368	0.348
0.2706	0.59858	0.99051	0.18015	5648.8	16.03	0.018	0.458	0.458	0.433
0.3058	0.67644	0.99713	0.19482	7207.2	16.03	0.018	0.585	0.585	0.553
0.3385	0.74877	0.99940	0.20678	8641.5	16.02	0.018	0.701	0.701	0.663
0.4057	0.89742	1.00025	0.22656	11401.7	15.97	0.018	0.925	0.925	0.875
0.4521	1.00000	1.00000	0.23339	12384.0	15.93	0.018	1.039	1.039	0.950
0.4720	1.04408	0.99979	0.23522	12806.1	15.92	0.018	1.058	1.058	0.982
0.5389	1.11207	0.99864	0.23642	13035.8	15.87	0.018	1.000	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLEI. HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PT1/PIE,	PT1/PT1MAX
0.6065	1.34160	0.99810	0.23465	12778.8	15.84	0.018	5.342	1.037	0.980
0.6746	1.49224	0.99744	0.23194	12394.4	15.79	0.018	5.345	1.006	0.951

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X TTD TTT PTC TTTM  
 8. 6. 10. 6. 306. 132. 29.00 12289.68 724.00 410.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	410.00	410.00	0.	0.5663
0.0100	1.68	607.49	388.03	1623.8	0.8391
0.0203	2.66	693.23	287.39	2208.1	0.9575
0.0282	2.83	695.19	267.62	2266.5	0.9602
0.0361	2.91	698.67	259.67	2296.5	0.9650
0.0542	3.14	711.46	239.33	2381.6	0.9827
0.0708	3.32	720.69	225.34	2439.5	0.9934
0.0806	3.53	729.32	208.58	2501.2	1.0073
0.1044	3.62	734.55	203.00	2527.0	1.0146
0.1225	3.79	738.37	190.62	2565.3	1.0199
0.1383	3.90	741.63	183.42	2589.6	1.0243
0.1731	4.12	746.01	169.81	2631.0	1.0304
0.2058	4.34	747.75	156.77	2664.6	1.0328
0.2208	4.39	747.18	153.75	2670.1	1.0320
0.2349	4.54	744.92	145.57	2683.4	1.0289
0.2899	4.66	741.10	138.47	2690.7	1.0236
0.3219	4.75	736.65	133.61	2691.6	1.0175
0.3888	4.86	730.85	127.74	2691.9	1.0095
0.4559	4.89	727.60	126.04	2688.3	1.0050
0.5230	5.02	727.27	120.53	2699.9	1.0045
0.5919	4.91	727.66	124.88	2691.0	1.0051
0.6581	4.94	727.90	123.74	2694.1	1.0054

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4971 0.1070 12.54 1523346. 11924458. 316. 2475. 357.94 0.477 0.52591 2.067

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA PRIME, THETA(2), THETA(W), THETA(M), M(IE), PTIMAX, MIE), PTIMAX,  
 -0.0134 -0.009 0.1161 0.1125 0.00025 0.00828 0.00803 14.01 4.95 14100.3

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	28.0	28.01	0.025	4.914	0.002	0.002
0.0100	0.02012	0.60282	0.06829	134.5	28.01	0.025	4.914	0.011	0.010
0.0203	0.04093	0.81976	0.12539	610.6	28.01	0.025	4.914	0.050	0.043
0.0282	0.05677	0.84142	0.13821	791.4	28.01	0.025	4.914	0.064	0.056
0.0361	0.07258	0.85258	0.14433	894.8	28.01	0.025	4.914	0.073	0.063
0.0542	0.10897	0.88417	0.16240	1268.7	28.01	0.025	4.914	0.103	0.090
0.0708	0.14246	0.90565	0.17667	1638.6	28.01	0.025	4.914	0.133	0.116
0.0806	0.17830	0.92657	0.19549	2236.5	27.98	0.025	4.915	0.182	0.159
0.1044	0.21000	0.93816	0.20274	2518.9	27.95	0.025	4.916	0.205	0.179
0.1225	0.24641	0.95234	0.21895	3193.9	27.92	0.025	4.916	0.260	0.227
0.1383	0.27820	0.96139	0.22925	3703.9	27.87	0.025	4.918	0.301	0.263
0.1731	0.34820	0.97677	0.25095	4940.2	27.80	0.025	4.920	0.402	0.350
0.2058	0.41398	0.98922	0.27461	6571.9	27.73	0.025	4.922	0.535	0.466
0.2208	0.44415	0.99126	0.27986	6997.6	27.66	0.025	4.925	0.569	0.496
0.2899	0.51274	0.99619	0.29601	8354.3	27.56	0.025	4.925	0.592	0.522
0.3219	0.58315	0.99892	0.31013	9715.1	27.39	0.024	4.933	0.791	0.689
0.3888	0.64752	0.99925	0.31971	10718.3	27.24	0.024	4.938	0.872	0.760
0.4559	0.78209	0.99932	0.33012	12044.2	26.89	0.024	4.949	0.980	0.854
0.5230	0.91706	0.99803	0.32997	12271.6	26.55	0.024	4.959	0.999	0.870
0.5919	1.00000	1.00000	0.33545	13395.3	26.30	0.024	4.973	1.147	0.950
0.6581	1.05204	1.00231	0.34105	14100.3	26.13	0.024	4.973	1.147	1.000

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	V/DELTA	U/U(DELTA)	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE.	PTI/PTIMAX
0.5919	1.19063	0.99904	0.32264	12270.4	25.70	0.023	4.987	0.998	0.870
0.6581	1.32380	1.00018	0.31533	12271.6	24.86	0.023	5.016	0.999	0.870

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLEF. HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X TTD PTE TTD TTD TTD TTD TTD  
 8. 6. 10. 6. 306. 47. 33.00 12140.21 717.67 405.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	405.00	405.00	0.	0.5643
0.0100	1.58	589.28	393.48	1533.7	0.8211
0.0152	1.57	640.71	428.44	1596.9	0.8928
0.0245	1.56	644.86	433.25	1594.4	0.8986
0.0327	1.55	644.16	435.61	1582.9	0.8976
0.0408	1.56	647.51	435.41	1596.3	0.9022
0.0580	2.33	676.96	324.53	2057.7	0.9433
0.0759	2.81	698.98	271.47	2266.3	0.9740
0.0910	3.03	710.82	250.58	2351.4	0.9905
0.1073	3.23	719.80	233.41	2417.3	1.0030
0.1261	3.38	727.36	221.59	2465.0	1.0135
0.1419	3.49	732.45	213.05	2498.0	1.0206
0.1738	3.68	739.59	199.72	2546.7	1.0305
0.2086	3.88	742.68	189.09	2588.2	1.0349
0.2438	4.05	742.18	173.16	2614.6	1.0342
0.2913	4.20	737.62	162.68	2628.2	1.0278
0.3275	4.30	734.41	156.24	2635.5	1.0233
0.3618	4.39	731.51	150.81	2641.3	1.0193
0.4277	4.53	729.31	142.65	2654.8	1.0162
0.4971	4.58	728.47	140.24	2658.4	1.0151
0.5625	4.62	727.83	138.05	2661.9	1.0142
0.6276	4.71	727.21	133.73	2670.2	1.0133

DELTA DELTA STAR H RSR RS DELTA RTMFA P THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4036 0.0938 6.04 2844650. 14279368. 977. 4905. 364.40 0.454 0.47121 1.823

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(1), THETA PRIME, THETA(2), THETA(W), M(E), PTIMAX,  
 -0.0105 -0.042 0.1360 0.1180 0.00149 0.01405 0.01227 9.61 4.49 12221.5

Y	Y/DELTA	U/(U+DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	50.0	49.95	0.041	4.327	0.004	0.004
0.0100	0.02478	0.57853	0.11333	205.1	49.90	0.040	4.328	0.017	0.017
0.0152	0.03776	0.60237	0.10827	203.9	49.85	0.040	4.328	0.017	0.016
0.0245	0.06083	0.60144	0.10685	200.5	49.83	0.040	4.329	0.016	0.016
0.0327	0.08094	0.59708	0.10534	195.6	49.75	0.040	4.330	0.016	0.016
0.0408	0.10106	0.60214	0.10617	199.3	47.70	0.040	4.332	0.054	0.053
0.0580	0.14363	0.77618	0.18316	650.0	49.58	0.040	4.334	0.112	0.111
0.0759	0.19113	0.85487	0.24055	1354.6	49.45	0.040	4.338	0.156	0.155
0.0910	0.22546	0.8699	0.26904	1891.8	47.20	0.040	4.342	0.208	0.206
0.1073	0.25585	0.91185	0.29542	2521.4	48.95	0.040	4.346	0.257	0.255
0.1261	0.31243	0.92983	0.31569	3120.8	48.70	0.040	4.350	0.301	0.299
0.1419	0.35157	0.94227	0.33102	3650.4	48.45	0.039	4.360	0.385	0.383
0.1738	0.43061	0.96066	0.35556	4676.5	47.86	0.039	4.373	0.502	0.499
0.2086	0.51683	0.97631	0.38361	6093.2	47.08	0.038	4.388	0.620	0.616
0.2438	0.60404	0.98626	0.40651	7531.6	46.21	0.038	4.409	0.735	0.730
0.2913	0.72173	0.99137	0.42319	8923.6	44.96	0.037	4.429	0.813	0.808
0.3275	0.81142	0.99416	0.43084	9871.0	43.83	0.037	4.451	0.883	0.877
0.3618	0.88640	0.99633	0.43535	10723.0	42.66	0.036	4.451	0.950	0.950
0.4036	1.00000	1.00000	0.43706	11610.5	41.01	0.035	4.500	0.992	0.992
0.4277	1.05967	1.00143	0.43499	12121.7	40.11	0.034	4.550	0.992	0.986
0.4971	1.23162	1.00276	0.41654	12046.3	37.71				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A LOADED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PI1	PI1	RHO U PRIME, M PRIME	PI1/PIE, PI1/PIMAX			
0.5625	1.39366	1.00409	0.39426	11808.7	35.09	0.032	4.608	0.973	0.966
0.6276	1.55495	1.00723	0.37920	12221.5	32.59	0.030	4.668	1.007	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X TTD TTD TTD TTD  
 8. 6. 10. 6. 306. 148. 34.50 12153.89 722.94 401.00 401.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	401.00	401.00	0.	0.5547					3638.	0.428	0.50974	1.691
0.0100	1.79	631.79	384.73	1722.8	0.8739					368.70	0.428	0.50974	1.691
0.0162	1.94	687.64	391.49	1886.2	0.9512								
0.0243	2.19	699.76	358.70	2024.2	0.9479								
0.0325	2.51	714.51	316.07	2187.9	0.9483								
0.0481	2.87	723.55	273.08	2326.3	1.0008								
0.0656	3.11	732.83	249.90	2408.7	1.0137								
0.0822	3.26	739.07	236.83	2456.4	1.0223								
0.0982	3.37	741.51	226.82	2486.6	1.0257								
0.1168	3.51	744.05	214.49	2522.3	1.0292								
0.1337	3.59	745.92	208.60	2540.7	1.0318								
0.1658	3.76	745.41	194.49	2572.7	1.0311								
0.1994	3.92	743.31	182.55	2595.6	1.0282								
0.2341	4.06	738.52	171.89	2609.1	1.0216								
0.2694	4.17	734.01	164.08	2616.7	1.0153								
0.3002	4.24	731.05	159.22	2621.1	1.0112								
0.3331	4.29	729.00	155.66	2624.5	1.0084								
0.3681	4.33	729.09	153.46	2629.7	1.0085								
0.4021	4.36	727.75	151.54	2631.1	1.0067								
0.4685	4.44	728.23	147.46	2641.5	1.0073								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.2909	0.0536	5.23	4067551.	16595262.	892.	3638.	368.70	0.428	0.50974	1.691

  

PHI,	DELTA STAR	PRIME,	DELTA STAR(2),	DELTA STAR(W),	DELTA STAR(12),	DELTA STAR(W),	DELTA STAR(12),	DELTA STAR(W),	DELTA STAR(12),	DELTA STAR(W),	DELTA STAR(12),	DELTA STAR(W),	DELTA STAR(12),	DELTA STAR(W),
-0.0091	-0.028	0.0812	0.0701	0.00118	0.00907	0.00790	8.87	4.22	12220.5					

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	71.4	71.38	0.051	4.055	0.006	0.006
0.0100	0.03438	0.65757	0.18550	403.4	71.10	0.051	4.056	0.033	0.033
0.0162	0.05555	0.71995	0.19919	509.6	70.95	0.051	4.056	0.042	0.042
0.0243	0.08347	0.77261	0.23236	732.8	70.67	0.051	4.059	0.060	0.060
0.0325	0.11187	0.83508	0.28430	1224.4	70.49	0.051	4.061	0.101	0.100
0.0481	0.16549	0.88793	0.34758	2120.3	70.02	0.051	4.066	0.174	0.174
0.0656	0.22541	0.91936	0.39006	2999.3	69.45	0.051	4.072	0.245	0.245
0.0822	0.28265	0.93756	0.41584	3694.2	69.81	0.050	4.079	0.302	0.302
0.0982	0.33762	0.94911	0.43544	4306.2	68.17	0.050	4.087	0.352	0.352
0.1168	0.40153	0.96272	0.46121	5233.1	67.31	0.050	4.096	0.428	0.428
0.1337	0.45763	0.96976	0.47238	5755.2	66.56	0.049	4.105	0.471	0.471
0.1658	0.56998	0.98195	0.50063	7158.9	64.96	0.043	4.123	0.589	0.586
0.1994	0.68549	0.99069	0.52336	8606.5	63.17	0.047	4.145	0.708	0.704
0.2341	0.80478	0.99585	0.54038	10044.5	61.10	0.046	4.170	0.822	0.822
0.2694	0.92614	0.99875	0.54721	11151.5	58.89	0.045	4.198	0.913	0.913
0.2909	1.00000	1.00000	0.54709	11609.5	57.52	0.044	4.225	0.972	0.950
0.3002	1.03202	1.00047	0.54603	11808.0	56.93	0.044	4.257	0.999	0.966
0.3331	1.14512	1.00173	0.53646	12139.3	54.61	0.043	4.291	1.005	1.000
0.3681	1.26544	1.00373	0.52205	12220.5	52.29	0.042	4.323	1.002	0.997
0.4021	1.38233	1.00424	0.50766	12180.7	50.18	0.041	4.333	1.002	0.997
0.4685	1.61060	1.00621	0.47235	12113.7	45.26	0.038	4.404	0.997	0.991

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X PTE YTD YW  
 8. 6. 10. 6. 306. 149. 36.00 12214.22 720.00 398.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	398.00	398.00	0.	0.5528
0.0100	1.84	670.34	399.79	1802.9	0.9310
0.0152	1.85	718.11	427.20	1869.5	0.9974
0.0239	2.03	726.13	398.08	1985.2	1.0085
0.0321	2.32	732.93	352.85	2136.9	1.0180
0.0489	2.58	735.97	315.01	2248.8	1.0222
0.0654	2.72	736.80	297.91	2301.5	1.0261
0.0823	2.87	740.61	279.39	2353.9	1.0286
0.0986	3.00	739.41	263.65	2390.7	1.0270
0.1154	3.16	736.56	246.13	2427.3	1.0230
0.1329	3.30	734.45	231.51	2458.1	1.0201
0.1499	3.41	730.99	219.48	2478.9	1.0153
0.1695	3.54	728.95	207.87	2502.0	1.0124
0.1837	3.59	728.56	204.01	2510.4	1.0119
0.2001	3.70	727.23	194.65	2529.5	1.0100
0.2179	3.73	724.54	191.69	2530.1	1.0063
0.2328	3.78	724.51	187.73	2539.4	1.0063

DELTA DELTA STAR H RSR RS DELTA RIHETA R RIHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1880 0.0089 0.68 12903098. 25268097. 3461. 6777. 381.94 0.380 0.54705 1.372

PHI. DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(M 1), THETA STAR(21), THETA STAR(M), THETA STAR(21), THETA STAR(M), M(1), PTIMAX,  
 -0.0044 -0.030 0.0591 0.0407 0.00351 0.00948 0.00676 6.03 3.62 13099.6

Y	Y/DELTA	U/(UDELTA)	RHO * U	PT1	P1,	RHO U PRIME,	M PRIME	PT1/PTE,	PT1/PT1MAX
0.	0.	0.	0.	242.9	242.93	0.110	3.233	0.020	0.019
0.0100	0.05319	0.71624	0.63031	1464.3	239.89	0.109	3.237	0.120	0.112
0.0152	0.08106	0.74271	0.60827	1469.1	238.56	0.108	3.245	0.158	0.147
0.0239	0.12706	0.78869	0.58470	1931.5	235.64	0.107	3.254	0.246	0.229
0.0321	0.17100	0.84894	0.82076	3004.4	232.60	0.105	3.278	0.359	0.334
0.0489	0.26025	0.89342	0.93469	4380.1	224.71	0.102	3.304	0.425	0.396
0.0654	0.34806	0.91433	0.97322	5193.2	216.21	0.099	3.336	0.513	0.478
0.0823	0.43800	0.93517	1.01368	6262.5	206.49	0.096	3.369	0.595	0.555
0.0986	0.52448	0.94980	1.03963	7268.3	196.77	0.093	3.407	0.708	0.660
0.1154	0.61378	0.96434	1.07139	8644.5	186.45	0.089	3.449	0.817	0.762
0.1329	0.70686	0.97655	1.08584	9981.4	175.52	0.086	3.496	0.905	0.844
0.1499	0.79728	0.98483	1.07910	11055.3	163.98	0.081	3.557	0.996	0.929
0.1695	0.90152	0.99401	1.05631	12163.1	150.62	0.078	3.599	1.000	0.932
0.1837	0.97705	0.99732	1.01716	12210.7	141.87	0.073	3.662	1.072	1.000
0.1880	1.00000	1.00000	1.01285	12444.6	138.78	0.068	3.740	1.002	0.934
0.2001	1.06428	1.00491	0.98405	13099.6	129.97	0.065	3.795	0.999	0.932
0.2179	1.15895	1.00517	0.89675	12241.1	116.61				
0.2328	1.23820	1.00887	0.85202	12206.8	108.10				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TH GEN. CYL.  
 8. 6. 10. 1. 306. 122. 0. 12331.01 724.00 491.50 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD	PIE	TTD	TH	GEN. CYL.
0.	0.	491.50	491.50	0.	0.6789				
0.0100	0.95	588.69	498.97	1038.2	0.8131				
0.0179	1.03	633.39	523.29	1150.1	0.8748				
0.0256	1.33	667.63	492.61	1450.0	0.9221				
0.0336	1.79	679.29	414.33	1784.2	0.9383				
0.0515	2.48	688.16	309.04	2134.2	0.9505				
0.0679	2.86	693.61	263.71	2272.6	0.9580				
0.0839	3.03	699.72	246.87	2332.5	0.9665				
0.1007	3.25	704.20	226.40	2395.9	0.9727				
0.1183	3.39	712.39	216.35	2441.2	0.9840				
0.1350	3.58	717.15	201.35	2489.3	0.9905				
0.1689	3.87	730.61	183.00	2564.9	1.0021				
0.2022	4.17	739.98	165.45	2627.2	1.0221				
0.2340	4.46	746.46	150.20	2676.5	1.0310				
0.2685	4.89	748.10	129.23	2726.7	1.0333				
0.3034	5.13	745.75	119.20	2743.6	1.0300				
0.3364	5.38	739.72	109.13	2752.4	1.0217				
0.4032	5.84	728.85	93.20	2763.4	1.0067				
0.4703	6.09	725.19	86.06	2771.0	1.0016				
0.5385	6.18	723.82	83.74	2773.0	0.9997				
0.6040	6.23	723.65	82.65	2775.0	0.9995				
0.6716	6.23	723.65	82.65	2775.0	0.9995				
0.7391	6.22	723.66	82.91	2774.5	0.9995				
0.8068	6.22	723.66	82.91	2774.5	0.9995				
0.8739	6.22	723.66	82.91	2774.5	0.9995				
0.9563	6.22	723.66	82.91	2774.5	0.9995				

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.5333 0.2311 20.80 132791. 2830943. 123. 2621. 379.22 0.637 0.34690 1.978  
 PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA PRIME, THETA(2), THETA(W), HI(W), M(E), PTIMAX,  
 -0.0099 -0.003 0.2336 0.2327 0.00004 0.01107 0.01102 21.11 6.18 17955.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PI1	PI2	RHO U PRIME, M PRIME	PTI/PIE, PTI/PTIMAX
0.	0.	0.37436	0.	9.0	9.04	0.001	0.001
0.0100	0.01875	0.41473	0.01096	16.1	9.04	0.001	0.001
0.0179	0.03349	0.52290	0.01158	17.6	9.04	0.010	0.001
0.0256	0.04793	0.64339	0.01551	26.2	9.04	0.010	0.001
0.0336	0.06298	0.76961	0.02262	51.0	9.04	0.010	0.002
0.0515	0.09666	0.81953	0.03638	149.0	9.04	0.010	0.004
0.0679	0.12737	0.84111	0.04540	266.8	9.04	0.010	0.012
0.0839	0.15735	0.86398	0.04978	346.6	9.04	0.010	0.015
0.1007	0.18982	0.88030	0.05575	479.9	9.04	0.010	0.019
0.1183	0.22182	0.89767	0.05944	585.7	9.04	0.010	0.027
0.1350	0.25313	0.91497	0.06513	771.1	9.04	0.010	0.039
0.1689	0.31670	0.92494	0.07384	1149.7	9.04	0.010	0.047
0.2022	0.37914	0.94740	0.08366	1710.7	9.04	0.010	0.063
0.2340	0.43976	0.96515	0.09398	2474.4	9.04	0.010	0.093
0.2685	0.50345	0.98328	0.11116	4220.3	9.04	0.010	0.139
0.3034	0.56889	0.98936	0.12126	5538.8	9.04	0.010	0.201
						6.176	0.342
						6.176	0.449
						6.176	0.308

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.3364	0.63077	0.99255	0.13288	7332.4	9.04	0.010	6.176	0.595	0.408
0.4032	0.75602	0.99652	0.15621	12092.4	9.04	0.010	6.176	0.981	0.673
0.4703	0.88184	0.99924	0.16962	15703.1	9.04	0.010	6.176	1.273	0.875
0.5333	1.00000	1.00000	0.17441	17058.1	9.04	0.010	6.176	1.392	0.950
0.5385	1.00972	0.99998	0.17447	17169.5	9.04	0.010	6.176	1.456	0.956
0.6040	1.13253	1.00070	0.17688	17955.9	9.04	0.010	6.176	1.456	1.000
0.6716	1.25929	1.00070	0.17688	17955.9	9.04	0.010	6.176	1.456	1.000
0.7391	1.38585	1.00070	0.17688	17955.9	9.04	0.010	6.176	1.440	1.000
0.8068	1.51279	1.00051	0.17630	17761.8	9.04	0.010	6.176	1.440	0.989
0.8739	1.63861	1.00051	0.17630	17761.8	9.04	0.010	6.176	1.440	0.989
0.9563	1.79311	1.00051	0.17630	17761.8	9.04	0.010	6.176	1.440	0.989

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLEF HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TM  
 B. 6. 10. 1. 306. 123. 18.75 12331.01 724.00 490.00  
 GEN. CYL. 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTO
0.	0.	490.00	490.00	0.	0.6768
0.0100	0.87	597.98	518.75	975.7	0.8259
0.0198	1.75	665.68	413.56	1740.4	0.9195
0.0278	2.35	683.52	324.20	2077.7	0.9441
0.0365	2.77	689.80	271.84	2240.8	0.9528
0.0438	3.29	695.44	220.10	2389.7	0.9606
0.0694	3.43	704.04	210.36	2435.4	0.9724
0.0871	3.65	711.91	194.31	2493.7	0.9833
0.1044	3.79	719.22	185.47	2532.3	0.9934
0.1193	3.95	724.85	175.97	2567.9	1.0012
0.1371	4.06	730.57	170.06	2595.0	1.0091
0.1707	4.33	739.11	155.84	2647.1	1.0209
0.2050	4.60	747.53	142.75	2695.5	1.0325
0.2373	4.82	751.91	132.98	2726.9	1.0386
0.2715	5.06	753.40	123.11	2751.8	1.0406
0.3057	5.28	752.85	114.33	2769.7	1.0399
0.3379	5.47	748.58	107.03	2776.2	1.0339
0.4074	5.76	737.56	96.56	2775.0	1.0187
0.4727	5.88	730.32	92.14	2768.9	1.0087
0.5401	5.91	727.50	91.14	2765.0	1.0048
0.6067	5.90	727.03	91.41	2763.4	1.0042
0.6688	5.90	727.03	91.41	2763.4	1.0042
0.6754	5.87	726.52	92.09	2760.8	1.0035
0.7412	5.83	726.83	93.25	2759.0	1.0039
0.8085	5.80	726.61	94.11	2756.6	1.0036
0.8755	5.76	725.68	95.01	2752.6	1.0023

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4585 0.1686 19.94 489568. 8501372. 135. 2337. 383.34. 0.629 0.37334 1.888

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA STAR(M), THETA STAR(1), THETA STAR(2), THETA STAR(M), M(1), M(2), PTIMAX, M(1), PTIMAX, M(2)  
 -0.0215 -0.003 0.1713 0.1704 0.00005 0.00841 0.00836 20.38 5.87 19070.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U	PRIME	M	PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.	0.	13.3	13.27	0.001	0.001	0.001	0.001	0.001	0.001
0.0100	0.02181	0.35222	0.01455	21.8	13.27	0.012	5.359	0.002	0.002	0.002	0.001
0.0198	0.04325	0.62828	0.03255	70.2	13.27	0.012	5.859	0.006	0.006	0.006	0.004
0.0278	0.06068	0.75005	0.04957	140.6	13.27	0.012	5.859	0.015	0.015	0.015	0.009
0.0365	0.07957	0.80895	0.06376	345.5	13.27	0.012	5.859	0.028	0.028	0.028	0.018
0.0438	0.11730	0.86269	0.08397	744.3	13.27	0.012	5.859	0.060	0.060	0.060	0.039
0.0694	0.15130	0.87917	0.08954	910.3	13.27	0.012	5.859	0.074	0.074	0.074	0.048
0.0871	0.18991	0.90022	0.09926	1249.6	13.27	0.012	5.859	0.101	0.101	0.101	0.066
0.1044	0.22771	0.91415	0.10560	1524.4	13.27	0.012	5.859	0.124	0.124	0.124	0.080
0.1193	0.26021	0.92701	0.11286	1882.7	13.27	0.012	5.859	0.153	0.153	0.153	0.099
0.1371	0.29903	0.93679	0.11802	2181.3	13.27	0.012	5.859	0.177	0.177	0.177	0.114
0.1707	0.37231	0.95562	0.13137	3083.8	13.27	0.012	5.859	0.250	0.250	0.250	0.162
0.2050	0.44713	0.97308	0.14604	4361.6	13.27	0.012	5.859	0.354	0.354	0.354	0.229
0.2373	0.51758	0.98440	0.15860	5706.7	13.27	0.012	5.859	0.463	0.463	0.463	0.299
0.2715	0.59217	0.99339	0.17287	7525.5	13.27	0.012	5.859	0.610	0.610	0.610	0.395
0.3057	0.66676	0.99986	0.18736	9725.4	13.27	0.012	5.859	0.789	0.789	0.789	0.510

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/(Delta)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.3379	0.73700	1.00222	0.20062	12011.7	13.27	0.012	5.859	0.974	0.630
0.4074	0.88858	1.00179	0.22227	16347.7	13.27	0.012	5.859	1.326	0.857
0.4585	1.00000	1.00000	0.23089	18117.4	13.27				0.950
0.4727	1.03101	0.99959	0.23243	18609.9	13.27	0.012	5.859	1.509	0.976
0.5401	1.17802	0.99816	0.23463	19070.9	13.27	0.012	5.859	1.547	1.000
0.6067	1.32328	0.99758	0.23380	18832.6	13.27	0.012	5.859	1.527	0.988
0.6088	1.32350	0.99758	0.23380	18832.6	13.27	0.012	5.859	1.527	0.988
0.6754	1.47312	0.99665	0.23186	18306.5	13.27	0.012	5.859	1.485	0.960
0.7412	1.61664	0.99599	0.22884	17551.8	13.27	0.012	5.859	1.423	0.920
0.8085	1.76342	0.99513	0.22654	16974.1	13.27	0.012	5.859	1.377	0.890
0.8755	1.90956	0.99370	0.22408	16347.7	13.27	0.012	5.859	1.326	0.857

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X 29.00 12328.56 724.00 491.00  
 8. 6. 10. 1. 306. 124. 29.00 12328.56 724.00 491.00  
 GEN. CYL. 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	491.00	491.00	0.	0.6782								
0.0100	1.45	623.70	439.81	1486.3	0.8615					396.90	0.609	0.49335	1.366
0.0207	2.25	687.76	341.66	2039.1	0.9499								
0.0294	2.58	696.67	298.42	2187.4	0.9623								
0.0382	2.80	702.97	273.85	2270.6	0.9710								
0.0548	3.00	713.08	254.65	2346.8	0.9849								
0.0717	3.17	722.09	240.00	2406.6	0.9974								
0.0877	3.31	728.43	229.54	2450.6	1.0061								
0.1052	3.48	734.11	214.74	2497.9	1.0140								
0.1210	3.59	738.68	206.48	2528.6	1.0203								
0.1385	3.71	742.60	197.81	2558.3	1.0257								
0.1723	3.95	747.21	181.47	2607.0	1.0321								
0.2064	4.15	750.16	168.90	2642.6	1.0361								
0.2396	4.31	750.79	159.19	2666.0	1.0370								
0.2731	4.45	748.28	151.05	2678.6	1.0335								
0.3056	4.56	743.34	144.23	2682.8	1.0267								
0.3402	4.67	739.50	137.81	2688.6	1.0214								
0.4066	4.79	732.37	130.98	2687.9	1.0116								
0.4736	4.84	728.60	128.16	2685.8	1.0064								
0.5411	4.88	727.45	126.40	2687.2	1.0048								
0.6082	4.91	727.61	124.90	2690.9	1.0050								
0.6755	4.94	727.83	123.80	2693.8	1.0053								
0.7422	4.96	727.08	122.78	2694.4	1.0043								
0.8098	4.99	727.22	121.43	2697.7	1.0044								

  

Y	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.4555	0.1138	12.16	1298002.	11178672.	296.	2545.	396.90	0.609	0.49335	1.366

  

PHI	DELTA STAR PRIME	DELTA STAR(2)	DELTA STAR(W)	DELTA STAR(H)	THETA PRIME	THETA(2)	THETA(W)	THETA(H)	M(E)	PTIMAX
-0.0217	-0.013	0.1273	0.1219	0.00040	0.00896	0.00959	14.18	4.83	4.83	12354.8

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PL	RHO U PRIME	M PRIME	PT1/PTC	PTI/PTIMAX
0.	0.	0.	0.	29.0	28.96	0.028	4.775	0.002	0.002
0.0100	0.02195	0.55336	0.05702	98.3	28.96	0.028	4.775	0.008	0.008
0.0207	0.04553	0.75915	0.10065	335.0	28.94	0.028	4.775	0.027	0.027
0.0294	0.06453	0.81434	0.12355	562.4	28.93	0.028	4.776	0.046	0.046
0.0382	0.08382	0.84531	0.13969	783.6	28.91	0.028	4.776	0.064	0.063
0.0548	0.12036	0.87370	0.15506	1061.1	28.88	0.028	4.777	0.086	0.086
0.0717	0.15750	0.89596	0.16848	1362.2	28.84	0.028	4.778	0.110	0.110
0.0877	0.19261	0.91235	0.17991	1664.6	28.80	0.028	4.780	0.135	0.135
0.1052	0.23096	0.92996	0.19490	2124.1	28.76	0.028	4.781	0.172	0.172
0.1210	0.26565	0.94137	0.20487	2486.4	28.71	0.028	4.782	0.201	0.201
0.1385	0.30407	0.95244	0.21604	2938.7	28.67	0.028	4.783	0.238	0.238
0.1723	0.37828	0.97059	0.23917	4047.3	28.57	0.028	4.786	0.328	0.328
0.2064	0.45315	0.98382	0.25962	5258.9	28.48	0.027	4.789	0.427	0.426
0.2396	0.52604	0.99252	0.27692	6465.9	28.38	0.027	4.792	0.524	0.523
0.2731	0.59958	0.99723	0.29189	7644.5	28.25	0.027	4.796	0.620	0.619
0.3056	0.67094	0.99880	0.30443	8729.1	28.09	0.027	4.800	0.708	0.708
0.3402	0.74690	1.00094	0.31733	9991.2	27.92	0.027	4.806	0.810	0.809
0.4066	0.89268	1.00070	0.32913	11378.4	27.52	0.027	4.817	0.923	0.921
0.4555	1.00000	1.00000	0.33072	11737.0	27.22	0.027	4.817	0.950	0.950

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A (COOLED) HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI.	RHO U PRIME.	M PRIME	PTI/PTI.	PTI/PTIMAX
0.4736	1.03978	0.99991	0.33081	11870.0	27.09	0.027	4.931	0.963	0.961
0.5411	1.18797	1.00042	0.32876	12137.8	26.54	0.026	4.848	0.985	0.982
0.6082	1.33529	1.00179	0.32461	12337.8	25.86	0.026	4.870	1.001	0.999
0.6755	1.48304	1.00289	0.31794	12354.8	25.08	0.025	4.896	1.002	1.000
0.7422	1.62948	1.00312	0.31029	12263.1	24.27	0.025	4.923	0.995	0.993
0.8098	1.77790	1.00435	0.30363	12328.2	23.46	0.024	4.952	1.000	0.998

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLET HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF TTD TW GEN. CYL.  
 8. 6. 10. 6. 306. 74. 33.00 12243.46 720.13 492.50 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTU	PTF	TTD	TW	GEN. CYL.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	492.50	492.50	0.	0.6839					0.606	0.45979	1.217
0.0100	1.59	616.89	410.22	1575.7	0.8566							
0.0163	2.02	627.17	346.09	1837.6	0.8709							
0.0255	2.39	708.75	330.68	2131.2	0.9842							
0.0349	2.53	715.79	313.99	2197.1	0.9940							
0.0500	2.77	722.45	285.15	2292.1	1.0032							
0.0671	2.90	730.36	272.39	2345.6	1.0142							
0.0841	3.06	734.20	255.42	2398.3	1.0195							
0.1011	3.19	738.36	243.62	2438.0	1.0253							
0.1202	3.33	740.84	230.57	2475.9	1.0288							
0.1352	3.43	742.41	221.38	2501.9	1.0309							
0.1689	3.66	743.08	201.77	2550.1	1.0319							
0.2018	3.80	743.52	191.42	2575.4	1.0325							
0.2356	4.00	741.36	176.37	2605.3	1.0295							
0.2690	4.16	737.42	165.45	2621.4	1.0240							
0.3026	4.26	734.08	158.53	2629.5	1.0194							
0.3359	4.36	731.17	152.28	2637.2	1.0153							
0.4034	4.54	726.74	142.12	2650.2	1.0092							
0.4702	4.62	725.59	137.74	2657.5	1.0076							
0.5377	4.67	724.87	135.39	2661.2	1.0066							
0.6038	4.72	725.14	133.09	2667.0	1.0070							
0.6731	4.79	724.80	129.89	2673.4	1.0065							
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT		
0.3986	0.0857	6.46	2451929.	14277102.	720.	4192.	402.36	0.606	0.45979	1.217		
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(M),	DELTA STAR(W),	THETA STAR(M),	THETA STAR(W),	THETA(2),	THETA(W),	H(W),	M(E),	PTIMAX,	
-0.0195	-0.044	0.1292	0.1090	0.1080	0.00151	0.01177	0.00993	10.88	4.52	12457.0		
Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX			
0.	0.	0.59475	0.11516	51.7	51.71	0.041	4.318	0.004	0.004			
0.0100	0.02509	0.69361	0.15870	214.6	51.45	0.041	4.320	0.018	0.017			
0.0163	0.04087	0.80443	0.19186	410.9	51.30	0.041	4.324	0.034	0.033			
0.0255	0.06387	0.82728	0.20745	736.5	51.09	0.041	4.327	0.060	0.059			
0.0349	0.08755	0.85514	0.23638	910.1	50.88	0.040	4.333	0.074	0.073			
0.0500	0.12538	0.88535	0.25102	1306.5	50.47	0.040	4.340	0.107	0.105			
0.0671	0.16846	0.90524	0.27159	1579.1	50.03	0.040	4.346	0.129	0.127			
0.0841	0.21088	0.92020	0.28644	1799.0	49.64	0.040	4.354	0.163	0.160			
0.1011	0.25363	0.93454	0.30413	2381.0	49.12	0.039	4.363	0.194	0.191			
0.1202	0.30155	0.94434	0.31667	2890.2	48.61	0.039	4.371	0.236	0.232			
0.1352	0.33918	0.96254	0.34748	3321.4	48.09	0.039	4.386	0.271	0.267			
0.1689	0.42372	0.97208	0.36239	4523.1	47.19	0.038	4.402	0.369	0.363			
0.2018	0.50626	0.98337	0.38834	5338.7	46.23	0.037	4.422	0.436	0.429			
0.2356	0.59105	0.98942	0.40695	6870.5	45.12	0.036	4.440	0.561	0.552			
0.2690	0.67484	0.99251	0.41480	8239.7	44.08	0.036	4.461	0.673	0.661			
0.3026	0.75913	0.99539	0.42264	9169.2	42.92	0.036	4.481	0.749	0.736			
0.3359	0.84267	1.00000	0.42970	10159.3	41.89	0.036	4.527	0.830	0.816			
0.3986	1.00000	1.00000	0.42983	11834.2	39.73	0.034	4.578	0.977	0.960			
0.4034	1.01201	1.00031	0.41738	11962.0	39.56	0.033	4.634	1.017	1.000			
0.4702	1.17959	1.00307	0.39660	12457.0	37.13	0.031		1.017	1.000			
0.5377	1.34893	1.00446	1.2304.4	12304.4	34.65			1.005	0.988			

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO = U	PTI	PI,	RHO U PRIME, W PRIME	PTI/PTE,	PTI/PTIMAX		
0.6038	1.51475	1.00664	0.37846	12250.4	32.45	0.030	4.688	1.001	0.983
0.6731	1.68861	1.00907	0.35811	12255.5	29.86	0.028	4.756	1.001	0.984

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLET HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TT0 TT1 TT2 GEN. CYL.  
 8. 6. 10. 7. 306. 73. 34.50 12226.46 720.00 493.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	TT0	TT1	TT2	GEN. CYL.
0.	0.	493.00	493.00	0.	0.6847				
0.0100	1.66	630.82	406.98	1639.9	0.9761				
0.0198	2.29	703.15	342.54	2081.4	0.9766				
0.0295	2.52	722.99	318.38	2204.7	1.0042				
0.0370	2.59	726.57	310.67	2235.3	1.0091				
0.0527	2.85	731.62	278.19	2334.0	1.0161				
0.0703	2.99	735.80	263.42	2382.2	1.0219				
0.0868	3.14	738.06	248.11	2426.1	1.0251				
0.1033	3.25	740.36	237.75	2457.3	1.0283				
0.1206	3.34	741.42	229.21	2480.6	1.0297				
0.1373	3.46	741.69	218.68	2506.7	1.0301				
0.1704	3.62	741.70	204.55	2540.3	1.0263				
0.2039	3.83	738.93	187.68	2573.4	1.0212				
0.2379	4.00	735.29	175.16	2594.1	1.0161				
0.2709	4.15	731.62	164.44	2610.4	1.0112				
0.3048	4.25	728.09	157.65	2617.9	1.0081				
0.3389	4.34	725.84	152.26	2625.1	1.0055				
0.4051	4.43	723.96	147.13	2632.5	1.0048				
0.4719	4.45	723.42	145.97	2633.9	1.0041				
0.5411	4.52	722.96	141.89	2642.1	1.0045				
0.6078	4.60	723.22	138.10	2651.3	1.0045				

DELTA DELTA STAR H 4.34 RSR 3561892. 16607546. RTHETA R 966. RTHETA D 4504. RECOV.FACT. 0.600 TOT.PRESS.RECOV. CT 1.134  
 0.3322 0.0550

PHI, DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(M J), THETA PRIME, THETA(2), THETA(W), M(W), MIE), PTIMAX,  
 -0.0167 -0.051 0.1064 0.0835 0.00209 0.01060 0.00844 9.89 4.33 12723.9

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	74.6	74.65			0.006	0.006
0.0100	0.03011	0.62500	0.17439	344.4	74.28	0.052	4.052	0.028	0.027
0.0198	0.05970	0.79328	0.26166	915.9	73.90	0.051	4.056	0.075	0.072
0.0295	0.08890	0.84028	0.29668	1297.5	73.53	0.051	4.060	0.106	0.102
0.0370	0.11136	0.85192	0.30669	1431.1	73.16	0.051	4.064	0.117	0.112
0.0527	0.15875	0.88953	0.35396	2135.9	72.41	0.050	4.071	0.175	0.168
0.0703	0.21162	0.90793	0.37643	2602.1	71.44	0.050	4.082	0.213	0.205
0.0868	0.26135	0.92466	0.40193	3202.7	70.54	0.050	4.091	0.262	0.252
0.1033	0.31100	0.93654	0.41922	3709.7	69.61	0.049	4.101	0.303	0.292
0.1206	0.36308	0.94543	0.43120	4162.5	68.38	0.049	4.115	0.340	0.327
0.1373	0.41336	0.95535	0.44873	4821.7	67.18	0.048	4.128	0.395	0.379
0.1704	0.51301	0.96818	0.46779	5868.8	64.65	0.047	4.158	0.480	0.461
0.2039	0.61386	0.98080	0.49262	7466.8	61.66	0.045	4.194	0.611	0.587
0.2379	0.71622	0.98867	0.50728	8909.5	58.79	0.044	4.231	0.729	0.700
0.2709	0.81557	0.99487	0.51956	10434.7	56.17	0.043	4.266	0.853	0.820
0.3048	0.91763	0.99773	0.52146	11408.9	53.90	0.042	4.298	0.933	0.897
0.3322	1.00000	1.00000	0.52109	12087.7	52.21			0.950	0.950
0.3389	1.02029	1.00047	0.52043	12255.0	51.81	0.040	4.329	1.002	0.963
0.4051	1.21960	1.00330	0.50195	12723.9	48.15	0.038	4.387	1.041	1.000
0.4719	1.42070	1.00384	0.46697	12035.5	44.42	0.036	4.451	0.984	0.946
0.5411	1.62904	1.00698	0.43978	12101.8	40.53	0.034	4.524	0.990	0.951
0.6078	1.82784	1.01049	0.41545	12207.7	37.14	0.032	4.595	0.998	0.959

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TTD TTD  
 8. 6. 10. 7. 306. 72. 36.00 12221.57 720.00 494.00 494.00 12.00  
 GEN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD	RHO	U	PRIME	M	PRIME	PT1/PTIE	PT1/PTIMAX	TOT. PRESS. RECOV.	CT
0.	0.	494.00	494.00	0.	0.6861									
0.0100	1.84	650.02	388.24	1773.4	0.9028								0.52505	0.870
0.0163	2.08	705.96	378.81	1982.5	0.9805									
0.0243	2.33	739.63	353.95	2149.8	1.0250									
0.0331	2.46	740.02	335.41	2204.7	1.0278									
0.0497	2.58	740.93	317.60	2255.2	1.0291									
0.0662	2.70	741.72	301.64	2299.4	1.0302									
0.0829	2.85	739.77	282.44	2344.0	1.0275									
0.0829	2.83	739.76	284.34	2339.1	1.0274									
0.1003	2.98	737.76	265.98	2380.7	1.0247									
0.1172	3.13	736.46	248.60	2421.0	1.0229									
0.1336	3.27	733.52	233.34	2451.3	1.0188									
0.1678	3.53	728.12	208.33	2498.9	1.0113									
0.2018	3.69	724.93	194.36	2524.7	1.0068									
0.2359	3.78	723.48	187.24	2538.2	1.0048									
0.2681	3.87	723.77	181.50	2552.4	1.0052									
0.3054	4.08	724.16	167.57	2585.9	1.0058									

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.1720	0.0103	0.84	10707038.	24325789.	2711.	6160.	426.84	0.560	0.52505	0.870

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA STAR(1),	THETA(2),	THETA(W),	H(W),	M(E),	PTIMAX,
-0.0067	-0.045	0.0552	0.0380	0.00326	0.00901	0.00644	5.91	3.56	12196.3

  

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PT1/PTIE,	PT1/PTIMAX
0.	0.	0.	0.	248.4	248.40				
0.0100	0.05812	0.70842	0.64955	1482.1	244.05	0.116	3.172	0.020	0.122
0.0163	0.09468	0.79195	0.73624	2133.3	241.44	0.115	3.180	0.121	0.175
0.0243	0.14113	0.85876	0.83950	3114.2	237.22	0.114	3.192	0.175	0.255
0.0331	0.19222	0.88072	0.89428	3724.8	233.50	0.113	3.203	0.255	0.305
0.0497	0.28894	0.90086	0.92800	4349.6	224.31	0.110	3.230	0.305	0.357
0.0662	0.38496	0.91852	0.95984	5038.3	216.11	0.107	3.255	0.412	0.413
0.0829	0.48173	0.93635	0.99093	5959.2	204.93	0.104	3.292	0.488	0.489
0.0829	0.48173	0.93439	0.98225	5820.9	204.93	0.104	3.292	0.476	0.477
0.1003	0.58299	0.95103	1.00726	6864.5	193.13	0.100	3.333	0.562	0.563
0.1172	0.68122	0.96709	1.02185	8058.3	180.09	0.095	3.381	0.659	0.661
0.1336	0.77654	0.97923	1.03394	9303.8	168.91	0.091	3.426	0.761	0.763
0.1678	0.97532	0.99825	1.00696	11499.4	144.07	0.082	3.537	0.941	0.943
0.1720	1.00000	1.00000	0.99946	11586.5	141.15			0.950	0.950
0.2018	1.17295	1.00854	0.92121	12196.3	121.72	0.074	3.658	0.998	1.000
0.2359	1.37115	1.01392	0.83383	11971.1	105.57	0.067	3.760	0.980	0.982
0.2681	1.55831	1.01961	0.73783	11402.8	90.04	0.060	3.877	0.933	0.935
0.3054	1.77511	1.03297	0.64768	12084.5	72.04	0.052	4.043	0.899	0.991

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REFLECTION - TUNNEL A CUDLEF HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIE TTD TTD GEN. CYL.  
 8. 6. 11. 10. 306. 102. 0. 12956.91 724.50 647.00 12.00

Y	MACH	TOT.FEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	647.00	647.00	0.	0.8930
0.0312	0.87	681.95	592.92	1034.2	0.9413
0.0390	1.47	692.30	479.73	1598.0	0.9555
0.0547	2.11	698.21	369.07	1988.5	0.9637
0.0725	2.50	703.72	313.15	2166.2	0.9713
0.0890	2.69	708.31	289.29	2243.7	0.9777
0.1069	2.97	713.87	258.08	2340.0	0.9853
0.1227	3.09	718.49	246.53	2381.2	0.9917
0.1388	3.32	723.42	225.70	2445.3	0.9985
0.1725	3.69	736.08	197.34	2544.1	1.0160
0.2074	3.99	745.94	178.45	2611.1	1.0296
0.2240	4.20	749.79	165.79	2648.8	1.0349
0.2584	4.55	755.78	147.24	2703.9	1.0432
0.3241	5.09	746.58	120.64	2742.3	1.0305
0.3930	5.52	733.11	103.42	2750.5	1.0119
0.4583	5.75	725.94	95.30	2752.5	1.0020
0.5246	5.84	723.76	92.45	2754.0	0.9990
0.5925	5.87	723.76	91.81	2755.4	0.9990
0.5992	5.87	723.76	91.81	2755.4	0.9990
0.6596	5.87	723.76	91.81	2755.4	0.9990
0.7278	5.87	723.76	91.81	2755.4	0.9990
0.7959	5.87	723.76	91.81	2755.4	0.9990

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOVER.TEMP. RECOVER.FACT. TOT.PRESS.RECOVER. CT  
 0.5054 0.2333 66.83 98628. 2306606. 29. 671. 452.79 0.877 0.33784 0.125

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(2), THETA STAR(1), THETA STAR(2), THETA(1M), THETA(2M), MIE), PTIMAX,  
 -0.0546 -0.003 0.2359 0.2349 0.00005 0.00344 0.00343 68.53 5.82 12855.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PTIMAX
0.	0.	0.06180	0.37559	0.00950	9.35	0.012	5.817	0.001	0.001
0.0312	0.06180	0.37559	0.00950	9.35	9.35	0.012	5.817	0.001	0.001
0.0390	0.07709	0.58035	0.01814	33.7	9.35	0.012	5.817	0.003	0.003
0.0547	0.10822	0.72216	0.02934	87.0	9.35	0.012	5.817	0.007	0.007
0.0725	0.14350	0.78668	0.03767	159.0	9.35	0.012	5.817	0.012	0.012
0.0890	0.17619	0.81483	0.04223	214.7	9.35	0.012	5.817	0.017	0.017
0.1069	0.21153	0.84982	0.04937	328.9	9.35	0.012	5.817	0.025	0.026
0.1227	0.24280	0.86476	0.05259	394.9	9.35	0.012	5.817	0.030	0.031
0.1388	0.27466	0.88806	0.05900	551.0	9.35	0.012	5.817	0.042	0.043
0.1725	0.34134	0.92392	0.07020	936.6	9.35	0.012	5.817	0.072	0.073
0.2240	0.44325	0.96195	0.08700	1395.6	9.35	0.012	5.817	0.108	0.109
0.2584	0.51132	0.98195	0.10000	1838.3	9.35	0.012	5.817	0.142	0.143
0.3241	0.64133	0.99589	0.12378	5510.2	9.35	0.012	5.817	0.221	0.223
0.3930	0.77767	0.99887	0.14482	8662.9	9.35	0.012	5.817	0.425	0.429
0.4583	0.90688	0.99962	0.15728	11402.0	9.35	0.012	5.817	0.684	0.689
0.5054	1.00000	1.00000	0.16115	12212.5	9.35	0.012	5.817	0.879	0.887
0.5246	1.03808	1.00015	0.16220	12543.9	9.35	0.012	5.817	0.967	0.950
0.5925	1.17244	1.00066	0.16342	12855.3	9.35	0.012	5.817	0.991	1.000
0.5992	1.18569	1.00066	0.16342	12855.3	9.35	0.012	5.817	0.991	1.000
0.6596	1.30521	1.00066	0.16342	12855.3	9.35	0.012	5.817	0.991	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.7278	1.44017	1.00066	0.16342	12855.3	9.35	0.012	5.817	0.991	1.000
0.7959	1.57492	1.00066	0.16342	12855.3	9.35	0.012	5.817	0.991	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA RESTRICTION - TUNNEL A COOLET HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIC TTD TTD TTD WFN. CYL.  
 8. 11. 10. 306. 136. 18.75 13018.46 725.00 646.00 12.00

Y	MACH	DELTA STAR	H	RSR	RS DELTA	RTHEA R	RTHEA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	645.00	646.00	0.	0.	0.9910					
0.0100	1.35	672.44	493.73	1465.3	0.9275						
0.0171	1.35	680.39	479.57	1473.9	0.9385						
0.0264	1.54	688.81	467.71	1629.8	0.9501						
0.0336	2.10	696.31	370.18	1979.4	0.9604						
0.0505	2.69	703.28	286.95	2236.4	0.9700						
0.0673	2.89	708.62	265.46	2307.4	0.9774						
0.0842	3.05	715.31	249.91	2364.8	0.9866						
0.1021	3.21	721.41	236.16	2414.5	0.9950						
0.1204	3.31	726.29	227.16	2448.8	1.0018						
0.1341	3.45	729.37	216.03	2483.4	1.0060						
0.1682	3.67	739.98	200.55	2545.7	1.0207						
0.2023	3.87	746.87	186.73	2594.1	1.0302						
0.2359	4.10	753.73	172.96	2641.5	1.0396						
0.2687	4.32	756.64	159.92	2677.5	1.0436						
0.3041	4.53	757.07	148.12	2704.8	1.0442						
0.3377	4.71	755.00	138.72	2721.0	1.0414						
0.4023	5.03	744.48	122.73	2733.1	1.0269						
0.4699	5.23	732.77	113.07	2728.6	1.0107						
0.5372	5.33	728.60	108.96	2728.4	1.0050						
0.6046	5.38	727.77	107.35	2730.1	1.0038						
0.6717	5.39	726.82	106.61	2729.7	1.0025						
0.7396	5.41	726.78	106.20	2730.5	1.0025						
0.8059	5.42	726.88	105.80	2731.6	1.0026						

DELTA STAR H 13.88 RSR 481896. 7272505. 200. 3016. 459.18 0.872 0.38609 0.166  
 0.5245 0.1771

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W J), THETA PRIME, THETA(2), THETA(W), H(W), M(EL), PTIMAX,  
 -0.0791 -0.031 0.2083 0.1914 0.00065 0.01211 0.01116 17.15 5.32 13117.0

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	18.4	18.43			0.001	0.001
0.0100	0.01907	0.53709	0.03187	54.3	18.43	0.020	5.213	0.004	0.004
0.0171	0.03254	0.54026	0.03168	54.3	18.43	0.020	5.213	0.004	0.004
0.0264	0.05029	0.59741	0.03742	71.4	18.43	0.020	5.213	0.005	0.005
0.0336	0.06404	0.72556	0.05742	168.2	18.43	0.020	5.213	0.013	0.013
0.0505	0.09626	0.61976	0.08354	424.0	18.40	0.020	5.215	0.032	0.032
0.0673	0.12827	0.86578	0.09307	571.1	18.38	0.020	5.216	0.044	0.044
0.0842	0.16051	0.86683	0.10116	728.6	18.34	0.019	5.218	0.056	0.056
0.1021	0.19466	0.88504	0.10914	912.8	18.32	0.019	5.218	0.070	0.070
0.1204	0.22955	0.89761	0.11473	1067.5	18.27	0.019	5.221	0.082	0.082
0.1341	0.25567	0.91029	0.12222	1290.3	18.25	0.019	5.222	0.099	0.099
0.1682	0.32068	0.93314	0.13360	1743.1	18.06	0.019	5.231	0.134	0.133
0.2023	0.38570	0.95088	0.14592	2306.8	18.03	0.019	5.233	0.177	0.176
0.2359	0.44976	0.96823	0.15910	3089.0	17.88	0.019	5.240	0.237	0.235
0.2687	0.51229	0.98144	0.17261	4076.3	17.69	0.019	5.249	0.313	0.311
0.3041	0.57978	0.99145	0.18631	5286.1	17.51	0.019	5.258	0.406	0.403
0.3377	0.64384	0.99739	0.19801	6515.8	17.33	0.019	5.268	0.501	0.497
0.4023	0.76700	1.00181	0.22074	9352.5	17.01	0.019	5.284	0.718	0.713

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	U/(U/Delta)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4699	0.89589	1.00016	0.23454	11558.1	16.68	0.016	5.302	0.888	0.881
0.5245	1.00000	1.00000	0.23893	12461.2	16.44				0.950
0.5372	1.02420	1.00011	0.23909	12671.1	16.39	0.018	5.318	0.973	0.966
0.6046	1.15270	1.00074	0.23899	13083.6	16.13	0.018	5.332	1.005	0.997
0.6717	1.28063	1.00057	0.23649	13117.0	15.85	0.018	5.347	1.008	1.000
0.7396	1.41008	1.00087	0.23332	13058.3	15.58	0.017	5.363	1.003	0.996
0.8059	1.53649	1.00127	0.23069	13034.2	15.34	0.017	5.377	1.001	0.994

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOL. HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TT0  
 B. 6. 11. 10. 306. 79. 33.00 13005.65 724.00 636.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	636.00	636.00	0.	0.8785					465.82	0.850	0.46610	0.228
0.0100	1.50	678.48	468.13	1589.7	0.9371								
0.0198	2.30	711.09	346.17	2093.8	0.9822								
0.0283	2.46	727.48	328.83	2188.4	1.0048								
0.0363	2.53	728.54	319.11	2217.9	1.0063								
0.0534	2.75	733.79	292.06	2303.7	1.0135								
0.0696	2.92	740.03	273.69	2367.0	1.0221								
0.0873	3.06	744.00	258.91	2414.1	1.0276								
0.1045	3.20	747.72	245.35	2456.7	1.0328								
0.1226	3.30	749.22	235.41	2484.5	1.0348								
0.1387	3.39	750.85	227.91	2506.5	1.0371								
0.1723	3.57	751.12	211.55	2546.0	1.0375								
0.2046	3.77	750.68	195.00	2583.8	1.0369								
0.2377	3.91	748.71	184.87	2602.7	1.0341								
0.2716	4.06	744.55	173.17	2620.0	1.0284								
0.3053	4.20	739.91	163.33	2631.9	1.0220								
0.3385	4.33	735.87	154.83	2642.1	1.0164								
0.4051	4.51	730.15	144.06	2653.5	1.0085								
0.4738	4.67	727.83	135.85	2666.8	1.0053								
0.5394	4.71	727.21	133.91	2669.8	1.0044								
0.6082	4.78	726.56	130.41	2676.2	1.0035								
DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.4426	0.0843	6.01	1840891.	14074107.	571.	4369.	465.82	0.850	0.46610	0.228			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(W ),	THETA STAR(2),	THETA STAR(W ),	THETA(2),	THETA(W),	H(W),	M(E),	PTIMAX,			
-0.0699	-0.071	0.1557	0.1244	0.00249	0.01154	0.00933	13.33	4.61	12653.3				
Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX					
0.	0.	0.	50.4	50.40	0.040	0.004	0.004	0.004					
0.0100	0.02259	0.59716	0.09962	184.5	0.040	4.347	0.014	0.015					
0.0198	0.04480	0.78653	0.17691	623.6	0.040	4.350	0.048	0.049					
0.0283	0.06405	0.82208	0.19426	806.8	0.040	4.351	0.062	0.064					
0.0363	0.08210	0.83313	0.20227	898.1	0.040	4.354	0.069	0.071					
0.0534	0.12060	0.86536	0.22862	1250.6	0.039	4.357	0.096	0.099					
0.0696	0.15733	0.88914	0.24889	1605.6	0.039	4.362	0.123	0.127					
0.0873	0.19729	0.90684	0.26669	1974.6	0.039	4.367	0.152	0.156					
0.1045	0.23608	0.92285	0.28435	2408.3	0.039	4.373	0.185	0.190					
0.1226	0.27698	0.93329	0.29691	2776.6	0.039	4.380	0.213	0.219					
0.1387	0.31335	0.94156	0.30682	3107.7	0.038	4.387	0.239	0.246					
0.1723	0.38926	0.95640	0.32974	3965.7	0.038	4.401	0.305	0.313					
0.2046	0.46223	0.97059	0.35526	5151.2	0.037	4.418	0.396	0.407					
0.2377	0.53701	0.97769	0.36796	5996.7	0.037	4.439	0.461	0.474					
0.2716	0.61360	0.98420	0.38564	7209.4	0.036	4.459	0.554	0.570					
0.3053	0.68973	0.98866	0.39891	8407.1	0.035	4.482	0.646	0.664					
0.3385	0.76473	0.99248	0.40891	9625.7	0.035	4.508	0.740	0.761					
0.4051	0.91520	0.99678	0.41325	11286.1	0.033	4.568	0.892	0.892					
0.4426	1.00000	1.00000	0.41093	12020.6	0.034	4.627	0.971	0.950					
0.4738	1.07040	1.00178	0.40585	12630.5	0.030	4.681	0.953	0.998					
0.5394	1.21861	1.00289	0.38583	12395.5	0.029	4.738	0.973	1.000					
0.6082	1.37404	1.00531	0.37063	12653.3									

SONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
DEL MACH MO. DAY TEST RUN X PTE ITO TW GEN. CYL.  
8. 6. 11. 10. 306. 89. 34.50 12915.36 724.00 633.00 12.00

Table with columns: Y, MACH, TOT. TEMP., STAT. TEMP., VELOCITY, TT/ITO, RTHETA R, RTHETA D, RECOV. TEMP., RECOV. FACT., TOT. PRESS. RECOV. CT, PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(2), THETA PRIME, THETA(2), THETA(W), H(M), M(E), P(T)MAX, Y/DELTA, U/(UDELTA), RHD \* U, P(T), RHO U PRIME, M PRIME, P(T)/P(T)E, P(T)/P(T)MAX

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
0.3799 0.0917 3.49 2709959. 16319510. 858. 5169. 468.53 0.842 0.48056 0.238

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(2), THETA PRIME, THETA(2), THETA(W), H(M), M(E), P(T)MAX,  
-0.0599 -0.079 0.1307 0.0988 0.00327 0.01155 0.00886 11.13 4.40 12954.5

Table with columns: Y, Y/DELTA, U/(UDELTA), RHD \* U, P(T), RHO U PRIME, M PRIME, P(T)/P(T)E, P(T)/P(T)MAX

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TT0 TT1  
 8. 6. 11. 10. 306. 88. 36.00 12926.18 724.00 631.00 631.00 12.00

Y	MACH	LOG.TEMP.	STAT.TEMP.	VELOCITY	TT/TT0
0.	631.00	631.00	0.	0.	0.8715
0.0100	698.48	410.75	1859.2	0.9648	0.9648
0.0197	746.88	358.92	2153.3	1.0288	1.0288
0.0281	750.10	352.06	2203.2	1.0443	1.0443
0.0363	749.62	336.39	2228.1	1.0354	1.0354
0.0530	751.20	320.59	2274.5	1.0376	1.0376
0.0690	751.25	306.97	2310.3	1.0376	1.0376
0.0859	749.94	290.08	2350.5	1.0358	1.0358
0.1018	747.53	271.61	2391.1	1.0325	1.0325
0.1213	743.54	251.00	2432.6	1.0270	1.0270
0.1366	740.35	232.05	2471.1	1.0226	1.0226
0.1687	734.91	202.01	2530.3	1.0151	1.0151
0.2052	727.93	137.77	2552.1	1.0082	1.0082
0.2394	727.23	174.67	2581.2	1.0072	1.0072
0.2711	728.60	168.54	2593.9	1.0063	1.0063

DELTA DELTA STAR H PSR RS DELTA RTHETA D RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.1841 0.9054 0.41 821946. 24398497. 2738. 6560. 485.57 0.324 0.50593 0.232

PHI DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(W), DELTA STAR(W), THETA PRIME, THETA(2), THETA(W), H(W), M(W), PTIMAX,  
 -0.0348 -0.066 0.0654 0.0429 0.00910 0.00620 6.92 3.70 13230.9

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	237.3	237.31	0.108	3.251	0.018	0.018
0.0100	0.05431	0.73246	0.62214	1512.6	235.89	0.107	3.257	0.117	0.114
0.0197	0.10695	0.84832	0.81711	3009.9	233.75	0.106	3.263	0.233	0.227
0.0281	0.15252	0.86796	0.84542	3365.9	231.85	0.105	3.275	0.260	0.254
0.0363	0.19738	0.87778	0.87924	3763.5	227.82	0.103	3.293	0.291	0.284
0.0530	0.28781	0.89604	0.91724	4369.7	221.89	0.101	3.320	0.338	0.330
0.0690	0.37466	0.91016	0.93556	4892.2	213.34	0.098	3.355	0.378	0.370
0.0859	0.46651	0.9259E	0.95795	5637.6	202.90	0.094	3.394	0.436	0.426
0.1018	0.55292	0.94200	0.98355	6630.9	191.75	0.089	3.451	0.513	0.501
0.1213	0.65884	0.95832	0.99837	7910.6	176.80	0.084	3.510	0.612	0.598
0.1366	0.74194	0.97352	1.00865	9429.3	162.56	0.074	3.647	0.729	0.713
0.1687	0.91629	0.99681	0.97855	12314.3	134.08	0.066	3.780	0.953	0.931
0.1841	1.00000	1.00000	0.94208	12569.4	124.75	0.057	3.946	0.999	0.976
0.2052	1.11454	1.00543	0.88331	12918.3	111.54	0.052	4.049	1.023	1.000
0.2394	1.30030	1.01686	0.76623	13230.9	88.99	0.052	4.049	1.008	0.985
0.2711	1.47247	1.02169	0.69589	13035.1	77.60	0.052	4.049	1.008	0.985

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE TTC TWC GEN. CYL.  
 8. 7. 22. 306. 11. 0. 79801.92 1350.00 504.00 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ITC
0.	0.	504.00	504.00	0.	0.3733
0.0100	1.02	1052.95	870.30	1481.3	0.7400
0.0297	1.64	1136.73	752.23	2204.5	0.8568
0.0459	2.35	1195.73	569.12	2743.7	0.8857
0.0627	2.77	1219.77	481.41	2978.3	0.9035
0.0789	3.02	1235.90	437.53	3097.0	0.9155
0.1217	3.37	1269.44	388.35	3253.5	0.9403
0.1628	3.56	1296.73	366.26	3343.4	0.9605
0.2053	3.87	1320.28	330.39	3448.5	0.9780
0.2471	4.11	1338.67	305.91	3522.4	0.9916
0.2899	4.35	1354.63	283.26	3587.6	1.0034
0.3406	4.79	1369.52	245.12	3675.4	1.0145
0.4142	5.24	1389.98	213.92	3758.9	1.0296
0.4989	5.88	1409.07	178.17	3845.5	1.0438
0.5822	6.50	1414.83	149.84	3898.4	1.0480
0.6664	7.07	1387.59	126.19	3892.8	1.0278
0.7499	7.46	1380.13	113.73	3900.5	1.0223
0.8359	7.63	1373.74	108.67	3898.5	1.0176
0.9477	7.63	1372.65	108.51	3897.1	1.0168
1.0840	7.64	1372.58	108.21	3897.4	1.0167

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.8110 0.4540 26.98 288421. 5846741. 187. 3784. 508.25 0.318 0.25074 6.755

PMI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), DELTA STAR(M 2), THETA PRIME, THETA(2), THETA(M), H(M), M(1), PTIMAX,  
 -0.0199 -0.014 0.4680 0.4617 0.00014 0.01669 0.01647 28.03 7.61 79629.9

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	11.0	10.96	0.000	0.000	0.000	0.000
0.0100	0.01233	0.37981	0.01086	21.3	10.96	0.004	7.583	0.000	0.000
0.0297	0.03657	0.56523	0.01871	49.4	10.96	0.004	7.583	0.001	0.001
0.0459	0.05661	0.70349	0.03077	147.3	10.96	0.004	7.583	0.002	0.002
0.0627	0.07730	0.76365	0.03949	283.7	10.96	0.004	7.583	0.004	0.004
0.0789	0.09735	0.79407	0.04518	415.0	10.96	0.004	7.583	0.005	0.005
0.1217	0.15007	0.83420	0.05348	691.8	10.96	0.004	7.583	0.009	0.009
0.1628	0.20075	0.85726	0.05827	914.9	10.96	0.004	7.583	0.011	0.011
0.2053	0.25316	0.88420	0.06663	1397.5	10.96	0.004	7.583	0.018	0.018
0.2471	0.30470	0.90315	0.07350	1920.4	10.96	0.004	7.583	0.024	0.024
0.2899	0.35748	0.91988	0.08085	2620.4	10.96	0.004	7.583	0.033	0.033
0.3406	0.42000	0.94236	0.09571	4515.8	10.96	0.004	7.583	0.057	0.057
0.4142	0.51075	0.96377	0.11217	7661.2	10.96	0.004	7.583	0.096	0.096
0.4989	0.61520	0.98599	0.13777	15239.8	10.96	0.004	7.583	0.191	0.191
0.5822	0.71791	0.99955	0.16607	28337.5	10.96	0.004	7.583	0.355	0.355
0.6664	0.82174	0.99813	0.19692	48297.9	10.96	0.004	7.583	0.605	0.605
0.7499	0.92471	1.00010	0.21893	82200.3	10.96	0.004	7.583	0.856	0.856
0.8110	1.00000	1.00000	0.22740	75648.4	10.96	0.004	7.583	0.950	0.950
0.8359	1.03075	0.99958	0.22900	78690.6	10.96	0.004	7.583	0.988	0.988
0.9477	1.16861	0.99921	0.22925	78868.7	10.96	0.004	7.583	0.988	0.988
1.0840	1.33669	0.99930	0.22991	79629.9	10.96	0.004	7.583	0.998	1.000

HYPERSONIC BOUNDARY LAYER AFDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLE HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF PTD  
 B. 7. 22. 306. 20. 1p.75 79801.92 1344.00 504.00 26.00  
 GEN. CYL.

Y	MACH	DELTA TEMP.	STAT. TEMP.	VELOCITY	TT/TTFC
0.0099	0.50	504.00	504.00	0.	0.4750
0.0270	1.01	1020.79	902.79	1486.8	0.2086
0.0428	2.03	1111.06	646.72	2533.7	0.0798
0.0618	3.02	1219.13	514.48	2907.5	0.9063
0.0821	3.02	1241.63	440.06	3103.2	0.9238
0.1229	3.58	1300.42	401.91	3219.4	0.9411
0.1639	3.84	1323.54	365.34	3351.7	0.9676
0.2472	4.40	1359.28	334.61	3446.9	0.9988
0.3317	5.00	1407.32	278.97	3600.9	1.0104
0.4156	5.60	1469.40	231.37	3726.6	1.0322
0.4999	6.26	1483.67	193.87	3821.4	1.0487
0.5832	6.69	1500.98	159.77	3881.2	1.0518
0.6709	7.02	1526.46	130.99	3877.1	1.0350
0.7524	7.02	1563.51	125.75	3856.2	1.0145
0.7689	7.02	1559.37	125.09	3850.8	1.0114
0.8734	7.05	1560.31	124.38	3853.3	1.0121

DELTA DELTA STAR H RSR RS DELTA RTHETA R RECCV.FACT. RECCV.TEMP. TOT.PRESS.RECOV. CT  
 0.6354 0.2991 19.36 944693. 12636741. 326. 4359. 515.57 0.309 0.30982 5.774

PHI DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), M(E), PTIMAX, M(I), PTIMAX  
 -0.0215 -0.037 0.3127 0.00039 0.01505 0.01401 22.32 6.96 81650.7

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	PI1	RHO U PRIME	M PRIME	PT1/PTE	PTI/PTIMAX
0.0099	0.01419	0.38367	0.02071	21.6	21.59	0.006	6.846	0.000	0.000
0.0270	0.03688	0.65381	0.04926	41.3	21.58	0.006	6.846	0.001	0.001
0.0428	0.06150	0.75027	0.07101	177.6	21.58	0.006	6.847	0.002	0.002
0.0618	0.08684	0.80077	0.08851	440.4	21.56	0.006	6.847	0.006	0.005
0.0821	0.11804	0.83086	0.10035	812.8	21.54	0.006	6.848	0.010	0.010
0.1229	0.17672	0.86489	0.11469	1188.8	21.50	0.006	6.850	0.015	0.015
0.1639	0.23568	0.88945	0.12826	1625.5	21.46	0.006	6.852	0.023	0.022
0.2472	0.35346	0.92921	0.15942	2630.2	21.37	0.006	6.856	0.033	0.032
0.3317	0.47696	0.96163	0.19649	3398.9	21.20	0.006	6.865	0.068	0.066
0.4156	0.59760	0.98611	0.23774	41051.8	20.94	0.006	6.878	0.138	0.135
0.4999	0.71882	1.00154	0.28842	21445.1	20.70	0.006	6.891	0.269	0.263
0.5832	0.83660	1.00047	0.32447	41984.8	20.38	0.006	6.908	0.526	0.514
0.6709	0.96471	1.00217	0.33970	62425.9	20.08	0.006	6.924	0.782	0.765
0.6954	1.00000	1.00000	0.34406	75854.9	19.64	0.006	6.947	0.951	0.929
0.7524	1.08190	0.99508	0.34711	77568.2	19.66	0.006	6.940	1.022	0.950
0.7689	1.10562	0.99368	0.34614	81543.9	19.43	0.006	6.968	1.023	0.999
0.8734	1.24589	0.99435	0.33783	81650.7	19.30	0.006	6.968	1.023	1.000
				80971.3	19.71	0.006	7.001	1.015	0.992

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TW GEN. CYL.  
 8. 7. 22. 306. 21. 29.00 79801.92 1344.00 516.10 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TFO
0.	0.	516.10	516.10	0.	0.3040
0.0100	1.60	1117.41	738.14	2134.6	0.8314
0.0280	2.95	1204.79	439.74	3031.7	0.8964
0.0443	3.21	1231.67	401.67	3157.8	0.9164
0.0606	3.41	1253.77	377.15	3245.2	0.9329
0.0768	3.57	1271.49	358.81	3311.3	0.9460
0.0940	3.70	1282.70	343.55	3359.0	0.9544
0.1259	3.94	1301.68	317.05	3439.4	0.9685
0.1674	4.16	1321.70	296.76	3509.1	0.9834
0.2525	4.66	1354.78	253.98	3636.6	1.0080
0.3355	5.17	1385.53	218.49	3744.4	1.0309
0.4183	5.65	1398.83	189.43	3811.7	1.0408
0.5023	6.03	1385.64	167.46	3825.6	1.0310
0.5867	6.24	1361.88	155.13	3807.6	1.0133
0.6219	6.29	1355.69	152.20	3802.4	1.0087
0.6729	6.32	1349.15	150.02	3795.5	1.0038

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5771 0.1753 11.42 2405156. 20325123. 670. 5662. 529.50 0.303 0.36135 4.630

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR, THETA(2), THETA(W), M(W), P(T)MAX,  
 -0.0089 -0.059 0.2346 0.2029 0.00095 0.01441 0.01251 16.22 6.22 80095.3

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI.	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	47.4	47.43	0.001	0.001	0.001	0.001
0.0100	0.01733	0.56008	0.07985	202.3	47.39	0.003	6.016	0.003	0.003
0.0280	0.04845	0.79546	0.19014	1611.2	47.33	0.011	6.018	0.020	0.020
0.0443	0.07683	0.82854	0.21622	2383.1	47.20	0.011	6.020	0.030	0.030
0.0606	0.10498	0.85149	0.23637	3158.0	47.15	0.011	6.021	0.040	0.039
0.0768	0.13316	0.86883	0.25250	3933.6	46.96	0.011	6.025	0.049	0.049
0.0940	0.16291	0.88134	0.26694	4712.4	46.86	0.011	6.027	0.059	0.059
0.1259	0.21815	0.90243	0.29444	6332.1	46.58	0.011	6.033	0.082	0.082
0.1674	0.29006	0.92072	0.31798	8605.2	46.15	0.011	6.042	0.108	0.107
0.2525	0.43751	0.95418	0.37518	15763.4	44.97	0.010	6.068	0.198	0.197
0.3355	0.58132	0.98247	0.43569	28020.4	43.63	0.010	6.098	0.351	0.350
0.4183	0.72479	1.00014	0.49433	46132.2	42.16	0.010	6.132	0.578	0.576
0.5023	0.87034	1.00377	0.53861	65944.6	40.46	0.010	6.172	0.826	0.823
0.5771	1.00000	1.00000	0.55213	76090.5	38.82	0.009	6.220	0.950	0.950
0.5867	1.01658	0.99904	0.55210	77387.9	38.61	0.009	6.238	0.966	0.966
0.6219	1.07757	0.99769	0.55171	79936.0	37.90	0.009	6.270	1.002	0.998
0.6729	1.16594	0.99589	0.54131	80095.3	36.72	0.009	6.270	1.004	1.000

HYPERSONIC BOUNDARY LAYER AFDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLET HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN K PTF TTC TH GEN. CYL.  
 8. 7. 22. 306. 119. 33.00 7801.92 1345.00 529.54 26.00

Y	MACH	DELTA STAR	DELTA STAR PRIME	DELTA STAR(2)	DELTA STAR(M)	THETA PRIME	THETA(2)	THETA(M)	HEM)	PTIMAX	M(IE)	PTIMAX
0.	0.	0.02459	0.72758	0.41495	91.4	91.41	0.00179	0.01297	0.01030	6.70	5.72	80105.1
0.0100	2.96	0.03588	0.76088	0.40534	3150.8	91.32	0.00179	0.01297	0.01030	6.70	5.72	80105.1
0.0100	2.96	0.02459	0.72758	0.41495	91.4	91.41	0.00179	0.01297	0.01030	6.70	5.72	80105.1
0.0106	3.00	0.035716	0.80881	0.48006	5698.6	90.86	0.017	5.400	0.039	5.400	0.039	0.001
0.0232	3.36	0.07811	0.84924	0.53952	8629.0	90.68	0.017	5.403	0.042	5.403	0.042	0.001
0.0318	3.66	0.10165	0.87159	0.56207	10282.3	90.50	0.017	5.404	0.071	5.404	0.071	0.001
0.0413	3.79	0.12356	0.89794	0.58092	12177.2	90.22	0.017	5.408	0.108	5.408	0.108	0.001
0.0502	3.91	0.14819	0.90974	0.60966	14382.3	90.04	0.017	5.408	0.128	5.408	0.128	0.001
0.0585	4.04	0.18190	0.92419	0.64456	17627.5	89.49	0.017	5.411	0.153	5.411	0.153	0.001
0.0740	4.20	0.22476	0.93505	0.67790	20779.0	88.76	0.017	5.413	0.180	5.413	0.180	0.001
0.0914	4.33	0.26734	0.94393	0.68906	23164.5	87.94	0.017	5.418	0.221	5.418	0.221	0.001
0.1087	4.42	0.31283	0.95078	0.70558	25787.7	86.93	0.016	5.426	0.259	5.426	0.259	0.001
0.1272	4.52	0.35046	0.95558	0.71542	27672.4	86.11	0.016	5.434	0.289	5.434	0.289	0.001
0.1425	4.58	0.38760	0.96066	0.72544	29818.3	85.01	0.016	5.444	0.323	5.444	0.323	0.001
0.1576	4.66	0.42139	0.97188	0.74740	35512.7	82.64	0.016	5.453	0.347	5.453	0.347	0.001
0.1698	4.82	0.49139	0.98257	0.77152	43236.2	79.53	0.015	5.465	0.375	5.465	0.375	0.001
0.1825	4.58	0.60078	0.99251	0.79959	53576.3	76.33	0.015	5.491	0.443	5.491	0.443	0.001
0.1998	4.82	0.86521	0.99985	0.81541	63931.6	72.58	0.014	5.526	0.542	5.526	0.542	0.001
0.2424	5.02	0.99377	1.00001	0.81481	68057.0	70.39	0.014	5.610	0.671	5.610	0.671	0.001
0.3256	5.45	1.00000	1.00000	0.81041	72576.1	67.64	0.014	5.639	0.853	5.639	0.853	0.001
0.3518	5.63			0.80568	76099.9	65.26		5.676	0.909	5.676	0.909	0.001
0.3811	5.83											
0.4267	5.77											
0.4561	5.62											

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/Delta	U/U(Delta)	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE.	PTI/PTIMAX
0.4267	1.04942	0.99959	0.79821	78876.0	63.84	0.013	5.736	0.988	0.985
0.4561	1.12173	0.99836	0.78135	80105.1	60.88	0.013	5.775	1.004	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLEF HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTC TH SEN. CYL. 26.00  
 8. 7. 22. 306. 170. 34.50 79F01.92 1150.00 538.74

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC
0.	0.	538.94	538.94	0.	0.3997
0.0100	2.77	1048.23	413.31	2761.9	0.7765
0.0172	3.01	1047.86	387.17	2901.5	0.8058
0.0249	3.27	1145.75	365.56	3061.5	0.8487
0.0339	3.39	1202.89	365.42	3171.9	0.8910
0.0434	3.63	1208.62	333.12	3243.2	0.9953
0.0526	3.78	1227.76	318.10	3305.8	0.9095
0.0658	3.93	1274.08	311.98	3399.8	0.9439
0.0772	4.10	1286.77	295.07	3451.7	0.9532
0.0856	4.15	1294.71	291.74	3471.2	0.9590
0.0927	4.18	1300.66	289.24	3485.8	0.9635
0.1082	4.29	1308.34	279.54	3515.7	0.9691
0.1263	4.40	1313.68	269.77	3541.4	0.9731
0.1449	4.48	1319.78	263.42	3562.4	0.9776
0.1585	4.55	1322.62	256.87	3578.2	0.9797
0.1753	4.63	1327.76	250.84	3596.9	0.9835
0.1936	4.77	1331.39	239.96	3621.1	0.9862
0.2075	4.89	1332.94	230.36	3639.5	0.9874
0.2251	5.03	1336.68	220.70	3661.6	0.9901
0.2429	5.15	1336.91	211.86	3676.4	0.9903
0.2687	5.30	1334.18	201.53	3688.8	0.9883
0.3062	5.16	1320.03	208.49	3654.3	0.9778
0.3374	5.44	1318.25	190.40	3681.0	0.9765

DELTA STAR H RSR RS DELTA RTHETA R THETA D RECDV. TEMP. RECDV. FACT. TOT. PRESS. RECDV. CT  
 0.2665 0.0293 2.35 7542788. 34252180. 1548. 7028. 551.82 0.294 0.46261 3.358

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(1), THETA STAR(M), THETA(1), THETA(2), M(E), PTIMAX,  
 0.0169 -0.052 0.0813 0.0626 0.00154 0.01093 0.00851 7.36 5.30 80110.4

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	149.9	149.90	0.024	4.966	0.002	0.002
0.0100	0.03752	0.74869	0.58309	3890.9	149.76	0.024	4.969	0.049	0.049
0.0172	0.06457	0.78654	0.65137	5348.5	149.16	0.024	4.971	0.070	0.069
0.0249	0.09357	0.82993	0.72637	8113.9	148.85	0.024	4.973	0.102	0.101
0.0339	0.12704	0.85985	0.75058	9604.0	148.41	0.024	4.978	0.120	0.120
0.0434	0.16291	0.87916	0.83760	13432.4	146.66	0.023	4.984	0.168	0.168
0.0526	0.19732	0.89615	0.89776	16561.5	145.41	0.023	4.991	0.207	0.207
0.0658	0.24703	0.92162	0.92329	20014.3	143.91	0.023	5.000	0.251	0.250
0.0772	0.28980	0.93569	0.98087	24924.2	143.01	0.023	5.005	0.312	0.311
0.0856	0.32128	0.94097	0.99129	26320.1	142.26	0.023	5.009	0.330	0.329
0.0927	0.34785	0.94495	0.99894	27430.2	139.11	0.022	5.043	0.344	0.342
0.1082	0.40597	0.95303	1.01941	30857.3	136.46	0.022	5.029	0.387	0.385
0.1263	0.47368	0.96001	1.04684	34876.2	133.41	0.022	5.065	0.437	0.435
0.1449	0.54366	0.96571	1.05128	37556.4	130.57	0.022	5.083	0.507	0.505
0.1585	0.59469	0.96999	1.05973	40442.4	127.12	0.021	5.107	0.541	0.541
0.1753	0.65772	0.97506	1.06209	43375.2	122.62	0.021	5.138	0.618	0.616
0.1936	0.72639	0.98161	1.07414	49331.4	118.97	0.020	5.165	0.694	0.691
0.2075	0.77854	0.98661	1.09429	55395.5	114.53	0.020	5.198	0.694	0.782
0.2251	0.84457	0.99259	1.10712	62620.4					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/Delta	U/(U/Delta)	RHO * U	PTI	PI,	RHO U PRIME,	H PRIME	PTI/PTE,	PTI/PTIMAX
0.2429	0.91136	0.99661	1.10339	6881.6	109.13	0.019	5.241	0.863	0.860
0.2665	1.00000	1.00000	1.09965	76104.9	103.32				0.950
0.2687	1.00816	0.99998	1.09673	76769.8	102.83	0.018	5.293	0.962	0.958
0.3062	1.14886	0.99061	0.97625	61173.6	95.79	0.018	5.357	0.767	0.764
0.3374	1.26592	0.99785	1.03341	80110.4	91.74	0.017	5.396	1.004	1.000

HYPERSONIC BOUNDARY LAYER AFDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH MC. DAY TEST RUN X PTC TTC TFC TW GEN. CYL.  
 8. 7. 27. 306. 121. 36.00 79E01.92 1342.00 557.76 26.00  
 9.

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TF/TTC
0.	0.	557.76	557.76	0.	0.4135
0.0100	3.14	809.95	273.00	2539.8	0.6004
0.0215	3.26	1240.36	396.35	3184.3	0.9195
0.0276	3.26	1369.52	437.35	3346.5	1.0152
0.0361	3.31	1366.53	427.76	3359.3	1.0130
0.0447	3.41	1366.53	410.22	3389.5	1.0130
0.0531	3.48	1365.53	398.29	3404.8	1.0123
0.0622	3.59	1360.54	380.22	3431.8	1.0086
0.0696	3.70	1356.55	363.25	3454.5	1.0036
0.0778	3.96	1349.57	326.27	3506.3	1.0004
0.0863	4.19	1344.61	298.34	3545.4	0.9967
0.0966	4.30	1346.63	284.49	3555.3	0.9908
0.1035	4.37	1334.64	277.24	3564.2	0.9894
0.1122	4.30	1330.68	282.93	3547.9	0.9864

DELTA STAR H RSRRA RS DELTA RTHETA R RTHETA C RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.0961 -0.0115 -0.95 24804855. 55718968. 5721. 10853. 591.67 0.257 0.53792 0.53792 2.352

PHI DELTA STAR PRIME. DELTA STAR(2). DELTA STAR(M ). DELTA STAR(M ). THETA PRIME, THETA(2), THETA(M), H(M), M(E), PTIMAX.  
 0.0220 -0.031 0.0199 0.0132 0.00193 0.01023 0.00698 1.89 4.30 78145.2

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	608.1	608.11	0.062	3.839	0.008	0.008
0.0100	0.10403	0.71428	3.29314	21326.5	607.51	0.060	3.876	0.342	0.350
0.0215	0.22399	0.89553	2.70435	31423.2	577.71	0.060	3.898	0.393	0.401
0.0276	0.28672	0.94113	2.53493	30894.8	568.58	0.059	3.909	0.387	0.395
0.0361	0.37536	0.94446	2.52861	32210.5	552.77	0.057	3.945	0.404	0.412
0.0447	0.46535	0.95324	2.53245	35491.2	526.02	0.056	3.965	0.445	0.454
0.0531	0.55263	0.95867	2.55342	36207.1	512.04	0.054	4.008	0.479	0.489
0.0622	0.64678	0.96314	2.54244	41899.8	483.45	0.052	4.052	0.525	0.536
0.0696	0.72450	0.97150	2.52719	45903.2	456.09	0.047	4.149	0.587	0.587
0.0778	0.80897	0.98607	2.51316	57771.8	401.36	0.044	4.242	0.724	0.739
0.0863	0.89761	0.99707	2.46332	69144.8	345.75	0.042	4.297	0.866	0.885
0.0961	1.00000	1.00000	2.41550	74237.9	331.92	0.041	4.327	0.950	0.950
0.0966	1.00539	0.99986	2.41327	74506.0	331.42	0.041	4.343	0.979	0.953
0.1035	1.07676	1.00236	2.39146	78144.6	319.26	0.040	4.343	1.000	1.000
0.1122	1.16727	0.99777	2.28376	70521.8	312.57	0.040	4.343	0.884	0.902

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTC  
 8. 7. 22. 306. 3. 0. 83386.08 1332.00 572.76 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/TTC
0.	0.	572.76	572.76	0.	0.4300
0.0100	1.09	731.34	590.84	1299.2	0.5491
0.0354	1.18	1028.35	803.24	1644.5	0.7720
0.0619	2.14	1154.05	601.57	2576.3	0.8664
0.0861	2.60	1191.86	506.79	2868.8	0.8940
0.1359	3.02	1223.25	432.43	3082.3	0.9184
0.2019	3.46	1251.17	368.48	3256.4	0.9393
0.2542	3.81	1269.73	325.39	3368.2	0.9532
0.3040	4.13	1287.42	291.48	3459.0	0.9665
0.4047	4.91	1321.20	226.86	3544.6	0.9786
0.4567	5.34	1337.04	199.50	3696.8	1.0038
0.5059	5.72	1355.53	179.61	3758.6	1.0177
0.5553	6.20	1370.40	157.61	3817.1	1.0288
0.6090	6.55	1389.84	145.25	3866.8	1.0434
0.6902	7.18	1403.26	124.07	3920.2	1.0535
0.7748	7.58	1398.90	111.87	3932.2	1.0507
0.8573	7.71	1380.82	107.09	3911.8	1.0367
0.9421	7.72	1369.98	106.16	3896.6	1.0285

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.8190 0.4893 19.49 259361. 5988125. 250. 5782. 541.55 0.379 0.23009 6.303

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), PTIMAX, M(EI), PTIMAX,  
 -0.0195 -0.019 0.5088 0.4994 0.00018 0.02493 0.02440 20.40 7.69 84580.5

Y	Y/DELTA	U/UIDELTA	RHO	* U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.01221	0.33100	0.01404	11.0	10.96	0.000	0.000	0.000	0.000
0.0100	0.04326	0.41896	0.01307	26.0	10.96	10.96	0.004	0.000	0.000	0.000
0.0354	0.07560	0.65635	0.02734	107.1	10.96	10.96	0.004	0.004	0.001	0.001
0.0619	0.10519	0.73087	0.03613	218.5	10.96	10.96	0.004	0.003	0.003	0.003
0.1359	0.16594	0.78526	0.04550	417.1	10.96	10.96	0.004	0.004	0.005	0.005
0.2019	0.24653	0.82962	0.05641	790.3	10.96	10.96	0.004	0.004	0.009	0.009
0.2542	0.31039	0.85810	0.06608	1285.8	10.96	10.96	0.004	0.015	0.015	0.015
0.3040	0.37120	0.88123	0.07575	1983.9	10.96	10.96	0.004	0.024	0.023	0.023
0.3549	0.43336	0.90304	0.08779	3188.3	10.96	10.96	0.004	0.038	0.038	0.038
0.4047	0.49417	0.92374	0.10203	5222.4	10.96	10.96	0.004	0.063	0.063	0.062
0.4567	0.55766	0.94180	0.11829	8537.5	10.96	10.96	0.004	0.102	0.102	0.101
0.5059	0.61774	0.95756	0.13359	12938.6	10.96	10.96	0.004	0.155	0.155	0.153
0.5553	0.67806	0.97245	0.15459	21233.9	10.96	10.96	0.004	0.255	0.255	0.251
0.6090	0.74363	0.98512	0.16994	29689.7	10.96	10.96	0.004	0.356	0.356	0.351
0.6902	0.84278	0.99872	0.20149	53307.3	10.96	10.96	0.004	0.639	0.639	0.630
0.7748	0.94608	1.00177	0.22437	75751.1	10.96	10.96	0.004	0.908	0.908	0.896
0.8190	1.00000	1.00000	0.23072	80351.5	10.96	10.96	0.004	1.012	1.012	0.997
0.8573	1.04682	0.99459	0.23319	84346.2	10.96	10.96	0.004	7.654	7.654	7.654
0.9421	1.15037	0.99270	0.23430	84580.5	10.96	10.96	0.004	7.654	7.654	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X 19.75 83386.0R 1336.00 579.42 26.00  
 8. 7. 22. 306. 16. 19.75 83386.0R 1336.00 579.42 26.00

Y	MACH	DELTA TEMP.	STAT. TEMP.	VELOCITY	TT/FTIC
0.	0.	579.42	579.42	0.	0.4337
0.0100	0.91	869.90	745.70	1221.5	0.6511
0.0265	2.09	1130.03	603.84	2514.3	0.8458
0.0430	2.59	1209.24	516.92	2884.0	0.9051
0.0605	2.88	1229.56	462.71	3035.3	0.9203
0.0767	3.01	1245.62	443.79	3103.7	0.9323
0.0935	3.14	1256.29	422.54	3164.9	0.9403
0.1171	3.72	1296.47	344.54	3381.8	0.9704
0.2628	4.28	1324.02	284.03	3534.7	0.9910
0.3454	4.91	1354.24	232.40	3671.2	1.0137
0.4288	5.54	1386.10	194.39	3783.8	1.0375
0.5139	6.26	1406.16	159.01	3870.8	1.0525
0.5974	6.67	1393.46	140.78	3879.4	1.0430
0.6820	6.90	1380.27	131.07	3874.0	1.0331
0.7653	7.05	1365.88	124.90	3861.2	1.0224
0.8098	7.06	1364.07	124.22	3859.4	1.0210
0.8912	7.11	1363.77	122.66	3861.4	1.0204

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.7353 0.3187 17.90 860454. 12948407. 345. 5149. 547.83 0.375 0.30865 0.30865 5.230

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(M), THETA STAR(M), THETA STAR(M), THETA(2), THETA(M), M(M), M(IE), PTIMAX,  
 -0.0210 -0.054 0.3723 0.3363 0.00055 0.01725 0.01562 21.54 7.01 84005.8

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	22.0	22.03	0.000	0.000	0.000	0.000
0.0100	0.01360	0.31610	0.02103	37.8	22.03	0.006	6.854	0.000	0.000
0.0265	0.03607	0.65063	0.05335	197.1	21.99	0.006	6.856	0.002	0.002
0.0430	0.05852	0.74630	0.07125	429.1	21.92	0.006	6.860	0.005	0.005
0.0605	0.08223	0.78545	0.08371	670.0	21.90	0.006	6.860	0.008	0.008
0.0767	0.10434	0.80316	0.08896	808.7	21.83	0.006	6.864	0.010	0.010
0.0935	0.12715	0.81899	0.09521	988.7	21.82	0.006	6.865	0.012	0.012
0.1171	0.24086	0.87512	0.12320	2226.6	21.54	0.006	6.878	0.027	0.027
0.2628	0.35741	0.91469	0.15412	4648.2	21.25	0.006	6.893	0.056	0.055
0.3454	0.46974	0.95001	0.19351	10042.2	21.02	0.006	6.905	0.120	0.120
0.4288	0.58317	0.97914	0.23469	20032.6	20.69	0.006	6.922	0.240	0.238
0.5139	0.69890	1.00166	0.28880	41872.0	20.36	0.006	6.940	0.502	0.498
0.5974	0.81246	1.00368	0.32114	61022.2	20.00	0.006	6.959	0.732	0.726
0.6820	0.92752	1.00248	0.33777	74332.7	19.61	0.006	6.981	0.891	0.885
0.7353	1.00000	1.00000	0.34442	79805.5	19.33	0.006	7.006	0.994	0.950
0.7653	1.04081	0.99918	0.34523	82866.6	19.17	0.006	7.021	0.987	0.987
0.8098	1.10133	0.99872	0.34254	83025.8	18.92	0.005	7.021	0.994	0.988
0.8912	1.21203	0.99923	0.33624	84005.8	18.33	0.005	7.056	1.007	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH 8. DAY TEST RUN X PTF TTD TH GEN. CYL.  
 8. 7. 22. 306. 17. 29.00 83386.08 1337.00 587.41 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	587.41	587.41	0.	0.	0.4393
0.0100	992.60	673.74	1957.2	0.7424	0.7424
0.0249	1162.32	468.02	2888.1	0.8693	0.8693
0.0400	1212.02	401.67	3120.2	0.9065	0.9065
0.0555	1235.03	367.29	3228.7	0.9237	0.9237
0.0730	1253.54	345.09	3303.6	0.9376	0.9376
0.0893	1265.48	325.09	3361.2	0.9465	0.9465
0.1724	1300.99	273.75	3513.0	0.9731	0.9731
0.2564	1336.00	236.48	3634.5	0.9993	0.9993
0.3412	1373.70	203.95	3748.8	1.0274	1.0274
0.4246	1396.46	172.75	3834.2	1.0445	1.0445
0.5093	1389.83	152.03	3856.3	1.0395	1.0395
0.5962	1380.15	184.79	3789.6	1.0323	1.0323
0.6764	1374.05	181.14	3785.7	1.0277	1.0277
0.7569	1371.43	184.86	3775.6	1.0258	1.0258

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4958 0.1462 6.89 2234514. 1957250. 860. 7538. 565.75 0.366 0.31303 0.367

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), DELTA STAR(W 2), THETA PRIME, THETA(2), THETA(W 1), THETA(W 2), M(E), PTIMAX,  
 -0.0027 -0.072 0.2183 0.1769 0.0011 0.0201 0.01639 10.79 6.32 83225.3

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	48.9	48.95	0.011	6.023	0.001	0.001
0.0100	0.02017	0.50743	0.08277	189.8	48.90	0.011	6.024	0.002	0.002
0.0249	0.05031	0.74877	0.17563	1179.1	48.84	0.011	6.028	0.014	0.014
0.0400	0.08072	0.80894	0.22023	2322.2	48.66	0.011	6.032	0.028	0.028
0.0555	0.11191	0.83709	0.24819	3378.1	48.46	0.011	6.037	0.041	0.041
0.0730	0.14735	0.85650	0.26892	4404.2	48.21	0.011	6.042	0.053	0.053
0.0893	0.18013	0.87143	0.28897	5582.3	47.97	0.010	6.075	0.067	0.067
0.1724	0.34774	0.91078	0.34693	10856.9	46.40	0.010	6.124	0.130	0.130
0.2564	0.51718	0.94228	0.39537	18923.1	44.15	0.010	6.184	0.227	0.227
0.3412	0.68823	0.97190	0.44508	32956.1	41.56	0.009	6.272	0.395	0.395
0.4246	0.85645	0.99407	0.49238	57182.1	38.07	0.009	6.328	0.686	0.686
0.4958	1.00000	1.00000	0.52661	79064.0	36.25	0.009	6.397	0.950	0.950
0.5093	1.02730	0.99978	0.53248	83225.3	36.03	0.008	6.460	1.000	1.000
0.5962	1.20258	0.98249	0.40245	38348.3	33.68	0.008	6.454	0.460	0.460
0.6764	1.36435	0.98148	0.38806	38310.7	31.87	0.008	6.466	0.460	0.460
0.7569	1.52673	0.97887	0.36758	34350.5	30.89	0.008	6.466	0.412	0.413

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TFC TW GEN. CYL.  
 8. 7. 22. 306. 53. 33.00 83386.08 1340.00 598.07 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	VT/VTIC
0.	0.	598.07	598.07	0.	0.4463
0.0100	1.90	1148.09	665.33	2408.3	0.8568
0.0188	2.40	1271.83	568.02	2802.6	0.9118
0.0265	2.97	1258.75	455.94	3105.6	0.9394
0.0362	3.27	1249.40	414.70	3260.2	0.9697
0.0450	3.38	1314.39	399.48	3315.3	0.9809
0.0512	3.52	1318.56	378.76	3360.1	0.9840
0.0687	3.74	1331.49	351.06	3432.0	0.9936
0.0854	3.86	1337.84	335.66	3469.9	0.9984
0.1020	3.98	1343.37	322.91	3501.4	1.0025
0.1180	4.04	1350.40	316.40	3524.5	1.0078
0.1670	4.27	1372.68	295.85	3596.8	1.0244
0.2092	4.45	1392.06	281.02	3653.5	1.0388
0.2555	4.72	1408.80	258.23	3717.9	1.0513
0.2938	4.97	1413.02	237.68	3757.7	1.0545
0.3510	5.34	1407.91	209.85	3793.8	1.0507
0.3773	5.54	1400.07	196.19	3803.1	1.0444
0.4197	5.79	1385.76	179.80	3806.3	1.0341
0.4604	5.98	1370.92	168.27	3801.1	1.0231
0.5466	6.07	1347.31	161.07	3775.1	1.0055

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4420 0.0688 4.19 4450362. 25372912. 1235. 7040. 575.11 0.364 0.37327 3.788

PHI, DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(W), DELTA STAR(W), THETA STAR(W), THETA STAR(W), H(W), M(E), PTIMAX.  
 -0.0204 -0.127 0.1960 0.1349 0.00273 0.01370 0.00954 14.13 5.91 83197.5

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	94.7	94.69	0.001	0.001	0.001	0.001
0.0100	0.02262	0.63309	0.19952	638.5	94.60	0.017	5.402	0.008	0.008
0.0188	0.04249	0.73676	0.27087	1375.5	94.22	0.017	5.406	0.016	0.017
0.0265	0.06000	0.81640	0.37356	3291.0	94.13	0.017	5.407	0.039	0.040
0.0362	0.08192	0.85703	0.42942	5105.1	93.75	0.017	5.410	0.061	0.061
0.0450	0.10178	0.87154	0.45195	6038.8	93.46	0.017	5.413	0.072	0.073
0.0512	0.11574	0.88331	0.48165	7334.9	93.18	0.017	5.416	0.088	0.088
0.0687	0.15347	0.90221	0.52645	9620.3	92.42	0.017	5.423	0.118	0.118
0.0854	0.19314	0.91216	0.55154	11574.4	91.57	0.017	5.432	0.139	0.139
0.1020	0.23076	0.92044	0.57135	13280.7	90.43	0.016	5.443	0.159	0.160
0.1180	0.26696	0.92652	0.58019	14357.3	89.39	0.016	5.454	0.172	0.173
0.1670	0.37781	0.94552	0.60439	18357.6	85.32	0.016	5.496	0.220	0.221
0.2092	0.47328	0.96042	0.62119	22185.2	82.01	0.015	5.532	0.266	0.267
0.2555	0.57803	0.97736	0.64981	29378.1	77.46	0.015	5.585	0.352	0.353
0.2938	0.68467	0.98782	0.67517	37551.0	73.29	0.014	5.636	0.450	0.451
0.3510	0.79408	0.99732	0.70224	52146.5	66.66	0.013	5.722	0.627	0.627
0.3773	0.85358	0.99975	0.71661	61601.8	63.44	0.013	5.772	0.739	0.740
0.4197	0.94950	1.00060	0.71833	74015.1	58.24	0.012	5.854	0.888	0.890
0.4604	1.00000	1.00000	0.71401	79037.6	53.68	0.011	5.929	0.997	0.950
0.5466	1.04158	0.99923	0.70919	83172.8	53.88	0.011	6.018	1.000	1.000
0.5466	1.23659	0.99239	0.67116	83197.5	49.15	0.011	6.018	0.998	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE YTD  
 8. 7. 22. 306. 52. 34.50 83386.08 1340.00 602.06 26.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	Y/TD
0.	0.	602.06	602.06	0.	0.4493
0.0100	1.99	996.96	556.88	2299.4	0.7440
0.0206	2.50	1309.59	582.20	2956.1	0.9773
0.0282	2.86	1378.26	504.93	3145.1	0.9912
0.0373	3.07	1336.78	462.90	3240.2	0.9976
0.0518	3.29	1342.80	424.39	3321.7	1.0021
0.0644	3.38	1394.31	424.87	3412.7	1.0405
0.0827	3.49	1395.40	405.65	3448.3	1.0413
0.1016	3.57	1394.99	392.72	3470.0	1.0410
0.1160	3.63	1392.74	383.47	3482.1	1.0394
0.1572	3.86	1389.52	348.79	3536.0	1.0370
0.1997	4.19	1348.27	309.83	3616.1	1.0435
0.2431	4.55	1405.42	273.88	3687.0	1.0488
0.2842	4.90	1399.17	241.36	3729.6	1.0442
0.3264	5.27	1382.34	210.72	3751.8	1.0316
0.3671	5.66	1366.26	184.62	3767.8	1.0196
0.4524	5.82	1347.48	173.17	3756.1	1.0056

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3613 0.0399 2.18 7357608. 30084216. 2215. 9057. 580.97 0.359 0.33911 0.3421

PHI. DELTA STAR PRIME. DELTA STAR(2). DELTA STAR(W 1). DELTA STAR(2). THETA(1). THETA(2). THETA(W). M(W). PTIMAX.  
 -0.0171 -0.149 0.1886 0.1159 0.00369 0.01461 0.00915 12.67 5.60 84507.9

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	156.82	156.82	0.024	4.973	0.002	0.002
0.0100	0.02768	0.61059	0.37692	1202.8	156.67	0.024	4.976	0.014	0.014
0.0206	0.05707	0.78500	0.46181	2684.5	156.10	0.024	4.980	0.032	0.032
0.0282	0.07811	0.83516	0.56395	4588.0	154.39	0.024	4.983	0.055	0.055
0.0373	0.10313	0.86042	0.63124	6334.3	154.77	0.023	4.989	0.076	0.076
0.0518	0.14341	0.88207	0.70084	8658.8	153.68	0.023	4.997	0.104	0.102
0.0644	0.17823	0.90624	0.71263	9749.4	152.27	0.023	5.009	0.117	0.115
0.0827	0.22905	0.91569	0.74334	11330.4	150.08	0.023	5.025	0.136	0.134
0.1016	0.28122	0.92146	0.75894	12452.7	147.41	0.023	5.039	0.149	0.147
0.1160	0.32108	0.92467	0.76746	13243.9	145.05	0.022	5.087	0.159	0.157
0.1572	0.43512	0.93897	0.81053	17316.1	137.22	0.022	5.150	0.208	0.205
0.1997	0.55276	0.96025	0.86800	24923.7	127.64	0.021	5.233	0.299	0.295
0.2431	0.67289	0.97908	0.91027	35521.2	116.05	0.019	5.342	0.426	0.420
0.2842	0.78665	0.99038	0.92480	48179.6	102.72	0.018	5.476	0.578	0.570
0.3264	0.90345	0.99627	0.91917	64067.9	88.60	0.016	5.626	0.768	0.758
0.3613	1.00000	1.00000	0.89941	80282.5	77.16	0.014	5.774	0.950	0.950
0.3671	1.01611	1.00052	0.89503	82988.1	75.27	0.013	5.876	0.982	0.982
0.4524	1.25221	0.99741	0.81259	84507.9	64.30	0.013	5.876	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIE TIC TFC TN GEN. CYL.  
 8. 7. 22. 706. 51. 36.00 83386.08 1334.00 607.39 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	T/TOTU
0.	0.	607.39	607.39	0.	0.4553
0.0100	1.84	1120.45	667.20	2333.5	0.8399
0.0190	1.93	1304.00	746.06	2589.0	0.9775
0.0277	2.17	1330.64	684.49	2786.2	0.9975
0.0387	2.49	1364.66	607.96	3015.1	1.0230
0.0517	2.69	1367.65	559.20	3116.5	1.0252
0.0601	2.74	1370.66	547.75	3144.3	1.0275
0.0771	2.93	1372.71	506.06	3226.7	1.0290
0.0932	3.12	1371.74	465.13	3300.3	1.0283
0.1058	3.69	1371.84	368.82	3471.3	1.0284
0.1316	4.33	1369.93	288.15	3605.0	1.0269
0.1449	4.59	1366.97	261.91	3643.6	1.0247
0.1728	4.90	1357.07	234.13	3673.0	1.0173
0.2121	5.13	1344.06	214.37	3684.0	1.0075

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECDV. FACT. TOT. PRESS. RECOV. CT  
 0.1629 -0.0094 -0.44 28621564. 44581744. 9647. 15019. 602.69 0.334 0.35973 2.629

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), THETA STAR(1), THETA STAR(2), THETA(1), THETA(M), H(1), PTIMAX, M(1), PTIMAX.  
 -0.0009 -0.132 0.1223 0.0527 0.00511 0.01593 0.00721 7.31 4.80 82368.3

Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	650.7	650.74	0.063	3.828	0.008	0.008
0.0100	0.06141	0.63677	1.32463	3989.3	650.02	0.062	3.844	0.048	0.048
0.0190	0.11692	0.70650	1.28549	4488.0	635.76	0.062	3.855	0.054	0.054
0.0277	0.17003	0.76030	1.48630	6419.1	626.69	0.061	3.869	0.077	0.077
0.0387	0.23770	0.82277	1.77679	10418.8	614.88	0.059	3.897	0.125	0.126
0.0517	0.31734	0.85044	1.92280	13547.1	592.13	0.058	3.917	0.162	0.164
0.0601	0.36886	0.85802	1.92606	14273.9	575.86	0.054	4.002	0.171	0.173
0.0771	0.47350	0.88052	1.90991	16898.7	514.08	0.050	4.002	0.203	0.205
0.0932	0.57249	0.90059	1.90982	20349.6	461.95	0.041	4.315	0.244	0.247
0.1058	0.64967	0.94727	1.87317	33899.7	341.57	0.033	4.561	0.407	0.412
0.1316	0.80810	0.98376	1.82632	58702.1	250.53	0.030	4.675	0.704	0.713
0.1449	0.88977	0.99429	1.76724	70818.6	218.02	0.026	4.854	0.849	0.860
0.1629	1.00000	1.00000	1.66638	78249.9	189.61	0.022	5.089	0.988	0.950
0.1728	1.06109	1.00230	1.60596	82368.3	175.69	0.022	5.089	1.000	1.000
0.2121	1.30241	1.00531	1.33581	82335.0	133.40	0.022	5.089	0.987	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE YTD YTD PW GEN. CYL.  
 8. 7. 22. 306. 62. 0. 77450.40 1350.00 966.53 6.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.264	906.53	906.53	0.	0.6715
0.	0.450	1121.06	1059.95	856.9	0.8304
0.	0.606	1173.25	1012.10	1391.4	0.8691
0.	0.763	1218.69	765.23	2334.0	0.9027
0.	0.955	1240.41	687.73	2576.8	0.9188
0.	1.164	1256.80	593.04	2823.9	0.9310
0.	1.364	1280.94	504.78	3053.6	0.9488
0.	1.582	1299.64	455.97	3183.6	0.9627
0.	1.822	1317.61	414.22	3294.4	0.9760
0.	2.022	1332.81	378.47	3386.1	0.9873
0.	2.262	1347.72	343.58	3473.3	0.9983
0.	2.543	1362.33	308.44	3558.3	1.0091
0.	2.868	1383.07	269.42	3657.8	1.0245
0.	3.219	1419.83	227.36	3758.2	1.0393
0.	3.608	1431.51	201.83	3825.3	1.0517
0.	4.041	1432.15	176.72	3882.6	1.0604
0.	4.518	1433.98	152.77	3920.5	1.0608
0.	5.048	1439.26	131.82	3924.7	1.0474
0.	5.622	1382.76	119.52	3894.9	1.0239
0.	6.246	1363.14	113.92	3874.0	1.0097
0.	6.918	1348.28	108.91	3858.7	0.9987
0.	7.641	1340.33	106.58	3849.9	0.9928
0.	8.414	1338.13	106.28	3847.0	0.9912
0.	9.240	1337.38	107.67	3843.6	0.9907

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOVER. FACT. RECOVER. TEMP. M RECOVER. RECOVER. CT  
 0.8674 0.5420 44.54 39091. 1359568. 79. 2757. 884.29 0.643 0.23171 0.23171 2.872

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA PRIME, THETA(2), THETA(1), M(M), M(E), PTIMAX,  
 -0.0453 -0.003 0.5446 0.5433 0.00002 0.01214 0.01212 44.84 7.56 77585.4

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI	RHC U PRIME, M PRIME	PTI/PTE, PTI/PTIMAX
0.	0.	0.	0.	11.0	10.96	0.000	0.000
0.	0.03041	0.22215	0.00516	13.3	10.96	0.004	0.000
0.	0.0450	0.36074	0.00878	18.4	10.96	0.004	0.000
0.	0.0606	0.60512	0.01947	55.8	10.96	0.004	0.001
0.	0.0763	0.66805	0.02392	86.3	10.96	0.004	0.001
0.	0.0955	0.73211	0.03040	151.8	10.96	0.004	0.002
0.	0.1364	0.79168	0.03862	285.2	10.96	0.004	0.004
0.	0.1782	0.82538	0.04457	428.3	10.96	0.004	0.006
0.	0.2202	0.85410	0.05077	628.9	10.96	0.004	0.008
0.	0.2622	0.87788	0.05712	898.3	10.96	0.004	0.012
0.	0.3033	0.90047	0.06453	1309.5	10.96	0.004	0.017
0.	0.3463	0.92251	0.07364	1983.9	10.96	0.004	0.026
0.	0.4048	0.94830	0.08667	3358.3	10.96	0.004	0.043
0.	0.4642	0.97433	0.10552	6395.2	10.96	0.004	0.083
0.	0.5219	0.99173	0.12098	10115.6	10.96	0.004	0.131
0.	0.5808	1.00660	0.14025	16574.5	10.96	0.004	0.214
0.	0.6401	1.01641	0.16382	27636.1	10.96	0.004	0.357
0.	0.6988	1.01752	0.19005	44280.7	10.96	0.004	0.571

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	U/DELTA	RHO	U	PII	PI	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.7577	0.87357	1.00979	0.20803	57638.4	10.96	0.004	7.552	0.744	0.743	
0.7996	0.92188	1.00436	0.21707	64925.5	10.96	0.004	7.552	0.838	0.837	
0.8595	0.99094	1.00040	0.22617	73143.0	10.96	0.004	7.552	0.944	0.943	
0.8674	1.00000	1.00000	0.22702	73706.1	10.96	0.004	7.552	0.998	0.950	
0.9172	1.05746	0.99812	0.23059	77777.6	10.96	0.004	7.552	1.002	0.996	
0.9749	1.12399	0.99736	0.23105	77585.4	10.96	0.004	7.552	1.002	1.000	
1.0340	1.19213	0.99649	0.22787	75990.6	10.96	0.004	7.552	0.955	0.954	

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH 40. DAY TEST RUN X PTE TTIC TW GEN. CYL.  
 8. 7. 22. 306. 65. 18.75 77276.16 1341.00 903.84 26.00

Y	MACH	TDI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTIC	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	903.84	903.84	0.	0.6740								
0.0100	0.63	1092.62	1011.56	986.8	0.8148							0.25640	2.553
0.0289	0.66	1091.18	1003.13	1028.5	0.8137								
0.0464	0.70	1102.01	1003.66	1087.0	0.9218								
0.0629	1.85	1175.19	696.89	2397.1	0.8764								
0.0792	2.36	1214.40	574.56	2772.5	0.9056								
0.0948	2.75	1242.21	493.59	2999.0	0.9263								
0.1389	3.10	1270.20	433.98	3169.6	0.9472								
0.1794	3.35	1291.16	398.21	3275.3	0.9628								
0.2216	3.59	1310.59	365.77	3369.1	0.9773								
0.2644	3.83	1328.47	337.62	3450.2	0.9907								
0.3049	4.10	1344.94	308.85	3528.1	1.0029								
0.3642	4.46	1368.75	274.46	3625.8	1.0207								
0.4299	4.99	1401.44	234.22	3744.7	1.0451								
0.4904	5.44	1424.78	205.78	3826.9	1.0625								
0.5491	5.92	1438.22	179.82	3889.0	1.0729								
0.6090	6.31	1433.22	159.79	3911.4	1.0688								
0.6673	6.60	1411.02	145.46	3899.3	1.0522								
0.7255	6.82	1376.23	133.51	3863.9	1.0263								
0.7847	6.99	1351.70	125.46	3838.2	1.0080								
0.8439	7.06	1338.74	121.94	3823.4	0.9983								
0.9019	7.09	1335.03	120.78	3819.4	0.9955								

DELTA DELTA STAR H 27.07 550926. 12092369. 178.  
 0.7845 0.3909

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX.  
 -0.0513 -0.066 0.4565 0.4068 0.00057 0.01387 0.01239 32.83 6.99 77327.7

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.01275	0.01200	21.1	21.11				
0.0100	0.03680	0.26796	0.01261	27.6	21.11	0.006	6.811	0.000	0.000
0.0289	0.05919	0.28319	0.01331	28.3	21.11	0.006	6.811	0.000	0.000
0.0464	0.08024	0.62453	0.04228	29.3	21.10	0.006	6.811	0.002	0.002
0.0792	0.10096	0.72244	0.05911	131.4	21.10	0.006	6.815	0.004	0.004
0.0948	0.12083	0.78134	0.07438	288.6	21.02	0.006	6.816	0.007	0.007
0.1389	0.17704	0.82578	0.08904	531.2	21.01	0.006	6.820	0.012	0.012
0.1794	0.22867	0.85333	0.09972	897.5	20.92	0.006	6.826	0.017	0.017
0.2216	0.28245	0.87776	0.11106	1277.2	20.81	0.006	6.832	0.023	0.023
0.2644	0.33701	0.89890	0.12227	1801.8	20.69	0.006	6.841	0.032	0.032
0.3049	0.38863	0.91919	0.13562	2481.6	20.53	0.006	6.849	0.045	0.045
0.3642	0.44422	0.94465	0.15507	3511.3	20.38	0.006	6.861	0.072	0.072
0.4299	0.54796	0.97562	0.19485	5579.8	20.15	0.006	6.878	0.135	0.135
0.4904	0.62507	0.99703	0.21158	10398.0	19.84	0.006	6.895	0.221	0.221
0.5491	0.69989	1.01321	0.24206	17052.9	19.53	0.006	6.913	0.360	0.360
0.6090	0.77624	1.01904	0.26946	27827.4	19.21	0.006	6.931	0.528	0.528
0.6673	0.85055	1.01589	0.29013	40829.9	18.89	0.006	6.950	0.683	0.683
0.7255	0.92473	1.00668	0.30766	52806.1	18.58	0.006	6.969	0.830	0.830
0.7845	1.00000	1.00000	0.31905	73461.2	18.24	0.006	6.990	0.830	0.830
0.7847	1.00019	0.99999	0.31907	73484.9	17.90	0.006	6.990	0.951	0.950

# Contracts

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	G/DELTA	RHO * U	PTI	PI.	RHC U PRIME,	M PRIME	PTI/PTE.	PTI/PTIMAX
0.9859	1.07563	0.33612	0.32174	77211.4	17.61	0.006	7.008	0.999	0.998
0.9019	1.14950	0.99508	0.31733	77327.7	17.22	0.005	7.033	1.001	1.000

HYPERSONIC BOUNDARY LAYER AFDC WIND TUNNEL DATA REDUCTION - TUNNEL R COOLED HEAT TRANSFER  
 MODEL MACH 8. 7. 22. 306. 57. 29.00 77450.40 1343.00 879.67 26.00  
 MG. DAY TEST RUN X PTE TTU TW GFN. CYL.

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTU	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	879.67	879.67	0.	0.6550								
0.0100	1.17	1124.42	872.71	1704.1	0.8372				4120.	692.60	0.610	0.37459	2.333
0.0259	2.71	1210.63	498.04	2966.7	0.9163								
0.0429	3.21	1268.60	414.78	3202.8	0.9446								
0.0624	3.54	1298.63	367.65	3326.3	0.9595								
0.0774	3.70	1299.43	347.12	3383.1	0.9679								
0.0944	3.88	1309.70	326.69	3436.5	0.9752								
0.1103	3.99	1318.69	315.43	3471.7	0.9819								
0.1257	4.09	1325.57	305.38	3500.9	0.9870								
0.1486	4.29	1341.32	286.50	3559.8	0.9987								
0.1708	4.46	1357.31	272.26	3610.5	1.0107								
0.1939	4.63	1375.55	259.91	3661.0	1.0242								
0.2188	4.82	1395.70	247.08	3714.7	1.0392								
0.2439	5.04	1413.56	232.34	3767.1	1.0525								
0.2699	5.20	1433.09	203.36	3843.7	1.0671								
0.2939	5.49	1420.81	178.86	3862.7	1.0579								
0.3188	5.88	1384.34	160.33	3834.7	1.0309								
0.3439	6.31	1251.69	150.82	3798.3	1.0065								
0.3688	6.78	1340.44	146.63	3787.1	0.9981								
0.3939	6.43	1339.73	144.40	3789.5	0.9976								

  

Y	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.6340	0.1843	15.81	1430178.	19485812.	302.					

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	THETA PRIME,	THETA(2),	THETA(1),	HI(M),	MI(E),	PTIMAX,
-0.0478	-0.077	0.2613	0.2221	0.00126	0.01040	0.00887	25.03	6.27	77494.0

  

Y	Y/DELTA	U/(DELTA) RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	45.0	45.03				
0.0100	0.01577	0.05065	105.0	45.03	6.034	0.001	0.001	0.001
0.0259	0.04079	0.15613	1066.8	44.99	6.035	0.014	0.014	0.014
0.0429	0.06765	0.20220	2248.7	44.94	6.036	0.029	0.029	0.029
0.0624	0.09847	0.23616	3611.5	44.80	6.039	0.047	0.047	0.047
0.0774	0.12204	0.25415	4547.2	44.76	6.040	0.059	0.059	0.059
0.0944	0.14891	0.27378	5762.7	44.67	6.042	0.074	0.074	0.074
0.1103	0.17398	0.28591	6660.4	44.58	6.044	0.086	0.086	0.086
0.1257	0.19827	0.29684	7572.1	44.44	6.047	0.098	0.098	0.098
0.1486	0.26394	0.31911	9786.8	44.08	6.055	0.126	0.126	0.126
0.1708	0.33250	0.33713	12070.5	43.63	6.065	0.156	0.156	0.156
0.1939	0.39717	0.35326	14679.0	43.04	6.079	0.190	0.190	0.190
0.2188	0.46357	0.37238	18210.8	42.51	6.091	0.235	0.235	0.235
0.2439	0.53297	0.39520	23237.9	41.83	6.107	0.300	0.300	0.300
0.2699	0.60452	0.44484	37527.2	40.39	6.141	0.485	0.485	0.485
0.2939	0.79702	1.01212	54908.4	38.87	6.180	0.709	0.709	0.709
0.3188	0.93030	1.00479	70277.1	37.15	6.225	0.907	0.907	0.907
0.3439	1.00000	1.00000	73619.3	36.28				
0.3688	1.06137	0.99524	76562.2	35.52				
0.3939	1.19135	0.99231	77494.0	33.55				
0.4188	1.32621	0.99295	75590.7	31.08				

HYPERSONIC BOUNDARY LAYER AFD. WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH MC. DAY TEST RUN X TIC PTC  
 H. B. 7. 22. 306. 56. 33.00 77450.40 1332.00 P55.49 TW GEN. CYL. 26.00

Y	MACH	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	0.0100	1.76	855.49	855.49	0.	0.	0.6396			
0.0100	1.76	1269.14	792.24	792.24	2418.6	2418.6	0.7495				
0.0151	1.91	1304.44	755.53	755.53	2568.0	2568.0	0.9749				
0.0211	2.28	1373.60	653.04	653.04	2859.4	2859.4	0.9967				
0.0281	2.93	1360.92	501.51	501.51	3213.2	3213.2	1.0171				
0.0374	3.37	1269.53	418.54	418.54	3360.1	3360.1	1.0236				
0.0467	3.70	1374.44	368.37	368.37	3476.6	3476.6	1.0272				
0.0626	3.97	1380.26	332.48	332.48	3547.9	3547.9	1.0316				
0.0787	4.23	1323.94	302.40	302.40	3604.6	3604.6	1.0343				
0.0948	4.39	1386.56	286.00	286.00	3636.2	3636.2	1.0363				
0.1124	4.54	1287.02	270.33	270.33	3662.8	3662.8	1.0366				
0.1295	4.63	1390.48	262.63	262.63	3681.0	3681.0	1.0392				
0.1462	4.72	1393.81	255.59	255.59	3697.9	3697.9	1.0417				
0.1879	4.91	1403.24	241.37	241.37	3736.1	3736.1	1.0488				
0.2292	5.06	1410.09	230.29	230.29	3764.8	3764.8	1.0539				
0.2723	5.26	1412.29	215.97	215.97	3791.1	3791.1	1.0555				
0.3129	5.47	1409.45	201.94	201.94	3808.8	3808.8	1.0534				
0.3888	5.75	1394.68	192.07	192.07	3801.0	3801.0	1.0349				
0.4727	5.85	1352.50	172.26	172.26	3765.5	3765.5	1.0108				
0.5565	5.97	1348.39	165.73	165.73	3769.4	3769.4	1.0078				
DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT	
0.3750	0.0618	7.06	2914071.	25688236.	431.	3797.	597.66	0.581	0.47788	2.212	
PHI.	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	DELTA STAR(3),	THETA STAR(1),	THETA STAR(2),	THETA STAR(3),	THETA(1W),	THETA(2W),	THETA(3W),	M(EL),
-0.0405	-0.056	0.1178	0.0956	0.0956	0.00131	0.00744	0.00608	15.73	5.71	7830.4	PTIMAX,
Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI.	RHC U PRIME,	P PRIME	PTI/PTE,	PTI/PTIMAX		
0.	0.	0.	0.	86.7	86.70	0.017	5.428	0.001	0.001	0.001	
0.0100	0.02666	0.63540	0.15617	471.6	86.69	0.017	5.430	0.006	0.006	0.006	
0.0151	0.04029	0.67465	0.17119	584.6	86.44	0.017	5.431	0.008	0.008	0.007	
0.0211	0.05637	0.75171	0.22032	1051.0	86.36	0.017	5.433	0.014	0.014	0.013	
0.0281	0.07490	0.84416	0.32174	2836.9	86.18	0.016	5.435	0.037	0.037	0.036	
0.0374	0.09970	0.88800	0.40473	5451.0	86.01	0.016	5.437	0.070	0.070	0.070	
0.0467	0.12452	0.91336	0.47202	8612.1	85.84	0.016	5.441	0.111	0.111	0.110	
0.0626	0.16681	0.93210	0.53104	12450.5	85.41	0.016	5.449	0.161	0.161	0.159	
0.0787	0.20979	0.94700	0.58637	17371.1	84.72	0.016	5.455	0.224	0.224	0.221	
0.0948	0.25277	0.95529	0.62299	21100.8	84.10	0.016	5.465	0.272	0.272	0.269	
0.1124	0.29970	0.96226	0.65708	25465.1	83.23	0.016	5.474	0.329	0.329	0.325	
0.1295	0.34529	0.96706	0.67265	28126.2	82.37	0.016	5.480	0.363	0.363	0.359	
0.1462	0.38982	0.97150	0.68999	30996.9	81.85	0.016	5.484	0.400	0.400	0.395	
0.1879	0.50101	0.98153	0.71390	37501.4	79.16	0.016	5.511	0.484	0.484	0.478	
0.2292	0.61113	0.98908	0.72672	43340.4	76.29	0.015	5.545	0.560	0.560	0.553	
0.2723	0.72605	0.99598	0.74936	52389.2	73.27	0.015	5.582	0.674	0.674	0.668	
0.3129	0.83430	1.00063	0.76893	62847.9	69.97	0.014	5.625	0.801	0.801	0.790	
0.3750	1.00000	1.00000	0.77541	74508.9	64.74	0.013	5.715	0.995	0.995	0.983	
0.3888	1.03668	0.99860	0.77301	77090.3	63.55	0.013	5.804	1.000	1.000	1.000	
0.4727	1.26039	0.98926	0.73657	78430.4	57.83	0.011	5.945	1.001	1.001	0.982	
0.5565	1.48383	0.99028	0.66868	77515.2	50.46	0.011					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL R COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTC TWM GEN. CYL.  
 8. 7. 22. 306. 58. 34.50 77450.40 1343.60 846.09 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	VV/TTC
0.0100	0.	846.09	846.09	0.	0.6277
0.0180	2.19	1235.31	629.78	2697.2	0.9164
0.0274	3.40	1316.31	555.96	3022.4	0.9765
0.0365	3.67	1377.88	410.10	3374.4	1.0073
0.0515	3.89	1406.54	378.34	3497.6	1.0360
0.0616	4.07	1404.40	349.96	3562.8	1.0434
0.0688	4.15	1405.59	326.21	3599.1	1.0418
0.0864	4.29	1408.33	316.57	3617.1	1.0427
0.1021	4.38	1407.69	301.15	3647.1	1.0448
0.1194	4.47	1428.11	290.75	3663.2	1.0443
0.1559	4.68	1427.53	285.59	3704.9	1.0594
0.1796	4.82	1416.78	265.76	3735.9	1.0590
0.2121	5.04	1415.51	250.96	3742.5	1.0510
0.2373	5.21	1411.36	232.68	3769.6	1.0501
0.2789	5.39	1400.71	219.50	3784.0	1.0470
0.3208	5.44	1327.51	205.48	3789.4	1.0391
			200.66	3776.1	1.0293

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.2612 0.0316 4.05 4647277. 30223714. 597. 3882. 705.46 0.559 0.49460 2.067

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(1), THETA PRIME, THETA(2), THETA(W), H(M), M(E), PTIMAX,  
 -0.0282 -0.0449 0.0810 0.0627 0.0014 0.00640 0.00500 12.53 5.33 77091.4

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.0100	0.03829	0.71167	0.	137.9	137.89	0.023	5.003	0.002	0.002
0.0180	0.06888	0.79748	0.34406	1457.3	137.88	0.023	5.007	0.019	0.019
0.0274	0.10503	0.89037	0.43505	2804.9	137.25	0.023	5.008	0.036	0.036
0.0365	0.13968	0.92287	0.65717	9054.3	137.07	0.023	5.014	0.117	0.117
0.0515	0.19739	0.94008	0.73314	13153.3	136.11	0.023	5.021	0.170	0.171
0.0616	0.23601	0.94965	0.80079	17570.7	135.00	0.023	5.027	0.227	0.228
0.0688	0.26362	0.95440	0.86248	22213.6	134.16	0.023	5.027	0.287	0.288
0.0864	0.33089	0.96233	0.88773	24594.7	133.34	0.022	5.032	0.318	0.319
0.1021	0.39092	0.96656	0.92833	29097.6	131.56	0.022	5.044	0.376	0.377
0.1194	0.45716	0.97757	0.94855	32268.7	129.21	0.022	5.059	0.417	0.419
0.1559	0.59692	0.98577	0.95685	35395.9	126.59	0.022	5.077	0.457	0.459
0.1796	0.68766	0.98748	0.97920	42940.4	119.55	0.021	5.127	0.554	0.557
0.2121	0.81210	0.99466	0.99574	48993.3	114.60	0.020	5.164	0.633	0.636
0.2373	0.90858	0.99845	1.00673	59336.6	106.86	0.019	5.225	0.766	0.770
0.2612	1.00000	1.00000	1.01395	68044.6	100.94	0.019	5.276	0.879	0.883
0.2789	1.06786	0.99986	1.01004	73236.8	96.20	0.018	5.347	0.995	0.950
0.3208	1.22629	0.99635	1.00158	77091.4	93.21	0.017	5.392	1.000	1.000
			0.97214	77081.4	88.66				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE PTC TWC GEN. CYL. P12.66 26.00  
 P. 8. 7. 22. 306. 59. 36.00 77450.40 1342.60

Y	MACH	REI.TEMP.	STAT.TEMP.	VELOCITY	TT/ATIC
0.	0.	872.66	832.66	0.	0.5205
0.0100	2.17	990.41	509.39	2403.9	0.7380
0.0172	2.43	1110.50	509.62	2686.8	0.8275
0.0217	2.87	1170.49	447.32	2957.7	0.8722
0.0266	3.08	1242.52	429.69	3124.9	0.9259
0.0356	3.23	1411.69	457.93	3385.0	1.0519
0.0362	3.25	1411.69	453.70	3392.5	1.0519
0.0456	3.33	1406.67	436.90	3413.3	1.0882
0.0550	3.40	1401.67	424.01	3427.2	1.0885
0.0618	3.46	1398.67	411.23	3444.3	1.0822
0.0779	3.66	1390.66	377.81	3488.3	1.0363
0.0947	3.94	1382.69	336.84	3544.7	1.0303
0.1118	4.33	1375.75	289.14	3613.1	1.0251
0.1213	4.55	1371.81	266.40	3644.2	1.0222
0.1527	4.69	1350.95	250.02	3636.8	1.0067

DELTA DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.1176 0.0009 0.09 17144795. 51683719. 2861. 8032. 718.11 0.523 0.43756 1.551

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA STAR(W), THETA STAR(M), MIEI, PTIMAX,  
 0.0055 -0.042 0.0446 0.0290 0.00704 0.00839 0.00560 5.18 4.47 82544.3

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI.	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.08504	0.66176	532.7	532.66	0.055	3.977	0.007	0.006
0.0100	0.14635	0.73963	1.61493	5458.6	532.60	0.055	3.988	0.070	0.066
0.0172	0.18428	0.81421	2.02373	8014.9	524.74	0.054	3.996	0.103	0.097
0.0217	0.22663	0.86024	2.19265	15658.4	519.41	0.054	4.002	0.202	0.190
0.0356	0.30240	0.93183	2.17261	21178.4	515.09	0.053	4.018	0.273	0.257
0.0362	0.30792	0.93390	2.17014	25947.5	504.43	0.053	4.027	0.335	0.314
0.0456	0.38820	0.93963	2.17118	26468.5	498.10	0.052	4.035	0.342	0.321
0.0550	0.46737	0.94344	2.25762	29511.8	492.77	0.051	4.056	0.381	0.358
0.0618	0.52537	0.94815	2.27478	31485.9	479.38	0.050	4.077	0.407	0.381
0.0779	0.62236	0.96027	2.32089	33824.5	466.13	0.048	4.136	0.437	0.410
0.0947	0.80514	0.97579	2.30273	52630.7	375.55	0.044	4.243	0.533	0.500
0.1118	0.95073	0.99461	2.23003	71964.4	306.29	0.038	4.402	0.680	0.638
0.1176	1.00000	1.00000	2.17059	78417.1	282.08	0.035	4.514	0.929	0.872
0.1213	1.03151	1.00318	2.12334	82544.3	266.40	0.029	4.703	1.066	0.950
0.1527	1.29853	1.00115	1.78796	77557.6	210.96	0.029	4.703	1.000	0.937

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL 8 COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF TIC TM 1344-00 1149.91  
 8. 7.22.306.106. 0. 78165.65 1344-00 1149.91 26.00

Y	MACH	TDI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTP
0.	0.	1149.91	1149.91	0.	0.8556
0.0100	0.85	1132.18	1034.17	1333.4	0.8796
0.0219	0.96	1177.23	1011.82	1492.5	0.8908
0.0362	1.48	1217.64	861.33	2126.2	0.9209
0.0538	1.91	1262.96	730.10	2530.2	0.9397
0.0715	2.33	1278.99	614.32	2825.8	0.9516
0.0873	2.44	1241.39	584.00	2894.5	0.9534
0.1269	2.88	1245.99	483.74	3110.3	0.9591
0.1709	3.19	1295.14	426.62	3230.2	0.9636
0.2136	3.43	1301.90	388.57	3312.5	0.9687
0.2549	3.71	1304.55	348.29	3396.5	0.9736
0.2974	4.01	1316.79	312.43	3473.6	0.9798
0.3556	4.41	1326.93	271.66	3560.6	0.9873
0.4144	4.81	1342.66	238.66	3641.9	0.9990
0.4736	5.24	1359.81	209.54	3717.4	1.0118
0.5334	5.72	1377.12	182.42	3788.5	1.0246
0.5909	6.22	1390.83	159.21	3846.6	1.0348
0.6503	6.66	1401.27	141.90	3889.7	1.0426
0.7076	7.03	1406.15	129.15	3916.8	1.0462
0.7668	7.35	1398.05	118.43	3920.8	1.0402
0.8249	7.53	1382.96	111.97	3907.6	1.0290
0.8858	7.62	1368.41	108.58	3890.4	1.0182
0.9443	7.65	1363.90	107.44	3885.2	1.0148
1.0010	7.63	1361.92	107.62	3881.7	1.0133

DELTA DELTA STAR H RSR RS DELTA RTHETA R ETHETA D RECOVER.TEMP. RECOVER.FACT. TOT.PRESS.RECOV. CT  
 0.8637 0.5167 26.15 131305. 5827907. 100. 4428. 798.89 0.843 0.23767 0.841

PHI, DELTA STAR PRIME, DELTA STAR(21), DELTA STAR(M 1), THETA STAR(M 1), THETA PRIME, THETA(21), THETA(M), M(M), MIE1, PTIMAX,  
 -0.0906 -0.007 0.5238 0.5204 0.00007 0.01969 0.01956 26.60 7.60 79854.4

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHC U PRIME,	M PRIME	PT1/PTE,	PT1/PTIMAX
0.	0.	0.	11.0	10.96	0.004	7.586	0.000	0.000
0.0100	0.01158	0.34214	17.5	10.96	0.004	7.586	0.000	0.000
0.0219	0.02539	0.38295	19.7	10.96	0.004	7.586	0.000	0.000
0.0362	0.04421	0.54556	39.0	10.96	0.004	7.586	0.001	0.001
0.0538	0.06227	0.64920	74.6	10.96	0.004	7.586	0.002	0.002
0.0715	0.08275	0.72506	182.7	10.96	0.004	7.586	0.002	0.002
0.0873	0.10111	0.74269	171.4	10.96	0.004	7.586	0.004	0.004
0.1269	0.14924	0.79806	338.4	10.96	0.004	7.586	0.007	0.007
0.1709	0.19787	0.82882	534.1	10.96	0.004	7.586	0.010	0.010
0.2136	0.24731	0.84993	754.3	10.96	0.004	7.586	0.014	0.014
0.2549	0.29513	0.87149	1126.2	10.96	0.004	7.586	0.022	0.021
0.2974	0.34434	0.89128	1683.8	10.96	0.004	7.586	0.036	0.035
0.3556	0.41172	0.91359	2821.6	10.96	0.004	7.586	0.059	0.058
0.4144	0.47980	0.93444	4626.6	10.96	0.004	7.586	0.098	0.096
0.4736	0.54834	0.95382	7627.5	10.96	0.004	7.586	0.166	0.162
0.5334	0.61758	0.97207	12950.8	10.96	0.004	7.586	0.276	0.270
0.5909	0.68416	0.98697	21585.5	10.96	0.004	7.586	0.424	0.415
0.6503	0.75293	0.99803	33150.8	10.96	0.004	7.586		

HYPERSONIC BOUNDARY LAYER AROUND WIND TUNNEL DATA REDUCTION - FUNNEL B COOLED HEAT TRANSFER

Y	Y/Delta	U/Delta	PHI	U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.7076	0.8192A	1.00499	0.19359	46654.4	10.96	0.004	7.586	0.597	0.584	
0.7658	0.88782	1.00602	0.21133	61913.7	10.96	0.004	7.586	0.792	0.775	
0.8269	0.95740	1.00283	0.22278	72553.1	10.96	0.004	7.586	0.928	0.909	
0.9637	1.00000	1.00000	0.22710	75961.6	10.96	0.004	7.586	0.996	0.950	
0.8858	1.02560	0.99822	0.22872	77850.0	10.96	0.004	7.586	1.022	0.975	
0.9443	1.09333	0.97688	0.23083	79854.4	10.96	0.004	7.586	1.022	1.000	
1.0010	1.15898	0.99598	0.23024	78957.9	10.96	0.004	7.586	1.010	0.989	

HYPERSONIC BOUNDARY LAYER AECG WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTD TM GEN. CYL.  
 8. 7. 22. 306. 105. 18.75 78165.65 1365.00 1152.58 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC	RSR	RS DELTA	RTHETA R	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	1152.58	1152.58	0.	0.8444							
0.0100	1.49	1189.96	825.61	2092.2	0.8718				817.95	0.828	0.33776	1.092
0.0264	2.39	1236.14	576.52	2815.1	0.9056				5031.			
0.0430	3.34	1259.65	390.58	3231.2	0.9228							
0.0615	3.63	1288.80	354.75	3349.8	0.9442							
0.0764	3.80	1308.54	337.18	3416.1	0.9586							
0.0930	3.91	1313.00	323.60	3447.7	0.9619							
0.1136	4.34	1319.54	276.46	3540.0	0.9667							
0.1763	4.48	1327.23	264.28	3573.5	0.9723							
0.2184	4.75	1340.87	242.86	3632.0	0.9823							
0.2602	5.01	1352.06	224.83	3680.0	0.9905							
0.3023	5.24	1365.21	210.12	3725.2	1.0002							
0.3627	5.62	1387.18	189.67	3793.0	1.0163							
0.4199	5.97	1412.11	173.97	3856.8	1.0345							
0.4783	6.31	1432.42	159.67	3910.3	1.0494							
0.5382	6.58	1447.67	149.87	3948.6	1.0606							
0.5963	6.80	1450.39	141.69	3965.2	1.0626							
0.6539	6.93	1440.81	136.03	3959.2	1.0555							
0.7151	7.10	1421.11	128.28	3941.0	1.0411							
0.7729	7.04	1401.50	128.44	3910.8	1.0267							
0.8315	7.03	1389.12	127.64	3893.0	1.0177							

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.6889	0.2523	13.21	402918.	11799347.	172.	817.95	0.828	0.33776	1.092

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	THETA PRIME,	THETA(2),	THETA(1M),	H(M),	MIE),	PTIMAX.
-0.0931	-0.042	0.2938	0.2737	0.0052	0.01856	0.01732	15.80	7.05	82897.9

  

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PT1/PTE,	PTI/PTIMAX
0.	0.	6.	0.52958	20.0	20.04	0.000	0.000	0.000	0.000
0.0100	0.01452	0.71257	0.05702	72.1	20.04	0.006	6.943	0.001	0.001
0.0264	0.03830	0.81791	0.09655	289.3	20.04	0.006	6.943	0.004	0.003
0.0430	0.06247	0.84793	0.11021	1206.7	20.03	0.006	6.943	0.015	0.015
0.0615	0.08929	0.86471	0.11816	1830.6	20.03	0.006	6.943	0.023	0.022
0.0764	0.11098	0.87270	0.12417	2304.7	20.02	0.006	6.944	0.029	0.028
0.0930	0.13496	0.89607	0.14117	2691.4	20.00	0.006	6.945	0.034	0.032
0.1136	0.15685	0.90456	0.15702	4495.3	18.92	0.006	7.006	0.058	0.054
0.1763	0.25593	0.91936	0.17304	5656.8	19.93	0.006	6.949	0.072	0.068
0.2184	0.31705	0.93151	0.18883	7853.4	19.86	0.006	6.953	0.100	0.095
0.2602	0.37773	0.94295	0.20379	10560.3	19.80	0.006	6.956	0.135	0.127
0.3023	0.43884	0.96011	0.22820	13792.4	19.73	0.006	6.960	0.176	0.166
0.3627	0.52652	0.97625	0.25148	20720.5	19.58	0.006	6.968	0.265	0.250
0.4199	0.60956	0.98981	0.27576	29661.0	19.47	0.006	6.975	0.319	0.358
0.4783	0.69434	1.00369	0.31088	41795.5	19.32	0.006	6.983	0.535	0.504
0.5382	0.78129	1.00218	0.32113	53847.7	19.22	0.006	6.988	0.689	0.650
0.5963	0.86564	1.00000	0.32546	65428.7	19.07	0.006	6.998	0.837	0.789
0.6539	0.94925	0.99759	0.32790	73231.4	18.94	0.006	7.005	0.937	0.883
0.6889	1.00000	0.99511	0.32730	78753.0	18.84	0.005	7.042	1.061	0.950
0.7151	1.03810	0.98993	0.32730	82897.9	18.65	0.005	7.022	1.024	1.000
0.7729	1.12200	0.98542	0.32730	80024.0	18.42	0.005	7.036	1.004	0.965
0.8315	1.20707	0.98542	0.32730	78323.8	18.42	0.005	7.036	1.004	0.945

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL R COOLED HEAT TRANSFER  
 MODEL MACH MC. DAY F-ST RUN X PTE TFC TWM GEN. CYL.  
 8. 7. 22. 106. 104. 27.00 78165.65 1352.00 1153.91 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TV/TFC
0.	0.1000	1153.91	1153.91	0.	0.6535
0.	0.0315	1214.83	577.10	2768.0	0.8785
0.	0.0485	1251.09	339.46	3331.1	0.9342
0.	0.0658	1322.57	320.83	3469.1	0.9782
0.	0.0813	1346.05	291.41	3559.5	0.9956
0.	0.0991	1357.50	276.79	3603.4	1.0041
0.	0.1329	1368.19	264.59	3641.2	1.0120
0.	0.1762	1382.19	244.54	3696.9	1.0223
0.	0.2155	1395.61	229.77	3742.5	1.0323
0.	0.2593	1403.06	219.40	3771.0	1.0378
0.	0.3006	1411.68	211.34	3797.4	1.0441
0.	0.3421	1419.96	202.61	3824.3	1.0503
0.	0.4020	1429.28	193.81	3852.6	1.0572
0.	0.4659	1439.26	192.70	3885.4	1.0645
0.	0.5228	1437.81	171.98	3899.7	1.0635
0.	0.5831	1427.72	165.61	3893.9	1.0560
0.	0.6349	1408.57	160.19	3872.7	1.0418
0.		1395.22	157.80	3855.7	1.0320

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5237 0.1162 9.56 1047205. 18720238. 231. 4127. 931.13 0.833 0.46021 0.460

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(M 1), THETA STAR(1), THETA STAR(2), THETA(M), H(M), M(EI), PTIMAX,  
 -0.1278 -0.026 0.1423 0.1317 0.00049 0.01166 0.01081 12.18 6.17 78251.0

Y	Y/DELTA	U/(UDELTA)	RHO * U	PT1	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.01910	0.71089	0.12318	44.1	44.12	0.010	6.065	0.001	0.001
0.	0.0315	0.85553	0.25128	596.5	44.08	0.010	6.068	0.008	0.008
0.	0.0485	0.89097	0.27661	6367.2	43.95	0.010	6.069	0.056	0.056
0.	0.0658	0.91420	0.31278	6244.4	43.91	0.010	6.069	0.080	0.080
0.	0.0813	0.92546	0.33195	4290.9	43.86	0.010	6.072	0.119	0.119
0.	0.0991	0.93517	0.34986	11435.6	43.76	0.010	6.075	0.146	0.146
0.	0.1329	0.94949	0.38281	13718.0	43.63	0.010	6.079	0.175	0.175
0.	0.1762	0.96118	0.40958	18656.1	43.46	0.010	6.079	0.238	0.238
0.	0.2155	0.96850	0.42858	23835.0	43.16	0.010	6.085	0.305	0.305
0.	0.2593	0.97530	0.44339	28301.9	42.80	0.010	6.094	0.362	0.362
0.	0.3006	0.98219	0.46243	32620.6	42.35	0.010	6.104	0.417	0.417
0.	0.3421	0.98947	0.48184	38315.9	42.05	0.010	6.111	0.490	0.490
0.	0.4020	0.99788	0.50729	45310.7	41.60	0.010	6.122	0.580	0.579
0.	0.4659	1.00155	0.53043	56178.0	40.94	0.010	6.138	0.719	0.718
0.	0.5228	0.99834	0.54095	67834.8	40.15	0.010	6.157	0.868	0.867
0.	0.5831	1.00000	0.54108	74283.7	39.48	0.010	6.174	0.989	0.989
0.	0.6349	1.00000	0.54563	78087.7	39.47	0.010	6.193	0.999	0.998
0.		0.99025	0.54204	78251.0	38.74	0.009	6.210	1.001	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TTC TW GEN. CYL.  
 8. 7. 22. 306. 115. 33.00 77865.41 1352.00 1153.91 26.00

Y MACH TOT. TEMP. STAT. TEMP. VELOCITY TT/TTC

0.0100	0.0100	1153.91	1153.91	0.8535
0.0196	2.70	1210.62	491.87	0.8954
0.0276	3.23	1232.02	399.99	0.9113
0.0365	3.47	1245.07	365.52	0.9209
0.0449	3.73	1259.65	333.10	0.9317
0.0525	3.86	1281.61	322.19	0.9479
0.0691	3.93	1312.58	320.91	0.9708
0.0859	4.14	1321.98	298.52	0.9778
0.1031	4.27	1330.21	286.77	0.9839
0.1191	4.37	1335.38	277.27	0.9877
0.1357	4.43	1340.09	271.79	0.9912
0.1529	4.51	1342.52	264.73	0.9930
0.1700	4.58	1346.24	259.57	0.9957
0.1978	4.63	1248.95	255.00	0.9977
0.2399	4.71	1353.78	248.98	1.0013
0.2809	4.87	1359.10	236.63	1.0053
0.3235	5.07	1365.26	222.66	1.0098
0.3648	5.25	1366.39	209.49	1.0106
0.4074	5.41	1362.91	198.70	1.0081
0.4486	5.55	1352.55	188.60	1.0004
0.4916	5.68	1340.68	180.07	0.9916
0.5329	5.77	1327.11	173.03	0.9816
0.5744	5.89	1316.03	165.96	0.9734
	5.93	1308.12	163.01	0.9675

DELTA STAR H RSR RS DELTA RTHEA R RTHEA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4855 0.0485 5.13 219488. 2700830. 351. 4316. 817.06 0.832 0.50512 0.316

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(M), DELTA STAR(I), THETA STAR(W), THETA STAR(M), THETA STAR(I), THETA STAR(M), THETA STAR(I), THETA STAR(M), M(E), PTIMAX,  
 0.0162 -0.091 0.1391 0.1085 0.00228 0.00718 0.00565 19.20 5.76 7940.9

Y Y/DELTA U/U(DELTA) RHO \* U PT1 P1, RHO U PRIME, M PRIME PT1/PTE, P11/PTIMAX

0.0100	0.02060	0.78879	0.30481	87.6	87.58	0.001	0.001	0.001	0.001
0.0196	0.04031	0.84868	0.40296	2048.2	87.57	0.017	0.017	0.026	0.026
0.0276	0.05677	0.87257	0.45203	4487.3	87.49	0.017	0.017	0.058	0.056
0.0365	0.07514	0.89558	0.50810	6363.1	87.24	0.016	0.016	0.082	0.080
0.0449	0.09242	0.91123	0.53353	9155.9	87.06	0.016	0.016	0.118	0.115
0.0525	0.10808	0.92652	0.54337	10892.7	86.96	0.016	0.016	0.140	0.137
0.0691	0.14235	0.94126	0.59164	11999.4	86.70	0.016	0.016	0.154	0.151
0.0859	0.17692	0.95040	0.61875	15799.0	86.44	0.016	0.016	0.203	0.199
0.1031	0.21237	0.95706	0.64174	18489.2	86.01	0.016	0.016	0.237	0.233
0.1191	0.24532	0.96165	0.65317	20998.9	85.65	0.016	0.016	0.270	0.264
0.1357	0.27952	0.96691	0.66865	24636.9	85.05	0.016	0.016	0.291	0.285
0.1529	0.31495	0.96988	0.67902	28796.5	84.43	0.016	0.016	0.316	0.312
0.1700	0.35017	0.97313	0.68850	26598.8	83.72	0.016	0.016	0.342	0.335
0.1978	0.40743	0.97794	0.69820	28300.2	83.12	0.016	0.016	0.363	0.356
0.2399	0.49415	0.98573	0.72069	30696.0	81.69	0.016	0.016	0.394	0.386
0.2809	0.57860	0.99453	0.74806	36191.0	79.70	0.015	0.015	0.456	0.456
0.3235	0.66635	1.00074	0.77194	44045.2	77.16	0.015	0.015	0.566	0.554
				52754.5	74.45	0.015	0.015	0.579	0.664

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) * U	PHO * U	PTI	PI,	RHC U	PRIME	M	PRIME	PTI/PTE,	PTI/PTIMAX
0.3648	0.75142	1.00389	0.79374	60396.6	71.47	0.014	5.617	0.776	0.776	0.760	0.760
0.4074	0.83917	1.00378	0.78720	67302.7	68.14	0.014	5.661	0.864	0.864	0.847	0.847
0.4486	0.92404	1.00234	0.77878	72585.0	64.45	0.013	5.713	0.932	0.932	0.914	0.914
0.4855	1.00000	1.00000	0.76499	75468.9	61.29	0.013	5.769	0.975	0.975	0.950	0.950
0.4916	1.01261	0.99952	0.76213	75947.5	60.78	0.012	5.837	1.020	1.020	1.000	1.000
0.5329	1.09768	0.99778	0.73834	79440.9	56.58	0.012	5.886	1.011	1.011	0.991	0.991
0.5744	1.18316	0.99563	0.71287	78720.1	53.77	0.012					

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
MODEL MACH MC. DAY TEST RUN X PTE TTC TH GEN. CYL.  
8. B. 7. 22. 306. 114. 34.50 78165.65 1342.00 1152.58 26.00

Table with columns: Y, MACH, TOT. TEMP., STAT. TEMP., VELOCITY, Y/TTC, RTHETA R, RTHETA D, RECOV. TEMP., RECOV. FACT., TOT. PRESS. RECOV., CT

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
0.2991 0.0320 3.10 3498590. 31832640. 595. 5MIN. 829.28 0.834 0.8965 0.382

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), DELTA STAR(M), THETA(M), HENI, MIEI, PTIMAX,  
0.0102 -0.058 0.0900 0.0676 0.00164 0.00869 0.00660 10.23 5.37 78123.5

Table with columns: Y, Y/DELTA, U/(DELTA) RHO \* U, P1, RHO U PRIME, M PRIME, P1/PTE, PTI/PTIMAX

HYPERSONIC BOUNDARY LAYER AERO WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X TIC TH GEN. CYL.  
 8. 7. 2. 306. 114. 35.00 78155.65 1344.00 1152.58 26.00

Y	MACH	DELTA STAR	H	PSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	1152.58	1152.58	0.	0.	0.3576	0.53414	866.67	0.819	0.53414	0.163
0.0100	3.16	1275.48	425.55	3195.4	0.9420	0.9420					
0.0165	3.19	1340.55	442.30	3285.0	0.9978	0.9978					
0.0260	3.26	1390.61	445.34	3369.9	1.0347	1.0347					
0.0331	3.32	1392.62	434.29	3393.1	1.0362	1.0362					
0.0417	3.43	1394.63	416.67	3427.7	1.0377	1.0377					
0.0500	3.50	1393.63	403.52	3448.9	1.0369	1.0369					
0.0585	3.62	1390.64	384.00	3477.6	1.0347	1.0347					
0.0670	3.77	1386.64	360.26	3511.5	1.0317	1.0317					
0.0757	3.94	1380.65	336.45	3541.9	1.0273	1.0273					
0.0833	4.06	1379.67	321.70	3565.1	1.0265	1.0265					
0.0915	4.21	1373.69	302.04	3588.1	1.0221	1.0221					
0.1004	4.34	1368.69	286.82	3605.2	1.0184	1.0184					
0.1174	4.43	1356.74	275.09	3604.4	1.0095	1.0095					
0.1343	4.51	1346.78	265.82	3603.7	1.0021	1.0021					

DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(KIN ), THETA STAR(1), THETA STAR(2), THETA(1), M(1), PTIMAX, M(1), PTIMAX, M(1), PTIMAX.  
 -0.0081 -0.028 0.0259 0.0180 0.00147 0.00375 0.00266 6.76 4.33 78280.5

Y	Y/DELTA	U/UIDELTA	RHO * U	PTI	PI,	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0100	0.10102	0.88682	2.41828	552.4	552.38	0.007	3.911	0.007	0.007
0.0165	0.16719	0.91168	2.34249	25723.6	551.61	0.058	3.925	0.329	0.329
0.0260	0.26255	0.93524	2.32562	26238.5	541.30	0.057	3.945	0.336	0.335
0.0331	0.33408	0.94168	2.33832	28379.3	527.47	0.056	3.964	0.363	0.363
0.0417	0.42146	0.95127	2.35639	30328.1	513.65	0.054	3.997	0.388	0.387
0.0500	0.50490	0.95716	2.36580	33725.1	491.62	0.052	4.023	0.431	0.431
0.0585	0.59087	0.96512	2.37529	36368.7	475.06	0.051	4.044	0.465	0.465
0.0670	0.67704	0.97454	2.38398	40685.4	450.14	0.049	4.117	0.521	0.520
0.0757	0.76442	0.98296	2.38833	46961.1	419.76	0.046	4.174	0.601	0.600
0.0833	0.84120	0.98942	2.37198	54504.2	389.38	0.045	4.219	0.697	0.696
0.0915	0.92464	0.99579	2.33237	60005.6	367.34	0.042	4.286	0.768	0.767
0.0990	1.00000	1.00000	2.33657	67601.4	336.96	0.040	4.329	0.865	0.864
0.1004	1.01425	1.00053	2.33389	74366.5	321.43	0.038	4.404	0.950	0.950
0.1174	1.18598	1.00043	2.21440	75645.6	318.67	0.036	4.468	0.966	0.966
0.1343	1.35671	1.00011	2.11225	77271.8	290.02	0.036	4.468	0.989	0.987
				78280.5	267.41	0.036	4.468	1.001	1.000

HYPERSONIC BOUNDARY LAYER AERC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X TTD TTT GEN. CYL.  
 8. 7. 22. 306. 75. 0. 35685.50 1295.00 484.95 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.		484.95	484.95	0.	0.3745
0.0101	1.30	796.52	595.62	1553.6	0.6151
0.0222	1.24	925.96	708.26	1617.2	0.7150
0.0397	1.29	1063.95	798.25	1786.6	0.8216
0.0588	1.67	1109.63	713.34	2182.0	0.8569
0.0746	2.58	1149.36	493.73	2806.5	0.8875
0.0889	2.90	1163.13	432.84	2962.0	0.8982
0.1063	3.24	1175.02	379.74	3091.0	0.9074
0.1234	3.43	1184.69	353.30	3160.4	0.9144
0.1657	3.78	1201.94	311.62	3270.5	0.9281
0.2075	3.97	1215.25	292.49	3329.5	0.9384
0.2500	4.22	1227.66	269.51	3392.8	0.9480
0.2918	4.47	1240.96	248.03	3453.8	0.9583
0.3754	4.99	1264.66	211.73	3556.6	0.9766
0.4595	5.45	1286.37	185.16	3637.3	0.9933
0.5419	5.93	1305.38	162.60	3705.3	1.0080
0.6283	6.44	1315.25	141.67	3754.9	1.0156
0.7105	6.89	1312.78	125.20	3777.2	1.0137
0.7948	7.23	1300.39	113.52	3776.1	1.0042
0.8785	7.51	1289.01	104.85	3771.8	0.9954
0.9621	7.57	1278.03	102.46	3758.1	0.9869
1.0470	7.57	1273.70	102.24	3751.5	0.9836
1.1880	7.62	1273.59	101.09	3753.2	0.9835
1.2990	7.66	1274.57	100.01	3756.5	0.9842
1.4290	7.69	1274.51	99.40	3757.3	0.9842
1.5540	7.71	1274.46	98.88	3758.1	0.9841

DELTA DELTA STAR H RSR RS DELTA RIMETA R RIMETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 1.2665 0.5177 31.39 130141. 2856900. 83. 1812. 478.84 0.322 0.42935 6.649

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(1), THETA PRIME, THETA(2), THETA(1), H(M), M(E), PTIMAX,  
 0.0229 0.001 0.5164 0.5168 -0.00007 0.01651 0.01652 31.28 7.65 35483.3

Y	Y/DELTA	U/UIDELTA	RHD * U	PTI	PI,	RHD U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.				4.6	4.62			0.000	0.000
0.0101	0.00800	0.41370	0.00701	12.8	4.62	0.004	7.649	0.000	0.000
0.0222	0.01752	0.43065	0.00614	11.8	4.62	0.004	7.649	0.000	0.000
0.0397	0.03139	0.47576	0.00602	12.6	4.62	0.004	7.649	0.000	0.000
0.0588	0.04640	0.50103	0.00823	21.7	4.62	0.004	7.649	0.001	0.001
0.0746	0.05892	0.74735	0.01529	88.8	4.62	0.004	7.649	0.002	0.003
0.0889	0.07020	0.78875	0.01840	146.8	4.62	0.004	7.649	0.004	0.004
0.1063	0.08393	0.82310	0.02189	240.5	4.62	0.004	7.649	0.007	0.007
0.1234	0.09743	0.84158	0.02405	318.6	4.62	0.004	7.649	0.009	0.009
0.1657	0.13083	0.87090	0.02822	520.1	4.62	0.004	7.649	0.015	0.015
0.2075	0.16384	0.88662	0.03061	674.7	4.62	0.004	7.649	0.019	0.019
0.2500	0.19740	0.90347	0.03385	931.0	4.62	0.004	7.649	0.026	0.026
0.2918	0.23040	0.91972	0.03745	1292.9	4.62	0.004	7.649	0.036	0.036
0.3754	0.29641	0.94710	0.04517	2403.7	4.62	0.004	7.649	0.067	0.067
0.4595	0.36281	0.96857	0.05283	4079.2	4.62	0.004	7.649	0.114	0.115
0.5419	0.42788	0.98668	0.06128	6766.6	4.62	0.004	7.649	0.190	0.191

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	V/DELTA	U/U(DELTA)	RHO * U	PTI	PI	RHC	U	PRIME	M	PRIME	PTI/PTE	PTI/PTIMAX
0.6283	0.49610	0.9989	0.07127	11251.2	4.62	0.004	7.649	0.315	0.317			
0.7105	0.56100	1.00584	0.09113	17229.7	4.62	0.004	7.649	0.483	0.486			
0.7948	0.62756	1.00553	0.08945	23478.2	4.62	0.004	7.649	0.658	0.662			
0.8785	0.69365	1.00438	0.09673	30064.5	4.62	0.004	7.649	0.842	0.847			
0.9621	0.75966	1.00073	0.09863	31627.8	4.62	0.004	7.649	0.886	0.891			
1.0470	0.82669	0.99898	0.09867	31498.8	4.62	0.004	7.649	0.883	0.888			
1.1380	0.93802	0.99943	0.09984	32760.1	4.62	0.004	7.649	0.918	0.923			
1.2465	1.00000	1.00000	0.10064	33709.2	4.62	0.004	7.649	0.956	0.950			
1.2990	1.02367	1.00030	0.10100	34102.3	4.62	0.004	7.649	0.976	0.961			
1.4290	1.12831	1.00054	0.10165	34834.3	4.62	0.004	7.649	0.976	0.982			
1.5540	1.22701	1.00074	0.10221	35483.3	4.62	0.004	7.649	0.994	1.000			

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF YTD GEN. CYL.  
 8. 7. 22. 306. 74. 18.75 35900.64 1306.00 484.95 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	484.95	484.95	0.	0.3713
0.0100	0.67	1011.03	876.80	1269.9	0.7741
0.0247	1.02	1089.34	902.59	1497.9	0.8341
0.0409	2.57	1158.27	498.59	2815.2	0.8669
0.0584	3.10	1186.82	405.98	3062.8	0.9007
0.0751	3.47	1203.31	353.07	3196.0	0.9214
0.0907	3.61	1212.99	336.82	3244.4	0.9288
0.1344	3.86	1238.26	311.22	3337.3	0.9481
0.1746	4.07	1258.76	292.03	3408.0	0.9638
0.2161	4.29	1274.84	272.55	3470.1	0.9761
0.2594	4.56	1290.92	250.37	3535.7	0.9884
0.3005	4.79	1304.46	233.56	3586.9	0.9988
0.3845	5.45	1326.80	191.34	3693.4	1.0159
0.4723	5.89	1339.90	168.90	3750.7	1.0260
0.5538	6.31	1335.36	148.79	3775.6	1.0225
0.6367	6.69	1318.82	132.51	3775.2	1.0098
0.7200	6.97	1309.07	122.30	3775.9	1.0024
0.8029	7.27	1298.72	112.17	3775.6	0.9944
0.8879	7.28	1292.43	111.31	3766.9	0.9896
0.9730	7.19	1289.49	113.70	3758.4	0.9874
1.0580	7.10	1268.12	114.54	3722.8	0.9710
1.1390	7.00	1267.36	117.44	3716.8	0.9704

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.7802 0.2683 14.72 443970. 5567010. 181. 2267. 489.14 0.311 0.31265 6.032

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(M), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), M(E), PTIMAX, M(E), PTIMAX,  
 -0.0018 -0.129 0.3968 0.3209 0.00144 0.01680 0.01365 23.52 7.18 35891.3

Y	Y/DELTA	U/UIDELTA	RHO	U	PRIME	M	PRIME	PTI/PRIME	PTI/PTIMAX
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.0100	0.01282	0.33633	0.00797	9.4.	9.45	0.006	6.850	0.000	0.000
0.0247	0.03163	0.39670	0.00912	15.6	9.45	0.006	6.852	0.000	0.000
0.0409	0.05246	0.74559	0.03103	18.2	9.43	0.006	6.852	0.001	0.001
0.0584	0.07482	0.81118	0.04133	180.2	9.43	0.006	6.855	0.005	0.005
0.0751	0.09631	0.84646	0.04959	401.7	9.40	0.006	6.855	0.011	0.011
0.0907	0.11631	0.85927	0.05253	687.2	9.40	0.006	6.855	0.019	0.019
0.1344	0.17227	0.88386	0.05821	829.6	9.36	0.006	6.860	0.023	0.023
0.1746	0.22380	0.90258	0.06276	1170.5	9.32	0.006	6.865	0.033	0.033
0.2161	0.27700	0.91903	0.06783	1534.7	9.23	0.006	6.875	0.043	0.043
0.2594	0.33250	0.93641	0.07417	2023.9	9.14	0.006	6.901	0.056	0.056
0.3005	0.38518	0.94997	0.07976	2805.6	9.01	0.006	6.913	0.078	0.078
0.3845	0.49285	0.97818	0.09717	3670.3	8.91	0.006	6.947	0.102	0.102
0.4723	0.60539	0.99337	0.10751	5685.8	8.64	0.006	6.990	0.211	0.211
0.5538	0.70986	0.99996	0.11816	11682.7	8.31	0.006	7.033	0.325	0.325
0.6367	0.81612	0.99985	0.12693	17306.9	7.99	0.005	7.082	0.482	0.482
0.7200	0.92289	1.00004	0.13160	23781.5	7.65	0.005	7.132	0.662	0.662
0.8029	1.02915	0.99994	0.13330	29349.6	7.32	0.005	7.132	0.818	0.818
0.8879	1.13810	0.99766	0.13232	34096.7	6.96	0.005	7.214	0.950	0.950
0.9730	1.24718	0.99540	0.12925	35798.0	6.71	0.005	7.229	1.000	1.000
				32968.2	6.71	0.005	7.229	0.997	0.997

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/Delta	U/U(Delta)	RHO * U	PTI	PI.	RHC U PRIME.	M PRIME	PTI/PTE.	PTI/PTIMAX
1.0580	1.35614	0.98596	0.12708	30302.2	6.71	0.005	7.229	0.844	0.844
1.1390	1.45996	0.98439	0.12374	27703.5	6.71	0.005	7.229	0.772	0.772

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH 8. 7. 22. 306. 73. 29.00 35685.50 1317.00 487.60  
 GEN. CYL. 26.00

Y	MACH	TDI-TEMP.	STAT-TEMP.	VELOCITY	TT/TT0
0.	0.	487.60	487.60	0.	0.3702
0.0100	0.79	1067.55	949.98	1188.5	0.8106
0.0186	2.02	1144.73	631.03	2484.2	0.8692
0.0265	2.53	1184.03	518.31	2828.1	0.8990
0.0373	3.12	1218.14	412.65	3110.8	0.9249
0.0551	3.41	1243.48	374.09	3231.8	0.9442
0.0716	3.70	1264.01	337.64	3336.1	0.9598
0.0882	3.83	1277.22	324.30	3383.5	0.9698
0.1050	3.98	1288.19	309.53	3428.9	0.9781
0.1215	4.06	1296.88	301.71	3457.7	0.9847
0.1444	4.30	1314.38	279.31	3526.3	0.9980
0.2064	4.50	1331.75	263.92	3581.7	1.0112
0.2469	4.68	1344.80	249.84	3626.9	1.0211
0.2902	4.92	1355.67	232.37	3673.6	1.0294
0.3310	5.13	1362.08	217.61	3708.0	1.0342
0.4156	5.56	1366.19	190.18	3758.8	1.0374
0.4994	5.94	1351.04	167.85	3770.2	1.0258
0.5426	6.11	1340.31	158.11	3768.7	1.0177
0.6274	6.38	1325.78	144.99	3766.4	1.0067
0.7115	6.58	1318.40	136.32	3768.5	1.0011
0.7903	6.74	1315.60	130.38	3773.5	0.9989

DELTA DELTA STAR H 9.16 RSR RS DELTA RTHETA R RTHETA D RECOV-TEMP. RECOV-FACT. TOT-PRESS-RECOV. CT  
 0.7195 0.1338 1077930. 8624362. 286. 501.01 0.298 0.40511 0.40511 5.215

PHI, DELTA STAR PRIME. DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA PRIME, THETA(2), THETA(M), H(M), M(IE), PTIMAX, 37452.5  
 -0.0139 -0.172 0.3053 0.2236 0.00279 0.01182 0.00872 25.63 6.60 37452.5

Y	Y/DELTA	U/(DELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE.	PTI/PTIMAX
0.	0.	0.01390	0.31533	0.01419	19.48	0.010	6.144	0.001	0.001
0.0100	0.02592	0.65913	0.04459	29.3	19.47	0.010	6.146	0.001	0.001
0.0186	0.03686	0.75035	0.06176	350.0	19.44	0.010	6.146	0.004	0.004
0.0265	0.05179	0.82537	0.08514	850.7	19.43	0.010	6.148	0.010	0.009
0.0373	0.07657	0.85748	0.09742	1295.9	19.38	0.010	6.150	0.024	0.023
0.0551	0.09953	0.88514	0.11092	1956.0	19.35	0.010	6.154	0.036	0.035
0.0716	0.12266	0.89773	0.11669	2327.1	19.27	0.010	6.158	0.052	0.052
0.0882	0.14594	0.90978	0.12325	2807.9	19.20	0.010	6.163	0.065	0.062
0.1050	0.16887	0.91742	0.12712	3134.7	19.09	0.010	6.166	0.079	0.075
0.1215	0.22850	0.93562	0.13771	4231.7	19.04	0.010	6.166	0.084	0.084
0.1444	0.28688	0.95032	0.14563	5315.4	18.72	0.010	6.183	0.119	0.113
0.2064	0.34317	0.96231	0.15310	6540.9	18.42	0.009	6.199	0.149	0.142
0.2469	0.40335	0.97469	0.16315	8495.1	18.10	0.009	6.217	0.184	0.175
0.2902	0.46006	0.98383	0.17199	10628.3	17.71	0.009	6.239	0.238	0.227
0.3310	0.57764	0.99729	0.18855	16267.6	17.32	0.009	6.261	0.298	0.284
0.4156	0.69412	1.00033	0.20090	22711.6	16.37	0.009	6.318	0.436	0.434
0.4994	0.75416	0.99992	0.20559	26256.0	15.35	0.008	6.384	0.636	0.606
0.5426	0.87203	0.99932	0.20794	31762.5	14.80	0.008	6.421	0.736	0.701
0.6274	0.98892	0.99987	0.20249	35369.1	13.74	0.008	6.498	0.890	0.848
0.7115	1.00000	1.00000	0.20159	35579.9	12.57	0.007	6.591	0.991	0.944
0.7903	1.09844	1.00119	0.19353	37452.5	11.48	0.007	6.687	1.050	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X PTE TTC  
 8. 7. 22. 306. 78. 33.00 36675.16 1270.00 494.23 26.00

Y	MACH	TDI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.94	23	494.23	0.	0.3892
0.0104	1.62	863.15	566.58	1887.6	0.6796
0.0285	3.44	1030.24	306.22	2949.3	0.8112
0.0456	3.66	1194.83	324.97	3232.7	0.9408
0.0628	3.85	1231.81	310.32	3327.3	0.9699
0.0787	3.99	1249.66	298.49	3380.4	0.9840
0.1217	4.31	1277.71	271.28	3477.2	1.0061
0.1627	4.41	1296.15	265.25	3519.2	1.0206
0.2044	4.79	1308.46	234.34	3592.3	1.0303
0.2469	5.05	1318.30	215.85	3639.3	1.0380
0.2887	5.31	1326.18	199.93	3678.4	1.0442
0.3729	5.72	1315.11	174.39	3701.9	1.0355
0.4026	5.82	1305.67	168.07	3696.9	1.0281
0.4571	5.93	1286.17	160.10	3678.1	1.0127
0.5399	6.02	1271.16	153.99	3663.5	1.0009

DELTA STAR H RSR RS DELTA RTHETA R THETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.4191 0.0770 6.12 2109571. 12657208. 449. 2688. 511.81 0.298 0.43201 4.163

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(W), H(W), MIE), PTIMAX.  
 -0.0088 -0.072 0.1485 0.1145 0.00151 0.01106 0.00860 13.31 5.86 37209.2

Y	Y/DELTA	U/U(DELTA)	RMD * U	PTI	PI.	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	37.6	37.63	0.016	5.515	0.001	0.001
0.0104	0.02479	0.51120	0.07259	163.2	37.40	0.015	5.522	0.004	0.004
0.0285	0.06795	0.79872	0.20816	2591.0	37.09	0.015	5.530	0.071	0.070
0.0456	0.10892	0.87548	0.21309	3503.7	36.76	0.015	5.539	0.096	0.094
0.0628	0.14989	0.90109	0.22751	4538.1	36.42	0.015	5.547	0.124	0.122
0.0787	0.18773	0.91548	0.23812	5418.2	36.09	0.015	5.576	0.148	0.146
0.1217	0.29037	0.94170	0.26134	7934.4	34.99	0.015	5.604	0.216	0.213
0.1627	0.38820	0.95308	0.26238	8753.9	33.94	0.014	5.638	0.239	0.235
0.2044	0.48769	0.97285	0.29235	13463.9	32.73	0.014	5.676	0.367	0.362
0.2469	0.58909	0.98560	0.30868	17690.8	31.42	0.013	5.717	0.482	0.475
0.2887	0.68883	0.99618	0.32232	22600.0	30.07	0.013	5.807	0.616	0.607
0.3729	0.88972	1.00256	0.33841	32221.3	27.36	0.013	5.836	0.879	0.866
0.4026	0.96059	1.00119	0.33996	34664.4	26.52	0.012	5.888	0.945	0.932
0.4191	1.00000	1.00000	0.33975	35348.7	26.08	0.012	5.973	1.007	0.950
0.4571	1.09062	0.99610	0.33635	36972.2	25.13	0.011	5.888	1.007	0.992
0.5399	1.28818	0.99215	0.31917	37209.2	23.03	0.011	5.973	1.015	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIE TTD  
 8. 7. 22. 306. 37. 34.50 35685.50 1269.00 496.88 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD
0.		496.88	496.88	0.	0.3916
0.0100	1.97	990.57	557.98	2279.7	0.7806
0.0247	3.25	1085.21	548.97	2974.1	0.8552
0.0423	3.48	1217.51	356.02	3217.1	0.9594
0.0609	3.70	1256.02	335.78	3325.0	0.9898
0.0762	3.81	1268.46	324.59	3367.4	0.9996
0.0922	3.94	1277.80	310.83	3408.5	1.0070
0.1243	4.19	1293.83	286.49	3478.8	1.0196
0.1676	4.50	1309.75	259.42	3552.3	1.0321
0.2085	4.81	1318.07	233.94	3609.0	1.0387
0.2507	5.14	1322.25	210.66	3654.4	1.0420
0.2935	5.40	1318.05	192.53	3670.7	1.0355
0.3352	5.55	1303.25	182.07	3670.1	1.0270
0.4186	5.64	1272.91	172.98	3635.1	1.0031

DELTA STAR M RSR RS DELTA RTMETHA R RTMETHA C RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3131 0.0407 3.02 356347. 14804073. 789. 3279. 522.98 0.286 0.43174 0.43174 3.721

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(1), THETA STAR(2), THETA(M), H(M), MIEI, PTIMAX,  
 -0.0061 -0.078 0.1164 0.0810 0.00195 0.01152 0.00812 9.97 5.48 36498.8

Y	Y/DELTA	U/(UDELTA)	RMD * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.				64.7	64.70			0.002	0.002
0.0100	0.03194	0.62086	0.15388	481.9	64.64	0.023	5.012	0.014	0.013
0.0247	0.07875	0.80997	0.31613	3376.3	63.66	0.023	5.025	0.095	0.093
0.0423	0.13515	0.87617	0.33148	4656.4	62.96	0.023	5.034	0.130	0.128
0.0609	0.19452	0.90554	0.35460	6221.2	61.46	0.022	5.055	0.174	0.170
0.0762	0.24341	0.91710	0.36568	7137.1	60.49	0.022	5.069	0.200	0.196
0.0922	0.29441	0.92829	0.37622	8296.0	58.88	0.022	5.092	0.232	0.227
0.1243	0.40334	0.94743	0.39143	10829.3	55.32	0.021	5.147	0.303	0.297
0.1676	0.53523	0.96744	0.40775	14778.8	51.11	0.020	5.216	0.414	0.405
0.2085	0.66585	0.98288	0.42339	19997.9	47.10	0.018	5.289	0.560	0.548
0.2507	0.80062	0.99525	0.43621	26736.4	43.16	0.017	5.367	0.749	0.733
0.2935	0.93730	0.99969	0.44199	33050.1	39.79	0.016	5.440	0.926	0.906
0.3131	1.00000	1.00000	0.44022	34673.8	38.50				0.950
0.3352	1.07047	0.99954	0.43687	36498.8	37.20	0.016	5.502	1.023	1.000
0.4186	1.33681	0.99001	0.41117	36295.2	33.58	0.015	5.596	1.017	0.994

HYPERSONIC BOUNDARY LAYER AFDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF TIC TH GEN. CYL.  
 8. 7. 22. 306. 36. 36.00 35685.50 1249.00 502.18 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	T/TAT0
0.		502.18	502.18	0.	0.3957
0.0100	2.10	1144.89	609.21	2536.8	0.9022
0.0273	3.03	1242.73	437.69	3109.9	0.9773
0.0442	3.07	1281.73	443.91	3172.6	1.0100
0.0602	3.19	1239.10	425.56	3220.9	1.0158
0.0784	3.29	1294.05	392.36	3291.3	1.0197
0.0943	3.64	1294.65	354.40	3361.0	1.0202
0.1105	4.03	1294.89	305.13	3448.3	1.0204
0.1366	4.58	1294.97	248.95	3545.0	1.0205
0.1602	4.76	1298.68	233.27	3560.8	1.0155
0.2019	4.98	1285.30	215.68	3584.7	1.0129
0.2436	5.09	1279.07	206.82	3589.1	1.0079

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECDV. FACT. TOT. PRESS. RECOV. CT  
 0.1354 -0.0017 -0.14 1236493. 24567716. 2559. 4703. 546.78 0.247 0.39837 2.732

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA PRIME, THETA(2), THETA(1), MIE), PTIMAX,  
 -0.0007 -0.069 0.0669 0.0379 0.00301 0.00894 0.00524 7.23 4.57 37775.4

Y	Y/DELTA	U/U(DELTA)	RHO * U	PTI	PI,	THETA U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.				265.0	264.94			0.007	0.007
0.0100	0.07388	0.71616	0.64216	2409.1	2408.67	0.058	3.916	0.067	0.064
0.0273	0.20147	0.87796	1.05104	9792.2	251.67	0.057	3.947	0.274	0.259
0.0442	0.32626	0.89565	1.01523	9971.9	243.79	0.055	3.977	0.279	0.264
0.0602	0.44513	0.90930	1.01670	11153.5	230.54	0.053	4.019	0.313	0.295
0.0784	0.57952	0.92916	1.03602	13810.2	211.97	0.050	4.082	0.387	0.366
0.0943	0.69655	0.94892	1.03201	17401.2	185.77	0.046	4.179	0.488	0.461
0.1105	0.81638	0.97348	1.01173	24190.8	153.65	0.040	4.330	0.678	0.640
0.1354	1.00000	1.00000	0.94682	35886.6	115.05				0.950
0.1566	1.00921	1.00077	0.94267	36473.7	113.62	0.033	4.570	1.022	0.966
0.1602	1.18357	1.00525	0.84786	37775.4	95.73	0.029	4.714	1.059	1.000
0.2019	1.49165	1.01199	0.70562	37642.5	72.86	0.024	4.939	1.055	0.996
0.2436	1.79973	1.01324	0.60279	35067.0	59.22	0.021	5.111	0.983	0.928

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH 8. 7. 22. 306. 78. 0. 33563.23 1318.00 591.02  
 GEN. CYL. 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	YI/YTO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	591.02	591.02	0.	0.4484	0.	0.	0.	0.	533.32	0.401	0.25257	5.657
0.0100	1.22	864.25	667.14	1538.8	0.6557	109570.	2690043.	0.	1990.				
0.0252	1.11	998.43	799.70	1545.2	0.7575								
0.0416	1.11	1056.18	848.53	1579.5	0.8014								
0.0584	1.26	1087.65	825.74	1773.8	0.8252								
0.0770	1.92	1127.39	647.56	2400.9	0.8554								
0.0923	2.75	1158.55	461.81	2893.2	0.8790								
0.1344	3.42	1193.07	357.14	3169.0	0.9052								
0.1749	3.78	1213.64	314.65	3286.4	0.9208								
0.2174	3.97	1222.65	294.82	3338.7	0.9277								
0.2601	4.16	1234.76	276.47	3393.0	0.9368								
0.3009	4.44	1247.19	251.89	3457.9	0.9463								
0.3448	4.71	1260.29	232.07	3514.7	0.9562								
0.3859	4.99	1274.31	212.79	3571.1	0.9669								
0.4696	5.48	1303.60	186.28	3663.8	0.9891								
0.5527	6.03	1324.82	160.35	3740.3	1.0052								
0.6392	6.51	1338.93	141.41	3793.0	1.0159								
0.7649	7.07	1334.12	121.42	3816.9	1.0122								
0.8895	7.57	1307.20	104.93	3800.5	0.9918								
0.9889	7.64	1298.36	102.48	3790.4	0.9851								
1.0950	7.64	1294.02	102.14	3784.1	0.9818								
1.2260	7.62	1292.98	102.52	3781.8	0.9810								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.9020	0.5023	26.11	109570.	2690043.	0.	1990.	533.32	0.401	0.25257	5.657			
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	DELTA STAR(1),	DELTA STAR(2),	DELTA STAR(1),	DELTA STAR(2),	DELTA STAR(1),	DELTA STAR(2),	DELTA STAR(1),	DELTA STAR(2),	DELTA STAR(1),	DELTA STAR(2),
0.0119	-0.011	0.5135	0.5086	0.5086	0.00011	0.01912	0.01894	26.85	7.59	33689.5			
Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHC U	PRIME,	M	PRIME	PTI/PTE,	PTI/PTIMAX		
0.	0.	0.	0.	4.7	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.0100	0.01109	0.40505	0.00625	11.5	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.0252	0.02794	0.40672	0.00524	10.1	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.0416	0.04611	0.41575	0.00505	10.0	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.0584	0.06471	0.44691	0.00583	12.2	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.0770	0.08534	0.63198	0.01005	32.4	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.0923	0.10235	0.76155	0.01699	116.4	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.1344	0.14900	0.83415	0.02406	317.1	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.1749	0.19390	0.86504	0.02832	524.5	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.2174	0.24102	0.87881	0.03071	676.0	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.2601	0.28835	0.89312	0.03328	876.2	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.3009	0.33359	0.91020	0.03723	1257.0	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.3448	0.38225	0.92513	0.04107	1737.0	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.3859	0.42782	0.94000	0.04551	2446.2	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.4696	0.52061	0.96438	0.05333	4219.4	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.5527	0.61274	0.98452	0.06325	7545.0	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.6392	0.70863	0.99840	0.07274	12157.2	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.7649	0.84799	1.00470	0.08524	20462.3	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.8895	0.98612	1.00037	0.09822	31762.4	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.9020	1.00000	1.00000	0.09889	32005.1	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	
0.9889	1.09632	0.99771	0.10030	33689.5	4.65	0.004	0.000	0.000	0.000	0.000	0.000	0.000	

---

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI.	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
1.0950	1.21395	0.99604	0.10047	33689.5	4.65	0.004	7.578	1.004	1.000
1.2260	1.35918	0.99545	0.10003	33156.0	4.65	0.004	7.578	0.988	0.984

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN K PTF TTG  
 8. 7. 22. 306. 7. 18.75 34391.52 1264.00 591.02 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTG
0.0100	0.99	591.02	591.02	0.	0.4676
0.0318	1.89	662.79	554.61	1140.0	0.5244
0.0745	3.57	790.25	460.71	1989.7	0.6252
0.1164	5.22	1093.99	308.32	3072.3	0.8655
0.1573	6.95	1244.82	301.73	3366.0	0.9848
0.2011	8.21	1162.67	255.96	3300.5	0.9198
0.2841	10.46	1182.84	237.19	3370.6	0.9358
0.3259	12.70	1236.66	204.66	3491.3	0.9646
0.3954	15.71	1263.37	168.04	3627.5	0.9784
0.4509	18.75	1281.35	157.39	3674.6	0.9995
0.5346	22.30	1300.88	141.11	3732.7	1.0137
0.6106	26.00	1307.64	130.14	3761.2	1.0292
0.7035	30.00	1300.69	122.07	3762.9	1.0345
0.7868	34.39	1299.81	118.09	3751.9	1.0290
0.8708	39.17	1279.17	116.36	3737.6	1.0204
0.9459	44.58	1276.11	116.97	3731.7	1.0120
					1.0096

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.7807 0.2811 12.70 339448. 5846012. 168. 2891. 537.75 0.412 0.34208 4.055

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(W), THETA STAR(1), THETA STAR(2), THETA(M), THETA(W), M(1), M(2), PTIMAX, M(1), PTIMAX, M(2)  
 0.0010 -0.028 0.3090 0.2935 0.00032 0.02181 0.02075 14.15 7.00 34764.5

Y	Y/DELTA	U/(DELTA)	RHO	U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	0.	8.6	8.59	0.006	6.920	0.000	0.000
0.0100	0.01350	0.30333	0.01028	16.0	16.0	8.58	0.006	6.920	0.000	0.000
0.0318	0.04288	0.52941	0.02160	56.7	56.7	8.58	0.006	6.920	0.002	0.002
0.0745	0.10056	0.81744	0.04975	721.0	721.0	8.57	0.006	6.922	0.021	0.021
0.1164	0.15714	0.89560	0.05560	1220.0	1220.0	8.55	0.006	6.924	0.035	0.035
0.1573	0.21235	0.87816	0.06416	1705.8	1705.8	8.54	0.006	6.925	0.050	0.049
0.2011	0.27148	0.89681	0.07058	2360.8	2360.8	8.52	0.006	6.927	0.069	0.068
0.2841	0.38353	0.92894	0.08416	4370.2	4370.2	8.47	0.006	6.935	0.127	0.126
0.3259	0.43996	0.94262	0.09059	5718.7	5718.7	8.42	0.006	6.940	0.166	0.164
0.3954	0.53379	0.96519	0.10523	9749.0	9749.0	8.37	0.006	6.948	0.283	0.280
0.4509	0.60871	0.97772	0.11322	12813.7	12813.7	8.32	0.006	6.953	0.373	0.369
0.5346	0.72170	0.99317	0.12695	19594.4	19594.4	8.24	0.006	6.965	0.570	0.564
0.6106	0.83510	1.00074	0.13749	26256.7	26256.7	8.16	0.006	6.974	0.763	0.755
0.7035	0.94972	1.00121	0.14510	31899.3	31899.3	8.08	0.006	6.986	0.928	0.918
0.7807	1.00000	1.00000	0.14676	33026.2	33026.2	8.04	0.006	6.998	0.950	0.950
0.7868	1.06217	0.99828	0.14795	34419.6	34419.6	7.99	0.006	7.012	1.001	0.990
0.8708	1.17557	0.99447	0.14770	34764.5	34764.5	7.89	0.006	7.018	1.011	1.000
0.9459	1.27696	0.99290	0.14588	33655.6	33655.6	7.85	0.005	7.012	0.979	0.968

HYPersonic BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF TT0 PTE TW GEN. CYL.  
 8. 7. 22. 306. 8. 29.00 34208.64 1260.00 584.66 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	584.66	584.66	0.	0.	0.4640
0.0100	667.78	488.05	1469.4	0.5300	0.5300
0.0665	1074.06	299.45	3050.6	0.8524	0.8524
0.1128	1177.31	273.76	3294.7	0.9344	0.9344
0.1505	1211.72	257.74	3385.4	0.9617	0.9617
0.2344	1250.26	227.03	3506.1	0.9923	0.9923
0.3171	1277.52	201.06	3596.2	1.0139	1.0139
0.4009	1300.23	179.53	3669.3	1.0319	1.0319
0.4852	1310.05	162.63	3712.0	1.0397	1.0397
0.5692	1306.39	150.42	3726.6	1.0368	1.0368
0.6525	1292.70	142.94	3716.6	1.0259	1.0259
0.7381	1284.99	139.64	3709.4	1.0198	1.0198
0.8204	1281.83	138.33	3706.4	1.0173	1.0173

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.6209 0.1621 7.44 498377. 9268075. 355. 3664. 544.64 0.394 0.39722 4.082

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA PRIME, THETA(2), THETA(1), H(W), M(E), PTIMAX,  
 -0.0014 -0.064 0.2260 0.1955 0.00107 0.02072 0.01799 10.87 6.50 34716.1

Y	Y/DELTA	U/UI(DELTA)	RHO * U	PTI	PI.	RHO U PRIME	H PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	19.1	19.08	0.001	0.001	0.001	0.001
0.0100	0.01611	0.39500	0.03345	57.1	19.07	0.010	6.090	0.002	0.002
0.0665	0.10709	0.82004	0.11257	1657.4	18.96	0.010	6.095	0.048	0.048
0.1128	0.18168	0.88566	0.13188	3101.9	18.81	0.010	6.103	0.091	0.089
0.1505	0.24240	0.91005	0.14294	4208.0	18.68	0.010	6.110	0.123	0.121
0.2344	0.37753	0.94250	0.16469	7173.4	18.30	0.010	6.130	0.210	0.207
0.3171	0.51073	0.96670	0.18594	11536.6	17.84	0.010	6.155	0.337	0.332
0.4009	0.64570	0.98637	0.20561	17650.8	17.27	0.010	6.188	0.516	0.508
0.4852	0.78148	0.99806	0.22201	24759.9	16.69	0.009	6.222	0.724	0.713
0.5692	0.91677	1.00177	0.23156	30969.4	16.04	0.009	6.262	0.905	0.892
0.6209	1.00000	1.00000	0.23326	32980.3	15.63	0.009	6.305	1.000	0.985
0.6525	1.05094	0.99907	0.23300	34211.0	15.38	0.009	6.351	1.015	1.000
0.7381	1.18881	0.99715	0.22733	34716.1	14.69	0.008	6.400	0.992	0.977
0.8204	1.32136	0.99635	0.21874	33934.4	14.01	0.008	6.400	0.992	0.977

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TTT GEN. CYL. TM  
 8. 7. 22. 306. 47. 33.00 33563.23 1269.00 578.31 26.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTIC	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	578.31	578.31	0.	0.4557	377.	2430.	553.58	0.371	0.41376	0.41376	3.572	
0.0101	1.44	940.28	665.68	1816.3	0.7410								
0.0189	2.97	1054.96	581.33	2844.8	0.8313								
0.0277	3.40	1125.41	339.62	3072.5	0.8865								
0.0363	3.53	1167.79	334.69	3163.7	0.9202								
0.0454	3.63	1204.91	331.68	3239.0	0.9495								
0.0420	3.81	1233.32	315.83	3320.0	0.9719								
0.0814	3.96	1256.42	303.87	3382.9	0.9901								
0.0985	4.10	1268.78	290.44	3428.4	0.9998								
0.1121	4.20	1275.96	282.20	3455.3	1.0055								
0.1290	4.27	1284.39	276.09	3480.5	1.0121								
0.1571	4.43	1295.72	263.03	3522.3	1.0211								
0.1807	4.54	1302.98	254.73	3548.7	1.0268								
0.2048	4.65	1310.31	246.41	3575.1	1.0326								
0.2469	4.87	1322.76	230.11	3623.1	1.0424								
0.2892	5.12	1328.73	213.07	3661.1	1.0471								
0.3307	5.43	1325.67	191.98	3690.5	1.0447								
0.3726	5.63	1317.33	179.29	3697.6	1.0381								
0.4146	5.78	1307.09	170.34	3695.5	1.0300								
0.4589	5.85	1292.87	164.68	3681.6	1.0188								
0.5073	5.87	1278.79	162.09	3662.8	1.0077								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT			
0.4085	0.0753	6.29	1866633.	12024679.	377.	2430.	553.58	0.371	0.41376	0.41376	3.572		
PHI,	DELTA STAR PRIME,	DELTA STAR(21),	DELTA STAR(1),	DELTA STAR(1),	DELTA STAR(2),	THETA(1),	THETA(2),	THETA(1),	THETA(2),	THETA(1),	THETA(2),	PTIMAX,	
-0.0143	-0.073	0.1483	0.1155	0.00161	0.01035	0.00813	14.20	5.76	34457.2				
Y	Y/DELTA	U/(DELTA) RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX					
0.	0.	0.	38.2	38.22	0.017	5.426	0.001	0.001					
0.0101	0.02480	0.49136	127.9	38.17	0.017	5.426	0.004	0.004					
0.0189	0.04629	0.76959	1343.4	38.15	0.017	5.426	0.040	0.039					
0.0277	0.06778	0.83120	2519.1	38.03	0.017	5.429	0.075	0.073					
0.0363	0.08898	0.85586	3014.0	37.99	0.017	5.430	0.090	0.087					
0.0454	0.11111	0.87623	3460.7	37.87	0.017	5.433	0.103	0.100					
0.0620	0.15186	0.89816	4429.6	37.84	0.016	5.438	0.132	0.129					
0.0814	0.19935	0.91516	5387.0	37.34	0.016	5.446	0.160	0.156					
0.0985	0.24106	0.92747	6446.1	36.99	0.016	5.454	0.192	0.187					
0.1121	0.27440	0.93475	7217.6	36.79	0.016	5.461	0.215	0.209					
0.1290	0.31577	0.94156	7877.2	36.27	0.016	5.472	0.235	0.229					
0.1571	0.38455	0.95288	9429.4	35.54	0.016	5.491	0.281	0.274					
0.1807	0.44232	0.96003	10574.6	34.93	0.016	5.507	0.315	0.307					
0.2048	0.50151	0.96717	11858.8	34.20	0.015	5.526	0.353	0.344					
0.2469	0.60436	0.98015	14912.0	32.75	0.015	5.566	0.444	0.433					
0.2892	0.70790	0.99042	18990.0	31.19	0.014	5.611	0.563	0.548					
0.3307	0.80949	0.99839	25564.7	29.55	0.014	5.661	0.762	0.742					
0.3726	0.91205	1.00030	29989.1	27.89	0.013	5.716	0.894	0.870					
0.4085	1.00000	1.00000	32734.4	26.70	0.013	5.763	0.989	0.950					
0.4146	1.01486	0.99974	33198.1	26.52	0.013	5.804	1.027	0.963					
0.4589	1.12329	0.99596	34457.2	25.42	0.012	5.834	1.011	0.985					
0.5073	1.24177	0.99088	33942.7	24.61	0.012								

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TFST RUN X PIF TTC YW GEN. CYL.  
 8. 7. 22. 306. 48. 34.50 33563.23 1116.00 575.76 26.00

Y	MACH	TOT-TEMP.	STAT-TEMP.	VELOCITY	YT/TTC
0.	0.	575.76	575.76	0.	0.4375
0.0100	1.76	963.54	594.20	2106.5	0.7322
0.0184	2.81	1073.94	416.28	2810.9	0.8161
0.0269	3.25	1114.87	358.63	3014.2	0.8472
0.0361	3.37	1198.96	366.00	3163.4	0.9111
0.0564	3.61	1261.45	349.42	3310.1	0.9585
0.0733	3.78	1277.73	331.82	3371.0	0.9709
0.0901	3.88	1285.95	320.27	3406.1	0.9772
0.1063	3.97	1293.23	311.52	3434.3	0.9827
0.1234	4.07	1300.61	301.60	3464.4	0.9883
0.1407	4.17	1306.93	292.28	3491.4	0.9931
0.1645	4.31	1315.52	279.32	3528.3	0.9996
0.2070	4.61	1325.09	252.02	3590.5	1.0069
0.2484	4.93	1328.66	226.46	3638.9	1.0096
0.2895	5.28	1323.11	201.53	3670.8	1.0054
0.3338	5.46	1311.43	188.32	3673.3	0.9965
0.3769	5.52	1295.61	182.49	3656.9	0.9845

DELTA DELTA STAR H RSR RS DELTA RTHETA R KTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.3202 0.0375 2.69 3113736. 14084691. 715. 3236. 560.59 0.342 0.42530 5.255

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STARIM 1, THETA STARIM 1, THETA PRIME, THETA(2), THETA(W), H(W), M(E), PTIMAX,  
 0.0075 -0.090 0.1278 0.0886 0.00244 0.01153 0.00811 10.93 5.42 33791.2

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	63.8	63.85	0.024	4.957	0.002	0.002
0.0100	0.03123	0.57303	0.13177	346.4	63.79	0.024	4.961	0.010	0.010
0.0184	0.05743	0.74465	0.24996	1752.2	63.53	0.024	4.963	0.052	0.052
0.0269	0.08403	0.81996	0.31021	3355.4	63.35	0.024	4.967	0.100	0.099
0.0361	0.11267	0.86055	0.31771	4014.2	63.09	0.024	4.976	0.120	0.119
0.0564	0.17612	0.90047	0.34432	5576.3	62.38	0.024	4.976	0.166	0.165
0.0733	0.22892	0.91704	0.36474	6903.5	61.62	0.023	4.987	0.206	0.204
0.0901	0.28132	0.92658	0.37585	7867.4	60.65	0.023	5.000	0.234	0.233
0.1063	0.33194	0.93424	0.38349	8702.9	59.70	0.023	5.014	0.259	0.258
0.1234	0.38534	0.94243	0.39062	9719.7	58.76	0.023	5.033	0.290	0.288
0.1407	0.43936	0.94978	0.39729	10791.2	57.88	0.022	5.052	0.322	0.319
0.1645	0.51368	0.95981	0.40411	12448.0	54.91	0.022	5.086	0.371	0.368
0.2070	0.64640	0.97673	0.41873	16811.6	50.43	0.020	5.160	0.501	0.498
0.2484	0.77569	0.98991	0.42738	22330.4	45.65	0.019	5.248	0.661	0.665
0.2895	0.90402	0.99852	0.43036	29403.9	40.55	0.018	5.354	0.876	0.870
0.3202	1.00000	1.00000	0.42732	32101.7	38.08	0.017	5.428	0.992	0.950
0.3338	1.04235	0.99925	0.42454	33292.1	37.35	0.016	5.476	0.985	0.985
0.3769	1.17694	0.99480	0.41378	33791.2	35.44	0.016	5.476	1.007	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH MO. DAY TEST RUN X PTE VTO TH GEN. CYL.  
 8. 7. 22. 306. 45. 36.00 33563.23 1270.00 570.68 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/ATTO
0.	0.	570.68	570.68	0.	0.4494
0.0100	2.10	1132.99	402.98	2523.4	0.8921
0.0251	2.94	1250.17	458.43	3084.1	0.9844
0.0395	3.11	1291.12	439.76	3198.1	1.0166
0.0571	3.33	1299.56	403.88	3280.3	1.0233
0.0751	3.59	1303.10	364.56	3357.9	1.0261
0.0901	3.84	1302.43	329.89	3418.2	1.0255
0.1079	4.12	1298.85	295.99	3471.0	1.0227
0.1409	4.53	1296.85	254.05	3539.2	1.0210
0.1825	4.75	1288.06	233.98	3558.6	1.0142
0.2668	5.20	1277.60	199.07	3599.6	1.0060

DELTA DELTA STAR H RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.1343 0.0026 0.27 11643410. 23538988. 1808. 3656. 581.90 0.307 0.46620 2.362

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(2), THETA(2), THETA(M), H(M), M(E), PTIMAX,  
 -0.0018 -0.054 0.0564 0.0332 0.00239 0.00731 0.00444 7.47 4.46 34172.9

Y	V/DELTA	U/(DELTA)	RHO	U	PRIME	M	PRIME	PTI/PRIME	PTI/PTIMAX
0.	0.	0.07445	0.	258.5	258.48	0.061	3.860	0.008	0.008
0.0100	0.18666	0.87386	0.62957	2347.9	258.19	0.059	3.898	0.070	0.069
0.0395	0.29402	0.90617	0.96072	8208.5	245.09	0.057	3.945	0.245	0.240
0.0571	0.42484	0.92946	0.97507	9978.2	230.11	0.053	4.020	0.292	0.292
0.0751	0.55945	0.95143	0.98472	12434.6	208.08	0.049	4.113	0.370	0.364
0.0901	0.67076	0.96852	0.99109	15889.1	184.03	0.045	4.201	0.473	0.465
0.1079	0.80336	0.98350	0.98885	20073.9	164.16	0.042	4.299	0.598	0.587
0.1343	1.00000	1.00000	0.94063	25815.8	144.72	0.035	4.489	0.763	0.750
0.1409	1.04906	1.00280	0.92342	32464.2	119.28	0.029	4.711	1.018	1.000
0.1825	1.35879	1.00830	0.76692	34172.9	113.76	0.029	5.171	1.009	0.991
0.2668	1.98644	1.01993	0.53100	33750.2	86.54	0.020	5.171	1.006	0.988

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL R COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X TIC T/W GEN. CYL.  
 8. 7. 22. 306. 68. 0. 33287.04 1259.00 241.05 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	841.05	841.05	0.	0.6680
0.0099	0.94	901.25	765.37	1277.7	0.7158
0.0273	0.95	958.07	812.27	1323.5	0.7610
0.0437	0.97	992.98	836.32	1371.9	0.7887
0.0598	1.05	1036.19	869.54	2098.8	0.8230
0.0767	2.38	1080.94	505.80	2628.6	0.8586
0.0943	2.95	1117.50	407.15	2921.3	0.8876
0.1364	3.81	1154.40	296.25	3210.9	0.9169
0.1789	4.12	1171.69	266.66	3297.4	0.9306
0.2196	4.38	1181.84	244.27	3356.1	0.9387
0.2621	4.67	1193.98	222.85	3415.7	0.9484
0.3035	4.95	1203.67	203.88	3465.7	0.9561
0.3621	5.30	1220.81	184.59	3528.3	0.9697
0.4219	5.65	1237.65	167.81	3585.1	0.9830
0.4809	6.01	1255.32	152.52	3639.9	0.9971
0.5299	6.32	1266.24	141.05	3676.7	1.0058
0.5869	6.71	1279.12	128.00	3718.8	1.0160
0.6478	7.01	1287.53	118.85	3747.0	1.0227
0.7061	7.27	1288.28	111.41	3760.1	1.0235
0.7653	7.37	1280.54	108.07	3753.1	1.0171
0.8245	7.65	1264.83	99.64	3741.4	1.0046
0.8824	7.85	1247.01	93.54	3727.6	0.9905
0.9418	7.85	1235.06	92.61	3704.8	0.9810
1.0010	7.88	1225.23	91.27	3691.0	0.9732

DELTA	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.8727	0.4601	29.46	73854.	3024201.	44.	1816.	632.61	0.641	0.26601	3.057
PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	THETA STAR(1),	THETA STAR(2),	THETA STAR(1),	THETA STAR(2),	H(M),	M(2),	PTIMAX.
0.0085	-0.002	0.4619	0.4612	0.4612	0.00002	0.01560	0.01557	29.61	7.82	38253.7

Y	Y/DELTA	U/U(DELTA)	RHO = U	PTI	PI,	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	4.3	4.32	0.000	0.000	0.000	0.000
0.0099	0.01131	0.34288	0.00420	7.6	4.32	0.003	7.820	0.000	0.000
0.0273	0.03128	0.35518	0.00410	7.7	4.32	0.003	7.820	0.000	0.000
0.0437	0.05007	0.36816	0.00412	7.9	4.32	0.003	7.820	0.000	0.000
0.0598	0.06854	0.56323	0.00788	19.9	4.32	0.003	7.820	0.001	0.001
0.0767	0.08792	0.70543	0.01307	61.6	4.32	0.003	7.820	0.002	0.002
0.0943	0.10804	0.78398	0.01804	147.8	4.32	0.004	7.820	0.004	0.004
0.1364	0.15631	0.86168	0.02725	504.0	4.32	0.003	7.820	0.015	0.013
0.1789	0.20501	0.88491	0.03109	767.4	4.32	0.003	7.820	0.023	0.020
0.2196	0.25165	0.90067	0.03455	1075.0	4.32	0.003	7.820	0.032	0.028
0.2621	0.30035	0.91665	0.03854	1536.2	4.32	0.003	7.820	0.046	0.040
0.3035	0.34779	0.93009	0.04275	2158.0	4.32	0.003	7.820	0.065	0.056
0.3621	0.41494	0.94688	0.04806	3210.5	4.32	0.003	7.820	0.096	0.084
0.4219	0.48347	0.96212	0.05372	4702.5	4.32	0.003	7.820	0.141	0.123
0.4809	0.55108	0.97682	0.06001	6904.0	4.32	0.003	7.820	0.207	0.180
0.5299	0.60723	0.98669	0.06555	9355.1	4.32	0.003	7.820	0.281	0.245
0.5849	0.67484	0.99799	0.07306	13614.5	4.32	0.003	7.820	0.409	0.356
0.6478	0.74233	1.00557	0.07928	18056.8	4.32	0.003	7.820	0.542	0.472

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/Delta	U/(Delta)	RHO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.7061	0.80914	1.00909	0.08487	22692.5	0.32	0.003	7.820	0.682	0.593
0.7653	0.87698	1.00720	0.08732	24711.3	0.32	0.003	7.820	0.742	0.646
0.8245	0.94482	1.00407	0.09442	31447.7	0.32	0.003	7.820	0.945	0.822
0.8727	1.00000	1.00000	0.09921	36341.1	0.32	0.003	7.820	1.122	0.950
0.8824	1.01117	0.99901	0.10007	37331.7	0.32	0.003	7.820	1.123	0.977
0.9418	1.07924	0.99423	0.10059	37382.4	0.32	0.003	7.820	1.149	1.000
1.0010	1.14708	0.99052	0.10169	38253.7	0.32	0.003	7.820		

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH 8. 7. 22. 306. 67. 18.75 33287.04 1273.00 841.05 26.00  
 TFO PTE TW GEN. CYL.

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TT0
0.	0.	841.05	841.05	0.	0.6607
0.0100	0.66	863.75	794.00	915.4	0.6785
0.0253	0.72	895.01	809.88	1011.3	0.7031
0.0421	0.77	928.19	828.66	1093.5	0.7291
0.0598	0.80	963.10	852.60	1152.2	0.7566
0.0758	1.48	1011.02	703.80	1921.1	0.7942
0.0935	2.64	1090.29	455.07	2762.5	0.8565
0.1094	3.29	1149.05	362.74	3073.5	0.9026
0.1518	3.95	1192.46	289.93	3292.8	0.9367
0.1913	4.21	1213.04	267.38	3370.6	0.9529
0.2361	4.44	1232.21	249.48	3436.0	0.9680
0.2769	4.62	1246.76	236.52	3483.8	0.9794
0.3372	4.92	1266.81	217.12	3551.2	0.9951
0.3960	5.24	1286.64	198.25	3616.0	1.0107
0.4530	5.67	1307.18	176.13	3686.2	1.0269
0.5124	5.99	1322.13	161.74	3733.7	1.0386
0.5728	6.22	1330.60	152.46	3762.2	1.0452
0.6282	6.46	1331.39	142.49	3779.3	1.0459
0.6917	6.70	1324.47	132.74	3783.8	1.0404
0.7485	6.88	1313.40	125.53	3777.7	1.0317
0.8101	7.01	1299.24	119.91	3764.1	1.0206
0.8658	7.10	1283.07	115.73	3744.9	1.0079
0.9138	7.15	1273.44	113.52	3733.0	1.0003
0.9579	7.14	1270.24	113.50	3727.9	0.9978

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.8443 0.3303 18.84 244418. 5501584. 96. 2155. 648.12 0.626 0.32980 2.786

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), M(E), PTIMAX,  
 -0.0307 -0.078 0.4083 0.3607 0.00083 0.01670 0.01479 24.39 7.07 33410.1

Y	V/DELTA	U/(DELTA)	RHO * U	PTI	PI.	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	8.6	8.59	0.000	0.000	0.000	0.000
0.0100	0.01184	0.24390	0.00577	11.5	8.59	0.006	6.876	0.000	0.000
0.0253	0.03001	0.26947	0.00625	12.2	8.59	0.006	6.876	0.000	0.000
0.0421	0.04987	0.29137	0.00660	12.8	8.59	0.006	6.876	0.000	0.000
0.0598	0.07084	0.30699	0.00676	13.1	8.58	0.006	6.877	0.000	0.000
0.0758	0.08976	0.31189	0.01363	30.5	8.57	0.006	6.878	0.001	0.001
0.0935	0.11073	0.73606	0.03025	182.1	8.55	0.006	6.880	0.005	0.005
0.1094	0.12957	0.81894	0.04219	483.4	8.54	0.006	6.881	0.015	0.014
0.1518	0.17979	0.67738	0.05632	1700.8	8.51	0.006	6.886	0.036	0.036
0.1913	0.22657	0.69809	0.04232	1687.4	8.48	0.006	6.889	0.051	0.051
0.2361	0.27963	0.91553	0.04761	2256.1	8.43	0.006	6.897	0.068	0.068
0.2769	0.32795	0.92825	0.07186	2815.7	8.37	0.006	6.903	0.084	0.084
0.3372	0.39937	0.94621	0.07889	3971.6	8.28	0.006	6.916	0.119	0.119
0.3960	0.46901	0.96349	0.08680	5688.0	8.17	0.006	6.931	0.171	0.170
0.4530	0.53652	0.98219	0.09833	8979.8	8.06	0.006	6.945	0.270	0.269
0.5124	0.60687	0.99485	0.10675	12394.7	7.94	0.006	6.962	0.372	0.371
0.5728	0.67841	1.00243	0.11237	15348.8	7.81	0.006	6.979	0.461	0.459
0.6282	0.74402	1.00700	0.11879	19166.8	7.69	0.006	6.997	0.576	0.574

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PL	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.6917	0.81923	1.00820	0.12537	23686.1	7.55	0.005	7.017	0.712	0.709
0.7485	0.88650	1.00656	0.13011	27490.9	7.42	0.005	7.036	0.826	0.823
0.8101	0.95946	1.00293	0.13334	30523.8	7.29	0.005	7.056	0.917	0.914
0.8443	1.00000	1.00000	0.13453	31739.6	7.21	0.005	7.075	0.976	0.950
0.8658	1.02543	0.99782	0.13505	32502.3	7.16	0.005	7.090	1.004	0.973
0.9138	1.08228	0.99465	0.13541	33410.1	7.07	0.005	7.092	1.000	1.000
0.9579	1.13451	0.99329	0.13509	33105.0	7.06	0.005	7.092	0.995	0.991

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TFO TTT  
 8. 7. 22. 306. 35. 29.00 34248.96 1271.00 841.05 26.00

Y	MACH	TOI.FEMP.	STAT.TEMP.	VELOCITY	TTATTO	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	841.05	841.05	0.	0.6617	736767.	27207937.	475.	17544.	625.71	0.838	0.51340	3.280
0.0100	0.73	921.13	833.23	1027.6	0.7247								
0.0258	1.69	1067.51	679.54	2158.9	0.8199								
0.0449	3.69	1220.01	327.74	3274.1	0.9599								
0.0593	4.02	1192.82	281.46	3308.9	0.9385								
0.0761	4.19	1222.90	271.39	3381.0	0.9622								
0.0930	4.37	1237.94	257.25	3432.5	0.9740								
0.1235	4.56	1263.61	244.81	3498.5	0.9942								
0.1639	4.79	1290.25	230.65	3567.9	1.0151								
0.2075	5.00	1297.46	215.99	3604.5	1.0208								
0.2488	5.19	1309.96	205.35	3642.9	1.0307								
0.2903	5.37	1319.15	195.20	3674.6	1.0379								
0.3318	5.51	1326.30	187.38	3699.0	1.0435								
0.4162	5.84	1332.76	170.32	3737.0	1.0486								
0.4995	6.08	1333.19	158.96	3755.9	1.0489								
0.5845	6.23	1302.88	148.83	3723.5	1.0251								
0.6682	6.32	1281.55	142.70	3698.9	1.0033								
0.6684	6.29	1279.53	143.41	3694.5	1.0067								
0.7518	6.34	1263.01	139.67	3673.6	0.9937								
0.8346	6.44	1279.56	137.77	3703.7	1.0067								

  

Y	DELTA STAR	H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.6095	0.3202	9.01	736767.	27207937.	475.	17544.	625.71	0.838	0.51340	3.280

  

PHI	DELTA STAR PRIME	DELTA STAR(2)	DELTA STAR(M)	DELTA STAR(M)	THETA PRIME	THETA(2)	THETA(M)	THETA(M)	PTIMAX.
-0.0347	-1.822	2.1423	0.5516	0.0089	0.02665	0.00705	78.19	8.31	34276.9

  

Y	Y/DELTA	U/(DELTA)	RHO	U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.0100	0.01641	0.25072	0.01302	18.1	18.12	18.12	0.010	6.128	0.001	0.001
0.0258	0.04239	0.52673	0.03353	25.7	18.12	18.12	0.010	6.128	0.001	0.001
0.0449	0.07373	0.79880	0.10536	88.0	18.10	18.10	0.010	6.128	0.003	0.003
0.0593	0.09735	0.80730	0.12399	1801.4	18.10	18.10	0.010	6.128	0.053	0.053
0.0761	0.12483	0.82489	0.13108	2836.3	18.06	18.06	0.010	6.131	0.083	0.083
0.0930	0.15252	0.83744	0.14016	3507.3	18.03	18.03	0.010	6.132	0.102	0.102
0.1235	0.20261	0.85356	0.14988	4407.3	18.00	18.00	0.010	6.134	0.129	0.129
0.1639	0.26889	0.87048	0.16146	5623.2	17.91	17.91	0.010	6.139	0.164	0.164
0.2075	0.34042	0.87942	0.17279	7416.7	17.77	17.77	0.010	6.147	0.217	0.216
0.2488	0.40817	0.88878	0.18233	9440.4	17.64	17.64	0.010	6.154	0.276	0.275
0.2903	0.47625	0.89653	0.19207	11565.5	17.51	17.51	0.010	6.161	0.338	0.337
0.3318	0.54434	0.90248	0.19942	14049.7	17.38	17.38	0.010	6.171	0.410	0.410
0.4162	0.62820	0.91175	0.21705	16356.6	16.98	16.98	0.010	6.192	0.477	0.477
0.4995	0.81946	0.91636	0.22798	22756.1	16.56	16.56	0.009	6.217	0.664	0.664
0.5845	0.95890	0.90845	0.23469	28290.7	16.56	16.56	0.009	6.246	0.826	0.825
0.6095	1.00000	1.00000	0.36300	31960.1	16.10	16.10	0.009	6.246	0.932	0.932
0.6682	1.09622	0.90245	0.23640	32563.0	15.87	15.87	0.009	6.274	0.950	0.950
0.6684	1.09655	0.90137	0.23495	33974.7	15.65	15.65	0.009	6.274	0.992	0.991
0.7518	1.2337	0.89628	0.23128	33204.8	15.65	15.65	0.009	6.311	0.970	0.969
0.8346	1.36921	0.90361	0.21991	33560.6	15.09	15.09	0.009	6.311	0.980	0.979
				34276.9	14.04	14.04	0.009	6.384	1.001	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL 8 COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE TT0  
 8. 7. 22. 306. 54. 33.00 34349.76 1270.00 841.05 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TT0
0.	0.	841.05	841.05	0.	0.6622
0.0100	1.46	1068.14	748.08	1960.9	0.8411
0.0253	3.66	1185.63	322.46	3220.3	0.9336
0.0417	5.95	1208.27	293.77	3314.6	0.9514
0.0596	4.16	1262.87	282.60	3431.7	0.9944
0.0767	4.33	1289.81	271.44	3497.8	1.0156
0.0920	4.46	1301.91	261.67	3535.1	1.0251
0.1194	4.61	1314.93	250.32	3576.3	1.0354
0.1596	4.81	1328.64	235.70	3617.0	1.0430
0.2011	4.96	1331.43	224.65	3646.5	1.0484
0.2429	5.19	1337.41	209.69	3680.8	1.0531
0.2846	5.36	1336.92	198.06	3698.9	1.0527
0.3266	5.48	1332.13	190.24	3703.8	1.0489
0.3677	5.62	1321.70	180.61	3702.5	1.0407
0.4517	5.78	1287.81	167.61	3668.5	1.0140
0.5356	5.89	1272.47	160.11	3655.6	1.0019

DELTA DELTA STAR H RSR RS DELTA R THETA R THETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4036 0.0621 10.67 1256703. 12489921. 124. 1228. 672.32 0.608 0.52109 1.988

PHI. DELTA STAR PRIME. DELTA STAR(2). DELTA STAR(M 1). THETA STAR(1). THETA PRIME. THETA(2). THETA(M). H(M). MIE). PTIMAX.  
 -0.0360 -0.047 0.1892 0.1892 0.0926 0.0014 0.00468 0.00399 23.21 5.69 34479.2

Y	Y/DELTA	U/(DELTA) RMD * U	PT1	PI.	RHO U PRIME.	M PRIME	PT1/PTE.	PT1/PTIMAX
0.	0.	0.	36.2	36.23	0.016	0.001	0.001	0.001
0.0100	0.02478	0.53207	0.05533	126.0	0.016	0.004	0.004	0.004
0.0253	0.06271	0.87378	0.20998	3439.6	0.016	0.100	0.100	0.100
0.0417	0.10325	0.89938	0.23677	5091.8	0.016	0.148	0.148	0.147
0.0596	0.14766	0.93116	0.25380	6767.0	0.016	0.197	0.197	0.196
0.0767	0.19015	0.94909	0.26825	8355.9	0.016	0.243	0.242	0.242
0.0920	0.22809	0.95922	0.28009	9775.2	0.016	0.285	0.284	0.284
0.1194	0.29586	0.97040	0.29381	11725.9	0.016	0.341	0.340	0.340
0.1596	0.39547	0.98142	0.30966	14573.8	0.016	0.424	0.423	0.423
0.2011	0.49830	0.98943	0.32141	17224.4	0.015	0.501	0.500	0.500
0.2429	0.60188	0.99874	0.33270	21314.1	0.015	0.621	0.618	0.618
0.2846	0.70520	1.00366	0.34331	25208.4	0.015	0.734	0.731	0.731
0.3266	0.80927	1.00500	0.35268	28247.2	0.014	0.822	0.819	0.819
0.3677	0.91111	1.00465	0.35536	31540.7	0.014	0.915	0.915	0.915
0.4036	1.00000	1.00000	0.35474	32755.2	0.013	1.001	0.997	0.997
0.4517	1.11925	0.99541	0.34874	34304.8	0.012	1.004	0.997	0.997
0.5356	1.32715	0.99192	0.32413	34479.2	0.012	1.004	1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF TTC  
 8. 8. 7. 22. 306. 33. 34.50 34606.08 1769.00 841.05 26.00

Y	MACH	TC1.TEMP.	STAT.TEMP.	VELOCITY	TT/TTC
0.	0.	941.05	841.05	0.	0.6628
0.0100	1.81	1067.83	644.02	2256.4	0.8415
0.0257	3.47	1189.02	348.94	3176.9	0.9370
0.0419	5.74	1251.23	329.15	3328.3	0.9860
0.0595	8.00	1283.83	305.41	3428.5	1.0117
0.0749	10.12	1303.50	296.13	3478.8	1.0272
0.0940	12.04	1313.54	283.53	3517.7	1.0351
0.1091	13.74	1318.69	276.89	3537.8	1.0392
0.1248	15.24	1322.59	267.86	3559.7	1.0422
0.1432	16.62	1328.66	251.89	3596.7	1.0470
0.1632	17.83	1330.66	235.11	3627.9	1.0486
0.1857	18.88	1328.64	219.14	3650.9	1.0470
0.2104	19.69	1323.07	203.63	3667.2	1.0426
0.2334	20.20	1319.52	197.38	3671.7	1.0398
0.2575	20.54	1295.38	186.38	3650.1	1.0208
0.2819	20.74	1275.83	173.66	3638.9	1.0054
0.3066	20.83	1266.92	164.00	3640.1	0.9984
0.3316	20.81	1263.86	151.97	3654.9	0.9959
0.3569	20.68	1263.50	129.44	3691.1	0.9957

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.6803 -0.3576 -15.73 2290873. 12330534. 857. 4611. 650.85 0.623 0.61027 2.294

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), M(W), M(IE), PTIMAX,  
 -0.0640 -0.616 0.2581 0.1032 0.0180 0.00393 0.00162 63.87 6.49 43690.2

Y	Y/DELTA	U/U(DELTA)	RHO * U	PT1	PI,	RHO U PRIME,	M PRIME	PT1/PTE,	PT1/PTIMAX
0.	0.	0.	0.	60.9	60.87	0.019	5.222	0.002	0.001
0.0100	0.01453	0.61272	0.12414	356.9	60.81	0.019	5.229	0.010	0.008
0.0257	0.03734	0.86266	0.31969	4401.6	60.26	0.019	5.238	0.127	0.101
0.0419	0.06092	0.90378	0.35184	6395.5	59.72	0.019	5.249	0.185	0.146
0.0595	0.08440	0.93098	0.38580	8982.7	58.98	0.019	5.260	0.260	0.206
0.0749	0.10884	0.94465	0.39870	10422.0	58.25	0.019	5.276	0.301	0.239
0.0940	0.13660	0.95521	0.41359	12244.6	57.21	0.018	5.290	0.354	0.280
0.1091	0.15851	0.96066	0.41916	13272.5	56.30	0.018	5.305	0.384	0.304
0.1248	0.18132	0.96660	0.42838	14798.0	55.32	0.018	5.345	0.428	0.339
0.1432	0.23711	0.97665	0.44051	17846.1	52.95	0.018	5.393	0.516	0.408
0.1632	0.29886	0.98513	0.45093	21630.4	50.17	0.017	5.449	0.625	0.495
0.1857	0.36380	0.99138	0.45793	25867.7	47.17	0.016	5.497	0.740	0.593
0.2104	0.42003	0.99581	0.46498	31280.8	44.74	0.016	5.497	0.904	0.716
0.2334	0.48439	0.99701	0.45058	32111.7	41.57	0.015	5.434	0.928	0.735
0.2575	0.54120	0.99116	0.44036	34154.9	38.59	0.014	5.634	0.987	0.782
0.2819	0.60382	0.98810	0.40130	35335.6	32.88	0.013	5.785	1.021	0.809
0.3066	0.78688	0.98844	0.34632	34318.9	26.78	0.011	5.982	0.992	0.786
0.3316	0.90631	0.99245	0.28996	34323.2	20.69	0.009	6.237	0.992	0.786
0.3569	1.00000	1.00000	0.25916	41505.7	16.35	0.007	6.565	0.992	0.950
0.3816	1.02850	1.00230	0.24980	43690.2	15.03	0.007	6.565	1.262	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL 8 COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE YTC TM GEN. CYL.  
 8. 7. 22. 306. 32. 36.00 34197.12 1268.00 241.05 26.00

Y	MACH	TOI-TEMP.	STAT-TEMP.	VELOCITY	TT/TT0
0.	0.	841.05	841.05	0.	0.6633
0.0100	2.29	1135.11	554.41	2641.3	0.8952
0.0273	3.20	1284.70	420.93	3221.3	1.0132
0.0435	3.43	1309.35	391.08	3321.4	1.0326
0.0597	3.67	1311.34	355.13	3389.3	1.0342
0.0779	3.95	1310.45	318.37	3452.3	1.0335
0.0940	4.17	1307.48	292.02	3492.8	1.0311
0.1236	4.51	1303.02	257.39	3544.3	1.0276
0.1644	4.63	1293.64	244.85	3549.7	1.0202
0.2064	4.85	1283.89	225.16	3566.4	1.0125
0.2481	5.10	1273.77	205.45	3582.5	1.0086
0.2899	5.37	1273.93	188.32	3611.4	1.0047
0.3322	5.63	1276.82	174.03	3639.9	1.0070

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV-TEMP. RECOV-FACT. TOT-PRESS-RECOV. CT  
 0.1170 0.0070 1.02 7779367. 25166339. 850. 2751. 705.28 0.575 0.49659 1.341

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1), M(1), PTIMAX,  
 -0.0049 -0.033 0.0403 0.0265 0.00145 0.00538 0.00363 7.31 4.44 36879.1

Y	Y/DELTA	U/(U(DELTA)	RHO * U	PT1	PI1	RHC U PRIME, M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	240.8	240.77	0.007	0.007	0.007
0.0100	0.08550	0.74712	0.66826	2956.4	240.74	0.086	0.086	0.081
0.0273	0.23315	0.91120	0.99307	11060.9	222.71	0.323	0.323	0.303
0.0435	0.37191	0.93950	1.00674	13970.2	203.44	0.409	0.409	0.383
0.0597	0.51048	0.95872	1.02418	17818.9	184.18	0.47	0.521	0.488
0.0779	0.66620	0.97654	1.03447	23163.9	163.73	0.677	0.677	0.635
0.0940	0.80385	0.98797	1.04029	28351.0	149.27	0.829	0.829	0.777
0.1170	1.00000	1.00000	1.01653	34655.2	130.16	0.950	0.950	0.950
0.1236	1.05675	1.00254	1.00267	36879.1	124.96	1.067	1.067	1.000
0.1644	1.40558	1.00406	0.82374	33040.6	97.52	0.967	0.967	0.906
0.2064	1.76467	1.00880	0.68880	33040.0	74.64	0.966	0.966	0.906
0.2481	2.12170	1.01336	0.58712	34268.7	57.79	1.003	1.003	0.940
0.2899	2.47858	1.02153	0.48430	34694.9	43.34	1.020	1.020	0.957
0.3322	2.84023	1.02958	0.40203	35287.2	32.99	1.032	1.032	0.967

HYPERSONIC BOUNDARY LAYER AFDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. 03Y TEST RUN X PTE TTC TM  
 8. 7. 22. 306. PH. 0. 35717.76 1716.00 1078.22 26.00

Y	MACH	INT. TEMP.	STAT. TEMP.	VELOCITY	TT/FFL
0.	0.	1078.22	1078.22	0.	0.8197
0.0100	1.72	1115.75	829.42	1857.9	0.8478
0.0300	1.25	1135.46	843.95	1806.4	0.8628
0.0456	1.22	1145.78	892.53	1778.4	0.8707
0.0628	1.22	1155.93	891.97	1780.4	0.8783
0.0791	1.33	1171.38	864.45	1920.3	0.8901
0.0958	1.83	1191.31	713.56	2395.8	0.9033
0.1309	2.75	1220.73	486.23	2970.6	0.9276
0.1712	3.36	1234.84	379.74	3205.2	0.9383
0.2134	3.71	1242.88	331.47	3309.0	0.9444
0.2568	3.87	1248.58	312.99	3352.6	0.9488
0.2968	4.14	1256.09	283.25	3419.7	0.9545
0.3569	4.54	1259.59	245.66	3490.1	0.9571
0.4162	4.88	1266.90	223.16	3574.9	0.9779
0.4748	5.25	1321.03	199.78	3637.3	0.9886
0.5388	5.65	1319.13	179.96	3701.2	1.0024
0.5925	5.97	1330.32	163.60	3743.9	1.0109
0.6506	6.33	1341.29	149.80	3785.0	1.0192
0.7093	6.68	1345.52	135.69	3812.5	1.0224
0.7764	7.00	1343.07	124.31	3826.5	1.0206
0.8258	7.19	1334.15	117.75	3822.8	1.0138
0.8847	7.51	1320.57	107.48	3817.6	1.0035
0.9431	7.62	1311.67	104.11	3808.9	0.9967
1.0020	7.67	1302.88	102.15	3798.1	0.9900
1.0610	7.68	1294.16	101.08	3786.0	0.9834
1.1200	7.70	1286.51	99.95	3775.6	0.9776

DELTA DELTA STAR H PSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECCV. FACT. TOT. PRESS. RECCV. CT  
 0.9753 0.5630 29.66 59404. 2725077. 43. 1990. 752.45 0.804 0.25524 1.004

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THETA STAR, THETA(2), THETA(W 1), M(W 1), PTIMAX, M(E), PTIMAX,  
 0.0062 -0.007 0.5679 0.5658 0.00005 0.01894 0.01897 29.99 7.65 35094.7

Y	Y/DELTA	U/(DELTA) RHO * U	RHO * U	PTI	PI	RHC U PRIME, M PRIME	PTI/PTE, PTT/PTIMAX
0.	0.	0.	0.	4.6	4.59	0.004	0.000
0.0100	0.01025	0.48852	0.00599	13.0	4.59	0.004	0.000
0.0300	0.03081	0.47497	0.00559	11.9	4.59	0.004	0.000
0.0456	0.04681	0.46760	0.00538	11.4	4.59	0.004	0.000
0.0628	0.06441	0.46514	0.00533	11.4	4.59	0.004	0.000
0.0791	0.0791	0.50490	0.00594	13.4	4.59	0.004	0.000
0.0958	0.09828	0.62943	0.00897	27.6	4.59	0.004	0.001
0.1309	0.13422	0.78106	0.01633	115.0	4.59	0.004	0.003
0.1712	0.17554	0.84275	0.02256	284.4	4.59	0.004	0.008
0.2134	0.21881	0.87005	0.02668	468.2	4.59	0.004	0.013
0.2568	0.26116	0.88152	0.02867	581.5	4.59	0.004	0.017
0.2968	0.30432	0.89890	0.03225	842.3	4.59	0.004	0.024
0.3569	0.36595	0.91768	0.03797	1399.9	4.59	0.004	0.039
0.4162	0.42675	0.93995	0.04281	2112.2	4.59	0.004	0.060
0.4748	0.48684	0.95638	0.04865	3232.2	4.59	0.004	0.092
0.5388	0.55246	0.97318	0.05530	4997.1	4.59	0.004	0.142

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI.	RHO U PRIME, M	PRIME	PTI/PTE.	PTI/PTIMAX	
0.5925	0.60752	0.98440	0.06115	7031.5	4.59	0.004	7.644	0.197	0.200
0.6506	0.66709	0.99521	0.06798	10085.9	4.59	0.004	7.644	0.282	0.287
0.7093	0.72728	1.00243	0.07509	14084.0	4.59	0.004	7.644	0.394	0.401
0.7764	0.79608	1.00612	0.08226	19012.2	4.59	0.004	7.644	0.532	0.542
0.8258	0.84674	1.00514	0.08476	22459.1	4.59	0.004	7.644	0.629	0.640
0.8847	0.90713	1.00377	0.09492	29820.3	4.59	0.004	7.644	0.835	0.850
0.9431	0.96701	1.00148	0.09777	32556.8	4.59	0.004	7.644	0.912	0.928
0.9753	1.00000	1.00000	0.09880	33339.6	4.59	0.004	7.644	0.952	0.950
1.0020	1.02740	0.99865	0.09936	33909.8	4.59	0.004	7.644	0.964	0.969
1.0610	1.08790	0.99546	0.10010	34447.4	4.59	0.004	7.644	0.964	0.982
1.1200	1.14840	0.99274	0.10095	35094.3	4.59	0.004	7.644	0.983	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL R COOLED HEAT TRANSFER  
 MODEL MACH MC, DAY TEST RUN X PTF YTC GEN. CYL.  
 8, 7, 22, 306, 82, 18.75 35478.42 1315.00 1C78.22 26.00

Y MACH TOT. TEMP. STAT. TEMP. VELOCITY Y/TATTC

0.	0.	1078.22	1078.22	0.	0.8199
0.0100	0.80	1114.37	988.56	1228.9	0.8474
0.0266	0.89	1148.91	992.32	1371.6	0.8737
0.0446	1.75	1194.81	742.23	2331.8	0.9086
0.0626	2.68	1229.73	503.94	2952.9	0.9352
0.0770	3.10	1241.18	423.89	3133.5	0.9439
0.0944	3.38	1249.70	379.72	3232.9	0.9503
0.1379	3.74	1265.67	333.64	3346.2	0.9625
0.1786	3.95	1275.79	309.24	3407.6	0.9702
0.2201	4.14	1285.48	290.75	3456.9	0.9775
0.2614	4.35	1297.30	271.39	3510.7	0.9865
0.3054	4.59	1309.03	251.12	3565.1	0.9955
0.3625	4.91	1327.23	228.09	3633.8	1.0093
0.4207	5.25	1342.98	205.93	3696.0	1.0213
0.4823	5.70	1358.44	181.03	3761.0	1.0330
0.5386	5.97	1365.01	167.84	3792.4	1.0380
0.5983	6.32	1377.12	152.24	3820.4	1.0396
0.6584	6.64	1362.53	138.65	3834.5	1.0361
0.7148	6.89	1333.71	128.94	3835.9	1.0294
0.7729	7.11	1342.64	120.92	3831.1	1.0210
0.8338	7.25	1328.48	115.26	3817.8	1.0103
0.8927	7.34	1318.79	111.94	3807.7	1.0029
0.9505	7.39	1312.39	110.04	3800.6	0.9980

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECCV. FACT. TOT. PRESS. RECOV. CT  
 0.8707 0.3402 19.04 193577. 5517843. 77. 2202. 758.86 0.803 0.30645 1.043

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W), THETA STAR(W), THETA STAR(M), H(W), MIEI, PTIMAX,  
 -0.0608 -0.130 0.4704 0.3828 0.0126 0.01661 0.01357 28.21 7.32 37793.8

Y Y/DELTA U/(DELTA) RHO \* U PTI PI, RHC U PRIME, M PRIME PTI/PTE, PTI/PTIMAX

0.	0.	0.32246	0.00636	8.8	8.79	0.000	0.000	0.000	0.000
0.0100	0.01148	0.32246	0.00706	13.4	8.78	0.000	0.000	6.986	0.000
0.0266	0.03061	0.35988	0.01604	14.6	8.77	0.000	0.000	6.988	0.000
0.0446	0.05122	0.61183	0.02989	46.4	8.77	0.006	0.001	6.988	0.001
0.0626	0.07185	0.77480	0.03765	198.7	8.76	0.006	0.006	6.990	0.005
0.0770	0.08841	0.82220	0.04322	375.5	8.74	0.006	0.011	6.991	0.010
0.0944	0.10843	0.84828	0.05058	563.4	8.71	0.006	0.016	6.995	0.015
0.1379	0.15838	0.87801	0.05501	920.2	8.65	0.006	0.026	7.002	0.024
0.1786	0.20512	0.89412	0.06328	1221.9	8.57	0.006	0.034	7.013	0.032
0.2201	0.25278	0.90706	0.05886	1543.9	8.50	0.005	0.044	7.023	0.041
0.2614	0.30021	0.92117	0.06861	2005.0	8.40	0.005	0.057	7.036	0.053
0.3054	0.35075	0.93543	0.06861	2682.5	8.29	0.005	0.076	7.049	0.071
0.3625	0.41632	0.95348	0.07552	3866.5	8.14	0.005	0.109	7.071	0.102
0.4207	0.48316	0.96978	0.08343	5650.8	7.98	0.005	0.159	7.093	0.150
0.4823	0.55391	0.98684	0.09413	8999.9	7.78	0.005	0.254	7.121	0.238
0.5386	0.61857	0.99509	0.10010	11663.6	7.60	0.005	0.329	7.146	0.309
0.5983	0.68713	1.00242	0.10780	15998.9	7.37	0.005	0.451	7.181	0.423
0.6584	0.75616	1.00613	0.11556	21333.9	7.17	0.005	0.601	7.212	0.564
0.7148	0.82093	1.00649	0.12081	26131.0	6.97	0.005	0.737	7.244	0.691

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHC U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX	
0.7729	0.88766	1.00524	0.12548	31006.8	6.80	0.005	7.273	0.874	0.820
0.8338	0.95760	1.00174	0.12840	34582.9	6.65	0.005	7.297	0.975	0.915
0.8707	1.00000	1.00000	0.12932	35904.1	6.58				0.950
0.8927	1.02525	0.99910	0.12957	36690.7	6.54	0.005	7.317	1.034	0.971
0.9505	1.09163	0.99724	0.12983	37793.8	6.45	0.005	7.332	1.065	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIF TTC TUN GEN. CYL.  
 8. 7. 22. 306. 82. 29.00 35367.85 1212.00 1078.22 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC	RSR	RS DELTA	RTMFA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.	0.	1078.22	1078.22	0.	0.0218								
0.0100	0.73	1145.91	1077.75	1145.2	0.07742								
0.0261	1.95	1277.89	703.56	2533.6	0.9435								
0.0426	3.12	1263.00	429.38	3164.6	0.9476								
0.0623	3.70	1277.02	343.65	3366.5	0.9910								
0.0751	3.84	1277.10	328.78	3410.7	0.9886								
0.0924	3.97	1308.16	314.84	3454.5	0.9971								
0.1087	4.08	1317.97	304.67	3489.1	1.0046								
0.1290	4.17	1325.63	296.26	3516.6	1.0104								
0.1699	4.36	1340.84	279.03	3571.6	1.0220								
0.2105	4.55	1351.82	263.31	3616.2	1.0303								
0.2518	4.76	1360.55	245.82	3659.5	1.0370								
0.2946	4.95	1369.32	232.02	3696.4	1.0437								
0.3352	5.14	1375.97	219.07	3728.1	1.0488								
0.3781	5.35	1380.30	205.33	3757.1	1.0521								
0.4635	5.77	1379.13	180.20	3795.2	1.0512								
0.5445	6.08	1366.25	162.63	3802.6	1.0414								
0.6318	6.38	1346.05	147.20	3795.1	1.0260								
0.7135	6.58	1327.28	137.56	3780.6	1.0116								
0.7969	6.66	1319.62	133.84	3774.4	1.0058								
0.8835	6.73	1313.27	130.54	3769.5	1.0010								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RTMFA R	RHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT
0.6969	0.1598	12.80	488657.	8339871.	111.	1890.	770.18	0.801	0.38683	C.923

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	THETA STAR(1),	THETA(12),	THETA(11),	H(11),	PTIMAX,
-0.1122	-0.141	0.3004	0.2280	0.00221	0.01028	0.00786	29.02	6.55 35761.E

  

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	18.6	18.62	0.010	6.143	0.001	0.001
0.0100	0.01435	0.30273	0.01197	26.4	18.62	0.010	6.146	0.001	0.001
0.0261	0.03748	0.66976	0.03892	134.0	18.55	0.010	6.148	0.004	0.004
0.0426	0.06118	0.83656	0.07952	808.3	18.52	0.010	6.153	0.023	0.023
0.0623	0.08938	0.88993	0.10521	1873.7	18.43	0.010	6.155	0.053	0.053
0.0751	0.10782	0.90162	0.11115	2242.7	18.39	0.010	6.159	0.063	0.063
0.0924	0.13265	0.91319	0.11710	2678.2	18.32	0.010	6.159	0.076	0.076
0.1087	0.15597	0.92233	0.12174	3072.0	18.24	0.010	6.163	0.087	0.086
0.1290	0.18510	0.92961	0.12539	3435.8	18.13	0.010	6.169	0.097	0.096
0.1699	0.24379	0.94415	0.13371	4360.8	17.93	0.010	6.180	0.123	0.122
0.2105	0.30204	0.95594	0.14081	5395.1	17.60	0.009	6.199	0.153	0.151
0.2518	0.36130	0.96738	0.14989	6892.3	17.28	0.009	6.217	0.195	0.193
0.2946	0.42272	0.97713	0.15679	8434.7	16.89	0.009	6.240	0.238	0.236
0.3352	0.48097	0.98552	0.16320	10221.1	16.46	0.009	6.266	0.289	0.286
0.3781	0.54253	0.99318	0.17072	12611.2	16.01	0.009	6.294	0.357	0.353
0.4635	0.66507	1.00326	0.18501	18696.3	15.08	0.008	6.355	0.529	0.523
0.5445	0.78129	1.00522	0.19382	24447.4	14.23	0.008	6.414	0.691	0.684
0.6318	0.90656	1.00322	0.19866	30729.8	13.29	0.008	6.485	0.869	0.859
0.6969	1.00000	1.00000	0.20014	33973.7	12.62	0.007	6.551	0.984	0.950
0.7135	1.02379	0.99940	0.19970	34799.5	12.47	0.007	6.608	1.005	0.973
0.7969	1.14346	0.99774	0.19402	35539.2	11.81	0.007	6.676	1.000	0.994
0.8835	1.26772	0.99646	0.18631	35761.8	11.07	0.007			1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH MD. DAY TEST RUN X PTE TTC  
 8. 7. 22. 306. 93. 33.00 35478.43 1279.00 1078.22 26.00  
 GEN. CYL.

Y	MACH	TDI-TEMP.	STAT-TEMP.	VELOCITY	FT/TTC
0.0101	0.107	1078.22	1078.22	0.	0.8430
0.0255	1.130	1330.36	920.92	1586.3	0.8838
0.0433	2.50	1207.89	537.42	2838.1	0.9444
0.0591	3.49	1244.14	368.03	3281.1	0.9884
0.0768	3.73	1290.75	341.66	3376.7	1.0092
0.0926	3.87	1308.76	328.11	3432.4	1.0233
0.1349	3.98	1319.32	316.53	3470.9	1.0315
0.1767	4.23	1328.32	292.61	3544.1	1.0464
0.2187	4.43	1347.93	273.48	3592.8	1.0539
0.2609	4.63	1355.52	256.06	3634.4	1.0598
0.3027	4.85	1359.94	238.07	3671.2	1.0633
0.3609	5.12	1360.18	218.17	3704.1	1.0635
0.4201	5.50	1354.90	192.29	3737.3	1.0593
0.4800	5.79	1340.31	173.74	3743.7	1.0479
0.5378	6.00	1325.07	161.41	3739.0	1.0360
	6.09	1308.03	155.31	3721.4	1.0227

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV-TEMP. RECCV-FACT. TOT-PRESS-RECOV. CT  
 0.4711 0.0732 5.56 1014012. 11117443. 226. 2472. 778.62 0.820 0.40761 0.788

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), THETA STAR(M), THETA STAR(2), THETA(M), H(M), MIE), PTIMAX, PTI/PTIMAX  
 -0.1283 -0.125 0.1981 0.1374 0.00258 0.01059 0.00743 18.49 5.98 35577.0

Y	Y/DELTA	U/(DELTA) RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.0101	0.02150	0.42407	0.03700	37.1	0.016	5.487	0.001	0.001
0.0255	0.05406	0.75875	0.11334	75.5	0.016	5.487	0.002	0.002
0.0433	0.09188	0.87718	0.19015	627.0	0.016	5.493	0.018	0.018
0.0591	0.12555	0.90274	0.20930	2749.4	0.016	5.500	0.077	0.077
0.0768	0.16311	0.91762	0.21978	3809.1	0.016	5.507	0.107	0.107
0.0926	0.19650	0.92792	0.22817	4570.1	0.016	5.516	0.128	0.128
0.1349	0.28633	0.94748	0.24434	5279.5	0.015	5.543	0.148	0.148
0.1767	0.37505	0.96051	0.25496	7072.7	0.015	5.580	0.199	0.199
0.2187	0.46419	0.97162	0.26319	8854.0	0.014	5.622	0.249	0.249
0.2609	0.55376	0.98147	0.27094	10863.2	0.014	5.672	0.305	0.305
0.3027	0.64248	0.99024	0.27849	13434.4	0.013	5.737	0.378	0.378
0.3609	0.76601	0.99913	0.28994	17035.1	0.012	5.827	0.480	0.480
0.4201	0.89166	1.00083	0.29488	23774.5	0.012	5.910	0.670	0.668
0.4711	1.00000	1.00000	0.29406	29951.6	0.011	5.985	0.842	0.842
0.4800	1.01880	0.99958	0.29347	33798.1	0.011	6.041	0.950	0.950
0.5378	1.14148	0.99487	0.28649	34465.6	0.011	6.041	0.969	0.969
				35577.0			1.000	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REINJECTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIF TIC  
 8. 7. 22. 306. 92. 34.50 35478.43 1281.00 1078.22 26.00

Y	MACH	TRT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC
0.	1078.22	1078.22			0.8817
0.0100	1.49	1169.59	809.89	2078.8	0.9130
0.0238	3.22	1260.39	410.92	3194.6	0.9839
0.0420	3.49	1305.98	379.51	3336.2	1.0195
0.0581	3.66	1326.52	360.94	3405.9	1.0355
0.0750	3.77	1336.81	348.44	3445.9	1.0436
0.0914	3.86	1343.02	337.93	3474.9	1.0484
0.1347	4.07	1355.97	314.23	3537.7	1.0585
0.1839	4.37	1362.94	282.71	3602.5	1.0640
0.2264	4.70	1365.06	251.74	3657.2	1.0656
0.2695	5.12	1359.00	218.02	3702.4	1.0609
0.3119	5.46	1351.60	193.95	3729.3	1.0551
0.3691	5.74	1334.80	175.80	3731.5	1.0420

DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.3524 0.0289 2.24 1657916. 12767213. 333. 2717. 787.86 0.816 0.40322 0.787

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), M(E), PT1MAX,  
 -0.1105 -0.127 0.1556 0.0975 0.00319 0.00974 0.00621 15.70 5.66 35676.2

Y	Y/DELTA	U/(DELTA)	RHO * U	PT1	PI,	RHC U PRIME,	M PRIME	PT1/PTE,	PT1/PT1MAX
0.	0.	0.	0.	60.4	60.36			0.002	0.002
0.0100	0.02837	0.55719	0.09019	218.3	60.31	0.022	5.052	0.006	0.006
0.0238	0.06742	0.85626	0.27096	3023.1	59.82	0.022	5.059	0.085	0.085
0.0420	0.11911	0.89422	0.30396	4485.9	59.34	0.022	5.066	0.126	0.126
0.0581	0.16485	0.91290	0.32263	5584.3	58.68	0.022	5.076	0.157	0.157
0.0750	0.21283	0.92361	0.33356	6402.7	57.89	0.022	5.087	0.180	0.179
0.0914	0.25931	0.93139	0.34140	7130.9	56.98	0.021	5.101	0.201	0.200
0.1347	0.38219	0.94822	0.35243	8967.7	53.73	0.021	5.152	0.253	0.251
0.1839	0.52179	0.96559	0.36309	12031.6	48.90	0.019	5.235	0.339	0.337
0.2264	0.64238	0.98026	0.36788	16136.0	43.46	0.018	5.340	0.455	0.452
0.2695	0.76467	0.99236	0.37031	22630.5	37.43	0.016	5.475	0.638	0.634
0.3119	0.88497	0.99958	0.37058	29551.5	33.08	0.015	5.589	0.833	0.828
0.3524	1.00000	1.00000	0.36720	33892.4	30.60				0.950
0.3691	1.04727	1.00017	0.36581	35676.2	29.58	0.014	5.693	1.006	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF TIC  
 8. 7. 22. 306. 91. 36.00 35478.43 1280.00 1078.22 26.00

Y	MACH	TOT-TEMP.	STAT-TEMP.	VELOCITY	TT/TTC
0.0100	0.	1078.22	1078.22	0.	0.8424
0.0319	2.50	1322.45	586.45	2973.6	1.0332
0.0480	3.04	1365.91	478.84	3261.2	1.0656
0.0643	3.73	1366.76	443.04	3331.3	1.0678
0.0812	4.05	1363.50	388.59	3426.6	1.0671
0.0993	4.47	1356.37	271.60	3543.1	1.0652
0.1160	4.71	1352.04	248.76	3609.7	1.0597
0.1526	4.89	1342.36	232.22	3651.9	1.0487

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.1130 -0.0002 -0.02 6039464. 21281088. R17. 2878. 815.90 0.804 0.42111 0.630

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M 1), THETA STAR(2), THETA(M), H(M), MIE), PTIMAX,  
 -0.0435 -0.055 0.0549 0.0303 0.00227 0.00617 0.00353 8.59 4.68 36644.6

Y	Y/DELTA	U/(UDELTA)	RHO * U	PTI	PI.	RHC U PRIME,	H PRIME	PTI/PTE,	PTI/PTIMAX
0.0100	0.	0.08846	0.	233.0	232.99	0.055	3.989	0.007	0.006
0.0319	0.28210	0.81751	0.88749	4006.9	232.70	0.052	4.034	0.113	0.109
0.0480	0.42469	0.91585	0.86952	8555.2	219.02	0.049	4.111	0.241	0.233
0.0643	0.56844	0.94205	0.86194	10203.1	197.86	0.044	4.238	0.288	0.278
0.0812	0.71803	0.97408	0.85305	13660.5	167.76	0.037	4.428	0.385	0.373
0.0993	0.87805	0.99239	0.84740	21349.9	131.64	0.033	4.576	0.602	0.583
0.1160	1.00000	1.00000	0.82234	30400.8	109.51	0.030	4.687	0.857	0.830
0.1526	1.02613	1.00092	0.81463	34812.4	97.54	0.026	4.845	0.950	0.926
				35757.7	95.53				
				36644.6	78.98				

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTF ITD TM GEN. CYL.  
 8. 5. 2. 25. 306. 6. -7.50 10460.80 645.00 435.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTD						
0.	0.92	435.00	435.00	0.	0.6744						
0.0100	0.92	435.00	435.00	0.	0.6744						
0.0170	1.31	525.38	414.25	922.2	0.7520						
0.0240	1.64	560.46	391.44	1268.5	0.8145						
0.0330	1.90	591.98	364.68	1533.7	0.8689						
0.0420	2.09	615.16	343.32	1728.4	0.9178						
0.0470	2.30	625.80	328.78	1854.9	0.9537						
0.0490	2.42	638.52	303.64	1967.3	0.9702						
0.1020	2.58	649.37	293.62	2035.6	0.9900						
0.1200	2.75	654.25	278.83	2109.9	1.0068						
0.1330	2.88	654.78	260.90	2173.8	1.0143						
0.1680	3.17	653.43	246.00	2216.1	1.0152						
0.2000	3.40	651.85	217.32	2289.0	1.0131						
0.2350	3.58	650.07	196.65	2338.5	1.0106						
0.2750	3.82	648.13	182.55	2369.9	1.0079						
0.3100	4.04	646.57	165.16	2408.8	1.0049						
0.3430	4.18	645.19	151.68	2438.4	1.0024						
0.3770	4.34	643.71	143.48	2455.1	1.0003						
0.4110	4.51	642.12	135.19	2471.7	0.9980						
0.4450	4.67	640.43	126.67	2488.5	0.9955						
0.5250	4.83	637.74	119.38	2502.0	0.9929						
0.6130	4.83	635.50	112.52	2512.0	0.9888						
0.7010	4.82	633.85	112.78	2511.1	0.9886						
0.7790	4.83	632.87	112.35	2507.2	0.9853						
0.8620	4.83	632.36	111.69	2502.3	0.9827						
0.9470	4.84	632.37	111.48	2501.5	0.9804						
1.0310	4.84	632.93	111.36	2501.9	0.9804						
			111.22	2503.5	0.9813						
DELTA DELTA STAR H	RSR	RS DELTA	RTHETA R	RTHETA D	RECOV. TEMP.	RECOV. FACT.	TOT. PRESS. RECOV.	CT			
0.5083	0.2236	12.65	23860.	2289441.	918.	8990.	349.35	0.606	0.34151	1.329	
PHI DELTA STAR PRIME DELTA STAR(21) DELTA STAR(W I) THETA STAR(W I) THETA PRIME THETA(21) THETA(W) MIM) MIE) PTIMAX,											
0.0039	-0.027		0.2504	0.2396		0.0073	0.01694	0.01624	14.76	4.85	17679.0
Y	Y/DELTA	U/(DELTA) RMD * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX			
0.	0.	0.	40.2	40.21							
0.0100	0.01967	0.36666	0.09216	69.9	40.21		0.027	0.002	0.002	0.002	0.002
0.0170	0.03345	0.50438	0.07593	112.6	40.21		0.027	0.004	0.004	0.004	0.004
0.0240	0.04722	0.60980	0.09854	181.0	40.21		0.027	0.006	0.006	0.006	0.006
0.0330	0.06493	0.68723	0.11796	270.7	40.21		0.027	0.010	0.010	0.010	0.010
0.0420	0.10231	0.73752	0.13219	360.3	40.21		0.027	0.015	0.015	0.015	0.015
0.0470	0.13182	0.78223	0.15181	505.4	40.21		0.027	0.020	0.020	0.020	0.020
0.0890	0.16723	0.80938	0.16244	609.9	40.21		0.027	0.029	0.029	0.029	0.029
0.1020	0.20068	0.83892	0.17730	775.2	40.21		0.027	0.034	0.034	0.034	0.034
0.1200	0.23609	0.86435	0.19523	1004.2	40.21		0.027	0.042	0.042	0.042	0.042
0.1330	0.26167	0.88115	0.21108	1237.2	40.21		0.027	0.054	0.054	0.054	0.054
0.1680	0.33053	0.91012	0.24680	1895.6	40.21		0.027	0.067	0.067	0.067	0.067
0.2000	0.39349	0.92983	0.27864	2666.6	40.21		0.027	0.103	0.103	0.103	0.103
0.2350	0.46235	0.94232	0.30419	3426.7	40.21		0.027	0.144	0.144	0.144	0.144
								0.186	0.186	0.186	0.186

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	L/(U*DELTA)	RHO * U	PTI	PI,	RHO U PRIME, M PRIME	PTI/PIE,	PTI/PTIMAX
0.2750	0.54105	0.95777	0.34174	4814.5	40.21	4.800	0.261	0.272
0.3100	0.60991	0.96953	0.37669	6431.9	40.21	4.800	0.348	0.364
0.3430	0.67483	0.97618	0.40094	7754.3	40.21	4.800	0.420	0.439
0.3770	0.74172	0.98278	0.42840	9473.1	40.21	4.800	0.513	0.536
0.4110	0.80862	0.98945	0.46032	11794.6	40.21	4.800	0.639	0.667
0.4450	0.87551	0.99482	0.49108	14381.3	40.21	4.800	0.779	0.813
0.5093	1.00000	1.00000	0.52744	16795.0	40.21	4.800	0.950	0.950
0.5250	1.03291	0.99879	0.52311	17433.0	40.21	4.800	0.944	0.966
0.5280	1.03881	0.99846	0.52172	17283.1	40.21	4.800	0.936	0.978
0.6130	1.20604	0.99689	0.52324	17349.4	40.21	4.800	0.940	0.981
0.7010	1.37918	0.99524	0.52202	17151.7	40.21	4.800	0.929	0.970
0.7790	1.53264	0.99494	0.52495	17415.7	40.21	4.800	0.943	0.985
0.8620	1.69593	0.99465	0.52579	17481.5	40.21	4.800	0.947	0.989
0.9470	1.86317	0.99477	0.52640	17546.2	40.21	4.800	0.950	0.992
1.0310	2.02843	0.99544	0.52742	17679.0	40.21	4.800	0.958	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLING HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PIF TTD TW GEN. CYL.  
 8. 5. 2. 23. 306. 10. -7.50 10460.00 643.00 474.00 12.00

Y	MACH	U/DELTA	STAT. TEMP.	VELOCITY	TT/TTD
0.	0.	494.00	494.00	0.	0.7283
0.0100	0.74	568.22	653.82	908.4	0.8726
0.0180	1.01	548.59	471.74	1077.6	0.8848
0.0270	1.47	589.80	412.35	1460.1	0.9173
0.0440	1.79	610.59	372.84	1690.1	0.9496
0.0610	2.05	619.84	335.92	1846.2	0.9637
0.0780	2.22	628.64	317.28	1934.1	0.9777
0.0930	2.33	637.97	302.66	2007.1	0.9922
0.1280	2.66	653.41	271.07	2143.2	1.0162
0.1610	2.96	654.01	237.84	2236.0	1.0171
0.1940	3.22	644.07	209.77	2284.2	1.0017
0.2280	3.44	640.76	190.00	2327.1	0.9965
0.2620	3.65	640.39	174.87	2364.9	0.9959
0.2950	3.85	640.44	161.81	2397.9	0.9960
0.3290	4.03	640.21	150.72	2425.0	0.9957
0.3620	4.20	639.23	141.08	2446.4	0.9941
0.3960	4.38	638.51	132.12	2466.5	0.9930
0.4300	4.53	637.80	123.91	2484.7	0.9919
0.4630	4.73	636.62	116.17	2500.5	0.9901
0.4980	4.80	636.59	113.49	2506.9	0.9890
0.5230	4.83	636.58	112.30	2509.7	0.9890
0.5530	4.85	636.58	111.77	2511.0	0.9900
0.5970	4.85	636.58	111.77	2511.0	0.9900
0.6390	4.85	636.58	111.77	2511.0	0.9900

DELTA STAR H MSR MS DELTA RMETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.4995 0.2321 12.06 203000. 220998. 868. 9446. 376.23 0.719 0.30036 0.773

PMI. DELTA STAR PRIME, DELTA STAR(ZI), DELTA STAR(M), DELTA STAR(N), DELTA STAR(O), DELTA STAR(P), DELTA STAR(Q), DELTA STAR(R), DELTA STAR(S), DELTA STAR(T), DELTA STAR(U), DELTA STAR(V), DELTA STAR(W), DELTA STAR(X), DELTA STAR(Y), DELTA STAR(Z), THETA STAR(M), THETA STAR(N), THETA STAR(O), THETA STAR(P), THETA STAR(Q), THETA STAR(R), THETA STAR(S), THETA STAR(T), THETA STAR(U), THETA STAR(V), THETA STAR(W), THETA STAR(X), THETA STAR(Y), THETA STAR(Z), M(1), PTIMAX, 17714.2

Y	V/DELTA	L/U(DELTA)	RMO * U	PTI	PI.	RMO U PRIME.	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	40.2	40.18	0.027	4.802	0.002	0.002
0.0100	0.02002	0.32245	0.03832	57.9	40.18	0.027	4.802	0.003	0.003
0.0180	0.03603	0.42980	0.05345	77.1	40.18	0.027	4.802	0.004	0.004
0.0270	0.05405	0.58237	0.08289	140.6	40.18	0.027	4.802	0.008	0.008
0.0440	0.08808	0.67411	0.10611	225.8	40.18	0.027	4.802	0.012	0.013
0.0610	0.12212	0.73440	0.12866	342.5	40.18	0.027	4.802	0.019	0.019
0.0780	0.15615	0.77143	0.14269	439.8	40.18	0.027	4.802	0.024	0.025
0.0930	0.18618	0.80957	0.15524	546.3	40.18	0.027	4.802	0.030	0.031
0.1280	0.25625	0.85086	0.18508	873.6	40.18	0.027	4.802	0.047	0.049
0.1610	0.32321	0.89188	0.22008	1385.2	40.18	0.027	4.802	0.075	0.078
0.1940	0.38837	0.91111	0.25491	2037.8	40.18	0.027	4.802	0.110	0.115
0.2280	0.45844	0.92820	0.28671	2829.9	40.18	0.027	4.802	0.153	0.160
0.2620	0.52450	0.94328	0.31658	3776.0	40.18	0.027	4.802	0.205	0.213
0.2950	0.59057	0.95846	0.34690	4955.6	40.18	0.027	4.802	0.268	0.280
0.3290	0.65863	0.96725	0.37663	6345.4	40.18	0.027	4.802	0.344	0.358
0.3620	0.72448	0.97577	0.40592	7955.1	40.18	0.027	4.802	0.431	0.449
0.3960	0.78276	0.98381	0.43703	9970.3	40.18	0.027	4.802	0.540	0.563

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COULET HEAT TRANSFER

Y	Y/Delta	L/(U*Delta)	RHO * U	PI1	PI,	RHO U PRIME, M	PII/PII MAX	PII/PII MAX
0.4300	0.86082	0.99107	0.46940	12429.4	40.18	0.027	4.802	0.673
0.4630	0.92689	0.99737	0.50386	15476.4	40.18	0.027	4.802	0.836
0.4980	0.99695	0.99991	0.51708	16792.9	40.18	0.027	4.802	0.910
0.4995	1.00000	1.00000	0.51754	16828.5	40.18	0.027	4.802	0.948
0.5290	1.05101	1.00104	0.52315	17423.1	40.18	0.027	4.802	0.950
0.5330	1.06502	1.00125	0.52401	17513.5	40.18	0.027	4.802	0.984
0.5630	1.12708	1.00154	0.52590	17714.2	40.18	0.027	4.802	0.989
0.5970	1.19514	1.00154	0.52588	17711.7	40.18	0.027	4.802	1.000
0.6330	1.26721	1.00154	0.52590	17714.2	40.18	0.027	4.802	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED MEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE YFO TM GEN. CYL.  
 8. 9. 2. 25. 306. 12. -7.50 18460.80 644.00 580.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/TFO
0.	0.	580.00	580.00	0.	0.9006
0.0160	0.89	506.84	514.35	994.3	0.9268
0.0180	1.13	403.14	481.17	1220.4	0.9397
0.0270	1.54	412.91	414.89	1542.4	0.9517
0.0340	1.66	617.92	398.96	1621.9	0.9595
0.0510	1.94	619.97	354.32	1786.5	0.9627
0.0680	2.08	620.84	333.14	1859.1	0.9640
0.0850	2.23	621.69	311.61	1931.9	0.9654
0.1020	2.39	622.44	290.01	1998.4	0.9665
0.1200	2.51	622.93	275.68	2042.5	0.9673
0.1350	2.64	623.49	258.05	2095.3	0.9682
0.1500	2.93	624.37	230.10	2174.4	0.9695
0.2200	3.24	625.15	201.90	2255.0	0.9707
0.2690	3.57	625.69	176.43	2323.2	0.9716
0.3200	3.85	626.25	158.23	2371.2	0.9724
0.3780	4.07	626.94	145.28	2405.5	0.9735
0.4380	4.54	627.53	122.65	2462.8	0.9744
0.5380	4.80	628.57	112.16	2490.7	0.9760
0.5800	4.83	629.34	111.13	2495.1	0.9772
0.6230	4.83	630.19	111.25	2496.9	0.9786
0.7060	4.83	632.03	111.45	2500.8	0.9814
0.7900	4.85	634.14	111.10	2506.7	0.9847
0.8720	4.85	636.44	111.38	2511.6	0.9883
0.9580	4.85	639.11	111.85	2516.8	0.9924
1.0410	4.86	641.93	112.22	2522.7	0.9968

DELTA DELTA STAR H RSR AS DELTA RTHETA R RTHETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.5415 0.2527 11.11 170246. 2280258. 860. 11524. 412.87 0.880 0.32100 -0.043

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(N), THETA STAR(1), THETA STAR(2), THETA STAR(M), THETA STAR(N), MIE(1), PTIMAX,  
 0.1144 -0.002 0.2546 0.2539 0.0005 0.02269 0.02263 11.22 4.82 17984.5

Y	V/DELTA	L/UIDELTA	RHO * U	PFI	PL	RHO U PRIME	M PRIME	PTI/PTE	PYL/PTIMAX
0.0100	0.01781	0.39876	0.04524	40.2	40.18	0.027	4.815	0.002	0.002
0.0180	0.03204	0.48942	0.05937	67.5	40.18	0.027	4.815	0.004	0.004
0.0270	0.04808	0.61855	0.08702	89.6	40.18	0.027	4.815	0.005	0.005
0.0340	0.06035	0.65043	0.09516	137.4	40.18	0.027	4.815	0.009	0.009
0.0510	0.09082	0.71644	0.11803	185.8	40.18	0.027	4.815	0.010	0.010
0.0680	0.12110	0.74559	0.13064	284.7	40.18	0.027	4.815	0.015	0.016
0.0850	0.15137	0.77478	0.14941	335.0	40.18	0.027	4.815	0.019	0.020
0.1020	0.18343	0.80145	0.16131	493.7	40.18	0.027	4.815	0.025	0.025
0.1200	0.21370	0.81912	0.17343	581.9	40.18	0.027	4.815	0.032	0.032
0.1350	0.24041	0.84030	0.19008	696.8	40.18	0.027	4.815	0.038	0.039
0.1700	0.30274	0.87282	0.22142	880.9	40.18	0.027	4.815	0.048	0.049
0.2200	0.39179	0.90434	0.26145	1342.3	40.18	0.027	4.815	0.072	0.074
0.2690	0.47905	0.93170	0.30826	2098.7	40.18	0.027	4.815	0.114	0.117
0.3200	0.56981	0.95095	0.35081	3374.8	40.18	0.027	4.815	0.183	0.188
0.3700	0.65897	0.96471	0.38760	4959.6	40.18	0.027	4.815	0.268	0.276
0.4550	0.80672	0.98769	0.47005	6707.0	40.18	0.027	4.815	0.363	0.373
				12171.1	40.18	0.027	4.815	0.659	0.677

HYPERSOUNDIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/DELTA	L/DELTA	RHO * U	PT1	PL	RHO U PRIME	M PRIME	PT1/PTE	PT1/PT1MAX
0.5300	0.95809	0.99886	0.51974	16728.7	40.18	0.027	4.815	0.906	0.930
0.5615	1.00000	1.00000	0.52376	17085.3	40.18	0.027	4.815	0.941	0.950
0.5880	1.03289	1.00064	0.52560	17365.1	40.18	0.027	4.815	0.942	0.966
0.6230	1.10947	1.00135	0.52540	17381.2	40.18	0.027	4.815	0.945	0.970
0.7060	1.25728	1.00293	0.52526	17447.6	40.18	0.027	4.815	0.967	0.992
0.7900	1.40687	1.00530	0.52818	17848.8	40.18	0.027	4.815	0.971	0.996
0.8720	1.55290	1.00723	0.52785	17916.6	40.18	0.027	4.815	0.971	0.996
0.9580	1.70605	1.00934	0.52675	17916.6	40.18	0.027	4.815	0.971	0.996
1.0410	1.85386	1.01168	0.52622	17984.5	40.18	0.027	4.815	0.974	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN K PTE TFO TTT  
 0. 5. 2. 25. 306. 37. -7.50 4927.68 646.00 427.50 12.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTO
0.	0.	427.50	427.50	0.	0.6418
0.0640	1.72	601.27	378.30	1436.7	0.9303
0.0820	2.43	410.81	200.28	1992.7	0.9453
0.1010	2.62	418.23	260.53	2073.0	0.9570
0.1330	2.93	430.86	231.97	2189.1	0.9746
0.1670	3.09	442.21	220.33	2251.3	0.9941
0.1990	3.36	447.38	199.08	2320.7	1.0021
0.2340	3.60	446.64	180.17	2347.3	1.0010
0.2680	3.78	443.83	166.84	2393.8	0.9966
0.3000	3.96	442.26	155.56	2418.1	0.9942
0.3340	4.12	441.62	146.26	2439.5	0.9932
0.4010	4.38	441.35	132.61	2472.2	0.9928
0.4690	4.59	440.12	122.93	2492.7	0.9909
0.5350	4.73	439.30	116.97	2505.0	0.9896
0.5900	4.74	439.16	116.18	2508.6	0.9894
0.6020	4.79	438.00	114.30	2510.2	0.9889
0.6690	4.80	438.67	114.04	2510.5	0.9886
0.7390	4.81	438.89	113.63	2512.1	0.9890
0.8060	4.81	439.46	113.50	2513.7	0.9899

DELTA DELTA STAR H MSR MS DELTA RTMETHA M RTMETHA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.5799 0.2637 -9.55 64618. 589918. -397. -3614. 347.29 0.589 0.37492 1.355

PHI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(2), THETA STAR(1), THETA STAR(2), THETA(1), THETA(2), M IEI, PTIMAX,  
 0.0003 -0.002 0.2656 0.2649 0.0005 -0.02767 -0.02760 -9.60 4.77 4676.3

Y	Y/DELTA	L/(U(DELTA) RHO * U	PTI	PI	RHO U PRIME, M PRIME	PTI/PIE, PTI/PTIMAX
0.	0.	0.	11.0	11.02	0.002	0.002
0.0640	0.11381	0.65233	0.02777	11.02	4.771	0.012
0.0820	0.14141	0.79422	0.04363	11.02	4.771	0.036
0.1010	0.17417	0.82623	0.05107	11.02	4.771	0.048
0.1330	0.22935	0.87250	0.06057	11.02	4.771	0.078
0.1670	0.28768	0.89728	0.06958	11.02	4.771	0.100
0.1990	0.34317	0.92496	0.07482	11.02	4.771	0.146
0.2340	0.40352	0.94352	0.08434	11.02	4.771	0.206
0.2680	0.46215	0.95410	0.09209	11.02	4.771	0.266
0.3000	0.51734	0.96376	0.09877	11.02	4.771	0.337
0.3340	0.57597	0.97230	0.10706	11.02	4.771	0.417
0.4010	0.69151	0.98534	0.11966	11.02	4.771	0.586
0.4690	0.80877	0.99349	0.13015	11.02	4.771	0.759
0.5350	0.92258	0.99842	0.13746	11.02	4.771	0.899
0.5900	0.94645	0.99903	0.13648	11.02	4.771	0.820
0.6020	1.00060	1.00000	0.14016	11.02	4.771	0.950
0.6690	1.03812	1.00050	0.14097	11.02	4.771	0.972
0.7390	1.13346	1.00061	0.14130	11.02	4.771	0.979
0.8060	1.27437	1.00122	0.14196	11.02	4.771	0.942
0.8060	1.38991	1.00188	0.14216	11.02	4.771	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE Y TO TW GEN. CVL.  
 8. 5. 2. 25. 306. 24. -7.50 4927.68 640.50 482.50 12.00

Y	MACH	TOT-TEPP.	STAT-TEMP.	VELOCITY	TT/ATTO
0.	0.	482.50	482.50	C.	C.7533
0.0100	0.87	561.50	470.08	926.3	0.8454
0.0177	0.82	562.78	496.16	894.7	0.8787
0.0235	1.08	583.85	473.13	1153.4	0.9116
0.0411	2.03	608.70	334.00	1816.7	0.9504
0.0588	2.48	614.62	276.08	2016.7	0.9586
0.0915	2.82	620.79	239.97	2138.9	0.9652
0.1274	2.98	630.42	226.84	2201.9	0.9843
0.1592	3.21	637.00	208.39	2269.2	0.9945
0.1921	3.44	639.48	189.66	2324.7	0.9984
0.2256	3.64	639.49	175.20	2361.8	0.9984
0.2594	3.83	638.78	162.61	2391.8	0.9973
0.2929	3.99	637.97	152.39	2415.3	0.9961
0.3286	4.18	637.06	141.98	2438.8	0.9946
0.3605	4.30	636.18	135.47	2452.6	0.9933
0.3955	4.44	635.12	128.41	2467.3	0.9916
0.4284	4.56	634.48	123.03	2478.8	0.9906
0.4618	4.67	634.48	118.41	2490.0	0.9908
0.4964	4.74	634.05	113.44	2496.1	0.9899
0.5299	4.79	633.08	113.22	2499.1	0.9884
0.5625	4.83	632.32	111.74	2500.8	0.9872
0.5954	4.84	631.74	111.40	2500.3	0.9863
0.6299	4.84	631.33	111.13	2499.9	0.9857
0.6622	4.84	631.12	110.85	2500.1	0.9854
0.6976	4.84	631.10	110.85	2500.1	0.9853
0.7315	4.84	631.29	110.88	2500.4	0.9856
0.7626	4.85	631.62	110.74	2501.5	0.9861
0.7967	4.85	632.18	110.84	2502.6	0.9870
0.8300	4.86	632.90	110.53	2505.1	0.9881

DELTA STAR H MSR RS DELTA RTHETA R RTHETA D RECOV-TEMP. RECOV-FACT. TOT-PRESS-RECOV. CT  
 0.3545 0.2115 11.87 57311. 620463. 227. 2458. 369.81 0.701 0.38245 0.856

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W ), THETA STAR(2), THETA PRIME, THETA(W), THETA(M), M(W), M(E), PII(MAX),  
 0.0188 -0.001 0.2129 0.00004 0.01778 0.01775 11.97 4.82 4.948.5

Y	Y/DELTA	L/U(DELTA)	RHO * U	PT1	PI1	RHO U PRIME	M PRIME	PII/PIE	PII/PII MAX
0.	0.	0.	0.	11.0	11.02	0.027	4.818	0.002	0.002
0.0100	0.01803	0.37042	0.01265	18.1	11.02	0.027	4.818	0.004	0.004
0.0177	0.03197	0.35778	0.01157	17.1	11.02	0.027	4.818	0.003	0.003
0.0235	0.04592	0.46123	0.01565	23.0	11.02	0.027	4.818	0.005	0.005
0.0411	0.07405	0.72649	0.03491	90.0	11.02	0.027	4.818	0.018	0.018
0.0588	0.10597	0.80650	0.04689	181.4	11.02	0.027	4.818	0.037	0.037
0.0915	0.16507	0.85537	0.05721	306.8	11.02	0.027	4.818	0.062	0.062
0.1274	0.22976	0.68056	0.06231	394.2	11.02	0.027	4.818	0.080	0.080
0.1592	0.28711	0.90746	0.06989	550.1	11.02	0.027	4.818	0.112	0.112
0.1921	0.34644	0.92964	0.07867	775.4	11.02	0.027	4.818	0.157	0.157
0.2256	0.40585	0.94447	0.08653	1023.5	11.02	0.027	4.818	0.207	0.207
0.2594	0.46817	0.95648	0.09441	1323.7	11.02	0.027	4.818	0.269	0.269
0.2929	0.52823	0.96589	0.10173	1653.7	11.02	0.027	4.818	0.336	0.336

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	L/(Delta) RHO * U	PTI	PI,	RHO U PRIME,	H PRIME	PTI/PTE,	PTI/PTIMAX
0.3286	0.59261	0.97529	0.11025	11.02	0.027	4.818	0.428	0.426
0.3605	0.67014	0.98082	0.11621	11.02	0.027	4.818	0.502	0.500
0.3935	0.73326	0.98667	0.12333	11.02	0.027	4.818	0.602	0.599
0.4284	0.77259	0.99126	0.12933	11.02	0.027	4.818	0.696	0.693
0.4618	0.83283	0.99375	0.13497	11.02	0.027	4.818	0.796	0.793
0.4964	0.89522	0.99819	0.13878	11.02	0.027	4.818	0.868	0.864
0.5299	0.95564	0.99940	0.14168	11.02	0.027	4.818	0.924	0.920
0.5645	1.00000	1.00000	0.14332	11.02	0.027	4.818	0.964	0.950
0.5985	1.01443	1.00008	0.14365	11.02	0.027	4.818	0.971	0.960
0.6329	1.07376	0.99986	0.14406	11.02	0.027	4.818	0.977	0.967
0.6672	1.13598	0.99972	0.14439	11.02	0.027	4.818	0.977	0.973
0.7015	1.19423	0.99979	0.14476	11.02	0.027	4.818	0.984	0.980
0.7315	1.25808	0.99978	0.14474	11.02	0.027	4.818	0.984	0.980
0.7626	1.31921	0.99992	0.14474	11.02	0.027	4.818	0.984	0.980
0.7947	1.37530	1.00037	0.14499	11.02	0.027	4.818	0.991	0.986
0.8300	1.43680	1.00081	0.14493	11.02	0.027	4.818	0.991	0.986
0.8630	1.49685	1.00161	0.14547	11.02	0.027	4.818	1.004	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN K PTE TTD  
 8. 5. 2. 29. 306. 30. -7.50 4927.68 644.50 587.50 12.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	TT/TT0
0.	0.	587.50	587.50	0.	0.9116
0.0100	0.63	602.63	558.44	730.2	0.9353
0.0101	0.60	605.64	564.66	701.7	0.9397
0.0272	0.74	608.84	548.97	848.1	0.9447
0.0350	0.89	612.33	528.23	1005.2	0.9501
0.0512	1.74	622.44	387.65	1679.5	0.9658
0.0681	2.00	625.14	347.26	1827.1	0.9700
0.0851	2.48	631.08	282.82	2045.5	0.9792
0.1021	2.65	635.67	264.20	2112.5	0.9863
0.1189	3.92	643.37	237.74	2207.5	0.9982
0.1357	3.10	646.74	221.07	2261.4	1.0035
0.1689	3.48	654.35	191.41	2358.3	1.0153
0.2023	3.80	654.36	168.14	2416.9	1.0153
0.2369	4.08	647.65	149.69	2445.9	1.0049
0.2693	4.28	642.26	137.54	2462.9	0.9965
0.3031	4.44	638.47	129.50	2475.2	0.9922
0.3364	4.49	638.62	127.03	2479.1	0.9909
0.4039	4.68	638.70	118.57	2499.8	0.9910
0.4702	4.77	638.69	115.22	2507.8	0.9910
0.5386	4.79	638.69	114.26	2510.1	0.9910
0.6048	4.80	638.69	114.05	2510.5	0.9910
0.6721	4.80	638.68	113.80	2511.1	0.9910
0.7392	4.81	638.68	113.35	2512.2	0.9910
0.8055	4.82	638.68	113.15	2512.7	0.9910
0.8745	4.83	638.68	112.90	2513.3	0.9910

DELTA DELTA STAR H MSR RS DELTA RHEIA R RHEIA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.5161 0.1802 13.04 45742. 596198. 140. 1830. 419.00 0.892 0.45631 -0.030

PMI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M J), DELTA STAR PRIME, IMETA(2), IMETA(M), M(M), MIE), PTIMAX,  
 0.0264 -0.003 0.1835 0.1825 0.00011 0.01364 13.38 4.79 4742.7

Y	Y/DELTA	L/UIDELTA	RMD * U	PTI	PI,	RMO U	PRIME,	M	PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	11.0	11.02	0.028	0.002	0.002	0.002	0.002	0.002
0.0100	0.01938	0.29093	0.00839	14.4	11.02	0.028	0.003	0.003	0.003	0.003	0.003
0.0101	0.03511	0.27956	0.00798	14.1	11.02	0.028	0.003	0.003	0.003	0.003	0.003
0.0272	0.05264	0.33789	0.00992	15.8	11.02	0.028	0.004	0.004	0.004	0.004	0.004
0.0350	0.06787	0.40047	0.01221	18.5	11.02	0.028	0.012	0.012	0.012	0.012	0.012
0.0512	0.09912	0.66914	0.02781	57.8	11.02	0.028	0.017	0.017	0.017	0.017	0.017
0.0681	0.13189	0.72795	0.03377	86.2	11.02	0.028	0.037	0.037	0.037	0.037	0.037
0.0851	0.16490	0.81493	0.04642	182.8	11.02	0.028	0.048	0.048	0.048	0.048	0.048
0.1021	0.19782	0.84165	0.05132	238.0	11.02	0.028	0.073	0.073	0.073	0.073	0.073
0.1189	0.23037	0.87950	0.05960	359.1	11.02	0.028	0.096	0.096	0.096	0.096	0.096
0.1357	0.26292	0.90096	0.06566	471.8	11.02	0.028	0.165	0.165	0.165	0.165	0.165
0.1689	0.32725	0.93958	0.07908	813.7	11.02	0.028	0.260	0.260	0.260	0.260	0.260
0.2023	0.39196	0.96292	0.09227	1281.1	11.02	0.028	0.377	0.377	0.377	0.377	0.377
0.2369	0.45900	0.97447	0.10488	1855.7	11.02	0.028	0.492	0.492	0.492	0.492	0.492
0.2693	0.52178	0.98107	0.11492	2424.1	11.02	0.028	0.598	0.598	0.598	0.598	0.598
0.3031	0.58727	0.98616	0.12268	2947.3	11.02	0.028	0.637	0.637	0.637	0.637	0.637
0.3364	0.65179	0.98771	0.12927	3138.2	11.02	0.028	0.637	0.637	0.637	0.637	0.637

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	L/Delta	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4039	0.78237	0.99593	0.13832	3996.3	11.02	0.028	4.783	0.911	0.843
0.4702	0.91103	0.99912	0.13970	4417.2	11.02	0.028	4.783	0.896	0.931
0.5161	1.00000	1.00000	0.14093	4505.6	11.02				0.950
0.5386	1.04356	1.00003	0.14100	4548.9	11.02	0.028	4.783	0.923	0.959
0.6048	1.17182	1.00023	0.14129	4577.9	11.02	0.028	4.783	0.929	0.965
0.6721	1.30222	1.00047	0.14163	4612.9	11.02	0.028	4.783	0.936	0.973
0.7392	1.43222	1.00089	0.14225	4677.4	11.02	0.028	4.783	0.949	0.986
0.8055	1.56068	1.00109	0.14254	4707.0	11.02	0.028	4.783	0.953	0.992
0.8745	1.69437	1.00132	0.14288	4742.7	11.02	0.028	4.783	0.962	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN K PLE TFO TTT  
 8. 0. 2. 25. 306. 115. -7.50 24624.00 724.00 397.50 12.00  
 GPN. CYL.

Y	MACH	FOI-TEMP.	STAT-TEMP.	VELOCITY	VT/TT0
0.	0.	397.50	397.50	0.	0.5490
0.0100	1.25	538.78	410.09	1243.4	0.7442
0.0171	1.19	606.65	472.18	1271.0	0.8379
0.0236	1.25	649.03	494.00	1364.7	0.8965
0.0325	2.02	686.94	376.94	1923.6	0.9461
0.0667	2.31	713.97	345.67	2103.9	0.9862
0.0833	2.62	728.61	307.64	2249.4	1.0066
0.1012	2.98	736.53	265.48	2383.9	1.0201
0.1199	3.16	742.52	247.41	2438.9	1.0256
0.1352	3.43	745.97	222.07	2508.8	1.0303
0.1683	3.81	737.15	188.58	2567.2	1.0182
0.2005	4.19	732.72	162.31	2617.8	1.0120
0.2363	4.56	730.58	141.60	2668.1	1.0091
0.2673	4.87	728.45	126.96	2688.2	1.0061
0.3027	5.13	725.64	115.94	2706.4	1.0023
0.3681	5.56	724.51	100.72	2737.5	1.0007
0.4349	5.88	724.03	91.56	2756.5	1.0000
0.5027	5.91	723.98	90.76	2758.1	1.0000
0.5761	5.92	723.95	90.29	2759.1	0.9999
0.6367	5.94	723.93	89.82	2760.1	0.9999
0.7030	5.95	723.91	89.52	2760.7	0.9999
0.7708	5.96	723.89	89.21	2761.3	0.9999
0.8376	5.96	723.89	89.21	2761.3	0.9999

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV-TEMP. RECOV-FACT. TOT-PRESS-RECOV. CT  
 0.5345 C.2089 17.59 121578. 1778804. 321. 4694. 339.52 0.485 0.4016 2.574

PHI DELTA STAR PRIME DELTA STAR(2) DELTA STAR(1) THETA PRIME THETA(2) THETA(W) H(W) MIEI PTIMAK  
 -0.0017 0.000 0.2088 -0.00000 0.01188 0.01188 17.59 5.91 27502.5

Y	Y/DELTA	L/UC(ELTA)	RHO * U	PLI	PL	RHO U PRIME	M PRIME	PTI/PPE	PTI/PTIMAX
0.	0.	0.	0.	18.1	18.07			C.001	0.001
0.0100	0.01871	0.45075	0.03193	47.0	18.07	C.012	5.914	C.002	0.002
0.0171	0.03194	0.46075	0.02834	43.4	18.07	C.012	5.914	C.002	0.002
0.0236	0.04421	0.49472	0.02909	47.0	18.07	C.012	5.914	C.002	0.002
0.0325	0.06088	0.69731	0.03374	146.2	18.07	C.012	5.914	C.006	0.006
0.0667	0.12488	0.76253	0.06408	228.9	18.07	C.012	5.914	C.009	0.009
0.0833	0.15579	0.81542	0.07499	369.8	18.07	C.012	5.914	C.015	0.015
0.1012	0.18934	0.86418	0.09455	648.9	18.07	C.012	5.914	C.024	0.024
0.1199	0.22432	0.88410	0.10380	846.3	18.07	C.012	5.914	C.034	0.034
0.1352	0.25295	0.90944	0.11894	1235.4	18.07	C.012	5.914	C.051	0.051
0.1683	0.31468	0.93061	0.14395	2134.2	18.07	C.012	5.914	C.087	0.087
0.2005	0.37512	0.94896	0.16983	3532.8	18.07	C.012	5.914	C.128	0.128
0.2363	0.43836	0.96428	0.19781	5638.0	18.07	C.012	5.914	C.229	0.205
0.2673	0.50010	0.97446	0.22295	8176.0	18.07	C.012	5.914	C.332	0.297
0.3027	0.56633	0.98109	0.24580	11084.0	18.07	C.012	5.914	C.450	0.403
0.3681	0.68869	0.99236	0.28620	18040.5	18.07	C.012	5.914	C.733	0.656
0.4349	0.81366	0.99924	0.31700	25126.6	18.07	C.012	5.914	C.914	0.914
0.5027	0.94051	0.99984	0.32000	25906.7	18.07	C.012	5.914	1.020	0.942
0.5345	1.00000	1.00000	0.32082	26127.2	18.07	C.012	5.914	1.052	0.952
0.5761	1.06661	1.00018	0.32176	26374.2	18.07	C.012	5.914	1.071	0.959

HYPERSONIC BOUNDARY LAYER AECG WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	L/(U*Delta)	RHO * U	PTI	P1	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.6367	1.19122	1.00054	0.32357	26861.4	18.07	0.012	5.914	1.091	0.977
0.7030	1.31526	1.00076	0.32479	27180.6	18.07	0.012	5.914	1.104	0.988
0.7708	1.44211	1.00099	0.32592	27502.3	18.07	0.012	5.914	1.117	1.000
0.8376	1.56708	1.00099	0.32592	27502.3	18.07	0.012	5.914	1.117	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN K PTE TTD TM GEN. CYL.  
 8. 6. 2. 29. 306. 106. -7.50 24624.00 698.00 492.50 12.00

Y	MACH	101.TEMP.	STAT.TEMP.	VELOCITY	YI/TIO
0.	0.	492.50	492.50	0.	0.7056
0.0100	0.74	598.66	598.66	828.7	0.8505
0.0237	1.03	689.63	413.69	1021.4	0.9080
0.0329	2.10	729.08	371.87	2060.0	1.0380
0.0407	2.26	718.35	355.87	2086.8	1.0292
0.0508	2.67	729.56	300.25	2271.0	1.0452
0.0723	2.87	738.26	279.46	2347.0	1.0577
0.0927	3.16	743.99	248.72	2438.3	1.0659
0.1078	3.32	742.85	231.91	2477.6	1.0642
0.1257	3.61	741.94	205.70	2538.2	1.0630
0.1413	3.89	737.78	183.57	2580.4	1.0570
0.1749	4.30	731.79	155.49	2631.3	1.0484
0.2078	4.69	729.14	135.19	2671.3	1.0446
0.2412	5.05	725.31	118.75	2699.5	1.0391
0.2749	5.36	723.23	107.30	2720.2	1.0362
0.3092	5.55	723.62	101.17	2736.6	1.0367
0.3420	5.63	722.89	98.43	2739.0	1.0357
0.4091	5.93	720.52	89.71	2752.9	1.0323
0.4786	6.02	721.49	87.58	2759.7	1.0337
0.5498	6.04	722.52	86.97	2763.2	1.0351
0.6162	6.04	722.72	87.00	2763.6	1.0354
0.6784	6.07	722.69	86.83	2764.8	1.0354
0.7495	6.07	722.69	86.43	2764.8	1.0354
0.8122	6.08	722.66	86.00	2765.6	1.0353
0.8792	6.08	722.66	86.00	2765.6	1.0353

DELTA DELTA STAR M RSR RS DELTA RTMETHA R RTMETHA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.5172 0.1892 19.18 90476. 1942702. 216. 4258. 380.62 0.664 0.42528 1.879

PHI. DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), THETA PRIME, THETA(2), THETA(1), THETA(M), H(M), M(E), PTIMAX,  
 -0.0538 -0.003 0.1923 0.1913 0.00006 0.00980 0.00975 19.61 6.04 31078.7

Y	Y/DELTA	L/UIDELTA	RMD * U	PTI	P1,	RMD U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	18.1	18.07	0.011	6.033	0.001	0.001
0.0100	0.01934	0.30363	0.01650	26.0	18.07	0.011	6.033	0.001	0.001
0.0237	0.04583	0.65940	0.04638	108.3	18.07	0.011	6.033	0.004	0.003
0.0329	0.06369	0.76976	0.05833	187.1	18.07	0.011	6.033	0.008	0.006
0.0407	0.07864	0.75548	0.06175	211.2	18.07	0.011	6.033	0.009	0.007
0.0508	0.10981	0.82217	0.07965	404.1	18.07	0.011	6.033	0.016	0.013
0.0723	0.13980	0.84995	0.08044	541.6	18.07	0.011	6.033	0.022	0.017
0.0927	0.17927	0.88309	0.10327	836.6	18.07	0.011	6.033	0.034	0.027
0.1078	0.20844	0.89694	0.11249	1062.9	18.07	0.011	6.033	0.043	0.034
0.1257	0.24306	0.91888	0.12993	1610.5	18.07	0.011	6.033	0.065	0.052
0.1413	0.27322	0.93416	0.14802	2352.3	18.07	0.011	6.033	0.096	0.076
0.1749	0.33819	0.95259	0.17819	4066.9	18.07	0.011	6.033	0.166	0.132
0.2078	0.40181	0.96707	0.20806	6584.7	18.07	0.011	6.033	0.267	0.212
0.2412	0.46639	0.97728	0.23916	10176.0	18.07	0.011	6.033	0.413	0.327
0.2749	0.53155	0.98480	0.26495	14367.0	18.07	0.011	6.033	0.583	0.462
0.3092	0.59786	0.98999	0.28461	17684.3	18.07	0.011	6.033	0.718	0.569
0.3420	0.66130	0.99159	0.29302	19401.5	18.07	0.011	6.033	0.788	0.624

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	L/Delta	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PIE,	PTI/PIMAX
0.4091	0.39105	0.99662	0.32211	26531.0	18.07	0.011	6.033	1.077	0.854
0.4756	0.41963	0.99907	0.32179	26998.5	18.07	0.011	6.033	1.176	0.933
0.5172	1.00000	1.00000	0.32421	29524.7	18.07				0.950
0.5438	1.05150	1.00035	0.32454	29862.0	18.07	0.011	6.033	1.213	0.961
0.6102	1.17990	1.00049	0.32449	29862.0	18.07	0.011	6.033	1.213	0.961
0.6704	1.31177	1.00092	0.32684	30552.6	18.07	0.011	6.033	1.241	0.983
0.7455	1.44152	1.00092	0.32684	30552.6	18.07	0.011	6.033	1.241	0.983
0.8122	1.57049	1.00123	0.32861	31078.7	18.07	0.011	6.033	1.262	1.000
0.8792	1.70004	1.00123	0.32861	31078.7	18.07	0.011	6.033	1.262	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MG. DAY TEST RUN X -7.50 24624.00 PTE ITD TW GEN. CYL.  
 6. 2. 25. 306. 93. 726.00 659.00 12.00

Y MACH TOT.TEMP. STAT.TEMP. VELOCITY IT/ITD

0.	0.	655.00	655.00	0.	0.9022
0.0100	1.09	676.07	545.88	1250.6	0.9312
0.0200	1.58	694.90	478.18	1613.6	0.9572
0.0300	1.76	706.84	435.90	1901.5	0.9725
0.0375	2.38	714.15	395.50	2132.8	0.9837
0.0551	2.53	727.62	319.17	2215.2	1.0022
0.0713	2.85	736.15	280.90	2338.7	1.0140
0.0892	3.03	746.35	262.68	2410.5	1.0280
0.1062	3.32	752.27	234.31	2494.5	1.0362
0.1225	3.49	752.13	219.30	2530.1	1.0360
0.1387	3.66	749.38	203.85	2560.1	1.0322
0.1789	4.04	737.73	173.00	2604.7	1.0162
0.2078	4.49	731.87	145.52	2634.1	1.0081
0.2389	4.83	729.65	128.95	2686.4	1.0050
0.2725	5.16	727.57	115.20	2712.4	1.0022
0.3061	5.38	725.95	106.86	2727.2	0.9999
0.3398	5.56	724.28	100.92	2736.6	0.9976
0.4083	5.86	724.81	92.05	2757.1	0.9984
0.4740	5.92	725.31	90.56	2761.9	0.9993
0.5418	5.94	725.95	90.15	2763.7	0.9999
0.6079	5.95	726.04	89.86	2764.6	1.0001
0.6756	5.97	725.77	89.23	2765.4	0.9997
0.7443	5.98	725.15	88.85	2764.8	0.9988
0.8106	6.00	724.90	88.53	2765.0	0.9985
0.8815	6.01	724.88	88.23	2765.6	0.9985

DELTA DELTA STAR H RSR RS DELTA RTMETHA R RTMETHA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.0285 0.1942 17.84 71065. 181949.9. 172. 4402. 455.44 0.888 0.50500 0.054

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(1), DELTA STAR(2), THETA STAR(1), THETA STAR(2), THETA STAR(1), THETA STAR(2), THETA STAR(1), THETA STAR(2)  
 -0.0119 0.001 0.1936 0.1937 -0.00001 0.01090 0.01091 17.75 5.96 28725.2

Y Y/DELTA L/UIDELTA(1) RHO \* U P1 PTL RHO U PRIME, H PRIME PTL/PTE, PTL/PTIMAX

0.	0.	0.	0.	18.07	0.001	0.001	0.001
0.0100	0.01591	0.45234	0.02412	18.07	0.011	5.957	0.002
0.0214	0.03405	0.50360	0.03553	18.07	0.011	5.957	0.002
0.0299	0.04741	0.5157	0.04352	18.07	0.011	5.957	0.003
0.0375	0.05970	0.77141	0.06494	18.07	0.011	5.957	0.009
0.0551	0.08766	0.80120	0.07308	18.07	0.011	5.957	0.011
0.0713	0.11352	0.84586	0.08767	18.07	0.011	5.957	0.018
0.0892	0.14189	0.87186	0.09663	18.07	0.011	5.957	0.024
0.1062	0.16898	0.90223	0.11210	18.07	0.011	5.957	0.037
0.1225	0.19492	0.91310	0.12149	18.07	0.011	5.957	0.047
0.1387	0.22070	0.92594	0.13224	18.07	0.011	5.957	0.060
0.1709	0.27194	0.94209	0.15854	18.07	0.011	5.957	0.101
0.2078	0.33069	0.95996	0.19206	18.07	0.011	5.957	0.179
0.2389	0.38014	0.97163	0.21937	18.07	0.011	5.957	0.271
0.2725	0.43360	0.98102	0.24792	18.07	0.011	5.957	0.398
0.3061	0.48708	0.98639	0.26874	18.07	0.011	5.957	0.600
0.3398	0.54069	0.98979	0.28555	18.07	0.011	5.957	0.623

HYPERSONIC BOUNDARY LAYER ACC WIND TUNNEL DATA REDUCTION - TUNNEL A CLOUED HEAT TRANSFER

Y	Y/DELTA	L/U(DELTA)	RHO * U	PTI	PI.	RHO U PRIME,	M PRIME	PTI/PTE.	PTI/PTIMAX
0.4083	0.64968	0.99722	0.31540	24757.5	18.07	0.011	5.957	1.005	0.862
0.4740	0.73423	0.99895	0.32115	26303.2	18.07	0.011	5.957	1.068	0.916
0.5418	0.86211	0.99961	0.32280	26774.9	18.07	0.011	5.957	1.087	0.932
0.6079	0.96729	0.99991	0.32395	27093.2	18.07	0.011	5.957	1.100	0.943
0.6265	1.00000	1.00000	0.32455	27288.9	18.07	0.011	5.957	1.126	0.950
0.6754	1.07501	1.00020	0.32635	27737.7	18.07	0.011	5.957	1.140	0.966
0.7443	1.18433	1.00000	0.32766	28066.0	18.07	0.011	5.957	1.153	0.977
0.8164	1.29982	1.00004	0.32889	28393.4	18.07	0.011	5.957	1.167	0.988
0.8815	1.40264	1.00028	0.33006	28725.2	18.07	0.011	5.957	1.167	1.000

HYPERSONIC BOUNDARY LAYER AEC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH MC. DAY TEST NUN X PTF TFO PW GFN. CYL.  
 8. 6. 2. 25. 306. 129. -7.50 12297.60 724.00 415.00 12.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	TT/TTC
0.	0.	415.00	415.00	0.	0.5732
0.0100	0.89	537.69	463.54	943.9	0.7427
0.0159	0.99	593.23	512.10	987.2	0.5174
0.0253	0.99	658.58	568.52	1040.2	0.9036
0.0336	1.35	679.64	497.56	1479.0	0.9387
0.0467	2.62	699.10	294.22	2205.5	0.9656
0.0658	3.01	714.59	253.88	2352.6	0.9870
0.0894	3.37	726.01	222.27	2460.0	1.0028
0.1011	3.55	737.24	209.83	2517.2	1.0183
0.1162	3.71	743.26	198.38	2558.5	1.0266
0.1329	3.86	746.16	187.62	2590.4	1.0306
0.1672	4.21	744.98	164.11	2641.7	1.0290
0.2023	4.52	738.51	145.17	2669.9	1.0200
0.2335	4.83	733.25	129.50	2693.2	1.0128
0.2694	5.14	730.15	116.33	2715.6	1.0085
0.3007	5.43	729.10	105.76	2736.5	1.0070
0.3342	5.69	727.12	97.39	2750.5	1.0043
0.4021	5.95	724.14	89.73	2760.7	1.0002
0.4697	6.00	723.89	88.21	2763.5	0.9998
0.5371	6.01	723.88	87.91	2764.1	0.9998
0.6025	6.04	723.86	87.33	2765.3	0.9998
0.6702	6.05	723.84	86.89	2766.3	0.9998
0.7374	6.07	723.82	86.48	2767.1	0.9998
0.8045	6.08	723.81	86.19	2767.7	0.9997
0.8721	6.09	723.81	86.04	2768.0	0.9997

DELTA DELTA STAR H RSR RS DELTA RTMETA R PIMETA D RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CI  
 0.6049 0.1894 19.67 58726. 964606. 126. 346.17 0.515 0.49819 2.779

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(1), DELTA STAR(1), THETA PRIME, THETA(2), THETA(1), THETA, M(IE), PTLMAX,  
 -0.0048 -0.600 0.1894 0.1894 0.1894 0.0000 0.00963 19.67 6.04 15589.

Y	Y/DELTA	L/(DELTA) RHO * U	PTI	PL	RHO L PRIME	M PRIME	PTI/PIE	PTI/PTIMAX
0.	0.	0.	9.0	9.03	0.001	0.001	0.001	0.001
0.0100	0.01653	0.34132	15.2	9.03	0.001	6.037	0.001	0.001
0.0159	0.02627	0.35699	15.1	9.03	0.011	6.037	0.001	0.001
0.0253	0.04167	0.37614	15.1	9.03	0.011	6.037	0.001	0.001
0.0336	0.05553	0.53483	26.9	9.03	0.011	6.037	0.002	0.002
0.0467	0.08044	0.79754	186.7	9.03	0.011	6.037	0.015	0.012
0.0658	0.10885	0.85074	337.7	9.03	0.011	6.037	0.027	0.022
0.0894	0.13787	0.88959	568.7	9.03	0.011	6.037	0.046	0.036
0.1011	0.16714	0.91025	734.0	9.03	0.011	6.037	0.060	0.047
0.1162	0.19210	0.92520	919.1	9.03	0.011	6.037	0.075	0.059
0.1329	0.21971	0.93673	1132.6	9.03	0.011	6.037	0.092	0.073
0.1672	0.27641	0.95528	1799.7	9.03	0.011	6.037	0.146	0.115
0.2023	0.33444	0.96547	2681.1	9.03	0.011	6.037	0.218	0.172
0.2335	0.38602	0.97390	3899.9	9.03	0.011	6.037	0.317	0.250
0.2694	0.44537	0.98199	5593.2	9.03	0.011	6.037	0.455	0.359
0.3007	0.49711	0.98957	7765.7	9.03	0.011	6.037	0.631	0.498
0.3342	0.55249	0.99464	10266.0	9.03	0.011	6.037	0.835	0.659

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	L/Delta	RHO * U	PII	PI,	RHO U PRIME,	P PRIME	PTI/PTE,	PTI/PTIMAX
0.4021	0.66474	0.99833	0.16186	13482.1	9.03	0.011	6.037	1.096	0.865
0.4697	0.77650	0.99933	0.16482	14296.0	9.03	0.011	6.037	1.163	0.917
0.5371	0.88792	0.99955	0.16540	14662.6	9.03	0.011	6.037	1.176	0.928
0.6029	0.99604	0.99999	0.16658	14800.7	9.03	0.011	6.037	1.204	0.949
0.6699	1.00000	1.00000	0.16861	14810.1	9.03	0.011	6.037	1.225	0.950
0.6702	1.10796	1.00032	0.16748	15065.4	9.03	0.011	6.037	1.246	0.966
0.7374	1.21905	1.00063	0.16834	15318.0	9.03	0.011	6.037	1.260	0.983
0.8045	1.32998	1.00085	0.16892	15493.5	9.03	0.011	6.037	1.260	0.994
0.8721	1.44174	1.00096	0.16924	15589.5	9.03	0.011	6.037	1.268	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X YTD PTE TT0 TTW GFN. CYL.  
 8. 6. 2. 25. 308. 121. -7.50 12297.60 724.00 492.00 12.00

Y	MACH	TDI.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD
0.	0.	492.00	492.00	0.	0.6796
0.0100	0.82	591.48	521.11	919.5	0.8170
0.0180	0.83	630.86	561.95	961.2	0.8824
0.0278	1.20	684.49	530.51	1360.1	0.9454
0.0367	1.46	691.81	446.60	1716.3	0.9555
0.0523	2.70	705.99	287.18	2243.1	0.9751
0.0694	3.06	717.90	250.22	2370.4	0.9916
0.0868	3.35	726.98	224.44	2457.1	1.0041
0.1035	3.50	737.69	214.19	2507.8	1.0189
0.1198	3.69	743.53	199.91	2555.6	1.0270
0.1358	3.87	751.20	188.18	2600.8	1.0376
0.1698	4.18	746.02	165.87	2640.0	1.0304
0.2039	4.51	738.76	145.65	2669.4	1.0204
0.2379	4.83	733.29	129.51	2693.3	1.0128
0.2720	5.15	730.50	115.88	2717.3	1.0090
0.3036	5.44	728.96	105.33	2737.2	1.0068
0.3376	5.69	727.07	97.19	2750.9	1.0042
0.4049	5.96	724.86	89.38	2763.1	1.0012
0.4726	6.03	723.99	87.51	2765.3	1.0000
0.5399	6.05	723.76	87.04	2765.8	0.9997
0.6065	6.07	723.83	86.48	2767.1	0.9998
0.6729	6.09	723.72	85.91	2768.1	0.9996
0.7398	6.10	723.52	85.60	2768.4	0.9993
0.8084	6.11	723.21	85.42	2768.1	0.9989
0.8752	6.12	722.79	85.09	2767.9	0.9983

DELTA DELTA STAR H RSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
 0.6068 0.1949 20.21 49315. 983942. 106. 2112. 380.50 0.636 0.48889 1.914

PHI DELTA STAR PRIME DELTA STAR(21) DELTA STAR(1) THETA PRIME THETA(21) THETA(1) M(E) PTIMAX M(E) PTIMAX  
 -0.0075 0.000 0.1949 0.1949 C.1949 -0. C.00964 0.00964 20.21 6.07 16126.1

Y	Y/DELTA	L/(DELTA) RHO = U	PTI	P1	RHO U PRIME	M PRIME	PTI/PTI	PTI/PTIMAX
0.	0.	0.	9.0	9.03	0.001	0.001	0.001	0.001
0.0100	0.01648	0.33228	14.1	9.03	6.071	6.071	0.001	0.001
0.0180	0.02965	0.34738	14.1	9.03	6.071	6.071	0.001	0.001
0.0278	0.04984	0.49151	22.0	9.03	6.071	6.071	0.003	0.003
0.0367	0.08054	0.62026	41.8	9.03	6.071	6.071	0.013	0.013
0.0523	0.08623	0.81061	210.3	9.03	6.071	6.071	0.022	0.022
0.0694	0.11431	0.85662	361.2	9.03	6.071	6.071	0.045	0.045
0.0868	0.14305	0.88796	552.2	9.03	6.071	6.071	0.056	0.056
0.1035	0.17055	0.90629	684.5	9.03	6.071	6.071	0.073	0.073
0.1198	0.19741	0.92354	895.8	9.03	6.071	6.071	0.093	0.093
0.1358	0.22378	0.93988	1147.9	9.03	6.071	6.071	0.108	0.108
0.1698	0.27981	0.95406	1741.9	9.03	6.071	6.071	0.142	0.142
0.2039	0.33600	0.96467	2653.7	9.03	6.071	6.071	0.216	0.216
0.2379	0.39203	0.97330	3699.9	9.03	6.071	6.071	0.317	0.317
0.2720	0.44822	0.98200	5678.5	9.03	6.071	6.071	0.462	0.462
0.3036	0.50029	0.98917	7873.7	9.03	6.071	6.071	0.640	0.640
0.3376	0.55632	0.99411	10337.7	9.03	6.071	6.071	0.841	0.841

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	Y/Delta	L/(U*Delta)	Rho * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.4049	0.66722	0.98853	0.16263	13715.5	7.28	0.010	6.071	1.115	0.831
0.4726	0.77878	0.99932	0.16424	14707.9	9.03	0.010	6.071	1.196	0.912
0.5329	0.88968	0.99951	0.16717	14971.6	9.03	0.010	6.071	1.217	0.928
0.6085	0.99943	1.00000	0.16934	15318.0	9.03	0.010	6.071	1.246	0.950
0.6729	1.00000	1.00000	0.16934	15319.8	9.03	0.010	6.071	1.274	0.950
0.7368	1.21909	1.00036	0.16952	15670.0	9.03	0.010	6.071	1.289	0.983
0.8084	1.33214	1.00044	0.17013	15848.2	9.03	0.010	6.071	1.297	0.989
0.8752	1.44221	1.00027	0.17112	16126.1	9.03	0.010	6.071	1.311	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER  
MODEL MACH MC, DAY TEST RUN X TTD TTD TTD TTD TTD TTD TTD TTD TTD TTD TTD TTD  
8. 6. 2. 25. 306. 101. -7.50 12297.60 724.90 646.00 1W GEN. CYL. 12.00

Y	MACH	TOI.TFMP.	STAT.TEMP.	VELOCITY	IT/ATIO
0.	0.	646.00	646.00	0.	0.8916
0.0346	1.23	698.18	536.86	1392.1	0.9637
0.0526	1.96	707.05	400.32	1919.6	0.9759
0.0695	2.66	719.77	297.48	2352.4	0.9935
0.0861	2.91	728.62	269.94	2347.4	1.0057
0.1039	3.31	738.63	230.99	2469.6	1.0195
0.1201	3.70	744.96	216.30	2520.2	1.0282
0.1367	3.85	749.37	188.78	2595.1	1.0343
0.1685	4.22	745.03	163.58	2643.0	1.0283
0.2037	4.58	736.93	141.68	2674.2	1.0172
0.2364	4.88	732.73	127.35	2696.8	1.0114
0.2708	5.11	730.38	117.53	2713.4	1.0081
0.3037	5.34	729.33	108.97	2730.0	1.0067
0.3763	5.70	725.90	96.81	2749.1	1.0019
0.4376	5.86	724.74	92.12	2756.8	1.0003
0.5047	5.88	725.06	91.53	2758.8	1.0008
0.5957	5.89	725.05	91.21	2759.5	1.0008
0.6238	5.91	725.04	90.76	2760.5	1.0007
0.6889	5.94	725.01	90.11	2761.8	1.0007
0.7559	5.96	724.99	89.50	2763.1	1.0007
0.8239	5.97	724.98	89.07	2764.0	1.0007
0.8954	5.98	724.97	88.90	2764.3	1.0006

DELTA UELIA STAR M H RSR RS DELIA RTMETHA R RTMETHA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.RECOV. CT  
0.6778 0.1963 20.07 36035. 896635. 78. 1949. 451.41 0.876 0.53766 0.144

PHI, DELTA STAR PRIME, DELTA STAR(2), DELIA STAR(2), DELIA STARIM ), IMETHA PRIME, IMETHA(2), IMETHA(1W), M(W), M(E), PTIMAX,  
-0.0258 -0.0000 0.1964 0.1964 0.1964 0.0000 0.00978 0.00978 20.08 5.93 13981.0

Y	Y/DELTA	L/UI(DELIA)	RHO = U	PII	PI,	RHO U PRIME,	M PRIME	PII/PIE,	PTI/PTIMAX
0.	0.	0.	0.	9.0	9.03	0.011	5.931	0.001	0.001
0.0346	0.05111	0.50410	0.01364	22.6	9.03	0.011	5.931	0.002	0.002
0.0526	0.07759	0.69512	0.02523	66.1	9.03	0.011	5.931	0.005	0.005
0.0695	0.10255	0.81562	0.03983	198.9	9.03	0.011	5.931	0.016	0.014
0.0861	0.12710	0.85004	0.04575	291.7	9.03	0.011	5.931	0.021	0.021
0.1039	0.15329	0.89426	0.05624	527.9	9.03	0.011	5.931	0.043	0.038
0.1201	0.17719	0.91258	0.06129	684.5	9.03	0.011	5.931	0.056	0.049
0.1367	0.20168	0.93973	0.07232	1125.2	9.03	0.011	5.931	0.091	0.080
0.1685	0.24860	0.95705	0.08500	1820.4	9.03	0.011	5.931	0.148	0.130
0.2037	0.30053	0.96834	0.09929	2897.3	9.03	0.011	5.931	0.236	0.207
0.2364	0.34878	0.97655	0.11141	4125.3	9.03	0.011	5.931	0.335	0.295
0.2708	0.39953	0.98256	0.12146	5402.4	9.03	0.011	5.931	0.439	0.386
0.3037	0.44807	0.98856	0.13179	7002.8	9.03	0.011	5.931	0.569	0.501
0.3763	0.54633	0.99550	0.14939	10422.1	9.03	0.011	5.931	0.847	0.745
0.4376	0.64562	0.99828	0.15744	12331.5	9.03	0.011	5.931	1.003	0.882
0.5047	0.74462	0.99920	0.15916	12632.9	9.03	0.011	5.931	1.027	0.904
0.557	0.81986	0.99924	0.15916	12785.8	9.03	0.011	5.931	1.027	0.904
0.6238	0.92034	0.99959	0.16001	13010.3	9.03	0.011	5.931	1.058	0.931
0.6778	1.00000	1.00000	0.16103	13282.0	9.03	0.011	5.931	1.027	0.950
0.6889	1.01638	1.00008	0.16123	13337.8	9.03	0.011	5.931	1.027	0.954
0.7559	1.11523	1.00054	0.16241	13657.0	9.03	0.011	5.931	1.027	0.977

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL A COOLED HEAT TRANSFER

Y	V/DELTA	L/DELTA	RMO * U	PTI	PI	RHO U PRIME	M PRIME	PTI/PIE	PTI/PTIMAX
0.8239	1.21556	1.00088	0.16326	13892.1	9.03	0.014	5.931	1.130	0.994
0.8994	1.32105	1.00100	0.16358	13981.0	9.03	0.011	5.931	1.137	1.000

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X TTD PTE ITD FM GEN. CYL.  
 8. 2. 29. 306. 12. -7.50 79920.00 1356.00 509.00 26.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELCCIIY	IT/ITC
0.	0.	509.00	509.00	C.	0.3754
0.0100	1.10	850.51	684.08	1414.0	0.6272
0.0276	2.27	1121.07	546.17	2628.1	0.8267
0.0434	2.87	1277.33	483.03	3089.1	0.9420
0.0607	3.14	1269.59	426.30	3182.9	0.9363
0.0761	3.42	1283.33	384.35	3286.4	0.9464
0.0935	3.49	1297.00	377.60	3323.5	0.9565
0.1279	3.78	1322.13	343.17	3429.4	0.9750
0.1849	4.15	1362.25	306.57	3561.3	1.0046
0.2436	4.53	1391.50	272.96	3665.8	1.0262
0.3150	5.08	1417.59	229.93	3777.3	1.0454
0.3767	5.46	1430.45	205.53	3836.1	1.0549
0.4503	6.05	1431.21	171.83	3889.7	1.0555
0.5349	6.74	1412.11	139.96	3909.4	1.0414
0.6189	7.32	1390.60	118.77	3908.9	1.0255
0.7044	7.64	1379.91	108.86	3907.7	1.0176
0.8282	7.81	1376.54	104.23	3909.6	1.0151
0.8629	7.80	1376.37	104.41	3909.1	1.0150
0.9569	7.73	1375.22	106.15	3904.7	1.0142

DELTA DELTA STAR H RSR RS DELTA RTHEIA R THEIA C RECV.TEMP. RECV.FACT. TOT.PRESS.RECOV. CT  
 0.7010 0.3985 34.31 205282. 4566309. 120. 2867. 509.51 0.323 0.29424 7.012

PMI DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(W 1), THEIA PRIME, THEIA(2), THEIA(W), MWI), M(E), PTIMAX,  
 -0.0250 -0.020 0.4183 0.4101 0.00020 0.01142 0.01120 36.62 7.78 91901.1

Y	Y/DELTA	L/U(DELTA)	RMO * U	PI	PII/PIE	M PRIME	PII/PIE	PII/PIIMAX
0.	0.	0.	0.	11.0	10.98	0.000	0.000	0.000
0.0100	0.01279	0.36167	0.01322	23.5	10.98	7.750	0.000	0.000
0.0276	0.03525	0.67220	0.03078	136.0	10.98	7.750	0.002	0.001
0.0434	0.05554	0.79013	0.04092	330.2	10.98	7.750	0.004	0.004
0.0607	0.07768	0.81413	0.04777	500.5	10.98	7.750	0.006	0.005
0.0761	0.09729	0.84058	0.05470	746.9	10.98	7.750	0.009	0.008
0.0935	0.11958	0.85007	0.05631	824.6	10.98	7.750	0.010	0.009
0.1279	0.16359	0.87718	0.06393	1232.4	10.98	7.750	0.015	0.013
0.1849	0.23650	0.91090	0.07432	2030.8	10.98	7.750	0.025	0.022
0.2436	0.31158	0.93763	0.08592	3284.2	10.98	7.750	0.041	0.036
0.3150	0.40290	0.96616	0.10510	6389.3	10.98	7.750	0.080	0.070
0.3767	0.48182	0.98121	0.11941	9768.3	10.98	7.750	0.106	0.106
0.4503	0.57596	0.99491	0.14482	18309.7	10.98	7.750	0.224	0.199
0.5349	0.68437	0.99994	0.17870	35810.5	10.98	7.750	0.390	0.390
0.6189	0.79161	0.99982	0.21056	60311.0	10.98	7.750	0.448	0.448
0.7044	0.90097	0.99951	0.22964	79634.7	10.98	7.750	0.755	0.656
0.7818	1.00000	1.00000	0.23828	87306.0	10.98	7.750	0.996	0.867
0.8282	1.05932	1.00000	0.23996	91901.1	10.98	7.750	1.150	1.000
0.8629	1.10370	0.99986	0.23951	91306.9	10.98	7.750	1.142	0.994
0.9569	1.22393	0.99873	0.23934	85942.1	10.98	7.750	1.075	0.935

HYPERSONIC BOUNDARY LAYER AELC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLET HEAT TRANSFER  
 MODEL MACH MC. DAY TEST RUN X PTE TTD TTD TTD TTD TTD  
 8. 2. 25. 306. 14. -7.50 79920.00 1330.00 571.00 571.00 26.00

Y	MACH	TOT.TEMP.	STAT.TEMP.	VELOCITY	TT/TTD	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.	0.	571.00	571.00	0.	0.4299								
0.0100	0.96	786.01	664.88	1216.2	C.5925								
0.0276	1.17	1047.02	820.76	1646.7	0.7872								
0.0437	1.82	1221.58	734.96	2417.9	0.9185								
0.0614	2.68	1220.39	499.95	2942.0	0.9176								
0.0778	3.11	1236.76	420.83	3130.9	0.9299								
0.1328	3.67	1280.98	347.38	3349.0	0.9631								
0.1947	4.08	1319.07	304.95	3490.5	0.9918								
0.2581	4.49	1352.18	268.36	3608.4	1.0167								
0.3619	5.03	1390.15	229.73	3733.8	1.0452								
0.4259	5.58	1410.55	195.18	3821.1	1.0606								
0.5088	6.24	1407.67	160.19	3871.3	1.0584								
0.5938	6.97	1387.78	129.40	3888.2	1.0434								
0.6776	7.67	1366.84	112.45	3882.0	1.0277								
0.7632	7.74	1362.75	104.89	3887.4	1.0246								
0.8437	7.85	1364.61	102.48	3894.0	1.0260								
0.9244	7.89	1364.84	102.49	3894.3	1.0262								
1.0150	7.83	1363.90	102.88	3892.3	1.0255								

  

DELTA	DELTA STAR	H	RSR	RS DELTA	RHETA R	RHETA D	RECOV.TEMP.	RECOV.FACT.	TOT.PRESS.RECOV.	CT
0.7498	0.4328	30.98	187861.	4699403.	142.	2558.	534.10	0.381	0.26396	6.388

  

PHI.	DELTA STAR PRIME.	DELTA STAR(2).	DELTA STAR(1).	THETA STAR(1).	THETA STAR(2).	THETA(1).	THETA(2).	THETA(1).	THETA(2).	THETA(1).	THETA(2).
-0.0815	-0.011	0.4634	0.4388	0.00010	0.01392	0.01377	31.86	7.80	94609.9		

  

Y	Y/DELTA	L/UIDELTA	RHO * U	PTI	PI.	RHO U PRIME.	M PRIME	PTI/PIE.	PTI/PTIMAX
0.	0.	0.	0.	11.0	10.98	0.000	0.000	0.000	0.000
0.0100	0.01257	0.31268	0.01170	19.9	10.98	0.003	7.785	0.000	0.000
0.0276	0.03463	0.42386	0.01285	25.7	10.98	0.003	7.785	0.000	0.000
0.0437	0.05490	0.62159	0.02105	65.0	10.98	0.003	7.785	0.001	0.001
0.0614	0.07713	0.75633	0.03765	249.5	10.98	0.003	7.785	0.003	0.003
0.0778	0.09772	0.80489	0.04760	477.8	10.98	0.003	7.785	0.006	0.005
0.1328	0.18689	0.86098	0.06168	1057.2	10.98	0.003	7.785	0.013	0.011
0.1967	0.24719	0.89734	0.07323	1848.1	10.98	0.003	7.785	0.023	0.020
0.2581	0.32435	0.92766	0.08602	3152.8	10.98	0.003	7.785	0.039	0.033
0.3619	0.42966	0.95989	0.10398	5985.1	10.98	0.003	7.785	0.075	0.063
0.4259	0.53522	0.98335	0.12425	11140.8	10.98	0.003	7.785	0.139	0.116
0.5098	0.64065	0.99524	0.15441	22086.4	10.98	0.003	7.785	0.276	0.233
0.5938	0.74621	0.99958	0.19224	44358.0	10.98	0.003	7.785	0.555	0.469
0.6776	0.83152	0.99739	0.22084	68744.8	13.72	0.003	7.785	0.860	0.727
0.7632	0.93493	0.99377	0.23711	86796.4	10.98	0.003	7.785	1.086	0.917
0.7998	1.00060	1.00000	0.24041	89879.4	10.98	0.003	7.785	1.184	0.950
0.8437	1.04277	1.00107	0.24310	94609.9	10.98	0.003	7.785	1.184	1.000
0.9244	1.16167	1.00116	0.24308	94609.9	10.98	0.003	7.785	1.184	1.000
1.0150	1.27552	1.00063	0.24204	93146.7	10.98	0.003	7.785	1.165	0.985



HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	Y/DELTA	L/(UDELTA)	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.5534	0.65987	1.00801	0.16312	26165.1	10.98	0.004	7.727	0.327	0.290
0.6144	0.72997	1.00383	0.19188	43044.6	10.98	0.004	7.727	0.539	0.478
0.6714	0.79769	1.00023	0.21342	59726.2	10.98	0.004	7.727	0.747	0.663
0.7313	0.86886	0.99893	0.23777	73283.9	10.98	0.004	7.727	0.917	0.814
0.7895	0.93800	0.99963	0.25568	81987.3	10.98	0.004	7.727	1.026	0.910
0.8417	1.00000	1.00000	0.27687	85574.9	10.98	0.004	7.727	1.077	0.950
0.8984	1.00798	0.99999	0.29914	86036.8	10.98	0.004	7.727	1.086	0.955
0.9075	1.07820	0.99936	0.23994	86796.4	10.98	0.004	7.727	1.087	0.965
0.9659	1.14758	1.00011	0.23984	86891.5	10.98	0.004	7.727	1.096	0.972
1.0250	1.21780	0.99986	0.24047	87559.7	10.98	0.004	7.727	1.102	0.977
1.0840	1.28790	1.00074	0.24066	88039.8	10.98	0.004	7.727	1.127	1.000
1.1428	1.35681	1.00086	0.24235	90078.6	10.98	0.004	7.727	1.127	1.000
1.1758	1.39364	1.00031	0.24183	89298.4	10.98	0.004	7.727	1.117	0.991

HYPERSONIC BOUNDARY LAYER AECU WIND TUNNEL DATA REDUCTION - TUNNEL H COOLED HEAT TRANSFER  
 MODEL MACH. NO. DAY TEST RUN X PTF TID TW GEN. CYL.  
 8. 2. 25. 306. 107. -7.50 79920.00 1353.00 1165.00 26.00

Y	MACH	TC/TEMP.	STAT. TEMP.	VELOCITY	TT/TID	RSR	RS DELTA	RTETA M	PIPIETA D	REC(V. TEMP.	RECV. FACT.	TOT. PRESS. RECDV.	CT
0.	0.	1165.00	1165.00	C.	C.8630	92479.	429981.	74.	3420.	805.28	0.8951	0.2365:	0.723
0.0261	0.68	1226.69	1122.59	1118.4	C.9047								
0.0437	1.06	1235.88	1026.36	1660.6	0.9303								
0.0619	1.71	1280.75	809.01	2393.2	C.9487								
0.0764	1.99	1287.59	718.83	2614.0	C.9838								
0.0931	2.28	1295.81	634.78	2818.1	C.9599								
0.1150	2.70	1312.09	534.30	3056.8	C.9719								
0.1371	3.04	1326.23	465.20	3216.2	C.9824								
0.2189	3.30	1340.39	420.97	3323.5	C.9929								
0.2615	3.57	1353.67	381.21	3418.0	1.0027								
0.3036	3.95	1366.05	331.26	3525.9	1.0119								
0.3627	4.39	1385.69	285.16	3636.1	1.0264								
0.4211	4.88	1399.10	243.16	3726.6	1.0364								
0.4799	5.39	1413.12	207.47	3805.8	1.0468								
0.5384	5.90	1424.27	178.78	3868.2	1.0550								
0.5979	6.53	1425.70	149.71	3915.3	1.0561								
0.6562	7.03	1414.43	129.81	3928.5	1.0477								
0.7143	7.39	1396.88	117.18	3921.0	1.0347								
0.7729	7.57	1381.43	110.85	3907.0	1.0233								
0.8325	7.67	1374.65	107.68	3901.4	1.0183								
0.8898	7.72	1373.68	106.30	3902.1	1.0175								
0.9496	7.72	1372.59	106.30	3900.4	1.0167								
1.0070	7.67	1372.33	107.40	3898.3	1.0115								
DELTA	DELTA STAR	H	RSR	RS DELTA	RTETA M	PIPIETA D	REC(V. TEMP.	RECV. FACT.	TOT. PRESS. RECDV.	CT			
0.8262	0.5108	34.71	92479.	429981.	74.	3420.	805.28	0.8951	0.2365:	0.723			
PHI:	DELTA STAR	PRIME,	DELTA STAR(2),	DELTA STAR(M),	THEIA PRIME,	THEIA(2),	THEIA(M),	HUMI),	MI(1),	PTIMAX,			
-0.1900	-0.002		0.5131	0.5120	0.0002	0.01470	0.01468	34.91	7.66	95.87.			
Y	Y/DELTA	L/UIDELTA	RHO * U	PTI	PI,	RHO U	PRIME,	M	PRIME	PTI/PIE,	PTI/PTIMAX		
0.	0.	0.03161	0.00637	11.0	10.98	0.004	7.660	0.000	0.000	0.000	0.000		
0.0261	0.03161	0.28664	0.00637	15.0	10.98	0.004	7.660	0.000	0.000	0.000	0.000		
0.0437	0.03288	0.42561	0.01035	22.3	10.98	0.004	7.660	0.000	0.000	0.000	0.000		
0.0619	0.07493	0.61082	0.01887	55.1	10.98	0.004	7.660	0.001	0.001	0.001	0.001		
0.0764	0.09253	0.66998	0.02326	84.5	10.98	0.004	7.660	0.001	0.001	0.001	0.001		
0.0931	0.11268	0.72226	0.02840	133.4	10.98	0.004	7.660	0.002	0.002	0.002	0.002		
0.1150	0.13339	0.78346	0.03650	254.8	10.98	0.004	7.660	0.003	0.003	0.003	0.003		
0.1371	0.21435	0.82434	0.04423	429.6	10.98	0.004	7.660	0.005	0.005	0.005	0.005		
0.2189	0.26494	0.85184	0.05051	632.5	10.98	0.004	7.660	0.008	0.008	0.008	0.008		
0.2615	0.31650	0.87606	0.05736	926.4	10.98	0.004	7.660	0.012	0.012	0.012	0.012		
0.3036	0.36745	0.90370	0.06809	1563.6	10.98	0.004	7.660	0.020	0.020	0.020	0.020		
0.3627	0.43898	0.93146	0.08158	2777.3	10.98	0.004	7.660	0.035	0.035	0.035	0.035		
0.4211	0.50966	0.95513	0.09805	5017.0	10.98	0.004	7.660	0.063	0.063	0.063	0.063		
0.4799	0.58083	0.97546	0.11736	9055.2	10.98	0.004	7.660	0.113	0.113	0.113	0.113		
0.5384	0.65163	0.99144	0.13842	15668.3	10.98	0.004	7.660	0.196	0.196	0.196	0.196		
0.5979	0.72365	1.00351	0.16731	29261.5	10.98	0.004	7.660	0.366	0.366	0.366	0.366		
0.6562	0.79421	1.00690	0.19361	46884.3	10.98	0.004	7.660	0.587	0.587	0.587	0.587		
0.7143	0.86453	1.00496	0.21407	64218.8	10.98	0.004	7.660	0.804	0.804	0.804	0.804		
0.7729	0.93545	1.00138	0.22550	75030.3	10.98	0.004	7.660	0.881	0.881	0.881	0.881		
0.8262	1.00000	1.00000	0.23139	80928.4	10.98	0.004	7.660	0.939	0.939	0.939	0.939		

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER

Y	V/DELTA	L/U(DELTA)	RHO * U	PTI	P1	RHO U PRIME	M PRIME	PTI/PTE	PTI/PTIMAX
0.0325	1.00759	0.99996	0.23180	81621.5	10.98	0.004	7.660	1.021	0.958
0.8898	1.07694	1.00012	0.23475	81807.8	10.98	0.004	7.660	1.066	1.000
0.9494	1.14931	0.99969	0.23475	84952.5	10.98	0.004	7.660	1.063	0.997
1.0070	1.21878	0.99915	0.23223	81895.7	10.98	0.004	7.660	1.025	0.961

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE RPO 1297.00 472.50 26.00  
 8. 2. 25. 306. 76. -7.50 36060.00 1297.00 472.50 26.00  
 GEN. CYL.

Y	MACH	TOI.PEPP.	STAT.TEMP.	VELOCITY	TT/TT0
0.	0.	472.50	472.50	0.	0.3643
0.0100	0.52	710.44	674.49	657.3	0.5478
0.0204	0.57	985.83	925.86	848.8	0.7601
0.0306	0.68	1102.25	1007.82	1045.1	0.8498
0.0376	1.81	1156.66	699.62	2343.3	0.8918
0.0446	2.59	1189.41	506.83	2855.2	0.9140
0.0479	2.93	1205.54	443.44	3025.8	0.9295
0.1087	3.77	1258.56	322.23	3317.9	0.9549
0.1960	4.00	1255.70	298.98	3391.1	0.9682
0.2234	4.28	1265.69	271.30	3456.4	0.9759
0.2644	4.64	1286.03	242.57	3540.6	0.9915
0.3488	5.11	1314.84	211.59	3640.6	1.0138
0.4323	5.49	1327.51	177.60	3716.5	1.0235
0.5159	6.22	1331.08	152.41	3763.0	1.0263
0.6001	6.79	1319.29	129.16	3781.3	1.0172
0.7287	7.48	1281.32	105.98	3773.7	0.9956
0.8522	7.61	1277.74	101.54	3759.1	0.9851
0.9401	7.61	1275.69	101.50	3755.9	0.9836
1.0410	7.58	1274.88	102.06	3753.7	0.9829
1.0980	7.59	1274.72	101.85	3753.7	0.9828

DELTA DELTA STAR H RSR RS DELTA RIMETA R RTHETA D RECV.TEMP. RECV.FACT. TOT.PRESS.RECOV. CT  
 0.7932 0.4212 38.00 93766. 1924062. 56. 1153. 475.75 0.309 0.27443 6.677

PHI, DELTA STAR PRIME, DELTA STAR(2), DELTA STAR(M), DELTA STAR(W), THETA STAR(M), THETA STAR(W), THETA(2), THETA(M), M(W), M(E), PII MAX,  
 -0.0037 -0.011 0.4325 0.4276 0.00012 0.01097 0.01085 39.42 7.57 32566.1

Y	V/DELTA	L/UIDELTA	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PII/PTE,	PTII/PTIMAX
0.	0.	0.01261	0.17461	0.00262	4.6	4.61	0.000	0.000	0.000
0.0100	0.01261	0.17461	0.17461	0.00262	5.5	4.61	0.000	0.000	0.000
0.0204	0.03326	0.22547	0.22547	0.00246	5.7	4.61	0.000	0.000	0.000
0.0306	0.04862	0.28294	0.28294	0.00284	6.3	4.61	0.000	0.000	0.000
0.0376	0.07259	0.62247	0.62247	0.00899	26.8	4.61	0.004	0.001	0.001
0.0446	0.09407	0.75847	0.75847	0.01513	90.2	4.61	0.004	0.003	0.003
0.0479	0.11076	0.80379	0.80379	0.01832	152.7	4.61	0.004	0.004	0.004
0.07287	0.17486	0.88134	0.88134	0.02765	513.0	4.61	0.004	0.014	0.016
0.1000	0.22692	0.90083	0.90083	0.03050	703.7	4.61	0.004	0.020	0.022
0.2234	0.28183	0.91816	0.91816	0.03421	1010.6	4.61	0.004	0.028	0.031
0.2644	0.33332	0.94054	0.94054	0.03914	1581.2	4.61	0.004	0.044	0.049
0.3488	0.43972	0.96711	0.96711	0.04620	2756.3	4.61	0.004	0.077	0.085
0.4323	0.54499	0.98726	0.98726	0.05612	5241.1	4.61	0.004	0.146	0.161
0.5159	0.65038	0.99962	0.99962	0.06629	9071.8	4.61	0.004	0.252	0.279
0.6001	0.75653	1.00447	1.00447	0.07660	15693.7	4.61	0.004	0.436	0.482
0.7287	0.91613	1.00245	1.00245	0.09561	29100.9	4.61	0.004	0.808	0.894
0.7932	1.00000	1.00000	1.00000	0.09818	30937.8	4.61	0.004	0.950	0.950
0.8522	1.07435	0.99857	0.99857	0.09939	32566.1	4.61	0.004	0.905	1.000
0.9401	1.18516	0.99772	0.99772	0.09974	32834.4	4.61	0.004	0.996	0.901
1.0410	1.31236	0.99713	0.99713	0.09875	31938.6	4.61	0.004	0.882	0.975
1.0980	1.38422	0.99715	0.99715	0.09895	31954.3	4.61	0.004	0.888	0.981

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH RC. DAY TEST RUN X PTE YTD  
 8. 2. 25. 306. 5. -7.50 36576.00 1257.00 585.00 26.00

Y	MACH	TOT. TEMP.	STAT. TEMP.	VELOCITY	Y/T	YTD
0.	0.	585.00	585.00	0.	0.4654	
0.0100	1.50	648.39	447.36	1954.1	0.5136	
0.0200	1.77	945.24	582.04	2888.9	0.7520	
0.1025	3.04	1102.96	387.03	2932.8	0.8775	
0.1437	3.58	1151.13	322.69	3154.8	0.9198	
0.2288	4.32	1178.28	248.90	3341.5	0.9374	
0.3116	5.00	1200.83	199.86	3467.8	0.9553	
0.3958	5.70	1230.40	164.27	3578.9	0.9788	
0.4809	6.37	1269.09	139.19	3682.7	1.0088	
0.5663	6.94	1296.68	121.87	3756.9	1.0316	
0.6472	7.45	1307.12	108.09	3795.4	1.0399	
0.7314	7.74	1297.27	99.82	3792.9	1.0320	
0.8193	7.89	1279.23	94.81	3765.8	1.0145	
0.8995	7.93	1262.66	92.90	3748.4	1.0043	
0.9839	7.93	1258.44	92.64	3742.4	1.0011	
1.0690	7.93	1258.44	92.61	3742.5	1.0011	

DELTA DELTA STAR M RSR RS DELTA RIMETA R RIMETA O RECOV. TEMP. RECOV. FACT. TOT. PRESS. RECOV. CT  
 0.0040 0.4137 21.77 80627. 2318831. 83. 2377. 522.60 0.422 0.28785 5.979

PHI. DELTA STAR PRIME. DELTA STAR(2), DELTA STAR(M 1), YETA STAR(2), YETA STAR(M), H(M), M(E), PTIMAX,  
 -0.0041 -0.002 0.4167 0.4155 0.00003 0.01898 0.01892 21.96 7.88 43292.2

Y	V/DELTA	U/DELTA	RMO	U	PTI	PL	RMO	U	PRIME	M	PRIME	PTI/PRIME	PTI/PTIMAX
0.	0.	0.	0.	0.	4.7	4.68	0.003	0.003	7.871	0.000	0.000	0.000	0.000
0.0100	0.01244	0.41234	0.00947	17.2	4.68	4.68	0.003	0.003	7.871	0.001	0.001	0.001	0.001
0.0200	0.07536	0.55426	0.00979	25.5	4.68	4.68	0.003	0.003	7.871	0.004	0.004	0.004	0.004
0.1025	0.12749	0.77815	0.02066	182.9	4.68	4.68	0.003	0.003	7.871	0.011	0.011	0.011	0.011
0.1437	0.17874	0.83706	0.02666	401.3	4.68	4.68	0.003	0.003	7.871	0.030	0.030	0.030	0.030
0.2288	0.28459	0.88659	0.03661	1080.3	4.68	4.68	0.003	0.003	7.871	0.068	0.068	0.068	0.068
0.3116	0.38758	0.92010	0.04731	2488.4	4.68	4.68	0.003	0.003	7.871	0.147	0.147	0.147	0.147
0.3958	0.49231	0.94958	0.05941	5302.4	4.68	4.68	0.003	0.003	7.871	0.292	0.292	0.292	0.292
0.4809	0.59816	0.97713	0.07215	10482.0	4.68	4.68	0.003	0.003	7.871	0.503	0.503	0.503	0.503
0.5663	0.70438	0.99681	0.08406	18388.5	4.68	4.68	0.003	0.003	7.871	0.787	0.787	0.787	0.787
0.6472	0.80501	1.00703	0.09575	28782.0	4.68	4.68	0.003	0.003	7.871	1.019	1.019	1.019	1.019
0.7314	0.90974	1.00636	0.10362	37036.5	4.68	4.68	0.003	0.003	7.871	1.142	1.142	1.142	1.142
0.8193	1.01410	1.00000	0.10785	41127.6	4.68	4.68	0.003	0.003	7.871	1.184	1.184	1.184	1.184
0.8995	1.01410	0.99918	0.10831	41766.5	4.68	4.68	0.003	0.003	7.871	1.182	1.182	1.182	1.182
0.9839	1.11883	0.99457	0.11002	43292.2	4.68	4.68	0.003	0.003	7.871	1.184	1.184	1.184	1.184
1.0690	1.22381	0.99297	0.11016	43298.9	4.68	4.68	0.003	0.003	7.871	1.184	1.184	1.184	1.184
1.0690	1.32966	0.99299	0.11020	43292.2	4.68	4.68	0.003	0.003	7.871	1.184	1.184	1.184	1.184

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH PC. DAY TEST RUN X TTD TTD PIE GEN. CYL.  
 8. 2. 23. 306. 69. -7.50 35452.60 1246.00 840.00 26.00

Y	MACH	ICL.TEMP.	STAT.TEMP.	VELOCITY	YI/TID	RSR	RS DELTA	RHETA R	RHETA D	RECOV.FACT.	TOT.PRESS-RECOV.	CT
0.	0.	640.00	840.00	0.	0.6742	55507.	2104067.	-31.	-1175.	631.11	0.646	0.26455
0.0615	0.88	1014.96	880.17	1272.6	0.8146							
0.0789	2.03	1073.74	568.77	2413.8	0.8617							
0.0949	2.63	1104.95	463.61	2775.8	0.8868							
0.1373	3.52	1143.94	329.19	3128.6	0.9181							
0.1786	3.87	1163.45	291.66	3236.3	0.9337							
0.2210	4.16	1177.69	263.52	3314.0	0.9452							
0.2628	4.49	1192.42	236.58	3388.7	0.9570							
0.3047	4.80	1206.81	214.92	3452.0	0.9685							
0.3720	5.26	1233.37	189.03	3542.1	0.9899							
0.4567	5.87	1269.72	161.13	3649.4	1.0190							
0.5398	6.50	1289.91	136.49	3722.5	1.0352							
0.6356	7.03	1285.22	118.19	3744.4	1.0315							
0.7076	7.46	1265.12	104.20	3734.6	1.0153							
0.7914	7.64	1237.48	97.75	3700.3	0.9932							
0.8751	7.70	1225.28	95.34	3684.4	0.9834							
0.9587	7.68	1223.10	95.58	3680.5	0.9816							
1.0440	7.68	1222.35	95.59	3679.2	0.9810							

  

PHI,	DELTA STAR PRIME,	DELTA STAR(2),	DELTA STAR(1),	IMETA STAR(1),	IMETA(2),	THETA(1),	H(W),	M(E),	PTIMAX,
-0.0200	-0.001	0.4434	0.4432	0.0001	-0.01033	-0.01033	-62.91	7.64	34784.3

  

Y	Y/DELTA	L/(U(DELTA) RHO * U	PTI	PL	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	6.6	4.57	0.000	0.000	0.000	0.000
0.0615	0.07756	0.34395	7.5	4.57	0.000	0.000	0.000	0.000
0.0789	0.09955	0.65240	37.4	4.57	0.004	0.004	0.004	0.000
0.0949	0.11971	0.75024	95.6	4.57	0.004	0.004	0.003	0.003
0.1373	0.17312	0.84561	357.7	4.57	0.004	0.004	0.010	0.010
0.1786	0.22520	0.87471	579.6	4.57	0.004	0.004	0.016	0.017
0.2210	0.27866	0.89572	862.7	4.57	0.004	0.004	0.024	0.025
0.2628	0.33137	0.91590	1314.2	4.57	0.004	0.004	0.037	0.038
0.3047	0.38420	0.93302	1918.1	4.57	0.004	0.004	0.054	0.055
0.3720	0.46906	0.95737	3244.1	4.57	0.004	0.004	0.092	0.093
0.4567	0.57586	0.98638	6280.1	4.57	0.004	0.004	0.177	0.181
0.5398	0.68064	1.00612	11863.7	4.57	0.004	0.004	0.335	0.341
0.6356	0.80144	1.01204	19387.2	4.57	0.004	0.004	0.547	0.557
0.7076	0.89222	1.00939	28514.3	4.57	0.004	0.004	0.820	0.820
0.7914	0.99789	1.00013	33009.5	4.57	0.004	0.004	0.931	0.949
0.7931	1.00000	1.00000	33045.1	4.57	0.004	0.004	0.981	0.950
0.8751	1.10343	0.99582	34784.3	4.57	0.004	0.004	0.967	0.985
0.9587	1.20880	0.99476	34277.1	4.57	0.004	0.004	0.967	0.985
1.0440	1.31639	0.99443	34185.1	4.57	0.004	0.004	0.964	0.983

HYPERSONIC BOUNDARY LAYER AECG WIND TUNNEL DATA REDUCTION - TUNNEL B COOLED HEAT TRANSFER  
 MODEL MACH NO. DAY TEST RUN X PTE YFO YTM  
 8. 2. 25. 306. 85. -7.50 35640.00 1317.00 1105.00 26.00

Y	MACH	TOI.TEMP.	STAT.TEMP.	VELOCITY	Y/YFO
0.	0.	1105.00	1105.00	0.	0.8390
0.0100	2.07	1139.95	623.92	2937.7	0.9807
0.0291	1.68	1169.03	746.72	2252.4	0.9876
0.0471	1.52	1178.89	804.83	2119.9	0.8951
0.0639	1.48	1187.58	824.82	2087.6	0.9017
0.0810	1.52	1195.02	817.52	2129.6	0.9074
0.0964	1.71	1203.94	759.90	2309.7	0.9142
0.1386	2.56	1233.91	533.92	2899.9	0.9369
0.1808	3.04	1248.51	438.73	3119.1	0.9480
0.2226	3.41	1258.95	378.43	3252.5	0.9359
0.2640	3.80	1270.15	327.15	3365.9	0.9644
0.3074	4.17	1284.83	286.44	3463.3	0.9756
0.3493	4.51	1298.02	255.85	3538.4	0.9856
0.4045	4.94	1316.34	223.65	3623.2	0.9995
0.4652	5.41	1335.58	194.61	3702.3	1.0141
0.5293	5.91	1352.54	169.35	3770.2	1.0270
0.5833	6.34	1355.05	150.11	3804.7	1.0289
0.6417	6.76	1348.10	132.94	3820.8	1.0236
0.6999	7.12	1336.05	119.86	3822.4	1.0143
0.7582	7.36	1317.47	111.44	3809.6	1.0017
0.8182	7.51	1306.50	108.32	3796.9	0.9920
0.8796	7.65	1307.14	102.29	3793.5	0.9872
0.9325	7.67	1295.65	101.51	3787.6	0.9838
0.9939	7.66	1295.09	101.74	3786.4	0.9834
1.0540	7.63	1295.52	102.48	3785.9	0.9837

DELTA DELTA STAR H MSR RS DELTA RTHETA R RTHETA D RECOV.TEMP. RECOV.FACT. TOT.PRESS.-RECOV. CT  
 0.8580 0.5066 34.69 41031. 1904118. 32. 1503. 763.83 0.825 0.24914 0.694

PHI DELTA STAR PRIME DELTA STAR(2), DELTA STAR(M 1), THEIA STAR(1), THEIA PRIME, THEIA(2), THEIA(M), H(M), MIE), PTIMAX,  
 -0.0102 0.602 0.5048 0.5056 -0.00002 0.01462 0.01464 34.53 7.81 34018.6

Y	V/DELTA	L/(U(DELTA))	RHO * U	PTI	PI,	RHO U PRIME,	M PRIME	PTI/PTE,	PTI/PTIMAX
0.	0.	0.	0.	4.6	4.58	0.004	7.609	0.000	0.000
0.0100	0.01148	0.66893	0.01085	40.1	4.58	0.004	7.609	0.001	0.001
0.0291	0.03396	0.59374	0.00805	22.0	4.58	0.004	7.609	0.001	0.001
0.0471	0.05488	0.55879	0.00703	17.4	4.58	0.004	7.609	0.000	0.000
0.0639	0.07398	0.55029	0.00675	16.4	4.58	0.004	7.609	0.000	0.000
0.0810	0.09445	0.56136	0.00695	17.3	4.58	0.004	7.609	0.000	0.000
0.0964	0.11233	0.60883	0.00811	22.9	4.58	0.004	7.609	0.001	0.001
0.1386	0.16134	0.76442	0.01449	85.9	4.58	0.004	7.609	0.002	0.003
0.1808	0.21072	0.82218	0.01897	178.0	4.58	0.004	7.609	0.005	0.005
0.2226	0.25944	0.85735	0.02293	307.5	4.58	0.004	7.609	0.009	0.009
0.2640	0.30769	0.88724	0.02745	528.1	4.58	0.004	7.609	0.015	0.016
0.3074	0.35827	0.91293	0.03226	875.3	4.58	0.004	7.609	0.025	0.026
0.3493	0.40710	0.93272	0.03690	1346.8	4.58	0.004	7.609	0.038	0.040
0.4085	0.47377	0.95507	0.04322	2285.2	4.58	0.004	7.609	0.064	0.067
0.4652	0.54218	0.97594	0.05076	3877.5	4.58	0.004	7.609	0.109	0.114
0.5293	0.61223	0.99383	0.05940	6392.1	4.58	0.004	7.609	0.185	0.194
0.5833	0.67982	1.00292	0.06763	10119.9	4.58	0.004	7.609	0.284	0.287

HYPERSONIC BOUNDARY LAYER AEDC WIND TUNNEL DATA REDUCTION - TUNNEL F GULLF HEAT TRANSFER

Y	Y/Delta	L/Delta	RHO * U	PTL	PI.	RHO U PRIME.	M PRIME	PTI/PTL*	PTI/PTI MAX
0.6417	0.74789	1.00717	0.07668	15206.2	4.58	0.004	7.609	0.427	0.447
0.6999	0.81572	1.00759	0.08509	21175.6	4.58	0.004	7.609	0.194	0.622
0.7582	0.88367	1.00421	0.09121	26157.4	4.58	0.004	7.609	0.734	0.769
0.8182	0.95359	1.00086	0.09511	29593.9	4.58	0.004	7.609	0.830	0.870
0.8980	1.00000	1.00000	0.09776	32317.7	4.58	0.004	7.609	0.941	0.950
0.8756	1.02049	0.99997	0.09895	33520.5	4.58	0.004	7.609	0.955	0.985
0.9355	1.09030	0.99842	0.09956	34018.6	4.58	0.004	7.609	0.946	1.000
0.9939	1.19837	0.99809	0.09930	33701.3	4.58	0.004	7.609	0.946	0.991
1.0540	1.22841	0.99796	0.09857	32893.1	4.58	0.004	7.609	0.723	0.967

DOCUMENT CONTROL DATA - R&D

(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)

1. ORIGINATING ACTIVITY (Corporate author) Lockheed-California Company Burbank, California		2a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	
		2b. GROUP NONE	
3. REPORT TITLE AN EXPERIMENTAL AND ANALYTICAL INVESTIGATION OF HYPERSONIC INLET BOUNDARY LAYERS VOL. II DATA REDUCTION PROGRAM AND TABULATED EXPERIMENTAL DATA			
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Final Report, April 3, 1962 - June 21, 1965			
5. AUTHOR(S) (Last name, first name, initial) Stroud, John F. and Miller, Leonard D.			
6. REPORT DATE June, 1965	7a. TOTAL NO. OF PAGES 405	7b. NO. OF REFS 24	
8a. CONTRACT OR GRANT NO.		8b. ORIGINATOR'S REPORT NUMBER(S) IR 18803	
a. PROJECT NO. 1366			
c. Task No. 136605		8d. OTHER REPORT NO(S) (Any other numbers that may be assigned this report) AFFDL-TR-65-123, Vol I	
10. AVAILABILITY/LIMITATION NOTICES (1) Qualified requesters may obtain copies of this report from DDC. (2) This report has been released to CFSTI.			
11. SUPPLEMENTARY NOTES NONE		12. SPONSORING MILITARY ACTIVITY Air Force Flight Dynamics Laboratory, Research and Technology Division, Air Force Systems Command, Wright-Patterson AFB, Ohio	
13. ABSTRACT Detailed boundary layer surveys have been made on four axisymmetric compression surface models simulating typical hypersonic inlet compression surfaces at free stream Mach numbers ranging from 4 to 8. The four models were designed to provide isentropic compression at design Mach numbers of 5, 6, 8 and 10. The Mach 8 design model had provisions for wall cooling. Quantitative heat transfer measurements were made on the Mach 8 model at free stream Mach numbers of 5, 6, and 8. The tests were conducted in the Arnold Engineering Development Center (AEDC) 50-inch diameter Mach 8 Tunnel B and 40-inch supersonic Tunnel A, both of the von Karman Facility. Typical free stream Reynolds numbers for these tests were $6.56 \times 10^6$ at Mach 4 and $3.8 \times 10^6$ at Mach 8, with the Reynolds numbers based on the maximum diameter of the Mach 8 model. The tests of the boundary layer models at various free stream Mach numbers and Reynolds numbers provided a large amount of turbulent boundary layer data on compressive surfaces typical of hypersonic inlets.  Two existing turbulent boundary layer theories were modified to account for the various phenomena found to be of importance in hypersonic boundary layers. Theoretical results from these methods have been correlated with the experimental data.  A significant observation of the present program is the powerful favorable effect of centrifugal force phenomena on boundary layer development in continuous adverse pressure gradients. It was found that these effects become more pronounced with increasing Mach number and reductions in free stream Reynolds number.			

# *Contrails*