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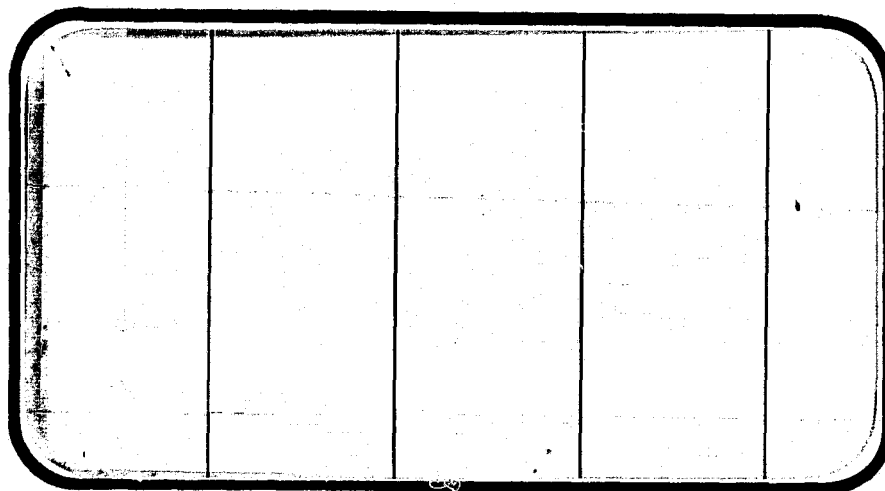
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-

141546



(NASA-CR-141546) HEAT TRANSFER PHASE CHANGE
PAINT TESTS OF 0.0175-SCALE MODELS (NCS.
21-0 AND 46-0) OF THE ROCKWELL INTERNATIONAL
SPACE SHUTTLE ORBITER IN THE AEDC TUNNEL B
HYPERSONIC WIND TUNNEL (TEST OH25A)

N75-28109

Unclas

G3/18 31382

SPACE SHUTTLE



AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER CORPORATION

July, 1975

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NASA-CR-141,546

HEAT TRANSFER PHASE CHANGE PAINT TESTS
OF 0.0175-SCALE MODELS (NOS. 21-0 AND 46-0)
OF THE ROCKWELL INTERNATIONAL SPACE SHUTTLE
ORBITER IN THE AEDC TUNNEL B HYPERSONIC
WIND TUNNEL (TEST OH25A)

By

W. H. Dye
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Prepared under NASA Contract Number NAS9-13247

By

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Chrysler Corporation Space Division
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL SPECIFICS:

Test Number: AEDC VKF B V41B 83A
NASA Series Number: OH25A
Model Number: 21-0 and 46-0
Test Dates: 21 August 1974
Occupancy Hours: 8

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HEAT TRANSFER PHASE CHANGE PAINT TESTS
OF 0.0175-SCALE MODELS (NOS. 21-0 AND 46-0)
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WIND TUNNEL (TEST OH25A)

By

W. H. Dye, Rockwell International Space Division

ABSTRACT

Tests were conducted in the AEDC-VKF Hypersonic Wind Tunnel (B) using various truncated space shuttle Orbiter configurations in an attempt to establish the optimum model size for later tests examining body shock-wing leading edge interference effects. The tests were conducted at Mach number 8 using the phase change paint technique. A test description, tabulated data, and tracings of isotherms made from photographs taken during the test are presented.

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INTRODUCTION

The work reported herein was sponsored by the Johnson Space Center (NASA-JSC) for Rockwell International Space Division, Downey, California, under Program Element 921-E. The work was done at the Arnold Engineering Development Center (AEDC), AFSC, by ARO, Inc. (a subsidiary of Sverdrup and Parcel and Associates, Inc.), contract operator of AEDC, Arnold Air Force Station, Tennessee. The ARO Project No. was V41B 83A.

The tests were conducted in Hypersonic Wind Tunnel (B) at Mach number 8 on August 21, 1974. The test objective was to investigate planform area reduction crossflow effects on Vehicle 3 Space Shuttle Orbiter configurations to establish the optimum model size for later tests examining body shock-wing leading edge interference effects. Data were obtained using the phase change paint technique.

Most of the information presented in this report was extracted from the AEDC post-test report on this test (Reference 1).

NOMENCLATURE

<u>Symbol</u>	<u>Computer Symbol</u>	<u>Description</u>
C_p	C	specific heat of the model material - BTU/lb-°F
g		acceleration due to gravity, 32.17 ft/sec ²
h	H(T ₀)	heat transfer coefficient based on $T_{AW} = T_0$
	H(.9T ₀)	heat transfer coefficient based on $T_{AW} = 0.9 T_0$
	H(.867 T ₀)	heat transfer coefficient based on $T_{AW} = 0.867 T_0$
h_s	HREF	reference heat-transfer coefficient based on Fay-Riddell Theory, BTU/ft ² -sec.-°R
M_∞	MACH NO.	free stream Mach no.
N_r	R	reference nose radius (.0175 ft)
P_∞	P-INF	free stream static pressure, psia
P_r		Prandtl number
P_0	PO	tunnel stilling chamber pressure, psia
P_1, P_2		defined in context
q_0	Q-INF	free-stream dynamic pressure, psia
R		universal gas constant, ft-lb _f /lb _m -°R
Re/ft	RE/FT	free stream unit Reynolds number, ft ⁻¹
	ROLL-MODEL	model roll angle-deg.
	ST(T ₀)	Stanton number based on T ₀ :

$$ST(T_0) = \frac{H(T_0)}{\rho_\infty V_\infty [0.2235 + 1.35 \times 10^{-4} (T_0 + 560)] \times 32.17}$$

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Computer Symbol</u>	<u>Description</u>
	STREF	reference Stanton number: $ST(T_0) = \frac{HREF}{\rho_{\infty} V_{\infty} [0.2235 + 1.35 \times 10^{-4} (T_0 + 560)] \times 32.17}$
T_{aw}		adiabatic wall temperature, °F
\bar{T}	TBAR	$\frac{T_{pc} - T_{IN}}{T_{aw} - T_{IN}}$
T_{IN}		initial model temperature, °F
T_{∞}	T-INF	free stream static temperature-°R
T_{pc}	TPC	paint melt temperature, °F
T_0	T0	tunnel stilling chamber temperature, °R
t	TIME	time from start of model injection, sec.
Δt	DEL TIME	time model exposed to airstream, sec.
V_e		velocity at edge of the boundary layer, ft/sec.
V_{∞}	V-INF	free stream velocity, ft/sec.
$\sqrt{\rho k C_p}$	SQUARE ROOT	(RHO*C*K)
<u>GREEK</u>		
α	ALPHA-MODEL	model angle of attack, deg.
	ALPHA-PREBEND	sting prebend angle, deg.
	ALPHA-SECTOR	tunnel sector pitch angle-deg.
	YAW	model yaw angle
γ		ratio of specific heats of air
k	K	model thermoconductivity, BTU/ft-sec-°F
β		defined in context

NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Computer Symbol</u>	<u>Description</u>
μ_{∞}	MU-INF	free stream viscosity, lb-sec/ft ²
μ_s		stagnation air viscosity, lb-sec/ft ²
μ_w		air viscosity along model wall (lb _m /ft-sec)
ρ	RHO	model material density-lb _m /ft ³
ρ_w		air density along model wall-lb _m /ft ³
ρ_s		stagnation air density lb _m /ft ³
ρ_{∞}	RHO-INF	free stream air density, slug/ft ³

TEST CONFIGURATIONS INVESTIGATED

The five test articles were originally cast as 0.0175-scale models of the Rockwell International Space Shuttle Orbiter, with configuration control defined by Rockwell drawing VL70-000139. The models were cast in one piece around an epoxy-fiberglass sleeve using Grumman proprietary material G.

Five of the original models were modified by removal of varying amounts of planform area, according to the following table:

<u>Test Configuration Number</u>	<u>Model</u>	<u>Description</u>
1	Orbiter	full Orbiter planform--unmodified
2	40 percent	left wing removed at wing-glove radius (40 percent semispan)
3	Body flush	left wing removed flush with wing-fuselage junction
4	Leading edge	left wing removed from wing-glove radius (35 percent semispan) tapered to fuselage at cargo bay door-vertical stabilizer junction. Aft fuselage removed perpendicular to centerline. Aft portion of right wing removed parallel to and 3 in. aft of leading edge from 30% semispan to 80% semispan.
5	Transition	left wing and aft fuselage removed diagonally from left wing leading edge (35 percent semispan) to right wing-fuselage junction
6	Semispan wing	truncated left wing (from 40% semispan to wing tip) with aft wing portion removed 3 inches from and parallel to leading edge

Planform area sketches of the six model configurations are given in Figures 2b through g, respectively.

TEST FACILITY DESCRIPTION

Tunnel B is a continuous, closed-circuit, variable density wind tunnel with an axisymmetric contoured nozzle and a 50-in.-diam. test section. The tunnel can be operated at a nominal Mach number of 6 or 8 at stagnation pressures from 20 to 300 and 50 to 900 psia, respectively, at stagnation temperatures up to 1350°R. The model can be injected into the tunnel for a test run and then retracted for model cooling or model changes without interrupting the tunnel flow. A description of the tunnel may be found in reference 2.

TEST PROCEDURE

Tempilaq[®], a fusible coating that changes phase from an opaque solid to a transparent liquid at temperatures specified by the manufacturer, was used to indicate the location of isotherms on the model surface. The paints used had melting temperatures of 131, 225, 250, 300, 350, 400, and 450°F.

A Beattie-Coleman Varitron[®] 70 mm sequence camera was used to record the progression of isotherms on the windward surface, as a function of time, during each test run. The camera was located on the top of the wind tunnel and photographed the bottom surface of the Orbiter models. The camera was operated at a nominal rate of 1 frame/sec. Kodak TRI-X Pan[®] black-and-white film was used.

Dual television monitors were used throughout the test to further record the effects of planform area reduction on heating rates and to facilitate on-line cross-referencing.

Prior to each test run, the model was cleaned with a solvent, spray-painted with the phase-change coating, and allowed to reach isothermal conditions. The model was then injected into the wind tunnel for about 30 seconds, during which time the progression of the isotherms, indicated by the demarcation between melted and unmelted coating, was continuously photographed. The model was then retracted from the wind tunnel and the cycle repeated for the next run. The model temperature was measured prior to each run using a thermocouple probe.

TEST PROCEDURE (Concluded)

The tests were conducted at the following nominal conditions:

<u>Mach No.</u>	<u>P0,psia</u>	<u>T0,°R</u>	<u>HREF, [$\frac{\text{BTU}}{\text{ft}^2\text{-sec-}^\circ\text{R}}$]</u>	<u>RE/FTx10⁻⁶</u>
7.91	110	1260	0.0178	0.55
7.98	430	1300	0.0348	2.00
8.00	860	1350	0.0491	3.72

DATA REDUCTION

Thin film heat transfer coefficients were calculated for each melt line at which photographs were taken. The coefficients were calculated assuming three different recovery factors:

$$\frac{T_{aw}}{T_o} = 0.867, 0.90, \text{ and } 1.0$$

The following calculations were then performed to obtain thin film coefficients:

$$\bar{T} = \frac{T_{pc} - T_{IN}}{T_{aw} - T_{IN}}$$

$$T_{aw} = \left(\frac{T_{aw}}{T_o}\right) \times T_o$$

$$h = \frac{\beta \sqrt{k\rho C_p}}{\sqrt{t}}$$

where the flow parameter β results from iterative solution of:

$$1 - \bar{T} = e^{\beta^2} (1 - \text{erf } \beta)$$

Theoretical thin film heat transfer coefficients and stagnation point heating rates were calculated using the equations given below:

$$h_s = (.768)(C_p)(P_r^{-.6})(\rho_w \mu_w)^{-.1}(\rho_s \mu_s)^{.4} \sqrt{\frac{dVe}{dx}}$$

where

$$P_r = \frac{\mu C_p}{k} \quad (\mu, C_p \text{ and } k \text{ for air})$$

$$\frac{dVe}{dx} = \text{The streamwise velocity gradient along the model surface}$$

and

$$\frac{dVe}{dx} = \frac{1}{N_r} \sqrt{2 R_g T_o \left(1 - \frac{1}{P_1 P_2}\right)}$$

$$N_r = \text{Nose radius, } 0.0175 \text{ foot radius (1 foot full scale)}$$

DATA REDUCTION (Concluded)

$$P_1 = \left[\frac{\gamma + 1}{2} M_\infty^2 \right]^{\frac{\gamma}{\gamma-1}}$$

$$P_2 = \left[\left(\frac{\gamma + 1}{2\gamma M_\infty^2} - (\gamma - 1) \right) \right]^{\frac{\gamma}{\gamma-1}}$$

Melt lines have been traced from selected photographs taken during the test and are presented at the back of this report. Each melt line on the tracings is identified by a number corresponding to a picture number. Thin film coefficients and free stream data corresponding to each picture number are presented on pages following each tracing. Station numbers of melt lines on each tracing can be determined using sketches of grid patterns in Figure 3 corresponding to each model attitude that was tested.

RESULTS AND DISCUSSION

Uncertainties of the basic tunnel parameters were estimated from repeat calibrations of the PO and TO instruments and from the repeatability and uniformity of the tunnel flow during calibrations. The parameters PO, TO, and MACH NO. with their uncertainties were then used to compute the uncertainties in the other parameters dependent on these by means of the Taylor series method of error propagation.

Uncertainty, percent			
MACH NO.	PO	TO	RE/FT
± 0.3	± 0.5	± 0.5	± 1.2

An estimate of the data precision of phase change point data is hampered by the fact that an observer must determine the location of the melt line. For this analysis, only uncertainties attributable to the measured parameters are considered. The parameters needed for the solution of the equation for the heat-transfer coefficient, h , are T_{pc} , T_i , T_{aw} , $\sqrt{\rho k C_p}$, and Δt . The table below summarizes the nominal uncertainties in these specific parameters.

Parameter	Uncertainty (+)
Δt	± 1.0
$\sqrt{\rho k C_p}$	± 10.0
T_i	± 0.5
T_o (T_{aw})	± 1.0
T_{pc}	± 0.5

RESULTS AND DISCUSSION (Concluded)

It should be remembered that the above uncertainties in T_{aw} and T_{pc} only reflect nominal measurement uncertainties. As previously mentioned, the interpretation of when phase change occurs (i.e., T_{pc}) is a matter of observer experience, and the "correct" assumption of what should be used for T_{aw} also requires engineering judgment. However, combining the above measurement uncertainties with the corresponding error sensitivity factor (derived by using the equation for the heat-transfer coefficient, h , and taking the square root of the sum of the squares) yields the following:

for $T_{pc} \leq 200^\circ\text{F}$, h uncertainty $\approx \pm 13$ percent

for $T_{pc} > 200^\circ\text{F}$, h uncertainty $\approx \pm 11$ percent.

REFERENCES

1. Test Data From the NASA/Rockwell International Space Shuttle Test (OH-25A) Conducted in the AEDC-VKF Tunnel-B, by C. E. Kawl and W. R. Martindale, ARO/Arnold Engineering Development Center, August 1974.
2. Test Facilities Handbook (Tenth Edition). "von Karman Gas Dynamics Facility, Vol. 3." Arnold Engineering Development Center, May, 1974.
3. Pretest Report for Phase Change Paint Tests on 0.0175-Scale Models of The Rockwell International Space Shuttle In The AEDC B Hypersonic Wind Tunnel-OH25A&B, by W. H. Dye and J. W. Cummings, Rockwell International Space Division Report SD-74-SH-0253, July 1974.





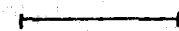
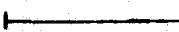
TABLE I.
TEST CONDITIONS

TEST: OH25A

Mach Number	HREF BTU/ft ² -sec. °R	Reynolds Number (per foot)	Stagnation Pressure (pounds/sq. inch)	Stagnation Temp. (degrees Rankine)
7.91	0.0178	0.5 x 10 ⁶	110	1260
7.98	0.0348	2.0 x 10 ⁶	430	1300
8.00	0.0491	3.7 x 10 ⁶	860	1350

BALANCE UTILIZED: None

TABLE II. TEST SUMMARY
 TEST OH25A MACH NO. = 8

Configuration Description	Config. No.	α	Group Numbers for Thermal Mapping Tests									Group Nos. For Oil Flow Visualization	
			Low T_{pc}			Intermediate T_{pc}			High T_{pc}			Re/ft = 0.5	
			Unit 0.5	Reynolds 2.0	No. 3.7	Unit 0.5	Reynolds 2.0	No. 3.7	Unit 0.5	Reynolds 2.0	No. 3.7	First Run	Repeat Run
Orbiter	1	30	5	46	65	40			1	41	69	21	31
	1	40	15	52	79	75			9	49	73	22	32
Orbiter with 40% wing	2	30	6	55	71				2	42	66	23	33
	2	40	17	59	81				10	57	77	24	34
Orbiter with body flush	3	30	7	48					3	43		25	
	3	40	18	54					12	51		26	
Orbiter with left wing LE	4	30	8	47	70				4	44	67	27	
	4	40	19	53	82	78			13	50	78	28	
Transition Orbiter	5	30	14	56	72				11	45	68	29	
	5	40	20	60	80				16	58	76	30	
Semispan Wing	6	30		64					37	63		38	
	6	40	35	62					36	61		39	

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TABLE III MODEL DIMENSIONAL DATA

MODEL COMPONENT : BODY - B₁₇

GENERAL DESCRIPTION : Lightweight orbiter fuselage, design configuration 3

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length In.	<u>1290.3</u>	<u>22.580</u>
Max Width . In.	<u>267.6</u>	<u>4.683</u>
Max Depth . In.	<u>244.5</u>	<u>4.279</u>
Fineness Ratio	<u>4.822</u>	<u>4.822</u>
Area -- Ft ²	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>386.67</u>	<u>0.1184</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III (CONT'D)

MODEL COMPONENT : CANOPY - C7

GENERAL DESCRIPTION : Design configuration 3

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length ($X_o = 433$ to $X_o = 578$). In. F.S.	<u>145.00</u>	<u>2.538</u>
Max Width	_____	_____
Max Depth	_____	_____
Fineness Ratio	_____	_____
Area	_____	_____
Max. Cross-Sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

TABLE III (CONT'D)

MODEL COMPONENT: ELEVON - E22

GENERAL DESCRIPTION: Design configuration 3, right wing only.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>205.52</u>	<u>0.063</u>
Span (equivalent) - In.	<u>353.34</u>	<u>6.183</u>
Inb'd equivalent chord - In.	<u>114.78</u>	<u>2.009</u>
Outb'd equivalent chord - In.	<u>55.00</u>	<u>0.693</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.208</u>	<u>0.208</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Tailing Edge	<u>- 10.24</u>	<u>- 10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Product of Area & \bar{c}) (Normal to hingeline) Ft ³	<u>1548.07</u>	<u>0.077</u>

TABLE III (CONT'D)

MODEL COMPONENT : BODY FLAP - F_r

GENERAL DESCRIPTION : Design configuration 3

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	<u>84.70</u>	<u>1.482</u>
Max Width - In.	<u>267.6</u>	<u>4.683</u>
Max Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area - Ft ²	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u>142.5</u>	<u>0.044</u>
Wetted	<u> </u>	<u> </u>
Base	<u>38.100</u>	<u>0.012</u>

TABLE III CONT'D)

MODEL COMPONENT : OMS POD - M₄

GENERAL DESCRIPTION : Design configuration 3, identical to M₃ except
intersection with fuselage

MODEL SCALE: 0.0175

DRAWING NUMBER : VL70-000139

DIMENSIONS :	FULL SCALE	MODEL SCALE
Length - In.	<u>346.0</u>	<u>6.055</u>
Max Width - In.	<u>108.0</u>	<u>1.890</u>
Max Depth - In.	<u>113.0</u>	<u>1.978</u>
Fineness Ratio	<u> </u>	<u> </u>
Area	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III (CONT'D)

MODEL COMPONENT: RUDDER - R₅

GENERAL DESCRIPTION: Design configurations 2A, 3 and 3A

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000146A. -000095. --000139

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area - Ft ²	<u>100.15</u>	<u>0.031</u>
Span (equivalent) - In.	<u>201.00</u>	<u>3.512</u>
Inb'd equivalent chord - In.	<u>91.585</u>	<u>1.603</u>
Outb'd equivalent chord - In.	<u>50.833</u>	<u>0.890</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Tailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (Product of area & \bar{c}) (Normal to hingeline) Ft ³	<u>610.92</u>	<u>0.0039</u>
Mean aerodynamic chord, In.	<u>73.2</u>	<u>1.281</u>

TABLE III (CONT'D)

MODEL COMPONENT: VERTICAL - V₇GENERAL DESCRIPTION: Centerline vertical tail, doublewedge airfoil with rounded leading edge.MODEL SCALE: 0.0175DRAWING NUMBER: VL70-000139

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) - Ft ²		
Planform	<u>425.92</u>	<u>0.130</u>
Span (Theo) - In.	<u>315.72</u>	<u>3.160</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
Trailing Edge	<u>26.249</u>	<u>26.249</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.50</u>	<u>4.699</u>
Tip (Theo) WP	<u>108.47</u>	<u>1.898</u>
MAC	<u>199.81</u>	<u>3.497</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>25.611</u>
W.P. of .25 MAC	<u>635.522</u>	<u>11.116</u>
B.L. of .25 MAC	<u>0.0</u>	<u>0.0</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.0</u>	<u>2.0</u>
Void Area	<u>13.17</u>	<u>13.17</u>
Blanketed Area	<u>0.0</u>	<u>0.0</u>

TABLE III (CONL'D)

MODEL COMPONENT: WING-W 109

GENERAL DESCRIPTION: Design configuration 3

NOTE: Same planform as W₀₇ except dihedral at trailing edge.

MODEL SCALE: 0.0175

TEST NO. _____ DWG. NO. VL70-000139

DIMENSIONS: FULL-SCALE MODEL SCALE

TOTAL DATA

Area (Theo.) Ft ²		
Planform	2690.00	0.824
Span (Theo) In.	936.68	16.392
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	3.000	3.000
Aerodynamic Twist, degrees	3.000	3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	- 10.24	- 10.24
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.24	12.063
Tip, (Theo) B.P.	137.85	2.412
MAC	474.81	8.309
Fus. Sta. of .25 MAC	1136.89	19.896
W.P. of .25 MAC	299.20	5.236
B.L. of .25 MAC	182.13	3.187

EXPOSED DATA

Area (Theo) Ft ²	1752.29	0.537
Span, (Theo) In. BP108	720.68	12.612
Aspect Ratio	2.058	2.058
Taper Ratio	0.245	0.245
Chords		
Root BP108	562.40	9.842
Tip 1.00 $\frac{b}{2}$	137.85	2.412
MAC	393.03	6.878
Fus. Sta. of .25 MAC	1185.31	20.743
W.P. of .25 MAC	300.20	5.254
B.L. of .25 MAC	251.76	4.406

Airfoil Section (Rockwell Mod NASA)
XXXX-64

Root $\frac{b}{2}$ =	0.100	0.100
Tip $\frac{b}{2}$ =	0.120	0.120

Data for (1) of (2) Sides

Leading Edge Cuff		
Planform Area Ft ²	120.33	0.037
Leading Edge Intersects Fus M. L. @ Sta	560.00	9.80
Leading Edge Intersects Wing @ Sta	1035.00	18.113

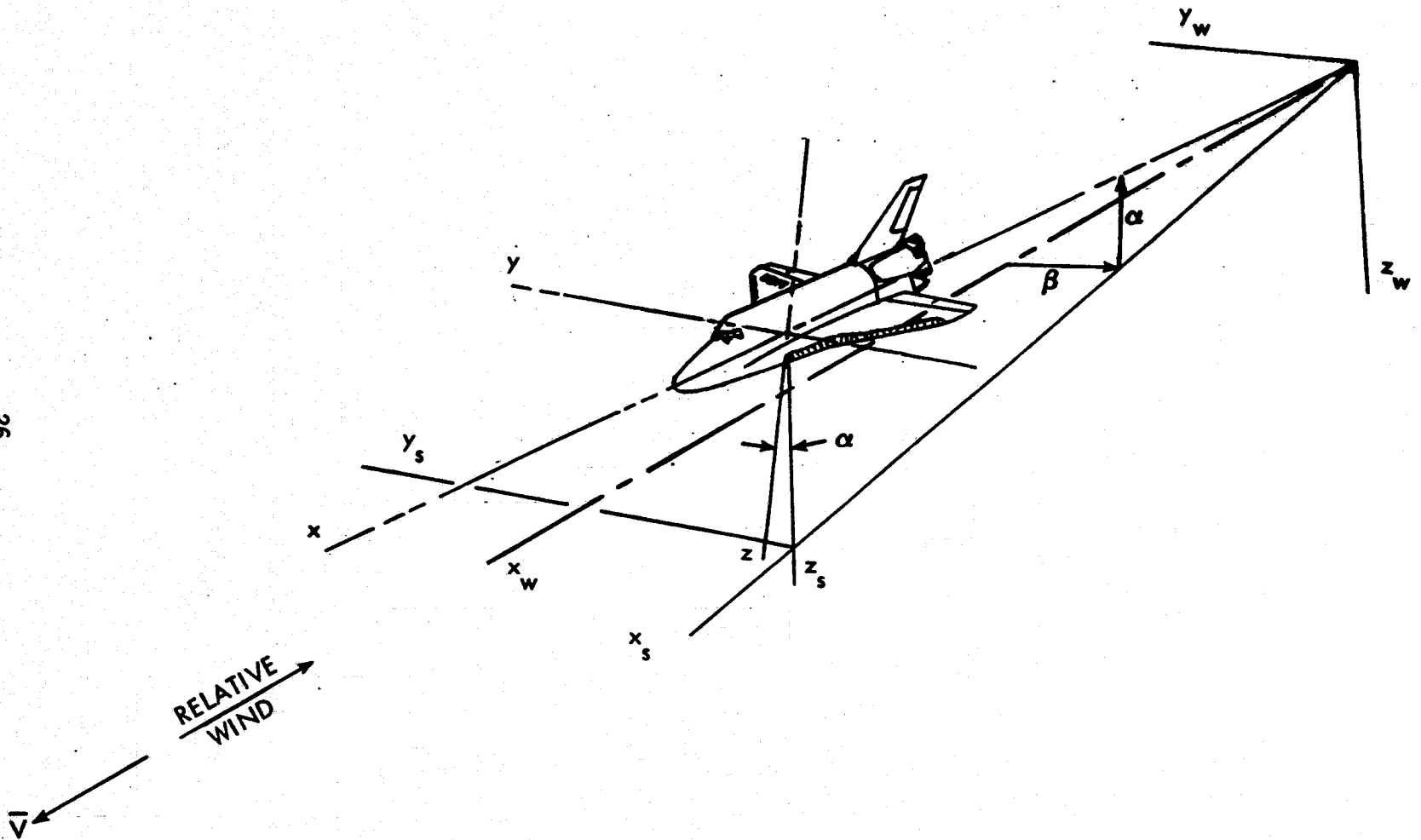
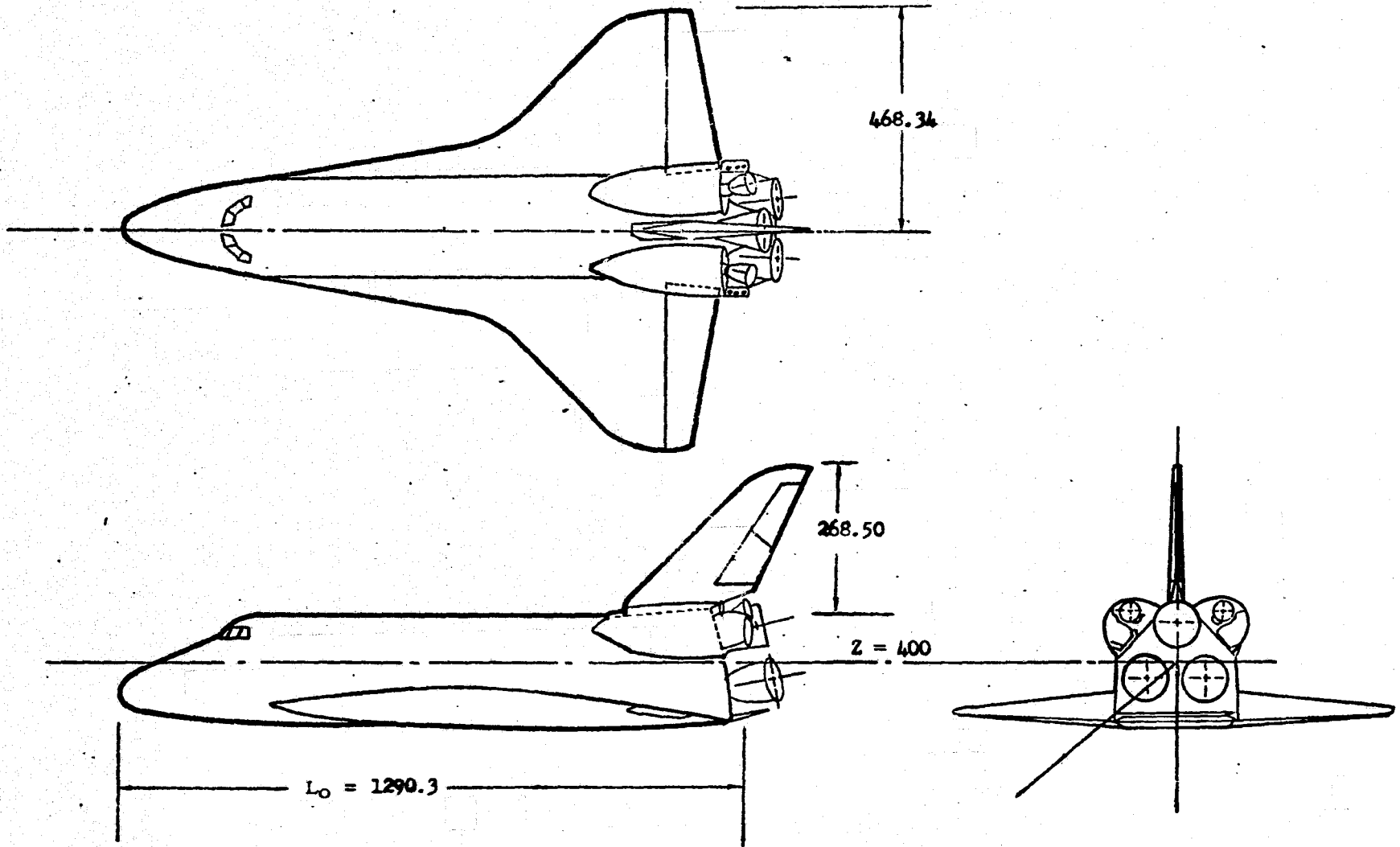


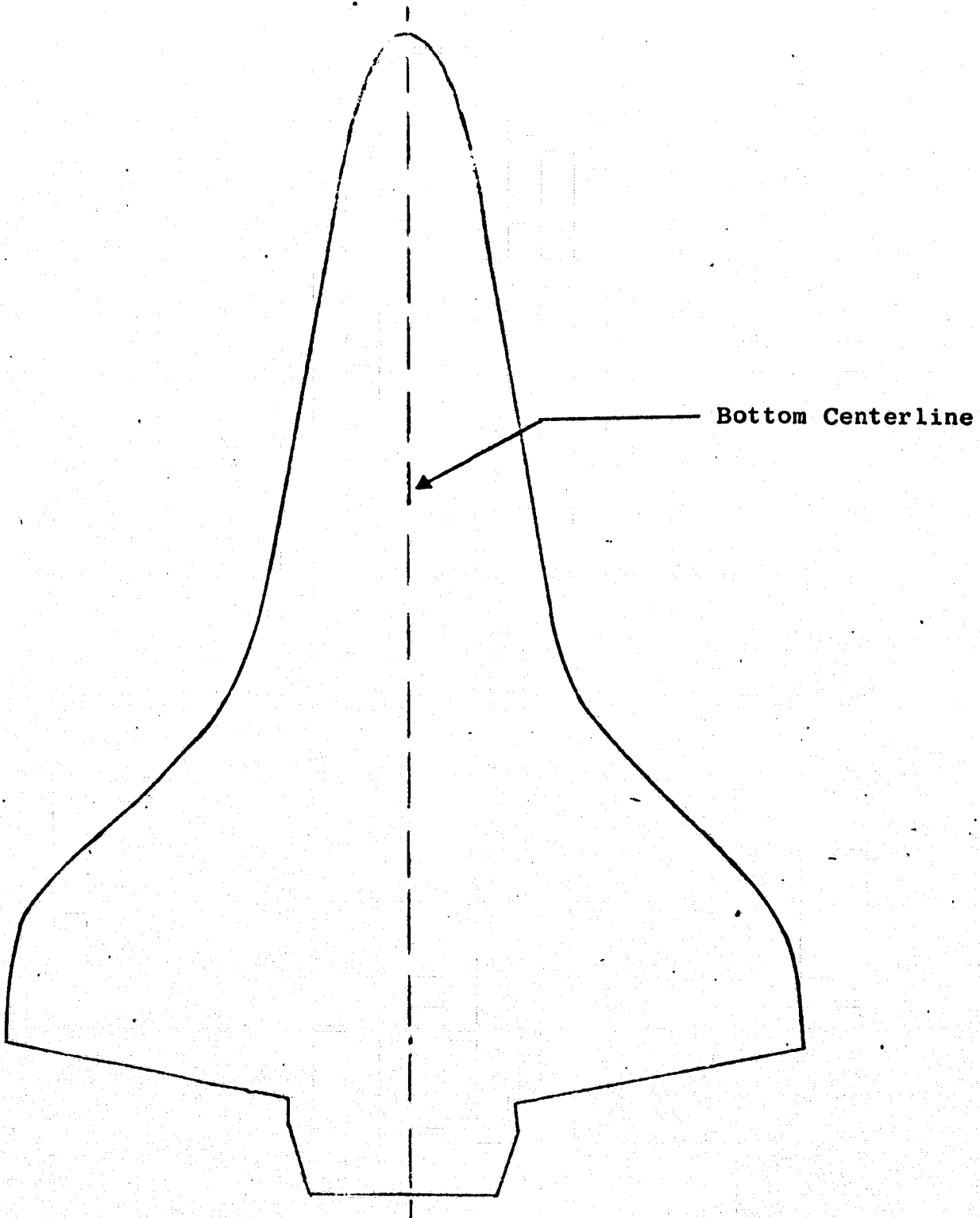
Figure 1. - Axis systems.



a. General Orbiter Configuration

Figure 2. - Model sketches.

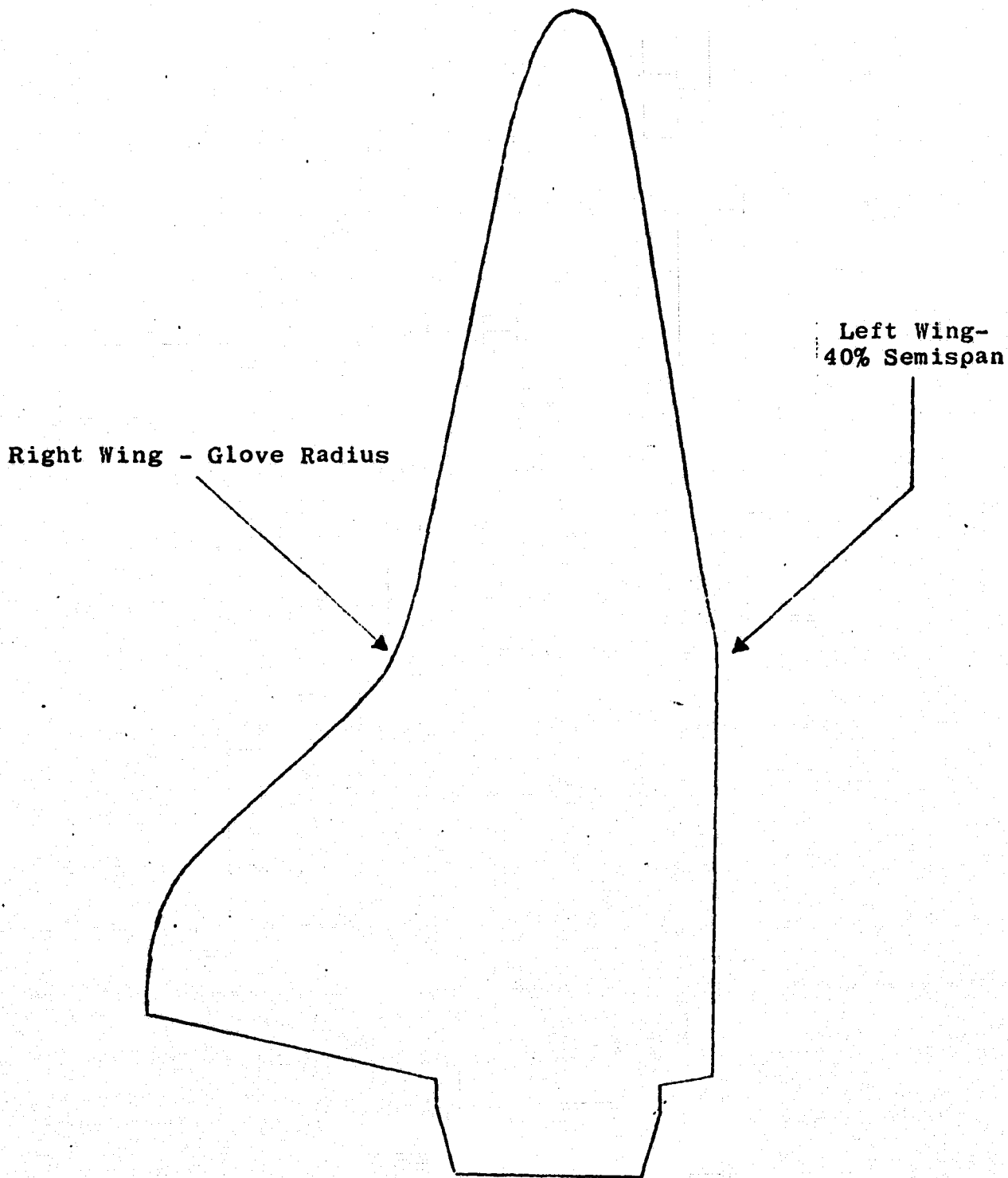
MODEL: ORBITER



b. Test Configuration No. 1 Planform

Figure 2. - Continued.

MODEL: 40% WING

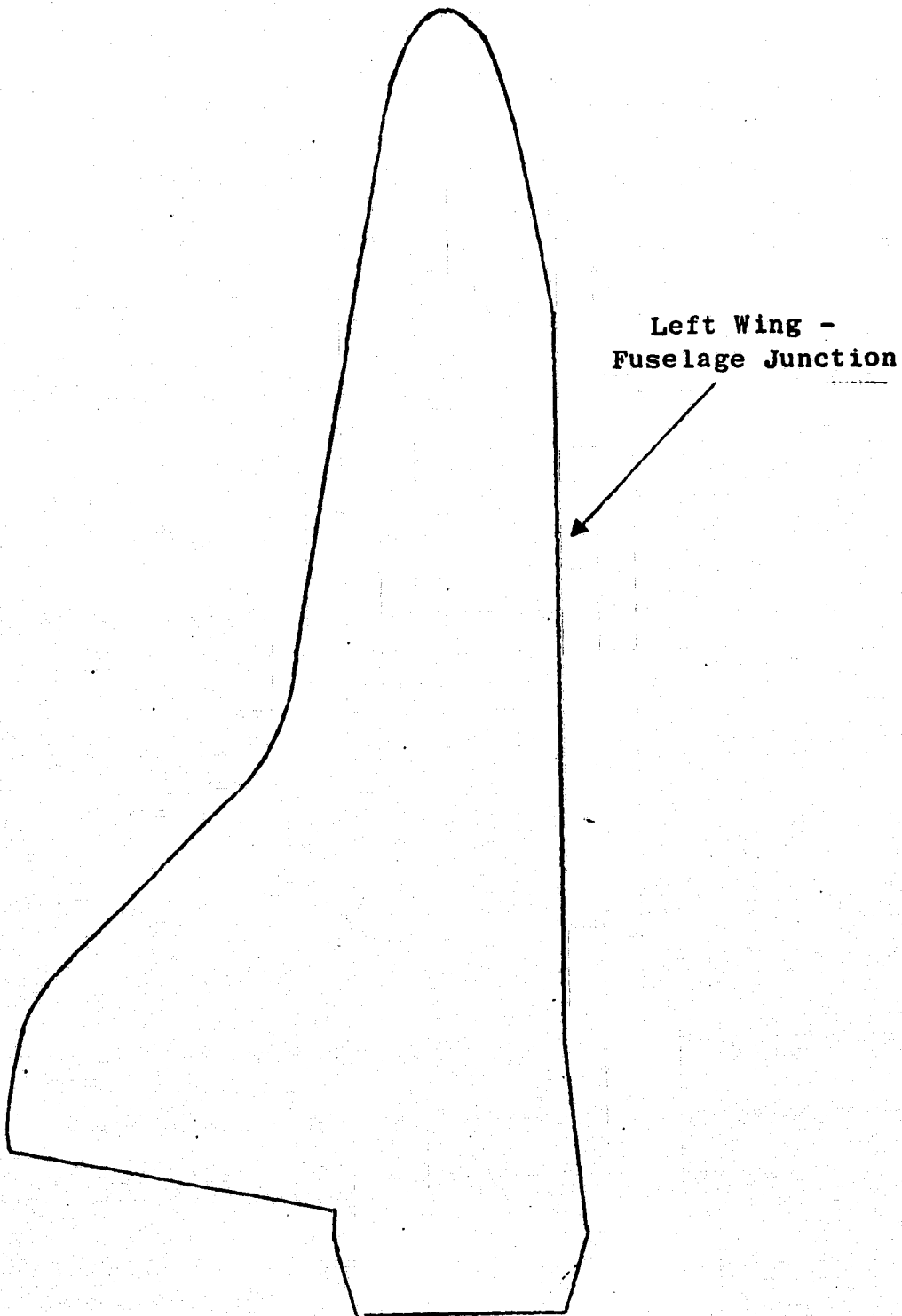


c. Test Configuration No. 2 Planform

Figure 2. - Continued.

MODEL: BODY FLUSH

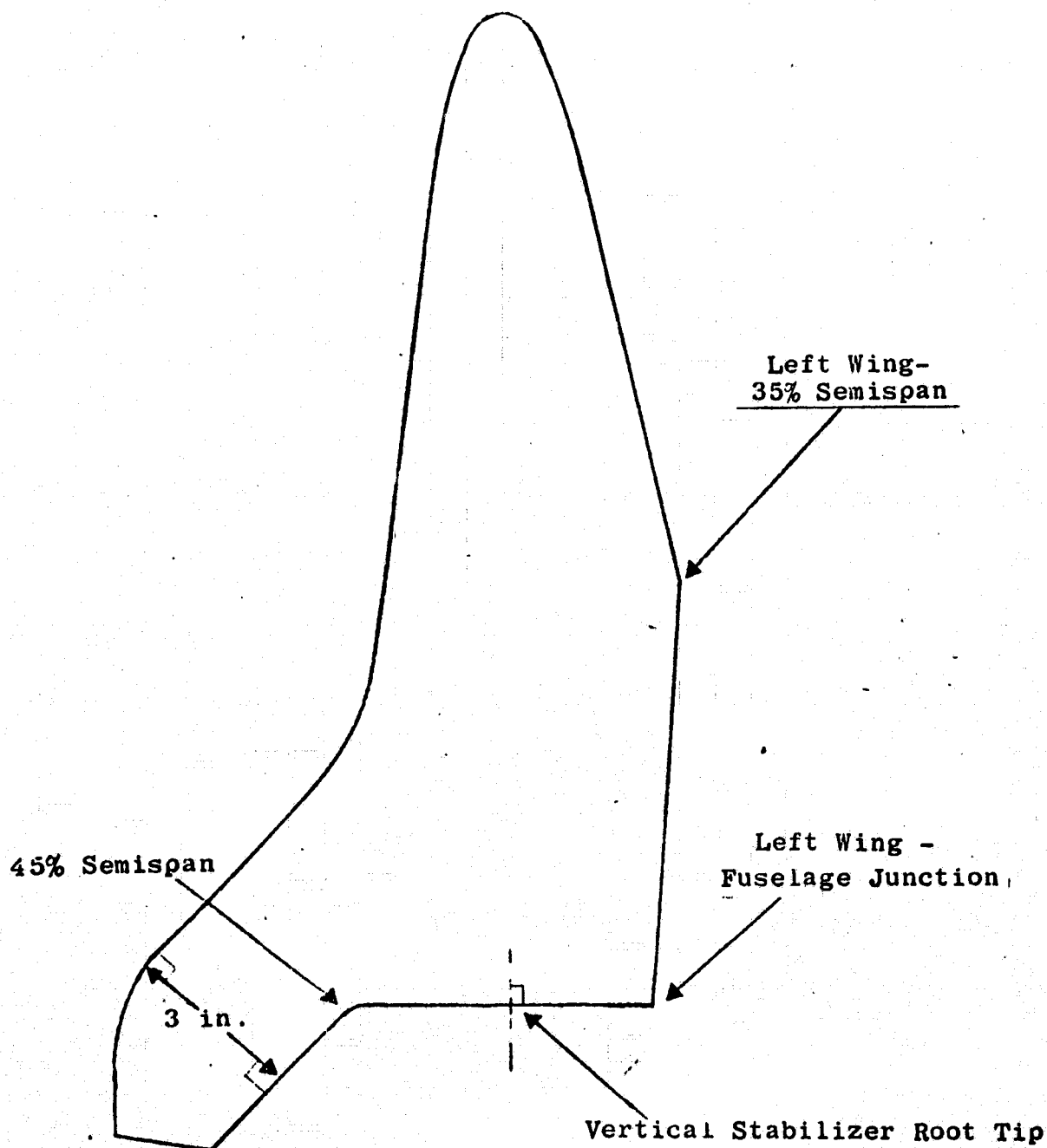
D



d. Test Configuration No. 3 Planform

Figure 2. - Continued.

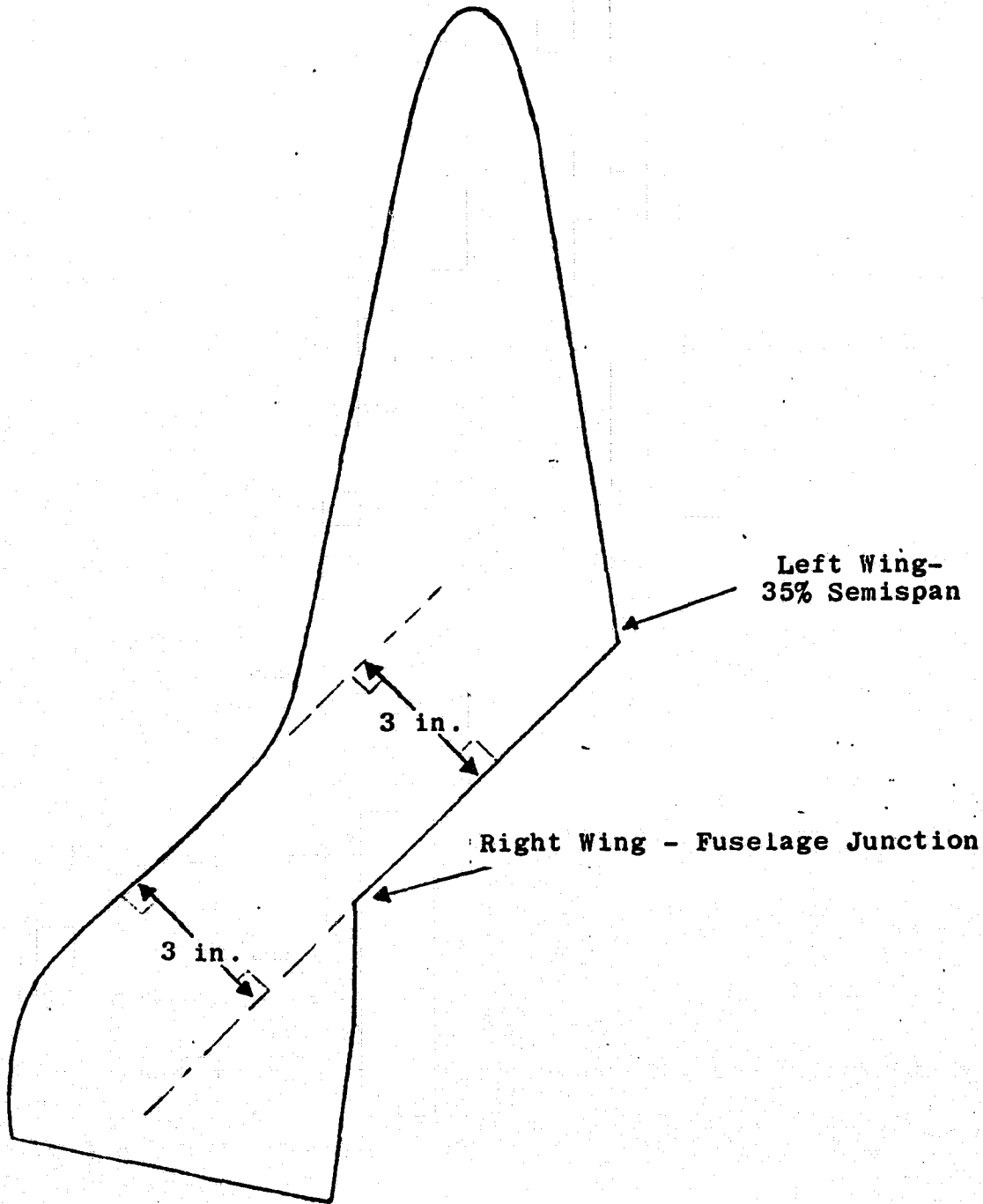
O



e. Test Configuration No. 4 Planform

Figure 2. - Continued.

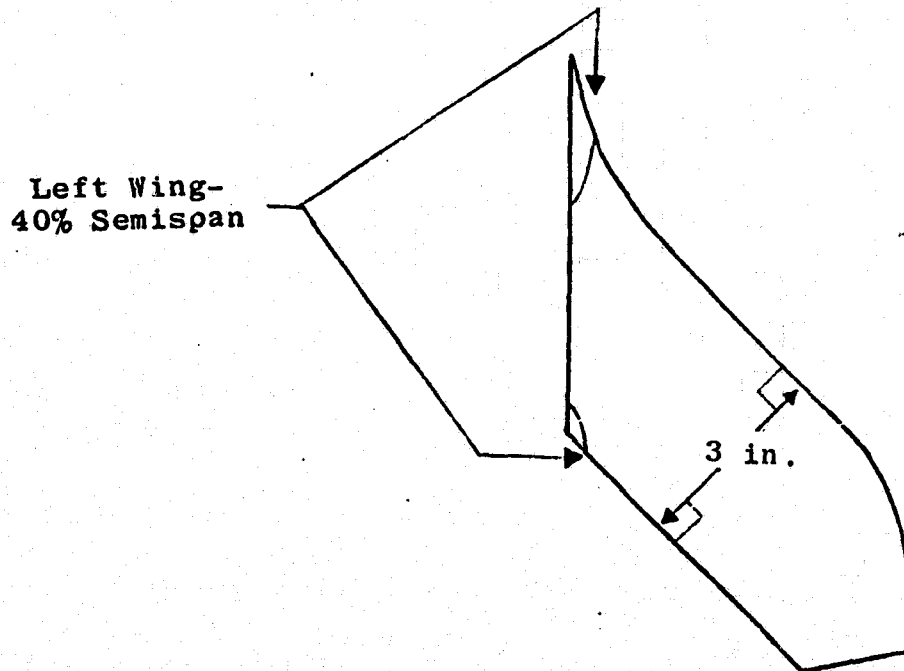
MODEL: TRANSITION



f. Test Configuration No. 5 Planform

Figure 2. - Continued.

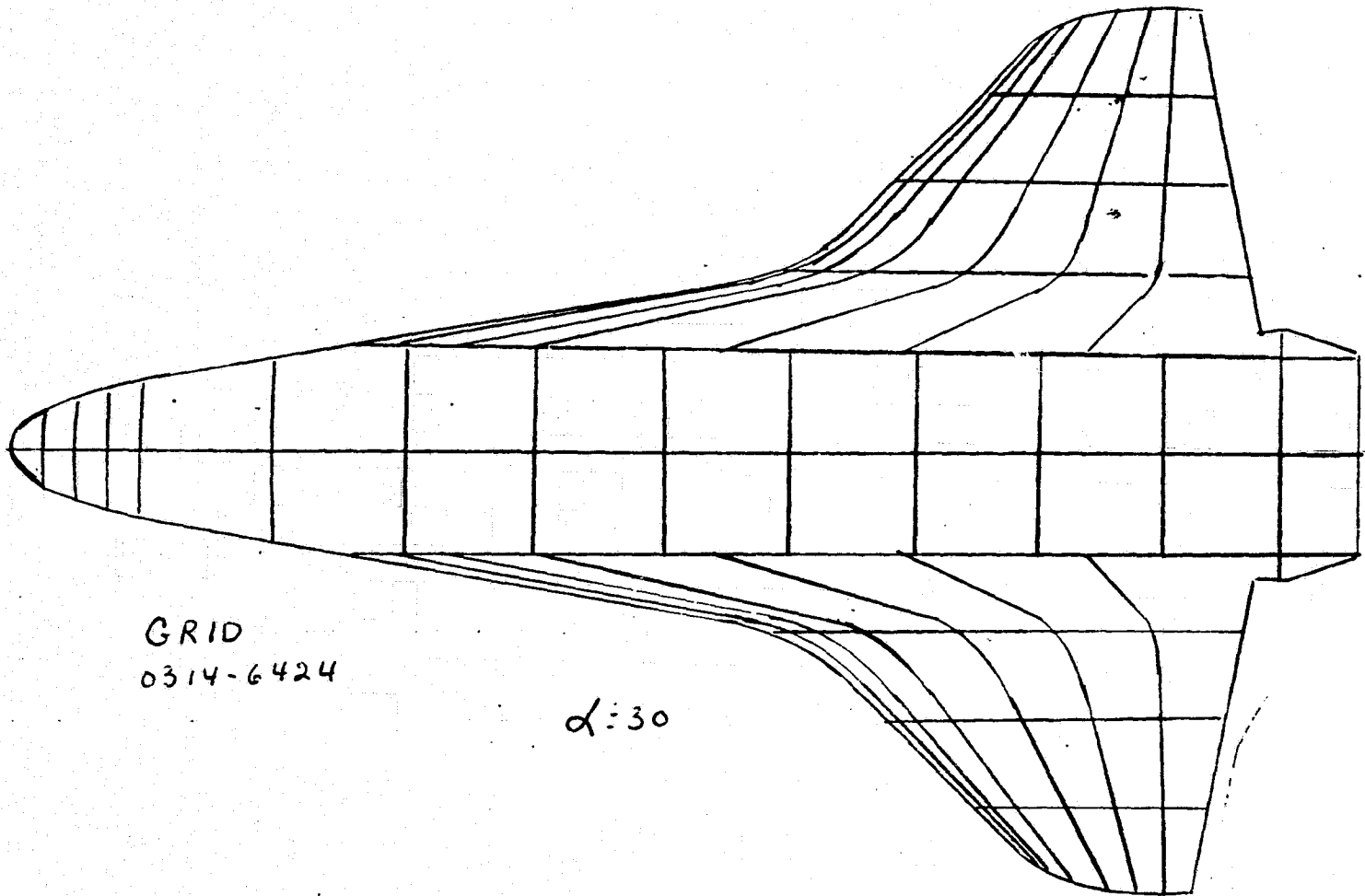
MODEL: SEMISPAN WING



g. Test Configuration No. 6 Planform

Figure 2. - Concluded.

34



GRID
0314-6424

$\alpha: 30$

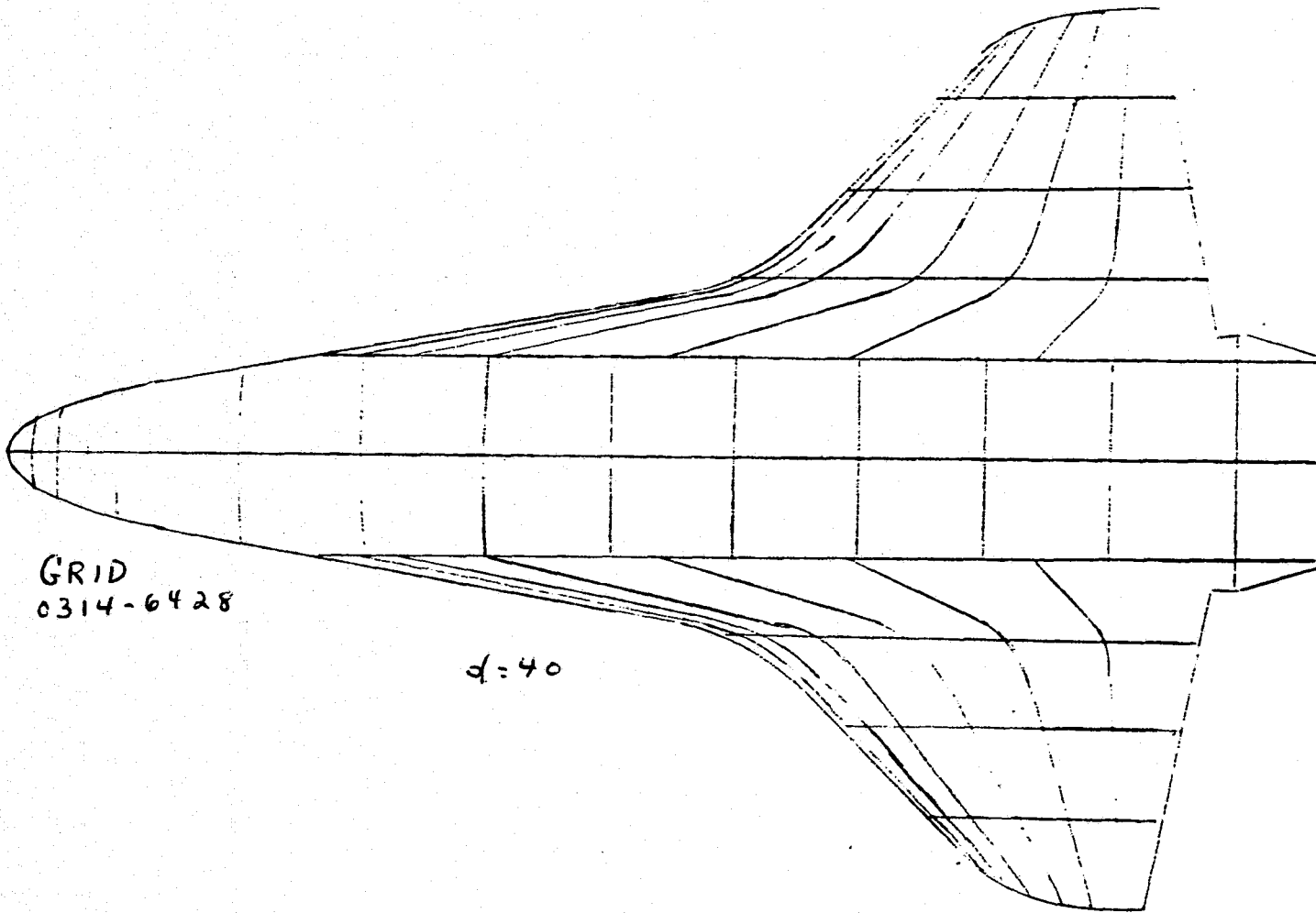
a. Orbiter at $\alpha = 30^\circ$

Figure 3. - Model grid pattern.

35

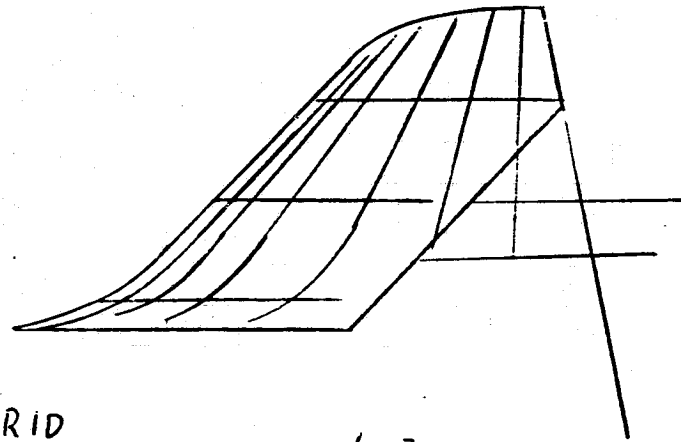
GRID
0314-6428

$d=40$



b. Orbiter at $\alpha = 40^\circ$

Figure 3. - Continued.

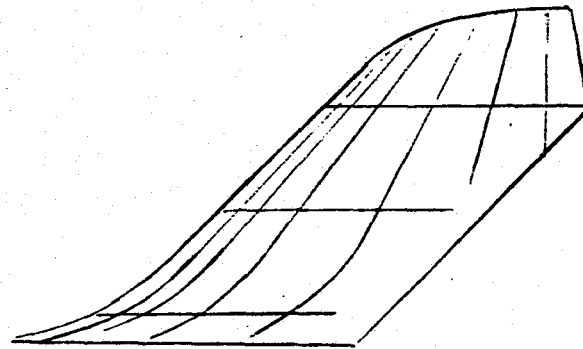


GRID
0514-6413

$\alpha = 30$

c. Semispan wing at $\alpha = 30^\circ$

Figure 3. - Continued.



GRID
0314-6420

$\alpha = 40$

d. Semispan wing at $\alpha = 40^\circ$

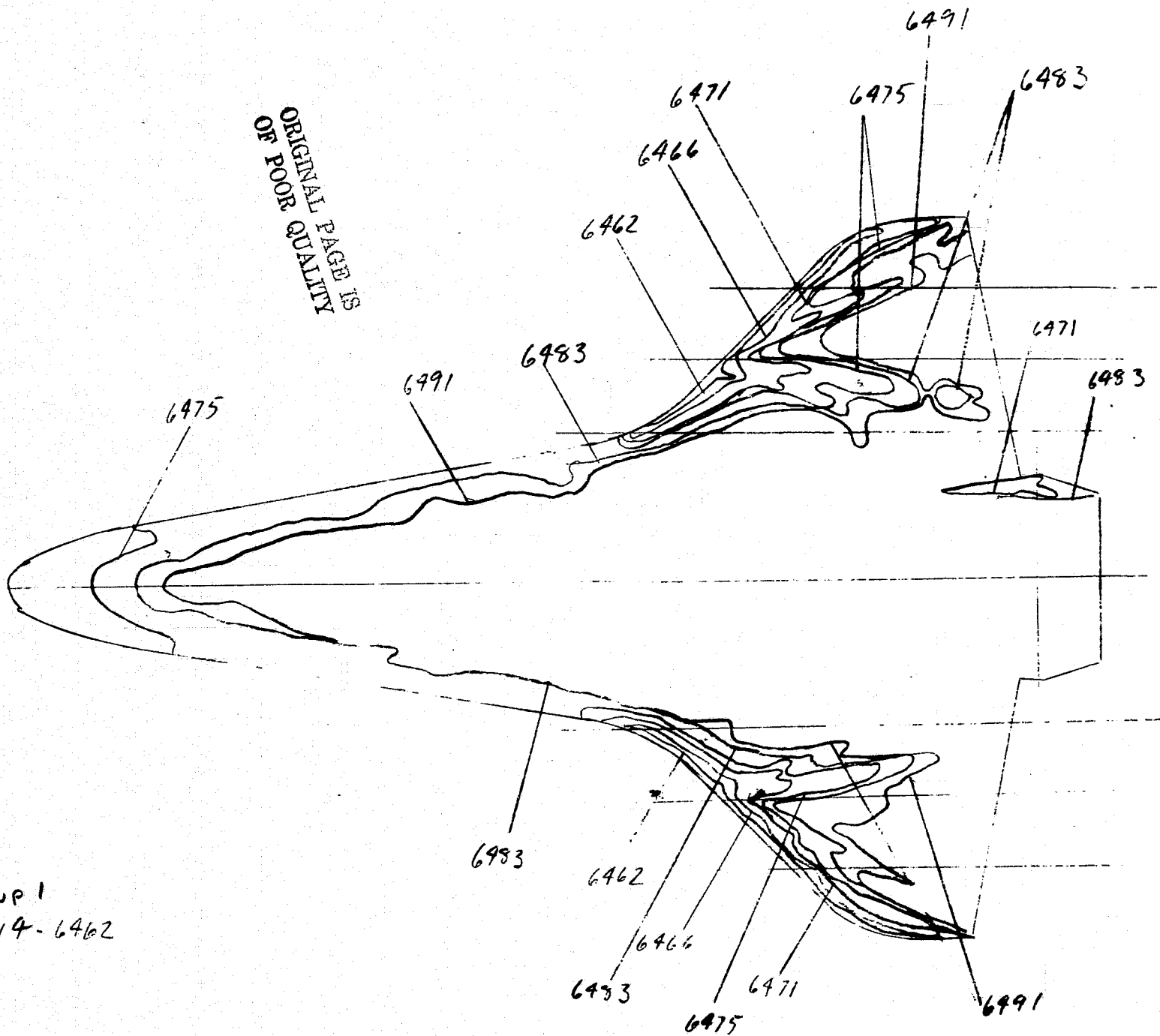
Figure 3. - Concluded.

APPENDIX
TABULATED DATA AND ISOTHERM CONTOURS

Note: Data are presented in order of increasing group number. Freestream conditions are given for oil flow visualization runs. No oil flow visualization photographs are presented.

GROUP 1

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GROUP 1
0314-6462

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8/21/74

NASA-RI STS CM25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
1	1	OREITER	7.90	110.8	1259	30.00	0	30.00	180.00	-0.00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
93.4	.012	.538	3741	1.106E-05	7.521E-08	5.500E 05	1.791E-02	5.464E-02

CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR (TO)	BETA (TO)
	314	225	79	.0528	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 6457(225)	0	MODEL HAS NOT REACHED CENTERLINE						
T 6458(225)	.98	MODEL HAS NOT REACHED CENTERLINE						
T 6459(225)	2.00	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME	2.03							

T 6460(225)	3.03	1.89	8.244E-03	.4602	1.044E-02	.5828	1.145E-02	.6390	2.480E-02
T 6461(225)	4.05	2.92	6.637E-03	.3707	8.404E-03	.4694	9.214E-03	.5147	1.999E-02
T 6462(225)	5.11	3.97	5.640E-03	.3178	7.205E-03	.4024	7.900E-03	.4412	1.713E-02
T 6463(225)	6.16	5.02	5.059E-03	.2826	6.406E-03	.3578	7.024E-03	.3923	1.523E-02
T 6464(225)	7.18	6.05	4.610E-03	.2574	5.837E-03	.3259	6.400E-03	.3573	1.387E-02
T 6465(225)	8.23	7.10	4.255E-03	.2377	5.388E-03	.3009	5.907E-03	.3299	1.281E-02
T 6466(225)	9.26	8.12	3.977E-03	.2221	5.036E-03	.2813	5.521E-03	.3084	1.198E-02
T 6467(225)	10.31	9.17	3.742E-03	.2090	4.739E-03	.2647	5.195E-03	.2902	1.127E-02
T 6468(225)	11.36	10.22	3.545E-03	.1980	4.488E-03	.2507	4.921E-03	.2749	1.067E-02
T 6469(225)	12.39	11.25	3.379E-03	.1887	4.279E-03	.2390	4.691E-03	.2620	1.017E-02
T 6470(225)	13.44	12.30	3.231E-03	.1805	4.092E-03	.2286	4.486E-03	.2506	9.730E-03
T 6471(225)	14.49	13.35	3.102E-03	.1732	3.928E-03	.2194	4.306E-03	.2405	9.340E-03
T 6472(225)	15.54	14.40	2.986E-03	.1668	3.782E-03	.2112	4.146E-03	.2316	8.992E-03
T 6473(225)	16.57	15.43	2.885E-03	.1612	3.654E-03	.2041	4.006E-03	.2238	8.688E-03
T 6474(225)	17.62	16.44	2.792E-03	.1560	3.535E-03	.1976	3.876E-03	.2166	8.414E-03
T 6475(225)	18.67	17.53	2.707E-03	.1513	3.428E-03	.1915	3.758E-03	.2100	8.157E-03
T 6476(225)	19.70	18.56	2.631E-03	.1471	3.332E-03	.1862	3.653E-03	.2042	7.936E-03
T 6477(225)	20.75	19.61	2.559E-03	.1430	3.241E-03	.1811	3.553E-03	.1986	7.713E-03
T 6478(225)	21.80	20.66	2.493E-03	.1393	3.157E-03	.1764	3.462E-03	.1935	7.515E-03
T 6479(225)	22.85	21.71	2.432E-03	.1359	3.080E-03	.1721	3.377E-03	.1887	7.330E-03
T 6480(225)	23.88	22.74	2.377E-03	.1327	3.010E-03	.1680	3.300E-03	.1842	7.150E-03
T 6481(225)	24.93	23.79	2.324E-03	.1295	2.943E-03	.1640	3.226E-03	.1798	6.966E-03

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NASA-RI STS 0M25A

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

V419-83A

GROUP CONFIG MODEL MACH NO PO(PSIA) TO(DEG R) ALPHA-MODEL ALPHA-SECTOR ALPHA-PREBEND ROLL-MODEL YAW
 1 1 ORBITER 7.90 111.2 1259 30.00 0 30.00 180.00 -0.00

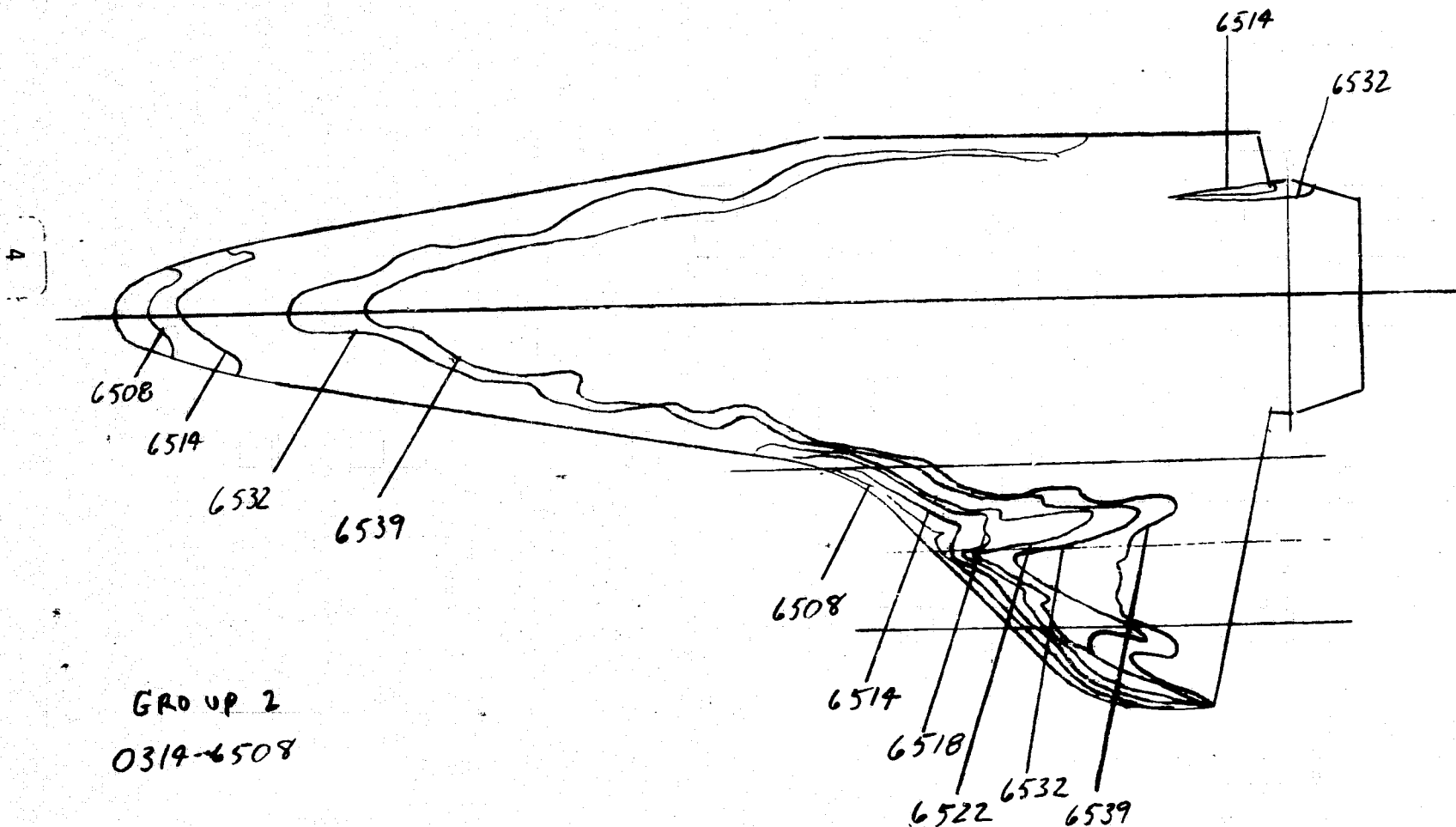
T-INF P-INF Q-INF V-INF RHO-INF MU-INF RE/FT HREF STREF
 (DEG R) (PSIA) (PSIA) (FT/SEC) (SLUGS/FT³) (LB-SEC/FT²) (FT-1) (R=.0175FI) (R=.0175FI)
 93.4 .012 .540 3741 1.110E-05 7.521E-08 5.520E 05 1.794E-02 5.455E-02

CAMERA ROLL NO PAINT TEMP (DEG F) INITIAL TEMP (DEG F) SQUARE ROOT (RHO*CXK) TBAR(TO) BETA(TO)
 TOP(T) 314
 225 79 .052R 2.027E-01 2.1466E-01

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 6482(225)	25.55	24.82	2.275E-03	.1267	2.881E-03	.1604	3.159E-03	.1759	6.808E-03
T 6483(225)	27.03	25.89	2.227E-03	.1239	2.821E-03	.1568	3.092E-03	.1720	6.647E-03
T 6484(225)	28.06	26.92	2.185E-03	.1213	2.766E-03	.1535	3.033E-03	.1683	6.497E-03
T 6485(225)	29.11	27.97	2.143E-03	.1188	2.714E-03	.1504	2.975E-03	.1649	6.357E-03
T 6486(225)	30.13	29.00	2.105E-03	.1166	2.665E-03	.1476	2.922E-03	.1618	6.232E-03
T 6487(225)	31.19	30.05	2.068E-03	.1145	2.618E-03	.1449	2.871E-03	.1589	6.117E-03
T 6488(225)	32.24	31.10	2.032E-03	.1125	2.574E-03	.1424	2.822E-03	.1561	6.007E-03
T 6489(225)	33.26	32.13	2.000E-03	.1106	2.532E-03	.1401	2.776E-03	.1536	5.911E-03
T 6490(225)	34.31	33.18	1.968E-03	.1089	2.492E-03	.1379	2.732E-03	.1512	5.817E-03
T 6491(225)	35.37	34.23	1.937E-03	.1072	2.453E-03	.1357	2.690E-03	.1488	5.726E-03
T 6492(225)	36.39	35.25	1.909E-03	.1056	2.417E-03	.1338	2.650E-03	.1466	5.642E-03
T 6493(225)	37.44	36.30	1.881E-03	.1041	2.382E-03	.1319	2.612E-03	.1446	5.565E-03
T 6494(225)	38.49	37.36	1.854E-03	.1027	2.348E-03	.1300	2.575E-03	.1426	5.491E-03
T 6495(225)	39.52	38.39	1.829E-03	.1014	2.317E-03	.1284	2.540E-03	.1407	5.422E-03
T 6496(225)	40.57	39.43	1.805E-03	.1000	2.286E-03	.1267	2.506E-03	.1389	5.354E-03
41.62 MODEL HAS LEFT CENTERLINE									
T 6497(225)	41.62	40.48	1.781E-03	.0988	2.256E-03	.1251	2.473E-03	.1371	5.288E-03
T 6498(225)	42.65	41.51	1.759E-03	.0976	2.228E-03	.1236	2.442E-03	.1355	5.227E-03
T 6499(225)	43.70	42.56	1.737E-03	.0964	2.200E-03	.1221	2.412E-03	.1339	5.167E-03
T 6500(225)	44.75	43.61	1.716E-03	.0953	2.173E-03	.1207	2.383E-03	.1324	5.113E-03
T 6501(225)	45.78	44.64	1.696E-03	.0942	2.148E-03	.1193	2.355E-03	.1308	5.054E-03

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GROUP 2
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NASA-RI STS 0H25A
 V418-83A

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

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
2	2	*0 PERCENT	7.90	112.0	1265	30.00	0	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
93.8	.012	.544	3749	1.113E-05	7.552E-08	5.525E 05	1.802E-02	5.449E-02		

CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
TOP(T)	314	225	79	.0528	0	0

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6502(225)	0	MODEL HAS NOT REACHED CENTERLINE							
T 6503(225)	.88	MODEL HAS NOT REACHED CENTERLINE							
T 6504(225)	1.90	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.05									
T 6505(225)	2.93	1.72	8.434E-03	.4684	1.066E-02	.5923	1.169E-02	.6491	2.519E-02
T 6506(225)	3.95	2.80	6.715E-03	.3733	8.491E-03	.4720	9.305E-03	.5172	2.009E-02
T 6507(225)	5.01	3.85	5.726E-03	.3182	7.240E-03	.4023	7.935E-03	.4409	1.712E-02
T 6508(225)	6.06	4.90	5.075E-03	.2822	6.418E-03	.3568	7.033E-03	.3910	1.519E-02
T 6509(225)	7.11	5.96	4.606E-03	.2560	5.824E-03	.3238	6.382E-03	.3548	1.378E-02
T 6510(225)	8.13	6.98	4.254E-03	.2365	5.379E-03	.2990	5.895E-03	.3277	1.273E-02
T 6511(225)	9.19	8.03	3.966E-03	.2205	5.015E-03	.2788	5.496E-03	.3055	1.187E-02
T 6512(225)	10.24	9.08	3.729E-03	.2072	4.716E-03	.2620	5.168E-03	.2872	1.115E-02
T 6513(225)	11.29	10.14	3.531E-03	.1963	4.464E-03	.2482	4.892E-03	.2720	1.056E-02
T 6514(225)	12.31	11.16	3.364E-03	.1870	4.254E-03	.2365	4.662E-03	.2592	1.007E-02
T 6515(225)	13.37	12.21	3.216E-03	.1787	4.067E-03	.2260	4.457E-03	.2477	9.616E-03
T 6516(225)	14.42	13.26	3.086E-03	.1715	3.903E-03	.2169	4.277E-03	.2376	9.227E-03
T 6517(225)	15.47	14.32	2.971E-03	.1651	3.757E-03	.2087	4.117E-03	.2288	8.881E-03
T 6518(225)	16.49	15.34	2.870E-03	.1594	3.629E-03	.2015	3.977E-03	.2209	8.572E-03
T 6519(225)	17.55	16.39	2.776E-03	.1542	3.511E-03	.1950	3.847E-03	.2137	8.293E-03
T 6520(225)	18.60	17.44	2.691E-03	.1495	3.403E-03	.1890	3.729E-03	.2071	8.039E-03
T 6521(225)	19.65	18.50	2.614E-03	.1452	3.305E-03	.1836	3.622E-03	.2012	7.808E-03
T 6522(225)	20.67	19.52	2.544E-03	.1412	3.217E-03	.1786	3.525E-03	.1957	7.593E-03
T 6523(225)	21.72	20.57	2.478E-03	.1376	3.134E-03	.1740	3.434E-03	.1906	7.396E-03
T 6524(225)	22.78	21.62	2.417E-03	.1341	3.057E-03	.1696	3.350E-03	.1859	7.208E-03
T 6525(225)	23.80	22.65	2.362E-03	.1311	2.987E-03	.1657	3.273E-03	.1816	7.043E-03
T 6526(225)	24.85	23.70	2.309E-03	.1281	2.920E-03	.1620	3.199E-03	.1775	6.885E-03

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NASA-RI STS 0M25A

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

V418-83A

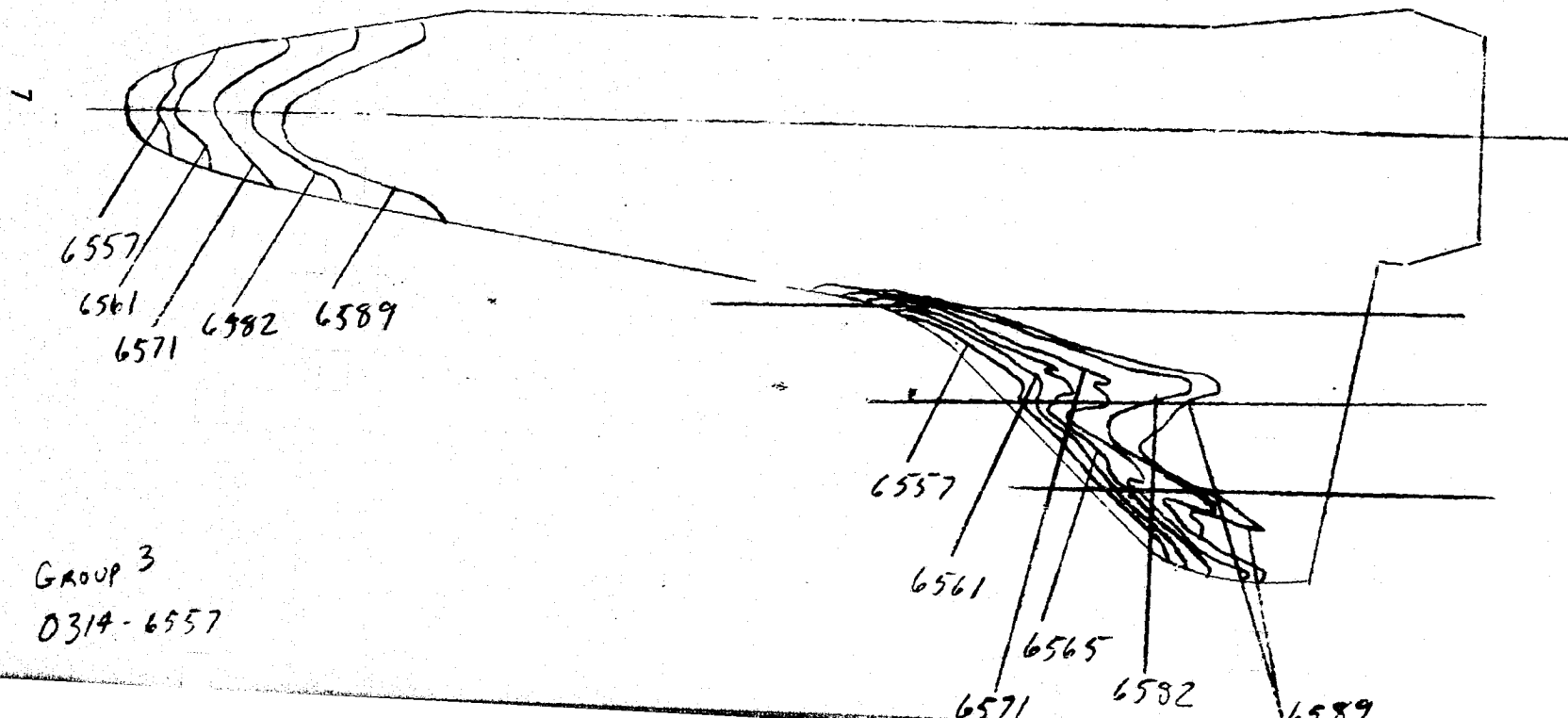
GROUP	CONFIG	MODEL	MACH NO	PO(P(SIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
2	2	40 PERCENT	7.90	112.0	1265	30.00	0	30.00	180.00	-9.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
93.8	.012	.544	3750	1.113E-05	7.554E-08	5.523E 05	1.802E-02	5.449E-02		
CAMERA TOP(T)	ROLL NO 314	PAINT 225	TEMP (DEG F) 79	INITIAL TEMP (DEG F) 79	SQUARE ROOT (RHOXCXK) .0528	TBAR(TO) 2.012E-01	BETA(TO) 2.1289E-01			

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 6527(225)	25.90	24.75	2.259E-03	.1254	2.857E-03	.1546	3.131E-03	.1738	6.743E-03
T 6528(225)	26.53	25.72	2.214E-03	.1229	2.799E-03	.1554	3.068E-03	.1703	6.608E-03
T 6529(225)	27.58	26.83	2.170E-03	.1204	2.744E-03	.1523	3.007E-03	.1669	6.472E-03
T 6530(225)	29.03	27.88	2.129E-03	.1181	2.692E-03	.1494	2.950E-03	.1637	6.349E-03
T 6531(225)	30.08	28.93	2.090E-03	.1159	2.642E-03	.1466	2.896E-03	.1606	6.227E-03
T 6532(225)	31.11	29.96	2.054E-03	.1139	2.597E-03	.1440	2.846E-03	.1578	6.119E-03
T 6533(225)	32.16	31.01	2.019E-03	.1120	2.552E-03	.1416	2.797E-03	.1551	6.015E-03
T 6534(225)	33.21	32.06	1.985E-03	.1101	2.510E-03	.1392	2.751E-03	.1526	5.915E-03
T 6535(225)	34.24	33.09	1.954E-03	.1084	2.471E-03	.1371	2.708E-03	.1502	5.828E-03
T 6536(225)	35.29	34.14	1.924E-03	.1067	2.433E-03	.1349	2.666E-03	.1479	5.733E-03
T 6537(225)	36.34	35.19	1.895E-03	.1051	2.396E-03	.1329	2.626E-03	.1456	5.646E-03
T 6538(225)	37.39	36.24	1.867E-03	.1036	2.361E-03	.1309	2.587E-03	.1435	5.564E-03
T 6539(225)	38.42	37.27	1.841E-03	.1021	2.328E-03	.1291	2.551E-03	.1415	5.487E-03
T 6540(225)	39.47	38.32	1.816E-03	.1007	2.296E-03	.1273	2.516E-03	.1396	5.411E-03
T 6541(225)	40.52	39.37	1.791E-03	.0994	2.265E-03	.1256	2.482E-03	.1377	5.338E-03
T 6542(225)	41.57	40.42	1.768E-03	.0981	2.235E-03	.1240	2.450E-03	.1359	5.268E-03
42.40 MODEL HAS LEFT CENTERLINE									
T 6543(225)	42.60	41.45	1.746E-03	.0968	2.208E-03	.1224	2.419E-03	.1342	5.203E-03
T 6544(225)	43.65	42.51	1.724E-03	.0956	2.180E-03	.1209	2.389E-03	.1325	5.138E-03
T 6545(225)	44.70	43.55	1.703E-03	.0945	2.154E-03	.1195	2.360E-03	.1309	5.075E-03
T 6546(225)	45.75	44.60	1.683E-03	.0933	2.128E-03	.1180	2.332E-03	.1294	5.015E-03
T 6547(225)	46.78	45.63	1.664E-03	.0923	2.104E-03	.1167	2.306E-03	.1279	4.959E-03
T 6548(225)	47.83	46.68	1.645E-03	.0912	2.080E-03	.1153	2.280E-03	.1264	4.898E-03
T 6549(225)	48.88	47.73	1.627E-03	.0902	2.057E-03	.1141	2.255E-03	.1250	4.848E-03
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8/21/74

NASA-R1 STS 0425A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	P0(P5IA)	T0(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
3	3	BOCY FLUSH	7.90	111.1	126R	30.00	0	30.00	180.00	-0.00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
94.0	.012	.539	3754	1.101E-05	7.571E-08	5.460E 05	1.796E-02	5.479E-02

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOACXK)	TBAR(TO)	BETA(TO)
	314	225	79	.052R	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
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T 6550(225)	.73							
T 6551(225)	1.75							
INJECT TIME = 1.90								
T 6552(225)	2.78	1.71	8.547E-03	.4757	1.080E-02	.6011	1.183E-02	.6586
T 6553(225)	3.83	2.76	6.726E-03	.3744	8.499E-03	.4731	9.311E-03	.5183
T 6554(225)	4.86	3.79	5.743E-03	.3195	7.257E-03	.4038	7.951E-03	.4424
T 6555(225)	5.91	4.84	5.081E-03	.2827	6.423E-03	.3572	7.034E-03	.3914
T 6556(225)	6.93	5.87	4.615E-03	.2568	5.832E-03	.3245	6.389E-03	.3555
T 6557(225)	7.98	6.92	4.250E-03	.2364	5.370E-03	.2987	5.884E-03	.3272
T 6558(225)	9.04	7.97	3.900E-03	.2201	5.003E-03	.2781	5.482E-03	.3047
T 6559(225)	10.09	9.02	3.722E-03	.2069	4.703E-03	.2614	5.152E-03	.2864
T 6560(225)	11.11	10.04	3.527E-03	.1960	4.456E-03	.2476	4.882E-03	.2713
T 6561(225)	12.16	11.10	3.355E-03	.1864	4.240E-03	.2356	4.645E-03	.2581
T 6562(225)	13.22	12.15	3.207E-03	.1782	4.052E-03	.2251	4.440E-03	.2467
T 6563(225)	14.27	13.20	3.077E-03	.1709	3.887E-03	.2159	4.259E-03	.2365
T 6564(225)	15.29	14.22	2.954E-03	.1647	3.745E-03	.2081	4.103E-03	.2280
T 6565(225)	16.34	15.28	2.860E-03	.1588	3.613E-03	.2007	3.959E-03	.2199
T 6566(225)	17.40	16.33	2.766E-03	.1535	3.495E-03	.1939	3.829E-03	.2125
T 6567(225)	18.45	17.38	2.681E-03	.1488	3.388E-03	.1881	3.712E-03	.2061
T 6568(225)	19.47	18.41	2.645E-03	.1446	3.292E-03	.1827	3.607E-03	.2002
T 6569(225)	20.52	19.46	2.534E-03	.1406	3.202E-03	.1777	3.508E-03	.1946
T 6570(225)	21.57	20.51	2.468E-03	.1370	3.119E-03	.1730	3.417E-03	.1896
T 6571(225)	22.63	21.56	2.407E-03	.1335	3.042E-03	.1687	3.333E-03	.1848
T 6572(225)	23.65	22.58	2.352E-03	.1305	2.972E-03	.1649	3.256E-03	.1807
T 6573(225)	24.70	23.64	2.299E-03	.1275	2.905E-03	.1611	3.183E-03	.1765
T 6574(225)	25.75	24.69	2.250E-03	.1248	2.842E-03	.1576	3.114E-03	.1727

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NASA-RI STS 0H25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
3	3	BODY FLUSH	7.90	112.0	1268	30.00	0	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LR-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.1	.012	.544	3755	1.110E-05	7.575E-08	5.501E 05	1.803E-02	5.459E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	214	225	79	.0528	2.003E-01	2.1169E-01				

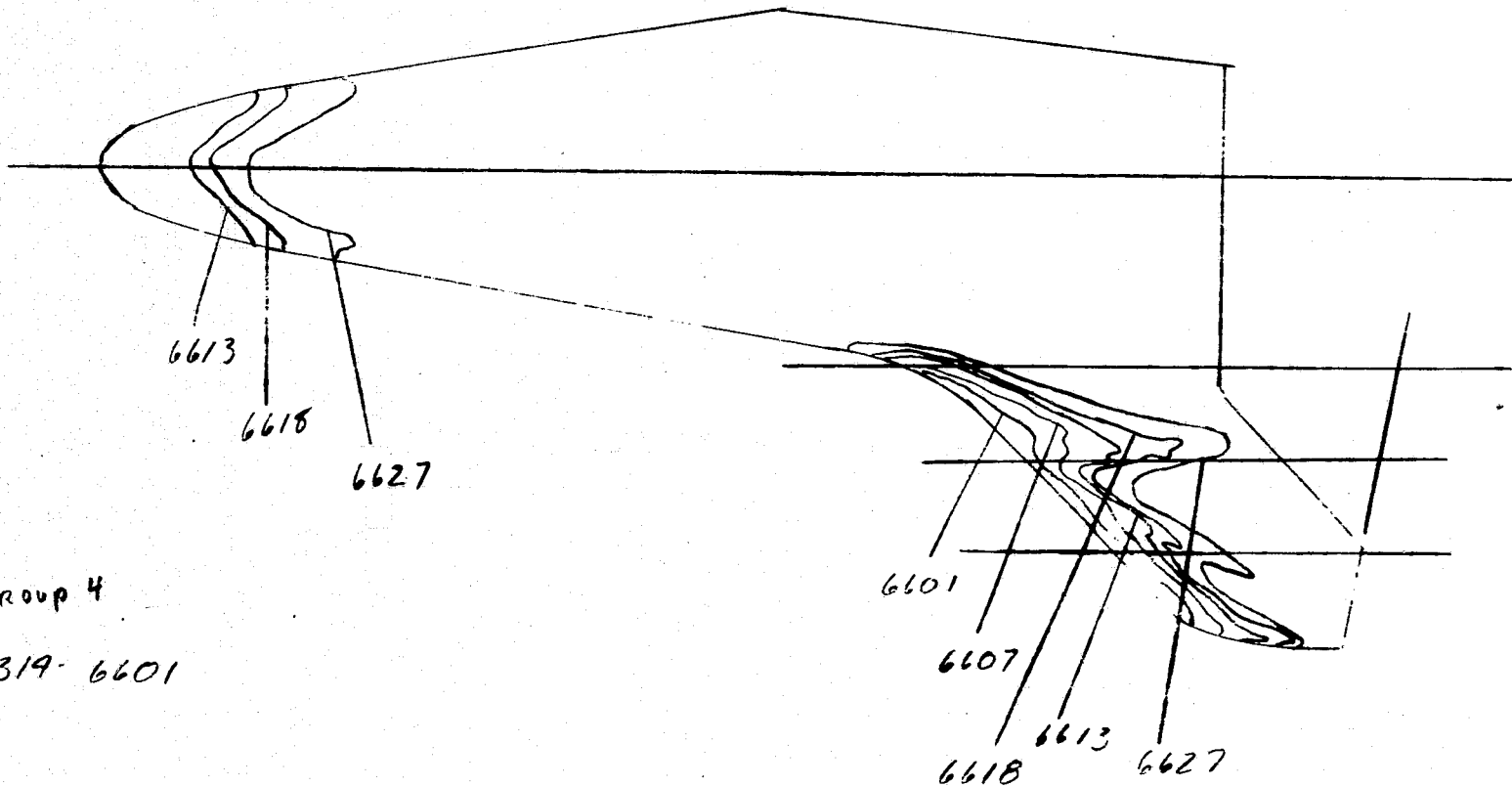
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6575(225)	26.81	25.74	2.203E-03	.1221	2.784E-03	.1543	3.050E-03	.1691	6.572E-03	
T 6576(225)	27.83	26.76	2.160E-03	.1198	2.730E-03	.1514	2.991E-03	.1659	6.450E-03	
T 6577(225)	28.88	27.82	2.119E-03	.1175	2.678E-03	.1485	2.934E-03	.1626	6.321E-03	
T 6578(225)	29.93	28.87	2.080E-03	.1153	2.629E-03	.1457	2.880E-03	.1597	6.205E-03	
T 6579(225)	30.99	29.92	2.043E-03	.1132	2.582E-03	.1431	2.829E-03	.1568	6.090E-03	
T 6580(225)	32.04	30.97	2.008E-03	.1113	2.538E-03	.1407	2.780E-03	.1541	5.991E-03	
T 6581(225)	33.06	32.00	1.976E-03	.1095	2.497E-03	.1384	2.730E-03	.1516	5.889E-03	
T 6582(225)	34.11	33.05	1.944E-03	.1077	2.457E-03	.1361	2.692E-03	.1492	5.795E-03	
T 6583(225)	35.17	34.10	1.914E-03	.1061	2.419E-03	.1340	2.650E-03	.1468	5.705E-03	
T 6584(225)	36.19	35.12	1.886E-03	.1045	2.383E-03	.1320	2.611E-03	.1446	5.616E-03	
T 6585(225)	37.24	36.17	1.858E-03	.1029	2.348E-03	.1301	2.573E-03	.1425	5.534E-03	
T 6586(225)	38.29	37.23	1.832E-03	.1014	2.315E-03	.1281	2.536E-03	.1404	5.450E-03	
T 6587(225)	39.35	38.28	1.807E-03	.1001	2.283E-03	.1264	2.501E-03	.1385	5.380E-03	
T 6588(225)	40.37	39.30	1.783E-03	.0987	2.253E-03	.1247	2.468E-03	.1366	5.305E-03	
T 6589(225)	41.42	40.35	1.759E-03	.0974	2.223E-03	.1231	2.436E-03	.1348	5.235E-03	
T 6590(225)	42.47	41.41	1.737E-03	.0962	2.195E-03	.1215	2.405E-03	.1331	5.168E-03	
MODEL HAS LEFT CENTERLINE										
T 6591(225)	43.53	42.46	1.715E-03	.0950	2.167E-03	.1200	2.375E-03	.1315	5.104E-03	
T 6592(225)	44.55	43.48	1.695E-03	.0938	2.142E-03	.1185	2.347E-03	.1298	5.039E-03	
T 6593(225)	45.60	44.53	1.675E-03	.0927	2.116E-03	.1171	2.319E-03	.1283	4.979E-03	

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Group 4

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NASA-RI STS 0M25A

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

V41R-93A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
4	4	LEADING EDGE	7.90	112.8	1273	30.00	0	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.4	.013	.547	3761	1.114E-05	7.602E-08	5.510E 05	1.811E-02	5.451E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
	314	225	79	.0528	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6595(225)	.03			MODEL HAS NOT REACHED CENTERLINE					
T 6596(225)	1.00			MODEL HAS NOT REACHED CENTERLINE					
T 6597(225)	2.03			MODEL HAS NOT REACHED CENTERLINE					
INJECT TIME = 2.13									
T 6598(225)	3.05	1.86	8.129E-03	.4484	1.026E-02	.5659	1.124E-02	.6197	2.407E-02
T 6599(225)	4.10	2.91	6.447E-03	.3585	8.200E-03	.4575	8.980E-03	.4955	1.926E-02
T 6600(225)	5.13	3.94	5.586E-03	.3081	7.051E-03	.3889	7.721E-03	.4259	1.654E-02
T 6601(225)	6.18	4.99	4.963E-03	.2737	6.264E-03	.3455	6.859E-03	.3784	1.470E-02
T 6602(225)	7.23	6.04	4.510E-03	.2488	5.693E-03	.3140	6.234E-03	.3438	1.336E-02
T 6603(225)	8.26	7.07	4.170E-03	.2300	5.263E-03	.2903	5.763E-03	.3179	1.235E-02
T 6604(225)	9.31	8.12	3.890E-03	.2146	4.911E-03	.2709	5.377E-03	.2966	1.152E-02
T 6605(225)	10.36	9.17	3.661E-03	.2019	4.620E-03	.2549	5.060E-03	.2791	1.084E-02
T 6606(225)	11.41	10.22	3.467E-03	.1912	4.376E-03	.2414	4.792E-03	.2643	1.027E-02
T 6607(225)	12.44	11.24	3.305E-03	.1824	4.172E-03	.2302	4.568E-03	.2521	9.797E-03
T 6608(225)	13.49	12.30	3.161E-03	.1743	3.990E-03	.2201	4.369E-03	.2410	9.360E-03
T 6609(225)	14.54	13.35	3.034E-03	.1673	3.829E-03	.2112	4.193E-03	.2313	8.984E-03
T 6610(225)	15.59	14.40	2.921E-03	.1611	3.687E-03	.2034	4.037E-03	.2227	8.650E-03
T 6611(225)	16.62	15.42	2.822E-03	.1557	3.562E-03	.1965	3.901E-03	.2151	8.357E-03
T 6612(225)	17.67	16.48	2.731E-03	.1506	3.447E-03	.1901	3.774E-03	.2082	8.086E-03
T 6613(225)	18.72	17.53	2.647E-03	.1460	3.342E-03	.1843	3.659E-03	.2018	7.840E-03
T 6614(225)	19.77	18.58	2.571E-03	.1418	3.246E-03	.1790	3.554E-03	.1960	7.615E-03
T 6615(225)	20.82	19.63	2.512E-03	.1380	3.158E-03	.1742	3.458E-03	.1907	7.408E-03
T 6616(225)	21.85	20.66	2.439E-03	.1345	3.078E-03	.1698	3.371E-03	.1859	7.222E-03
T 6617(225)	22.90	21.71	2.379E-03	.1312	3.003E-03	.1656	3.288E-03	.1814	7.045E-03
T 6618(225)	23.95	22.76	2.323E-03	.1282	2.933E-03	.1618	3.211E-03	.1771	6.880E-03
T 6619(225)	25.00	23.81	2.271E-03	.1253	2.867E-03	.1581	3.140E-03	.1732	6.726E-03

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8/21/74

NASA-RI STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODFL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
4	4	LEADING EDGE	7.90	113.1	1273	30.00	0	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PStA)	(PStA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.4	.013	.559	3761	1.116E-05	7.602E-08	5.524E 05	1.813E-02	5.444E-02		

CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOACK)	TBAR(TO)	BETA(TO)
TOP(T)	314	225	79	.0529	1.989E-01	2.0991E-01

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6620(225)	26.03	24.84	2.224E-03	.1227	2.807E-03	.1549	3.074E-03	.1696	6.592E-03
T 6621(225)	27.08	25.89	2.179E-03	.1202	2.750E-03	.1517	3.011E-03	.1661	6.451E-03
T 6622(225)	28.13	26.94	2.135E-03	.1178	2.695E-03	.1487	2.952E-03	.1628	6.324E-03
T 6623(225)	29.18	27.99	2.095E-03	.1156	2.644E-03	.1459	2.896E-03	.1597	6.204E-03
T 6624(225)	30.21	29.02	2.058E-03	.1135	2.597E-03	.1433	2.844E-03	.1569	6.099E-03
T 6625(225)	31.26	30.07	2.021E-03	.1115	2.551E-03	.1408	2.794E-03	.1542	5.991E-03
T 6626(225)	32.31	31.12	1.987E-03	.1096	2.508E-03	.1384	2.746E-03	.1515	5.889E-03
T 6627(225)	33.36	32.17	1.954E-03	.1078	2.467E-03	.1361	2.701E-03	.1490	5.792E-03
T 6628(225)	34.39	33.20	1.924E-03	.1062	2.428E-03	.1340	2.659E-03	.1467	5.702E-03
T 6629(225)	35.44	34.25	1.894E-03	.1045	2.391E-03	.1319	2.618E-03	.1444	5.614E-03
T 6630(225)	36.49	35.30	1.866E-03	.1029	2.355E-03	.1299	2.578E-03	.1423	5.530E-03
T 6631(225)	37.54	36.35	1.838E-03	.1014	2.320E-03	.1280	2.541E-03	.1402	5.449E-03
T 6632(225)	38.57	37.37	1.813E-03	.1000	2.288E-03	.1263	2.506E-03	.1383	5.374E-03
T 6633(225)	39.62	38.43	1.788E-03	.0987	2.257E-03	.1245	2.471E-03	.1364	5.300E-03
T 6634(225)	40.67	39.48	1.764E-03	.0973	2.227E-03	.1229	2.438E-03	.1345	5.229E-03
T 6635(225)	41.72	40.53	1.741E-03	.0961	2.198E-03	.1213	2.406E-03	.1328	5.161E-03
MODEL HAS LEFT CENTERLINE									
T 6636(225)	42.82	41.55	1.719E-03	.0949	2.170E-03	.1198	2.376E-03	.1311	5.096E-03
T 6637(225)	43.80	42.61	1.698E-03	.0937	2.143E-03	.1182	2.347E-03	.1294	5.029E-03
T 6638(225)	44.85	43.66	1.677E-03	.0925	2.117E-03	.1168	2.319E-03	.1279	4.968E-03

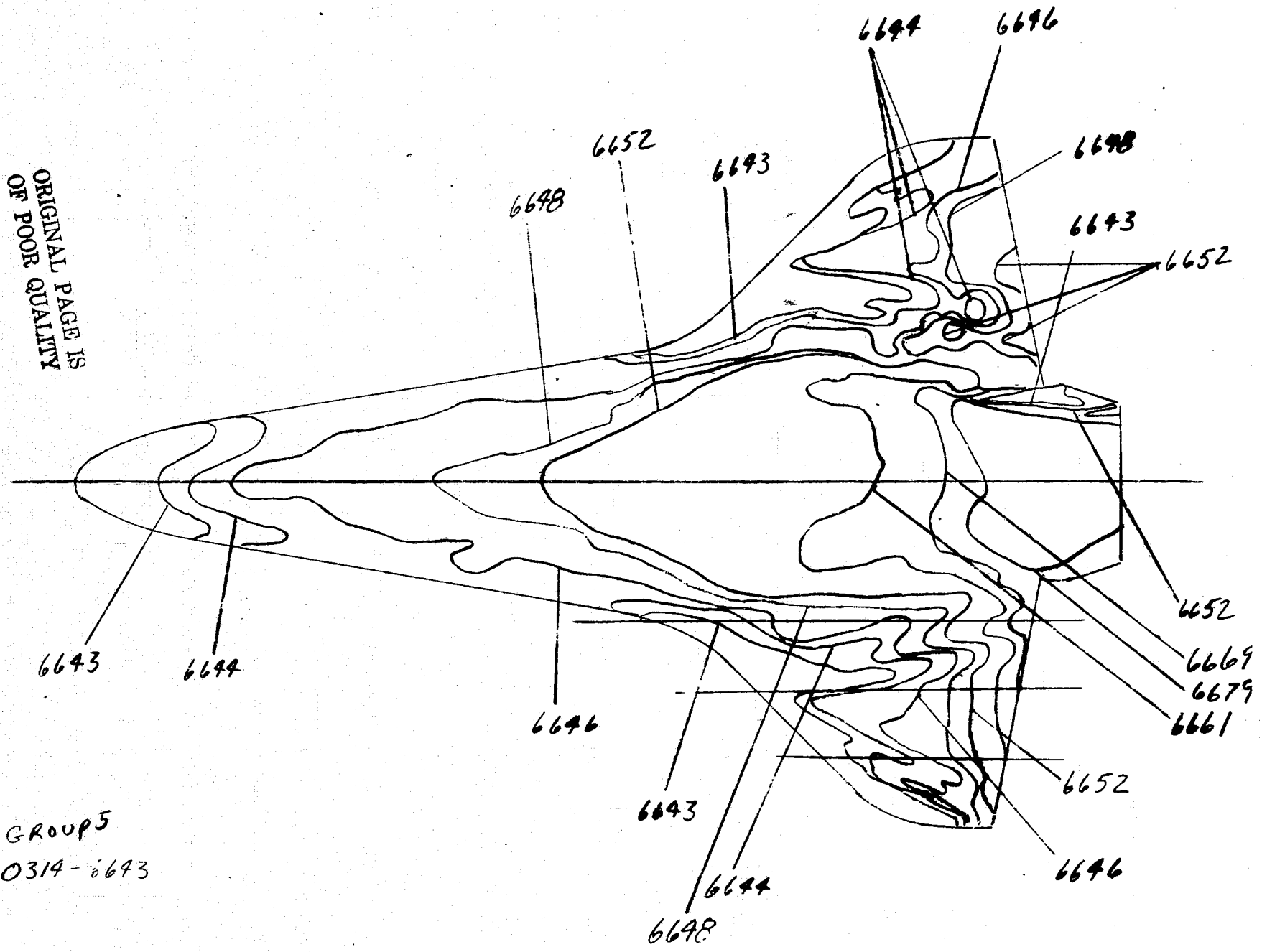
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A = 6001000000001017 CALL FROM 72651

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ORIGINAL PAGE IS
OF POOR QUALITY

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GROUP 5
0314-6693

ORIGINAL PAGE IS
OF POOR QUALITY

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8/21/74

NASA-R1 STS 0M25A
V418-83A

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

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
5	1	ORBITER	7.90	111.6	1274	30.00	0	30.00	180.00	-0.00
T-1AF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.5	.012	.542	3763	1.101E-05	7.610E-08	5.443E 05	1.801E-02	5.484E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOACXK)	TBAR(TO)	BETA(TO)				
TOP(T)	21A	225	79	.052R	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6639(225)	.73	MODEL HAS NOT REACHED CENTERLINE							
I 6640(225)	1.75	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.00							
T 6641(225)	2.78	1.65	8.599E-03	.4767	1.045E-02	.6016	1.188E-02	.6586	2.575E-02
T 6642(225)	3.63	2.71	6.724E-03	.3728	8.445E-03	.4705	9.288E-03	.5150	2.013E-02
T 6643(225)	4.88	3.76	5.706E-03	.3162	7.201E-03	.3991	7.882E-03	.4368	1.707E-02
T 6644(225)	5.51	4.78	5.057E-03	.2800	6.342E-03	.3533	6.984E-03	.3868	1.510E-02
T 6645(225)	6.96	5.83	4.579E-03	.2534	5.778E-03	.3198	6.325E-03	.3500	1.366E-02
T 6646(225)	8.01	6.89	4.215E-03	.2332	5.319E-03	.2942	5.822E-03	.3221	1.256E-02
T 6647(225)	9.06	7.94	3.926E-03	.2171	4.954E-03	.2739	5.423E-03	.2999	1.169E-02
T 6648(225)	10.09	8.96	3.694E-03	.2042	4.662E-03	.2577	5.103E-03	.2820	1.099E-02
T 6649(225)	11.14	10.01	3.495E-03	.1931	4.410E-03	.2436	4.828E-03	.2667	1.039E-02
T 6650(225)	12.19	11.06	3.325E-03	.1836	4.196E-03	.2317	4.593E-03	.2536	9.877E-03
T 6651(225)	13.24	12.12	3.177E-03	.1754	4.010E-03	.2214	4.389E-03	.2424	9.439E-03
T 6652(225)	14.29	13.17	3.048E-03	.1682	3.846E-03	.2123	4.210E-03	.2324	9.046E-03
T 6653(225)	15.32	14.19	2.935E-03	.1620	3.705E-03	.2044	4.055E-03	.2237	8.705E-03
T 6654(225)	16.37	15.24	2.832E-03	.1563	3.575E-03	.1972	3.913E-03	.2159	8.400E-03
T 6655(225)	17.42	16.30	2.740E-03	.1511	3.457E-03	.1907	3.784E-03	.2087	8.117E-03
T 6656(225)	18.47	17.35	2.655E-03	.1464	3.351E-03	.1847	3.668E-03	.2022	7.861E-03
T 6657(225)	19.50	18.37	2.580E-03	.1422	3.256E-03	.1795	3.564E-03	.1965	7.638E-03
T 6658(225)	20.55	19.42	2.509E-03	.1382	3.167E-03	.1744	3.466E-03	.1909	7.415E-03
T 6659(225)	21.60	20.48	2.444E-03	.1347	3.084E-03	.1699	3.376E-03	.1860	7.229E-03
T 6660(225)	22.65	21.53	2.384E-03	.1312	3.008E-03	.1656	3.293E-03	.1813	7.038E-03
T 6661(225)	23.68	22.55	2.329E-03	.1282	2.939E-03	.1618	3.217E-03	.1771	6.875E-03
T 6662(225)	24.75	23.63	2.275E-03	.1251	2.871E-03	.1579	3.143E-03	.1729	6.706E-03
T 6663(225)	25.78	24.66	2.227E-03	.1225	2.811E-03	.1546	3.077E-03	.1692	6.565E-03

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8/21/74

NASA-RI STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
5	1	ORBITER	7.90	113.7	1275	30.00	0	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.6	.013	.552	3764	1.121E-05	7.613E-08	5.541E 05	1.818E-02	5.434E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TRAR(TO)	BETA(TO)				
	314	225	79	.0528	1.985E-01	2.0946E-01				
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
I 6664(225)	26.83	25.71	2.151E-03	.1199	2.753E-03	.1513	3.013E-03	.1656	6.424E-03	
I 6665(225)	27.88	25.76	2.138E-03	.1175	2.698E-03	.1483	2.953E-03	.1623	6.291E-03	
I 6666(225)	28.91	27.78	2.098E-03	.1153	2.648E-03	.1455	2.898E-03	.1593	6.174E-03	
I 6667(225)	29.96	28.84	2.060E-03	.1132	2.599E-03	.1429	2.845E-03	.1563	6.060E-03	
I 6668(225)	31.01	29.89	2.023E-03	.1111	2.553E-03	.1402	2.794E-03	.1535	5.947E-03	
I 6669(225)	32.06	31.94	1.988E-03	.1092	2.509E-03	.1378	2.747E-03	.1509	5.845E-03	
I 6670(225)	33.09	31.94	1.956E-03	.1074	2.469E-03	.1355	2.702E-03	.1484	5.746E-03	
I 6671(225)	34.14	33.02	1.925E-03	.1057	2.429E-03	.1334	2.659E-03	.1460	5.654E-03	
I 6672(225)	35.19	34.07	1.895E-03	.1040	2.391E-03	.1313	2.617E-03	.1437	5.566E-03	
I 6673(225)	36.24	35.12	1.866E-03	.1025	2.355E-03	.1293	2.574E-03	.1415	5.482E-03	
I 6674(225)	37.29	36.17	1.839E-03	.1009	2.321E-03	.1274	2.540E-03	.1394	5.397E-03	
I 6675(225)	38.34	37.22	1.813E-03	.0994	2.288E-03	.1255	2.504E-03	.1374	5.315E-03	
I 6676(225)	39.37	38.25	1.788E-03	.0981	2.257E-03	.1238	2.470E-03	.1355	5.244E-03	
I 6677(225)	40.42	39.30	1.764E-03	.0969	2.226E-03	.1221	2.437E-03	.1337	5.173E-03	
I 6678(225)	41.47	40.35	1.741E-03	.0955	2.197E-03	.1205	2.405E-03	.1319	5.101E-03	
I 6679(225)	42.52	41.40	1.719E-03	.0942	2.169E-03	.1189	2.374E-03	.1302	5.036E-03	
I 6680(225)	43.55	42.43	1.698E-03	.0931	2.143E-03	.1174	2.345E-03	.1285	4.970E-03	
I 6681(225)	44.60	43.49	1.677E-03	.0919	2.117E-03	.1160	2.317E-03	.1270	4.910E-03	
I 6682(225)	45.65	44.53	1.657E-03	.0908	2.092E-03	.1146	2.289E-03	.1255	4.852E-03	
I 6683(225)	46.70	45.58	1.638E-03	.0899	2.067E-03	.1133	2.263E-03	.1240	4.795E-03	
I 6684(225)	47.73	46.61	1.620E-03	.0887	2.044E-03	.1120	2.238E-03	.1226	4.738E-03	
	48.11		MODEL HAS LEFT CENTERLINE							
I 6685(225)	49.78	47.66	1.602E-03	.0878	2.022E-03	.1108	2.213E-03	.1212	4.686E-03	
I 6686(225)	49.83	48.71	1.585E-03	.0868	2.000E-03	.1095	2.189E-03	.1199	4.631E-03	
I 6687(225)	50.88	49.76	1.568E-03	.0858	1.979E-03	.1083	2.166E-03	.1186	4.582E-03	

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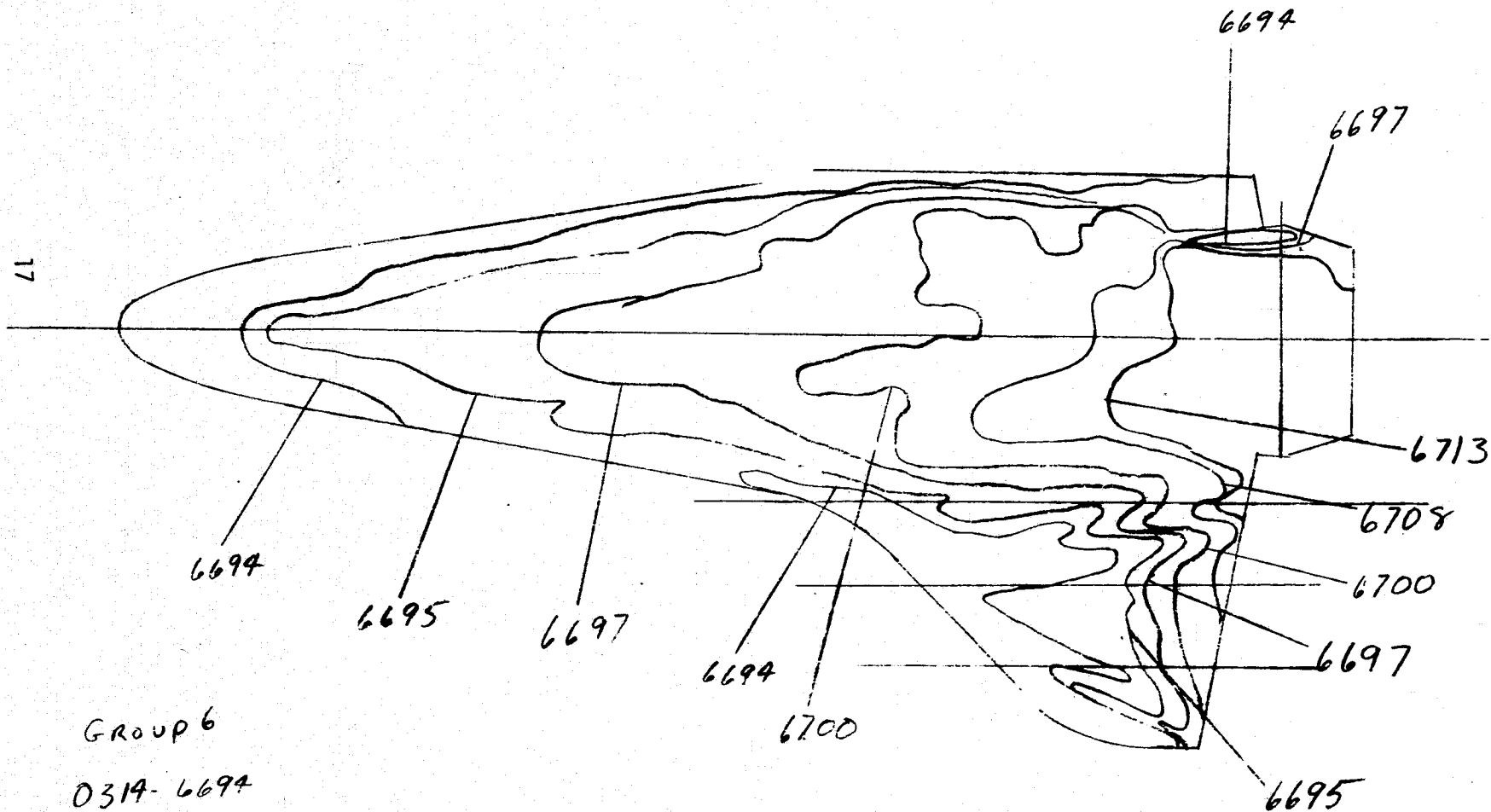
NASA-RJ STS 0H25A

AFDC(AHO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL 9

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
5	1	OREITER	7.90	114.6	1275	30.00	0	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
24.6	.013	.557	3765	1.130E-05	7.615E-08	5.588E 05	1.826E-02	5.412E-02		
CAMERA TOP(T)	ROLL NO 214	PAINT TEMP (DEG F) 225	INITIAL TEMP (DEG F) 79	SQUARE ROOT (RHOXCXK) .0528	TRAR(TO) 1.985E-01	BETA(TO) 2.0946E-01				
PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 6688(225)	51.51 50.79	1.552E-03	.0850	1.958E-03	.1072	2.144E-03	.1174	4.535E-03		
ERROR IN POWRF BASE<0 A # 57773777626227 CALL FROM 72651										

GROUP 6



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8/21/74

NASA-R1 STS 0H25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH. NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
6	2	40 PERCENT	7.90	111.4	1274	30.00	.00	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.5	.012	.541	3763	1.099E-05	7.608E-08	5.435E 05	1.800E-02	5.488E-02		

CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)
TOF(T)	314	131	88	.0486	0	0

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6690(131)	.03		MODEL HAS NOT REACHED CENTERLINE							
T 6691(131)	1.00		MODEL HAS NOT REACHED CENTERLINE							
T 6692(131)	2.03		MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.05								
T 6693(131)	3.05	1.90	1.941E-03	.1078	2.381E-03	.1322	2.572E-03	.1429	5.862E-03	
T 6694(131)	4.08	2.93	1.504E-03	.0869	1.919E-03	.1066	2.073E-03	.1151	4.725E-03	
T 6695(131)	5.13	3.98	1.342E-03	.0745	1.646E-03	.0914	1.778E-03	.0988	4.053E-03	
T 6696(131)	6.18	5.03	1.193E-03	.0663	1.404E-03	.0813	1.582E-03	.0878	3.601E-03	
T 6697(131)	7.23	6.08	1.085E-03	.0603	1.331E-03	.0739	1.438E-03	.0799	3.275E-03	
T 6698(131)	8.26	7.11	1.004E-03	.0557	1.231E-03	.0684	1.331E-03	.0739	3.029E-03	
T 6699(131)	9.31	8.16	9.371E-04	.0520	1.149E-03	.0638	1.242E-03	.0689	2.828E-03	
T 6700(131)	10.36	9.21	8.820E-04	.0489	1.082E-03	.0600	1.169E-03	.0649	2.659E-03	
T 6701(131)	11.41	10.26	8.356E-04	.0464	1.025E-03	.0569	1.107E-03	.0614	2.519E-03	
T 6702(131)	12.44	11.29	7.907E-04	.0442	9.772E-04	.0542	1.056E-03	.0586	2.400E-03	
T 6703(131)	13.49	12.34	7.620E-04	.0423	9.346E-04	.0519	1.010E-03	.0560	2.295E-03	
T 6704(131)	14.54	13.39	7.315E-04	.0406	8.972E-04	.0496	9.694E-04	.0538	2.203E-03	
T 6705(131)	15.59	14.44	7.044E-04	.0391	8.639E-04	.0479	9.334E-04	.0518	2.122E-03	
T 6706(131)	16.62	15.47	6.806E-04	.0377	8.347E-04	.0463	9.019E-04	.0500	2.048E-03	
T 6707(131)	17.67	16.52	6.586E-04	.0365	8.077E-04	.0448	8.727E-04	.0484	1.982E-03	
T 6708(131)	18.72	17.57	6.386E-04	.0354	7.832E-04	.0434	8.462E-04	.0469	1.922E-03	
T 6709(131)	19.77	18.62	6.203E-04	.0344	7.608E-04	.0422	8.220E-04	.0456	1.865E-03	
T 6710(131)	20.80	19.65	6.039E-04	.0335	7.406E-04	.0410	8.002E-04	.0443	1.816E-03	
T 6711(131)	21.85	20.70	5.883E-04	.0326	7.216E-04	.0400	7.797E-04	.0432	1.769E-03	
T 6712(131)	22.90	21.75	5.739E-04	.0318	7.039E-04	.0390	7.606E-04	.0422	1.726E-03	
T 6713(131)	23.93	22.78	5.609E-04	.0311	6.879E-04	.0381	7.433E-04	.0412	1.685E-03	
T 6714(131)	24.98	23.83	5.484E-04	.0304	6.725E-04	.0373	7.267E-04	.0403	1.647E-03	

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8/21/74

NASA-R1 STS 0H25A

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

V41B-83A

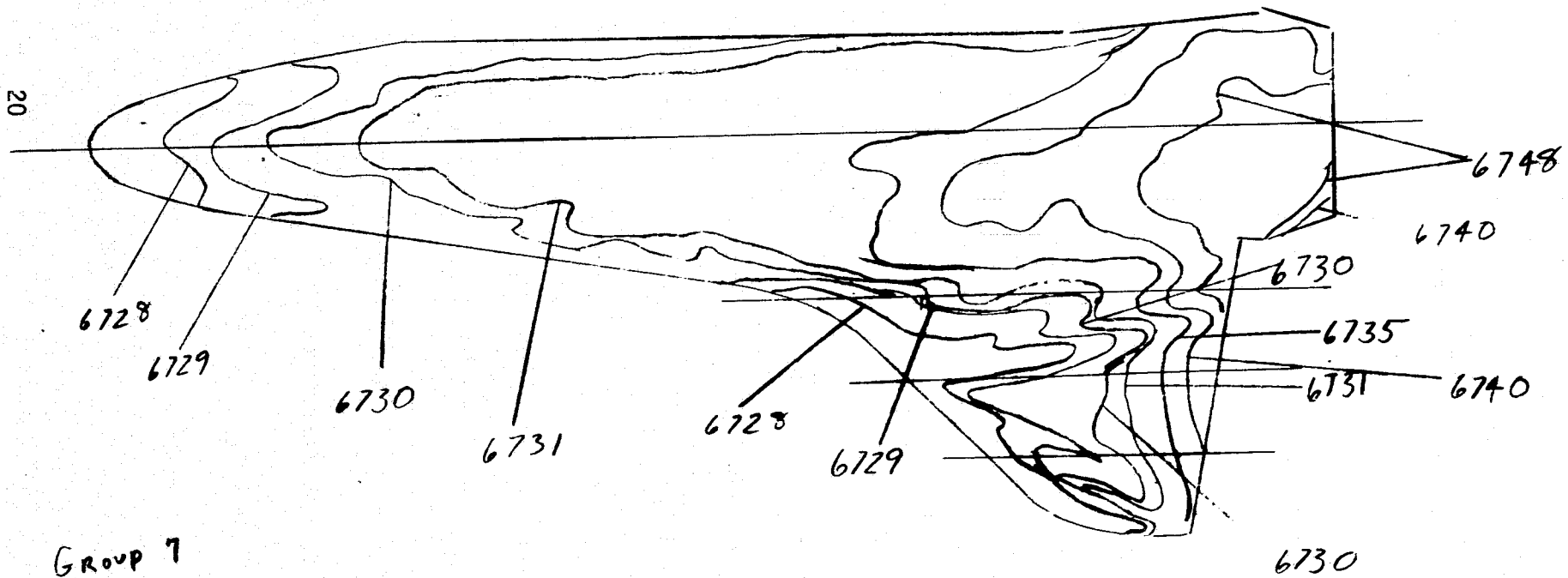
GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
6	2	40 PERCENT	7.90	112.1	1274	30.00	.00	30.00	180.00	-.00

T-INF (DEG R)	P-INF (PSIA)	O-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LR-SEC/FT2)	RE/FT (FI-1)	HREF (R= .0175FI)	STREF (R= .0175FI)
94.5	.012	.544	3763	1.105E-05	7.610E-08	5.467E 05	1.805E-02	5.472E-02

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	214	131	88	.0486	5.926E-02	5.5075E-02

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 6715(131)	26.03 24.88	5.306E-04	.0297	6.582E-04	.0365	7.117E-04	.0394	1.612E-03		
T 6716(131)	27.08 25.93	5.250E-04	.0291	6.447E-04	.0357	6.966E-04	.0386	1.579E-03		
T 6717(131)	28.13 26.98	5.153E-04	.0285	6.320E-04	.0350	6.829E-04	.0378	1.548E-03		
T 6718(131)	29.16 28.01	5.058E-04	.0280	6.203E-04	.0343	6.703E-04	.0371	1.518E-03		
T 6719(131)	30.21 29.06	4.905E-04	.0275	6.090E-04	.0337	6.580E-04	.0364	1.490E-03		
T 6720(131)	31.26 30.11	4.878E-04	.0270	5.983E-04	.0331	6.464E-04	.0358	1.464E-03		
T 6721(131)	32.31 31.16	4.795E-04	.0265	5.881E-04	.0325	6.354E-04	.0352	1.438E-03		
	32.69	MODEL HAS LEFT CENTERLINE								
T 6722(131)	33.34 32.19	4.718E-04	.0261	5.787E-04	.0320	6.252E-04	.0346	1.416E-03		
T 6723(131)	34.39 33.24	4.643E-04	.0257	5.694E-04	.0315	6.153E-04	.0341	1.394E-03		
T 6724(131)	35.44 34.29	4.571E-04	.0253	5.606E-04	.0310	6.058E-04	.0335	1.371E-03		
ERROR IN POWRF BASE<0 A = 6001000064653215 CALL FROM 72651										

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GROUP 7
0314-6728

 * UNCLASSIFIED *

8/21/74

NASA-R1 STS 0425A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
7	3	ROCY FLUSH	7.90	111.3	1273	30.01	-0.01	30.00	180.00	-0.00
T-IAF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LR-SEC/FT ²)	(FT-1)	(R= .0175FT)	(K= .0175FT)		
94.5	.012	.540	3762	1.098E-05	7.604E-08	5.434E 05	1.799E-02	5.489E-02		

CAPEPA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
TOP(T)	314					
		131	92	.0486	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6725(131)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 6726(131)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 6727(131)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.18							
T 6728(131)	3.05	1.83	2.253E-03	.1252	2.761E-03	.1534	2.983E-03	.1658	
T 6729(131)	4.10	2.88	1.796E-03	.0999	2.201E-03	.1223	2.378E-03	.1321	
T 6730(131)	5.13	3.91	1.542E-03	.0857	1.890E-03	.1050	2.042E-03	.1134	
T 6731(131)	6.18	4.96	1.369E-03	.0761	1.678E-03	.0932	1.813E-03	.1007	
T 6732(131)	7.21	5.99	1.246E-03	.0692	1.527E-03	.0848	1.650E-03	.0916	
T 6733(131)	8.26	7.04	1.149E-03	.0638	1.408E-03	.0782	1.522E-03	.0845	
T 6734(131)	9.31	8.09	1.072E-03	.0595	1.314E-03	.0729	1.419E-03	.0788	
T 6735(131)	10.34	9.11	1.010E-03	.0561	1.238E-03	.0687	1.337E-03	.0742	
T 6736(131)	11.39	10.17	9.504E-04	.0531	1.172E-03	.0650	1.266E-03	.0703	
T 6737(131)	12.41	11.19	9.115E-04	.0506	1.117E-03	.0620	1.207E-03	.0669	
T 6738(131)	13.47	12.24	8.715E-04	.0483	1.068E-03	.0592	1.154E-03	.0640	
T 6739(131)	14.52	13.29	8.303E-04	.0464	1.025E-03	.0568	1.107E-03	.0614	
T 6740(131)	15.54	14.32	8.058E-04	.0447	9.873E-04	.0547	1.067E-03	.0591	
T 6741(131)	16.59	15.37	7.777E-04	.0431	9.529E-04	.0528	1.030E-03	.0571	
T 6742(131)	17.62	16.40	7.530E-04	.0418	9.226E-04	.0512	9.968E-04	.0553	
T 6743(131)	18.67	17.45	7.300E-04	.0405	8.944E-04	.0496	9.663E-04	.0536	
T 6744(131)	19.72	18.50	7.089E-04	.0393	8.686E-04	.0481	9.385E-04	.0520	
T 6745(131)	20.75	19.53	6.901E-04	.0382	8.455E-04	.0468	9.135E-04	.0506	
T 6746(131)	21.80	20.58	6.722E-04	.0372	8.236E-04	.0456	8.898E-04	.0493	
T 6747(131)	22.85	21.63	6.557E-04	.0363	8.034E-04	.0445	8.679E-04	.0481	
T 6748(131)	23.90	22.68	6.403E-04	.0355	7.845E-04	.0434	8.476E-04	.0469	
T 6749(131)	24.93	23.71	6.263E-04	.0347	7.674E-04	.0425	8.290E-04	.0459	

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NASA-RJ S7S 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
7	3	BODY FLUSH	7.90	112.2	1273	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RMO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.4	.012	.54E	3762	1.107E-05	7.604E-08	5.478E 05	1.806E-02	5.466E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	314	131	82	.0486	6.704E-02	6.2742E-02				

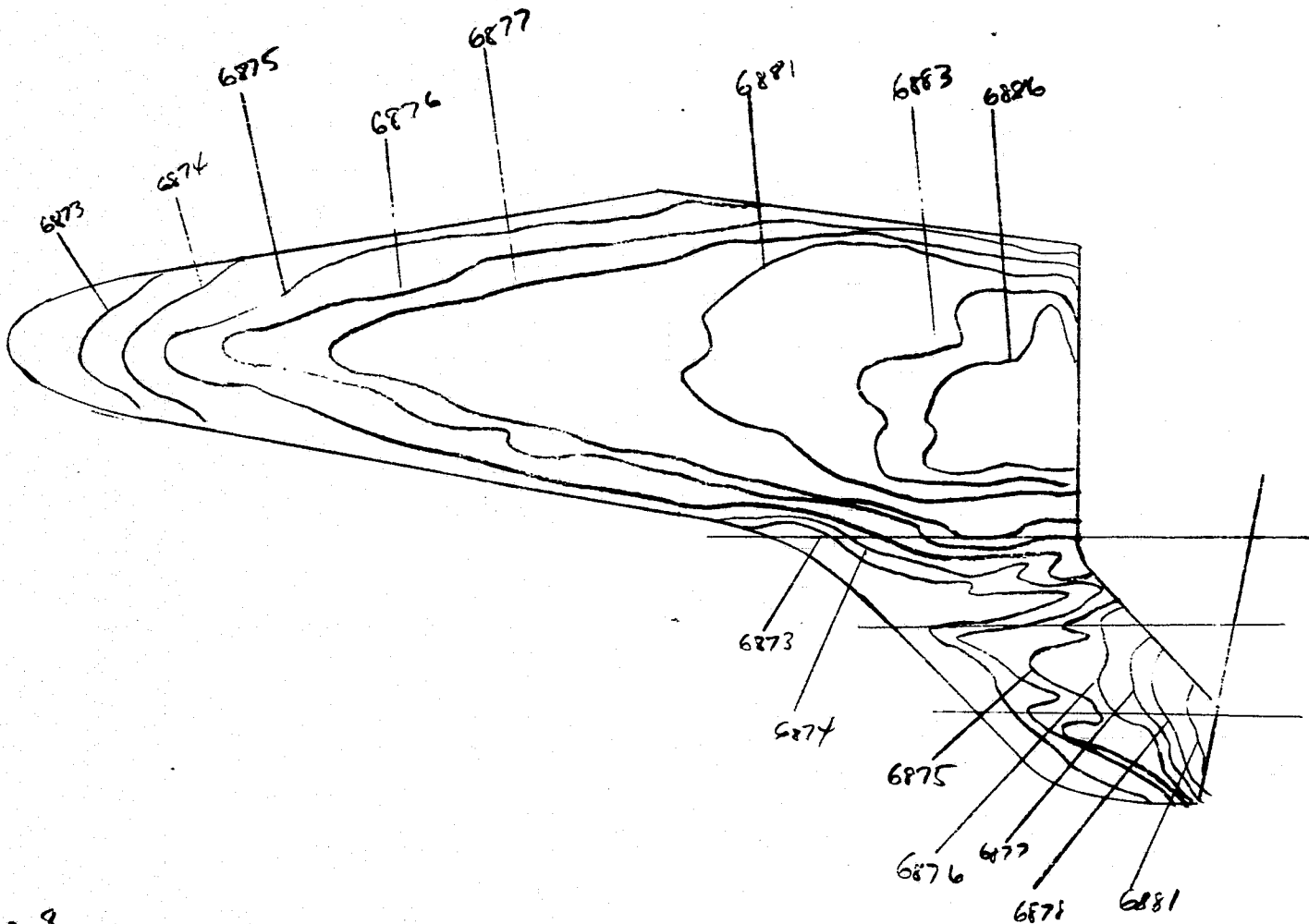
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6751(131)	25.98 24.76	6.128E-04	.0339	7.509E-04	.0416	8.112E-04	.0449	1.839E-03	
I 6751(131)	27.03 25.81	6.002E-04	.0332	7.354E-04	.0407	7.946E-04	.0440	1.799E-03	
T 6752(131)	24.06 26.83	5.886E-04	.0326	7.212E-04	.0399	7.792E-04	.0431	1.763E-03	
T 6753(131)	29.11 27.89	5.774E-04	.0319	7.075E-04	.0391	7.644E-04	.0423	1.728E-03	
T 6754(131)	30.16 28.94	5.668E-04	.0314	6.945E-04	.0384	7.504E-04	.0415	1.698E-03	
	31.19	MODEL HAS LEFT CENTERLINE							
T 6755(131)	31.21 29.99	5.568E-04	.0308	6.823E-04	.0377	7.371E-04	.0407	1.665E-03	
I 6756(131)	32.24 31.01	5.475E-04	.0303	6.709E-04	.0371	7.248E-04	.0401	1.637E-03	
T 6757(131)	33.29 32.07	5.385E-04	.0298	6.598E-04	.0365	7.128E-04	.0394	1.610E-03	
ERROR IN FORM BASE<0 A = 6001000000001017 CALL FROM 72651									

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GROUP 8
0373-6873

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GROUP 8
0373-6873

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8/21/74

NASA-R1 STS 0M25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
8	4	LEADING EDGE	7.90	111.6	1273	30.00	0	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RMO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.4	.012	.542	3761	1.102E-05	7.600E-08	5.453E 05	1.801E-02	5.480E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE FOOT (RHOXCKX)	TBAR (TO)	BETA (TO)				
	373	131	84	.0486	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6P70(131)	.73	MODEL HAS NOT REACHED CENTERLINE							
T 6P71(131)	1.75	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.08									
T 6P72(131)	2.60	1.64	2.288E-03	.1270	2.805E-03	.1557	3.031E-03	.1632	6.893E-03
T 6P73(131)	3.63	2.66	1.794E-03	.0995	2.199E-03	.1220	2.376E-03	.1318	5.399E-03
T 6P74(131)	4.88	3.71	1.519E-03	.0843	1.862E-03	.1033	2.012E-03	.1116	4.572E-03
T 6P75(131)	5.91	4.74	1.344E-03	.0746	1.648E-03	.0914	1.781E-03	.0988	4.047E-03
T 6P76(131)	6.56	5.79	1.216E-03	.0675	1.491E-03	.0827	1.611E-03	.0894	3.661E-03
T 6P77(131)	8.01	6.84	1.119E-03	.0621	1.372E-03	.0761	1.482E-03	.0822	3.368E-03
T 6P78(131)	9.04	7.87	1.043E-03	.0579	1.279E-03	.0709	1.382E-03	.0767	3.138E-03
T 6P79(131)	10.09	8.92	9.800E-04	.0543	1.202E-03	.0666	1.298E-03	.0720	2.948E-03
T 6P80(131)	11.11	9.95	9.281E-04	.0514	1.138E-03	.0631	1.230E-03	.0682	2.789E-03
T 6P81(131)	12.16	11.00	8.826E-04	.0489	1.082E-03	.0600	1.169E-03	.0648	2.652E-03
T 6P82(131)	13.22	12.05	8.432E-04	.0467	1.034E-03	.0573	1.117E-03	.0619	2.532E-03
T 6P83(131)	14.24	13.08	8.094E-04	.0448	9.925E-04	.0550	1.072E-03	.0594	2.430E-03
T 6P84(131)	15.29	14.13	7.777E-04	.0431	9.548E-04	.0529	1.032E-03	.0572	2.338E-03
T 6P85(131)	16.32	15.15	7.519E-04	.0416	9.219E-04	.0511	9.962E-04	.0552	2.256E-03
T 6P86(131)	17.37	16.20	7.271E-04	.0403	8.915E-04	.0494	9.634E-04	.0534	2.181E-03
T 6P87(131)	18.42	17.25	7.046E-04	.0390	8.640E-04	.0478	9.336E-04	.0517	2.114E-03
T 6P88(131)	19.45	18.28	6.846E-04	.0379	8.394E-04	.0465	9.070E-04	.0502	2.052E-03
T 6P89(131)	20.50	19.33	6.657E-04	.0369	8.162E-04	.0452	8.820E-04	.0488	1.995E-03
T 6P90(131)	21.55	20.38	6.483E-04	.0359	7.949E-04	.0440	8.589E-04	.0475	1.943E-03
T 6P91(131)	22.58	21.41	6.326E-04	.0350	7.756E-04	.0429	8.381E-04	.0464	1.894E-03
T 6P92(131)	23.63	22.46	6.176E-04	.0342	7.572E-04	.0419	8.183E-04	.0453	1.851E-03
	24.68	MODEL HAS LEFT CENTERLINE							
T 6P93(131)	24.68	23.51	6.036E-04	.0334	7.401E-04	.0410	7.998E-04	.0443	1.807E-03

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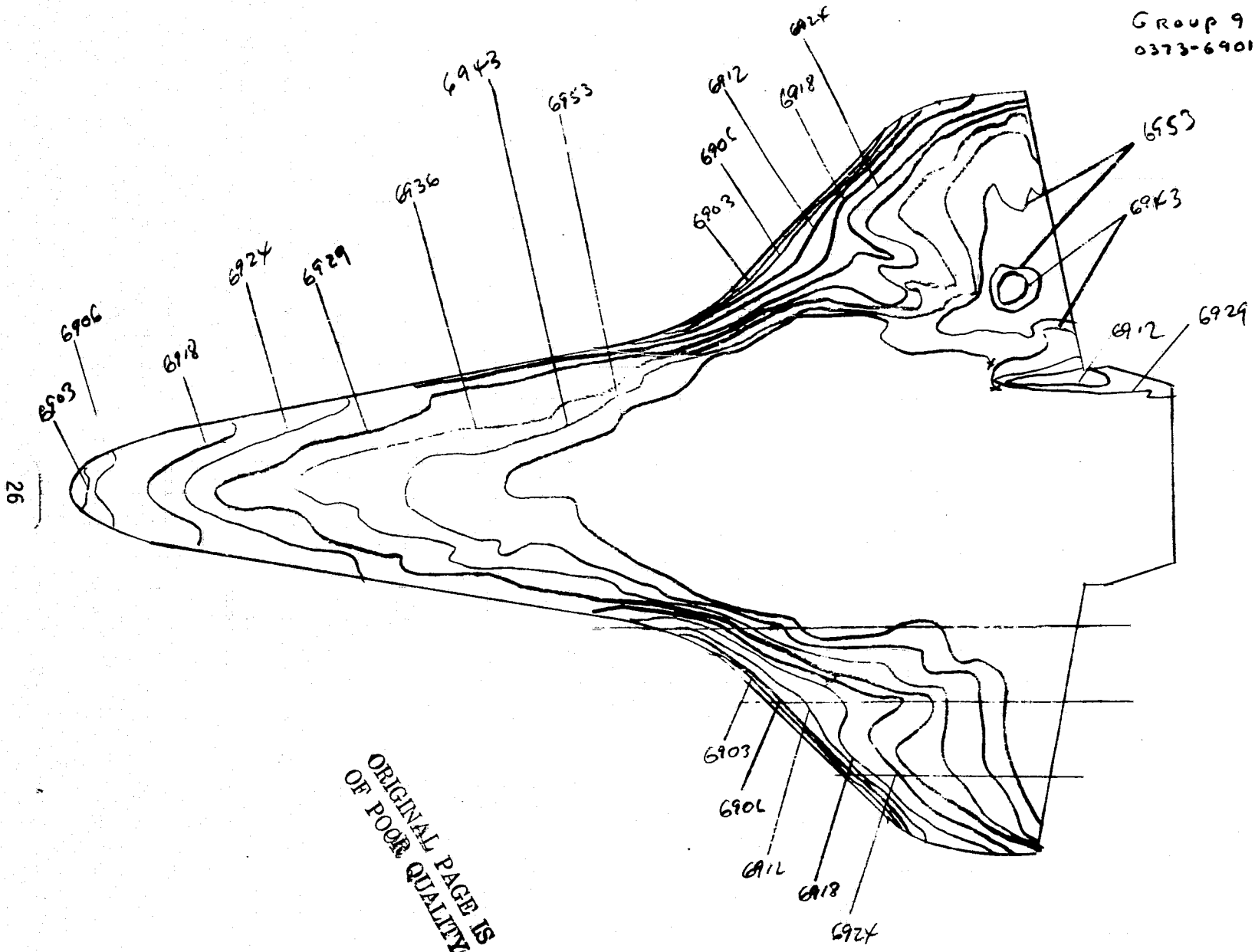
NASA-RJ STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
R	A	LEADING EDGE	7.90	112.4	1273	30.00	0	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT	HREF	STREF		
94.4	.012	.54E	3761	1.110E-05	7.599E-08	5.493E 05	1.807E-02	5.460E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	273	131	84	.0486	6.449E-02	6.0225E-02				
PTC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 689-(131)	25.70	24.54	5.909E-04	.0327	7.245E-04	.0401	7.829E-04	.0433	1.769E-03	
T 6895(131)	26.76	25.59	5.786E-04	.0320	7.094E-04	.0393	7.666E-04	.0424	1.732E-03	
T 6896(131)	27.81	26.64	5.671E-04	.0314	6.953E-04	.0385	7.513E-04	.0416	1.696E-03	
ERROR IN POWRF BASE<0 A = 6001241612743472 CALL FROM 72651										

Group 9
0373-6901



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NASA-RI STS 0M25A
 V41B-83A

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

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
9	1	OREITER	7.90	111.7	1272	40.00	-10.00	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FI-1)	(R= .0175FT)	(R= .0175FT)		
94.3	.012	.542	3760	1.104E-05	7.595E-04	5.463E 05	1.801E-02	5.475E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKX)	TBAR(TO)	BETA(TO)				
TOP(T)	373	250	82	.0535	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 6998(250)		.03	MODEL HAS NOT REACHED CENTERLINE						
T 6999(250)		1.00	MODEL HAS NOT REACHED CENTERLINE						
T 6900(250)		2.00	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.20							
T 6901(250)	3.05	1.82	9.948E-03	.5520	1.269E-02	.7040	1.396E-02	.7744	2.975E-02
T 6902(250)	4.08	2.84	7.953E-03	.4411	1.014E-02	.5625	1.116E-02	.6188	2.376E-02
T 6903(250)	5.13	3.89	6.795E-03	.3769	8.666E-03	.4806	9.533E-03	.5287	2.030E-02
T 6904(250)	6.16	4.92	6.045E-03	.3353	7.710E-03	.4276	8.481E-03	.4704	1.806E-02
T 6905(250)	7.21	5.97	5.488E-03	.3043	6.998E-03	.3881	7.699E-03	.4270	1.640E-02
T 6906(250)	8.26	7.02	5.060E-03	.2806	6.453E-03	.3579	7.099E-03	.3937	1.512E-02
T 6907(250)	9.29	8.05	4.727E-03	.2621	6.028E-03	.3343	6.631E-03	.3678	1.412E-02
T 6908(250)	10.34	9.10	4.445E-03	.2464	5.669E-03	.3143	6.236E-03	.3457	1.327E-02
T 6909(250)	11.39	10.15	4.209E-03	.2333	5.368E-03	.2976	5.905E-03	.3273	1.256E-02
T 6910(250)	12.41	11.18	4.011E-03	.2223	5.115E-03	.2836	5.627E-03	.3119	1.197E-02
T 6911(250)	13.47	12.23	3.835E-03	.2127	4.890E-03	.2712	5.380E-03	.2984	1.146E-02
T 6912(250)	14.49	13.26	3.683E-03	.2042	4.697E-03	.2604	5.167E-03	.2864	1.100E-02
T 6913(250)	15.54	14.31	3.545E-03	.1965	4.521E-03	.2507	4.974E-03	.2757	1.058E-02
T 6914(250)	16.59	15.36	3.422E-03	.1899	4.364E-03	.2420	4.801E-03	.2662	1.022E-02
T 6915(250)	17.62	16.38	3.313E-03	.1837	4.225E-03	.2342	4.648E-03	.2577	9.890E-03
T 6916(250)	18.67	17.43	3.212E-03	.1780	4.096E-03	.2271	4.506E-03	.2498	9.587E-03
T 6917(250)	19.72	18.49	3.119E-03	.1729	3.978E-03	.2205	4.376E-03	.2426	9.310E-03
T 6918(250)	20.75	19.51	3.036E-03	.1683	3.872E-03	.2146	4.259E-03	.2361	9.062E-03
T 6919(250)	21.80	20.56	2.957E-03	.1639	3.771E-03	.2091	4.149E-03	.2300	8.828E-03
T 6920(250)	22.83	21.59	2.886E-03	.1599	3.681E-03	.2039	4.049E-03	.2244	8.608E-03
T 6921(250)	23.88	22.64	2.818E-03	.1562	3.594E-03	.1992	3.954E-03	.2192	8.413E-03
T 6922(250)	24.93	23.69	2.755E-03	.1527	3.514E-03	.1948	3.865E-03	.2143	8.224E-03

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R/21/74

NASA-RI STS CM25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
9	1	OREI3	7.90	112.0	1272	40.00	-10.00	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	O-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FI-1)	HREF (R=.0175FI)	SIREF (R=.0175FT)		
94.4	.012	.544	3760	1.106E-05	7.596E-08	5.477E 05	1.804E-02	5.468E-02		
CAMERA TOP(L)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHUXCXK)	TRAN(TO)	BETA(TO)				
	373	250	82	.0535	2.301E-01	2.5065E-01				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 6923(250)	25.95	24.72	2.697E-03	.1495	3.440E-03	.1906	3.784E-03	.2097	8.045E-03
T 6924(250)	27.01	25.77	2.642E-03	.1464	3.369E-03	.1868	3.706E-03	.2054	7.885E-03
T 6925(250)	28.03	26.80	2.591E-03	.1436	3.304E-03	.1831	3.634E-03	.2015	7.734E-03
T 6926(250)	29.08	27.85	2.541E-03	.1409	3.241E-03	.1797	3.565E-03	.1976	7.586E-03
T 6927(250)	30.13	28.90	2.495E-03	.1383	3.181E-03	.1764	3.500E-03	.1940	7.447E-03
T 6928(250)	31.16	29.92	2.451E-03	.1358	3.126E-03	.1732	3.439E-03	.1906	7.311E-03
T 6929(250)	32.21	30.99	2.409E-03	.1335	3.073E-03	.1703	3.380E-03	.1873	7.186E-03
T 6930(250)	33.24	32.00	2.371E-03	.1314	3.023E-03	.1676	3.326E-03	.1844	7.076E-03
T 6931(250)	34.29	33.05	2.333E-03	.1293	2.975E-03	.1649	3.272E-03	.1814	6.962E-03
T 6932(250)	35.34	34.10	2.296E-03	.1273	2.928E-03	.1623	3.222E-03	.1786	6.854E-03
T 6933(250)	36.37	35.13	2.262E-03	.1254	2.885E-03	.1600	3.174E-03	.1760	6.754E-03
T 6934(250)	37.42	36.18	2.229E-03	.1236	2.843E-03	.1576	3.128E-03	.1734	6.655E-03
T 6935(250)	38.47	37.23	2.198E-03	.1218	2.803E-03	.1554	3.083E-03	.1709	6.560E-03
T 6936(250)	39.50	38.26	2.168E-03	.1202	2.765E-03	.1533	3.042E-03	.1686	6.472E-03
T 6937(250)	40.55	39.31	2.139E-03	.1186	2.728E-03	.1512	3.001E-03	.1663	6.385E-03
T 6938(250)	41.57	40.34	2.111E-03	.1170	2.693E-03	.1492	2.962E-03	.1641	6.297E-03
T 6939(250)	42.62	41.39	2.084E-03	.1156	2.658E-03	.1474	2.924E-03	.1621	6.222E-03
T 6940(250)	43.68	42.44	2.058E-03	.1141	2.625E-03	.1455	2.888E-03	.1601	6.144E-03
T 6941(250)	44.70	43.46	2.034E-03	.1128	2.594E-03	.1438	2.854E-03	.1582	6.072E-03
T 6942(250)	45.75	44.52	2.010E-03	.1114	2.563E-03	.1420	2.820E-03	.1562	5.994E-03
T 6943(250)	46.80	45.57	1.987E-03	.1101	2.533E-03	.1404	2.787E-03	.1545	5.930E-03
T 6944(250)	47.83	46.59	1.965E-03	.1089	2.505E-03	.1389	2.756E-03	.1528	5.866E-03
T 6945(250)	48.88	47.64	1.943E-03	.1077	2.478E-03	.1374	2.726E-03	.1511	5.799E-03
T 6946(250)	49.91	48.67	1.922E-03	.1066	2.451E-03	.1359	2.697E-03	.1495	5.738E-03
T 6947(250)	50.96	49.72	1.902E-03	.1054	2.425E-03	.1345	2.668E-03	.1479	5.676E-03

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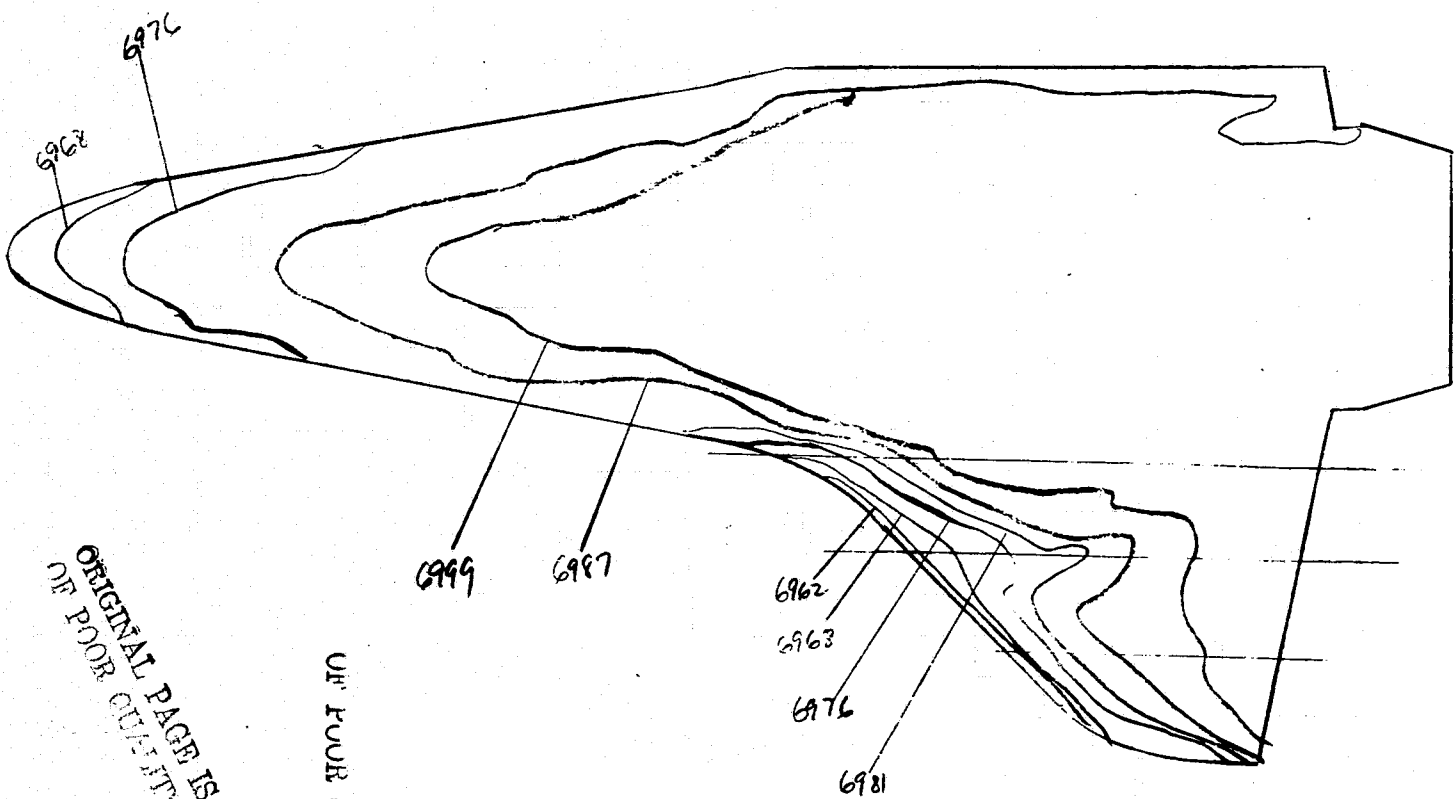
NASA-RI STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
9	1	ORBITER	7.90	112.0	1272	40.00	-10.00	30.00	180.00	-0.00
T-1/4F (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.544	3760	1.107E-05	7.594E-08	5.479E 05	1.804E-02	5.467E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHUACXK)	TBAR(TO)	BETA(TO)				
	373	250	82	.0535	2.301E-01	2.5065E-01				
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6948(250)	52.01	50.77	1.882E-03	.1043	2.400E-03	.1331	2.640E-03	.1464	5.617E-03	
T 6949(250)	53.04	51.80	1.863E-03	.1033	2.376E-03	.1317	2.614E-03	.1449	5.561E-03	
T 6950(250)	54.09	52.85	1.845E-03	.1023	2.352E-03	.1304	2.588E-03	.1435	5.506E-03	
T 6951(250)	55.11	53.88	1.827E-03	.1013	2.330E-03	.1292	2.563E-03	.1421	5.454E-03	
T 6952(250)	56.16	54.93	1.809E-03	.1003	2.308E-03	.1279	2.538E-03	.1407	5.401E-03	
T 6953(250)	57.22	55.98	1.792E-03	.0994	2.286E-03	.1267	2.514E-03	.1394	5.350E-03	
T 6954(250)	58.24	57.01	1.776E-03	.0985	2.265E-03	.1256	2.492E-03	.1381	5.302E-03	
	59.19		MODEL HAS LEFT CENTERLINE							
T 6955(250)	59.29	58.06	1.760E-03	.0976	2.244E-03	.1244	2.469E-03	.1369	5.253E-03	
T 6956(250)	60.34	59.11	1.744E-03	.0967	2.224E-03	.1233	2.447E-03	.1357	5.206E-03	
T 6957(250)	61.37	60.13	1.729E-03	.0959	2.205E-03	.1223	2.426E-03	.1345	5.162E-03	
ERROR IN POWRF BASE<0			A = 6001242214734237 CALL FROM 72651							

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R/21/74

NASA-RI SYS 0M25A

AEDC(AHO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V41B-83A

GROUP	CONFIG	MODEL	MACH-NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
10	2	40 PERCENT	7.90	112.1	1272	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.544	3760	1.108E-05	7.595E-08	5.483E 05	1.805E-02	5.465E-02		

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	373	250	81	.0535	0	0

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 6958(250)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 6959(250)	.58		MODEL HAS NOT REACHED CENTERLINE						
T 6960(250)	2.00		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.18									
T 6961(250)	3.05	1.83	9.973E-03	.5517	1.272E-02	.7036	1.399E-02	.7741	2.964E-02
T 6962(250)	4.08	2.86	7.984E-03	.4418	1.018E-02	.5635	1.120E-02	.6199	2.375E-02
T 6963(250)	5.13	3.91	6.826E-03	.3776	8.706E-03	.4816	9.578E-03	.5298	2.029E-02
T 6964(250)	6.18	4.96	6.060E-03	.3352	7.729E-03	.4275	8.503E-03	.4703	1.801E-02
T 6965(250)	7.21	5.99	5.516E-03	.3051	7.035E-03	.3891	7.740E-03	.4291	1.639E-02
T 6966(250)	8.26	7.04	5.047E-03	.2813	6.488E-03	.3587	7.138E-03	.3947	1.511E-02
T 6967(250)	9.31	8.09	4.745E-03	.2624	6.052E-03	.3346	6.658E-03	.3681	1.409E-02
T 6968(250)	10.34	9.11	4.470E-03	.2472	5.701E-03	.3152	6.272E-03	.3468	1.327E-02
T 6969(250)	11.39	10.17	4.233E-03	.2340	5.398E-03	.2985	5.939E-03	.3284	1.257E-02
T 6970(250)	12.44	11.22	4.030E-03	.2228	5.139E-03	.2841	5.654E-03	.3126	1.196E-02
T 6971(250)	13.47	12.24	3.857E-03	.2132	4.919E-03	.2719	5.412E-03	.2991	1.144E-02
T 6972(250)	14.52	13.29	3.701E-03	.2046	4.721E-03	.2609	5.193E-03	.2870	1.098E-02
T 6973(250)	15.57	14.35	3.563E-03	.1968	4.544E-03	.2510	4.999E-03	.2762	1.056E-02
T 6974(250)	16.62	15.40	3.439E-03	.1901	4.387E-03	.2424	4.826E-03	.2667	1.020E-02
T 6975(250)	17.65	16.42	3.330E-03	.1840	4.247E-03	.2347	4.673E-03	.2582	9.879E-03
T 6976(250)	18.70	17.47	3.228E-03	.1783	4.118E-03	.2275	4.530E-03	.2502	9.569E-03
T 6977(250)	19.75	18.53	3.136E-03	.1732	3.999E-03	.2209	4.399E-03	.2430	9.293E-03
T 6978(250)	20.80	19.58	3.050E-03	.1685	3.898E-03	.2149	4.280E-03	.2364	9.040E-03
T 6979(250)	21.83	20.67	2.973E-03	.1642	3.792E-03	.2095	4.172E-03	.2304	8.813E-03
T 6980(250)	22.88	21.65	2.900E-03	.1602	3.699E-03	.2043	4.064E-03	.2248	8.596E-03
T 6981(250)	23.93	22.71	2.832E-03	.1564	3.617E-03	.1995	3.974E-03	.2194	8.387E-03
T 6982(250)	24.95	23.73	2.770E-03	.1530	3.533E-03	.1951	3.887E-03	.2146	8.205E-03

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R/21/74

NASA-RI STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH.NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREHEND	ROLL-MODEL	YAW
10	2	40 PERCENT	7.90	112.9	1272	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.4	.013	.548	3760	1.115E-05	7.596E-08	5.521E 05	1.811E-02	5.446E-02		

CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	373	250	81	.0535	2.313E-01	2.5226E-01

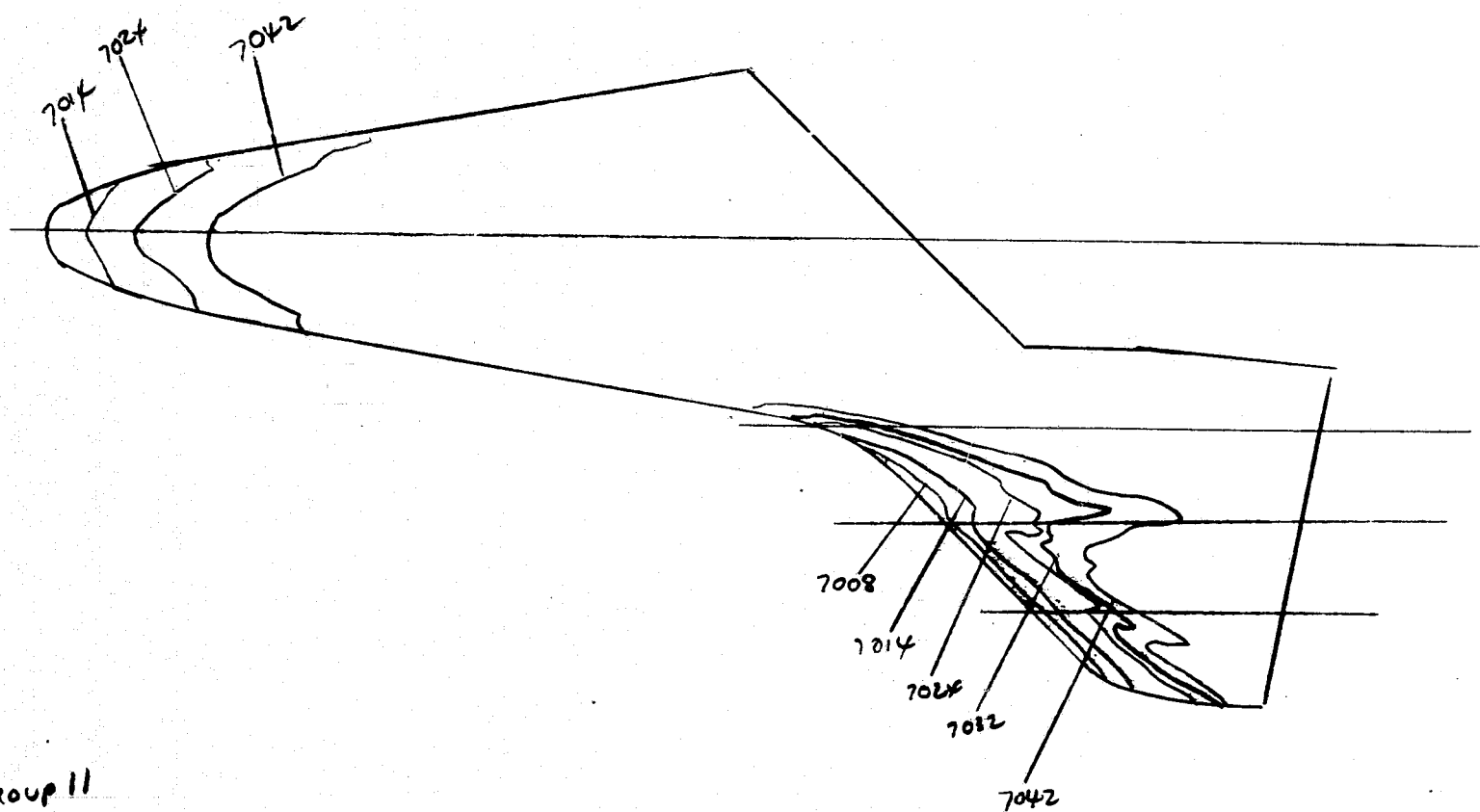
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PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 6983(250)	26.00	24.78	2.711E-03	.1497	3.458E-03	.1909	3.804E-03	.2100	8.028E-03	
T 6984(250)	27.06	25.83	2.655E-03	.1466	3.386E-03	.1870	3.726E-03	.2057	7.863E-03	
T 6985(250)	28.11	26.88	2.603E-03	.1437	3.320E-03	.1833	3.652E-03	.2016	7.708E-03	
T 6986(250)	29.13	27.91	2.555E-03	.1410	3.258E-03	.1799	3.584E-03	.1979	7.565E-03	
T 6987(250)	30.18	28.96	2.508E-03	.1384	3.198E-03	.1765	3.519E-03	.1942	7.420E-03	
T 6988(250)	31.24	30.01	2.463E-03	.1360	3.142E-03	.1735	3.456E-03	.1908	7.295E-03	
T 6989(250)	32.26	31.04	2.422E-03	.1337	3.089E-03	.1706	3.394E-03	.1877	7.174E-03	
T 6990(250)	33.31	32.09	2.382E-03	.1315	3.038E-03	.1677	3.343E-03	.1845	7.049E-03	
T 6991(250)	34.36	33.14	2.344E-03	.1294	2.990E-03	.1650	3.284E-03	.1815	6.936E-03	
T 6992(250)	35.42	34.19	2.308E-03	.1274	2.944E-03	.1625	3.238E-03	.1787	6.829E-03	
T 6993(250)	36.44	35.22	2.274E-03	.1255	2.900E-03	.1601	3.191E-03	.1761	6.728E-03	
T 6994(250)	37.49	36.27	2.241E-03	.1237	2.858E-03	.1577	3.144E-03	.1735	6.630E-03	
T 6995(250)	38.54	37.32	2.209E-03	.1219	2.817E-03	.1554	3.100E-03	.1710	6.530E-03	
T 6996(250)	39.60	38.37	2.179E-03	.1202	2.779E-03	.1534	3.057E-03	.1687	6.446E-03	
T 6997(250)	40.62	39.44	2.150E-03	.1186	2.742E-03	.1513	3.017E-03	.1664	6.356E-03	
T 6998(250)	41.67	40.45	2.122E-03	.1171	2.706E-03	.1493	2.977E-03	.1643	6.272E-03	
T 6999(250)	42.72	41.50	2.095E-03	.1156	2.672E-03	.1474	2.934E-03	.1622	6.192E-03	
T 7000(250)	43.75	42.53	2.069E-03	.1142	2.639E-03	.1456	2.904E-03	.1602	6.117E-03	
	44.63		MODEL HAS LEFT CENTERLINE							
T 7001(250)	44.80	43.58	2.044E-03	.1128	2.607E-03	.1438	2.864E-03	.1582	6.043E-03	
T 7002(250)	45.65	44.63	2.020E-03	.1114	2.576E-03	.1421	2.834E-03	.1564	5.972E-03	
T 7003(250)	46.50	45.68	1.997E-03	.1102	2.547E-03	.1405	2.802E-03	.1546	5.902E-03	
T 7004(250)	47.53	46.71	1.975E-03	.1089	2.518E-03	.1389	2.771E-03	.1529	5.837E-03	

ERROR IN FOWRF BASE<0

A = 6001000204056033 CALL FROM 72651

GROUP II
0373-7009



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TOO THICK

Group II
0373-7008

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8/21/74

NASA-R1 STS 0M25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
11	5	TRANSITION	7.90	111.9	1272	30.02	--02	30.00	160.00	--00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.4	.012	.543	3760	1.105E-05	7.597E-08	5.471E 05	1.803E-02	5.471E-02		
CAPEX TOP (I)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	373	225	79	.0528	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
I 7005(225)	.0	MODEL HAS NOT REACHED CENTERLINE							
I 7006(225)	.58	MODEL HAS NOT REACHED CENTERLINE							
I 7007(225)	2.00	MODEL HAS NOT REACHED CENTERLINE							
IN-ECT TIME = 2.23									
I 7008(225)	3.05	1.81	8.263E-03	.4577	1.043E-02	.5777	1.142E-02	.6326	
I 7009(225)	4.08	2.83	6.547E-03	.3654	8.326E-03	.4612	9.118E-03	.5050	
I 7010(225)	5.13	3.88	5.633E-03	.3120	7.110E-03	.3938	7.786E-03	.4312	
I 7011(225)	6.18	4.93	4.946E-03	.2767	6.307E-03	.3493	6.906E-03	.3825	
I 7012(225)	7.21	5.96	4.546E-03	.2517	5.738E-03	.3176	6.284E-03	.3479	
I 7013(225)	8.26	7.01	4.191E-03	.2320	5.290E-03	.2929	5.793E-03	.3207	
I 7014(225)	9.31	8.06	3.908E-03	.2164	4.933E-03	.2731	5.402E-03	.2991	
I 7015(225)	10.34	9.09	3.681E-03	.2039	4.646E-03	.2573	5.088E-03	.2818	
I 7016(225)	11.39	10.14	3.465E-03	.1928	4.399E-03	.2433	4.817E-03	.2664	
I 7017(225)	12.44	11.19	3.317E-03	.1835	4.187E-03	.2316	4.585E-03	.2536	
I 7018(225)	13.49	12.24	3.171E-03	.1754	4.003E-03	.2214	4.384E-03	.2425	
I 7019(225)	14.52	13.27	3.046E-03	.1685	3.845E-03	.2127	4.211E-03	.2329	
I 7020(225)	15.57	14.32	2.932E-03	.1622	3.701E-03	.2047	4.053E-03	.2242	
I 7021(225)	16.62	15.37	2.830E-03	.1565	3.572E-03	.1975	3.912E-03	.2163	
I 7022(225)	17.67	16.42	2.738E-03	.1514	3.456E-03	.1911	3.785E-03	.2093	
I 7023(225)	18.70	17.45	2.656E-03	.1468	3.353E-03	.1853	3.672E-03	.2029	
I 7024(225)	19.75	18.50	2.580E-03	.1425	3.256E-03	.1799	3.566E-03	.1970	
I 7025(225)	20.80	19.55	2.510E-03	.1385	3.168E-03	.1750	3.469E-03	.1916	
I 7026(225)	21.85	20.60	2.445E-03	.1350	3.086E-03	.1704	3.379E-03	.1867	
I 7027(225)	22.88	21.63	2.386E-03	.1317	3.012E-03	.1663	3.298E-03	.1821	
I 7028(225)	23.95	22.70	2.329E-03	.1286	2.939E-03	.1623	3.214E-03	.1777	
I 7029(225)	24.98	23.73	2.278E-03	.1257	2.875E-03	.1587	3.149E-03	.1738	

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R/21/74

NASA-RI STS CH25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(UEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
11	5	TRANSITION	7.90	113.0	1272	30.02	-02	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.4	.013	.548	3761	1.116E-05	7.598E-08	5.523E 05	1.812E-02	5.445E-02		

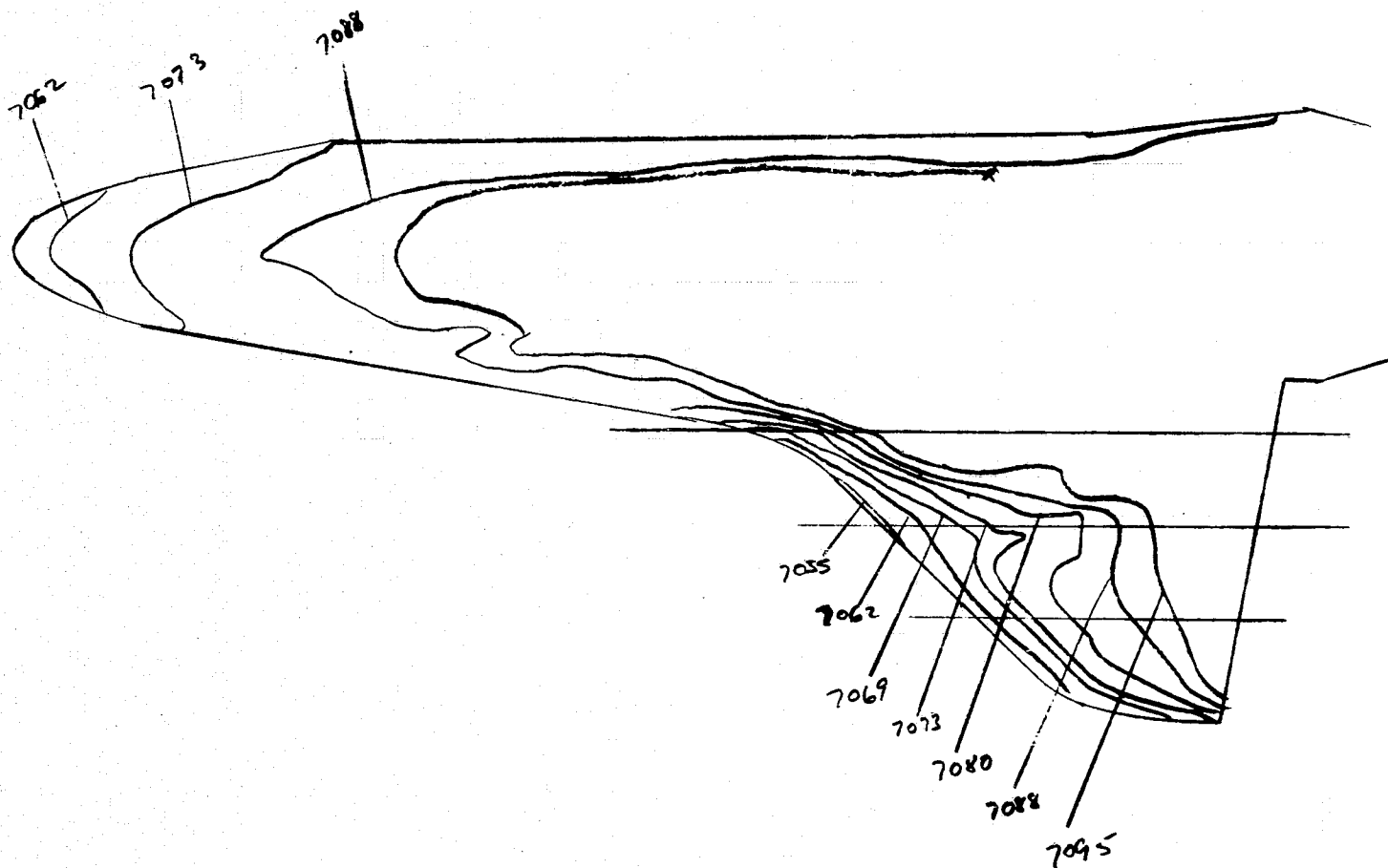
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKK)	TBAR(TO)	BETA(TO)
	373	225	79	.052A	1.991E-01	2.1014E-01

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7030(225)	26.03	24.78	2.229E-03	.1230	2.813E-03	.1553	3.081E-03	.1700	
T 7031(225)	27.08	25.83	2.183E-03	.1205	2.756E-03	.1521	3.018E-03	.1665	
T 7032(225)	28.11	26.86	2.141E-03	.1181	2.702E-03	.1491	2.960E-03	.1633	
T 7033(225)	29.16	27.91	2.100E-03	.1159	2.651E-03	.1462	2.903E-03	.1602	
T 7034(225)	30.21	28.96	2.062E-03	.1137	2.602E-03	.1436	2.850E-03	.1572	
T 7035(225)	31.26	30.01	2.025E-03	.1117	2.557E-03	.1410	2.800E-03	.1544	
T 7036(225)	32.29	31.04	1.992E-03	.1098	2.514E-03	.1386	2.753E-03	.1518	
T 7037(225)	33.34	32.09	1.959E-03	.1080	2.472E-03	.1363	2.708E-03	.1493	
T 7038(225)	34.39	33.14	1.927E-03	.1063	2.433E-03	.1341	2.664E-03	.1469	
T 7039(225)	35.44	34.19	1.898E-03	.1046	2.395E-03	.1321	2.623E-03	.1446	
T 7040(225)	36.47	35.22	1.870E-03	.1030	2.360E-03	.1301	2.585E-03	.1424	
T 7041(225)	37.52	36.27	1.842E-03	.1015	2.326E-03	.1282	2.547E-03	.1404	
T 7042(225)	38.57	37.32	1.816E-03	.1001	2.293E-03	.1264	2.511E-03	.1384	
T 7043(225)	39.62	38.37	1.791E-03	.0987	2.261E-03	.1246	2.476E-03	.1365	
T 7044(225)	40.67	39.42	1.767E-03	.0974	2.231E-03	.1229	2.443E-03	.1346	
T 7045(225)	41.70	40.45	1.745E-03	.0962	2.202E-03	.1214	2.412E-03	.1329	
T 7046(225)	42.75	41.50	1.722E-03	.0949	2.174E-03	.1198	2.381E-03	.1312	
T 7047(225)	43.80	42.55	1.701E-03	.0937	2.147E-03	.1183	2.351E-03	.1295	
T 7048(225)	44.83	43.58	1.681E-03	.0926	2.122E-03	.1169	2.323E-03	.1280	
MODEL HAS LEFT CENTERLINE									
T 7049(225)	45.88	44.63	1.661E-03	.0915	2.096E-03	.1155	2.296E-03	.1265	
T 7050(225)	46.93	45.68	1.642E-03	.0904	2.072E-03	.1141	2.269E-03	.1250	
T 7051(225)	47.98	46.73	1.623E-03	.0894	2.049E-03	.1128	2.244E-03	.1235	

ERROR IN POWRF BASE<0 A = 6001242214734237 CALL FROM 72651

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Group 12
0373 - 7055



 * UNCLASSIFIED *

8/21/74

NASA-RJ STS 0425A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	3	RODY FLUSH	7.90	111.9	1273	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (H= .0175FT)	STREF (H= .0175FT)		
94.4	.012	.543	3762	1.105E-05	7.602E-08	5.465E 05	1.403E-02	5.473E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHO/CXK)	TRAR (TO)	BETA (TO)				
	373	250	82	.0535	0	0				
PIC NO	TIME DELTIME	H (TO)	H (TO)/HREF	H (.9 TO)	H (.9 TO)/HREF	H (.867 TO)	H (.867 TO)/HREF	ST (TO)		
T 7052 (250)	.03	MODEL HAS NOT REACHED CENTERLINE								
T 7053 (250)	1.00	MODEL HAS NOT REACHED CENTERLINE								
T 7054 (250)	2.03	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME =		2.25								
T 7055 (250)	3.05	1.79	1.061E-02	.5548	1.276E-02	.7073	1.404E-02	.7781	2.989E-02	
T 7056 (250)	4.10	2.84	7.945E-03	.4404	1.013E-02	.5614	1.114E-02	.6176	2.372E-02	
T 7057 (250)	5.13	3.87	6.809E-03	.3774	8.680E-03	.4811	9.549E-03	.5293	2.033E-02	
T 7058 (250)	6.18	4.92	6.038E-03	.3347	7.697E-03	.4260	8.467E-03	.4693	1.803E-02	
T 7059 (250)	7.23	5.97	5.480E-03	.3038	6.946E-03	.3972	7.686E-03	.4260	1.636E-02	
T 7060 (250)	8.26	6.99	5.062E-03	.2805	6.454E-03	.3577	7.099E-03	.3935	1.512E-02	
T 7061 (250)	9.21	8.05	4.720E-03	.2615	6.017E-03	.3334	6.619E-03	.3667	1.408E-02	
T 7062 (250)	10.36	9.11	4.439E-03	.2459	5.659E-03	.3135	6.225E-03	.3449	1.324E-02	
T 7063 (250)	11.41	10.15	4.203E-03	.2328	5.358E-03	.2968	5.894E-03	.3266	1.254E-02	
T 7064 (250)	12.44	11.17	4.005E-03	.2219	5.106E-03	.2829	5.617E-03	.3112	1.195E-02	
T 7065 (250)	13.49	12.23	3.829E-03	.2121	4.881E-03	.2705	5.370E-03	.2975	1.142E-02	
T 7066 (250)	14.54	13.29	3.674E-03	.2035	4.684E-03	.2594	5.153E-03	.2854	1.095E-02	
T 7067 (250)	15.59	14.33	3.537E-03	.1959	4.509E-03	.2497	4.960E-03	.2747	1.054E-02	
T 7068 (250)	16.62	15.35	3.417E-03	.1892	4.356E-03	.2412	4.792E-03	.2653	1.019E-02	
T 7069 (250)	17.67	16.41	3.305E-03	.1831	4.214E-03	.2334	4.636E-03	.2567	9.853E-03	
T 7070 (250)	18.72	17.44	3.204E-03	.1775	4.085E-03	.2262	4.494E-03	.2489	9.551E-03	
T 7071 (250)	19.77	18.51	3.112E-03	.1723	3.967E-03	.2197	4.364E-03	.2417	9.276E-03	
T 7072 (250)	20.82	19.56	3.027E-03	.1677	3.859E-03	.2137	4.246E-03	.2351	9.023E-03	
T 7073 (250)	21.85	20.59	2.951E-03	.1634	3.762E-03	.2083	4.138E-03	.2292	8.796E-03	
T 7074 (250)	22.90	21.64	2.878E-03	.1594	3.669E-03	.2032	4.037E-03	.2235	8.580E-03	
T 7075 (250)	23.95	22.69	2.811E-03	.1556	3.583E-03	.1984	3.942E-03	.2182	8.371E-03	
T 7076 (250)	25.00	23.74	2.748E-03	.1521	3.503E-03	.1939	3.854E-03	.2133	8.183E-03	

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8/21/74

NASA-RI STS 0M25A

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

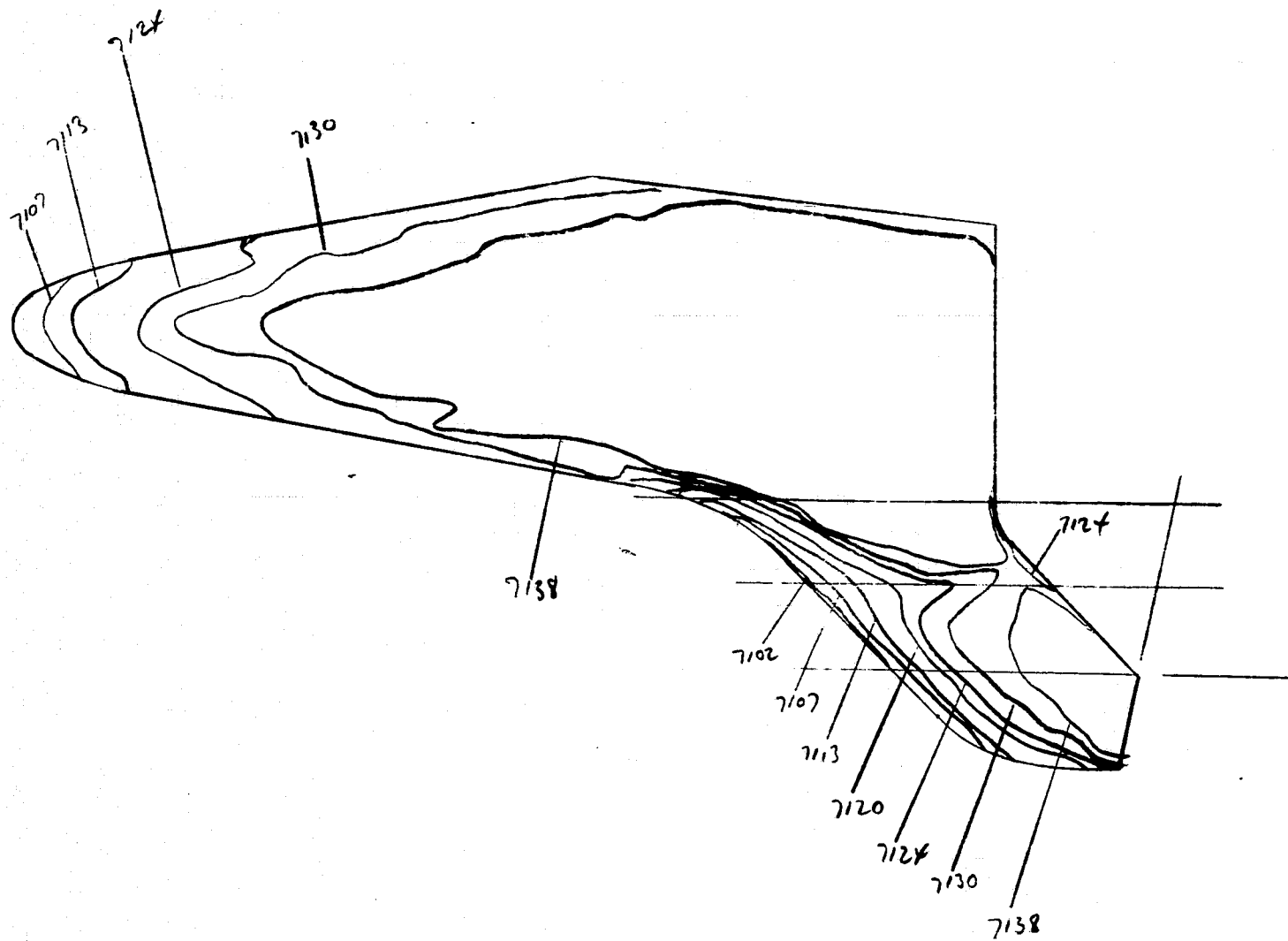
V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
12	3	BOCY FLUSH	7.90	112.3	1273	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STPEF (R= .0175FT)		
94.4	.012	.545	3761	1.109E-05	7.601E-08	5.467E 05	1.407E-02	5.467E-02		
CAMERA TOP(T)	ROLL NO 373	PAINT TEMP (DEG F) 250	INITIAL TEMP (DEG F) 82	SQUARE ROOT (RHCXCK) .0535	TBAR(TO) 2.298E-01	BETA(TO) 2.5025E-01				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7077(250)	26.03	24.77	2.690E-03	.1489	3.430E-03	.1898	3.773E-03	.2088	8.014E-03
T 7078(250)	27.08	25.82	2.635E-03	.1459	3.359E-03	.1859	3.695E-03	.2046	7.848E-03
T 7079(250)	28.13	26.87	2.583E-03	.1430	3.293E-03	.1823	3.622E-03	.2005	7.692E-03
T 7080(250)	29.18	27.92	2.534E-03	.1403	3.230E-03	.1788	3.554E-03	.1967	7.546E-03
T 7081(250)	30.23	28.97	2.487E-03	.1377	3.171E-03	.1755	3.484E-03	.1931	7.404E-03
T 7082(250)	31.26	30.00	2.445E-03	.1353	3.116E-03	.1725	3.424E-03	.1898	7.280E-03
T 7083(250)	32.31	31.05	2.403E-03	.1330	3.063E-03	.1696	3.370E-03	.1865	7.156E-03
T 7084(250)	33.36	32.10	2.363E-03	.1308	3.013E-03	.1668	3.314E-03	.1835	7.037E-03
T 7085(250)	34.41	33.15	2.325E-03	.1287	2.964E-03	.1641	3.261E-03	.1805	6.925E-03
T 7086(250)	35.44	34.18	2.290E-03	.1268	2.920E-03	.1616	3.212E-03	.1778	6.821E-03
T 7087(250)	36.49	35.23	2.256E-03	.1249	2.876E-03	.1592	3.164E-03	.1751	6.718E-03
T 7088(250)	37.54	36.28	2.223E-03	.1230	2.834E-03	.1569	3.117E-03	.1726	6.620E-03
T 7089(250)	38.59	37.33	2.191E-03	.1213	2.794E-03	.1546	3.073E-03	.1701	6.527E-03
T 7090(250)	39.65	38.38	2.161E-03	.1196	2.755E-03	.1525	3.031E-03	.1678	6.437E-03
T 7091(250)	40.67	39.41	2.133E-03	.1181	2.719E-03	.1505	2.991E-03	.1656	6.352E-03
T 7092(250)	41.72	40.46	2.105E-03	.1165	2.683E-03	.1485	2.952E-03	.1634	6.269E-03
T 7093(250)	42.77	41.51	2.078E-03	.1150	2.649E-03	.1466	2.914E-03	.1613	6.189E-03
T 7094(250)	43.83	42.56	2.052E-03	.1136	2.616E-03	.1448	2.874E-03	.1593	6.112E-03
MODEL HAS LEFT CENTERLINE									
T 7095(250)	44.88	43.61	2.027E-03	.1122	2.585E-03	.1431	2.843E-03	.1574	6.038E-03
T 7096(250)	45.90	44.64	2.004E-03	.1109	2.555E-03	.1414	2.810E-03	.1556	5.968E-03
T 7097(250)	46.95	45.69	1.981E-03	.1096	2.525E-03	.1397	2.774E-03	.1537	5.894E-03

ERROR IN POWRF BASE<0 A = 6001242342737361 CALL FROM 72651

GROUP 13
0373 - 7101



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GROUP 13
0373 - 7101

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8/21/74

NASA-R1 STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH-NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
13	4	LEADING EDGE	7.90	111.5	1273	40.04	-10.04	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.5	.012	.541	3762	1.100E-05	7.604E-08	5.444E 05	1.800E-02	5.484E-02		
CAMERA IOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR (TO)	BETA (TO)				
	373	250	83	.0535	0	0				

PIC NO	TIME DELTME	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.857TO)	H (.867TO)/HREF	ST (TO)	
T 7098(250)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 7099(250)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 7100(250)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.25									
T 7101(250)	3.05	1.79	9.944E-03	.5519	1.268E-02	.7035	1.394E-02	.7739	2.978E-02
T 7102(250)	4.10	2.84	7.892E-03	.4380	1.006E-02	.5584	1.107E-02	.6142	2.363E-02
T 7103(250)	5.13	3.87	6.764E-03	.3754	8.623E-03	.4766	9.485E-03	.5264	2.026E-02
T 7104(250)	6.18	4.92	5.998E-03	.3329	7.646E-03	.4243	8.411E-03	.4668	1.796E-02
T 7105(250)	7.23	5.97	5.444E-03	.3221	6.940E-03	.3852	7.634E-03	.4237	1.630E-02
T 7106(250)	8.28	7.02	5.020E-03	.2785	6.399E-03	.3550	7.039E-03	.3905	1.502E-02
T 7107(250)	9.31	8.05	4.649E-03	.2601	5.977E-03	.3316	6.575E-03	.3647	1.403E-02
T 7108(250)	10.36	9.12	4.409E-03	.2446	5.621E-03	.3118	6.184E-03	.3430	1.319E-02
T 7109(250)	11.41	10.15	4.175E-03	.2315	5.322E-03	.2951	5.855E-03	.3246	1.248E-02
T 7110(250)	12.46	11.22	3.974E-03	.2204	5.066E-03	.2809	5.573E-03	.3090	1.189E-02
T 7111(250)	13.49	12.23	3.804E-03	.2109	4.849E-03	.2689	5.334E-03	.2958	1.137E-02
T 7112(250)	14.54	13.28	3.650E-03	.2024	4.653E-03	.2580	5.114E-03	.2838	1.091E-02
T 7113(250)	15.59	14.33	3.514E-03	.1948	4.479E-03	.2484	4.927E-03	.2732	1.050E-02
T 7114(250)	16.62	15.35	3.394E-03	.1881	4.327E-03	.2398	4.760E-03	.2638	1.014E-02
T 7115(250)	17.67	16.41	3.284E-03	.1821	4.186E-03	.2321	4.605E-03	.2553	9.816E-03
T 7116(250)	18.72	17.46	3.183E-03	.1764	4.058E-03	.2249	4.464E-03	.2474	9.507E-03
T 7117(250)	19.77	18.51	3.091E-03	.1713	3.941E-03	.2194	4.335E-03	.2403	9.233E-03
T 7118(250)	20.80	19.53	3.009E-03	.1668	3.836E-03	.2126	4.220E-03	.2339	8.988E-03
T 7119(250)	21.85	20.59	2.931E-03	.1625	3.737E-03	.2071	4.111E-03	.2278	8.755E-03
T 7120(250)	22.90	21.64	2.859E-03	.1585	3.645E-03	.2020	4.010E-03	.2222	8.540E-03
T 7121(250)	23.95	22.69	2.792E-03	.1548	3.560E-03	.1973	3.916E-03	.2170	8.339E-03
T 7122(250)	25.00	23.74	2.730E-03	.1512	3.480E-03	.1928	3.828E-03	.2121	8.146E-03

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8/21/74

NASA-RJ STS 0M25A

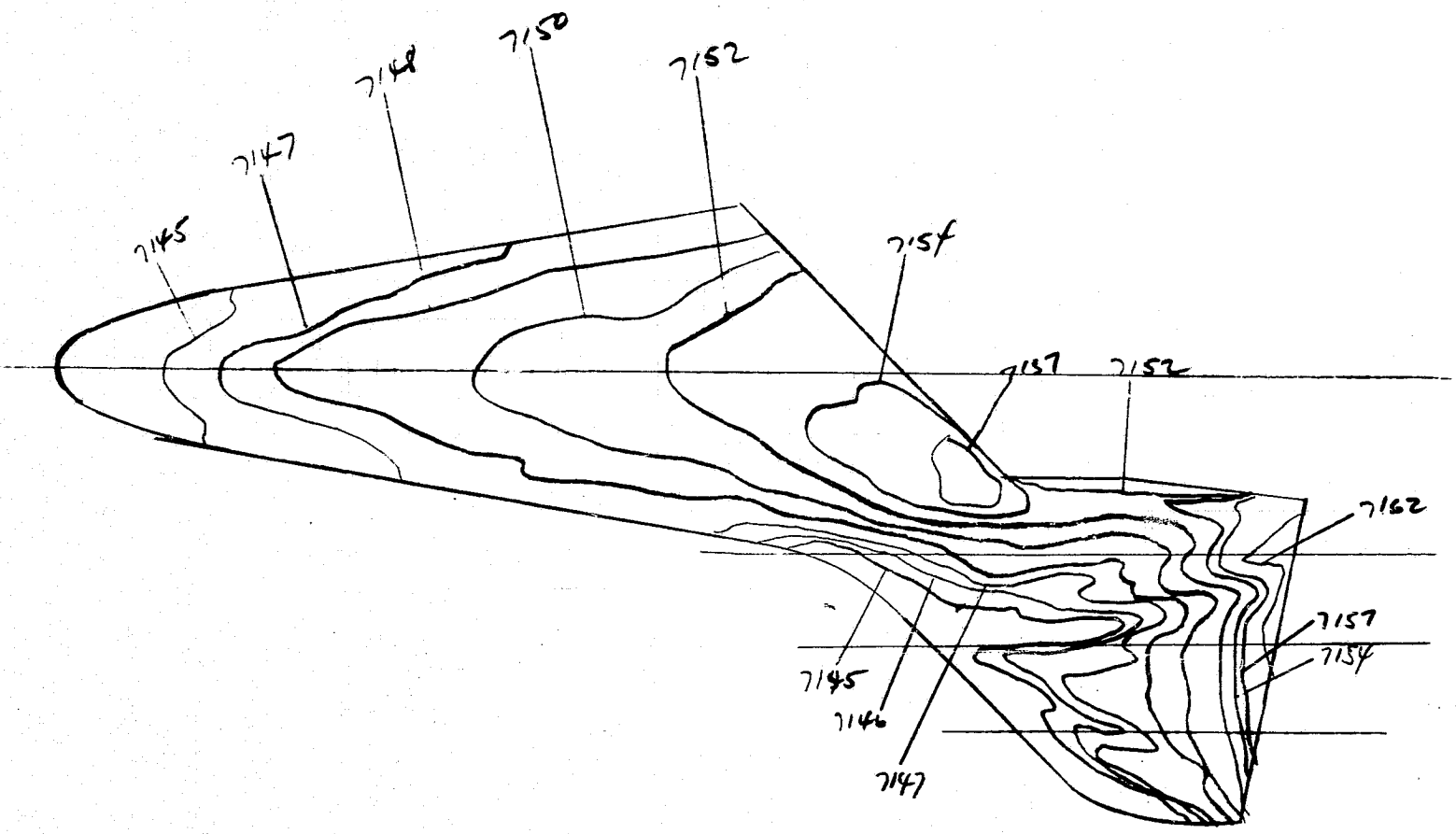
AEDC(ARO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(P5IA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
13	4	LEADING EDGE	7.90	112.1	1274	40.04	-10.04	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FI)	(R= .0175FT)		
94.5	.012	.544	3752	1.106E-05	7.605E-08	5.472E 05	1.805E-02	5.470E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
TOP(T)	373	250	83	.0535	2.286E-01	2.4859E-01				
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7123(250)	26.05	24.79	2.671E-03	.1480	3.405E-03	.1887	3.746E-03	.2075	7.971E-03	
T 7124(250)	27.08	25.82	2.618E-03	.1450	3.337E-03	.1849	3.671E-03	.2033	7.811E-03	
T 7125(250)	28.13	26.87	2.566E-03	.1421	3.271E-03	.1812	3.598E-03	.1993	7.657E-03	
T 7126(250)	29.18	27.92	2.517E-03	.1394	3.209E-03	.1774	3.530E-03	.1955	7.511E-03	
T 7127(250)	30.23	28.97	2.471E-03	.1369	3.150E-03	.1745	3.465E-03	.1920	7.374E-03	
T 7128(250)	31.26	30.00	2.428E-03	.1345	3.096E-03	.1715	3.405E-03	.1887	7.246E-03	
T 7129(250)	32.31	31.05	2.387E-03	.1322	3.043E-03	.1686	3.347E-03	.1854	7.123E-03	
T 7130(250)	33.36	32.10	2.347E-03	.1300	2.993E-03	.1658	3.292E-03	.1824	7.005E-03	
T 7131(250)	34.41	33.15	2.310E-03	.1280	2.945E-03	.1631	3.239E-03	.1795	6.893E-03	
T 7132(250)	35.44	34.18	2.275E-03	.1260	2.900E-03	.1605	3.190E-03	.1767	6.782E-03	
T 7133(250)	36.49	35.23	2.241E-03	.1241	2.857E-03	.1582	3.142E-03	.1740	6.681E-03	
T 7134(250)	37.54	36.28	2.208E-03	.1223	2.815E-03	.1559	3.097E-03	.1715	6.583E-03	
T 7135(250)	38.59	37.33	2.177E-03	.1206	2.775E-03	.1537	3.053E-03	.1691	6.496E-03	
T 7136(250)	39.65	38.38	2.147E-03	.1189	2.737E-03	.1515	3.011E-03	.1667	6.400E-03	
T 7137(250)	40.67	39.41	2.119E-03	.1173	2.701E-03	.1496	2.971E-03	.1645	6.317E-03	
T 7138(250)	41.72	40.46	2.091E-03	.1158	2.666E-03	.1476	2.932E-03	.1624	6.234E-03	
	42.60		MODEL HAS LEFT CENTERLINE							
T 7139(250)	42.77	41.51	2.064E-03	.1143	2.632E-03	.1457	2.895E-03	.1603	6.154E-03	
T 7140(250)	43.83	42.56	2.039E-03	.1129	2.599E-03	.1439	2.859E-03	.1583	6.078E-03	
T 7141(250)	44.88	43.61	2.014E-03	.1115	2.567E-03	.1422	2.824E-03	.1564	6.005E-03	
ERROR IN POWRF BASE<0			A = 6001000064653215 CALL FROM 72651							

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0373 - 7145
Group 14



 * UNCLASSIFIED *

8/21/74

NASA-R1 STS 0M25A

AEDC(ARO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL 9

V41B-83A

GROUP	CONFIC	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
14	5	TRANSITION	7.90	110.3	1274	30.01	-01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.5	.012	.535	3763	1.088E-05	7.606E-08	5.383E 05	1.791E-02	5.514E-02		
CAMERA TOP(T)	ROLL NO 373	PAINT TEMP (DEG F) 131	INITIAL TEMP (DEG F) 82	SQUARE ROOT (RHOXCK) .0486	TBAR(TO) 0	BETA(TO) 0				

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PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 7142(131)	0	MODEL HAS NOT REACHED CENTERLINE								
T 7143(131)	.68	MODEL HAS NOT REACHED CENTERLINE								
T 7144(131)	2.00	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME =		2.23								
T 7145(131)	3.05	1.89	2.269E-03	.1265	2.778E-03	.1549	3.002E-03	.1674	6.900E-03	
T 7146(131)	4.08	2.83	1.811E-03	.1010	2.218E-03	.1236	2.397E-03	.1336	5.508E-03	
T 7147(131)	5.13	3.88	1.547E-03	.0862	1.894E-03	.1156	2.046E-03	.1141	4.703E-03	
T 7148(131)	6.18	4.93	1.372E-03	.0765	1.680E-03	.0936	1.815E-03	.1012	4.172E-03	
T 7149(131)	7.23	5.98	1.246E-03	.0694	1.525E-03	.0850	1.648E-03	.0918	3.784E-03	
T 7150(131)	8.28	7.03	1.149E-03	.0640	1.407E-03	.0784	1.520E-03	.0847	3.490E-03	
T 7151(131)	9.31	8.06	1.073E-03	.0598	1.314E-03	.0732	1.420E-03	.0791	3.258E-03	
T 7152(131)	10.36	9.11	1.009E-03	.0562	1.236E-03	.0688	1.335E-03	.0744	3.064E-03	
T 7153(131)	11.41	10.16	9.556E-04	.0532	1.170E-03	.0652	1.264E-03	.0704	2.901E-03	
T 7154(131)	12.46	11.21	9.048E-04	.0507	1.114E-03	.0620	1.204E-03	.0670	2.762E-03	
T 7155(131)	13.52	12.26	8.699E-04	.0485	1.065E-03	.0593	1.151E-03	.0641	2.641E-03	
T 7156(131)	14.57	13.32	8.349E-04	.0465	1.022E-03	.0569	1.105E-03	.0615	2.532E-03	
T 7157(131)	15.59	14.34	8.044E-04	.0448	9.851E-04	.0548	1.064E-03	.0592	2.438E-03	
T 7158(131)	16.64	15.39	7.705E-04	.0432	9.508E-04	.0529	1.027E-03	.0572	2.353E-03	
T 7159(131)	17.70	16.44	7.513E-04	.0418	9.199E-04	.0512	9.940E-04	.0553	2.274E-03	
T 7160(131)	18.75	17.50	7.283E-04	.0405	8.919E-04	.0496	9.637E-04	.0536	2.205E-03	
T 7161(131)	19.80	18.55	7.074E-04	.0393	8.662E-04	.0482	9.360E-04	.0521	2.141E-03	
T 7162(131)	20.85	19.60	6.882E-04	.0383	8.427E-04	.0469	9.105E-04	.0506	2.083E-03	
21.75		MODEL HAS LEFT CENTERLINE								
T 7163(131)	21.90	20.65	6.704E-04	.0373	8.210E-04	.0456	8.871E-04	.0493	2.028E-03	
T 7164(131)	22.93	21.68	6.544E-04	.0364	8.013E-04	.0445	8.658E-04	.0481	1.979E-03	
T 7165(131)	23.98	22.73	6.390E-04	.0355	7.825E-04	.0435	8.455E-04	.0470	1.931E-03	

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8/21/74

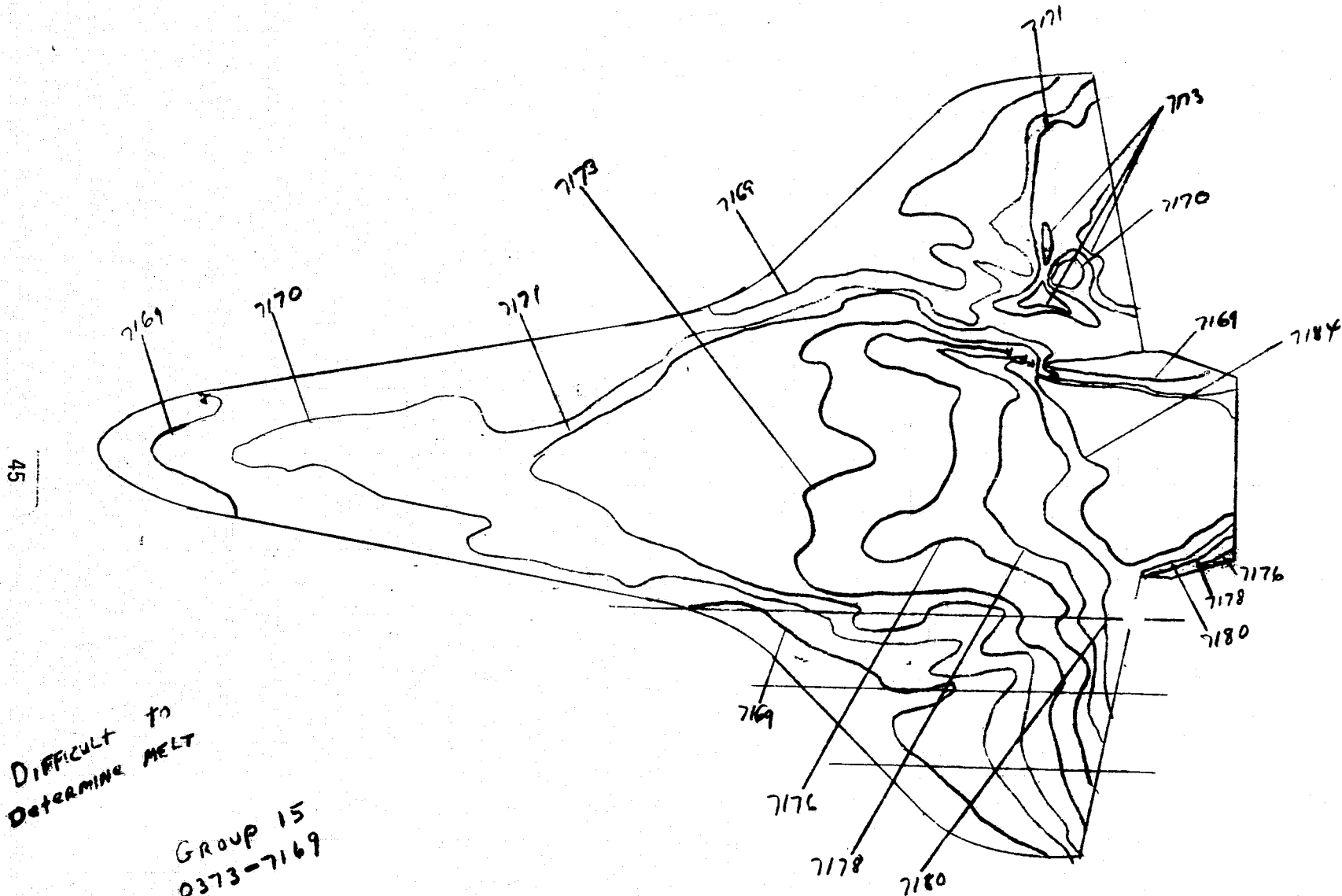
NASA-RI STS 0M25A

AEDC(AHO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL #

V41H-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
14	5	TRANSITION	7.90	111.4	1274	30.01	-0.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.5	.012	.541	3762	1.099E-05	7.605E-08	5.43E 05	1.799E-02	5.487E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TRAR(TO)	BETA(TO)				
	373	131	82	.0486	6.696E-02	6.2685E-02				
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
	ERROR IN POWRF BASE<0	A = 6001242251462311	CALL FROM 72651							

GROUP 15
0373 - 7169



DIFFICULT TO
DETERMINE MELT

GROUP 15
0373-7169

 * UNCLASSIFIED *

8/21/74

NASA-RJ STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
15	1	OREITER	7.90	111.2	1273	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (H= .0175FT)		
94.4	.012	.540	3761	1.098E-05	7.601E-08	5.433E 05	1.798E-02	5.490E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHO/CXK)	TBAR (TO)	BETA (TO)				
	373	131	83	.0496	0	0				

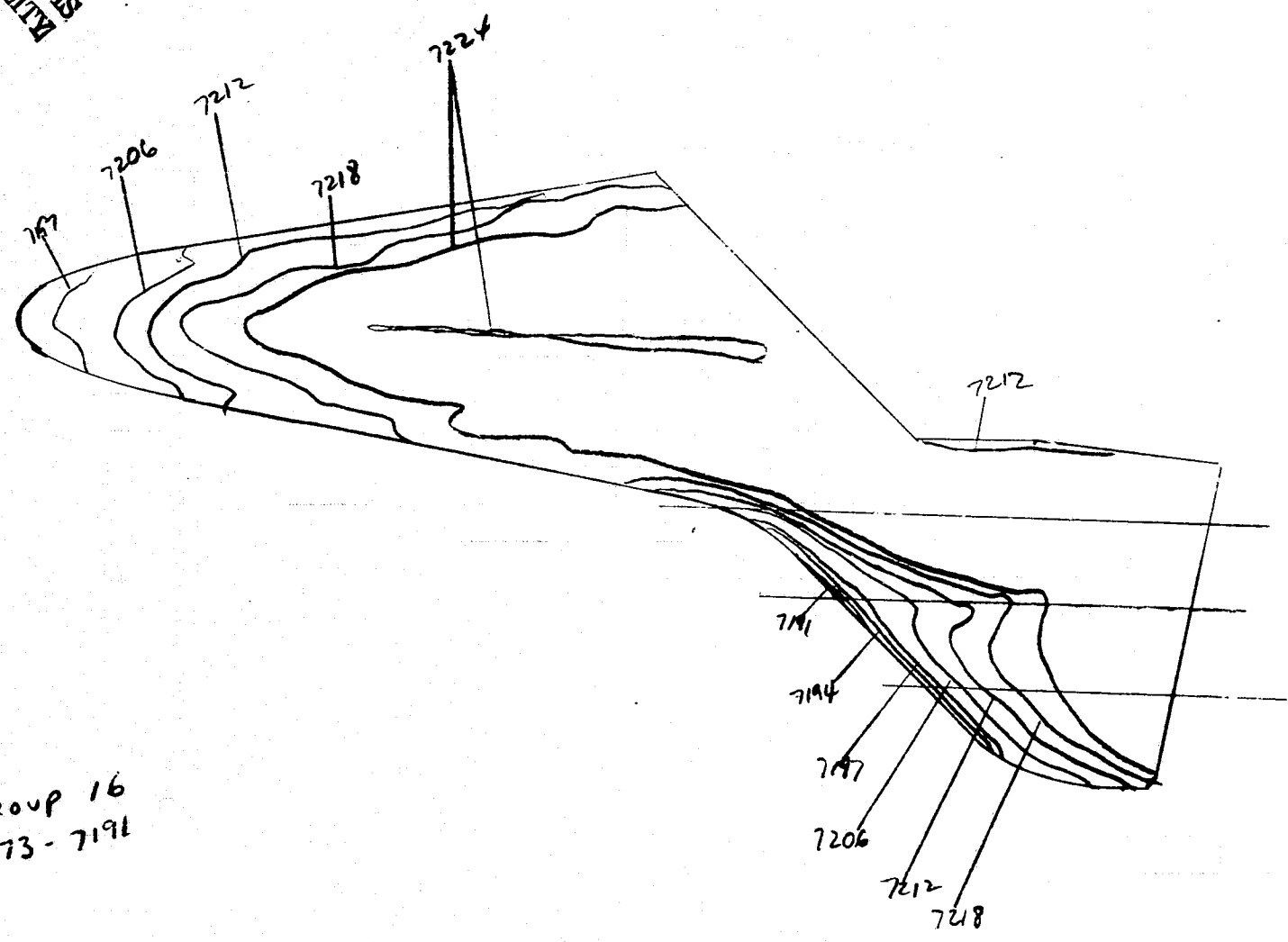
PIC NO	TIME DELTIME	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.867TO)	H (.867TO)/HREF	ST (TO)		
T 7166 (131)	.03	MODEL HAS NOT REACHED CENTERLINE								
T 7167 (131)	1.00	MODEL HAS NOT REACHED CENTERLINE								
T 7168 (131)	2.03	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME =		2.35								
T 7169 (131)	3.05	1.73	2.270E-03	.1262	2.783E-03	.1547	3.007E-03	.1671	6.858E-03	
T 7170 (131)	4.10	2.78	1.791E-03	.0995	2.196E-03	.1220	2.373E-03	.1319	5.411E-03	
T 7171 (131)	5.13	3.81	1.531E-03	.0851	1.877E-03	.1043	2.028E-03	.1127	4.625E-03	
T 7172 (131)	6.18	4.86	1.355E-03	.0753	1.662E-03	.0924	1.795E-03	.0998	4.094E-03	
T 7173 (131)	7.23	5.91	1.229E-03	.0683	1.507E-03	.0837	1.628E-03	.0904	3.709E-03	
T 7174 (131)	8.28	6.96	1.132E-03	.0629	1.388E-03	.0771	1.500E-03	.0833	3.418E-03	
T 7175 (131)	9.34	8.01	1.055E-03	.0587	1.294E-03	.0719	1.398E-03	.0777	3.188E-03	
T 7176 (131)	10.36	9.04	9.938E-04	.0552	1.219E-03	.0677	1.317E-03	.0731	2.999E-03	
T 7177 (131)	11.41	10.09	9.406E-04	.0523	1.153E-03	.0641	1.246E-03	.0692	2.839E-03	
T 7178 (131)	12.46	11.14	8.951E-04	.0497	1.098E-03	.0609	1.186E-03	.0659	2.699E-03	
T 7179 (131)	13.52	12.19	8.557E-04	.0475	1.049E-03	.0583	1.134E-03	.0630	2.582E-03	
T 7180 (131)	14.57	13.25	8.210E-04	.0456	1.007E-03	.0559	1.088E-03	.0604	2.476E-03	
T 7181 (131)	15.59	14.27	7.910E-04	.0439	9.698E-04	.0539	1.048E-03	.0582	2.385E-03	
T 7182 (131)	16.64	15.32	7.633E-04	.0424	9.360E-04	.0520	1.011E-03	.0561	2.300E-03	
T 7183 (131)	17.70	16.37	7.384E-04	.0410	9.054E-04	.0503	9.783E-04	.0543	2.226E-03	
	18.67		MODEL HAS LEFT CENTERLINE							
T 7184 (131)	18.75	17.43	7.158E-04	.0398	8.777E-04	.0487	9.483E-04	.0527	2.158E-03	
T 7185 (131)	19.80	18.48	6.952E-04	.0386	8.524E-04	.0473	9.204E-04	.0511	2.096E-03	
T 7186 (131)	20.82	19.50	6.766E-04	.0376	8.296E-04	.0461	8.964E-04	.0498	2.040E-03	
T 7187 (131)	21.88	20.55	6.591E-04	.0366	8.081E-04	.0449	8.732E-04	.0485	1.985E-03	
ERROR IN POWRF		BASE<0	A = 6001242214734237 CALL FROM 72651							

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ORIGINAL IS
OF POOR QUALITY

GROUP 16

0373 - 7191



47

Group 16
0373 - 7191

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 8/21/74

NASA-R1 STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
16	5	TRANSITION	7.90	113.1	1270	40.03	-10.03	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FI)	(R= .0175FT)		
94.2	.013	.549	3757	1.119E-05	7.584E-08	5.544E 05	1.812F-02	5.436E-02		
CAMERA	ROLL NO	PAINT TEMP	(DEG F)	INITIAL TEMP	(DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)		
TOP(T)	373	250		81		.0535	0	0		

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7182(250)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 7189(250)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 7190(250)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =	2.23								
T 7191(250)	3.05	1.80	1.008E-02	.5560	1.206E-02	.7094	1.415E-02	.7807	2.975E-02
T 7192(250)	4.10	2.85	8.012E-03	.4419	1.072E-02	.5639	1.125E-02	.6205	2.365E-02
T 7193(250)	5.16	3.91	6.849E-03	.3778	8.739E-03	.4870	9.617E-03	.5305	2.022E-02
T 7194(250)	6.18	4.93	6.045E-03	.3362	7.777E-03	.4290	8.559E-03	.4721	1.799E-02
T 7195(250)	7.23	5.98	5.534E-03	.3051	7.061E-03	.3893	7.770E-03	.4284	1.632E-02
T 7196(250)	8.28	7.03	5.104E-03	.2813	6.512E-03	.3589	7.166E-03	.3949	1.504E-02
T 7197(250)	9.34	8.09	4.760E-03	.2624	6.074E-03	.3349	6.684E-03	.3685	1.404E-02
T 7198(250)	10.39	9.14	4.478E-03	.2468	5.714E-03	.3149	6.288E-03	.3465	1.319E-02
T 7199(250)	11.41	10.16	4.246E-03	.2340	5.417E-03	.2946	5.962E-03	.3285	1.251E-02
T 7200(250)	12.46	11.21	4.042E-03	.2227	5.157E-03	.2841	5.676E-03	.3126	1.190E-02
T 7201(250)	13.52	12.26	3.865E-03	.2130	4.931E-03	.2718	5.427E-03	.2991	1.139E-02
T 7202(250)	14.57	13.32	3.709E-03	.2043	4.733E-03	.2607	5.208E-03	.2869	1.092E-02
T 7203(250)	15.62	14.37	3.571E-03	.1967	4.556E-03	.2510	5.014E-03	.2762	1.051E-02
T 7204(250)	16.64	15.39	3.450E-03	.1900	4.402E-03	.2425	4.844E-03	.2668	1.016E-02
T 7205(250)	17.70	16.44	3.338E-03	.1839	4.259E-03	.2346	4.687E-03	.2582	9.826E-03
T 7206(250)	18.75	17.53	3.236E-03	.1782	4.129E-03	.2273	4.544E-03	.2502	9.518E-03
T 7207(250)	19.80	18.55	3.143E-03	.1731	4.010E-03	.2209	4.413E-03	.2431	9.252E-03
T 7208(250)	20.85	19.60	3.057E-03	.1684	3.901E-03	.2148	4.293E-03	.2364	8.992E-03
T 7209(250)	21.88	20.62	2.980E-03	.1641	3.803E-03	.2094	4.185E-03	.2304	8.766E-03
T 7210(250)	22.93	21.68	2.907E-03	.1601	3.709E-03	.2042	4.082E-03	.2248	8.551E-03
T 7211(250)	23.98	22.73	2.839E-03	.1563	3.623E-03	.1995	3.987E-03	.2195	8.351E-03
T 7212(250)	25.03	23.78	2.776E-03	.1528	3.542E-03	.1950	3.898E-03	.2146	8.164E-03

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8/21/74

NASA-RI STS 0M25A
 V41R-B3A

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

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
16	S	TRANSITION	7.90	113.6	1270	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R= .0175FI)	STREF (R= .0175FI)		
94.2	.013	.551	3757	1.124E-05	7.583E-08	5.569E-05	1.816E-02	5.424E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCHK)	TBAR (TO)	BETA (TO)				
	373	250	81	.0535	2.319E-01	2.5300E-01				

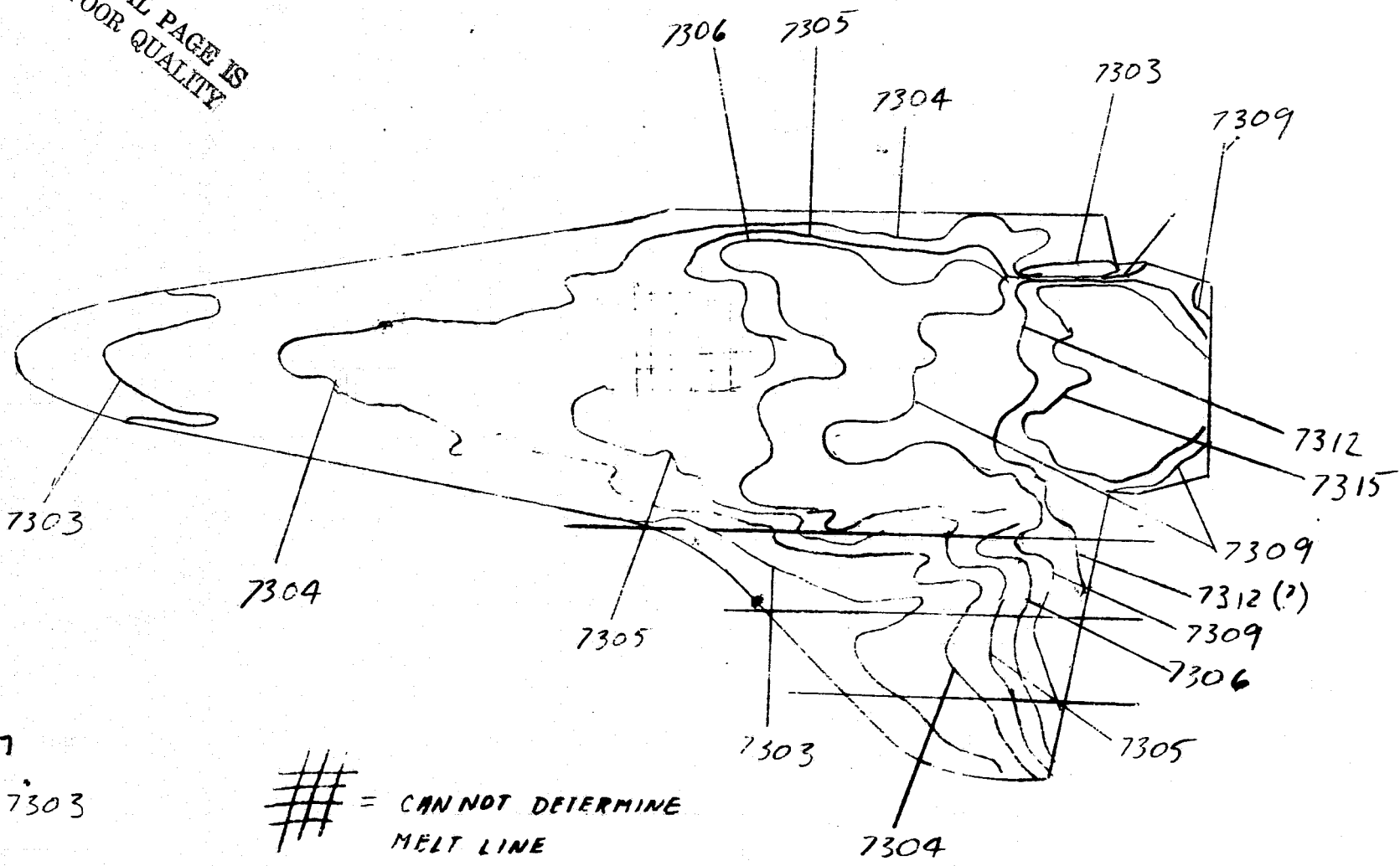
PTC NO	TIME	DELTIME	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.867TO)	H (.867TO)/HREF	ST (TO)
T 7213(250)	26.08	24.83	2.716E-03	.1495	3.466E-03	.1908	3.814E-03	.2099	7.982E-03
T 7214(250)	27.13	25.88	2.601E-03	.1464	3.395E-03	.1868	3.736E-03	.2056	7.818E-03
T 7215(250)	28.16	26.91	2.609E-03	.1436	3.329E-03	.1932	3.664E-03	.2017	7.669E-03
T 7216(250)	29.21	27.96	2.500E-03	.1409	3.266E-03	.1798	3.595E-03	.1978	7.523E-03
T 7217(250)	30.26	29.01	2.513E-03	.1383	3.207E-03	.1765	3.524E-03	.1942	7.385E-03
T 7218(250)	31.31	30.06	2.469E-03	.1359	3.150E-03	.1734	3.467E-03	.1908	7.254E-03
T 7219(250)	32.36	31.11	2.427E-03	.1335	3.096E-03	.1703	3.407E-03	.1875	7.124E-03
T 7220(250)	33.39	32.14	2.388E-03	.1314	3.046E-03	.1676	3.353E-03	.1844	7.010E-03
T 7221(250)	34.44	33.19	2.350E-03	.1293	2.998E-03	.1649	3.299E-03	.1815	6.898E-03
T 7222(250)	35.49	34.24	2.313E-03	.1273	2.951E-03	.1624	3.248E-03	.1788	6.798E-03
T 7223(250)	36.54	35.29	2.278E-03	.1254	2.907E-03	.1600	3.199E-03	.1761	6.696E-03
T 7224(250)	37.59	36.34	2.245E-03	.1235	2.865E-03	.1576	3.153E-03	.1734	6.592E-03
T 7225(250)	38.62	37.37	2.214E-03	.1219	2.825E-03	.1555	3.104E-03	.1711	6.507E-03
T 7226(250)	39.67	38.42	2.184E-03	.1202	2.786E-03	.1533	3.066E-03	.1688	6.417E-03
T 7227(250)	40.72	39.47	2.154E-03	.1185	2.749E-03	.1512	3.025E-03	.1664	6.326E-03
T 7228(250)	41.77	40.52	2.126E-03	.1170	2.713E-03	.1493	2.986E-03	.1643	6.243E-03
MODEL HAS LEFT CENTERLINE									
T 7229(250)	42.75	41.57	2.099E-03	.1155	2.678E-03	.1473	2.944E-03	.1622	6.164E-03
T 7230(250)	43.68	42.62	2.073E-03	.1141	2.645E-03	.1455	2.911E-03	.1601	6.087E-03
T 7231(250)	44.50	43.65	2.049E-03	.1127	2.614E-03	.1438	2.877E-03	.1583	6.015E-03

ERROR IN POWRF BASE<0 A = 6001242066733751 CALL FROM 72651


49

ORIGINAL PAGE IS
OF POOR QUALITY

50



Group 17
0346-7303

 = CANNOT DETERMINE
MELT LINE

 * UNCLASSIFIED *

 8/21/74

NASA-RJ STS 0M25A

AEDC(ARO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL 9

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	2	40 PERCENT	7.90	111.2	1270	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PStA)	Q-INF (PStA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LR-SEC/FT ²)	RE/FT (FI-1)	HREF (R=.0175FT)	STREF (R=.0175FT)		
94.2	.012	.540	3757	1.101E-05	7.583E-08	5.452E 05	1.797E-02	5.482E-02		
CAMERA TOP (I)	ROLL NO 346	PAINT TEMP 131	(DEG F)	INITIAL TEMP 82	(DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)		
						.0486	0	0		

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7300(131)	0	MODEL HAS NOT REACHED CENTERLINE							
T 7301(131)	.98	MODEL HAS NOT REACHED CENTERLINE							
T 7302(131)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.20									
T 7303(131)	3.05	1.92	2.272E-03	.1262	2.786E-03	.1548	3.011E-03	.1673	6.846E-03
T 7304(131)	4.08	2.44	1.817E-03	.1009	2.227E-03	.1277	2.407E-03	.1337	5.473E-03
T 7305(131)	5.13	3.89	1.552E-03	.0862	1.903E-03	.1057	2.057E-03	.1143	4.677E-03
T 7306(131)	6.16	4.92	1.341E-03	.0767	1.693E-03	.0940	1.830E-03	.1016	4.157E-03
T 7307(131)	7.21	5.97	1.253E-03	.0696	1.537E-03	.0853	1.661E-03	.0922	3.773E-03
T 7308(131)	8.26	7.02	1.136E-03	.0642	1.417E-03	.0787	1.532E-03	.0850	3.479E-03
T 7309(131)	9.29	8.05	1.080E-03	.0600	1.324E-03	.0735	1.431E-03	.0794	3.250E-03
T 7310(131)	10.34	9.10	1.015E-03	.0564	1.245E-03	.0691	1.345E-03	.0747	3.054E-03
T 7311(131)	11.39	10.15	9.614E-04	.0534	1.179E-03	.0654	1.274E-03	.0707	2.891E-03
T 7312(131)	12.41	11.18	9.162E-04	.0509	1.123E-03	.0623	1.214E-03	.0674	2.756E-03
T 7313(131)	13.47	12.23	8.759E-04	.0486	1.074E-03	.0596	1.161E-03	.0644	2.637E-03
T 7314(131)	14.52	13.29	8.406E-04	.0467	1.031E-03	.0572	1.114E-03	.0618	2.528E-03
T 7315(131)	15.57	14.33	8.091E-04	.0449	9.921E-04	.0551	1.072E-03	.0595	2.433E-03
T 7316(131)	16.59	15.36	7.816E-04	.0434	9.583E-04	.0532	1.036E-03	.0575	2.351E-03
T 7317(131)	17.65	16.41	7.562E-04	.0420	9.271E-04	.0514	1.002E-03	.0556	2.272E-03
T 7318(131)	18.70	17.46	7.331E-04	.0407	8.988E-04	.0499	9.713E-04	.0539	2.203E-03
T 7319(131)	19.72	18.49	7.124E-04	.0395	8.735E-04	.0485	9.449E-04	.0524	2.143E-03
T 7320(131)	20.77	19.54	6.930E-04	.0384	8.497E-04	.0471	9.182E-04	.0509	2.083E-03
T 7321(131)	21.83	20.59	6.751E-04	.0375	8.277E-04	.0459	8.945E-04	.0496	2.029E-03
	22.75	MODEL HAS LEFT CENTERLINE							
T 7322(131)	22.88	21.64	6.585E-04	.0365	8.073E-04	.0448	8.725E-04	.0484	1.979E-03
T 7323(131)	23.90	22.67	6.434E-04	.0357	7.889E-04	.0437	8.525E-04	.0473	1.932E-03

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2/21/74

NASA-RI STS 0H25A

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

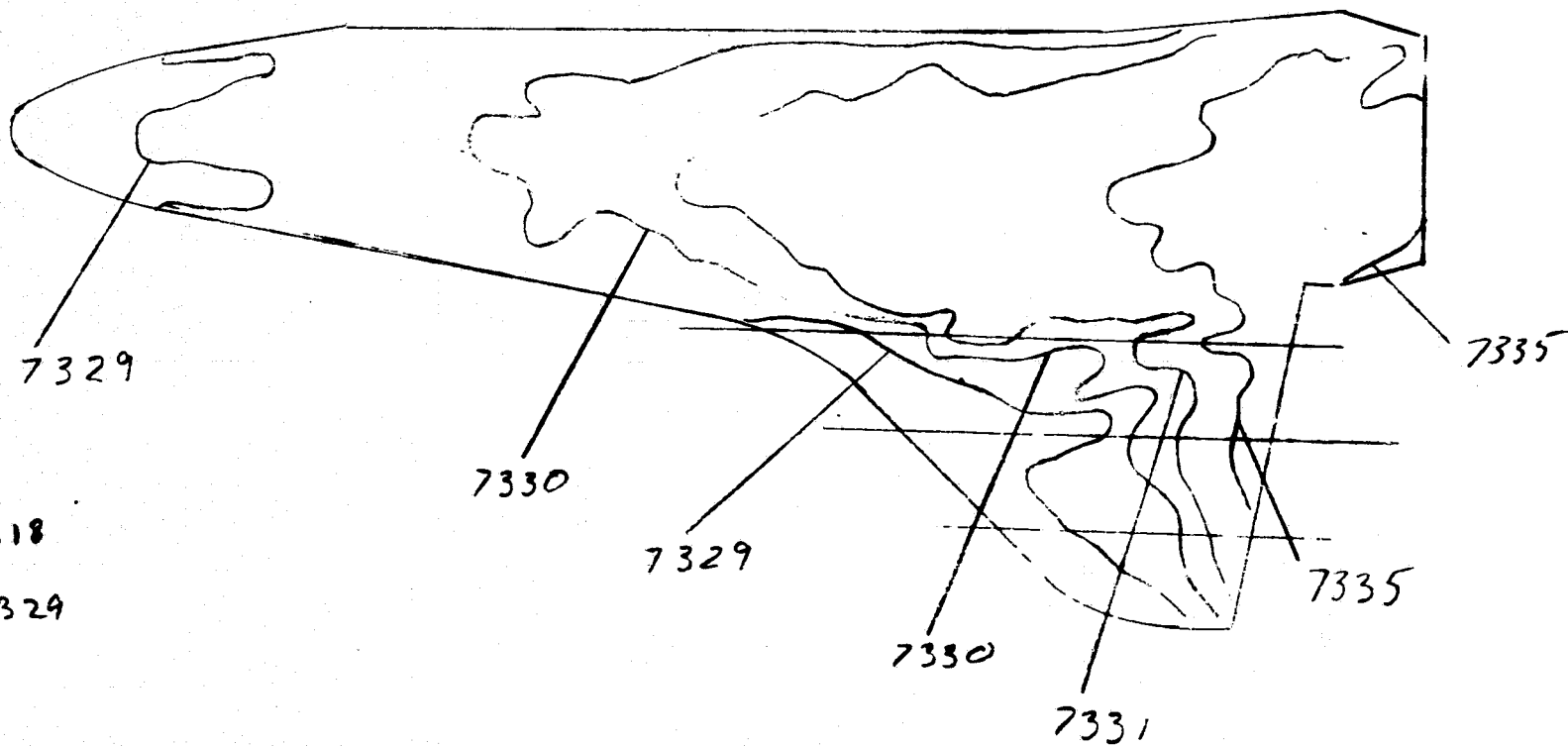
V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
17	2	40 PERCENT	7.90	112.0	1270	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.2	.012	.544	3757	1.108E-05	7.584E-08	5.490E 05	1.803E-02	5.463E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	346	131	82	.0486	6.734E-02	6.3028E-02				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
I 7324(131)	24.95	23.77	6.290E-04	.0349	7.712E-04	.0428	8.334E-04	.0462	1.890E-03
I 7325(131)	26.00	24.77	6.155E-04	.0341	7.546E-04	.0418	8.155E-04	.0452	1.848E-03
ERROR IN POWRF BASE<0 A = 6001242214734237 CALL FROM 72651									

GROUP 18

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Group 18
0346-7329

 * UNCLASSIFIED *

8/21/74

NASA-RI STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
19	3	BOCY FLUSH	7.90	112.5	1270	40.03	-10.03	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RF/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(H= .0175FT)		
94.2	.012	.546	3758	1.113E-05	7.587E-08	5.512E 05	1.808E-02	5.452E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (INHOXCK)	TBAR(TO)	BETA(TO)				
TOP(T)	346	131	84	.0486	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7326(131)	.03							
T 7327(131)	1.00							
T 7328(131)	2.03							
INJECT TIME = 2.25								
T 7329(131)	3.05	1.79	2.197E-03	.1214	2.694E-03	.1489	2.910E-03	.1608
T 7330(131)	4.10	2.84	1.743E-03	.0964	2.138E-03	.1182	2.309E-03	.1277
T 7331(131)	5.13	3.87	1.494E-03	.0826	1.832E-03	.1012	1.979E-03	.1094
T 7332(131)	6.18	4.92	1.325E-03	.0732	1.625E-03	.0898	1.755E-03	.0970
T 7333(131)	7.23	5.97	1.203E-03	.0664	1.475E-03	.0814	1.593E-03	.0880
T 7334(131)	8.28	7.02	1.109E-03	.0612	1.360E-03	.0751	1.469E-03	.0811
T 7335(131)	9.31	8.05	1.036E-03	.0572	1.270E-03	.0701	1.372E-03	.0758
T 7336(131)	10.36	9.10	9.741E-04	.0538	1.194E-03	.0660	1.290E-03	.0713
T 7337(131)	11.41	10.15	9.223E-04	.0509	1.131E-03	.0624	1.222E-03	.0674
T 7338(131)	12.44	11.17	8.769E-04	.0485	1.078E-03	.0595	1.164E-03	.0643
T 7339(131)	13.49	12.23	8.403E-04	.0464	1.030E-03	.0569	1.113E-03	.0614
T 7340(131)	14.54	13.28	8.063E-04	.0445	9.887E-04	.0546	1.068E-03	.0589
T 7341(131)	15.59	14.33	7.752E-04	.0428	9.518E-04	.0525	1.025E-03	.0567
T 7342(131)	16.62	15.35	7.458E-04	.0414	9.194E-04	.0507	9.932E-04	.0548
T 7343(131)	17.67	16.41	7.254E-04	.0400	8.895E-04	.0491	9.609E-04	.0530
T 7344(131)	18.72	17.46	7.032E-04	.0388	8.623E-04	.0476	9.315E-04	.0514
T 7345(131)	19.77	18.51	6.829E-04	.0377	8.374E-04	.0462	9.046E-04	.0499
T 7346(131)	20.80	19.53	6.647E-04	.0367	8.151E-04	.0450	8.808E-04	.0486
T 7347(131)	21.85	20.59	6.476E-04	.0357	7.940E-04	.0438	8.574E-04	.0473
T 7348(131)	22.90	21.64	6.316E-04	.0348	7.745E-04	.0427	8.367E-04	.0461
T 7349(131)	23.93	22.66	6.172E-04	.0340	7.568E-04	.0417	8.175E-04	.0451
T 7350(131)	24.98	23.71	6.033E-04	.0332	7.398E-04	.0408	7.992E-04	.0440

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8/21/74

NASA-R1 STS 0M25A

AEDC(ARO-1AC) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL B

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
18	3	BOCY FLUSH	7.90	113.4	1270	40.03	-10.03	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.2	.013	.550	3757	1.122E-05	7.586E-08	5.557E 05	1.815E-02	5.430E-02		

CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
TOP(T)	346	131	84	.0486	6.472E-02	6.0453E-02

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
I 7351(131)	25.33	5.904E-04	.0325	7.239E-04	.0399	7.821E-04	.0431	1.751E-03
	26.03							
	24.77							
ERROR IN POWRF BASE<0		A = 6001242434215625 CALL FROM 72651						

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8/21/74

NASA-RJ STS OH25A

AEDC(AHD,INC.) AMNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V41A-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
19	4	LEADING EDGE	7.90	110.3	1270	40.05	-10.05	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.2	.012	.53E	3757	1.092E-05	7.583E-08	5.408E 05	1.790E-02	5.504E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
	346	131	82	.0496	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7352(131)	0.03		MODEL HAS NOT REACHED CENTERLINE						
T 7353(131)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 7354(131)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.30							
T 7355(131)	3.05	1.76	2.308E-03	.1289	2.830E-03	.1580	3.059E-03	.1708	7.024E-03
T 7356(131)	4.10	2.81	1.827E-03	.1019	2.240E-03	.1250	2.420E-03	.1351	5.553E-03
T 7357(131)	5.13	3.84	1.564E-03	.0872	1.917E-03	.1059	2.072E-03	.1155	4.749E-03
T 7358(131)	6.18	4.89	1.385E-03	.0773	1.698E-03	.0947	1.830E-03	.1024	4.208E-03
T 7359(131)	7.23	5.94	1.257E-03	.0700	1.541E-03	.0858	1.665E-03	.0928	3.807E-03
T 7360(131)	8.28	6.99	1.158E-03	.0645	1.420E-03	.0791	1.535E-03	.0855	3.509E-03
T 7361(131)	9.34	8.04	1.080E-03	.0601	1.324E-03	.0737	1.431E-03	.0796	3.263E-03
T 7362(131)	10.36	9.07	1.017E-03	.0565	1.247E-03	.0693	1.348E-03	.0749	3.068E-03
T 7363(131)	11.41	10.12	9.629E-04	.0535	1.181E-03	.0655	1.276E-03	.0708	2.899E-03
T 7364(131)	12.46	11.17	9.165E-04	.0508	1.124E-03	.0623	1.214E-03	.0674	2.754E-03
T 7365(131)	13.52	12.22	8.762E-04	.0486	1.074E-03	.0596	1.161E-03	.0644	2.633E-03
T 7366(131)	14.57	13.27	8.408E-04	.0466	1.031E-03	.0571	1.114E-03	.0617	2.522E-03
T 7367(131)	15.59	14.30	8.100E-04	.0449	9.931E-04	.0550	1.073E-03	.0595	2.428E-03
T 7368(131)	16.64	15.35	7.818E-04	.0433	9.585E-04	.0531	1.036E-03	.0574	2.345E-03
T 7369(131)	17.70	16.40	7.563E-04	.0419	9.273E-04	.0514	1.002E-03	.0555	2.267E-03
T 7370(131)	18.75	17.45	7.332E-04	.0406	8.990E-04	.0498	9.715E-04	.0538	2.198E-03
	19.20		MODEL HAS LEFT CENTERLINE						
T 7371(131)	19.80	16.51	7.121E-04	.0394	8.730E-04	.0484	9.435E-04	.0523	2.134E-03
T 7372(131)	20.65	19.56	6.927E-04	.0384	8.493E-04	.0470	9.178E-04	.0508	2.074E-03
T 7373(131)	21.88	20.58	6.752E-04	.0374	8.278E-04	.0459	8.940E-04	.0496	2.024E-03

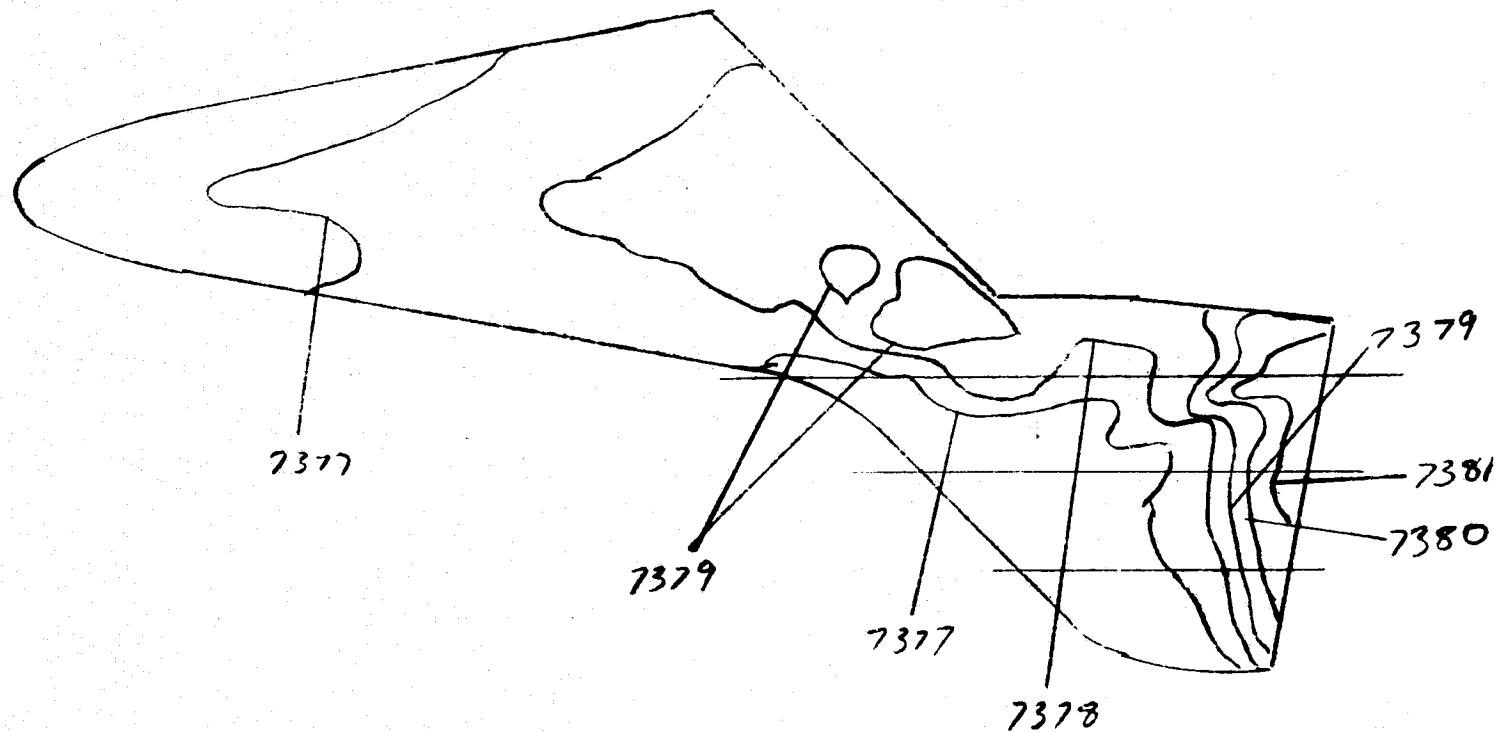
ERROR IN POWRF BASE<0

A = 6001242066733751 CALL FROM 72651

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GROUP 20

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Group 20

0346-7377

 * UNCLASSIFIED *

8/21/74

NASA-RT STS GH25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
20	5	TRANSITION	7.90	112.1	1270	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PStA)	O-INF (PStA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.2	.012	.544	3758	1.109E-05	7.587E-08	5.492E 05	1.004E-02	5.4461E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCAK)	TBAR(TO)	BETA(TO)				
	346	131	85	.0486	0	0				

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PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7352(131)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 7353(131)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 7354(131)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.23									
T 7355(131)	3.08	1.83	2.128E-03	.0177	2.609E-03	.1444	2.819E-03	.1560	6.361E-03
T 7356(131)	4.10	2.85	1.703E-03	.0942	2.088E-03	.1155	2.256E-03	.1248	5.091E-03
T 7357(131)	5.16	3.91	1.456E-03	.0905	1.785E-03	.0988	1.929E-03	.1067	4.352E-03
T 7358(131)	6.21	4.96	1.292E-03	.0715	1.584E-03	.0877	1.712E-03	.0947	3.863E-03
T 7359(131)	7.23	5.98	1.176E-03	.0650	1.442E-03	.0798	1.556E-03	.0862	3.513E-03
T 7360(131)	8.28	7.03	1.085E-03	.0600	1.330E-03	.0736	1.437E-03	.0795	3.240E-03
T 7361(131)	9.34	8.09	1.012E-03	.0559	1.241E-03	.0686	1.340E-03	.0741	3.022E-03
T 7362(131)	10.36	9.11	9.531E-04	.0527	1.169E-03	.0646	1.263E-03	.0698	2.847E-03
T 7363(131)	11.41	10.16	9.024E-04	.0499	1.107E-03	.0612	1.196E-03	.0661	2.693E-03
T 7364(131)	12.46	11.21	8.591E-04	.0475	1.053E-03	.0582	1.138E-03	.0629	2.564E-03
12.81		MODEL HAS LEFT CENTERLINE							
T 7365(131)	13.52	12.26	8.215E-04	.0454	1.007E-03	.0557	1.088E-03	.0602	2.451E-03

ERROR IN POWER BASE<0

A = 6001000117201053 CALL FROM 72651

 * UNCLASSIFIED *

8/21/74

NASA-R1 STS 0H25A

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

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO(P5IA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
21	1	OREITER	7.90	112.9	1271	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.013	.548	3759	1.116E-05	7.590E-08	5.527E 05	1.811E-02	5.444E-02		

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOACXK)	TBAR(TO)	BETA(TO)
	346	131	0	0	0	0

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7398(131)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 7399(131)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 7400(131)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.25								
T 7401(131)	3.05	1.79	0	0	0	0	0	0
T 7402(131)	4.10	2.84	0	0	0	0	0	0
T 7403(131)	5.16	3.89	0	0	0	0	0	0
T 7404(131)	6.21	4.94	0	0	0	0	0	0
T 7405(131)	7.26	5.99	0	0	0	0	0	0
T 7406(131)	8.31	7.04	0	0	0	0	0	0
T 7407(131)	9.36	8.10	0	0	0	0	0	0
T 7408(131)	10.39	9.12	0	0	0	0	0	0
T 7409(131)	11.44	10.17	0	0	0	0	0	0
T 7410(131)	12.49	11.22	0	0	0	0	0	0
T 7411(131)	13.54	12.28	0	0	0	0	0	0
T 7412(131)	14.59	13.33	0	0	0	0	0	0
T 7413(131)	15.64	14.38	0	0	0	0	0	0
T 7414(131)	16.69	15.43	0	0	0	0	0	0
T 7415(131)	17.75	16.48	0	0	0	0	0	0
T 7416(131)	18.80	17.53	0	0	0	0	0	0
T 7417(131)	19.85	18.58	0	0	0	0	0	0
T 7418(131)	20.87	19.61	0	0	0	0	0	0
T 7419(131)	21.93	20.66	0	0	0	0	0	0
T 7420(131)	22.98	21.71	0	0	0	0	0	0
T 7421(131)	24.03	22.76	0	0	0	0	0	0
T 7422(131)	25.08	23.81	0	0	0	0	0	0

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NASA-R1 STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(P5IA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREHEND	ROLL-MODEL	YAW
21	1	OREITER	7.90	113.3	1271	30.01	--.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R= .0175FI)	STREF (R= .0175FI)		
94.3	.013	.550	3759	1.120E-05	7.540E-08	5.547E 05	1.814E-02	5.434E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
	346	131	0	0	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7423(131)	26.13	24.87	0	0	0	0	0	0	
T 7424(131)	27.18	25.92	0	0	0	0	0	0	
T 7425(131)	28.23	26.97	0	0	0	0	0	0	
T 7426(131)	29.28	28.02	0	0	0	0	0	0	
T 7427(131)	30.31	29.05	0	0	0	0	0	0	
T 7428(131)	31.36	30.10	0	0	0	0	0	0	
T 7429(131)	32.41	31.15	0	0	0	0	0	0	
T 7430(131)	33.46	32.20	0	0	0	0	0	0	
T 7431(131)	34.51	33.25	0	0	0	0	0	0	
T 7432(131)	35.57	34.30	0	0	0	0	0	0	
T 7433(131)	36.62	35.35	0	0	0	0	0	0	
T 7434(131)	37.67	36.40	0	0	0	0	0	0	
T 7435(131)	38.72	37.45	0	0	0	0	0	0	
T 7436(131)	39.77	38.51	0	0	0	0	0	0	
T 7437(131)	40.82	39.56	0	0	0	0	0	0	
T 7438(131)	41.87	40.61	0	0	0	0	0	0	
T 7439(131)	42.92	41.66	0	0	0	0	0	0	
	43.70		MODEL HAS LEFT CENTERLINE						
T 7440(131)	43.58	42.71	0	0	0	0	0	0	
T 7441(131)	45.00	43.74	0	0	0	0	0	0	
T 7442(131)	46.05	44.79	0	0	0	0	0	0	

ERROR IN FOWRF BASE<0 A = 6001241740736305 CALL FROM 72651

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NASA-R1 STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
22	1	OREITER	7.90	111.5	1271	40.01	-10.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT	HREF	STREF		
94.3	.012	.541	3758	1.103E-05	7.590E-08	5.460E 05	1.800E-02	5.477E-02		

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)
	346	131	0	0	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7443(131)	0	MODEL HAS NOT REACHED CENTERLINE						
T 7444(131)	.58	MODEL HAS NOT REACHED CENTERLINE						
T 7445(131)	2.00	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =	2.30							
T 7446(131)	3.03	1.74	0	0	0	0	0	0
T 7447(131)	4.08	2.79	0	0	0	0	0	0
T 7448(131)	5.13	3.84	0	0	0	0	0	0
T 7449(131)	6.18	4.89	0	0	0	0	0	0
T 7450(131)	7.23	5.94	0	0	0	0	0	0
T 7451(131)	8.26	6.97	0	0	0	0	0	0
T 7452(131)	9.31	8.02	0	0	0	0	0	0
T 7453(131)	10.36	9.07	0	0	0	0	0	0
T 7454(131)	11.41	10.12	0	0	0	0	0	0
T 7455(131)	12.46	11.17	0	0	0	0	0	0
T 7456(131)	13.52	12.22	0	0	0	0	0	0
T 7457(131)	14.57	13.27	0	0	0	0	0	0
T 7458(131)	15.62	14.33	0	0	0	0	0	0
T 7459(131)	16.67	15.38	0	0	0	0	0	0
T 7460(131)	17.72	16.43	0	0	0	0	0	0
T 7461(131)	18.77	17.48	0	0	0	0	0	0
T 7462(131)	19.82	18.53	0	0	0	0	0	0
T 7463(131)	20.87	19.58	0	0	0	0	0	0
T 7464(131)	21.93	20.63	0	0	0	0	0	0
T 7465(131)	22.98	21.68	0	0	0	0	0	0
T 7466(131)	24.03	22.73	0	0	0	0	0	0
T 7467(131)	25.08	23.79	0	0	0	0	0	0

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NASA-R1 STS 0H25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
22	1	ORBITER	7.90	112.0	1271	40.01	-10.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	MREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.612	.544	3758	1.107E-05	7.590E-02	5.484E 05	1.804E-02	5.465E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHUXCXK)	TBAR (TO)	BETA (TO)				
	346	131	0	0	0	0				

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PIC NO	TIME	DELTIME	H(TO)	H(TO)/MREF	H(.9TO)	H(.9TO)/MREF	H(.867TO)	H(.867TO)/MREF	ST(TO)
T 7468(131)	26.13	24.84	0	0	0	0	0	0	0
T 7469(131)	27.16	25.86	0	0	0	0	0	0	0
T 7470(131)	28.21	26.91	0	0	0	0	0	0	0
T 7471(131)	29.26	27.97	0	0	0	0	0	0	0
T 7472(131)	30.31	29.02	0	0	0	0	0	0	0
T 7473(131)	31.36	30.07	0	0	0	0	0	0	0
T 7474(131)	32.41	31.12	0	0	0	0	0	0	0
T 7475(131)	33.46	32.17	0	0	0	0	0	0	0
T 7476(131)	34.51	33.22	0	0	0	0	0	0	0
T 7477(131)	35.57	34.27	0	0	0	0	0	0	0
T 7478(131)	36.62	35.32	0	0	0	0	0	0	0
T 7479(131)	37.67	36.38	0	0	0	0	0	0	0
	38.69								
MODEL HAS LEFT CENTERLINE									
T 7480(131)	38.72	37.43	0	0	0	0	0	0	0
T 7481(131)	39.77	38.48	0	0	0	0	0	0	0
ERROR IN POWRF BASE<0 A = 6001000323264723 CALL FROM 72651									

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8/21/74

NASA-RI STS 0H25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	P0(P5IA)	T0(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
23	2	40 PERCENT	7.90	110.8	1271	30.03	-0.03	30.00	100.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT	HREF (R= .0175FT)	STREF (H= .0175FT)		
94.3	.012	.538	3759	1.095E-05	7.591E-08	5.424E 05	1.794E-02	5.495E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	346	131	0	0	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7482(131)	.03							
T 7483(131)	1.00							
T 7484(131)	2.03							
INJECT TIME = 2.23								
T 7485(131)	3.08	1.83	0	0	0	0	0	0
T 7486(131)	4.13	2.88	0	0	0	0	0	0
T 7487(131)	5.16	3.91	0	0	0	0	0	0
T 7488(131)	6.21	4.96	0	0	0	0	0	0
T 7489(131)	7.26	6.01	0	0	0	0	0	0
T 7490(131)	8.31	7.05	0	0	0	0	0	0
T 7491(131)	9.36	8.11	0	0	0	0	0	0
T 7492(131)	10.41	9.16	0	0	0	0	0	0
T 7493(131)	11.46	10.21	0	0	0	0	0	0
T 7494(131)	12.51	11.26	0	0	0	0	0	0
T 7495(131)	13.57	12.32	0	0	0	0	0	0
T 7496(131)	14.62	13.37	0	0	0	0	0	0
T 7497(131)	15.67	14.42	0	0	0	0	0	0
T 7498(131)	16.72	15.47	0	0	0	0	0	0
T 7499(131)	17.77	16.52	0	0	0	0	0	0
T 7500(131)	18.82	17.57	0	0	0	0	0	0
T 7501(131)	19.87	18.62	0	0	0	0	0	0
T 7502(131)	20.92	19.67	0	0	0	0	0	0
T 7503(131)	21.98	20.72	0	0	0	0	0	0
T 7504(131)	23.03	21.78	0	0	0	0	0	0
T 7505(131)	24.08	22.83	0	0	0	0	0	0
T 7506(131)	25.10	23.85	0	0	0	0	0	0

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NASA-RI STS 0H25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
23	2	40 PERCENT	7.90	111.9	1271	30.03	--.03	30.00	180.00	--.00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LR-SEC/FT ²)	RE/FT (FI-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
94.3	.012	.543	3759	1.106E-05	7.593E-08	5.476E 05	1.803E-02	5.469E-02

CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR (TO)	BETA (TO)
	346	131	0	0	0	0

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PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7507(131)	26.16	24.98	0	0	0	0	0	0	0	
T 7508(131)	27.21	25.94	0	0	0	0	0	0	0	
T 7509(131)	28.26	27.01	0	0	0	0	0	0	0	
T 7510(131)	29.31	28.06	0	0	0	0	0	0	0	
T 7511(131)	30.36	29.11	0	0	0	0	0	0	0	
T 7512(131)	31.41	30.16	0	0	0	0	0	0	0	
T 7513(131)	32.46	31.21	0	0	0	0	0	0	0	
T 7514(131)	33.51	32.26	0	0	0	0	0	0	0	
T 7515(131)	34.56	33.31	0	0	0	0	0	0	0	
T 7516(131)	35.62	34.37	0	0	0	0	0	0	0	
T 7517(131)	36.67	35.42	0	0	0	0	0	0	0	
T 7518(131)	37.72	36.47	0	0	0	0	0	0	0	
	38.54		MODEL HAS LEFT CENTERLINE							
T 7519(131)	38.77	37.52	0	0	0	0	0	0	0	
T 7520(131)	39.82	38.57	0	0	0	0	0	0	0	
T 7521(131)	40.87	39.62	0	0	0	0	0	0	0	
T 7522(131)	41.92	40.67	0	0	0	0	0	0	0	
T 7523(131)	42.97	41.72	0	0	0	0	0	0	0	
T 7524(131)	44.03	42.78	0	0	0	0	0	0	0	

ERROR IN POWRF. BASE<0 A = 6001242066733751 CALL FROM 72651

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8/21/74

NASA-RI STS 0M25A

AFDC(ARO, IAC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL 4

V41R-83A

GRUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
24	2	40 PERCENT	7.90	111.2	1271	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT	HREF	STREF		
94.3	.012	.540	3759	1.099E-05	7.542E-08	5.442E 05	1.797E-02	5.486E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOACXK)	TBAR (TO)	BETA (TO)				
	346	131	0	0	0	0				

PIC NO	TIME DELTIME	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.867TO)	H (.867TO)/HREF	ST (TO)	
T 7525 (131)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 7526 (131)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 7527 (131)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.23							
T 7528 (131)	3.08	1.83	0	0	0	0	0	0	
T 7529 (131)	4.10	2.85	0	0	0	0	0	0	
T 7530 (131)	5.16	3.91	0	0	0	0	0	0	
T 7531 (131)	6.21	4.96	0	0	0	0	0	0	
T 7532 (131)	7.26	6.01	0	0	0	0	0	0	
T 7533 (131)	8.21	7.06	0	0	0	0	0	0	
T 7534 (131)	9.36	8.11	0	0	0	0	0	0	
T 7535 (131)	10.41	9.16	0	0	0	0	0	0	
T 7536 (131)	11.46	10.21	0	0	0	0	0	0	
T 7537 (131)	12.51	11.26	0	0	0	0	0	0	
T 7538 (131)	13.57	12.32	0	0	0	0	0	0	
T 7539 (131)	14.62	13.37	0	0	0	0	0	0	
T 7540 (131)	15.67	14.42	0	0	0	0	0	0	
T 7541 (131)	16.72	15.47	0	0	0	0	0	0	
T 7542 (131)	17.77	16.52	0	0	0	0	0	0	
T 7543 (131)	18.62	17.57	0	0	0	0	0	0	
T 7544 (131)	19.87	18.62	0	0	0	0	0	0	
T 7545 (131)	20.92	19.67	0	0	0	0	0	0	
T 7546 (131)	21.95	20.70	0	0	0	0	0	0	
T 7547 (131)	23.00	21.75	0	0	0	0	0	0	
T 7548 (131)	24.05	22.80	0	0	0	0	0	0	
T 7549 (131)	25.10	23.85	0	0	0	0	0	0	

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NASA-RJ STS 0M25A

AEDC(AHQ, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
24	2	40 PERCENT	7.90	111.9	1272	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.543	3760	1.106E-05	7.594E-08	5.474E 05	1.803E-02	5.470E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
	346	131	0	0	0	0				

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PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7550(131)	26.16	24.97	0	0	0	0	0	0	0
T 7551(131)	27.21	25.96	0	0	0	0	0	0	0
T 7552(131)	28.26	27.01	0	0	0	0	0	0	0
T 7553(131)	29.31	28.06	0	0	0	0	0	0	0
T 7554(131)	30.36	29.11	0	0	0	0	0	0	0
T 7555(131)	31.41	30.16	0	0	0	0	0	0	0
T 7556(131)	32.46	31.21	0	0	0	0	0	0	0
T 7557(131)	33.51	32.26	0	0	0	0	0	0	0
T 7558(131)	34.56	33.31	0	0	0	0	0	0	0
T 7559(131)	35.62	34.37	0	0	0	0	0	0	0
T 7560(131)	36.67	35.42	0	0	0	0	0	0	0
T 7561(131)	37.72	36.47	0	0	0	0	0	0	0
T 7562(131)	38.77	37.52	0	0	0	0	0	0	0
T 7563(131)	39.82	38.57	0	0	0	0	0	0	0
T 7564(131)	40.85	39.60	0	0	0	0	0	0	0
T 7565(131)	41.50	42.65	0	0	0	0	0	0	0
	42.00		MODEL HAS LEFT CENTERLINE						
T 7566(131)	42.95	41.70	0	0	0	0	0	0	0
T 7567(131)	44.00	42.75	0	0	0	0	0	0	0
ERROR IN POWRF BASE<0			A = 6001000117201053 CALL FROM 72651						

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8/21/74

NASA-RI STS CH25A

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

V419-83A

GRUP	CONFIG	MODEL	MACH-NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
25	3	ROCY FLUSH	7.90	111.3	1272	30.01	-01	30.00	180.00	-00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.3	.012	.540	3760	1.100E-05	7.595E-08	5.444E 05	1.798E-02	5.484E-02		

CAPEFA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHUACXK)	TBAR(TO)	BETA(TO)
TOP(T)	346	131	0	0	0	0

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7568(131)	.03								
T 7569(131)	1.00								
T 7570(131)	2.03								
INJECT TIME = 2.18									
T 7571(131)	3.05	1.83	0	0	0	0	0	0	0
T 7572(131)	4.10	2.88	0	0	0	0	0	0	0
T 7573(131)	5.16	3.93	0	0	0	0	0	0	0
T 7574(131)	6.21	4.98	0	0	0	0	0	0	0
T 7575(131)	7.26	6.04	0	0	0	0	0	0	0
T 7576(131)	8.31	7.09	0	0	0	0	0	0	0
T 7577(131)	9.36	8.14	0	0	0	0	0	0	0
T 7578(131)	10.41	9.19	0	0	0	0	0	0	0
T 7579(131)	11.46	10.24	0	0	0	0	0	0	0
T 7580(131)	12.51	11.29	0	0	0	0	0	0	0
T 7581(131)	13.57	12.34	0	0	0	0	0	0	0
T 7582(131)	14.62	13.39	0	0	0	0	0	0	0
T 7583(131)	15.67	14.45	0	0	0	0	0	0	0
T 7584(131)	16.69	15.47	0	0	0	0	0	0	0
T 7585(131)	17.77	16.55	0	0	0	0	0	0	0
T 7586(131)	18.80	17.57	0	0	0	0	0	0	0
T 7587(131)	19.85	18.63	0	0	0	0	0	0	0
T 7588(131)	20.90	19.68	0	0	0	0	0	0	0
T 7589(131)	21.95	20.73	0	0	0	0	0	0	0
T 7590(131)	23.00	21.78	0	0	0	0	0	0	0
T 7591(131)	24.05	22.83	0	0	0	0	0	0	0
T 7592(131)	25.10	23.88	0	0	0	0	0	0	0

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8/21/74

NASA-RI STS 0M25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	P0(P5IA)	T0(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
25	3	ROCY FLUSH	7.90	112.2	1272	30.01	--01	30.00	180.00	--00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RF/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.545	3760	1.109E-05	7.595E-08	5.48HE 05	1.405E-02	5.463E-02		
CAMERA TOP(T)	ROLL NO 346	PAINT TEMP (DEG F) 131	INITIAL TEMP (DEG F) 0	SQUARE ROOT (RHOXCXK) 0	TRAR(TO) 0	BETA(TO) 0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7593(131)	26.16 24.93	0	0	0	0	0	0	0	
T 7594(131)	27.21 25.99	0	0	0	0	0	0	0	
T 7595(131)	28.26 27.04	0	0	0	0	0	0	0	
T 7596(131)	29.31 28.09	0	0	0	0	0	0	0	
T 7597(131)	30.36 29.14	0	0	0	0	0	0	0	
T 7598(131)	31.41 30.19	0	0	0	0	0	0	0	
T 7599(131)	32.46 31.24	0	0	0	0	0	0	0	
T 7600(131)	33.51 32.29	0	0	0	0	0	0	0	
T 7601(131)	34.56 33.34	0	0	0	0	0	0	0	
T 7602(131)	35.62 34.39	0	0	0	0	0	0	0	
T 7603(131)	36.67 35.44	0	0	0	0	0	0	0	
T 7604(131)	37.72 36.50	0	0	0	0	0	0	0	
	38.67	MODEL HAS LEFT CENTERLINE							
T 7605(131)	38.74 37.52	0	0	0	0	0	0	0	
ERROR IN POWRF BASE<0 A = 6001242123461063 CALL FROM 72651									

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NASA-RI STS 0M25A

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

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
26	3	ROCY FLUSH	7.90	111.4	1272	40.02	-10.02	30.90	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.541	3760	1.101E-05	7.595E-08	5.449E 05	1.799E-02	5.482E-02		
CAMERA TOP(T)	ROLL NO 346	PAINT TEMP (DEG F) 131	INITIAL TEMP (DEG F) 0	SQUARE ROOT (RHOXCK) 0	TBAR(TO) 0	BETA(TO) 0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7606(131)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 7607(131)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 7608(131)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.30								
T 7609(131)	3.05	1.76	0	0	0	0	0	0
T 7610(131)	4.10	2.81	0	0	0	0	0	0
T 7611(131)	5.16	3.86	0	0	0	0	0	0
T 7612(131)	6.21	4.91	0	0	0	0	0	0
T 7613(131)	7.26	5.97	0	0	0	0	0	0
T 7614(131)	8.31	7.02	0	0	0	0	0	0
T 7615(131)	9.36	8.07	0	0	0	0	0	0
T 7616(131)	10.41	9.12	0	0	0	0	0	0
T 7617(131)	11.46	10.17	0	0	0	0	0	0
T 7618(131)	12.51	11.22	0	0	0	0	0	0
T 7619(131)	13.57	12.27	0	0	0	0	0	0
T 7620(131)	14.62	13.32	0	0	0	0	0	0
T 7621(131)	15.67	14.39	0	0	0	0	0	0
T 7622(131)	16.72	15.43	0	0	0	0	0	0
T 7623(131)	17.77	16.48	0	0	0	0	0	0
T 7624(131)	18.80	17.50	0	0	0	0	0	0
T 7625(131)	19.85	18.56	0	0	0	0	0	0
T 7626(131)	20.90	19.61	0	0	0	0	0	0
T 7627(131)	21.95	20.66	0	0	0	0	0	0
T 7628(131)	23.00	21.71	0	0	0	0	0	0
T 7629(131)	24.05	22.76	0	0	0	0	0	0
T 7630(131)	25.10	23.81	0	0	0	0	0	0

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NASA-RI STS CH25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(P.SIA)	TO(DEG R)	ALPHA-PODEL	ALPHA-SECTUM	ALPHA-PREHEND	ROLL-MODEL	YAW
26	3	ROCY FLUSH	7.90	112.2	1272	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.545	3760	1.109E-05	7.595E-08	5.488E 05	1.805E-02	5.463E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHUXCXX)	TBAR(TO)	BETA(TO)				
	346	131	0	0	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7631(131)	26.16	24.86	0	0	0	0	0	0	0
T 7632(131)	27.21	25.91	0	0	0	0	0	0	0
T 7633(131)	28.26	26.94	0	0	0	0	0	0	0
T 7634(131)	29.31	28.02	0	0	0	0	0	0	0
T 7635(131)	30.36	29.07	0	0	0	0	0	0	0
T 7636(131)	31.41	30.12	0	0	0	0	0	0	0
T 7637(131)	32.46	31.17	0	0	0	0	0	0	0
T 7638(131)	33.51	32.22	0	0	0	0	0	0	0
T 7639(131)	34.56	33.27	0	0	0	0	0	0	0
T 7640(131)	35.62	34.32	0	0	0	0	0	0	0
T 7641(131)	36.67	35.37	0	0	0	0	0	0	0
T 7642(131)	37.72	36.43	0	0	0	0	0	0	0
T 7643(131)	38.74	37.45	0	0	0	0	0	0	0
T 7644(131)	39.80	38.54	0	0	0	0	0	0	0
T 7645(131)	40.85	39.55	0	0	0	0	0	0	0
	41.05								
MODEL HAS LEFT CENTERLINE									
T 7646(131)	41.50	40.61	0	0	0	0	0	0	0
T 7647(131)	42.55	41.66	0	0	0	0	0	0	0
ERROR IN POWRF BASE<0 A = 6001000064653215 CALL FROM 72651									

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NASA-RI STS 0M25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREEND	ROLL-MODEL	YAW
27	4	LEADING EDGE	7.90	111.1	1272	30.01	-0.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.539	3759	1.098E-05	7.594E-08	5.436E 05	1.797E-02	5.489E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RH0XCXK)	TRAR(TO)	BETA(TO)				
	346	131	0	0	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7648(131)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 7649(131)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 7650(131)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.25						
T 7651(131)	3.08	1.81	0	0	0	0	0	0
T 7652(131)	4.13	2.87	0	0	0	0	0	0
T 7653(131)	5.16	3.89	0	0	0	0	0	0
T 7654(131)	6.21	4.94	0	0	0	0	0	0
T 7655(131)	7.26	5.99	0	0	0	0	0	0
T 7656(131)	8.21	7.04	0	0	0	0	0	0
T 7657(131)	9.36	8.10	0	0	0	0	0	0
T 7658(131)	10.41	9.15	0	0	0	0	0	0
T 7659(131)	11.46	10.20	0	0	0	0	0	0
T 7660(131)	12.51	11.25	0	0	0	0	0	0
T 7661(131)	13.57	12.30	0	0	0	0	0	0
T 7662(131)	14.62	13.35	0	0	0	0	0	0
T 7663(131)	15.67	14.40	0	0	0	0	0	0
T 7664(131)	16.72	15.45	0	0	0	0	0	0
T 7665(131)	17.77	16.51	0	0	0	0	0	0
T 7666(131)	18.82	17.56	0	0	0	0	0	0
T 7667(131)	19.87	18.61	0	0	0	0	0	0
T 7668(131)	20.92	19.66	0	0	0	0	0	0
T 7669(131)	21.98	20.71	0	0	0	0	0	0
T 7670(131)	23.03	21.76	0	0	0	0	0	0
T 7671(131)	24.05	22.79	0	0	0	0	0	0
T 7672(131)	25.10	23.84	0	0	0	0	0	0

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NASA-RI STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
27	4	LEADING EDGE	7.90	111.7	1272	30.01	-0.01	30.00	180.00	-0.00
T-IAF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.3	.012	.542	3759	1.104E-05	7.594E-08	5.465E 05	1.801E-02	5.474E-02		
CAMERA TOP(T)	ROLL NO 246	PAINT TEMP (DEG F) 131	INITIAL TEMP (DEG F) 0	SQUARE ROOT (RHOXCXK) 0	TBAR(TO) 0	BETA(TO) 0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7673(131)	26.16	24.89	0	0	0	0	0	0	
T 7674(131)	27.21	25.94	0	0	0	0	0	0	
T 7675(131)	28.26	26.99	0	0	0	0	0	0	
T 7676(131)	29.31	28.04	0	0	0	0	0	0	
T 7677(131)	30.36	29.10	0	0	0	0	0	0	
T 7678(131)	31.41	30.15	0	0	0	0	0	0	
T 7679(131)	32.46	31.20	0	0	0	0	0	0	
T 7680(131)	33.51	32.25	0	0	0	0	0	0	
T 7681(131)	34.56	33.30	0	0	0	0	0	0	
T 7682(131)	35.62	34.35	0	0	0	0	0	0	
T 7683(131)	36.67	35.40	0	0	0	0	0	0	
T 7684(131)	37.72	36.45	0	0	0	0	0	0	
T 7685(131)	38.77	37.50	0	0	0	0	0	0	
T 7686(131)	39.82	38.55	0	0	0	0	0	0	
T 7687(131)	40.87	39.61	0	0	0	0	0	0	
	41.00								
MODEL HAS LEFT CENTERLINE									
T 7688(131)	41.52	40.66	0	0	0	0	0	0	
T 7689(131)	42.57	41.71	0	0	0	0	0	0	
T 7690(131)	44.03	42.76	0	0	0	0	0	0	
ERROR IN POWRF BASE<0 A = 6001242123461063 CALL FROM 72651									

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NASA-RI STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH.NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
2R	4	LEADING EDGE	7.90	111.7	1268	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PStA)	Q-INF (PStA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LR-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.1	.012	.542	3754	1.107E-05	7.573E-08	5.498E 05	1.801E-02	5.465E-02		
CAMERA TOF(T)	ROLL NO 291	PAINT TEMP (DEG F) 131	INITIAL TEMP (DEG F) 0	SQUARE ROOT (RHOXCXK) 0	TBAR(TO) 0	BETA(TO) 0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7750(131)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 7751(131)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 7752(131)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.30								
T 7753(131)	3.08	1.79	0	0	0	0	0	0
T 7754(131)	4.10	2.81	0	0	0	0	0	0
T 7755(131)	5.16	3.84	0	0	0	0	0	0
T 7756(131)	6.21	4.91	0	0	0	0	0	0
T 7757(131)	7.26	5.97	0	0	0	0	0	0
T 7758(131)	8.31	7.02	0	0	0	0	0	0
T 7759(131)	9.36	8.07	0	0	0	0	0	0
T 7760(131)	10.41	9.12	0	0	0	0	0	0
T 7761(131)	11.46	10.17	0	0	0	0	0	0
T 7762(131)	12.49	11.21	0	0	0	0	0	0
T 7763(131)	13.54	12.25	0	0	0	0	0	0
T 7764(131)	14.59	13.30	0	0	0	0	0	0
T 7765(131)	15.64	14.35	0	0	0	0	0	0
T 7766(131)	16.69	15.40	0	0	0	0	0	0
T 7767(131)	17.75	16.45	0	0	0	0	0	0
T 7768(131)	18.80	17.50	0	0	0	0	0	0
T 7769(131)	19.85	18.56	0	0	0	0	0	0
T 7770(131)	20.90	19.61	0	0	0	0	0	0
T 7771(131)	21.95	20.66	0	0	0	0	0	0
T 7772(131)	23.00	21.71	0	0	0	0	0	0
T 7773(131)	24.05	22.76	0	0	0	0	0	0
T 7774(131)	25.10	23.81	0	0	0	0	0	0

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NASA-RI STS 0H25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
2R	4	LEADING EDGE	7.90	111.8	1268	40.02	-10.02	30.00	180.00	--00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
94.0	.012	.543	3754	1.108E-05	7.571E-08	5.495E 05	1.801E-02	5.462E-02

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	291	.131	0	0	0	0

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7775(131)	26.16	24.84	0	0	0	0	0	0	0	
T 7776(131)	27.18	25.89	0	0	0	0	0	0	0	
T 7777(131)	28.23	26.94	0	0	0	0	0	0	0	
T 7778(131)	29.28	27.99	0	0	0	0	0	0	0	
T 7779(131)	30.33	29.04	0	0	0	0	0	0	0	
T 7780(131)	31.39	30.09	0	0	0	0	0	0	0	
T 7781(131)	32.44	31.14	0	0	0	0	0	0	0	
T 7782(131)	33.49	32.20	0	0	0	0	0	0	0	
T 7783(131)	34.54	33.25	0	0	0	0	0	0	0	
T 7784(131)	35.59	34.30	0	0	0	0	0	0	0	
T 7785(131)	36.64	35.35	0	0	0	0	0	0	0	
T 7786(131)	37.69	36.40	0	0	0	0	0	0	0	
T 7787(131)	38.74	37.45	0	0	0	0	0	0	0	
T 7788(131)	39.80	38.50	0	0	0	0	0	0	0	
T 7789(131)	40.85	39.55	0	0	0	0	0	0	0	
T 7790(131)	41.87	40.58	0	0	0	0	0	0	0	
	42.47		MODEL HAS LEFT CENTERLINE							
T 7791(131)	42.52	41.63	0	0	0	0	0	0	0	
T 7792(131)	43.58	42.68	0	0	0	0	0	0	0	

ERROR IN FOWRF BASE<0 A = 6001000323264723 CALL FROM 72651

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8/21/74

NASA-RI STS 0M25A

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

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
29	S	TRANSITION	7.90	110.1	1267	30.03	-03	30.00	180.00	-00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT3)	(LR-SEC/FT2)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.0	.012	.534	3752	1.092E-05	7.564E-08	5.419E 05	1.787E-02	5.501E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCAK)	TBAR(TO)	BETA(TO)				
TOP(T)	291	131	0	0	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7793(131)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 7794(131)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 7795(131)	2.03		MODEL HAS NOT REACHED CENTERLINE						
IN-ECT TIME =	2.35								
T 7796(131)	3.05	1.73	0	0	0	0	0	0	0
T 7797(131)	4.10	2.78	0	0	0	0	0	0	0
T 7798(131)	5.16	3.84	0	0	0	0	0	0	0
T 7799(131)	6.21	4.89	0	0	0	0	0	0	0
T 7800(131)	7.26	5.94	0	0	0	0	0	0	0
T 7801(131)	8.31	6.99	0	0	0	0	0	0	0
T 7802(131)	9.34	8.01	0	0	0	0	0	0	0
T 7803(131)	10.39	9.07	0	0	0	0	0	0	0
T 7804(131)	11.44	10.12	0	0	0	0	0	0	0
T 7805(131)	12.49	11.17	0	0	0	0	0	0	0
T 7806(131)	13.54	12.22	0	0	0	0	0	0	0
T 7807(131)	14.59	13.27	0	0	0	0	0	0	0
T 7808(131)	15.64	14.32	0	0	0	0	0	0	0
T 7809(131)	16.69	15.37	0	0	0	0	0	0	0
T 7810(131)	17.75	16.42	0	0	0	0	0	0	0
T 7811(131)	18.80	17.48	0	0	0	0	0	0	0
T 7812(131)	19.85	18.53	0	0	0	0	0	0	0
T 7813(131)	20.90	19.58	0	0	0	0	0	0	0
T 7814(131)	21.95	20.63	0	0	0	0	0	0	0
T 7815(131)	23.00	21.68	0	0	0	0	0	0	0
T 7816(131)	24.05	22.73	0	0	0	0	0	0	0
T 7817(131)	25.08	23.76	0	0	0	0	0	0	0

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NASA-RI STS 0425A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
29	5	TRANSITION	7.90	111.1	1267	30.03	-03	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175ET)	SREF (R= .0175ET)		
94.0	.012	.539	3753	1.102E-05	7.566E-08	5.466E 05	1.795E-02	5.477E-02		
CAMEFA TOF (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TRAR(TO)	BETA(TO)				
	291	131	0	0	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7818(131)	26.13	24.81	0	0	0	0	0	0	0	
T 7819(131)	27.18	25.86	0	0	0	0	0	0	0	
T 7820(131)	28.23	26.91	0	0	0	0	0	0	0	
T 7821(131)	29.28	27.96	0	0	0	0	0	0	0	
T 7822(131)	30.33	29.01	0	0	0	0	0	0	0	
T 7823(131)	31.39	30.07	0	0	0	0	0	0	0	
T 7824(131)	32.44	31.12	0	0	0	0	0	0	0	
T 7825(131)	33.49	32.17	0	0	0	0	0	0	0	
T 7826(131)	34.54	33.22	0	0	0	0	0	0	0	
T 7827(131)	35.59	34.27	0	0	0	0	0	0	0	
T 7828(131)	36.64	35.32	0	0	0	0	0	0	0	
T 7829(131)	37.69	36.37	0	0	0	0	0	0	0	
T 7830(131)	38.72	37.41	0	0	0	0	0	0	0	
T 7831(131)	39.77	38.45	0	0	0	0	0	0	0	
T 7832(131)	40.82	39.51	0	0	0	0	0	0	0	
	41.75		MODEL HAS LEFT CENTERLINE							
T 7833(131)	41.87	40.55	0	0	0	0	0	0	0	
T 7834(131)	42.92	41.60	0	0	0	0	0	0	0	
T 7835(131)	43.98	42.65	0	0	0	0	0	0	0	

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NASA-RI STS 0M25A

AFDC(AND) (AC.) ARNOLD AFS, TENNESSEE
VON KARMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL #

V418-83A

GROUP	CONFIG	MODEL	MACH NO	P0 (PSIA)	T0 (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
30	5	TRANSITION	7.90	110.6	1266	40.03	-10.03	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
93.9	.012	.537	3752	1.098E-05	7.562E-08	5.445E 05	1.791E-02	5.487E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TRAR(TO)	BETA(TO)				
TOP(T)	291	131	0	0	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7836(131)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 7837(131)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 7838(131)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.28								
T 7839(131)	3.08	1.86	0	0	0	0	0	0
T 7840(131)	4.10	2.82	0	0	0	0	0	0
T 7841(131)	5.16	3.88	0	0	0	0	0	0
T 7842(131)	6.21	4.93	0	0	0	0	0	0
T 7843(131)	7.26	5.98	0	0	0	0	0	0
T 7844(131)	8.31	7.03	0	0	0	0	0	0
T 7845(131)	9.36	8.08	0	0	0	0	0	0
T 7846(131)	10.41	9.13	0	0	0	0	0	0
T 7847(131)	11.46	10.18	0	0	0	0	0	0
T 7848(131)	12.49	11.21	0	0	0	0	0	0
T 7849(131)	13.57	12.29	0	0	0	0	0	0
T 7850(131)	14.59	13.31	0	0	0	0	0	0
T 7851(131)	15.64	14.34	0	0	0	0	0	0
T 7852(131)	16.69	15.42	0	0	0	0	0	0
T 7853(131)	17.75	16.47	0	0	0	0	0	0
T 7854(131)	18.80	17.52	0	0	0	0	0	0
T 7855(131)	19.85	18.57	0	0	0	0	0	0
T 7856(131)	20.90	19.62	0	0	0	0	0	0
T 7857(131)	21.95	20.67	0	0	0	0	0	0
T 7858(131)	23.00	21.72	0	0	0	0	0	0
T 7859(131)	24.05	22.77	0	0	0	0	0	0
T 7860(131)	25.10	23.82	0	0	0	0	0	0

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NASA-R1 STS 0M25A

AFDC(AHO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL R

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREEND	ROLL-MODEL	YAW
30	S	TRANSITION	7.90	111.6	1266	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI=1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
93.9	.012	.542	3752	1.107E-05	7.562E-08	5.494E 05	1.799E-02	5.463E-02		
CAMERA TOP(T)	ROLL NO 291	PAINT TEMP (DEG F) .131	INITIAL TEMP (DEG F) 0	SQUARE ROOT (RHUXCXK) 0	TBAR(TO) 0	BETA(TO) 0				

PTC NO.	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7861(131)	26.16	24.88	0	0	0	0	0	0	0	
T 7862(131)	27.21	25.93	0	0	0	0	0	0	0	
T 7863(131)	28.26	26.98	0	0	0	0	0	0	0	
T 7864(131)	29.31	28.03	0	0	0	0	0	0	0	
T 7865(131)	30.36	29.08	0	0	0	0	0	0	0	
T 7866(131)	31.41	30.13	0	0	0	0	0	0	0	
T 7867(131)	32.46	31.18	0	0	0	0	0	0	0	
T 7868(131)	33.51	32.23	0	0	0	0	0	0	0	
T 7869(131)	34.56	33.29	0	0	0	0	0	0	0	
T 7870(131)	35.62	34.34	0	0	0	0	0	0	0	
T 7871(131)	36.64	35.36	0	0	0	0	0	0	0	
T 7872(131)	37.69	36.41	0	0	0	0	0	0	0	
T 7873(131)	38.74	37.47	0	0	0	0	0	0	0	
	39.40		MODEL HAS LEFT CENTERLINE							
T 7874(131)	39.60	38.52	0	0	0	0	0	0	0	
T 7875(131)	40.65	39.57	0	0	0	0	0	0	0	
T 7876(131)	41.60	40.62	0	0	0	0	0	0	0	
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NASA-R1 STS-0M25A
V418-R3A

AEDC(AHD-1AC.) ARNOLD AFS, TENNESSEE
VON KARMAN GAS DYNAMICS FACILITY
50 INCH HYPERSONIC TUNNEL R

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
31	1	ORBITER	7.90	111.2	1266	30.03	-0.03	30.00	180.00	-0.00
T-INF	P-INF	O-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LBM-SEC/FT ²)	(FT-1)	(R= .0175FT)	(H= .0175FT)		
93.4	.012	.540	3750	1.104E-05	7.557E-08	5.480E 05	1.796E-02	5.671E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOCXCK)	THAR(TO)	BETA(TO)				
TOP(T)	291	131	0	0	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7877(131)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 7878(131)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 7879(131)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.30									
T 7880(131)	3.08	1.79	0	0	0	0	0	0	
T 7881(131)	4.13	2.84	0	0	0	0	0	0	
T 7882(131)	5.16	3.86	0	0	0	0	0	0	
T 7883(131)	6.21	4.91	0	0	0	0	0	0	
T 7884(131)	7.26	5.97	0	0	0	0	0	0	
T 7885(131)	8.31	7.02	0	0	0	0	0	0	
T 7886(131)	9.36	8.07	0	0	0	0	0	0	
T 7887(131)	10.41	9.12	0	0	0	0	0	0	
T 7888(131)	11.46	10.17	0	0	0	0	0	0	
T 7889(131)	12.51	11.22	0	0	0	0	0	0	
T 7890(131)	13.57	12.27	0	0	0	0	0	0	
T 7891(131)	14.62	13.32	0	0	0	0	0	0	
T 7892(131)	15.67	14.38	0	0	0	0	0	0	
T 7893(131)	16.69	15.44	0	0	0	0	0	0	
T 7894(131)	17.75	16.49	0	0	0	0	0	0	
T 7895(131)	18.80	17.54	0	0	0	0	0	0	
T 7896(131)	19.85	18.59	0	0	0	0	0	0	
T 7897(131)	20.90	19.64	0	0	0	0	0	0	
T 7898(131)	21.95	20.69	0	0	0	0	0	0	
T 7899(131)	23.00	21.71	0	0	0	0	0	0	
T 7900(131)	24.05	22.76	0	0	0	0	0	0	
T 7901(131)	25.10	23.81	0	0	0	0	0	0	

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NASA-RI STS 0N25A

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

V41B-83A

GRUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
31	1	OREITER	7.90	111.9	1266	30.03	-0.03	30.00	180.00	-0.00
T-IAF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
93.9	.012	.543	3751	1.111E-05	7.554E-08	5.513E 05	1.802E-02	5.454E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCCK)	TBAR(TO)	BETA(TO)				
	291	131	0	0	0	0				

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PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 7902(131)	26.16	24.84	0	0	0	0	0	0	0	
T 7903(131)	27.21	25.91	0	0	0	0	0	0	0	
T 7904(131)	28.23	26.94	0	0	0	0	0	0	0	
T 7905(131)	29.28	27.99	0	0	0	0	0	0	0	
T 7906(131)	30.33	29.04	0	0	0	0	0	0	0	
T 7907(131)	31.39	30.09	0	0	0	0	0	0	0	
T 7908(131)	32.44	31.14	0	0	0	0	0	0	0	
T 7909(131)	33.49	32.20	0	0	0	0	0	0	0	
T 7910(131)	34.54	33.25	0	0	0	0	0	0	0	
T 7911(131)	35.59	34.30	0	0	0	0	0	0	0	
T 7912(131)	36.64	35.35	0	0	0	0	0	0	0	
T 7913(131)	37.69	36.40	0	0	0	0	0	0	0	
T 7914(131)	38.74	37.45	0	0	0	0	0	0	0	
T 7915(131)	39.80	38.50	0	0	0	0	0	0	0	
T 7916(131)	40.85	39.55	0	0	0	0	0	0	0	
	41.75		MODEL HAS LEFT CENTERLINE							
T 7917(131)	41.90	40.61	0	0	0	0	0	0	0	
T 7918(131)	42.95	41.66	0	0	0	0	0	0	0	
T 7919(131)	44.00	42.71	0	0	0	0	0	0	0	
T 7920(131)	45.05	43.76	0	0	0	0	0	0	0	

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A = 6001242214734237 CALL FROM 72651

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NASA-R[STS 0H25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PZIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
32	1	ORBITER	7.90	111.6	1265	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
92.8	.012	.542	3750	1.109E-05	7.555E-08	5.502E 05	1.799E-02	5.460E-02		
CAMERA TOP(T)	ROLL NO 291	PAINT TEMP (DEG F) 131	INITIAL TEMP (DEG F) 0	SQUARE ROOT (RHOQXK) 0	TBAR(TO) 0	BETA(TO) 0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(10)	
T 7921(131)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 7922(131)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 7923(131)	2.05	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.20									
T 7924(131)	3.08	0	0	0	0	0	0	0	
T 7925(131)	4.13	0	0	0	0	0	0	0	
T 7926(131)	5.18	0	0	0	0	0	0	0	
T 7927(131)	6.23	0	0	0	0	0	0	0	
T 7928(131)	7.28	0	0	0	0	0	0	0	
T 7929(131)	8.21	0	0	0	0	0	0	0	
T 7930(131)	9.26	0	0	0	0	0	0	0	
T 7931(131)	10.41	0	0	0	0	0	0	0	
T 7932(131)	11.46	0	0	0	0	0	0	0	
T 7933(131)	12.51	0	0	0	0	0	0	0	
T 7934(131)	13.57	0	0	0	0	0	0	0	
T 7935(131)	14.62	0	0	0	0	0	0	0	
T 7936(131)	15.67	0	0	0	0	0	0	0	
T 7937(131)	16.72	0	0	0	0	0	0	0	
T 7938(131)	17.77	0	0	0	0	0	0	0	
T 7939(131)	18.82	0	0	0	0	0	0	0	
T 7940(131)	19.87	0	0	0	0	0	0	0	
T 7941(131)	20.92	0	0	0	0	0	0	0	
T 7942(131)	21.95	0	0	0	0	0	0	0	
T 7943(131)	23.00	0	0	0	0	0	0	0	
T 7944(131)	24.05	0	0	0	0	0	0	0	
T 7945(131)	25.10	0	0	0	0	0	0	0	

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NASA-R1 STS 0M25A

AEDC(ARD) INC. ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 30 INCH HYPERSONIC TUNNEL #

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
32	1	ORBITER	7.90	112.5	1265	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RMO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (H= .0175FT)	STREF (H= .0175FT)		
93.8	.012	.546	3750	1.117E-05	7.550E-08	5.546E 05	1.806E-02	5.438E-02		
CAMERA TOF (I)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RH0XCCK)	TBAR(TO)	BETA(TO)				
	291	131	0	0	0	0				

PIC NO	TIME DELT	H(I0)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(I0)	
T 7946(131)	26.16	24.92	0	0	0	0	0	0	
T 7947(131)	27.23	25.99	0	0	0	0	0	0	
T 7948(131)	28.26	27.02	0	0	0	0	0	0	
T 7949(131)	29.31	28.07	0	0	0	0	0	0	
T 7950(131)	30.36	29.12	0	0	0	0	0	0	
T 7951(131)	31.41	30.17	0	0	0	0	0	0	
T 7952(131)	32.46	31.23	0	0	0	0	0	0	
T 7953(131)	33.51	32.28	0	0	0	0	0	0	
T 7954(131)	34.56	33.33	0	0	0	0	0	0	
T 7955(131)	35.62	34.38	0	0	0	0	0	0	
T 7956(131)	36.67	35.43	0	0	0	0	0	0	
T 7957(131)	37.72	36.48	0	0	0	0	0	0	
T 7958(131)	38.77	37.53	0	0	0	0	0	0	
T 7959(131)	39.82	38.58	0	0	0	0	0	0	
T 7960(131)	40.87	39.64	0	0	0	0	0	0	
	41.50								
MODEL HAS LEFT CENTERLINE									
T 7961(131)	41.92	40.69	0	0	0	0	0	0	
T 7962(131)	42.97	41.74	0	0	0	0	0	0	
T 7963(131)	44.00	42.76	0	0	0	0	0	0	

ERROR IN POWRF BASE<0 A = 6001000323264723 CALL FROM 72651

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8/21/74

NASA-RI STS 0M25A

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

V41B-93A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
33	2	40 PERCENT	7.90	112.4	1265	30.03	-0.03	30.00	180.00	-0.00
T-YAW	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PStA)	(PStA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(H= .0175FT)	(H= .0175FT)		
93.8	.012	.546	3749	1.117E-05	7.551E-08	5.546E 05	1.405E-02	5.439E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TRAR(TO)	BETA(TO)				
TOP(T)	291	131	0	0	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7964(131)	.03							
T 7965(131)	1.00							
T 7966(131)	2.03							
INJECT TIME = 2.30								
T 7967(131)	3.08	1.79	0	0	0	0	0	0
T 7968(131)	4.13	2.84	0	0	0	0	0	0
T 7969(131)	5.18	3.89	0	0	0	0	0	0
T 7970(131)	6.23	4.94	0	0	0	0	0	0
T 7971(131)	7.28	5.99	0	0	0	0	0	0
T 7972(131)	8.33	7.04	0	0	0	0	0	0
T 7973(131)	9.36	8.07	0	0	0	0	0	0
T 7974(131)	10.41	9.12	0	0	0	0	0	0
T 7975(131)	11.46	10.17	0	0	0	0	0	0
T 7976(131)	12.51	11.22	0	0	0	0	0	0
T 7977(131)	13.57	12.27	0	0	0	0	0	0
T 7978(131)	14.62	13.32	0	0	0	0	0	0
T 7979(131)	15.67	14.38	0	0	0	0	0	0
T 7980(131)	16.72	15.43	0	0	0	0	0	0
T 7981(131)	17.77	16.48	0	0	0	0	0	0
T 7982(131)	18.82	17.53	0	0	0	0	0	0
T 7983(131)	19.87	18.58	0	0	0	0	0	0
T 7984(131)	20.92	19.63	0	0	0	0	0	0
T 7985(131)	21.98	20.68	0	0	0	0	0	0
T 7986(131)	23.03	21.73	0	0	0	0	0	0
T 7987(131)	24.08	22.78	0	0	0	0	0	0
T 7988(131)	25.10	23.81	0	0	0	0	0	0

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NASA-RI STS 0M25A

AEDC(AHD, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL 4

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
33	2	40 PERCENT	7.90	112.1	1265	30.03	-03	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (H= .0175FT)		
93.8	.012	.544	3749	1.114E-05	7.551E-08	5.531E 05	1.803E-02	5.446E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
	291	131	0	0	0	0				

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PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 7989(131)	26.16	24.86	0	0	0	0	0	0	0
T 7990(131)	27.21	25.91	0	0	0	0	0	0	0
T 7991(131)	28.26	26.96	0	0	0	0	0	0	0
T 7992(131)	29.31	28.02	0	0	0	0	0	0	0
T 7993(131)	30.36	29.07	0	0	0	0	0	0	0
T 7994(131)	31.41	30.12	0	0	0	0	0	0	0
T 7995(131)	32.46	31.17	0	0	0	0	0	0	0
T 7996(131)	33.51	32.22	0	0	0	0	0	0	0
T 7997(131)	34.56	33.27	0	0	0	0	0	0	0
T 7998(131)	35.62	34.32	0	0	0	0	0	0	0
T 7999(131)	36.67	35.37	0	0	0	0	0	0	0
T 8000(131)	37.72	36.43	0	0	0	0	0	0	0
T 8001(131)	38.77	37.48	0	0	0	0	0	0	0
T 8002(131)	39.82	38.53	0	0	0	0	0	0	0
T 8003(131)	40.87	39.58	0	0	0	0	0	0	0
T 8004(131)	41.92	40.63	0	0	0	0	0	0	0
	42.97								
	44.03								
	45.08								
	47.60								
	42.97	41.68							
	44.03	42.73							
	45.08	43.78							

ERROR IN POWRF BASE<0 A = 6001241612743472 CALL FROM 72651

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 8/21/74

NASA-R1 STS 0M25A

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

V412-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
34	2	40 PERCENT	7.90	110.4	1264	40.00	-10.00	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
93.7	.012	.536	3748	1.098E-05	7.540E-08	5.454E 05	1.789E-02	5.485E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TRAR(TO)	BETA(TO)				
TOF (T)	291	131	0	0	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8008(131)	0							
T 8009(131)	1.00							
T 8010(131)	2.03							
INJECT TIME = 2.33								
T 8011(131)	3.05	1.75	0	0	0	0	0	0
T 8012(131)	4.10	2.80	0	0	0	0	0	0
T 8013(131)	5.16	3.85	0	0	0	0	0	0
T 8014(131)	6.21	4.90	0	0	0	0	0	0
T 8015(131)	7.26	5.95	0	0	0	0	0	0
T 8016(131)	8.31	7.00	0	0	0	0	0	0
T 8017(131)	9.36	8.05	0	0	0	0	0	0
T 8018(131)	10.41	9.11	0	0	0	0	0	0
T 8019(131)	11.46	10.16	0	0	0	0	0	0
T 8020(131)	12.51	11.21	0	0	0	0	0	0
T 8021(131)	13.57	12.26	0	0	0	0	0	0
T 8022(131)	14.62	13.31	0	0	0	0	0	0
T 8023(131)	15.67	14.36	0	0	0	0	0	0
T 8024(131)	16.69	15.39	0	0	0	0	0	0
T 8025(131)	17.75	16.44	0	0	0	0	0	0
T 8026(131)	18.80	17.49	0	0	0	0	0	0
T 8027(131)	19.85	18.54	0	0	0	0	0	0
T 8028(131)	20.90	19.59	0	0	0	0	0	0
T 8029(131)	21.98	20.67	0	0	0	0	0	0
T 8030(131)	23.00	21.69	0	0	0	0	0	0
T 8031(131)	24.05	22.75	0	0	0	0	0	0
T 8032(131)	25.10	23.80	0	0	0	0	0	0

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NASA-R1 STS 0H25A

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

V41R-93A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
34	2	40 PERCENT	7.90	111.3	1264	40.00	-10.00	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (F1-1)	HREF (R= .0175F1)	STREF (R= .0175F1)		
93.7	.012	.540	3748	1.107E-05	7.546E-08	5.498E 05	1.796E-02	5.463E-02		
CAMERA IOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOACXK)	TRAR (TO)	BETA (TO)				
	291	131	0	0	0	0				

PIC NO	TIME	DELTIME	H (TO)	H (TO)/HREF	H (.9 TO)	H (.9 TO)/HREF	H (.867 TO)	H (.867 TO)/HREF	ST (TO)	
T 8033(131)	26.16	24.85	0	0	0	0	0	0	0	
T 8034(131)	27.21	25.90	0	0	0	0	0	0	0	
T 8035(131)	28.26	26.95	0	0	0	0	0	0	0	
T 8036(131)	29.31	28.00	0	0	0	0	0	0	0	
T 8037(131)	30.36	29.05	0	0	0	0	0	0	0	
T 8038(131)	31.41	30.10	0	0	0	0	0	0	0	
T 8039(131)	32.46	31.16	0	0	0	0	0	0	0	
T 8040(131)	33.51	32.21	0	0	0	0	0	0	0	
T 8041(131)	34.56	33.26	0	0	0	0	0	0	0	
T 8042(131)	35.62	34.31	0	0	0	0	0	0	0	
T 8043(131)	36.67	35.36	0	0	0	0	0	0	0	
T 8044(131)	37.72	36.41	0	0	0	0	0	0	0	
T 8045(131)	38.77	37.46	0	0	0	0	0	0	0	
T 8046(131)	39.80	38.49	0	0	0	0	0	0	0	
T 8047(131)	40.85	39.54	0	0	0	0	0	0	0	
T 8048(131)	41.90	40.59	0	0	0	0	0	0	0	
T 8049(131)	42.95	41.64	0	0	0	0	0	0	0	
T 8050(131)	44.03	42.72	0	0	0	0	0	0	0	
	44.80		MODEL HAS LEFT CENTERLINE							
T 8051(131)	45.05	43.75	0	0	0	0	0	0	0	
T 8052(131)	46.10	44.80	0	0	0	0	0	0	0	
ERROR IN POWER BASE<0 A = 5777266767644733 CALL FROM 72651										

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8/21/74

NASA-RI STS 0425A

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

V412-93A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
35	6	L R.C.WING	7.90	112.5	1262	40.01	-01	40.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
93.6	.012	.546	3745	1.121E-05	7.534E-08	5.570E 05	1.405E-02	5.429E-02		
CAMERA TOP(T)	ROLL NO 291	PAINT TEMP (DEG F) 131	INITIAL TEMP (DEG F) 79	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
				.0486	0	0				

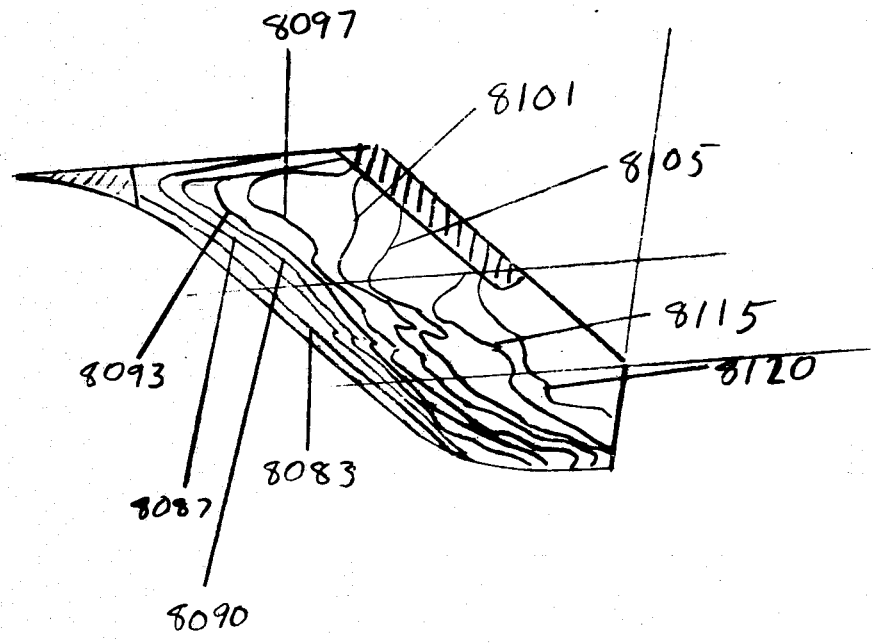
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8063(131)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 8064(131)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 8065(131)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.30							
T 8066(131)	3.08	1.79	2.459E-03	.1361	3.018E-03	.1671	3.264E-03	.1807	7.322E-03
T 8067(131)	4.13	2.84	1.951E-03	.1080	2.395E-03	.1325	2.590E-03	.1433	5.804E-03
T 8068(131)	5.18	3.89	1.666E-03	.0922	2.046E-03	.1132	2.212E-03	.1224	4.957E-03
T 8069(131)	6.23	4.94	1.478E-03	.0818	1.815E-03	.1004	1.963E-03	.1086	4.399E-03
T 8070(131)	7.28	5.99	1.342E-03	.0743	1.648E-03	.0912	1.782E-03	.0986	3.994E-03
T 8071(131)	8.33	7.04	1.238E-03	.0685	1.520E-03	.0841	1.644E-03	.0910	3.684E-03
T 8072(131)	9.29	8.09	1.155E-03	.0639	1.418E-03	.0784	1.533E-03	.0848	3.433E-03
	9.44		MODEL HAS LEFT CENTERLINE						
T 8073(131)	10.44	9.14	1.087E-03	.0601	1.334E-03	.0738	1.442E-03	.0798	3.230E-03
T 8074(131)	11.49	10.20	1.029E-03	.0569	1.263E-03	.0699	1.366E-03	.0755	3.056E-03
T 8075(131)	12.54	11.25	9.797E-04	.0542	1.203E-03	.0665	1.301E-03	.0719	2.910E-03
T 8076(131)	13.59	12.30	9.309E-04	.0518	1.150E-03	.0636	1.244E-03	.0687	2.780E-03

ERROR IN POWRF BASE<0 A = 5777266754106213 CALL FROM 72651

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ORIGINAL PAGE
OF POOR QUALITY

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Group 36

0291 - 8083

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8/21/74

NASA-RI STS 0M25A

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

V410-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	HOLL-MODEL	YAW
36	6	L R.C.WING	7.90	111.1	1261	40.01	-01	40.00	180.00	-00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FI-1)	(R= .0175FT)	(R= .0175FT)		
93.6	.012	.539	3744	1.107E-05	7.532E-08	5.503E 05	1.794E-02	5.462E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
TOP(T)	291	225	81	.052R	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8077(225)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8078(225)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 8079(225)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.28									
T 8080(225)	3.09	1.80	8.315E-03	.4627	1.052E-02	.5856	1.154E-02	.6420	2.488E-02
T 8081(225)	4.13	2.85	6.607E-03	.3676	8.362E-03	.4653	9.167E-03	.5101	1.976E-02
T 8082(225)	5.18	3.90	5.647E-03	.3141	7.148E-03	.3975	7.836E-03	.4358	1.688E-02
T 8083(225)	6.23	4.95	5.012E-03	.2786	6.344E-03	.3527	6.955E-03	.3866	1.497E-02
T 8084(225)	7.28	6.00	4.553E-03	.2531	5.762E-03	.3203	6.317E-03	.3512	1.359E-02
T 8085(225)	8.33	7.06	4.200E-03	.2335	5.316E-03	.2955	5.827E-03	.3240	1.254E-02
T 8086(225)	9.39	8.11	3.918E-03	.2178	4.959E-03	.2757	5.436E-03	.3022	1.170E-02
T 8087(225)	10.44	9.16	3.686E-03	.2047	4.666E-03	.2591	5.115E-03	.2841	1.099E-02
T 8088(225)	11.49	10.21	3.491E-03	.1940	4.419E-03	.2456	4.844E-03	.2692	1.042E-02
T 8089(225)	12.54	11.26	3.324E-03	.1846	4.208E-03	.2337	4.613E-03	.2562	9.910E-03
T 8090(225)	13.59	12.31	3.179E-03	.1765	4.024E-03	.2234	4.412E-03	.2449	9.469E-03
T 8091(225)	14.64	13.36	3.052E-03	.1694	3.863E-03	.2144	4.234E-03	.2351	9.089E-03
T 8092(225)	15.69	14.41	2.938E-03	.1631	3.719E-03	.2064	4.077E-03	.2263	8.743E-03
T 8093(225)	16.74	15.47	2.837E-03	.1575	3.590E-03	.1993	3.936E-03	.2185	8.448E-03
T 8094(225)	17.80	16.52	2.745E-03	.1523	3.474E-03	.1928	3.809E-03	.2114	8.168E-03
T 8095(225)	18.85	17.57	2.662E-03	.1477	3.369E-03	.1869	3.693E-03	.2049	7.920E-03
T 8096(225)	19.90	18.62	2.585E-03	.1434	3.272E-03	.1815	3.587E-03	.1990	7.686E-03
T 8097(225)	20.95	19.67	2.515E-03	.1395	3.184E-03	.1766	3.490E-03	.1936	7.478E-03
T 8098(225)	22.00	20.72	2.451E-03	.1359	3.102E-03	.1721	3.400E-03	.1886	7.286E-03
T 8099(225)	23.05	21.77	2.391E-03	.1326	3.026E-03	.1678	3.317E-03	.1839	7.102E-03
T 8100(225)	24.10	22.82	2.335E-03	.1294	2.954E-03	.1638	3.240E-03	.1796	6.930E-03
T 8101(225)	25.15	23.88	2.283E-03	.1265	2.890E-03	.1601	3.168E-03	.1756	6.776E-03

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8/21/74

NASA-R1 STS 0425A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH. NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREREND	ROLL-MODEL	YAW
36	6	L F.C.WING	7.90	112.4	1261	40.01	-.01	40.00	180.00	-.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
93.6	.012	.546	3744	1.120E-05	7.532E-08	5.567E 05	1.804E-02	5.430E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCAK)	TBAR (TO)	BETA (TO)				
	291	225	81	.052R	2.000E-01	2.1129E-01				

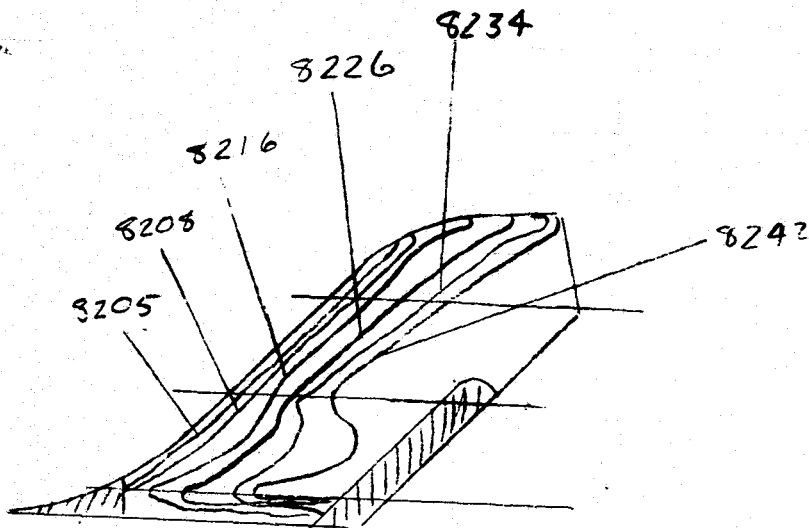
06

PTC NO.	TIME DELTIVE	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.867TO)	H (.867TO)/HREF	ST (TO)		
T 8102(225)	26.21	24.93	2.234E-03	.1238	2.828E-03	.1567	3.100E-03	.1718	6.631E-03	
T 8103(225)	27.26	25.92	2.189E-03	.1212	2.770E-03	.1535	3.037E-03	.1682	6.490E-03	
T 8104(225)	28.31	27.03	2.146E-03	.1189	2.716E-03	.1504	2.977E-03	.1649	6.362E-03	
T 8105(225)	29.36	28.08	2.105E-03	.1166	2.665E-03	.1476	2.921E-03	.1618	6.242E-03	
T 8106(225)	30.41	29.13	2.067E-03	.1144	2.616E-03	.1449	2.868E-03	.1588	6.123E-03	
T 8107(225)	31.46	30.18	2.031E-03	.1124	2.570E-03	.1423	2.814E-03	.1560	6.016E-03	
T 8108(225)	32.51	31.23	1.996E-03	.1105	2.526E-03	.1399	2.770E-03	.1534	5.914E-03	
T 8109(225)	33.56	32.28	1.963E-03	.1087	2.485E-03	.1375	2.724E-03	.1508	5.811E-03	
T 8110(225)	34.61	33.34	1.932E-03	.1069	2.446E-03	.1353	2.681E-03	.1483	5.714E-03	
T 8111(225)	35.67	34.39	1.902E-03	.1052	2.408E-03	.1332	2.640E-03	.1460	5.626E-03	
T 8112(225)	36.69	35.41	1.875E-03	.1037	2.373E-03	.1313	2.601E-03	.1439	5.544E-03	
T 8113(225)	37.74	36.46	1.847E-03	.1022	2.338E-03	.1294	2.563E-03	.1418	5.464E-03	
T 8114(225)	38.79	37.52	1.821E-03	.1008	2.305E-03	.1275	2.527E-03	.1398	5.387E-03	
T 8115(225)	39.85	38.57	1.796E-03	.0993	2.274E-03	.1257	2.493E-03	.1378	5.309E-03	
T 8116(225)	40.90	39.62	1.772E-03	.0980	2.243E-03	.1240	2.459E-03	.1360	5.237E-03	
T 8117(225)	41.95	40.67	1.749E-03	.0967	2.214E-03	.1224	2.427E-03	.1342	5.169E-03	
T 8118(225)	43.00	41.72	1.727E-03	.0955	2.186E-03	.1209	2.396E-03	.1325	5.103E-03	
T 8119(225)	44.05	42.77	1.706E-03	.0943	2.159E-03	.1194	2.367E-03	.1309	5.040E-03	
MODEL HAS LEFT CENTERLINE										
T 8120(225)	45.10	43.82	1.685E-03	.0931	2.133E-03	.1179	2.338E-03	.1292	4.975E-03	
T 8121(225)	46.15	44.87	1.665E-03	.0920	2.108E-03	.1164	2.311E-03	.1277	4.912E-03	
T 8122(225)	47.20	45.93	1.646E-03	.0910	2.084E-03	.1152	2.284E-03	.1263	4.864E-03	
T 8123(225)	48.26	46.98	1.628E-03	.0899	2.060E-03	.1139	2.258E-03	.1248	4.801E-03	

ERROR IN POWER BASE<0 A = 5777167657353043 CALL FROM 72651

GROUP 37

ORIGINAL PAGE IS
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GROUP 37
0318-8205

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8/21/74

NASA-RJ STS 0N25A

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

V418-93A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
37	6	L R.C.WING	7.90	112.2	1257	30.01	9.99	40.00	180.00	-0.00

T-IAF	P-IAF	Q-IAF	V-IAF	RHO-IAF	MU-IAF	RE/FT	HREF	STREF
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FI-1)	(R= .0175FI)	(R= .0175FI)
93.2	.012	.545	3737	1.122E-05	7.504E-08	5.589E 05	1.402E-02	5.423E-02

CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHO/CXK)	TRAR(TO)	BETA(TO)
TOP(T)	318	225	82	.0528	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8200(225)	0	MODEL HAS NOT REACHED CENTERLINE						
T 8201(225)	.58	MODEL HAS NOT REACHED CENTERLINE						
T 8202(225)	2.00	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.33								

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T 8203(225)	3.03	1.72	8.507E-03	.4721	1.078E-02	.5993	1.182E-02	.6563	2.525E-02
T 8204(225)	4.08	2.77	6.703E-03	.3720	8.494E-03	.4714	9.317E-03	.5172	1.990E-02
T 8205(225)	5.13	3.82	5.708E-03	.3168	7.233E-03	.4014	7.934E-03	.4404	1.694E-02
T 8206(225)	6.18	4.88	5.055E-03	.2805	6.406E-03	.3554	7.027E-03	.3898	1.499E-02
T 8207(225)	7.21	5.90	4.535E-03	.2549	5.822E-03	.3230	6.387E-03	.3543	1.363E-02
T 8208(225)	8.26	6.95	4.233E-03	.2348	5.364E-03	.2976	5.884E-03	.3264	1.255E-02
T 8209(225)	9.31	8.00	3.945E-03	.2189	4.999E-03	.2774	5.484E-03	.3043	1.170E-02
T 8210(225)	10.34	9.03	3.714E-03	.2060	4.707E-03	.2610	5.163E-03	.2863	1.101E-02
T 8211(225)	11.39	10.08	3.515E-03	.1949	4.455E-03	.2470	4.887E-03	.2710	1.042E-02
T 8212(225)	12.44	11.13	3.345E-03	.1855	4.239E-03	.2351	4.650E-03	.2579	9.912E-03
T 8213(225)	13.47	12.15	3.201E-03	.1774	4.056E-03	.2248	4.450E-03	.2466	9.477E-03
T 8214(225)	14.52	13.21	3.071E-03	.1702	3.892E-03	.2157	4.269E-03	.2356	9.092E-03
T 8215(225)	15.57	14.26	2.956E-03	.1638	3.745E-03	.2076	4.109E-03	.2277	8.750E-03
T 8216(225)	16.62	15.31	2.852E-03	.1582	3.615E-03	.2004	3.965E-03	.2199	8.452E-03
T 8217(225)	17.65	16.34	2.761E-03	.1531	3.499E-03	.1940	3.839E-03	.2129	8.183E-03
T 8218(225)	18.70	17.39	2.677E-03	.1484	3.392E-03	.1880	3.721E-03	.2062	7.925E-03
T 8219(225)	19.75	18.44	2.599E-03	.1441	3.294E-03	.1826	3.613E-03	.2003	7.695E-03
T 8220(225)	20.80	19.49	2.528E-03	.1401	3.204E-03	.1776	3.514E-03	.1948	7.485E-03
T 8221(225)	21.85	20.54	2.463E-03	.1365	3.121E-03	.1730	3.423E-03	.1897	7.291E-03
T 8222(225)	22.88	21.57	2.403E-03	.1332	3.045E-03	.1687	3.341E-03	.1851	7.109E-03
T 8223(225)	23.93	22.62	2.347E-03	.1301	2.974E-03	.1648	3.262E-03	.1808	6.948E-03
T 8224(225)	24.98	23.67	2.294E-03	.1272	2.907E-03	.1611	3.189E-03	.1768	6.792E-03

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8/21/74

NASA-RI STS 0M25A

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

V41B-83A

GRUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
37	6	L R.C.WING	7.90	112.5	1257	30.01	9.99	40.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (H= .0175FT)		
93.2	.012	.546	3737	1.125E-05	7.505E-08	5.602E 05	1.804E-02	5.416E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	318	225	82	.0528	2.001E-01	2.1140E-01				
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8225(225)	26.00	24.76	2.246E-03	.1244	2.846E-03	.1577	3.122E-03	.1730	6.644E-03	
T 8226(225)	27.06	25.75	2.200E-03	.1219	2.787E-03	.1544	3.058E-03	.1694	6.506E-03	
T 8227(225)	28.11	26.80	2.156E-03	.1195	2.732E-03	.1514	2.997E-03	.1660	6.377E-03	
T 8228(225)	29.16	27.85	2.115E-03	.1172	2.680E-03	.1486	2.940E-03	.1630	6.261E-03	
T 8229(225)	30.18	28.88	2.077E-03	.1151	2.632E-03	.1458	2.887E-03	.1600	6.144E-03	
T 8230(225)	31.24	29.93	2.040E-03	.1130	2.585E-03	.1432	2.836E-03	.1571	6.035E-03	
T 8231(225)	32.29	30.98	2.005E-03	.1111	2.541E-03	.1407	2.786E-03	.1544	5.926E-03	
T 8232(225)	33.24	32.03	1.972E-03	.1092	2.499E-03	.1384	2.741E-03	.1518	5.828E-03	
T 8233(225)	34.36	33.06	1.941E-03	.1076	2.460E-03	.1363	2.699E-03	.1495	5.743E-03	
T 8234(225)	35.44	34.13	1.911E-03	.1059	2.421E-03	.1341	2.656E-03	.1471	5.651E-03	
T 8235(225)	36.47	35.16	1.882E-03	.1043	2.385E-03	.1322	2.617E-03	.1450	5.568E-03	
T 8236(225)	37.52	36.21	1.855E-03	.1028	2.350E-03	.1302	2.578E-03	.1429	5.487E-03	
T 8237(225)	38.54	37.24	1.829E-03	.1013	2.318E-03	.1284	2.543E-03	.1408	5.406E-03	
T 8238(225)	39.62	38.31	1.803E-03	.0999	2.285E-03	.1265	2.507E-03	.1388	5.329E-03	
T 8239(225)	40.65	39.34	1.780E-03	.0986	2.255E-03	.1249	2.474E-03	.1371	5.264E-03	
T 8240(225)	41.70	40.39	1.756E-03	.0973	2.225E-03	.1233	2.441E-03	.1353	5.195E-03	
T 8241(225)	42.75	41.44	1.734E-03	.0960	2.197E-03	.1217	2.410E-03	.1335	5.124E-03	
T 8242(225)	43.78	42.47	1.713E-03	.0948	2.170E-03	.1202	2.381E-03	.1318	5.063E-03	
MODEL HAS LEFT CENTERLINE										
T 8243(225)	43.88	43.52	1.692E-03	.0937	2.144E-03	.1187	2.352E-03	.1302	5.000E-03	
T 8244(225)	44.83	44.57	1.672E-03	.0927	2.119E-03	.1174	2.324E-03	.1288	4.949E-03	

ERROR IN POWRF BASE<0 A = 5777167645517007 CALL FROM 72651

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8/21/74

NASA-RJ STS 0H25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
38	6	L F.C.WING	7.90	113.4	1257	30.01	9.99	40.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
93.2	.013	.550	3738	1.134E-05	7.507E-08	5.645E 05	1.811E-02	5.395E-02		
CAPEQA	ROLL NO	PAINT TEMP	(DEG F)	INITIAL TEMP	(DEG F)	SQUARE ROOT	(RHOXCKK)	TBAR(TO)	BETA(TO)	
TOP(T)	318		225		0		0	0	0	

PIC NO	TIME DELT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8252(225)	.03							
T 8253(225)	.58							
T 8254(225)	2.00							
IN-ECT TIME = 2.38								
T 8255(225)	3.05	1.72	0	0	0	0	0	0
T 8256(225)	4.08	2.74	0	0	0	0	0	0
T 8257(225)	5.13	3.80	0	0	0	0	0	0
T 8258(225)	6.16	4.82	0	0	0	0	0	0
T 8259(225)	7.21	5.87	0	0	0	0	0	0
T 8260(225)	8.26	6.92	0	0	0	0	0	0
T 8261(225)	9.29	7.95	0	0	0	0	0	0
T 8262(225)	10.34	9.00	0	0	0	0	0	0
T 8263(225)	11.39	10.05	0	0	0	0	0	0
T 8264(225)	12.41	11.09	0	0	0	0	0	0
T 8265(225)	13.47	12.13	0	0	0	0	0	0
T 8266(225)	14.52	13.18	0	0	0	0	0	0
T 8267(225)	15.54	14.21	0	0	0	0	0	0
T 8268(225)	16.59	15.26	0	0	0	0	0	0
T 8269(225)	17.65	16.31	0	0	0	0	0	0
T 8270(225)	18.67	17.34	0	0	0	0	0	0
T 8271(225)	19.72	18.39	0	0	0	0	0	0
T 8272(225)	20.77	19.44	0	0	0	0	0	0
T 8273(225)	21.83	20.49	0	0	0	0	0	0
T 8274(225)	22.85	21.52	0	0	0	0	0	0
T 8275(225)	23.90	22.57	0	0	0	0	0	0
T 8276(225)	24.95	23.62	0	0	0	0	0	0

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NASA-RJ STS 0H25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
38	6	L R.C. WING	7.90	113.5	1257	30.01	9.99	40.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
93.2	.013	.551	3738	1.135E-05	7.507E-04	5.650E-05	1.812E-02	5.393E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
TOP(T)	318	225	0	0	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8277(225)	25.98	24.65	0	0	0	0	0	0	0
T 8278(225)	27.03	25.73	0	0	0	0	0	0	0
T 8279(225)	28.08	26.75	0	0	0	0	0	0	0
T 8280(225)	29.13	27.80	0	0	0	0	0	0	0
T 8281(225)	30.16	28.82	0	0	0	0	0	0	0
T 8282(225)	31.21	29.88	0	0	0	0	0	0	0
T 8283(225)	32.26	30.93	0	0	0	0	0	0	0
T 8284(225)	33.29	31.95	0	0	0	0	0	0	0
T 8285(225)	34.34	33.00	0	0	0	0	0	0	0
T 8286(225)	35.39	34.06	0	0	0	0	0	0	0
T 8287(225)	36.44	35.11	0	0	0	0	0	0	0
T 8288(225)	37.47	36.17	0	0	0	0	0	0	0
T 8289(225)	38.52	37.18	0	0	0	0	0	0	0
T 8290(225)	39.57	38.24	0	0	0	0	0	0	0
T 8291(225)	40.60	39.26	0	0	0	0	0	0	0
T 8292(225)	41.65	40.31	0	0	0	0	0	0	0
T 8293(225)	42.70	41.36	0	0	0	0	0	0	0
T 8294(225)	43.75	42.42	0	0	0	0	0	0	0
T 8295(225)	44.78	43.44	0	0	0	0	0	0	0
T 8296(225)	45.83	44.49	0	0	0	0	0	0	0
T 8297(225)	46.88	45.54	0	0	0	0	0	0	0
T 8298(225)	47.93	46.60	0	0	0	0	0	0	0
T 8299(225)	48.96	47.62	0	0	0	0	0	0	0

MODEL HAS LEFT CENTERLINE

ERROR IN POWRF BASE<0

A = 57772667644733 CALL FROM 72651

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 * UNCLASSIFIED *

8/21/74

NASA-RTS OH25A

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

V418-R3A

GROUP	CONFIG	MODEL	MACH NO	PO(PSTIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
39	6	L R.C.WING	7.90	111.5	1257	40.01	-01	40.00	180.00	-00
T-INF (DEG R)	P-INF (PSTIA)	Q-INF (PSTIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R= .0175FT)	STREF (H= .0175FT)		
93.2	.012	.541	3738	1.115E-05	7.507E-08	5.551E 05	1.796E-02	5.441E-02		
CAMERA JOB(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	318	225	0	0	0	0				

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PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8303(225)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 8304(225)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 8305(225)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.30								
T 8306(225)	3.05	1.76	0	0	0	0	0	0
T 8307(225)	4.10	2.81	0	0	0	0	0	0
T 8308(225)	5.13	3.84	0	0	0	0	0	0
T 8309(225)	6.18	4.89	0	0	0	0	0	0
T 8310(225)	7.23	5.94	0	0	0	0	0	0
T 8311(225)	8.28	6.99	0	0	0	0	0	0
T 8312(225)	9.31	8.02	0	0	0	0	0	0
T 8313(225)	10.36	9.07	0	0	0	0	0	0
T 8314(225)	11.41	10.12	0	0	0	0	0	0
T 8315(225)	12.46	11.17	0	0	0	0	0	0
T 8316(225)	13.49	12.20	0	0	0	0	0	0
T 8317(225)	14.54	13.25	0	0	0	0	0	0
T 8318(225)	15.59	14.30	0	0	0	0	0	0
T 8319(225)	16.62	15.33	0	0	0	0	0	0
T 8320(225)	17.67	16.38	0	0	0	0	0	0
T 8321(225)	18.72	17.43	0	0	0	0	0	0
T 8322(225)	19.77	18.48	0	0	0	0	0	0
T 8323(225)	20.77	19.48	0	0	0	0	0	0
T 8324(225)	21.83	20.53	0	0	0	0	0	0
T 8325(225)	22.88	21.58	0	0	0	0	0	0
T 8326(225)	23.93	22.63	0	0	0	0	0	0
T 8327(225)	25.00	23.71	0	0	0	0	0	0

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8/21/74

NASA-R1 STS 0M25A

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

V41B-83A

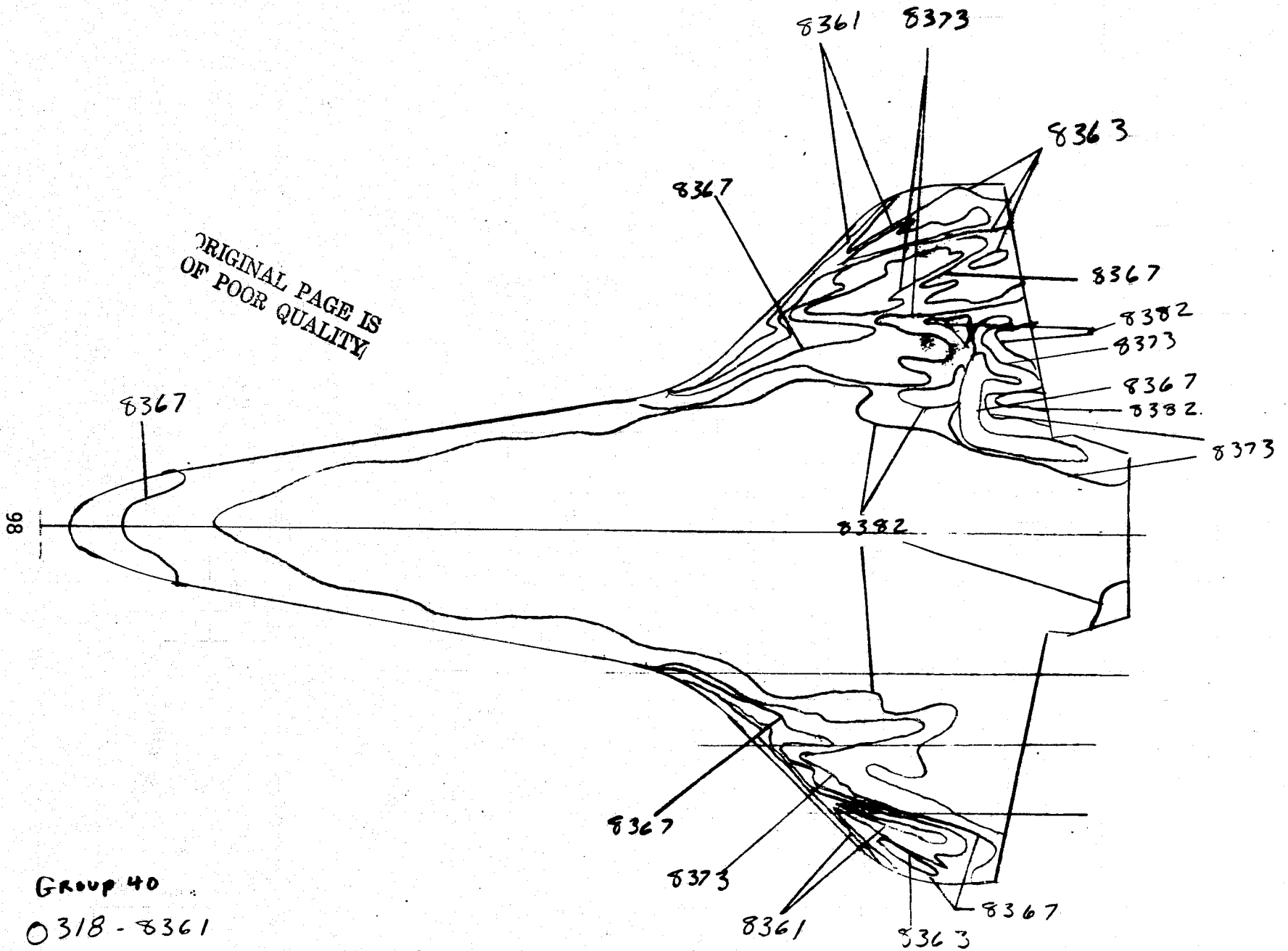
GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
39	6	L R.C. WING	7.90	112.3	1257	40.01	-01	40.00	180.00	-0.00
T-TAF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
93.2	.012	.545	3737	1.123E-05	7.504E-08	5.594E 05	1.802E-02	5.420E-02		

CAMERA	POLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOC)(AK)	TBAR(TO)	BETA(TO)
TOP(T)	318	225	0	0	0	0

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PTC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8328(225)	26.65	24.75	0	0	0	0	0	0	0	
T 8329(225)	27.68	25.79	0	0	0	0	0	0	0	
T 8330(225)	28.13	26.84	0	0	0	0	0	0	0	
T 8331(225)	29.18	27.89	0	0	0	0	0	0	0	
T 8332(225)	30.23	28.94	0	0	0	0	0	0	0	
T 8333(225)	31.26	29.97	0	0	0	0	0	0	0	
T 8334(225)	32.31	31.02	0	0	0	0	0	0	0	
T 8335(225)	33.36	32.07	0	0	0	0	0	0	0	
T 8336(225)	34.41	33.12	0	0	0	0	0	0	0	
T 8337(225)	35.44	34.15	0	0	0	0	0	0	0	
T 8338(225)	36.49	35.20	0	0	0	0	0	0	0	
T 8339(225)	37.54	36.25	0	0	0	0	0	0	0	
T 8340(225)	38.59	37.30	0	0	0	0	0	0	0	
T 8341(225)	39.62	38.33	0	0	0	0	0	0	0	
T 8342(225)	40.67	39.38	0	0	0	0	0	0	0	
T 8343(225)	41.72	40.43	0	0	0	0	0	0	0	
T 8344(225)	42.77	41.48	0	0	0	0	0	0	0	
	43.42		MODEL HAS LEFT CENTERLINE							
T 8345(225)	43.80	42.51	0	0	0	0	0	0	0	
T 8346(225)	44.85	43.56	0	0	0	0	0	0	0	
ERROR IN POWRF BASE<0			A = 6001000355615341 CALL FROM 72651							

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OF POOR QUALITY



Group 40

0318-8361

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8/21/74

NASA-RT SYS 0H25A

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

V41B-B3A

GROUP	CONFIG	MODEL	MACH NO	P0(PSIA)	T0(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
40	1	OREITER	7.98	432.8	1305	30.03	-.03	30.00	180.00	-.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.0	.045	2.009	3812	3.978E-05	7.651E-08	1.982E 06	3.483E-02	2.891E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCAK)	TBAR(TO)	BETA(TO)				
	218	300	83	.0544	0	0				
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.910)	H(.910)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 8357(300)	.03	MODEL HAS NOT REACHED CENTERLINE								
T 8358(300)	.98	MODEL HAS NOT REACHED CENTERLINE								
T 8359(300)	2.00	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME = 2.30										
T 8360(300)	3.05	1.76	1.348E-02	.3869	1.741E-02	.4909	1.928E-02	.5535	1.099E-02	
T 8361(300)	4.08	2.79	1.071E-02	.3075	1.384E-02	.3974	1.532E-02	.4399	8.733E-03	
T 8362(300)	5.13	3.84	9.129E-03	.2621	1.179E-02	.3346	1.306E-02	.3749	7.441E-03	
T 8363(300)	6.18	4.89	8.088E-03	.2321	1.045E-02	.2999	1.157E-02	.3320	6.588E-03	
T 8364(300)	7.23	5.94	7.338E-03	.2106	9.481E-03	.2721	1.050E-02	.3012	5.978E-03	
T 8365(300)	8.26	6.97	6.776E-03	.1945	8.755E-03	.2513	9.692E-03	.2782	5.522E-03	
T 8366(300)	9.31	8.02	6.316E-03	.1813	8.161E-03	.2342	9.035E-03	.2593	5.147E-03	
T 8367(300)	10.36	9.07	5.939E-03	.1704	7.673E-03	.2201	8.495E-03	.2437	4.834E-03	
T 8368(300)	11.39	10.10	5.629E-03	.1615	7.273E-03	.2087	8.052E-03	.2311	4.585E-03	
T 8369(300)	12.46	11.17	5.351E-03	.1535	6.914E-03	.1983	7.654E-03	.2196	4.355E-03	
T 8370(300)	13.49	12.20	5.121E-03	.1470	6.616E-03	.1899	7.325E-03	.2103	4.174E-03	
T 8371(300)	14.54	13.25	4.913E-03	.1410	6.348E-03	.1821	7.028E-03	.2017	4.000E-03	
T 8372(300)	15.59	14.30	4.729E-03	.1357	6.111E-03	.1754	6.764E-03	.1941	3.851E-03	
T 8373(300)	16.62	15.33	4.568E-03	.1311	5.903E-03	.1694	6.535E-03	.1875	3.720E-03	
T 8374(300)	17.67	16.38	4.419E-03	.1268	5.710E-03	.1639	6.321E-03	.1814	3.598E-03	
T 8375(300)	18.72	17.43	4.284E-03	.1229	5.535E-03	.1588	6.128E-03	.1758	3.488E-03	
T 8376(300)	19.77	18.48	4.160E-03	.1194	5.375E-03	.1543	5.951E-03	.1708	3.387E-03	
T 8377(300)	20.82	19.53	4.047E-03	.1161	5.229E-03	.1500	5.789E-03	.1661	3.293E-03	
T 8378(300)	21.85	20.56	3.945E-03	.1132	5.097E-03	.1463	5.642E-03	.1619	3.212E-03	
T 8379(300)	22.93	21.63	3.845E-03	.1104	4.968E-03	.1426	5.500E-03	.1579	3.132E-03	
T 8380(300)	23.95	22.66	3.757E-03	.1078	4.854E-03	.1393	5.374E-03	.1542	3.060E-03	
T 8381(300)	25.00	23.71	3.673E-03	.1054	4.746E-03	.1362	5.254E-03	.1508	2.991E-03	

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8/21/74

NASA-RITS OH25A

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

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
40	1	ORBITER	7.98	433.2	1304	30.03	-03	30.00	180.00	-00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
95.0	.045	2.010	3810	3.985E-05	7.645E-08	1.986E 06	3.484E-02	2.889E-02

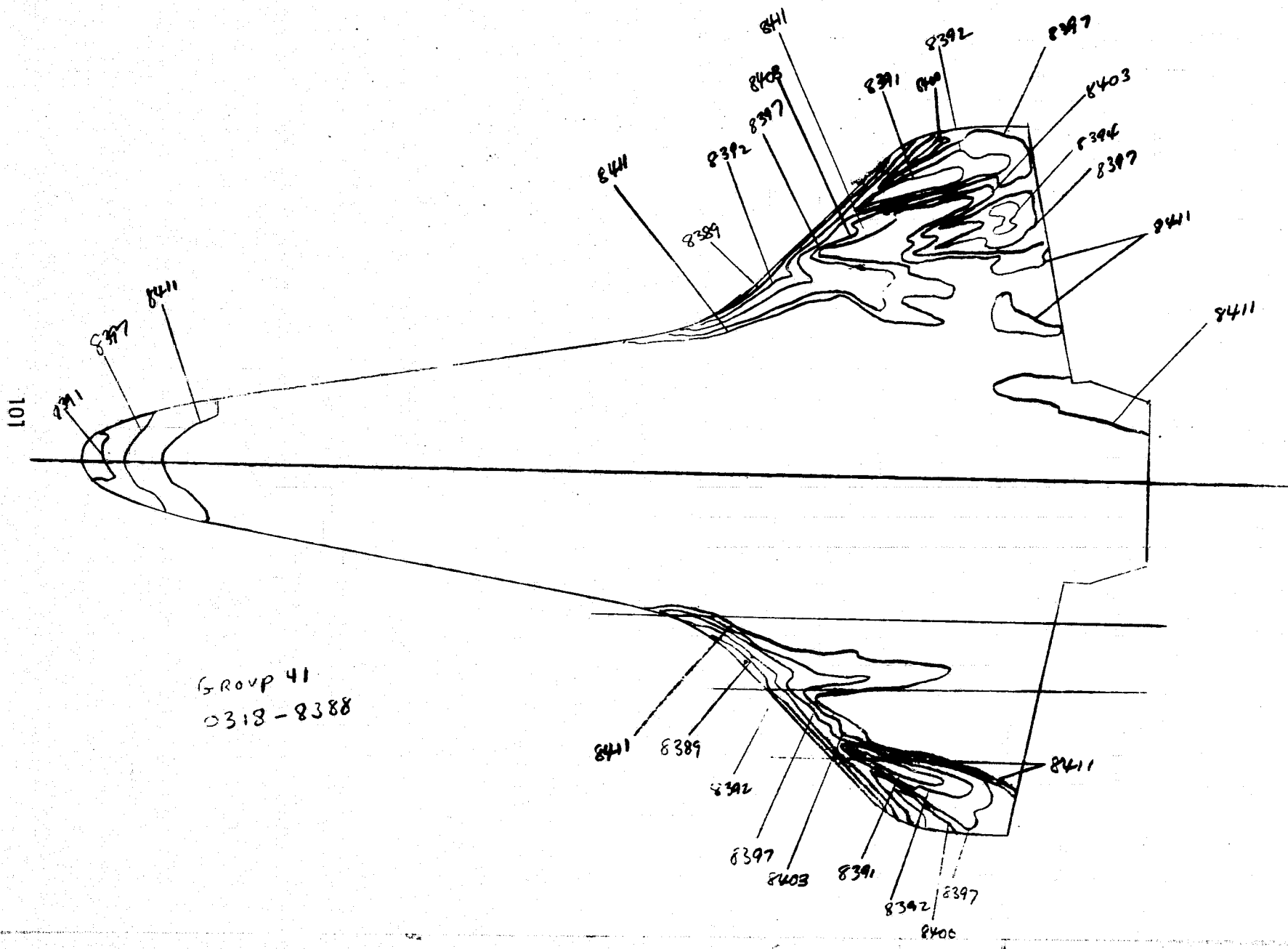
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	318	300	83	.0544	2.848E-01	3.2876E-01

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
	25.40	MODEL HAS LEFT CENTERLINE						
T 8382(300)	26.05	24.76	3.594E-03	.1031	4.644E-03	.1332	5.141E-03	.1475
T 8383(300)	27.08	25.79	3.522E-03	.1011	4.550E-03	.1306	5.038E-03	.1445
T 8384(300)	28.13	26.84	3.452E-03	.0990	4.460E-03	.1280	4.938E-03	.1417

ERROR IN POWRF BASE<0 A = 6001000323264723 CALL FROM 72651

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GROUP 41
0318-8388



GROUP 41
0318-8388

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8/21/74

NASA-R1 STS 0N25A

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

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
41	1	ORBITER	7.98	432.1	1294	30.03	-03	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	SIREF (R= .0175FT)		
94.2	.045	2.005	3795	4.007E-05	7.583E-08	2.005E 06	3.475E-02	2.878E-02		
CAMERA TOP (T)	ROLL NO 318	PAINT 350	TEMP (DEG F) 350	INITIAL TEMP (DEG F) 85	SQUARE ROOT (RHOXCK)	TBAR (TO)	BETA (TO)			
					.0550		0	0		
PIC NO	TIME DELT	H (TO)	H (TO)/HREF	H (.9 TO)	H (.9 TO)/HREF	H (.867 TO)	H (.867 TO)/HREF	ST (TO)		
T 8385 (350)	.03	MODEL HAS NOT REACHED CENTERLINE								
T 8386 (350)	1.00	MODEL HAS NOT REACHED CENTERLINE								
T 8387 (350)	2.03	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME	2.25									
T 8388 (350)	3.05	1.79	1.823E-02	.5247	2.429E-02	.6992	2.732E-02	.7862	1.480E-02	
T 8389 (350)	4.10	2.84	1.447E-02	.4163	1.928E-02	.5547	2.168E-02	.6238	1.173E-02	
T 8390 (350)	5.13	3.87	1.240E-02	.3569	1.652E-02	.4755	1.858E-02	.5347	1.006E-02	
T 8391 (350)	6.18	4.92	1.100E-02	.3164	1.465E-02	.4215	1.648E-02	.4740	8.916E-03	
T 8392 (350)	7.23	5.97	9.981E-03	.2872	1.330E-02	.3826	1.496E-02	.4302	8.092E-03	
T 8393 (350)	8.28	7.02	9.264E-03	.2647	1.226E-02	.3527	1.379E-02	.3966	7.458E-03	
T 8394 (350)	9.31	8.05	8.597E-03	.2473	1.145E-02	.3295	1.288E-02	.3706	6.970E-03	
T 8395 (350)	10.26	9.10	8.085E-03	.2325	1.077E-02	.3098	1.211E-02	.3484	6.552E-03	
T 8396 (350)	11.41	10.15	7.655E-03	.2201	1.020E-02	.2933	1.147E-02	.3298	6.201E-03	
T 8397 (350)	12.46	11.20	7.287E-03	.2096	9.709E-03	.2792	1.092E-02	.3140	5.903E-03	
T 8398 (350)	13.49	12.23	6.974E-03	.2005	9.293E-03	.2672	1.045E-02	.3005	5.649E-03	
T 8399 (350)	14.54	13.29	6.692E-03	.1925	8.917E-03	.2564	1.003E-02	.2884	5.422E-03	
T 9400 (350)	15.59	14.33	6.442E-03	.1853	8.584E-03	.2469	9.652E-03	.2776	5.219E-03	
T 9401 (350)	16.64	15.38	6.218E-03	.1788	8.285E-03	.2383	9.317E-03	.2679	5.038E-03	
T 9402 (350)	17.67	16.41	6.021E-03	.1731	8.022E-03	.2307	9.020E-03	.2594	4.875E-03	
T 9403 (350)	18.72	17.46	5.836E-03	.1678	7.777E-03	.2236	8.745E-03	.2514	4.724E-03	
T 9404 (350)	19.77	18.51	5.668E-03	.1630	7.553E-03	.2172	8.493E-03	.2442	4.590E-03	
T 9405 (350)	20.82	19.56	5.514E-03	.1586	7.347E-03	.2113	8.261E-03	.2376	4.467E-03	
T 9406 (350)	21.88	20.61	5.371E-03	.1544	7.157E-03	.2057	8.044E-03	.2313	4.346E-03	
T 9407 (350)	22.90	21.64	5.242E-03	.1507	6.985E-03	.2008	7.855E-03	.2258	4.243E-03	
T 9408 (350)	23.95	22.69	5.120E-03	.1472	6.822E-03	.1961	7.671E-03	.2205	4.144E-03	
T 9409 (350)	25.00	23.74	5.005E-03	.1439	6.669E-03	.1917	7.499E-03	.2155	4.050E-03	

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8/21/74

NASA-RI STS 0M25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
41	1	OREITER	7.98	433.2	1293	30.03	-03	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSTA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.2	.045	2.010	3794	4.019E-05	7.581E-08	2.012E 06	3.479E-02	2.874E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	318	350	85	.0550	3.541E-01	4.4337E-01				

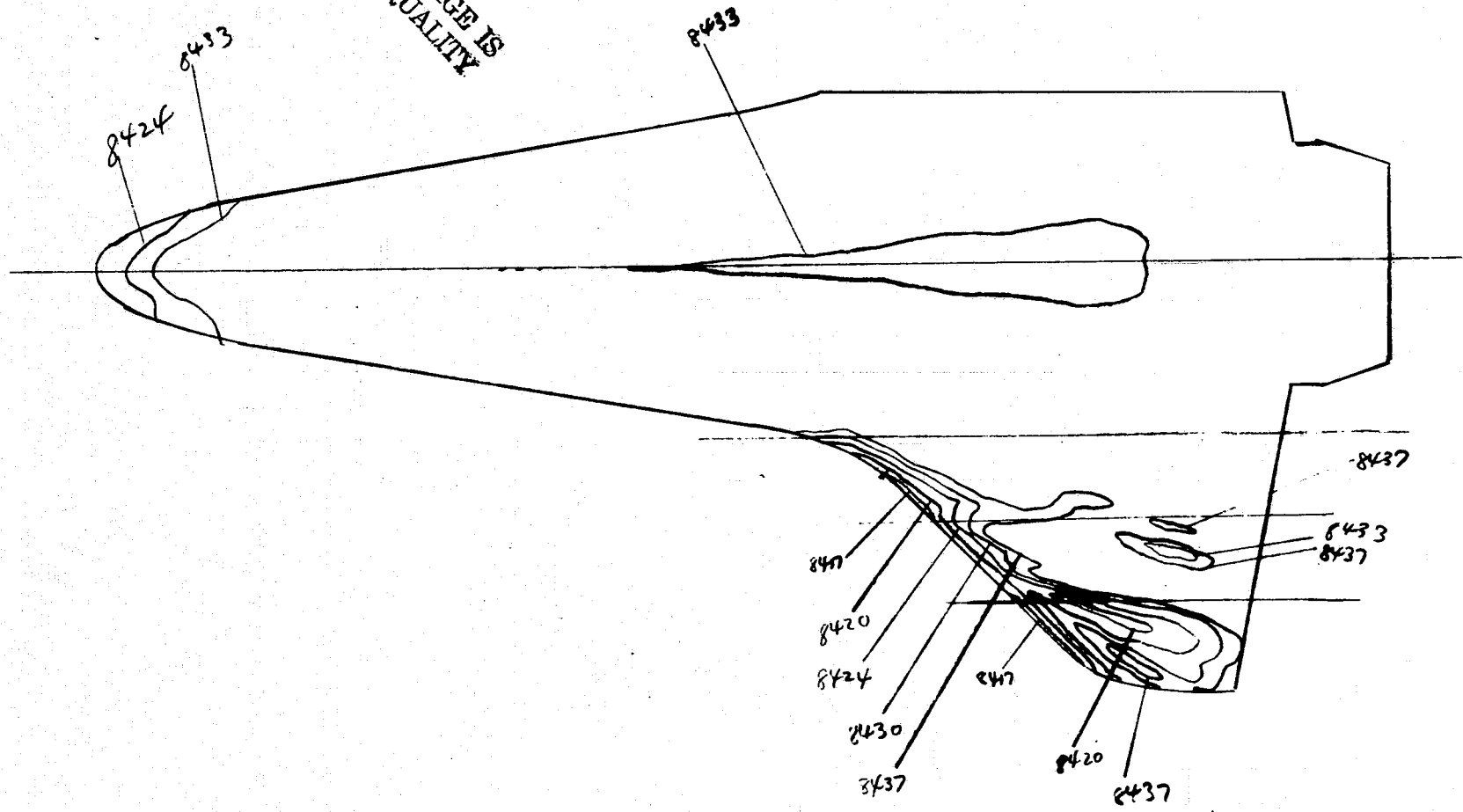
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8410(350)	26.05	24.79	4.898E-03	.1408	6.526E-03	.1876	7.338E-03	.2109	3.962E-03	
T 8411(350)	27.11	25.84	4.797E-03	.1379	6.392E-03	.1837	7.187E-03	.2066	3.883E-03	
T 8412(350)	28.13	26.87	4.705E-03	.1352	6.269E-03	.1802	7.049E-03	.2026	3.808E-03	
	28.46		MODEL HAS LEFT CENTERLINE							
T 8413(350)	29.18	27.92	4.615E-03	.1327	6.149E-03	.1767	6.915E-03	.1987	3.735E-03	
ERROR IN POWER BASE<0 A = 6001000117201053 CALL FROM 72651										

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GROUP 42
0318-8417

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8/21/74

NASA-RITS OH25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
42	2	40 PERCENT	7.98	431.1	1292	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	HE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.0	.045	2.001	3792	4.005E-05	7.570E-08	2.006E 06	3.470E-02	2.878E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RMCXCK)	TBAR(TO)	BETA(TO)				
	318	350	92	.0550	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8414(350)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8415(350)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 8416(350)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =	2.28								
T 8417(350)	3.08	1.87	1.844E-02	.5314	2.460E-02	.7086	2.767E-02	.7972	1.498E-02
T 8418(350)	4.10	2.83	1.472E-02	.4241	1.963E-02	.5656	2.208E-02	.6363	1.196E-02
T 8419(350)	5.16	3.88	1.257E-02	.3621	1.676E-02	.4829	1.885E-02	.5432	1.021E-02
T 8420(350)	6.21	4.93	1.115E-02	.3210	1.486E-02	.4281	1.672E-02	.4816	9.047E-03
T 8421(350)	7.23	5.95	1.014E-02	.2922	1.352E-02	.3897	1.521E-02	.4384	8.238E-03
T 8422(350)	8.28	7.01	9.349E-03	.2693	1.247E-02	.3591	1.402E-02	.4060	7.588E-03
T 8423(350)	9.34	8.06	8.717E-03	.2511	1.163E-02	.3348	1.308E-02	.3766	7.074E-03
T 8424(350)	10.39	9.11	8.199E-03	.2361	1.093E-02	.3149	1.230E-02	.3542	6.653E-03
T 8425(350)	11.41	10.13	7.773E-03	.2240	1.037E-02	.2987	1.166E-02	.3360	6.313E-03
T 8426(350)	12.46	11.19	7.398E-03	.2130	9.867E-03	.2841	1.110E-02	.3196	6.001E-03
T 8427(350)	13.49	12.21	7.081E-03	.2039	9.443E-03	.2720	1.052E-02	.3060	5.747E-03
T 8428(350)	14.54	13.26	6.794E-03	.1956	9.061E-03	.2609	1.019E-02	.2935	5.511E-03
T 8429(350)	15.59	14.31	6.540E-03	.1883	8.722E-03	.2511	9.812E-03	.2825	5.305E-03
T 8430(350)	16.62	15.34	6.318E-03	.1818	8.425E-03	.2425	9.478E-03	.2728	5.119E-03
T 8431(350)	17.67	16.39	6.112E-03	.1759	8.151E-03	.2346	9.169E-03	.2639	4.955E-03
T 8432(350)	18.72	17.44	5.925E-03	.1706	7.901E-03	.2275	8.888E-03	.2559	4.803E-03
T 8433(350)	19.77	18.49	5.754E-03	.1656	7.673E-03	.2208	8.632E-03	.2484	4.661E-03
T 8434(350)	20.80	19.52	5.601E-03	.1612	7.469E-03	.2150	8.402E-03	.2419	4.540E-03
T 8435(350)	21.85	20.57	5.456E-03	.1571	7.276E-03	.2094	8.185E-03	.2356	4.423E-03
T 8436(350)	22.90	21.62	5.321E-03	.1532	7.093E-03	.2043	7.983E-03	.2298	4.315E-03
T 8437(350)	23.95	22.67	5.197E-03	.1496	6.930E-03	.1995	7.796E-03	.2244	4.211E-03
T 8438(350)	24.98	23.70	5.083E-03	.1463	6.778E-03	.1951	7.625E-03	.2195	4.119E-03

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8/21/74

NASA-R1 STS 0M25A

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

V418-83A

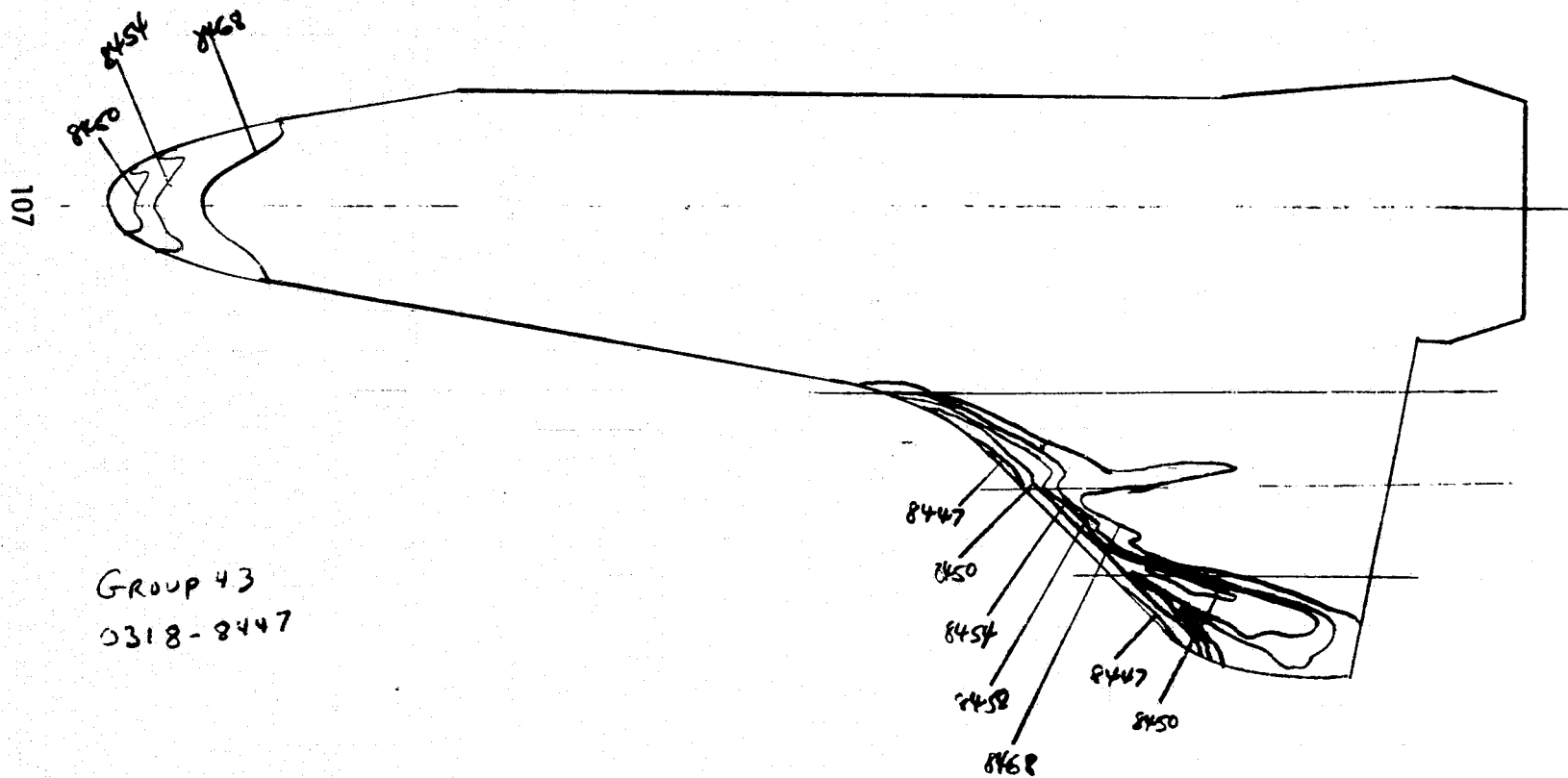
GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
42	2	40 PERCENT	7.98	432.3	1291	30.01	-01	30.00	180.00	-00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FI)	(R= .0175FT)		
90.0	.045	2.006	3791	4.017E-05	7.569E-08	2.012E 06	3.475E-02	2.874E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
TOF(T)	318	350	82	.0550	3.577E-01	4.4990E-01				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8439(350)	26.03	24.75	4.974E-03	.1432	6.633E-03	.1909	7.462E-03	.2148	4.031E-03
T 8440(350)	27.08	25.80	4.871E-03	.1402	6.496E-03	.1870	7.308E-03	.2104	3.949E-03
MODEL HAS LEFT CENTERLINE									
T 8441(350)	28.13	26.85	4.775E-03	.1374	6.368E-03	.1833	7.164E-03	.2061	3.868E-03
T 8442(350)	29.18	27.90	4.684E-03	.1349	6.247E-03	.1799	7.027E-03	.2023	3.799E-03
T 8443(350)	30.21	28.93	4.600E-03	.1324	6.135E-03	.1766	6.902E-03	.1986	3.727E-03
ERROR IN POWRF BASE<0 A = 6001000064653215 CALL FROM 72651									

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ORIGINAL PAGE IS
OF POOR QUALITY

GROUP 43
0318-8447



GROUP 43
0318-8447

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8/21/74

NASA-EI STS 0M25A

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

V438-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
43	3	RODY FLUSH	7.98	431.2	1293	30.01	-01	30.00	180.00	-0.00
T-INF	P-INF	O-INF	V-INF	RMO-INF	MU-INF	RE/FT'	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FT-1)	(R= .0175FT)	(K= .0175FT)		
94.1	.045	2.001	3794	4.001E-05	7.580E-08	2.003E 06	3.471E-02	2.880E-02		
CAMERA	ROLL NO	PAINT TEMP	(DEG F)	INITIAL TEMP	(DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)		
TOP(T)	218	350		82		.0550	0	0		

PIC NO	TIME DELINE	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8444(350)	.03			MODEL HAS NOT REACHED CENTERLINE					
T 8445(350)	1.00			MODEL HAS NOT REACHED CENTERLINE					
T 8446(350)	2.03			MODEL HAS NOT REACHED CENTERLINE					
INJECT TIME = 2.33									
T 8447(350)	3.08	1.77	1.852E-02	.9335	2.468E-02	.7109	2.775E-02	.7993	1.505E-02
T 8448(350)	4.10	2.80	1.474E-02	.4245	1.964E-02	.5656	2.206E-02	.6360	1.198E-02
T 8449(350)	5.16	3.85	1.257E-02	.3619	1.674E-02	.4822	1.883E-02	.5422	1.021E-02
T 8451(350)	6.18	4.88	1.117E-02	.3217	1.488E-02	.4286	1.673E-02	.4619	9.077E-03
T 8451(350)	7.23	5.93	1.013E-02	.2916	1.349E-02	.3886	1.517E-02	.4369	8.227E-03
T 8452(350)	8.28	6.99	9.333E-03	.2687	1.244E-02	.3581	1.392E-02	.4026	7.580E-03
T 8453(350)	9.34	8.03	8.700E-03	.2505	1.159E-02	.3338	1.304E-02	.3754	7.067E-03
T 8454(350)	10.36	9.06	8.193E-03	.2359	1.092E-02	.3143	1.227E-02	.3534	6.654E-03
T 8455(350)	11.41	10.11	7.755E-03	.2232	1.033E-02	.2974	1.162E-02	.3345	6.294E-03
T 8456(350)	12.46	11.16	7.380E-03	.2125	9.834E-03	.2832	1.106E-02	.3184	5.994E-03
T 8457(350)	13.52	12.21	7.056E-03	.2031	9.401E-03	.2706	1.057E-02	.3043	5.728E-03
T 8458(350)	14.54	13.23	6.777E-03	.1951	9.029E-03	.2599	1.015E-02	.2923	5.501E-03
T 8459(350)	15.59	14.29	6.522E-03	.1878	8.691E-03	.2502	9.772E-03	.2813	5.295E-03
T 8460(350)	16.64	15.34	6.295E-03	.1812	8.388E-03	.2415	9.431E-03	.2716	5.111E-03
T 8461(350)	17.67	16.36	6.094E-03	.1754	8.120E-03	.2337	9.131E-03	.2628	4.947E-03
T 8462(350)	18.72	17.41	5.908E-03	.1700	7.871E-03	.2266	8.851E-03	.2548	4.795E-03
T 8463(350)	19.77	18.47	5.737E-03	.1651	7.644E-03	.2200	8.595E-03	.2474	4.657E-03
T 8464(350)	20.82	19.52	5.580E-03	.1606	7.435E-03	.2140	8.361E-03	.2406	4.527E-03
T 8465(350)	21.85	20.54	5.439E-03	.1566	7.247E-03	.2086	8.149E-03	.2346	4.416E-03
T 8466(350)	22.90	21.59	5.305E-03	.1527	7.067E-03	.2034	7.948E-03	.2288	4.305E-03
T 8467(350)	23.95	22.65	5.181E-03	.1491	6.903E-03	.1987	7.762E-03	.2234	4.205E-03
T 8468(350)	25.00	23.79	5.064E-03	.1457	6.748E-03	.1942	7.588E-03	.2184	4.109E-03

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8/21/74

NASA-RI STS 0M25A
 V41B-83A

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

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
43	3	BODY FLUSH	7.98	432.1	1294	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.2	.045	2.005	3795	4.008E-05	7.582E-08	2.006E 06	3.475E-02	2.878E-02		

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	318	350	82	.0550	3.568E-01	4.4824E-01

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8469(350)	26.03 24.72	4.958E-03	.1427	6.606E-03	.1901	7.428E-03	.2138	4.024E-03
	26.98	MODEL HAS LEFT CENTERLINE						
T 8470(350)	27.08 25.77	4.856E-03	.1398	6.470E-03	.1862	7.275E-03	.2094	3.941E-03
T 8471(350)	28.13 26.83	4.760E-03	.1370	6.342E-03	.1826	7.131E-03	.2053	3.865E-03

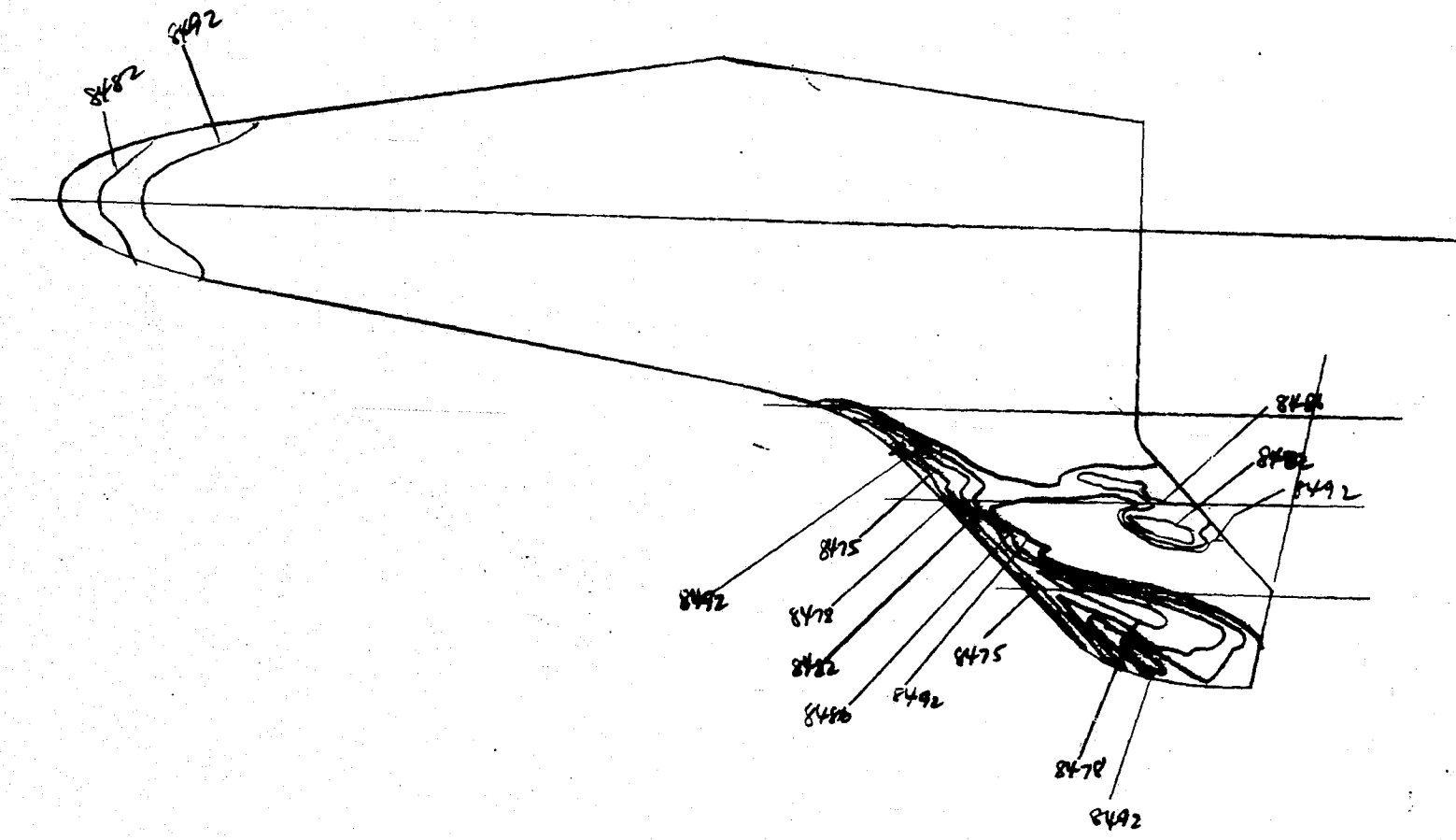
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0318-4475

GROUP 44

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8/21/74

NASA-RI STS OH25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
44	4	LEADING EDGE	7.98	431.6	1299	30.01	-0.01	30.00	180.00	-0.00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	W-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
94.6	.045	2.003	3803	3.986E-05	7.614E-08	1.991E 06	3.475F-02	2.887E-02

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	318	350	83	.0550	0	0

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8472(350)	0		MODEL HAS NOT REACHED CENTERLINE						
T 8473(350)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 8474(350)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.28									
T 8475(350)	3.05	1.77	1.823E-02	.5244	2.424E-02	.6971	2.722E-02	.7829	1.482E-02
T 8476(350)	4.10	2.83	1.445E-02	.4156	1.921E-02	.5524	2.157E-02	.6204	1.175E-02
T 8477(350)	5.13	3.85	1.238E-02	.3559	1.645E-02	.4731	1.844E-02	.5313	1.006E-02
T 8478(350)	6.18	4.90	1.047E-02	.3155	1.458E-02	.4193	1.638E-02	.4710	8.917E-03
T 8479(350)	7.21	5.93	9.975E-03	.2868	1.326E-02	.3813	1.489E-02	.4282	8.106E-03
T 8480(350)	8.26	6.98	9.194E-03	.2644	1.222E-02	.3515	1.373E-02	.3947	7.473E-03
T 8481(350)	9.31	8.03	8.571E-03	.2464	1.139E-02	.3276	1.280E-02	.3679	6.965E-03
T 8482(350)	10.34	9.06	8.071E-03	.2320	1.073E-02	.3084	1.205E-02	.3464	6.556E-03
T 8483(350)	11.39	10.11	7.640E-03	.2196	1.016E-02	.2920	1.141E-02	.3279	6.206E-03
T 8484(350)	12.44	11.16	7.271E-03	.2090	9.666E-03	.2778	1.086E-02	.3120	5.905E-03
T 8485(350)	13.44	12.16	6.965E-03	.2002	9.259E-03	.2662	1.040E-02	.2989	5.658E-03
T 8486(350)	14.47	13.19	6.689E-03	.1922	8.892E-03	.2555	9.986E-03	.2870	5.431E-03
T 8487(350)	15.52	14.24	6.437E-03	.1850	8.557E-03	.2459	9.611E-03	.2762	5.227E-03
T 8488(350)	16.57	15.29	6.212E-03	.1786	8.258E-03	.2374	9.274E-03	.2666	5.045E-03
T 8489(350)	17.62	16.34	6.009E-03	.1727	7.988E-03	.2296	8.971E-03	.2579	4.881E-03
T 8490(350)	18.65	17.37	5.829E-03	.1676	7.748E-03	.2229	8.702E-03	.2502	4.736E-03
T 8491(350)	19.70	18.42	5.660E-03	.1627	7.524E-03	.2162	8.450E-03	.2429	4.596E-03
T 8492(350)	20.75	19.47	5.505E-03	.1582	7.318E-03	.2103	8.219E-03	.2362	4.470E-03
T 8493(350)	21.80	20.52	5.362E-03	.1541	7.128E-03	.2048	8.006E-03	.2300	4.353E-03
T 8494(350)	22.83	21.55	5.233E-03	.1504	6.956E-03	.1999	7.813E-03	.2245	4.248E-03
T 8495(350)	23.90	22.62	5.107E-03	.1468	6.789E-03	.1951	7.625E-03	.2191	4.147E-03
T 8496(350)	24.93	23.65	4.995E-03	.1435	6.640E-03	.1908	7.457E-03	.2142	4.053E-03

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8/21/74

NASA-R1 STS 0M25A

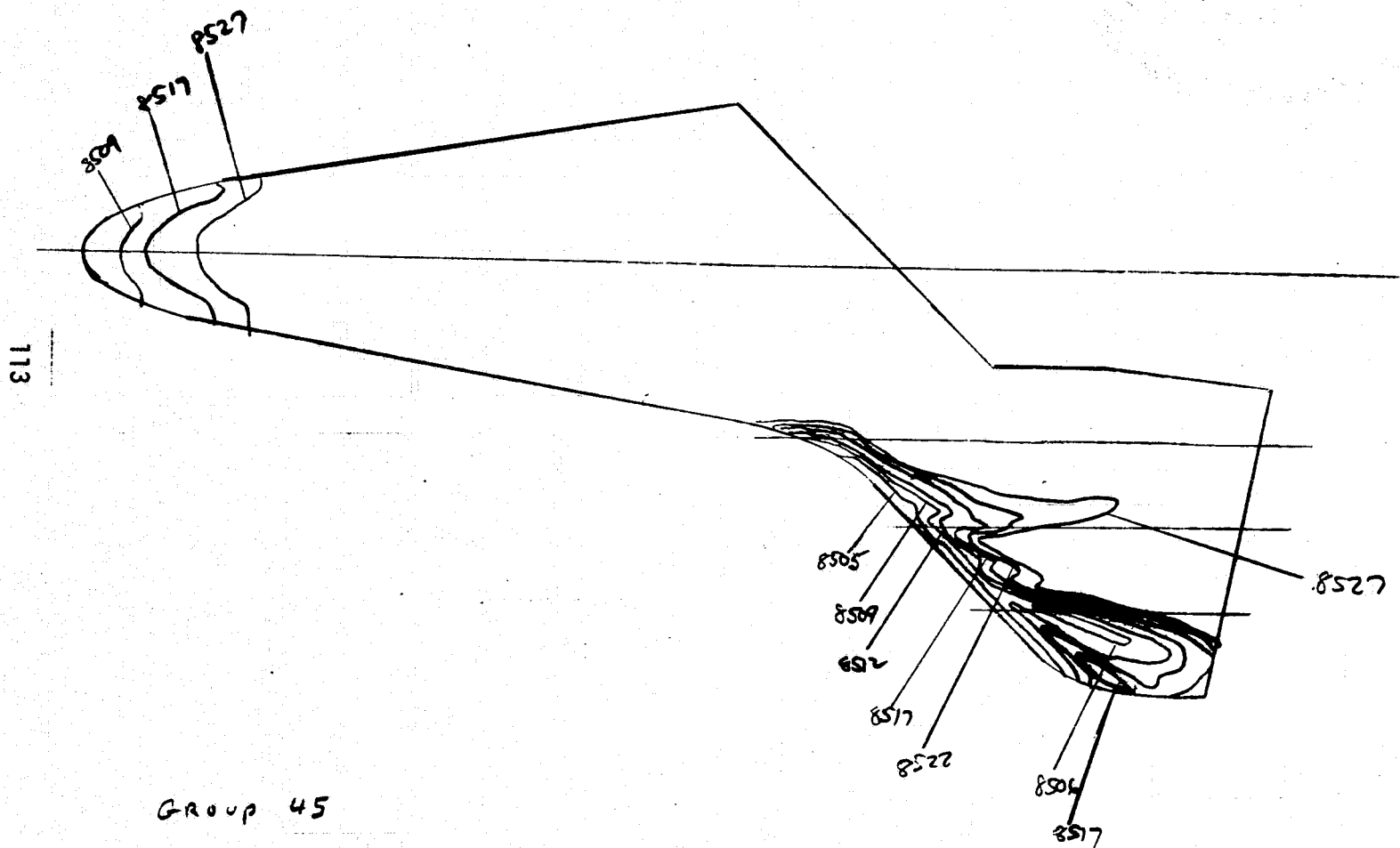
AEDC (ARO, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL R

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
44	4	LEADING EDGE	7.98	432.9	1300	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.6	.045	2.009	3803	3.997E-05	7.617E-08	1.996E 06	3.481E-02	2.883E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TRAR (TO)	BETA (TO)				
	318	350	83	.0550	3.531E-01	4.4166E-01				
PIC NO	TIME	DELTIME	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.867TO)	H (.867TO)/HREF	ST (TO)	
T 8497(350)	25.98	24.71	4.888E-03	.1404	6.497E-03	.1867	7.297E-03	.2097	3.968E-03	
	26.53		MODEL HAS LEFT CENTERLINE							
T 8498(350)	27.03	25.75	4.787E-03	.1376	6.363E-03	.1829	7.146E-03	.2054	3.887E-03	
T 8499(350)	28.06	26.78	4.694E-03	.1349	6.240E-03	.1793	7.008E-03	.2014	3.811E-03	
ERROR IN POWRF BASE<0 A = 6001000064653215 CALL FROM 72651										

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GROUP 45
0318-8503



GROUP 45
0318-8503

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8/21/74

NASA-RJ STS 0425A

AEDC(AHO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V41B-03A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
45	S	TRANSITION	7.98	432.6	1308	30.01	-0.01	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(H= .0175FT)		
95.2	.045	2.008	3816	3.968E-05	7.666E-08	1.975E 06	3.484E-02	2.895E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RMGXCK)	TBAR(TO)	BETA(TO)				
10P(T)	318	350	R2	.0550	0	0				

PIC NO	TIME DELINE	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8500(350)	.03			MODEL HAS NOT REACHED CENTERLINE					
T 8501(350)	1.00			MODEL HAS NOT REACHED CENTERLINE					
T 8502(350)	2.00			MODEL HAS NOT REACHED CENTERLINE					
IN-FACT TIME	2.33								
T 8503(350)	3.05	1.75	1.810E-02	.5196	2.397E-02	.6880	2.687E-02	.7712	1.474E-02
T 8504(350)	4.10	2.90	1.430E-02	.4106	1.894E-02	.5436	2.123E-02	.6093	1.164E-02
T 8505(350)	5.13	3.82	1.223E-02	.3510	1.620E-02	.4648	1.816E-02	.5210	9.951E-03
T 8506(350)	6.18	4.88	1.044E-02	.3110	1.435E-02	.4118	1.608E-02	.4616	8.822E-03
T 8507(350)	7.23	5.93	9.828E-03	.2819	1.301E-02	.3733	1.459E-02	.4184	7.990E-03
T 8508(350)	8.26	6.95	9.074E-03	.2601	1.201E-02	.3444	1.347E-02	.3860	7.367E-03
T 8509(350)	9.21	8.03	8.457E-03	.2425	1.120E-02	.3211	1.255E-02	.3599	6.872E-03
T 8510(350)	10.36	9.06	7.951E-03	.2280	1.053E-02	.3019	1.180E-02	.3384	6.461E-03
T 8511(350)	11.41	10.11	7.526E-03	.2158	9.965E-03	.2857	1.117E-02	.3203	6.114E-03
T 8512(350)	12.44	11.13	7.171E-03	.2056	9.495E-03	.2722	1.064E-02	.3052	5.826E-03
T 8513(350)	13.49	12.19	6.855E-03	.1966	9.076E-03	.2603	1.017E-02	.2917	5.570E-03
T 8514(350)	14.54	13.23	6.577E-03	.1886	8.708E-03	.2497	9.761E-03	.2798	5.341E-03
T 8515(350)	15.59	14.29	6.330E-03	.1816	8.382E-03	.2404	9.395E-03	.2695	5.146E-03
T 8516(350)	16.62	15.31	6.114E-03	.1754	8.096E-03	.2322	9.075E-03	.2603	4.971E-03
T 8517(350)	17.67	16.36	5.915E-03	.1696	7.832E-03	.2245	8.778E-03	.2516	4.803E-03
T 8518(350)	18.72	17.41	5.733E-03	.1644	7.592E-03	.2177	8.509E-03	.2440	4.660E-03
T 8519(350)	19.77	18.47	5.568E-03	.1596	7.372E-03	.2114	8.264E-03	.2369	4.523E-03
T 8520(350)	20.80	19.49	5.419E-03	.1554	7.176E-03	.2058	8.043E-03	.2306	4.404E-03
T 8521(350)	21.85	20.54	5.279E-03	.1513	6.990E-03	.2004	7.835E-03	.2246	4.287E-03
T 8522(350)	22.90	21.59	5.149E-03	.1476	6.817E-03	.1955	7.642E-03	.2191	4.184E-03
T 8523(350)	23.95	22.65	5.028E-03	.1441	6.657E-03	.1908	7.462E-03	.2139	4.083E-03
T 8524(350)	24.98	23.67	4.918E-03	.1409	6.511E-03	.1866	7.299E-03	.2092	3.992E-03

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8/21/74

NASA-RI STS 0425A

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

V418-83A

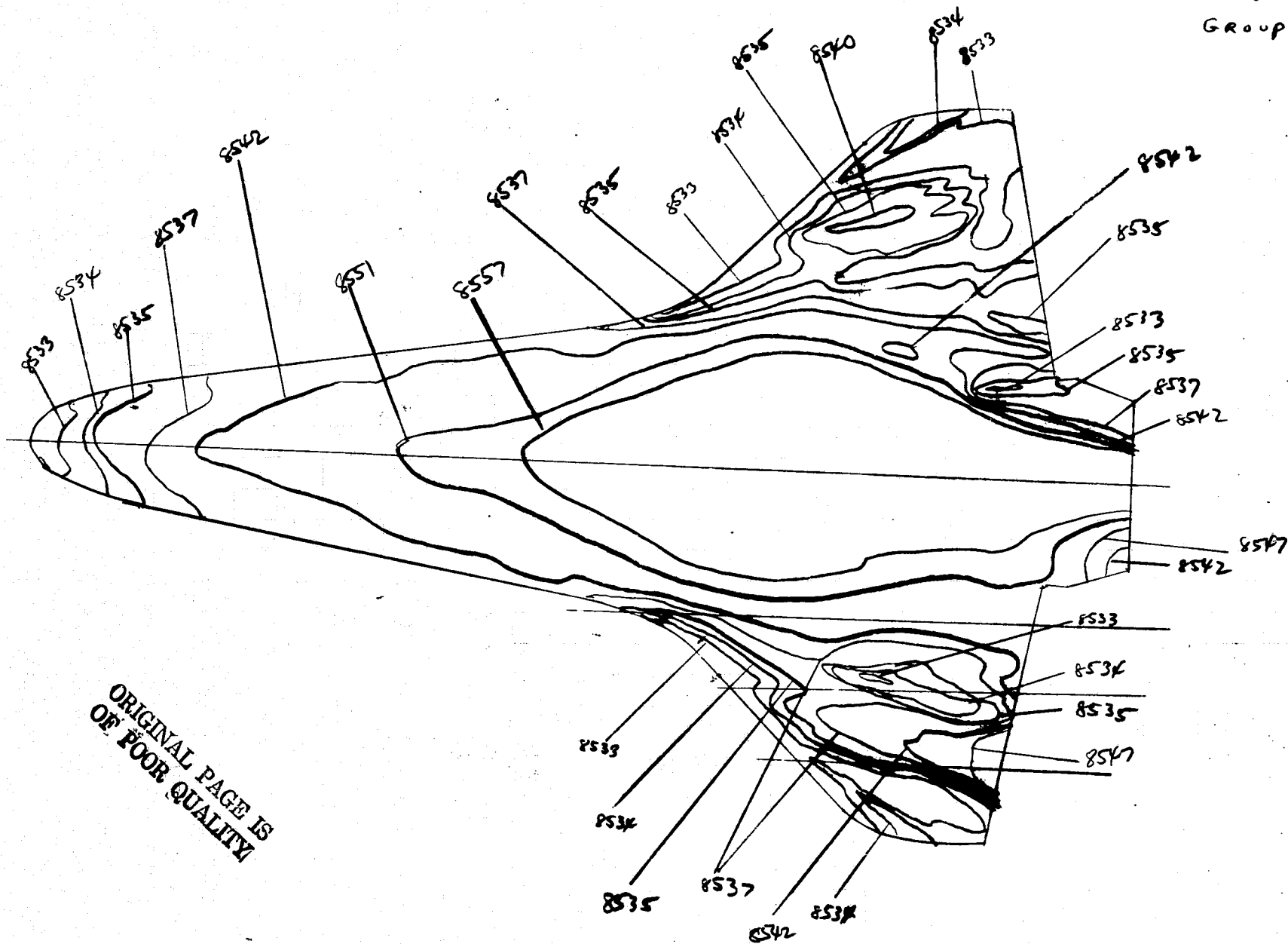
GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
45	5	TRANSITION	7.98	434.0	1309	30-01	-01	30-00	180.00	-00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175F1)	(R= .0175FT)		
95.3	.045	2.014	3816	3.980E-05	7.669E-08	1.980E 06	3.489E-02	2.892E-02		

CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)
TOP(T)	318	350	82	.0559	3.494E-01	4.3502E-01

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8525(350)	26.03	24.72	4.812E-03	.1379	6.371E-03	.1826	7.142E-03	.2047	3.906E-03
T 8526(350)	27.08	25.77	4.713E-03	.1351	6.240E-03	.1788	6.995E-03	.2005	3.825E-03
	27.43		MODEL HAS LEFT CENTERLINE						
T 8527(350)	28.13	26.83	4.620E-03	.1324	6.117E-03	.1753	6.856E-03	.1965	3.750E-03
T 8528(350)	29.16	27.85	4.534E-03	.1300	6.003E-03	.1721	6.729E-03	.1929	3.682E-03
T 8529(350)	30.21	28.90	4.450E-03	.1275	5.893E-03	.1688	6.605E-03	.1893	3.611E-03
ERROR IN FOWRF BASE<0			A = 6001000117201053 CALL FROM 72651						

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8/21/74

NASA-RJ STS 0M25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
46	1	ORBITER	7.98	428.3	1314	30.01	-.01	30.00	180.00	-.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.7	.045	1.988	3825	3.910E-05	7.704E-08	1.941E 06	3.469E-02	2.918E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHO/CXK)	TRAR(TO)	BETA(TO)				
	318	225	84	.0528	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8530(225)	.03		MODEL HAS NOT REACHED CENTERLINE							
T 8531(225)	1.00		MODEL HAS NOT REACHED CENTERLINE							
T 8532(225)	2.03		MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.25								
T 8533(225)	3.08	1.81	7.458E-03	.2148	9.335E-03	.2688	1.018E-02	.2932	6.176E-03	
T 8534(225)	4.10	2.84	5.960E-03	.1716	7.460E-03	.2148	8.136E-03	.2343	4.936E-03	
T 8535(225)	5.16	3.89	5.042E-03	.1466	6.374E-03	.1835	6.951E-03	.2001	4.214E-03	
T 8536(225)	6.21	4.94	4.518E-03	.1300	5.655E-03	.1628	6.168E-03	.1775	3.737E-03	
T 8537(225)	7.26	5.99	4.103E-03	.1181	5.136E-03	.1478	5.601E-03	.1612	3.393E-03	
T 8538(225)	8.28	7.02	3.791E-03	.1091	4.745E-03	.1365	5.175E-03	.1489	3.134E-03	
T 8539(225)	9.34	8.07	3.535E-03	.1017	4.426E-03	.1274	4.826E-03	.1389	2.924E-03	
T 8540(225)	10.39	9.12	3.326E-03	.0956	4.163E-03	.1197	4.540E-03	.1306	2.747E-03	
T 8541(225)	11.44	10.17	3.149E-03	.0906	3.942E-03	.1134	4.299E-03	.1236	2.601E-03	
T 8542(225)	12.46	11.20	3.001E-03	.0863	3.757E-03	.1080	4.091E-03	.1178	2.478E-03	
T 8543(225)	13.47	12.20	2.876E-03	.0827	3.599E-03	.1035	3.926E-03	.1129	2.374E-03	
T 8544(225)	14.52	13.25	2.759E-03	.0793	3.454E-03	.0993	3.761E-03	.1083	2.277E-03	
T 8545(225)	15.57	14.30	2.656E-03	.0763	3.324E-03	.0956	3.626E-03	.1042	2.191E-03	
T 8546(225)	16.62	15.35	2.563E-03	.0737	3.209E-03	.0922	3.499E-03	.1006	2.115E-03	
T 8547(225)	17.67	16.41	2.480E-03	.0713	3.104E-03	.0892	3.385E-03	.0973	2.045E-03	
T 8548(225)	18.70	17.43	2.406E-03	.0691	3.011E-03	.0865	3.284E-03	.0944	1.983E-03	
T 8549(225)	19.75	18.48	2.336E-03	.0671	2.924E-03	.0840	3.189E-03	.0916	1.926E-03	
T 8550(225)	20.80	19.53	2.273E-03	.0653	2.845E-03	.0817	3.102E-03	.0891	1.873E-03	
T 8551(225)	21.85	20.59	2.214E-03	.0636	2.771E-03	.0796	3.022E-03	.0868	1.823E-03	
T 8552(225)	22.88	21.61	2.161E-03	.0620	2.705E-03	.0777	2.950E-03	.0847	1.779E-03	
T 8553(225)	23.93	22.66	2.110E-03	.0606	2.641E-03	.0758	2.880E-03	.0827	1.738E-03	
T 8554(225)	24.98	23.71	2.063E-03	.0592	2.582E-03	.0741	2.816E-03	.0809	1.698E-03	

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8/21/74

NASA-R1 STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
46	1	ORBITER	7.98	431.6	1315	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.7	.045	2.003	3825	3.940E-05	7.705E-08	1.956E 06	3.483E-02	2.908E-02		

CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	318	225	84	.0528	1.831E-01	1.9023E-01

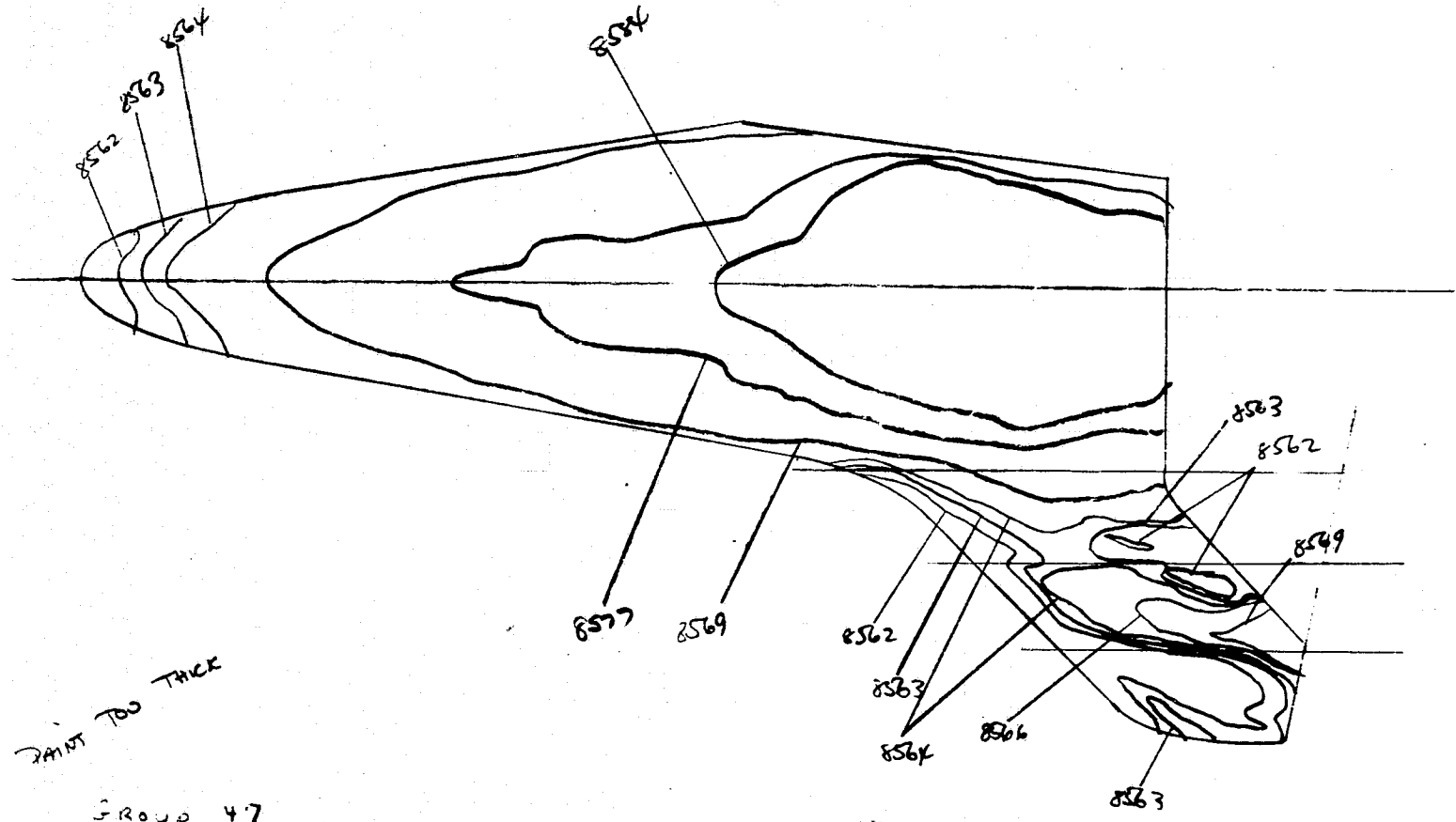
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8555(225)	26.03 24.77	2.018E-03	.0579	2.526E-03	.0725	2.755E-03	.0791	1.662E-03	
T 8556(225)	27.08 25.02	1.977E-03	.0567	2.474E-03	.0710	2.699E-03	.0775	1.627E-03	
	27.81	MODEL HAS LEFT CENTERLINE							
T 8557(225)	28.13 26.87	1.938E-03	.0556	2.426E-03	.0696	2.645E-03	.0760	1.595E-03	
T 8558(225)	29.16 27.89	1.902E-03	.0546	2.381E-03	.0683	2.596E-03	.0745	1.564E-03	
ERROR IN FOWRF BASE<0		A = 6001000117201053 CALL FROM 72651							

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GROUP 47

0318-8562

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PAINT TOO THICK

Group 47
0318-8562

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8/21/74

NASA-RI STS 0H25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
47	4	LEADING EDGE	7.98	432.2	1312	30.01	-0.01	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
95.5	.045	2.006	3821	3.953E-05	7.689E-08	1.964E 04	3.484E-02	2.902E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TRAR(TO)	BETA(TO)				
TOP(T)	318	225	81	.0528	0	0				

PIC NO	TIME DELINE	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8559(225)	.03			MODEL HAS NOT REACHED CENTERLINE					
T 8560(225)	1.00			MODEL HAS NOT REACHED CENTERLINE					
T 8561(225)	2.03			MODEL HAS NOT REACHED CENTERLINE					
INJECT TIME =	2.30								
T 8562(225)	3.05	1.76	7.751E-03	.2226	9.705E-03	.2786	1.054E-02	.3039	6.371E-03
T 8563(225)	4.10	2.81	6.134E-03	.1760	7.640E-03	.2204	8.377E-03	.2404	5.037E-03
T 8564(225)	5.16	3.86	5.233E-03	.1502	6.552E-03	.1880	7.147E-03	.2051	4.297E-03
T 8565(225)	6.21	4.91	4.640E-03	.1332	5.809E-03	.1668	6.337E-03	.1819	3.812E-03
T 8566(225)	7.23	5.94	4.220E-03	.1211	5.284E-03	.1516	5.763E-03	.1654	3.466E-03
T 8567(225)	8.28	6.99	3.830E-03	.1116	4.870E-03	.1397	5.312E-03	.1524	3.193E-03
T 8568(225)	9.34	8.04	3.627E-03	.1040	4.541E-03	.1303	4.953E-03	.1421	2.976E-03
T 8569(225)	10.39	9.09	3.411E-03	.0979	4.270E-03	.1226	4.658E-03	.1337	2.801E-03
T 8570(225)	11.44	10.15	3.229E-03	.0927	4.043E-03	.1160	4.410E-03	.1265	2.650E-03
T 8571(225)	12.49	11.20	3.074E-03	.0882	3.849E-03	.1104	4.198E-03	.1204	2.522E-03
T 8572(225)	13.52	12.22	2.942E-03	.0844	3.684E-03	.1057	4.018E-03	.1152	2.413E-03
T 8573(225)	14.59	13.30	2.821E-03	.0809	3.531E-03	.1013	3.852E-03	.1105	2.315E-03
T 8574(225)	15.62	14.33	2.718E-03	.0779	3.403E-03	.0976	3.711E-03	.1065	2.229E-03
T 8575(225)	16.67	15.38	2.623E-03	.0753	3.284E-03	.0942	3.582E-03	.1028	2.153E-03
T 8576(225)	17.72	16.43	2.538E-03	.0729	3.177E-03	.0911	3.466E-03	.0994	2.082E-03
T 8577(225)	18.77	17.48	2.460E-03	.0706	3.080E-03	.0884	3.360E-03	.0964	2.019E-03
T 8578(225)	19.82	18.53	2.399E-03	.0685	2.992E-03	.0858	3.263E-03	.0936	1.960E-03
T 8579(225)	20.85	19.56	2.326E-03	.0667	2.912E-03	.0835	3.176E-03	.0911	1.907E-03
T 8580(225)	21.90	20.61	2.266E-03	.0650	2.837E-03	.0814	3.094E-03	.0887	1.858E-03
T 8581(225)	22.95	21.66	2.210E-03	.0634	2.767E-03	.0794	3.015E-03	.0866	1.812E-03
T 8582(225)	24.00	22.71	2.158E-03	.0619	2.702E-03	.0775	2.944E-03	.0845	1.769E-03
T 8583(225)	25.05	23.76	2.110E-03	.0605	2.642E-03	.0757	2.882E-03	.0826	1.729E-03

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8/21/74

NASA-RI STS CM25A

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

V419-83A

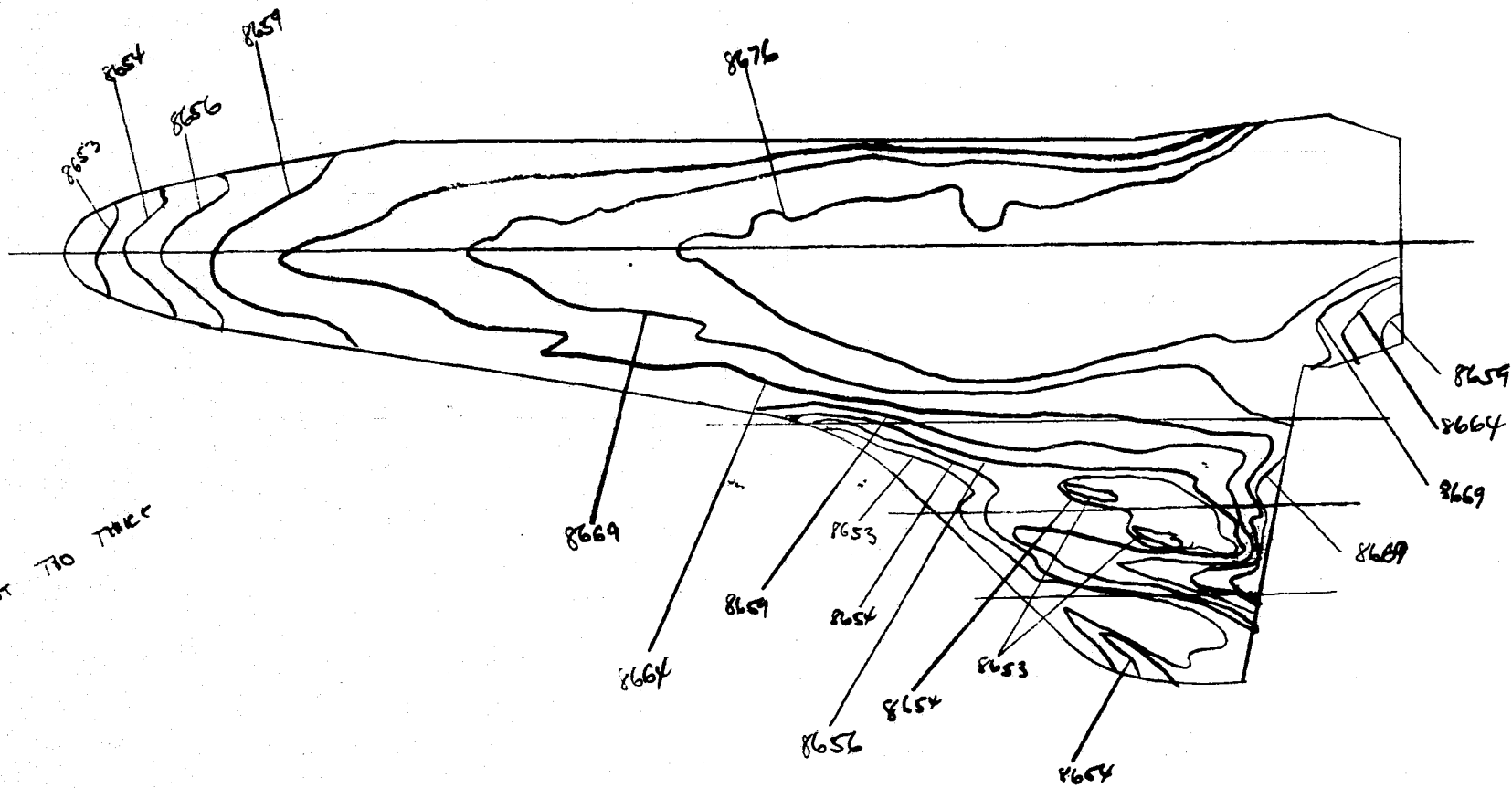
GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
47	4	LEADING EDGE	7.98	433.3	1312	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.5	.045	2.011	3821	3.964E-05	7.687E-08	1.970E 06	3.488E-02	2.898E-02		
CAMERA TOP(T)	ROLL NO 318	PAINT TEMP 225	TEMP (DEG F)	INITIAL TEMP (DEG F)	81	SQUARE ROOT (RH0XCXK)	40524	TBAR(TO)	BETA(TO)	1.868E-01 1.9481E-01

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8584(225)	26.11 24.81	2.065E-03	.0592	2.585E-03	.0743	2.820E-03	.0809	1.692E-03	
T 8585(225)	27.16 25.86	2.023E-03	.0580	2.532E-03	.0726	2.762E-03	.0792	1.658E-03	
	27.61	MODEL HAS LEFT CENTERLINE							
T 8586(225)	28.18 26.69	1.984E-03	.0569	2.483E-03	.0712	2.709E-03	.0777	1.626E-03	
ERROR IN POWRF BASE40 A = 6001000064653215 CALL FROM 72651									

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PAINT TO THICK



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8/21/74

NASA-RITS CM25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
48	3	BODY FLUSH	7.98	432.4	1307	30.01	-0.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.2	.045	2.007	3815	3.969E-05	7.662E-08	1.976E 06	3.482E-02	2.895E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	376	225	82	0.052A	0	0				

PIC NO	TIME DELTINE	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8650(225)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8651(225)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 8652(225)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.30									
T 8653(225)	3.05	1.76	7.750E-03	.2226	9.721E-03	.2790	1.061E-02	.3044	6.350E-03
T 8654(225)	4.10	2.81	6.137E-03	.1761	7.642E-03	.2207	8.395E-03	.2408	5.022E-03
T 8655(225)	5.16	3.86	5.236E-03	.1502	6.563E-03	.1883	7.162E-03	.2055	4.284E-03
T 8656(225)	6.21	4.91	4.643E-03	.1332	5.819E-03	.1669	6.350E-03	.1821	3.797E-03
T 8657(225)	7.26	5.97	4.214E-03	.1209	5.241E-03	.1516	5.764E-03	.1654	3.450E-03
T 8658(225)	8.31	7.02	3.845E-03	.1115	4.870E-03	.1397	5.314E-03	.1525	3.179E-03
T 8659(225)	9.36	8.07	3.623E-03	.1039	4.541E-03	.1302	4.956E-03	.1421	2.962E-03
T 8660(225)	10.41	9.12	3.408E-03	.0978	4.272E-03	.1225	4.662E-03	.1337	2.788E-03
T 8661(225)	11.46	10.17	3.227E-03	.0926	4.045E-03	.1160	4.414E-03	.1266	2.640E-03
T 8662(225)	12.51	11.22	3.072E-03	.0881	3.851E-03	.1104	4.202E-03	.1205	2.512E-03
T 8663(225)	13.57	12.27	2.938E-03	.0843	3.682E-03	.1056	4.018E-03	.1153	2.403E-03
T 8664(225)	14.62	13.32	2.820E-03	.0808	3.534E-03	.1013	3.857E-03	.1106	2.305E-03
T 8665(225)	15.64	14.35	2.717E-03	.0779	3.405E-03	.0977	3.716E-03	.1066	2.222E-03
T 8666(225)	16.69	15.40	2.622E-03	.0752	3.287E-03	.0943	3.587E-03	.1029	2.146E-03
T 8667(225)	17.75	16.45	2.537E-03	.0728	3.180E-03	.0912	3.471E-03	.0995	2.075E-03
T 8668(225)	18.80	17.50	2.460E-03	.0706	3.083E-03	.0884	3.365E-03	.0965	2.012E-03
T 8669(225)	19.85	18.54	2.389E-03	.0686	2.995E-03	.0859	3.264E-03	.0938	1.956E-03
T 8670(225)	20.90	19.61	2.324E-03	.0667	2.913E-03	.0835	3.172E-03	.0912	1.900E-03
T 8671(225)	21.98	20.68	2.263E-03	.0649	2.836E-03	.0813	3.090E-03	.0888	1.850E-03
T 8672(225)	23.00	21.71	2.200E-03	.0633	2.769E-03	.0794	3.021E-03	.0866	1.805E-03
T 8673(225)	24.05	22.76	2.157E-03	.0619	2.704E-03	.0775	2.951E-03	.0846	1.764E-03
T 8674(225)	25.10	23.81	2.109E-03	.0605	2.643E-03	.0758	2.885E-03	.0827	1.724E-03

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8/21/74

NASA-RI STS 0H25A

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

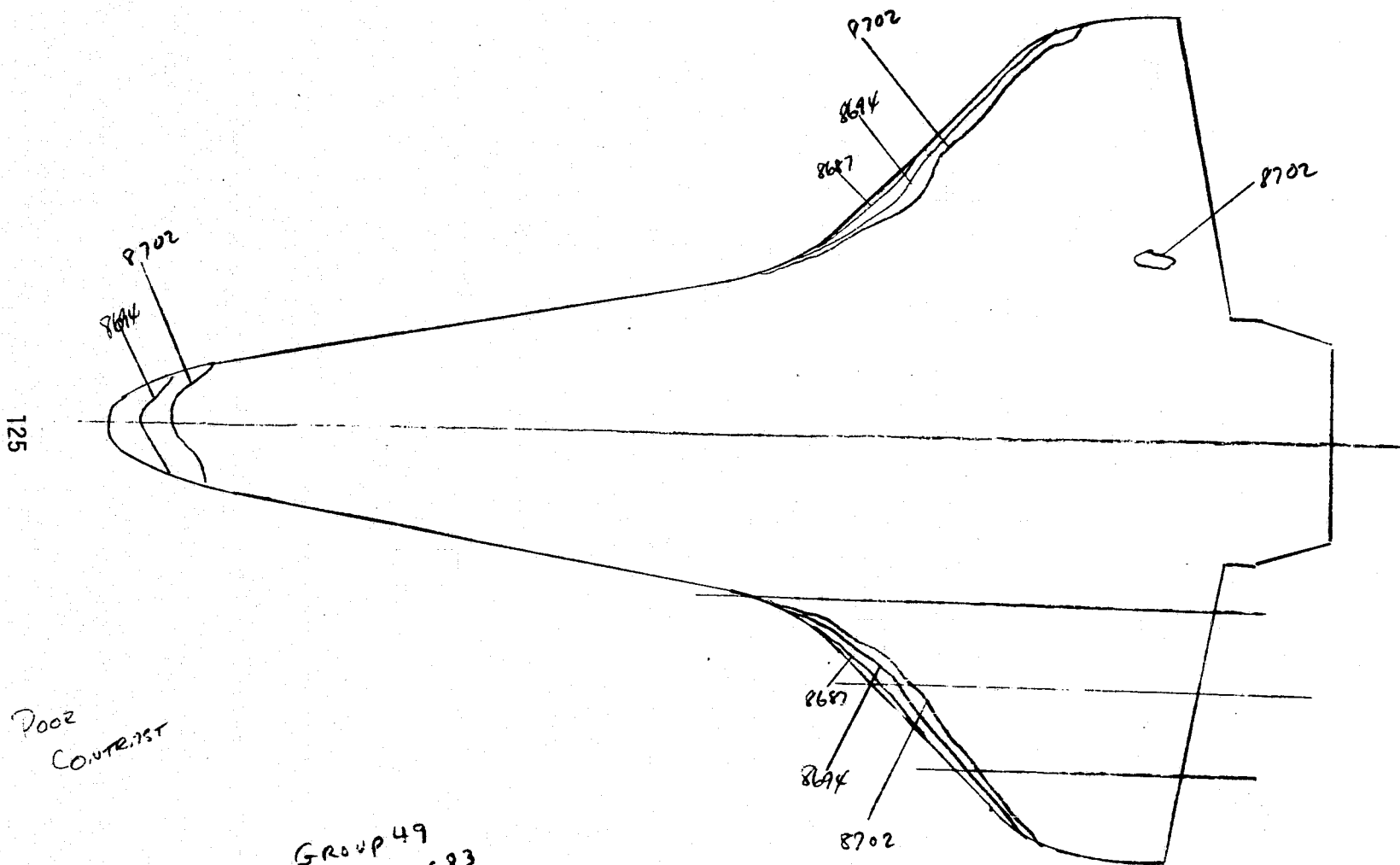
V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
49	3	BOLY FLUSH	7.98	433.7	1307	30.01	-0.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.1	.045	2.013	3814	3.982E-05	7.660E-08	1.983E 06	3.487E-02	2.890E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEM: (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXX)	TBAR (TO)	BETA (TO)				
	376	225	82	.0529	1.869E-01	1.9492E-01				

PIC NO	TIME DELTIME	H (TO)	H (TO)/HREF	H (.9 TO)	H (.9 TO)/HREF	H (.867 TO)	H (.867 TO)/HREF	ST (TO)	
T 8675(225)	26.16 24.86	2.064E-03	.0592	2.587E-03	.0742	2.823E-03	.0810	1.687E-03	
T 8676(225)	27.21 25.91	2.022E-03	.0580	2.534E-03	.0727	2.765E-03	.0793	1.652E-03	
T 8677(225)	28.26 26.96	1.982E-03	.0568	2.484E-03	.0712	2.711E-03	.0777	1.620E-03	
	28.78	MODEL HAS LEFT CENTERLINE							
T 8678(225)	29.31 28.02	1.944E-03	.0558	2.437E-03	.0699	2.660E-03	.0763	1.590E-03	
T 8679(225)	30.36 29.07	1.909E-03	.0547	2.393E-03	.0686	2.611E-03	.0749	1.560E-03	
ERROR IN POWRF BASE<0		A = 6001242214734237 CALL FROM 72651							

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GROUP 49
0376 - 8687



POOR
CONTRAST

GROUP 49
0376 - 8683

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8/21/74

NASA-R1 STS 0H25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
49	1	ORBITER	7.98	430.9	1301	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI=1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.7	.045	2.000	3805	3.975E-05	7.623E-08	1.984E 06	3.473E-02	2.891E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TRAR(TO)	BETA(TO)				
	376	400	84	.0555	0	0				

PIC NO	TIME DELT	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8680(400)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8681(400)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 8682(400)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.30									
T 8683(400)	3.08	1.79	2.361E-02	.6799	3.248E-02	.9351	3.714E-02	1.0694	1.921E-02
T 8684(400)	4.10	2.81	1.882E-02	.5417	2.588E-02	.7450	2.960E-02	.8520	1.530E-02
T 8685(400)	5.16	3.86	1.605E-02	.4622	2.208E-02	.6358	2.525E-02	.7271	1.306E-02
T 8686(400)	6.21	4.91	1.423E-02	.4098	1.958E-02	.5636	2.239E-02	.6445	1.157E-02
T 8687(400)	7.26	5.97	1.292E-02	.3719	1.777E-02	.5116	2.032E-02	.5850	1.051E-02
T 8688(400)	8.31	7.02	1.191E-02	.3430	1.638E-02	.4718	1.874E-02	.5395	9.689E-03
T 8689(400)	9.36	8.07	1.111E-02	.3199	1.528E-02	.4400	1.747E-02	.5032	9.038E-03
T 8690(400)	10.41	9.12	1.045E-02	.3009	1.437E-02	.4139	1.643E-02	.4733	8.501E-03
T 8691(400)	11.46	10.17	9.894E-03	.2849	1.361E-02	.3918	1.556E-02	.4481	8.048E-03
T 8692(400)	12.51	11.22	9.419E-03	.2713	1.296E-02	.3731	1.482E-02	.4267	7.663E-03
T 8693(400)	13.57	12.27	9.007E-03	.2593	1.239E-02	.3567	1.417E-02	.4079	7.326E-03
T 8694(400)	14.62	13.32	8.644E-03	.2489	1.189E-02	.3424	1.360E-02	.3915	7.033E-03
T 8695(400)	15.67	14.38	8.322E-03	.2397	1.145E-02	.3296	1.309E-02	.3770	6.771E-03
T 8696(400)	16.72	15.43	8.033E-03	.2313	1.105E-02	.3181	1.264E-02	.3638	6.531E-03
T 8697(400)	17.77	16.48	7.773E-03	.2238	1.069E-02	.3078	1.223E-02	.3520	6.321E-03
T 8698(400)	18.80	17.50	7.542E-03	.2172	1.037E-02	.2987	1.186E-02	.3416	6.135E-03
T 8699(400)	19.85	18.56	7.325E-03	.2110	1.007E-02	.2902	1.152E-02	.3318	5.961E-03
T 8700(400)	20.90	19.61	7.126E-03	.2052	9.801E-03	.2822	1.121E-02	.3227	5.796E-03
T 8701(400)	21.95	20.66	6.942E-03	.1999	9.548E-03	.2749	1.092E-02	.3144	5.646E-03
T 8702(400)	23.00	21.71	6.772E-03	.1950	9.314E-03	.2681	1.065E-02	.3066	5.506E-03
T 8703(400)	24.05	22.76	6.614E-03	.1905	9.097E-03	.2620	1.040E-02	.2996	5.382E-03
T 8704(400)	25.13	23.84	6.463E-03	.1861	8.889E-03	.2560	1.017E-02	.2927	5.257E-03

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NASA-RI STS 0H25A

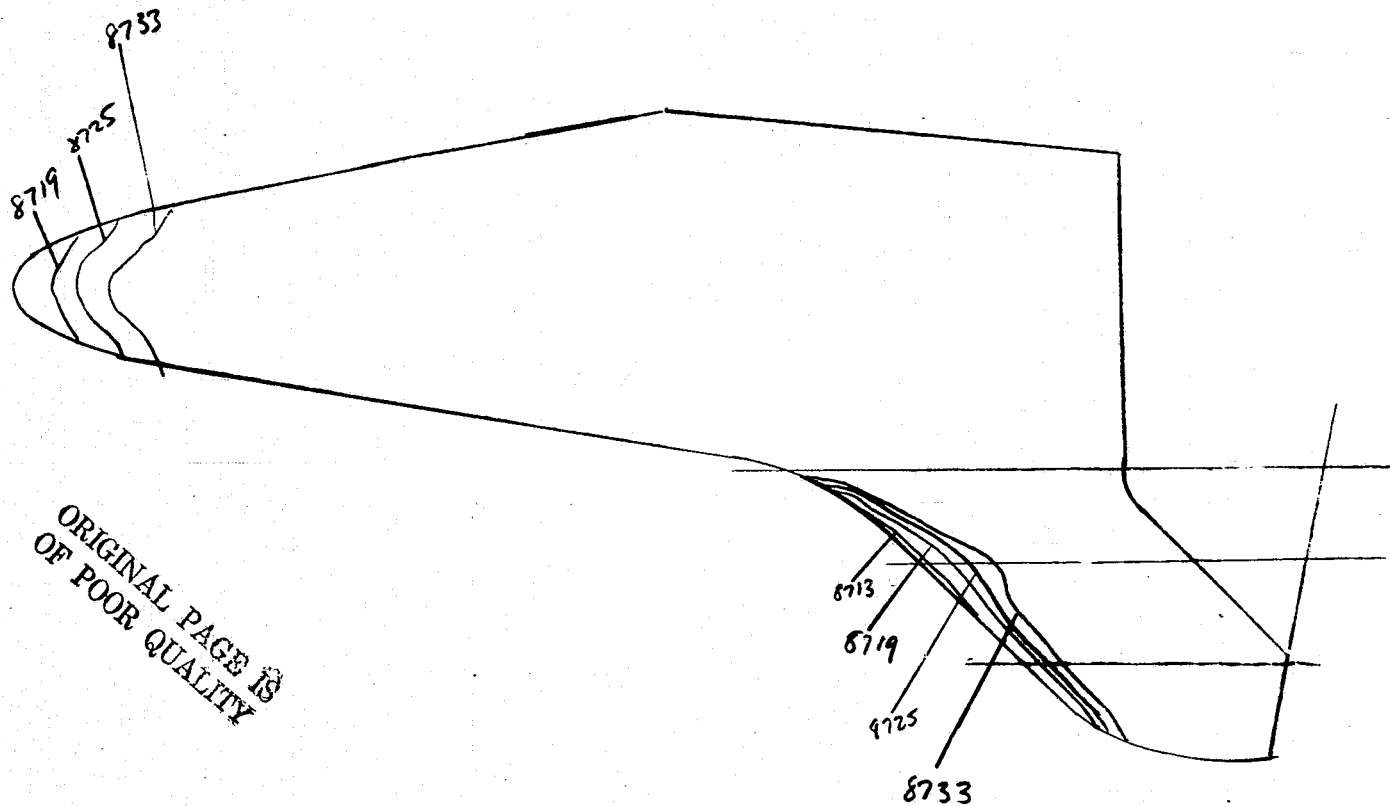
AEDC(ARO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL B

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
49	I	ORBITER	7.98	430.8	1300	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.7	.645	1.999	3804	3.975E-05	7.621E-08	1.984E 06	3.473E-02	2.891E-02		
CAMERA TOP(IT)	ROLL NO 376	PAINT TEMP (DEG F) 400	INITIAL TEMP (DEG F) 84	SQUARE ROOT (RHOXCXK) .0555	TBAR(TO) 4.178E-01	BETA(TO) 5.6851E-01				
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 8705(400)	26.03	6.328E-03	.1822	8.704E-03	.2506	9.953E-03	.2866	5.149E-03		
T 8706(400)	27.21	6.198E-03	.1785	8.525E-03	.2455	9.749E-03	.2808	5.044E-03		
ERROR IN POWRF BASE<0 A = 6001242434215625 CALL FROM 72651										

Group 50

0376-8710



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NASA-RI STS 0M25A

AEDC(ARO,INC.) ARNOLD AFS, TENNESSEE

VON KARMAN GAS DYNAMICS FACILITY

50 INCH HYPERSONIC TUNNEL B

V410-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
50	4	LEADING EDGE	7.98	429.7	1301	40.05	-10.05	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.7	.045	1.994	3806	3.963E-05	7.626E-08	1.978E 06	3.469E-02	2.896E-02		
CAPEX	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
TOP(T)	376	400	86	.0555	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8707(400)	0	MODEL HAS NOT REACHED CENTERLINE							
T 8708(400)	.98	MODEL HAS NOT REACHED CENTERLINE							
T 8709(400)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.23							
T 8710(400)	3.05	1.89	2.333E-02	.6723	3.208E-02	.9243	3.668E-02	1.0570	1.901E-02
T 8711(400)	4.10	2.85	1.854E-02	.5344	2.549E-02	.7347	2.915E-02	.8402	1.511E-02
T 8712(400)	5.16	3.91	1.585E-02	.4566	2.179E-02	.6278	2.492E-02	.7179	1.291E-02
T 8713(400)	6.21	4.96	1.407E-02	.4054	1.935E-02	.5574	2.212E-02	.6373	1.146E-02
T 8714(400)	7.23	5.99	1.281E-02	.3689	1.761E-02	.5072	2.014E-02	.5800	1.043E-02
T 8715(400)	8.28	7.03	1.181E-02	.3402	1.624E-02	.4678	1.857E-02	.5349	9.619E-03
T 8716(400)	9.34	8.09	1.102E-02	.3174	1.515E-02	.4363	1.732E-02	.4989	8.972E-03
T 8717(400)	10.39	9.14	1.036E-02	.2985	1.425E-02	.4105	1.629E-02	.4694	8.440E-03
T 8718(400)	11.44	10.19	9.815E-03	.2827	1.349E-02	.3986	1.543E-02	.4444	7.989E-03
T 8719(400)	12.49	11.24	9.345E-03	.2691	1.285E-02	.3700	1.469E-02	.4231	7.608E-03
T 8720(400)	13.54	12.29	8.936E-03	.2573	1.229E-02	.3537	1.405E-02	.4045	7.268E-03
T 8721(400)	14.59	13.34	8.577E-03	.2470	1.179E-02	.3396	1.348E-02	.3884	6.983E-03
T 8722(400)	15.64	14.39	8.258E-03	.2377	1.135E-02	.3269	1.298E-02	.3737	6.717E-03
T 8723(400)	16.69	15.44	7.972E-03	.2295	1.096E-02	.3156	1.253E-02	.3609	6.485E-03
T 8724(400)	17.75	16.49	7.713E-03	.2220	1.060E-02	.3053	1.213E-02	.3491	6.273E-03
T 8725(400)	18.80	17.55	7.479E-03	.2153	1.028E-02	.2961	1.176E-02	.3385	6.085E-03
T 8726(400)	19.85	18.60	7.264E-03	.2091	9.988E-03	.2875	1.142E-02	.3288	5.908E-03
T 8727(400)	20.90	19.65	7.067E-03	.2035	9.717E-03	.2797	1.111E-02	.3199	5.749E-03
T 8728(400)	21.95	20.70	6.886E-03	.1982	9.467E-03	.2725	1.083E-02	.3116	5.600E-03
T 8729(400)	23.00	21.75	6.717E-03	.1933	9.235E-03	.2658	1.056E-02	.3039	5.461E-03
T 8730(400)	24.05	22.80	6.560E-03	.1888	9.020E-03	.2596	1.031E-02	.2968	5.333E-03
T 8731(400)	25.10	23.85	6.414E-03	.1846	8.819E-03	.2538	1.008E-02	.2902	5.215E-03

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8/21/74

NASA-RI STS 0H25A
 V418-83A

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

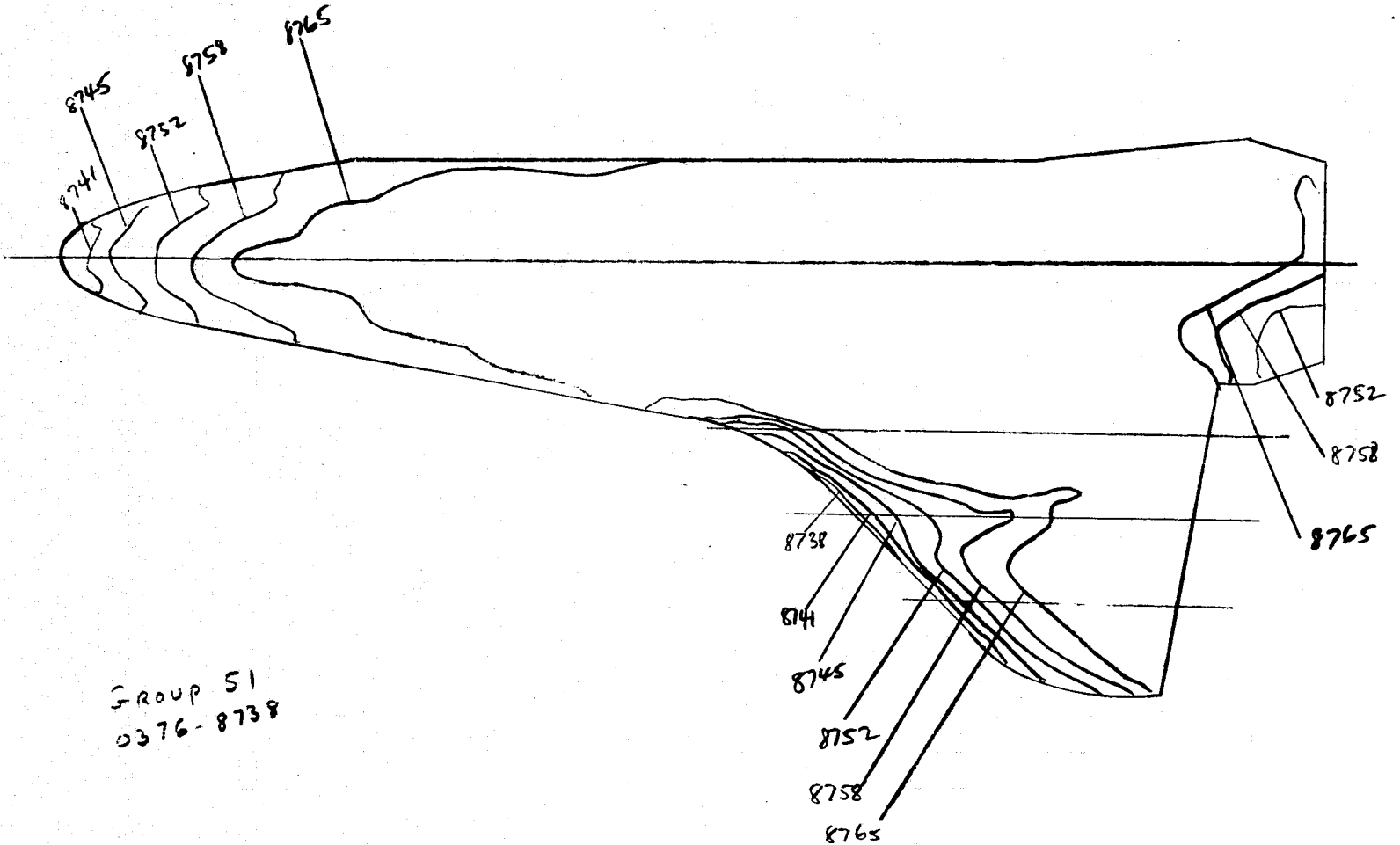
GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
50	4	LEADING EDGE	7.98	431.1	1301	40.05	-10.05	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.7	.045	2.001	3806	3.976E-05	7.626E-08	1.944E 06	3.474E-02	2.891E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
TOP(T)	376	400	86	.0555	4.159E-01	5.6445E-01				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8732(400)	26.16 24.97	6.277E-03	.1806	8.631E-03	.2484	9.869E-03	.2840	5.102E-03	
	26.51	MODEL HAS LEFT CENTERLINE							
T 8733(400)	27.21 25.96	6.149E-03	.1770	8.454E-03	.2433	9.667E-03	.2782	4.998E-03	
T 8734(400)	28.26 27.01	6.028E-03	.1735	8.288E-03	.2385	9.477E-03	.2727	4.899E-03	
ERROR IN POWRF BASE<0 A = 6001242214734237 CALL FROM 72651									

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GROUP 51

0376 - 8738



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GROUP 51
0376 - 8738

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8/21/76

NASA-RI STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SFCTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
S1	3	HOCY FLUSH	7.98	430.7	1302	40.03	-10.03	30.00	180.00	-0.00
T-INF	P-INF	O-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R=.0175FT)	(R=.0175FT)		
94.2	.045	1.999	3807	3.969E-05	7.631E-08	1.980E 06	3.473E-02	2.894E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKK)	TRAR(TO)	BETA(TO)				
TOP(T)	376	350	86	.0550	0	0				

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8735(350)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8736(350)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 8737(350)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.25							
T 8738(350)	3.05	1.79	1.78E-02	.5147	2.374E-02	.6936	2.665E-02	.7673	1.459E-02
T 8739(350)	4.10	2.84	1.419E-02	.4084	1.884E-02	.5424	2.115E-02	.6088	1.157E-02
T 8740(350)	5.16	3.89	1.212E-02	.3488	1.610E-02	.4632	1.807E-02	.5199	9.879E-03
T 8741(350)	6.21	4.94	1.075E-02	.3096	1.428E-02	.4111	1.603E-02	.4615	8.772E-03
T 8742(350)	7.26	5.99	9.766E-03	.2810	1.297E-02	.3732	1.456E-02	.4189	7.960E-03
T 8743(350)	8.31	7.04	9.008E-03	.2593	1.196E-02	.3443	1.343E-02	.3865	7.346E-03
T 8744(350)	9.36	8.10	8.403E-03	.2418	1.116E-02	.3211	1.253E-02	.3604	6.850E-03
T 8745(350)	10.39	9.12	7.916E-03	.2278	1.051E-02	.3025	1.180E-02	.3396	6.453E-03
T 8746(350)	11.44	10.17	7.496E-03	.2156	9.956E-03	.2864	1.118E-02	.3214	6.106E-03
T 8747(350)	12.49	11.22	7.137E-03	.2053	9.478E-03	.2727	1.064E-02	.3061	5.816E-03
T 8748(350)	13.54	12.29	6.824E-03	.1963	9.064E-03	.2607	1.017E-02	.2927	5.560E-03
T 8749(350)	14.59	13.33	6.550E-03	.1884	8.699E-03	.2503	9.764E-03	.2809	5.339E-03
T 8750(350)	15.64	14.38	6.306E-03	.1813	8.375E-03	.2408	9.401E-03	.2703	5.135E-03
T 8751(350)	16.69	15.43	6.087E-03	.1751	8.084E-03	.2325	9.075E-03	.2610	4.957E-03
T 8752(350)	17.75	16.48	5.890E-03	.1694	7.822E-03	.2250	8.781E-03	.2525	4.798E-03
T 8753(350)	18.77	17.51	5.715E-03	.1643	7.590E-03	.2182	8.519E-03	.2449	4.651E-03
T 8754(350)	19.82	18.56	5.550E-03	.1596	7.372E-03	.2120	8.275E-03	.2380	4.522E-03
T 8755(350)	20.87	19.61	5.399E-03	.1552	7.171E-03	.2061	8.050E-03	.2314	4.394E-03
T 8756(350)	21.93	20.66	5.260E-03	.1512	6.986E-03	.2009	7.842E-03	.2255	4.282E-03
T 8757(350)	22.98	21.71	5.131E-03	.1476	6.815E-03	.1960	7.650E-03	.2200	4.180E-03
T 8758(350)	24.03	22.76	5.012E-03	.1441	6.656E-03	.1913	7.471E-03	.2148	4.078E-03
T 8759(350)	25.08	23.81	4.900E-03	.1409	6.507E-03	.1871	7.305E-03	.2100	3.988E-03

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8/21/74

NASA-RI STS 0425A

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

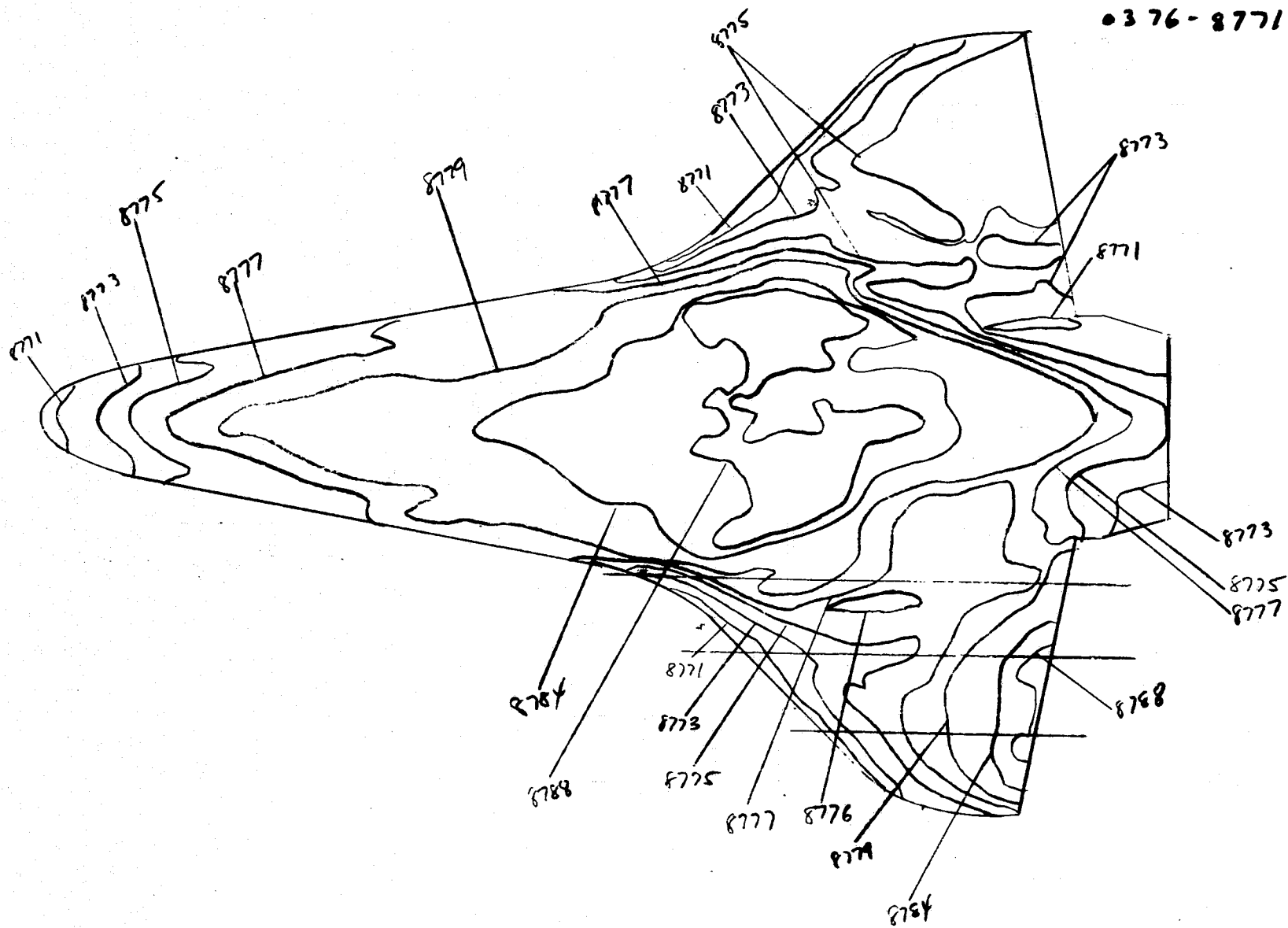
V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
51	3	BODY FLUSH	7.98	431.9	1302	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LR-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.8	.045	2.004	3807	3.990E-05	7.632E-08	1.985E 06	3.478E-02	2.890E-02		
CAMERA IOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	376	350	86	.0550	3.493E-01	4.3473E-01				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8760(350)	26.13	24.87	4.795E-03	.1378	6.368E-03	.1830	7.148E-03	.2055	3.901E-03	
T 8761(350)	27.18	25.92	4.697E-03	.1350	6.238E-03	.1793	7.002E-03	.2012	3.821E-03	
T 8762(350)	28.23	26.97	4.604E-03	.1323	6.115E-03	.1757	6.864E-03	.1973	3.745E-03	
T 8763(350)	29.28	28.02	4.517E-03	.1298	5.999E-03	.1724	6.734E-03	.1935	3.674E-03	
T 8764(350)	30.33	29.07	4.435E-03	.1274	5.890E-03	.1692	6.611E-03	.1900	3.606E-03	
	31.24		MODEL HAS LEFT CENTERLINE							
T 8765(350)	31.39	30.12	4.357E-03	.1252	5.786E-03	.1663	6.495E-03	.1867	3.546E-03	
T 8766(350)	32.44	31.17	4.283E-03	.1231	5.688E-03	.1635	6.384E-03	.1835	3.484E-03	
T 8767(350)	33.49	32.22	4.212E-03	.1210	5.594E-03	.1608	6.279E-03	.1805	3.426E-03	
ERROR IN POWRF BASE<0			A = 6001242214734237 CALL FROM 72651							

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GROUP 52
0376-8771



 * UNCLASSIFIED *

8/21/74

NASA-RJ STS 0425A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
52	1	ORBITER	7.98	433.5	1306	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.1	.045	2.012	3813	3.982E-05	7.655E-08	1.984E 06	3.486E-02	2.890E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKK)	TBAR(TO)	BETA(TO)				
	376	250	88	.0535	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8768(250)	0		MODEL HAS NOT REACHED CENTERLINE							
T 8769(250)	1.00		MODEL HAS NOT REACHED CENTERLINE							
T 8770(250)	2.03		MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.31								
T 8771(250)	3.05	1.76	9.232E-03	.2648	1.168E-02	.3350	1.281E-02	.3673	7.535E-03	
T 8772(250)	4.10	2.81	7.305E-03	.2095	9.244E-03	.2651	1.013E-02	.2906	5.963E-03	
T 8773(250)	5.16	3.86	6.232E-03	.1788	7.886E-03	.2262	8.645E-03	.2480	5.089E-03	
T 8774(250)	6.21	4.91	5.526E-03	.1585	6.992E-03	.2006	7.665E-03	.2199	4.514E-03	
T 8775(250)	7.26	5.97	5.015E-03	.1439	6.346E-03	.1820	6.957E-03	.1995	4.095E-03	
T 8776(250)	8.28	6.99	4.633E-03	.1329	5.862E-03	.1682	6.425E-03	.1843	3.782E-03	
T 8777(250)	9.34	8.04	4.319E-03	.1239	5.466E-03	.1568	5.991E-03	.1719	3.527E-03	
T 8778(250)	10.39	9.09	4.062E-03	.1165	5.140E-03	.1475	5.634E-03	.1617	3.318E-03	
T 8779(250)	11.44	10.15	3.846E-03	.1103	4.807E-03	.1396	5.335E-03	.1530	3.140E-03	
T 8780(250)	12.49	11.20	3.661E-03	.1050	4.632E-03	.1329	5.078E-03	.1457	2.990E-03	
T 8781(250)	13.54	12.25	3.500E-03	.1004	4.429E-03	.1270	4.855E-03	.1393	2.858E-03	
T 8782(250)	14.59	13.30	3.359E-03	.0964	4.251E-03	.1219	4.659E-03	.1337	2.743E-03	
T 8783(250)	15.64	14.35	3.234E-03	.0928	4.092E-03	.1174	4.485E-03	.1287	2.641E-03	
T 8784(250)	16.69	15.40	3.121E-03	.0895	3.950E-03	.1133	4.330E-03	.1242	2.549E-03	
T 8785(250)	17.75	16.45	3.020E-03	.0866	3.822E-03	.1096	4.189E-03	.1201	2.465E-03	
T 8786(250)	18.80	17.51	2.928E-03	.0840	3.705E-03	.1063	4.061E-03	.1165	2.391E-03	
T 8787(250)	19.82	18.53	2.846E-03	.0816	3.601E-03	.1033	3.947E-03	.1132	2.324E-03	
T 8788(250)	20.87	19.58	2.768E-03	.0794	3.503E-03	.1005	3.840E-03	.1102	2.260E-03	
T 8789(250)	21.93	20.63	2.697E-03	.0774	3.413E-03	.0979	3.741E-03	.1073	2.203E-03	
T 8790(250)	22.98	21.68	2.631E-03	.0755	3.329E-03	.0955	3.649E-03	.1047	2.148E-03	
T 8791(250)	24.03	22.73	2.569E-03	.0737	3.251E-03	.0933	3.564E-03	.1022	2.098E-03	
	24.65		MODEL HAS LEFT CENTERLINE							

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 * UNCLASSIFIED *

8/21/74

NASA-R1 STS 0M25A

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

V413-83A

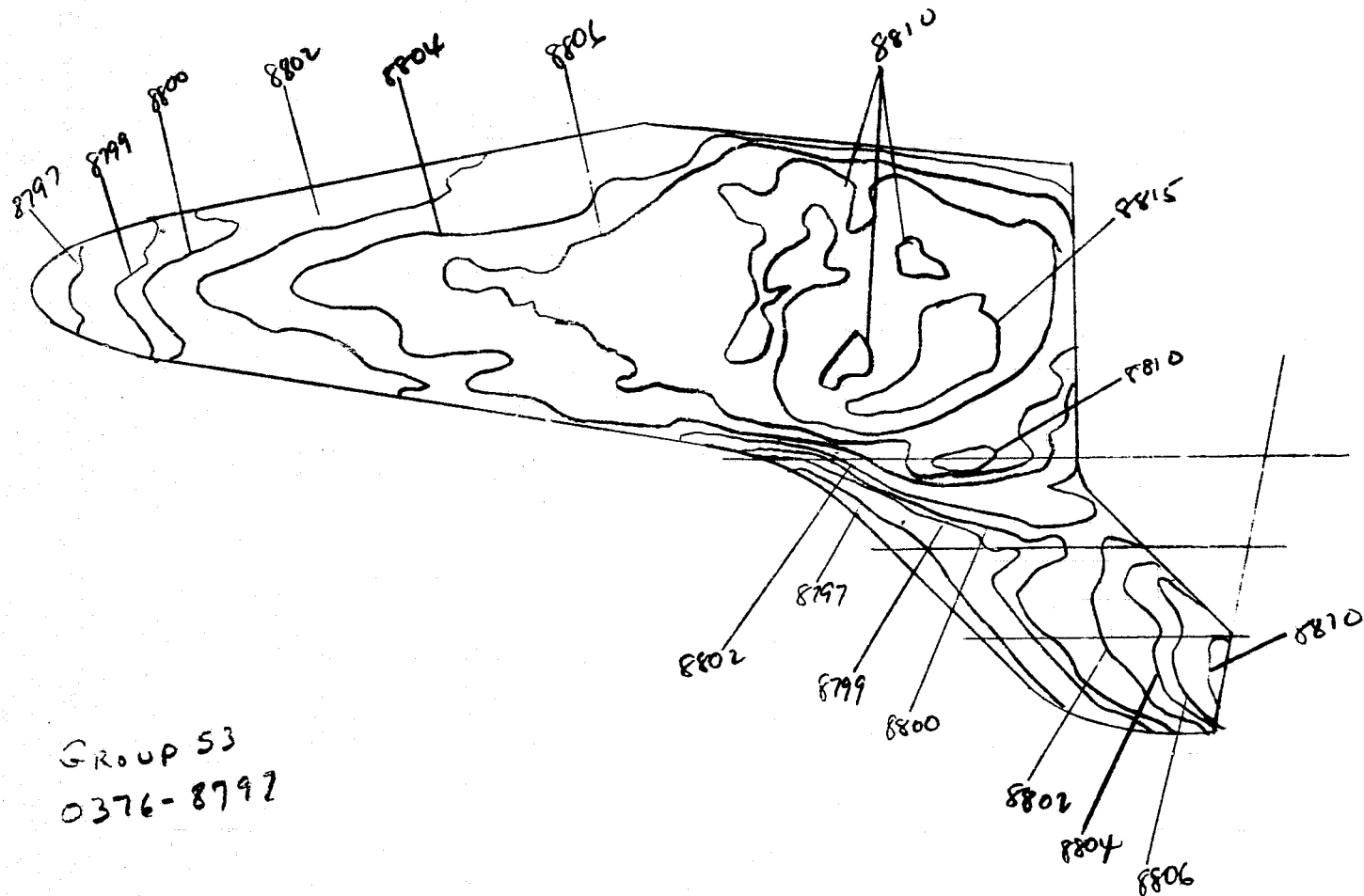
GROUP	CONFIG	MODEL	MACH NO	P0 (PSIA)	T0 (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
52	1	ORBITER	7.98	433.4	1306	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (H= .0175FT)		
95.1	.045	2.011	3813	3.981E-05	7.657E-08	1.982E 06	3.486E-02	2.891E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCAK)	TBAR (TO)	BETA (TO)				
	376	250	88	.0535	2.138E-01	2.2897E-01				

PIC NO	TIME DELTIME	H (TO)	H (TO)/HREF	H (.9 TO)	H (.9 TO)/HREF	H (.867 TO)	H (.867 TO)/HREF	ST (TO)
T 8792 (250)	25.08	23.79	2.512E-03	.0721	3.178E-03	.0912	3.484E-03	.1000
T 8793 (250)	26.13	24.84	2.498E-03	.0705	3.110E-03	.0892	3.409E-03	.0978

ERROR IN POWRF BASE<0 A = 6001242434215625 CALL FROM 72651

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GROUP 63
0276-8797



GROUP 53
0376-8797

 * UNCLASSIFIED *

8/21/74

NASA-RI STS 0M25A
 V418-83A

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

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
S3	4	LEADING EDGE	7.98	430.5	1309	40.05	-10.05	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	R-INF	RHO-INF	MU-INF	RE/FT	HRFF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(HR= .0175FT)	(H= .0175FT)		
95.3	.045	1.99E	3818	3.945E-05	7.674E-08	1.963E 06	3.476E-02	2.904E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)		SQUARE ROOT (RHOXCXK)		TBAR(TO)	BETA(TO)		
TOP(T)	376	250	97		.0535		0	0		

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8794(250)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8795(250)	1.03	MODEL HAS NOT REACHED CENTERLINE							
T 8796(250)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =	2.20								
T 8797(250)	3.08	1.84	8.500E-03	.2445	1.075E-02	.3092	1.178E-02	.3389	6.990E-03
T 8798(250)	4.10	2.87	6.812E-03	.1958	8.616E-03	.2477	9.442E-03	.2715	5.598E-03
T 8799(250)	5.16	3.92	5.827E-03	.1675	7.370E-03	.2119	8.077E-03	.2322	4.789E-03
T 8800(250)	6.21	4.97	5.174E-03	.1488	6.545E-03	.1882	7.172E-03	.2063	4.255E-03
T 8801(250)	7.21	5.97	4.721E-03	.1357	5.971E-03	.1717	6.544E-03	.1882	3.881E-03
T 8802(250)	8.26	7.02	4.353E-03	.1252	5.506E-03	.1583	6.034E-03	.1735	3.579E-03
T 8803(250)	9.31	8.07	4.060E-03	.1167	5.135E-03	.1476	5.628E-03	.1618	3.335E-03
T 8804(250)	10.36	9.13	3.819E-03	.1098	4.830E-03	.1389	5.293E-03	.1522	3.139E-03
T 8805(250)	11.41	10.18	3.616E-03	.1040	4.574E-03	.1316	5.013E-03	.1442	2.975E-03
T 8806(250)	12.46	11.23	3.443E-03	.0990	4.355E-03	.1252	4.772E-03	.1372	2.828E-03
T 8807(250)	13.52	12.28	3.292E-03	.0946	4.164E-03	.1197	4.563E-03	.1312	2.705E-03
T 8808(250)	14.54	13.31	3.163E-03	.0910	4.000E-03	.1151	4.384E-03	.1261	2.601E-03
T 8809(250)	15.59	14.36	3.045E-03	.0875	3.851E-03	.1107	4.220E-03	.1213	2.500E-03
T 8810(250)	16.64	15.41	2.939E-03	.0845	3.717E-03	.1069	4.074E-03	.1171	2.414E-03
T 8811(250)	17.70	16.46	2.844E-03	.0817	3.597E-03	.1034	3.942E-03	.1133	2.337E-03
T 8812(250)	18.75	17.51	2.757E-03	.0792	3.487E-03	.1002	3.821E-03	.1098	2.265E-03
T 8813(250)	19.80	18.56	2.678E-03	.0770	3.387E-03	.0973	3.712E-03	.1067	2.199E-03
T 8814(250)	20.85	19.61	2.605E-03	.0749	3.295E-03	.0947	3.611E-03	.1038	2.139E-03
T 8815(250)	21.90	20.66	2.538E-03	.0730	3.210E-03	.0923	3.518E-03	.1011	2.086E-03
T 8816(250)	22.95	21.71	2.476E-03	.0712	3.131E-03	.0900	3.432E-03	.0986	2.034E-03
T 8817(250)	24.00	22.77	2.418E-03	.0695	3.058E-03	.0879	3.351E-03	.0963	1.986E-03
T 8818(250)	25.03	23.79	2.365E-03	.0680	2.991E-03	.0860	3.278E-03	.0942	1.943E-03

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8/21/74

NASA-RJ STS 0M25A

AEDCIARO, INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL H

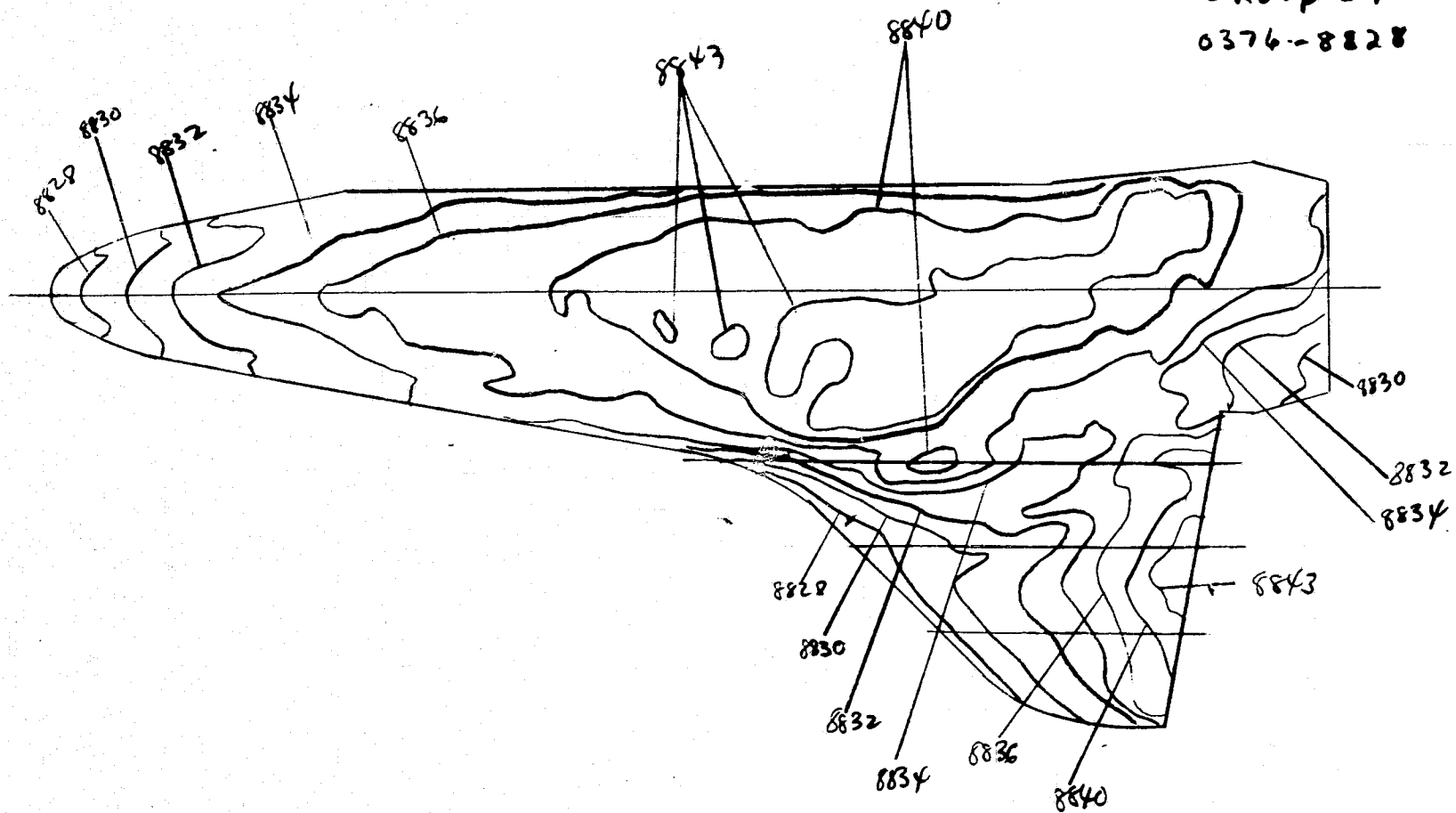
V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
53	4	LEADING EDGE	7.98	431.3	1309	40.05	-10.05	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175F)	STREF (R= .0175F)		
95.3	.045	2.002	3818	3.953E-05	7.674E-08	1.966E 06	3.479E-02	2.902E-02		
CAMERA TOP(T)	ROLL NO 376	PAINT TEMP (DEG F) 250	INITIAL TEMP (DEG F) 97	SQUARE ROOT (RHOXCXK) .0535	TBAR(TO) 2.034E-01	BETA(TO) 2.1564E-01				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8819(250)	26.08	24.84	2.315E-03	.0666	2.928E-03	.0842	3.204E-03	.0923	1.903E-03
T 8820(250)	27.13	25.89	2.267E-03	.0652	2.807E-03	.0824	3.142E-03	.0903	1.862E-03
T 8821(250)	28.18	26.95	2.222E-03	.0639	2.811E-03	.0808	3.080E-03	.0885	1.825E-03
	29.16		MODEL HAS LEFT CENTERLINE						
T 8822(250)	29.23	28.00	2.180E-03	.0627	2.758E-03	.0793	3.022E-03	.0869	1.792E-03
T 8823(250)	30.28	29.05	2.140E-03	.0615	2.707E-03	.0778	2.967E-03	.0853	1.757E-03
T 8824(250)	31.34	30.10	2.103E-03	.0604	2.660E-03	.0765	2.915E-03	.0838	1.727E-03
ERROR IN POWER BASE<0			A = 6001242214734237 CALL FROM 72651						

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Group 54
0376-8828



 * UNCLASSIFIED *

8/21/74

NASA-RI STS 0M25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
54	3	ROCY FLUSH	7.98	431.5	1310	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RMO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FI=1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.4	.045	2.003	3818	3.953E-05	7.677E-08	1.966E 05	3.480E-02	2.902E-02		
CAMERA IOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKK)	TBAR(TO)	BETA(TO)				
	376	250	94	.0535	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8825(250)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 8826(250)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 8827(250)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.28								
T 8828(250)	3.08	8.750E-03	.2513	1.106E-02	.3178	1.212E-02	.3483	7.178E-03
T 8829(250)	4.13	6.952E-03	.1997	8.790E-03	.2525	9.633E-03	.2768	5.706E-03
T 8830(250)	5.18	5.942E-03	.1707	7.514E-03	.2158	8.234E-03	.2365	4.875E-03
T 8831(250)	6.21	5.288E-03	.1519	6.686E-03	.1920	7.327E-03	.2104	4.337E-03
T 8832(250)	7.21	4.821E-03	.1385	6.095E-03	.1751	6.680E-03	.1919	3.956E-03
T 8833(250)	8.26	4.443E-03	.1276	5.618E-03	.1614	6.150E-03	.1768	3.645E-03
T 8834(250)	9.31	4.142E-03	.1190	5.237E-03	.1504	5.739E-03	.1648	3.397E-03
T 8835(250)	10.36	3.895E-03	.1119	4.925E-03	.1415	5.397E-03	.1550	3.196E-03
T 8836(250)	11.39	3.692E-03	.1000	4.668E-03	.1341	5.116E-03	.1469	3.027E-03
T 8837(250)	12.44	3.514E-03	.1009	4.443E-03	.1276	4.869E-03	.1399	2.882E-03
T 8838(250)	13.49	3.359E-03	.0965	4.247E-03	.1220	4.655E-03	.1337	2.754E-03
T 8839(250)	14.54	3.223E-03	.0926	4.076E-03	.1171	4.468E-03	.1283	2.643E-03
T 8840(250)	15.59	3.103E-03	.0891	3.923E-03	.1126	4.299E-03	.1235	2.543E-03
T 8841(250)	16.64	2.995E-03	.0860	3.787E-03	.1087	4.150E-03	.1192	2.455E-03
T 8842(250)	17.70	2.877E-03	.0832	3.663E-03	.1052	4.015E-03	.1153	2.375E-03
T 8843(250)	18.72	2.811E-03	.0807	3.554E-03	.1020	3.895E-03	.1118	2.304E-03
T 8844(250)	19.77	2.730E-03	.0784	3.451E-03	.0991	3.782E-03	.1086	2.238E-03
T 8845(250)	20.82	2.655E-03	.0762	3.357E-03	.0964	3.679E-03	.1056	2.176E-03
T 8846(250)	21.88	2.587E-03	.0743	3.271E-03	.0939	3.584E-03	.1029	2.119E-03
T 8847(250)	22.93	2.523E-03	.0724	3.190E-03	.0916	3.496E-03	.1004	2.068E-03
T 8848(250)	23.98	2.464E-03	.0707	3.115E-03	.0894	3.414E-03	.0980	2.019E-03
T 8849(250)	25.03	2.409E-03	.0691	3.046E-03	.0874	3.338E-03	.0958	1.973E-03

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NASA-R1 STS OH25A

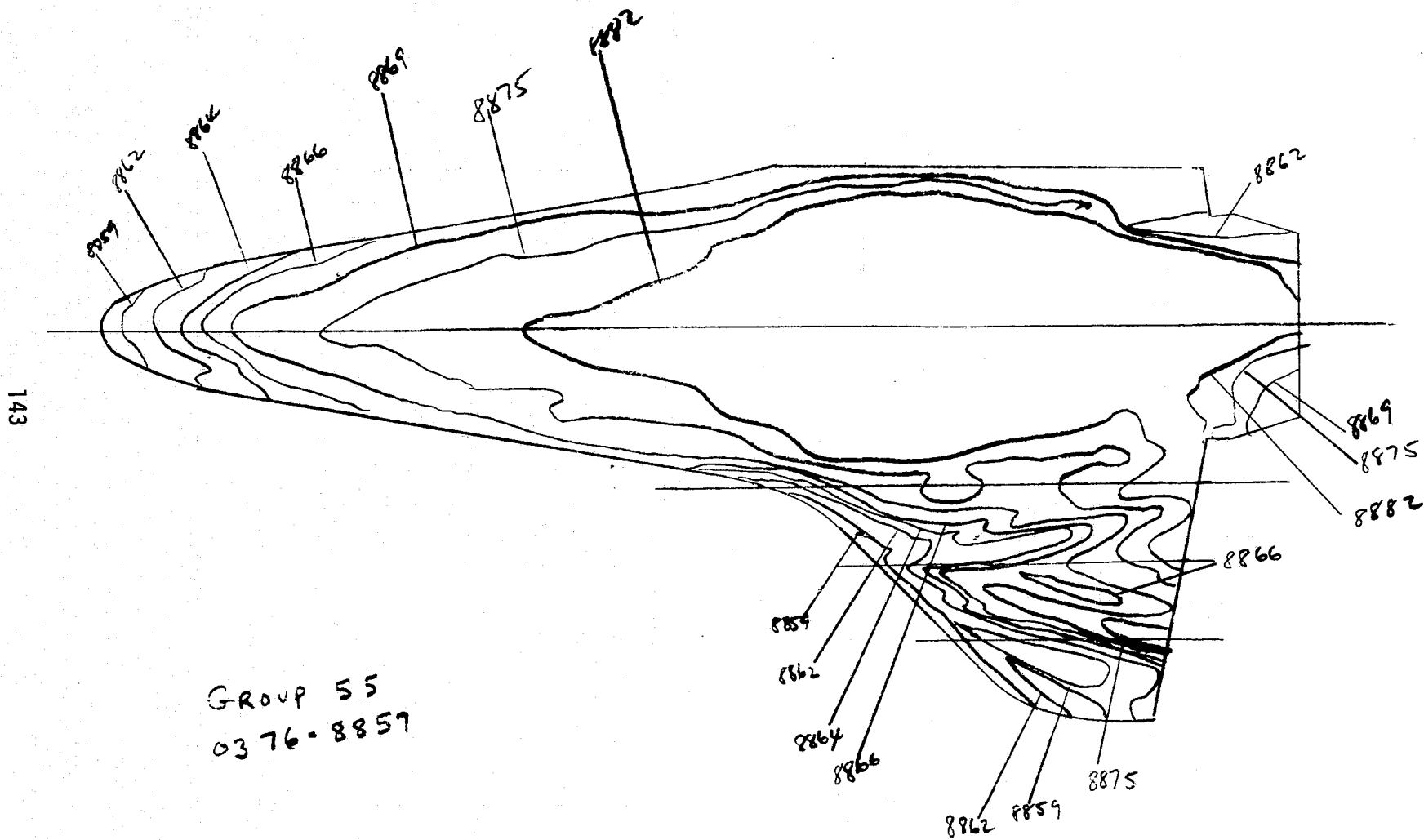
AEDC(ARO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL B

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
54	3	BODY FLUSH	7.98	432.6	1310	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.3	.045	2.00E	3818	3.963E-05	7.676E-08	1.971E 06	3.484E-02	2.898E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	376	250	94	.0535	2.064E-01	2.1941E-01				
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8850(250)	26.08	24.88	2.357E-03	.0677	2.980E-03	.0855	3.266E-03	.0938	1.931E-03	
T 8851(250)	27.11	25.83	2.310E-03	.0663	2.921E-03	.0838	3.201E-03	.0919	1.892E-03	
T 8852(250)	28.16	26.88	2.264E-03	.0650	2.863E-03	.0822	3.137E-03	.0900	1.854E-03	
T 8853(250)	29.21	27.93	2.221E-03	.0638	2.809E-03	.0806	3.078E-03	.0883	1.820E-03	
	29.91		MODEL HAS LEFT CENTERLINE							
T 8854(250)	30.26	28.98	2.181E-03	.0626	2.757E-03	.0791	3.022E-03	.0867	1.786E-03	
T 8855(250)	31.31	30.03	2.142E-03	.0615	2.708E-03	.0777	2.968E-03	.0852	1.754E-03	
ERROR IN FOWRF BASE<0 A = 6001000151527255 CALL FROM 72651										

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GROUP 55
0376 - 8859



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8/21/74

NASA-RS TS CM25A

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

V41B-B3A

GRUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
55	2	40 PERCENT	7.98	429.8	1308	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	O-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.2	.645	1.995	3816	3.943E-05	7.666E-08	1.963E 06	3.472E-02	2.905E-02		
CAMERA IOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	376	.250	81	.0535	0	0				

PIC NO	TIME DELINE	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8856(250)	.03			MODEL HAS NOT REACHED CENTERLINE					
I 8857(250)	1.00			MODEL HAS NOT REACHED CENTERLINE					
T 8858(250)	2.03			MODEL HAS NOT REACHED CENTERLINE					
INJECT TIME = 2.33									
T 8859(250)	3.08	1.77	9.546E-03	.2748	1.207E-02	.3474	1.322E-02	.3807	7.862E-03
T 8860(250)	4.13	2.82	7.562E-03	.2178	9.559E-03	.2753	1.047E-02	.3016	6.229E-03
T 8861(250)	5.16	3.87	6.476E-03	.1864	8.186E-03	.2357	8.970E-03	.2582	5.331E-03
T 8862(250)	6.21	4.92	5.740E-03	.1653	7.255E-03	.2089	7.950E-03	.2289	4.728E-03
T 8863(250)	7.26	5.95	5.208E-03	.1500	6.584E-03	.1896	7.213E-03	.2077	4.289E-03
T 8864(250)	8.31	7.00	4.801E-03	.1382	6.069E-03	.1747	6.650E-03	.1915	3.953E-03
T 8865(250)	9.34	8.03	4.484E-03	.1291	5.668E-03	.1631	6.211E-03	.1788	3.691E-03
T 8866(250)	10.39	9.08	4.217E-03	.1214	5.330E-03	.1535	5.840E-03	.1682	3.473E-03
T 8867(250)	11.44	10.13	3.992E-03	.1149	5.046E-03	.1452	5.529E-03	.1591	3.285E-03
T 8868(250)	12.49	11.18	3.800E-03	.1094	4.803E-03	.1382	5.262E-03	.1515	3.127E-03
T 8869(250)	13.54	12.23	3.633E-03	.1046	4.592E-03	.1322	5.031E-03	.1448	2.990E-03
T 8870(250)	14.57	13.26	3.489E-03	.1004	4.411E-03	.1269	4.833E-03	.1391	2.872E-03
T 8871(250)	15.62	14.31	3.359E-03	.0967	4.246E-03	.1222	4.652E-03	.1339	2.764E-03
T 8872(250)	16.67	15.36	3.242E-03	.0933	4.098E-03	.1179	4.490E-03	.1292	2.667E-03
T 8873(250)	17.72	16.41	3.136E-03	.0903	3.964E-03	.1141	4.344E-03	.1251	2.583E-03
T 8874(250)	18.77	17.46	3.040E-03	.0875	3.843E-03	.1105	4.211E-03	.1211	2.498E-03
T 8875(250)	19.80	18.49	2.955E-03	.0851	3.735E-03	.1075	4.092E-03	.1178	2.432E-03
T 8876(250)	20.85	19.54	2.874E-03	.0827	3.633E-03	.1045	3.981E-03	.1145	2.363E-03
T 8877(250)	21.90	20.59	2.800E-03	.0806	3.539E-03	.1019	3.878E-03	.1116	2.304E-03
T 8878(250)	22.95	21.64	2.731E-03	.0786	3.452E-03	.0993	3.783E-03	.1088	2.245E-03
T 8879(250)	24.00	22.70	2.667E-03	.0768	3.371E-03	.0970	3.694E-03	.1063	2.194E-03
T 8880(250)	25.03	23.72	2.609E-03	.0751	3.298E-03	.0949	3.613E-03	.1039	2.145E-03

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8/21/74

NASA-RI STS 0H25A

AEDC(AHO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
55	2	40 PERCENT	7.98	430.7	1308	30.01	-01	30.00	180.00	--00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (H= .0175FT)
95.2	.045	1.999	3816	3.951E-05	7.666E-08	1.967E 06	3.476E-02	2.902E-02

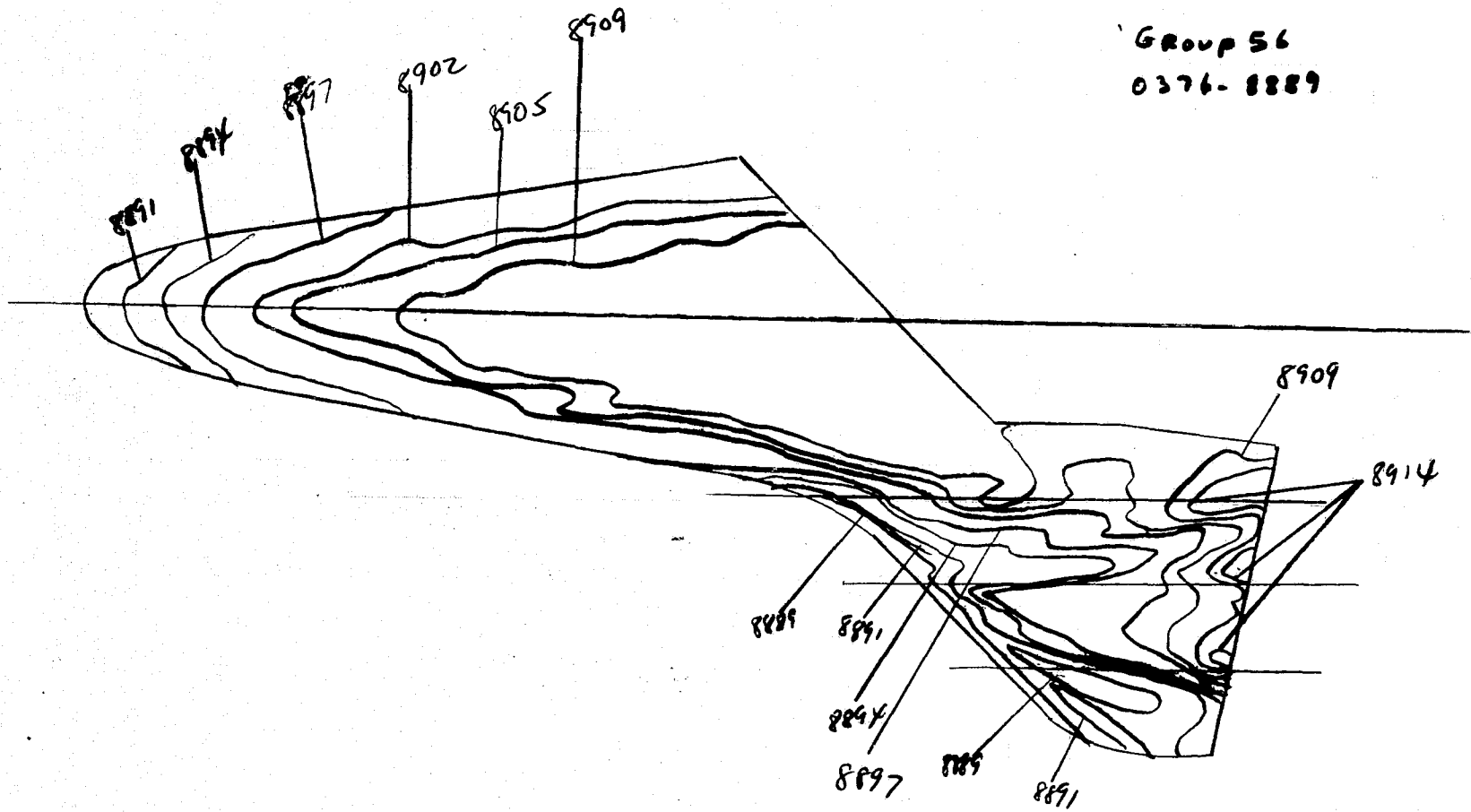
CAMERA TOP(T)	ROLL NO 376	PAINT TEMP (DEG F) 250	INITIAL TEMP (DEG F) 81	SQUARE ROOT (RHOXCXK) .0534	TRAR(TO) 2.203E-01	BETA(TO) 2.3749E-01
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PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8881(250)	26.08	24.77	2.553E-03	.0735	3.227E-03	.0928	3.536E-03	.1017	2.099E-03
T 8882(250)	27.13	25.82	2.500E-03	.0719	3.101E-03	.0909	3.463E-03	.0996	2.055E-03
	28.08		MODEL HAS LEFT CENTERLINE						
T 8883(250)	28.18	26.86	2.451E-03	.0705	3.098E-03	.0891	3.395E-03	.0977	2.015E-03
T 8884(250)	29.23	27.93	2.404E-03	.0692	3.039E-03	.0875	3.330E-03	.0958	1.977E-03
T 8885(250)	30.28	28.99	2.300E-03	.0679	2.984E-03	.0858	3.269E-03	.0940	1.940E-03

ERROR IN POWRF BASE<0 A = 5777377762626227 CALL FROM 72651

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Group 56
0376-8889



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8/21/74

NASA-R1 STS 0M25A

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

V416-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
56	5	TRANSITION	7.98	430.3	1305	30.00	.00	30.00	180.00	-.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
95.0	.045	1.997	3811	3.957E-05	7.649E-08	1.972E 06	3.473E-02	2.899E-02		
CAPERA	ROLL NO	PAINT TEMP	(DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKK)	TBAR(TO)	BETA(TO)			
TOP(T)	376	250		85	.0535	0	0			

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8886(250)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 8887(250)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 8888(250)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =	2.23							
T 8889(250)	3.05	1.80	9.249E-03	.2676	1.177E-02	.3386	1.290E-02	.3712
T 8890(250)	4.10	2.85	7.390E-03	.2127	9.351E-03	.2691	1.025E-02	.2951
T 8891(250)	5.13	3.88	6.338E-03	.1824	8.020E-03	.2308	8.792E-03	.2531
T 8892(250)	6.18	4.93	5.622E-03	.1618	7.114E-03	.2047	7.799E-03	.2244
T 8893(250)	7.23	5.98	5.105E-03	.1469	6.459E-03	.1858	7.081E-03	.2037
T 8894(250)	8.28	7.03	4.708E-03	.1355	5.957E-03	.1715	6.530E-03	.1880
T 8895(250)	9.26	8.01	4.412E-03	.1270	5.582E-03	.1606	6.119E-03	.1761
T 8896(250)	10.31	9.06	4.148E-03	.1194	5.248E-03	.1510	5.754E-03	.1656
T 8897(250)	11.36	10.11	3.926E-03	.1130	4.968E-03	.1429	5.440E-03	.1567
T 8898(250)	12.41	11.16	3.737E-03	.1075	4.728E-03	.1360	5.184E-03	.1491
T 8899(250)	13.47	12.21	3.572E-03	.1028	4.520E-03	.1300	4.955E-03	.1426
T 8900(250)	14.54	13.29	3.425E-03	.0985	4.333E-03	.1247	4.751E-03	.1367
T 8901(250)	15.57	14.32	3.300E-03	.0949	4.175E-03	.1201	4.577E-03	.1317
T 8902(250)	16.62	15.37	3.185E-03	.0916	4.030E-03	.1159	4.418E-03	.1271
T 8903(250)	17.67	16.42	3.081E-03	.0886	3.899E-03	.1121	4.274E-03	.1229
T 8904(250)	18.72	17.47	2.987E-03	.0859	3.780E-03	.1087	4.144E-03	.1192
T 8905(250)	19.77	18.52	2.901E-03	.0834	3.671E-03	.1056	4.024E-03	.1158
T 8906(250)	20.80	19.55	2.824E-03	.0812	3.573E-03	.1028	3.917E-03	.1127
T 8907(250)	21.85	20.60	2.751E-03	.0791	3.481E-03	.1001	3.816E-03	.1097
T 8908(250)	22.90	21.65	2.683E-03	.0772	3.395E-03	.0977	3.722E-03	.1071
T 8909(250)	23.95	22.70	2.620E-03	.0754	3.316E-03	.0953	3.635E-03	.1045
T 8910(250)	25.00	23.75	2.562E-03	.0737	3.241E-03	.0932	3.554E-03	.1022

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NASA-R1 STS 0M25A

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

V418-B3A

GRUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
56	S	TRANSITION	7.98	431.5	1305	30.00	.00	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R= .0175FI)	STREF (R= .0175FT)		
95.0	.045	2.003	3811	3.968E-05	7.647E-08	1.978E 06	3.478E-02	2.895E-02		
CAMERA TOP(IT)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	376	250	85	.0535	2.171E-01	2.3337E-01				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8911(250)	26.05	24.80	2.507E-03	.0721	3.172E-03	.0912	3.477E-03	.1000	2.057E-03	
T 8912(250)	27.11	25.86	2.455E-03	.0706	3.107E-03	.0893	3.406E-03	.0979	2.012E-03	
T 8913(250)	28.13	26.88	2.408E-03	.0692	3.047E-03	.0876	3.340E-03	.0960	1.973E-03	
	28.63		MODEL HAS LEFT CENTERLINE							
T 8914(250)	29.18	27.93	2.362E-03	.0679	2.989E-03	.0859	3.277E-03	.0942	1.935E-03	
T 8915(250)	30.23	28.9A	2.319E-03	.0667	2.934E-03	.0843	3.217E-03	.0925	1.900E-03	
ERROR IN POWRF BASE<0 A = 6001242123461063 CALL FROM 72651										

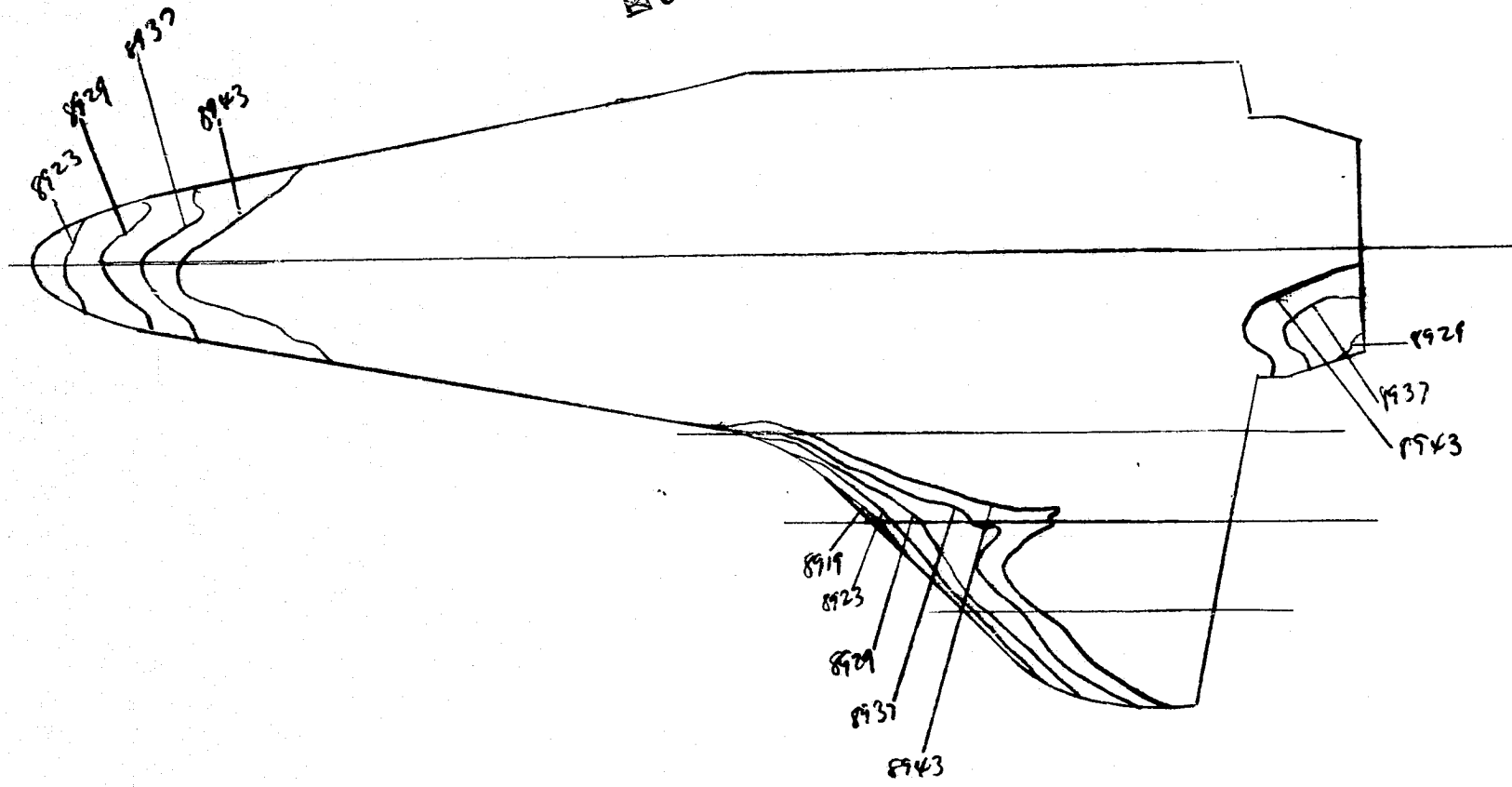
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GROUP 57
0376-8919

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GROUP 57
0376-8919

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8/21/74

NASA-R1 STS 0425A

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

V418-83A

GRUP	CONFIG	MODEL	MACH.NO	PO(P5IA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
57	2	40 PERCENT	7.98	433.1	1303	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FI-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.8	.045	2.010	3808	3.989E-05	7.635E-08	1.990E 06	3.483E-02	2.887E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
	376	350	86	.0550	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8916(350)	0	MODEL HAS NOT REACHED CENTERLINE							
T 8917(350)	.98	MODEL HAS NOT REACHED CENTERLINE							
T 8918(350)	2.00	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.30							
T 8919(350)	3.05	1.76	1.860E-02	.5167	2.390E-02	.6861	2.682E-02	.7700	1.461E-02
T 8920(350)	4.08	2.79	1.431E-02	.4105	1.900E-02	.5451	2.132E-02	.6118	1.160E-02
T 8921(350)	5.13	3.84	1.219E-02	.3500	1.619E-02	.4447	1.817E-02	.5216	9.896E-03
T 8922(350)	6.18	4.89	1.030E-02	.3100	1.434E-02	.4116	1.610E-02	.4620	8.762E-03
T 8923(350)	7.23	5.94	9.798E-03	.2812	1.301E-02	.3733	1.460E-02	.4190	7.946E-03
T 8924(350)	8.28	6.99	9.032E-03	.2592	1.199E-02	.3441	1.346E-02	.3853	7.323E-03
T 8925(350)	9.31	8.02	8.434E-03	.2420	1.120E-02	.3214	1.257E-02	.3607	6.839E-03
T 8926(350)	10.36	9.07	7.930E-03	.2276	1.053E-02	.3022	1.182E-02	.3391	6.430E-03
T 8927(350)	11.41	10.12	7.507E-03	.2154	9.968E-03	.2860	1.119E-02	.3210	6.086E-03
T 8928(350)	12.44	11.15	7.153E-03	.2053	9.498E-03	.2726	1.066E-02	.3059	5.801E-03
T 8929(350)	13.49	12.20	6.838E-03	.1961	9.080E-03	.2604	1.019E-02	.2923	5.540E-03
T 8930(350)	14.54	13.25	6.551E-03	.1883	8.712E-03	.2500	9.778E-03	.2806	5.322E-03
T 8931(350)	15.59	14.30	6.315E-03	.1812	8.386E-03	.2406	9.412E-03	.2701	5.119E-03
T 8932(350)	16.64	15.35	6.095E-03	.1748	8.094E-03	.2321	9.084E-03	.2605	4.938E-03
T 8933(350)	17.67	16.38	5.901E-03	.1693	7.836E-03	.2248	8.795E-03	.2523	4.784E-03
T 8934(350)	18.72	17.43	5.721E-03	.1641	7.596E-03	.2179	8.526E-03	.2446	4.636E-03
T 8935(350)	19.77	18.48	5.555E-03	.1594	7.377E-03	.2116	8.280E-03	.2375	4.501E-03
T 8936(350)	20.80	19.51	5.407E-03	.1551	7.180E-03	.2059	8.059E-03	.2311	4.379E-03
T 8937(350)	21.85	20.56	5.267E-03	.1511	6.994E-03	.2006	7.850E-03	.2251	4.265E-03
T 8938(350)	22.90	21.61	5.138E-03	.1473	6.822E-03	.1957	7.657E-03	.2196	4.160E-03
T 8939(350)	23.95	22.66	5.017E-03	.1439	6.662E-03	.1910	7.477E-03	.2144	4.062E-03
T 8940(350)	24.98	23.69	4.907E-03	.1407	6.516E-03	.1869	7.313E-03	.2098	3.975E-03

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8/21/74

NASA-RI STS 0H25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
57	2	40 PERCENT	7.98	434.0	1302	40.02	-10.02	30.00	180.00	-0.00
T-IAF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.9	.045	2.014	3807	3.999E-05	7.632E-08	1.595E 06	3.486E-02	2.883E-02		

CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
TOP(T)	376	350	86	.0550	3.490E-01	4.3422E-01

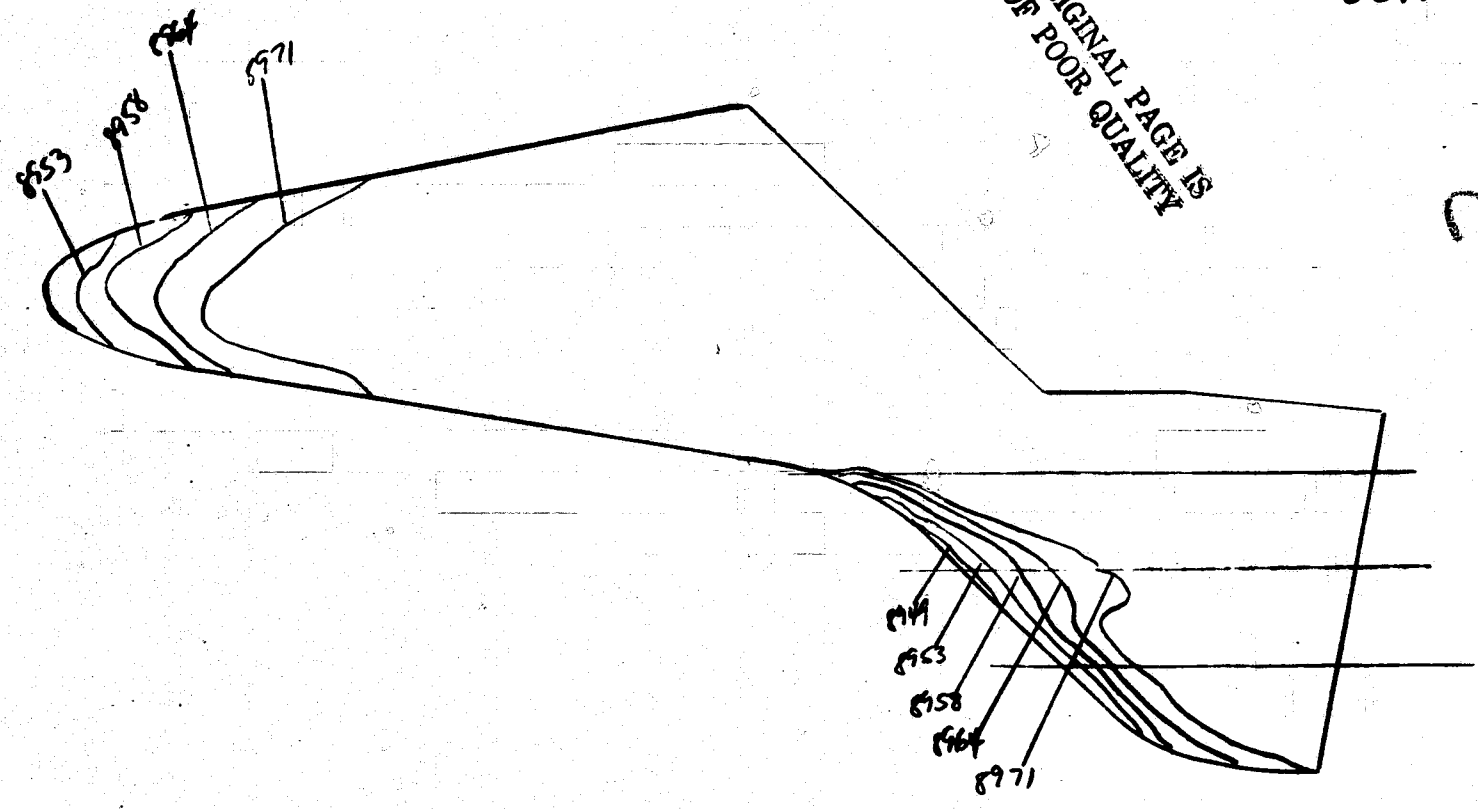
PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 8941(350)	26.03	24.74	4.802E-03	.1376	6.376E-03	.1828	7.156E-03	.2051	3.884E-03
T 8942(350)	27.08	25.79	4.703E-03	.1349	6.245E-03	.1791	7.009E-03	.2010	3.809E-03
T 8943(350)	28.13	26.84	4.610E-03	.1322	6.121E-03	.1756	6.870E-03	.1971	3.734E-03
	28.56		MODEL HAS LEFT CENTERLINE						
T 8944(350)	29.18	27.89	4.522E-03	.1297	6.005E-03	.1722	6.739E-03	.1933	3.663E-03
T 8945(350)	30.23	28.94	4.439E-03	.1273	5.895E-03	.1691	6.616E-03	.1897	3.595E-03
ERROR IN POWRF BASE<0			A = 6001242214734237 CALL FROM 72651						

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GROUP 58
0376-8949

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8/21/74

NASA-RI STS 0M25A

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

V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREREND	ROLL-MODEL	YAW
5B	5	TRANSITION	7.98	429.6	1301	40.03	-10.07	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R=.0175FT)	STREF (R=.0175FT)		
94.7	.045	1.994	3806	3.962E-05	7.626E-08	1.977E 06	3.468E-02	2.896E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	376	350	87	.0550	0	0				

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PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8946(350)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8947(350)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 8948(350)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.30									
T 8949(350)	3.05	1.76	1.797E-02	.5179	2.387E-02	.6879	2.680E-02	.7723	1.469E-02
T 8950(350)	4.10	2.81	1.422E-02	.4098	1.889E-02	.5444	2.121E-02	.6112	1.162E-02
T 8951(350)	5.13	3.84	1.217E-02	.3507	1.617E-02	.4654	1.815E-02	.5230	9.943E-03
T 8952(350)	6.18	4.89	1.078E-02	.3107	1.432E-02	.4127	1.608E-02	.4634	8.810E-03
T 8953(350)	7.23	5.94	9.783E-03	.2820	1.300E-02	.3746	1.459E-02	.4205	7.997E-03
T 8954(350)	8.28	6.99	9.018E-03	.2598	1.198E-02	.3451	1.345E-02	.3874	7.363E-03
T 8955(350)	9.34	8.04	8.408E-03	.2422	1.117E-02	.3218	1.254E-02	.3612	6.867E-03
T 8956(350)	10.36	9.07	7.918E-03	.2280	1.052E-02	.3029	1.181E-02	.3401	6.463E-03
T 8957(350)	11.41	10.12	7.495E-03	.2159	9.957E-03	.2868	1.118E-02	.3220	6.122E-03
T 8958(350)	12.46	11.17	7.134E-03	.2055	9.477E-03	.2729	1.064E-02	.3064	5.824E-03
T 8959(350)	13.52	12.22	6.820E-03	.1965	9.060E-03	.2610	1.017E-02	.2930	5.569E-03
T 8960(350)	14.57	13.27	6.545E-03	.1885	8.694E-03	.2504	9.780E-03	.2811	5.343E-03
T 8961(350)	15.62	14.33	6.300E-03	.1814	8.369E-03	.2410	9.396E-03	.2706	5.142E-03
T 8962(350)	16.64	15.35	6.086E-03	.1752	8.084E-03	.2328	9.070E-03	.2613	4.966E-03
T 8963(350)	17.70	16.40	5.887E-03	.1696	7.821E-03	.2253	8.780E-03	.2529	4.807E-03
T 8964(350)	18.75	17.45	5.707E-03	.1644	7.582E-03	.2183	8.512E-03	.2451	4.657E-03
T 8965(350)	19.80	18.51	5.543E-03	.1596	7.363E-03	.2121	8.267E-03	.2381	4.524E-03
T 8966(350)	20.85	19.56	5.392E-03	.1552	7.162E-03	.2062	8.041E-03	.2315	4.399E-03
T 8967(350)	21.90	20.61	5.253E-03	.1513	6.977E-03	.2009	7.834E-03	.2256	4.287E-03
T 8968(350)	22.93	21.63	5.126E-03	.1476	6.810E-03	.1961	7.646E-03	.2201	4.182E-03
T 8969(350)	23.98	22.68	5.006E-03	.1441	6.650E-03	.1915	7.466E-03	.2150	4.084E-03
T 8970(350)	25.03	23.74	4.894E-03	.1409	6.501E-03	.1871	7.299E-03	.2101	3.991E-03

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R/21/74

NASA-RI STS 0M25A

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

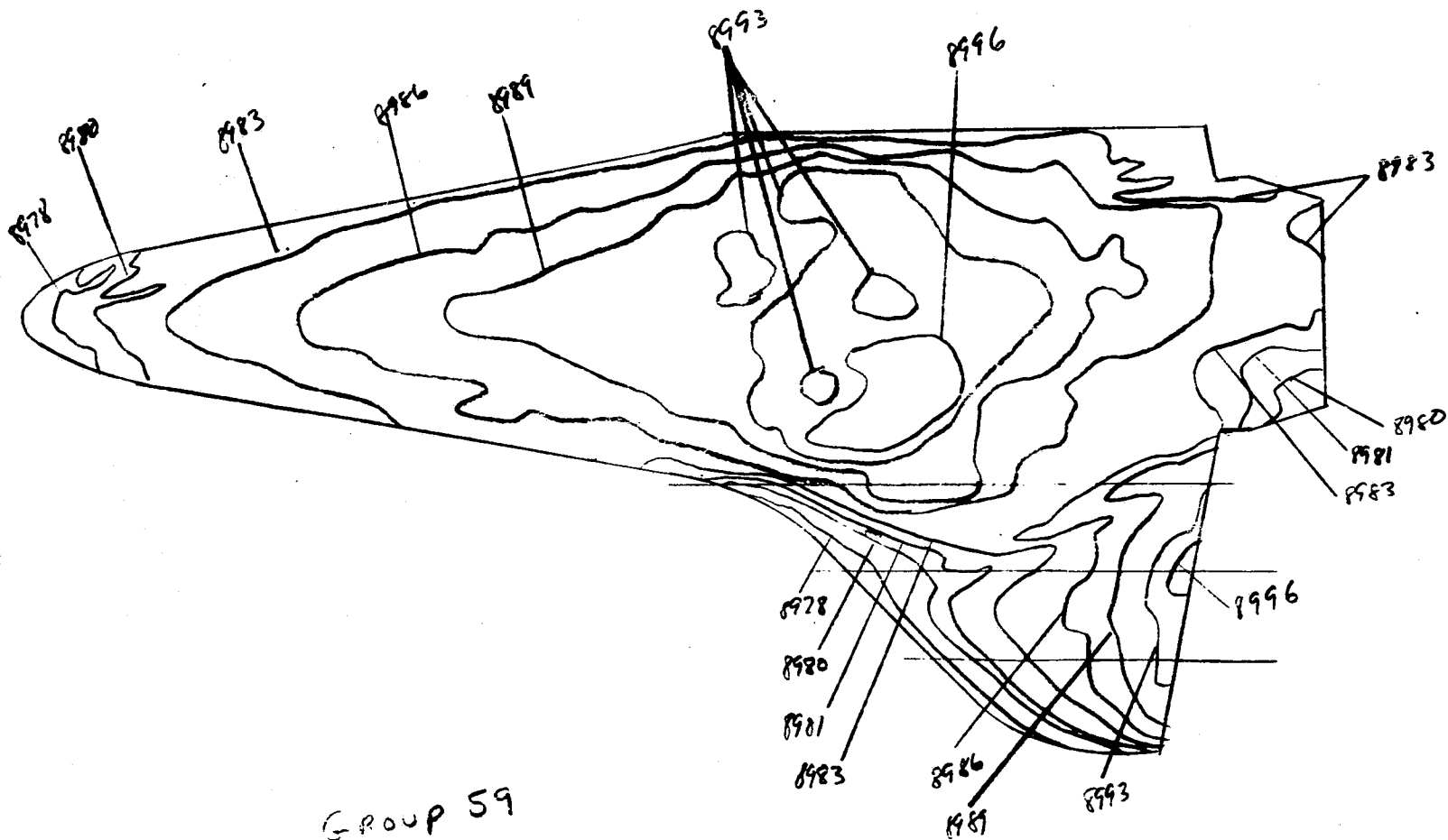
V41B-93A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
58	5	TRANSITION	7.98	431.0	1301	40.03	-10.03	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.7	.045	2.000	3806	3.475E-05	7.626E-08	1.984E 06	3.474E-02	2.892E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	376	350	87	.0550	3.486E-01	4.3353E-01				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8971(350)	24.08 24.79	4.749E-03	.1378	6.362E-03	.1831	7.143E-03	.2056	3.904E-03	
T 8972(350)	27.13 25.84	4.691E-03	.1350	6.231E-03	.1794	6.996E-03	.2014	3.825E-03	
	27.41	MODEL HAS LEFT CENTERLINE							
T 8973(350)	28.18 26.89	4.598E-03	.1324	6.108E-03	.1759	6.858E-03	.1974	3.750E-03	
T 8974(350)	29.23 27.94	4.511E-03	.1298	5.992E-03	.1724	6.727E-03	.1936	3.675E-03	
ERROR IN FOWRF BASE<0 A = 6001242032207076 CALL FROM 72651									

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GROUP 59
0376 - 8978



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GROUP 59
0376 - 8978

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8/21/74

NASA-R1 STS 0H25A

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

V418-B3A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
59	2	40 PERCENT	7.98	432.0	1300	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	HE/FT (FT-1)	HREF (R= .0175F1)	STREF (R= .0175FT)		
94.7	.045	2.005	3804	3.987E-05	7.620E-08	1.590E 06	3.477E-02	2.887E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	276	250	86	.0535	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 8975(250)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 8976(250)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 8977(250)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.28									
T 8978(250)	3.08	1.80	9.320E-03	.2679	1.141E-02	.3394	1.295E-02	.3722	7.615E-03
T 8979(250)	4.10	2.83	7.438E-03	.2139	9.421E-03	.2708	1.035E-02	.2970	6.076E-03
T 8980(250)	5.16	3.88	6.350E-03	.1825	8.043E-03	.2312	8.822E-03	.2535	5.186E-03
T 8981(250)	6.21	4.93	5.632E-03	.1619	7.134E-03	.2051	7.825E-03	.2249	4.601E-03
T 8982(250)	7.26	5.98	5.113E-03	.1469	6.477E-03	.1861	7.104E-03	.2041	4.175E-03
T 8983(250)	8.28	7.01	4.724E-03	.1357	5.984E-03	.1719	6.563E-03	.1885	3.854E-03
T 8984(250)	9.34	8.06	4.405E-03	.1266	5.580E-03	.1603	6.120E-03	.1758	3.556E-03
T 8985(250)	10.39	9.11	4.143E-03	.1190	5.248E-03	.1508	5.750E-03	.1654	3.382E-03
T 8986(250)	11.44	10.16	3.923E-03	.1127	4.969E-03	.1428	5.450E-03	.1566	3.201E-03
T 8987(250)	12.49	11.21	3.744E-03	.1073	4.730E-03	.1359	5.188E-03	.1490	3.047E-03
T 8988(250)	13.54	12.26	3.571E-03	.1026	4.523E-03	.1290	4.961E-03	.1425	2.914E-03
T 8989(250)	14.57	13.29	3.430E-03	.0985	4.345E-03	.1242	4.765E-03	.1369	2.797E-03
T 8990(250)	15.62	14.34	3.302E-03	.0949	4.182E-03	.1201	4.587E-03	.1318	2.694E-03
T 8991(250)	16.67	15.39	3.187E-03	.0915	4.037E-03	.1160	4.428E-03	.1272	2.599E-03
T 8992(250)	17.72	16.44	3.084E-03	.0886	3.906E-03	.1122	4.284E-03	.1230	2.515E-03
T 8993(250)	18.75	17.47	2.992E-03	.0859	3.789E-03	.1088	4.150E-03	.1194	2.440E-03
T 8994(250)	19.80	18.52	2.906E-03	.0835	3.680E-03	.1057	4.037E-03	.1159	2.369E-03
T 8995(250)	20.85	19.57	2.826E-03	.0812	3.580E-03	.1028	3.927E-03	.1128	2.304E-03
T 8996(250)	21.90	20.62	2.753E-03	.0791	3.488E-03	.1001	3.825E-03	.1098	2.244E-03
T 8997(250)	22.95	21.67	2.686E-03	.0771	3.402E-03	.0977	3.731E-03	.1071	2.189E-03
T 8998(250)	24.00	22.72	2.623E-03	.0753	3.322E-03	.0954	3.644E-03	.1046	2.138E-03
T 8999(250)	25.03	23.75	2.566E-03	.0737	3.250E-03	.0933	3.565E-03	.1024	2.091E-03

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8/21/74

NASA-RJ STS 0425A

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

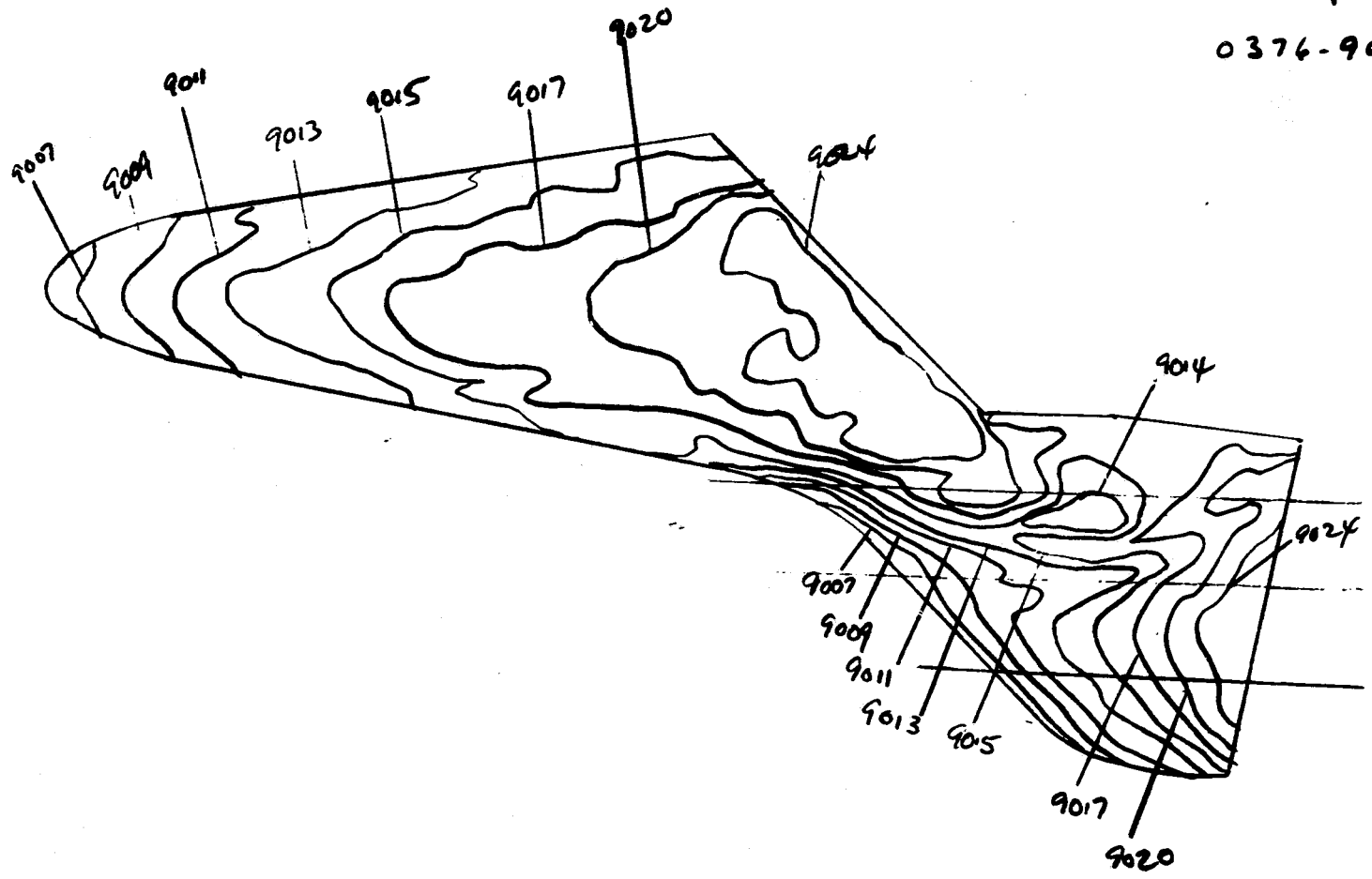
V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
59	2	40 PERCENT	7.98	433.3	1300	40.02	-10.02	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.6	.045	2.011	3804	3.999E-05	7.619E-08	1.997E 06	3.483E-02	2.882E-02		
CAMERA TOP(T)	ROLL NO 376	PAINT TEMP (DEG F) 250	INITIAL TEMP (DEG F) 86	SQUARE ROOT (RHOACXK) .0535	TBAR(TO) 2.174E-01	BETA(TO) 2.3372E-01				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9000(250)	26.08 24.80	2.511E-03	.0721	3.180E-03	.0913	3.486E-03	.1002	2.047E-03	
T 9001(250)	27.13 25.85	2.459E-03	.0706	3.115E-03	.0894	3.416E-03	.0981	2.004E-03	
	27.78	MODEL HAS LEFT CENTERLINE							
T 9002(250)	28.18 26.90	2.411E-03	.0692	3.053E-03	.0877	3.349E-03	.0962	1.966E-03	
T 9003(250)	29.21 27.93	2.366E-03	.0680	2.997E-03	.0861	3.287E-03	.0944	1.930E-03	
ERROR IN F0WRF BASE<0 A = 6001242160206434 CALL FROM 72651									

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Group 60
0376-9007



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8/21/74

NASA-RJ STS 0425A

AEDC(ARO-JAC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL 9

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
60	5	TRANSITION	7.98	430.4	1299	40.03	-10.03	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(H= .0175FT)		
94.6	.045	1.998	3803	3.975E-05	7.614E-08	1.585E 06	3.471E-02	2.891E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
TOP(T)	376	250	87	.0535	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9004(250)	.03		MODEL HAS NOT REACHED CENTERLINE							
T 9005(250)	1.00		MODEL HAS NOT REACHED CENTERLINE							
T 9006(250)	2.03		MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.23								
T 9007(250)	3.05	1.82	9.276E-03	.2672	1.175E-02	.3386	1.284E-02	.3713	7.604E-03	
T 9008(250)	4.10	2.85	7.372E-03	.2123	9.342E-03	.2691	1.025E-02	.2951	6.044E-03	
T 9009(250)	5.16	3.91	6.302E-03	.1815	7.986E-03	.2300	8.759E-03	.2522	5.165E-03	
T 9010(250)	6.21	4.96	5.594E-03	.1611	7.049E-03	.2041	7.775E-03	.2239	4.583E-03	
T 9011(250)	7.23	5.98	5.042E-03	.1466	6.452E-03	.1858	7.077E-03	.2038	4.173E-03	
T 9012(250)	8.28	7.03	4.696E-03	.1352	5.951E-03	.1713	6.527E-03	.1879	3.847E-03	
T 9013(250)	9.34	8.09	4.380E-03	.1261	5.550E-03	.1598	6.088E-03	.1752	3.586E-03	
T 9014(250)	10.39	9.14	4.121E-03	.1186	5.221E-03	.1503	5.727E-03	.1649	3.375E-03	
T 9015(250)	11.44	10.19	3.902E-03	.1123	4.945E-03	.1424	5.423E-03	.1561	3.196E-03	
T 9016(250)	12.46	11.21	3.719E-03	.1071	4.713E-03	.1357	5.169E-03	.1488	3.045E-03	
T 9017(250)	13.52	12.26	3.556E-03	.1024	4.507E-03	.1297	4.943E-03	.1423	2.913E-03	
T 9018(250)	14.57	13.32	3.413E-03	.0982	4.325E-03	.1244	4.744E-03	.1365	2.792E-03	
T 9019(250)	15.62	14.37	3.286E-03	.0946	4.164E-03	.1198	4.567E-03	.1314	2.689E-03	
T 9020(250)	16.67	15.42	3.172E-03	.0913	4.019E-03	.1157	4.408E-03	.1269	2.596E-03	
T 9021(250)	17.70	16.44	3.071E-03	.0884	3.892E-03	.1120	4.269E-03	.1229	2.515E-03	
T 9022(250)	18.77	17.52	2.975E-03	.0856	3.770E-03	.1085	4.135E-03	.1190	2.436E-03	
T 9023(250)	19.80	18.55	2.892E-03	.0832	3.665E-03	.1055	4.019E-03	.1157	2.366E-03	
T 9024(250)	20.85	19.60	2.813E-03	.0810	3.565E-03	.1026	3.910E-03	.1125	2.302E-03	
T 9025(250)	21.90	20.65	2.741E-03	.0789	3.473E-03	.1000	3.809E-03	.1096	2.243E-03	
T 9026(250)	22.95	21.70	2.674E-03	.0769	3.388E-03	.0975	3.710E-03	.1069	2.187E-03	
T 9027(250)	24.00	22.75	2.611E-03	.0752	3.309E-03	.0952	3.629E-03	.1045	2.136E-03	
T 9028(250)	25.03	23.78	2.554E-03	.0735	3.237E-03	.0931	3.550E-03	.1021	2.089E-03	

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8/21/74

NASA-RI STS 0M25A

AEDC(AHO,INC.) AMNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL R

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
60	5	TRANSITION	7.98	431.7	1299	40.03	-10.03	30.00	180.00	-0.00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
94.6	.000	2.004	3803	3.987E-05	7.614E-08	1.991E 06	3.476E-02	2.887E-02

CAMERA TOF(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)
	376	250	87	.0595	2.167E-01	2.3280E-01

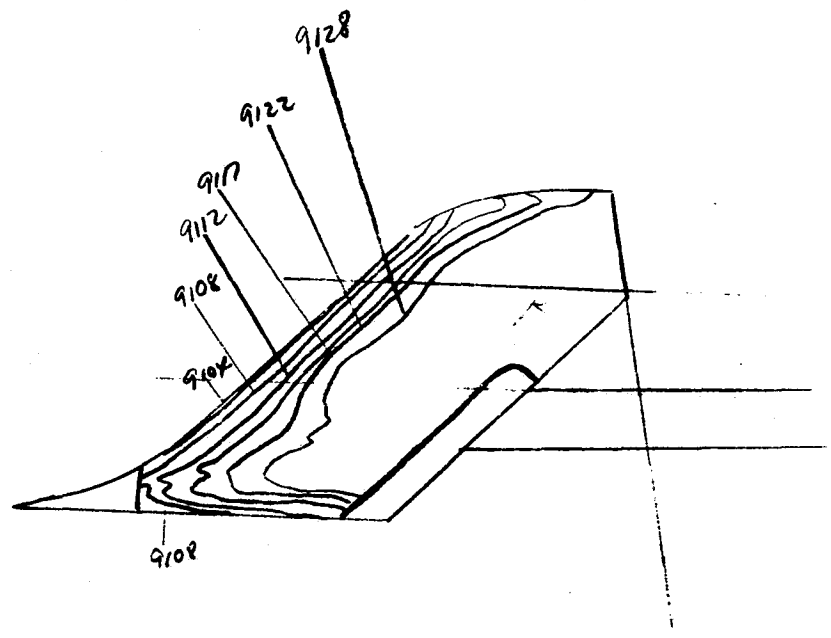
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 9029(250)	25.25	26.08	24.83	2.500E-03	.0719	3.167E-03	.0911	3.474E-03	.1000	2.045E-03

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GROUP 61
0370-9104



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GROUP 61
0370-9104

 * UNCLASSIFIED *

8/21/74

NASA-RI STS 0M25A

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

V410-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
61	6	L R.C. WING	7.98	431.8	1299	40.02	-0.02	40.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
94.6	.045	2.004	3803	3.988E-05	7.614E-08	1.592E 04	3.476E-02	2.886E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TRAR(TO)	BETA(TO)				
TOP(T)	370	350	81	.0550	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9101(350)	0.03		MODEL HAS NOT REACHED CENTERLINE						
T 9102(350)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 9103(350)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.19							
T 9104(350)	3.05	1.83	1.808E-02	.5198	2.403E-02	.4909	2.698E-02	.7760	1.469E-02
T 9105(350)	4.10	2.88	1.441E-02	.4142	1.915E-02	.5506	2.151E-02	.6184	1.171E-02
T 9106(350)	5.16	3.93	1.233E-02	.3546	1.639E-02	.4713	1.841E-02	.5293	1.002E-02
T 9107(350)	6.18	4.96	1.048E-02	.3157	1.460E-02	.4196	1.640E-02	.4713	8.920E-03
T 9108(350)	7.23	6.01	9.977E-03	.2868	1.326E-02	.3812	1.489E-02	.4282	8.107E-03
T 9109(350)	8.28	7.05	9.205E-03	.2646	1.223E-02	.3517	1.374E-02	.3530	7.478E-03
T 9110(350)	9.34	8.11	8.588E-03	.2469	1.141E-02	.3242	1.282E-02	.3686	6.979E-03
T 9111(350)	10.39	9.16	8.080E-03	.2323	1.074E-02	.3087	1.206E-02	.3467	6.561E-03
T 9112(350)	11.44	10.22	7.653E-03	.2200	1.017E-02	.2923	1.142E-02	.3283	6.213E-03
T 9113(350)	12.49	11.27	7.287E-03	.2095	9.686E-03	.2784	1.088E-02	.3127	5.918E-03
T 9114(350)	13.54	12.32	6.970E-03	.2003	9.263E-03	.2662	1.040E-02	.2990	5.658E-03
T 9115(350)	14.59	13.37	6.690E-03	.1923	8.892E-03	.2555	9.986E-03	.2870	5.433E-03
T 9116(350)	15.64	14.42	6.441E-03	.1851	8.561E-03	.2460	9.610E-03	.2763	5.228E-03
T 9117(350)	16.69	15.47	6.219E-03	.1787	8.265E-03	.2375	9.283E-03	.2668	5.048E-03
T 9118(350)	17.75	16.52	6.018E-03	.1729	7.998E-03	.2298	8.983E-03	.2581	4.884E-03
T 9119(350)	18.77	17.55	5.839E-03	.1678	7.761E-03	.2230	8.716E-03	.2504	4.739E-03
T 9120(350)	19.82	18.60	5.672E-03	.1629	7.538E-03	.2166	8.467E-03	.2432	4.602E-03
T 9121(350)	20.87	19.65	5.518E-03	.1585	7.334E-03	.2107	8.237E-03	.2366	4.475E-03
T 9122(350)	21.93	20.70	5.376E-03	.1544	7.145E-03	.2053	8.025E-03	.2305	4.361E-03
T 9123(350)	22.98	21.75	5.245E-03	.1506	6.971E-03	.2002	7.829E-03	.2249	4.255E-03
T 9124(350)	24.03	22.81	5.122E-03	.1471	6.808E-03	.1955	7.646E-03	.2196	4.154E-03
T 9125(350)	25.68	24.46	4.946E-03	.1421	6.574E-03	.1888	7.384E-03	.2121	4.010E-03

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8/21/74

NASA-RI STS 0M25A

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

V418-83A

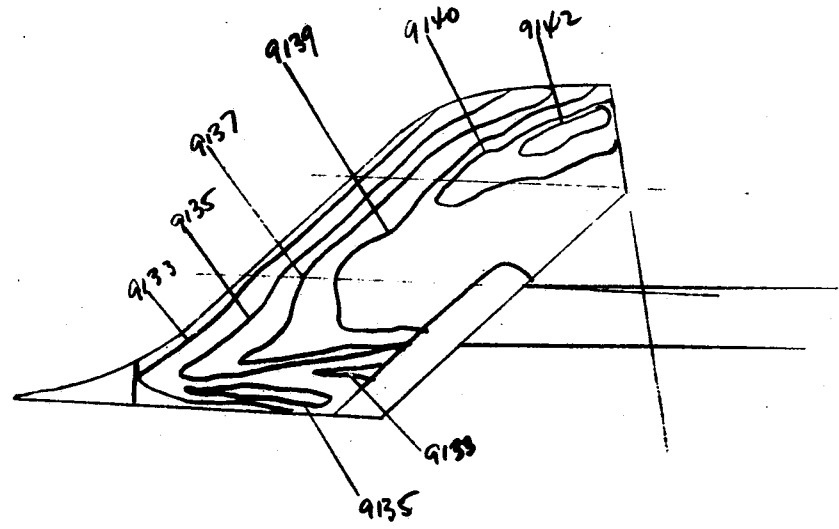
GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
c1	6	L N.C.WING	7.98	433.2	1299	40.02	-02	40.00	180.00	-00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FI-1)	(R= .0175FT)	(R= .0175FT)		
94.6	.045	2.010	3803	4.000E-05	7.615E-08	1.99AE 06	3.482E-02	2.882E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKK)	TBAR(TO)	BETA(TO)				
TOP(T)	370	350	81	.0550	3.548E-01	4.4475E-01				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
	26.48	MODEL HAS LEFT CENTERLINE							
T 9126(350)	26.73	25.51	4.843E-03	.1391	6.437E-03	.1849	7.230E-03	.2076	3.926E-03
T 9127(350)	27.78	26.56	4.746E-03	.1363	6.308E-03	.1812	7.085E-03	.2035	3.848E-03
ERROR IN POWRF BASE<0 A = 5777267017143077 CALL FROM 72651									

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Group 62
0370-9133

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8/21/74

NASA-R1 STS 0H25A

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

V419-83A

GROUP	CONFIG	MODEL	MACH. NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
62	6	L R.C.WING	7.98	433.5	1300	40.02	--02	40.00	180.00	--00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.6	.045	2.012	3804	4.001E-05	7.619E-08	1.998E 06	3.483E-02	2.882E-02		

CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (PHOXCK)	TBAR (TO)	BETA (TO)
	370	250	80	.0535	0	0

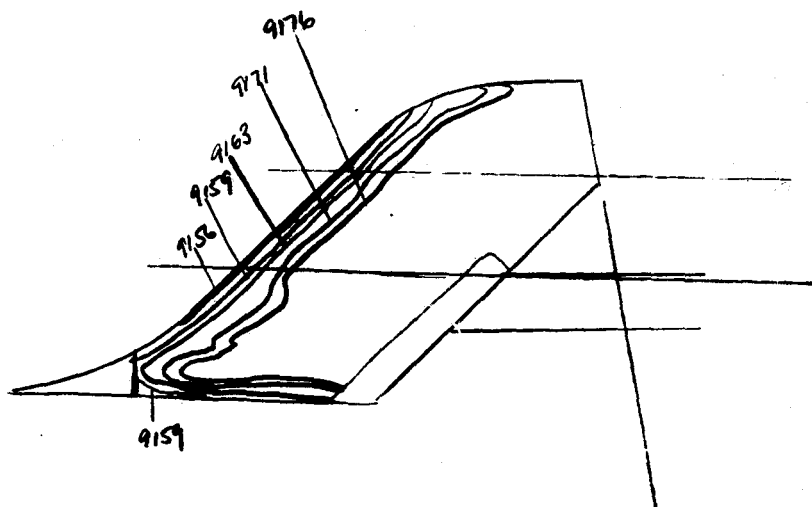
PIC NO	TIME DELTIME	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.867TO)	H (.867TO)/HREF	ST (TO)	
T 9130(250)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 9131(250)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 9132(250)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.18									
T 9133(250)	3.05	1.83	9.564E-03	.2745	1.211E-02	.3476	1.328E-02	.3812	7.790E-03
T 9134(250)	4.10	2.88	7.623E-03	.2188	9.653E-03	.2770	1.059E-02	.3038	6.207E-03
T 9135(250)	5.16	3.97	6.525E-03	.1873	8.263E-03	.2372	9.061E-03	.2401	5.315E-03
T 9136(250)	6.21	4.98	5.797E-03	.1663	7.340E-03	.2106	8.049E-03	.2310	4.720E-03
T 9137(250)	7.26	6.04	5.268E-03	.1512	6.671E-03	.1915	7.315E-03	.2099	4.290E-03
T 9138(250)	8.31	7.09	4.861E-03	.1395	6.156E-03	.1766	6.751E-03	.1937	3.957E-03
T 9139(250)	9.36	8.14	4.537E-03	.1302	5.745E-03	.1648	6.300E-03	.1807	3.693E-03
T 9140(250)	10.41	9.19	4.269E-03	.1225	5.406E-03	.1551	5.924E-03	.1701	3.476E-03
T 9141(250)	11.46	10.24	4.044E-03	.1160	5.121E-03	.1449	5.616E-03	.1611	3.291E-03
T 9142(250)	12.51	11.29	3.851E-03	.1105	4.877E-03	.1399	5.344E-03	.1534	3.134E-03
T 9143(250)	13.57	12.34	3.684E-03	.1057	4.665E-03	.1338	5.115E-03	.1468	2.999E-03
T 9144(250)	14.62	13.39	3.536E-03	.1015	4.478E-03	.1295	4.910E-03	.1409	2.878E-03
T 9145(250)	15.67	14.45	3.405E-03	.0977	4.312E-03	.1237	4.728E-03	.1356	2.769E-03
T 9146(250)	16.69	15.47	3.290E-03	.0943	4.167E-03	.1195	4.569E-03	.1310	2.675E-03
T 9147(250)	17.75	16.52	3.184E-03	.0913	4.032E-03	.1156	4.421E-03	.1268	2.588E-03
T 9148(250)	18.80	17.57	3.087E-03	.0886	3.909E-03	.1122	4.287E-03	.1230	2.507E-03
T 9149(250)	19.87	18.65	2.997E-03	.0860	3.795E-03	.1089	4.161E-03	.1194	2.439E-03
	20.47	MODEL HAS LEFT CENTERLINE							
T 9150(250)	20.52	19.74	2.916E-03	.0836	3.692E-03	.1059	4.049E-03	.1161	2.370E-03
T 9151(250)	21.58	20.75	2.841E-03	.0815	3.598E-03	.1032	3.945E-03	.1132	2.312E-03
T 9152(250)	23.03	21.80	2.772E-03	.0795	3.510E-03	.1007	3.849E-03	.1104	2.255E-03

ERROR IN POWRF BASE<0

A = 5777167740374451 CALL FROM 72651

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Group 63
0370-9156



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8/21/74

NASA-R1 STS 0H25A

AEDC(AHO,INC.) ANNULO AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL R

V419-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
63	6	L.F.C.WING	7.98	432.5	1300	30.03	9.97	40.00	180.00	-0.00
T-1NF	P-1NF	O-1NF	V-1NF	RHO-1NF	MU-1NF	RE/FT	HREF	S1REF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FT-1)	(R=.0175FT)	(R=.0175FT)		
94.6	.045	2.007	3804	3.992E-05	7.619E-08	1.993E 06	3.479E-02	2.885E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCAK)	TBAR(TO)	BETA(TO)				
TOP(T)	370	350	81	.0550	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9153(350)	0	MODEL HAS NOT REACHED CENTERLINE							
T 9154(350)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 9155(350)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.33							
T 9156(350)	3.05	1.75	1.849E-02	.5315	2.459E-02	.7064	2.760E-02	.7933	
T 9157(350)	4.10	2.80	1.461E-02	.4198	1.942E-02	.5580	2.181E-02	.6266	
T 9158(350)	5.16	3.85	1.246E-02	.3579	1.656E-02	.4757	1.850E-02	.5342	
T 9159(350)	6.21	4.90	1.104E-02	.3172	1.467E-02	.4216	1.640E-02	.4734	
T 9160(350)	7.26	5.95	1.002E-02	.2879	1.331E-02	.3826	1.495E-02	.4296	
T 9161(350)	8.31	7.00	9.235E-03	.2653	1.227E-02	.3526	1.374E-02	.3960	
T 9162(350)	9.36	8.05	8.611E-03	.2474	1.144E-02	.3289	1.285E-02	.3693	
T 9163(350)	10.41	9.11	8.099E-03	.2327	1.076E-02	.3093	1.209E-02	.3473	
T 9164(350)	11.46	10.16	7.669E-03	.2203	1.019E-02	.2928	1.144E-02	.3287	
T 9165(350)	12.51	11.21	7.300E-03	.2097	9.702E-03	.2787	1.089E-02	.3130	
T 9166(350)	13.57	12.26	6.980E-03	.2005	9.277E-03	.2664	1.042E-02	.2992	
T 9167(350)	14.62	13.31	6.699E-03	.1924	8.903E-03	.2558	9.997E-03	.2872	
T 9168(350)	15.67	14.36	6.449E-03	.1853	8.571E-03	.2462	9.625E-03	.2765	
T 9169(350)	16.72	15.41	6.225E-03	.1788	8.273E-03	.2376	9.291E-03	.2669	
T 9170(350)	17.77	16.44	6.023E-03	.1730	8.005E-03	.2299	8.989E-03	.2582	
T 9171(350)	18.82	17.51	5.840E-03	.1677	7.761E-03	.2228	8.715E-03	.2502	
T 9172(350)	19.87	18.57	5.672E-03	.1629	7.538E-03	.2165	8.465E-03	.2431	
T 9173(350)	20.92	19.62	5.518E-03	.1585	7.333E-03	.2106	8.235E-03	.2365	
T 9174(350)	21.98	20.67	5.376E-03	.1544	7.144E-03	.2052	8.023E-03	.2304	
T 9175(350)	23.03	21.72	5.244E-03	.1506	6.969E-03	.2001	7.826E-03	.2247	
T 9176(350)	24.08	22.77	5.121E-03	.1470	6.807E-03	.1954	7.643E-03	.2194	
24.58			MODEL HAS LEFT CENTERLINE						

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8/21/74

NASA-RI STS 0M25A

AEDC(AHD,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
63	6	L.R.C.WING	7.98	433.4	1300	30.03	9.97	40.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FI-1)	HREF (R=.0175FT)	STREF (R=.0175FT)		
94.6	.045	2.011	3804	4.001E-05	7.618E-08	1.997E 06	3.483E-02	2.882E-02		

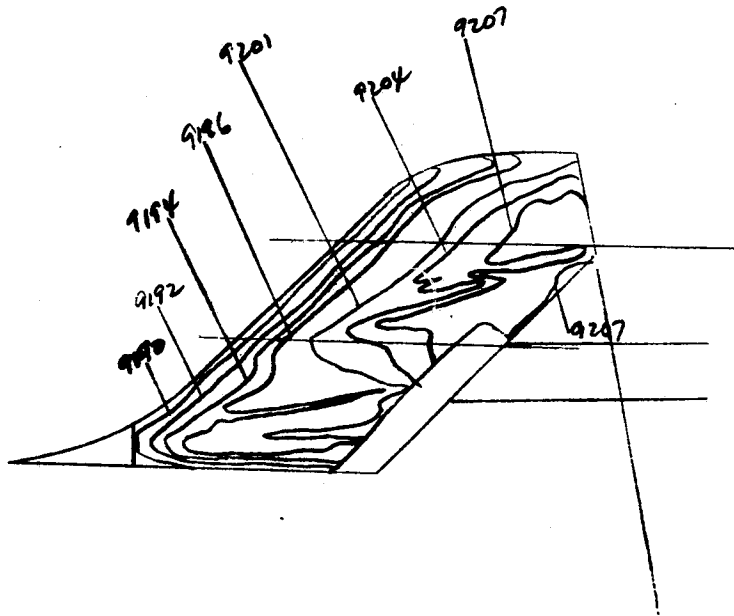
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)
TOP(T)	370	350	81	.0550	3.546E-01	4.4435E-01

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PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9177(350)	25.13	23.82	5.007E-03	.1437	6.655E-03	.1910	7.473E-03	.2145
T 9178(350)	26.18	24.87	4.900E-03	.1407	6.512E-03	.1870	7.313E-03	.2100
T 9179(350)	27.23	25.92	4.800E-03	.1377	6.379E-03	.1830	7.163E-03	.2055
T 9180(350)	28.28	26.98	4.705E-03	.1351	6.254E-03	.1795	7.023E-03	.2016
T 9181(350)	29.33	28.03	4.616E-03	.1325	6.135E-03	.1762	6.890E-03	.1978
T 9182(350)	30.38	29.08	4.532E-03	.1301	6.023E-03	.1729	6.764E-03	.1941
T 9183(350)	31.44	30.13	4.452E-03	.1278	5.917E-03	.1699	6.645E-03	.1908
T 9184(350)	32.49	31.18	4.377E-03	.1257	5.817E-03	.1670	6.532E-03	.1876
T 9185(350)	33.54	32.23	4.305E-03	.1235	5.721E-03	.1642	6.424E-03	.1844
T 9186(350)	34.59	33.28	4.236E-03	.1216	5.630E-03	.1616	6.322E-03	.1814

ERROR IN POWRF BASE<0 A = 5777167657353043 CALL FROM 72651

GROUP 64
0370-9190



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GROUP 64
0370-9190

 • UNCLASSIFIED •

8/21/74

NASA-R[STS 0M25A

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

V410-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
64	6	L F.C.WING	7.98	430.4	129H	30.01	9.99	40.00	180.00	-0.00
T-INF	P-INF	O-INF	V-INF	RHO-INF	MU-INF	HE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(F ⁻¹)	(H = .0175F ¹)	(H = .0175F ¹)		
94.5	.045	1.998	3801	3.978E-05	7.609E-08	1.987E 06	3.470E-02	2.890E-02		
CAMERA	ROLL NO	PAINT TEMP	TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOACXK)	TBAR(TO)	BETA(TO)			
TOP(T)	370		250	79	.0535	0	0			

PIC NO	TIME DELTIME	M(TO)	M(TO)/HREF	M(.9TO)	M(.9TO)/HREF	M(.867TO)	M(.867TO)/HREF	ST(TO)	
T 9187(250)	.03			MODEL HAS NOT REACHED CENTERLINE					
T 9188(250)	1.00			MODEL HAS NOT REACHED CENTERLINE					
T 9189(250)	2.03			MODEL HAS NOT REACHED CENTERLINE					
INJECT TIME = 2.22									
T 9190(250)	3.08	1.80	9.738E-03	.2806	1.234E-02	.3555	1.353E-02	.3899	7.984E-03
T 9191(250)	4.10	2.83	7.771E-03	.2240	9.845E-03	.2837	1.080E-02	.3112	6.375E-03
T 9192(250)	5.16	3.88	6.635E-03	.1912	8.405E-03	.2422	9.220E-03	.2657	5.440E-03
T 9193(250)	6.21	4.93	5.885E-03	.1696	7.455E-03	.2149	8.174E-03	.2357	4.829E-03
T 9194(250)	7.26	5.98	5.342E-03	.1539	6.768E-03	.1950	7.424E-03	.2139	4.380E-03
T 9195(250)	8.31	7.03	4.927E-03	.1419	6.242E-03	.1798	6.847E-03	.1972	4.037E-03
T 9196(250)	9.36	8.02	4.595E-03	.1324	5.822E-03	.1678	6.386E-03	.1840	3.768E-03
T 9197(250)	10.41	9.13	4.323E-03	.1245	5.477E-03	.1578	6.007E-03	.1731	3.543E-03
T 9198(250)	11.46	10.18	4.094E-03	.1180	5.186E-03	.1444	5.689E-03	.1639	3.357E-03
T 9199(250)	12.51	11.24	3.897E-03	.1123	4.938E-03	.1422	5.416E-03	.1560	3.194E-03
T 9200(250)	13.57	12.29	3.727E-03	.1074	4.722E-03	.1361	5.179E-03	.1492	3.056E-03
T 9201(250)	14.62	13.34	3.577E-03	.1031	4.532E-03	.1306	4.971E-03	.1433	2.934E-03
T 9202(250)	15.67	14.39	3.444E-03	.0992	4.363E-03	.1257	4.786E-03	.1379	2.822E-03
T 9203(250)	16.69	15.42	3.327E-03	.0959	4.215E-03	.1214	4.624E-03	.1332	2.727E-03
T 9204(250)	17.75	16.47	3.219E-03	.0927	4.079E-03	.1175	4.474E-03	.1289	2.637E-03
T 9205(250)	18.80	17.52	3.121E-03	.0899	3.954E-03	.1139	4.338E-03	.1249	2.556E-03
T 9206(250)	19.87	18.59	3.030E-03	.0873	3.838E-03	.1115	4.210E-03	.1213	2.482E-03
T 9207(250)	20.90	19.62	2.949E-03	.0849	3.737E-03	.1076	4.094E-03	.1180	2.415E-03
T 9208(250)	21.95	20.67	2.873E-03	.0828	3.640E-03	.1049	3.993E-03	.1150	2.355E-03
T 9209(250)	23.00	21.72	2.803E-03	.0807	3.551E-03	.1023	3.895E-03	.1122	2.295E-03
T 9210(250)	24.05	22.77	2.738E-03	.0790	3.468E-03	.1001	3.804E-03	.1098	2.231E-03
T 9211(250)	25.10	23.83	2.676E-03	.0771	3.391E-03	.0976	3.719E-03	.1071	2.192E-03

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8/21/74

NASA-R1 SYS 0M25A

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

V41B-R3A

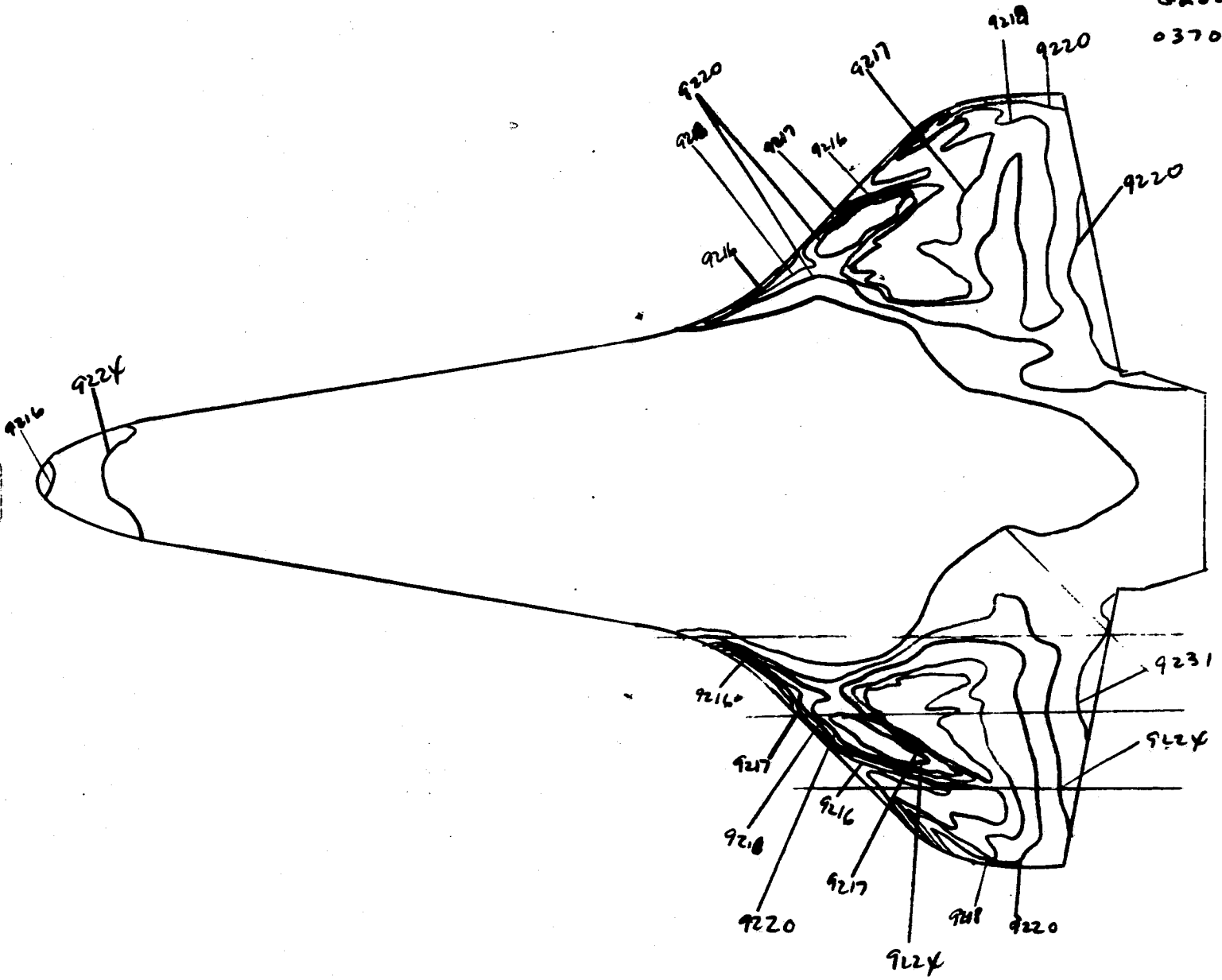
GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
64	6	L F.C.WING	7.98	431.1	1298	30.01	9.99	40.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
94.5	.045	2.001	3801	7.985E-05	7.609E-08	1.991E 06	3.473E-02	2.887E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHUACCK)	TBAR(TO)	BETA(TO)				
	370	250	79	.0535	2.253E-01	2.4419E-01				
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 9212(250)	26.16	2.619E-03	.0754	3.318E-03	.0955	3.640E-03	.1048	2.145E-03		

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 * UNCLASSIFIED *

Group 65
0370-9216

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 * UNCLASSIFIED *

8/21/74

NASA-R1 STS 0M25A

AFDC(ARO, IAC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
65	1	ORBITER	8.00	863.2	1366	30.03	-.03	30.00	180.00	-.00
T-IAF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
95.0	.088	3.961	3900	7.494E-05	7.969E-08	3.668E 06	4.930E-02	2.116E-02		
CAPEFA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
TOP(T)	370	400	31	.0555	0	0				

PIC NO	TIME DELINE	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9213(400)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 9214(400)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 9215(400)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.18								
T 9216(400)	3.08	1.86	2.055E-02	.4168	2.742E-02	.5561	3.085E-02	.6258
T 9217(400)	4.13	2.91	1.642E-02	.3337	2.191E-02	.4445	2.465E-02	.5003
T 9218(400)	5.16	3.93	1.412E-02	.2863	1.883E-02	.3919	2.114E-02	.4298
T 9219(400)	6.21	4.98	1.254E-02	.2543	1.673E-02	.3392	1.883E-02	.3817
T 9220(400)	7.26	6.04	1.140E-02	.2311	1.520E-02	.3083	1.711E-02	.3469
T 9221(400)	8.31	7.09	1.052E-02	.2133	1.403E-02	.2846	1.573E-02	.3202
T 9222(400)	9.36	8.14	9.815E-03	.1990	1.309E-02	.2655	1.473E-02	.2988
T 9223(400)	10.41	9.19	9.236E-03	.1873	1.232E-02	.2499	1.387E-02	.2812
T 9224(400)	11.46	10.24	8.749E-03	.1774	1.167E-02	.2366	1.313E-02	.2663
T 9225(400)	12.51	11.29	8.332E-03	.1690	1.112E-02	.2254	1.251E-02	.2537
T 9226(400)	13.57	12.34	7.969E-03	.1616	1.063E-02	.2156	1.196E-02	.2426
T 9227(400)	14.57	13.34	7.665E-03	.1555	1.022E-02	.2074	1.151E-02	.2334
T 9228(400)	15.62	14.40	7.380E-03	.1496	9.844E-03	.1996	1.108E-02	.2246
T 9229(400)	16.67	15.45	7.124E-03	.1445	9.504E-03	.1928	1.069E-02	.2169
T 9230(400)	17.72	16.51	6.893E-03	.1397	9.196E-03	.1863	1.035E-02	.2097
T 9231(400)	18.77	17.55	6.684E-03	.1355	8.916E-03	.1807	1.003E-02	.2034
T 9232(400)	19.82	18.60	6.492E-03	.1316	8.661E-03	.1756	9.746E-03	.1976
T 9233(400)	20.87	19.65	6.316E-03	.1281	8.426E-03	.1709	9.482E-03	.1923
T 9234(400)	21.93	20.71	6.154E-03	.1248	8.209E-03	.1664	9.238E-03	.1873
T 9235(400)	22.98	21.75	6.003E-03	.1217	8.008E-03	.1623	9.012E-03	.1827
	23.30		MODEL HAS LEFT CENTERLINE					
T 9236(400)	24.03	22.81	5.863E-03	.1189	7.822E-03	.1587	8.802E-03	.1786
								2.460E-03

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 * UNCLASSIFIED *

8/21/74

NASA-RI STS 0425A

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

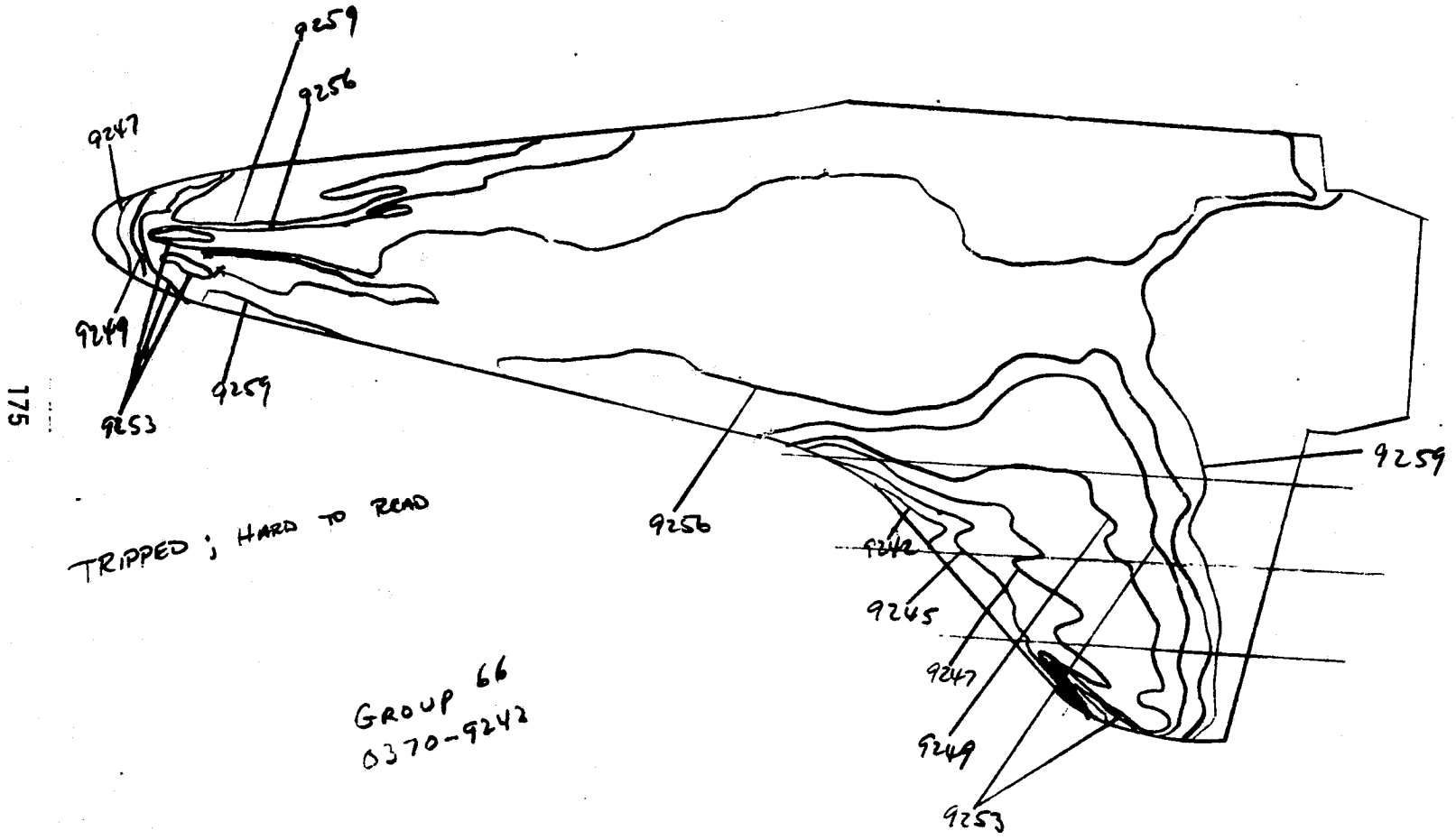
V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
65	1	ORBITER	8.00	863.0	1366	30.03	-03	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
95.0	.088	3.960	3900	7.493E-05	7.969E-08	3.667E 06	4.929E-02	2.117E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)		SQUARE ROOT (RHOXCK)	TRAR(TO)	BETA(TO)			
	370	400	R1		.0555	3.866E-01	5.0448E-01			

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9237(400)	25.00 23.86	5.732E-03	.1163	7.647E-03	.1551	8.606E-03	.1745	2.404E-03	
T 9238(400)	29.33 28.11	5.201E-03	.1070	7.045E-03	.1428	7.928E-03	.1607	2.212E-03	
ERROR IN POWRF BASE<0		A = 6001000270734655 CALL FROM 72651							

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GROUP 6
0370 - 92



* UNCLASSIFIED *

8/21/74

NASA-R1 STS 0M25A

AEDC(AHO,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V41A-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
66	2	40 PERCENT	8.00	861.6	1361	30.02	-02	30.00	180.00	-00
T-IAF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FT-1)	(R= .0175FT)	(H= .0175FT)		
98.4	.088	3.954	3893	7.508E-05	7.939E-08	3.481E 06	4.922E-02	2.113E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKK)	TBAR(TO)	BETA(TO)				
TOP(T)	370	500	81	.0542	0	0				

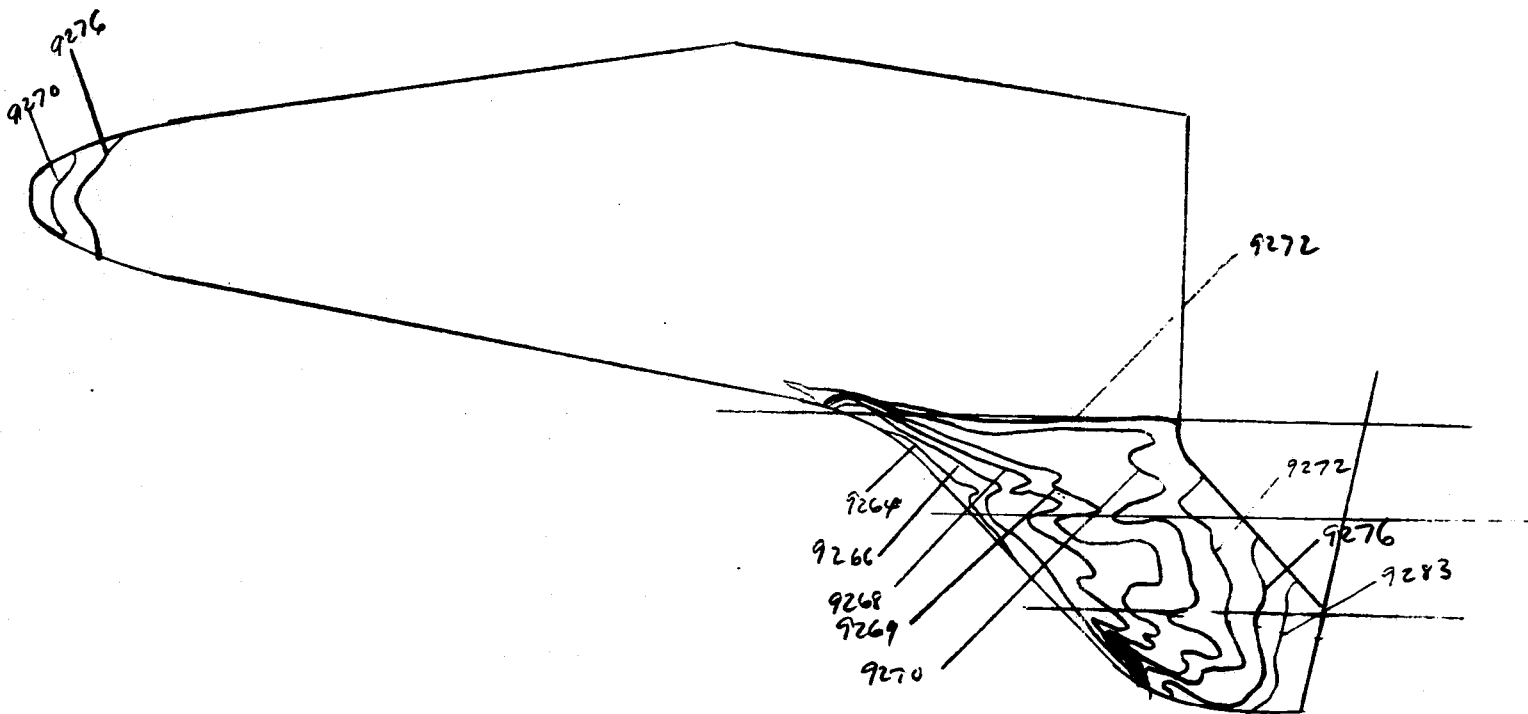
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 9239(500)	.03	MODEL HAS NOT REACHED CENTERLINE								
T 9240(500)	1.00	MODEL HAS NOT REACHED CENTERLINE								
T 9241(500)	2.03	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME =		2.23								
T 9242(500)	3.08	1.87	3.208E-02	.6516	4.653E-02	.9451	5.490E-02	1.1152		
T 9243(500)	4.10	2.85	2.567E-02	.5214	3.724E-02	.7563	4.394E-02	.8924		
T 9244(500)	5.16	3.91	2.195E-02	.4458	3.184E-02	.6467	3.756E-02	.7630		
T 9245(500)	6.21	4.96	1.948E-02	.3956	2.826E-02	.5739	3.334E-02	.6771		
T 9246(500)	7.26	6.01	1.769E-02	.3595	2.567E-02	.5214	3.029E-02	.6153		
T 9247(500)	8.31	7.06	1.632E-02	.3316	2.368E-02	.4810	2.794E-02	.5675		
T 9248(500)	9.34	8.09	1.525E-02	.3097	2.213E-02	.4493	2.611E-02	.5302		
T 9249(500)	10.39	9.14	1.435E-02	.2914	2.081E-02	.4227	2.450E-02	.4988		
T 9250(500)	11.44	10.19	1.359E-02	.2758	1.971E-02	.4001	2.326E-02	.4721		
T 9251(500)	12.49	11.24	1.294E-02	.2626	1.877E-02	.3809	2.214E-02	.4495		
T 9252(500)	13.54	12.29	1.237E-02	.2513	1.795E-02	.3646	2.117E-02	.4302		
T 9253(500)	14.59	13.34	1.187E-02	.2412	1.722E-02	.3498	2.032E-02	.4128		
T 9254(500)	15.64	14.39	1.143E-02	.2321	1.658E-02	.3367	1.957E-02	.3973		
T 9255(500)	16.69	15.44	1.104E-02	.2242	1.601E-02	.3252	1.889E-02	.3837		
T 9256(500)	17.72	16.47	1.069E-02	.2170	1.550E-02	.3148	1.829E-02	.3714		
T 9257(500)	18.77	17.52	1.036E-02	.2103	1.503E-02	.3051	1.773E-02	.3600		
T 9258(500)	19.82	18.57	1.006E-02	.2043	1.460E-02	.2963	1.723E-02	.3496		
		20.17	MODEL HAS LEFT CENTERLINE							
T 9259(500)	20.87	19.62	9.791E-03	.1988	1.420E-02	.2883	1.676E-02	.3402		
T 9260(500)	21.93	20.67	9.538E-03	.1936	1.384E-02	.2809	1.633E-02	.3314		

ERROR IN POWERF BASE<0

A = 6001000117201053 CALL FROM 72651

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GROUP 67
0370 - 9264



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GROUP 67
0370 - 9264

 * UNCLASSIFIED *

 8/21/74

NASA-RI STS 0H25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREHEND	ROLL-MODEL	YAW
67	4	LEADING EDGE	8.00	858.5	1361	30.01	-0.1	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
98.6	.088	3.939	3893	7.479E-05	7.942E-08	3.666E 06	4.914E-02	2.118E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCAK)	TBAR(TO)	BETA(TO)				
TOP(T)	370	500	85	.0542	0	0				

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PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9261(500)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 9262(500)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 9263(500)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.18									
T 9264(500)	3.08	1.85	3.154E-02	.6424	4.574E-02	.9317	5.396E-02	1.0993	
T 9265(500)	4.10	2.88	2.531E-02	.5153	3.670E-02	.7474	4.330E-02	.8818	
T 9266(500)	5.16	3.93	2.166E-02	.4413	3.142E-02	.6400	3.707E-02	.7551	
T 9267(500)	6.21	4.98	1.924E-02	.3920	2.791E-02	.5685	3.293E-02	.6707	
T 9268(500)	7.26	6.04	1.749E-02	.3561	2.536E-02	.5165	2.992E-02	.6094	
T 9269(500)	8.31	7.09	1.614E-02	.3285	2.341E-02	.4766	2.762E-02	.5623	
T 9270(500)	9.36	8.14	1.506E-02	.3068	2.184E-02	.4450	2.577E-02	.5250	
T 9271(500)	10.41	9.19	1.417E-02	.2886	2.055E-02	.4185	2.425E-02	.4938	
T 9272(500)	11.46	10.24	1.343E-02	.2735	1.947E-02	.3966	2.297E-02	.4679	
T 9273(500)	12.51	11.29	1.279E-02	.2603	1.854E-02	.3776	2.188E-02	.4455	
T 9274(500)	13.54	12.32	1.224E-02	.2492	1.775E-02	.3615	2.095E-02	.4265	
T 9275(500)	14.59	13.37	1.175E-02	.2392	1.704E-02	.3469	2.011E-02	.4093	
T 9276(500)	15.64	14.42	1.131E-02	.2304	1.641E-02	.3342	1.936E-02	.3943	
T 9277(500)	16.69	15.47	1.092E-02	.2224	1.584E-02	.3226	1.864E-02	.3806	
T 9278(500)	17.75	16.52	1.057E-02	.2153	1.533E-02	.3123	1.804E-02	.3684	
T 9279(500)	18.80	17.57	1.025E-02	.2089	1.486E-02	.3029	1.754E-02	.3574	
T 9280(500)	19.85	18.63	9.955E-03	.2026	1.444E-02	.2938	1.703E-02	.3466	
T 9281(500)	20.90	19.68	9.686E-03	.1971	1.405E-02	.2859	1.657E-02	.3373	
T 9282(500)	21.95	20.73	9.437E-03	.1922	1.369E-02	.2788	1.615E-02	.3290	
T 9283(500)	23.00	21.78	9.236E-03	.1874	1.335E-02	.2718	1.575E-02	.3207	
T 9284(500)	24.05	22.83	8.992E-03	.1830	1.304E-02	.2654	1.534E-02	.3132	
T 9285(500)	25.10	23.88	8.792E-03	.1791	1.275E-02	.2597	1.504E-02	.3064	

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8/21/74

NASA-R1 STS 0425A

AEDC(ARD,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

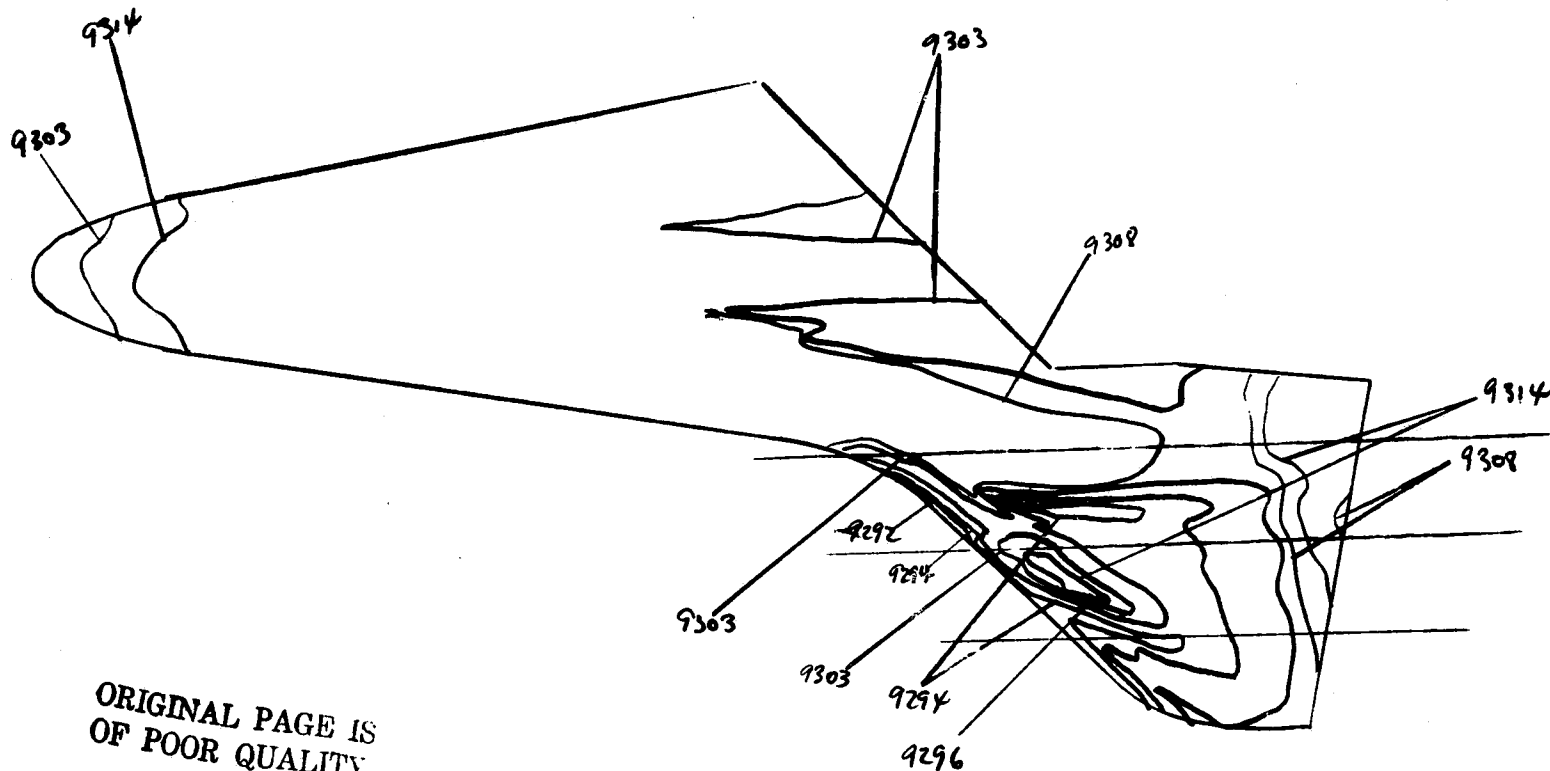
V419-83A

GRGUF	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
67	4	LEADING EDGE	8.00	857.1	1362	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RM0-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FI-1)	HREF (R= .0175FI)	SREF (R= .0175FT)		
98.7	.088	3.933	3894	7.465E-05	7.944E-08	3.659E 06	4.910E-02	2.120E-02		
CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)				
	370	500	85	.0542	5.084E-01	7.9270E-01				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9236(500)	26.16 24.93	8.605E-03	.1752	1.248E-02	.2541	1.472E-02	.2998	3.609E-03
	26.21	MODEL HAS LEFT CENTERLINE						
T 9287(500)	27.21 25.98	8.429E-03	.1715	1.222E-02	.2469	1.442E-02	.2937	3.536E-03
T 9288(500)	28.26 27.04	8.263E-03	.1683	1.198E-02	.2440	1.414E-02	.2879	3.466E-03
ERROR IN POWRF BASE<0 A = 6001000064653215 CALL FROM 72651								

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GROUP 68
0370-9292



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NASA-RJ STS 0425A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
68	S	TRANSITION	8.00	P60.3	1367	30.01	-01	30.00	180.00	-00
T-TAF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	MREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(H= .0175FT)		
99.0	.088	3.948	3901	7.464E-05	7.974E-04	3.652E 06	4.922E-02	2.121E-02		
CAVEPA	POLL NO	PAINT TEMP	IDEG F)	INITIAL TEMP	(DEG F)	SQUARE ROOT	(RHOXCAK)	TBAR(TO)	BETA(TO)	
10F(T)	370		500		85	.0542		0	0	

PIC NO	TIME	DELTIME	H(TO)	H(TO)/MREF	H(.9TO)	H(.9TO)/MREF	H(.867TO)	H(.867TO)/MREF	ST(TO)
T 9299(500)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 9290(500)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 9291(500)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.30							
T 9292(500)	3.08	1.74	3.176E-02	.6447	4.587E-02	.9311	5.398E-02	1.0957	1.328E-02
T 9293(500)	4.13	2.84	2.520E-02	.5118	3.639E-02	.7392	4.287E-02	.8699	1.055E-02
T 9294(500)	5.18	3.89	2.152E-02	.4372	3.108E-02	.6314	3.658E-02	.7431	9.012E-03
T 9295(500)	6.23	4.94	1.910E-02	.3878	2.758E-02	.5601	3.245E-02	.6591	7.992E-03
T 9296(500)	7.28	5.99	1.734E-02	.3522	2.504E-02	.5086	2.947E-02	.5986	7.259E-03
T 9297(500)	8.33	7.04	1.599E-02	.3249	2.310E-02	.4692	2.718E-02	.5521	6.696E-03
T 9298(500)	9.39	8.09	1.492E-02	.3030	2.155E-02	.4375	2.535E-02	.5149	6.243E-03
T 9299(500)	10.44	9.14	1.403E-02	.2851	2.027E-02	.4118	2.385E-02	.4846	5.877E-03
T 9300(500)	11.46	10.17	1.331E-02	.2704	1.922E-02	.3905	2.262E-02	.4595	5.574E-03
T 9301(500)	12.51	11.27	1.267E-02	.2574	1.830E-02	.3717	2.153E-02	.4374	5.306E-03
T 9302(500)	13.57	12.27	1.211E-02	.2461	1.750E-02	.3555	2.054E-02	.4183	5.074E-03
T 9303(500)	14.62	13.32	1.163E-02	.2362	1.679E-02	.3411	1.976E-02	.4014	4.869E-03
T 9304(500)	15.67	14.38	1.119E-02	.2273	1.617E-02	.3283	1.902E-02	.3863	4.684E-03
T 9305(500)	16.72	15.43	1.081E-02	.2196	1.561E-02	.3171	1.838E-02	.3731	4.529E-03
T 9306(500)	17.77	16.48	1.046E-02	.2124	1.510E-02	.3068	1.777E-02	.3610	4.381E-03
T 9307(500)	18.82	17.53	1.014E-02	.2059	1.464E-02	.2974	1.723E-02	.3500	4.246E-03
T 9308(500)	19.87	18.58	9.846E-03	.2000	1.422E-02	.2888	1.673E-02	.3398	4.121E-03
T 9309(500)	20.92	19.63	9.579E-03	.1946	1.383E-02	.2811	1.629E-02	.3307	4.013E-03
T 9310(500)	21.98	20.68	9.332E-03	.1896	1.348E-02	.2738	1.586E-02	.3222	3.910E-03
T 9311(500)	23.03	21.73	9.104E-03	.1850	1.315E-02	.2671	1.547E-02	.3144	3.815E-03
T 9312(500)	24.08	22.78	8.891E-03	.1805	1.284E-02	.2607	1.511E-02	.3068	3.720E-03
T 9313(500)	25.13	23.84	8.693E-03	.1766	1.255E-02	.2551	1.477E-02	.3002	3.641E-03

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NASA-RJ STS 0M25A
 V410-83A

AEDC (AHO) (NC) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL B

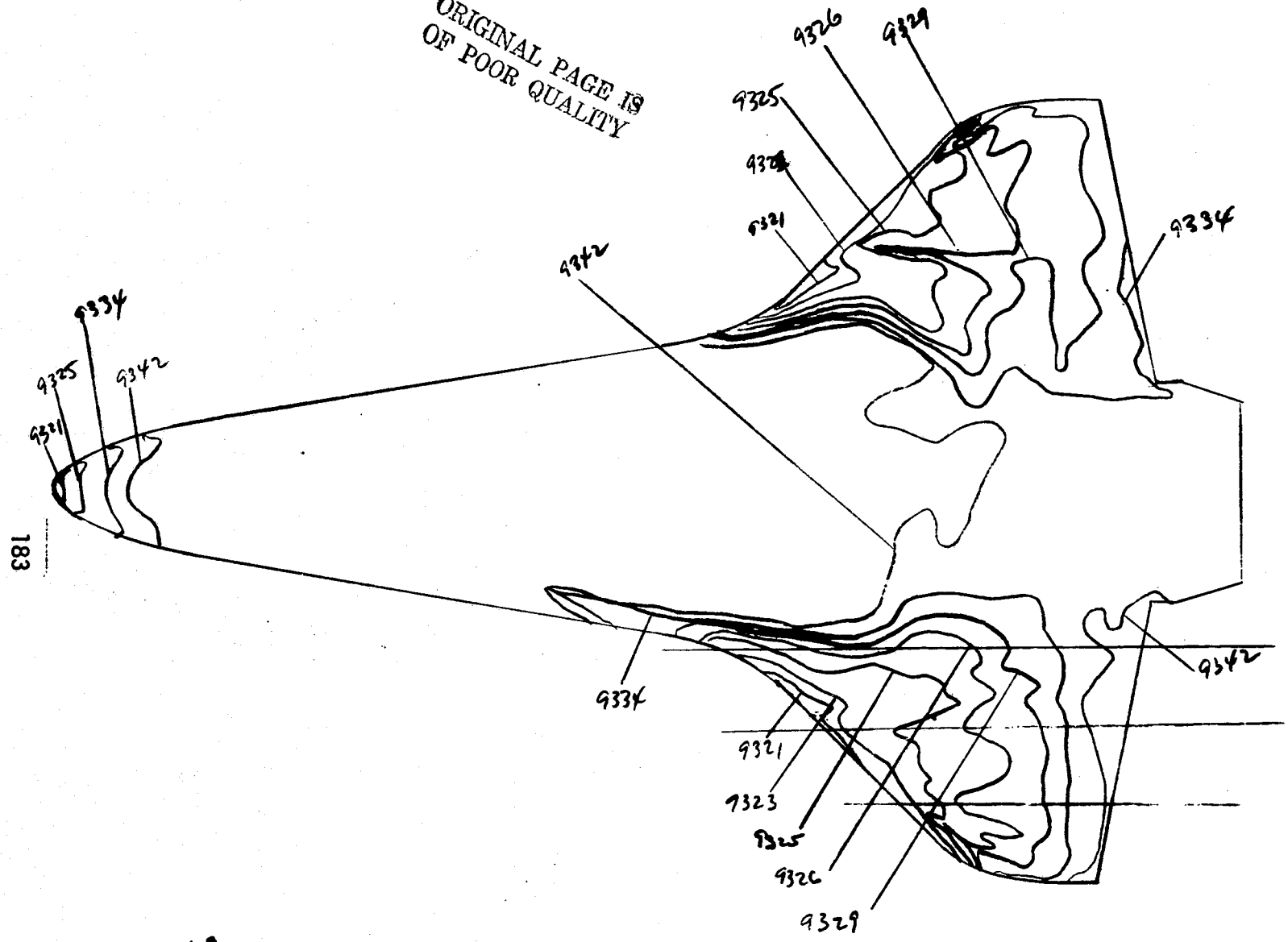
GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
68	6	TRANSITION	8.00	R60.1	1367	30.01	-01	30.00	180.00	-00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
99.1	.088	3.947	3902	7.459E-05	7.978E-08	3.648E 06	4.922E-02	2.121E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)		SQUARE ROOT (RHOXCKX)		TRAR(TO)	BETA(TO)		
	370	500	85		.0542		5.050E-01	7.8303E-01		

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9314(500)	26.18 24.89	8.507E-03	.1728	1.229E-02	.2496	1.446E-02	.2937	3.564E-03	
T 9315(500)	27.23 23.94	8.333E-03	.1692	1.203E-02	.2444	1.416E-02	.2876	3.487E-03	
MODEL HAS LEFT CENTERLINE									
T 9316(500)	28.28 26.99	8.169E-03	.1660	1.180E-02	.2397	1.388E-02	.2821	3.422E-03	
T 9317(500)	29.33 28.04	8.015E-03	.1628	1.157E-02	.2352	1.362E-02	.2767	3.358E-03	
ERROR IN POWER BASE<0 A = .5777377762626227 CALL FROM 72651									

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8/21/74

NASA-R1 STS 0425A

AFDC (ARO, INC.) ANNULU AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL R

V41B-83A

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GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
69	1	OREITFH	8.00	863.5	1371	30.00	.00	30.00	180.00	-.00
T-IAF	P-IAF	Q-IAF	V-IAF	RHO-IAF	MU-IAF	RE/FT	MREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
99.4	.088	3.962	3907	7.469E-05	7.999E-08	3.648E 06	4.934E-02	2.121E-02		

CAPEFA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RH0ACAK)	TBAR(TO)	BETA(TO)
TOP(T)	370					
		500	90	.0542	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9318(500)	.03			MODEL HAS NOT REACHED CENTERLINE				
T 9319(500)	1.00			MODEL HAS NOT REACHED CENTERLINE				
T 9320(500)	2.03			MODEL HAS NOT REACHED CENTERLINE				
INJECT TIME = 2.23								
T 9321(500)	3.08	1.93	3.076E-02	.6233	4.429E-02	.8976	5.203E-02	1.0543
T 9322(500)	4.10	2.85	2.402E-02	.4989	3.545E-02	.7184	4.164E-02	.8438
T 9323(500)	5.16	3.91	2.104E-02	.4267	3.030E-02	.6145	3.559E-02	.7218
T 9324(500)	6.21	4.94	1.868E-02	.3787	2.690E-02	.5452	3.159E-02	.6405
T 9325(500)	7.26	6.01	1.697E-02	.3439	2.443E-02	.4953	2.870E-02	.5817
T 9326(500)	8.21	7.05	1.565E-02	.3172	2.254E-02	.4567	2.647E-02	.5365
T 9327(500)	9.36	8.11	1.460E-02	.2960	2.103E-02	.4263	2.470E-02	.5007
T 9328(500)	10.41	9.16	1.374E-02	.2786	1.974E-02	.4012	2.324E-02	.4712
T 9329(500)	11.46	10.21	1.301E-02	.2639	1.874E-02	.3800	2.201E-02	.4463
T 9330(500)	12.51	11.24	1.239E-02	.2512	1.784E-02	.3617	2.096E-02	.4249
T 9331(500)	13.57	12.32	1.185E-02	.2403	1.706E-02	.3450	2.004E-02	.4064
T 9332(500)	14.62	13.37	1.138E-02	.2307	1.638E-02	.3322	1.924E-02	.3902
T 9333(500)	15.67	14.42	1.095E-02	.2221	1.577E-02	.3198	1.853E-02	.3756
T 9334(500)	16.72	15.47	1.047E-02	.2144	1.523E-02	.3099	1.788E-02	.3627
T 9335(500)	17.77	16.52	1.023E-02	.2074	1.473E-02	.2997	1.731E-02	.3508
T 9336(500)	18.60	17.55	9.928E-03	.2014	1.430E-02	.2900	1.679E-02	.3406
T 9337(500)	19.25	18.60	9.644E-03	.1955	1.389E-02	.2815	1.631E-02	.3307
T 9338(500)	20.50	19.65	9.352E-03	.1902	1.351E-02	.2739	1.587E-02	.3218
T 9339(500)	21.55	21.77	9.141E-03	.1854	1.316E-02	.2670	1.540E-02	.3136
T 9340(500)	23.00	21.75	8.917E-03	.1809	1.284E-02	.2605	1.508E-02	.3060
T 9341(500)	24.05	22.80	8.709E-03	.1767	1.254E-02	.2544	1.473E-02	.2988
T 9342(500)	25.10	23.85	8.515E-03	.1727	1.226E-02	.2496	1.440E-02	.2920

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NASA-RI STS 0425A

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

V412-83A

GROUP	CONFIG	MODEL	MACH NO	PN(PSTA)	T0(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
69	1	ORBITER	8.00	862.8	1371	30.00	.00	30.00	180.00	-00
T-1NF	P-1NF	Q-1NF	V-1NF	RMO-1NF	MU-1NF	HE/FT	HREF	STREF		
(DEG R)	(PSTA)	(PSTA)	(FT/SEC)	(SLUGS/FT ³)	(LH-SEC/FT ²)	(FT-1)	(H= .0175FT)	(H= .0175FT)		
95.3	.088	3.959	3907	7.465E-05	7.996E-08	3.647E 06	4.432E-02	2.121E-02		

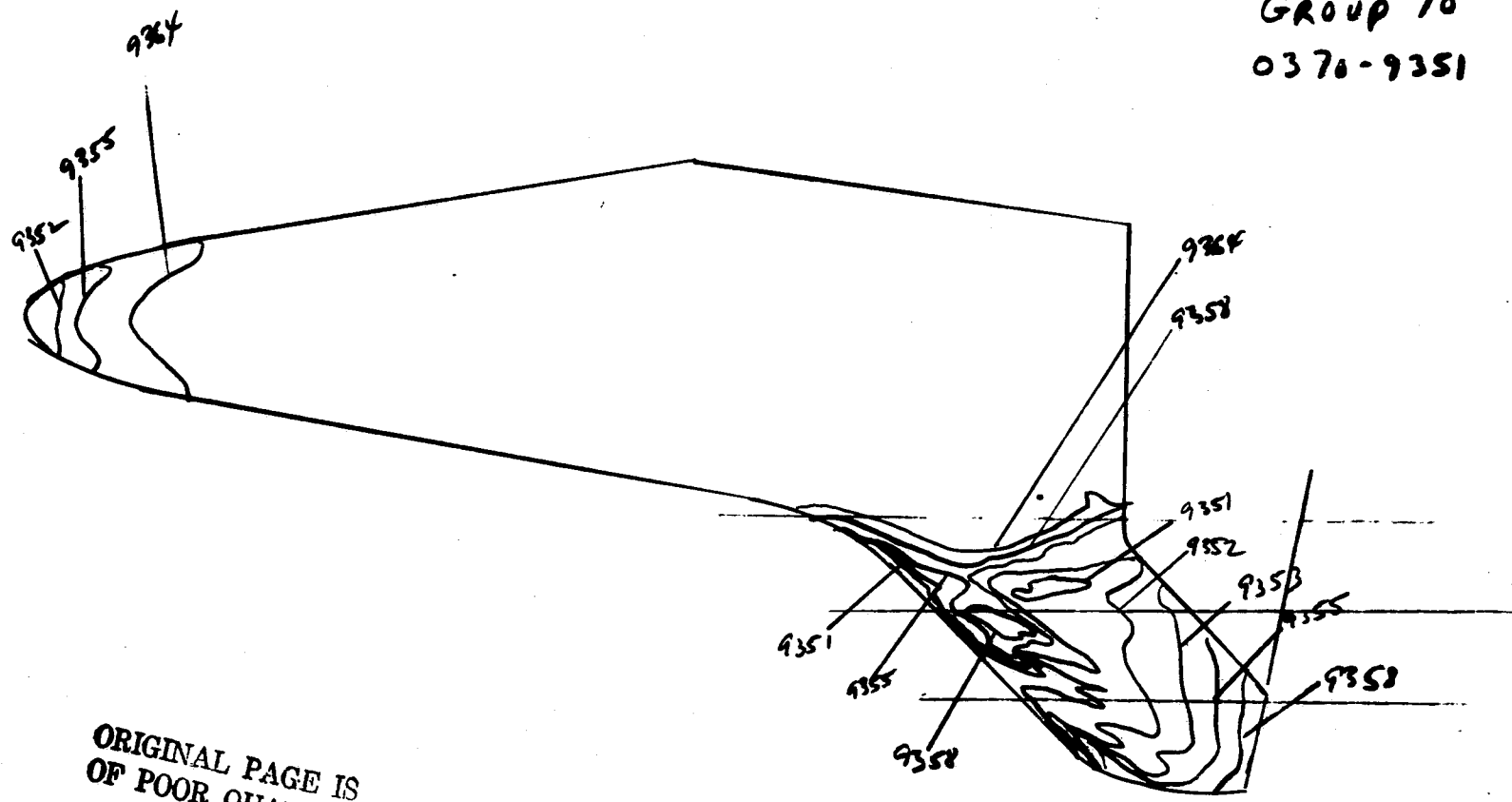
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCR)	TRAR(TO)	BETA(TO)
TOP(T)	370	500	90	.0547	4.994E-01	7.6730E-01

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9243(500)	26.18 24.93	8.329E-03	.1689	1.199E-02	.2432	1.409E-02	.2657	3.483E-03	
T 9244(500)	27.21 25.95	8.163E-03	.1656	1.175E-02	.2384	1.381E-02	.2600	3.414E-03	
T 9245(500)	28.26 27.01	6.002E-03	.1623	1.152E-02	.2337	1.354E-02	.2745	3.345E-03	
	28.73	MODEL HAS LEFT CENTERLINE							
T 9246(500)	29.21 29.06	7.851E-03	.1594	1.130E-02	.2295	1.328E-02	.2696	3.290E-03	
T 9247(500)	30.26 29.11	7.708E-03	.1565	1.110E-02	.2253	1.304E-02	.2647	3.229E-03	

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GROUP 70
0370-9351



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NASA-RI STS 0M25A
 V418-83A

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

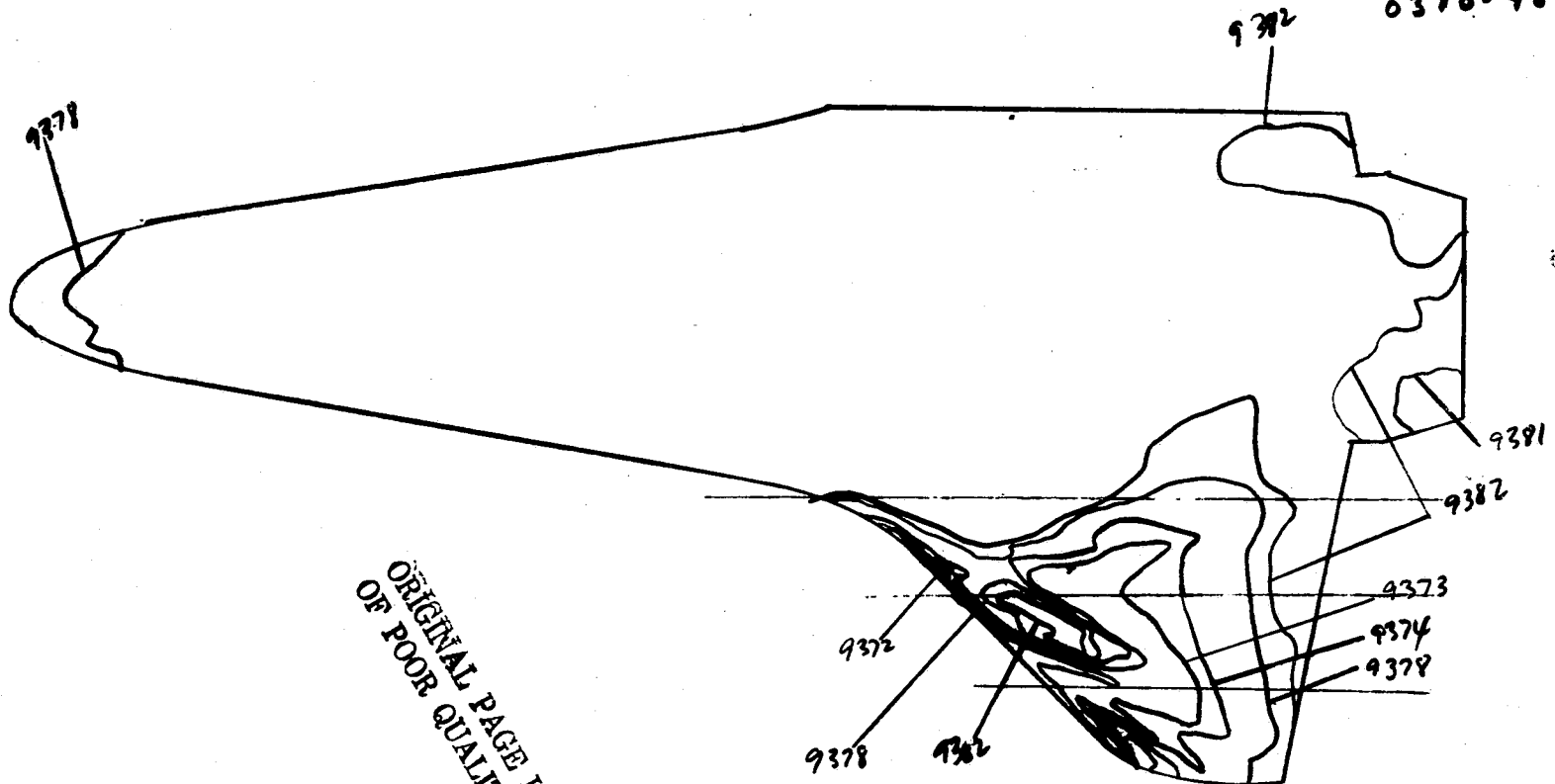
GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
70	4	LEADING EDGE	8.00	861.8	1368	30.00	0	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(H=.0175FT)	(H=.0175FT)		
99.2	.088	3.954	3904	7.468E-05	7.984E-08	3.652E 06	4.424E-02	2.120E-02		
CAVEFA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TRAR(TO)	BETA(TO)				
TOP(T)	370	400	90	.0555	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9348(400)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 9349(400)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 9350(400)	2.63		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.28							
T 9351(400)	3.05	1.77	2.038E-02	.4135	2.718E-02	.5514	3.058E-02	.6203	8.564E-03
T 9352(400)	4.10	2.83	1.615E-02	.3276	2.154E-02	.4368	2.423E-02	.4914	6.782E-03
T 9353(400)	5.16	3.88	1.379E-02	.2797	1.839E-02	.3730	2.069E-02	.4196	5.791E-03
T 9354(400)	6.21	4.93	1.223E-02	.2481	1.631E-02	.3308	1.835E-02	.3721	5.135E-03
T 9355(400)	7.26	5.98	1.110E-02	.2253	1.441E-02	.3004	1.666E-02	.3380	4.665E-03
T 9356(400)	8.28	7.01	1.026E-02	.2080	1.368E-02	.2774	1.539E-02	.3121	4.306E-03
T 9357(400)	9.34	8.06	9.566E-03	.1940	1.276E-02	.2587	1.435E-02	.2911	4.017E-03
T 9358(400)	10.39	9.11	8.997E-03	.1823	1.200E-02	.2431	1.350E-02	.2735	3.772E-03
T 9359(400)	11.44	10.16	8.519E-03	.1728	1.136E-02	.2305	1.278E-02	.2593	3.579E-03
T 9360(400)	12.49	11.21	8.110E-03	.1645	1.081E-02	.2193	1.217E-02	.2467	3.404E-03
T 9361(400)	13.54	12.26	7.755E-03	.1572	1.034E-02	.2097	1.163E-02	.2359	3.254E-03
T 9362(400)	14.59	13.31	7.442E-03	.1509	9.924E-03	.2012	1.116E-02	.2264	3.123E-03
T 9363(400)	15.64	14.36	7.155E-03	.1453	9.554E-03	.1938	1.075E-02	.2180	3.008E-03
T 9364(400)	16.69	15.42	6.916E-03	.1402	9.222E-03	.1869	1.037E-02	.2103	2.900E-03
	17.72		MODEL HAS LEFT CENTERLINE						
T 9365(400)	17.75	16.47	6.692E-03	.1356	8.923E-03	.1809	1.004E-02	.2035	2.806E-03
T 9366(400)	18.80	17.52	6.488E-03	.1316	8.651E-03	.1754	9.732E-03	.1974	2.723E-03
T 9367(400)	19.85	18.57	6.301E-03	.1278	8.403E-03	.1704	9.453E-03	.1917	2.646E-03
T 9368(400)	20.90	19.62	6.130E-03	.1243	8.174E-03	.1657	9.196E-03	.1864	2.571E-03

ERROR IN POWRF BASE<0 A = 6001000032325733 CALL FROM 72651

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GROUP 71
0370-9372



ORIGINAL PAGE IS
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8/21/74

NASA-RJ STS 0425A

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

V41R-83A

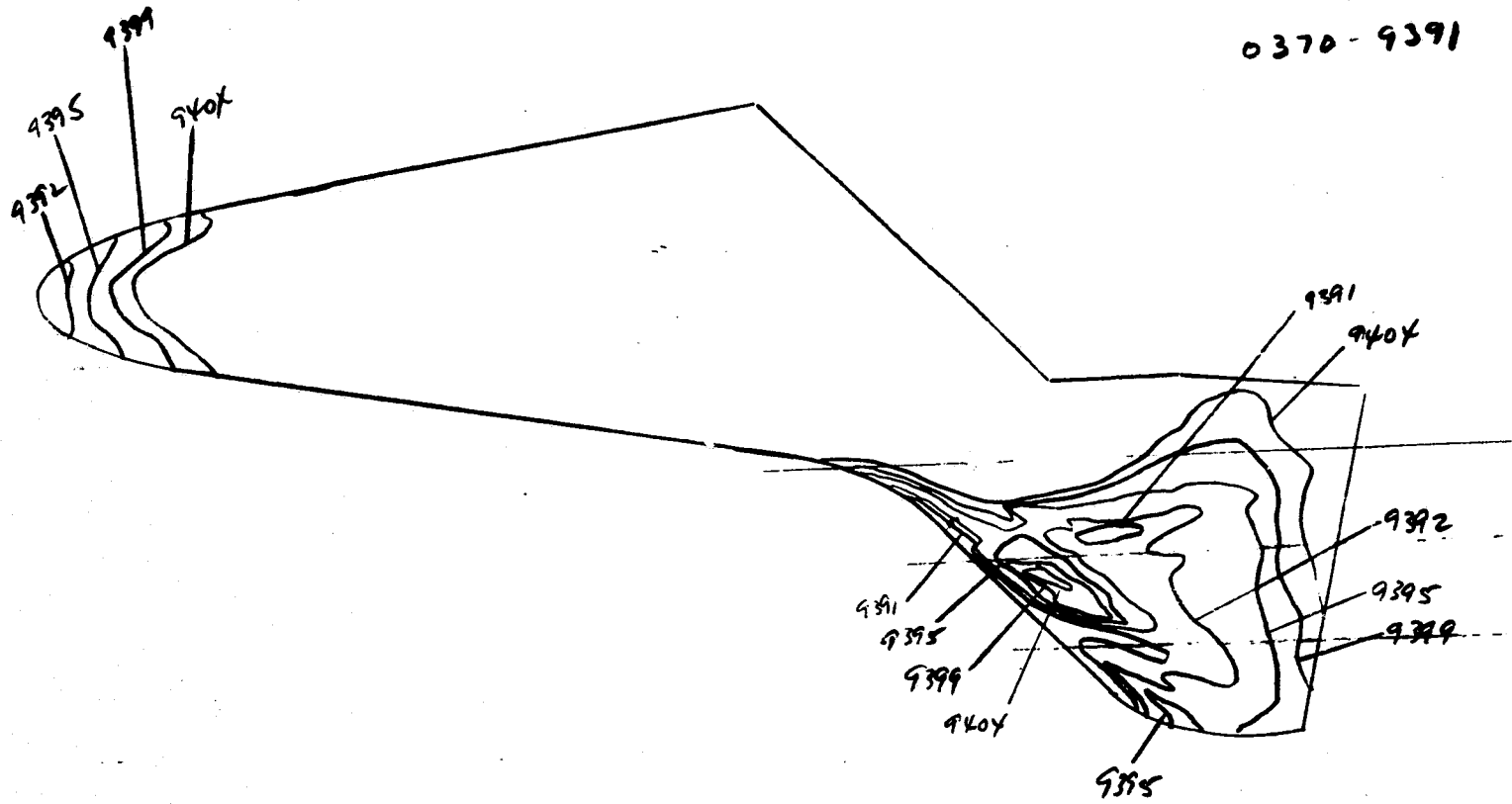
GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREHEND	ROLL-MODEL	YAW
71	2	40 PERCENT	8.00	862.3	1364	30.00	-0.00	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RMO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (R=.0175FT)	STREF (R=.0175FT)		
96.8	.088	3.957	3897	7.497E-05	7.957E-08	3.672E 06	4.926E-02	2.116E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RMOXCAK)	TBAR (TO)	BETA (TO)				
	370	400	86	.0555	0	0				

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9369(400)	.63		MODEL HAS NOT REACHED CENTERLINE						
T 9370(400)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 9371(400)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME	2.25								
T 9372(400)	3.08	1.81	2.058E-02	.4177	2.749E-02	.5579	3.095E-02	.6282	8.631E-03
T 9373(400)	4.10	2.84	1.645E-02	.3338	2.197E-02	.4458	2.473E-02	.5020	6.899E-03
T 9374(400)	5.16	3.89	1.435E-02	.2852	1.877E-02	.3909	2.113E-02	.4289	5.893E-03
T 9375(400)	6.21	4.94	1.247E-02	.2531	1.665E-02	.3380	1.875E-02	.3806	5.231E-03
T 9376(400)	7.26	5.99	1.132E-02	.2297	1.512E-02	.3068	1.703E-02	.3455	4.746E-03
T 9377(400)	8.31	7.04	1.044E-02	.2120	1.395E-02	.2831	1.570E-02	.3188	4.382E-03
T 9378(400)	9.36	8.10	9.741E-03	.1976	1.301E-02	.2640	1.465E-02	.2972	4.083E-03
T 9379(400)	10.39	9.12	9.177E-03	.1862	1.226E-02	.2487	1.380E-02	.2801	3.848E-03
T 9380(400)	11.44	10.17	8.690E-03	.1764	1.161E-02	.2356	1.307E-02	.2652	3.645E-03
T 9381(400)	12.49	11.22	8.273E-03	.1678	1.105E-02	.2242	1.244E-02	.2524	3.467E-03
T 9382(400)	13.54	12.24	7.911E-03	.1605	1.057E-02	.2144	1.190E-02	.2414	3.316E-03
T 9383(400)	14.59	13.33	7.532E-03	.1540	1.014E-02	.2057	1.142E-02	.2317	3.182E-03
T 9384(400)	15.64	14.38	7.309E-03	.1482	9.762E-03	.1979	1.094E-02	.2228	3.058E-03
T 9385(400)	16.69	15.43	7.056E-03	.1431	9.424E-03	.1911	1.061E-02	.2152	2.955E-03
	17.45		MODEL HAS LEFT CENTERLINE						
T 9386(400)	17.75	16.48	6.827E-03	.1385	9.119E-03	.1850	1.027E-02	.2083	2.860E-03
T 9387(400)	18.80	17.53	6.619E-03	.1343	8.841E-03	.1794	9.955E-03	.2020	2.774E-03

ERROR IN POWRF BASE<0 A = 6001000032325733 CALL FROM 72651

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GROUP 72
0370-9391



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 * UNCLASSIFIED *

8/21/74

NASA-R1 STS 0425A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PR(PSTIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
72	5	TRANSITION	8.00	R62.8	1361	30.00	-0.00	30.00	160.00	-0.00
T-INF	P-INF	O-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSTIA)	(PSTIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
98.6	.088	3.959	3893	7.519E-05	7.939E-08	3.687E 06	4.926E-02	2.112E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
TOP(1)	370	400	87	.0555	0	0				

PIC NO	TIME DELTME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9388(400)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 9389(400)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 9390(400)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.18									
T 9391(400)	3.05	1.83	2.053E-02	.4171	2.746E-02	.5578	3.094E-02	.6285	
T 9392(400)	4.10	2.88	1.637E-02	.3323	2.189E-02	.4444	2.466E-02	.5007	
T 9393(400)	5.16	3.93	1.401E-02	.2845	1.874E-02	.3895	2.111E-02	.4287	
T 9394(400)	6.21	4.98	1.245E-02	.2528	1.664E-02	.3391	1.875E-02	.3809	
T 9395(400)	7.23	6.01	1.133E-02	.2302	1.516E-02	.3078	1.708E-02	.3468	
T 9396(400)	8.28	7.06	1.046E-02	.2124	1.398E-02	.2840	1.575E-02	.3200	
T 9397(400)	9.34	8.11	9.755E-03	.1981	1.305E-02	.2650	1.470E-02	.2985	
T 9398(400)	10.39	9.16	9.179E-03	.1864	1.227E-02	.2492	1.383E-02	.2808	
T 9399(400)	11.41	10.19	8.704E-03	.1768	1.164E-02	.2364	1.311E-02	.2664	
T 9400(400)	12.46	11.24	8.287E-03	.1683	1.108E-02	.2251	1.249E-02	.2536	
T 9401(400)	13.52	12.29	7.925E-03	.1610	1.060E-02	.2153	1.194E-02	.2426	
T 9402(400)	14.57	13.34	7.606E-03	.1545	1.017E-02	.2066	1.146E-02	.2328	
T 9403(400)	15.62	14.41	7.323E-03	.1488	9.793E-03	.1990	1.103E-02	.2242	
T 9404(400)	16.67	15.45	7.070E-03	.1436	9.454E-03	.1920	1.065E-02	.2163	
T 9405(400)	17.70	16.47	6.840E-03	.1390	9.155E-03	.1859	1.031E-02	.2095	
	17.95		MODEL HAS LEFT CENTERLINE						
T 9406(400)	18.75	17.52	6.638E-03	.1348	8.876E-03	.1803	1.000E-02	.2031	
T 9407(400)	19.80	18.58	6.447E-03	.1309	8.621E-03	.1751	9.713E-03	.1972	
T 9408(400)	20.85	19.63	6.272E-03	.1273	8.387E-03	.1703	9.450E-03	.1918	

ERROR IN POWRF BASE<0

A = 6001242066733751 CALL FROM 72651

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 * UNCLASSIFIED *

8/21/74

NASA-RJ STS 0425A

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

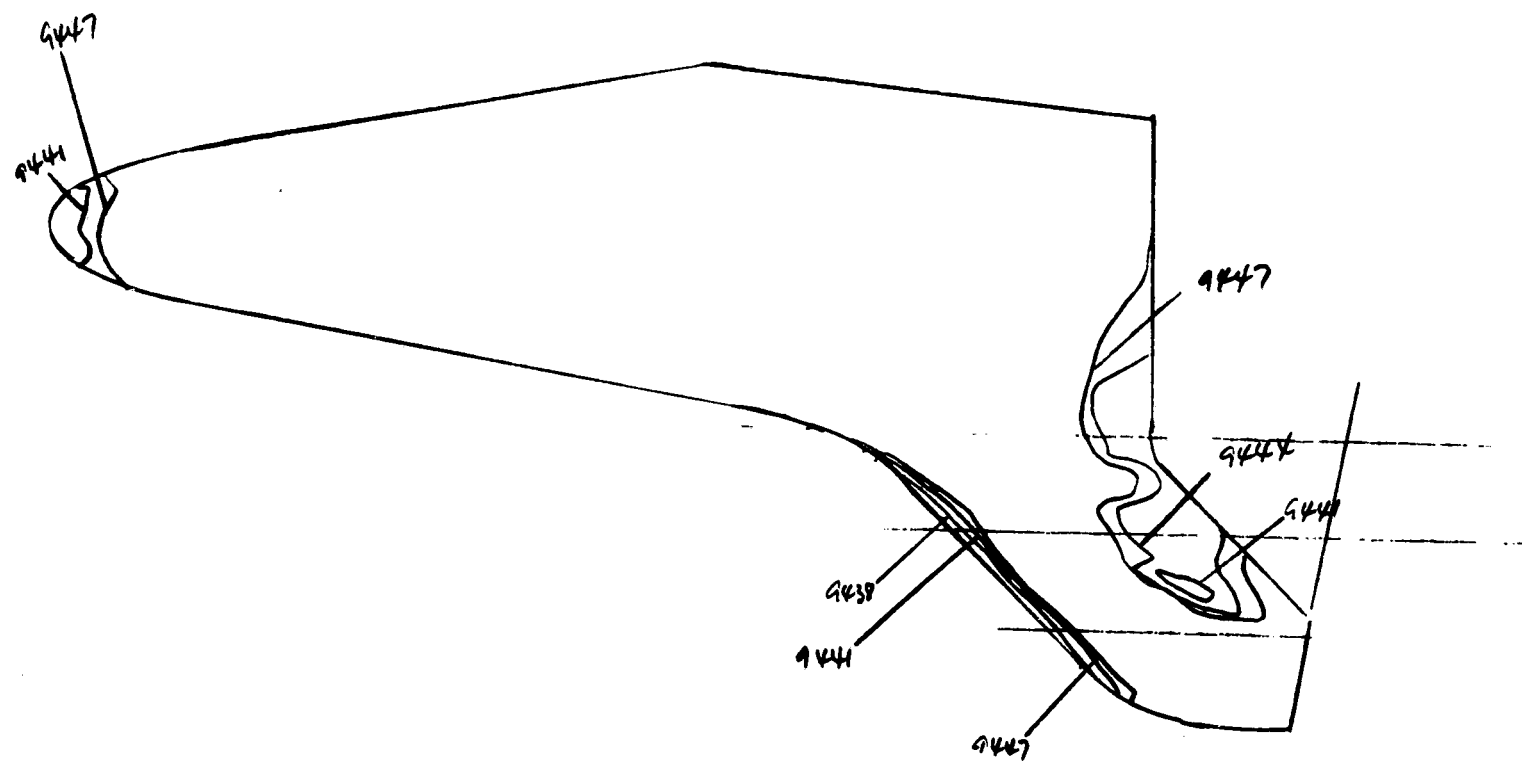
V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
73	1	ORBITER	8.00	861.5	1360	40.02	-10.07	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LR-SEC/FT2)	RE/FT (FI-1)	HREF (R= .0175FT)	STREF (R= .0175FT)		
92.6	.088	3.953	3891	7.512E-05	7.934E-08	3.684E 06	4.921E-02	2.113E-02		
CAMERA TOP (T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKX)	TRAR (TO)	BETA (TO)				
	370	600	86	.0542	0	0				

PIC NO	TIME DELTIVE	H (TO)	H (TO)/HREF	H (.9TO)	H (.9TO)/HREF	H (.867TO)	H (.867TO)/HREF	ST (TO)	
T 9409 (600)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 9410 (600)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 9411 (600)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.28									
T 9412 (600)	3.05	1.77	5.072E-02	1.0310	8.682E-02	1.7646	1.157E-01	2.3506	2.107E-02
T 9413 (600)	4.10	2.93	4.020E-02	.8165	6.880E-02	1.3976	9.165E-02	1.8616	1.667E-02
T 9414 (600)	5.16	3.88	3.432E-02	.6972	5.874E-02	1.1934	7.825E-02	1.5896	1.424E-02
T 9415 (600)	6.21	4.93	3.044E-02	.6185	5.210E-02	1.0586	6.940E-02	1.4101	1.263E-02
T 9416 (600)	7.23	5.95	2.769E-02	.5625	4.740E-02	.9627	6.314E-02	1.2824	1.148E-02
T 9417 (600)	8.28	7.01	2.553E-02	.5188	4.370E-02	.8879	5.821E-02	1.1828	1.060E-02
T 9418 (600)	9.34	8.06	2.381E-02	.4838	4.075E-02	.8281	5.428E-02	1.1031	9.885E-03
T 9419 (600)	10.39	9.11	2.239E-02	.4551	3.833E-02	.7790	5.105E-02	1.0376	9.299E-03
T 9420 (600)	11.44	10.15	2.120E-02	.4307	3.629E-02	.7372	4.834E-02	.9820	8.797E-03
T 9421 (600)	12.49	11.21	2.018E-02	.4100	3.455E-02	.7019	4.602E-02	.9349	8.375E-03
T 9422 (600)	13.54	12.26	1.930E-02	.3921	3.303E-02	.6712	4.400E-02	.8940	8.010E-03
T 9423 (600)	14.59	13.31	1.852E-02	.3764	3.170E-02	.6443	4.223E-02	.8583	7.691E-03
T 9424 (600)	15.64	14.36	1.783E-02	.3624	3.052E-02	.6203	4.065E-02	.8262	7.403E-03
T 9425 (600)	16.69	15.42	1.721E-02	.3497	2.946E-02	.5985	3.924E-02	.7972	7.141E-03
T 9426 (600)	17.72	16.44	1.667E-02	.3385	2.853E-02	.5794	3.800E-02	.7719	6.913E-03
T 9427 (600)	18.77	17.49	1.616E-02	.3282	2.766E-02	.5617	3.684E-02	.7483	6.701E-03
19.57		MODEL HAS LEFT CENTERLINE							
T 9428 (600)	19.62	18.54	1.569E-02	.3189	2.686E-02	.5459	3.574E-02	.7271	6.515E-03
T 9429 (600)	20.67	19.61	1.527E-02	.3102	2.613E-02	.5309	3.481E-02	.7071	6.334E-03
ERROR IN POWERF BASE<0		A = 6001241647466712 CALL FROM 72651							

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GROUP 74
0370-9433



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GROUP 74
0370-9433

 * UNCLASSIFIED *

 8/21/74

NASA-R1 STS 0M25A

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

V41B-83A

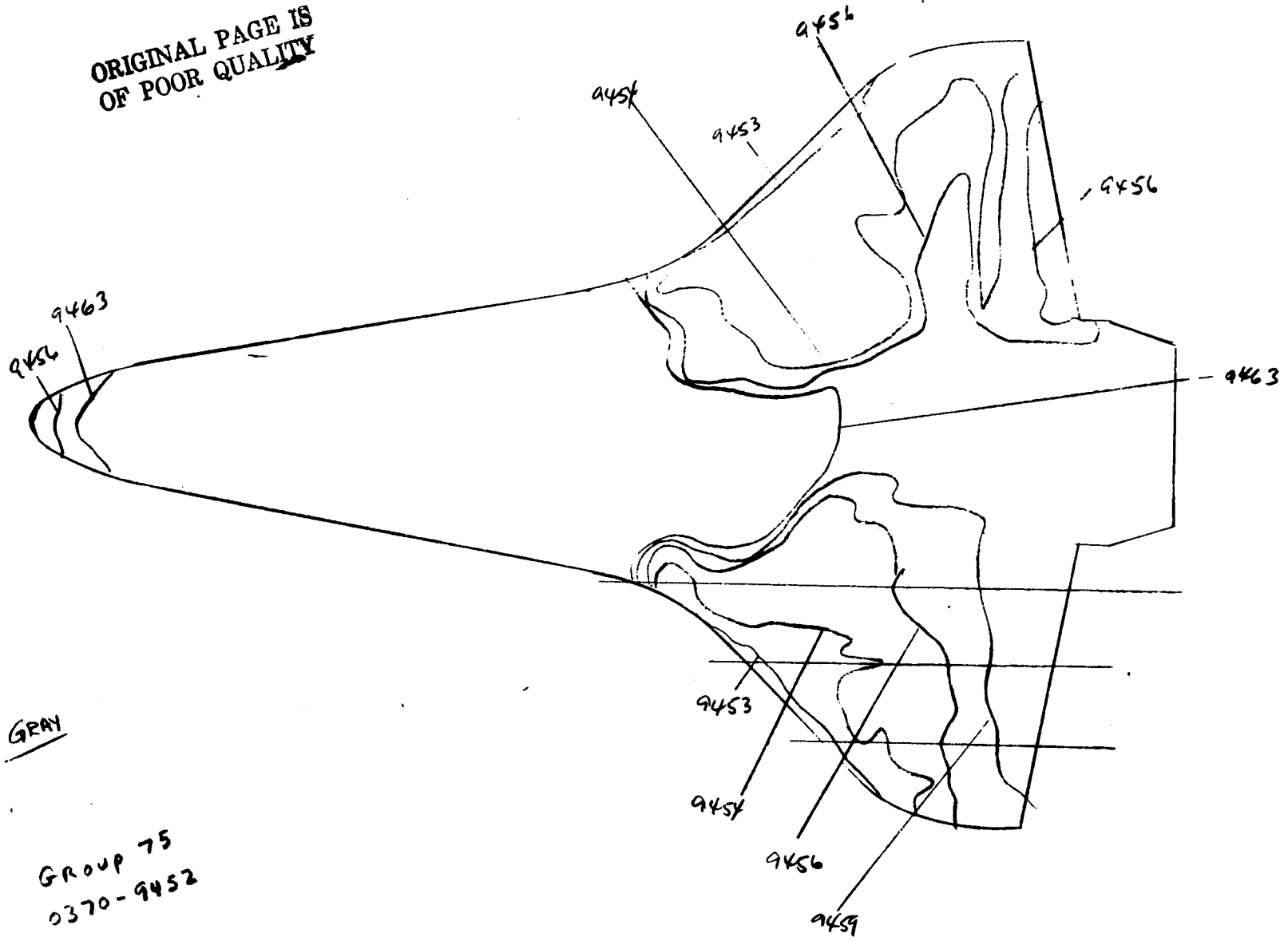
GROUP	CONFIG	MODEL	MACH NO	PO(PSIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREHEND	ROLL-MODEL	YAW
74	4	LEADING EDGE	8.00	R61.0	135H	40.00	-10.00	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
98.4	.088	3.951	3888	7.520E-05	7.922E-08	3.691E 06	4.919E-02	2.111E-02		
CAMERA TOP(IT)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(IT)	BETA(TO)				
	370	550	85	.0542	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9409(550)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 9410(550)	.55		MODEL HAS NOT REACHED CENTERLINE						
T 9411(550)	1.98		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =	2.23								
T 9412(550)	3.00	1.75	4.040E-02	.8317	6.358E-02	1.2931	7.853E-02	1.5971	1.703E-02
T 9413(550)	4.05	2.80	3.234E-02	.6573	5.027E-02	1.0214	6.209E-02	1.2621	1.345E-02
T 9414(550)	5.11	3.86	2.758E-02	.5606	4.257E-02	.8715	5.295E-02	1.0764	1.147E-02
T 9415(550)	6.16	4.91	2.445E-02	.4968	3.830E-02	.7724	4.694E-02	.9539	1.016E-02
T 9416(550)	7.21	5.96	2.218E-02	.4510	3.449E-02	.7011	4.260E-02	.8660	9.228E-03
T 9417(550)	8.23	6.98	2.049E-02	.4167	3.145E-02	.6478	3.934E-02	.8001	8.529E-03
T 9418(550)	9.29	8.04	1.910E-02	.3881	2.970E-02	.6034	3.664E-02	.7453	7.939E-03
T 9419(550)	10.34	9.09	1.746E-02	.3651	2.793E-02	.5676	3.444E-02	.7010	7.469E-03
T 9420(550)	11.39	10.14	1.701E-02	.3455	2.644E-02	.5372	3.266E-02	.6635	7.067E-03
T 9421(550)	12.44	11.19	1.619E-02	.3292	2.517E-02	.5118	3.104E-02	.6322	6.740E-03
T 9422(550)	13.49	12.24	1.548E-02	.3147	2.406E-02	.4892	2.972E-02	.6042	6.439E-03
T 9423(550)	14.54	13.29	1.445E-02	.3019	2.309E-02	.4693	2.852E-02	.5796	6.175E-03
T 9424(550)	15.59	14.34	1.430E-02	.2905	2.223E-02	.4517	2.745E-02	.5579	5.943E-03
T 9425(550)	16.64	15.39	1.380E-02	.2805	2.146E-02	.4361	2.650E-02	.5387	5.739E-03
	17.67		MODEL HAS LEFT CENTERLINE						
T 9426(550)	17.70	16.44	1.335E-02	.2713	2.076E-02	.4217	2.564E-02	.5209	5.547E-03
T 9427(550)	18.75	17.50	1.295E-02	.2629	2.013E-02	.4089	2.486E-02	.5049	5.375E-03
ERROR IN POWRF BASE<0 A = 6001242066733751 CALL FROM 72651									

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ORIGINAL PAGE IS
OF POOR QUALITY

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GRAY

GROUP 75
0370-9452

 • UNCLASSIFIED •

8/21/74

NASA-R1 STS 0M25A

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

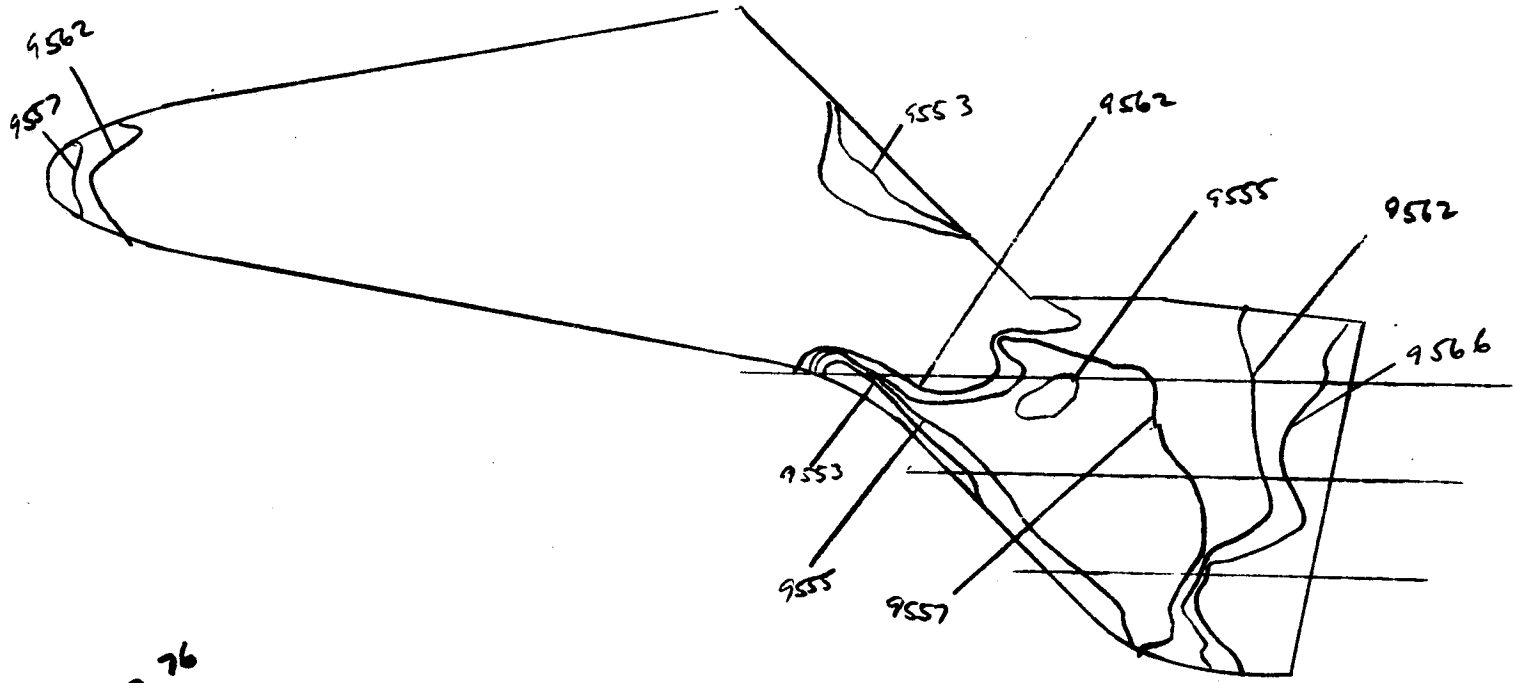
V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
75	1	ORBITER	8.00	859.4	1356	40.02	-10.02	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	RU-INF	HE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT3)	(LB-SEC/FT2)	(FI-1)	(R=.0175FI)	(R=.0175FI)		
98.3	.088	3.944	3886	7.516E-05	7.911E-08	3.692E 06	4.913E-02	2.112E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TRAR(TO)	BETA(TO)				
TOP(T)	370	500	86	.0542	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 9449(500)	0	MODEL HAS NOT REACHED CENTERLINE								
T 9450(500)	.98	MODEL HAS NOT REACHED CENTERLINE								
T 9451(500)	2.03	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME = 2.28										
T 9452(500)	3.05	1.77	3.256E-02	.6624	4.743E-02	.9647	5.609E-02	1.1410	1.359E-02	
T 9453(500)	4.10	2.83	2.521E-02	.5251	3.758E-02	.7647	4.445E-02	.9045	1.077E-02	
T 9454(500)	5.16	3.88	2.203E-02	.4484	3.209E-02	.6530	3.795E-02	.7724	9.200E-03	
T 9455(500)	6.21	4.93	1.954E-02	.3977	2.846E-02	.5792	3.366E-02	.6851	8.160E-03	
T 9456(500)	7.26	5.98	1.774E-02	.3617	2.584E-02	.5297	3.050E-02	.6218	7.403E-03	
T 9457(500)	8.31	7.03	1.636E-02	.3329	2.383E-02	.4848	2.818E-02	.5734	6.827E-03	
T 9458(500)	9.36	8.08	1.526E-02	.3105	2.222E-02	.4523	2.629E-02	.5349	6.370E-03	
T 9459(500)	10.39	9.11	1.437E-02	.2925	2.094E-02	.4260	2.476E-02	.5039	6.001E-03	
T 9460(500)	11.44	10.16	1.361E-02	.2771	1.982E-02	.4035	2.345E-02	.4773	5.687E-03	
T 9461(500)	12.49	11.21	1.296E-02	.2636	1.887E-02	.3840	2.232E-02	.4541	5.408E-03	
T 9462(500)	13.54	12.26	1.239E-02	.2520	1.804E-02	.3671	2.134E-02	.4341	5.169E-03	
T 9463(500)	14.59	13.31	1.189E-02	.2420	1.732E-02	.3525	2.048E-02	.4169	4.966E-03	
T 9464(500)	15.67	14.39	1.144E-02	.2328	1.666E-02	.3390	1.970E-02	.4010	4.777E-03	
T 9465(500)	16.69	15.42	1.105E-02	.2248	1.609E-02	.3274	1.903E-02	.3873	4.611E-03	
	17.02	MODEL HAS LEFT CENTERLINE								
T 9466(500)	17.75	16.47	1.069E-02	.2175	1.557E-02	.3167	1.842E-02	.3746	4.460E-03	
T 9467(500)	18.80	17.52	1.037E-02	.2109	1.510E-02	.3072	1.785E-02	.3633	4.326E-03	
ERROR IN POWRF BASE<0		A = 6001241704212372 CALL FROM 72651								

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GROUP 76
0304-9553



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GROUP 76
0304-9553

 * UNCLASSIFIED *

8/21/74

NASA-RI STS 0M25A

AEDC(ARO,INC.) ANNULU AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

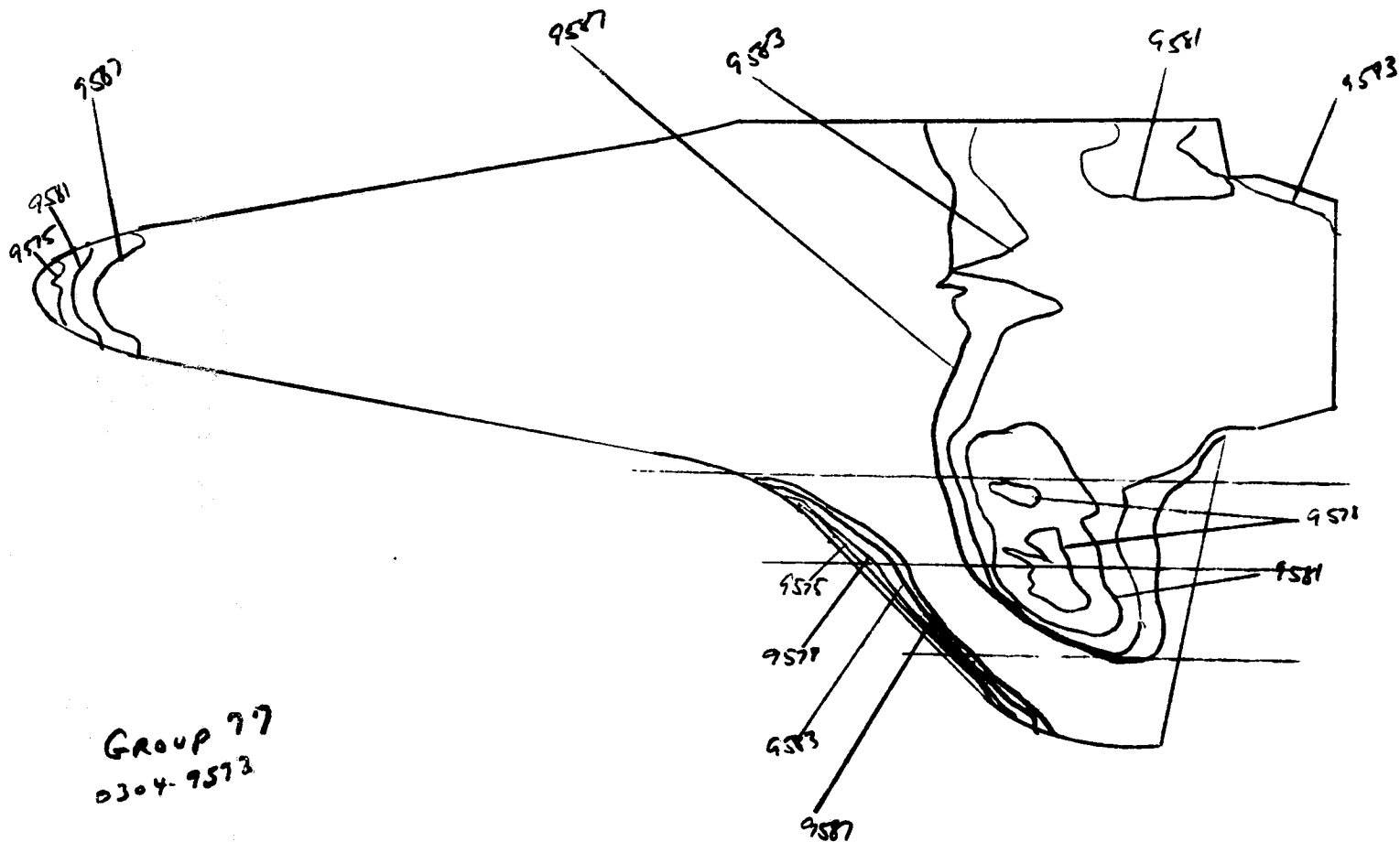
V41R-83A

GROUP	CONFIG	MODEL	MACH NO	PO(P(SIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
76	5	TRANSITION	M.00	R60.2	1354	40.01	-10.01	30.00	100.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LP-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
98.1	.088	3.947	3882	7.536E-05	7.897E-08	3.705E 06	4.914E-02	2.108E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCXK)	TRAR(TO)	BETA(TO)				
TOP(T)	304	500	89	.0542	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
T 9551(500)	.03	MODEL HAS NOT REACHED CENTERLINE								
T 9551(500)	1.00	MODEL HAS NOT REACHED CENTERLINE								
T 9552(500)	2.03	MODEL HAS NOT REACHED CENTERLINE								
INJECT TIME = 2.33										
T 9553(500)	3.08 1.77	3.257E-02	.6629	4.753E-02	.9673	5.624E-02	1.1455	1.358E-02		
T 9554(500)	4.10 2.80	2.592E-02	.5276	3.782E-02	.7699	4.474E-02	.9118	1.081E-02		
T 9555(500)	5.16 3.85	2.210E-02	.4494	3.225E-02	.6559	3.819E-02	.7768	9.202E-03		
T 9556(500)	6.21 4.90	1.958E-02	.3983	2.858E-02	.5813	3.385E-02	.6885	8.156E-03		
T 9557(500)	7.26 5.95	1.777E-02	.3615	2.543E-02	.5275	3.071E-02	.6248	7.403E-03		
T 9558(500)	8.28 6.99	1.641E-02	.3339	2.345E-02	.4873	2.834E-02	.5772	6.841E-03		
T 9559(500)	9.34 8.03	1.530E-02	.3113	2.233E-02	.4543	2.644E-02	.5340	6.376E-03		
T 9560(500)	10.39 9.08	1.439E-02	.2927	2.100E-02	.4272	2.487E-02	.5050	5.997E-03		
T 9561(500)	11.44 10.13	1.362E-02	.2772	1.988E-02	.4046	2.354E-02	.4792	5.682E-03		
T 9562(500)	12.49 11.18	1.296E-02	.2639	1.892E-02	.3850	2.241E-02	.4559	5.403E-03		
T 9563(500)	13.52 12.21	1.241E-02	.2524	1.811E-02	.3684	2.144E-02	.4363	5.171E-03		
T 9564(500)	14.57 13.26	1.190E-02	.2422	1.737E-02	.3535	2.054E-02	.4187	4.963E-03		
T 9565(500)	15.62 14.31	1.146E-02	.2332	1.672E-02	.3403	1.981E-02	.4031	4.778E-03		
T 9566(500)	16.67 15.36	1.106E-02	.2250	1.614E-02	.3284	1.912E-02	.3890	4.610E-03		
T 9567(500)	17.72 16.41	1.070E-02	.2178	1.562E-02	.3179	1.849E-02	.3764	4.463E-03		
T 9568(500)	17.65	MODEL HAS LEFT CENTERLINE								
T 9568(500)	18.77 17.46	1.037E-02	.2110	1.514E-02	.3090	1.793E-02	.3648	4.322E-03		
ERROR IN POWRF BASEC0		A = 6001241704212372 CALL FROM 72651								

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GROUP 77
0304 - 9577



GROUP 77
0304-9573

 * UNCLASSIFIED *

8/21/74

NASA-R1 SYS CM25A

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

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PISA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SFCTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
77	2	40 PERCENT	8.00	R59.6	1352	40.01	-10.01	30.00	180.00	-0.00

T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT3)	MU-INF (LB-SEC/FT2)	RE/FT (FT-1)	HREF (R= .0175FT)	STREF (R= .0175FT)
97.9	.088	3.944	3880	7.542E-05	7.880E-08	3.710E 06	4.911E-02	2.107E-02

CAMERA TOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKX)	TBAR(TO)	BETA(TO)
	304	500	85	.0542	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9549(500)	.03	MODEL HAS NOT REACHED CENTERLINE						
T 9573(500)	1.00	MODEL HAS NOT REACHED CENTERLINE						
T 9571(500)	2.03	MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.31								

T 9572(500)	3.05	1.76	3.310E-02	.6739	4.837E-02	.9848	5.734E-02	1.1674	1.380E-02	
T 9573(500)	4.10	2.81	2.619E-02	.5333	3.828E-02	.7794	4.537E-02	.9239	1.092E-02	
T 9574(500)	5.16	3.86	2.234E-02	.4547	3.266E-02	.6646	3.871E-02	.7878	9.305E-03	
T 9575(500)	6.21	4.91	1.921E-02	.4033	2.895E-02	.5895	3.432E-02	.6988	8.257E-03	
T 9576(500)	7.26	5.97	1.748E-02	.3660	2.628E-02	.5349	3.115E-02	.6341	7.492E-03	
T 9577(500)	8.31	7.02	1.638E-02	.3376	2.423E-02	.4934	2.872E-02	.5849	6.914E-03	
T 9578(500)	9.34	8.04	1.549E-02	.3151	2.263E-02	.4606	2.683E-02	.5460	6.450E-03	
J 9579(500)	10.39	9.09	1.456E-02	.2905	2.128E-02	.4334	2.523E-02	.5137	6.072E-03	
T 9580(500)	11.44	10.15	1.379E-02	.2808	2.015E-02	.4104	2.389E-02	.4865	5.751E-03	
T 9591(500)	12.49	11.23	1.312E-02	.2673	1.918E-02	.3906	2.274E-02	.4630	5.473E-03	
T 9582(500)	13.54	12.25	1.255E-02	.2555	1.834E-02	.3735	2.174E-02	.4427	5.233E-03	
T 9583(500)	14.59	13.31	1.204E-02	.2452	1.760E-02	.3583	2.088E-02	.4248	5.019E-03	
T 9584(500)	15.64	14.35	1.159E-02	.2360	1.694E-02	.3449	2.009E-02	.4089	4.832E-03	
T 9585(500)	16.69	15.42	1.119E-02	.2278	1.636E-02	.3330	1.939E-02	.3947	4.665E-03	
T 9586(500)	17.75	16.45	1.063E-02	.2204	1.582E-02	.3222	1.876E-02	.3819	4.513E-03	
		MODEL HAS LEFT CENTERLINE								
T 9587(500)	18.80	17.50	1.050E-02	.2134	1.534E-02	.3125	1.819E-02	.3704	4.378E-03	
T 9588(500)	19.85	18.56	1.020E-02	.2175	1.490E-02	.3033	1.766E-02	.3596	4.249E-03	
T 9589(500)	20.87	19.58	9.924E-03	.2021	1.451E-02	.2954	1.714E-02	.3502	4.140E-03	
T 9590(500)	21.93	20.63	9.668E-03	.1969	1.413E-02	.2878	1.675E-02	.3411	4.032E-03	
T 9591(500)	22.98	21.68	9.431E-03	.1921	1.378E-02	.2808	1.634E-02	.3328	3.935E-03	
T 9592(500)	24.03	22.73	9.210E-03	.1876	1.346E-02	.2742	1.596E-02	.3250	3.842E-03	

 * UNCLASSIFIED *

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 4/21/74

NASA-RI STS 0425A

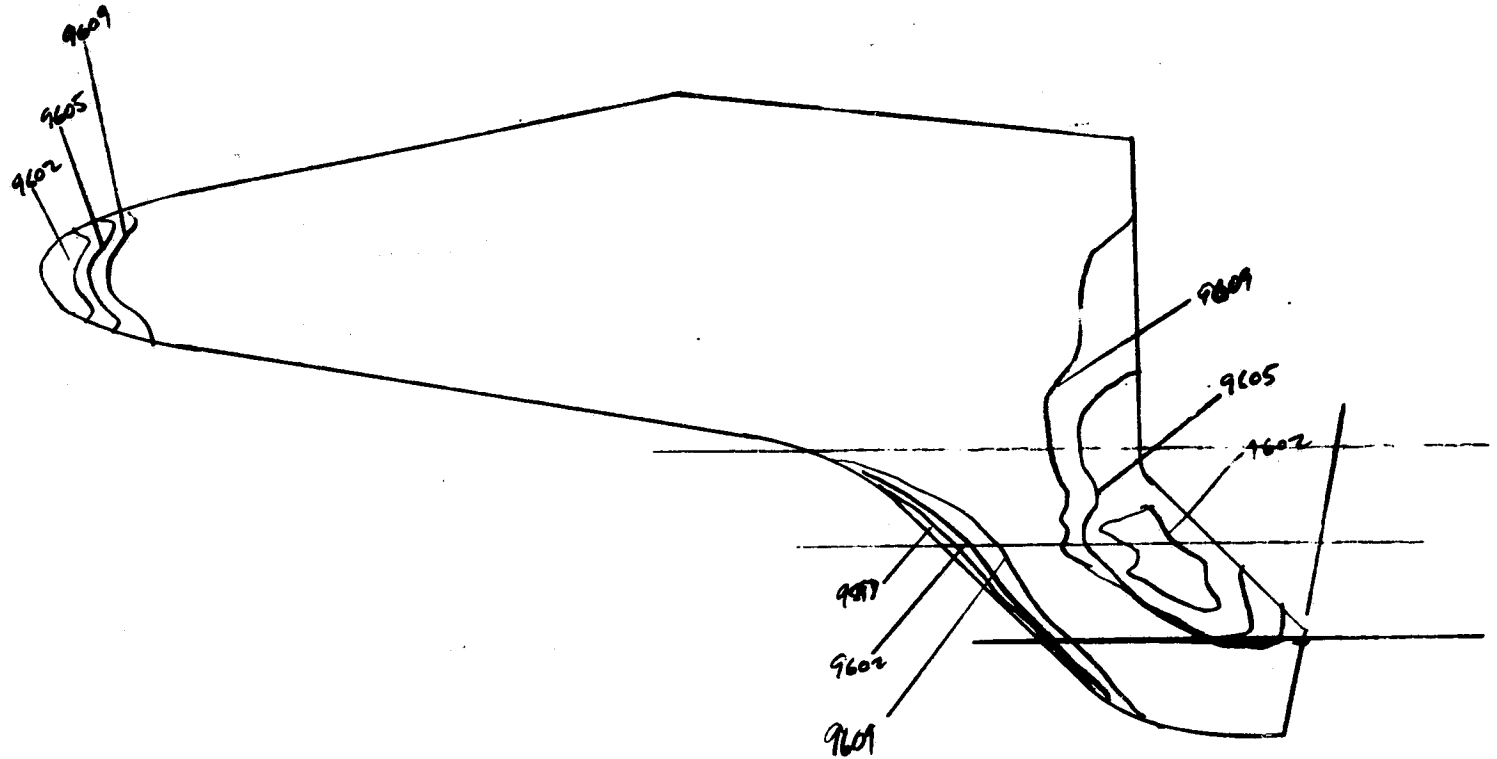
AEDC(ARD,INC.) ARNOLD AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL 9

V413-83A

GRUP	CONFIG	MODEL	MACH NO	PD(PSIA)	TD(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
77	2	40 PERCENT	8.00	859.4	1351	49.01	-10.01	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (H= .0175FT)	STREF (R= .0175FT)		
97.9	.888	3.944	3879	7.541E-05	7.885E-08	3.710E 06	4.910E-02	2.107E-02		
CAMERA TOP(T)	ROLL NO 304	PAINT TEMP 500	TEMP (DEG F)	INITIAL TEMP (DEG F) 85	SQUARE ROOT (RMUXCK)	.0542	TBAR(TO)	BETA(TO)	5.144E-01	8.1027E-01
PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)		
ERROR IN POWRF	BASE<0	A = 6001241740736305 CALL FROM 72651								

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GROUP 78
0304-9596



 * UNCLASSIFIED *

8/21/74

NASA-RJ STS 0M25A

AEDC(AH) INC. ANNULUS AFS, TENNESSEE
 VON KARMAN GAS DYNAMICS FACILITY
 50 INCH HYPERSONIC TUNNEL A

V418-83A

GROUP	CONFIG	MODEL	MACH NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
7A	4	LEADING EDGE	8.00	860.6	1351	40.01	-10.01	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FI-1)	(IN. .0175FI)	(IN. .0175FI)		
97.1	.088	3.945	3878	7.555E-05	7.881E-08	3.718E 06	4.913E-02	2.105E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCK)	TBAR(TO)	BETA(TO)				
TOP(T)	304	500	90	.0542	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9593(500)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 9594(500)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 9595(500)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =		2.22							
T 9596(500)	3.05	1.77	3.268E-02	.6650	4.741E-02	.9728	5.671E-02	1.1538	1.360E-02
T 9597(500)	4.10	2.83	2.570E-02	.5271	3.789E-02	.7711	4.494E-02	.9146	1.078E-02
T 9598(500)	5.16	3.88	2.211E-02	.4500	3.235E-02	.6583	3.837E-02	.7808	9.204E-03
T 9599(500)	6.21	4.93	1.961E-02	.3992	2.869E-02	.5840	3.403E-02	.6926	8.166E-03
T 9600(500)	7.26	5.98	1.781E-02	.3623	2.605E-02	.5301	3.090E-02	.6287	7.412E-03
T 9601(500)	8.31	7.03	1.642E-02	.3341	2.402E-02	.4888	2.842E-02	.5797	6.833E-03
T 9602(500)	9.34	8.06	1.534E-02	.3123	2.244E-02	.4549	2.662E-02	.5419	6.391E-03
T 9603(500)	10.39	9.11	1.443E-02	.2936	2.111E-02	.4295	2.503E-02	.5094	6.006E-03
T 9604(500)	11.44	10.16	1.366E-02	.2781	1.999E-02	.4064	2.370E-02	.4826	5.691E-03
T 9605(500)	12.49	11.21	1.300E-02	.2647	1.902E-02	.3872	2.256E-02	.4592	5.414E-03
T 9606(500)	13.54	12.26	1.243E-02	.2531	1.819E-02	.3702	2.158E-02	.4391	5.178E-03
T 9607(500)	14.59	13.31	1.193E-02	.2429	1.746E-02	.3554	2.071E-02	.4215	4.970E-03
T 9608(500)	15.64	14.36	1.149E-02	.2338	1.681E-02	.3420	1.993E-02	.4056	4.781E-03
T 9609(500)	16.69	15.42	1.109E-02	.2257	1.622E-02	.3302	1.924E-02	.3916	4.616E-03
T 9610(500)	17.75	16.47	1.073E-02	.2184	1.570E-02	.3195	1.862E-02	.3790	4.469E-03
T 9611(500)	18.80	17.52	1.040E-02	.2117	1.522E-02	.3097	1.805E-02	.3673	4.330E-03
	19.12		MODEL HAS LEFT CENTERLINE						
T 9612(500)	19.65	19.57	1.010E-02	.2056	1.478E-02	.3008	1.753E-02	.3568	4.206E-03
T 9613(500)	20.60	19.62	9.830E-03	.2001	1.438E-02	.2927	1.706E-02	.3472	4.094E-03
ERROR IN POWRF BASE<0			A = 6001241647466712 CALL FROM 72651						

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 * UNCLASSIFIED *

 8/21/74

NASA-RI STS 0M25A
 V418-83A

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

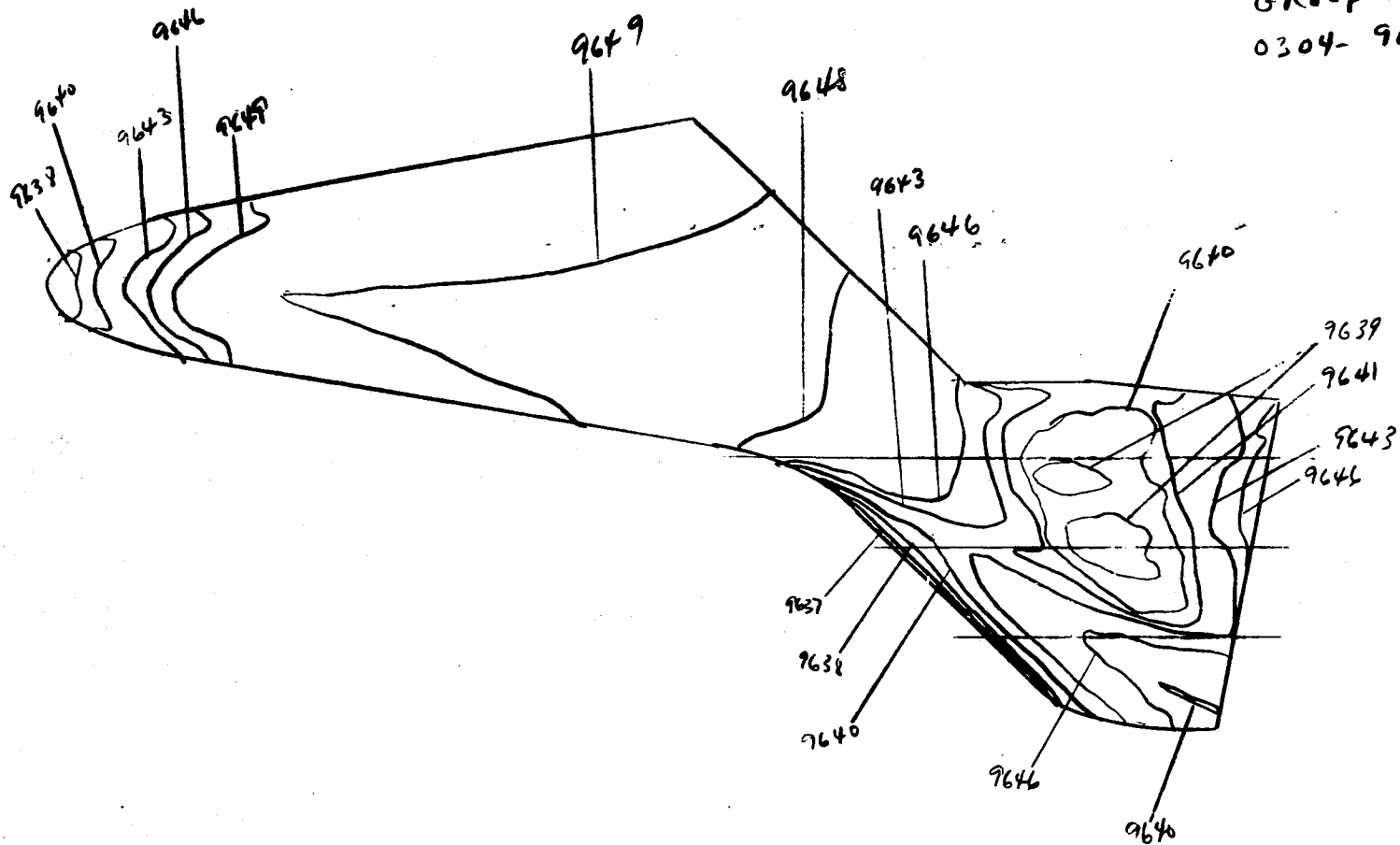
GROUP	CONFIG	MODEL	MACH NO	PO(P(SIA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
79	1	GREITER	8.00	860.8	1352	40.00	-10.00	30.00	180.00	-0.00
T-INF	P-INF	Q-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R= .0175FT)	(R= .0175FT)		
97.9	.088	3.950	3880	7.552E-05	7.886E-08	3.716E 06	4.914E-02	2.106E-02		
CAMERA	ROLL NO	PAINT TEMP	(DEG F)	INITIAL TEMP	(DEG F)	SQUARE ROOT (RHOXCXK)	TBAR(TO)	BETA(TO)		
TOP(T)	304	400		92		.0555	0	0		

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9614(400)	0		MODEL HAS NOT REACHED CENTERLINE						
T 9615(400)	.58		MODEL HAS NOT REACHED CENTERLINE						
T 9616(400)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME =			2.28						
T 9617(400)	3.05	1.77	2.091E-02	.4254	2.808E-02	.5713	3.171E-02	.6450	8.751E-03
T 9618(400)	4.10	2.83	1.657E-02	.3372	2.225E-02	.4528	2.513E-02	.5112	6.936E-03
T 9619(400)	5.16	3.88	1.415E-02	.2879	1.900E-02	.3866	2.145E-02	.4364	5.922E-03
T 9620(400)	6.18	4.90	1.258E-02	.2559	1.689E-02	.3436	1.907E-02	.3880	5.263E-03
T 9621(400)	7.23	5.95	1.142E-02	.2323	1.533E-02	.3170	1.731E-02	.3522	4.781E-03
T 9622(400)	8.28	7.01	1.053E-02	.2141	1.413E-02	.2875	1.590E-02	.3246	4.402E-03
T 9623(400)	9.34	8.06	9.816E-03	.1996	1.318E-02	.2681	1.488E-02	.3027	4.106E-03
T 9624(400)	10.39	9.11	9.232E-03	.1878	1.240E-02	.2522	1.400E-02	.2847	3.864E-03
T 9625(400)	11.44	10.15	8.741E-03	.1778	1.174E-02	.2398	1.325E-02	.2696	3.558E-03
T 9626(400)	12.49	11.21	8.321E-03	.1692	1.117E-02	.2272	1.262E-02	.2566	3.480E-03
T 9627(400)	13.52	12.24	7.965E-03	.1620	1.069E-02	.2175	1.207E-02	.2456	3.332E-03
T 9628(400)	14.57	13.29	7.643E-03	.1555	1.026E-02	.2088	1.159E-02	.2357	3.199E-03
T 9629(400)	15.62	14.34	7.358E-03	.1496	9.880E-03	.2009	1.115E-02	.2269	3.077E-03
T 9630(400)	16.67	15.39	7.102E-03	.1445	9.536E-03	.1941	1.077E-02	.2191	2.974E-03
T 9631(400)	17.72	16.44	6.871E-03	.1398	9.226E-03	.1878	1.042E-02	.2120	2.877E-03
	18.47		MODEL HAS LEFT CENTERLINE						
T 9632(400)	18.77	17.49	6.662E-03	.1355	8.945E-03	.1820	1.010E-02	.2054	2.787E-03
T 9633(400)	19.82	18.54	6.470E-03	.1316	8.688E-03	.1767	9.809E-03	.1995	2.707E-03

ERROR IN POWRF BASE<0 A = 6001241612743472 CALL FROM 72651

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Group 80
0304-9637



 * UNCLASSIFIED *

6/21/74

NASA-R1 STS 0M25A

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

V41R-83A

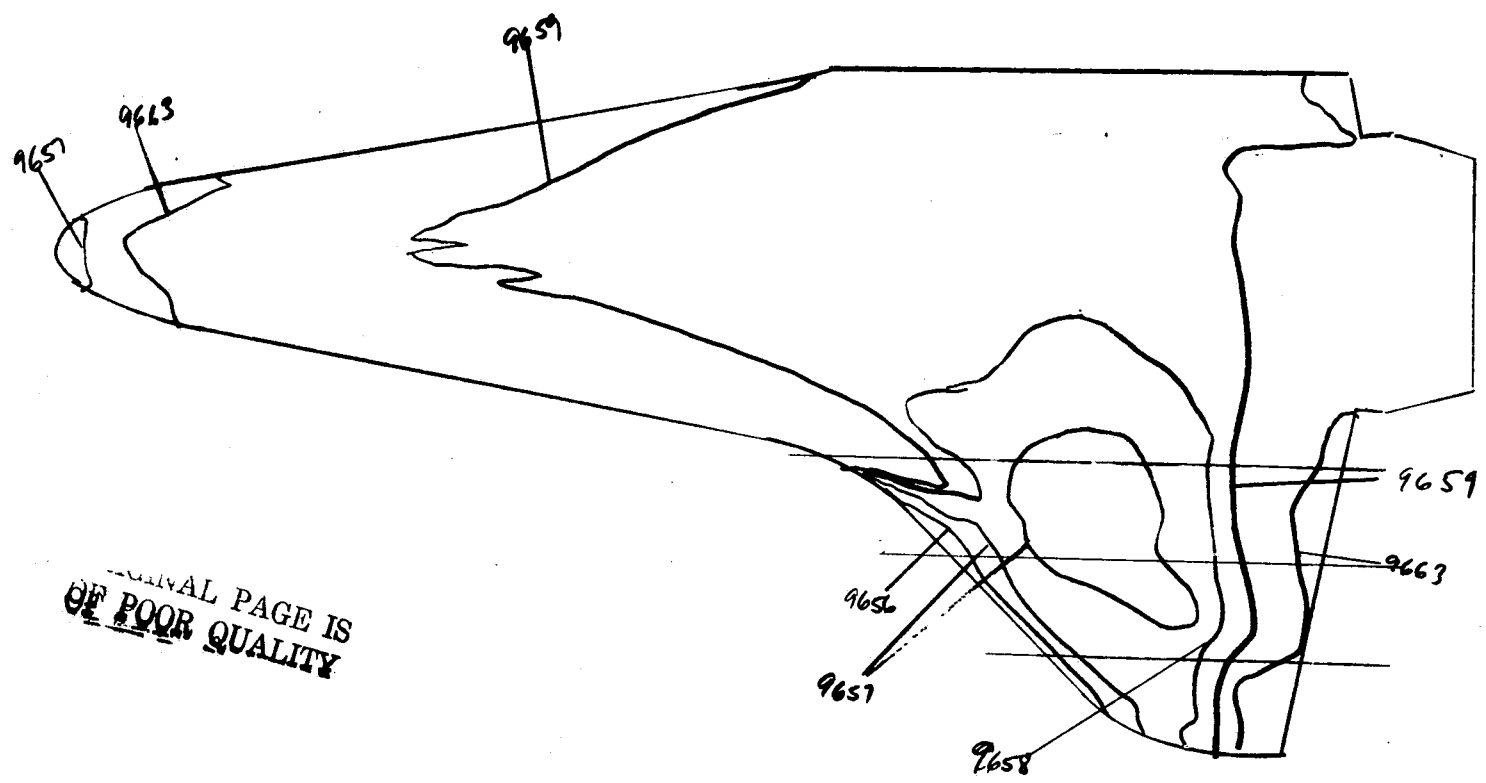
GROUP	CONFIG	MODEL	MACH NO	PN(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
80	S	TRANSITION	8.00	863.9	1.354	40.00	-10.00	30.00	180.00	-0.00
T-IAF	P-IAF	Q-IAF	V-IAF	RHO-IAF	MU-IAF	RE/FT	HREF	SINEF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FI-1)	(R= .0175EI)	(H= .0175EI)		
96.1	.088	3.964	3883	7.567E-05	7.899E-08	3.720E 06	4.924E-02	2.104E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKX)	TBAR(TO)	BETA(TO)				
TOP(T)	304	.400	89	.0555	0	0				

PIC NO	TIME	DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)
T 9634(400)	.03		MODEL HAS NOT REACHED CENTERLINE						
T 9635(400)	1.00		MODEL HAS NOT REACHED CENTERLINE						
T 9636(400)	2.03		MODEL HAS NOT REACHED CENTERLINE						
INJECT TIME = 2.28									
T 9637(400)	3.08	1.83	2.085E-02	.4232	2.796E-02	.5676	3.155E-02	.6405	8.699E-03
T 9638(400)	4.10	2.83	1.664E-02	.3378	2.231E-02	.4530	2.514E-02	.5111	6.943E-03
T 9639(400)	5.16	3.98	1.420E-02	.2881	1.905E-02	.3964	2.149E-02	.4360	5.918E-03
T 9640(400)	6.21	4.93	1.200E-02	.2557	1.690E-02	.3429	1.906E-02	.3869	5.252E-03
T 9641(400)	7.26	5.98	1.144E-02	.2322	1.534E-02	.3114	1.731E-02	.3513	4.771E-03
T 9642(400)	8.31	7.03	1.055E-02	.2142	1.415E-02	.2873	1.590E-02	.3242	4.405E-03
T 9643(400)	9.36	8.08	9.839E-03	.1997	1.319E-02	.2679	1.484E-02	.3023	4.106E-03
T 9644(400)	10.41	9.13	9.255E-03	.1879	1.241E-02	.2520	1.400E-02	.2843	3.862E-03
T 9645(400)	11.46	10.18	8.704E-03	.1780	1.175E-02	.2387	1.326E-02	.2693	3.660E-03
T 9646(400)	12.49	11.21	8.354E-03	.1695	1.120E-02	.2273	1.264E-02	.2565	3.483E-03
T 9647(400)	13.54	12.26	7.988E-03	.1621	1.071E-02	.2174	1.209E-02	.2453	3.331E-03
T 9648(400)	14.59	13.31	7.666E-03	.1556	1.028E-02	.2086	1.160E-02	.2354	3.196E-03
T 9649(400)	15.64	14.36	7.380E-03	.1498	9.847E-03	.2009	1.117E-02	.2267	3.079E-03
T 9650(400)	16.69	15.42	7.124E-03	.1446	9.554E-03	.1939	1.074E-02	.2188	2.971E-03
T 9651(400)	17.75	16.47	6.843E-03	.1399	9.244E-03	.1876	1.043E-02	.2117	2.874E-03
T 9652(400)	18.02	17.52	MODEL HAS LEFT CENTERLINE						
	18.60		6.683E-03	.1357	8.902E-03	.1819	1.011E-02	.2053	2.788E-03

ERROR IN PQRBF BASE<0 A = 6001241667466712 CALL FROM 72651

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GROUP 81
0304-9656



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ORIGINAL PAGE IS
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8/21/74

NASA-RI STS 0M25A

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

V418-83A

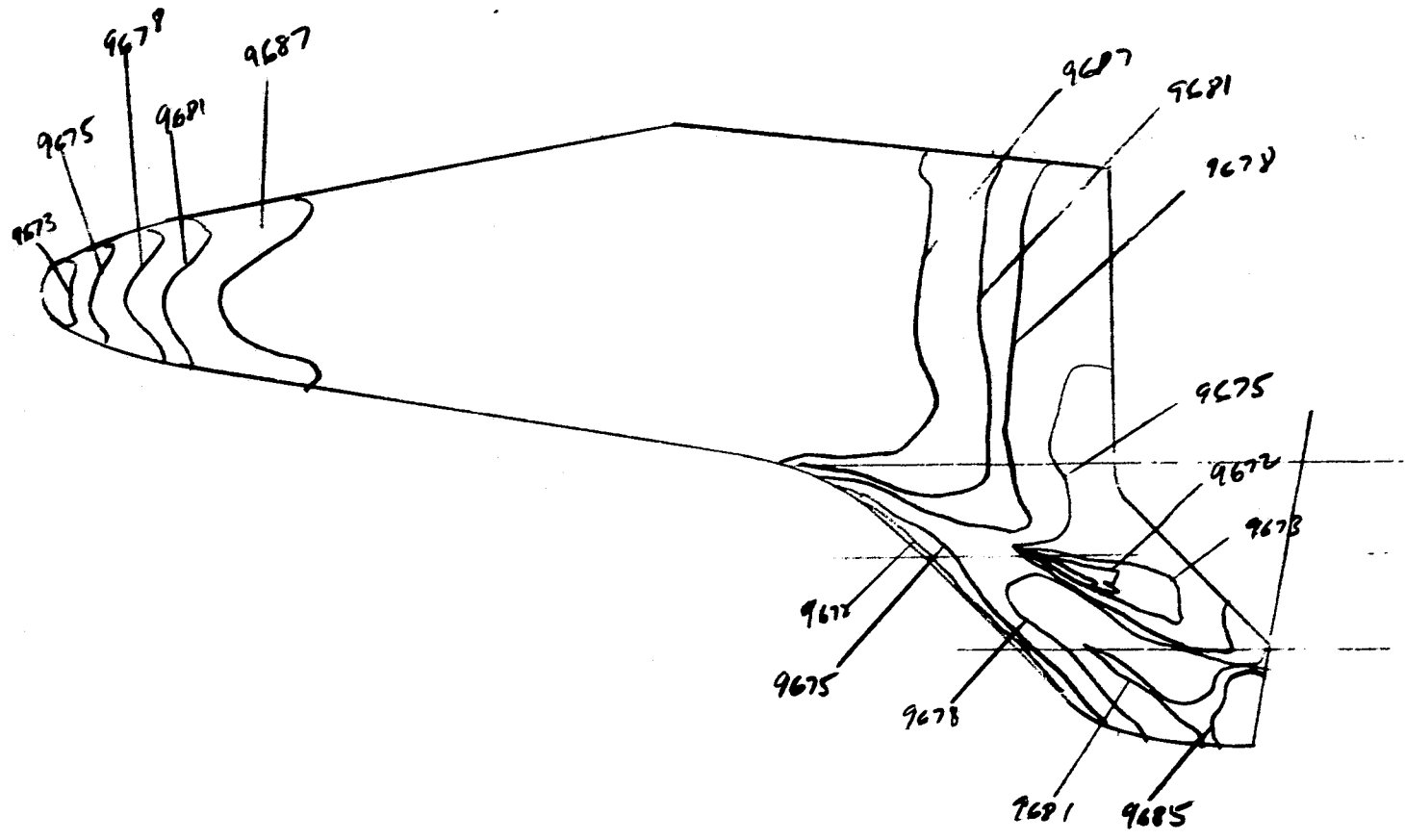
GROUP	CONFIG	MODEL	MACH. NO	PO (PSIA)	TO (DEG R)	ALPHA-MODEL	ALPHA-SECTION	ALPHA-PREBEND	ROLL-MODEL	YAW
E1	2	40 PERCENT	M.00	R61.7	1355	40.00	-10.00	30.00	180.00	-0.00
T-INF (DEG R)	P-INF (PSIA)	Q-INF (PSIA)	V-INF (FT/SEC)	RHO-INF (SLUGS/FT ³)	MU-INF (LB-SEC/FT ²)	RE/FT (FT-1)	HREF (H= .0175FT)	STREF (H= .0175FT)		
98.2	.088	3.954	388*	7.543E-05	7.904E-08	3.707E 06	4.919E-02	2.108E-02		

CAMERA IOP(T)	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHOXCKX)	TBAR(TO)	BETA(TO)
	304	400	86	.0555	0	0

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9653(400)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 9654(400)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 9655(400)	2.03	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME =		2.28							
T 9656(400)	3.05	1.77	2.116E-02	.4300	2.836E-02	.5765	3.200E-02	.6503	8.852E-03
T 9657(400)	4.10	2.83	1.677E-02	.3408	2.248E-02	.4569	2.536E-02	.5154	7.015E-03
T 9658(400)	5.16	3.88	1.431E-02	.2909	1.919E-02	.3899	2.165E-02	.4399	5.986E-03
T 9659(400)	6.18	4.90	1.273E-02	.2588	1.706E-02	.3469	1.925E-02	.3914	5.329E-03
T 9660(400)	7.23	5.95	1.155E-02	.2349	1.548E-02	.3149	1.747E-02	.3552	4.837E-03
T 9661(400)	8.28	7.01	1.065E-02	.2154	1.428E-02	.2901	1.611E-02	.3273	4.455E-03
T 9662(400)	9.34	8.06	9.930E-03	.2018	1.331E-02	.2705	1.502E-02	.3052	4.153E-03
T 9663(400)	10.39	9.11	9.339E-03	.1898	1.252E-02	.2545	1.413E-02	.2871	3.908E-03
T 9664(400)	11.44	10.16	8.843E-03	.1798	1.185E-02	.2411	1.337E-02	.2719	3.703E-03
T 9665(400)	12.49	11.21	8.418E-03	.1711	1.129E-02	.2294	1.273E-02	.2588	3.523E-03
T 9666(400)	13.54	12.25	8.049E-03	.1637	1.079E-02	.2195	1.217E-02	.2476	3.372E-03
T 9667(400)	14.59	13.31	7.725E-03	.1570	1.036E-02	.2105	1.168E-02	.2375	3.234E-03
T 9668(400)	15.02	14.36	7.437E-03	.1511	9.970E-03	.2026	1.125E-02	.2286	3.111E-03
ERROR IN POWRF		BASE=0	A = 6001241704212372 CALL FROM 72651						

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Group 82
0304-9672



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8/21/74

NASA-RI STS 0M25A

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

V41B-83A

GROUP	CONFIG	MODEL	MACH NO	PO(PStA)	TO(DEG R)	ALPHA-MODEL	ALPHA-SECTOR	ALPHA-PREBEND	ROLL-MODEL	YAW
82	4	LEADING EDGE	8.00	R61.7	1355	40.01	-10.01	30.00	180.00	-0.00
T-INF	P-INF	O-INF	V-INF	RHO-INF	MU-INF	RE/FT	HREF	STREF		
(DEG R)	(PSIA)	(PSIA)	(FT/SEC)	(SLUGS/FT ³)	(LB-SEC/FT ²)	(FT-1)	(R=.0175FT)	(R=.0175FT)		
98.2	.088	3.954	3884	7.541E-05	7.906E-08	3.705E 06	4.919E-02	2.108E-02		
CAMERA	ROLL NO	PAINT TEMP (DEG F)	INITIAL TEMP (DEG F)	SQUARE ROOT (RHODACK)	TBAR(TO)	BETA(TO)				
TOP(T)	304	400	93	.0555	0	0				

PIC NO	TIME DELTIME	H(TO)	H(TO)/HREF	H(.9TO)	H(.9TO)/HREF	H(.867TO)	H(.867TO)/HREF	ST(TO)	
T 9669(400)	.03	MODEL HAS NOT REACHED CENTERLINE							
T 9670(400)	1.00	MODEL HAS NOT REACHED CENTERLINE							
T 9671(400)	2.05	MODEL HAS NOT REACHED CENTERLINE							
INJECT TIME = 2.28									
T 9672(400)	3.08	1.80	2.056E-02	.4180	2.757E-02	.5605	3.111E-02	.6323	8.608E-03
T 9673(400)	4.13	2.85	1.634E-02	.3321	2.191E-02	.4453	2.472E-02	.5024	6.838E-03
T 9674(400)	5.18	3.90	1.397E-02	.2838	1.873E-02	.3805	2.113E-02	.4293	5.842E-03
T 9675(400)	6.23	4.95	1.240E-02	.2519	1.662E-02	.3378	1.875E-02	.3811	5.187E-03
T 9676(400)	7.28	6.00	1.126E-02	.2288	1.510E-02	.3068	1.703E-02	.3461	4.711E-03
T 9677(400)	8.33	7.05	1.039E-02	.2111	1.393E-02	.2831	1.571E-02	.3194	4.347E-03
T 9678(400)	9.39	8.11	9.690E-03	.1969	1.299E-02	.2640	1.466E-02	.2978	4.052E-03
T 9679(400)	10.44	9.16	9.117E-03	.1854	1.222E-02	.2486	1.379E-02	.2804	3.819E-03
T 9680(400)	11.49	10.21	8.634E-03	.1756	1.158E-02	.2355	1.306E-02	.2656	3.618E-03
T 9681(400)	12.54	11.26	8.222E-03	.1671	1.102E-02	.2240	1.244E-02	.2528	3.440E-03
T 9682(400)	13.59	12.31	7.803E-03	.1599	1.054E-02	.2144	1.189E-02	.2419	3.294E-03
T 9683(400)	14.62	13.34	7.554E-03	.1535	1.013E-02	.2058	1.143E-02	.2322	3.160E-03
T 9684(400)	15.67	14.39	7.273E-03	.1478	9.752E-03	.1942	1.100E-02	.2235	3.042E-03
T 9685(400)	16.72	15.44	7.021E-03	.1427	9.414E-03	.1913	1.062E-02	.2159	2.938E-03
T 9686(400)	17.77	16.49	6.794E-03	.1380	9.109E-03	.1891	1.028E-02	.2088	2.841E-03
	18.60	MODEL HAS LEFT CENTERLINE							
T 9687(400)	18.82	17.54	6.587E-03	.1338	8.832E-03	.1795	9.964E-03	.2025	2.755E-03
T 9688(400)	19.87	18.59	6.398E-03	.1300	8.579E-03	.1743	9.678E-03	.1967	2.676E-03

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