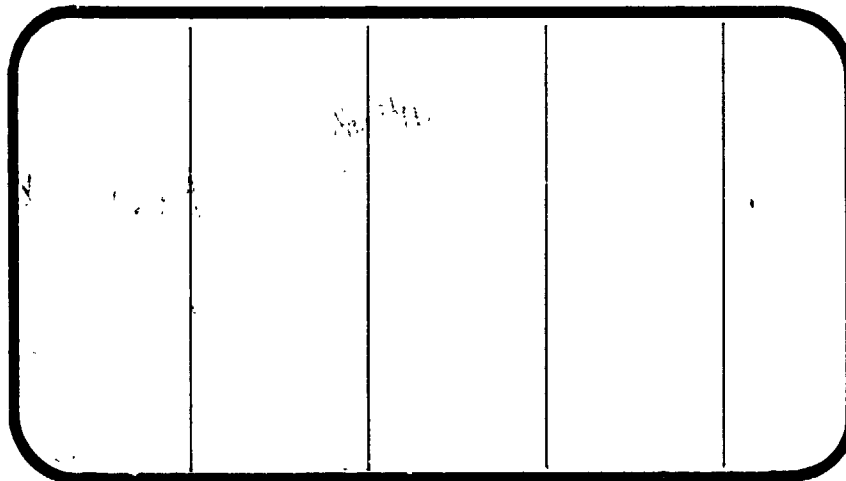




NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NASA CR-

141517



(NASA-CP-141517) RESULTS OF HEAT TRANSFER
TESTS OF AN 0.0175-SCALE SPACE SHUTTLE
VEHICLE MODEL 22 OTS IN THE NASA-AMES
3.5-FOOT HYPERSONIC WIND TUNNEL (IH3),
VOLUME 4 Aerothermodynamic Data Report

N76-21269

HC \$10.50

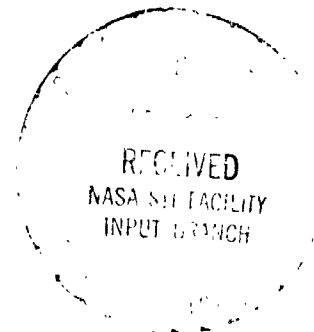
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT



JOHNSON SPACE CENTER

HOUSTON, TEXAS

DATA MANAGEMENT services

SPACE DIVISION



CHRYSLER CORPORATION

April, 1975

DMS-DR-2136
NASA CR-141,517

RESULTS OF HEAT TRANSFER TESTS
OF AN 0.0175-SCALE SPACE SHUTTLE
VEHICLE MODEL 22 OTS IN THE NASA-AMES
3.5-FOOT HYPERSONIC WIND TUNNEL (IH3)

VOLUME IV

By

Thomas F. Foster, Rockwell International
William K. Lockman, NASA Ames Research Center

Prepared under NASA Contract Number NAS9-13247

By

Data Management Services
Chrysler Corporation Space Division
New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: ARC 3.5-178
NASA Series Number: IH3
Model Number: 22 OTS
Test Dates: October 31 to November 9, 1973

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RESULTS OF HEAT TRANSFER TESTS
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3.5-FOOT HYPERSONIC WIND TUNNEL (IH3)

By

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ABSTRACT

Heat-transfer data for the 0.0175-scale Space Shuttle Vehicle 3 are presented in this data report. Interference heating effects were investigated by a model build-up technique of Orbiter alone, tank alone, second, and first stage configurations.

The test program was conducted in the NASA-Ames 3.5-Foot Hypersonic Wind Tunnel at Mach 5.3 for nominal free-stream Reynolds number per foot values of 1.5×10^6 and 5.0×10^6 .

This report is presented in four volumes. The contents of the volumes are as follows:

VOLUME I	PLOTTED EXTERNAL TANK DATA
VOLUME II	PLOTTED SRB DATA
VOLUME III	PLOTTED ORBITER DATA
VOLUME IV	TABULATED SOURCE DATA



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COEFFICIENT SCHEDULES:

- (A): H/HREF vs. X/L
 (B): H/HREF vs. PHI
 (C): HI/HU vs. X/L
 (D): HI/HU vs. PHI
 (E): H/HREF vs. X/C
 (F): H/HREF vs. 2Y/B
 (G): HI/HU vs. X/C
 (H): HI/HU vs. 2Y/B
 (I): H/HREF vs. S
 (J): HI/HU vs. S
 (K): H/HREF vs. Z/BV
 (L): HI/HU vs. Z/BV

INTRODUCTION

The experimental investigation documented in this report was performed to obtain aerodynamic heat-transfer rate data on the space shuttle vehicle 3 first and second stage configurations. A component build-up of orbiter alone, tank alone, orbiter plus tank, and fully mated launch configuration was utilized to investigate component interference effects.

The test program was conducted in the NASA-Ames 3.5-Foot Hypersonic Wind Tunnel at Mach 5.3 and nominal free-stream Reynolds number per foot values of 1.5×10^6 and 5.0×10^6 . The model angles of attack were 0° , -3° , -5° and 20° (SRB alone) and angles of yaw were 0° and -5° .

NOMENCLATURE

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
b		thickness of model skin
B		span length
C		specific heat of model skin material or OMS crease
c		chord length
C_0, C_1, C_2		constants in curve fit for C over model wall temperature range
c_p		specific heat of air stream (perfect gas value)
CHAN	CHAN	recording-system channel
H_{aw}	H_{AW}	adiabatic wall enthalpy
H_t	HT	free-stream total enthalpy
	HO	average of free-stream total enthalpy values of all tunnel runs incorporated into an aero dataset
H_w	HW	enthalpy based on model wall temperature for given T/C location
h	H	heat-transfer coefficient at model wall for given T/C location
href	HREF	stagnation-point heat-transfer coefficient for reference sphere
h/href	H/HREF	ratio of model heat-transfer coefficient to heat-transfer coefficient of reference sphere for $H_{aw}/H_t = X.XXX$
	HI/HU	interference to undisturbed heat transfer coefficient ratio
IML		inner module line
L	Length	model reference length

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
M_∞	MACH	free-stream Mach number
P_t	PT	free-stream total pressure
	PO	average of free-stream total pressure values of all tunnel runs incorporated into an aero dataset
\dot{q}	Q	heat-transfer rate at model wall for given T/C location
\dot{q}_s	QS	stagnation-point heat-transfer rate for reference sphere at initial time
R_s	RS	reference sphere radius at model scale equivalent to 0.305 m (1 ft) for full-scale vehicle
Re_∞/ft		free-stream Reynolds number per foot
	RN/L	average of free-stream Reynolds number values (per foot) of all tunnel runs incorporated into an aero dataset
$Re_\infty L$		free-stream Reynolds number based on model reference length, L
	S	assumed chordwise location (for Clusters Band C) - see Figure 2
St	ST	Stanton number based on free-stream flow conditions and the model heat-transfer coefficient for $H_{aw}/H_t = X.XXX$
T		temperature
T_t	TT	free-stream total temperature
	TO	average of free-stream total temperature values of all tunnel runs incorporated into an aero dataset

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
T_w	TW	model wall temperature for given T/C location
T/C	T/C	thermocouple
t		time
t_i	TIME	initial time (before model insertion into flow) extrapolated from $f(T_w)$ vs time
u, V		velocity
W		density of model skin material
X		axial distance measured from nose
	X/C	chordwise location, fraction of local chord
	X/L	longitudinal location, fraction of body length
Y		spanwise distance from centerline
	2Y/B	spanwise location, fraction of semi-span
Z		water plane distance
	Z/BV	spanwise location on vertical tail, fraction of exposed span
θ		tank radial position measured clockwise looking forward, 0 degrees at bottom centerline
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
μ		viscosity of air
ρ		density of air
ϕ		Orbiter radial position measured clockwise looking forward. 0 degrees at bottom centerline

NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>Plot Symbol</u>	<u>Definition</u>
ψ		SRB radial position measured clockwise looking forward. 0 degrees at bottom centerline

SUBSCRIPTS

a_w		adiabatic wall
i		initial value before model insertion into tunnel flow
O		Orbiter
PG		perfect gas (calorically and thermally perfect gas)
s		reference sphere
S		SRB
t		free-stream total condition
T		tank
V		vertical tail
w		wall
∞		free-stream

REMARKS

Tunnel blockage was suspected during the first stage (mated) $\alpha = -5^\circ$ runs, but could not be confirmed due to inconclusive shadowgraph data. Therefore, additional data were taken at $\alpha = -3^\circ$. Both $\alpha = -3^\circ$ and -5° data are presented in this report; however, the $\alpha = -5^\circ$ data are questionable.

Near the end of the test program the number of test runs used to obtain a complete mapping of the mated-vehicle heating rates was reduced from seven to five to conserve test time. The data acquisition capacity is 75 thermocouple channels per run. This reduced the number of recorded thermocouples from 525 to 375 for these runs (runs with T/C hook-up numbers 12 and 13).

A post-test analysis and dimensional check of the model were performed on the orbiter to investigate suspected incorrect data from wing leading edge clusters B and C. As a result of this investigation, the thermocouple locations and skin thicknesses presented in Table IV and figure 2a were found to be incorrect for clusters B and C. Figure 2b presents the correct locations and thicknesses. The data presented in the plots and tabulated listings reflect the pretest locations and skin thicknesses and should be scaled accordingly. Data reports for other tests of this model are also in error due to the clusters on the wing leading edge. These test data should be corrected for the test data publications of tests OH4B, IH20, and OH6.

CONFIGURATIONS INVESTIGATED

The 22-OTS model is a 0.0175-scale replica of the vehicle three configuration Rockwell International Space Shuttle orbiter, tank, and solid rocket boosters. The model is a thin-skin thermocouple model instrumented with 527 30-gauge iron-constantan thermocouples. The structural areas of the model were constructed of 15-5PH stainless steel with instrumented areas of 15-5PH and 17-7PH stainless steel.

Provisions have been made to test elevon deflections of -40° , 0° , $+5^\circ$, and $+10^\circ$; body flap deflections of 0° and $+10^\circ$; and rudder flare of 0° and 40° . For this ascent test, all control surfaces were tested at 0° deflection.

The configurations tested are described below with the component definitions given in table III.

Symbol

ORB	B ₁₇ C ₇ M ₄ F ₅ W ₁₀₃ E ₂₂ V ₇ R ₅	Orbiter
ET	T ₁₀	external tank
SRB	S ₈	solid rocket booster
OTS	B ₁₇ C ₇ M ₄ F ₅ W ₁₀₃ E ₂₂ V ₇ R ₅ T ₁₀ S ₈	mated vehicle
TRIPS		.050" steel spheres spot welded to .005" shim stock band 1/4 inch wide. Centerline displacement between trips was 3 diameters

TEST FACILITY DESCRIPTION

The NASA-Ames 3.5-Foot Hypersonic Wind Tunnel is a closed-circuit, blowdown-type tunnel capable of operating at nominal Mach numbers of 5, 7, and 10 at pressures to 1800 psia and temperatures to 3400°R for run times to four minutes. The major components of the facility include a gas storage system where the test gas is stored at 3000 psi, a storage heater filled with aluminum-oxide pebbles capable of heating the test gas to 3400°R, axisymmetric contoured nozzles with exit diameters of 42 inches for generating the desired Mach number, and a 900,000 ft³ vacuum storage system which operates to pressures of 0.3 psia. The test section itself is an open-jet type enclosed within a chamber approximately 12-feet in diameter and 40-feet in length, arranged transversally to the flow direction.

A model support system is provided that can pitch models through an angle-of-attack range of -20 to +20 degrees, in a vertical plane, about a fixed point of rotation on the tunnel centerline. This rotation point is adjustable from 1 to 5 feet from the nozzle exit plane. The model normally is out of the test stream (strut centerline 37-inches from tunnel centerline) until the tunnel test conditions are established after which it is inserted. Insertion time is adjustable to as little as 1/2 second and models may be inserted at any strut angle.

A high-speed, analog-to-digital data acquisition system is used to record test data on magnetic tape. The present system is equipped to measure and record the outputs from 80 transducers in addition to 20 channels of tunnel parameters.

TEST PROCEDURES

The data acquisition capability was 75 recorded thermocouples per run. Since there were 525 T/C's selected for mated launch-configuration testing, seven runs were necessary for a complete mated heating distribution. Cannon plugs with 15 thermocouples for full data acquisition capability were used at the model. A five plug junction (connector) box was constructed to mate the model plugs to the facility's 150°F reference box terminal posts. Most model changes were, therefore, simple plug changes between runs.

Due to the complexity of the mated configuration sting arrangement, oil-flow visualization techniques were employed to confirm that there were no sting-interference effects.

Shadowgraphs were taken for each run. Sting-effect shadowgraphs were also obtained for selected runs.

DATA REDUCTION

All test data were reduced at the NASA/Ames Research Center using the data reduction techniques outlined below. The thermocouple data were reduced using the one-dimensional, thin-wall equation:

$$\dot{q} = WCb \frac{dT_w}{dt} = h (H_{aw} - H_w) \equiv hH_t \left(\frac{H_{aw}}{H_t} - \frac{H_w}{H_t} \right) \quad (1)$$

which neglects heat-conduction losses.

Assuming that W and h are constant and

$$C = C_0 + C_1 T_w + C_2 T_w^2 \text{ for } T_w \text{ ranges} \quad (2)$$

the integration of equation (1) for $t = t_i$ to t and $T_w = T_{wi}$ to T_w yields the linear equation:

$$f(T_w) = - \ln \left(\frac{T'_{aw} - T_w}{T'_{aw} - T_{wi}} \right) - \left[\frac{C_1}{C'_{aw}} + \frac{C_2}{C'_{aw}} \left(T'_{aw} + \frac{T_w + T_{wi}}{2} \right) \right] \\ (T_w - T_{wi}) = \frac{hc_p}{WC'_{aw}b} (t - t_i) \quad (3)$$

where it is defined that:

$$T'_{aw} \equiv \frac{H_{aw}}{c_p} = \frac{H_{aw}}{H_t} \frac{H_t}{c_p} \geq (T_{aw})_{PG} \quad (4)$$

$$C'_{aw} \equiv C_0 + C_1 T'_{aw} + C_2 T'_{aw}{}^2 \quad (5)$$

specific heat at adiabatic wall temperature

The form of Eq (3) is $f(T_w) = mt + b$ where m is the slope and b is the intercept for a straight line if heat-conduction errors are negligible. Thus, deviations from a straight line can indicate heat-conduction effects.

DATA REDUCTION (Continued)

The slope, m , of $f(T_w)$ vs t from Eq (3) is computed by a least-squares, straight-line fit over a finite time interval (approx. 1 sec.) beginning when the model reaches uniform tunnel flow. The value of the heat-transfer coefficient, h , is then determined from:

$$h = \frac{WC_{aw}^i b}{c_p} m \quad (6)$$

Using this value of h , the heat-transfer rate is evaluated at the initial time, t_i , when the model is isothermal at the initial wall enthalpy, H_{wi}

$$\dot{q} = \dot{q}_i = h (H_{aw} - H_{wi}) \equiv h H_t \left(\frac{H_{aw}}{H_t} - \frac{H_{wi}}{H_t} \right) \quad (7)$$

where H_{aw}/H_t is the same value used to evaluate h . The resultant value of \dot{q} is independent of the value of H_{aw}/H_t used for both the h and \dot{q} evaluations.

The reference sphere heating is also evaluated at the initial wall enthalpy by the method of Fay and Riddell (ref. 2):

$$\dot{q}_s = h_{ref} (H_t - H_{wi}) \equiv h_s H_t \left(1.0 - \frac{H_{wi}}{H_t} \right) \quad (8)$$

The model-to-sphere ratio of heat-transfer coefficients is then determined from Eqs. (7) and (8) as

$$\frac{h}{h_{ref}} = \frac{\dot{q}_i}{\dot{q}_s} \left[\frac{1.0 - H_{wi}/H_t}{H_{aw}/H_t - H_{wi}/H_t} \right] \quad (9)$$

DATA REDUCTION (Concluded)

where \dot{q}_i is constant for all values of H_{aw}/H_t .

To determine h/h_{ref} for various values of H_{aw}/H_t , the particular value of H_{aw}/H_t is substituted into Eq. (9).

The Stanton number is defined as

$$St \equiv \frac{h}{\rho u} = \frac{\dot{q}_i}{\rho u (H_{aw} - H_{w_i})} \quad (10)$$

where for free-stream conditions, $\rho u = \rho_\infty V_\infty$.

The calculations of the model heating, reference sphere heating, and Reynolds number included the corrections of NACA report 1135 (ref. 3) for calorically imperfect thermally perfect air. Keyes' equation for viscosity (see ref. 4) was also used for the sphere heating and Reynolds number computations:

$$\mu = \frac{0.0232 \times 10^{-6} T^{0.5}}{1 + \frac{220}{T} \times 10^{-9/T}} \quad (11)$$

where the units for T and μ are $^\circ R$ and lb-sec/ft, respectively.

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TABLE I.

REPRODUCIBILITY OF THE
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TEST : IH3 (ARC 3.5 #178)		NOMINAL TEST CONDITIONS		DATE : 11/9/73
MACH NUMBER	REYNOLDS NUMBER (per Ft)	TOTAL PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Rankine)	
5.3	1.5×10^6	120	1300	
5.3	5.0×10^6	405	1300	
BALANCE UTILIZED: <u>None</u>				
	CAPACITY:	ACCURACY:	COEFFICIENT TOLERANCE:	
NF	_____	_____	_____	
SF	_____	_____	_____	
AF	_____	_____	_____	
PM	_____	_____	_____	
RM	_____	_____	_____	
YM	_____	_____	_____	
COMMENTS: Thermocouple Test				

TABLE II.

TEST: ARC 3.5 ITR IH3		DATA SET RUN NUMBER COLLATION SUMMARY										DATE: March 10, 1973									
DATA SET IDENTIFIER	CONFIGURATION	SCHEMATIC PARAMETERS/VALUES		NO. OF RUNS	THERMOCOUPLE SCHEMATIC (T/C) X (SEE TABLE VIII)																
		a	b		X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀							
1	ΦTS	0	0	1.5	9	3	10	5	11	7	8										
2	ΦTS	0	0	5.0	18	17	16	15	12	14	13										
3	ΦTS TRIPS	0	0	1.5	19	20	21	22	23	24	25										
4	ΦTS TRIPS	0	0	5.0	32	31	30	29	28	27	26										
5	ΦTS	0	0	5.0	39	38	37	36	35	34	33										
6	ΦTS	0	0	1.5	40	41	42	43													
7	ΦKB	0	0	5.0	47	46	45	44													
8	ΦPA TRIPS	0	0	1.5	48	49	50	51													
9	ΦPA TRIPS	0	0	5.0	55	54	53	52													
10	ET	0	0	1.5																	
11	ET	0	0	5.0																	
12	ET TRIPS	0	0	5.0																	
13	ET TRIPS	0	0	1.5																	
14	SRB	0	0	1.5																	64
15	SRB	0	0	5.0																	65
16	SRB	0	0	5.0																	66
17	SRB TRIPS	0	0	1.5																	68
18	SRB TRIPS	0	0	5.0																	69

TEST RUN NUMBERS: 13 19 25 31 37 43 49 55 61 67 75 76

COEFFICIENTS: MACH HAW/HT

IOVAR (1) IOVAR (2) NDV

See Page 24 for key to the character of DATASET NAME.

TABLE II. (Concluded)

TEST: ARC 3.5 178 - IH3		DATA SET/RUN NUMBER COLLATION SUMMARY										DATE: November, 1973						
DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION		NO. OF RUNS	THERMOCOUPLE SCHEDULE (T/C), X (SEE TABLE VIII)											
		α	β	RN/L			X ₁	X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₁₁	X ₁₂	X ₁₃		
REI(1)19	ØTS	-5	0	5.0		70												
REI(2)20	ØTS	-3	0	5.0		74									78	79	76	77

4th Character	Location of Thermocouple	4th Character	Location of Thermocouple
S	SRB	H	Clusters B & C (Wing Leading Edge)
N	SRB Separation Nozzle	I	Wing Top
T	External Tank	J	OMS Bottom Crease
B	Orbiter - Bottom C _L	K	OMS Side Surface
A	Orbiter - Top C _L	L	OMS Top Surface
C	Windows	M	OMS WL 474
D	Orbiter Bottom Surface	Q	Leading Edge Rolled Down 30°
E	Orbiter Side	P	Orbiter Fuselage
F	Wing Upper Crease	V	Vertical Tail
G	Wing Bottom	X	Solid Booster (overlaps with "S" data but has thermocouple schedule needed for comparison with undisturbed data to compute HI/HU)

1	7	13	19	25	31	37	43	49	55	61	67	75.76
H/H	H/H	H/H	H/H	H/H	H/H	H/H	H/H	H/H	H/H	H/H	H/H	H/H
COEFFICIENTS												
IDVAR (1) IDVAR (2) NDV												
MASH HAW/HT												
α OR β SCHEDULE												

TABLE III. - COMPONENT DIMENSIONAL DATA

MODEL COMPONENT: BODY - B₁₇

GENERAL DESCRIPTION: Fuselage, 3 configuration, lightweight orbiter per
Rockwell lines drawing No. VL70-000139

MODEL SCALE: 0.0175

DRAWING NO.: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In.	<u>1290.3</u>	<u>22.58025</u>
Max. width - In.	<u>267.6</u>	<u>4.6830</u>
Max. depth - In.	<u>244.5</u>	<u>4.27875</u>
Fineness Ratio	<u>4.82175</u>	<u>4.82175</u>
Area - ft ²		
Max. Cross-sectional	<u>386.67</u>	<u>0.11842</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: CANOPY - C7

GENERAL DESCRIPTION: Configuration 3 per Rockwell Lines VL70-000139

Insufficient information to complete dimensional data at this time.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length ($X_0 = 433$ to $X_0 = 670$) - in FS	<u>237</u>	<u>4.148</u>
Max. Width	<u> </u>	<u> </u>
Max. Depth ($Z_0 =$ to $Z_0 = 501$) in FS	<u> </u>	<u> </u>
Fineness ratio	<u> </u>	<u> </u>
Area - ft ²		
Max. Cross-sectional	<u> </u>	<u> </u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: ELEVON- E22

GENERAL DESCRIPTION: 3 configuration per W103 Rockwell Lines Drawing

VL70-000139 data for (1) of (2) sides.

SCALE MODEL: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area - ft ²	<u>205.52</u>	<u>0.06294</u>
Span (equivalent) - In.	<u>353.34</u>	<u>6.18345</u>
Inb'd equivalent chord	<u>114.78</u>	<u>2.00865</u>
Outb'd equivalent chord	<u>55.00</u>	<u>0.96250</u>
Ratio movable surface chord/ total surface chord		
At inb'd equiv. chord	<u>.208</u>	<u>.208</u>
At outb'd equiv. chord	<u>.400</u>	<u>.400</u>
Sweep-back angles, degrees		
Leading edge	<u>0.00</u>	<u>0.00</u>
Trailing edge	<u>- 10.24</u>	<u>- 10.24</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
Area Moment (Normal to hingeline) - ft ³ (Product of Area Moment)	<u>1548.07</u>	<u>0.00829</u>

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: BODY FLAP - F₅

GENERAL DESCRIPTION: 3 Configuration per Rockwell Lines VL70-000139

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In.	<u>84.70</u>	<u>1.48225</u>
Max. width - In.	<u>267.6</u>	<u>4.6830</u>
Max. Depth	<u> </u>	<u> </u>
Fineness Ratio	<u> </u>	<u> </u>
Area - ft ²		
Max Cross-sectional	<u> </u>	<u> </u>
Planform	<u>142.5195</u>	<u>0.04365</u>
Wetted	<u> </u>	<u> </u>
Base	<u>38.0958</u>	<u>0.01167</u>

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: OMS POD - M₄

GENERAL DESCRIPTION: Orbital maneuvering system pods located on the orbiter aft fuselage.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In.	<u>346.0</u>	<u>6.0550</u>
Max. Width - In.	<u>108.0</u>	<u>1.890</u>
Max. Depth - In.	<u>113.0</u>	<u>113.0</u>
Fineness Ratio	_____	_____
Area - ft ²		
Max cross sectional	_____	_____
Planform	_____	_____
Wetted	_____	_____
Base	_____	_____

⊙ of OMS Pod

WP = 463.9 In. FS; WP 400 + 63.9 = 463.9

BP = 80.0 In. FS

LENGTH: 1214.0 to 1560.0 = 346.0 In. FS

NOTE: M₄ is identical to M₃ of 2A configuration, except intersection to body.

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: RUDDER - R₅

GENERAL DESCRIPTION: 2A, 3 and 3A configuration per Rockwell Lines Drawing

VL70-000095

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139, VL70-000095

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Area - ft ²	<u>106.38</u>	<u>0.03258</u>
Span (equivalent) - in.	<u>201.0</u>	<u>3.5175</u>
Inb'd equivalent chord	<u>91.585</u>	<u>1.60274</u>
Outb'd equivalent chord	<u>50.833</u>	<u>0.88958</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>
Trailing edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
Area Moment (normal to hingeline) - ft ³ Product of area and mean chord	<u>526.13</u>	<u>0.00282</u>

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: BOOSTER SOLID ROCKET MOTOR - S8

GENERAL DESCRIPTION: Booster solid rocket, 3 configuration, body of
revolution, data for (1) of (2) sides per Rockwell Lines drawing
VL77-000036 and VL72-000088

MODEL SCALE: 0.0175

DRAWING NUMBER: VL72-000088, VL77-000036

DIMENSIONS:	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length (Includes nozzle) - In.	<u>1741.0</u>	<u>30.468</u>
Max. Width (Tank dia.) - In.	<u>142.0</u>	<u>2.485</u>
Max. Depth (Aft shroud) - In.	<u>205.0</u>	<u>3.588</u>
Fineness Ratio	<u>8.49268</u>	<u>8.49268</u>
Area - ft ²		
Max. Cross-sectional	<u>229.21</u>	<u>4.011</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>
WP of BSRM Centerline (Z _T) - In.	<u>400.0</u>	<u>7.00</u>
FS of BSRM Nose (X _T) - In.	<u>200.0</u>	<u>3.50</u>

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: EXTERNAL TANK - T10

GENERAL DESCRIPTION: External Oxygen-hydrogen tank, 3 configuration, per Rockwell Lines drawing VL78-000041 and VL72-000088

MODEL SCALE: 0.0175

DRAWING NUMBER: VL72-000088, VL78-000041

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length - In. (Nose @ $X_T = 309$)	<u>1865</u>	<u>32.63750</u>
Max. width (Dia) - In.	<u>324</u>	<u>5.670</u>
Max. depth	<u>--</u>	<u>--</u>
Fineness Ratio	<u>5.75617</u>	<u>5.75617</u>
Area - ft ²		
Max. Cross-Sectional		
Planform	<u>572.555</u>	<u>0.17534</u>
Wetted	<u>_____</u>	<u>_____</u>
Base	<u>_____</u>	<u>_____</u>
WP of Tank Centerline (X_T) In.	<u>400.0</u>	<u>7.00</u>

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

TABLE III. - COMPONENT DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL, V₇ (Lightweight Orbiter Configuration)

GENERAL DESCRIPTION: Centerline vertical tail, double-wedge airfoil with rounded leading edge.

NOTE: Same as V₅ but with manipulator housing removed.

MODEL SCALE: 0.0175

DRAWING NUMBER: VL70-000139, VL70-000095

DIMENSIONS:

	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
TOTAL DATA		
Area (Theo) - ft ²	<u>425.92</u>	<u>0.13044</u>
Planform		
Span (Theo) - In.	<u>315.72</u>	<u>5.52510</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>4.69875</u>
Tip (Theo) WP	<u>108.47</u>	<u>1.89822</u>
MAC	<u>199.81</u>	<u>3.49667</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>25.61125</u>
W.P. of .25 MAC	<u>635.522</u>	<u>11.12164</u>
B.L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil section:		
Leading wedge angle - deg.	<u>10.000</u>	<u>10.000</u>
Trailing wedge angle - deg.	<u>14.920</u>	<u>14.920</u>
Leading edge radius	<u>2.0</u>	<u>0.0350</u>
Void area - Ft ²	<u>13.17</u>	<u>0.00403</u>
Blanketed area	<u>0.00</u>	<u>0.00</u>

TABLE III. -- COMPONENT DIMENSIONAL DATA - Concluded.

MODEL COMPONENT: WING-W 103

GENERAL DESCRIPTION: Configuration 3 Orbiter per Lines VL70-000139.

NOTE: Same planform as W87, except dihedral at TE

Scale Model = 0.0175

TEST NO.	DWG. NO. VL70-000139		
DIMENSIONS:	FULL-SCALE	MODEL SCALE	
<u>TOTAL DATA</u>			
Area (Theo.) Ft ²	2690.00	0.82381	
Planform			
Span (Theo) In.	936.68	16.39190	
Aspect Ratio	2.265	2.265	
Rate of Taper	1.177	1.177	
Taper Ratio	0.200	0.200	
Dihedral Angle, degrees (@ TE of Elevon)	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.C.	689.24	12.06170	
Tip, (Theo) B.P.	137.85	2.41238	
MAC	474.81	8.30918	
Fus. Sta. of .25 MAC	1136.89	19.89558	
W.P. of .25 MAC	299.20	5.2360	
B.L. of .25 MAC	182.13	3.18728	
<u>EXPOSED DATA</u>			
Area (Theo) Ft ²	1757.29	0.53664	
Span, (Theo) In. BP108	720.68	12.61190	
Aspect Ratio	2.058	2.058	
Taper Ratio	0.2451	0.2451	
Chords			
Root BP108	562.40	9.8420	
Tip 1.00 $\frac{b}{2}$	137.85	2.41238	
MAC	393.03	6.8780	
Fus. Sta. of .25 MAC	1185.31	20.74292	
W.P. of .25 MAC	300.20	5.25350	
B.L. of .25 MAC	251.76	2.51580	
Airfoil Section (Rockwell Mod NASA) XXXX-64			
Root $\frac{b}{2}$ =	0.10	0.10	
Tip $\frac{b}{2}$ =	0.12	0.12	
Data for (1) of (2) Sides			
Leading Edge Cuff			
Planform Area Ft ²	120.33	0.03685	
Leading Edge Intersects Fus M. L. @ Sta	580.0	9.800	
Leading Edge Intersects Wing @ Sta	1035.0	18.11250	

Table IV. Orbiter T/C Locations
Model 22-OTS

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICKNESS	REMARKS
		x_0	y	z	x FROM NOSE	y	z			
1	0	238.00	0	--	0	0	--	0	.034	BOTTOM ϕ
2	.005	244.45	▲	▲	.113	▲	▲	▲	.035	▲
3	.010	250.90			.226				.035	
4	.020	263.81			.452				.032	
5	.030	276.71			.677				.033	
6	.040	289.61			.903				.034	
7	.050	302.52			1.129				.033	
8	.060	315.42			1.355				.032	
9	.070	328.32			1.581				.034	
10	.080	341.22			1.806				.035	
11	.090	354.13			2.032				.035	▼
12	.100	367.03			2.258				.034	BOTTOM ϕ
13									—	OPEN
14	.120	392.84			2.710				.035	BOTTOM ϕ
15	.130	405.74			2.935				.035	▲
16	.140	418.64			3.161				.035	
17	.150	431.54			3.387				.034	
18	.160	444.45			3.613				.035	
19	.170	457.35			3.839				.035	
20	.190	470.25			4.064				.035	
21	.190	483.16			4.290				.035	
22	.200	496.06			4.516				.031	
23	.225	528.32			5.081				.031	
24	.250	560.58			5.645				.033	
25	.275	592.83			6.210				.033	
26	.300	625.09			6.774				.032	
27	.325	657.35			7.339				.033	
28	.350	689.60			7.903				.020	
29	.375	721.86			8.468				.028	
30	.400	754.12			9.032				.033	
31	.425	786.38	▼	▼	9.597	▼	▼	▼	.035	▼
32	.450	818.64		--	10.161	0	--	0	.034	BOTTOM ϕ

Table IV (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICKNESS	REMARKS
		x_0	y	z	(x FROM NOSE)	y	z			
33	.475	850.89	0	--	10.726	0	--	0	.030	BOTTOM ϕ
34	.500	883.15	▲	▲	11.290	▲	▲	▲	.030	▲
35	.525	915.41			11.855				.032	
36	.550	947.66			12.419				.031	
37	.575	979.92			12.984				.029	
38	.600	1012.18			13.548				.028	
39	.625	1044.44			14.113				.028	
40	.650	1076.70			14.677				.033	
41	.675	1108.95			15.242				.035	
42	.700	1141.21			15.806				.034	
43	.725	1173.47			16.371				.035	
44	.750	1205.72			16.935				.035	
45	.775	1237.98			17.500				.034	
46	.800	1270.24			18.064				.035	
47	.825	1302.50			18.624				.035	
48	.850	1334.76			19.193				.033	
49	.875	1367.01			19.758				.033	
50	.900	1399.27			20.322				.034	
51	.925	1431.53			20.887				.035	
52	.950	1463.78			21.451				.032	▼
53	.975	1496.04			22.016				.032	BOTTOM ϕ
54	1.000	1528.3			22.580				.029	$\frac{x}{L}=1.0089$, $\delta_{BF}=10^\circ$.033
55	1.013	1541.56			22.812				.032	$\delta_{BF} 10^\circ$ ONLY ▲
56	1.025	1560.56			23.145				.032	BF
57	1.038	1574.30			23.385			▼	.032	$\delta_{BF} 10^\circ$ ONLY ▼
58	1.050	1592.82			23.709			0	.030	▼ .032
59	.010	250.90			.226			180	.035	TOP ϕ
60	.025	270.26			.565			▲	.035	▲
61	.050	302.52			1.129			▲	.035	▲
62	.075	334.77			1.694			▲	.033	▲
63	.100	367.03	▼	▼	2.258	▼	▼	▼	.033	▼
64	.125	399.29	0	--	2.823	0	--	180	.031	TOP ϕ

Table IV (Cont'd) Orbiter

T/C NO.	$\frac{x}{L}$	FULL SCALE			MODEL SCALE			ϕ	SKIN THICKNESS	REMARKS
		x_0	y	z	x FROM NOSE	y	z			
65	.150	431.54	0	--	3.387	0	--	180	.026	TOP ϕ
66	.160	444.45	▲	▲	3.613	▲	▲	▲	.031	▲
67	.170	457.35			3.839				.031	
68	.180	470.25			4.064				.030	
69	.200	496.06			4.516				.033	
70	.250	560.58			5.645				.030	
71	.300	625.09			6.774				.030	
72	.400	754.12			9.032				.030	
73	.500	883.15			11.290				.030	
74	.600	1012.18			13.548				.031	
75	.700	1141.21	▼	▼	15.806	▼	▼	▼	.032	▼
76	.800	1270.24	0	--	18.064	0	--	180	.030	TOP ϕ
77			29.60	478.00	WINDOW #1	0.518	8.365	--	.035	TOP LEFT
78			12.80	478.00	WINDOW #1	0.224	8.365	--	.035	TOP RIGHT
79			21.20	464.97	▲	0.371	8.137	▲	.033	CENTER
80			34.40	452.00	▼	0.602	7.910		.035	BOTTOM LEFT
81			6.00	452.00	WINDOW #1	0.105	7.910		.034	BOTTOM RIGHT
82			43.20	478.00	WINDOW #2	0.756	8.365		.035	TOP LEFT
83			34.80	478.00	WINDOW #2	0.609	8.365		.035	TOP RIGHT
84			44.80	464.97	▲	0.784	8.137		.035	CENTER
85			59.20	452.00	▼	1.036	7.910	▼	.035	BOTTOM LEFT
86			40.40	452.00	WINDOW #2	0.707	7.910	--	.035	BOTTOM RIGHT
87			62.40	464.97	WINDOW #3	1.092	8.137	140	.032	CENTER
88	.100	367.03	20.00	--	2.258	0.350	--	10	.035	FINISH BOTTOM SURFACE
89	.150	431.54	24.00	--	3.387	0.420	--	10	.035	▲
90	.050	302.52	25.00	▲	1.129	0.438	--	14	.033	
91	.200	496.06	25.00		4.516	0.438	▲	11.5	.031	
92	.300	625.09	25.00		6.774	0.438		12	.033	
93	.200	496.06	50.00		4.516	0.875		24	.034	
94	.300	625.09	50.00		6.774	0.875		22	.036	
95	.400	754.12	50.00	▼	9.032	0.875	▼	21	.026	▼
96	.500	883.15	50.00	--	11.290	0.875	--	21.5	.026	FINISH BOTTOM SURFACE

Table IV (Cont'd) Orbiter

T/C NO.	x L	FULL SCALE			MODEL SCALE			◆	SKIN THICKNESS	REMARKS
		x _o	y	z	x FROM NOSE	y	z			
97	.600	1012.18	50.00		13.548	0.875		21.5	.021	FUSELAGE SIDE
98	.700	1141.21	50.00		15.806	0.875		↑	.033	
99	.800	1270.24	50.00		18.064	0.875		↓	.033	
100	.900	1399.27	50.00		20.322	0.875		21.5	.034	FUSELAGE SIDE
101	1.000	1528.30	100.00		22.580	1.75		39	.031	BODY FLAP 10° = .034
102	1.050	1592.82	100.00		23.704	1.75		39	.028	BODY FLAP 10° = .033
103	.100	367.03	39.20		2.258	0.686		20	.033	FUSELAGE SIDE
104	.150	431.54	40.80		3.387	0.714		20	.031	
105	.050	302.52		303.60	1.129	--	5.313	22	.031	C.C.L. TANGENT
106	.100	367.03	52.00	--	2.258	0.910		24.5	.033	↑
107	.150	431.54	62.00	--	3.387	1.085	--	25.5	.031	↓
108	.200	496.06	65.60	287.20	4.516	1.148	5.026	31.5	.035	C.C.L. TANGENT
109	.300	625.09	74.46	--	6.774	1.303		34	.033	
110	.200	496.06	75.60	292.00	4.516	1.323	5.110	35	.030	
111	.150	431.54	79.20	304.80	3.387	1.386	5.334	40	.030	
112	.200	496.06	85.20	298.80	4.516	1.491	5.229	40	.034	
113	.300	625.09	91.43		6.774	1.600		40	.026	
114	.300	625.09	102.86		6.774	1.800		45	.023	
115	.050	302.52		325.60	1.129		5.698	35	.030	M.H.B. TANGENT
116	.100	367.03		317.60	2.258		5.558	39	.030	M.H.B. TANGENT
117	.150	431.54	83.60	314.4	3.387	1.463	5.502	45.5	.030	M.H.B. TANGENT
118	.200	496.06		320.00	4.516		5.600	51	.030	
119	.300	625.09		330.00	6.774		5.775	57.5	.021	
120	.300	625.09		340.00	6.774		5.950	61	.027	
121	.076	336.51		350.00	1.724		6.125	--	.030	RCS CENTER
122	.300	625.09		350.00	6.774		6.125	65	.026	
123	.800	1270.24		350.00	18.064		6.125	65	.017	
124	.900	1399.27		350.00	20.322		6.125	65	.033	
125	.975	1496.04		350.00	22.016		6.125	68	.034	
126	.975	1496.04		300.00	22.016		5.250	52.5	.032	
127	.050	302.52		342.40	1.129		5.992	27.5	.030	TANGENT (UPPER)

Table IV (Cont'd) Orbiter

I/C NO.	X L	FULL SCALE			MODEL SCALE			SKIN THICKNESS	REMARKS
		x ₀	y	z	x FROM NOSE	y	z		
128	.200	496.06	--	360.00	4.516	--	6.300	67.5 .026	FUSELAGE SIDE
129	.300	625.09	--	360.00	6.774		6.300	70 .023	↑
130	.600	1012.18		375.14	13.548		6.565	77 .031	↑
131	.050	302.52		378.40	1.129		6.622	60 .035	45° TANGENT
132	.100	367.03		410.00	2.258		7.175	119 .034	↓
133	.200	496.06		410.00	4.516		7.175	96.5 .028	↓
134	.300	625.09		430.00	6.774		7.525	106 .032	FUSELAGE SIDE
135	.400	754.12		430.00	9.032		↑	105 .033	UPPER BODY
136	.500	883.15		430.00	11.290		↑	↑ .032	↑
137	.600	1012.18		430.00	13.548		↓	↓ .032	
138	.700	1141.21		430.00	15.806		↓	↓ .032	
139	.800	1270.24		430.00	18.064		7.525	.032	
140	.900	1399.27		370.00	20.322		6.475	.033	
141	.300	625.09		478.80	6.774		8.379	135 .031	
142	.400	754.12			9.032			135 .030	
143	.500	883.15			11.290			135 .033	
144	.600	1012.18			13.548			135 .033	
145	.700	1141.21			15.806			135 .032	
146	.600	1012.18		445.0	13.548		7.788	113 .032	
147	.600	1012.18		440.0	13.548		7.70	112 .032	
148	.750	1205.73		450.00	15.806		7.875	116 .032	↓
149	.750	1502.73		490.00	15.806		8.575	149 .034	UPPER BODY
150	.400	754.12			9.032			59.5 .031	WING UPPER CREASE
151	.500	883.15			11.290			63 .012	↑
152	.600	1012.18			13.548			65.5 .030	↑
153	.700	1141.21			15.806			64 .030	↓
154	.900	1399.27		332.0	20.322		--	.034	WING UPPER CREASE

Table IV (Continued) Orbiter

T/C NO.	$\frac{2y}{b}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	y	x_0	y		
155	.250	.025	754.120	117.085	9.030	2.049	.051	WING BOTTOM
156	↑	.153	754.120	↑	9.030	↑	.035	SURFACE
157	↑	.299	883.150	↑	11.288	↑	.028	↑
158	↑	.444	1012.180	↑	13.545	↑	.023	↑
159	↑	.590	1141.200	↓	15.802	↓	.034	↓
160	↓	.736	1270.230	↓	18.060	↓	.034	↓
161	.250	.900	1415.900	117.085	20.613	2.049	.034	
162	.301		754.000		9.030		.023	30° ROLL DOWN
163	.348		883.000		11.288		.028	30° ROLL DOWN
164	.400	.025	1002.063	187.336	13.364	3.278	.035	
165	↑	.100	1039.750	↑	14.031	↑	.034	
166	↑	.200	1090.000	↑	14.900	↑	.034	
167	↑	.302	1141.210	↑	15.802	↑	.035	
168	↑	.559	1270.230	↑	18.060	↑	.032	
169	↓	.700	1341.250	↓	19.307	↓	.032	
170	.400	.900	1441.750	187.336	21.065	3.278	.032	ELEVON
171	.500		1067.470	234.170	14.516	4.098	.033	30° ROLL DOWN
172	↑	.025	1077.913	↑	14.696	↑	.035	
173	↑	.177	1141.210	↑	15.802	↑	.030	
174	↑	.300	1192.450	↑	16.706	↑	.031	
175	↑	.487	1270.230	↑	18.060	↑	.034	
176	↑	.600	1317.428	↑	18.895	↑	.034	
177	↑	.700	1359.028	↓	19.618	↓	.033	
178	↓	.900	1442.350	234.170	21.075	4.098	.033	ELEVON
179	.600	.100	1152.000	281.004	15.995	4.918	.033	
180	↑	.200	1188.00	↑	16.625	↑	.031	
181	↑	.300	1224.000	↑	17.255	↑	.026	
182	↑	.428	1270.230	↑	18.064	↑	.026	↓
183	↓	.600	1332.000	↓	19.145	↓	.027	WING BOTTOM
184	.600	.700	1368.000	281.004	19.775	4.918	.024	SURFACE

Table IV (Continued) Orbiter

T/C NO.	$\frac{2y}{b}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	y	x (FROM NOSE)	y		
185	.600	.800	1404.000	281.004	20.404	4.918	.035	WING BOTTOM SURFACE
186	.600	.850	1422.000	↕	20.720		.033	ELEVON ↑
187	.600	.90	1440.000	281.004	21.034		.034	
188	.750		1186.5	351.255	16.599	6.147	.035	L.E. ROLLED
189	↑	.025	1193.428	↑	16.720	↑	.035	DOWN 30°
190		.100	1214.228		17.084		.032	
191		.303	1270.230		18.064		.032	
192		.500	1325.022		19.023		.032	
193		.700	1380.400		19.992		.027	
194		.800	1408.100		20.476		.031	
195	↓	.850	1422.000	↓	20.719	↓	.035	
196	.750	.900	1435.800	351.255	20.962	6.147	.035	
197	.850	.100	1255.200	398.089	17.801	6.967	.031	
198	.850	.300	1299.600	398.089	18.578	6.967	.034	
199	.850	.500	1344.000	398.089	19.355	6.967	.032	
200	.900	.60	1373.028	421.506	19.863	7.376	.024	
201	.900	.30	1314.743	421.506	18.846	7.376	.030	
202	.950			444.857		7.785	.035	L.E. ROLLED 30°
203	↑	.050	1295.925	↑	18.514	↑	.035	
204		.100	1303.828		18.652		.035	
205		.300	1335.543		19.207		.024	
206		.500	1367.257		19.762		.022	
207	↓	.700	1398.950		20.316	↓	.035	
208	.950	.900	1430.650	↓	20.870	7.785	.030	
209	.966	0.00	1307.000	452.416	18.708	7.917	.032	L.E.
210	.993	0.00	1398.950	464.914	20.316	8.136	.031	L.E.
211	.600			281.004		4.918	.035	CLUSTER B
212	↑			↑		↑	.035	↑
213	↓			↓		↓	.035	↓
214	.600			281.004		4.918	.035	WING BOTTOM SURFACE

Table IV (Continued) Orbiter

T/C NO.	$\frac{2y}{b}$	X/C	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	y	x (FROM NOSE)	y		
215	.600			281.004		4.918	.035	CLUSTER B
216	.600			281.004		4.918	.035	SEE FIG. 2
217	.600			281.004		4.918	.035	↑
218	.850			398.039		6.967	.020	CLUSTER C
219	↑			↑		↑	.020	SEE FIG. 2
220	↑			↑		↑	.020	↑
221	↓			↓		↓	.020	↓
222	↓			↓		↓	.020	↓
223	↓			↓		↓	.020	↓
224	.850			398.039		6.967	.020	↓
225	.400	.050	1015.114	187.336	13.599	3.278	.025	WING TOP SURFACE
226	↑	.200	1090.428	↑	14.918	↑	.024	↑
227	↓	.600	1291.171	↓		↓	.033	↓
228	.400	.950	1466.875	187.336		3.278	.031	ELEVON
229	.600	.050	1134.886	281.004	15.696	4.918	.032	
230	.600	.200	1188.657	↑	16.637	↑	.031	
231	.600	.600	1332.028	↑	19.146	↑	.031	
232	↑	.800	1404.000	↑	20.404	↓	.032	ELEVON
233	↓	.900	1440.000	↓	21.034	↓	.034	↑
234	.600	.950	1458.000	281.004	21.349	4.918	.033	↓
235	.800	.050	1223.057	374.672	17.239	6.557	.033	
236	↑	.200	1260.257	↑	17.889	↑	.033	
237	↑	.600	1359.514	↑	19.627	↑	.032	
238	↓	.800	1408.780	↓	20.488	↓	.030	ELEVON
239	↓	.900	1433.690	↓	20.924	↓	.030	ELEVON
240	.800	.950	1446.145	374.672	21.192	6.557	.030	ELEVON ↓

Table IV (Continued)

Orbiter

I/C NO.	x L	FULL SCALE			MODEL SCALE			φ	SKIN THICKNESS	REMARKS
		x ₀	y	z	x (FROM NOSE)	y	z			
241	.829	1307			18.715				.026	BOTTOM CREASE OF OVS
242	.900	1399.27			20.318				.035	BOTTOM CREASE OF OVS
243	.975	1496.04			22.011				.030	BOTTOM CREASE OF OVS
244	1.000	1528.3			22.575				.034	BOTTOM OF RCS
245	1.014	1547.0			22.902				.035	BOTTOM OF RCS
246	.780	1245	95.0	474.0	17.608	1.662	8.295	127.9	.032	OMS PODS
247	.805	1276	112.9	474.0	18.173	1.976	8.295	123.8	.031	↑
248	.829	1307	124.5	474.0	18.715	2.179	8.295	120.8	.031	
249	.862	1350	132.6	↑	19.460	2.320	8.295	119.1	.035	
250	.963	1480	142.5	↓	21.740	2.494	8.295	117.5	.028	
251	1.000	1528.3	142.5	↓	22.575	2.494	8.295	117.5	.033	
252	1.014	1547.0		474.0	22.902		8.295		.033	
253	.805	1276	105.5	488	18.173	1.846	8.540	129.5	.032	
254	.829	1307	117.0	498.7	18.715	2.048	8.727	130.0	.033	
255	.862	1350	126.5	506	19.460	2.214	8.855	130.0	.031	
256	.963	1480	134.5	513	21.740	2.354	8.978	130.0	.028	
257	1.000	1528.3		500	22.575		8.750		.031	
258	1.014	1547.0		500	22.902		8.750		.032	
259	.805	1276	95.0	494.3	18.173	1.662	8.650	135.0	.033	
260	.829	1307	95.0	511.0	18.715	1.662	8.942	139.0	.034	
261	.862	1350	95.0	521.0	19.460	1.662	9.118	142.1	.031	
262	.963	1480	95.0	530.0	21.740	1.662	9.275	144.0	.027	
263	.862	1350	65	517.5	19.460	1.138	9.056	151.2	.031	↓
264	.963	1480	65	527.0	21.740	1.138	9.222	153	.026	OMS PODS

Table IV (CONCLUDED) Orbiter

T/C NO.	$\frac{z}{b_v}$	$\frac{x}{c}$	FULL SCALE		MODEL SCALE		SKIN THICKNESS	REMARKS
			x_0	z	x (FROM NOSE)	z		
265	.159	.100	1353.00	550.20	19.513	9.628	.030	VERTICAL TAIL
266	↑	.300	1401.51	550.20	20.361	9.628	.030	↑
267	↓	.700	1498.66	550.20	22.062	9.628	.028	
268	.299	0.00		594.40		10.402	.033	L.E.
269	↑	.100	1394.94	↑	20.246	↑	.031	
270	↑	.300	1439.00	↑	21.018	↑	.031	
271	↑	.500	1483.06	↓	21.789	↓	.031	
272	↑	.700	1527.11	↓	22.559	↓	.022	
273	.299	.900	1571.17	594.40	23.330	10.402	.022	
274	.532	0.00		667.96		11.689	.034	L.E.
275	↑	.100	1538.31	↑	22.755	↑	.031	
276	↑	.300	1574.94	↑	23.396	↑	.032	
277	↑	.500	1611.57	↓	24.034	↓	.032	
278	↓	.700	1648.14	↓	24.677	↓	.023	
279	.532	.900	1684.77	667.96	25.318	11.689	.026	
280	.765	0.00		741.53		12.977	.034	L.E.
281	.765	.100	1461.00	↑	21.403	↑	.031	
282	↑	.300	1490.14	↑	21.912	↑	.031	
283	↑	.500	1519.29	↓	22.423	↓	.030	
284	↓	.700	1548.43	↓	22.933	↓	.024	
285	.765	.900	1577.57	741.53	23.442	12.977	.024	
286	.905	0.00		785.73		13.750	.033	L.E.
287	.905	.100	1576.49	785.73	23.424	13.750	.030	↓
288	.905	.500	1625.86	785.73	24.288	13.750	.030	VERTICAL TAIL

Table v Orbiter Left Main Nozzle T/C Locations
Model 22-OTS

T/C NO.	x FROM EXIT PLANE		φ _n CLOCKWISE LOOKING FORWARD 0° BOTTOM
	F.S.	M.S.	
301	5"	0.088	.031
302	↓	↓	.031
303	↓	↓	.031
304	↓	↓	.031
305	↓	↓	.031
306	↓	↓	.031
307	↓	↓	.031
308	10"	0.175	.031
309	↓	↓	.031
310	↓	↓	.031
311	↓	↓	.031
312	↓	↓	.031
313	15"	0.263	.031
314	↓	↓	.031
315	↓	↓	.031
316	25"	0.438	.031
317	↓	↓	.031
318	↓	↓	.031
319	↓	↓	.031
320	45"	0.788	.031
321			.032
322			.034
323			.031
324			.032

**Table VI Solid Rocket Booster T/C Locations
Model 22-OTS**

T/C NO.	x_s FS	x_{ms}^*	$\frac{x}{L}$	ψ	SKIN THICKNESS	REMARKS
701	200.000	0.000	0.000	90°	.022	NOSE
702	241.900	0.733	0.025	90°	.031	↓
703	283.800	1.467	0.050	90°	.031	
704	367.600	2.933	0.100	90°	.033	
705	870.400	11.732	0.400	90°	.029	
706	1373.200	20.531	0.700	90°	.030	
707	1507.280	22.877	0.780	90°	.030	
708	1540.800	23.464	0.800	90°	.029	
709	1708.400	26.397	0.900	90°	.031	
710	1758.680	27.277	0.930	90°	.034	
711	1859.240	29.037	0.990	90°	.036	
712	1373.200	20.531	0.700	135°	.030	
713	1708.400	26.397	0.900	135°	.030	
714	1758.680	27.277	0.930	135°	.034	
715	1859.240	29.037	0.990	135°	.035	
716	283.800	1.467	0.050	180°	.032	
717	367.600	2.933	0.100	180°	.034	
718	535.200	5.866	0.200	180°	.030	
719	870.400	11.732	0.400	180°	.030	
720	1038.000	14.665	0.500	180°	.029	
721	1205.600	17.598	0.600	180°	.030	
722	1289.400	19.065	0.650	180°	.030	
723	1373.200	20.531	0.700	180°	.029	
724	1457.000	21.998	0.750	180°	.029	
725	1507.280	22.877	0.780	180°	.030	
726	1540.800	23.464	0.800	180°	.028	
727	1624.600	24.931	0.850	180°	.028	
728	1708.400	26.397	0.900	180°	.028	
729	1758.680	27.277	0.930	180°	.032	SKIRT
730	1808.960	28.157	0.960	180°	.034	SKIRT
731	1859.240	29.037	0.990	180°	.034	SKIRT
732	1715.000	26.514	0.904	210°	.028	SEPARATION
733	1738.000	26.984	0.918	210°	.030	NOZZLES 15-5PH

*MEASURED FROM NOSE

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

Table VI (Continued)
(Solid Rocket Booster)

T/C NO.	x_s FS	x_{ms}^*	$\frac{x}{L}$	ψ	SKIN THICKNESS	REMARKS
734	1750.000	27.130	0.925	210°	.032	SEPARATION NOZZLES 15-5PH
735	1792.200	27.864	0.950	210°	.033	
736	1825.720	28.450	0.970	210°	.032	
737	1750.300	27.130	0.925	≈ 215°	.032	
738	1775.440	27.570	0.940	≈ 215°	.032	
739	1808.960	28.157	0.960	≈ 215°	.033	
740	325.700	2.200	0.075	225°	.035	
741	367.600	2.933	0.100	225°	.034	
742	451.400	4.400	0.150	225°	.032	
743	535.200	5.866	0.200	225°	.030	
744	702.800	8.799	0.300	225°	.028	
745	870.400	11.732	0.400	225°	.030	
746	1038.000	14.665	0.500	225°	.030	
747	1205.600	17.598	0.600	225°	.030	
748	1373.200	20.531	0.700	225°	.030	
749	1507.280	22.877	0.780	225°	.030	
750	1540.800	23.464	0.800	225°	.029	
751	1624.600	24.931	0.850	225°	.029	
752	1703.400	26.397	0.900	225°	.027	
753	1758.680	27.277	0.930	225°	.031	
754	1808.960	28.157	0.960	225°	.032	
755	1859.240	29.037	0.990	225°	.032	SKIRT
756	1758.68	27.277	0.930	240°	.030	
757	1808.960	28.157	0.960	240°	.031	
758	1859.240	29.037	0.990	240°	.032	
759	702.800	8.799	0.300	247.5°	.028	
760	870.400	11.732	0.400	247.5°	.030	
761	1038.000	14.665	0.500	247.5°	.030	
762	1205.600	17.598	0.600	247.5°	.030	
763	1289.400	19.065	0.650	247.5°	.031	
764	1373.200	20.531	0.700	247.5°	.030	
765	1457.000	21.998	0.750	247.5°	.031	
766	392.740	3.373	0.115	260°	.032	

*MEASURED FROM NOSE

Table VI (Concluded)
(Solid Rocket Booster)

T/C NO.	x_s FS	x_{ms}^*	$\frac{x}{L}$	↓	SKIN THICKNESS	REMARKS
767	203.816	0.067	0.002	270°	.035	ON 45° RAY FROM NOSE RADIUS
768	241.900	0.733	0.025	270°	.033	
769	283.800	1.467	0.050	270°	.033	
770	325.700	2.200	0.075	270°	.036	
771	367.600	2.933	0.100	270°	.036	
772	384.360	3.226	0.110	270°	.036	
773	417.880	3.813	0.130	270°	.032	
774	451.400	4.400	0.150	270°	.032	
775	535.200	5.866	0.200	270°	.030	
776	619.000	7.333	0.250	270°	.030	
777	702.800	8.799	0.300	270°	.028	
778	870.400	11.732	0.400	270°	.029	
779	1038.000	14.665	0.500	270°	.030	
780	1205.600	17.598	0.600	270°	.031	
781	1289.400	19.065	0.650	270°	.031	
782	1373.200	20.531	0.700	270°	.030	
783	1457.000	21.998	0.750	270°	.030	
784	1507.280	22.877	0.780	270°	.030	
785	1540.800	23.464	0.800	270°	.030	
786	1624.600	24.931	0.850	270°	.030	
787	1708.400	26.397	0.900	270°	.027	
788	1758.680	27.277	0.930	270°	.029	SKIRT
789	1808.960	28.157	0.960	270°	.032	↓
790	1859.240	29.037	0.990	270°	.032	
791	702.800	8.799	0.300	315°	.029	
792	1038.000	14.665	0.500	315°	.030	
793	1373.800	20.531	0.700	315°	.029	
794	1507.280	22.877	0.780	315°	.028	
795	1540.800	23.464	0.800	315°	.028	
796	1708.400	26.397	0.900	315°	.028	
797	1758.680	27.277	0.930	315°	.030	
798	1859.240	29.037	0.990	315°	.032	

*MEASURED FROM NOSE

Table VII External Tank Locations

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
501	383.60	1.306	.040	0°	.034	NOSE
502	458.20	2.6110	.080		.034	NOSE
503	588.75	4.896	.150		.035	NOSE
504	1055.00	13.055	.400	↓	.035	
505	1428.00	19.582	.600	↓	.034	
506	1801.00	26.110	.900	0°	.035	
507	1055.00	13.055	.400	45°	.035	
508	1241.50	16.319	.500	↑	.035	
509	1428.00	19.582	.600		.034	
510	1614.50	22.846	.700	↓	.034	
511	1801.00	26.110	.800	↓	.035	
512	1987.5	29.374	.900	45°	↑	
513	868.5	9.791	.300	67.5°	↑	
514	961.75	11.423	.350	↑	↓	
515	1055.00	13.055	.400		.035	
516	1241.50	16.319	.500		.034	
517	1428.00	19.582	.600		↑	
518	1521.25	21.214	.650		↓	
519	1614.50	22.846	.700		.034	
520	1707.75	24.478	.750		.035	
521	1801.00	26.110	.800	↓	↑	
522	1987.5	29.374	.900	67.5°	↑	
523	682.00	6.528	.200	90°		
524	775.25	8.159	.250	↑		
525	821.88	8.975	.275			
526	868.50	9.791	.300			
527	915.12	10.607	.325		↓	
528	961.75	11.423	.350		.035	
529	1055.00	13.055	.400		.034	
530	1148.25	14.687	.450		.035	
531	1241.5	16.319	.500		.034	
532	1334.75	17.951	.550	↓	.035	
533	1428.00	19.582	.600	90°	.034	

*MEASURED FROM NOSE

Table VII(Continued)
(External Tank)

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
534	1521.25	21.214	.650	90°	.034	
535	1614.50	22.846	.700	↑	.034	
536	1707.75	24.478	.750	↓	.035	
537	1801.00	26.110	.800	↓	.035	
538	1894.25	27.742	.850	↓	.034	
539	1987.50	29.374	.900	90°		
540	821.88	8.975	.275	112.5°	.035	
541	968.50	9.791	.300	↑	↑	
542	915.12	10.607	.325	↑	↓	
543	961.75	11.423	.350	↑	↓	
544	1055.00	13.055	.400	↑	↓	
545	1148.25	14.687	.450	↑	.035	
546	1241.50	16.319	.500	↑	.034	
547	1334.75	17.951	.550	↑	.035	
548	1428.00	19.582	.600	↑	.034	
549	1521.25	21.214	.650	↑	.034	
550	1614.50	22.846	.700	↑	.034	
551	1707.75	24.478	.750	↑	.035	
552	1801.00	26.110	.800	↑	↑	
553	1894.25	27.742	.850	↓	↓	
554	1987.50	29.374	.900	112.5°	.035	
555	1847.62	26.926	.825	123°	.034	
556	1894.25	27.742	.850	↑	.035	
557	1940.88	28.558	.875	↑	.034	
558	1987.50	29.374	.900	↓	.035	
559	2034.12	30.190	.925	↓	.035	
560	2099.40	31.332	.960	123°	.034	
561	915.12	10.607	.325	135°	.035	
562	961.75	11.423	.350	↑	↑	
563	1008.38	12.239	.375	↑	↓	
564	1055.00	13.055	.400	↑	↓	
565	1148.25	14.687	.450	↑	.035	
566	1241.50	16.319	.500	↑	.034	
567	1334.75	17.951	.550	↑	.035	
568	1428.00	19.582	.600	↓	.034	
569	1521.25	21.214	.650	135°	.034	

*MEASURED FROM NOSE

Table VII (Continued)
(External Tank)

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
570	1614.50	22.846	.700	135°	.035	
571	1707.75	24.478	.750	↑	.034	
572	1801.00	26.110	.800	↓	.035	
573	1894.25	27.742	.850	↓	.034	
574	1987.50	29.374	.900	↓	.035	
575	2052.78	30.576	.935	135°		
576	1055.00	13.055	.400	151	.035	
577	1101.62	13.871	.425	157	↑	
578	1148.25	14.687	.450	↑	↓	
579	1194.88	15.503	.475	↑	.035	
580	1241.50	16.319	.500	↑	.034	
581	1334.75	17.951	.550	↑	.035	
582	1428.00	19.582	.600	↑	.034	
583	1521.25	21.214	.650	↑	.034	
584	1614.50	22.846	.700	↑	.035	
585	1707.75	24.478	.750	↑	.035	
586	1801.00	26.110	.800	↓	.035	
587	1894.25	27.742	.850	↓	.034	
588	1987.50	29.374	.900	157	.034	
589	1101.62	13.871	.425	161	.035	
590	1241.50	16.319	.500	165°	.034	
591	1614.50	22.846	.700	165°	.035	
592	1987.50	29.374	.900	165°	.034	
593	1055.00	13.055	.400	165°	.035	
594	309.00	0.000	0.000	180	.033	NOSE
595	318.32	0.163	.005	↑	.033	
596	327.65	0.326	.010	↓	.034	
597	383.60	1.306	.040	↓	.033	
598	458.20	2.611	.080	180°	.035	

*MEASURED FROM NOSE

Table VII (CONTINUED)
(External Tank)

T/C NO.	x_T FS	x_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
599	588.75	4.896	.150	180°	.035	
600	682.00	6.528	.200	▲	.034	
601	775.25	8.159	.250		.035	
602	868.50	9.791	.300		▲	
603	961.75	11.423	.350		▼	
604	1008.38	12.239	.375		.035	
605	1055.00	13.055	.400		.034	
606	1101.62	13.871	.425		▲	
607	1148.25	14.687	.450		▲	
608	1194.88	15.503	.475		▼	
609	1241.50	16.319	.500		.034	
610	1288.12	17.135	.525		.035	
611	1334.75	17.951	.550		.035	
612	1381.38	18.767	.575		.034	
613	1428.00	19.582	.600		▲	
614	1474.62	20.398	.625		▲	
615	1521.25	21.214	.650		▼	
616	1567.88	22.030	.675		▼	
617	1614.50	22.846	.700		.034	
618	1707.75	24.478	.750		.035	
619	1801.00	26.110	.800		.035	
620	1894.25	27.742	.850		.035	
621	1987.5	29.374	.900		.034	
622	2056.50	30.581	.937	▼	.034	
623	2127.38	31.922	.975	180°	.034	
624	458.20	2.611	.080	194°	.035	
625	587.75	4.896	.150	196°	.035	
626	868.50	9.791	.300	196°	.035	

*MEASURED FROM NOSE

Table VII (Concluded)
(External Tank)

T/C NO.	x_T FS	\tilde{x}_{ms}^*	$\frac{x}{L}$	θ	SKIN THICKNESS	REMARKS
627	1241.50	16.319	.500	196°	.034	
628	1614.50	22.846	.700	196°	.034	
629	1987.50	29.374	.900	197°	.034	
630	588.75	4.896	.150	208°	.033	
631	1055.00	13.055	.400	▲	.034	
632	1428.00	19.582	.600	▼	.035	
633	1801.00	26.110	.800	▼	.035	
634	2056.50	30.581		208	.035	
635	1055.00	13.055	.400	216°	.034	
636	1241.50	16.319	.500	216°	.034	
637	1614.50	22.846	.700	216°	.034	
638	933.78	10.934	.335	222.5°	.036	
639	1055.00	13.055	.400	229°	.034	
640	1428.00	19.582	.600	229°	.035	
641	1801.00	26.110	.800	229°	.035	

*MEASURED FROM NOSE

TABLE VIII

Thermocouple Schedule No. X1

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
1	1	48	26	91	51
2	2	50	27	92	52
3	3	52	28	93	53
4	4	54	29	94	54
6	5	56	30	95	55
8	6	58	31	96	56
10	7	59	32	97	57
12	8	60	33	98	58
14	9	61	34	99	59
16	10	62	35	100	60
18	11	63	36	101	61
20	12	64	37	102	62
22	13	65	38	104	63
24	14	66	39	105	64
26	15	67	40	111	65
28	16	68	41	115	66
30	17	69	42	116	67
32	18	71	43	134	68
34	19	72	44	135	69
36	20	74	45	150	70
38	21	79	46	155	71
40	22	84	47	156	72
42	23	87	48	157	73
44	24	88	49	158	74
46	25	90	50	159	75

TABLE VIII

Thermocouple Schedule No. X2

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
160	1	187	26	214	51
161	2	188	27	215	52
162	3	189	28	216	53
163	4	190	29	218	54
164	5	191	30	219	55
165	6	192	31	220	56
166	7	193	32	221	57
167	8	196	33	222	58
168	9	197	34	229	59
169	10	198	35	230	60
170	11	199	36	232	61
171	12	200	37	234	62
172	13	201	38	246	63
173	14	202	39	247	64
174	15	203	40	274	65
175	16	204	41	275	66
176	17	205	42	276	67
177	18	206	43	277	68
178	19	207	44	278	69
179	20	208	45	279	70
180	21	209	46	280	71
181	22	210	47	281	72
182	23	211	48	282	73
183	24	212	49	283	74
184	25	213	50	284	75

TABLE VIII

Thermocouple Schedule No. X3

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
5	1	57	26	119	51
7	2	70	27	120	52
9	3	73	28	121	53
11	4	75	29	122	54
15	5	76	30	123	55
17	6	77	31	124	56
19	7	78	32	125	57
21	8	80	33	126	58
23	9	81	34	127	59
25	10	82	35	128	60
27	11	83	36	129	61
29	12	85	37	130	62
31	13	86	38	131	63
33	14	89	39	132	64
35	15	103	40	133	65
37	16	106	41	136	66
39	17	107	42	137	67
41	18	108	43	138	68
43	19	109	44	139	69
45	20	110	45	140	70
47	21	112	46	141	71
49	22	113	47	142	72
51	23	114	48	143	73
53	24	117	49	144	74
55	25	118	50	145	75

TABLE VIII

Thermocouple Schedule No. X4

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
146	1	239	26	266	51
147	2	240	27	267	52
148	3	241	28	268	53
149	4	242	29	269	54
151	5	243	30	270	55
152	6	244	31	271	56
153	7	245	32	272	57
154	8	248	33	273	58
185	9	249	34	286	59
186	10	250	35	287	60
194	11	251	36	501	61
195	12	252	37	502	62
217	13	253	38	503	63
223	14	254	39	504	64
224	15	255	40	505	65
225	16	256	41	506	66
226	17	257	42	507	67
227	18	258	43	508	68
228	19	259	44	509	69
231	20	260	45	510	70
233	21	261	46	511	71
235	22	262	47	512	72
236	23	263	48	513	73
237	24	264	49	514	74
238	25	265	50	515	75

TABLE VIII

Thermocouple Schedule No. X5

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
516	1	541	26	566	51
517	2	542	27	567	52
518	3	543	28	568	53
519	4	544	29	569	54
520	5	545	30	570	55
521	6	546	31	571	56
522	7	547	32	572	57
523	8	548	33	573	58
524	9	549	34	574	59
525	10	550	35	575	60
526	11	551	36	576	61
527	12	552	37	577	62
528	13	553	38	578	63
529	14	554	39	579	64
530	15	555	40	580	65
531	16	556	41	581	66
532	17	557	42	582	67
533	18	558	43	583	68
534	19	559	44	584	69
535	20	560	45	585	70
536	21	561	46	586	71
537	22	562	47	587	72
538	23	563	48	588	73
539	24	564	49	589	74
540	25	565	50	590	75

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS

TABLE VIII

Thermocouple Schedule No. X6

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
591	1	616	26	752	51
592	2	617	27	759	52
593	3	618	28	792	53
594	4	619	29	636	54
595	5	620	30	637	55
596	6	621	31	638	56
597	7	622	32	639	57
598	8	623	33	640	58
599	9	624	34	641	59
600	10	625	35	Open	60
601	11	626	36	701	61
602	12	627	37	702	62
603	13	628	38	703	63
604	14	629	39	704	64
605	15	630	40	705	65
606	16	631	41	708	66
607	17	632	42	709	67
608	18	633	43	710	68
609	19	634	44	711	69
610	20	635	45	714	70
611	21	706	46	715	71
612	22	707	47	716	72
613	23	713	48	717	73
614	24	744	49	718	74
615	25	749	50	719	75

TABLE VIII

Thermocouple Schedule No. X7

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
720	1	753	26	784	51
721	2	754	27	785	52
722	3	755	28	787	53
723	4	756	29	788	54
724	5	757	30	789	55
725	6	758	31	790	56
726	7	760	32	791	57
728	8	762	33	793	58
729	9	766	34	797	59
730	10	767	35	798	60
731	11	768	36	712	61
732	12	769	37	727	62
733	13	770	38	746	63
734	14	771	39	748	64
735	15	772	40	750	65
736	16	773	41	751	66
737	17	774	42	761	67
738	18	775	43	763	68
739	19	776	44	754	69
740	20	777	45	765	70
741	21	778	46	780	71
742	22	779	47	786	72
743	23	781	48	794	73
745	24	782	49	795	74
747	25	783	50	796	75

TABLE VIII

Thermocouple Schedule No. X8

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
501	1	526	26	551	51
502	2	527	27	552	52
503	3	528	28	553	53
504	4	529	29	554	54
505	5	530	30	555	55
506	6	531	31	556	56
507	7	532	32	557	57
508	8	533	33	558	58
509	9	534	34	559	59
510	10	535	35	560	60
511	11	536	36	561	61
512	12	537	37	562	62
513	13	538	38	563	63
514	14	539	39	564	64
515	15	540	40	565	65
516	16	541	41	566	66
517	17	542	42	567	67
518	18	543	43	568	68
519	19	544	44	569	69
520	20	545	45	570	70
521	21	546	46	571	71
522	22	547	47	572	72
523	23	548	48	573	73
524	24	549	49	574	74
525	25	550	50	575	75

TABLE VIII
 Thermocouple Schedule No. X9

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
576	1	601	26	626	51
577	2	602	27	627	52
578	3	603	28	628	53
579	4	604	29	629	54
580	5	605	30	630	55
581	6	606	31	631	56
582	7	607	32	632	57
583	8	608	33	633	58
584	9	609	34	634	59
585	10	610	35	635	60
586	11	611	36	636	61
587	12	612	37	637	62
588	13	613	38	638	63
589	14	614	39	639	64
590	15	615	40	640	65
591	16	616	41	641	66
592	17	617	42	Open	67
593	18	618	43	Open	68
594	19	619	44	Open	69
595	20	620	45	Open	70
596	21	621	46	Open	71
597	22	622	47	Open	72
598	23	623	48	Open	73
599	24	624	49	Open	74
600	25	625	50	Open	75

TABLE VIII

Thermocouple Schedule No. X10

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
701	1	731	26	768	51
702	2	732	27	769	52
703	3	733	28	770	53
704	4	734	29	771	54
705	5	735	30	772	55
708	6	736	31	773	56
709	7	737	32	774	57
710	8	738	33	775	58
711	9	739	34	776	59
714	10	740	35	777	60
715	11	741	36	778	61
716	12	742	37	779	62
717	13	743	38	781	63
718	14	745	39	782	64
719	15	747	40	783	65
720	16	753	41	784	66
721	17	754	42	785	67
722	18	755	43	787	68
723	19	756	44	788	69
724	20	757	45	789	70
725	21	758	46	790	71
726	22	760	47	791	72
728	23	762	48	793	73
729	24	766	49	797	74
730	25	767	50	798	75

TABLE VIII

Thermocouple Schedule No. X11

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
37	1	106	26	521	51
39	2	107	27	522	52
41	3	108	28	523	53
43	4	109	29	524	54
45	5	110	30	525	55
47	6	129	31	526	56
49	7	130	32	527	57
51	8	131	33	528	58
53	9	132	34	529	59
Open	10	133	35	530	60
Open	11	136	36	531	61
70	12	137	37	532	62
73	13	138	38	533	63
75	14	139	39	534	64
76	15	140	40	535	65
77	16	141	41	536	66
78	17	142	42	537	67
80	18	143	43	538	68
81	19	144	44	539	69
82	20	145	45	540	70
83	21	516	46	541	71
85	22	517	47	542	72
86	23	518	48	543	73
89	24	519	49	544	74
103	25	520	50	545	75

TABLE VIII

Thermocouple Schedule No. X12

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
146	1	239	26	266	51
147	2	240	27	267	52
148	3	241	28	268	53
149	4	242	29	269	54
151	5	243	30	270	55
152	6	244	31	271	56
153	7	245	32	272	57
154	8	248	33	273	58
185	9	249	34	286	59
186	10	250	35	287	60
194	11	251	36	701	61
195	12	252	37	702	62
217	13	253	38	703	63
223	14	254	39	704	64
224	15	255	40	705	65
225	16	256	41	708	66
226	17	257	42	709	67
227	18	258	43	710	68
228	19	259	44	711	69
231	20	260	45	714	70
233	21	261	46	715	71
235	22	262	47	716	72
236	23	263	48	717	73
237	24	264	49	718	74
238	25	265	50	719	75

TABLE VIII
 Thermocouple Schedule No. X13

Thermocouple No.	Channel	Thermocouple No.	Channel	Thermocouple No.	Channel
546	1	586	26	611	51
547	2	587	27	612	52
548	3	588	28	613	53
549	4	589	29	614	54
550	5	590	30	615	55
551	6	591	31	616	56
552	7	592	32	617	57
553	8	593	33	618	58
554	9	594	34	619	59
555	10	595	35	620	60
556	11	596	36	621	61
557	12	597	37	622	62
558	13	598	38	623	63
559	14	599	39	624	64
560	15	600	40	625	65
576	16	601	41	626	66
577	17	602	42	627	67
578	18	603	43	628	68
579	19	604	44	629	69
580	20	605	45	630	70
581	21	606	46	631	71
582	22	607	47	632	72
583	23	608	48	633	73
584	24	609	49	634	74
585	25	610	50	635	75

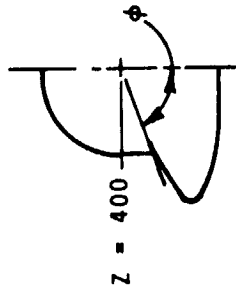
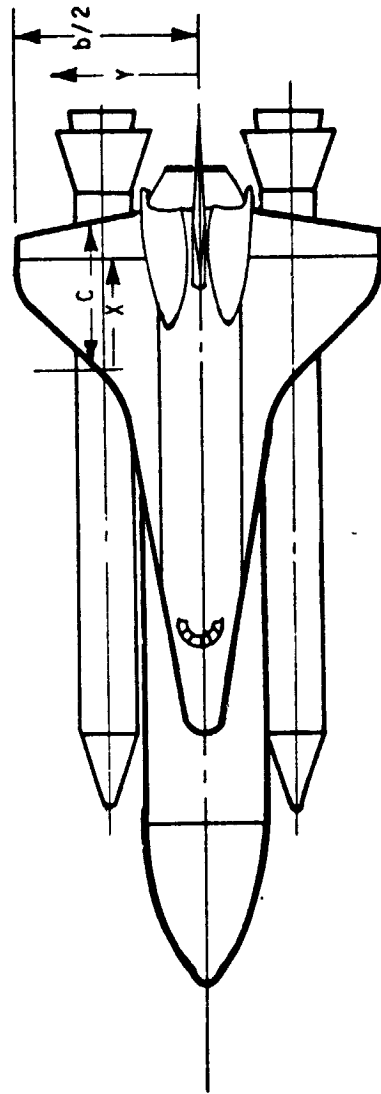
TABLE IX.
 RUN NUMBER/TUNNEL CONDITION SUMMARY

Run #	Re_{∞}/ft $\times 10^6$	PT (psi)	TT (°R)	HT (BTU/lb _m)
3	1.4909	165.58	1581.2	390.90
5	1.4111	141.88	1487.5	366.19
7	1.3945	119.68	1348.1	329.90
8	1.4341	120.04	1272.2	324.51
9	1.4762	122.81	1322.1	323.19
10	1.4540	118.76	1306.9	319.30
11	1.4993	121.26	1298.8	317.22
12	4.7266	405.72	1348.2	329.94
13	5.0370	405.98	1296.0	316.50
14	4.9672	403.68	1302.8	318.23
15	4.9723	405.35	1305.4	318.89
16	4.9533	406.35	1310.5	320.21
17	5.0060	405.69	1300.5	317.64
18	5.0979	404.88	1284.1	313.43
19	1.4998	122.63	1307.7	319.50
20	1.5374	121.33	1278.9	312.11
21	1.5232	122.04	1291.2	315.26
22	1.4696	122.08	1320.8	322.87
23	1.6062	119.90	1234.9	300.85
24	1.5275	122.10	1289.3	314.76
25	1.5757	119.48	1247.1	303.98
26	4.9504	405.67	1309.6	319.98
27	4.9770	406.03	1305.9	319.04
28	4.9574	405.59	1308.3	319.64
29	4.9770	406.32	1306.5	319.19
30	5.0055	406.22	1301.6	317.93
31	5.0063	406.42	1301.9	318.01
32	5.0389	406.71	1297.2	316.80
33	5.0961	405.17	1285.0	313.65
34	4.9856	405.20	1302.8	318.24
35	5.0750	405.72	1289.4	314.80
36	5.0306	406.14	1297.4	316.85
37	5.1486	401.85	1270.1	309.85
38	5.0550	406.03	1293.2	315.78
39	5.0452	406.22	1295.2	316.28
40	1.6365	130.40	1286.8	314.12

TABLE IX.
(Concluded)

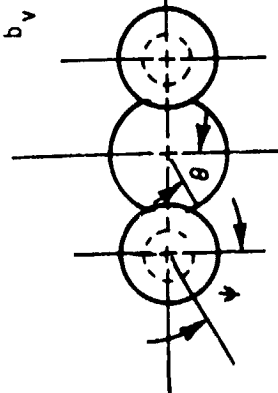
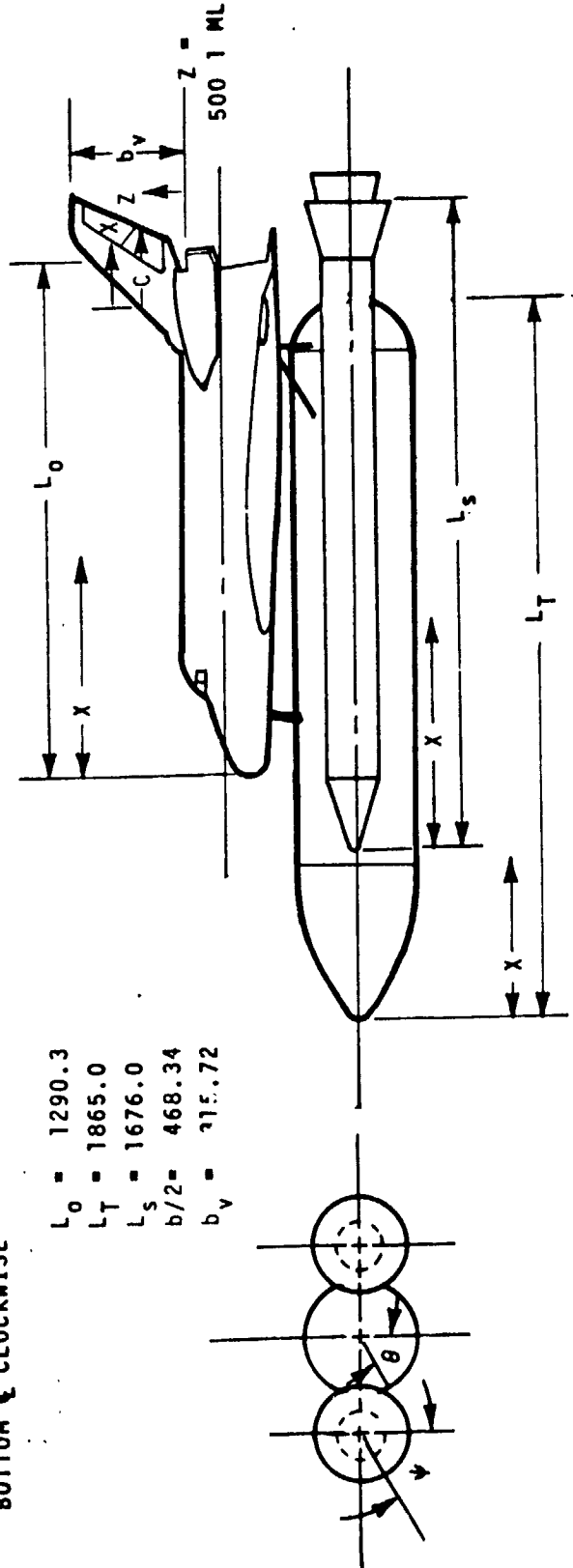
Run #	Re_{∞}/ft $\times 10^6$	PT (psi)	TT (°R)	HT (BTU/lb _m)
41	1.5819	126.58	1290.2	314.99
42	1.5224	122.73	1296.2	316.55
43	1.5160	123.06	1301.8	317.99
44	5.1123	406.40	1284.8	313.62
45	5.0361	406.22	1296.7	316.66
46	5.0028	405.88	1301.4	317.87
47	5.3924	404.93	1239.5	302.03
48	1.5328	123.06	1292.8	315.67
49	1.5263	122.69	1293.9	315.94
50	1.4308	118.69	1319.7	322.57
51	1.4952	121.64	1303.6	318.44
52	5.0533	405.46	1292.4	315.56
53	5.0265	406.40	1298.6	317.15
54	5.1372	405.09	1278.3	311.95
55	4.9871	402.92	1298.0	317.00
56	1.5132	121.59	1293.6	315.86
57	1.5033	121.59	1298.9	317.23
58	5.0864	405.30	1286.8	314.12
59	5.0929	405.30	1285.7	313.85
60	5.0577	405.30	1291.3	315.29
61	5.0730	405.64	1289.6	314.84
62	1.5553	137.52	1373.4	336.46
63	1.5070	123.06	1306.7	319.24
64	1.5093	122.73	1303.3	318.37
65	5.0737	406.22	1290.6	315.10
66	5.1122	406.32	1284.7	313.59
68	1.4966	120.98	1298.4	317.12
69	5.2179	406.16	1268.0	309.30
70	4.9056	407.29	1320.4	322.76
71	5.0011	406.76	1303.5	318.40
72	4.9871	403.86	1299.9	317.49
73	5.0038	405.88	1301.2	317.83
74	5.0508	406.74	1295.3	316.32
76	5.0175	406.92	1301.1	317.80
77	5.0556	410.46	1302.0	318.02
78	5.0607	406.58	1293.4	315.83
79	4.9699	406.92	1308.9	319.81

INSTRUMENTATION LOCATION SYSTEM



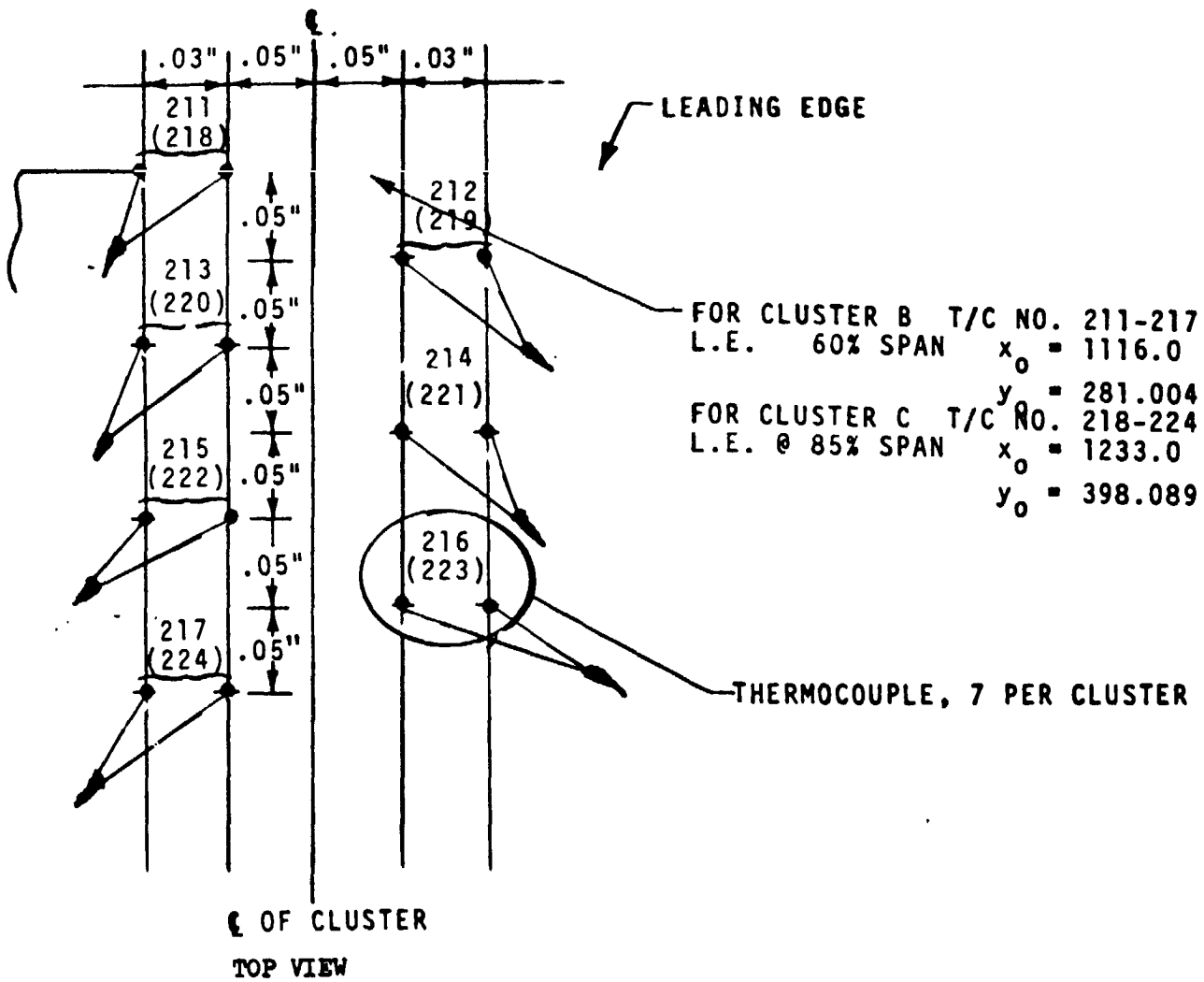
VIEW LOOKING FORWARD ψ ,
 θ AND ϕ MEASURED FROM
 BOTTOM ϕ CLOCKWISE

- $L_0 = 1290.3$
- $L_T = 1865.0$
- $L_S = 1676.0$
- $b/2 = 468.34$
- $b_y = 315.72$



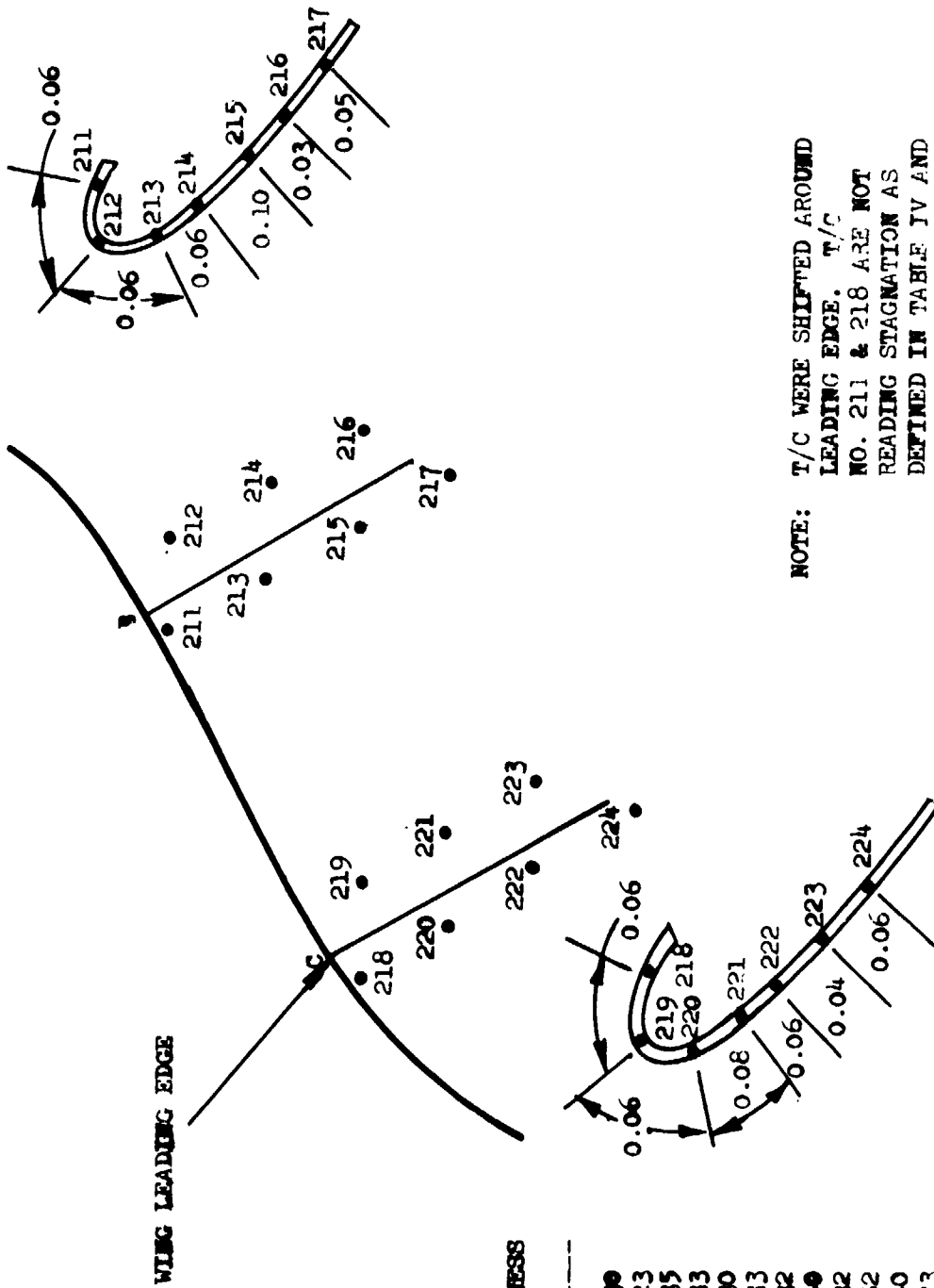
a. Model instrumentation reference system

Figure 1. - Concluded.



a. Assumed Plotted Wing Leading-Edge Clusters B & C T/C Locations,
(Used for Plotted and Tabulated Data Presentations)

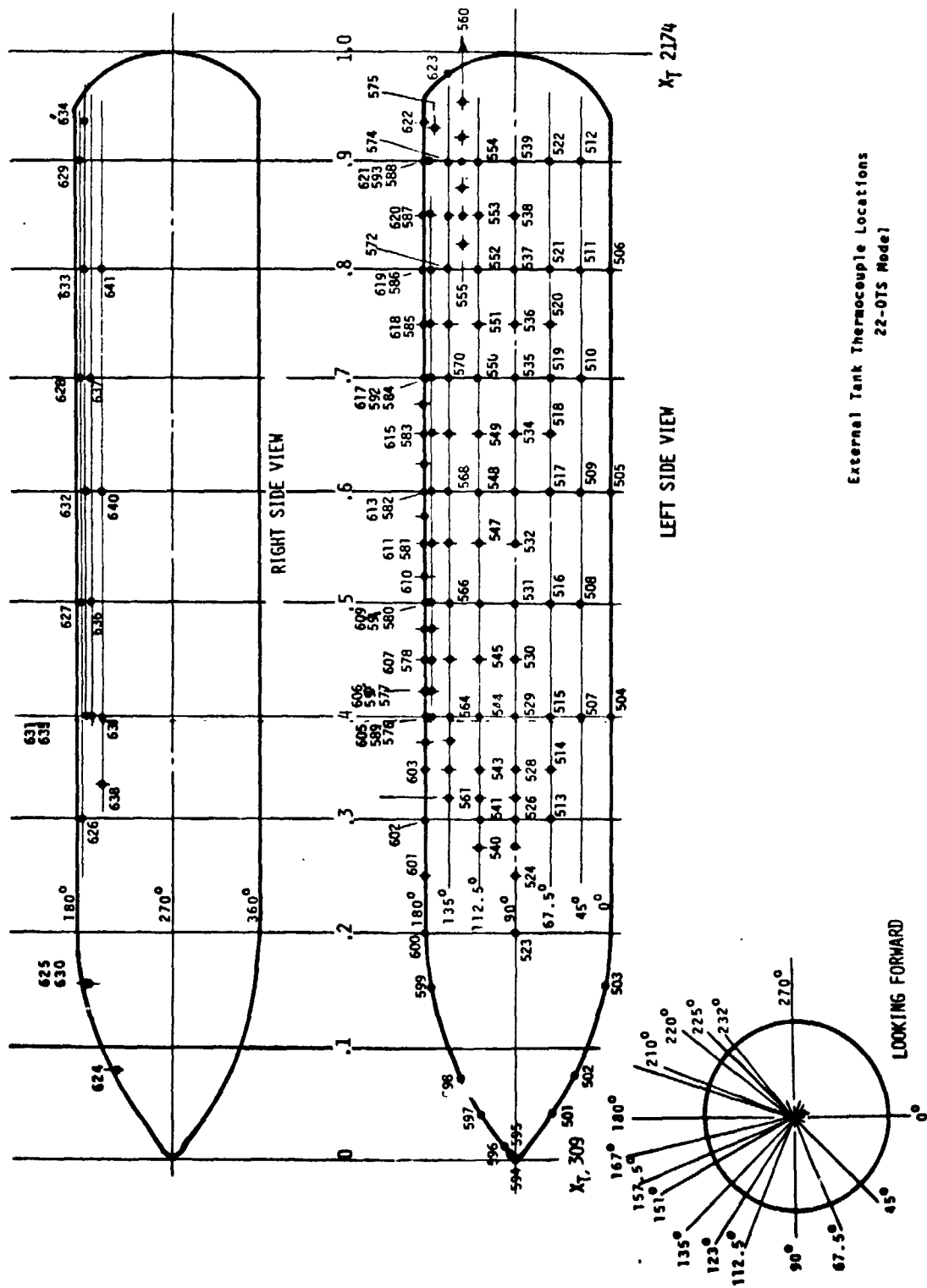
Figure 2. - Model instrumentation.



NOTE: T/C WERE SHIFTED AROUND LEADING EDGE. T/C NO. 211 & 218 ARE NOT READING STAGNATION AS DEFINED IN TABLE IV AND FIG. 2a

T/C No.	THICKNESS
211	0.039
212	0.023
213	0.035
214	0.033
215	0.030
216	0.033
217	0.032
218	0.040
219	0.032
220	0.052
221	0.040
222	0.033
223	0.034
224	0.032

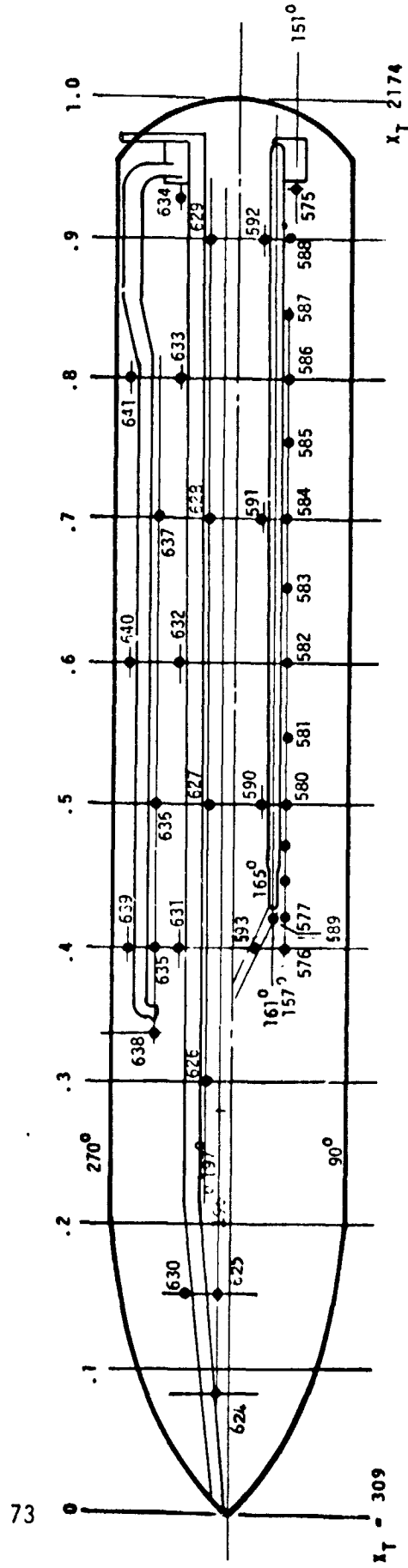
b. Actual Wing Leading Edge Clusters B & C T/C Locations and Skin Thickness (post Test Dimensional Check)



c. External Tank T/C Locations-Side Views

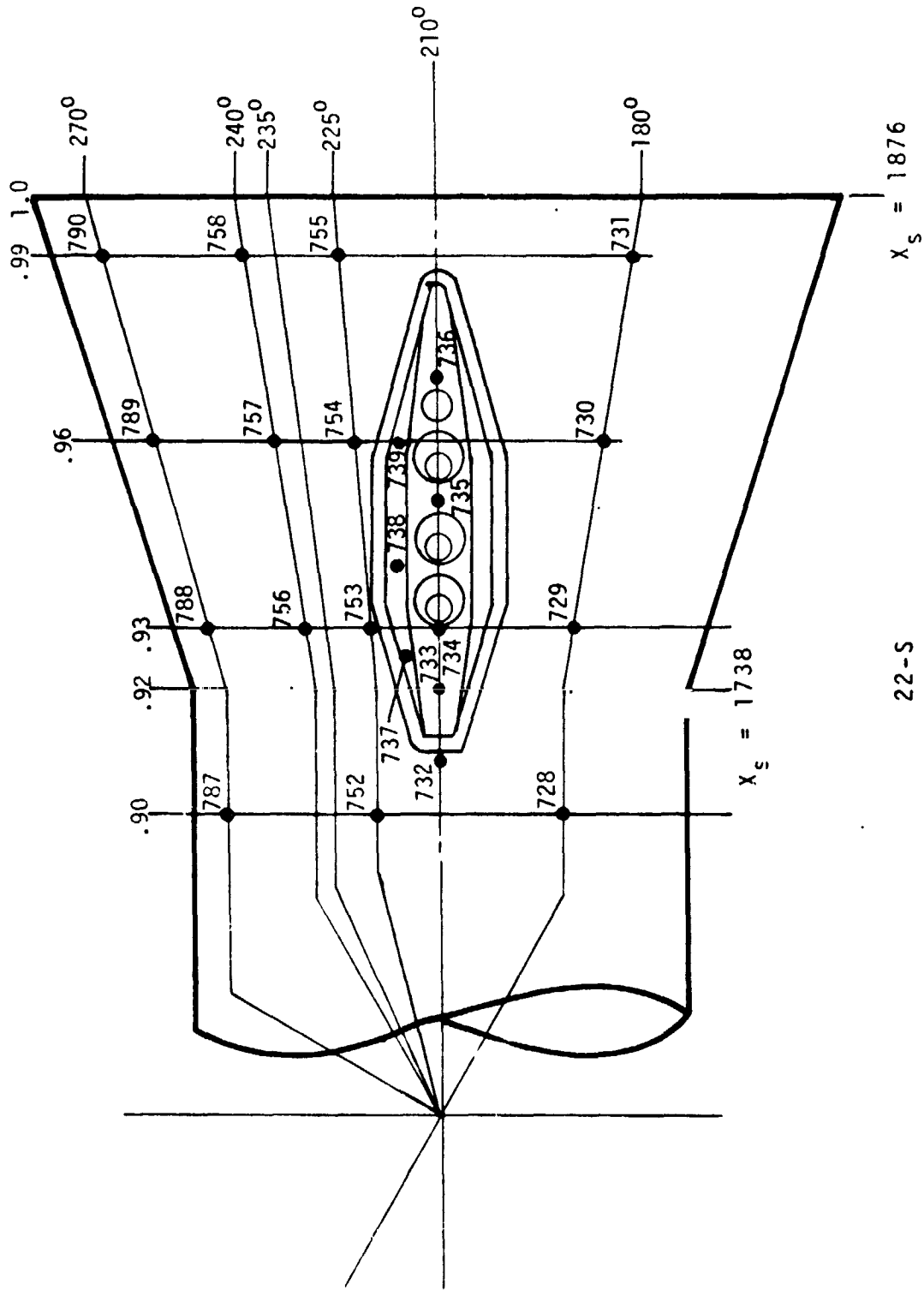
Figure 2. - Continued.

EXTERNAL TANK THERMOCOUPLE LOCATIONS
(LOCATIONS AROUND PLUMBING ONLY)
MODEL 22-OTS



TOP VIEW
d. External Tank T/C Locations (Locations Around Plumbing Lines) Top View

Figure 2. - Continued.



$X_s = 1876$

22-S

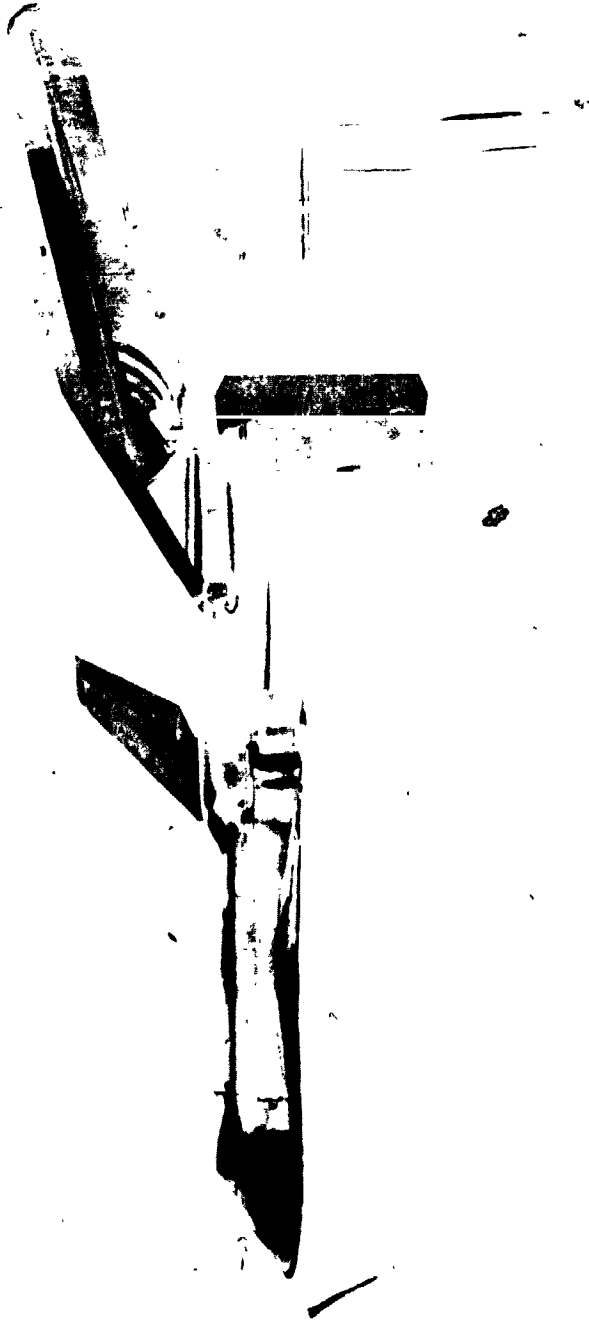
e. SRB Nozzle Skirt T/C Instrumentation

Figure 2. - Concluded.



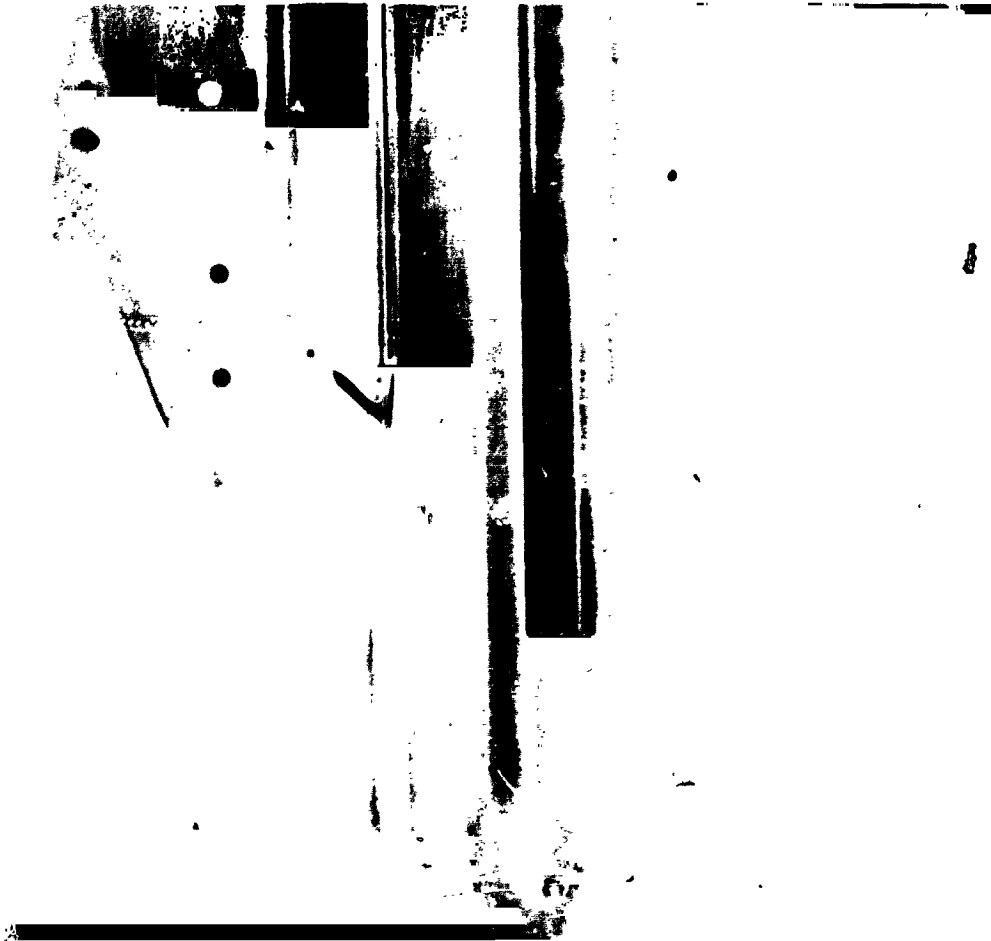
a. Mated Launch Configuration Installation

Figure 3. - Model photographs.



b. Orbiter Installation

Figure 3. - Continued.



c. Mated Configuration Boundary Layer Trips

Figure 3. - Continued.



d. SRB Boundary Layer Trips

Figure 3. - Concluded.

APPENDIX
TABULATED SOURCE DATA

**Tabulations of plotted data are available on request
from Data Management Services**

KEY TO 4th CHARACTER OF DATASET NAME

4th Character	Location of Thermocouple
S	SRB
N	SRB Separation Nozzle
T	External Tank
B	Orbiter - Bottom C _L
A	Orbiter - Top C _L
C	Windows
D	Orbiter Bottom Surface
E	Orbiter Side
F	Wing Upper Crease
G	Wing Bottom
H	Clusters B & C (Wing Leading Edge)
I	Wing Top
J	OMS Bottom Crease
K	OMS Side Surface
L	OMS Top Surface
M	OMS WL 47+
Q	Leading Edge Rolled Down 30°
P	Orbiter Fuselage
V	Vertical Tail
X	Solid Booster (overlaps with "S" data but has thermocouple schedule needed for comparison with undisturbed data to compute HI/HU)

SOLID BOOSTER PARAMETRIC DATA ELEVON = .0000

TEST CONDITIONS

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000
 HO BTU/LBM RS FT RHVEL SLUG/FT²SEC ALPHA DEG.
 329.9 .1750-01 .2381 .0000
 324.5 .1750-01 .2411 .0000

TEST DATA

RUN NUMBER	FHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
7	30.000	.00000	701.00	.5685	.6889	.7705	33.12	18.83	.4280	588.4	.1578-01
7	90.000	.25000-01	702.00	.9175-01	.1110	.1240	33.41	3.065	.4231	581.8	.2543-02
7	30.000	.50000-01	703.00	.6504-01	.7951-01	.8776-01	33.56	2.183	.4207	578.4	.1802-02
7	30.000	.10000+00	704.00	.5013-01	.6054-01	.6756-01	33.69	1.689	.4185	575.4	.1388-02
7	30.000	.40000	705.00	.2161-01	.2608-01	.2908-01	33.84	.7315	.4159	571.9	.9979-03
7	30.000	.70000	706.00	.5826-01	.4620-01	.5155-01	33.71	1.290	.4181	574.8	.1059-02
7	90.000	.78000	707.00	.8233-01	.9935-01	.1108	33.83	2.785	.4162	572.2	.2278-02
7	90.000	.96000	708.00	.3727-01	.4497-01	.5014-01	33.86	1.262	.4156	570.1	.1031-02
7	90.000	.90000	709.00	.4234-01	.5107-01	.5693-01	33.92	1.436	.4147	570.1	.1171-02
7	90.000	.93000	710.00	.7770-01	.9383-01	.1047	33.69	2.618	.4185	575.4	.2151-02
7	90.000	.99000	711.00	.6926-01	.8368-01	.940-01	33.62	2.329	.4196	576.9	.1918-02
8	35.000	.70000	712.00	.2422-01	.2917-01	.3250-01	33.61	.814	.4110	555.8	.6613-03
7	35.000	.90000	713.00	.2989-01	.3606-01	.4021-01	33.86	1.012	.4157	571.5	.8267-03
7	35.000	.93000	714.00	.1010	.1220	.1362	33.68	3.402	.4187	575.6	.2797-02
7	35.000	.99000	715.00	.9001-01	.1097	.1214	33.65	3.029	.4192	576.4	.2492-02
7	180.000	.50000-01	716.00	.1134	.1371	.1530	33.58	3.809	.4203	577.8	.3142-02
7	180.000	.10000+00	717.00	.8600-01	.1039	.1159	33.68	2.896	.4187	575.7	.2381-02
7	180.000	.20000	718.00	.5116-01	.6177-01	.6881-01	33.89	1.734	.4151	570.7	.1415-02
7	180.000	.40000	719.00	.2720-01	.3350-01	.3741-01	33.55	.9299	.4209	578.6	.7679-03
8	180.000	.60000	720.00	.4250-01	.5117-01	.5699-01	33.66	1.430	.4101	554.6	.1160-02
9	30.000	.50000	721.00	.3934-01	.4736-01	.5275-01	33.67	1.324	.4099	554.4	.1074-02
8	180.000	.55000	722.00	.5056-01	.6088-01	.6780-01	33.67	1.703	.4099	554.4	.1360-02
8	180.000	.70000	723.00	.5402-01	.6503-01	.7242-01	33.69	1.820	.4036	554.0	.1474-02
8	180.000	.75000	724.00	.4899-01	.5897-01	.6585-01	33.74	1.653	.4088	556.9	.1337-02
8	180.000	.80000	725.00	.1868	.2248	.2502	33.83	6.321	.4072	550.8	.5096-02
8	180.000	.85000	726.00	.1129	.1359	.1512	33.83	3.821	.4072	550.7	.3080-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 O+T+S		SOLID BOOSTER		HM/HT	TM DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC			
8	180.00	.85000	727.00	.6912-01	.8315-01	.9255-01	33.82	2.337	.4075	.1885-02
8	180.00	.90000	728.00	.4846-01	.5329-01	.6486-01	33.86	1.641	.551.1	.1322-02
8	180.00	.93000	729.00	.1561	.1877	.2089	33.83	5.280	550.0	.4256-02
8	180.00	.96000	730.00	.1019	.1226	.1355	33.81	3.445	551.2	.2780-02
8	180.00	.99000	731.00	.7267-01	.8745-01	.9735-01	33.77	2.454	551.2	.1983-02
8	210.00	.90400	732.00	.3579-01	.4305-01	.4790-01	33.88	1.213	552.2	.9760-03
8	225.00	.75000-01	740.00	.7847-01	.9437-01	1.050	33.87	2.658	549.8	.2140-02
8	225.00	.10000+00	741.00	.3723-01	.4476-01	.4980-01	33.90	1.262	549.2	.1015-02
8	225.00	.15000	742.00	.6225-01	.7480-01	.8319-01	34.02	2.117	546.5	.1696-02
8	225.00	.20000	743.00	.3809-01	.4578-01	.5092-01	33.98	1.294	547.4	.1038-02
7	225.00	.30000	744.00	.1832-01	.2212-01	.2468-01	33.75	.6184	574.0	.5071-03
8	225.00	.40000	745.00	.1847-01	.2223-01	.2474-01	33.79	.6242	574.0	.5039-03
8	225.00	.50000	746.00	.4452-01	.5358-01	.5965-01	33.75	1.503	552.5	.1215-02
8	225.00	.60000	747.00	.6347-01	.7637-01	.9500-01	33.80	2.145	551.5	.1731-02
8	225.00	.70000	748.00	.5720-01	.6883-01	.7662-01	33.79	1.933	551.8	.1560-02
8	225.00	.80000	750.00	.1534	.1844	.2051	33.93	1.952	548.6	.4181-02
8	225.00	.85000	751.00	.5756-01	.6921-01	.7701-01	33.91	1.952	548.9	.1569-02
7	225.00	.90000	752.00	.1485-01	.1790-01	.1995-01	33.98	.5046	568.7	.4105-03
8	225.00	.93000	753.00	.1589	.1911	.2127	33.82	5.373	551.0	.4333-02
8	225.00	.96000	754.00	.6454-01	.7765-01	.8643-01	33.79	2.181	551.7	.1760-02
8	225.00	.99000	755.00	.5681-01	.6837-01	.7612-01	33.73	1.916	553.0	.1550-02
8	240.00	.93000	756.00	.5202-01	.6258-01	.6966-01	33.81	1.759	551.3	.1419-02
8	240.00	.96000	757.00	.5139-01	.6184-01	.6884-01	33.76	1.735	552.3	.1402-02
8	240.00	.99000	758.00	.2670-01	.3215-01	.3580-01	33.68	.8992	554.2	.7287-03
7	247.50	.30000	759.00	.1208-01	.1457-01	.1625-01	33.85	.4088	571.6	.3341-03
8	247.50	.40000	760.00	.4040-01	.4859-01	.5407-01	33.85	1.368	550.3	.1102-02
8	247.50	.50000	761.00	.7059-01	.8493-01	.9453-01	33.80	2.386	551.4	.1926-02
8	247.50	.60000	762.00	.5148-01	.6192-01	.6892-01	33.83	1.742	550.7	.1404-02
8	247.50	.65000	763.00	.5480-01	.6594-01	.7339-01	33.80	1.852	551.4	.1495-02
8	247.50	.70000	764.00	.5583-01	.6716-01	.7475-01	33.83	1.889	550.8	.1523-02
8	247.50	.75000	765.00	.5523-01	.6642-01	.7392-01	33.86	1.870	550.0	.1506-02
8	270.00	.20000-02	767.00	.6884	.8302	.9255	33.39	22.99	560.8	.1881-01
8	270.00	.25000-01	768.00	.1704	.2052	.2265	33.63	5.729	555.3	.4651-02
8	270.00	.50000-01	769.00	.9659-01	1.162	1.294	33.79	3.263	551.8	.2635-02
8	270.00	.75000-01	770.00	.5369-01	.6457-01	.7185-01	33.87	1.819	549.7	.1464-02
8	270.00	.10000+00	771.00	.1003	.1206	.1341	33.92	3.401	548.8	.2733-02
8	270.00	.11000	772.00	.4923	.5918	.6584	33.95	16.71	548.1	.1342-01
8	270.00	.13000	773.00	.1402	.1684	.1872	34.11	4.782	544.3	.5819-02
8	270.00	.15000	774.00	.9384-01	1.127	1.253	34.10	4.025	544.3	.5819-02
8	270.00	.20000	775.00	.4815-01	.5784-01	.6432-01	34.05	3.200	545.7	.2556-02
8	270.00	.25000	776.00	.2671-01	.3211-01	.3572-01	33.94	1.639	544.6	.1312-02
8	270.00	.30000	777.00	.1754-01	.2110-01	.2348-01	33.87	.9065	548.3	.7281-03
8	270.00	.40000	778.00	.2837-01	.3413-01	.3759-01	33.81	.5942	549.8	.4784-03
8	270.00	.40000	778.00	.2837-01	.3413-01	.3759-01	33.81	.9593	551.1	.7738-03

ARC 3.5-178 IH3
ARC 3.5-178 IH3 O+T+S
ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
8	270.00	.50000	779.00	.4449-01	.5352-01	.5955-01	33.82	1.504	.4074	551.1	.1213-02
8	270.00	.60000	780.00	.4727-01	.5086-01	.6329-01	33.81	1.598	.4075	551.2	.1269-C2
8	270.00	.65000	781.00	.4714-01	.5670-01	.6310-01	33.83	1.594	.4073	550.8	.1266-02
8	270.00	.70000	782.00	.4484-01	.5393-01	.6002-01	33.95	1.518	.4069	550.3	.1223-02
8	270.00	.75000	783.00	.5158-01	.6203-01	.6902-01	33.68	1.747	.4065	549.7	.1406-02
8	270.00	.80000	784.00	.2643	.3179	.3536	33.90	8.961	.4061	549.2	.7207-02
8	270.00	.80000	785.00	-.1990-03	-.2433-03	-.2738-03	31.26	-.6221-02	.4509	609.8	.5503-05
8	270.00	.85000	786.00	.1248-01	.1501-01	.1670-01	33.87	.4226	.4066	549.9	.3403-03
8	270.00	.90000	787.00	.1233-01	.1483-01	.1650-01	33.86	.4176	.4067	550.1	.3363-03
8	270.00	.93000	788.00	.1722-01	.2072-01	.2307-01	33.75	.5811	.4086	552.6	.4698-03
8	270.00	.96000	789.00	.1702-01	.2048-01	.2282-01	33.69	.5735	.4095	553.9	.4645-03
8	270.00	.99000	790.00	.2774-01	.3349-01	.3720-01	33.64	.9331	.4105	555.1	.7572-03
8	315.00	.30000	791.00	.1737-01	.2090-01	.2325-01	33.77	.5865	.4082	552.1	.4738-03
7	315.00	.50000	792.00	.2984-01	.3596-01	.4008-01	34.04	1.016	.4127	567.4	.8247-03
8	315.00	.70000	793.00	.1432-01	.1723-01	.1918-01	33.78	.4838	.4080	551.8	.3906-03
8	315.00	.78000	794.00	.5687-01	.6842-01	.7615-01	33.81	1.923	.4076	551.2	.1551-02
8	315.00	.80000	795.00	.7459-01	.8974-01	.9988-01	33.81	2.522	.4075	551.1	.2035-02
8	315.00	.90000	796.00	.1462-01	.1640-01	.1826-01	33.69	.4589	.4097	554.1	.3718-03
8	315.00	.93000	797.00	.2747-01	.3309-01	.3686-01	33.61	.9231	.4110	555.9	.7500-03
8	315.00	.99000	798.00	.2073-01	.2497-01	.2782-01	33.56	.6956	.4118	557.0	.5660-03

ARC 3.5-178 1H3

ARC 3.5-178 1H3 O+T+S

SOLID BOOSTER

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RS	HO	TO	HO	RHOVEL	ALPHA
FT	BTU/	DEG. R	LBM	SLUG/	DEG.
	FT2SEC			FT2SEC	
.1750-01	316.5	1296.	316.5	.8271	.0000
.1750-01	318.2	1303.	318.2	.8198	.0000

TEST DATA

PHI	X/L	T/C NO	H/HREF	H/HREF	H/HREF	OREF	GOOT	HM/HT	TW	STN NO
NUMBER			R=1.0	R=0.9	R=0.85	BTU/	RTU/		DEG. R	R=0.9
						FT2SEC	FT2SEC			
14	90.000	701.00	.4625	.5731	.6509	52.90	24.47	.4819	639.2	.6972-02
14	90.000	702.00	.8045-01	.9920-01	.1123	54.08	4.351	.4708	624.4	.1208-02
14	90.000	703.00	.7076-01	.7076-01	.7986-01	55.09	3.175	.4612	611.6	.8618-03
14	90.000	704.00	.4610-01	.5632-01	.5335-01	56.35	2.597	.4492	595.8	.6864-03
14	90.000	705.00	.4656-01	.5642-01	.6311-01	58.58	2.728	.4280	567.7	.6885-03
14	90.000	706.00	.3528-01	.4283-01	.4796-01	58.12	2.050	.4324	573.5	.5224-03
14	90.000	707.00	.6868-01	.8327-01	.9317-01	58.44	4.014	.4293	569.4	.1016-02
14	90.000	708.00	.4785-01	.5800-01	.6488-01	58.52	2.800	.4286	568.5	.7077-03
14	90.000	709.00	.4850-01	.5872-01	.6564-01	58.82	2.853	.4257	564.6	.7166-03
14	90.000	710.00	.8941-01	.1087	.1219	57.68	5.157	.4366	579.0	.1326-02
14	90.000	711.00	.9676-01	.1179	.1324	56.98	5.513	.4432	587.8	.9276-03
13	135.00	712.00	.6327-01	.7646-01	.8536-01	59.22	3.747	.4204	554.5	.4772-03
14	135.00	713.00	.3224-01	.3912-01	.4379-01	58.23	1.877	.4313	572.1	.2010-02
14	135.00	714.00	.1354	.1648	.1849	57.32	7.762	.4399	583.5	.1845-02
14	135.00	715.00	.1242	.1513	.1699	56.98	5.978	.4432	587.8	.1625-02
14	180.00	716.00	.1087	.1334	.1506	55.02	5.978	.4618	612.5	.1246-02
14	180.00	717.00	.8357-01	.1022	.1151	56.03	4.683	.4522	599.7	.4022-03
14	180.00	718.00	.6294-01	.7649-01	.8571-01	57.79	3.637	.4355	577.6	.9329-03
14	180.00	719.00	.2704-01	.3300-01	.3708-01	56.70	1.533	.4459	591.4	.1499-02
13	180.00	720.00	.1022	.1235	.1379	59.28	6.060	.4198	553.7	.1143-02
13	180.00	721.00	.7790-01	.9422-01	.1052	58.99	4.596	.4225	557.4	.1245-02
13	180.00	722.00	.8485-01	.1026	.1146	59.03	5.009	.4221	556.8	.1183-02
13	180.00	723.00	.8064-01	.9748-01	.1082	59.12	4.767	.4213	555.7	.1098-02
13	180.00	724.00	.7492-01	.9047-01	.1009	59.46	4.455	.4181	551.4	.3608-02
13	180.00	725.00	.2464	.2973	.3316	59.67	14.70	.4161	548.9	.2024-02
13	180.00	726.00	.1382	.1668	.1861	59.54	8.226	.4173	550.5	

DATE 24 JAN 76 ARC 3.5-178 IM3 ARC 3.5-178 IM3 O+T+S SOLID BOOSTER STN NO

RUN NUMBER	T+H	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	COOT BTU/FT2SEC	H/W/HT	TW DEG. R	STN NO R=0.9
13	180.00	.85000	727.00	.1377	.1661	.1852	59.81	8.239	4.147	547.1	.2016-02
13	160.00	.90700	728.00	.6384-01	.7696-01	.8577-01	59.96	3.828	4.134	545.3	.9340-03
13	180.00	.93000	729.00	.1790	.2161	.2410	59.63	10.68	4.163	549.4	.2622-02
13	180.00	.96000	730.00	.1146	.1383	.1543	59.51	6.819	4.176	550.8	.1679-02
13	180.00	.99000	731.00	.9855-01	.1191	.1329	59.32	5.846	4.195	553.3	.1444-02
13	210.00	.90400	732.00	.6130-01	.7392-01	.8240-01	59.86	3.670	4.143	546.4	.8971-03
13	225.00	.75000+00	740.00	.8254-01	.1000	.1118	58.75	4.855	4.248	560.4	.1213-02
13	225.00	.10000+00	741.00	.7331-01	.8867-01	.9904-01	58.98	4.324	4.227	557.5	.1076-02
13	225.00	.15000	742.00	.5812-01	.7011-01	.7818-01	59.75	3.473	4.154	547.9	.8508-03
13	225.00	.20000	743.00	.4169-01	.5031-01	.5612-01	2.487	2.487	4.163	549.2	.6105-03
14	225.00	.30000	744.00	.2618-01	.3191-01	.3582-01	57.06	1.494	4.424	586.7	.3890-03
13	225.00	.40000	745.00	.3082-01	.3722-01	.4154-01	59.41	1.831	4.186	552.2	.4516-03
13	225.00	.50000	746.00	.7900-01	.9536-01	.1064	59.57	4.705	4.170	550.1	.1157-02
13	225.00	.60000	747.00	.1086	.1310	.1462	59.63	6.475	4.164	549.3	.1590-02
13	225.00	.70000	748.00	.8975-01	.1082	.1206	59.94	5.379	4.136	545.5	.1313-02
13	225.00	.80000	750.00	.1215	.1462	.1628	60.47	7.347	4.085	538.8	.1775-02
13	225.00	.85000	751.00	.8611-01	.1036	.1154	60.43	5.203	4.089	539.4	.1258-02
14	225.00	.90000	752.00	.1410-01	.1710-01	.1913-01	58.41	.8236	4.297	569.9	.2086-03
13	225.00	.93000	753.00	.1586	.1915	.2137	59.42	9.423	4.184	551.9	.2323-02
13	225.00	.96000	754.00	.5595-01	.6760-01	.7546-01	59.28	3.317	4.198	553.7	.8201-03
13	225.00	.99000	755.00	.5474-01	.6618-01	.7391-01	59.07	3.233	4.218	556.4	.8029-03
13	240.00	.93000	756.00	.4971-01	.6003-01	.6699-01	59.40	2.953	4.186	552.2	.7284-03
13	240.00	.96000	757.00	.5253-01	.6349-01	.7089-01	59.15	3.107	4.210	555.4	.7702-03
13	240.00	.98000	758.00	.2683-01	.3246-01	.3627-01	58.85	1.579	4.239	553.1	.3937-03
14	247.50	.30000	759.00	.1677-01	.2040-01	.2288-01	57.45	.9633	4.388	581.9	.2488-03
13	247.50	.40000	760.00	.5853-01	.7064-01	.7879-01	59.62	3.490	4.166	549.5	.8572-03
13	247.50	.50000	761.00	.5432-01	.6551-01	.7302-01	59.85	3.251	4.144	546.6	.7950-03
13	247.50	.60000	762.00	.6533-01	.7876-01	.8779-01	59.91	3.914	4.138	545.8	.9559-03
13	247.50	.65000	763.00	.8174-01	.9854-01	.1098	59.93	4.898	4.137	545.6	.1196-02
13	247.50	.70000	764.00	.8017-01	.9663-01	.1077	60.01	4.911	4.129	544.6	.1630-02
13	247.50	.75000	765.00	.1115	.1343	.1496	60.18	6.708	4.113	542.5	.1630-02
13	270.00	.20000-02	767.00	.6849	.8367	.9410	56.22	38.50	4.489	592.1	.1013-01
13	270.00	.25000-01	768.00	.1797	.2188	.2454	57.22	10.28	4.393	579.5	.2651-02
13	270.00	.30000-01	769.00	.1134	.1376	.1541	58.04	6.583	4.315	569.2	.1669-02
13	270.00	.35000-01	770.00	.6677-01	.8089-01	.9045-01	58.52	3.908	4.270	560.3	.9810-03
13	270.00	.40000+00	771.00	.2241	.2713	.3032	58.76	12.17	4.248	563.2	.3290-02
13	270.00	.45000	772.00	.6078	.7354	.8216	58.89	35.79	4.235	558.6	.8920-02
13	270.00	.50000	773.00	.1102	.1329	.1482	59.77	6.585	4.151	547.6	.1613-02
13	270.00	.55000	774.00	.1200	.1445	.1610	60.10	7.210	4.120	543.5	.1754-02
13	270.00	.60000	775.00	.5534-01	.6669-01	.7431-01	60.05	3.323	4.125	544.2	.8094-03
13	270.00	.65000	776.00	.3048-01	.3677-01	.4101-01	59.70	1.820	4.158	548.5	.4462-03
13	270.00	.70000	777.00	.1765-01	.2130-01	.2376-01	59.58	1.051	4.170	550.0	.2584-03
13	270.00	.75000	778.00	.4030-01	.4863-01	.5423-01	59.70	2.406	4.158	548.5	.5901-03

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	OODT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
13	270.00	.50000	779.00	.5088-01	.6135-01	.6839-01	59.87	3.046	.4142	546.4	.7445-03
13	270.00	.60000	780.00	.5728-01	.6908-01	.7700-01	59.86	3.429	.4143	546.5	.8383-03
13	270.00	.65000	781.00	.4107-01	.4950-01	.5515-01	60.05	2.466	.4125	544.1	.6007-03
13	270.00	.70000	782.00	.4299-01	.5179-01	.5769-01	60.18	2.587	.4113	542.5	.6286-03
13	270.00	.75000	783.00	.1014	.1221	.1360	60.33	6.119	.4099	540.6	.1482-02
13	270.00	.78000	784.00	.3708	.4462	.4967	60.47	22.42	.4085	538.8	.5417-02
13	270.00	.80000	785.00	-.2958-13	-.3634-13	-.4103-13	59.81	-.1621-11	.4623	609.8	.4398-15
13	270.00	.85000	786.00	.1610-01	.1940-01	.2161-01	60.15	.9684	.4115	542.8	.2354-03
13	270.00	.90000	787.00	.1910-01	.2301-01	.2563-01	60.22	1.150	.4109	542.0	.2793-03
13	270.00	.93000	788.00	.3210-01	.3875-01	.4324-01	58.47	1.903	.4180	551.4	.4702-03
13	270.00	.96000	789.00	.2522-01	.3049-01	.3404-01	59.13	1.491	.4213	555.7	.3698-03
13	270.00	.99000	790.00	.3311-01	.4007-01	.4477-01	58.79	1.946	.4244	559.8	.4860-03
13	315.00	.30000	791.00	.3424-01	.4132-01	.4609-01	58.64	2.042	.4164	549.3	.5014-03
14	315.00	.50000	792.00	.4603-01	.5569-01	.6223-01	59.03	2.717	.4238	562.0	.6797-03
13	315.00	.70000	793.00	.2146-01	.2586-01	.2881-01	60.09	1.289	.4121	543.6	.3138-03
13	315.00	.78000	794.00	.7977-01	.9602-01	1.069	60.40	4.818	.4092	539.7	.1166-02
13	315.00	.80000	795.00	.1327	.1598	.1780	60.22	7.988	.4109	542.0	.1939-02
13	315.00	.90000	796.00	.1467-01	.1771-01	.1975-01	59.61	.8744	.4167	549.6	.2148-03
13	315.00	.93000	797.00	.4122-01	.4990-01	.5577-01	58.73	2.421	.4250	560.6	.6052-03
13	315.00	.99000	798.00	.2907-01	.3523-01	.3940-01	58.40	1.697	.4282	564.8	.4272-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

PARAMETRIC DATA
 RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
24	5.300	.1528*07	122.1	1289.	314.8	.1750-01	.2495	.0000
25	5.300	.1528*07	122.1	1289.	314.8	.1750-01	.2495	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	DREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
24	90.000	.00000	701.00	.5816	.7128	.8035	30.200	17.564	.457	599.3	1.5684*-02
24	90.000	.25000-01	702.00	.0828	.1048	.1180	30.525	2.620	.451	591.1	2.20771-03
24	90.000	.50000-01	703.00	.0620	.0757	.0850	30.850	1.914	.445	584.4	1.6662E-03
24	90.000	.10000*00	704.00	.0260	.0323	.0403	31.227	0.830	.439	575.7	7.1203E-04
24	90.000	.40000	705.00	.0363	.0444	.0537	31.492	1.150	.434	569.7	4.7745E-04
24	90.000	.70000	706.00	.0365	.0443	.0496	31.489	1.148	.434	564.8	4.7573E-04
24	90.000	.80000	707.00	.0368	.0457	.1072	31.645	2.496	.432	566.2	2.1089E-03
24	90.000	.90000	708.00	.0368	.0447	.0500	31.655	1.165	.431	566.0	9.1395E-04
24	90.000	.93000	709.00	.0434	.0526	.0589	31.724	1.377	.430	564.4	1.1547E-03
24	90.000	.93000	710.00	.0779	.0946	.1059	31.729	2.456	.434	508.8	2.10637E-03
24	90.000	.99000	711.00	.0725	.0896	.0993	31.853	2.294	.435	570.6	1.9221E-03
25	135.00	.70000	712.00	.0202	.0248	.0279	28.769	0.581	.437	579.4	5.3935E-04
24	135.00	.90000	713.00	.0307	.0372	.0417	31.631	1.372	.431	565.6	8.1994E-04
24	135.00	.93000	714.00	.1174	.1321	.1421	31.733	3.063	.433	568.6	2.5584E-03
24	135.00	.99000	715.00	.0849	.1031	.1155	31.806	2.071	.435	570.2	2.4714E-03
24	180.00	.50000-01	716.00	.1113	.1358	.1526	30.872	3.437	.445	583.9	2.5400E-03
24	180.00	.10000*00	717.00	.0716	.0872	.0978	31.174	2.232	.440	577.0	1.9194E-03
24	180.00	.20000	718.00	.0396	.0471	.0528	31.576	1.226	.433	567.8	1.0387E-03
24	180.00	.40000	719.00	.0218	.0264	.0298	31.210	0.681	.439	574.1	5.2499E-04
25	180.00	.50000	720.00	.0644	.0787	.0886	29.122	1.875	.451	571.2	1.7150E-02
25	180.00	.60000	721.00	.0393	.0406	.0460	28.945	0.965	.454	575.4	8.8881E-04
25	180.00	.65000	722.00	.0473	.0579	.0653	28.935	1.369	.454	575.6	1.2619E-03
25	180.00	.70000	723.00	.0459	.0611	.0682	28.947	1.445	.454	575.3	1.3307E-03
25	180.00	.75000	724.00	.0451	.0552	.0621	29.031	1.309	.453	573.4	1.2013E-03
25	180.00	.78000	725.00	.0446	.0502	.0516	29.110	0.926	.451	571.5	5.4494E-03
25	180.00	.80000	726.00	.1088	.1331	.1498	29.073	3.164	.452	572.4	2.8553E-03

RUN NUMBER	PHI	X/L	T/C NC	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
25	180.00	.85000	727.00	.0755	.0777	.1039	29.172	2.331	.450	570.1	2.1273E-03
25	180.00	.90000	728.00	.0439	.0561	.0631	25.264	1.344	.448	567.9	1.2220E-02
25	180.00	.93000	729.00	.1498	.1832	.2162	25.090	4.339	.452	572.0	3.9912E-03
25	180.00	.96000	730.00	.0557	.1171	.1718	29.041	2.779	.452	573.1	2.5494E-03
25	180.00	.99000	731.00	.0679	.0831	.0935	29.017	1.970	.453	573.7	1.8095E-03
25	210.00	.90000	732.00	.0311	.0380	.0427	25.285	0.511	.448	567.5	8.2773E-04
25	225.00	.75000-01	740.00	.0776	.0745	.1061	25.564	2.293	.443	561.0	2.0597E-02
25	225.00	1.0000+00	741.00	.0277	.0337	.0378	29.603	0.819	.442	560.1	7.3456E-04
25	225.00	.15000	742.00	.0524	.0637	.0711	29.732	1.557	.440	557.1	1.3892E-03
25	225.00	.20000	743.00	.0395	.0481	.0540	29.648	1.170	.441	559.0	1.0475E-02
25	225.00	.30000	744.00	.0173	.0210	.0236	31.369	0.543	.436	572.0	4.6345E-04
25	225.00	.40000	745.00	.0174	.0210	.0236	29.255	0.503	.448	568.2	4.5741E-04
25	225.00	.50000	746.00	.0537	.0656	.0738	25.108	1.562	.451	571.6	1.4291E-03
25	225.00	.60000	747.00	.0681	.0832	.0937	29.171	1.988	.450	570.1	1.8140E-03
25	225.00	.70000	748.00	.0591	.0722	.0813	25.109	1.720	.451	571.5	1.5735E-02
25	225.00	.80000	750.00	.1144	.1579	.1874	29.201	3.355	.449	569.4	3.0585E-03
25	225.00	.85000	751.00	.0674	.0823	.0925	29.312	1.975	.447	566.8	1.7922E-03
25	225.00	.90000	752.00	.1537	.0166	.0186	31.748	0.435	.430	563.2	3.0635E-04
25	225.00	.93000	753.00	.1878	.1878	.2112	29.173	4.483	.450	570.1	4.0913E-03
25	225.00	.96000	753.00	.0655	.0655	.0901	25.145	1.908	.450	570.7	1.7434E-03
25	225.00	.99000	755.00	.0575	.0703	.0792	25.087	1.673	.452	572.1	1.5322E-03
25	240.00	.80000	756.00	.0404	.0494	.0555	29.164	1.179	.450	569.6	1.0754E-03
25	240.00	.86000	757.00	.0565	.0690	.0777	29.120	1.644	.451	571.3	1.5034E-03
25	247.50	.90000	758.00	.0271	.0332	.0373	25.042	0.787	.452	573.1	7.2300E-04
25	247.50	.93000	759.00	.0128	.0156	.0175	31.528	0.405	.434	568.9	3.5349E-04
25	247.50	.97000	760.00	.0332	.0406	.0456	25.320	0.574	.447	566.7	8.8359E-04
25	247.50	.99000	761.00	.0587	.0718	.0807	25.155	1.714	.450	569.9	1.5630E-03
25	270.00	.60000	762.00	.0449	.0543	.0611	29.219	1.299	.449	569.0	1.1836E-03
25	270.00	.65000	763.00	.0532	.0650	.0732	25.144	1.550	.451	570.7	1.4165E-03
25	270.00	.70000	764.00	.0554	.0678	.0763	25.170	1.619	.450	570.1	1.4777E-03
25	270.00	.75000	765.00	.0525	.0646	.0727	29.216	1.545	.449	569.1	1.4077E-03
25	270.00	.80000-02	767.00	.1100	.0867	.0980	25.024	20.606	.453	568.6	1.8919E-02
25	270.00	.85000-01	769.00	.1698	.2074	.2342	25.289	4.974	.448	568.2	4.5182E-02
25	270.00	.90000-01	769.00	.0985	.1202	.1350	29.484	2.905	.444	568.2	2.6180E-03
25	270.00	.95000-01	771.00	.0550	.0670	.0752	29.600	1.028	.442	568.2	1.4605E-03
25	270.00	1.0000+00	772.00	.0416	.0507	.0570	25.649	2.957	.441	568.6	2.8476E-03
25	270.00	.13000	773.00	.1165	.1443	.1620	25.673	12.420	.441	568.2	1.1108E-02
25	270.00	.15000	774.00	.1058	.1337	.1500	29.673	3.517	.441	568.2	3.1453E-03
25	270.00	.20000	775.00	.0474	.0577	.0647	29.724	3.264	.440	569.6	2.9132E-03
25	270.00	.25000	776.00	.0265	.0323	.0362	25.659	0.781	.441	568.2	.2579E-03
25	270.00	.30000	777.00	.0183	.0223	.0251	29.880	0.537	.446	568.2	4.8597E-04
25	270.00	.40000	778.00	.0266	.0327	.0368	29.219	0.782	.449	568.2	7.1226E-04

DATE 24 JAN 76

ARC 3.5-178 IH3

PAGE 10

(RE1504)

SOLID BOOSTER

ARC 3.5-178 IH3 O-T+S (TRIPS) SOLID BOOSTER

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSTA	TO DEG. R	NO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
26	5.300	.4950+07	405.7	1310.	320.0	.1750-01	.8213	.0000
27	5.300	.477+07	406.0	1306.	319.0	.1750-01	.8234	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	OOT FT/SEC	H/HHT	TH DEG. R	STN NO R=0.9
27	90.000	.00000	701.00	.4179	.5174	.5673	53.41	22.32	.4799	638.1	.6286-02
27	90.000	.25000-01	702.00	.8712-01	.1073	.1214	54.56	4.753	.4690	623.7	.1305-02
27	90.000	.50000-01	703.00	.6104-01	.7490-01	.8449-01	55.56	3.391	.4596	611.1	.9111-03
27	90.000	.75000+00	704.00	.3349-01	.4090-01	.4599-01	56.75	1.900	.4484	596.2	.4978-03
27	90.000	.40000	705.00	.4399-01	.5336-01	.5972-01	58.63	2.579	.4307	572.7	.8501-03
27	90.000	.70000	706.00	.4207-01	.5103-01	.5711-01	58.63	2.467	.4306	572.5	.6217-03
27	90.000	.78000	707.00	.6297-01	.1005	.1124	58.96	4.892	.4276	569.5	.1225-02
27	90.000	.80000	708.00	.5735-01	.6951-01	.7775-01	58.90	3.378	.4281	569.3	.8470-03
27	90.000	.90000	709.00	.4622-01	.5592-01	.6248-01	59.36	2.743	.4238	563.5	.6816-03
27	90.000	.93000	710.00	.9098-01	.1105	.1238	58.31	5.305	.4337	578.7	.1346-02
27	90.000	.99000	711.00	.1039	.1265	.1419	57.76	6.004	.4388	583.5	.1540-02
26	135.00	.70000	712.00	.6136-01	.7499-01	.8436-01	56.75	3.482	.4498	599.8	.9147-03
27	135.00	.90000	713.00	.3831-01	.4644-01	.5196-01	58.78	2.252	.4292	570.7	.8659-03
27	135.00	.93000	714.00	.1778	.1675	.1878	58.07	8.004	.4359	579.6	.2040-02
27	135.00	.99000	715.00	.1306	.1589	.1782	57.90	7.546	.4385	583.1	.1935-02
27	180.00	.50000-01	716.00	.1134	.1392	.1570	57.50	6.292	.4602	611.9	.1693-02
27	180.00	.10000+00	717.00	.6992-01	.8551-01	.9623-01	56.44	3.946	.4513	600.1	.1041-02
27	180.00	.20000	718.00	.5641-01	.6859-01	.7689-01	57.94	3.271	.4368	580.8	.8354-03
27	180.00	.40000	719.00	.5631-01	.3209-01	.3605-01	57.12	1.503	.4449	591.5	.3906-03
26	180.00	.50000	720.00	.7402-01	.1317-04	.1485-04	55.96	-1.6312-03	.4572	609.7	.1606-06
26	180.00	.60000	721.00	.7402-01	.9053-01	.1019	56.57	4.185	.4514	602.0	.1104-02
26	180.00	.65000	722.00	.8257-01	.1010	.1136	56.62	4.675	.4510	601.4	.1231-02
26	180.00	.70000	723.00	.7538-01	.9213-01	.1036	56.72	4.276	.4500	600.2	.1124-02
26	180.00	.75000	724.00	.7120-01	.8689-01	.9765-01	57.14	4.068	.4461	594.9	.1060-02
26	180.00	.80000	725.00	.2477	.3022	.3394	57.29	14.19	.447	593.1	.3687-02
26	180.00	.89000	726.00	.1345	.1640	.1843	57.19	7.690	.4456	594.2	.2001-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

RUN NUMBER	PHI	X/L	T/C NO	H/REF R=1.0	H/REF R=0.9	H/REF K=0.85	ORF BTU/ FT2SEC	OOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
26	180.00	.85000	727.00	.1309	.1593	.1787	57.87	7.574	.4392	585.7	.1944-02
26	180.00	.90000	728.00	.5950-01	.7234-01	.8105-01	58.17	3.461	.4364	581.9	.8830-03
26	180.00	.93000	729.00	.1730	.2108	.2357	57.48	9.941	.4429	590.7	.2572-02
26	180.00	.96000	730.00	.1078	.1315	.1477	57.26	6.174	.4450	593.4	.1605-02
26	180.00	.99000	731.00	.9369-01	.1143	.1284	57.27	5.366	.4449	593.3	.1394-02
26	210.00	.90400	732.00	.5651-01	.6871-01	.7703-01	59.11	3.284	.4369	582.7	.8387-03
26	210.00	.75000-01	740.00	.7782-01	.9530-01	.1074	56.22	4.375	.4548	606.5	.1162-02
26	225.00	.10000-00	741.00	.4553-01	.5566-01	.6262-01	56.67	2.580	.4505	600.8	.6789-03
26	225.00	.15000	742.00	.5322-01	.6472-01	.7256-01	58.10	3.092	.4371	7900-03	.7900-03
26	225.00	.20000	743.00	.4090-01	.4975-01	.5579-01	58.00	2.372	.4381	584.2	.6073-03
27	225.00	.30000	744.00	.3390-01	.4131-01	.4638-01	57.40	1.946	.4423	588.1	.5030-03
26	225.00	.40000	745.00	.2816-01	.3434-01	.3858-01	57.30	1.613	.4446	592.9	.4190-03
26	225.00	.50000	746.00	.7992-01	.9748-01	.1055	57.26	4.576	.4449	593.3	.1189-02
26	225.00	.60000	747.00	.1138	.1387	.1557	57.49	6.542	.4428	590.5	.1692-02
26	225.00	.70000	748.00	.8940-01	.1089	.1222	57.72	5.170	.4406	587.6	.1329-02
26	225.00	.80000	749.00	.1169	.1445	.1620	58.21	6.921	.4360	581.5	.1764-02
26	225.00	.90000	750.00	.8105-01	.9833-01	.1101	58.74	4.761	.4310	574.8	.1201-02
27	225.00	.95000	751.00	.1915-01	.2320-01	.2594-01	59.04	1.131	.4268	567.5	.2827-03
26	225.00	.96000	752.00	.1517	.1848	.2075	57.57	8.734	.4421	592.7	.2256-02
26	225.00	.96000	753.00	.5423-01	.6613-01	.7428-01	57.31	3.108	.4445	592.7	.8069-03
26	225.00	.93000	754.00	.5350-01	.6525-01	.7330-01	57.20	3.066	.4446	592.9	.7962-03
26	240.00	.93000	755.00	.4760-01	.5800-01	.6511-01	57.56	2.740	.4421	594.7	.7077-03
26	240.00	.96000	756.00	.4922-01	.6007-01	.6750-01	57.15	2.813	.4460	594.7	.7328-03
26	240.00	.99000	757.00	.2671-01	.3261-01	.3655-01	57.05	1.524	.4469	595.9	.3978-03
27	247.50	.30000	758.00	.2330-01	.2908-01	.3261-01	57.82	1.382	.4383	582.8	.3941-03
26	247.50	.40000	759.00	.5570-01	.6787-01	.7619-01	57.56	3.029	.4422	587.1	.7792-03
26	247.50	.50000	760.00	.5244-01	.6384-01	.7163-01	57.76	3.659	.4396	586.5	.9403-03
26	247.50	.60000	761.00	.6329-01	.7704-01	.8643-01	57.81	3.659	.4396	586.5	.9403-03
26	247.50	.70000	762.00	.7893-01	.9605-01	.1077	57.88	4.569	.4391	585.6	.1172-02
26	247.50	.80000	763.00	.7633-01	.9284-01	.1041	58.03	4.429	.4377	583.7	.1133-02
26	247.50	.90000	764.00	.9968-01	.1211	.1357	58.29	5.810	.4353	580.5	.1479-02
26	270.00	.20000-02	765.00	.6513	.8062	.9150	53.59	34.90	.4796	635.5	.9818-02
26	270.00	.25000-01	766.00	.1653	.2039	.2308	54.48	9.005	.4712	628.4	.2484-02
26	270.00	.50000-01	765.00	.1005	.1236	.1396	55.41	5.577	.4624	616.6	.1507-02
26	270.00	.75000-01	770.00	.6131-01	.7513-01	.8468-01	56.05	3.437	.4564	608.6	.9162-03
26	270.00	.10000-00	771.00	.1694	.2072	.2332	56.55	9.579	.4517	602.3	.2527-02
26	270.00	.11000	772.00	.4672	.5710	.6424	56.74	26.51	.4498	6965-02	.6965-02
26	270.00	.13000	773.00	.1365	.1663	.1866	57.65	7.871	.4413	588.5	.2030-02
26	270.00	.15000	774.00	.1117	.1356	.1519	58.48	6.529	.4335	578.2	.1655-02
26	270.00	.20000	775.00	.5408-01	.6569-01	.7358-01	58.45	3.161	.4338	8020-03	.8020-03
26	270.00	.25000	776.00	.3126-01	.3807-01	.4272-01	57.70	1.804	.4408	587.9	.4646-03
26	270.00	.30000	777.00	.2129-01	.2594-01	.2912-01	57.57	1.226	.4420	589.5	.3166-03
26	270.00	.40000	778.00	.4277-01	.5209-01	.5846-01	57.69	2.468	.4409	588.0	.6357-03

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RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 O+T+S (TRIPS)				SOLID BOOSTER		HM/HT	TH DEO. R	STN NO R=0.9
				H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC				
26	270.00	.50000	779.00	.5582-01	.6795-01	.7623-01	57.81	3.227	.4398	586.5	.6293-03	
26	270.00	.60000	780.00	.6091-01	.7412-01	.8313-01	57.91	3.528	.4388	595.2	.9047-03	
26	270.00	.65000	781.00	.4460-01	.5425-01	.6082-01	58.05	2.590	.4375	583.4	.6622-03	
26	270.00	.70000	782.00	.4695-01	.5706-01	.6395-01	58.23	2.734	.4359	581.3	.6968-03	
26	270.00	.75000	783.00	.9555-01	.1160	.1299	58.52	5.592	.4331	577.6	.1416-02	
26	270.00	.78000	784.00	.3366	.4085	.4574	58.65	19.74	.4319	575.9	.4988-02	
26	270.00	.80000	785.00	.1695-01	.2058-01	.2304-01	58.66	.9945	.4318	575.9	.2512-03	
26	270.00	.85000	786.00	.1570-01	.1905-01	.2133-01	58.64	.9207	.4320	576.0	.2326-03	
25	270.00	.90000	787.00	.1741-01	.2116-01	.2370-01	58.36	1.016	.4347	579.7	.2583-03	
26	270.00	.93000	788.00	.2837-01	.3459-01	.3885-01	57.40	1.629	.4437	591.7	.4221-03	
26	270.00	.96000	789.00	.2224-01	.2715-01	.3052-01	57.00	1.267	.4474	596.7	.3312-03	
26	270.00	.99000	790.00	.3071-01	.3752-01	.4219-01	56.86	1.746	.4487	598.4	.4576-03	
26	315.00	.30000	791.00	.3256-01	.3959-01	.4438-01	58.10	1.891	.4371	582.9	.4833-03	
27	315.00	.50000	792.00	.4573-01	.5536-01	.6186-01	59.22	2.709	.4250	565.2	.6747-03	
26	315.00	.70000	793.00	.5703-01	.2672-01	.2391-01	58.72	1.293	.4312	575.1	.3263-03	
26	315.00	.78000	794.00	.7501-01	.9087-01	.1015	59.15	4.437	.4272	569.7	.1110-02	
26	315.00	.80000	795.00	.1243	.1510	.1689	58.93	7.339	.4293	572.4	.1644-02	
26	315.00	.90000	796.00	.1354-01	.1645-01	.1843-01	58.35	.7900	.4347	579.7	.2008-03	
26	315.00	.93000	797.00	.3816-01	.4662-01	.5244-01	56.83	2.168	.4491	598.8	.5687-03	
26	315.00	.99000	798.00	.2825-01	.3460-01	.3897-01	56.25	1.589	.4545	606.1	.4219-03	

ARC 3.5-178 IH3 O-T+S

SOLID BOOSTER

SOLID BOOSTER

PARAMETRIC DATA

RN/L = 1.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	TH DEG. R	STN NO R=0.9
33	5.300	.5096*07	405.2	1205.	313.7	.1750-01	.8296	.0000	.3751-02
34	5.300	.4936*07	405.2	1303.	318.2	.1750-01	.8229	.0000	.1673-02

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.95	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
34	90.000	.00000	701.00	.2492	.3098	52.27	13.03	.4889	648.5	.3751-02
34	90.000	.25000-01	732.00	.1113	.1377	53.40	5.946	.4782	634.2	.1673-02
34	90.000	.50000-01	763.00	.7314-01	.9009-01	54.42	3.980	.4685	621.4	.1095-02
34	90.000	.10000*00	704.00	.5434-01	.6661-01	55.62	3.022	.4571	606.3	.8099-03
34	90.000	.40000	745.00	.4135-01	.5032-01	57.60	2.363	.4383	581.4	.6125-03
34	90.000	.70000	766.00	.6471-01	.7876-01	57.48	3.720	.4395	582.3	.9586-03
34	90.000	.78000	707.00	1.089	1.484	57.83	6.300	.4361	578.5	.1612-02
34	90.000	.80000	708.00	.7574-01	.9331-01	57.77	4.434	.4367	579.3	.1136-02
34	90.000	.90000	709.00	.5348-01	.6493-01	58.16	3.111	.4330	574.3	.7906-03
34	90.000	.93000	710.00	.1256	.1531	57.13	7.184	.424	586.7	.1863-02
34	90.000	.95000	711.00	.1250	.1525	56.73	7.089	.4465	592.3	.1856-02
33	125.000	.70000	712.00	.6341-01	.7704-01	57.11	3.621	.4347	568.3	.9296-03
34	135.000	.90000	713.00	.7259-01	.8833-01	57.55	4.178	.4388	582.0	.1075-02
34	135.000	.93000	714.00	.1775	.2433	56.89	16.10	.4451	590.3	.2635-02
34	135.000	.99000	715.00	.1933	.2360	56.72	10.96	.4467	592.5	.2871-02
34	180.000	.50000-01	716.00	.1264	.1557	54.42	6.881	.4685	621.3	.1892-02
34	180.000	.10000*00	717.00	.8826-01	1.083	55.40	4.890	.4592	609.0	.1316-02
34	180.000	.20000	718.00	.7099-01	.8648-01	57.24	4.063	.4418	586.0	.1052-02
34	180.000	.40000	719.00	.5958-01	.7288-01	56.14	3.345	.4522	599.7	.8865-03
33	180.000	.50000	720.00	.4635-01	.5631-01	57.13	2.648	.4345	568.0	.6795-03
33	180.000	.60000	721.00	.9048-01	1.06	56.99	5.185	.4358	569.7	.1334-02
33	180.000	.65000	722.00	1.180	1.455	57.03	6.731	.4355	569.3	.1731-02
33	180.000	.70000	723.00	.1485	.1718	57.10	6.193	.4348	568.4	.1590-02
33	180.000	.75000	724.00	.107	.1283	57.31	6.058	.4326	565.4	.1548-02
33	180.000	.78000	725.00	.3649	.65	57.58	22.15	.4302	562.3	.5634-02
33	180.000	.80000	726.00	.1580	.1917	57.49	9.083	.4311	563.5	.2314-02

9-2

DATE	ARC 3.5-178 IH3	ARC 3.5-178 IH3 O+T+S	SOLID BOOSTER			HM/HT	TW DEG. R	STN NO R-0.9			
24 JAN 76	H/W/REF R=1.0	H/W/REF R=0.9	H/W/REF R=0.85	OREF BTU/ FT2SEC	Q/OT LTU/ FT2SEC						
RUN NUMBER	PHI	X/L	T/C NO								
33	180.00	.85000	727.00	.2162	.2623	.2935	57.49	12.43	4.311	953.5	3166-02
33	180.00	.90000	728.00	.1013	.1229	.1374	57.70	5.847	4.311	5.8	1483-02
33	180.00	.93000	729.00	.2986	.3634	.4068	57.52	17.23	4.311	563.2	4386-02
33	180.00	.96000	730.00	.1796	.2439	.2719	57.47	10.32	4.311	563.7	2630-02
33	180.00	.99000	731.00	.1574	.1911	.2140	57.35	9.030	4.311	565.2	2306-02
33	210.00	.90400	732.00	.9181-01	.1113	.1245	57.70	5.297	4.311	560.8	1343-02
33	225.00	.75000-01	740.00	.1092	.1326	.1486	57.11	6.235	4.311	568.3	1601-02
33	225.00	.10000-00	741.00	.8517-01	.1034	.1158	57.27	4.144	4.311	566.3	1248-02
33	225.00	.13000	742.00	.7154-01	.8681-01	.9709-01	57.84	4.877	4.311	560.9	8953-03
33	225.00	.20000	743.00	.6118-01	.7417-01	.8298-01	57.69	3.529	4.311	560.9	6171-03
34	225.00	.30000	744.00	.4104-01	.5016-01	.5673-01	56.39	2.314	4.311	596.6	5254-03
33	225.00	.40000	745.00	.3587-01	.4354-01	.4875-01	57.37	2.058	4.311	565.0	8974-03
33	225.00	.50000	746.00	.6124-01	.7436-01	.8328-01	57.26	3.505	4.311	566.4	1572-02
33	225.00	.60000	747.00	.1074	.1303	.1458	57.45	6.167	4.311	564.0	1559-02
33	225.00	.70000	748.00	.1065	.1292	.1446	57.53	6.127	4.311	562.9	1758-02
33	225.00	.80000	750.00	.1202	.1456	.1628	57.98	6.971	4.311	557.3	2026-02
33	225.00	.85000	751.00	.1385	.1678	.1876	57.93	8.025	4.311	557.9	5232-03
34	225.00	.90000	752.00	.3535-01	.4298-01	.4817-01	57.81	2.044	4.311	578.7	4081-02
33	225.00	.93000	753.00	.2768	.3381	.3784	57.58	16.05	4.311	562.4	1228-02
33	225.00	.96000	754.00	.8386-01	.1017	.1139	57.54	4.825	4.311	564.9	1083-02
33	225.00	.99000	755.00	.7395-01	.8976-01	.1005	57.38	4.243	4.311	562.6	1403-02
34	240.00	.93000	756.00	.9585-01	.1163	.1301	57.56	5.517	4.311	563.8	1252-02
33	240.00	.96000	757.00	.8551-01	.1038	.1162	57.46	4.914	4.311	566.6	6588-03
33	240.00	.99000	758.00	.4496-01	.5459-01	.6114-01	57.24	2.573	4.311	566.6	4086-03
33	247.50	.30000	759.00	.2759-01	.3367-01	.3784-01	56.74	1.565	4.311	592.2	9929-03
33	247.50	.40000	760.00	.3401-01	.4121-01	.4620-01	57.45	1.954	4.311	563.2	1115-02
33	247.50	.50000	761.00	.6781-01	.8227-01	.9408-01	57.51	3.900	4.311	561.6	1041-02
33	247.50	.60000	762.00	.7615-01	.9234-01	.1033	57.64	4.389	4.311	562.2	1050-02
33	247.50	.65000	763.00	.7114-01	.8628-01	.9655-01	57.59	4.097	4.311	559.3	1034-01
33	247.50	.70000	764.00	.7447-01	.9028-01	.1010	57.69	4.296	4.311	590.5	2761-02
33	247.50	.75000	765.00	.7863-01	.9529-01	.1066	57.82	4.547	4.311	571.9	1592-02
33	270.00	.20000-02	767.00	.7151	.8747	.9844	55.34	39.58	4.311	567.6	9906-03
33	270.00	.25000-01	768.00	.1878	.2289	.2570	56.25	10.56	4.311	567.6	1629-02
33	270.00	.50000-01	769.00	.1085	.1319	.1479	56.82	6.164	4.311	558.0	6745-02
33	270.00	.75000-01	770.00	.6756-01	.8209-01	.9198-01	57.07	3.856	4.311	556.2	2735-02
33	270.00	.10000-00	771.00	.1111	.1350	.1512	57.17	6.351	4.311	558.1	4619-03
33	270.00	.11000	772.00	.4602	.5589	.6260	57.22	26.34	4.311	563.5	5079-03
33	270.00	.13000	773.00	.2027	.2456	.2746	57.93	11.74	4.311	563.5	
33	270.00	.15000	774.00	.1871	.2266	.2532	58.07	10.87	4.311	563.5	
33	270.00	.20000	775.00	.7867-01	.9530-01	.1066	57.92	4.556	4.311	561.3	
33	270.00	.25000	776.00	.4763-01	.5775-01	.6462-01	57.57	2.747	4.311	563.5	
33	270.00	.30000	777.00	.3155-01	.3827-01	.4284-01	57.49	1.813	4.311	563.5	
33	270.00	.40000	778.00	.3468-01	.4208-01	.4710-01	57.47	1.993	4.311	563.5	

DATE	24 JAN 75	PHI	X/L	T/C NO	ARC 3.5-178 IH3 O+T+S				SOLID BOOSTER		HM/HT	TW DEG. R	STN NO R=0.9
					H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC				
33	270.00	.50000	779.00	.6331-01	.7679-01	.8594-01	57.55	3.643	.4305	562.7	.9268-03		
33	270.00	.60000	780.00	.7995-01	.9696-01	.1085	57.62	4.507	.4298	51.8	.1170-02		
33	270.00	.65000	781.00	.7934-01	.9619-01	.1076	57.68	4.576	.4293	561.2	.1161-02		
33	270.00	.70000	782.00	.5827-01	.7062-01	.7900-01	57.79	3.367	.4282	559.8	.8525-03		
33	270.00	.75000	783.00	.6915-01	.8377-01	.9367-01	57.90	4.004	.4271	558.3	.1011-02		
33	270.00	.80000	784.00	.2461	.2981	.3332	58.03	14.28	.4259	556.7	.3598-02		
33	270.00	.85000	785.00	-.4264-10	-.5248-10	-.5932-10	53.80	-.2294-08	.4665	609.8	.6322-12		
33	270.00	.90000	786.00	.2361-01	.2861-01	.3199-01	57.89	1.367	.4273	558.5	.3453-03		
33	270.00	.93000	787.00	.1634-01	.1979-01	.2213-01	57.94	.9466	.4268	557.9	.2389-03		
33	270.00	.96000	788.00	.4046-01	.4908-01	.5493-01	57.54	2.328	.4305	562.8	.5924-03		
33	270.00	.99000	789.00	.4081-01	.4953-01	.5534-01	57.43	2.344	.4317	564.3	.5977-03		
33	270.00	.30000	790.00	.2377-01	.2886-01	.3233-01	57.21	1.360	.4339	567.0	.3483-03		
33	315.00	.50000	791.00	.4230-01	.5133-01	.5746-01	57.47	2.431	.4312	563.7	.6195-03		
34	315.00	.70000	792.00	.5279-01	.6109-01	.7178-01	58.18	3.071	.4329	574.1	.7804-03		
33	315.00	.78000	793.00	.2596-01	.3146-01	.3519-01	57.79	1.500	.4281	559.7	.3798-03		
33	315.00	.80000	794.00	.7838-01	.9493-01	.1061	57.99	4.545	.4263	557.3	.1146-02		
33	315.00	.80000	795.00	.1193	.1445	.1617	57.67	6.906	.4274	559.7	.1745-02		
33	315.00	.90000	796.00	.2904-01	.3524-01	.3944-01	57.50	1.670	.4310	563.4	.4253-03		
33	315.00	.93000	797.00	.6339-01	.7702-01	.8630-01	57.09	3.619	.4349	568.5	.9294-03		
33	315.00	.99000	798.00	.3188-01	.3876-01	.4345-01	56.87	1.813	.4370	571.2	.4677-03		

SOLID BOOSTER PARAMETRIC DATA ELEVON = .0000

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ALPHA DEG. = .0000

FO PSIA TO DEG. R HO BTU/LEM RS FT RHVEL SLUG/FT2SEC TH DEG. R

122.7 1303. 318.4 .1750-01 .2492 .0000

TEST CONDITIONS

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/WREF R=1.0	H/WREF R=0.9	H/WREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
64	90.000	.00000	701.00	.5202	.6306	.7056	32.25	16.78	.4292	539.4	.1396-01
64	90.000	.25000-01	702.00	.1112	.1346	.1503	32.61	3.627	.4230	561.3	.2979-02
64	90.000	.50000-01	703.00	.9245-01	.1117	.1246	32.84	3.036	.4190	555.9	.2473-02
64	90.000	.10000+00	704.00	.7102-01	.8569-01	.9555-01	33.04	2.347	.4156	551.4	.1898-02
64	90.000	.40000	705.00	.7973-02	.9614-01	.1072-01	33.13	2642	.4140	549.4	.2130-03
64	90.000	.80000	708.00	.3173-01	.3825-01	.4262-01	33.20	1.054	.4128	547.8	.8473-03
64	90.000	.90000	709.00	.3303-01	.3981-01	.4433-01	33.22	1.097	.4126	547.4	.8818-03
64	90.000	.93000	710.00	.8099-01	.9770-01	.1069	33.05	2.676	.4155	551.3	.2164-02
64	90.000	.99000	711.00	.1023	.1235	.1377	33.02	3.379	.4159	551.9	.2735-02
64	135.00	.93000	714.00	.9502-01	.1148	.1231	32.84	3.120	.4191	556.0	.2542-02
64	135.00	.99000	715.00	.1062	.1282	.1431	32.84	3.487	.4190	555.0	.2840-02
64	180.00	.50000-01	716.00	.9515-01	.1150	.1284	32.75	3.116	.4206	558.1	.2546-02
64	180.00	.10000+00	717.00	.7711-01	.9306-01	.1038	32.98	2.543	.4127	547.6	.2061-02
64	180.00	.20000	718.00	.9964-02	.1201-01	.1338-01	33.21	3.309	.4185	555.3	.2660-03
64	180.00	.40000	719.00	.1198-01	.1447-01	.1615-01	32.87	3.939	.4174	553.8	.6588-03
64	180.00	.50000	720.00	.2464-01	.2974-01	.3318-01	32.94	8.115	.4187	555.5	.9130-03
64	180.00	.60000	721.00	.3413-01	.4123-01	.4601-01	32.86	1.122	.4192	553.3	.1011-02
64	180.00	.65000	722.00	.3778-01	.4564-01	.5094-01	32.83	1.240	.4197	556.9	.9921-03
64	180.00	.70000	723.00	.3708-01	.4480-01	.5001-01	32.80	1.216	.4197	556.9	.9747-03
64	180.00	.75000	724.00	.3270-01	.3950-01	.4408-01	32.84	3.945	.4190	556.9	.3198-02
64	180.00	.78000	725.00	.1195	.1444	.1610	32.98	3.945	.4167	556.9	.3198-02
64	130.00	.80000	726.00	.4247-01	.5129-01	.5724-01	32.85	1.395	.4188	555.7	.1136-02
64	180.00	.90000	728.00	.3093-01	.3733-01	.4164-01	32.96	1.019	.4170	553.3	.8268-03
64	180.00	.93000	729.00	.9555-01	.1158	.1292	32.83	3.147	.4192	556.2	.2564-02
64	180.00	.95000	730.00	.6932-01	.1035	.1212	32.82	2.950	.4195	555.6	.2405-02
64	180.00	.97000	731.00	.9275-01	.1121	.1251	32.80	3.042	.4198	557.0	.2462-02
64	210.00	.50+00	732.00	.3246-01	.3917-01	.4369-01	32.99	1.071	.4164	552.5	.8676-03

RECEIVED
 JAN 24 1976

DATE	RUN NUMBER	PHI	ARC 3.5-178 IH3			ARC 3.5-178 IH3 SRB			SOLID BOOSTER			HM/HT	TW DEG. R	STN NO R=0.9
			H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QDOT BTU/ FT2SEC	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9			
24 JAN 76	64	225.00	.75000-01	740.00	.8580-01	.1036	.1157	32.83	2.817	.4192	556.2	.2295-02		
	64	225.00	.10000+00	741.00	.7479-01	.9031-01	.1008	32.90	2.460	.4180	554.7	.2000-02		
	64	225.00	.15000	742.00	.2160-01	.2603-01	.2901-01	33.22	.7176	.4125	547.4	.5768-03		
	64	225.00	.20000	743.00	.2850-01	.3437-01	.3931-01	33.13	.9444	.4140	549.3	.7614-03		
	64	225.00	.40000	745.00	.3561-01	.4300-01	.4798-01	32.87	1.171	.4185	555.3	.9523-03		
	64	225.00	.60000	747.00	.3828-01	.4622-01	.5156-01	32.93	1.261	.4175	554.0	.1024-02		
	64	225.00	.93000	753.00	.1397	.1685	.1880	33.01	4.611	.4161	552.1	.3733-02		
	64	225.00	.95000	754.00	.9612-01	.1160	.1294	33.00	3.172	.4163	552.4	.2569-02		
	64	225.00	.99000	755.00	.7523-01	.9078-01	.1012	33.00	2.482	.4164	552.4	.2011-02		
	64	240.00	.93000	756.00	.8139-01	.9824-01	.1096	32.96	2.683	.4170	553.3	.2176-02		
	64	240.00	.96000	757.00	.7373-01	.8902-01	.9932-01	32.91	2.427	.4178	554.4	.1972-02		
	64	240.00	.99000	758.00	.7784-01	.9395-01	.1048	32.95	2.565	.4172	553.6	.2081-02		
	64	247.50	.40000	760.00	.3675-01	.4439-01	.4954-01	32.85	1.207	.4189	555.8	.9831-03		
	64	247.50	.50000	762.00	.3705-01	.4472-01	.4988-01	32.96	1.221	.4170	553.3	.9905-03		
	64	260.00	.11500	766.00	.1528	.1845	.2058	32.93	5.032	.4176	554.1	.4086-02		
	64	270.00	.20000-02	767.00	.5496	.6665	.7458	32.21	17.71	.4298	570.3	.1475-01		
	64	270.00	.25000-01	768.00	.1234	.1495	.1671	32.41	4.001	.4264	565.7	.3309-02		
	64	270.00	.50000-01	769.00	.9579-01	.1159	.1294	32.62	3.125	.4228	561.0	.2565-02		
	64	270.00	.75000-01	770.00	.8814-01	.1065	.1189	32.80	2.891	.4197	556.8	.2358-02		
	64	270.00	.10000+00	771.00	.7866-01	.9403-01	.1049	32.86	2.559	.4186	555.5	.2082-02		
	64	270.00	.11000	772.00	.1290	.1557	.1738	32.88	4.241	.4183	555.0	.3449-02		
	64	270.00	.13000	773.00	.5166-01	.6233-01	.6951-01	33.03	1.706	.4158	551.7	.1381-02		
	64	270.00	.15000	774.00	.8662-01	.1045	.1164	33.18	2.875	.4133	548.4	.2314-02		
	64	270.00	.20000	775.00	.5951-01	.7179-01	.8006-01	33.03	1.966	.4157	551.6	.1590-02		
	64	273.00	.25000	776.00	.5043-01	.6091-01	.6798-01	32.85	1.657	.4188	555.7	.1349-02		
	64	270.00	.30000	777.00	.4535-01	.5479-01	.6115-01	32.82	1.489	.4193	556.4	.1213-02		
	64	270.00	.40000	778.00	.4280-01	.5169-01	.5767-01	32.89	1.408	.4182	554.9	.1145-02		
	64	270.00	.50000	779.00	.4075-01	.4918-01	.5486-01	32.96	1.343	.4170	553.3	.1089-02		
	64	270.00	.65000	781.00	.4094-01	.4938-01	.5507-01	33.05	1.353	.4154	551.2	.1094-02		
	64	270.00	.70000	782.00	.4181-01	.5043-01	.5623-01	33.07	1.382	.4152	550.9	.1117-02		
	64	270.00	.75000	783.00	.3595-01	.4334-01	.4831-01	33.15	1.191	.4138	549.0	.9600-03		
	64	270.00	.80000	784.00	.1593	.1920	.2139	33.23	5.293	.4124	547.3	.4253-02		
	64	270.00	.80000	785.00	.3860-01	.4654-01	.5187-01	33.16	1.280	.4135	548.7	.1031-02		
	64	270.00	.90000	787.00	.3926-01	.4732-01	.5273-01	33.19	1.280	.4131	548.2	.1048-02		
	64	270.00	.93000	788.00	.9930-01	.1198	.1336	33.04	3.281	.4156	551.4	.2654-02		
	64	270.00	.96000	789.00	.1040	.1254	.1399	33.00	3.430	.4163	552.4	.2779-02		
	64	270.00	.99000	790.00	.1055	.1272	.1419	33.02	3.403	.4159	551.8	.2818-02		
	64	315.00	.30000	791.00	.3553-01	.4298-01	.4792-01	33.07	1.178	.4150	550.7	.9520-03		
	64	315.00	.70000	793.00	.3407-01	.4106-01	.4575-01	33.22	1.132	.4125	547.4	.9036-03		
	64	315.00	.93000	797.00	.7293-01	.8794-01	.9803-01	33.12	2.416	.4142	549.6	.1948-02		
	64	315.00	.99000	798.00	.8177-01	.9861-01	.1099	33.10	2.706	.4146	550.2	.2134-02		

SOLID BOOSTER

ARC 3.5-178 IH3 SRB

SOLID BOOSTER

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
65	5.300	.5074+07	406.2	1291.	315.1	.1750-01	.8256	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	H4/HT	TM DEG. R	STN NO R=0.9
65	90.000	.00000	701.00	.4419	.5444	.6158	53.99	23.81	.4688	615.7	.6567-02
65	90.000	.25000-01	702.00	.9833-01	.1206	.1360	54.96	5.405	.4586	602.2	.1456-02
65	90.000	.50000-01	703.00	.8596-01	.1051	.1182	55.83	4.799	.4503	581.3	.1269-02
65	90.000	.10000+00	704.00	.7221-01	.8799-01	.9879-01	56.65	4.091	.424	581.0	.1063-02
65	90.000	.40000	705.00	.1395-01	.1696-01	.1901-01	57.29	3.102	.4364	573.0	.2050-03
65	90.000	.80000	708.00	.5409-01	.6574-01	.7367-01	57.36	2.265	.4357	572.2	.7945-03
65	90.000	.90000	709.00	.3920-01	.4758-01	.5326 C1	57.77	2.265	.4318	567.0	.5751-03
65	90.000	.93000	710.00	.9071-01	.1104	.1238	57.01	5.171	.4390	576.5	.1334-02
65	90.000	.99000	711.00	.1145	.1395	.1566	56.80	6.507	.4410	579.1	.1685-02
65	135.00	.99000	714.00	.9051-01	.1106	.1244	55.88	5.057	.4498	590.7	.1336-02
65	180.00	.99000	715.00	.1158	.1415	.1592	55.96	6.482	.4491	589.7	.1709-02
65	180.00	.50000-01	716.00	.8301-01	.1017	.1147	55.18	4.580	.4495	599.5	.1228-02
65	180.00	.10000+00	717.00	.7093-01	.8668-01	.9750-01	55.91	3.966	.4495	590.3	.1047-02
65	180.00	.20000	718.00	.7288-02	.8869-02	.9948-02	57.00	4.154	.4391	576.7	.1072-03
65	180.00	.40000	719.00	.4526-01	.5538-01	.6235-01	55.57	2.203	.4529	588.1	.5793-03
65	180.00	.50000	720.00	.3929-01	.4796-01	.5393-01	56.08	2.356	.4479	584.8	.6264-03
65	180.00	.60000	721.00	.4240-01	.5188-01	.5842-01	55.56	2.359	.4535	595.6	.6283-03
65	180.00	.70000	722.00	.4252-01	.5204-01	.5860-01	55.49	2.306	.4540	596.2	.6149-03
65	180.00	.75000	723.00	.4160-01	.5093-01	.5736-01	55.44	2.278	.4521	593.8	.6048-03
65	180.00	.75000	724.00	.4095-01	.5009-01	.5638-01	55.64	6.560	.4485	589.0	.1728-02
65	180.00	.76000	725.00	.1171	.1431	.1609	56.01	3.275	.4554	598.0	.8756-03
65	180.00	.80000	726.00	.5922-01	.7253-01	.8172-01	55.30	1.972	.4456	585.1	.5159-03
65	180.00	.90000	728.00	.3501-01	.4271-01	.4799-01	56.32	5.234	.4513	582.7	.1387-02
65	180.00	.93000	729.00	.9394-01	.1149	.1293	55.72	5.191	.4515	592.9	.1376-02
65	180.00	.96000	730.00	.9319-01	.1140	.1263	55.71	5.571	.4515	592.9	.1477-02
65	180.00	.99000	731.00	.1000	.1223	.1376	55.71	2.751	.4459	585.6	.7204-03
65	210.00	.90400	732.00	.4888-01	.5965-01	.6703-01	56.29				

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 SRB		SOLID BOOSTER		HM/HT	TM DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC			
65	225.00	.75000-01	740.00	.7815-01	.9555-01	.1075	55.77	4.359	592.0	.1154-02
65	225.00	.10000+00	741.00	.6899-01	.8427-01	.9477-01	55.98	3.861	589.5	.1018-02
65	225.00	.15000	742.00	.3446-01	.4192-01	.4700-01	57.16	1.970	574.7	.5065-03
65	225.00	.20000	743.00	.4137-01	.5037-01	.5652-01	56.85	2.352	578.5	.6086-03
65	225.00	.40000	745.00	.4078-01	.4985-01	.5609-01	55.80	2.276	591.7	.6020-03
65	225.00	.60000	747.00	.4262-01	.5206-01	.5854-01	56.01	2.387	589.1	.6287-03
65	225.00	.93000	753.00	.1424	.1739	.1956	56.01	7.976	589.0	.2100-02
65	225.00	.96000	754.00	.1028	.1256	.1412	56.10	5.770	587.9	.1517-02
65	225.00	.99000	755.00	.9052-01	.1104	.1240	56.43	5.108	583.8	.1333-02
65	240.00	.93000	756.00	.8801-01	.1075	.1210	55.93	4.922	590.0	.1299-02
65	240.00	.96000	757.00	.8367-01	.1023	.1152	55.68	4.659	593.2	.1236-02
65	240.00	.99000	758.00	.8962-01	.1095	.1231	56.01	5.020	589.1	.1322-02
65	247.50	.40000	760.00	.4703-01	.5746-01	.6462-01	55.57	2.632	593.9	.03
65	247.50	.60000	762.00	.4228-01	.5159-01	.5797-01	56.30	2.380	585.4	.6231-03
65	260.00	.11500	766.00	.1859	.2269	.2550	56.22	10.45	586.5	.2740-02
65	270.00	.20000-02	767.00	.4886	.6020	.6811	53.85	26.31	616.3	.7262-02
65	270.00	.25000-01	768.00	.1111	.1366	.1542	54.47	6.053	608.4	.1648-02
65	270.00	.50000-01	769.00	.8717-01	.1068	.1204	55.21	4.813	599.1	.1289-02
65	270.00	.75000-01	770.00	.8171-01	.9974-01	.1121	56.20	4.592	586.7	.1205-02
65	270.00	.10000+00	771.00	.6961-01	.8495-01	.9546-01	56.27	3.917	585.8	.1026-02
65	270.00	.11000	772.00	.1653	.2017	.2266	56.33	9.313	585.0	.2436-02
65	270.00	.13000	773.00	.5798-01	.7062-01	.7926-01	56.75	3.290	579.8	.8532-03
65	270.00	.15000	774.00	.8974-01	.1091	.1222	57.35	5.147	572.2	.1318-02
65	270.00	.20000	775.00	.5416-01	.6594-01	.7398-01	56.88	3.080	578.2	.7967-03
65	270.00	.25000	776.00	.4942-01	.6035-01	.6784-01	56.12	2.774	587.7	.7288-03
65	270.00	.30000	777.00	.5117-01	.6250-01	.7038-01	56.05	2.868	588.6	.7548-03
65	270.00	.40000	778.00	.5716-01	.6974-01	.7836-01	56.31	3.219	585.2	.8423-03
65	270.00	.50000	779.00	.5887-01	.7178-01	.8053-01	56.48	3.325	583.1	.8671-03
65	270.00	.65000	781.00	.6019-01	.7329-01	.8225-01	56.82	3.420	578.9	.8855-03
65	270.00	.70000	782.00	.5962-01	.7258-01	.8143-01	56.91	3.393	577.8	.8769-03
65	270.00	.78000	783.00	.5825-01	.7076-01	.7931-01	57.41	3.344	571.5	.8554-03
65	270.00	.80000	784.00	.2297	.2788	.3122	57.69	13.25	568.0	.3370-02
65	270.00	.80000	785.00	.4060-01	.4941-01	.5542-01	57.03	2.316	576.2	.5970-03
65	270.00	.90000	787.00	.5519-01	.6706-01	.7513-01	57.45	3.171	571.0	.8104-03
65	270.00	.93000	788.00	.1336	.1628	.1828	56.60	7.559	581.7	.1966-02
65	270.00	.96000	799.00	.1421	.1733	.1948	56.32	8.002	585.1	.2094-02
65	270.00	.99000	790.00	.1443	.1760	.1977	56.44	8.147	583.6	.2126-02
65	315.00	.30000	791.00	.5102-01	.6204-01	.6956-01	57.20	2.918	574.2	.7497-03
65	315.00	.70000	793.00	.4324-01	.5250-01	.5879-01	57.65	2.493	568.5	.6345-03
65	315.00	.93000	797.00	.8138-01	.9502-01	.1111	57.06	4.644	575.9	.1196-02
65	315.00	.99000	798.00	.9771-01	.1190	.1335	56.87	5.556	578.3	.1437-02

SOLID BOOSTER

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = 20.00 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	TH DEG. R	STN NO R=0.9		
66	5.300	.5112+07	406.3	1285.	313.6	.1750-01	.8321	20.00			
TEST DATA											
RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
66	90.000	.00000	701.00	.4774	.5863	.6629	54.12	25.84	.4641	606.5	7060-02
66	90.000	.25000-01	702.00	.2381-01	.2922-01	.3297-01	54.52	1.298	.4602	601.5	3516-03
66	90.000	.50000-01	703.00	.1874-01	.2293-01	.2581-01	55.30	1.036	.4528	591.7	2760-03
66	90.000	.10000+00	704.00	.5099-01	.6221-01	.6989-01	56.07	2.859	.4453	582.0	7491-03
66	90.000	.40000	705.00	.3041-01	.3704-01	.4157-01	56.49	1.718	.4413	576.8	4461-03
66	90.000	.80000	708.00	.2963-01	.3607-01	.4046-01	56.69	1.680	.4394	574.3	4344-03
66	90.000	.90000	709.00	.1489-01	.1810-01	.2029-01	56.95	.8479	.4368	570.9	2181-03
66	90.000	.93000	710.00	.4827-01	.5881-01	.6602-01	56.39	2.722	.4422	578.0	7083-03
66	90.000	.99000	711.00	.4063-01	.4953-01	.5563-01	56.21	2.284	.4440	580.2	5965-03
66	135.00	.93000	714.00	.2889-01	.3535-01	.3980-01	55.32	1.598	.4525	591.4	4253-03
66	135.00	.99000	715.00	.1636-01	.2001-01	.2253-01	55.31	.9048	.4526	591.5	2409-03
66	180.00	.50000-01	716.00	.9752-01	.1198	.1353	54.29	5.295	.4624	604.3	1441-02
66	180.00	.10000+00	717.00	.7946-01	.9740-01	.1098	54.85	4.358	.4571	597.4	1172-02
66	180.00	.20000	718.00	.4505-01	.5504-01	.6191-01	55.66	2.507	.4492	587.1	6626-03
66	180.00	.40000	719.00	.3024-01	.3715-01	.4194-01	54.28	1.641	.4625	604.5	4469-03
66	180.00	.60000	720.00	.2322-01	.2847-01	.3210-01	54.78	1.272	.4577	598.2	3426-03
66	180.00	.80000	721.00	.2065-01	.2536-01	.2862-01	54.39	1.123	.4614	603.1	3051-03
66	180.00	.95000	722.00	.2573-01	.3160-01	.3567-01	54.35	1.399	.4618	603.6	3802-03
66	180.00	.70000	723.00	.2771-01	.3403-01	.3842-01	54.33	1.505	.4620	603.8	4094-03
66	180.00	.75000	724.00	.3090-01	.3793-01	.4279-01	54.53	1.685	.4602	601.4	4563-03
66	180.00	.78000	725.00	.7351-01	.9003-01	.1014	55.05	4.047	.4551	594.8	1083-02
66	180.00	.80000	726.00	.4337-01	.5326-01	.6012-01	54.38	2.358	.4616	603.2	6408-03
66	180.00	.90000	728.00	.2975-01	.3639-01	.4095-01	55.40	1.648	.4518	590.5	4380-03
66	180.00	.93000	729.00	.1100	.1348	.1520	54.92	6.042	.4564	596.5	1623-02
66	180.00	.96000	730.00	.1376	.1686	.1901	54.92	7.558	.4564	596.5	2029-02
66	180.00	.99000	731.00	.1356	.1662	.1874	54.80	7.430	.4575	597.9	2000-02
66	210.00	.90400	732.00	.1407	.1721	.1938	55.28	7.777	.4529	591.9	2072-02

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 SRB

SOLID BOOSTER

PAGE 21

(REIS16)

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
65	225.00	.75000-01	740.00	.1772	.2170	.2444	55.12	9.769	.4545	593.9	.2612-02
66	225.00	.10000+00	741.00	.2224	.2721	.3064	55.31	12.30	.4526	591.5	.3276-02
66	225.00	.15000	742.00	.1664	.2029	.2279	56.18	9.350	.4443	580.6	.2444-02
66	225.00	.20000	743.00	.1261	.1539	.1731	55.79	7.033	.4480	585.5	.1853-02
66	225.00	.40000	745.00	.1144	.1403	.1562	54.69	6.255	.4586	599.4	.1688-02
66	225.00	.60000	747.00	.1256	.1540	.1736	54.80	6.881	.4576	598.0	.1853-02
66	225.00	.93000	753.00	.6419	.7868	.8868	54.88	35.23	.4568	597.0	.9468-02
66	225.00	.96000	754.00	.4531	.5551	.6255	54.99	24.92	.4557	595.6	.6680-02
66	225.00	.99000	755.00	.3123	.3823	.4306	55.15	17.22	.4542	593.6	.4601-02
66	240.00	.93000	756.00	.4490	.5504	.6204	54.84	24.63	.4571	597.4	.9468-02
66	240.00	.96000	757.00	.4544	.5571	.6280	54.83	24.91	.4573	597.6	.6704-02
66	240.00	.99000	758.00	.4305	.5283	.5959	54.59	23.50	.4596	600.6	.6356-02
66	247.50	.60000	760.00	.1818	.2231	.2516	54.42	9.878	.4612	602.7	.2684-02
66	260.00	.11500	766.00	.4851	.5931	.6674	55.49	26.92	.4509	589.3	.7140-02
66	270.00	.20000-02	767.00	.6888	.8487	.9602	53.58	36.90	.4693	613.3	.1021-01
66	270.00	.25000-01	768.00	.3302	.4053	.4585	54.15	17.88	.4638	606.2	.4883-02
66	270.00	.50000-01	769.00	.2541	.3114	.3510	54.90	13.95	.4566	596.7	.3748-02
66	270.00	.75000-01	770.00	.2577	.3148	.3540	55.70	14.35	.4489	586.6	.3790-02
66	270.00	.10000+00	771.00	.3067	.3746	.4211	55.80	17.11	.4479	585.4	.4510-02
66	270.00	.13000	772.00	.4378	.5346	.6010	55.81	24.43	.4479	585.3	.6436-02
66	270.00	.15000	773.00	.1759	.2146	.2412	55.99	9.846	.4461	583.0	.2584-02
66	270.00	.15000	774.00	.2781	.3387	.3802	56.50	15.71	.4412	576.6	.4080-02
66	270.00	.20000	775.00	.2316	.2826	.3177	55.94	12.95	.4466	583.7	.3403-02
66	270.00	.25000	776.00	.2001	.2449	.2759	55.18	11.04	.4539	593.3	.2948-02
66	270.00	.30000	777.00	.1888	.2312	.2605	55.02	10.39	.4554	595.2	.2783-02
66	270.00	.40000	778.00	.1911	.2340	.2637	55.07	10.52	.4519	594.5	.2817-02
66	270.00	.50000	779.00	.1960	.2401	.2704	55.08	10.80	.4548	594.4	.2889-02
66	270.00	.65000	781.00	.2228	.2725	.3068	55.33	12.33	.4524	591.3	.3280-02
66	270.00	.70000	782.00	.2229	.2726	.3068	55.44	12.36	.4485	590.0	.3282-02
66	270.00	.75000	783.00	.2154	.2631	.2939	55.74	12.01	.4485	586.1	.3166-02
66	270.00	.78000	784.00	.6241	.7614	.8555	56.04	34.98	.4456	582.3	.9168-02
66	270.00	.80000	785.00	.2341	.2861	.3219	55.56	13.00	.4503	588.5	.3444-02
66	270.00	.80000	787.00	.2048	.2499	.2809	55.95	11.46	.4465	583.5	.3009-02
66	270.00	.93000	788.00	.4556	.5575	.6277	55.28	25.18	.4530	592.0	.6710-02
66	270.00	.96000	789.00	.4354	.5365	.6065	55.13	27.31	.4544	593.8	.7300-02
66	270.00	.99000	790.00	.4676	.5723	.6446	55.20	25.81	.4537	593.0	.6889-02
66	315.00	.30000	791.00	.1252	.1525	.1711	56.60	7.087	.4403	575.4	.1836-02
66	315.00	.70000	793.00	.1513	.1963	.2203	56.64	9.134	.4399	574.9	.2365-02
66	315.00	.93000	797.00	.3535	.4309	.4938	56.33	19.92	.4428	578.7	.5189-02
66	315.00	.99000	798.00	.3502	.4233	.4801	56.02	19.62	.4458	582.6	.5145-02

LATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 SRB (TRIPS) SOLID BOOSTER

SOLID BOOSTER

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

PARAMETRIC DATA

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	TM DEG. R	STN NO R=0.9
68	5.300	.1497+07	121.0	1298.	317.1	.1750-01	.2462	.0000	

TEST DATA

PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
90.000	.00000	701.00	.5255	.6419	.7220	30.75	16.16	.4489	593.3	.1426-01
90.000	.25000-01	702.00	.124	.1370	.1538	31.12	3.498	.4424	584.7	.3044-02
90.000	.50000-01	703.00	.9642-01	.1173	.1315	31.40	3.028	.4376	578.4	.2607-02
90.000	.10000+00	704.00	.4018-01	.4877-01	.5462-01	31.66	1.273	.4327	571.9	.1084-02
90.000	.40000	705.00	.3652-01	.4434-01	.4966-01	31.66	1.156	.4331	572.4	.9860-03
90.000	.80000	708.00	.3761-01	.4566-01	.5113-01	31.69	1.192	.4329	571.6	.1015-02
90.000	.90000	709.00	.2955-01	.3585-01	.4014-01	31.74	.9379	.4316	570.5	.7872-03
90.000	.93000	710.00	.7655-01	.9302-01	1.042	31.53	2.413	.4354	575.4	.2068-02
90.000	.99000	711.00	.8398-01	1.021	1.144	31.50	2.646	.4358	576.0	.2269-02
135.00	.93000	714.00	.7713-01	.9384-01	1.052	31.35	2.418	.4385	579.6	.2086-02
180.00	.99000	715.00	.8578-01	1.104	1.170	31.35	2.690	.4384	579.4	.2320-02
180.00	.50000-01	716.00	.9452-01	1.150	1.290	31.32	2.961	.4390	580.2	.2557-02
180.00	.10000+00	717.00	.4789-01	.5815-01	.6513-01	31.64	1.515	.4335	572.9	.1293-02
180.00	.20000	718.00	.2064-01	.2502-01	.2799-01	31.37	1.633	.4286	566.4	.5564-03
180.00	.40000	719.00	.3706-01	.4509-01	.5056-01	31.44	1.249	.4381	578.9	.1002-02
180.00	.50000	720.00	.3973-01	.4831-01	.5415-01	31.33	1.122	.4369	577.4	.1074-02
180.00	.60000	721.00	.3632-01	.4419-01	.4956-01	31.33	1.138	.4388	579.9	.9822-03
180.00	.65000	722.00	.3584-01	.4362-01	.4893-01	31.31	1.122	.4392	580.4	.9696-03
180.00	.70000	723.00	.3447-01	.4196-01	.4706-01	31.30	1.079	.4394	580.7	.9325-03
180.00	.75000	724.00	.2741-01	.3335-01	.3741-01	31.34	.8590	.4387	576.8	.7414-03
180.00	.79000	725.00	.9973-01	1.213	1.359	31.44	3.136	.4369	576.4	.2696-02
180.00	.80000	726.00	.4142-01	.5039-01	.5651-01	31.36	1.299	.4384	579.3	.1120-02
180.00	.90000	728.00	.2820-01	.3428-01	.3841-01	31.51	.8888	.4356	575.8	.7620-03
180.00	.93000	729.00	.8316-01	1.012	1.135	31.35	2.607	.4385	579.6	.2249-02
180.00	.96000	730.00	.7443-01	.9058-01	1.016	31.31	2.330	.4392	580.5	.2013-02
180.00	.99000	731.00	.7837-01	.9537-01	1.070	31.33	2.455	.4389	580.1	.2120-02
180.00	.90400	732.00	.3085-01	.3749-01	.4201-01	31.55	.9734	.4351	575.0	.6335-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

RUN NUMBER	PHI	X/L	1/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
68	225.00	.75000-01	740.00	.8180-01	.9948-01	.1115	31.42	2.570	.4373	577.9	.2211-02
68	225.00	.10000+00	741.00	.4457-01	.5416-01	.6069-01	31.52	1.405	.4395	575.5	.1204-02
68	225.00	.15000	742.00	.3821-01	.4631-01	.5181-01	31.92	1.220	.4286	566.5	.1030-02
68	225.00	.20000	743.00	.2478-01	.3005-01	.3363-01	31.91	.7881	.4305	568.9	.6683-03
68	225.00	.40000	745.00	.3102-01	.3773-01	.4231-01	31.40	.9741	.4377	577.4	.8388-03
68	225.00	.60000	747.00	.3455-01	.4202-01	.4711-01	31.43	1.086	.4371	577.7	.9341-03
68	225.00	.93000	753.00	.1254	.1523	.1707	31.53	3.953	.4353	575.3	.3387-02
68	225.00	.95000	754.00	.8710-01	.1059	.1187	31.49	2.743	.4361	576.4	.2354-02
68	225.00	.99000	755.00	.6923-01	.8414-01	.9429-01	3.52	2.182	.4356	575.7	.1871-02
68	240.00	.93000	756.00	.7600-01	.9238-01	.1035	31.48	2.393	.4362	576.4	.2054-02
68	240.00	.96000	757.00	.6707-01	.8157-01	.9145-01	31.42	2.107	.4373	577.9	.1813-02
68	240.00	.99000	758.00	.7014-01	.8527-01	.9557-01	31.47	2.207	.4364	576.7	.1895-02
68	247.50	.40000	760.00	.3467-01	.4217-01	.4729-01	31.38	1.088	.4380	578.8	.9374-03
68	247.50	.60000	762.00	.3479-01	.4229-01	.4740-01	31.48	1.095	.4362	573.5	.9402-03
68	260.00	.11500	766.00	.1342	.1631	.1827	31.56	4.237	.4348	574.6	.3626-02
68	270.00	.20000-02	767.00	.5484	.6701	.7537	30.72	16.84	.4495	594.1	.1489-01
68	270.00	.25000-01	768.00	.1413	.1588	.1588	30.91	3.579	.4461	589.6	.3140-02
68	270.00	.50000-01	769.00	.8977-01	.1094	.1228	31.14	2.795	.4422	584.4	.2431-02
68	270.00	.75000-01	770.00	.8213-01	.9993-01	.1121	31.35	2.575	.4385	579.5	.2221-02
68	270.00	.10000+00	771.00	.4087-01	.4969-01	.5570-01	31.46	1.266	.4366	577.1	.1105-02
68	270.00	.11000	772.00	.1729	.2101	.2355	31.49	5.444	.4360	576.2	.4671-02
68	270.00	.13000	773.00	.4957-01	.6018-01	.6739-01	31.67	1.570	.4329	572.1	.1338-02
68	270.00	.15000	774.00	.6689-01	.8112-01	.9077-01	31.85	2.131	.4298	568.0	.1804-02
68	270.00	.20000	775.00	.5269-01	.6397-01	.7163-01	31.69	1.670	.4326	571.8	.1422-02
68	270.00	.25000	776.00	.4671-01	.5681-01	.6369-01	31.42	1.467	.4374	578.0	.1263-02
68	270.00	.30000	777.00	.4174-01	.5077-01	.5693-01	31.38	1.310	.4379	578.7	.1128-02
68	270.00	.40000	778.00	.4189-01	.5095-01	.5712-01	31.42	1.316	.4373	577.9	.1133-02
68	270.00	.50000	779.00	.4275-01	.5196-01	.5824-01	31.49	1.346	.4361	576.3	.1155-02
68	270.00	.65000	781.00	.4256-01	.5170-01	.5792-01	31.58	1.344	.4345	574.3	.1149-02
68	270.00	.70000	782.00	.4187-01	.5086-01	.5697-01	31.61	1.323	.4340	573.6	.1131-02
68	270.00	.75000	783.00	.3526-01	.4281-01	.4794-01	31.69	1.118	.4326	571.7	.9518-03
68	270.00	.78000	784.00	.1585	.1923	.2153	31.75	5.031	.4316	570.4	.4276-02
68	270.00	.80000	785.00	.3499-01	.4247-01	.4756-01	31.69	1.109	.4325	571.6	.9443-03
68	270.00	.90000	787.00	.4006-01	.4861-01	.5442-01	31.74	1.272	.4317	570.5	.1081-02
68	270.00	.93000	788.00	.9847-01	.1172	.1313	31.57	3.046	.4347	574.4	.2606-02
68	270.00	.96000	789.00	.9867-01	.1199	.1344	31.50	3.108	.4359	576.1	.2668-02
68	270.00	.99000	790.00	.1031	.1253	.1405	31.53	3.251	.4354	575.5	.2786-02
68	315.00	.30000	791.00	.3204-01	.3890-01	.4357-01	31.65	1.014	.4332	572.5	.8650-03
68	315.00	.70000	793.00	.3204-01	.3688-01	.4353-01	31.76	1.018	.4314	570.1	.8646-03
68	315.00	.93000	797.00	.6615-01	.8033-01	.8998-01	31.62	2.092	.4337	573.2	.1786-02
68	315.00	.99000	798.00	.7-23-01	.9018-01	.1010	31.58	2.344	.4345	574.3	.2005-02

SOLID BOOSTER

ARC 3.5-178 IHS SRB (TRIPS)

SOLID BOOSTER

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	R-NOVEL SLUG/FT2SEC	ALPHA DEG.
69	5.300	.5218+07	406.2	1268.	309.3	.1750-01	.8382	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
69	90.000	.00000	701.00	.4195	.5184	.5876	52.14	21.87	.4757	613.3	.6181-02
69	90.000	.25000-01	702.00	.1013	.1246	.1408	53.17	5.385	.4657	600.3	.1486-02
69	90.000	.50000-01	703.00	.8739-01	.1072	.1209	53.85	4.706	.4591	591.8	.1279-02
69	90.000	.10000+00	704.00	.5889-01	.7205-01	.8111-01	54.51	3.210	.4526	583.5	.8601-03
69	90.000	.40000	705.00	.4463-01	.5463-01	.6153-01	54.37	2.427	.4539	585.1	.6521-03
69	90.000	.80000	708.00	.5155-01	.6310-01	.7107-01	54.38	2.803	.4508	585.1	.7533-03
69	90.000	.90000	709.00	.3778-01	.4620-01	.5199-01	54.70	2.067	.4568	581.1	.5516-03
69	90.000	.93000	710.00	.8762-01	.1074	.1210	54.08	4.739	.4587	588.8	.1282-02
69	90.000	.99000	711.00	.1087	.1334	.1504	53.88	5.859	.4638	591.3	.1592-02
69	135.00	.93000	714.00	.8761-01	.1077	.1216	53.37	4.675	.4643	597.8	.1285-02
69	135.00	.99000	715.00	.1087	.1337	.1510	53.31	5.756	.4633	598.5	.1595-02
69	180.00	.50000-01	716.00	.8389-01	.1031	.1164	53.42	4.481	.4640	597.2	.1230-02
69	180.00	.10000+00	717.00	.4241-01	.5198-01	.5.50-01	54.05	2.292	.4571	589.2	.6204-03
69	180.00	.20000	718.00	.4276-01	.5228-01	.5884-01	54.67	2.337	.4511	581.5	.6242-03
69	180.00	.40000	719.00	.4373-01	.5377-01	.6073-01	53.34	2.333	.4640	598.1	.6415-03
69	180.00	.60000	720.00	.3696-01	.4540-01	.5124-01	53.57	1.980	.4618	595.3	.5417-03
69	180.00	.80000	721.00	.3969-01	.4881-01	.5514-01	53.25	2.113	.4649	599.3	.5823-03
69	180.00	.90000	722.00	.4033-01	.4962-01	.5607-01	53.19	2.145	.4655	600.0	.5919-03
69	180.00	.70000	723.00	.3989-01	.4918-01	.5558-01	53.15	2.124	.4659	600.6	.5867-03
69	180.00	.80000	724.00	.4782-01	.4782-01	.5403-01	53.62	2.071	.4649	599.2	.5706-03
69	180.00	.90000	725.00	.1186	.1359	.1529	53.62	5.179	.4613	594.6	.1415-02
69	180.00	.80000	726.00	.5867-01	.7221-01	.8164-01	53.05	3.112	.4669	601.9	.8614-03
69	180.00	.90000	728.00	.3411-01	.4186-01	.4723-01	53.74	1.833	.4601	593.1	.4996-03
69	180.00	.93000	729.00	.8995-01	.1106	.1249	53.36	4.800	.4638	597.9	.1319-02
69	180.00	.96000	730.00	.8911-01	.1036	.1238	53.29	4.749	.4645	598.7	.1307-02
69	180.00	.99000	731.00	.9342-01	.1149	.1299	53.15	4.365	.4659	600.5	.1371-02
69	210.00	.90400	732.00	.4353-01	.5342-01	.6027-01	53.75	2.340	.4600	593.0	.6374-03

ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 SRB (TRIPS)			SOLID BOOSTER		HM/HT	TH DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	COOT BTU/ FT2SEC			
69	225.00	.75000-01	740.00	.7628-01	.9355-01	.1055	53.95	4.116	590.4	.1116-02	
69	225.00	.10000+00	741.00	.3847-01	.4714-01	.5313-01	54.11	2.082	588.4	.5627-03	
69	225.00	.15000	742.00	.5294-01	.6468-01	.7275-01	54.88	2.905	576.8	.7723-03	
69	225.00	.20000	743.00	.3179-01	.3888-01	.4377-01	54.55	1.734	582.9	.4642-03	
69	225.00	.40000	745.00	.3373-01	.4369-01	.4955-01	53.53	1.912	595.8	.5237-03	
69	225.00	.60000	747.00	.3548-01	.4357-01	.4918-01	53.59	1.901	595.0	.5199-03	
69	225.00	.93000	753.00	.1174	.1442	.1627	53.62	6.297	594.6	.1721-02	
69	225.00	.96000	754.00	.9196-01	.1129	.1274	53.64	4.932	594.4	.1347-02	
69	225.00	.99000	755.00	.8030-01	.9895-01	.1112	53.75	4.316	593.0	.1176-02	
69	240.00	.93000	756.00	.7933-01	.9747-01	.1101	53.47	4.242	596.5	.1163-02	
69	240.00	.96000	757.00	.7372-01	.9068-01	.1025	53.22	3.923	599.7	.1082-02	
69	240.00	.99000	758.00	.7819-01	.9612-01	.1086	53.36	4.173	597.9	.1147-02	
69	247.50	.40000	760.00	.4419-01	.5427-01	.6125-01	53.61	2.369	594.8	.6475-03	
69	247.50	.60000	762.00	.3973-01	.4875-01	.5500-01	53.81	2.138	592.3	.5818-03	
69	260.00	.11500	766.00	.1916	.2347	.2843	54.31	10.41	613.6	.7092-02	
69	270.00	.20000-02	767.00	.4813	.5948	.6744	52.11	25.08	585.7	.1611-02	
69	270.00	.25000-01	768.00	.1096	.1351	.1528	52.72	5.777	607.9	.1239-02	
69	270.00	.50000-01	769.00	.8451-01	.1039	.1173	53.37	4.510	595.8	.1139-02	
69	270.00	.75000-01	770.00	.7791-01	.9543-01	.1075	54.24	4.226	585.8	.5710-03	
69	270.00	.10000+00	771.00	.7907-01	.4784-01	.5388-01	54.33	2.123	585.2	.3114-02	
69	270.00	.11000	772.00	.2131	.2609	.2939	54.37	11.59	581.8	.9598-03	
69	270.00	.13000	773.00	.6574-01	.8043-01	.9048-01	54.64	3.592	577.6	.1112-02	
69	270.00	.15000	774.00	.7625-01	.9313-01	.1047	54.97	4.192	584.0	.7168-03	
69	270.00	.20000	775.00	.4907-01	.6004-01	.6761-01	54.47	2.672	591.8	.6814-03	
69	270.00	.25000	776.00	.4655-01	.5710-01	.6441-01	53.84	2.506	593.6	.6873-03	
69	270.00	.30000	777.00	.4692-01	.5759-01	.6499-01	53.70	2.520	592.6	.8003-03	
69	270.00	.40000	778.00	.5465-01	.6707-01	.7566-01	53.78	2.939	591.0	.8123-03	
69	270.00	.50000	779.00	.5550-01	.6807-01	.7676-01	53.91	2.992	588.4	.8496-03	
69	270.00	.65000	781.00	.5809-01	.7118-01	.8023-01	54.11	3.145	587.5	.8488-03	
69	270.00	.70000	782.00	.5805-01	.7111-01	.8013-01	54.19	3.145	582.9	.8281-03	
69	270.00	.75000	783.00	.5670-01	.6936-01	.7808-01	54.55	3.093	580.0	.3159-02	
69	270.00	.80000	784.00	.2165	.2646	.2977	54.78	11.86	586.0	.5610-03	
69	270.00	.80000	785.00	.3838-01	.4700-01	.5295-01	54.30	2.084	583.1	.8007-03	
69	270.00	.90000	787.00	.5482-01	.6707-01	.7550-01	54.53	2.990	591.6	.1904-02	
69	270.00	.93000	788.00	.1300	.1595	.1799	53.86	7.004	594.5	.2029-02	
69	270.00	.96000	789.00	.1385	.1700	.1919	53.63	7.427	594.5	.2074-02	
69	270.00	.99000	790.00	.1415	.1738	.1961	53.63	7.591	585.5	.5683-03	
69	315.00	.30000	791.00	.3889-01	.4761-01	.5362-01	54.34	2.113	582.5	.6013-03	
69	315.00	.4118-01	793.00	.4118-01	.5037-01	.5669-01	54.59	2.248	589.3	.1114-02	
69	315.00	.93000	797.00	.7615-01	.9334-01	.1052	54.04	4.115	4.572	.11297-02	
69	315.00	.99000	798.00	.8857-01	.1087	.1226	53.80	4.765	4.595		

SOLID BOOSTER

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	MO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000
78	5.300	.5061+07	406.6	1293.	315.8	.1750-01	.8293	-3.000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
76	90.000	.00000	701.00	.4699	.5775	.6522	55.01	25.85	.4632	613.5	.6999-02
76	90.000	.25000-01	702.00	.8868-01	.1084	.1220	56.36	4.998	.4504	596.6	.1315-02
76	90.000	.50000-01	703.00	.6064-01	.7389-01	.8296-01	57.21	3.470	.4424	585.9	.8966-03
76	90.000	.10000+00	704.00	.5198-01	.6317-01	.7079-01	57.95	3.012	.4354	576.7	.7668-03
76	90.000	.40000	705.00	.4446-01	.5391-01	.6032-01	58.59	2.605	.4294	568.7	.6545-03
76	90.000	.80000	708.00	.1849-01	.2239-01	.2504-01	58.87	1.088	.4268	565.2	.2719-03
76	90.000	.90000	709.00	.1235-01	.1495-01	.1670-01	59.15	.7307	.4241	561.7	.1816-03
76	90.000	.93000	710.00	.4001-01	.4853-01	.5431-01	58.49	2.340	.4303	569.9	.5892-03
76	90.000	.99000	711.00	.6621-01	.8035-01	.8996-01	58.32	3.862	.4319	572.0	.9755-03
78	135.00	.73000	712.00	.5469-01	.6703-01	.7556-01	55.26	3.024	.4569	601.4	.8099-03
76	135.00	.93000	714.00	.1369	.1661	.1859	58.41	7.995	.4311	570.9	.2016-02
76	135.00	.99000	715.00	.1093	.1327	.1485	58.33	6.376	.4318	572.0	.1611-02
76	180.00	.50000-01	716.00	.1386	.1689	.1896	57.23	7.933	.4422	585.7	.2049-02
76	180.00	.10000+00	717.00	.1068	.1299	.1456	57.75	6.168	.4373	579.2	.1576-02
76	180.00	.20000	718.00	.7155-01	.8671-01	.9698-01	58.75	4.204	.4278	566.6	.1053-02
76	180.00	.40000	719.00	.5773-01	.7015-01	.7859-01	58.00	3.349	.4349	576.0	.8514-03
78	180.00	.60000	720.00	.1076	.1315	.1480	55.89	6.011	.4513	594.0	.1597-02
78	180.00	.80000	721.00	.1534-01	.1820-01	.2118-01	55.37	.8494	.4562	600.5	.2271-03
78	180.00	.90000	722.00	.8200-01	.1004	.1132	55.47	4.548	.4552	598.2	.1214-02
78	180.00	.70000	723.00	.8062-01	.9874-01	.1112	55.50	4.474	.4550	598.8	.1193-02
78	180.00	.50000	724.00	.7367-01	.9010-01	.1014	55.82	4.112	.4519	594.8	.1089-02
78	180.00	.30000	725.00	.2425	.2964	.3335	56.02	13.59	.4500	592.3	.3583-02
78	180.00	.10000	726.00	.1449	.1772	.1995	55.80	8.085	.4521	595.1	.2142-02
78	180.00	.80000	727.00	.1176	.1437	.1616	56.13	6.603	.4489	590.9	.1737-02
78	180.00	.90000	728.00	.7226-01	.8819-01	.9911-01	56.40	4.076	.4463	587.5	.1066-02
78	180.00	.93000	729.00	.2010	.2458	.2767	55.85	11.23	.4516	564.4	.2971-02

REPRODUCIBILITY OF THIS PAGE IS POOR

RUN NUMBER	PHI	X/L	T/C NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.8	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
78	180.00	.95000	730.00	.1098	.1344	.1513	55.73	6.120	.4527	595.9	.1624-02
78	180.00	.99000	731.00	.9175-01	.1123	.1264	55.63	5.108	.4533	596.6	.1357-02
78	210.00	.93400	732.00	.7044-01	.8598-01	.9663-01	56.38	3.971	.4466	597.8	.1039-02
78	225.00	.75000-01	740.00	.9755-01	.1192	.1341	56.02	5.465	.4500	592.3	.1441-02
78	225.00	.10000+00	741.00	.6686-01	.8164-01	.9178-01	56.26	3.762	.4477	589.2	.9869-03
78	225.00	.15000	742.00	.5681-01	.6913-01	.7754-01	57.16	3.247	.4391	578.0	.8361-03
78	225.00	.20000	743.00	.7962-01	.9694-01	.1088	57.03	4.541	.4404	579.6	.1172-02
78	225.00	.40000	745.00	.4177-01	.5102-01	.5737-01	56.16	2.346	.4486	590.5	.6167-03
78	225.00	.50000	746.00	.1067	.1304	.1467	56.07	5.983	.4495	591.7	.1576-02
78	225.00	.60000	747.00	.1151	.1407	.1582	56.11	6.459	.4491	591.2	.1700-02
78	225.00	.70000	748.00	.1046	.1278	.1437	56.21	5.882	.4482	589.9	.1545-02
78	225.00	.80000	750.00	.1362	.1663	.1868	56.54	7.708	.4451	585.8	.2011-02
78	225.00	.85000	751.00	.9303-01	.1134	.1273	56.82	5.286	.4424	582.2	.1371-02
78	225.00	.90000	753.00	.1636	.2000	.2250	55.91	9.146	.4509	593.5	.2417-02
78	225.00	.95000	754.00	.6144-01	.7515-01	.8459-01	55.83	3.429	.4520	594.9	.9083-03
78	225.00	.99000	755.00	.5291-01	.6474-01	.7289-01	55.73	2.949	.4528	595.9	.7824-03
78	240.00	.93000	756.00	.5914-01	.7231-01	.8137-01	55.91	3.306	.4510	593.6	.8739-03
78	240.00	.96000	757.00	.561-01	.6316-01	.7112-01	55.69	2.874	.4532	596.5	.7633-03
78	240.00	.99000	758.00	.2833-01	.3470-01	.3910-01	55.48	1.572	.4532	559.1	.4193-03
78	247.00	.40000	760.00	.7593-01	.9269-01	.1042	56.34	4.277	.4470	588.3	.1121-02
78	247.00	.50000	761.00	.9214-01	.1125	.1264	56.35	5.192	.4468	588.1	.1360-02
78	247.00	.60000	762.00	.1058	.1292	.1452	56.32	5.960	.4471	588.5	.1562-02
78	247.00	.65000	763.00	.1135	.1386	.1558	56.29	6.388	.4474	588.9	.1675-02
78	247.00	.70000	764.00	.1038	.1267	.1424	56.33	5.846	.4470	588.3	.1532-02
78	260.00	.75000	765.00	.1414	.1762	.1980	56.47	8.162	.4454	586.2	.2131-02
78	260.00	.80000	766.00	.3696	.4510	.5068	56.45	20.87	.4457	560.6	.5453-02
78	270.00	.20000-02	767.00	.6350	.7842	.8887	53.45	33.94	.4746	624.6	.9467-02
78	270.00	.25000-01	768.00	.1724	.2121	.2396	54.44	9.388	.4650	612.1	.2551-02
78	270.00	.50000-01	769.00	.1024	.1255	.1414	55.31	5.663	.4567	601.2	.1516-02
78	270.00	.75000-01	770.00	.7935-01	.9706-01	.1092	55.83	4.430	.4518	594.7	.1173-02
78	270.00	.10000+00	771.00	.2205	.2634	.3031	56.05	12.36	.4497	591.9	.3257-02
78	270.00	.13000	772.00	.4778	.5837	.6564	56.15	26.83	.4488	590.7	.7055-02
78	270.00	.15000	773.00	.1890	.2301	.2582	57.08	10.79	.4399	579.0	.2783-02
78	270.00	.20000	774.00	.1263	.1535	.1721	57.44	7.254	.4365	574.5	.1857-02
78	270.00	.25000	775.00	.5984-01	.7283-01	.8170-01	57.14	3.419	.4393	578.2	.8808-03
78	270.00	.30000	776.00	.4290-01	.5233-01	.5878-01	56.56	2.427	.4448	585.5	.6327-03
78	270.00	.40000	777.00	.3660-01	.4468-01	.5022-01	56.35	2.062	.4469	588.2	.5401-03
78	270.00	.50000	778.00	.4526-01	.5527-01	.6214-01	56.25	2.546	.4477	589.4	.6682-03
78	270.00	.60000	779.00	.7121-01	.8695-01	.9776-01	56.26	4.006	.4477	589.3	.1051-02
78	270.00	.65000	780.00	.7423-01	.9064-01	.1019	56.28	4.177	.4475	589.1	.1096-02
78	270.00	.70000	781.00	.7890-01	.9630-01	.1082	56.37	4.447	.4467	589.0	.1164-02
78	270.00	.75000	782.00	.7900-01	.9038-01	.1083	56.50	4.464	.4454	586.3	.1165-02
78	270.00	.75000	783.00	.1304	.1590	.1785	56.64	7.388	.4440	584.5	.1923-02

ARC 3.5-178 IH3
ARC 3.5-178 IH3 O+T+S

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 O+T+S			SOLID BOOSTER		HM/HT	TW DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC			
78	270.00	.78000	784.00	.4418	.5385	.6046	56.77	25.08	.4428	582.9	.6511-02
78	270.00	.80000	785.00	.1215-11	.1494-11	.1687-11	54.62	.6638-10	.4634	609.9	.1804-13
78	270.00	.85000	786.00	.1713-01	.2088-01	.2345-01	56.69	.9711	.4436	583.9	.2525-03
78	270.00	.90000	787.00	.1718-01	.2094-01	.2352-01	56.71	.9743	.4434	583.6	.2532-03
78	270.00	.93000	788.00	.2588-01	.3163-01	.3559-01	55.97	1.448	.4504	592.9	.3823-03
78	270.00	.96000	789.00	.2756-01	.3373-01	.3799-01	55.60	1.532	.4539	597.5	.4076-03
78	270.00	.99000	790.00	.3591-01	.4033-01	.4544-01	55.39	1.823	.4559	600.1	.4873-03
78	315.00	.30003	791.00	.7533-02	.9195-02	.1033-01	56.36	.4246	.4467	588.0	.1112-03
78	315.00	.70000	793.00	.3592-01	.4501-01	.5054-01	56.70	2.093	.4435	583.8	.5442-03
78	315.00	.78000	794.00	.5804-01	.7067-01	.7930-01	57.00	3.308	.4406	580.0	.6547-03
78	315.00	.80000	795.00	.1262	.1538	.1726	56.85	7.175	.4421	581.9	.1859-02
78	315.00	.90000	796.00	.1702-01	.2078-01	.2336-01	56.34	.9591	.4469	588.3	.2512-03
78	315.00	.93000	797.00	.4785-01	.5865-01	.6610-01	55.32	2.647	.4566	601.0	.7086-03
78	315.00	.99000	798.00	.3414-01	.4189-01	.4727-01	54.98	1.876	.4601	605.6	.5061-03

DATE 24 JAN 76

ARC 3.5-178 IH3

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(REIND1)

ARC 3.5-178 IH3 O+T+S SRB SEPARATION NOZ

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
7	5.300	.1394+07	119.7	1348.	329.9	.1750-01	.2381	.0000
8	5.300	.1434+07	120.0	1327.	324.5	.1750-01	.2411	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	H41/HT	TH DEG. R	STN NO R=0.9
8	210.00	.91800	733.00	.1852	.2227	.2478	33.87	6.273	.4065	549.8	.5050-02
8	210.00	.92500	734.00	.1398	.1682	.1872	33.79	4.722	.4080	551.8	.3812-02
8	210.00	.93000	735.00	.4298-01	.5172-01	.5757-01	33.78	1.452	.4081	551.9	.1172-02
8	210.00	.97000	736.00	.1771-01	.2131-01	.2371-01	33.80	.5985	.4078	551.5	.4830-03
8	215.00	.92500	737.00	.7860-01	.9456-01	.1052	33.82	2.658	.4075	551.1	.2144-02
8	215.00	.94000	738.00	.2526-01	.3039-01	.3382-01	33.81	.8541	.4075	551.1	.6890-03
8	215.00	.96000	739.00	.2024-01	.2435-01	.2710-01	33.80	.6840	.4078	551.5	.5520-03

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
13	5.300	.5037+07	406.0	1296.	316.5	.1750-01	.8271	.0000
14	5.300	.4967+07	403.7	1303.	318.2	.1750-01	.8198	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.1	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
13	210.00	.91800	733.00	.2008	.2424	.2705	59.48	11.94	.4179	551.3	.2941-02
13	210.00	.92500	734.00	.1427	.1724	.1925	59.17	8.441	.4208	535.1	.2092-02
13	210.00	.95000	735.00	.5245-01	.6340-01	.7078-01	59.16	3.103	.4209	555.2	.7691-03
13	215.00	.97000	736.00	.2259-01	.2729-01	.3045-01	59.36	1.341	.4191	511.3	.3311-03
13	215.00	.92500	737.00	.8567-01	.1035	.1155	59.29	5.079	.4197	551.6	.1256-02
13	215.00	.94000	738.00	.3005-01	.3630-01	.4052-01	59.30	.782	.4196	533.5	.4404-03
13	215.00	.96000	739.00	.2659-01	.3212-01	.3586-01	59.27	1.576	.4199	553.9	.3897-03

DATE 04 DEC 75

ARC 3.5-178 1H3

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ARC 3.5-178 1H3 O+T+S (TRIPS) SRB SEPARATION NOZ

(REIN03)

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
24	5.300	.1528*07	122.1	1289.	314.8	.1750-01	.2495	.0000
25	5.300	.1528*07	122.1	1289.	314.8	.1750-01	.2495	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
25	210.00	.91800	733.00	.1775	.2169	.2441	29.158	5.175	0.450	570.4	4.7253E-01
25	210.00	.92500	734.00	.1372	.1678	.1889	29.069	3.588	0.452	572.5	3.6544E-03
25	210.00	.95000	735.00	.0434	.0531	.0597	25.074	1.261	0.452	572.4	1.1556E-03
25	210.00	.97000	736.00	.0166	.0202	.0228	25.126	0.482	0.451	571.1	4.4090E-04
25	215.00	.92500	737.00	.0743	.0900	.1022	29.111	2.162	0.451	571.5	1.9777E-03
25	215.00	.94000	738.00	.0228	.0275	.0315	29.112	0.664	0.451	571.5	6.0772E-04
25	215.00	.96000	739.00	.0201	.0245	.0276	25.120	0.585	0.451	571.3	5.3457E-04

ARC 3.5-178 IH3 O+T+S (TRIPS) SRB SEPARATION NOZ

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
26	5.300	.4950+07	405.7	1310.	320.0	.1750-01	.8213	.0000
27	5.300	.4977+07	406.0	1306.	319.0	.1750-01	.8234	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF M=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R=0.9
26	2 0.00	.91800	733.00	.1923	.2344	.2633	57.41	11.04	.4435	591.5	.2861-02
26	210.00	.92500	734.00	.1339	.1634	.1836	57.11	7.644	.4464	595.3	.1993-02
26	210.00	.95000	735.00	.5309-01	.6479-01	.7292-01	57.10	3.031	.4465	595.1	.7905-03
26	210.00	.97000	736.00	.2333-01	.2845-01	.3196-01	57.29	1.337	.4447	593.0	.3472-03
26	215.00	.92500	737.00	.8219-01	1.002	.1126	57.28	4.708	.4448	593.2	.1223-02
26	215.00	.94000	738.00	.2841-01	.3466-01	.3894-01	57.23	1.626	.4453	593.8	.4228-03
26	215.00	.95000	739.00	.2636-01	.3215-01	.3612-01	57.23	1.508	.4453	593.8	.3923-03

DATE 24 JAN 76

ARC 3.5-178 IH3

PAGE 33

(REIN05)

ARC 3.5-178 IH3 O-T+S

SRB SEPARATION NOZ

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
33	5.300	.5096*07	405.2	1285.	313.7	.1750-01	.8296	.0000
34	5.300	.4986*07	405.2	1303.	318.2	.1750-01	.8229	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
33	210.00	.91800	733.00	.3408	.4136	.4630	57.43	19.57	.4317	561.3	.4992-02
33	210.00	.92500	734.00	.2424	.2944	.3297	57.21	13.86	.4338	567.0	.3552-02
33	210.00	.95000	735.00	.7564-01	.9183-01	.1028	57.30	4.334	.4329	565.9	.1108-02
33	210.00	.97000	735.00	.4193-01	.5087-01	.5695-01	57.50	2.411	.4310	563.4	.6140-03
33	215.00	.92500	737.00	.1596	.1937	.2169	57.38	9.155	.4322	564.9	.2337-02
33	215.00	.94000	738.00	.6885-01	.8354-01	.9351-01	57.47	3.957	.4312	563.7	.1008-02
33	215.00	.96000	739.00	.5231-01	.6347-01	.7104-01	57.47	3.006	.4312	563.7	.7660-03

DATE 24 JAN 76

ARC 3.5-178 IH3

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SRB SEPARATION NOZ

ARC 3.5-178 IH3 SRB SEPARATION NOZ

(REIN14)

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
64	5.300	.1509+07	122.7	1303.	318.4	.1750-01	.2492	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
64	210.00	.91800	733.00	.1514	.1829	.2041	32.79	4.963	.4199	557.2	.4050-02
64	210.00	.92500	734.00	.2054	.2482	.2771	32.73	6.722	.4209	558.5	.5496-02
64	210.00	.95000	735.00	.6665-01	.8052-01	.8986-01	32.83	2.188	.4193	556.3	.1783-02
64	215.6J	.97000	736.00	.1964-01	.2371-01	.2645-01	32.93	.6467	.4175	554.0	.5251-03
64	215.00	.92500	737.00	.9530-01	1.151	1.284	32.86	3.132	.4186	555.5	.2549-02
64	215.00	.94000	738.00	.4001-01	.4831-01	.5390-01	32.92	1.317	.4177	554.3	.1070-02
64	215.00	.96000	739.00	.4288-01	.5176-01	.5773-01	32.96	1.413	.4170	553.3	.1146-02

REPRODUCIBILITY OF THIS PAGE IS NOT GUARANTEED

DATE 24 JAN 76

ARC 3.5-178 IH3

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(REINIS)

ARC 3.5-178 IH3 SRB SRB SEPARATION NOZ

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	PHI	X/L	T/C NO	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
65	210.00	.91800	733.00	5.300	.5074+07	406.2	1291.	315.1	.1750-01	.8296	.0000	R=0.9
65	210.00	.92500	734.00									.2292-02
65	210.00	.95000	735.00									.3438-02
65	210.00	.97000	736.00									.1223-02
65	215.00	.92500	737.00									.4056-03
65	215.00	.94000	738.00									.1696-02
65	215.00	.96000	739.00									.8888-03
65	215.00	.96000	739.00									.8922-03

TEST DATA

QDOT BTU/FT2SEC	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	HM/HT	TW DEG. R
8.565	.1550	.1899	.2139	55.26	.4557	598.4
12.80	.2323	.2848	.3210	55.11	.4572	600.4
1.543	.6279-01	.1013	.1141	55.53	.4531	595.1
6.363	.2750-01	.3358-01	.3775-01	56.11	.4476	587.7
3.361	.1148	.1405	.1592	55.45	.4539	596.1
3.394	.6021-01	.7360-01	.8281-01	55.82	.4504	591.4
	.6050-01	.7387-01	.8306-01	56.10	.4477	587.9

ARC 3.5-178 IH3 SRB SRB SEPARATION NOZ

(REIN16)

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = 20.00 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
66	5.300	.5112+07	406.3	1285.	313.6	.1750-01	.8321	20.00

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
66	210.00	.91800	733.00	.4924	.6043	.6817	54.57	26.87	.4597	600.8	.7271-02
66	210.00	.92500	734.00	.5259	.6454	.7281	54.57	28.70	.4598	600.9	.7765-02
66	210.00	.95000	735.00	.1990	.2439	.2749	54.88	10.92	.4567	596.9	.2935-02
66	210.00	.97000	736.00	.9863-01	.1207	.1358	55.33	5.457	.4525	591.3	.1453-02
66	215.00	.92500	737.00	.6151	.7541	.8502	54.80	33.71	.4576	598.0	.9075-02
66	215.00	.94000	738.00	.3655	.4477	.5044	55.03	20.11	.4553	595.1	.5368-02
66	215.00	.96000	739.00	.2698	.3302	.3718	55.23	14.90	.4534	592.5	.3974-02

ARC 3.5-178 IH3 SRB (TRIPS) SRB SEPARATION NOZ

SRB SEPARATION NOZ

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
68	5.300	.1497+07	121.0	1298.	317.1	.1750-01	.2462	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
68	210.00	.91800	733.00	.1340	.1631	.1830	31.32	4.198	.4391	580.3	.3626-02
68	210.00	.92500	734.00	.182	.2216	.2487	31.27	5.692	.4400	581.5	.4926-02
68	210.00	.95000	735.00	.6586-01	.8014-01	.8988-01	31.33	2.053	.4398	580.0	.1781-02
68	210.00	.97000	736.00	.1954-01	.2377-01	.2665-01	31.41	.6138	.4374	578.1	.5283-03
68	215.00	.92500	737.00	.6395-01	.1021	.1145	31.37	2.633	.4382	579.2	.2270-02
68	215.00	.94000	738.00	.3582-01	.4357-01	.4885-01	31.41	1.125	.4374	578.1	.9685-03
68	215.00	.96000	739.00	.4035-01	.4907-01	.5501-01	31.44	1.269	.5370	577.5	.1091-02

SRB SEPARATION NOZ

ARC 3.5-178 IH3 SRB (TRIPS) SRB SEPARATION NOZ

(REIN18)

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
69	5.300	.5218+07	405.2	1268.	309.3	.1750-01	.8382	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	JREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
69	210.00	.91800	733.00	.1330	.1638	.1852	52.98	7.047	.4676	602.7	.1954-02
69	210.00	.92500	734.00	.2038	.2511	.2840	52.84	10.77	.4689	604.4	.2995-02
69	210.00	.95000	735.00	.8333-01	.1025	.1159	53.16	4.430	.4658	600.4	.1223-02
69	210.00	.97000	736.00	.2924-01	.3590-01	.4752-01	53.60	1.567	.4615	594.9	.4284-03
69	215.00	.92500	737.00	.9725-01	.1196	.1352	53.15	5.169	.4659	600.5	.1427-02
69	215.00	.94000	738.00	.5659-01	.6965-01	.7364-01	53.49	3.033	.4625	596	.8311-03
69	215.00	.96000	739.00	.5960-01	.7317-01	.8357-01	53.67	3.199	.4608	594.0	.8731-03

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ARC 3.5-178 IH3

ARC 3.5-178 IH3 0+1-S

SRB SEPARATION NOZ

SRB SEPARATION NOZ

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(REIN20)

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

PARAMETRIC DATA

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	MO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
76	5.300	.5017*07	406.9	1301.	317.8	.1750-01	.8270	-3.000
78	5.300	.5061*07	406.6	1293.	315.8	.1750-01	.8293	-3.000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	OODT BTU/FT2SEC	H/H/HT	TW DEG. R	STN NO R=0.9
78	210.00	.91800	733.00	.2005	.2453	.2761	55.76	11.18	.4524	595.5	.2964-02
78	210.00	.92500	734.00	.1458	.1785	.2011	55.53	8.097	.4546	598.4	.2157-02
78	210.00	.95000	735.00	.5209-01	.6376-01	.7180-01	55.64	2.898	.4536	597.0	.7705-03
78	215.00	.92500	736.00	.2449-01	.2995-01	.3370-01	55.92	1.370	.4510	593.6	.3620-03
78	215.00	.94000	737.00	.9494-01	.1162	.1308	55.71	5.290	.4529	596.2	.1404-02
78	215.00	.94000	739.00	.3357-01	.4119-01	.4636-01	55.78	1.878	.4523	595.3	.4977-03
78	215.00	.95000	739.00	.2932-01	.3587-01	.4037-01	55.83	1.637	.4518	594.7	.4335-03

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	R-MOVEL SLUG/FT2SEC	ALPHA DEG.
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
7	5.300	.1394+07	119.7	148.	329.9	.1750-01	.2381	.0000
11	5.300	.1499+07	121.3	1299.	317.2	.1750-01	.2467	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	H/H/HT	TW DEG. R	STN NO R=C 9
5	30000	.40000-01	501.00	.1422	.1694	.1872	44.01	6.260	.3753	572.7	.3813-02
5	30000	.80000-01	502.00	.8647-01	.1029	.1137	44.09	3.813	.3741	570.9	.2317-02
5	30000	.15000	503.00	.3214-01	.3825-01	.4227-01	44.11	1.418	.3739	570.6	.8613-03
5	30000	.40000	504.00	.1962-01	.2334-01	.2577-01	44.30	.8692	.3713	566.7	.5255-03
5	30000	.60000	505.00	.4075-01	.4846-01	.5351-01	44.31	1.806	.3711	566.3	.1091-02
5	30000	.80000	506.00	.2821-01	.3356-01	.3708-01	44.19	1.247	.3728	568.9	.7557-03
5	45.000	.40000	507.00	.3998-01	.4756-01	.5255-01	44.18	1.766	.3729	569.1	.1071-02
5	45.000	.60000	508.00	.3277-01	.3898-01	.4307-01	44.17	1.447	.3731	569.4	.8778-03
5	45.000	.80000	509.00	.2270-01	.2701-01	.2825-01	44.10	1.001	.3739	570.7	.6083-03
5	45.000	.70000	510.00	.2511-01	.2751-01	.3040-01	44.04	1.018	.3748	572.0	.6194-01
5	45.000	.80000	511.00	.2780-01	.3303-01	.3657-01	44.04	1.224	.3748	572.1	.7450-03
5	45.000	.90000	512.00	.2932-01	.3453-01	.3816-01	44.11	1.280	.3738	570.5	.7775-03
5	67.500	.30000	513.00	.1532-01	.1595-01	.1732-01	44.01	.5860	.3752	572.7	.3569-03
5	67.500	.60000	514.00	.4244-01	.1664	.2060	44.07	6.902	.3744	571.3	.4197-02
5	67.500	.90000	515.00	.1592-01	.5051-01	.5581-01	44.13	1.873	.3736	570.2	.1137-02
11	67.500	.50000	516.00	.1592-01	.1925-01	.2149-01	32.41	.5160	.4210	556.6	.4278-03
11	67.500	.60000	517.00	.1374-01	.1651-01	.1956-01	32.33	.4442	.4222	558.2	.3693-03
11	67.500	.55000	518.00	.1693-01	.2055-01	.2295-01	32.26	.5479	.4236	560.0	.4568-03
11	67.500	.70000	519.00	.2922-01	.3535-01	.3950-01	32.27	.9429	.4234	559.7	.7857-03
11	67.500	.75000	520.00	.2884-01	.3488-01	.3897-01	32.27	.9306	.4233	559.6	.7753-03
11	67.500	.80000	521.00	.2774-01	.3356-01	.3749-01	32.28	.8954	.4232	559.5	.7459-03
11	67.500	.90000	522.00	.4451-01	.5382-01	.6010-01	32.36	1.440	.4218	557.6	.1196-02
11	90.000	.20000	523.00	.1559-01	.1685-01	.2105-01	32.36	.5044	.4219	557.7	.4190-03
11	90.000	.30000	524.00	.9465-02	.1145-01	.1278-01	32.35	.62	.4220	557.9	.2544-03
11	90.000	.27500	525.00	.4469-02	.5407-02	.6041-02	32.27	.42	.4234	559.7	.1202-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3
 ARC 3.5-178 IH3 O+T+S

RUN NUMBER	PHI	X/L	T/C NO	H/AREF R=1.0	H/AREF R=0.9	H/AREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
11	90.00	30000	526.00	.9752-01	.1059	.1183	32.26	2.823	.4236	560.0	.2353-02
11	90.00	32500	527.00	.1951	.2372	.2650	32.29	6.332	.4230	559.3	.5272-02
11	90.00	35000	528.00	.1463	.1768	.1974	32.46	4.749	.4201	555.4	.3930-02
11	90.00	40000	529.00	.6229-01	.7529-01	.8405-01	32.42	2.020	.4207	556.2	.1673-02
11	90.00	45000	530.00	.3180-01	.3843-01	.4291-01	32.41	1.031	.4209	556.4	.8543-03
11	90.00	50000	531.00	.1785-01	.2158-01	.2410-01	32.38	.5782	.4214	557.1	.4798-03
11	90.00	55000	532.00	.1405-01	.1699-01	.1898-01	32.37	.4549	.4217	557.5	.3777-03
11	90.00	60000	533.00	.2852-01	.3450-01	.3853-01	32.31	.9215	.4226	558.7	.7667-03
11	90.00	65000	534.00	.3972-01	.4806-01	.5370-01	32.25	1.281	.4237	563.2	.1068-02
11	90.00	70000	535.00	.4173-01	.5049-01	.5641-01	32.26	1.346	.4235	559.8	.1122-02
11	90.00	75000	536.00	.4642-01	.5616-01	.6275-01	32.25	1.497	.4236	561.1	.1248-02
11	90.00	80000	537.00	.4839-01	.5856-01	.6543-01	32.23	1.560	.4240	560.5	.1301-02
11	90.00	85000	538.00	.4952-01	.5991-01	.6693-01	32.28	1.599	.4232	559.5	.1332-02
11	90.00	90000	539.00	.4596-01	.5558-01	.6208-01	32.32	1.485	.4225	558.6	.1235-02
11	112.50	27500	540.00	.7202-02	.8713-02	.9734-02	32.28	.2325	.4232	553.6	.1937-03
11	112.50	30000	541.00	.1424-01	.1723-01	.1925-01	32.27	.4596	.4233	555.6	.3830-03
11	112.50	32500	542.00	.4459-01	.5393-01	.6024-01	32.31	1.441	.4226	558.7	.1199-02
11	112.50	35000	543.00	.1553	.1878	.2097	32.34	5.021	.4222	558.2	.4174-02
11	112.50	40000	544.00	.3437-01	.4156-01	.4641-01	32.35	1.112	.4219	557.7	.9238-03
11	112.50	45000	545.00	.1607-01	.1943-01	.2170-01	32.34	.5197	.4222	558.1	.4319-03
11	112.50	50000	546.00	.1031-01	.1247-01	.1393-01	32.29	.3328	.4231	559.3	.2771-03
11	112.50	55000	547.00	.1966-01	.2379-01	.2658-01	32.26	.6343	.4235	559.9	.5287-03
11	112.50	60000	548.00	.3299-01	.3993-01	.4462-01	32.21	1.062	.4245	561.2	.8874-03
11	112.50	65000	549.00	.4111-01	.4978-01	.5564-01	32.14	1.322	.4255	562.5	.1106-02
11	112.50	70000	550.00	.3132-01	.3791-01	.4237-01	32.18	1.008	.4250	561.8	.8425-03
11	112.50	75000	551.00	.5729-01	.6935-01	.7751-01	32.17	1.843	.4251	562.1	.1541-02
11	112.50	80000	552.00	.6023-01	.7293-01	.8152-01	32.14	1.936	.4255	562.6	.1621-02
11	112.50	85000	553.00	.5914-01	.7158-01	.7999-01	32.19	1.904	.4246	561.4	.1591-02
11	112.50	90000	554.00	.5208-01	.6304-01	.7045-01	32.19	1.676	.4247	561.5	.1401-02
11	123.00	85000	555.00	.7630-01	.9238-01	1.032	32.16	2.454	.4244	562.1	.2053-02
11	123.00	87500	556.00	.3582-01	.4335-01	.4845-01	32.21	1.154	.4254	561.1	.9635-03
11	123.00	90000	557.00	.4494-01	.5440-01	.6081-01	32.16	1.445	.4253	562.3	.1209-02
11	123.00	92500	558.00	.6093-01	.7377-01	.8245-01	32.15	3.292	.4254	562.4	.1639-02
11	123.00	95000	559.00	.1024	.1239	.1385	32.16	3.292	.4253	562.2	.2754-02
11	123.00	96000	560.00	.7988-01	.9666-01	1.080	32.23	2.575	.4240	560.5	.2148 02
11	135.00	32500	561.00	.1050-01	.1271-01	.1420-01	32.27	.3389	.4234	559.7	.2824-03
11	135.00	35000	562.00	.3547-01	.4291-01	.4793-01	32.30	1.146	.4228	559.0	.9536-03
11	135.00	37500	563.00	.4346-01	.5257-01	.5872-01	32.30	1.404	.4228	558.9	.1168-02
11	135.00	40000	564.00	.3572-01	.4320-01	.4825-01	32.31	1.154	.4227	558.8	.9601-03
11	135.00	45000	565.00	.3655-01	.4421-01	.4938-01	32.29	1.180	.4239	559.3	.9825-03
11	135.00	50000	566.00	.6259-01	.7574-01	.8463-01	32.24	2.018	.4239	560.4	.1683-02
11	135.00	55000	567.00	.9912-01	1.200	1.340	32.22	3.194	.4242	560.7	.2666-02
11	135.00	60000	568.00	.5476-01	.6626-01	.7404-01	32.23	1.765	.4240	560.5	.1473-02

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/RREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT 3TIV/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
11	135.00	.65000	569.00	.4492-01	.5439-01	.6080-01	32.14	1.444	.4256	562.7	.1209-02
11	135.00	.70000	570.00	.5009-01	.6064-01	.6778-01	32.15	1.610	.4254	562.4	.1348-02
11	135.00	.75000	571.00	.3340-01	.4044-01	.4521-01	32.13	1.073	.4237	562.8	.8987-03
11	135.00	.80000	572.00	.2796-01	.3787-01	.3787-01	32.08	.8969	.4267	564.1	.7526-03
11	135.00	.85000	573.00	.6129-01	.7420-01	.8293-01	32.16	1.971	.4252	562.2	.1649-02
11	135.00	.90000	574.00	.4281-01	.5183-01	.5793-01	32.17	1.377	.4251	562.0	.1152-02
11	151.00	.93500	575.00	.1972	.2384	.2663	32.33	6.375	.4222	558.2	.5299-02
11	157.00	.40000	576.00	.4619-01	.5586-01	.6239-01	32.32	1.493	.4224	558.5	.1241-02
11	157.00	.42500	.77.00	.9407-01	.1137	.1270	32.36	3.045	.4217	557.5	.2528-02
11	157.00	.45000	.78.00	.9761-01	.1180	.1318	32.39	3.162	.4212	556.8	.2623-02
11	157.00	.47500	579.00	.9745-01	.1178	.1316	32.39	3.157	.4213	556.1	.2032-02
11	157.00	.50000	580.00	.7562-01	.9139-01	.1020	32.42	2.452	.4207	556.1	.2619-02
11	157.00	.55000	581.00	.3595-01	.4346-01	.4653-01	32.37	1.154	.4216	557.4	.9660-03
11	157.00	.60000	582.00	.2876-01	.3478-01	.3885-01	32.30	.9289	.4227	558.9	.7730-03
11	157.00	.65000	583.00	.3816-01	.4617-01	.5159-01	32.24	1.230	.4238	560.3	.1026-02
11	157.00	.70000	584.00	.3643-01	.4408-01	.4925-01	32.25	1.175	.4236	560.0	.9796-03
11	157.00	.75000	585.00	.2704-01	.3271-01	.3655-01	32.25	.820	.4236	560.1	.7271-03
11	157.00	.80000	586.00	.1716-01	.2076-01	.2320-01	32.24	.5530	.4239	560.5	.4614-03
11	157.00	.85000	587.00	.3285-01	.3975-01	.4441-01	32.29	1.061	.4231	559.3	.8636-03
11	157.00	.90000	588.00	.3949-01	.4777-01	.5336-01	32.29	1.275	.4230	559.2	.1052-02
11	161.00	.42500	589.00	.8396-01	.1015	.1134	32.37	2.718	.4216	557.4	.2256-02
7	165.00	.40000	593.00	.5286-01	.6376-01	.7109-01	33.90	1.792	.4149	570.4	.1462-02
11	165.00	.50000	590.00	.8076-01	.9764-01	.1090	32.38	2.615	.4215	557.2	.2170-02
7	165.00	.70000	591.00	.6027-01	.7260-01	.8088-01	34.11	2.856	.4114	565.7	.1665-02
7	165.00	.90000	592.00	.5688-01	.6851-01	.7630-01	34.15	1.943	.4108	564.8	.1571-02
7	180.00	.00000	594.00	.6738	.8132	.9070	33.80	22.77	.4167	572.9	.1864-01
7	180.00	.50000-02	595.00	.4645	.5600	.6243	33.96	15.77	.4140	566.1	.1362-01
7	180.00	.10000-01	596.00	.4928	.5937	.6615	34.09	16.80	.4117	566.1	.1571-02
7	180.00	.40000-01	597.00	.1859	.2238	.2492	34.17	6.350	.4104	564.3	.5132-02
7	180.00	.80000-01	598.00	.1410	.1698	.1892	34.10	4.807	.4116	564.3	.3895-02
7	180.00	.15000	599.00	.4395-01	.5298-01	.5904-01	34.02	1.495	.4130	567.9	.1215-02
7	180.00	.20000	600.00	.1656-01	.1995-01	.2222-01	34.11	.5648	.4114	565.7	.4575-03
7	180.00	.25000	601.00	.6015-02	.7246-02	.8072-02	34.11	.2052	.4114	565.7	.1662-03
7	180.00	.30000	602.00	.1098-01	.1323-01	.1475-01	.57.57	.3729	.4138	568.9	.3034-03
7	180.00	.35000	603.00	.3613-01	.4356-01	.4854-01	34.00	1.228	.4133	568.3	.9987-03
7	180.00	.37500	604.00	.3946-01	.4758-01	.5304-01	33.93	1.339	.4144	569.8	.1091-02
7	180.00	.40000	605.00	.4985-01	.6011-01	.6701-01	33.94	1.692	.4143	569.6	.1378-02
7	180.00	.42500	606.00	.1486	.1791	.1997	33.93	5.041	.4144	569.8	.4107-02
7	180.00	.45000	607.00	.3115	.3755	.4196	33.96	10.58	.4139	569.1	.8611-02
7	180.00	.47500	608.00	.4731-01	.5703-01	.6357-01	33.98	10.58	.4137	568.8	.1308-02
7	180.00	.50000	609.00	.8322-01	.1003	.1118	33.99	2.829	.4134	568.4	.2300-02
7	180.00	.52500	610.00	.5919-01	.7135-01	.7952-01	34.00	2.012	.4133	568.2	.1636-02
7	180.00	.55000	611.00	.5047-01	.6084-01	.6781-01	33.99	1.716	.4134	568.4	.1395-02

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
7	180.00	.57500	612.00	.6203-01	.7478-01	.8334-01	33.99	2.108	.4134	568.5	.1715-02
7	180.00	.60000	613.00	.6401-01	.7717-01	.8601-01	33.98	2.175	.4136	568.6	.1769-02
7	180.00	.62500	614.00	.6629-01	.7967-01	.8854-01	33.98	1.913	.4136	568.7	.1556-02
7	180.00	.65000	615.00	.5147-01	.6205-01	.6816-01	33.98	1.749	.4137	568.7	.1423-02
7	180.00	.67500	616.00	.6092-01	.7344-01	.8166-01	33.98	2.070	.4137	568.8	.1684-02
7	180.00	.70000	617.00	.5779-01	.6965-01	.7761-01	34.04	1.957	.4126	567.2	.1597-02
7	180.00	.75000	618.00	.4552-01	.5486-01	.6113-01	34.04	1.550	.4126	567.2	.1258-02
7	180.00	.80000	619.00	.4034-01	.4869-01	.5427-01	33.98	1.373	.4136	568.7	.1117-02
7	180.00	.85000	620.00	.3735-01	.4502-01	.5017-01	34.03	1.271	.4128	567.6	.1032-02
7	180.00	.90000	621.00	.8469-01	.1023	.1140	34.06	2.891	.4123	566.8	.2346-02
7	180.00	.93700	622.00	.1568	.1688	.2103	34.17	5.358	.4105	564.4	.4331-02
7	180.00	.97500	623.00	.2016-01	.2426-01	.2701-01	34.26	.6907	.4089	562.2	.5565-03
7	194.00	.80000	624.00	.1011	.1217	.1355	34.25	3.461	.4091	562.5	.2790-02
7	196.00	.30000	625.00	.4206-01	.5064-01	.5639-01	34.21	1.439	.4099	563.5	.1161-02
7	196.00	.50000	626.00	.2530-01	.3047-01	.3394-01	34.14	.8635	.4110	565.1	.6987-03
7	196.00	.70000	627.00	.8981-01	.1082	.1205	34.17	3.069	.4106	564.4	.2480-02
7	197.00	.90000	628.00	.5393-01	.6495-01	.7234-01	34.16	1.842	.4106	564.6	.1490-02
7	208.00	.15000	629.00	.5675-01	.6832-01	.7608-01	34.21	1.941	.4098	563.5	.1567-02
7	208.00	.40000	630.00	.4192-01	.5046-01	.5618-01	34.21	1.436	.4080	562.6	.1157-02
7	208.00	.60000	631.00	.2115-01	.2545-01	.2833-01	34.31	.7259	.4085	561.8	.5838-03
7	208.00	.80000	632.00	.3008-01	.3620-01	.4030-01	34.28	1.031	.4085	561.8	.8302-03
7	208.00	.93700	633.00	.2554-01	.3074-01	.3423-01	34.25	.8742	.4092	562.6	.7051-03
7	216.00	.40000	634.00	.1475	.1776	.1977	34.25	5.053	.4091	562.4	.4073-02
7	216.00	.50000	635.00	.4066-01	.4893-01	.5448-01	34.29	1.394	.4084	561.5	.1122-02
7	216.00	.70000	636.00	.6612-01	.7955-01	.8854-01	34.35	2.271	.4075	560.3	.1825-02
7	222.50	.33500	637.00	.4605-01	.5542-01	.6170-01	34.28	1.571	.4086	561.8	.1271-02
7	229.00	.40000	638.00	.2810-01	.3385-01	.3770-01	34.15	.9598	.4107	564.7	.7762-03
7	229.00	.60000	639.00	.1738	.2091	.2328	34.30	5.960	.4084	561.5	.4797-02
7	229.00	.80000	640.00	.3493-01	.4204-01	.4680-01	34.28	1.197	.4086	561.8	.9642-03
7	229.00	.80000	641.00	.2303-01	.2772-01	.3087-01	34.24	.7884	.4093	562.8	.6358-03

ARC 3.5-178 IH3
 EXTERNAL TANK

EXTERNAL TANK
 ARC 3.5-178 IH3 O+T+S
 EXTERNAL TANK

PARAMETRIC DATA
 RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LB	RS FT	RHOV_L SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
12	5.300	.4727*07	405.7	1348.	329.9	.1750-01	.8071	.0000	.2141-02
14	5.300	.4967*07	403.7	1303.	318.2	.1750-01	.8198	.0000	.1448-02
15	5.300	.4972*07	405.4	1303.	318.9	.1750-01	.8223	.0000	.6531-03

TEST DATA

PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R
15	.00000	501.00	.1443	.1757	.1973	57.39	8.281	.4416	586.9
15	.00000	502.00	.9766-01	.1188	.1333	57.70	5.635	.4387	583.0
15	.00000	503.00	.4409-01	.5359-01	.6006-01	58.01	2.558	.4358	579.2
15	.00000	504.00	.3097-01	.3753-01	.4198-01	58.81	1.821	.4282	569.1
15	.00000	505.00	.4575-01	.5537-01	.6188-01	59.18	2.707	.4248	564.5
15	.00000	506.00	.4043-01	.4894-01	.5470-01	59.13	2.390	.4252	565.1
15	.45.000	507.00	.4479-01	.5427-01	.6069-01	58.92	2.639	.4272	567.8
15	.45.000	508.00	.6499-01	.7873-01	.8803-01	58.95	3.831	.4269	567.3
15	.45.000	509.00	.5129-01	.6215-01	.6950-01	58.87	3.020	.4276	568.3
15	.45.000	510.00	.4724-01	.5725-01	.6404-01	58.83	2.780	.4280	569.9
15	.45.000	511.00	.5274-01	.6393-01	.7152-01	58.75	3.098	.4270	567.5
15	.45.000	512.00	.4735-01	.5737-01	.6415-01	58.94	2.791	.4348	577.9
15	.67.500	513.00	.4289-01	.5211-01	.5839-01	58.11	2.493	.4335	576.2
15	.67.500	514.00	.2017	.2449	.2743	58.25	1.175	.4315	573.5
15	.67.500	515.00	.6695-01	.8124-01	.9095-01	58.46	3.914	.4193	4887-03
12	.67.500	516.00	.3249-01	.3925-01	.4381-01	61.94	2.013	.4194	4805-03
12	.67.500	517.00	.3195-01	.3850-01	.4308-01	61.94	1.979	.4198	6045-03
12	.67.500	518.00	.3560-01	.4302-01	.4802-01	61.90	2.204	.4179	5176-03
12	.67.500	519.00	.4021-01	.4855-01	.5417-01	62.10	2.497	.4175	4978-03
12	.67.500	520.00	.3443-01	.4157-01	.4637-01	62.14	2.140	.4191	7094-03
12	.67.500	521.00	.3310-01	.3998-01	.4462-01	61.97	2.051	.4182	575.0
12	.67.500	522.00	.4719-01	.5698-01	.6358-01	62.07	2.929	.4187	7825-03
12	.90.000	523.00	.5204-01	.6285-01	.7013-01	62.01	3.227	.4189	5710-03
12	.90.000	524.00	.3797-01	.4586-01	.5118-01	61.99	2.353	.4189	5828-03
12	.90.000	525.00	.3871-01	.4682-01	.5230-01	61.55	2.383	.4229	

ARC 3.5-178 1H3

DATE 24 JAN 76

EXTERNAL TANK

ARC 3.5-178 1H3 O+T+S

PUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
12	90.000	.30000	526.00	.1625	.1965	.2198	61.34	9.966	.4248	584.1	.2448-02
12	90.000	.32500	527.00	.3727	.4513	.5046	61.21	22.81	.4260	585.7	.5617-02
12	90.000	.35000	528.00	.1598	.1931	.2156	61.80	9.875	.4207	578.4	.2404-02
12	90.000	.40000	529.00	.6564-01	.7934-01	.8859-01	61.77	4.055	.4209	578.7	.9878-03
12	90.000	.45000	530.00	.3541-01	.4279-01	.4777-01	61.86	2.191	.4201	577.6	.5327-03
12	90.000	.50000	531.00	.2178-01	.2632-01	.2937-01	61.88	1.348	.4199	577.4	.3276-03
12	90.000	.55000	532.00	.2318-01	.2801-01	.3126-01	61.92	1.435	.4196	576.9	.3487-03
12	90.000	.60000	533.00	.4427-01	.5349-01	.5971-01	61.88	2.740	.4199	577.3	.6659-03
12	90.000	.65000	534.00	.4391-01	.5031-01	.5732-01	61.87	3.088	.4200	577.5	.7508-03
12	90.000	.70000	535.00	.6417-01	.7748-01	.8645-01	62.08	3.984	.4180	574.8	.9647-03
12	90.000	.75000	536.00	.6095-01	.7361-01	.8212-01	62.11	3.787	.4178	574.5	.7165-03
12	90.000	.80000	537.00	.6266-01	.7571-01	.8450-01	61.91	3.879	.4196	577.0	.9426-03
12	90.000	.85000	538.00	.5781-01	.6983-01	.7794-01	61.95	3.591	.4193	576.5	.8694-03
12	90.000	.90000	539.00	.5499-01	.6640-01	.7408-01	62.07	3.413	.4181	575.0	.8267-03
12	112.50	.27500	540.00	.3479-01	.4682-01	.5233-01	61.80	2.397	.4206	578.3	.5836-03
12	112.50	.30000	541.00	.3758-01	.4543-01	.5073-01	61.75	2.321	.4210	579.0	.5656-03
12	112.50	.32500	542.00	.7666-01	.9265-01	1.035	61.77	4.735	.4209	578.7	.1154-02
12	112.50	.35000	543.00	.2041	.2467	.2754	61.82	12.62	.4205	578.2	.3071-02
12	112.50	.40000	544.00	.5152-01	.6225-01	.6949-01	61.87	3.188	.4199	577.5	.7750-03
12	112.50	.45000	545.00	.4441-01	.4959-01	.5359-01	61.89	2.275	.4199	577.3	.5529-03
12	112.50	.50000	546.00	.2648-01	.3441-01	.3922-01	61.65	1.762	.4201	577.7	.4284-03
12	112.50	.55000	547.00	.3620-01	.4374-01	.4833-01	61.85	2.239	.4201	577.7	.5446-03
12	112.50	.60000	548.00	.2573-01	.3116-01	.3478-01	61.86	1.595	.4203	577.6	.3879-03
12	112.50	.65000	549.00	.4903-01	.5927-01	.6618-01	61.75	3.028	.4211	579.0	.7378-03
12	112.50	.70000	550.00	.7168-01	.8683-01	.9691-01	61.95	4.453	.4193	576.5	.1185-02
12	112.50	.75000	551.00	.7883-01	.9520-01	1.063	61.91	4.879	.4196	576.9	.1185-02
12	112.50	.80000	552.00	.6524-01	.7897-01	.8608-01	61.69	4.025	.4216	579.0	.9918-03
12	112.50	.85000	553.00	.6134-01	.7415-01	.8091-01	61.71	3.765	.4214	579.5	.9232-03
12	112.50	.90000	554.00	.6368-01	.7697-01	.8594-01	61.76	3.933	.4210	578.9	.9582-03
12	123.00	.82500	555.00	.9552-01	1.154	1.259	61.84	5.907	.4203	577.9	.1437-02
12	123.00	.85000	556.00	.3516-01	.4244-01	.4735-01	62.17	2.186	.4173	573.8	.5285-03
12	123.00	.87500	557.00	.6996-01	.8453-01	.9435-01	61.91	4.331	.4197	577.1	.1052-02
12	123.00	.90000	558.00	.8132-01	.9827-01	1.097	61.83	5.028	.4203	578.0	.1223-02
12	123.00	.92500	559.00	.1470	.1777	.1934	61.82	9.089	.4205	578.2	.2212-02
12	123.00	.95000	560.00	.1014	.1225	.1368	61.95	6.283	.4193	576.6	.1526-02
12	135.00	.32500	561.00	.3484-01	.4210-01	.4699-01	61.88	2.156	.4199	577.4	.5241-03
12	135.00	.35000	562.00	.5149-01	.6220-01	.6941-01	61.98	3.191	.4190	576.2	.7744-03
12	135.00	.37500	563.00	.4356-01	.5262-01	.5872-01	62.00	2.701	.4188	575.9	.6551-03
12	135.00	.40000	564.00	.4742-01	.5727-01	.6390-01	62.03	2.941	.4186	575.6	.7130-03
12	135.00	.45000	565.00	.7440-01	.8987-01	1.003	61.96	4.610	.4191	576.3	.1119-02
12	135.00	.50000	566.00	.1037	.1253	.1398	61.89	6.417	.4198	577.2	.1560-02
12	135.00	.55000	567.00	.1116	.1348	.1504	61.92	6.907	.4196	576.9	.1678-02
12	135.00	.60000	568.00	.7779-01	.9383-01	1.046	62.40	4.853	.4152	570.9	.1169-02

ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	EXTERNAL TANK				HM/HT	TM DEG. R	STN NO R=0.9	
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QDOT BTU/ FT2SEC				
12	135.00	.65000	569.00	.6326-01	.7638-01	.8521-01	62.13	3.930	.4176	574.3	.9510-03
12	135.00	.70000	570.00	.5876-01	.8764-01	.9775-01	62.21	4.517	.4169	573.3	.1091-02
12	135.00	.75000	571.00	.5887-01	.7108-01	.7931-01	62.09	3.655	.4180	574.8	.8851-03
12	135.00	.80000	572.00	.5039-01	.6091-01	.6801-01	61.74	3.111	.4212	579.1	.7583-03
12	135.00	.85000	573.00	.7312-01	.8835-01	.9862-01	61.87	3.714	.4200	577.5	.1100-02
12	135.00	.90000	574.00	.6006-01	.7258-01	.8103-01	61.84	3.714	.4203	577.9	.9036-03
12	151.00	.93500	575.00	.2257	.2724	.3038	62.24	14.05	.4165	572.9	.3392-02
12	157.00	.40000	576.00	.6070-01	.7336-01	.8190-01	61.81	3.752	.4205	578.3	.9133-03
12	157.00	.42500	577.00	.1010	.1220	.1362	61.90	6.252	.4197	577.2	.1519-02
12	157.00	.45000	578.00	.1628	.1966	.2193	62.11	10.11	.4178	574.5	.2447-02
12	157.00	.47500	579.00	.1345	.1623	.1810	62.26	8.372	.4165	572.7	.2021-02
12	157.00	.50000	580.00	.8959-01	.1080	.1204	62.63	5.611	.4131	568.0	.1345-02
12	157.00	.55000	581.00	.5171-01	.6235-01	.6950-01	62.54	3.234	.4139	569.2	.7765-03
12	157.00	.60000	582.00	.2787-01	.4569-01	.5095-01	62.35	2.361	.4156	571.5	.5689-03
12	157.00	.65000	583.00	.4543-01	.5482-01	.6115-01	62.23	2.827	.4167	573.0	.6827-03
12	157.00	.70000	584.00	.4411-01	.5323-01	.5936-01	62.30	2.748	.4161	572.1	.6628-03
12	157.00	.75000	585.00	.3691-01	.4454-01	.4968-01	62.27	2.298	.4163	572.5	.5546-03
12	157.00	.80000	586.00	.2460-01	.2970-01	.3313-01	62.11	1.568	.4178	574.5	.3698-03
12	157.00	.85000	587.00	.3172-01	.3929-01	.4371-01	62.19	1.973	.4171	573.5	.4767-03
12	157.00	.90000	588.00	.4906-01	.5923-01	.6308-01	62.14	3.049	.4175	574.1	.7375-03
12	161.00	.42500	589.00	.1148	.1281	.1499	61.88	5.877	.4199	577.4	.1429-02
14	165.00	.40000	593.00	.4868-01	.5948-01	.6672-01	57.43	2.807	.4390	582.2	.7253-03
12	165.00	.50000	590.00	.8263-01	.9974-01	.1113	62.21	5.140	.4169	573.3	.1242-02
14	165.00	.70000	591.00	.7385-01	.8949-01	.1001	58.55	4.332	.4274	566.8	.1092-02
14	165.00	.90000	592.00	.6891-01	.8352-01	.9361-01	58.23	4.013	.4313	572.1	.1020-02
14	180.00	.00000	594.00	.6296	.7725	.8717	55.23	34.77	.4598	609.9	.9411-02
14	180.00	.00000-02	595.00	.5479	.6702	.7545	56.05	30.71	.4521	599.6	.8167-02
14	180.00	.10000-01	596.00	.5715	.6974	.7835	56.76	32.45	.4453	599.6	.8501-02
14	180.00	.40000-01	597.00	.2845	.3464	.3687	57.29	16.30	.4403	584.0	.4224-02
14	180.00	.80000-01	599.00	.2564	.3122	.3502	57.33	14.70	.4399	583.4	.3806-02
14	180.00	.15000	599.00	.8997-01	.1095	.1229	57.34	5.159	.4398	583.3	.1335-02
14	180.00	.20000	600.00	.4500-01	.5460-01	.6111-01	58.28	2.623	.4308	571.4	.6661-03
14	180.00	.25000	601.00	.3127-01	.3790-01	.4233-01	58.52	1.830	.4286	568.5	.4677-03
14	180.00	.30000	602.00	.3154-01	.3834-01	.4298-01	57.70	1.820	.4363	578.7	.5270-03
14	180.00	.35000	603.00	.3555-01	.4321-01	.4844-01	57.70	2.051	.4364	578.8	.6836-03
14	180.00	.37500	604.00	.4607-01	.5606-01	.6286-01	57.48	2.649	.4384	581.5	.6706-03
14	180.00	.40000	605.00	.4518-01	.5499-01	.6169-01	57.37	2.592	.4395	582.9	.1943-02
14	180.00	.42500	605.00	.1308	.1594	.1768	57.20	7.485	.4411	585.0	.5305-02
14	180.00	.45000	607.00	.3574	.4350	.4880	57.36	20.50	.4396	583.0	.1061-02
14	180.00	.47500	609.00	.7151-01	.8701-01	.9759-01	57.45	4.108	.4367	591.9	.2066-02
14	180.00	.50000	609.00	.1392	.1694	.1900	57.50	8.005	.4383	591.3	.1473-02
14	180.00	.52500	610.00	.9930-01	.1208	.1374	57.54	5.713	.4379	580.8	.1154-02
14	180.00	.55000	611.00	.7780-01	.9464-01	.1061	57.53	4.476	.4380	580.9	

REPRODUCIBILITY OF THE ORIGINAL PAGE IS 1

DATE 24 JAN 76 ARC 3.5-178 IH3 ARC 3.5-178 IH3 O+T+S EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	H/W/HT	TW DEG. R	STN NO R=0.9
14	180.00	.57500	612.00	.8927-01	.1086	.1218	57.51	5.134	.4382	581.2	.1324-02
14	180.00	.60000	613.00	.9386-01	.1142	.1281	57.42	5.390	.4390	582.2	.1393-02
14	180.00	.62500	614.00	.8801-01	.1071	.1201	57.41	5.053	.4391	582.4	.1306-02
14	180.00	.65000	615.00	.8621-01	.1049	.1177	57.36	4.945	.4396	583.0	.1280-02
14	180.00	.67500	616.00	.8351-01	.1016	.1140	57.44	4.797	.4388	582.0	.1239-02
14	180.00	.70000	617.00	.8120-01	.9864-01	.1105	57.92	4.703	.4343	576.0	.1203-02
14	180.00	.75000	618.00	.6517-01	.8035-01	.9000-01	58.00	3.838	.4335	575.0	.9802-03
14	180.00	.80000	619.00	.5530-01	.6855-01	.7693-01	57.26	3.224	.4406	584.3	.8359-03
14	180.00	.85000	620.00	.5127-01	.6243-01	.7004-01	57.29	2.937	.4403	583.9	.7612-03
14	180.00	.90000	621.00	.8916-01	.1085	.1217	57.45	5.122	.4387	581.9	.1323-02
14	180.00	.93700	622.00	.1604	.1550	.2186	57.71	9.259	.4353	578.6	.2379-02
14	180.00	.97500	623.00	.2129-01	.2579-01	.2884-01	58.64	1.248	.4275	567.0	.3147-03
14	194.00	.80000-01	624.00	.1992	.2418	.2708	58.06	11.56	.4329	574.2	.2950-02
14	196.00	.15000	625.00	.7785-01	.9144-01	.1057	58.28	4.537	.4308	571.4	.1152-02
14	196.00	.30000	626.00	.2919-01	.3538-01	.3958-01	58.55	1.709	.4284	568.1	.4317-03
14	196.00	.50000	627.00	.1147	.1391	.1558	58.21	6.674	.4315	572.3	.1697-02
14	196.00	.70000	628.00	.6560-01	.7954-01	.8899-01	58.45	3.834	.4293	569.4	.9704-03
14	197.00	.90000	629.00	.6643-01	.8063-01	.9028-01	58.13	3.861	.4323	573.4	.9836-03
14	208.00	.15000	630.00	.7984-01	.9684-01	.1084	58.32	4.656	.4305	571.0	.1182-02
14	208.00	.40000	631.00	.4075-01	.4928-01	.5503-01	59.23	2.414	.4219	559.6	.6015-03
14	208.00	.60000	632.00	.3718-01	.4499-01	.5027-01	59.00	2.193	.4241	562.4	.5491-03
14	208.00	.80000	633.00	.2830-01	.3429-01	.3932-01	58.78	1.664	.4261	565.2	.4183-03
14	208.00	.93700	634.00	.1569	.1901	.2125	58.65	9.201	.4273	566.8	.2319-02
14	216.00	.40000	635.00	.5210-01	.6304-01	.7044-01	59.01	3.074	.4240	562.3	.7694-03
14	216.00	.50000	636.00	.8581-01	.1037	.1158	59.31	5.089	.4211	558.6	.1266-02
14	216.00	.70000	637.00	.5704-01	.6892-01	.7693-01	59.44	3.390	.4139	566.9	.8413-03
14	222.50	.35500	638.00	.4810-01	.5838-01	.6536-01	58.16	2.797	.4321	573.0	.7121-03
14	229.00	.40000	639.00	.1672	.2026	.2266	58.65	9.807	.4274	566.9	.2472-02
14	229.00	.60000	640.00	.4251-01	.5153-01	.5765-01	58.48	2.486	.4290	569.0	.6287-03
14	229.00	.80000	641.00	.3217-01	.3902-01	.4368-01	58.29	1.875	.4308	571.3	.4761-03

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.3968-02
22	5.300	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.2416-02
22	5.300	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.1697-02
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.9066-03
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.9329-03
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.7733-03
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.9764-03
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.1057-02
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.7317-03
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.8028-03
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.8912-03
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.9434-03
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.6753-03
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.4938-02
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.1197-02
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.4298-03
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.4173-03
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.4819-03
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.8668-03
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.7936-03
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.5649
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.7760-03
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.1316-02
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.7281-03
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.5670
22	5.000	.1606+07	119.9	1235.	300.9	.1750-01	.2513	.0000	.5024-03
22	5.000	.1528+07	122.1	1289.	314.8	.1750-01	.2495	.0000	.5667
22	5.000	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.4640-03

TEST DATA

PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	ODOT BTU/FT2SEC	HK/HT	TH DEG. R
.00000	.40000-01	501.00	.1467	.1771	.1977	33.25	4.877	.4188	563.5
.00000	.60000-01	502.00	.6936-01	.1079	.1203	33.36	2.981	.4169	561.1
.00000	.15000	503.00	.6281-01	.7576-01	.6447-01	33.48	2.103	.4149	558.3
.00000	.40000	504.00	.3351-01	.4045-01	.4504-01	33.81	1.136	.4093	550.8
.00000	.60000	505.00	.3645-01	.4366-01	.4881-01	33.91	1.236	.4077	548.6
.00000	.80000	506.00	.2669-01	.3450-01	.3840-01	33.93	.9733	.4072	548.0
.00000	.40000	507.00	.3619-01	.4357-01	.4852-01	33.79	1.223	.4097	551.2
.00000	.60000	508.00	.3919-01	.4717-01	.5251-01	33.85	1.326	.4087	550.0
.00000	.80000	509.00	.2713-01	.3265-01	.3635-01	33.82	.9193	.4082	549.2
.00000	.40000	510.00	.2978-01	.3582-01	.3986-01	33.95	1.011	.4071	547.8
.00000	.60000	511.00	.3306-01	.3976-01	.4425-01	33.95	1.122	.4069	547.6
.00000	.80000	512.00	.3501-01	.4209-01	.4682-01	34.03	1.191	.4056	545.8
.00000	.40000	513.00	.2500-01	.3014-01	.3359-01	33.57	.8394	.4134	556.2
.00000	.60000	514.00	.1929	.2204	.2456	33.65	6.156	.4120	554.4
.00000	.80000	515.00	.4435-01	.5341-01	.5948-01	33.77	1.498	.4101	551.8
.00000	.40000	516.00	.1628-01	.1989-01	.2238-01	28.91	.4706	.4499	564.1
.00000	.60000	517.00	.1580-01	.1931-01	.2173-01	28.89	.4564	.4450	564.8
.00000	.80000	518.00	.1824-01	.2230-01	.2510-01	28.84	.5261	.4512	565.7
.00000	.40000	519.00	.3357-01	.4105-01	.4619-01	28.86	.9690	.4509	565.3
.00000	.60000	520.00	.3605-01	.3673-01	.4133-01	28.87	.8676	.4506	565.0
.00000	.80000	521.00	.2938-01	.3592-01	.4041-01	28.88	.8484	.4506	564.9
.00000	.40000	522.00	.4966-01	.6092-01	.6852-01	26.95	1.443	.4492	563.2
.00000	.60000	523.00	.1901-01	.3370-01	.3794-01	29.79	.7932	.4522	567.0
.00000	.80000	524.00	.1901-01	.2325-01	.2617-01	28.60	.5475	.4520	566.7
.00000	.40000	525.00	.1755-01	.2148-01	.2419-01	28.73	.5042	.4533	568.4

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
23	90.000	.30000	526.00	.1407	.1723	.1940	28.70	4.040	.4538	563.0	.3722-02
23	90.000	.32500	527.00	.3293	.4031	.4540	28.71	9.457	.4536	568.7	.8708-02
23	90.000	.35000	528.00	.1637	.2002	.2252	28.88	4.728	.4505	564.9	.4324-02
23	90.000	.40000	529.00	.6229-01	.7615-01	.8569-01	28.98	1.799	.4505	564.9	.1645-02
23	90.000	.45000	530.00	.3055-01	.3735-01	.4202-01	28.89	.8827	.4503	564.6	.8969-03
23	90.000	.50000	531.00	.1829-01	.2236-01	.2516-01	28.89	.5284	.4504	564.8	.4832-03
23	90.000	.55000	532.00	.1299-01	.1588-01	.1787-01	28.89	.3754	.4504	564.7	.3431-03
23	90.000	.60000	533.00	.2416-01	.2953-01	.3323-01	28.87	.6973	.4508	565.2	.6381-03
23	90.000	.65000	534.00	.4864-01	.5948-01	.6694-01	28.84	1.403	.4513	565.8	.1285-02
23	90.000	.70000	535.00	.4345-01	.5312-01	.5978-01	28.86	1.254	.4509	565.3	.1148-02
23	90.000	.75000	536.00	.4620-01	.5649-01	.6357-01	28.86	1.333	.4510	565.4	.1220-02
23	90.000	.80000	537.00	.4911-01	.6005-01	.6758-01	28.85	1.416	.4512	565.7	.1297-02
23	90.000	.85000	538.00	.4889-01	.5977-01	.6726-01	28.88	1.309	.4506	565.0	.1291-02
23	90.000	.90000	539.00	.4527-01	.5533-01	.6225-01	28.91	1.309	.4499	564.1	.1195-02
23	112.50	.27500	540.00	.2003-01	.2450-01	.2759-01	28.76	.5761	.4527	567.6	.5294-03
23	112.50	.30000	541.00	.2247-01	.2749-01	.3095-01	28.76	.6463	.4527	567.6	.5939-03
23	112.50	.32500	542.00	.6599-01	.8072-01	.9086-01	28.80	1.900	.4521	566.8	.1744-02
23	112.50	.35000	543.00	.1701	.2081	.2342	28.82	4.903	.4516	566.3	.4495-02
23	112.50	.40000	544.00	.3479-01	.4254-01	.4787-01	28.86	1.004	.4509	565.5	.4491-03
23	112.50	.45000	545.00	.1700-01	.2079-01	.2339-01	28.85	4.905	.4510	565.5	.4491-03
23	112.50	.50000	546.00	.1071-01	.1310-01	.1474-01	28.82	.3087	.4516	566.2	.2830-03
23	112.50	.55000	547.00	.4077-01	.4988-01	.5615-01	28.79	.5102	.4518	566.5	.4680-03
23	112.50	.60000	548.00	.1771-01	.2166-01	.2438-01	28.91	1.174	.4522	567.0	.1078-02
23	112.50	.65000	549.00	.3520-01	.4307-01	.4849-01	28.76	1.012	.4528	567.7	.9304-03
23	112.50	.70000	550.00	.1769-01	.2164-01	.2436-01	28.80	.5095	.4520	566.8	.4675-03
23	112.50	.75000	551.00	.5583-01	.6829-01	.7687-01	28.79	1.607	.4521	566.9	.1475-02
23	112.50	.80000	552.00	.6184-01	.7566-01	.8518-01	28.76	1.779	.4527	567.6	.1634-02
23	112.50	.85000	553.00	.5891-01	.7206-01	.8111-01	28.80	1.696	.4521	566.8	.1557-02
23	112.50	.90000	554.00	.5172-01	.6326-01	.7121-01	28.81	1.490	.4519	566.6	.1367-02
23	123.00	.82500	555.00	.8172-01	.9599-01	1.126	28.76	2.351	.4527	567.6	.2160-02
23	123.00	.85000	556.00	.3561-01	.4357-01	.4906-01	28.76	1.024	.4527	567.6	.9413-03
23	123.00	.87500	557.00	.4676-01	.5661-01	.6373-01	28.75	1.330	.4529	567.9	.1223-02
23	123.00	.90000	558.00	.5810-01	.7109-01	.8004-01	28.76	1.671	.4528	567.7	.1536-02
23	123.00	.92500	559.00	.1189	.1454	.1637	28.77	3.419	.4526	567.5	.3141-02
23	123.00	.95000	560.00	.9291-01	.1136	.1279	28.84	2.679	.4513	565.9	.2455-02
23	135.00	.32500	561.00	.1785-01	.2184-01	.2458-01	28.78	.5137	.4524	567.3	.4718-03
23	135.00	.35000	562.00	.4289-01	.5246-01	.5905-01	28.81	1.235	.4519	566.6	.1133-02
23	135.00	.37500	563.00	.3299-01	.4035-01	.4541-01	28.81	.9504	.4518	566.5	.8717-03
23	135.00	.40000	564.00	.4081-01	.4991-01	.5618-01	29.82	1.476	.4522	567.4	.1078-02
23	135.00	.45000	565.00	.5152-01	.6302-01	.7095-01	28.79	1.483	.4522	567.0	.1362-02
23	135.00	.50000	566.00	.6965-01	.8522-01	.9594-01	28.76	2.003	.4527	567.6	.1841-02
23	135.00	.55000	567.00	.8609-01	.1053	.1186	28.77	2.476	.4526	567.5	.2276-02
23	135.00	.60000	568.00	.4872-01	.5962-01	.6713-01	28.74	1.400	.4531	568.2	.1288-02

ARC 3.5-178 IH3 O+T+S (TRIPS) EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HTREF R=1.0	H/HTREF R=0.9	H/HTREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
23	135.00	.65000	569.00	.4777-01	.5847-01	.6585-01	28.71	1.371	.4537	568.9	.1263-02
23	135.00	.70000	570.00	.5890-01	.7207-01	.8114-01	28.76	1.694	.4527	567.6	.1557-02
23	135.00	.75000	571.00	.4179-01	.5113-01	.5757-01	28.76	1.202	.4527	567.7	.1105-02
23	135.00	.80000	572.00	.3233-01	.3957-01	.4457-01	28.71	.9281	.4537	568.9	.8549-03
23	135.00	.85000	573.00	.6236-01	.7631-01	.9591-01	28.76	1.793	.4528	567.8	.1648-02
23	135.00	.90000	574.00	.4995-01	.6112-01	.6681-01	28.76	1.437	.4527	567.6	.1320-02
23	151.00	.93500	575.00	.1947	.2380	.2678	28.86	5.519	.4508	565.3	.5142-02
23	151.00	.40000	576.00	.5501-01	.6730-01	.7577-01	28.77	1.583	.4526	567.5	.1454-02
23	157.00	.42500	577.00	.9282-01	.1135	.1278	28.80	2.673	.4518	566.7	.2453-02
23	157.00	.45000	578.00	.1193	.1459	.1642	28.81	3.436	.4518	566.5	.3152-02
23	157.00	.47500	579.00	.1203	.1471	.1655	28.82	3.466	.4516	566.2	.3177-02
23	157.00	.50000	580.00	.8020-01	.9809-01	.1104	28.82	2.311	.4519	566.3	.2119-02
23	157.00	.55000	581.00	.4069-01	.4977-01	.5602-01	28.80	1.172	.4519	566.6	.1075-02
23	157.00	.60000	582.00	.3489-01	.4268-01	.4805-01	28.78	1.004	.4524	567.2	.9221-03
23	157.00	.65000	583.00	.4289-01	.5248-01	.5908-01	28.77	1.047	.4526	567.5	.1134-02
23	157.00	.70000	584.00	.3632-01	.4443-01	.5000-01	28.81	1.234	.4518	566.4	.8156-03
23	157.00	.75000	585.00	.3087-01	.3775-01	.4249-01	28.81	.8893	.4518	566.4	.8156-03
23	157.00	.80000	586.00	.1718-01	.2102-01	.2367-01	28.78	.4945	.4524	567.3	.4541-03
23	157.00	.85000	587.00	.2630-01	.3216-01	.3620-01	28.81	.7576	.4518	566.5	.6949-03
23	157.00	.90000	588.00	.3738-01	.4572-01	.5145-01	28.81	1.077	.4519	566.6	.9876-03
23	161.00	.42500	589.00	.8451-01	.1034	.1164	28.79	2.433	.4522	567.0	.2233-02
23	165.00	.40000	593.00	.5283-01	.6416-01	.7186-01	31.53	1.666	.4335	568.7	.1413-02
23	165.00	.50000	590.00	.7685-01	.9400-01	.1058	28.80	2.213	.4520	566.7	.2031-02
24	165.00	.70000	591.00	.5472-01	.6633-01	.7420-01	31.81	1.741	.4286	562.3	.1462-02
24	180.00	.90000	592.00	.5904-01	.7155-01	.8003-01	31.85	1.880	.4436	581.9	.1809-01
24	180.00	.00000	594.00	.6740	.8217	.9228	30.96	20.87	.4397	576.7	.1274-01
24	180.00	.50000-02	595.00	.4754	.5786	.6491	31.18	14.82	.4362	572.2	.1397-01
24	180.00	.10000-01	596.00	.5218	.6343	.7109	31.38	16.38	.4325	567.4	.5133-02
24	180.00	.40000-01	597.00	.1919	.2330	.2609	31.59	6.063	.4325	567.4	.3994-02
24	180.00	.80000-01	598.00	.1494	.1813	.2030	31.59	4.718	.4325	567.4	.3994-02
24	190.00	.15000	599.00	.7466-01	.9089-01	.1018	31.55	2.362	.4332	568.3	.2002-02
24	180.00	.20000	600.00	.2765-01	.3354-01	.3753-01	31.77	.3578	.4301	564.2	.7391-03
24	180.00	.25000	601.00	.1126-01	.1365-01	.1528-01	31.77	.3182	.4294	563.3	.3009-03
24	180.00	.30000	602.00	.1007-01	.1222-01	.1368-01	31.61	1.115	.4322	566.9	.2692-03
24	180.00	.35000	603.00	.3522-01	.4273-01	.4784-01	31.65	1.468	.4315	566.0	.9416-03
24	180.00	.37500	604.00	.4648-01	.5643-01	.6319-01	31.59	1.468	.4325	567.4	.1243-02
24	180.00	.40000	605.00	.4715-01	.5725-01	.6411-01	31.57	1.488	.4330	568.0	.1261-02
24	180.00	.42500	606.00	.1241	.1507	.1687	31.55	3.914	.4333	568.5	.3319-02
24	180.00	.45000	607.00	.3903	.4738	.5306	31.60	12.33	.4324	567.3	.1044-01
24	180.00	.47500	608.00	.6370-01	.7731-01	.8696-01	31.62	2.014	.4321	566.9	.1713-02
24	180.00	.50000	609.00	.1117	.1355	.1517	31.64	3.533	.4318	566.4	.2986-02
24	180.00	.52500	610.00	.7823-01	.9493-01	.1063	31.64	2.475	.4316	566.2	.2092-02
24	180.00	.55000	611.00	.5627-01	.7071-01	.7917-01	31.64	1.844	.4317	566.3	.1558-02

ARC 3.5-178 IH3 O+T+S (TR)(FS) EXTERNAL TANK

(REI103)

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
24	180.00	.57500	612.00	.6361-01	.7719-01	.8642-01	31.64	2.013	.4317	566.3	.1701-02
24	180.00	.60000	613.00	.6675-01	.8101-01	.9070-01	31.63	2.111	.4319	566.6	.1785-02
24	180.00	.62500	614.00	.6289-01	.7633-01	.8546-01	31.62	1.989	.4320	566.7	.1682-02
24	180.00	.65000	615.00	.5678-01	.6991-01	.7715-01	31.62	1.795	.4319	566.5	.1518-02
24	180.00	.67500	616.00	.5937-01	.7205-01	.8066-01	31.63	1.878	.4319	566.5	.1587-02
24	180.00	.70000	617.00	.6329-01	.7677-01	.8591-01	31.73	2.008	.4302	564.3	.1692-02
24	180.00	.75000	618.00	.4405-01	.5342-01	.5978-01	31.73	1.398	.4301	564.2	.1177-02
24	180.00	.80000	619.00	.3753-01	.4555-01	.5100-01	31.61	1.186	.4323	567.1	.1004-02
24	180.00	.85000	620.00	.3401-01	.4126-01	.449	31.61	1.077	.4314	565.9	.9092-03
24	180.00	.90000	621.00	.7726-01	.9370-01	.149	31.73	2.451	.4301	564.3	.2065-02
24	180.00	.93700	622.00	.1298	.1573	.179	31.85	4.133	.4280	561.4	.3465-02
24	180.00	.97500	623.00	.1778-01	.2153-01	.243-01	32.02	.5694	.4251	557.7	.4745-03
24	194.00	.80000-01	624.00	.1013	.1228	.134	31.77	3.217	.4295	563.4	.2706-02
24	196.00	.15000	625.00	.5910-01	.7166-01	.8017-01	31.78	1.878	.4293	563.1	.1579-02
24	196.00	.30000	626.00	.2666-01	.3232-01	.3615-01	31.62	.8484	.4286	562.2	.7122-03
24	196.00	.50000	627.00	.8198-01	.9938-01	.1112	31.81	2.608	.4287	562.4	.2190-02
24	196.00	.70000	628.00	.5151-01	.6243-01	.6983-01	31.84	1.640	.4282	561.7	.1376-02
24	197.00	.90000	629.00	.5054-01	.6123-01	.6848-01	31.87	1.611	.4276	561.0	.1349-02
24	208.00	.15000	630.00	.6450-01	.7818-01	.8746-01	31.81	2.052	.4287	562.4	.1723-02
24	208.00	.40000	631.00	.2141-01	.2592-01	.2898-01	31.95	.6839	.4270	559.2	.5714-03
24	208.00	.60000	632.00	.2406-01	.2915-01	.3259-01	31.91	.7677	.4270	560.2	.6423-03
24	208.00	.80000	633.00	.2169-01	.2629-01	.2940-01	31.87	.6915	.4276	560.9	.5793-03
24	208.00	.93700	634.00	.1256	.1521	.1701	31.89	4.004	.4274	560.6	.3352-02
24	216.00	.40000	635.00	.4736-01	.5735-01	.6411-01	31.98	1.515	.4257	558.5	.1264-02
24	216.00	.50000	636.00	.6952-01	.8420-01	.9413-01	31.96	2.222	.4282	559.0	.1856-02
24	216.00	.70000	637.00	.4847-01	.5870-01	.6563-01	31.95	1.549	.4263	559.2	.1294-02
24	222.50	.33500	638.00	.3232-01	.3918-01	.4384-01	31.78	1.027	.4292	563.1	.8634-03
24	229.00	.40000	639.00	.1562	.1892	.2115	31.97	4.995	.4250	558.8	.4170-02
24	229.00	.60000	640.00	.3738-01	.4528-01	.5084-01	31.90	1.192	.4272	560.5	.9980-03
24	229.00	.80000	641.00	.2844-01	.3447-01	.3955-01	31.85	.9059	.4280	561.5	.7596-03

ARC 3.5-178 IH3 O+T+S (TRIPS) EXTERNAL TANK

(REIT04)

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
27	5.300	.4977+07	406.0	1306.	319.0	.1750-01	.8234	.0000
28	5.300	.4957+07	405.6	1308.	319.6	.1750-01	.8216	.0000
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8238	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	OOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
29	.00000	.40000-01	501.00	.1432	.1747	.1963	57.12	8.178	.4453	592.4	.2126-02
29	.00000	.80000-01	502.00	.9378-01	.1143	.283	57.45	5.388	.4422	588.2	.1391-02
29	.00000	.15000	503.00	.1148	.1397	.1567	57.84	6.642	.4386	583.4	.1701-02
29	.00000	.40000	504.00	.4418-01	.5361-01	.6000-01	58.69	2.594	.4306	572.8	.6831-03
29	.00000	.60000	505.00	.4474-01	.5420-01	.6061-01	59.04	2.642	.4272	568.3	.8605-03
29	.00000	.80000	506.00	.3501-01	.4240-01	.4741-01	59.09	2.069	.4296	567.7	.5167-03
29	.45.000	.40000	507.00	.4761-01	.5288-01	.5917-01	58.79	2.564	.4296	571.5	.6443-03
29	.45.000	.60000	508.00	.6492-01	.7869-01	.8803-01	58.91	3.824	.4235	570.0	.9588-03
29	.45.000	.80000	509.00	.4948-01	.5997-01	.6709-01	58.88	2.714	.4281	570.4	.7307-03
29	.45.000	.10000	510.00	.4603-01	.5579-01	.6240-01	58.95	2.714	.4281	569.5	.6798-03
29	.45.000	.30000	511.00	.5465-01	.6626-01	.7414-01	58.83	3.216	.4292	570.9	.8073-03
29	.45.000	.50000	512.00	.4613-01	.5629-01	.6250-01	59.05	2.724	.4271	568.2	.6198-03
29	.67.500	.30000	513.00	.4186-01	.5090-01	.5705-01	58.06	2.430	.4365	580.7	.6010-03
29	.67.500	.50000	514.00	.2002	.2433	.2726	58.18	1.665	.4331	579.1	.2963-02
29	.67.500	.70000	515.00	.6785-01	.8239-01	.9227-01	58.42	3.664	.4331	576.1	.1904-02
28	.67.500	.90000	516.00	.3226-01	.3900-01	.4355-01	59.70	1.526	.4214	561.4	.4762-03
28	.67.500	.10000	517.00	.3290-01	.3978-01	.4441-01	59.72	1.965	.4212	561.1	.4857-03
28	.67.500	.30000	518.01	.3799-01	.4594-01	.5130-01	59.67	2.267	.4217	561.7	.5609-03
28	.67.500	.50000	519.00	.4278-01	.5171-01	.5773-01	59.77	2.557	.4207	560.5	.6314-03
28	.67.500	.70000	520.00	.3596-01	.4345-01	.4850-01	59.85	2.152	.4200	559.5	.5306-03
28	.67.500	.90000	521.00	.3706-01	.4478-01	.4999-01	59.85	2.218	.4200	559.5	.5469-03
28	.90.000	.10000	522.00	.5301-01	.6401-01	.7142-01	60.03	3.182	.4183	557.2	.7817-03
28	.90.000	.30000	523.00	.6046-01	.7310-01	.8164-01	59.65	3.606	.4219	561.9	.8926-03
28	.90.000	.50000	524.00	.4223-01	.5107-01	.5704-01	59.63	2.518	.4220	562.2	.6236-03
28	.90.000	.70000	525.00	.4309-01	.5217-01	.5833-01	59.22	2.551	.4259	567.4	.6369-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S (TRIPS) EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
28	90.000	30000	526.00	.1728	.2095	.2343	58.99	10.20	.4281	570.3	.2557-02
28	90.000	32500	527.00	.3472	.4210	.4711	58.81	9.42	.4298	572.5	.5138-02
28	90.000	35000	528.00	.1951	.2362	.2639	59.37	1.59	.4244	565.4	.2883-02
28	90.000	40000	529.00	.7143-01	.8643-01	.9657-01	59.45	4.246	.4238	564.5	.1055-02
28	90.000	45000	530.00	.3688-01	.4461-01	.4962-01	59.56	2.197	.4227	563.1	.5446-03
28	90.000	50000	531.00	.2230-01	.2697-01	.3012-01	59.62	1.329	.4222	562.4	.3293-03
28	90.000	55000	532.00	.2157-01	.2608-01	.2912-01	59.68	1.288	.4215	561.5	.3185-03
28	90.000	60000	533.00	.4255-01	.5508-01	.6151-01	59.66	2.718	.4217	561.8	.6725-03
28	90.000	65000	534.00	.5476-01	.6622-01	.7396-01	59.61	3.264	.4222	562.4	.8086-03
28	90.000	70000	535.00	.6968-01	.8424-01	.9406-01	59.74	4.164	.4210	560.8	.1029-02
28	90.000	75000	536.00	.6948-01	.8276-01	.9239-01	59.82	4.097	.4203	559.9	.1011-02
28	90.000	80000	537.00	.6757-01	.8164-01	.9114-01	59.85	4.044	.4200	559.5	.9970-03
28	90.000	85000	538.00	.6128-01	.7402-01	.8260-01	59.98	3.676	.4188	557.9	.9039-03
28	90.000	90000	539.00	.6063-01	.7320-01	.8165-01	60.13	3.646	.4173	555.9	.8040-03
28	112.50	27500	540.00	.4420-01	.5345-01	.5969-01	59.61	2.635	.4222	562.5	.6226-03
28	112.50	30000	541.00	.4254-01	.5145-01	.5747-01	59.56	2.533	.4227	563.1	.6282-03
28	112.50	32500	542.00	.8621-01	.1043	.1165	59.55	5.134	.4228	563.2	.1273-02
28	112.50	35000	543.00	.2099	.2539	.2836	59.58	12.51	.4225	562.8	.3100-02
28	112.50	40000	544.00	.5377-01	.6525-01	.7266-01	59.70	7.266	.4214	561.4	.7967-03
28	112.50	45000	545.00	.3708-01	.4482-01	.5005-01	59.71	3.222	.4213	561.4	.5473-03
28	112.50	50000	546.00	.2783-01	.3365-01	.3758-01	59.68	1.661	.4216	561.6	.4109-03
28	112.50	55000	547.00	.3588-01	.4459-01	.4979-01	59.67	2.201	.4216	561.7	.5444-03
28	112.50	60000	548.00	.2745-01	.3319-01	.3706-01	59.70	1.639	.4214	561.3	.4052-03
28	112.50	65000	549.00	.5414-01	.6547-01	.7313-01	59.62	3.228	.4221	562.4	.7994-03
28	112.50	70000	550.00	.7237-01	.8747-01	.9705-01	59.78	4.327	.4206	560.3	.1068-02
28	112.50	75000	551.00	.8071-01	.9755-01	1.089	59.78	4.824	.4207	560.4	.1191-02
28	112.50	80000	552.00	.6857-01	.8289-01	.9256-01	59.70	4.093	.4214	561.4	.1012-02
28	112.50	85000	553.00	.6941-01	.7906-01	.8828-01	59.72	3.906	.4212	561.1	.9654-03
28	112.50	90000	554.00	.6540-01	.7904-01	.8825-01	59.78	3.909	.4207	560.4	.9652-03
28	123.00	82500	555.00	.9690-01	1.171	1.307	59.82	5.786	.4203	559.9	.1130-02
28	123.00	85000	556.00	.4144-01	.5003-01	.5582-01	60.06	2.469	.4180	556.9	.6111-03
28	123.00	87500	557.00	.7179-01	.8672-01	.9679-01	59.92	4.372	.4193	558.6	.1059-02
28	123.00	90000	558.00	.8630-01	1.043	1.164	59.90	5.169	.4195	558.8	.1273-02
28	123.00	92500	559.00	.1565	.1891	.2111	59.88	9.374	.4197	559.1	.2310-02
28	123.00	96000	560.00	.1035	.1250	.1396	59.86	6.195	.4199	559.3	.1527-02
28	135.00	32500	561.00	.3860-01	.4668-01	.5214-01	59.59	2.300	.4224	562.7	.5700-03
28	135.00	35000	562.00	.5600-01	.6771-01	.7562-01	59.64	3.340	.4219	562.7	.8268-03
28	135.00	37500	563.00	.4449-01	.5379-01	.6006-01	59.68	2.655	.4216	561.6	.6568-03
28	135.00	40000	564.00	.5079-01	.6140-01	.6856-01	59.72	3.033	.4212	561.7	.7497-03
28	135.00	45000	565.00	.71-01	.9371-01	1.047	59.67	4.625	.4216	561.7	.1144-02
28	135.00	50000	566.00	.1034	.1251	.1397	59.62	6.167	.4221	562.4	.1527-02
28	135.00	55000	567.00	.1165	.1409	.1573	59.68	6.953	.4216	561.6	.1720-02
28	135.00	60000	568.00	.7724-01	.9332-01	1.042	59.90	4.627	.4195	558.8	.1140-02

ARC 3.5-178 IH3 O-T-S (TRIPS) EXTERNAL TANK

ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FTSECC	QDOT BTU/ FTSECC	H/HHT	TH DEG. R	STN NO R=0.9
28	135.00	.65000	569.00	.6763-01	.8175-01	.9127-01	59.76	4.042	.4208	560.6	.9982-03
28	135.00	.70000	570.00	.7434-01	.8982-01	1.003	59.85	4.449	.4199	559.4	1.097-02
28	135.00	.75000	571.00	.5830-01	.7045-01	.7865-01	58.82	3.487	.4203	559.9	.8603-03
28	135.00	.80000	572.00	.5117-01	.6186-01	.6907-01	59.74	3.057	.4210	560.9	.7553-03
28	135.00	.85000	573.00	.7488-01	.9047-01	1.010	59.87	4.403	.4197	559.2	.1105-02
28	135.00	.90000	574.00	.6566-01	.7935-01	.8858-01	59.82	3.928	.4203	559.9	.9689-03
28	151.00	.93500	575.00	.2296	.2773	.3095	59.99	13.78	.4187	557.7	.3387-02
28	157.00	.40000	576.00	.6365-01	.7701-01	.8604-01	59.47	3.785	.4235	564.2	.9403-03
28	157.00	.42500	577.00	.1025	.2061	.2301	59.55	6.124	.4227	563.2	.1514-02
28	157.00	.45000	578.00	.1706	.2674	.301	59.83	10.21	.4202	559.8	.2044-02
28	157.00	.47500	579.00	.1385	.1674	.1868	59.92	8.302	.4193	558.5	.2517-02
28	157.00	.50000	580.00	.9212-01	.1112	.1240	60.17	5.543	.4169	555.4	.1358-02
28	157.00	.55000	581.00	.6197-01	.7480-01	.8343-01	60.19	3.730	.4168	555.2	.9135-03
28	157.00	.60000	582.00	.4219-01	.5094-01	.5683-01	60.09	2.535	.4178	556.5	.6221-03
28	157.00	.65000	583.00	.4995-01	.6033-01	.6732-01	59.99	2.997	.4186	557.7	.7257-03
28	157.00	.70000	584.00	.4519-01	.5457-01	.6089-01	60.01	2.712	.4185	557.5	.6665-03
28	157.00	.75000	585.00	.4002-01	.4832-01	.5382-01	60.02	2.402	.4183	557.3	.5902-03
28	157.00	.80000	586.00	.2418-01	.2921-01	.3260-01	59.94	1.450	.4192	558.4	.3588-03
28	157.00	.85000	587.00	.3460-01	.4172-01	.4664-01	60.00	2.076	.4186	557.6	.5104-03
28	157.00	.90000	588.00	.5174-01	.6249-01	.6974-01	58.98	3.103	.4188	557.9	.7632-03
28	161.00	.42500	589.00	.1005	.1215	.1357	59.55	5.982	.4228	563.2	.1483-02
27	165.00	.40000	593.00	.5028-01	.6115-01	.6855-01	57.95	2.914	.4371	581.1	.7447-03
27	165.00	.50000	590.00	.8354-01	.1010	.1127	59.99	5.018	.4186	557.7	.1234-02
27	165.00	.70000	591.00	.7208-01	.8723-01	.9748-01	59.31	4.275	.4243	564.1	.1063-02
27	165.00	.90000	592.00	.6820-01	.8265-01	.9244-01	58.91	4.017	.4280	569.2	.1007-02
27	180.00	.00000	594.00	.6298	.7721	.8704	55.79	35.13	.4579	608.3	.5393-02
27	180.00	.50000-02	595.00	.5784	.7070	.7953	56.59	32.73	.4499	598.2	.8433-02
27	180.00	.10000-01	596.00	.5682	.6926	.7778	57.27	32.54	.4434	585.6	.8433-02
27	180.00	.40000-01	597.00	.3071	.3736	.4191	57.77	17.74	.4387	583.3	.4550-02
27	180.00	.80000-01	598.00	.2583	.3143	.3524	57.80	14.93	.4385	583.0	.3827-02
27	180.00	.15000	599.00	.9615-01	.1170	.1312	57.82	5.552	.4382	582.7	.1424-02
27	180.00	.20000	600.00	.4862-01	.5895-01	.6556-01	58.75	2.856	.4295	571.1	.7183-03
27	180.00	.25000	601.00	.3410-01	.4132-01	.4623-01	58.99	2.012	.4272	568.1	.5035-03
27	183.00	.30000	602.00	.3324-01	.4075-01	.4566-01	58.21	1.953	.4345	577.8	.9584-03
27	183.00	.35000	603.00	.3582-01	.4349-01	.4873-01	59.19	2.083	.4347	578.1	.5236-03
27	183.00	.40000	604.00	.4483-01	.5463-01	.6124-01	59.01	2.607	.4365	580.4	.1105-03
27	183.00	.42000	605.00	.4527-01	.5505-01	.6173-01	57.91	2.622	.4374	581.6	.6105-03
27	183.00	.42500	606.00	.1316	.1601	.1753	57.80	7.607	.4384	583.0	.1950-02
27	180.00	.45000	607.00	.3283	.3962	.4475	57.94	19.02	.4372	581.3	.4862-02
27	180.00	.47500	608.00	.7083-01	.8610-01	.9650-01	58.03	4.110	.4362	580.1	.1049-02
27	180.00	.50000	609.00	.1505	.1829	.2049	58.09	8.741	.4357	579.3	.2227-02
27	180.00	.52500	610.00	.9822-01	.1174	.1337	58.14	5.710	.4353	578.8	.1451-02
27	180.00	.55000	611.00	.7172-01	.8715-01	.9766-01	58.14	4.170	.4352	578.7	.1062-02

(REIT04)

ARC 3.5-178 IH3 O+T+S (TRIPS) EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	W/HHT	TH DEG. R	STN NO R=0.9
27	180.00	.57500	612.00	.8637-01	.1050	.1176	58.15	5.022	.4352	578.7	.1278-02
27	180.00	.60000	613.00	.9060-01	.1102	.1235	58.39	5.269	.4357	579.3	.1343-02
27	180.00	.62500	614.00	.8997-01	.1092	.1224	58.11	5.222	.4355	579.1	.1330-02
27	180.00	.65000	615.00	.7870-01	.9564-01	.1072	58.12	4.574	.4354	579.0	.1165-02
27	180.00	.67500	616.00	.7833-01	.9515-01	.1066	58.24	4.562	.4343	577.4	.1159-02
27	180.00	.70000	617.00	.7803-01	.9463-01	.1059	58.71	4.582	.4299	571.6	.1153-02
27	160.00	.75000	618.00	.6292-01	.7628-01	.8533-01	58.82	3.701	.4288	570.2	.9294-03
27	180.00	.80000	619.00	.5274-01	.6410-01	.7183-01	58.12	3.066	.4354	579.0	.7607-03
27	180.00	.85000	620.00	.4743-01	.5764-01	.6460-01	58.09	2.755	.4357	579.3	.7021-03
27	180.00	.90000	621.00	.8708-01	.1058	.1185	58.32	5.078	.4330	576.5	.1288-02
27	180.00	.93700	622.00	.1453	.1763	.1974	58.53	8.503	.4316	573.9	.2148-02
27	180.00	.97500	623.00	.1921-01	.2325-01	.2597-01	59.35	1.140	.4239	563.6	.2833-03
27	194.00	.20000-01	624.00	.1998	.2424	.2713	58.61	1.171	.4308	572.8	.2953-02
27	195.00	.15000	625.00	.7730-01	.9368-01	.1048	58.92	4.554	.4279	569.0	.1142-02
27	195.00	.30000	626.00	.2628-01	.3181-01	.3555-01	59.23	1.556	.4250	565.1	.3877-03
27	195.00	.50000	627.00	.1194	.1447	.1618	58.97	7.044	.4274	568.3	.1764-02
27	196.00	.70000	628.00	.7114-01	.8602-01	.9620-01	59.32	4.220	.4241	563.9	.1049-02
27	197.00	.90000	629.00	.6322-01	.7658-01	.8563-01	59.03	3.732	.4289	567.6	.9333-03
27	208.00	.15000	630.00	.9099-01	.1102	.1232	59.03	5.371	.4269	567.6	.1343-02
27	208.00	.40000	631.00	.3885-01	.4696-01	.5243-01	53.66	2.317	.4210	559.8	.5724-03
27	208.00	.60000	632.00	.3355-01	.4056-01	.4528-01	59.68	2.003	.4207	559.4	.4944-03
27	208.00	.80000	633.00	.3148-01	.3807-01	.4251-01	55.56	1.875	.4219	561.0	.4640-03
27	208.00	.93700	634.00	.1563	.1891	.2113	59.42	9.290	.4232	562.7	.2305-02
27	216.00	.40000	635.00	.5889-01	.7115-01	.7944-01	59.69	3.515	.4206	559.3	.8674-03
27	216.00	.50000	636.00	.8133-01	.9826-01	.1097	59.83	4.866	.4194	557.6	.1198-02
27	216.00	.70000	637.00	.5650-01	.6819-01	.7605-01	60.14	3.398	.4165	553.8	.8314-03
27	222.50	.33500	638.00	.5403-01	.6551-01	.7329-01	58.80	3.177	.4290	570.5	.7982-03
27	229.00	.40900	639.00	.1744	.2110	.2358	59.34	10.35	.4239	563.7	.2572-02
27	229.00	.60000	640.00	.4429-01	.5360-01	.5990-01	59.28	2.625	.4246	564.5	.6533-03
27	229.00	.80000	641.00	.3785-01	.4583-01	.5124-01	59.10	2.237	.4262	566.7	.5586-03

EXTERNAL TANK

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LB	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
34	5.300	.4986*07	405.2	1303.	318.2	.1750-01	.8229	.0000
35	5.300	.5075*07	405.7	1289.	314.8	.1750-01	.8290	.0000
36	5.300	.5031*07	406.1	1297.	316.8	.1750-01	.8269	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R=0.9
36	.00000	.40060-01	501.00	.1633	.1993	.2241	56.45	9.215	.4474	590.0	.2416-02
36	.00000	.80000-01	502.00	.2386	.2911	.3270	56.67	13.52	.4453	588.0	.3528-02
36	.00000	.15000	503.00	.9034-01	.1101	.1236	56.89	5.140	.4432	585.2	.1335-02
36	.00000	.40000	504.00	.3888-01	.4729-01	.5301-01	57.49	2.235	.4375	577.8	.5733-03
35	.00000	.60000	505.00	.5057-01	.6146-01	.6888-01	57.68	2.917	.4357	575.3	.7454-03
36	.00000	.80000	506.00	.4130-01	.5022-01	.5631-01	57.50	2.375	.4374	577.6	.6090-03
36	45.000	.40000	507.00	.8317-01	.1012	.1135	57.44	4.777	.4380	578.4	.1227-02
36	45.000	.50000	508.00	.5290-01	.6434-01	.7214-01	57.48	3.040	.4376	577.9	.7801-03
36	45.000	.60000	509.00	.4413-01	.5369-01	.6022-01	57.38	2.532	.4366	579.2	.6510-03
36	45.000	.70000	510.00	.4232-01	.5151-01	.5779-01	57.27	2.424	.4396	580.5	.6246-03
36	45.000	.80000	511.00	.3917-01	.4769-01	.5351-01	57.19	2.240	.4404	581.6	.5782-03
36	45.000	.90000	512.00	.3523-01	.4287-01	.4808-01	57.35	2.021	.4388	579.5	.5198-03
36	67.500	.30000	513.00	.5651-01	.7132-01	.8009-01	56.86	3.328	.4433	585.4	.8645-03
36	67.500	.35000	514.00	.2394	.2917	.3274	57.02	13.65	.4419	583.6	.3535-02
36	67.500	.40000	515.00	.7528-01	.9165-01	1.028	57.20	4.306	.4403	581.4	.1111-02
35	67.500	.50000	516.00	.3430-01	.4177-01	.4687-01	56.72	1.945	.4409	578.4	.5046-03
35	67.500	.60000	517.00	.3010-01	.3665-01	.4113-01	56.73	1.707	.4408	578.4	.4429-03
35	67.500	.65000	518.00	.3426-01	.4173-01	.4683-01	56.66	1.941	.4415	579.2	.5041-03
35	67.500	.70000	519.00	.4372-01	.5323-01	.5971-01	56.82	2.484	.4399	577.2	.6431-03
35	67.500	.75000	520.00	.4145-01	.5045-01	.5559-01	56.89	2.358	.4393	576.4	.6096-03
35	67.500	.80000	521.00	.4285-01	.5217-01	.5854-01	56.76	2.432	.4405	577.9	.6303-03
35	67.500	.90000	522.00	.6488-01	.7896-01	.8857-01	56.91	3.693	.4390	576.0	.9541-03
35	90.000	.20000	523.00	.4848-01	.5906-01	.6630-01	56.63	2.745	.4418	579.6	.7135-03
35	90.000	.25000	524.00	.3891-01	.4739-01	.5319-01	56.66	2.204	.4415	579.2	.5725-03
35	90.000	.27500	525.00	.3983-01	.4861-01	.5464-01	56.14	2.236	.4465	585.8	.5872-03

ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	EXTERNAL TANK				H4/HT	TH DEG. R	STN NO R=0.9	
				H/REF R=1.0	H/REF K=0.9	H/REF R=0.85	REF BTU/FT2SEC				ODD BTU/FT2SEC
35	90.000	.30000	526.00	.1419	.1734	.1950	55.90	7.933	.4487	588.7	.2094-02
35	90.000	.32500	527.00	.3392	.4146	.4665	55.76	18.92	.4500	590.4	.5007-02
35	90.000	.35000	528.00	.3351	.4088	.4592	56.31	18.87	.4448	583.5	.4938-02
35	90.000	.40000	529.00	.8162-01	.9949-01	.1117	56.45	4.607	.4434	581.8	.1202-02
35	90.000	.45000	530.00	.4638-01	.5652-01	.6345-01	56.56	2.623	.4424	580.4	.6828-03
35	90.000	.50000	531.00	.2879-01	.3508-01	.3937-01	56.61	1.630	.4419	579.7	.4237-03
35	90.000	.55000	532.00	.2163-01	.2635-01	.2957-01	56.65	1.225	.4415	579.3	.3183-03
35	90.000	.60000	533.00	.3361-01	.4095-01	.4596-01	56.55	3.437	.4419	579.7	.4947-03
35	90.000	.65000	534.00	.6078-01	.7407-01	.8316-01	56.55	3.182	.4426	580.6	.8948-03
35	90.000	.70000	535.00	.5610-01	.6832-01	.7667-01	56.73	4.014	.4408	578.3	.8254-03
35	90.000	.75000	536.00	.7071-01	.8610-01	.9661-01	56.77	3.014	.4404	577.9	.1040-02
35	90.000	.80000	537.00	.7541-01	.9155-01	1.031	56.66	4.272	.4415	579.2	.1110-02
35	90.000	.85000	538.00	.7832-01	.9537-01	1.070	56.74	4.444	.4407	578.2	.1152-02
35	90.000	.90000	539.00	.6857-01	.8101-01	.9088-01	56.90	3.787	.4392	576.2	.9789-03
35	112.50	.27500	540.00	.3040-01	.3705-01	.4160-01	56.52	1.718	.4428	581.0	.4476-03
35	112.50	.30000	541.00	.3194-01	.3893-01	.4372-01	56.49	1.804	.4431	581.3	.4703-03
35	112.50	.32500	542.00	.1222	.1469	.1672	56.52	6.905	.4428	581.0	.1799-02
35	112.50	.35000	543.00	.2464	.3002	.3370	56.59	13.94	.4422	580.1	.3627-02
35	112.50	.40000	544.00	.6589-01	.8025-01	.9007-01	56.67	3.734	.4413	579.0	.9695-03
35	112.50	.45000	545.00	.4385-01	.5342-01	.5995-01	56.86	2.485	.4414	579.1	.6453-03
35	112.50	.50000	546.00	.3642-01	.4437-01	.4981-01	56.62	2.062	.4419	579.7	.5361-03
35	112.50	.55000	547.00	.3634-01	.4696-01	.5271-01	56.60	2.181	.4421	580.0	.5673-03
35	112.50	.60000	548.00	.3628-01	.4420-01	.4962-01	56.62	2.054	.4418	579.7	.5340-03
35	112.50	.65000	549.00	.2494-01	.3040-01	.3413-01	56.49	1.409	.4431	581.3	.3672-03
35	112.50	.70000	550.00	.5620-01	.6843-01	.7679-01	56.75	3.189	.4406	578.1	.8268-03
35	112.50	.75000	551.00	.1238	.1508	.1592	56.69	7.017	.4412	578.8	.1821-02
35	112.50	.80000	552.00	.1068	.1301	.1462	56.45	6.027	.4435	581.8	.1572-02
35	112.50	.85000	553.00	.9299-01	.1134	.1273	56.44	5.246	.4436	582.0	.1369-02
35	112.50	.90000	554.00	.1070	.1304	.1465	56.46	6.041	.4434	581.7	.1576-02
35	123.00	.82500	555.00	.1216	.1482	.1664	56.55	6.880	.4425	580.5	.1791-02
35	123.00	.85000	556.00	.6215-01	.7567-01	.8491-01	56.79	3.530	.4402	577.5	.9143-03
35	123.00	.87500	557.00	.7536-01	.9161-01	1.021	56.61	4.266	.4420	579.8	.1109-02
35	123.00	.90000	558.00	.1286	.1567	.1759	56.59	7.277	.4421	580.0	.1893-02
35	123.00	.92500	559.00	.1839	.2241	.2516	56.56	10.40	.4424	580.4	.2708-02
35	123.00	.96000	560.00	.1726	.2155	.2516	56.56	17.45	.4415	579.2	.1878-02
35	135.00	.32500	561.00	.5536-01	.6746-01	.7573-01	56.55	3.131	.4425	580.5	.8149-03
35	135.00	.35000	562.00	.6104-01	.8045-01	.9031-01	56.62	3.739	.4418	579.7	.9719-03
35	135.00	.37500	563.00	.6517-01	.7938-01	.8910-01	56.66	3.692	.4415	579.2	.957-03
35	135.00	.40000	564.00	.9594-01	.1168	.1311	56.68	5.438	.4412	578.9	.1412-02
35	135.00	.45000	565.00	.6784-01	.8265-01	.9277-01	56.63	3.342	.4418	579.6	.9985-03
35	135.00	.50000	566.00	.6328-01	.7711-01	.8656-01	56.58	3.580	.4422	580.2	.9315-03
35	135.00	.55000	567.00	.7061-01	.8603-01	.9657-01	56.62	3.998	.4419	579.7	.1039-02
35	135.00	.60000	568.00	.1072	.1314	.1474	56.84	6.135	.4397	576.9	.1587-02

REPRODUCIBILITY OF
ORIGINAL PAGE IS POOR

DATE 24 JAN 75

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
35	135.00	65000	569.00	.1033	.1259	.1413	56.65	5.855	.4415	579.2	.1521-02
35	135.00	70000	570.00	.8254-01	.1005	.1127	56.81	4.689	.4400	577.3	.1214-02
35	135.00	75000	571.00	.6702-01	.8160-01	.9156-01	56.77	3.605	.4404	577.8	.9859-03
35	135.00	80000	572.00	.6515-01	.7940-01	.8915-01	56.51	3.682	.4429	591.0	.9592-03
35	135.00	85000	573.00	.8932-01	.1076	.1207	56.65	5.003	.4415	579.3	.1300-02
35	135.00	90000	574.00	.1385	.1687	.1894	56.58	7.837	.4422	580.1	.2039-02
35	151.00	93500	575.00	.3273	.3983	.4467	56.93	18.63	.4369	582.4	.4812-02
35	157.00	40000	576.00	.5400-01	.6583-01	.7394-01	56.41	3.046	.4439	582.4	.7953-03
35	157.00	42500	577.00	.7909-01	.9641-01	.1083	56.48	4.467	.4432	581.4	.1165-02
35	157.00	47500	578.00	.1225	.2177	.2442	56.94	6.957	.4403	577.6	.1802-02
35	157.00	50000	579.00	.1789	.2192	.2682	57.20	10.19	.4388	575.7	.2631-02
35	157.00	55000	580.00	.1962	.2393	.2828	57.20	11.26	.4363	572.5	.2892-02
35	157.00	60000	581.00	.7920-01	.9628-01	.1079	57.21	4.531	.4362	572.3	.1163-02
35	157.00	65000	582.00	.7044-01	.8567-01	.9606-01	57.08	4.021	.4374	573.9	.1035-02
35	157.00	70000	583.00	.6238-01	.7590-01	.8512-01	56.97	3.554	.4385	575.3	.9171-03
35	157.00	75000	584.00	.5216-01	.6344-01	.7113-01	57.06	2.976	.4377	574.2	.7666-03
35	157.00	80000	585.00	.4968-01	.6067-01	.6803-01	57.03	2.844	.4379	574.5	.7331-03
35	157.00	85000	586.00	.3797-01	.4622-01	.5185-01	56.86	2.159	.4396	576.7	.5584-03
35	157.00	90000	587.00	.3226-01	.4778-01	.5359-01	56.93	2.235	.4389	575.8	.5773-03
35	157.00	42500	588.00	.1267	.1542	.1730	56.87	7.205	.4394	576.5	.1863-02
35	161.00	40000	589.00	.1111	.1354	.1521	56.47	6.273	.4433	581.6	.1636-02
34	165.00	40000	593.00	.5156-01	.6288-01	.7063-01	56.94	2.336	.4446	589.7	.7651-03
35	165.00	50000	590.00	.8642-01	.1051	.1179	56.97	4.924	.4385	575.2	.1270-02
34	165.00	70000	591.00	.5373-01	.6517-01	.7234-01	58.42	2.139	.4306	571.1	.7936-03
34	165.00	90000	592.00	.7181-01	.8122-01	.9170-01	58.07	4.170	.4379	575.5	.1062-02
34	180.00	00000	594.00	.2937	.7304	.8254	54.72	32.49	.4656	617.6	.8877-02
34	180.00	50000-02	595.00	.5184	.6357	.7167	55.55	28.80	.4578	607.2	.7729-02
34	190.00	10000-01	595.00	.5754	.7035	.7916	56.28	32.39	.4508	597.9	.8557-02
34	190.00	40000-01	597.00	.3734	.4557	.5120	56.82	21.22	.4458	591.3	.5544-02
34	180.00	80000-01	598.00	.2541	.3101	.3484	56.82	14.44	.4457	591.2	.3773-02
34	180.00	15000	599.00	.8955-01	.1080	.1214	56.86	5.035	.4454	590.7	.1314-02
34	180.00	20000	600.00	.4711-01	.5727-01	.6420-01	57.81	2.723	.4364	578.8	.6972-03
34	180.00	25000	601.00	.3527-01	.4284-01	.4799-01	58.05	2.048	.4341	575.8	.5216-03
34	180.00	30000	602.00	.3633-01	.4425-01	.4967-01	57.27	2.080	.4415	585.6	.5385-03
34	180.00	35000	603.00	.3646-01	.4434-01	.4977-01	57.25	2.084	.4416	585.8	.5396-03
34	180.00	37500	604.00	.4682-01	.5708-01	.6410-01	57.04	2.671	.4437	588.5	.6946-03
34	180.00	40000	605.00	.4816-01	.5996-01	.6737-01	56.90	2.797	.4450	590.2	.7296-03
34	180.00	42500	605.00	.1339	.1635	.1837	56.74	7.598	.4465	592.3	.1989-02
34	180.00	45000	607.00	.3530	.4305	.4836	56.92	20.09	.4448	589.9	.5238-02
34	180.00	47500	608.00	.1252	.1527	.1714	57.06	7.145	.4435	588.2	.1858-02
34	180.00	50000	609.00	.6453-01	.7863-01	.8827-01	57.18	3.690	.4424	586.7	.9569-03
34	180.00	52500	610.00	.1038	.1264	.1419	57.27	5.943	.4414	585.5	.1538-02
34	180.00	55000	611.00	.1027	.1251	.1404	57.31	5.688	.4411	585.0	.1523-02

ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 O+T+S		EXTERNAL TANK		HM/HT	TH DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	QKEF BTU/ FT2SEC	QDOT BTU/ FT2SEC			
34	180.00	.57500	612.00	.9578-01	.1215	.1363	57.42	4401	563.7	.1478-02
34	180.00	.60000	613.00	.6009-01	.1073	.1204	57.42	4400	584.2	.1305-02
34	180.00	.62500	614.00	.8210-01	.9995-01	.1121	57.42	4404	563.6	.1216-02
34	180.00	.65000	615.00	.7185-01	.8748-01	.9816-01	57.39	4404	584.1	.1065-02
34	180.00	.67500	616.00	.7724-01	.9400-01	.1054	57.49	4394	582.7	.1144-02
34	180.00	.70000	617.00	.7573-01	.9209-01	.1032	57.91	4354	577.5	.1121-02
34	180.00	.75000	618.00	.6157-01	.7480-01	.8380-01	58.01	4345	576.3	.9106-03
34	180.00	.80000	619.00	.5469-01	.6657-01	.7469-01	57.43	4400	583.6	.6102-03
34	180.00	.85000	620.00	.5413-01	.6590-01	.7394-01	57.41	4402	583.0	.8021-03
34	180.00	.90000	621.00	.1228	.1495	.1677	57.47	4396	583.6	.1819-02
34	180.00	.93700	622.00	.1812	.2205	.2473	57.50	4393	582.7	.2684-02
34	180.00	.97500	623.00	.2118-01	.2570-01	.2877-01	57.50	4316	572.4	.3129-03
34	194.00	.80000-01	624.00	.2277	.2770	.3105	57.69	4375	580.2	.3372-02
34	196.00	.15000	625.00	.7454-01	.9055-01	.1014	58.02	4344	576.2	.1102-02
34	196.00	.30000	626.00	.2483-01	.3013-01	.3374-01	58.30	4318	576.5	.3669-03
34	156.00	.50000	627.00	.1079	.1311	.1469	57.99	4346	576.5	.1596-02
34	196.00	.70000	628.00	.6166-01	.7481-01	.8374-01	58.37	4311	571.8	.9110-03
34	197.00	.90000	629.00	.7509-01	.9120-01	.1022	58.07	4340	575.6	.1110-02
34	208.00	.15000	630.00	.6951-01	.8447-01	.9466-01	57.90	4355	577.6	.1028-02
34	208.00	.40000	631.00	.4928-01	.5970-01	.6677-01	58.76	4274	566.9	.7272-03
34	208.00	.60000	632.00	.2672-01	.3238-01	.3621-01	58.78	4273	566.7	.3943-03
34	208.00	.80000	633.00	.2671-01	.3238-01	.3621-01	58.68	4282	567.9	.3943-03
34	208.00	.93700	634.00	.6617-01	.8026-01	.8983-01	58.42	4306	571.1	.9774-03
34	216.00	.40000	635.00	.7635-01	.9257-01	.1036	58.56	4293	569.4	.1127-02
34	216.00	.50000	636.00	.6562-01	.7949-01	.8889-01	58.81	4269	566.2	.9682-03
34	216.00	.70000	637.00	.3056-01	.3699-01	.4133-01	59.09	4243	562.7	.4505-03
34	222.50	.35500	638.00	.6359-01	.7733-01	.8670-01	57.72	4373	579.9	.9414-03
34	229.00	.40000	639.00	.1232	.1495	.1674	58.24	4323	573.4	.1820-02
34	229.00	.60000	640.00	.5104-01	.6193-01	.6933-01	58.36	4312	571.9	.7541-03
34	229.00	.80000	641.00	.3404-01	.4131-01	.4624-01	58.32	4316	572.4	.5030-03

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA	TW DEG. R	STN NO
56	5.300	.1513*07	121.6	1294.	315.9	.1750-01	.2480	.0000		
57	5.300	.1503*07	121.6	1299.	317.2	.1750-01	.2474	.0000		

TEST DATA

PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO
.00000	.40000-01	501.00	.1440	.1752	.1966	31.24	4.497	.4396	578.7	.3875-02
.00000	.80000-01	502.00	.8677-01	.1055	.1183	31.36	2.721	.4374	575.8	.2334-02
.00000	.15000	503.00	.3189-01	.3873-01	.4339-01	31.55	1.006	.4341	571.5	.8569-03
.00000	.40000	504.00	.9844-02	.1192-01	.1332-01	31.05	.3155	.4254	560.0	.2638-03
.00000	.60000	505.00	.7751-02	.9373-02	.1047-01	.25	.2499	.4220	555.6	.2075-03
.00000	.80000	506.00	.7219-02	.8726-02	.9743-02	32.31	.2333	.4209	554.1	.1932-03
.45.000	.40000	507.00	.9091-02	.1100-01	.1230-01	32.08	.2916	.4250	559.5	.2436-03
.45.000	.50000	508.00	.8457-02	.1023-01	.1142-01	32.23	.2726	.4222	555.8	.2264-03
.45.000	.60000	509.00	.7854-02	.9495-02	.1060-01	32.29	.2536	.4213	554.6	.2102-03
.45.000	.70000	510.00	.6931-02	.8444-02	.9424-02	32.43	.2267	.4189	551.3	.1870-03
.45.000	.80000	511.00	.6088-02	.7357-02	.8214-02	32.34	.1959	.4204	553.4	.1629-03
.45.000	.90000	512.00	.6578-02	.7948-02	.8872-02	32.37	.2130	.4198	552.7	.1760-03
.67.500	.30000	513.00	.9628-02	.1166-01	.1303-01	32.02	.3083	.4260	560.8	.2581-03
.67.500	.35000	514.00	.9122-02	.1104-01	.1235-01	32.04	.2923	.4255	560.2	.2445-03
.67.500	.40000	515.00	.9399-02	.1139-01	.1271-01	32.11	.3013	.4244	550.7	.2518-03
.67.500	.50000	516.00	.8071-02	.9762-02	.1090-01	32.21	.2600	.4226	556.3	.2161-03
.67.500	.60000	517.00	.7288-02	.8812-02	.9840-02	32.27	.2352	.4215	554.9	.1951-03
.67.500	.65000	518.00	.7144-02	.8640-02	.9650-02	32.23	.2302	.4224	556.0	.1913-03
.67.500	.70000	519.00	.6692-02	.8094-02	.9022-02	32.40	.2168	.4193	552.0	.1790-03
.67.500	.75000	520.00	.6408-02	.7739-02	.8637-02	32.44	.2079	.4187	551.2	.1714-03
.67.500	.80000	521.00	.6687-02	.8084-02	.9037-02	32.28	.2159	.4214	554.7	.1790-03
.67.500	.90000	522.00	.1105-01	.1335-01	.1491-01	32.30	.2569	.4210	554.3	.2956-03
.90.000	.20000	523.00	.1668-01	.2043-01	.2283-01	32.14	.5426	.4240	558.1	.4522-03
.90.000	.25000	524.00	.9934-02	.1201-01	.1341-01	32.30	.3209	.4211	554.3	.2659-03
.90.000	.27500	525.00	.9308-02	.1126-01	.1259-01	32.11	.2989	.4244	558.7	.2493-03
.90.000	.30000	526.00	.8730-02	.1057-01	.1181-01	32.06	.2799	.4252	559.8	.2339-03

RUN NUMBER	PH:	X/L	T.C. :D	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
55	90.000	32500	527.00	.8684-02	.1075-01	.1202-01	32.08	.2850	.4249	559.3	.2380-03
56	90.000	35000	528.00	.8606-02	.1042-01	.1164-01	32.11	.2763	.4244	558.7	.2305-03
56	90.000	40000	529.00	.7663-02	.9280-02	.1037-01	32.14	.2465	.4238	556.0	.2054-03
56	90.000	45000	530.00	.8699-02	.1052-01	.1175-01	32.19	.2800	.4230	556.8	.2329-03
56	90.000	50000	531.00	.8915-02	.1078-01	.1205-01	32.19	.2870	.4230	556.9	.2397-03
56	90.000	55000	532.00	.9325-02	.1128-01	.1260-01	32.22	.3005	.4225	556.2	.2497-03
56	90.000	60000	533.00	.9948-02	.1203-01	.1344-01	32.19	.3202	.4230	556.8	.2664-03
56	90.000	65000	534.00	.1372-01	.1660-01	.1854-01	32.18	.4416	.4231	557.0	.3674-03
56	90.000	70000	535.00	.1796-01	.2170-01	.2422-01	32.38	.5815	.4198	552.6	.4805-03
56	90.000	75000	536.00	.2307-01	.2787-01	.3110-01	32.40	.7476	.4193	551.9	.6170-03
56	90.000	80000	537.00	.2693-01	.3256-01	.3637-01	32.25	.8685	.4219	555.5	.7209-03
56	90.000	85000	538.00	.3118-01	.3770-01	.4211-01	32.24	1.005	.4220	555.6	.8347-03
56	90.000	90000	539.00	.3358-01	.4060-01	.4534-01	32.26	1.083	.4219	555.3	.8988-03
56	112.50	27500	540.00	.1491-01	.1634-01	.2016-01	32.10	.4786	.4245	558.9	.3994-03
55	112.50	30000	541.00	.1502-01	.1818-01	.2032-01	32.07	.4816	.4250	559.5	.4023-03
55	112.50	32500	542.00	.1694-01	.2050-01	.2292-01	32.06	.5430	.4252	559.7	.4538-03
56	112.50	35000	543.00	.1962-01	.2375-01	.2654-01	32.06	.6288	.4253	559.9	.5256-03
56	112.50	40000	544.00	.2562-01	.3102-01	.3467-01	32.07	.8217	.4251	559.6	.6866-03
56	112.50	45000	545.00	.3268-01	.3956-01	.4421-01	32.08	1.049	.4249	559.3	.8756-03
56	112.50	50000	546.00	.3551-01	.4239-01	.4804-01	32.08	1.139	.4249	559.4	.9515-03
56	112.50	55000	547.00	.3743-01	.4530-01	.5063-01	32.10	1.201	.4246	558.9	.1003-02
56	112.50	60000	548.00	.3325-01	.4024-01	.4496-01	32.11	1.068	.4244	558.7	.8907-03
56	112.50	65000	549.00	.3402-01	.4117-01	.4600-01	32.12	1.093	.4242	558.4	.9113-03
56	112.50	70000	550.00	.3294-01	.3982-01	.4446-01	32.31	1.064	.4209	553.1	.8815-03
56	112.50	75000	551.00	.3317-01	.4003-01	.4475-01	32.34	1.073	.4204	553.4	.8876-03
56	112.50	80000	552.00	.3370-01	.3893-01	.4348-01	32.21	1.037	.4227	556.5	.8617-03
56	112.50	85000	553.00	.3370-01	.4074-01	.4550-01	32.28	1.088	.4215	554.9	.9020-03
56	112.50	90000	554.00	.3244-01	.3923-01	.4382-01	32.24	1.046	.4221	555.6	.8685-03
56	123.00	82500	555.00	.4471-01	.5407-01	.6038-01	32.25	1.442	.4220	555.5	.1197-02
56	123.00	85000	556.00	.2330-01	.2816-01	.3145-01	32.28	.7520	.4214	554.8	.6235-03
56	123.00	87500	557.00	.2672-01	.3230-01	.3608-01	32.30	.8630	.4211	554.4	.7151-03
56	123.00	90000	558.00	.3731-01	.4511-01	.5038-01	32.26	1.203	.4219	555.4	.9987-03
56	123.00	92500	559.00	.6625-01	.8009-01	.8943-01	32.29	2.139	.4213	554.6	.1773-02
56	135.00	34500	560.00	.2417-01	.2921-01	.3261-01	32.35	.7823	.4200	552.9	.6468-03
56	135.00	35000	561.00	.1569-01	.1901-01	.2126-01	31.94	.5012	.4274	562.9	.4208-03
56	135.00	35000	562.00	.1518-01	.1839-01	.2056-01	31.97	.4853	.4268	561.9	.4070-03
56	135.00	37500	563.00	.1764-01	.2137-01	.2389-01	31.99	.5643	.4265	561.5	.4729-03
56	135.00	40000	564.00	.1878-01	.2272-01	.2540-01	32.01	.6004	.4261	561.0	.5028-03
56	135.00	45000	565.00	.2609-01	.3158-01	.3528-01	32.13	.8383	.4241	558.3	.6990-03
56	135.00	50000	566.00	.3094-01	.3744-01	.4183-01	32.15	.9949	.4236	557.7	.8287-03
56	135.00	55000	567.00	.3428-01	.4158-01	.4645-01	32.20	1.107	.4228	556.5	.9206-03
56	135.00	60000	568.00	.2978-01	.3602-01	.4023-01	32.22	.9596	.4224	556.1	.7973-03
56	135.00	65000	569.00	.2842-01	.3437-01	.3839-01	32.22	.9155	.4226	556.3	.7608-03

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR.

RUN NUMBER	PHI	X/L	T/C NO	EXTERNAL TANK				HM/HT	TM DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC			
56	135.00	.70000	570.00	.2751-01	.3324-01	.3710-01	32.39	.8912	.4195	7360-03
56	135.00	.75000	571.00	.2657-01	.3211-01	.3585-01	32.36	.8599	.4201	.7110-03
56	135.00	.80000	572.00	.2716-01	.3285-01	.3670-01	32.20	.8746	.4228	.7272-03
56	135.00	.85000	573.00	.5040-01	.3093-01	.6804-01	32.28	1.627	.4215	.1349-02
56	135.00	.90000	574.00	.3089-01	.3734-01	.4170-01	32.31	.9981	.4210	.8268-03
56	151.00	.93500	575.00	.1604	.1936	.2160	32.51	5.215	.4174	.4288-02
57	157.00	.40000	576.00	.1337-01	.1615-01	.1832-01	32.59	.4357	.4186	.3584-03
57	157.00	.42500	577.00	.2724-01	.3289-01	.3669-01	32.63	.8889	.4179	.7302-03
57	157.00	.45000	578.00	.6365-01	.7682-01	.8569-01	32.69	2.081	.4169	.1706-02
57	157.00	.47500	579.00	.5214-01	.6292-01	.7018-01	32.71	1.705	.4166	.1397-02
57	157.00	.50000	580.00	.4754-01	.5738-01	.6400-01	32.69	1.554	.4169	.1274-02
57	157.00	.55000	581.00	.2104-01	.2539-01	.2832-01	32.70	.6879	.4168	.5638-03
57	157.00	.60000	582.00	.1767-01	.2134-01	.2380-01	32.65	.5771	.4175	.4737-03
57	157.00	.65000	583.00	.2126-01	.2567-01	.2865-01	32.61	.6932	.4183	.5700-03
57	157.00	.70000	584.00	.2538-01	.3050-01	.3420-01	32.61	.8276	.4183	.6804-03
57	157.00	.75000	585.00	.2466-01	.2978-01	.3323-01	32.61	.8040	.4183	.6611-03
57	157.00	.80000	586.00	.2081-01	.2513-01	.2804-01	32.60	.6783	.4184	.5578-03
57	157.00	.85000	587.00	.2102-01	.2537-01	.2831-01	32.64	.6860	.4177	.5633-03
57	157.00	.90000	588.00	.4909-01	.5826-01	.6611-01	32.67	1.604	.4172	.1304-02
57	151.00	.42500	589.00	.4863-01	.5873-01	.6553-01	32.62	1.586	.4181	.1304-02
57	165.00	.40000	593.00	.2196-01	.2633-01	.2960-01	32.58	.7156	.4188	.5890-03
57	165.00	.50000	590.00	.2641-01	.3189-01	.3557-01	32.68	.8631	.4171	.7079-03
57	165.00	.70000	591.00	.2224-01	.2688-01	.2998-01	32.59	.7249	.4186	.5964-03
57	165.00	.90000	592.00	.3591-01	.4335-01	.4836-01	32.65	1.172	.4175	.9625-03
57	180.00	.00000	594.00	.6841	.8279	.9251	32.27	22.08	.4242	.1837-01
57	180.00	.50000-02	595.00	.4893	.5914	.6604	32.44	15.87	.4211	.1313-01
57	180.00	.10000-01	596.00	.5470	.6606	.7372	32.59	17.83	.4186	.1467-01
57	180.00	.40000-01	597.00	.1917	.2313	.2581	32.68	6.264	.4170	.5137-02
57	180.00	.80000-01	598.00	.1392	.1681	.1876	32.63	4.543	.4180	.3732-02
57	180.00	.15000	599.00	.4469-01	.5398-01	.6025-01	32.55	1.455	.4192	.1198-02
57	180.00	.20000	600.00	.1767-01	.2134-01	.2381-01	32.60	.5761	.4184	.4738-03
57	180.00	.25000	601.00	.7755-02	.9365-02	.1045-01	32.61	.2529	.4183	.2079-03
57	180.00	.30000	602.00	.5261-02	.6356-02	.7094-02	32.54	.1712	.4194	.1411-03
57	180.00	.35000	603.00	.5616-02	.6784-02	.7571-02	32.56	.1829	.4191	.1506-03
57	180.00	.37500	604.00	.6128-02	.7402-02	.8260-02	32.58	.1996	.4188	.1643-03
57	180.00	.40000	605.00	.1876-01	.2266-01	.2529-01	32.60	.6117	.4185	.5031-03
57	190.00	.42500	606.00	.3929-01	.4745-01	.5295-01	32.60	1.281	.4185	.1054-02
57	.80.00	.45000	607.00	.2104	.2541	.2835	32.63	6.865	.4179	.5641-02
57	180.00	.47500	608.00	.8216-01	.9922-01	.1107	32.61	2.679	.4182	.2203-02
57	180.00	.50000	609.00	.1679-01	.2027-01	.2262-01	32.61	.5476	.4182	.4501-03
57	180.00	.52500	610.00	.4779-01	.5771-01	.6439-01	32.62	1.559	.4182	.1281-02
57	180.00	.55000	611.00	.5930-01	.7161-01	.7991-01	32.61	1.934	.4182	.1590-02
57	199.00	.57500	612.00	.4364-01	.5271-01	.5881-01	32.60	1.423	.4184	.1170-02

DATE	24 JAN 76	RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 ET			EXTERNAL TANK			HM/HT	TM DEG. R	STN NO R=0.9
						H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	QDOT BTU/ FT2SEC			
57	180.00	60000	613.00	3636-01	4391-01	4901-01	32.57	1.184	4189	553.8	9749-03			
57	180.00	62500	614.00	3311-01	3999-01	4464-01	32.55	1.078	4193	554.4	8879-03			
57	180.00	65000	615.00	3149-01	3804-01	4246-01	32.54	1.025	4195	554.6	8445-03			
57	180.00	67500	616.00	3246-01	3921-01	4377-01	32.54	1.056	4195	554.7	8705-03			
57	180.00	70000	617.00	3235-01	3908-01	4362-01	32.55	1.053	4193	554.4	8677-03			
57	180.00	75000	618.00	3243-01	3917-01	4372-01	32.57	1.056	4190	553.9	8697-03			
57	180.00	80000	619.00	3139-01	3782-01	4233-01	32.52	1.021	4198	555.0	8419-03			
57	180.00	85000	620.00	3270-01	3914-01	4368-01	32.55	1.054	4193	554.4	8689-03			
57	180.00	90000	621.00	2984-01	3604-01	4022-01	32.58	1.072	4188	553.7	8001-03			
57	180.00	93700	622.00	9814-01	1185	1322	32.64	3.203	4178	552.4	2631-02			
57	180.00	97500	623.00	8843-02	1069-01	1193-01	32.57	2.802	4189	553.8	2373-03			
57	194.00	80000-01	624.00	1011	1220	1360	32.76	3.313	4157	549.6	2709-02			
57	196.00	15000	625.00	4493-01	5421-01	6047-01	32.72	1.470	4164	550.5	1204-02			
57	195.00	30000	625.00	3100-01	3742-01	4174-01	32.69	1.014	4168	551.1	8309-03			
57	195.00	50000	627.00	4734-01	5736-01	6397-01	32.74	1.556	4160	550.0	1274-02			
57	195.00	70000	628.00	1641-01	1980-01	2209-01	32.69	1.364	4168	551.1	4397-02			
57	197.00	90000	629.00	3548-01	4283-01	4775-01	32.73	1.161	4161	550.2	9507-02			
57	208.00	15000	630.00	4376-01	5280-01	5888-01	32.75	1.433	4158	549.7	1172-02			
57	208.00	40000	631.00	3404-01	4105-01	4577-01	32.90	1.116	4158	548.6	9117-03			
57	208.00	60000	632.00	2283-01	2754-01	3070-01	32.77	1.748	4154	549.3	6114-03			
57	208.00	80000	633.00	2346-01	2830-01	3157-01	32.73	1.767	4162	550.3	6285-03			
57	208.00	93700	634.00	8813-01	1063	1186	32.76	2.887	4157	549.6	2361-02			
57	216.00	40000	635.00	3361-01	4054-01	4519-01	32.83	1.104	4144	547.9	9001-03			
57	216.00	50000	636.00	2543-01	3067-01	3419-01	32.83	1.104	4145	548.1	6810-03			
57	216.00	70000	637.00	2407-01	2905-01	3240-01	32.73	1.787	4162	550.3	6450-03			
57	222.50	33500	638.00	5915-02	7139-02	7963-02	32.70	1.934	4168	551.0	1585-03			
57	229.00	40000	639.00	4030-01	4861-01	5419-01	32.81	1.322	4148	548.4	1079-02			
57	229.00	60000	640.00	2995-01	3611-01	4026-01	32.84	1.983	4143	547.7	8019-03			
57	229.00	80000	641.00	2264-01	2731-01	3044-01	32.81	1.742	4148	548.4	6064-03			

EXTERNAL TANK

ARC 3.5-178 IH3 ET

EXTERNAL TANK

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 5.000

BETA = .0000

ALPHA = .0000

ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA
58	5.300	.5086+07	405.3	1287.	314.1	.1750-01	.8292	.0000
59	5.300	.5093+07	405.3	1286.	312.9	.1750-01	.8296	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
59	.00000	.40000-01	501.00	.1494	.1825	.2054	55.64	8.315	.4493	587.6	.2202-02
59	.00000	.20000-01	502.00	.8726-01	.1065	.1197	55.99	4.877	.4469	584.5	.1285-02
59	.00000	.15000	503.00	.3460-01	.4220-01	.4740-01	56.14	1.943	.4444	581.3	.5091-03
59	.00000	.40000	504.00	.3761-01	.574-01	.5128-01	56.39	2.140	.4372	571.9	.5520-03
59	.00000	.60000	505.00	.4225-01	.5132-01	.5750-01	57.17	2.415	.4345	568.4	.6195-03
59	.00000	.80000	506.00	.4015-01	.4877-01	.5464-01	57.21	2.297	.4342	568.0	.5887-03
59	.45.000	.40000	507.00	.4469-01	.5437-01	.6097-01	56.78	2.537	.4383	573.4	.6561-03
59	.45.000	.50000	508.00	.3774-01	.4587-01	.5141-01	57.00	2.151	.4362	570.5	.5536-03
59	.45.000	.60000	509.00	.3480-01	.4717-01	.5287-01	56.99	2.211	.4363	570.8	.5692-03
59	.45.000	.70000	510.00	.3815-01	.4637-01	.5196-01	57.07	2.177	.4356	569.7	.5596-03
59	.45.000	.80000	511.00	.3695-01	.4493-01	.5036-01	56.95	2.104	.4367	571.2	.5422-03
59	.45.000	.90000	512.00	.3714-01	.4514-01	.5058-01	57.08	2.120	.4354	569.6	.5440-03
59	.67.500	.40000	513.00	.4247 01	.5171-01	.5801-01	56.61	2.404	.4400	575.5	.6239-03
59	.67.500	.50000	514.00	.4561 01	.5551-01	.628-01	56.66	2.584	.4395	574.9	.6689-03
59	.67.500	.60000	515.00	.4674 01	.5674-01	.6435-01	56.76	2.656	.4385	573.6	.6871-03
59	.67.500	.70000	516.00	.4291-01	.5219 01	.5852-01	56.85	2.440	.4376	572.3	.6298-03
59	.67.500	.80000	517.00	.3881-01	.4720-01	.5293-01	56.85	2.206	.4377	572.5	.5697-03
59	.67.500	.90000	518.00	.3927-01	.4659-01	.5226-01	56.65	2.168	.4396	574.9	.5622-03
59	.67.500	.70000	519.00	.3740-01	.4547-01	.5097-01	56.94	2.129	.4368	571.4	.5488-03
59	.67.500	.80000	520.00	.3721-01	.4523-01	.5070-01	56.98	2.120	.4364	570.8	.5459-03
59	.67.500	.90000	521.00	.3561-01	.4333-01	.4860-01	56.71	2.019	.4390	574.2	.5229-03
59	.67.500	.70000	522.00	.3558-01	.4328-01	.4854-01	56.78	2.020	.4382	573.2	.5223-03
59	.90.000	.20000	523.00	.4245-01	.5164-01	.5791-01	56.78	2.413	.4383	573.3	.6232-03
59	.90.000	.25000	524.00	.3178-01	.3863-01	.4329-01	57.36	1.813	.4357	569.9	.4662-03
59	.90.000	.27500	525.00	.3443-01	.4191-01	.4701-01	56.56	1.951	.4394	574.8	.5057-03
59	.90.000	.30000	526.00	.3529-01	.4296-01	.4819-01	56.56	2.000	.4395	574.8	.5184-03

ARC 3.5-178 IH3

ARC 3.5-178 IH3 ET

EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H4/HT	TW DEG. R	STN NO R=0.9
59	90.000	32500	527.00	3663-01	4457-01	4999-01	56.72	2.077	4.389	574.1	5378-03
59	90.000	35000	528.00	3958-01	4864-01	5456-01	56.74	2.268	4.387	573.8	5870-03
59	90.000	40000	529.00	4131-01	5025-01	5635-01	56.79	2.346	4.383	573.3	6064-03
59	90.000	530.00	530.00	4421-01	5378-01	6031-01	56.81	2.512	4.381	572.9	6490-03
59	90.000	50000	531.00	4243-01	5161-01	5788-01	56.79	2.409	4.387	573.2	6228-03
59	90.000	55000	532.00	4107-01	4995-01	5603-01	56.79	2.332	4.382	573.2	6029-03
59	90.000	60000	533.00	4057-01	4936-01	5536-01	56.75	2.302	4.386	573.7	5956-03
59	90.000	65000	534.00	4007-01	4878-01	5473-01	56.51	2.269	4.400	575.5	5887-03
59	90.000	70000	535.00	3812-01	4634-01	5195-01	56.95	2.170	4.367	571.3	5593-03
59	90.000	75000	536.00	3861-01	4694-01	5262-01	56.95	2.199	4.367	571.2	5665-03
59	90.000	80000	537.00	3650-01	4443-01	4985-01	56.64	2.068	4.400	575.1	5362-03
59	90.000	85000	538.00	3575-01	4353-01	4883-01	56.61	2.024	4.400	575.5	5252-03
59	90.000	90000	539.00	3662-01	4458-01	5001-01	56.61	2.073	4.400	575.5	5379-03
59	112.50	27500	540.00	4226-01	5142-01	5768-01	56.72	2.397	4.389	574.1	6205-03
59	112.50	30000	541.00	4045-01	4918-01	5513-01	56.94	2.303	4.367	571.2	5935-03
59	112.50	32500	542.00	4061-01	4938-01	5535-01	56.91	2.313	4.371	571.8	6013-03
59	112.50	35000	543.00	4097-01	4982-01	5585-01	56.91	2.331	4.371	571.8	6013-03
59	112.50	40000	544.00	4259-01	5180-01	5809-01	56.85	2.422	4.376	572.4	6252-03
59	112.50	45000	545.00	4264-01	5189-01	5819-01	56.75	2.420	4.386	573.7	6261-03
59	112.50	50000	546.00	4061-01	4942-01	5543-01	56.70	2.302	4.391	574.4	5963-03
59	112.50	55000	547.00	4130-01	5026-01	5638-01	56.68	2.341	4.391	574.4	5963-03
59	112.50	60000	548.00	3875-01	4716-01	5291-01	56.64	2.195	4.396	575.0	6065-03
59	112.50	65000	549.00	3828-01	4662-01	5232-01	56.53	2.164	4.407	576.5	5625-03
59	112.50	70000	550.00	3622-01	4406-01	4941-01	56.81	2.058	4.380	572.9	5317-03
59	112.50	75000	551.00	3599-01	4378-01	4909-01	56.86	2.047	4.376	572.3	5283-03
59	112.50	80000	552.00	3484-01	4240-01	4756-01	56.66	1.974	4.394	574.8	5116-03
59	112.50	85000	553.00	3479-01	4227-01	4736-01	56.93	1.978	4.368	571.4	5099-03
59	112.50	90000	554.00	3370-01	4151-01	4600-01	56.71	1.911	4.390	574.2	4949-03
59	123.00	82500	555.00	4991-01	6067-01	6800-01	57.00	2.845	4.363	570.6	7322-03
59	123.00	85000	556.00	3555-01	4323-01	4846-01	56.93	2.024	4.369	571.5	5217-03
59	123.00	90000	557.00	3391-01	4124-01	4625-01	56.83	1.927	4.379	572.8	4977-03
59	123.00	95000	558.00	3890-01	4735-01	5311-01	56.69	2.205	4.392	574.5	5713-03
59	123.00	96000	559.00	6967-01	6477-01	9506-01	56.78	3.956	4.384	573.4	1023-03
59	135.00	32500	560.00	2484-01	3020-01	3386-01	56.87	1.412	4.374	572.1	3645-03
59	135.00	35000	561.00	3806-01	4633-01	5197-01	56.67	2.157	4.394	574.7	5590-03
59	135.00	37500	562.00	3854-01	4689-01	5260-01	56.74	2.187	4.387	573.9	5659-03
59	135.00	40000	563.00	3839-01	4672-01	5240-01	56.71	2.177	4.390	574.2	5637-03
59	135.00	45000	564.00	3969-01	4829-01	5416-01	56.74	2.252	4.387	573.8	5827-03
59	135.00	50000	565.00	3869-01	4702-01	5268-01	57.11	2.210	4.352	569.2	5675-03
59	135.00	50000	566.00	3788-01	4603-01	5157-01	57.11	2.163	4.351	569.1	5555-03
59	135.00	55000	567.00	3979-01	4708-01	5275-01	57.13	2.214	4.349	568.9	5682-03
59	135.00	60000	568.00	3314-01	4027-01	4512-01	57.09	1.892	4.354	568.5	4860-03
59	135.00	65000	569.00	3157-01	3838-01	4303-01	56.96	1.798	4.366	571.0	4632-03

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
59	135.00	70000	570.00	3316-01	4029-01	4514-01	57.16	1.899	.4347	568.6	.4863-03
59	135.00	75000	571.00	3173-01	3856-01	4320-01	57.14	1.813	.4349	568.9	.4653-03
59	135.00	80000	572.00	3137-01	3816-01	4279-01	56.80	1.781	.4381	573.1	.4605-03
59	135.00	85000	573.00	4776-01	5807-01	6509-01	56.96	2.720	.4366	571.1	.7008-03
59	135.00	90000	574.00	3045-01	3704-01	4153-01	56.86	1.731	.4376	572.4	.4470-03
59	151.00	93500	575.00	1546	1876	2100	57.50	2.889	.4314	564.3	.2265-02
58	157.00	40000	576.00	4081-01	4955-01	5549-01	57.41	2.343	.4327	566.5	.5984-03
58	157.00	42500	577.00	5408-01	6564-01	7349-01	57.48	3.109	.4321	565.6	.7928-03
58	157.00	45000	578.00	7334-01	6952-01	7779-01	57.75	3.311	.4295	562.3	.8398-03
58	157.00	47500	579.00	5042-01	6111-01	6836-01	57.89	2.919	.4282	562.6	.7383-03
58	157.00	50000	580.00	5848-01	7088-01	7929-01	57.87	3.384	.4283	560.4	.8563-03
58	157.00	55000	581.00	2950-01	3574-01	3997-01	58.01	1.712	.4270	559.0	.4318-03
58	157.00	60000	582.00	3144-01	3809-01	4260-01	57.95	1.822	.4276	559.7	.4602-03
58	157.00	65000	583.00	3302-01	4002-01	4476-01	57.91	1.912	.4280	560.3	.4834-03
58	157.00	70000	584.00	3457-01	4189-01	4685-01	57.95	2.073	.4276	559.8	.5061-03
58	157.00	75000	585.00	3200-01	3877-01	4335-01	57.98	1.855	.4273	559.4	.4683-03
58	157.00	80000	586.00	2681-01	3248-01	3631-01	58.17	1.956	.4268	557.1	.3924-03
58	157.00	85000	587.00	2552-01	3090-01	3454-01	58.14	1.484	.4255	557.7	.3733-03
58	157.00	90000	588.00	6222-01	5222-01	7065-01	58.22	3.040	.4250	556.3	.7638-03
58	161.00	42500	589.00	6751-01	8196-01	9177-01	57.44	3.878	.4325	566.2	.9898-03
58	155.00	40000	593.00	4336-01	5265-01	5897-01	57.37	2.488	.4332	567.1	.6359-03
58	153.00	50000	590.00	3674-01	4453-01	4981-01	57.88	2.127	.4283	560.7	.5380-03
58	165.00	70000	591.00	3414-01	4138-01	4628-01	57.90	1.977	.4281	560.4	.4999-03
58	165.00	90000	592.00	4927-01	5965-01	6667-01	58.19	2.867	.4253	556.7	.7207-03
58	180.00	00000	594.00	6076	7429	8359	55.52	33.74	.4508	591.2	.8953-02
58	180.00	50000-02	595.00	4942	6024	6764	56.32	27.83	.4432	580.2	.7271-02
58	180.00	10000-01	596.00	5678	6904	7739	57.01	32.37	.4366	571.6	.8336-02
58	180.00	40000-01	597.00	3669	4453	4985	57.52	21.10	.4317	565.2	.5378-02
58	180.00	80000-01	598.00	2650	3217	3603	57.38	15.20	.4331	566.9	.7886-02
58	180.00	15000	599.00	9498-01	1154	1292	57.28	5.441	.4340	568.2	.1393-02
58	180.00	20000	600.00	4883-01	5925-01	6633-01	57.53	2.809	.4316	565.0	.7156-03
59	180.00	25000	601.00	3486-01	4229-01	4733-01	57.61	2.008	.4309	564.1	.5108-03
58	180.00	30000	602.00	3530-01	4287-01	4803-01	57.28	2.022	.4340	568.2	.5178-03
58	180.00	35000	603.00	3338-01	4052-01	4538-01	57.39	1.915	.4330	566.8	.4894-03
58	180.00	37500	604.00	3173-01	3851-01	4312-01	57.44	1.822	.4324	566.1	.4651-03
58	180.00	40000	605.00	2856-01	3465-01	3880-01	57.52	1.643	.4317	565.2	.4186-03
58	180.00	42500	606.00	5383-01	6534-01	7316-01	57.48	3.094	.4321	565.7	.7891-03
58	180.00	45000	607.00	1787	2168	2427	57.54	10.28	.4315	564.9	.2619-02
58	180.00	47500	608.00	7781-01	2442-01	1057	57.56	4.479	.4313	564.6	.1140-02
58	180.00	50000	609.00	1681-01	2040-01	2283-01	57.57	9.678	.4312	564.5	.2463-03
58	180.00	52500	610.00	8584-01	1041	1165	57.65	4.949	.4305	563.5	.1258-02
58	180.00	55000	611.00	7130-01	6648-01	9679-01	57.66	4.112	.4303	563.4	.1045-02
58	180.00	57500	612.00	4642-01	5873-01	6573-01	57.67	2.793	.4302	563.2	.7094-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 ET

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(REI111)

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
58	180.00	.60000	613.00	.4321-01	.5243-01	.5868-01	57.59	2.489	.4310	564.3	.6332-03
58	180.00	.62500	614.00	.4638-01	.5628-01	.6301-01	57.55	2.670	.4314	564.8	.6798-03
58	180.00	.65000	615.00	.4969-01	.6029-01	.6749-01	57.56	2.860	.4314	564.7	.7282-03
58	180.00	.67500	616.00	.4898-01	.5939-01	.6645-01	57.83	2.831	.4287	561.9	.7174-03
58	180.00	.70000	617.00	.4746-01	.5754-01	.6436-01	57.83	2.745	.4277	561.2	.6950-03
58	180.00	.75000	618.00	.4646-01	.5630-01	.6296-01	57.94	2.692	.4295	559.9	.6801-03
58	180.00	.80000	619.00	.4486-01	.5439-01	.6086-01	57.76	2.591	.4294	562.2	.6571-03
58	180.00	.85000	620.00	.4616-01	.5597-01	.6262-01	57.76	2.666	.4278	562.1	.6761-03
58	180.00	.90000	621.00	.6621-01	.8023-01	.8973-01	57.92	3.835	.4248	560.1	.9692-03
58	180.00	.93700	622.00	.9319-01	.1128	.1261	58.24	5.427	.4261	556.1	.1363-03
58	180.00	.97500	623.00	.9105-02	.1103-01	.1233-01	58.11	5.291	.4261	557.8	.1332-03
58	194.00	.80000-01	624.00	.2028	.2456	.2747	58.05	11.77	.4266	558.5	.2968-02
58	196.00	.15000	625.00	.7555-01	.9205-01	.1029	58.07	4.414	.4264	558.2	.1112-02
58	196.00	.30000	626.00	.7114-01	.3772-01	.4217-01	58.08	1.809	.4264	558.2	.4557-03
58	196.00	.50000	627.00	.5271-01	.6381-01	.7131-01	58.23	3.069	.4249	556.3	.7710-03
58	196.00	.70000	628.00	.2261-01	.2734-01	.3053-01	58.57	1.324	.4217	552.0	.3304-03
58	197.00	.90000	629.00	.3196-01	.3864-01	.4314-01	58.63	1.874	.4211	551.3	.4669-03
58	208.00	.15000	630.00	.8748-01	.1059	.1183	58.31	5.101	.4242	555.3	.1279-02
58	208.00	.40000	631.00	.4033-01	.4878-01	.5448-01	58.49	2.359	.4224	553.0	.5895-03
58	208.00	.60000	632.00	.3571-01	.4322-01	.4828-01	58.52	2.092	.4221	552.6	.5223-03
58	208.00	.80000	633.00	.3089-01	.3737-01	.4175-01	58.37	1.803	.4236	554.5	.4516-03
58	208.00	.93700	634.00	.9111-01	.1102	.1231	58.47	5.327	.4226	553.3	.1332-02
58	216.00	.40000	635.00	.3987-01	.4823-01	.5388-01	58.43	2.330	.4230	553.8	.5829-03
58	216.00	.50000	636.00	.3223-01	.3897-01	.4353-01	58.50	1.885	.4224	552.9	.4709-03
58	216.00	.70000	637.00	.3067-01	.3710-01	.4145-01	58.39	1.781	.4233	554.2	.4484-03
58	222.50	.35000	638.00	.3343-01	.4050-01	.4530-01	57.92	1.936	.4279	560.1	.4893-03
58	229.00	.40000	639.00	.4406-01	.5330-01	.5955-01	58.41	2.574	.4234	554.0	.6441-03
58	229.00	.60000	640.00	.4217-01	.5095-01	.5686-01	58.80	2.480	.4194	549.1	.6158-03
58	229.00	.80000	641.00	.3024-01	.3654-01	.4080-01	58.72	1.776	.4202	550.2	.4417-03

ARC 3.5-178 IH3 ET (TRIPS) EXTERNAL TANK

(REIT12)

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

PHI	RUN NUMBER	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
60	00000	.40000-01	501.00	.1445	.1765	.1986	55.88	8.072	.4496	590.7	.2135-02
60	00000	.80000-01	502.00	.870-01	.1067	.1199	56.13	4.906	.4471	587.5	.1291-02
60	00000	.15000	503.00	.1158	.1412	.1586	56.42	6.531	.4444	583.9	.1708-02
60	00000	.40000	504.00	.4359-01	.5302-01	.5544-01	57.17	2.492	.4372	574.5	.6416-03
60	00000	.60000	505.00	.3639-01	.4422-01	.4955-01	57.39	2.089	.4351	571.7	.5352-03
60	00000	.80000	506.00	.3666-01	.4454-01	.4990-01	57.44	2.105	.4347	571.2	.5390-03
60	45.000	.40000	507.00	.4288-01	.5217-01	.5851-01	57.05	2.446	.4383	576.0	.6313-03
60	45.000	.50000	508.00	.3642-01	.4428-01	.4964-01	57.22	2.084	.4367	573.9	.5359-03
60	45.000	.60000	509.00	.3598-01	.4498-01	.5043-01	57.16	2.114	.4373	574.6	.5443-03
60	45.000	.70000	510.00	.3610-01	.4390-01	.4921-01	57.20	2.065	.4369	574.2	.5313-03
60	45.000	.80000	511.00	.3542-01	.4308-01	.4830-01	57.12	2.023	.4377	575.1	.5213-03
60	45.000	.90000	512.00	.3583-01	.4356-01	.4882-01	57.28	2.052	.4362	573.1	.5271-03
60	67.500	.30000	513.00	.4288-01	.5220-01	.5657-01	56.88	2.439	.4400	579.2	.6316-03
60	67.500	.40000	514.00	.4308-01	.5244-01	.5683-01	56.90	2.451	.4397	577.8	.6345-03
60	67.500	.50000	515.00	.4362-01	.5309-01	.5955-01	56.98	2.465	.4391	576.9	.6424-03
60	67.500	.60000	516.00	.4035-01	.4910-01	.5507-01	57.01	2.300	.4387	576.5	.5941-03
60	67.500	.70000	517.00	.3728-01	.4537-01	.5030-01	56.97	2.124	.4391	577.0	.5491-03
60	67.500	.80000	518.00	.3713-01	.4521-01	.5074-01	56.78	2.108	.4409	579.4	.5471-03
60	67.500	.90000	519.00	.3693-01	.4493-01	.5039-01	57.05	2.107	.4394	576.0	.5438-03
60	67.500	.00000	520.00	.3656-01	.4447-01	.4987-01	57.09	2.087	.4360	575.5	.5382-03
60	67.500	.10000	521.00	.3554-01	.4328-01	.4856-01	56.85	2.021	.4402	578.5	.5236-03
60	67.503	.20000	522.00	.3557-01	.4328-01	.4856-01	56.95	2.026	.4393	577.2	.5239-03
60	90.000	.30000	523.00	.4186-01	.7096-01	.7959-01	56.99	3.323	.4389	576.7	.8586-03
60	90.000	.40000	524.00	.4186-01	.7096-01	.7959-01	57.23	3.396	.4366	573.7	.6159-03
60	90.000	.50000	525.00	.4276-01	.5206-01	.5840-01	56.89	2.433	.4398	578.0	.6299-03
60	90.000	.60000	526.00	.4218-01	.5134-01	.5760-01	56.89	2.399	.4399	578.0	.6213-03

TEST DATA

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 ET (TRIPS)			EXTERNAL TANK		HM/HT	TH UEO. R	STN NO R=0.9
				H/HREF R=1.1	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC			
60	90.000	32500	327.00	4185-01	5095-01	5715-01	56.94	2.384	4394	577.4	6165-03
60	90.000	35000	528.00	4307-01	5242-01	5880-01	56.93	2.452	4395	577.5	6343-03
60	90.000	40000	529.00	4123-01	5018-01	5629-01	56.95	2.348	4393	577.3	6072-03
60	90.000	45000	530.00	4230-01	5148-01	5775-01	56.93	2.408	4395	577.5	6230-03
60	90.000	50000	531.00	3971-01	4834-01	5423-01	56.89	2.259	4399	578.0	5849-03
60	90.000	55000	532.00	3845-01	4626-01	5253-01	56.87	2.160	4400	578.2	5665-03
60	90.000	60000	533.00	3759-01	4605-01	5190-01	56.85	2.160	4403	578.6	5597-03
60	90.000	65000	534.00	3781-01	4605-01	5169-01	56.72	2.144	4415	580.1	5572-03
60	90.000	70000	535.00	3588-01	4365-01	4896-01	57.04	2.060	4384	576.1	5283-03
60	90.000	75000	535.00	3611-01	4393-01	4927-01	57.05	2.060	4383	575.9	5316-03
60	90.000	80000	537.00	3428-01	4175-01	4686-01	56.76	1.946	4411	578.6	5052-03
60	90.000	85000	538.00	3400-01	4141-01	4648-01	56.74	1.929	4413	579.9	5010-03
60	90.000	90000	539.00	3459-01	4213-01	4728-01	56.76	1.963	4411	579.6	5098-03
60	112.50	27500	540.00	4551-01	5296-01	5942-01	56.92	2.477	4356	577.6	6239-03
60	112.50	30000	541.00	4238-01	5156-01	5781-01	57.09	2.419	4380	575.5	6198-03
60	112.50	32500	542.00	4210-01	5122-01	5744-01	57.07	2.403	4382	575.8	6198-03
60	112.50	35000	543.00	4232-01	5149-01	5775-01	57.02	2.413	4386	576.4	6231-03
60	112.50	40000	544.00	4254-01	5178-01	5808-01	56.94	2.423	4394	577.3	6265-03
60	112.50	45000	545.00	4049-01	4932-01	5824-01	56.82	2.422	4405	578.9	6280-03
60	112.50	50000	546.00	4083-01	4973-01	5882-01	56.75	2.298	4411	579.6	5967-03
60	112.50	55000	547.00	3851-01	4691-01	5582-01	56.70	2.317	4413	579.8	6018-03
60	112.50	60000	548.00	3851-01	4691-01	5265-01	56.70	2.184	4417	580.4	5676-03
60	112.50	65000	549.00	3826-01	4662-01	5234-01	56.61	2.166	4425	581.5	5640-03
60	112.50	70000	550.00	3542-01	4434-01	4975-01	56.89	2.072	4399	578.0	5365-03
60	112.50	80000	551.00	3738-01	4549-01	5103-01	56.96	2.129	4392	577.1	5505-03
60	112.50	85000	552.00	3446-01	4197-01	4710-01	56.78	1.957	4410	579.4	5078-03
60	112.50	90000	553.00	3577-01	4353-01	4882-01	57.00	2.039	4389	576.7	5268-03
60	123.00	82500	554.00	3424-01	4169-01	4679-01	56.80	1.945	4407	579.1	5045-03
60	123.00	87500	555.00	5064-01	6161-01	6908-01	57.08	2.891	4381	575.6	7455-03
60	123.00	92500	556.00	3561-01	4332-01	4858-01	57.04	2.031	4384	576.1	5242-03
60	123.00	97500	557.00	3348-01	4075-01	4571-01	56.95	1.907	4393	577.3	4931-03
60	123.00	102500	558.00	3920-01	4773-01	5356-01	56.84	2.228	4404	578.7	5776-03
60	123.00	107500	559.00	6754-01	8221-01	9222-01	56.93	3.845	4395	577.5	9948-03
60	123.00	112500	560.00	2563-01	3113-01	3498-01	57.03	1.462	4386	576.3	3774-03
60	135.00	32500	561.00	3940-01	4798-01	5383-01	56.82	2.239	4406	578.9	5805-03
60	135.00	37500	562.00	3782-01	4604-01	5165-01	56.88	2.151	4400	578.1	5571-03
60	135.00	42500	563.00	3827-01	4660-01	5229-01	56.82	2.175	4405	578.9	5639-03
60	135.00	47500	564.00	3909-01	4759-01	5340-01	56.84	2.222	4403	578.6	5759-03
60	135.00	52500	565.00	3884-01	4724-01	5296-01	57.15	2.220	4374	574.8	5717-03
60	135.00	57500	566.00	3768-01	4582-01	5138-01	57.14	2.153	4375	574.9	5545-03
60	135.00	62500	567.00	3821-01	4647-01	5209-01	57.19	2.186	4370	574.2	5624-03
60	135.00	67500	568.00	3210-01	3904-01	4377-01	57.16	1.835	4373	574.6	4724-03
60	135.00	72500	569.00	3148-01	3830-01	4295-01	57.06	1.796	4383	575.9	4634-03

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OFEF FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
60	135.00	.70000	570.00	.3227-01	.3923-01	.4397-01	57.27	1.848	.4362	573.2	.4748-03
60	135.00	.75000	571.00	.3052-01	.3710-01	.4153-01	57.27	1.748	.4363	573.3	.4490-03
60	135.00	.80000	572.00	.2988-01	.3637-01	.4080-01	56.93	1.701	.4395	577.5	.4401-03
60	135.00	.85000	573.00	.4661-01	.5670-01	.6359-01	57.98	2.661	.4381	575.7	.6862-03
60	135.00	.90000	574.00	.2947-01	.3565-01	.4022-01	56.98	1.679	.4390	576.9	.4339-03
60	151.00	.93500	575.00	.1534	.1863	.2086	57.59	8.834	.4332	569.2	.2251-02
61	157.00	.40000	576.00	.4113-01	.5014-01	.5631-01	56.45	2.322	.4435	581.9	.6058-03
61	157.00	.42500	577.00	.5407-01	.6590-01	.7399-01	56.52	3.056	.4428	581.0	.7962-03
61	157.00	.45000	578.00	.5451-01	.6638-01	.7148-01	56.76	3.094	.4405	578.0	.8021-03
61	157.00	.47500	579.00	.4686-01	.5948-01	.6672-01	56.85	2.778	.4396	576.9	.7188-03
61	157.00	.50000	580.00	.5506-01	.6702-01	.7519-01	56.84	3.130	.4398	577.0	.8099-03
61	157.00	.55000	581.00	.2780-01	.3383-01	.3794-01	56.96	1.584	.4386	575.5	.4088-03
61	157.00	.60000	582.00	.3146-01	.3829-01	.4295-01	56.86	1.789	.4396	576.8	.4627-03
61	157.00	.65000	583.00	.3153-01	.3839-01	.4307-01	56.80	1.791	.4402	577.6	.4639-03
61	157.00	.70000	584.00	.3300-01	.4016-01	.4505-01	56.90	1.878	.4391	576.2	.4853-03
61	157.00	.75000	585.00	.3039-01	.3699-01	.4148-01	56.93	1.730	.4389	575.9	.4470-03
61	157.00	.80000	586.00	.2578-01	.3138-01	.3521-01	56.86	1.466	.4396	576.8	.3793-03
61	157.00	.85000	587.00	.2424-01	.2950-01	.3308-01	56.94	1.380	.4388	575.7	.3565-03
61	157.00	.90000	588.00	.5032-01	.6121-01	.6864-01	57.01	2.869	.4381	574.9	.7398-03
61	161.00	.42500	589.00	.6555-01	.7989-01	.8970-01	56.50	7.703	.4430	581.3	.8653-03
61	165.00	.40000	590.00	.4189-01	.5107-01	.5736-01	56.42	2.363	.4438	582.3	.6170-03
61	165.00	.70000	591.00	.3348-01	.4074-01	.4570-01	56.89	1.906	.4393	576.4	.4924-03
61	165.00	.30000	592.00	.3353-01	.4081-01	.4578-01	56.86	1.906	.4396	576.8	.4932-03
61	180.00	.00000	594.00	.4969-01	.6045-01	.6779-01	56.99	2.832	.4383	575.1	.7305-03
61	180.00	.50000-02	595.00	.6122	.7503	.8457	55.06	33.71	.4568	599.4	.9059-02
61	180.00	.10000-01	596.00	.5427	.6632	.7461	55.80	30.28	.4497	590.1	.8011-02
61	180.00	.80000-01	597.00	.5640	.6877	.7723	56.41	31.81	.4439	582.5	.8308-02
61	180.00	.15000	598.00	.2653	.3231	.3627	56.64	15.03	.4402	577.5	.5265-02
61	180.00	.20000	599.00	.9746-01	.1188	.1374	56.50	5.506	.4431	579.5	.3905-02
61	180.00	.25000	600.00	.1899-01	.6319-01	.7092-01	56.69	2.941	.4412	581.4	.1435-02
61	180.00	.30000	601.00	.3672-01	.4471-01	.5017-01	56.74	2.083	.4407	578.9	.7636-03
61	180.00	.35000	602.00	.3681-01	.4488-01	.5040-01	56.43	2.077	.4437	578.3	.5403-03
61	180.00	.40000	603.00	.3431-01	.4182-01	.4696-01	56.49	1.938	.4431	581.5	.5053-03
61	180.00	.45000	604.00	.3272-01	.3988-01	.4478-01	56.51	1.849	.4429	581.2	.4819-03
61	180.00	.50000	605.00	.2927-01	.3567-01	.4004-01	56.58	1.656	.4422	580.3	.4310-03
61	180.00	.55000	606.00	.5288-01	.6443-01	.7234-01	56.55	2.990	.4425	580.7	.7785-03
61	180.00	.60000	607.00	.1551	.1890	.2122	56.60	8.780	.4421	580.1	.2284-02
61	180.00	.65000	608.00	.6940-01	.8453-01	.9487-01	56.67	3.932	.4414	579.2	.1021-02
61	180.00	.70000	609.00	.1550-01	.1889-01	.2120-01	56.66	8.785	.4415	579.3	.2282-03
61	180.00	.75000	610.00	.8482-01	.1033	.1159	56.72	4.811	.4409	578.6	.1248-02
61	180.00	.80000	611.00	.6517-01	.7937-01	.8907-01	56.71	3.636	.4410	578.7	.9591-03
61	180.00	.85000	612.00	.4674-01	.5693-01	.6333-01	56.70	2.650	.4411	578.8	.6879-03

DATE 24 JAN 76

ARC 3.5-178 1H3

PAGE 71
(RE1112)

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 1H3 ET (TRIPS)			EXTERNAL TANK		HM/HT	TM DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC			
61	180.00	.60000	613.00	.4299-01	.5337-01	.5879-01	56.62	2.434	579.8	.6328-03	
61	180.00	.62500	614.00	.4576-01	.5576-01	.6260-01	56.57	2.589	580.4	.6738-03	
61	180.00	.65000	615.00	.4875-01	.5941-01	.6670-01	56.56	2.757	580.5	.7178-03	
61	180.00	.67500	616.00	.4799-01	.5843-01	.6556-01	56.80	2.726	577.6	.7061-03	
61	180.00	.70000	617.00	.4683-01	.5700-01	.6394-01	56.88	2.664	576.5	.6888-03	
61	180.00	.75000	618.00	.4623-01	.5624-01	.6308-01	56.98	2.634	575.3	.6797-03	
61	180.00	.80000	619.00	.4514-01	.5485-01	.6156-01	56.71	2.554	578.6	.6628-03	
61	180.00	.85000	620.00	.4668-01	.5685-01	.6380-01	56.72	2.648	578.6	.6870-03	
61	180.00	.90000	621.00	.6751-01	.8218-01	.9219-01	56.84	3.838	577.0	.9931-03	
61	180.00	.93700	622.00	.9178-01	.1116	.1251	57.11	5.242	573.6	.1349-02	
61	180.00	.97500	623.00	.8704-02	.1059-01	.1188-01	56.98	.4959	575.3	.1280-03	
61	194.00	.80000-01	624.00	.2020	.2455	.2752	57.24	11.56	572.0	.2968-02	
61	150.00	.15000	625.00	.7317-01	.8896-01	.9972-01	57.19	4.184	572.7	.1075-02	
61	196.00	.30000	626.00	.2888-01	.3512-01	.3937-01	57.13	1.650	573.3	.4245-03	
61	196.00	.50000	627.00	.4830-01	.5871-01	.6579-01	57.27	2.766	571.7	.7096-03	
61	197.00	.70000	628.00	.2196-01	.2666-01	.2986-01	57.54	1.263	568.3	.3223-03	
61	197.00	.90000	629.00	.3079-01	.3737-01	.4185-01	57.60	1.773	567.5	.4516-03	
61	208.00	.15000	630.00	.9598-01	.1166	.1306	57.44	5.513	569.5	.1409-02	
61	208.00	.40000	631.00	.3709-01	.4503-01	.5042-01	57.59	2.136	567.6	.5444-03	
61	208.00	.60000	632.00	.3377-01	.4099-01	.4590-01	57.60	1.945	567.4	.4956-03	
61	208.00	.80000	633.00	.2988-01	.3628-01	.4063-01	57.53	1.719	568.4	.4385-03	
61	208.00	.93700	634.00	.2175-01	.1114	.1247	57.61	5.286	567.4	.1346-02	
61	216.00	.40000	635.00	.4076-01	.4948-01	.5541-01	57.59	2.347	567.7	.5982-03	
61	216.00	.50000	636.00	.3310-01	.4018-01	.4499-01	57.61	1.907	567.3	.4858-03	
61	216.00	.70000	637.00	.2952-01	.3585-01	.4015-01	57.50	1.697	568.8	.4333-03	
61	222.50	.33500	638.00	.3422-01	.4163-01	.4668-01	57.01	1.971	574.9	.5031-03	
61	229.00	.40000	639.00	.4241-01	.5150-01	.5767-01	57.51	2.439	568.6	.6225-03	
61	229.00	.60000	640.00	.3971-01	.4816-01	.5389-01	57.84	2.298	564.5	.5823-03	
61	229.00	.80000	641.00	.2956-01	.3585-01	.4013-01	57.81	1.709	564.8	.4335-03	

ARC 3.5-178 IH3
 EXTERNAL TANK

ARC 3.5-178 IH3 ET (TRIPS) EXTERNAL TANK PARAMETRIC DATA
 RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	TH DEG. R	STN NO R=0.9
62	5.300	.1555*07	137.5	1373.	336.5	.1750-01	.2705	.0000	
63	5.300	.1507*07	123.1	1307.	319.2	.1750-01	.2495	.0000	

TEST DATA

PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT B.U./FT2SEC	HM/HT	TW DEG. R
63	.00000	501.00	.1471	.1781	.1997	32.32	4.755	.4302	572.4
63	.00000	502.00	.8835-01	.1071	.1198	32.43	2.865	.4285	570.1
63	.00000	503.00	.7901-01	.9570-01	.1070	32.52	2.570	.4267	567.7
63	.00000	504.00	.3305-01	.3933-01	.4458-01	32.92	1.088	.4200	558.8
63	.00000	505.00	.3035-01	.3665-01	.4088-01	33.06	1.004	.4176	555.6
63	.00000	506.00	.3117-01	.3762-01	.4197-01	33.11	1.032	.4167	554.4
63	.00000	507.00	.3142-01	.3796-01	.4237-01	32.94	1.035	.4197	558.4
63	.00000	508.00	.3027-01	.3554-01	.4077-01	33.08	1.001	.4174	555.3
63	.00000	509.00	.3068-01	.3703-01	.4130-01	33.11	1.016	.4168	554.5
63	.00000	510.00	.3074-01	.3709-01	.4137-01	33.13	1.018	.4165	554.1
63	.00000	511.00	.3066-01	.3699-01	.4126-01	33.16	1.017	.4160	553.5
63	.00000	512.00	.3052-01	.3680-01	.4102-01	33.25	1.015	.4144	551.4
63	.00000	513.00	.2024-01	.2446-01	.2731-01	32.86	.6650	.4210	560.1
63	.00000	514.00	.2999-01	.2899-01	.3236-01	32.91	.7894	.4202	559.1
63	.00000	515.00	.2975-01	.3593-01	.4010-01	32.99	.9812	.4189	557.3
63	.00000	516.00	.3467-01	.4186-01	.4670-01	33.06	1.146	.4176	555.6
63	.00000	517.00	.3174-01	.3831-01	.4273-01	33.09	1.050	.4170	554.9
63	.00000	518.00	.3146-01	.3799-01	.4239-01	33.03	1.039	.4181	556.3
63	.00000	519.00	.3032-01	.3220-01	.4149-01	33.10	1.020	.4170	554.8
63	.00000	520.00	.3147-01	.3799-01	.4236-01	33.13	1.043	.4165	554.2
63	.00000	521.00	.3099-01	.3741-01	.4173-01	33.09	1.025	.4171	555.0
63	.00000	522.00	.3130-01	.3776-01	.4211-01	33.17	1.038	.4158	553.2
63	.00000	523.00	.3741-01	.4521-01	.5047-01	32.89	1.231	.4205	559.4
63	.00000	524.00	.2139-01	.2582-01	.2881-01	33.03	.7063	.4182	556.4
63	.00000	525.00	.2182-01	.2637-01	.2943-01	32.91	.7179	.4203	559.2
63	.00000	526.00	.2189-01	.2646-01	.2954-01	32.89	.7202	.4205	559.4

EXTERNAL TANK

(RE1113)

RTN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	H/H/HT	TW DEG. R	STN NO R=0.9
63	90.000	.32500	527.00	.2345-01	.2834-01	.3163-01	32.94	.7726	4.197	558.4	.6278-03
63	90.000	.35000	528.00	.2640-01	.3190-01	.3560-01	32.97	.8705	4.192	557.7	.7066-03
63	90.000	.40000	529.00	.3090-01	.3731-01	.4164-01	33.01	1.020	4.185	556.8	.8266-03
63	90.000	.45000	530.00	.3435-01	.4147-01	.4627-01	33.04	1.129	4.178	556.0	.9189-03
63	90.000	.50000	531.00	.3415-01	.4123-01	.4601-01	33.05	1.082	4.173	555.9	.9136-03
63	90.000	.55000	532.00	.3302-01	.3985-01	.4447-01	33.08	1.083	4.173	555.2	.8832-03
63	90.000	.60000	533.00	.3279-01	.3959-01	.4417-01	33.04	1.081	4.179	556.0	.8771-03
63	90.000	.65000	534.00	.3276-01	.3957-01	.4415-01	33.08	1.022	4.186	557.0	.8765-03
63	90.000	.70000	535.00	.3088-01	.3728-01	.4159-01	33.08	1.032	4.173	555.2	.8260-03
63	90.000	.75000	536.00	.3118-01	.3764-01	.4198-01	33.11	1.032	4.169	554.6	.8339-03
63	90.000	.80000	537.00	.3034-01	.3663-01	.4086-01	33.08	1.004	4.173	555.2	.8115-03
63	90.000	.85000	538.00	.3050-01	.3681-01	.4105-01	33.12	1.010	4.166	554.3	.8155-03
63	90.000	.90000	539.00	.3002-01	.3719-01	.4148-01	33.14	1.021	4.162	553.8	.8240-03
63	112.50	.27500	540.00	.2607-01	.2707-01	.2707-01	32.92	.6607	4.200	558.8	.5372-03
63	112.50	.30000	541.00	.2096-01	.2521-01	.2814-01	32.93	.6871	4.198	558.6	.5585-03
63	112.50	.35000	542.00	.2153-01	.2501-01	.2903-01	32.95	.7093	4.195	558.1	.5761-03
63	112.50	.35000	543.00	.2452-01	.2962-01	.3306-01	32.95	.8079	4.195	558.1	.6562-03
63	112.50	.40000	544.00	.2912-01	.3518-01	.3926-01	32.96	.9598	4.193	557.9	.7793-03
63	112.50	.45000	545.00	.3331-01	.4024-01	.4492-01	32.96	1.098	4.194	558.0	.8915-03
63	112.50	.50000	546.00	.3118-01	.3200-01	.4447-01	32.97	1.087	4.192	557.7	.8827-03
63	112.50	.55000	547.00	.3423-01	.4135-01	.4614-01	32.98	1.129	4.190	557.4	.9160-03
63	112.50	.60000	548.00	.3151-01	.3807-01	.4248-01	32.98	1.039	4.190	557.5	.8433-03
63	112.50	.65000	549.00	.3102-01	.3748-01	.4183-01	32.95	1.022	4.195	558.1	.8302-03
63	112.50	.70000	550.00	.2964-01	.3579-01	.3934-01	33.03	.9792	4.181	556.3	.7930-03
63	112.50	.75000	551.00	.2981-01	.3599-01	.4015-01	33.05	.9852	4.178	556.8	.7973-03
63	112.50	.80000	552.00	.2954-01	.3567-01	.3980-01	33.04	.9763	4.179	556.0	.7904-03
63	112.50	.85000	553.00	.3346-01	.4037-01	.4502-01	33.16	1.109	4.160	553.5	.8946-03
63	112.50	.90000	554.00	.3111-01	.3755-01	.4188-01	33.13	1.031	4.165	554.1	.8320-03
63	123.00	.82500	555.00	.4057-01	.4896-01	.5461-01	33.11	1.343	4.160	553.5	.1085-02
63	123.00	.85000	556.00	.2359-01	.2846-01	.3174-01	33.15	.7820	4.160	553.5	.6306-03
63	123.00	.87500	557.00	.2667-01	.3217-01	.3598-01	33.17	.8844	4.158	553.3	.7129-03
63	123.00	.90000	558.00	.3699-01	.4464-01	.4579-01	33.13	2.245	4.158	554.1	.9891-03
63	123.00	.92500	559.00	.6768-01	.8165-01	.9105-01	33.17	2.226	4.158	553.2	.1809-02
63	123.00	.95000	560.00	.2414-01	.2912-01	.3247-01	33.20	.8015	4.153	552.5	.6453-03
63	135.00	.32500	561.00	.1862-01	.2251-01	.2514-01	32.84	.6116	4.214	560.6	.4987-03
63	135.00	.35000	562.00	.2063-01	.2427-01	.2709-01	32.88	.6601	4.207	559.8	.5375-03
63	135.00	.37500	563.00	.2226-01	.2690-01	.3007-01	32.90	.7322	4.204	559.4	.5959-03
63	135.00	.40000	564.00	.5230-01	.3056-01	.3411-01	32.91	.8323	4.201	558.9	.6769-03
63	135.00	.45000	565.00	.2938-01	.3548-01	.3953-01	33.00	.9694	4.187	557.0	.7860-03
63	135.00	.50000	566.00	.3244-01	.3917-01	.4371-01	33.02	1.071	4.184	556.7	.8679-03
63	135.00	.55000	567.00	.3230-01	.3900-01	.4352-01	33.04	1.067	4.180	556.2	.8641-03
63	135.00	.60000	568.00	.2723-01	.3289-01	.3669-01	33.03	.8996	4.181	556.3	.7286-03
63	135.00	.65000	569.00	.2697-01	.3257-01	.3635-01	33.01	.8303	4.185	556.8	.7217-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

EXTERNAL TANK

ARC 3.5-178 IH3 ET (TRIPS)

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
63	135.00	.70000	570.00	.2690-01	.3248-01	.3623-01	33.08	.8699	4.173	555.2	.7196-03
63	135.00	.75000	571.00	.2619-01	.3161-01	.3527-01	33.06	.8658	4.176	555.5	.7004-03
63	135.00	.80000	572.00	.2741-01	.3310-01	.3693-01	33.02	.9051	4.183	556.6	.7333-03
63	135.00	.85000	573.00	.4595-01	.5544-01	.6183-01	33.14	1.523	4.163	553.8	.1228-02
63	135.00	.90000	574.00	.2821-01	.3403-01	.3795-01	33.17	5.357	4.157	553.1	.7541-03
63	151.00	.93500	575.00	.1608	.1938	.2159	33.33	5.358	4.130	549.5	.4254-02
62	157.00	.90000	576.00	.2653-01	.3165-01	.3540-01	37.95	1.007	4.018	563.5	.6901-03
62	157.00	.42500	577.00	.4242-01	.5090-01	.5656-01	38.05	1.614	4.003	561.3	.1103-02
62	157.00	.45000	578.00	.5456-01	.6542-01	.7265-01	38.24	2.086	3.975	557.3	.1418-02
62	157.00	.47500	579.00	.4509-01	.5405-01	.6000-01	38.31	1.728	3.963	555.7	.1171-02
62	157.00	.50000	580.00	.4563-01	.5469-01	.6071-01	38.33	1.749	3.961	555.4	.1185-02
62	157.00	.55000	581.00	.2139-01	.2563-01	.2844-01	38.41	.8217	3.948	553.7	.5555-03
62	157.00	.60000	582.00	.1875-01	.2246-01	.2493-01	38.39	.7197	3.951	554.0	.4868-03
62	157.00	.65000	583.00	.2006-01	.2403-01	.2667-01	38.42	.7707	3.947	553.5	.5208-03
62	157.00	.70000	584.00	.2549-01	.3050-01	.3383-01	38.63	.9846	3.915	549.0	.6612-03
62	157.00	.75000	585.00	.2571-01	.3077-01	.3412-01	38.66	.9941	3.910	548.3	.6670-03
62	157.00	.80000	586.00	.2184-01	.2615-01	.2902-01	38.51	.8412	3.933	551.5	.5669-03
62	157.00	.85000	587.00	.2119-01	.2536-01	.2813-01	38.57	.8171	3.924	550.3	.5498-03
62	157.00	.90000	588.00	.5171-01	.6187-01	.6862-01	38.64	1.998	3.924	550.3	.1341-02
62	157.00	.92500	589.00	.6145-01	.7375-01	.8196-01	38.02	2.336	4.008	548.8	.1598-02
62	155.00	.40000	593.00	.2782-01	.3342-01	.3715-01	37.92	1.055	4.023	564.1	.7240-03
62	165.00	.50000	590.00	.2704-01	.3240-01	.3597-01	38.35	1.037	3.957	554.9	.7023-03
62	165.00	.70000	591.00	.2380-01	.2849-01	.3160-01	38.60	.9188	3.920	549.6	.6176-03
62	165.00	.30000	592.00	.3787-01	.4532-01	.5026-01	38.63	1.463	3.915	548.9	.9826-03
62	180.00	.00000	594.00	.6638	.8014	.8940	36.92	24.51	4.175	585.4	.1735-01
62	180.00	.50000-02	595.00	.4966	.5985	.6669	37.25	18.50	4.125	578.5	.1296-01
62	180.00	.10000-01	596.00	.5225	.6288	.7000	37.51	19.60	4.085	572.8	.1362-01
62	180.00	.40000-01	597.00	.1969	.2365	.2630	37.86	7.454	4.032	565.4	.5124-02
62	180.00	.80000-01	598.00	.1518	.1823	.2026	37.92	5.756	4.023	564.1	.3949-02
62	180.00	.15000	599.00	.7953-01	.9550-01	1.062	37.94	3.018	4.019	563.6	.2069-02
62	180.00	.20000	600.00	.3140-01	.3762-01	.4176-01	38.37	1.205	3.955	554.5	.8153-03
62	180.00	.25000	601.00	.1447-01	.1734-01	.1924-01	38.44	.5564	3.944	553.7	.3758-03
62	180.00	.30000	602.00	.1294-01	.1553-01	.1725-01	38.05	.4923	4.003	561.3	.3364-03
62	180.00	.35000	603.00	.1820-01	.2124-01	.2426-01	38.08	.6930	3.999	560.8	.4732-03
62	180.00	.37500	604.00	.2106-01	.2527-01	.2807-01	38.10	.8023	3.996	560.4	.5476-03
62	180.00	.40000	605.00	.1854-01	.2225-01	.2471-01	38.12	.7067	3.993	559.9	.4820-03
62	180.00	.42500	606.00	.4732-01	.5676-01	.6306-01	38.14	1.804	3.990	559.5	.1230-02
62	180.00	.45000	607.00	.1293	.1550	.1721	38.29	4.951	3.967	556.2	.3359-02
62	180.00	.47500	608.00	.7039-01	.8436-01	.9366-01	38.32	2.697	3.963	555.7	.1828-02
62	180.00	.50000	609.00	.1209-01	.1449-01	.1609-01	38.33	.4636	3.961	555.4	.3142-03
62	180.00	.52500	610.00	.4858-01	.5821-01	.6461-01	38.36	1.864	3.955	554.6	.1262-02
62	180.00	.55000	611.00	.5688-01	.6815-01	.7564-01	38.38	2.183	3.953	554.3	.1477-02
62	180.00	.57500	612.00	.4236-01	.5075-01	.5632-01	38.40	1.626	3.950	553.9	.1100-02

ARC 3.5-178 IH3

ARC 3.5-178 IH3 ET (TRIPS)

RUN NUMBER	PHI	X/L	T/C NO	EXTERNAL TANK		HM/HT	TM DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.85			
62	180.00	.60000	613.00	.3680-01	.4410-01	.4895-01	1.412	.9558-03
62	180.00	.62500	614.00	.3530-01	.4230-01	.4695-01	1.355	.9168-03
62	180.00	.65000	615.00	.3517-01	.4214-01	.4677-01	1.350	.9133-03
62	180.00	.67500	616.00	.3580-01	.4287-01	.4756-01	1.378	.9292-03
62	180.00	.70000	617.00	.3543-01	.4240-01	.4703-01	1.369	.9193-03
62	180.00	.75000	618.00	.3472-01	.4154-01	.4606-01	1.343	.9006-03
62	180.00	.80000	619.00	.3331-01	.3990-01	.4427-01	1.281	.8648-03
62	180.00	.85000	620.00	.3330 01	.3988-01	.4425-01	1.281	.8645-03
62	180.00	.90000	621.00	.3164-01	.3788-01	.4202-01	1.220	.8212-03
62	180.00	.93700	622.00	.9745-01	.1166	.1293	3.769	.2528-02
62	180.00	.97500	623.00	.9724-02	.1163-01	.1290-01	3.765	.2522-03
62	194.00	.80000-01	624.00	.101E	.1254	.1393	3.997	.2718-02
62	196.00	.15000	625.00	.5921-01	.7099-01	.7882-01	38.27	.1538-02
62	196.00	.30000	626.00	.2330-01	.2791-01	.3098-01	38.40	.6050-03
62	196.00	.50000	627.00	.4245-01	.5080-01	.5634-01	38.61	.1101-02
62	196.00	.70000	628.00	.1591-01	.1902-01	.2108-01	38.84	.4124-03
62	197.00	.90000	629.00	.3324-01	.3975-01	.4407-01	38.75	.8619-03
62	208.00	.15000	630.00	.7304-01	.8755-01	.9720-01	38.50	.1897-02
62	208.00	.40000	631.00	.3279-01	.3923-01	.4350-01	38.67	.8505-03
62	208.00	.60000	632.00	.2350-01	.2811-01	.3116-01	38.74	.6095-03
62	208.00	.80000	633.00	.2365-01	.2829-01	.3137-01	38.74	.6134-03
62	216.00	.40000	634.00	.8738-01	.1045	.1159	3.368	.2266-02
62	216.00	.50000	635.00	.3539-01	.4233-01	.4694-01	38.70	.9179-03
62	216.00	.70000	636.00	.2443-01	.2922-01	.3240-01	38.73	.6336-03
62	222.50	.33500	637.00	.2257-01	.2698-01	.2990-01	38.85	.5850-03
62	229.00	.40000	638.00	.1472-01	.1764-01	.1958-01	38.31	.3823-03
62	229.00	.60000	639.00	.3984-01	.4768-01	.5289-01	38.59	.1034-02
62	229.00	.80000	640.00	.2995-01	.3584-01	.3974-01	38.67	.7769-03
62	229.00	.80000	641.00	.2139-01	.2559-01	.2837-01	38.67	.5548-03

EXTERNAL TANK

EXTERNAL TANK

(REIT19)

EXTERNAL TANK

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HC BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
72	5.300	.4987*07	403.9	1300.	317.5	.1750-01	.8213	-5.000
73	5.300	.5004*07	405.9	1301.	317.8	.1750-01	.8249	-5.000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
72	.00000	.40000-01	501.00	.1051	.1290	.1455	55.13	5.795	.4596	608.2	.1568-02
72	.00000	.80000-01	502.00	.5847-01	.7164-01	.8074-01	55.49	3.245	.4561	603.5	.8713-03
72	.00000	.15000	503.00	.2043-01	.2499-01	.2812-01	55.97	1.144	.4516	597.5	.3040-03
72	.00000	.40000	504.00	.3964-01	.4826-01	.5415-01	57.16	2.265	.4403	582.6	.5875-03
72	.00000	.60000	505.00	.4870-01	.5916-01	.6628-01	57.77	2.813	.4345	574.9	.7204-03
72	.00000	.80000	506.00	.5167-01	.5843-01	.4302-01	58.10	1.840	.4313	570.7	.4680-03
72	.45.000	.40000	507.00	.4396-01	.5347-01	.5996-01	57.42	2.525	.4378	579.3	.6510-03
72	.45.000	.50000	508.00	.2348-01	.2855-01	.3199-01	57.61	1.353	.4360	576.9	.3476-03
72	.45.000	.60000	509.00	.2375-01	.2886-01	.3233-01	57.68	1.370	.4353	576.0	.3514-03
72	.45.000	.70000	510.00	.2703-01	.3276-01	.3664-01	58.45	1.580	.4280	566.4	.3991-03
72	.45.000	.80000	511.00	.3183-01	.3864-01	.4327-01	57.96	1.845	.4314	570.8	.4706-03
72	.45.000	.90000	512.00	.3984-01	.4834-01	.5411-01	58.10	2.314	.4314	572.5	.5887-03
72	.67.500	.30000	513.00	.4010-01	.4896-01	.5505-01	56.39	2.261	.4476	592.2	.5958-03
72	.67.500	.40000	514.00	.1482	.1809	.2034	56.49	8.374	.4467	591.0	.2202-02
72	.67.500	.50000	515.00	.2934-01	.3577-01	.4018-01	56.77	1.666	.4440	587.4	.4354-03
73	.67.500	.60000	516.00	.5792-02	.7032-02	.7875-02	58.15	.3368	.4329	573.4	.8548-04
73	.67.500	.70000	517.00	.5255-02	.6377-02	.7138-02	58.32	.3065	.4312	571.3	.7752-04
73	.67.500	.80000	518.00	.2011-01	.2440-01	.2732-01	58.33	1.173	.4275	571.2	.2967-03
73	.67.500	.90000	519.00	.1627-01	.1971-01	.2204-01	58.72	.9532	.4259	566.3	.2397-03
73	.67.500	.75000	520.00	.2353-01	.2849-01	.3185-01	58.89	1.385	.4259	564.1	.3464-03
73	.67.500	.80000	521.00	.2368-01	.2870-01	.3210-01	58.64	1.389	.4282	567.2	.3490-03
73	.67.500	.90000	522.00	.3317-01	.4017-01	.4490-01	58.86	1.952	.4261	564.5	.4884-03
73	.90.000	.20000	523.00	.5138-01	.6232-01	.6974-01	58.45	3.004	.4300	569.6	.7576-03
73	.90.000	.25000	524.00	.3691-01	.4476-01	.5009-01	58.46	2.158	.4299	569.5	.5442-03
73	.90.000	.27500	525.00	.3723-01	.4527-01	.5075-01	57.72	2.149	.4369	578.8	.5502-03
73	.90.000	.30000	526.00	.1478	.1799	.2019	57.41	8.486	.4398	582.6	.2186-02

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

EXTERNAL TANK

PAGE 77
(REI119)

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
73	90.000	.32500	527.00	.3251	.3959	.4443	57.27	18.62	.4412	584.4	.4811-02
73	90.000	.35000	528.00	.2028	.2464	.2761	57.91	11.74	.4352	576.4	.2995-02
73	90.000	.40000	529.00	.6922-01	.8407-01	.9418-01	58.01	4.015	.4342	575.1	.1022-02
73	90.000	.45000	530.00	.4089-01	.5934-01	.6644-01	58.22	2.846	.4322	572.5	.7214-03
73	90.000	.50000	531.00	.3782-01	.4589-01	.5137-01	58.30	2.205	.4314	571.5	.5579-03
73	90.000	.55000	532.00	.3847-01	.4665-01	.5220-01	58.47	2.249	.4299	569.4	.5672-03
73	90.000	.60000	533.00	.4080-01	.4947-01	.5536-01	58.48	2.386	.4295	569.0	.6015-03
73	90.000	.65000	534.00	.6513-01	.7898-01	.8837-01	58.50	3.810	.4263	564.6	.9802-03
73	90.000	.70000	535.00	.8396-01	.1017	.1137	58.85	5.111	.4251	563.1	.1237-02
73	90.000	.75000	536.00	.8666-01	.1049	.1173	58.97	5.111	.4251	563.1	.1276-02
73	90.000	.80000	537.00	.7766-01	.9422-01	.1055	58.36	4.532	.4309	570.8	.1145-02
73	90.000	.85000	538.00	.7771-01	.9412-01	.1052	58.81	4.570	.4266	565.1	.1145-02
73	90.000	.90000	539.00	.7282-01	.8817-01	.9856-01	58.92	4.290	.4256	563.8	.1072-02
73	112.50	.27500	540.00	.4344-01	.5273-01	.5904-01	58.21	2.529	.4323	572.6	.6410-03
73	112.50	.30000	541.00	.4232-01	.5139-01	.5755-01	58.12	2.460	.4331	573.7	.6247-03
73	112.50	.32500	542.00	.8552-01	.1038	.1163	58.14	4.972	.4330	573.6	.1262-02
73	112.50	.35000	543.00	.2282	.2769	.3099	58.31	13.30	.4314	571.4	.3366-02
73	112.50	.40000	544.00	.9131-01	.1107	.1239	58.45	5.337	.4301	569.7	.1346-02
73	112.50	.45000	545.00	.7855-01	.9523-01	.1065	58.55	4.599	.4291	568.3	.1158-02
73	112.50	.50000	546.00	.6694-01	.8116-01	.9079-01	58.57	3.921	.4290	568.2	.9868-03
73	112.50	.55000	547.00	.7470-01	.9055-01	.1013	58.61	4.378	.4286	567.7	.1101-02
73	112.50	.60000	548.00	.9332-01	.1131	.1265	58.66	5.474	.4280	567.0	.1375-02
73	112.50	.65000	549.00	.9492-01	.1151	.1287	58.61	5.563	.4286	567.7	.1399-02
73	112.50	.70000	550.00	.1094	.1325	.1481	58.91	6.445	.4257	563.9	.1611-02
73	112.50	.75000	551.00	.1095	.1325	.1481	58.94	6.452	.4254	563.5	.1612-02
73	112.50	.80000	552.00	.9541-01	.1155	.1293	58.71	5.602	.4276	566.3	.1406-02
73	112.50	.85000	553.00	.7998-01	.9692-01	.1084	58.68	4.693	.4279	566.8	.1178-02
73	112.50	.90000	554.00	.1326	.1607	.1796	58.82	4.759	.4278	566.7	.1954-02
73	123.00	.82500	555.00	.5138-01	.6219-01	.6950-01	59.33	3.033	.4245	565.1	.1954-02
73	123.00	.85000	555.00	.9770-01	.1183	.1323	59.80	5.744	.4268	562.3	.7563-03
73	123.00	.90000	557.00	.1059	.1283	.1435	58.76	6.222	.4271	565.3	.1439-02
73	123.00	.92500	558.00	.2275	.2756	.3083	58.70	13.35	.4277	566.5	.3352-02
73	123.00	.95000	560.00	.1059	.1283	.1434	58.82	6.231	.4265	565.0	.1560-02
73	135.00	.32500	561.00	.5036-01	.6110-01	.6840-01	58.32	2.937	.4303	571.2	.7428-03
73	135.00	.35000	562.00	.7358-01	.8925-01	.9908-01	58.42	4.298	.4303	570.0	.1085-02
73	135.00	.37500	563.00	.6064-01	.9780-01	.1094	58.46	4.715	.4299	569.5	.1189-02
73	135.00	.40000	564.00	.4321-01	.5239-01	.5862-01	58.53	2.529	.4293	568.6	.6370-03
73	135.00	.45000	565.00	.9483-01	.1150	.1286	58.55	5.552	.4291	568.4	.1398-02
73	135.00	.50000	566.00	.2067	.2506	.2803	58.59	12.11	.4287	567.8	.3047-02
73	135.00	.55000	567.00	.1562	.1893	.2117	58.69	9.168	.4278	566.6	.2301-02
73	135.00	.60000	568.00	.9851-01	.1192	.1332	59.07	5.819	.4242	561.9	.1450-02
73	135.00	.65000	569.00	.8115-01	.9821-01	.1098	59.04	4.791	.4245	562.2	.1194-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76	RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3		ARC 3.5-178 IH3 O+T+S		EXTERNAL TANK			HM/HT	TW DEG. R	STN NC R=0.9
					H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	BTU/ FT2SEC				
	73	135.00	.70000	570.00	.8919-01	.1079	.1205	59.18	5.278	.4231	560.5	.1312-02		
	73	135.00	.75000	571.00	.8131-01	.9839-01	.1099	59.10	4.806	.4239	561.5	.1197-02		
	73	135.00	.80000	572.00	.8449-01	.1024	.1145	58.74	4.963	.4273	566.0	.1245-02		
	73	135.00	.85000	573.00	.1023	.1239	.1385	58.95	6.020	.4263	564.6	.1507-02		
	73	135.00	.90000	574.00	.8519-01	.1032	.1154	58.78	5.008	.4269	565.5	.1255-02		
	73	151.00	.93500	575.00	.2551	.3087	.3450	59.07	15.07	.4242	561.9	.3755-02		
	73	157.00	.40000	576.00	.6995-01	.8491-01	.9509-01	58.17	4.069	.4327	573.1	.1032-02		
	73	157.00	.42500	577.00	.1108	.1344	.1505	58.31	6.461	.4314	571.4	.1634-02		
	73	157.00	.45000	578.00	.1282	.1553	.1736	58.75	7.529	.4272	565.9	.1888-02		
	73	157.00	.47500	579.00	.1517	.1837	.2053	58.89	8.932	.4259	564.1	.2233-02		
	73	157.00	.50000	580.00	.1117	.1340	.1498	59.01	6.533	.4247	562.6	.1630-02		
	73	157.00	.55000	581.00	.6338-01	.7667-01	.8565-01	59.20	3.752	.4230	560.3	.9325-03		
	73	157.00	.60000	582.00	.4960-01	.6000-01	.6703-01	59.18	2.936	.4231	560.5	.7298-03		
	73	157.00	.65000	583.00	.5456-01	.6604-01	.7380-01	59.03	3.221	.4245	562.4	.8031-03		
	73	157.00	.70000	584.00	.5815-01	.7035-01	.839-01	59.16	3.440	.4233	560.7	.8556-03		
	73	157.00	.75000	585.00	.5061-01	.6122-01	.839-01	59.19	2.996	.4231	560.4	.7446-03		
	73	157.00	.80000	586.00	.3341-01	.4045-01	.4521-01	58.95	1.970	.4253	563.3	.4919-03		
	73	157.00	.85000	587.00	.5064-01	.6130-01	.6850-01	59.02	2.989	.4246	562.5	.7455-03		
	73	157.00	.90000	588.00	.7298-01	.8836-01	.9876-01	58.95	4.302	.4253	563.4	.1075-02		
	73	161.00	.42500	589.00	.1086	.1318	.1476	58.24	6.326	.4320	572.2	.1602-02		
	73	165.00	.50000	590.00	.1219	.1477	.1651	56.82	7.171	.4266	565.0	.1796-02		

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

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(REIT20)

EXTERNAL TANK

PARAMETRIC DATA

EXTERNAL TANK

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HC BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
77	5.300	.5056+07	410.5	1302.	318.0	.1750-01	.8339	-3.000
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R=0.9
79	67.500	.50000	516.00	.1647-01	.2004-01	.2247-01	57.99	.9550	.4386	584.6	.2441-03
79	67.500	.60000	517.00	.1805-01	.2195-01	.2461-01	58.12	1.049	.4374	583.0	.2674-03
79	67.500	.65000	518.00	.2478-01	.3014-01	.3379-01	58.12	1.440	.4374	583.0	.3672-03
79	67.500	.70000	519.00	.2002-01	.2432-01	.2725-01	58.42	1.170	.4346	579.2	.2963-03
79	67.500	.75000	520.00	.1939-01	.2355-01	.2637-01	58.54	1.135	.4335	577.8	.2869-03
79	67.500	.80000	521.00	.2685-01	.3506-01	.3929-01	58.36	1.684	.4352	580.0	.4272-03
79	67.500	.90000	522.00	.4295-01	.5214-01	.5839-01	58.62	2.518	.4312	576.7	.6354-03
79	90.000	.20000	523.00	.5570-01	.6758-01	.7565-01	58.78	3.274	.4326	574.8	.8237-03
79	90.000	.25000	524.00	.3584-01	.4812-01	.5388-01	58.63	2.324	.4326	576.6	.5864-03
79	90.000	.27500	525.00	.4000-01	.4870-01	.5464-01	57.83	2.313	.4402	586.7	.5932-03
79	90.000	.30000	526.00	.1526	.1861	.2090	57.46	8.771	.4436	591.3	.2266-02
79	90.000	.32500	527.00	.3439	.4195	.4714	57.30	19.71	.4452	593.3	.5109-02
79	90.000	.35000	528.00	.2134	.2598	.2916	57.79	12.33	.4405	587.2	.3165-02
79	90.000	.40000	529.00	.7211-01	.8774-01	.9841-01	57.98	4.181	.4387	584.8	.1069-02
79	90.000	.45000	530.00	.3894-01	.4736-01	.5310-01	58.11	2.263	.4375	583.1	.5770-03
79	90.000	.50000	531.00	.2975-01	.3618-01	.4056-01	58.14	1.730	.4372	582.7	.4408-03
79	90.000	.55000	532.00	.3186-01	.3873-01	.4341-01	58.24	1.855	.4363	581.5	.4719-03
79	90.000	.60000	533.00	.3307-01	.4020-01	.4506-01	58.25	1.926	.4362	581.3	.4898-03
79	90.000	.65000	534.00	.5787-01	.7034-01	.7884-01	58.25	3.371	.4362	581.4	.8571-03
79	90.000	.70000	535.00	.7450-01	.9042-01	.1012	58.66	4.370	.4323	576.2	.1102-02
79	90.000	.75000	536.00	.8053-01	.9770-01	.1094	58.78	4.734	.4312	574.7	.1191-02
79	90.000	.80000	537.00	.7272-01	.8832-01	.9893-01	58.50	4.254	.4338	578.2	.1076-02
79	90.000	.85000	538.00	.7694-01	.9343-01	.1046	58.54	4.504	.4335	577.7	.1139-02
79	90.000	.90000	539.00	.7375-01	.8954-01	.1003	58.60	4.322	.4329	577.0	.1091-02
79	112.50	.27500	540.00	.4419-01	.5374-01	.6025-01	58.12	2.568	.4374	583.0	.6547-03
79	112.50	.30000	541.00	.4105-01	.4994-01	.5600-01	58.04	2.383	.4382	584.0	.6084-03

EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/REF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
79	112.50	.32500	542.00	.8355-01	.1016	.1140	58.07	4.852	.1379	583.6	.1238-02
79	112.50	.35000	543.00	.2381	.2094	.3245	58.20	13.86	.4366	582.0	.3527-02
79	112.50	.40000	544.00	.7685-01	.9339-01	.1047	58.35	4.484	.4353	580.2	.1138-02
79	112.50	.45000	545.00	.6349-01	.7713-01	.8641-01	58.43	3.710	.4345	579.1	.9398-03
77	112.50	.50000	546.00	.5064-01	.6157-01	.5903-01	58.08	2.941	.4369	579.1	.7444-03
77	112.50	.55000	547.00	.5824-01	.7084-01	.7944-01	57.98	3.376	.4379	580.4	.8564-03
77	112.50	.60000	548.00	.6152-01	.7486-01	.8337-01	57.87	3.560	.4389	581.8	.9050-03
77	112.50	.65000	549.00	.7927-01	.9651-01	.1083	57.76	4.579	.4400	583.2	.1302-02
77	112.50	.70000	550.00	.8857-01	.1077	.1208	57.99	5.137	.4378	580.2	.1345-02
77	112.50	.75000	551.00	.1144-01	.1112	.1247	57.98	5.302	.4379	580.4	.1345-02
77	112.50	.80000	552.00	.7980-01	.9719-01	.1091	57.65	4.600	.4410	584.5	.1175-02
77	112.50	.85000	553.00	.6962-01	.8487-01	.9524-01	57.66	4.019	.4409	584.3	.1026-02
77	112.50	.90000	554.00	.6830-01	.8318-01	.9335-01	57.64	3.937	.4411	584.6	.1005-02
77	123.00	.82500	555.00	.1263	.1537	.1724	57.78	2.295	.4398	582.9	.1858-02
77	123.00	.85000	556.00	.4340-01	.5284-01	.5928-01	57.73	2.505	.4402	583.5	.6387-03
77	123.00	.87500	557.00	.8758-01	.1067	.1197	57.58	5.043	.4417	585.4	.1289-02
77	123.00	.90000	558.00	.1012	.1232	.1383	57.64	5.831	.4411	584.6	.1489-02
77	123.00	.92500	559.00	.2147	.2615	.2935	57.61	12.37	.4414	585.0	.3160-02
77	123.00	.96000	560.00	.1116	.1357	.1523	57.87	6.456	.4389	581.7	.1641-02
77	157.00	.40000	576.00	.7677-01	.9343-01	.1048	57.84	4.440	.4392	582.1	.1129-02
77	157.00	.42500	577.00	.1092	.1330	.1491	57.97	6.336	.4380	580.5	.1607-02
77	157.00	.45000	578.00	.1304	.1565	.1776	58.29	7.603	.4350	576.5	.1916-02
77	157.00	.47500	579.00	.1377	.1673	.1874	58.38	8.041	.4342	575.4	.2023-02
77	157.00	.50000	580.00	.9426-01	.1145	.1282	58.41	5.506	.4339	575.0	.1384-02
77	157.00	.55000	581.00	.5087-01	.6178-01	.6919-01	58.46	2.974	.4334	574.5	.7470-03
77	157.00	.60000	582.00	.4313-01	.5245-01	.5880-01	58.06	2.504	.4372	579.5	.6341-03
77	157.00	.65000	583.00	.4684-01	.5692-01	.6378-01	58.27	2.730	.4362	576.8	.6882-03
77	157.00	.70000	585.00	.4612-01	.5602-01	.6275-01	58.42	2.695	.4337	574.9	.6774-03
77	157.00	.80000	586.00	.2983-01	.3626-01	.4064-01	58.21	1.737	.4357	577.5	.4384-03
77	157.00	.85000	587.00	.4152-01	.5045-01	.5653-01	58.28	2.420	.4351	576.7	.6100-03
77	157.00	.90000	588.00	.6925-01	.8415-01	.9429-01	58.26	4.034	.4353	576.9	.1017-02
77	161.00	.42500	589.00	.1007	.1225	.1374	57.94	5.834	.4383	580.9	.1481-02
77	165.00	.40000	593.00	.7414-01	.9023-01	.1012	57.83	4.288	.4393	582.2	.1091-02
77	165.00	.50000	590.00	.1096	.1332	.1492	58.36	6.399	.4343	575.6	.1610-02
77	165.00	.70000	591.00	.8738-01	.1062	.1190	58.23	5.088	.4356	577.3	.1284-02
77	165.00	.90000	592.00	.8488-01	.1032	.1157	58.14	4.935	.4364	578.4	.1248-02
77	180.00	.00000	594.00	.6262	.7664	.8630	56.33	35.27	.4534	601.0	.9257-02
77	180.00	.50000-02	595.00	.5918	.7221	.8115	57.11	33.80	.4461	591.3	.8726-02
77	180.00	.10000-01	596.00	.5951	.7245	.8130	57.71	34.34	.4405	583.8	.8758-02
77	180.00	.40000-01	597.00	.3928	.4781	.5362	57.66	22.73	.4390	581.9	.5719-02
77	180.00	.60000-01	598.00	.2939	.3578	.4015	57.70	16.96	.4405	583.9	.4325-02
77	180.00	.15000	599.00	.1241	.1512	.1697	57.63	7.153	.4412	584.8	.1827-02
77	180.00	.20000	600.00	.6433-01	.7820-01	.8766-01	58.14	3.740	.4364	578.4	.9455-03

DATE 24 JAN 76

ARC 3.5-17R 1H3

ARC 3.5-17B 1H3 0+T+S

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(RE1120)

EXTERNAL TANK

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
77	180.00	.25000	601.00	.4769-01	.5788-01	.6481-01	58.59	2.794	.4322	572.8	.6999-03
77	180.00	.30000	602.00	.4754-01	.5781-01	.6481-01	58.06	2.760	.4371	579.3	.6989-03
77	180.00	.35000	603.00	.4567-01	.5556-01	.6230-01	57.95	2.646	.4382	580.8	.6716-03
77	180.00	.37500	604.00	.6849-01	.8339-01	.9357-01	57.73	3.954	.4403	583.6	.1008-02
77	180.00	.40000	605.00	.7835-01	.9545-01	1.071	57.55	4.509	.4419	585.7	.1154-02
77	180.00	.42500	606.00	.1883	.2295	.2577	57.45	10.82	.4429	587.1	.2774-02
77	180.00	.45000	607.00	.4086	.4980	.5592	57.41	23.46	.4432	587.5	.6019-02
77	180.00	.47500	608.00	.9768-01	.1190	.1336	57.54	5.620	.4420	585.9	.1438-02
77	180.00	.50000	609.00	.1767	.2153	.2417	57.56	10.17	.4419	585.6	.2602-02
77	180.00	.52500	610.00	.1129	.1375	.1544	57.54	6.495	.4420	585.8	.1662-02
77	180.00	.55000	611.00	.9141-01	.1114	.1251	57.49	5.255	.4425	586.5	.1346-02
77	180.00	.57500	612.00	.7410-01	.9030-01	1.014	57.48	4.259	.4426	586.6	.1091-02
77	180.00	.60000	613.00	.1151	.1401	.1572	57.77	6.650	.4399	583.0	.1694-02
77	180.00	.62500	614.00	.9821-01	.1196	.1343	57.59	5.656	.4416	585.2	.1446-02
77	180.00	.65000	615.00	.9037-01	.1101	.1237	57.42	5.189	.4431	587.3	.1331-02
77	180.00	.67500	616.00	.9270-01	.1130	.1269	57.37	5.318	.4437	588.0	.1366-02
77	180.00	.70000	617.00	.8747-01	.1065	.1196	57.63	5.041	.4412	584.8	.1288-02
77	180.00	.75000	618.00	.7813-01	.9516-01	1.068	57.63	4.503	.4412	584.8	.1150-02
77	180.00	.80000	619.00	.6694-01	.8164-01	.9171-01	57.26	3.833	.4447	589.4	.9866-03
77	180.00	.85000	620.00	.6416-01	.7824-01	.8789-01	57.29	3.676	.4444	589.0	.9455-03
77	180.00	.90000	621.00	.1270	.1547	.1737	57.48	7.297	.4426	586.7	.1870-02
77	180.00	.93700	622.00	.2087	.2541	.2851	57.78	12.06	.4398	582.9	.3072-02
77	180.00	.97500	623.00	.2829-01	.3436-01	.3849-01	58.37	1.651	.4343	575.6	.4155-03
77	194.00	.80000-01	624.00	.2205	.2679	.3001	58.41	12.88	.4330	575.0	.3239-02
77	196.00	.15000	625.00	1.026	1.245	1.394	58.68	6.323	.4313	571.7	.1506-02
77	196.00	.30000	626.00	.4050-01	.4913-01	.5498-01	58.78	2.381	.4304	570.4	.5942-03
77	196.00	.50000	627.00	.1381	.1678	.1880	58.27	8.046	.4351	576.7	.2028-02
77	196.00	.70000	628.00	.6471-01	.8350-01	.9358-01	58.23	4.001	.4356	577.3	.1010-02
77	197.00	.90000	629.00	.9531-01	.1158	.1298	58.19	5.546	.4359	577.8	.1401-02
77	208.00	.15000	630.00	.1057	.1283	.1437	58.57	6.192	.4324	573.1	.1552-02
77	208.00	.40000	631.00	.4778-01	.5798-01	.6490-01	58.66	2.802	.4316	572.0	.7011-03
77	208.00	.60000	632.00	.5335-01	.6477-01	.7253-01	58.53	3.123	.4327	573.5	.7832-03
77	208.00	.80000	633.00	.4329-01	.5259-01	.5891-01	58.39	2.528	.4340	575.2	.6359-03
77	208.00	.93700	634.00	.1891	.2296	.2571	58.50	11.06	.4330	573.9	.2776-02
77	216.00	.40000	635.00	.7639-01	.9263-01	1.036	58.87	4.497	.4296	569.4	.1120-02

ORBITER BOTTOM CL

ARC 3.5-178 IH3 O+T+S

ORB BOTTOM CL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L P/R FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	PHI	X/L	1/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	H/HHT	TW DEG. R	STN NO R=0.9
9	.00000	.00000	1.0000	.5389	.6512	.7269	37.32	17.96	.4199	565.6	.1455-01
9	.00000	.50000-02	2.0000	.3521	.4253	.4747	33.35	11.74	.4194	564.9	.9503-02
9	.00000	.10000-01	3.0000	.2324	.2807	.3132	33.38	7.755	.4190	564.3	.6271-02
9	.00000	.20000-01	4.0000	.1038	.1254	.1399	33.44	3.472	.4179	562.9	.2801-02
10	.00000	.30000-01	5.0000	.7129-01	.8633-01	.9651-01	32.00	2.281	.4200	566.9	.1946-02
9	.00000	.40000-01	6.0000	.5350-01	.6457-01	.7201-01	33.53	1.794	.4164	560.8	.1443-02
10	.00000	.50000-01	7.0000	.4642-01	.5618-01	.6279-01	32.08	1.489	.4247	565.2	.1267-02
9	.00000	.60000-01	8.0000	.3047-01	.3675-01	.4097-01	33.61	1.024	.4150	559.0	.8213-03
10	.00000	.70000-01	9.0000	.4420-01	.5348-01	.5976-01	32.12	1.419	.4240	564.3	.1206-02
9	.00000	.80000-01	10.0000	.1076	.1298	.1447	33.64	3.620	.4145	558.3	.2900-02
10	.00000	.90000-01	11.0000	.2046	.2475	.2765	32.14	6.576	.4235	563.6	.5521-02
9	.00000	.10000+00	12.0000	.4419	.5329	.5940	33.66	14.87	.4142	558.0	.1191-01
9	.00000	.12000	14.0000	.1795	.2116	.2359	33.68	5.912	.4138	561.9	.4730-02
10	.00000	.13000	15.0000	.4658-01	.5635-01	.6294-01	32.18	1.499	.4230	561.9	.1270-02
9	.00000	.14000	16.0000	.2091-01	.2521-01	.2810-01	33.69	7.046	.4136	557.2	.5636-03
10	.00000	.15000	17.0000	.1548-01	.1872-01	.2092-01	32.18	4.981	.4230	562.8	.4222-03
9	.00000	.16000	18.0000	.2181-01	.2629-01	.2931-01	33.68	7.344	.4139	557.5	.5877-03
10	.00000	.17000	9.0000	.2262-01	.2736-01	.3056-01	32.19	7.280	.4228	557.7	.6169-03
9	.00000	.18000	20.0000	.5779-01	.3337-01	.3720-01	33.68	9.322	.4138	557.4	.7459-03
10	.00000	.19000	21.0000	.5779-01	.5053-01	.5642-01	32.19	1.344	.4228	562.7	.1139-02
9	.00000	.20000	22.0000	.6314-01	.7611-01	.8482-01	33.73	2.130	.4130	556.4	.1701-02
10	.00000	.22500	23.0000	.6820-01	.8244-01	.9206-01	32.27	2.201	.4214	560.7	.1859-02
9	.00000	.25000	24.0000	.7212-01	.8693-01	.9689-01	33.71	2.431	.4133	556.6	.1943-02
10	.00000	.27500	25.0000	.5793-01	.7006-01	.7824-01	32.23	1.867	.4221	561.7	.1580-02

ARC 3.5-178 IH3

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RUN NUMBER	P-HI	K/L	T/C NO	H/AREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORB BOTTOM CL	REF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.8
9	00000	30000	26 000	.4430-01	.5342-01	.5955-01	33.65	1.491	.4143	558.1	.1194-02	
10	00000	32500	27 000	.4154-01	.5024-01	.5612-01	32.20	1.337	.4226	562.4	.1133-02	
9	00000	35000	28 000	.3073-01	.3706-01	.4132-01	33.62	1.033	.4148	568.7	.8683-03	
10	00000	37500	29 000	.3353-01	.4781-01	.5340-01	32.20	1.273	.4226	562.4	.1070-02	
9	00000	40000	30 000	.4720-01	.5691-01	.6344-01	33.66	1.589	.4141	557.8	.1272-02	
10	00000	42500	31 000	.4933-01	.5918-01	.6605-01	32.27	1.579	.4214	560.7	.1334-02	
9	00000	45000	32 000	.5107-01	.618-01	.6863-01	33.08	1.720	.4138	557.3	.1376-02	
10	00000	47500	33 000	.4556-01	.5510-01	.6154-01	32.22	1.468	.4223	562.0	.1242-02	
9	00000	50000	34 000	.4386-01	.5289-01	.5896-01	33.65	1.476	.4224	562.0	.1134-02	
10	00000	52500	35 000	.4160-01	.5031-01	.5619-01	32.21	1.368	.4141	557.7	.1095-02	
9	00000	55000	36 000	.4062-01	.4898-01	.5460-01	33.67	1.261	.4228	562.6	.1068-02	
10	00000	57500	37 000	.3917-01	.4738-01	.5293-01	32.19	1.289	.4147	558.6	.1033-02	
9	00000	60000	38 000	.3834-01	.4624-01	.5155-01	33.63	1.289	.4226	562.4	.9835-03	
10	00000	62500	39 000	.3696-01	.4362-01	.4972-01	32.20	1.161	.4139	557.5	.8949-03	
9	00000	65000	40 000	.3321-01	.4004-01	.4463-01	33.68	1.118	.4222	561.8	.8141-03	
10	00000	67500	41 000	.2985-01	.3610-01	.4032-01	32.22	.9619	.4137	557.3	.7588-03	
9	00000	70000	42 000	.2916-01	.3395-01	.3784-01	33.68	.9485	.4219	561.4	.5240-03	
10	00000	72500	43 000	.1922-01	.2324-01	.2595-01	32.24	.6196	.4133	556.7	.1140-02	
9	00000	75000	44 000	.4231-01	.5101-01	.5685-01	33.71	1.426	.4217	561.1	.2270-02	
10	00000	77500	45 000	.8326-01	.1007	.1124	32.25	2.685	.4132	556.6	.3076-02	
9	00000	80000	46 000	.1142	.1376	.1534	33.72	2.850	.4215	560.9	.3118-02	
10	00000	82500	47 000	.1144	.1383	.1544	32.26	2.630	.4215	560.9	.2001-02	
9	00000	85000	48 000	.7429-01	.8952-01	.9975-01	33.77	2.500	.4200	558.9	.7827-03	
10	00000	87500	49 000	.2909-01	.3515-01	.3924-01	32.35	.9410	.4112	552.9	.5036-03	
9	00000	90000	50 000	.1870-01	.2253-01	.2510-01	33.83	.6320	.4197	558.5	.3598-03	
10	00000	92500	51 000	.1467-01	.1773-01	.1979-01	32.37	.4749	.4112	553.8	.2383-03	
9	00000	95000	52 000	.8848-02	.1066-01	.1187-01	33.84	.2994	.4196	554.4	.1535-03	
10	00000	97500	53 000	.5633-02	.6806-02	.7596-02	32.37	.1823	.4116	554.4	.5506-04	
9	00000	1.0000	54 000	.2045-C2	.2463-C2	.2744-C2	33.81	.8914-01	.4118	554.7	.6486-04	
10	00000	1.0250	55 000	.2408-02	.2901-02	.3232-02	33.80	.8139-01	.4134	556.8	.1157-03	
9	00000	1.0500	56 000	.4294-02	.5176-02	.5769-02	33.71	.1447				

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(RE1802)

ARC 3.5-178 IH3 O+T+S

ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
18	.00000	.00000	1.0000	.5437	.6539	.7463	55.72	30.30	.4474	584.5	.8005-02
18	.00000	.50000-02	2.0000	.3568	.4354	.4894	55.85	19.93	.4462	582.9	.5251-02
18	.00000	.10000-01	3.0000	.2378	.2901	.3259	55.97	13.31	.4451	581.4	.3498-02
18	.00000	.20000-01	4.0000	.1044	.1272	.1428	56.21	5.867	.4427	578.3	.1534-02
16	.00000	.30000-01	5.0000	.6746-01	.8220-01	.9228-01	57.63	3.388	.4423	590.3	.1003-02
18	.00000	.40000-01	6.0000	.4148-01	.5049-01	.5664-01	56.57	2.347	.4393	573.8	.6091-03
16	.00000	.50000-01	7.0000	.4178-01	.5081-01	.5698-01	58.12	2.428	.4377	584.2	.6200-03
18	.00000	.60000-01	8.0000	.7699-01	.9360-01	.1049	56.87	4.378	.4364	570.1	.1129-02
16	.00000	.70000-01	9.0000	.1131	.1374	.1539	58.43	6.606	.4349	580.4	.1676-02
18	.00000	.80000-01	10.0000	.1357	.1649	.1848	56.97	7.729	.4354	568.8	.1989-02
16	.00000	.90000-01	11.0000	.1795	.2180	.2442	58.53	10.50	.4339	579.1	.2660-02
18	.00000	.10000+00	12.0000	.4431	.5387	.6038	56.87	25.20	.4364	570.0	.6500-02
18	.00000	.12000	14.0000	.1668	.2027	.2272	56.94	3.497	.4357	569.2	.2446-02
16	.00000	.13000	15.0000	.7065-01	.8576-01	.9603-01	58.71	4.148	.4322	576.8	.1047-02
18	.00000	.14000	16.0000	.2534-01	.4292-01	.4808-01	57.14	2.020	.4338	566.6	.5179-03
16	.00000	.15000	17.0000	.2813-01	.3413-01	.3820-01	58.84	1.655	.4310	575.2	.4166-03
18	.00000	.16000	18.0000	.3674 01	.4461-01	.4997-01	57.17	2.100	.4336	566.4	.5383-03
16	.00000	.17000	19.0000	.4591-01	.5568-01	.6231-01	58.93	2.705	.4302	574.1	.6796-03
18	.00000	.18000	20.0000	.5124-01	.6222-01	.6969-01	57.18	2.930	.4334	506.1	.7508-03
16	.00000	.19000	21.0000	.4653-01	.5643-01	.6314-01	58.99	2.745	.4296	573.3	.6888-03
18	.00000	.20000	22.0000	.5938-01	.7208-01	.8071-01	57.29	3.401	.4324	564.9	.8696-03
15	.00000	.22500	23.0000	.7781-01	.9421-01	.1053	59.41	4.622	.4257	568.1	.1150-02
18	.00000	.25000	24.0000	.9539-01	.1158	.1296	57.33	5.469	.4319	564.3	.1397-02
16	.00000	.27500	25.0000	.9070-01	.1099	.1230	59.13	5.363	.4282	571.5	.1342-02

REPRODUCIBILITY OF
ORBITER PAGE IS P

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
18	.00000	.30000	26.000	.7053-01	.8577-01	.9606-01	57.19	4.039	.4333	566.1	.1035-02
16	.00000	.32500	27.000	.7581-01	.9191-01	.1028	59.04	4.475	.4292	572.7	.1122-02
18	.00000	.35000	28.000	.6245-01	.7586-01	.8499-01	57.08	3.565	.4344	567.4	.9154-03
16	.00000	.37500	29.000	.7565-01	.9292-01	.1040	59.00	4.521	.4295	573.2	.1134-02
18	.00000	.40000	30.000	.7817-01	.9492-01	.1063	57.13	4.470	.4334	566.2	.1145-02
16	.00000	.42500	31.000	.8348-01	.1011	.1131	59.23	4.945	.4273	570.2	.1235-02
18	.00000	.45000	32.000	.8143-01	.9885-01	.1107	57.29	4.665	.4324	564.8	.1193-02
16	.00000	.47500	33.000	.7577-01	.9183-01	.1027	59.11	4.479	.4284	571.8	.1121-02
18	.00000	.50000	34.000	.6806-01	.8264-01	.3256-01	57.19	3.892	.4334	566.1	.9973-03
16	.00000	.52500	35.000	.6248-01	.7573-01	.8471-01	59.11	3.693	.4285	571.8	.9245-03
18	.00000	.55000	36.000	.6234-01	.7568-01	.8476-01	57.23	3.567	.4329	565.6	.9133-03
16	.00000	.57500	37.000	.6117-01	.7416-01	.8297-01	59.03	3.611	.4292	572.8	.9052-03
18	.00000	.60000	38.000	.5991-01	.7276-01	.8151-01	57.12	3.422	.4340	567.0	.8780-03
16	.00000	.62500	39.000	.6213-01	.7532-01	.8427-01	59.06	3.670	.4289	572.4	.9195-03
18	.00000	.65000	40.000	.5371-01	.6520-01	.7301-01	57.28	3.077	.4325	565.0	.7869-03
16	.00000	.67500	41.000	.4868-01	.5808-01	.6506-01	59.20	2.882	.4276	570.7	.7201-03
18	.00000	.70000	42.000	.4477-01	.5434-01	.6084-01	57.29	2.565	.4323	564.8	.6558-03
16	.00000	.72500	43.000	.4741-01	.5743-01	.6422-01	59.28	2.810	.4269	569.7	.7011-03
18	.00000	.75000	44.000	.6629-01	.8604-01	.9005-01	57.39	3.804	.4314	563.6	.9708-03
16	.00000	.77500	45.000	.9320-01	.1129	.1262	59.31	5.527	.4266	569.3	.1378-02
18	.00000	.80000	46.000	.1235	.1499	.1679	57.31	7.079	.4322	564.5	.1809-02
16	.00000	.82500	47.000	.1467	.1776	.1936	59.30	8.697	.4267	569.4	.2169-02
18	.00000	.85000	48.000	.9971-01	.1197	.1340	57.46	5.672	.4307	562.6	.1445-02
16	.00000	.87500	49.000	.3200-01	.4743-01	.5299-01	56.63	2.338	.4236	565.3	.5782-03
18	.00000	.90000	50.000	.2164-01	.2624-01	.2935-01	57.33	1.247	.4291	560.5	.3167-03
16	.00000	.92500	51.000	.1807-01	.2186-01	.2441-01	59.71	1.079	.4229	564.3	.2669-03
18	.00000	.95000	52.000	.1192-01	.1454-01	.1627-01	57.61	.6910	.4293	560.7	.1755-03
16	.00000	.97500	53.000	.7126-02	.8620-02	.9629-02	59.70	.4254	.4230	564.5	.1053-03
18	.00000	1.0000	54.000	.3308-02	.4011-02	.4488-02	57.57	.1904	.4297	561.3	.4841-04
16	.00000	1.0250	56.000	.3212-02	.3894-02	.4358-02	57.57	.1849	.4297	561.3	.4700-04
18	.00000	1.0500	58.000	.7057-02	.8565-02	.9589-02	57.35	.4047	.4318	564.1	.1034-03

ARC 3.5-178 1H3 O-T+S (TRIPS) ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 1.530 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
19	5.300	.1500*07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537*07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523-07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470*07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	H/H/HT	TH DEG. R	STN NO R=0.9
19	.00000	.00000	1.0000	.5564	.6782	.7615	31.54	17.55	.4431	590.0	.1504-01
19	.00000	.50000-02	2.0000	.3587	.4370	.4906	31.58	11.33	.4424	599.1	.9691-02
19	.00000	.10000-01	3.0000	.2740	.2851	.3200	31.61	7.997	.4419	588.4	.6322-02
19	.00000	.20000-01	4.0000	.1826	.1826	.1404	31.72	3.261	.4401	586.0	.2776-02
21	.00000	.70000-01	5.0000	.7057-01	.8565-01	.9591-01	31.65	2.233	.4323	568.0	.1890-02
19	.00000	.40000-01	5.0000	.4678-01	.5688-01	.6376-01	31.92	1.493	.4366	581.4	.1262-02
21	.00000	.50000-01	7.0000	.3078-01	.3735-01	.4180-01	31.72	.9765	.4310	566.3	.8239-03
19	.00000	.60000-01	8.0000	.4792-01	.5818-01	.6516-01	32.13	1.540	.4329	576.5	.1291-02
21	.00000	.70000-01	9.0000	.7986-01	.9686-01	1.084	31.77	2.537	.4302	565.3	.2137-02
19	.00000	.80000-01	10.0000	.1117	.1355	.1517	32.26	3.603	.4308	573.7	.3007-02
21	.00000	.90000-01	11.0000	.1848	.2242	.2509	31.79	5.878	.4298	564.7	.4946-02
19	.00000	.10000+00	12.0000	.4576	.5548	.6207	32.35	14.80	.4293	571.6	.1231-01
19	.00000	.20000	14.0000	.1577	.2032	.2273	32.43	5.437	.4279	569.8	.4509-02
21	.00000	.30000	15.0000	.4665-01	.5438-01	.6083-01	31.85	1.428	.4289	563.5	.1200-02
19	.00000	.40000	16.0000	.2655-01	.3216-01	.3596-01	32.49	.8625	.4289	568.5	.7138-03
21	.00000	.50000	17.0000	.3870-01	.4643-01	.5194-01	31.85	1.220	.4288	563.4	.1024-02
19	.00000	.60000	18.0000	.4506-01	.5942-01	.6644-01	32.50	1.594	.4267	568.2	.1319-02
21	.00000	.70000	19.0000	.4260-01	.5327-01	.6183-01	31.86	1.453	.4287	563.3	.1034-02
19	.00000	.80000	20.0000	.3645-01	.4657-01	.5206-01	32.53	1.251	.4262	567.5	.1279-02
21	.00000	.90000	21.0000	.4791-01	.5705-01	.6484-01	31.85	1.523	.4288	563.5	.1873-02
19	.00000	.22500	22.0000	.6973-01	.8440-01	.9432-01	32.61	2.274	.4268	565.7	.1373-02
21	.00000	.25000	23.0000	.5134-01	.6221-01	.6958-01	31.92	1.639	.4276	561.8	.1889-02
19	.00000	.25000	24.0000	.7036-01	.8511-01	.9508-01	32.71	2.301	.4231	553.4	.1714-02
21	.00000	.27500	25.0000	.6411-01	.7770-01	.8691-01	31.88	2.044	.4284	562.8	

DATE 24 JAN 76

ARC 3.5-178 1H3

ARC 3.5-178 1H3 O-T+S (TRIPS) ORB BOTTOM CL

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
19	.0000	.30000	26.000	.5393-01	.6526-01	.7292-01	32.64	1.760	.4242	564.9	.1449-02
21	.0000	.32500	27.000	.4065-01	.5898-01	.6599-01	31.84	1.549	.4289	563.6	.1301-02
19	.0000	.35000	28.000	.3673-01	.4446-01	.4968-01	32.64	1.199	.4243	565.0	.9868-03
21	.0000	.37500	29.000	.4034-01	.4891-01	.5472-01	31.84	1.285	.4290	563.6	.1079-02
19	.0000	.40000	30.000	.4994-01	.6043-01	.6752-01	32.66	1.631	.4240	564.6	.1341-02
21	.0000	.42500	31.000	.5500-01	.6665-01	.7454-01	31.92	1.755	.4277	561.9	.1470-02
19	.0000	.45000	32.000	.5465-01	.6611-01	.7386-01	32.70	1.787	.4233	563.7	.1468-02
21	.0000	.47500	33.000	.4899-01	.5938-01	.6642-01	31.87	1.561	.4285	563.1	.1310-02
19	.0000	.50000	34.000	.4349-01	.5262-01	.5880-01	32.66	1.421	.4239	564.5	.1168-02
21	.0000	.52500	35.000	.4024-01	.4877-01	.5455-01	31.87	1.282	.4285	563.0	.1076-02
19	.0000	.55000	36.000	.4060-01	.4912-01	.5487-01	32.69	1.327	.4235	563.9	.1090-02
21	.0000	.57500	37.000	.3848-01	.4664-01	.5218-01	31.85	1.225	.4288	563.4	.1029-02
19	.0000	.60000	38.000	.3859-01	.4669-01	.5218-01	32.65	1.260	.4241	564.7	.1036-02
21	.0000	.62500	39.000	.3679-01	.4459-01	.4989-01	31.86	1.172	.4286	563.1	.9839-03
19	.0000	.65000	40.000	.3346-01	.4047-01	.4521-01	32.71	1.095	.4231	563.3	.8985-03
21	.0000	.67500	41.000	.2942-01	.3565-01	.3988-01	31.89	.9383	.4281	562.4	.7866-03
19	.0000	.70000	42.000	.2784-01	.3367-01	.3762-01	32.71	9105	.4231	523.4	.7475-03
21	.0000	.72500	43.000	.2050-01	.2483-01	.2777-01	31.92	.6542	.4276	561.8	.5480-03
19	.0000	.75000	44.000	.3775-01	.4565-01	.5099-01	32.75	2.726	.4274	561.5	.1013-02
21	.0000	.77500	45.000	.8536-01	.1034	.1157	31.93	2.726	.4224	562.4	.2282-02
19	.0000	.80000	46.000	.1154	.1395	.1558	32.75	3.778	.4224	562.4	.3097-02
21	.0000	.82500	47.000	.1047	.1268	.1418	31.94	3.342	.4273	561.4	.2798-02
19	.0000	.85000	48.000	.7875-01	.9519-01	.1063	32.83	2.586	.4210	560.6	.2113-02
21	.0000	.87500	49.000	.2880-01	.3487-01	.3898-01	32.02	.9220	.4259	559.6	.7895-03
19	.0000	.90000	50.000	.1818-01	.2496-01	.2452-01	32.92	.5984	.4196	558.7	.4877-03
21	.0000	.92500	51.000	.1511-01	.1830-01	.2045-01	32.02	.4839	.4258	559.4	.4037-03
19	.0000	.95000	52.000	.9166-02	.1107-01	.1236-01	32.91	.3017	.4196	558.8	.2459-03
21	.0000	.97500	53.000	.5429-02	.6574-02	.7349-02	32.02	.1738	.4258	559.5	.1451-03
19	.0000	1.00000	54.000	.2658-02	.3213-02	.3587-02	32.82	.8722-01	.4212	560.9	.7133-04
21	.0000	1.02500	56.000	.3059-02	.3699-02	.4131-02	32.77	.1002	.4221	562.0	.8211-04
19	.0000	1.05000	58.000	.4846-02	.5864-02	.6553-02	32.64	.1582	.4243	565.0	.1302-03

(RE1804)

ARC 3.5-178 IH3 O+T+S (TRIPS) ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006+07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
32	.00000	.00000	1.0000	.5063	.6239	.7059	54.14	27.41	.4697	620.1	.7546-02
32	.00000	.50000-02	2.0000	.3420	.4213	.4766	54.24	18.55	.4687	618.9	.5096-02
32	.00000	.10000-01	3.0000	.2320	.2856	.3230	54.38	12.62	.4674	617.1	.3455-02
32	.00000	.20000-01	4.0000	.1041	.1280	.1446	54.68	5.692	.4645	613.3	.1549-02
30	.00000	.30000-01	5.0000	.6593-01	.8060-01	.9069-01	56.32	3.713	.4506	597.1	.9787-03
32	.00000	.40000-01	6.0000	.4564-01	.5599-01	.6315-01	55.26	2.522	.4590	606.0	.6776-03
30	.00000	.50000-01	7.0000	.3034-01	.3701-01	.4159-01	56.87	1.726	.4454	590.2	.4495-03
32	.00000	.60000-01	8.0000	.5306-01	.6495-01	.7314-01	55.82	2.962	.4536	598.9	.7862-03
30	.00000	.70000-01	9.0000	.9080-01	.1106	.1242	57.23	5.197	.4420	585.6	.1344-02
32	.00000	.80000-01	10.0000	.1191	.1456	.1638	56.09	6.677	.4512	595.7	.1763-02
30	.00000	.90000-01	11.0000	.2029	.2471	.2773	57.36	11.64	.4407	584.0	.3002-02
32	.00000	.10000+00	12.0000	.4491	.5491	.6179	56.10	25.20	.4510	595.4	.6648-02
32	.00000	.12000	14.0000	.1716	.2097	.2359	56.22	9.645	.4499	594.0	.2539-02
30	.00000	.13000	15.0000	.6619-01	.8053-01	.9032-01	57.61	3.813	.4384	580.9	.9784-03
32	.00000	.14000	16.0000	.3196-01	.3901-01	.4385-01	56.55	1.807	.4467	589.8	.4724-03
30	.00000	.15000	17.0000	.4737-01	.5759-01	.6455-01	57.80	2.738	.4366	578.6	.6998-03
32	.00000	.16000	18.0000	.5539-01	.6758-01	.7594-01	56.66	3.138	.4457	588.5	.8185-03
30	.00000	.17000	19.0000	.6448-01	.7838-01	.8784-01	57.88	3.732	.4359	577.5	.9524-03
32	.00000	.18000	20.0000	.5719-01	.6975-01	.7835-01	56.76	3.246	.4447	587.2	.8447-03
30	.00000	.19000	21.0000	.7251-01	.8471-01	.9251-01	57.95	3.086	.4352	576.7	.7864-03
32	.00000	.20000	22.0000	.8150-01	.932-01	1.115	56.98	4.643	.4427	584.5	.1203-02
30	.00000	.22500	23.0000	.6518-01	.7908 01	.8852-01	58.38	3.805	.4311	571.2	.9611-03
32	.00000	.25000	24.0000	.9515-01	.1158	.1299	57.35	5.456	.4392	579.9	.1403-02
30	.00000	.27500	25.0000	.8555-01	.1039	.1163	58.15	4.974	.4333	574.2	.1262-02

DATE 24 JAN 76

ARC 3.5-178 1H3

ARC 3.5-178 1H3 O+T+S (TRIPS)

ORB BOTTOM CL

PAGE 89
(RE1804)

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORB BTU/ FT2SEC	ORB BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEC. R	STN NO R=0.9
32	.00000	.30000	26.000	.7156-01	.8718-01	.9786-01	57.06	4.083	.4419	583.4	.1056-02	
30	.00000	.32500	27.000	.7301-01	.8859-01	.9935-01	58.05	4.239	.4342	575.3	.1078-02	
32	.00000	.35000	28.000	.5270-01	.6420-01	.7206-01	57.07	3.007	.4418	583.3	.7775-03	
30	.00000	.37500	29.000	.6093-01	.7401-01	.8292-01	58.03	3.536	.4344	575.6	.8994-03	
32	.00000	.40000	30.000	.7047-01	.8583-01	.9632-01	57.15	4.027	.4410	582.3	.1040-02	
30	.00000	.42500	31.000	.8172-01	.9919-01	.1111	58.25	4.760	.4323	572.8	.1206-02	
32	.00000	.45000	32.000	.7290-01	.8873-01	.9954-01	57.31	4.178	.4396	580.3	.1075-02	
30	.00000	.47500	33.000	.6727-01	.8168-01	.9147-01	58.17	3.913	.4331	573.9	.9926-03	
32	.00000	.50000	34.000	.5581-01	.6796-01	.7626-01	57.19	3.191	.4407	581.9	.8232-03	
30	.00000	.52500	35.000	.5480-01	.6654-01	.7451-01	58.18	3.188	.4330	580.8	.8086-03	
32	.00000	.55000	35.000	.5296-01	.6447-01	.7234-01	57.27	3.033	.4399	574.4	.8063-03	
30	.00000	.57500	37.000	.5463-01	.6634-01	.7431-01	58.13	3.176	.4335	574.4	.8063-03	
32	.00000	.60000	38.000	.5410-01	.6590-01	.7396-01	57.12	3.090	.4414	582.7	.7983-03	
30	.00000	.62500	39.000	.5666-01	.6879-01	.7704-01	58.19	3.297	.4330	573.7	.8361-03	
32	.00000	.65000	40.000	.4676-01	.5588-01	.6378-01	57.47	2.688	.4380	578.3	.6892-03	
30	.00000	.67500	41.000	.4230-01	.5134-01	.5748-01	58.31	2.467	.4317	572.1	.6240-03	
32	.00000	.70000	42.000	.3744-01	.4555-01	.5108-01	57.45	2.151	.4382	578.6	.5518-03	
30	.00000	.72500	43.000	.3971-01	.4817-01	.5392-01	58.42	2.320	.4308	570.8	.5855-03	
32	.00000	.75000	44.000	.7683-01	.5340-01	.1047	57.64	4.429	.4354	576.1	.1132-02	
30	.00000	.80000	45.000	.1004	.1218	.1363	58.45	5.870	.4304	570.3	.1480-02	
32	.00000	.82500	46.000	.1128	.372	.1538	57.49	6.483	.4379	578.1	.1662-02	
30	.00000	.85000	47.000	.1362	.652	.1849	58.44	7.962	.4305	570.4	.2009-02	
32	.00000	.87500	48.000	.8694-01	.1057	.1184	57.72	5.018	.4356	575.2	.1230-02	
30	.00000	.90000	49.000	.3361-01	.4071-01	.4553-01	58.80	1.976	.4271	566.0	.4959-03	
32	.00000	.92500	50.000	.2073-01	.2518-01	.2821-01	57.88	1.200	.4341	573.2	.305.-03	
30	.00000	.95000	51.000	.1752-01	.2122-01	.2373-01	58.90	1.032	.4263	564.8	.2580-03	
32	.00000	.97500	52.000	.1028-01	.1249-01	.1399-01	57.90	.5954	.4339	572.9	.1514-03	
30	.00000	1.00000	53.000	.6369-02	.13-02	.8623-02	58.90	.3751	.4262	564.8	.9377-04	
32	.00000	1.02500	54.000	.2424-02	.2947-02	.3303-02	57.68	.1398	.4360	575.6	.3571-04	
30	.00000	1.05000	55.000	.5913-02	.4759-02	.5336-02	57.55	.2232	.4372	577.3	.5766-04	
32	.00000	1.05000	58.000	.8366-02	.1021-01	.1146-01	57.15	.4793	.4410	582.3	.1237-03	

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8265	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
39	.00000	.00000	1.0000	.5224	.6415	.7240	54.90	28.68	.4612	607.9	.7759-02
39	.00000	.50000-02	2.0000	.3330	.4087	.4611	55.02	18.32	.4601	606.4	.4944-02
39	.00000	.10000-01	3.0000	.2250	.2760	.3113	55.14	12.41	.4589	604.9	.3338-02
39	.00000	.20000-01	4.0000	.1007	.1234	.1390	55.44	5.982	.4561	601.1	.1492-02
37	.00000	.30000-01	5.0000	.6750-01	.8300-01	.9377-01	53.11	3.585	.4645	599.8	.9966-03
39	.00000	.40000-01	6.0000	.4068-01	.4973-01	.5596-01	55.99	2.278	.4508	594.2	.6019-03
37	.00000	.50000-01	7.0000	.5811-01	.7124-01	.8031-01	53.83	4.838	.4574	590.7	.8557-03
39	.00000	.60000-01	8.0000	.8563-01	.1045	.1174	56.50	6.957	.4459	587.8	.1265-02
37	.00000	.70000-01	9.0000	.1280	.1566	.1762	54.36	8.957	.4522	584.0	.1881-02
39	.00000	.80000-01	10.0000	.1492	.1819	.2043	56.72	10.41	.4439	585.1	.2203-02
37	.00000	.90000-01	11.0000	.1868	.2203	.2568	54.66	27.69	.4493	580.2	.2743-02
39	.00000	.10000+00	12.0000	.4883	.5954	.6687	56.71	9.555	.4440	585.2	.7208-02
39	.00000	.12000	14.0000	.1682	.2051	.2303	56.80	4.390	.4431	584.1	.2483-02
37	.00000	.13000	15.0000	.9059-01	.1105	.1241	55.08	3.357	.4403	580.3	.8669-03
39	.00000	.14000	16.0000	.5880-01	.7159-01	.8032-01	57.10	4.246	.4428	571.8	.1328-02
37	.00000	.15000	17.0000	.7674-01	.9353-01	1.050	55.32	4.155	.4395	579.3	.1071-02
39	.00000	.16000	18.0000	.7267-01	.8844-01	.9922-01	57.18	4.094	.4407	569.1	.1238-02
37	.00000	.17000	19.0000	.7371-01	.8976-01	1.007	55.54	4.813	.4385	568.0	.1360-02
39	.00000	.18000	20.0000	.8432-01	1.022	1.146	57.28	5.181	.4389	566.7	.1299-02
37	.00000	.19000	21.0000	.9297-01	1.131	1.269	55.73	5.068	.4367	575.6	.1127-02
39	.00000	.20000	22.0000	.8818-01	1.072	1.202	57.48	4.353	.4323	558.2	.1160-02
37	.00000	.22500	23.0000	.7719-01	.9369-01	1.049	56.40	4.557	.4337	571.6	.1116-02
39	.00000	.25000	24.0000	.7885-01	.9576-01	1.073	56.41	4.313	.4322	558.1	
37	.00000	.27500	25.0000	.7846-01	.9281-01	1.039	56.41	4.313			

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 IH3 O+T+S			ORB BOTTOM CL			HM/HT	TW DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	QUOT BTU/ FT2SEC				
39	.00000	.30000	26.000	.6475-01	.7812-01	.8756-01	57.53	3.697	4.362	575.0	.9462-03	
37	.00000	.32500	27.000	.853-01	.1035	.1159	56.32	4.802	4.330	559.2	.1245-02	
39	.00000	.35000	28.000	.7342-01	.8927-01	.1001	57.48	4.220	4.366	575.5	.1081-02	
37	.00000	.37500	29.000	.6486-01	.1030	.1154	56.33	4.781	4.329	559.0	.1239-02	
39	.00000	.40000	30.000	.8213-01	.9983-01	.1119	57.56	4.728	4.359	574.5	.1209-02	
27	.00000	.42500	31.000	.8071-01	.9790-01	.1096	56.59	4.567	4.304	555.9	.1178-02	
39	.00000	.45000	32.000	.7186-01	.8729-01	.9779-01	57.72	4.147	4.344	572.6	.1057-02	
37	.00000	.47500	33.000	.6649-01	.8068-01	.9031-01	56.51	3.758	4.312	556.8	.9705-03	
39	.00000	.50000	34.000	.5865-01	.7128-01	.7889-01	57.57	3.376	4.358	574.5	.8634-03	
37	.00000	.52500	35.000	.6337-01	.7689-01	.8507-01	56.51	3.581	4.312	556.9	.9248-03	
39	.00000	.55000	36.000	.6606-01	.8027-01	.8994-01	57.64	3.808	4.351	573.6	.9723-03	
37	.00000	.57500	37.000	.6657-01	.8078-01	.9044-01	56.45	3.758	4.318	557.6	.9717-03	
39	.00000	.60000	38.000	.6219-01	.7562-01	.8478-01	57.45	3.573	4.369	575.9	.9159-03	
37	.00000	.62500	39.000	.5805-01	.7043-01	.7884-01	56.51	3.280	4.312	556.8	.8472-03	
39	.00000	.65000	40.000	.5447-01	.6617-01	.7413-01	57.74	3.145	4.342	572.3	.8015-03	
37	.00000	.67500	41.000	.5403-01	.6553-01	.7334-01	56.61	3.059	4.302	555.6	.7883-03	
39	.00000	.70000	42.000	.4715-01	.5727-01	.6416-01	57.72	2.722	4.343	572.5	.6938-03	
37	.00000	.72500	43.000	.4956-01	.6009-01	.6724-01	56.70	2.810	4.294	554.5	.7229-03	
39	.00000	.75000	44.000	.5187-01	.6297-01	.7051-01	57.89	3.002	4.328	570.5	.7628-03	
37	.00000	.77500	45.000	.1053	.1276	.1428	56.74	5.974	4.290	554.0	.1535-02	
39	.00000	.80000	46.000	.1663	.2021	.2263	57.75	6.152	4.293	572.2	.2447-02	
37	.00000	.82500	47.000	.1085	.1315	.1472	56.71	6.192	4.293	554.3	.1582-02	
39	.00000	.85000	48.000	.1415	.1717	.1922	57.95	8.199	4.321	569.6	.2080-02	
37	.00000	.87500	49.000	.6286-01	.7613-01	.8510-01	57.04	3.586	4.260	550.1	.9160-03	
39	.00000	.90000	50.000	.3344-01	.4056-01	.4539-01	58.14	1.944	4.304	567.3	.4914-03	
37	.00000	.92500	51.000	.2263-01	.2740-01	.3063-01	57.10	1.292	4.255	549.4	.3297-03	
39	.00000	.95000	52.000	.1330-01	.1613-01	.1805-01	58.18	.7740	4.300	566.8	.1955-03	
37	.00000	.97500	53.000	.8766-02	.1062-01	.1187-01	57.05	.5001	4.260	550.1	.1277-03	
39	.00000	1.00000	54.000	.5963-02	.7237-02	.8102-02	57.97	.3456	4.320	569.4	.8767-04	
37	.00000	1.02500	55.000	.7297-02	.8860-02	.9923-02	57.85	.4221	4.331	570.9	.1073-03	
39	.00000	1.05000	58.000	.6415-02	.7799-02	.8742-02	57.49	.3688	4.365	575.4	.9446-04	

ARC 3.5-178 IH3 ORBITER

-- ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636*07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582*07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522*07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516*07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	H/H/HT	TW DEG. R	STN NO
40	.00000	.00000	1.0000	.5664	.6935	.7811	31.29	17.73	.4542	594.7	.1475-01
40	.00000	.50000-02	2.0000	.3716	.4548	.5121	31.35	11.65	.4534	593.5	.9673-02
40	.00000	1.0000-01	3.0000	.2500	.3059	.3444	31.39	7.847	.4527	592.7	.6506-02
40	.00000	2.0000-01	4.0000	.1156	.1413	.1590	31.50	3.641	.4507	590.1	.3006-02
42	.00000	3.0000-01	5.0000	.8268-01	.1002	.1120	32.19	2.661	.4269	583.2	.2209-02
40	.00000	4.0000-01	6.0000	.6380-01	.7788-01	.8754-01	31.73	2.024	.4469	585.0	.1657-02
42	.00000	5.0000-01	7.0000	.4813-01	.5827-01	.6514-01	32.26	1.553	.4256	561.5	.1285-02
40	.00000	6.0000-01	8.0000	.3606-01	.4395-01	.4935-01	31.97	1.153	.4429	579.8	.9352-03
42	.00000	7.0000-01	9.0000	.3035-01	.3674-01	.4106-01	32.30	.9805	.4249	560.6	.8106-03
40	.00000	8.0000-01	10.000	.2646-01	.3222-01	.3615-01	32.10	.8492	.4407	576.9	.6856-03
42	.00000	9.0000-01	11.000	.2355-01	.2850-01	.3185-01	32.34	.7616	.4243	559.8	.8288-03
40	.00000	1.0000*00	12.000	.1974-01	.2402-01	.2694-01	32.22	.6359	.4386	574.2	.5112-03
40	.00000	12.000	14.000	.1680-01	.2043-01	.2291-01	32.26	.5419	.4378	573.2	.4349-03
42	.00000	13.000	15.000	.1447-01	.1751-01	.1957-01	32.34	.4679	.4243	559.7	.3863-03
40	.00000	14.000	16.000	.1276-01	.1552-01	.1740-01	32.32	.4125	.4369	571.9	.3303-03
42	.00000	15.000	17.000	.1132-01	.1370-01	.1531-01	32.35	.3663	.4242	559.6	.3023-03
40	.00000	16.000	18.000	.1070-01	.1301-01	.1458-01	32.34	.3461	.4365	571.4	.2769-03
42	.00000	17.000	19.000	.9761-02	.1181-01	.1320-01	32.34	.3157	.4242	559.6	.2606-03
40	.00000	18.000	20.000	.9388-02	.1141-01	.1279-01	32.39	.3041	.4357	570.4	.2429-03
42	.00000	19.000	21.000	.9180-02	.1111-01	.1241-01	32.35	.2969	.4242	559.6	.2451-03
40	.00000	20.000	22.000	.8102-02	.9841-02	.1102-01	32.48	.2632	.4341	568.3	.2095-03
42	.00000	22.000	23.000	.5010-02	.6060-02	.6770-02	32.40	.1623	.4233	558.4	.1337-03
40	.00000	25.000	24.000	.5441-02	.6602-02	.7391-02	32.63	.1776	.4236	565.0	.1406-03
42	.00000	27.500	25.000	.4889-02	.5917-02	.6612-02	32.33	.1581	.4244	559.9	.1305-03

ARC 3.5-178 IH3

DATE 24 JAN 76

ARC 3.5-178 IH3 ORBITER
ORB BOTTOM CL

RUN NUMBER	PHI	X/L	T/C NO	H/HREF P=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	ODCT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
40	.00000	.30000	26.000	.4324-02	.5250-02	.5879-02	32.56	.1408	.4329	566.7	.1118-03
42	.00000	.32500	27.000	.4420-02	.5350-02	.5979-02	32.31	.1428	.4249	560.5	.1180-03
40	.00000	.35000	28.000	.2945-02	.3575-02	.4004-02	32.56	.9588-01	.4328	566.7	.7613-04
42	.00000	.37500	29.000	.3922-02	.4748-02	.5306-02	32.30	.1267	.4250	560.7	.1047-03
40	.00000	.40000	30.000	.3995-02	.4728-02	.5294-02	32.59	.1269	.4323	566.0	.1007-03
42	.00000	.42500	31.000	.4193-02	.5081-02	.5677-02	32.35	.1358	.4241	559.4	.1121-03
40	.00000	.45000	32.000	.3992-02	.4844-02	.5421-02	32.62	.1302	.4318	565.3	.1032-03
42	.00000	.47500	33.000	.4650-02	.5629-02	.6291-02	32.30	.1502	.4249	560.6	.1242-03
40	.00000	.50000	34.000	.4938-02	.5994-02	.6711-02	32.59	.1609	.4323	565.9	.1276-03
42	.00000	.52500	35.000	.6213-02	.7520-02	.8405-02	32.31	.2012	.4318	560.5	.1659-03
40	.00000	.55000	36.000	.6167-02	.7484-02	.8379-02	32.62	.2007	.4249	565.3	.1594-03
42	.00000	.57500	37.000	.7639-02	.9247-02	.1034-01	32.30	.2467	.4250	560.7	.2040-03
40	.00000	.60000	38.000	.7653-02	.9532-02	.1067-01	32.58	.2558	.4325	566.2	.2030-03
42	.00000	.62500	39.000	.1047-01	.1268-01	.1477-01	32.32	.3384	.4247	560.3	.2796-03
40	.00000	.65000	40.000	.1012-01	.1228-01	.1374-01	32.65	.3304	.4313	564.6	.2614-03
42	.00000	.67500	41.000	.1211-01	.1465-01	.1637-01	32.34	.3915	.4243	559.7	.3233-03
40	.00000	.70000	42.000	.1212-01	.1470-01	.1646-01	32.65	.3957	.4313	564.6	.3131-03
42	.00000	.72500	43.000	.1397-01	.1690-01	.1899-01	32.34	.4517	.4242	559.7	.3729-03
40	.00000	.75000	44.000	.1512-01	.1834-01	.2053-01	32.70	.4944	.4305	563.6	.3906-03
42	.00000	.77500	45.000	.1595-01	.1931-01	.2157-01	32.35	.5162	.4241	559.5	.4259-03
40	.00000	.80000	46.000	.1991-01	.2415-01	.2703-01	32.68	.6507	.4308	563.9	.5143-03
42	.00000	.82500	47.000	.2171-01	.2627-01	.2935-01	32.35	.7023	.4241	559.5	.5795-03
40	.00000	.85000	48.000	.2252-01	.2731-01	.3057-01	32.70	.7363	.4305	563.5	.5816-03
42	.00000	.87500	49.000	.2177-01	.2634-01	.2943-01	32.35	.7042	.4241	559.5	.5811-03
40	.00000	.90000	50.000	.2136-01	.2592-01	.2900-01	32.69	.6985	.4306	563.7	.5519-03
42	.00000	.92500	51.000	.2064-01	.2497-01	.2791-01	32.34	.6675	.4242	559.6	.5510-03
40	.00000	.95000	52.000	.1909-01	.2315-01	.2591-01	32.72	.6245	.4302	563.1	.4930-03
42	.00000	.97500	53.000	.1819-01	.2201-01	.2459-01	32.35	.5884	.4241	559.5	.4856-03
40	.00000	1.00000	54.000	.1827-01	.2217-01	.2481-01	32.65	.5964	.4313	564.7	.4720-03
42	.00000	1.02500	56.000	.1714-01	.2079-01	.2328-01	32.63	.5592	.4316	565.1	.4428-03
40	.00000	1.05000	58.000	.1716-01	.2084-01	.2334-01	32.53	.5583	.4333	567.3	.4437-03

ARC 3.5-178 IH3 ORBITER ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
47	.00000	.00000	1.0000	.5383	.6644	.7525	51.04	27.47	.4731	595.6	.7821-02
47	.00000	.50000-02	2.0000	.3575	.4409	.4993	51.17	18.29	.4718	593.9	.5191-02
47	.00000	.10000-01	3.0000	.2456	.3028	.3427	51.28	12.59	.4707	592.5	.3565-02
47	.00000	.20000-01	4.0000	.1164	.1434	.1622	51.55	6.003	.4680	589.1	.1688-02
45	.00000	.30000-01	5.0000	.9121-01	.9932-01	.1118	55.99	4.547	.4515	595.8	.1203-02
47	.00000	.40000-01	6.0000	.6116-01	.7519-01	.8494-01	51.92	3.175	.4643	584.4	.8855-03
45	.00000	.50000-01	7.0000	.4620-01	.5640-01	.6340-01	56.47	2.609	.4470	580.9	.6833-03
47	.00000	.60000-01	8.0000	.3461-01	.4249-01	.4795-01	52.27	1.809	.4608	580.0	.5005-03
45	.00000	.70000-01	9.0000	.2943-01	.3589-01	.4030-01	56.80	1.672	.4438	585.7	.4348-03
47	.00000	.80000-01	10.0000	.2533-01	.3108-01	.3506-01	52.41	1.328	.4593	578.2	.3661-03
45	.00000	.90000-01	11.0000	.2257-01	.2750-01	.3087-01	57.02	1.287	.4417	582.9	.3332-03
47	.00000	.10000+00	12.0000	.1901-01	.2332-01	.2629-01	52.51	.9982	.4584	577.0	.2747-03
45	.00000	.12000	14.0000	.1590-01	.1950-01	.2159-01	52.52	.8350	.4583	576.9	.2297-03
45	.00000	.13000	15.0000	.1394-01	.1697-01	.1905-01	57.17	.7970	.4403	581.0	.2057-03
47	.00000	.14000	16.0000	.1234-01	.1513-01	.1706-01	52.56	.6485	.4579	576.3	.1782-03
45	.00000	.15000	17.0000	.1087-01	.1323-01	.1484-01	57.21	.6218	.4399	580.6	.1603-03
47	.00000	.16000	18.0000	.1035-01	.1258-01	.1430-01	52.57	.5438	.4578	576.2	.1494-03
45	.00000	.17000	19.0000	.9575-02	.1165-01	.1307-01	57.30	.5487	.4390	579.4	.1412-03
47	.00000	.18000	20.0000	.9295-02	.1140-01	.1285-01	52.60	.4869	.4574	575.8	.1342-03
45	.00000	.19000	21.0000	.9280-02	.1105-01	.1239-01	57.37	.5209	.4394	578.6	.1339-03
47	.00000	.20000	22.0000	.8075-02	.9694-02	.1115-01	52.74	.4258	.4561	574.1	.1166-03
45	.00000	.22500	23.0000	.6418-02	.6579-02	.7369-02	57.89	.3136	.4335	572.1	.7976-04
47	.00000	.25000	24.0000	.6403-02	.7840-02	.6231-02	52.89	.3386	.4545	572.1	.9237-04
45	.00000	.27500	25.0000	.7388-02	.8980-02	.1006-01	57.63	.4258	.4359	575.3	.1088-03

ARC 3.5-178 1H3

DATE 24 JAN 76

RUN NUMBER	PHI	X/L	T/C NO	ARC 3.5-178 1H3 ORBITER		ORB BOTTOM CL		HM/H'	TM DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC			
47	.0000	.3000	26.000	.6594-02	.8204-02	.9248-02	52.67	.4567	574.9	.9666-04
45	.0000	.3200	27.000	.8234-02	.1001-01	.1123-01	57.49	.4373	577.1	.1214-03
47	.0000	.3500	28.000	.8736-02	.1071-01	.1207-01	52.61	.4596	575.7	.1262-03
45	.0000	.3750	29.000	.1163-01	.1415-01	.1586-01	57.47	.4374	577.3	.1715-03
47	.0000	.4000	30.000	.1635-01	.2003-01	.2257-01	52.71	.4563	574.4	.2360-03
45	.0000	.4250	31.000	.2000-01	.2431-01	.2723-01	57.72	.4350	574.1	.2946-03
47	.0000	.4500	32.000	.2282-01	.2795-01	.3148-01	52.86	.4548	572.5	.3293-03
45	.0000	.4750	33.000	.2286-01	.2778-01	.3114-01	57.61	.4361	575.5	.3368-03
47	.0000	.5000	34.000	.2763-01	.3385-01	.3815-01	52.75	.4559	573.9	.3988-03
45	.0000	.5250	35.000	.2864-01	.3482-01	.3902-01	57.64	.4358	575.2	.4220-03
47	.0000	.5500	36.000	.3179-01	.3771-01	.4249-01	52.82	.4552	573.0	.4443-03
45	.0000	.5750	37.000	.3375-01	.3738-01	.4190-01	57.58	.4364	575.9	.4531-03
47	.0000	.6000	38.000	.3264-01	.4024-01	.4535-01	52.70	.4565	574.6	.4741-03
45	.0000	.6250	39.000	.3297-01	.4008-01	.4492-01	57.62	.4360	575.4	.4858-03
47	.0000	.6500	40.000	.3245-01	.3973-01	.4475-01	52.93	.4541	571.6	.4682-03
45	.0000	.6750	41.000	.3147-01	.3823-01	.4233-01	57.77	.4346	573.5	.4635-03
47	.0000	.7000	42.000	.3179-01	.3891-01	.4383-01	52.96	.4539	571.3	.4585-03
45	.0000	.7250	43.000	.3089-01	.3752-01	.4202-01	57.88	.4335	572.1	.4548-03
47	.0000	.7500	44.000	.3095-01	.3786-01	.4263-01	53.08	.4527	569.8	.4482-03
45	.0000	.7750	45.000	.2950-01	.3581-01	.4011-01	57.93	.4331	571.5	.4342-03
47	.0000	.8000	46.000	.3284-01	.4020-01	.4526-01	53.01	.4533	570.6	.4736-03
45	.0000	.8250	47.000	.3103-01	.3767-01	.4219-01	57.94	.4330	571.4	.4567-03
47	.0000	.8500	48.000	.3058-01	.3741-01	.4212-01	53.09	.4525	569.6	.4408-03
45	.0000	.8750	49.000	.2657-01	.3225-01	.3611-01	58.03	.4321	570.3	.3910-03
47	.0000	.9000	50.000	.2527-01	.3093-01	.3482-01	53.07	.4528	569.9	.3644-03
45	.0000	.9250	51.000	.2344-01	.2845-01	.3186-01	58.03	.4322	570.3	.3449-03
47	.0000	.9500	52.000	.2034-01	.2486-01	.2801-01	53.12	.4521	569.1	.2932-03
45	.0000	.9750	53.000	.2000-01	.2427-01	.2717-01	58.07	.4317	569.7	.2942-03
47	.0000	1.0000	54.000	.1986-01	.2430-01	.2737-01	53.04	.4531	570.3	.2864-03
45	.0000	1.0250	56.000	.1893-01	.2317-01	.2609-01	53.01	.4534	570.7	.2730-03
47	.0000	1.0500	58.000	.1830-01	.2242-01	.2527-01	52.72	.4562	574.3	.2642-03

ARC 3.5-178 IH3 ORBITER (TRIPS) ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000	1523-01
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000	1001-01
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000	6763-02
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000	3150-02

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	H/HT	TH DEG. R	STN NO
48	0.0000	0.0000	1.0000	.5662	.6934	.7812	30.51	17.28	.4550	598.6	1523-01
48	0.0000	.5000-02	2.0000	.3723	.4558	.5134	30.57	11.38	.4540	597.3	1001-01
48	0.0000	.1000-01	3.0000	.2516	.3080	.3468	30.60	7.700	.4535	596.6	6763-02
48	0.0000	.2000-01	4.0000	.1173	.1434	.1614	30.74	3.605	.4512	593.6	3150-02
50	0.0000	.3000-01	5.0000	.8694-01	.1046	.1165	33.34	2.899	.4087	549.4	2377-02
48	0.0000	.4000-01	6.0000	.6373-01	.7779-01	.3744-01	30.98	1.974	.4469	588.0	1709-02
50	0.0000	.5000-01	7.0000	.5057-01	.6084-01	.5771-01	33.43	1.691	.4073	547.5	1382-02
48	0.0000	.6000-01	8.0000	.3652-01	.4450-01	.4995-01	31.24	1.141	.4424	582.3	9777-03
50	0.0000	.7000-01	9.0000	.3223-01	.3876-01	.4313-01	33.47	1.079	.4064	546.4	8806-J3
48	0.0000	.8000-01	10.000	.2650-01	.3238-01	.3632-01	31.40	.8352	.4397	578.5	7116-03
50	0.0000	.9000-01	11.000	.2478-01	.2974-01	.3315-01	33.51	.8305	.4557	545.5	6769-03
48	0.0000	.10000+00	12.000	.2044-01	.2486-01	.2787-01	31.54	.6447	.4372	575.3	5464-03
48	0.0000	.12000	14.000	.1614-01	.1932-01	.2199-01	31.60	.5101	.4362	573.9	4313-03
50	0.0000	.13000	15.000	.1196-01	.1438-01	.1690-01	33.53	.4012	.4055	545.1	3268-03
48	0.0000	.14000	16.000	.1313-01	.1595-01	.1788-01	31.67	.4158	.4350	572.3	3507-03
50	0.0000	.15000	17.000	.1434-01	.1723-01	.1917-01	33.54	.4809	.4052	544.8	3915-03
48	0.0000	.16000	18.000	.1797-01	.2183-01	.2446-01	31.69	.5695	.4346	571.8	4800-03
50	0.0000	.17000	19.000	.1833-01	.2204-01	.2452-01	33.54	.6149	.4054	544.9	5008-03
48	0.0000	.18000	20.000	.1580-01	.1919-01	.2150-01	31.71	.5016	.4338	570.7	4219-03
50	0.0000	.19000	21.000	.1523-01	.1831-01	.2037-01	32.54	.5107	.4054	544.9	4159-03
48	0.0000	.20000	22.000	.1290-01	.1566-01	.1754-01	31.83	.4108	.4321	568.5	3443-03
50	0.0000	.22500	23.000	.7675-02	.8224-02	.1026-01	33.59	.2578	.4044	543.6	2096-03
48	0.0000	.25000	24.000	.1054-01	.1278-01	.1429-01	32.01	.3373	.4292	564.6	2809-03
50	0.0000	.27500	25.000	.1346-01	.1618-01	.1800-01	33.53	.4513	.4054	545.1	3676-03

ARC 3.5-178 IHS

DATE 24 JAN 75

ARC 3.5-178 IHS ORBITER (RIPS) ORB BOTTOM CL

RUN NUMBER	PHI	Y	TIC NO	H/REF (R)	4/M/REF P=0.9	H/REF P=0.85	REF BTU/ FT2SEC	ODD BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
48	.0000	.3000	26.000	.1311-11	.150-01	.179-01	31.95	4.182	4.302	562.0	3496-03
49	.0000	.3250	27.000	.175-01	.165-01	.183-01	33.51	4.608	4.057	345.5	3756-03
48	.0000	.3500	28.000	.137-01	.000-01	.178-01	31.94	4.208	4.302	566.0	3513-03
50	.0000	.3750	29.000	.173-01	.050-01	.183-01	33.51	4.599	4.059	545.6	3750-03
48	.0000	.4000	30.000	.151-01	.181-01	.181-01	31.95	4.959	4.299	565.6	4137-03
50	.0000	.4250	31.000	.154-01	.185-01	.205-01	33.52	5.184	4.294	544.2	4217-03
48	.0000	.4500	32.000	.132-01	.188-01	.207-01	31.95	4.903	4.058	564.9	4060-03
50	.0000	.4750	33.000	.128-01	.178-01	.191-01	33.51	4.790	4.058	545.5	3904-03
48	.0000	.5000	34.000	.150-01	.181-01	.203-01	31.98	4.796	4.297	4000-03	4687-03
50	.0000	.5250	35.000	.176-01	.206-01	.229-01	33.52	5.752	4.056	545.3	4687-03
48	.0000	.5500	36.000	.174-01	.219-01	.237-01	32.01	3.591	4.293	564.9	4659-03
50	.0000	.5750	37.000	.192-01	.228-01	.254-01	33.51	6.372	4.059	515.6	5195-03
48	.0000	.6000	38.000	.174-01	.236-01	.264-01	31.95	6.222	4.302	565.9	5193-03
50	.0000	.6250	39.000	.214-01	.259-01	.283-01	33.53	7.194	4.054	545.0	5857-03
49	.0000	.6500	40.000	.204-01	.248-01	.277-01	32.02	6.557	4.289	564.3	5457-03
50	.0000	.6750	41.000	.219-01	.263-01	.285-01	33.56	7.366	4.050	544.5	5995-03
48	.0000	.7000	42.000	.203-01	.248-01	.274-01	32.01	6.474	4.292	564.6	5393-03
50	.0000	.7250	43.000	.216-01	.262-01	.292-01	33.56	7.341	4.050	544.4	5974-03
49	.0000	.7500	44.000	.204-01	.253-01	.283-01	32.04	6.694	4.286	553.7	5570-03
50	.0000	.7750	45.000	.212-01	.256-01	.284-01	32.01	7.137	4.048	544.3	5807-03
48	.0000	.8000	46.000	.219-01	.264-01	.295-01	32.02	6.978	289	564.3	5809-03
50	.0000	.8250	47.000	.215-01	.268-01	.295-01	33.57	7.449	4.049	544.3	6061-03
48	.0000	.8500	48.000	.210-01	.261-01	.292-01	32.03	6.918	4.287	564.0	5757-03
50	.0000	.8750	49.000	.202-01	.246-01	.287-01	33.57	6.721	4.048	544.2	5467-03
48	.0000	.9000	50.000	.181-01	.218-01	.245-01	32.02	5.806	4.290	564.4	4834-03
50	.0000	.9250	51.000	.173-01	.213-01	.237-01	33.57	5.951	4.048	544.3	4842-03
48	.0000	.9500	52.000	.153-01	.191-01	.210-01	32.02	5.101	4.289	564.3	4246-03
50	.0000	.9750	53.000	.151-01	.26-01	.203-01	33.57	5.101	4.047	544.1	4149-03
48	.0000	1.0000	54.000	.142-01	.172-01	.193-01	31.91	4.547	4.309	566.8	3801-03
50	.0000	1.0250	56.000	.129-01	.152-01	.173-01	31.87	4.075	4.316	567.8	3412-03
48	.0000	1.0500	58.000	.124-01	.150-01	.168-01	31.74	3.941	4.337	570.6	3314-03

ARC 3.5-178 IH3 ORBITER (TRIPS) ORB BOTTOM CL

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HC BTU/LBM	RS FT	PHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053*07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027*07	405.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137*07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987*07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QOOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
55	.00000	.00000	1.0000	.5374	.6650	.7546	52.96	28.46	.4789	632.6	.8080-02
55	.00000	.00000	2.0000	.3608	.4462	.5060	53.13	19.17	.4773	630.5	.5422-02
55	.00000	.10000-01	3.0000	.2484	.3070	.3481	53.24	13.22	.4762	629.2	.3731-02
55	.00000	.20000-01	4.0000	.1174	.1443	.1641	53.59	6.292	.4728	624.7	.1761-02
53	.00000	.30000-01	5.0000	.8143-01	.9971-01	.1123	55.78	4.542	.4545	600.8	.1208-02
55	.00000	.40000-01	6.0000	.6244-01	.7683-01	.8684-01	54.29	3.389	.4662	615.9	.9342-03
53	.00000	.50000-01	7.0000	.4657-01	.5690-01	.6400-01	56.33	2.623	.4493	593.9	.6897-03
55	.00000	.60000-01	8.0000	.3504-01	.4299-01	.4849-01	55.00	1.927	.4594	606.9	.5229-03
53	.00000	.70000-01	9.0000	.2583-01	.3639-01	.4089-01	56.72	1.682	.4456	588.9	.4412-03
55	.00000	.80000-01	10.000	.2459-01	.3012-01	.3393-01	55.43	1.363	.4553	601.5	.3664-03
53	.00000	.90000-01	11.000	.2281-01	.2780-01	.3121-01	56.99	1.300	.4430	585.5	.3370-03
55	.00000	1.0000+00	12.000	.1687-01	.2308-01	.2598-01	55.79	.053	.4518	595.9	.2809-03
55	.00000	.12000	14.000	.1376-01	.1682-01	.1893-01	55.93	.697	.4505	575.2	.2047-03
53	.00000	.13000	15.000	.0107-02	.9872-02	.1108-01	57.21	.4638	.4409	582.7	.1197-03
55	.00000	.14000	16.000	.1457-01	.1779-01	.2001-01	56.12	.8174	.4487	592.8	.2165-03
53	.00000	.15000	17.000	.2271-01	.2705-01	.3103-01	57.30	1.301	.4401	581.7	.3354-03
55	.00000	.16000	18.000	.3380-01	.4128-01	.4641-01	57.17	1.898	.4482	592.1	.5024-03
53	.00000	.17000	19.000	.3810-01	.4637-01	.5202-01	57.37	2.186	.4394	580.8	.5624-03
55	.00000	.18000	20.000	.3811-01	.4652-01	.5229-01	56.32	2.147	.4467	590.2	.5662-03
53	.00000	.19000	21.000	.4330-01	.5278-01	.5920-01	57.45	2.492	.4386	579.8	.6402-03
55	.00000	.20000	22.000	.3974-01	.4645-01	.5441-01	56.63	2.250	.4438	586.3	.5898-03
53	.00000	.22500	23.000	.3223-01	.3914-01	.4383-01	58.04	1.871	.4331	572.4	.4748-03
55	.00000	.25000	24.000	.3941-01	.4792-01	.5373-01	57.35	2.260	.4370	577.3	.5936-03
53	.00000	.27500	25.000	.4004-01	.4866-01	.5452-01	57.80	2.314	.4353	575.4	.5902-03

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ARC 3.5-178 IH3 ORBITER (TRIPS) ORB BOTTOM CL

RUN NUMBER	PHI	%	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
55	.0000	.35000	26 000	.3558-01	.4345-01	.4875-01	56.99	2.034	.4404	581.8	.5290-03
53	.0000	.32500	27 000	.3935-01	.4724-01	.5295-01	57.67	2.241	.4365	577.0	.5730-03
55	.0000	.35000	28 000	.3104-01	.3779-01	.4241-01	56.97	1.768	.4406	582.1	.4601-03
53	.0000	.37500	29 000	.3851-01	.4683-01	.5249-01	57.56	2.221	.4366	577.1	.5680-03
55	.0000	.40000	30 000	.3593-01	.4372-01	.4904-01	57.13	2.052	.4391	580.1	.5324-03
53	.0000	.42500	31 000	.3367-01	.4090-01	.4581-01	57.92	1.950	.4341	573.8	.4961-03
55	.0000	.45000	32 000	.3249-01	.3951-01	.4429-01	57.33	1.862	.4372	577.6	.4811-03
53	.0000	.47500	33 000	.3193-01	.3879-01	.4347-01	57.84	1.847	.4350	574.9	.4706-03
55	.0000	.50000	34 000	.3062-01	.3725-01	.4177-01	57.22	1.752	.4382	579.0	.4536-03
53	.0000	.52500	35 000	.2881-01	.3500-01	.3922-01	57.87	1.667	.4347	574.5	.4246-03
55	.0000	.55000	37 000	.2925-01	.3555-01	.3987-01	57.35	1.677	.4369	577.2	.4331-03
53	.0000	.57500	37 000	.2859-01	.3474-01	.3893-01	57.82	1.653	.4352	575.2	.4214-03
55	.0000	.60000	38 000	.2693-01	.3288-01	.3656-01	57.17	1.657	.4387	579.6	.4296-03
53	.0000	.62500	39 000	.2942-01	.3574-01	.4004-01	57.87	1.772	.4347	574.6	.4335-03
55	.0000	.65000	40 000	.2784-01	.3383-01	.3791-01	57.54	1.602	.4352	574.9	.4121-03
53	.0000	.67500	41 000	.2711-01	.3292-01	.3638-01	58.00	1.573	.4334	572.8	.3994-03
55	.0000	.70000	42 000	.2615-01	.3177-01	.3561-01	57.53	1.504	.4353	575.1	.3870-03
53	.0000	.72500	43 000	.2628-01	.3190-01	.3571-01	58.12	1.527	.4323	571.4	.3870-03
55	.0000	.75000	44 000	.2508-01	.3046-01	.3411-01	57.72	1.448	.4334	572.6	.3710-03
53	.0000	.77500	45 000	.2458-01	.2983-01	.3339-01	58.18	1.438	.4317	570.6	.3619-03
55	.0000	.80000	46 000	.2650-01	.3219-01	.3605-01	57.62	1.527	.4344	573.9	.3921-03
53	.0000	.82500	47 000	.2586-01	.3138-01	.3513-01	58.22	1.506	.4313	570.1	.3808-03
55	.0000	.85000	48 000	.2473-01	.3004-01	.3363-01	57.79	1.429	.4328	571.8	.3658-03
53	.0000	.87500	49 000	.2216-01	.2699-01	.3009-01	58.30	1.292	.4306	569.2	.3262-03
55	.0000	.90000	50 000	.2032-01	.2467-01	.2763-01	57.76	1.174	.4330	572.1	.3005-03
53	.0000	.92500	51 000	.1954-01	.2370-01	.2653-01	58.30	1.139	.4306	569.2	.2876-03
55	.0000	.95000	52 000	.1688-01	.2049-01	.2294-01	57.88	.9770	.4319	570.6	.2496-03
53	.0000	.97500	53 000	.1613-01	.1957-01	.2190-01	58.33	.9411	.4303	568.7	.2374-03
55	.0000	1.0000	54 000	.1569-01	.1906-01	.2136-01	57.61	.9039	.4345	574.1	.2322-03
53	.0000	1.0250	56 000	.1511-01	.1836-01	.2058-01	57.45	.8678	.4360	576.1	.2336-03
55	.0000	1.0500	58 000	.1467-01	.1786-01	.2005-01	56.96	.8357	.4406	582.2	.2175-03

CRBITER BOTTOM CL

PARAMETRIC DATA

ORB BOTTOM CL

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	FO PSIA	TO DEG. R	H/D BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	FHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	OODT BTU/FT2SEC	H/HHT	TW DEG. R	STN NO R=0.9
70	.00000	.00000	1.0000	.6268	.7616	.8533	58.93	36.97	.4349	585.0	.9328-02
70	.00000	.50000-02	2.0000	.4018	.4880	.5466	59.02	23.74	.4340	583.8	.5977-02
70	.00000	.10000-01	3.0000	.2659	.3264	.3655	59.21	15.92	.4327	592.1	.3999-02
70	.00000	.20000-01	4.0000	.1220	.1479	.1656	59.50	7.258	.4301	578.5	.1813-02
71	.00000	.30000-01	5.0000	.8353-01	.1019	.1145	56.94	4.756	.4459	591.7	.1238-02
70	.00000	.40000-01	6.0000	.6337-01	.7672-01	.8576-01	60.01	3.803	.4253	572.1	.9403-03
71	.00000	.50000-01	7.0000	.4478-01	.5454-01	.6122-01	57.44	2.572	.4413	585.5	.6627-03
70	.00000	.60000-01	8.0000	.2627-01	.3417-01	.3916-01	60.47	1.709	.4211	566.4	.4189-03
71	.00000	.70000-01	9.0000	.4155-01	.5055-01	.5670-01	57.76	2.400	.4382	581.5	.6144-03
70	.00000	.80000-01	10.0000	.7219-01	.8721-01	.9733-01	60.66	4.379	.4192	563.9	.1069-02
71	.00000	.90000-01	11.0000	.1225	.1490	.1671	57.86	7.091	.4373	530.2	.1811-02
70	.00000	.10000+00	12.0000	.2401	.2901	.3239	60.58	14.55	.4200	564.9	.3557-02
70	.00000	.12000	14.0000	.3740	.4518	.5042	60.66	22.69	.4192	563.9	.5539-02
71	.00000	.13000	15.0000	.1718	.2088	.2340	3.05	9.974	.4354	577.8	.2538-02
70	.00000	.14000	16.0000	.8147-01	.9831-01	1.073	60.99	4.969	.4162	559.8	.1205-02
71	.00000	.15000	17.0000	.4851-01	.5891-01	.6599-01	58.23	2.825	.4338	575.6	.7161-03
70	.00000	.16000	18.0000	.4307-01	.5196-01	.5794-01	61.08	2.631	.4154	558.8	.6371-03
71	.00000	.17000	19.0000	.4697-01	.5703-01	.6387-01	58.33	2.740	.4328	574.4	.6933-03
70	.00000	.18000	20.0000	.5162-01	.6226-01	.6941-01	61.14	3.156	.4149	558.1	.7634-03
71	.00000	.19000	21.0000	.5070-01	.6154-01	.6890-01	58.39	2.960	.4323	573.6	.7481-03
70	.00000	.20000	22.0000	.4423-01	.5333-01	.5944-01	61.27	2.710	.4136	556.3	.6540-03
71	.00000	.22500	23.0000	.9249-01	.1121	.1253	58.91	5.448	.4274	567.1	.1363-02
70	.00000	.25000	24.0000	.1102	.1327	.1479	61.47	6.773	.4117	553.8	.1628-02
71	.00000	.27500	25.0000	.1244	.1508	.1687	58.65	7.293	.4298	570.4	.1833-02
70	.00000	.30000	26.0000	.9662-01	.1165	.1299	61.24	5.917	.4139	556.8	.1429-02

REPRODUCIBILITY OF THIS PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

ORB BOTTOM CL

RUN NUMBER	PHI	X ₁ L	T/C NO	H/R/REF R=1.0	H/R/REF R=0.9	H/R/REF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
71	.00000	32500	27.000	.627-01	.1046	.1171	58.56	5.051	4307	571.5	.1272-02
70	.00000	35000	28.000	.574-01	.8136-01	.9071-01	61.12	4.123	4150	556.3	.9977-03
71	.00000	37500	29.000	.9129-01	.1107	.1240	58.54	5.344	4308	571.7	.1346-02
70	.00000	40000	30.000	.7951-01	.9586-01	.1068	61.27	4.872	4136	556.4	.1176-02
71	.00000	42500	31.000	.7917-01	.75-01	.1073	58.82	4.657	4282	568.3	.1167-02
70	.00000	45000	32.000	.9921-01	.1183	.1318	61.44	6.034	4120	554.2	.1451-02
71	.00000	47500	33.000	.8907-01	.1080	.1208	58.73	5.231	4291	569.4	.1313-02
70	.00000	50000	34.000	.8115-01	.9783-01	.1090	61.27	4.972	4137	556.4	.1200-02
71	.00000	52500	35.000	.7587-01	.9563-01	.1070	58.72	4.631	4292	569.5	.1163-02
70	.00000	55000	36.000	.7335-01	.8841-01	.9852-01	61.36	4.501	4128	555.2	.1084-02
71	.00000	57500	37.000	.6259-01	.8318-01	.9309-01	58.61	4.020	4301	570.8	.1011-02
70	.00000	60000	38.000	.7259-01	.8983-01	.9953-01	61.18	4.483	4145	557.6	.1084-02
71	.00000	62500	39.000	.7407-01	.8838-01	.1005	58.63	4.343	4300	570.6	.1092-02
70	.00000	65000	40.000	.6904-01	.8320-01	.9271-01	61.39	4.238	4125	554.9	.1020-02
71	.00000	67500	41.000	.6794-01	.8235-01	.8531-01	58.78	3.993	4286	568.7	.1001-02
70	.00000	70000	42.000	.6370-01	.7675-01	.8531-01	61.45	3.915	4119	554.1	.9413-03
71	.00000	72500	43.000	.6151-01	.7454-01	.8337-01	58.86	3.620	4278	567.7	.9064-03
70	.00000	75000	44.000	.8912-01	.1073	.1196	61.58	5.488	4108	552.6	.1316-02
71	.00000	77500	44.000	.9333-01	.1131	.1265	58.88	5.496	4276	567.4	.1375-02
70	.00000	80000	46.000	.1561	.1880	.2095	61.46	9.591	4119	554.1	.2306-02
71	.00000	82500	47.000	.1871	.2267	.2536	58.83	11.01	4281	568.0	.2757-02
70	.00000	85000	48.000	.1467	.1767	.1957	61.65	9.044	4101	551.6	.2187-02
71	.00000	87500	49.000	.6426-01	.7779-01	.8594-01	59.15	3.800	4251	564.1	.9460-03
70	.00000	90000	50.000	.3525-01	.4243-01	.4723-01	61.84	2.180	4083	549.3	.5204-03
71	.00000	92500	51.000	.2574-01	.3115-01	.3481-01	59.23	1.524	4244	563.1	.3788-03
70	.00000	95000	52.000	.1668-01	.2007-01	.2235-01	61.84	1.032	4083	549.2	.2462-03
71	.00000	97500	53.000	.1065-01	.1291-01	.1443-01	59.19	.6313	4247	563.6	.1570-03
70	.00000	1.0000	54.000	.7421-02	.6934-02	.9947-02	61.72	4.580	4095	550.8	.1096-03
71	.00000	1.0250	56.000	.3142-02	.3783-02	.4212-02	61.71	1.939	4096	550.9	.4640-04
70	.00000	1.0500	58.000	.3452-02	.4160-02	.4635-02	61.39	.2119	4125	554.9	.5102-04

ORBITER BOTTOM CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8289	-3.000
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
74	.0000	.0000	1.0000	.5738	.7027	.7917	55.59	31.90	.4550	588.9	.8498-02
74	.0000	.5000-02	2.0000	.3786	.4636	.5221	55.67	21.08	.4543	588.9	.5606-02
74	.0000	1.0000-01	3.0000	.2546	.3116	.3509	55.79	14.21	.4531	597.4	.3769-02
74	.0000	.2000-01	4.0000	.1162	.1417	.1595	56.10	6.505	.4502	593.5	.1715-02
74	.0000	.4000-01	6.0000	.5669-01	.6914-01	.7766-01	56.70	3.214	.4445	586.0	.8365-03
74	.0000	.6000-01	8.0000	.4285-01	.5215-01	.5850-01	57.25	2.453	.4393	579.1	.6312-03
74	.0000	.8000-01	10.000	.1192	.1449	.1625	57.50	6.853	.4359	575.9	.1754-02
74	.0000	1.0000+00	12.000	.4049	.4923	.5519	57.50	23.28	.4369	576.0	.5660-02
74	.0000	.12000	14.000	.2535	.3082	.3454	57.58	14.60	.4362	575.0	.3731-02
74	.0000	.14000	16.000	.5687-01	.6905-01	.7732-01	57.93	3.295	.4328	570.5	.8360-03
74	.0000	.16000	18.000	.4403-01	.5343-01	.5982-01	58.05	2.556	.4317	569.0	.6470-03
74	.0000	.18000	20.000	.6047-01	.7336-01	.8211-01	58.15	3.517	.4307	567.8	.8683-03
74	.0000	.20000	22.000	.4334-01	.5253-01	.5877-01	58.34	2.528	.4289	565.4	.6362-03
74	.0000	.25000	24.000	.9549-01	.1156	.1293	58.66	5.601	.4259	561.5	.1401-02
74	.0000	.30000	26.000	.7375-01	.8940-01	1.000	58.30	4.303	.4289	565.4	.1083-02
74	.0000	.35000	26.000	.5953-01	.7230-01	.8089-01	58.42	3.477	.4293	565.9	.8756-03
74	.0000	.40000	30.000	.7412-01	.8983-01	1.005	58.62	4.330	.4282	564.4	.1088-02
74	.0000	.45000	32.000	.8284-01	1.003	1.122	58.62	4.856	.4262	561.9	.1215-02
74	.0000	.50000	34.000	.7164-01	.8682-01	.9710-01	58.43	4.186	.4280	564.3	.1051-02
74	.0000	.55000	36.000	.6505-01	.7881-01	.8812-01	58.54	3.808	.4270	562.9	.9545-03
79	.0000	.57500	37.000	.6325-01	.7699-01	.8636-01	57.91	3.663	.4394	585.7	.9379-03
74	.0000	.60000	38.000	.6512-01	.7894-01	.8832-01	58.35	3.800	.4288	565.3	.9560-03
79	.0000	.62500	39.000	.6354-01	.7734-01	.8676-01	57.89	3.679	.4396	585.9	.9422-03
74	.0000	.65000	40.000	.6264-01	.7594-01	.8496-01	58.32	3.653	.4291	565.7	.9196-03
79	.0000	.67500	41.000	.5390-01	.6557-01	.7353-01	58.05	3.129	.4381	583.9	.7988-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

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(REIBED)

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORB BOTTOM CL OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
74	.00000	.70000	42.000	.6223-01	.7536-01	.8424-01	58.65	3.650	.4259	561.5	.9128-03
79	.00000	.72500	43.000	.5965-01	.7253-01	.8131-01	58.17	3.469	.4370	582.4	.8837-03
74	.00000	.75000	44.000	.7396-01	.8951-01	.1000	58.80	4.348	.4246	559.7	.1084-02
79	.00000	.77500	45.000	.8361-01	.1017	.1140	58.19	4.866	.4367	582.1	.1239-02
74	.00000	.80000	46.000	.1237	.1498	.1674	58.67	7.257	.4257	561.2	.1814-02
79	.00000	.82500	47.000	.1687	.2052	.2300	58.15	9.813	.4371	582.6	.2500-02
74	.00000	.85000	48.000	.1285	.1555	.1730	58.90	7.571	.4236	558.4	.1884-02
79	.00000	.87500	49.000	.5692-01	.6814-01	.7745-01	58.48	3.329	.4341	578.5	.8426-03
74	.00000	.90000	50.000	.3256-01	.3937-01	.4397-01	59.10	1.924	.4217	555.9	.4770-03
79	.00000	.92500	51.000	.2090-01	.2538-01	.2842-01	58.57	1.224	.4332	577.4	.3092-03
74	.00000	.95000	52.000	.1321-01	.1597-01	.1783-01	59.16	.7816	.4211	555.2	.1935-03
79	.00000	.97500	53.000	.8792-02	.1068-01	.1197-01	58.53	.5149	.4336	577.9	.1302-03
74	.00000	1.0000	54.000	.4345-02	.5256-72	.5871-02	58.99	.2564	.4227	557.2	.6367-04
79	.00000	1.0250	55.000	.2960-02	.3581-02	.4001-02	58.95	.1745	.4231	557.8	.4338-04
74	.00000	1.0500	56.000	.4207-02	.5096-02	.5698-02	58.56	.2463	.4268	562.7	.6172-04

ORBITER TOP CL

ARC 3.5-178 1H3 O+T+S

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVAN = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PEP FT	PO PS1A	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=C.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
9	180.00	.10000-01	59.000	.3033	.3663	.4088	33.38	10.12	.4189	564.2	.8185-02
9	180.00	.25000-01	60.000	.1564	.2008	.2241	33.47	5.568	.4174	562.2	.4488-02
9	180.00	.50000-01	61.000	.1286	.1286	.1434	33.58	3.580	.4155	559.7	.2874-02
9	180.00	.75000-01	62.000	.7330-01	.8840-01	.9854-01	33.65	2.467	.4144	558.1	.1976-02
9	180.00	.10000-02	63.000	.6228-01	.7509-01	.8371-01	33.67	2.097	.4140	557.7	.1678-02
9	180.00	.12500	64.000	.4551-01	.5487-01	.6116-01	33.68	1.533	.4138	557.4	.1226-02
9	180.00	.15000	65.000	.1108	.1336	.1489	33.66	3.730	.4142	557.9	.2986-02
9	180.00	.16000	66.000	.4314	.5203	.5801	33.63	14.51	.4147	558.6	.1163-01
9	180.00	.17000	67.000	.5322	.6058	.6755	33.60	16.87	.4152	559.3	.1354-01
9	180.00	.18000	68.000	.4277	.5159	.5751	33.61	14.38	.4150	558.9	.1153-01
9	180.00	.20000	69.000	.8467-01	.1023	.1141	33.68	2.859	.4138	557.4	.2287-02
10	180.00	.25000	70.000	.1302-01	.1574-01	.1758-01	32.29	.4204	.4211	560.3	.3550-03
9	180.00	.30000	71.000	.5981-02	.7207-02	.8031-02	33.76	.2019	.4124	553.5	.1611-03
9	180.00	.40000	72.000	.7912-02	.9533-02	1.062-01	33.79	.2573	.4120	555.0	.2131-03
10	180.00	.50000	73.000	.7865-02	.9505-02	1.061-01	32.35	.2545	.4199	559.8	.2144-03
9	180.00	.60000	74.000	.1277-01	.1539-01	.1714-01	33.79	.4315	.4120	555.0	.3440-03
10	180.00	.70000	75.000	.2451-01	.2961-01	.3305-01	32.37	.7934	.4196	558.4	.6678-03
10	180.00	.80000	76.000	.4240-01	.5122-01	.5717-01	32.37	1.372	.4197	558.5	.1155-02

ARC 3.5-178 1H3 O+T+S ORB TOP CL

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	MO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1302.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREC BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
12	180.00	.10000-01	59.000	.3176	.3874	.4353	55.97	17.78	.4450	591.3	.4672-02
18	180.00	.25000-01	60.000	.1761	.2145	.2408	56.34	9.922	.4415	576.8	.2588-02
18	180.00	.50000-01	61.000	.1085	.1320	.1480	56.78	6.162	.4373	571.3	.1592-02
18	180.00	.75000-01	62.000	.7893-01	.5889-01	.7074	57.06	4.504	.4348	567.8	.1157-02
18	180.00	.10000+00	63.000	.7418-01	.9009-01	.7099	57.14	4.239	.4338	566.5	.1087-02
18	180.00	.12500	64.000	.8598-01	.1044	.1164	57.21	4.919	.4332	565.9	.1250-02
18	180.00	.15000	65.000	.2488	.3022	.3336	57.10	14.21	.4342	567.2	.3647-02
18	180.00	.16000	65.000	.6095	.7409	.8303	56.92	34.69	.4359	569.4	.8938-02
18	180.00	.17000	67.000	.6730	.8184	.9176	56.78	38.21	.4373	571.2	.9874-02
18	180.00	.18000	68.000	.5634	.6845	.7669	57.07	32.15	.4345	567.6	.8259-02
18	180.00	.20000	69.000	.1156	.1402	.1570	57.42	6.637	.4311	563.1	.1692-02
16	180.00	.25000	70.000	.1553-01	.1880-01	.2102-01	59.45	.9232	.4253	567.6	.2296-03
18	180.00	.30000	71.000	.6705-02	.8127-02	.9091-02	57.68	.3867	.4286	559.9	.9810-04
18	180.00	.40000	72.000	.3725-01	.3725-01	.4168-01	57.60	1.770	.4294	560.9	.4496-03
16	180.00	.50000	73.000	.3025-01	.3417-01	.3817-01	59.69	1.686	.4230	564.5	.4173-03
18	180.00	.60000	74.000	.3422-01	.4150-01	.4645-01	57.53	1.969	.4301	561.8	.5009-03
16	180.00	.70000	75.000	.3780-01	.4570-01	.5103-01	59.86	2.263	.4214	562.4	.5581-03
16	180.00	.80000	76.000	.7207-01	.8719-01	.9740-01	59.68	4.301	.4231	564.7	.1065-02

ARC 3.5-178 IH3 0+T+S (TRIPS) ORB TOP CL

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1276.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
19	180.00	.13000-01	59.000	.3111	.3790	.4254	31.61	9.833	.4419	588.5	.8404-02
19	180.00	.25000-01	60.000	.1566	.2027	.2274	31.76	5.290	.4394	585.1	.4496-02
19	180.00	.50000-01	61.000	.1083	.1315	.1474	32.03	3.468	.4348	578.9	.2918-02
19	180.00	.75000-01	62.000	.7376-01	.8949-01	.1002	32.25	2.379	.4310	573.9	.1986-02
19	180.00	.13000+00	63.000	.6275-01	.7607-01	.8510-01	32.37	2.032	.4289	571.1	.1688-02
19	180.00	.12500	64.000	.3566-01	.4321-01	.4832-01	32.44	1.157	.4276	569.4	.9589-03
19	180.00	.15000	65.000	.1515	.1837	.2054	32.41	4.912	.4282	570.2	.4076-02
19	180.00	.16000	66.000	.5486	.6650	.7440	32.37	17.76	.4289	571.1	.1476-01
19	180.00	.17000	67.000	.5471	.6634	.7422	32.33	17.69	.4293	572.0	.1472-01
19	180.00	.18000	68.000	.4509	.5468	.6117	32.35	14.59	.4271	571.7	.1213-01
19	180.00	.20000	69.000	.9023-01	.1093	.1222	32.47	2.930	.4271	568.8	.2426-02
21	180.00	.25000	70.000	.1326-01	.1607-01	.1797-01	31.92	4.234	.4276	561.8	.3546-03
19	180.00	.30000	71.000	.6583-02	.7963-02	.8895-02	32.72	2.154	.4229	563.1	.1768-03
19	180.00	.40000	72.000	.9489-02	.1147-01	.1281-01	32.81	3.113	.4215	561.2	.2547-03
21	180.00	.50000	73.000	.1668-01	.2021-01	.2260-01	31.96	5.333	.4269	560.9	.4460-03
19	180.00	.60000	74.000	.2388-01	.2897-01	.3224-01	32.78	.7827	.4218	561.7	.6409-03
21	180.00	.70000	75.000	.2911-01	.3526-01	.3942-01	31.99	.9312	.4264	560.3	.7780-03
21	180.00	.80000	76.000	.4013-01	.4861-01	.5434-01	32.00	1.284	.4262	560.0	.1073-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3 O+I+S (TRIPS) ORB TOP CL

(REIA04)

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
29	180.00	.10000-01	59.000	.3084	.3796	.4291	54.44	16.79	.4668	616.3	.4592-02
30	180.00	.25000-01	60.000	.1689	.2074	.2341	55.04	9.297	4611	608.8	.2510-02
31	180.00	.50000-01	61.000	.1047	.1281	.1443	55.83	5.845	4536	598.8	.1551-02
32	180.00	.75000-01	62.000	.7105-01	.8674-01	.9751-01	56.49	4.014	4473	590.5	.1050-02
33	180.00	.10000+00	63.000	.5945-01	.7252-01	.8147-01	56.73	3.373	4450	587.5	.8783-03
34	180.00	.12500	64.000	.2598-01	.3168-01	.3558-01	56.84	1.477	4440	586.2	.3837-03
35	180.00	.5000	65.000	.2583	.3152	.3542	56.62	14.62	4463	589.2	.3817-02
36	180.00	.16000	66.000	.6072	.7418	.8343	56.32	34.20	4489	592.7	.8983-02
37	180.00	.17000	67.000	.6453	.7890	.8678	56.10	36.20	4510	595.4	.9552-02
38	180.00	.18000	68.000	.5336	.6516	.7326	56.45	30.12	4477	591.1	.7891-02
39	180.00	.20000	69.000	.1326	.1616	.1814	57.03	7.564	4422	591.1	.1958-02
40	180.00	.25000	70.000	.1771-01	.2148-01	.2405-01	58.34	1.023	4314	571.7	.2611-03
41	180.00	.30000	71.000	.1204-01	.1464-01	.1641-01	57.69	6.949	4359	575.5	.1774-03
42	180.00	.40000	72.000	.3979-01	.4786-01	.5361-01	57.84	2.279	4359	573.6	.5799-03
43	180.00	.50000	73.000	.2658-01	.3222-01	.3604-01	58.62	1.558	4268	568.2	.3917-03
44	180.00	.60000	74.000	.3246-01	.3944-01	.4419-01	57.76	1.875	4353	574.7	.4775-03
45	180.00	.70000	75.000	.3718-01	.4504-01	.5037-01	58.80	2.196	422	566.0	.5476-03
46	180.00	.80000	76.000	.6918-01	.8381-01	.9373-01	58.77	4.066	4274	566.3	.1019-02

TEST DATA

ARC 3.5-178 IH3 O+T+S

ORB TOP CL

(REIA05)

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	I-O BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
39	190.00	.10000-01	59.000	.2994	.3673	.4142	55.19	16.53	.4584	604.3	.4443-02
39	180.00	.25000-01	60.000	.1647	.2016	.2270	55.76	9.185	.4531	597.2	.2439-02
39	180.00	.50000-01	61.000	.1072	.1308	.1471	56.44	6.050	.4466	588.6	.1584-02
39	180.00	.75000-01	62.000	.7363-01	.8969-01	1.007	56.95	4.194	.4417	582.2	.1086-02
39	180.00	.10000+00	63.000	.6891-01	.8389-01	.9411-01	57.15	3.936	.4398	579.7	.1016-02
39	180.00	.12500	64.000	.5859-01	.7129-01	.7996-01	57.25	3.354	.4388	578.4	.8634-03
39	180.00	.15000	65.000	.1796	.2187	.2455	57.06	10.25	.4407	580.9	.2649-02
39	180.00	.16000	66.000	.6048	.7370	.8274	56.86	34.3	.4426	583.3	.8923-02
39	180.00	.17000	67.000	.6375	.7773	.8731	56.68	30.14	.4421	585.6	.9411-02
39	180.00	.18000	68.000	.5297	.6454	.7245	56.91	36.13	.4442	582.7	.7814-02
39	180.00	.20000	69.000	.1122	.1364	.1529	57.50	6.453	.4365	575.4	.1653-02
39	180.00	.25000	70.000	.1223-01	.1485-01	.1663-01	56.27	.6883	.4335	559.8	.1766-03
39	180.00	.30000	71.000	.2469-01	.2996-01	.3354-01	58.05	1.433	.4312	564.4	.3630-03
39	180.00	.40000	72.000	.4629-01	.5610-01	.6273-01	58.15	2.689	.4303	567.2	.4797-03
37	190.00	.50000	73.000	.3084-01	.3737-01	.4178-01	56.93	1.756	.4271	551.5	.4496-03
39	180.00	.60000	74.000	.2913-01	.3534-01	.3956-01	58.08	1.692	.4310	568.1	.4282-03
37	180.00	.70000	75.000	.2898-01	.3509-01	.3922-01	57.06	1.653	.4259	549.9	.4222-03
37	180.00	.80000	76.000	.5237-01	.7554-01	.8445-01	57.02	3.556	.4262	550.4	.9089-03

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636*07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582*07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522*07	122.7	1255.	316.5	.1750-01	.2500	.0000
43	5.300	.1516*07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	FHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
40	180.00	.10000-01	59.000	.3155	.3861	.4347	31.36	9.695	.4531	593.1	.8211-02
40	180.00	.25000-01	60.000	.1708	.2088	.2349	31.52	5.383	.4504	589.7	.4441-02
40	180.00	.50000-01	61.000	.1103	.1346	.1512	31.80	3.509	.4457	583.4	.2864-02
40	180.00	.75000-01	62.000	.7723-01	.9408-01	.1056	32.04	2.474	.4416	578.2	.2002-02
40	180.00	.10000+00	63.000	.6633-01	.8074-01	.9057-01	32.16	2.133	.4396	575.5	.1718-02
40	180.00	.12500	64.000	.5320-01	.6473-01	.7259-01	32.23	1.715	.4384	573.9	.1378-02
40	180.00	.15000	65.000	.1143	.1391	.1560	32.15	3.675	.4396	575.4	.2960-02
40	180.00	.16000	65.000	.4447	.5415	.6075	32.12	14.28	.4403	576.4	.1152-01
40	180.00	.17000	67.000	.4939	.6015	.6750	32.03	15.84	.4410	577.3	.1280-01
40	180.00	.18000	68.000	.4178	.5087	.5708	32.11	13.42	.4404	576.6	.1083-0
40	180.00	.20000	69.000	.8580-01	.1044	.1170	32.28	2.770	.4376	572.8	.2221-02
42	180.00	.25000	70.000	.1259-01	.1522-01	.1700-01	32.36	.4070	.4238	559.2	.3357-03
40	180.00	.30000	71.000	.5464-02	.4205-02	.4710-02	32.55	.1127	.4330	556.9	.6954-04
40	180.00	.40000	72.000	.6911-02	.8385-02	.9387-02	32.65	.2257	.4311	564.6	.1766-03
42	180.00	.50000	73.000	.1522-01	.1842-01	.2059-01	32.37	.4927	.4238	559.2	.4064-03
40	180.00	.60000	74.000	.2898-01	.3516-01	.3936-01	32.65	.9452	.4313	564.6	.7487-03
42	180.00	.70000	75.000	.3311-01	.4006-01	.4476-01	32.37	1.072	.4237	559.0	.6838-03
42	180.00	.70000	76.000	.3969-01	.4802-01	.5364-01	32.39	1.285	.4235	558.7	.1059-02

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	T DEG R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG
44	5.300	.5112*07	406.4	1205	313.6	.1750-01	.8322	.0000
45	5.300	.5036*07	406.2	1297	316.7	.1750-01	.8273	.0000
46	5.300	.5003*07	405.9	1301	317.9	.1750-01	.8248	.0000
47	5.300	.5392*07	404.9	1240	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/H/REF R=1.0	H/H/REF R=0.9	H/H/REF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TH DEG R	STN NO R=0.9
47	180.00	.10000-01	59.000	.3089	.3809	.4312	51.26	15.83	.4709	592.8	.4484-02
47	180.00	.25000-01	60.000	.1684	.2072	.2343	51.64	8.693	.4671	568.0	.2440-02
47	180.00	.50000-01	61.000	.1052	.1293	.1459	52.05	5.475	.4629	582.7	.1522-02
47	180.00	.75000-01	62.000	.7279-01	.8884-01	.002	52.34	3.788	.4601	579.1	.1046-02
47	180.00	.10000+00	63.000	.6279-01	.7704-01	.8689-01	52.43	3.293	.4591	577.9	.9075-03
47	180.00	.12500	64.000	.4815-01	.5905-01	.6659-01	52.50	2.528	.4585	577.1	.6356-03
47	180.00	.15000	65.000	.1762	.2163	.2440	52.36	9.228	.4599	578.9	.2548-02
47	180.00	.16000	66.000	.5823	.7150	8070	52.23	30.41	.4612	580.5	.8422-02
47	180.00	.17000	67.000	.6203	.7621	.8504	52.10	32.32	.4624	582.1	.8975-02
47	180.00	.18000	68.000	.5113	.6277	.7082	52.30	26.74	.4604	579.6	.7393-02
47	180.00	.20000	69.000	.1189	.1456	.1729-01	52.77	6.271	.4558	573.7	.1715-02
45	180.00	.25000	70.000	.1424-01	.1729-01	.2037-01	57.80	8.229	.4343	573.1	.2096-03
47	180.00	.30000	71.000	.2831-02	.3463-02	.3899-02	53.17	1.503	.4524	569.5	.4081-04
47	187.00	.40000	72.000	.2591-01	.3170-01	.3568-01	53.16	1.378	.4518	568.7	.3735-03
45	180.00	.50000	73.000	.3881-01	.4710-01	.5274-01	58.03	2.252	.4321	570.3	.5711-03
47	180.00	.60000	74.000	.3783-01	.4627-01	.5209-01	53.14	2.010	.4520	569.0	.5453-03
45	180.00	.70000	75.000	.3388-01	.4716-01	.5279-01	56.17	2.61	.4308	568.5	.5718-03
45	180.00	.80000	76.000	.5663-01	.6870-01	.7690-01	58.14	3.293	.4310	568.8	.8330-03

0-3

DATE 04 DEC 75

ARC 3.5-178 1M3

PAGE 111

ORBITER TOP CL

ARC 3.5-178 1M3 ORBITER (TRIPS) ORB TOP CL

(ME1A08)

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
48	180.00	.10000-01	59.000	.3188	.3902	.4395	30.58	9.748	.4539	597.1	.0569-02
48	180.00	.25000-01	60.000	.1739	.2127	.2393	30.75	5.349	.4509	593.3	.4671-02
48	180.00	.50000-01	61.000	.1112	.1356	.1524	31.06	3.453	.4455	586.1	.2980-02
48	180.00	.75000-01	62.000	.7922-01	.5647-01	.1083	31.33	2.482	.4408	579.9	.2120-02
48	180.00	.10000+00	63.000	.6751-01	.8213-01	.9210-01	31.48	2.125	.4382	576.6	.1805-02
48	180.00	.12500	64.000	.4348-01	.5286-01	.5026-01	31.56	1.372	.4369	574.8	.1.62-02
48	180.00	.15000	65.000	.1529	.1860	.2086	31.50	4.816	.4240	576.3	.4088-02
48	180.00	.16000	66.000	.5267	.6409	.7188	31.45	16.56	.43.7	577.3	.1409-01
48	180.00	.17000	67.000	.5262	.6405	.7185	31.40	16.52	.43.7	577.3	.1409-01
48	180.00	.18000	68.000	.4276	.5204	.5837	31.43	13.44	.4351	577.7	.1144-01
48	180.00	.20000	69.000	.6639-01	.1050	.1177	31.61	13.44	.4351	577.7	.1144-01
50	180.00	.25000	70.000	.1507-01	.1571-01	.1747-01	33.55	2.731	.4350	573.6	.2308-02
48	180.00	.30000	71.000	.4001-02	.4854-02	.5432-02	31.92	.4384	.4051	544.6	.3569-03
48	180.00	.40000	72.000	.6993-02	.8476-02	.3482-02	32.04	1.277	.4307	566.6	.1087-03
50	180.00	.50000	73.000	.1452-01	.1746-01	.1942-01	33.57	.2241	.4285	563.7	.1864-03
48	180.00	.60000	74.000	.2699-01	.3514-01	.3932-01	33.03	.4875	.4049	544.3	.3966-03
50	180.00	.70000	75.000	.3265-01	.3924-01	.4365-01	33.58	.9288	.4287	564.0	.7728-03
50	180.00	.80000	76.000	.3992-01	.4797-01	.5335-01	33.60	1.097	.4046	543.9	.8916-03
50	180.00							1.341	.4043	543.5	.1090-02

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA
52	5.300	.5053*07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027*07	405.4	1298.	317.2	.1750-01	.8269	.0000
54	5.300	.5137*07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987*07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HU/HT	TW DEG. R	STN NO R=0.9
55	180.00	.10000-01	59.000	.3118	.3853	.4368	53.30	16.62	.4756	628.4	.4682-02
55	180.00	.25000-01	60.000	.1596	.2090	.2365	53.92	9.144	.4697	620.5	.2541-02
55	180.00	.50000-01	61.000	.1126	.1392	.1560	54.79	6.167	.4614	609.6	.1681-02
55	180.00	.75000-01	62.000	.8315-01	.1018	.1146	55.57	4.621	.4539	599.6	.1238-02
55	180.00	.10000+00	63.000	.7195-01	.8795-01	.9895-01	55.97	4.027	.4501	594.7	.1070-02
55	180.00	.12500	64.000	.5514-01	.6735-01	.7572-01	56.19	3.098	.4480	591.9	.8197-03
55	180.00	.15000	65.000	.2534	.3098	.3486	55.91	14.17	.4507	595.4	.3770-02
55	180.00	.17500	66.000	.5807	.7104	.7998	55.71	32.35	.4525	597.9	.8644-02
55	180.00	.19000	67.000	.6240	.7640	.8605	55.54	34.66	.4542	600.1	.9295-02
55	180.00	.18000	68.000	.5159	.6308	.7098	55.88	28.83	.4510	595.8	.7676-02
55	180.00	.20000	69.000	.1204	.1468	.1648	56.64	6.819	.4437	586.2	.1787-02
53	180.00	.25000	70.000	.1604-01	.1949-01	.2183-01	57.90	9.287	.4344	574.2	.2364-03
55	180.00	.30000	71.000	.5771-02	.7012-02	.7856-02	57.59	.3324	.4347	574.3	.8540-04
55	180.00	.40000	72.000	.3526-01	.4278-01	.4788-01	57.96	2.043	.4312	569.7	.5211-03
53	180.00	.50000	73.000	.3800-01	.4610-01	.5160-01	58.28	2.215	.4307	569.3	.5584-03
55	180.00	.60000	74.000	.3927-01	.4766-01	.5335-01	57.93	2.275	.4315	570.0	.5806-03
53	180.00	.70000	75.000	.3967-01	.4809-01	.5381-01	58.45	2.319	.4291	567.2	.5836-03
53	180.00	.80000	76.000	.5909-01	.7164-01	.8016-01	58.41	3.451	.4295	567.7	.8694-03

DATE 24 JAN 76

ARC 3.5-178 IH3

PAGE 113

(RETA19)

ARC 3.5-178 IH3 O+T+S

ORB TOP CL

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	PHI	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
70	180.00	.10000-01	59.000	.3683	.4468	.5001	59.43	21.89	.4307	578.4	.5474-02
70	180.00	.25000-01	60.000	.2040	.2470	.2761	60.01	12.24	.4253	572.1	.3027-02
70	180.00	.50000-01	61.000	.1494	.1805	.2014	60.66	9.061	.4193	564.1	.2212-02
70	180.00	.75000-01	62.000	.1182	.1427	.1591	61.05	7.219	.4157	559.1	.1749-02
70	180.00	.10000+00	63.000	.1155	.1394	.1553	61.21	7.073	.4142	557.2	.1709-02
70	180.00	.12500	64.000	.1384	.1669	.1860	61.31	8.487	.4133	555.9	.2046-02
70	180.00	.15000	65.000	.3072	.3704	.4130	61.19	18.80	.4144	557.4	.4543-02
70	180.00	.16000	66.000	.7066	.8527	.9510	60.97	43.08	.4164	560.1	.1046-01
70	180.00	.17000	67.000	.7575	.9146	1.021	60.80	46.05	.4180	562.3	.1121-01
70	180.00	.18000	68.000	.5611	.6769	.7548	61.08	34.28	.4154	558.8	.8301-02
70	180.00	.20000	69.000	.1293	.1557	.1734	61.57	7.960	.4108	552.6	.1910-02
71	180.00	.25000	70.000	.1752-01	.2122-01	.2373-01	59.00	1.034	.4265	565.9	.2560-03
70	180.00	.30000	71.000	.7102-02	.8545-02	.9511-02	61.80	4.396	.4078	548.6	.1048-03
70	180.00	.40000	72.000	.4698-01	.5654-01	.6294-01	61.84	2.906	.4083	549.3	.6936-03
71	180.00	.50000	73.000	.5716-01	.6916-01	.7728-01	59.29	3.389	.4238	562.3	.8412-03
70	180.00	.60000	74.000	.6197-01	.7458-01	.8303-01	61.80	3.830	.4087	549.7	.9149-03
71	180.00	.70000	75.000	.6207-01	.7510-01	.8390-01	59.34	3.683	.4233	561.7	.9134-03
71	180.00	.80000	76.000	.1013	.1226	.1370	59.19	5.994	.4247	563.6	.1491-02

TEST DATA

ARC 3.5-178 IH3 O+T+S

ORB TOP CL

ORBITER TOP CL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
74	5.300	-5051+07	406.7	1295.	316.3	.1750-01	.8289	-3.000
76	5.300	-5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	-4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	PHI	X/L	T/C NO	W/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
74	180.00	.10000-01	59.000	.3389	.4144	.4663	56.04	19.00	.4507	594.2	.5012-02
74	180.00	.25000-01	60.000	.1900	.2318	.2604	56.67	10.77	.4447	586.3	.2805-02
74	180.00	.50000-01	61.000	.1261	.1533	.1719	57.48	7.249	.4370	576.1	.1856-02
74	180.00	.75000-01	62.000	.8975-01	.1089	.1219	58.03	5.208	.4319	569.4	.1319-02
74	180.00	.10000+00	63.000	.7727-01	.9370-01	.1049	58.24	4.500	.4299	566.7	.1135-02
74	180.00	.12500	64.000	.6543-01	.7931-01	.8872-01	58.37	3.819	.4286	565.1	.9605-03
74	180.00	.15000	65.000	.2374	.2880	.3223	58.19	13.82	.4303	567.3	.3487-02
74	180.00	.16000	66.000	.6980	.8473	.9488	57.97	40.46	.4324	570.1	.1026-01
74	180.00	.17000	67.000	.7162	.8700	.9746	57.79	41.39	.4342	572.4	.1053-01
74	180.00	.18000	68.000	.5858	.7108	.7957	58.07	34.02	.4315	568.8	.8607-02
74	180.00	.19000	69.000	.1223	.1481	.1655	58.66	7.173	.4258	561.4	.1793-02
79	180.00	.25000	70.000	.1589-01	.1930-01	.2163-01	58.38	.9274	.4350	579.8	.2352-03
74	180.00	.30000	71.000	.6167-02	.7457-02	.8327-02	59.11	.3646	.4216	555.8	.9034-04
74	180.00	.40000	72.000	.2406-01	.2908-01	.3247-01	59.15	1.423	.4211	555.2	.3525-03
79	180.00	.50000	73.000	.4130-01	.5014-01	.5616-01	58.59	2.420	.4330	577.1	.6111-03
74	180.00	.60000	74.000	.4839-01	.5849-01	.6531-01	59.15	2.862	.4213	555.3	.7087-03
79	180.00	.70000	75.000	.5385-01	.6538-01	.7322-01	58.60	3.155	.4329	577.0	.7967-03
79	180.00	.80000	76.000	.5770-01	.1187	.1329	58.48	5.713	.4341	578.5	.1446-02

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

WINDOWS

PAGE 1:5

(REIC01)

WINDOWS

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RH/HT SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	WINDOW	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.95	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
10	1.0000	77.000	478.00	.3681	.4455	.4977	32.12	11.82	.4240	564.2	.1004-01
10	1.0000	78.000	478.00	.4654	.5632	.6293	32.12	14.95	.4240	564.3	.1270-01
9	1.0000	79.000	464.97	.4776	.5701	.6358	33.57	15.86	.4158	560.0	.1274-01
10	1.0000	80.000	452.00	.3158	.3821	.4269	32.15	10.15	.4235	563.6	.8616-02
10	1.0000	81.000	452.00	.3008	.3639	.4065	32.16	9.671	.4233	563.4	.8204-02
10	2.0000	82.000	478.00	.2271	.2746	.3068	32.19	7.311	.4227	562.5	.6193-02
10	2.0000	83.000	478.00	.2816	.3407	.3806	32.15	9.054	.4234	563.4	.7682-02
9	2.0000	84.000	464.97	.3164	.3815	.4254	33.63	10.64	.4147	558.6	.8527-02
10	2.0000	85.000	452.00	.2017	.2440	.2726	32.18	6.492	.4230	562.9	.5503-02
10	2.0000	86.000	452.00	.2933	.3548	.3964	32.15	9.427	.4235	563.6	.6000-02
9	3.0000	87.000	464.97	.1446	.1743	.1943	33.73	4.878	.4131	556.4	.3897-02

ARC 3.5-178 IHS
ARC 3.5-178 IHS O+T+S

DATE 24 JAN 76

PARAMETRIC DATA
 WINDOHS
 WINDOHS
 RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	MO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	WINDOW	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO
16	1.0000	77.000	478.00	.5120	.6217	.6963	58.58	29.99	.4335	578.5	.7588-02
15	1.0000	78.000	478.00	.6884	.8363	.9371	58.43	40.22	.4348	580.3	.1021-01
18	1.0000	79.000	464.97	.6982	.8492	.9522	56.73	39.61	.4377	571.8	.1024-01
16	1.0000	80.000	452.00	.4949	.6010	.6731	58.59	29.00	.4334	578.3	.7335-02
16	1.0000	81.000	452.00	.5039	.6118	.6852	58.50	29.52	.4333	578.2	.7467-02
16	2.0000	82.000	478.00	.3261	.3955	.4426	58.95	19.23	.4299	573.8	.4828-02
16	2.0000	83.000	478.00	.3863	.4689	.5250	58.73	22.69	.4320	576.6	.5723-02
18	2.0000	84.000	464.97	.4115	.5002	.5606	56.52	23.42	.4359	559.4	.6035-02
16	2.0000	85.000	452.00	.2899	.3515	.3933	59.00	17.10	.4295	573.2	.4290-02
16	2.0000	86.000	452.00	.4411	.5354	.5994	58.71	29.90	.4322	576.8	.6534-02
18	3.0000	87.000	464.97	.2088	.2534	.2837	57.34	11.97	.4319	564.2	.3058-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

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ARC 3.5-178 IH3 0+1+S (TRIPS) WINDOWS

(REIC03)

WINDOWS

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000	.1101-01
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000	.1465-01
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000	.1519-01
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.9982-02

TEST DATA

RUN NUMBER	WINDOW	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TH DEG. R
21	1.0000	77.000	478.00	.4113	.4990	.5585	31.75	13.06	.4306	565.8
21	1.0000	78.000	478.00	.5474	.6641	.7432	31.75	17.38	.4306	565.7
19	1.0000	79.000	464.97	.5643	.6847	.7664	32.25	18.20	.4310	573.9
21	1.0000	80.000	452.00	.3731	.4525	.5063	31.80	11.86	.4297	564.6
21	1.0000	81.000	452.00	.3863	.4685	.5242	31.81	12.29	.4296	564.4
21	2.0000	82.000	478.00	.2469	.2993	.3349	31.83	7.858	.4292	563.9
21	2.0000	83.000	478.00	.3048	.3696	.4136	31.80	9.692	.4298	564.7
19	2.0000	84.000	464.97	.3013	.3653	.4088	32.32	9.738	.4297	572.2
21	2.0000	85.000	452.00	.2026	.2456	.2747	31.83	6.448	.4291	563.8
21	2.0000	86.000	452.00	.3268	.3962	.4434	31.81	10.39	.4295	564.4
19	3.0000	87.000	464.97	.1464	.1773	.1983	32.53	4.763	.4262	567.5

ARC 3.5-178 IH3 O+T-S (TRIFS) WINDOWS

(RETCO4)

WINDOWS

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006+07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	WINDOW	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
30	1.0000	77.000	478.00	.5106	.6219	.6980	57.31	29.26	.4413	584.7	.7555-02
31	1.0000	78.000	478.00	.6889	.8396	.9428	57.14	39.36	.4429	586.8	.1020-01
32	1.0000	79.000	464.97	.6427	.7859	.8845	56.09	36.05	.4511	595.7	.9515-02
30	1.0000	80.000	452.00	.4368	.5315	.5962	57.53	25.12	.4392	582.0	.6458-02
30	1.0000	81.000	452.00	.5721	.6964	.7812	57.49	32.89	.4395	582.4	.8460-02
30	2.0000	82.000	478.00	.3100	.3768	.4223	57.90	17.95	.4357	577.3	.4579-02
30	2.0000	83.000	478.00	.3868	.4705	.5277	57.62	22.29	.4383	580.8	.5717-02
32	2.0000	84.000	464.97	.3688	.4504	.5064	56.43	20.81	.4479	591.3	.5454-02
30	2.0000	85.000	452.00	.2664	.3237	.3627	57.94	15.43	.4353	576.8	.3933-02
30	2.0000	86.000	452.00	.3894	.4739	.5315	57.56	22.42	.4389	581.5	.5757-02
32	3.0000	87.000	464.97	.1908	.2324	.2608	57.18	10.91	.4408	582.0	.2815-02

PARAMETRIC DATA
 RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	HM/HT	TH DEG. R	STN NO R=0.9
36	5.300	.5031+07	405.1	1297.	316.8	.1750-01	.8259	.0000	.4484	572.0	.8471-02
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000	.4500	581.1	.1078-01
38	5.300	.5055+07	406.0	1253.	315.8	.1750-01	.8282	.0000	.4453	587.0	.1101-01
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000	.4471	577.4	.8428-02

TEST DATA

RUN NUMBER	WINDOVS	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
37	1.0000	77.000	478.00	.5771	.7049	.7927	54.75	31.60	.4484	572.0	.8471-02
37	1.0000	78.000	478.00	.7338	.8969	1.009	54.59	40.06	.4500	581.1	.1078-01
39	1.0000	79.000	464.97	.7457	.9097	1.022	56.57	42.19	.4453	587.0	.1101-01
37	1.0000	80.000	452.00	.5745	.7013	.7883	54.88	31.53	.4471	577.4	.8428-02
37	1.0000	81.000	452.00	.5888	.7187	.8078	54.93	32.34	.4467	576.8	.8638-02
37	2.0000	82.000	478.00	.3950	.4812	.5402	55.38	21.87	.4422	571.0	.5785-02
37	2.0000	83.000	478.00	.4744	.5789	.6504	55.03	26.11	.4457	575.5	.6958-02
39	2.0000	84.000	464.97	.4741	.5777	.6485	56.88	26.96	.4424	583.1	.6958-02
37	2.0000	85.000	452.00	.3548	.4323	.4853	55.38	19.65	.4423	571.1	.5197-02
37	2.0000	86.000	452.00	.5079	.6200	.6970	54.89	27.88	.4470	577.2	.7452-02
39	3.0000	87.000	464.97	.2544	.3091	.3454	57.59	14.65	.4356	574.2	.3744-02

WINDOWS

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	WINDOW	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
42	1.0000	77.000	478.00	.3441	.4167	.4659	32.22	11.09	.4263	562.4	.9192-02
42	1.0000	78.000	478.00	.4354	.5273	.5896	32.22	14.03	.4263	562.5	.1163-01
40	1.0000	79.000	464.97	.4755	.5795	.6506	31.98	15.21	.4426	579.5	.1233-01
42	1.0000	80.000	452.00	.3190	.3863	.4318	32.25	10.29	.4257	561.7	.8521-02
42	1.0000	81.000	452.00	.3100	.3754	.4196	32.25	9.999	.4258	561.7	.8281-02
42	2.0000	82.000	478.00	.2044	.2474	.2766	32.23	6.601	.4251	560.8	.5459-02
42	2.0000	83.000	478.00	.2605	.3154	.3525	32.25	8.403	.4256	561.5	.6957-02
40	2.0000	84.000	464.97	.3037	.3698	.4150	32.03	9.743	.4408	577.1	.7870-02
42	2.0000	85.000	452.00	.2012	.2435	.2721	32.32	6.501	.4246	560.2	.5371-02
42	2.0000	86.000	452.00	.2925	.3541	.3958	32.28	9.442	.4253	561.1	.7812-02
40	3.0000	87.000	464.97	.1378	.1675	.1877	32.37	4.460	.4360	570.8	.3565-02

WINDOWS

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036-07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	WINDOW	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HH/HT	TW DEG. R	STN NO R=0.9
45	1.0000	77.000	478.00	.4746	.5790	.6506	56.63	26.88	.4454	587.8	.7015-02
45	1.0000	78.000	478.00	.6416	.7830	.8800	56.54	36.27	.4463	589.0	.9485-02
47	1.0000	79.000	464.97	.6622	.8136	.9187	52.07	34.48	.4627	582.5	.9582-02
45	1.0000	80.000	452.00	.4685	.5713	.6417	56.74	26.58	.4443	586.4	.5922-02
45	1.0000	81.000	452.00	.5390	.6572	.7382	56.77	30.60	.4441	586.1	.7963-02
45	2.0000	82.000	478.00	.2929	.3568	.4004	57.09	16.72	.4411	582.1	.4323-02
45	2.0000	83.000	478.00	.3543	.4320	.4851	56.82	20.13	.4436	585.4	.5234-02
47	2.0000	84.000	454.97	.3810	.4676	.5276	52.32	19.93	.4603	579.4	.5508-02
45	2.0000	85.000	452.00	.2734	.3330	.3737	57.10	15.61	.4410	582.0	.4035-02
45	2.0000	86.000	452.00	.4142	.5050	.5672	56.77	23.51	.4441	586.1	.6119-02
47	3.0000	87.000	464.97	.1922	.2354	.2652	52.87	10.16	.4547	572.4	.2774-02

WINDOVS

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
48	5.300	.1533*07	123.1	1293.	315.7	.1750-01	.2511	.0000	R=0.9
49	5.300	.1526*07	122.7	1294.	315.9	.1750-01	.2502	.0000	.1083-01
50	5.300	.1431*07	118.7	1320.	322.6	.1750-01	.2392	.0000	.1440-01
51	5.300	.1495*07	121.6	1304.	318.4	.1750-01	.2469	.0000	.1514-01

TEST DATA

RUN NUMBER	HINDOCH	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO
50	1.0000	77.000	478.00	.3862	.4767	.5306	33.39	13.23	.4079	548.3	.1083-01
50	1.0000	78.000	478.00	.5267	.6337	.7054	33.38	17.58	.4080	548.5	.1440-01
48	1.0000	79.000	464.97	.5658	.6892	.7735	31.30	17.71	.4413	580.6	.1514-01
50	1.0000	80.000	452.00	.3958	.4761	.5298	33.43	13.23	.4072	547.4	.1081-01
50	1.0000	81.000	452.00	.3651	.4392	.4888	33.42	12.20	.4073	547.6	.9977-02
50	2.0000	82.000	478.00	.2285	.2748	.3057	33.47	7.646	.4066	546.6	.6242-02
50	2.0000	83.000	478.00	.2921	.3514	.3911	33.43	9.764	.4072	547.5	.7982-02
48	2.0000	84.000	464.97	.3004	.3656	.4101	31.41	9.434	.4395	576.2	.8035-02
50	2.0000	85.000	452.00	.2067	.2485	.2765	33.50	6.924	.4068	545.9	.5647-02
50	2.0000	86.000	452.00	.3345	.4024	.4478	33.45	11.19	.4068	546.9	.9141-02
48	3.0000	87.000	464.97	.1358	.1650	.1849	31.71	4.307	.4344	571.5	.3628-02

ARC 3.5-178 IH3 ORBITER (TRIPS) WINDOWS

(REIC09)

WINDOWS

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053*07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027*07	406.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137*07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987*07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	WINDOW	T/C NC	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	H2/H1	TW DEG. R	STN NO R=0.9
53	1.0000	77.000	478.00	.4649	.5675	.6379	56.57	26.30	.4470	590.8	.6880-02
53	1.0000	78.000	478.00	.6510	.7949	.8937	56.49	36.77	.4477	591.8	.9636-02
55	1.0000	79.000	464.97	.6202	.7600	.8555	55.33	34.32	.4562	602.8	.9246-02
53	1.0000	80.000	452.00	.3769	4.599	.5168	56.70	21.37	.4458	589.2	.5576-02
53	1.0000	81.000	452.00	.5284	.6446	.7242	56.76	29.99	.4452	588.5	.7815-02
53	2.0000	82.000	478.00	.2905	.3339	.3973	57.09	15.58	.4420	584.3	.4291-02
53	2.0000	83.000	478.00	.3594	.4384	.4925	56.78	20.41	.4450	588.1	.5315-02
55	2.0000	84.000	464.97	.3549	.4342	.4868	55.73	19.78	.4524	597.7	.5284-02
53	2.0000	85.000	452.00	.2374	.2892	.3247	57.11	13.56	.4419	584.1	.3507-02
53	2.0000	86.000	452.00	.3376	.4119	.4629	56.70	19.14	.4457	589.1	.4994-02
55	3.0000	67.000	464.97	.1806	.2200	.2470	56.84	10.27	.4418	583.7	.2679-02

WINDOWS

ARC 3.5-178 IH3 O+T+S WINDOWS

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	NO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
74	5.300	.5051+07	406.7	1295.	310.3	.1750-01	.8289	-3.000
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	WINDOW	T/C NO	Z	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	UDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
79	1.0000	77.000	478.00	.5397	.6576	.7383	57.60	31.09	.4423	589.5	.8010-02
79	1.0000	78.000	478.00	.7250	.6840	.9329	57.40	41.62	.4441	592.0	.1077-01
74	1.0000	79.000	464.97	.7626	.9262	1.037	57.84	44.11	.4336	571.7	.1121-01
79	1.0000	80.000	452.00	.5268	.6418	.7204	57.64	30.36	.4419	589.0	.7817-02
79	1.0000	81.000	452.00	.6163	.7510	.8431	57.58	35.49	.4424	589.7	.9147-02
79	2.0000	82.000	478.00	.3494	.4252	.4770	57.95	20.25	.4390	585.1	.5181-02
79	2.0000	83.000	478.00	.4170	.5079	.5700	57.73	24.08	.4410	587.8	.6186-02
74	2.0000	84.000	464.97	.4552	.5522	.6180	58.15	26.47	.4307	567.8	.6686--
79	2.0000	85.000	452.00	.3210	.3907	.4383	57.89	18.58	.4396	585.9	.4760-02
79	2.0000	86.000	452.00	.4696	.5720	.6420	57.68	27.09	.4415	588.0	.6967-02
74	3.0000	87.000	464.97	.2412	.2920	.3263	58.76	14.17	.4249	560.1	.3537-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

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ARC 3.5-178 IH3

ARC 3.5-178 IH3 O-T+S

ORB BOTTM SURFACE

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(RE1001)

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
9	50.000	.20000	93.000	.2765-01	.3333-01	.3715-01	33.70	.9317	.4135	557.0	.7450-03
9	50.000	.30000	94.000	.7612-01	.9179-01	1.023	33.67	2.563	.440	557.6	.2052-02
9	50.000	.40000	95.000	.4642-01	.5597-01	.6238-01	33.68	1.564	.4138	557.4	.1251-02
9	50.000	.50000	96.000	.4118-01	.4965-01	.5534-01	33.68	1.387	.4138	557.4	.1110-02
9	50.000	.60000	97.000	.3583-01	.4321-01	.4816-01	33.67	1.206	.4141	557.7	.9657-03
9	50.000	.70000	98.000	.2911-01	.3510-01	.3912-01	33.70	.9811	.4135	556.9	.7844-03
9	50.000	.80000	99.000	.7645-01	.8215-01	1.027	33.75	2.581	.4127	555.9	.2060-02
9	50.000	.90000	100.00	.1378-01	.1659-01	.1849-01	33.82	.4659	.4114	554.1	.3710-03

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(RE1002)

ARC 3.5-178 IH3 O+T+S

ORB BOTTM SURFACE

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	Y	X/1	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
18	50.000	20000	93.000	.3506-01	.4250-01	.4755-01	57.67	2.022	.4287	560.0	5130-03
18	50.000	30000	94.000	.9143-01	.1109	.1241	57.58	5.265	.4296	561.2	1338-02
18	50.000	40000	95.000	.6537-01	.7928-01	.8872-01	57.54	3.762	.4299	561.6	9569-03
18	50.000	50000	96.000	.6510-01	.7897-01	.8839-01	57.46	3.741	.4307	562.7	9531-03
18	50.000	60000	97.000	.5420-01	.6579-01	.7366-01	57.31	3.106	.4322	564.6	7940-03
18	50.000	70000	98.000	.4377-01	.5310-01	.5944-01	57.41	2.513	.4312	563.3	6409-03
18	50.000	80000	99.000	.1000+00	.1213	.1358	57.45	5.744	.4309	562.8	1464-02
18	50.000	90000	100.000	.2035-01	.2468-01	.2761-01	57.58	1.172	.4296	561.2	2979-03

DATE 24 JAN 76

ARC 3.5-178 IH3

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(REIDJ3)

ARC 3.5-178 IH3 O+T+S (TRIPS) ORB BOTTH SURFACE

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
19	50.000	.20000	93.000	.3344-01	.4059-01	.4546-01	32.15	1.075	.4327	576.2	.9007-03
19	50.000	.30000	94.000	.7054-01	.8533-01	.9533-01	32.70	2.307	.4232	563.5	.1894-02
19	50.000	.40000	95.000	.4605-01	.5570-01	.6221-01	32.75	1.508	.4224	562.4	.1236-02
19	50.000	.50000	96.000	.4187-01	.5064-01	.5656-01	32.75	1.371	.4224	562.4	.1124-02
19	50.000	.60000	97.000	.3512-01	.4248-01	.4745-01	32.73	1.150	.4227	562.9	.9431-03
19	50.000	.70000	98.000	.2905-01	.3513-01	.3923-01	32.77	.9518	.4221	562.1	.7798-03
19	50.000	.80000	99.000	.8594-01	.1039	.1160	32.82	2.820	.4213	560.9	.2307-02
19	50.000	.90000	100.000	.1275-01	.1540-01	.1719-01	32.92	.4196	.4196	558.7	.3419-03

ARC 3.5-178 IH3 O+T+S (TRIPS) ORB BOTTM SURFACE (RE1004)

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977*07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5006*07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006*07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039*07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
32	50.000	.20000	93.000	.4254-01	.5183-01	.5818-01	57.05	2.427	.4420	583.6	.6278-03
32	50.000	.30000	94.000	.9467-01	.1152	.1291	57.45	5.439	.4382	578.5	.1395-02
32	50.000	.40000	95.000	.5847-01	.7108-01	.7968-01	57.62	3.369	.4366	576.4	.8613-03
32	50.000	.50000	96.000	.5677-01	.6902-01	.7737-01	57.63	3.272	.4374	576.3	.8363-03
32	50.000	.60000	97.000	.5096-01	.6197-01	.6949-01	57.53	2.932	.4374	577.5	.7509-03
32	50.000	.70000	98.000	.3854-01	.4685-01	.5251-01	57.65	2.222	.4363	576.1	.5677-03
32	50.000	.80000	99.000	.9774-01	.1188	.1331	57.74	5.644	.4354	574.9	.1439-02
32	50.000	.90000	100.00	.1948-01	.2366-01	.2650-01	57.92	1.128	.4337	572.6	.2867-03

ARC 3.5-178 1H3

ARC 3.5-178 1H3 O+T+S

ORB BOTTM SURFACE

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.8
39	50.000	.20000	93.000	.1066	.1295	.1452	57.51	6.128	.4364	575.2	.1569-02
39	50.000	.30000	94.000	.9158-01	.1112	.1246	57.82	5.295	.4334	571.3	.1347-02
39	50.000	.40000	95.000	.6405-01	.7773-01	.8703-01	57.96	3.712	.4321	569.5	.9417-03
39	50.000	.50000	96.000	.6030-01	.7319-01	.8195-01	57.57	3.496	.4320	569.5	.8867-03
39	50.000	.60000	97.000	.5464-01	.6634-01	.7431-01	57.83	3.160	.4333	571.2	.8037-03
39	50.000	.70000	98.000	.4998-01	.6067-01	.6794-01	57.93	2.895	.4324	570.0	.7350-03
39	50.000	.80000	99.000	.1450	.1760	.1970	58.01	8.412	.4316	568.9	.2132-02
39	50.000	.90000	100.00	.1023-01	.1241-01	.1388-01	58.18	.5952	.4300	566.8	.1503-03

ARC 3.5-178 IH3 ORBITER ORB BOTTM SURFACE

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
40	50.000	.20000	93.000	.1501-01	.1825-01	.2046-01	32.35	.4857	.4364	571.3	.3886-03
40	50.000	.30000	94.000	.1021-01	.1239-01	.1388-01	32.58	.3326	.4325	566.2	.2639-03
40	50.000	.40000	95.000	.1092-01	.1325-01	.1483-01	32.84	.3563	.4315	565.0	.2821-03
40	50.000	.50000	96.000	.1340-01	.1626-01	.1820-01	32.67	.4378	.4310	564.2	.3462-03
40	50.000	.60000	97.000	.1218-01	.1478-01	.1654-01	32.67	.3979	.4310	564.3	.3147-03
40	50.000	.70000	98.000	.1313-01	.1593-01	.1783-01	32.70	.4295	.4304	563.5	.3392-03
40	50.000	.80000	99.000	.9293-02	.1127-01	.1261-01	32.75	.3044	.4296	562.4	.2400-03
40	50.000	.90000	100.00	.7882-02	.9558-02	.1069-01	32.76	.2582	.4295	562.2	.2035-03

ORBITER BOTTOM SUR R=0.9 ALPHA = .0000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
47	50.000	.20000	93.000	.1459-01	.1787-01	.2014-01	52.75	.7694	.4560	573.9	.2105-03
47	50.000	.30000	94.000	.1266-01	.1550-01	.1746-01	52.89	.6396	.4545	572.1	.1826-03
47	50.000	.40000	95.000	.3244-01	.3969-01	.4468-01	53.07	1.722	.4527	569.8	.4677-03
47	50.000	.50000	96.000	.3980-01	.4869-01	.5481-01	53.11	2.113	.4524	569.4	.5737-03
47	50.000	.60000	97.000	.4090-01	.5005-01	.5635-01	53.04	2.169	.4531	570.3	.5897-03
47	50.000	.70000	98.000	.4387-01	.5365-01	.6038-01	53.20	2.334	.4514	568.3	.6322-03
47	50.000	.80000	99.000	.4226-01	.5166-01	.5912-01	53.32	2.254	.4502	566.7	.6088-03
47	50.000	.90000	100.00	.3346-01	.4090-01	.4602-01	53.31	1.784	.4503	566.8	.4821-03

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ARC 3.5-178 IH3

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(REID08)

ARC 3.5-178 IH3 ORBITER (TRIPS)ORB BOTTM SURFACE

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
48	50.000	.20000	93.000	.2650-01	.3219-01	.3607-01	31.67	.8392	.4349	572.2	.7077-03
48	50.000	.30000	94.000	.1206-01	.1462-01	.1637-01	31.97	.3855	.4299	565.5	.3216-03
48	50.000	.40000	95.000	.1368-01	.1659-01	.1855-01	32.03	.4382	.4288	564.1	.3647-03
48	50.000	.50000	96.000	.2074-01	.2514-01	.2812-01	32.05	.6649	.4284	563.6	.5528-03
48	50.000	.60000	97.000	.2854-01	.3459-01	.3869-01	32.05	.9145	.4285	563.7	.7606-03
48	50.000	.70000	98.000	.3986-01	.4830-01	.5403-01	32.07	1.278	.4281	563.2	.1062-02
48	50.000	.80000	99.000	.3853-01	.4669-01	.5221-01	32.10	1.237	.4275	562.4	.1027-02
48	50.000	.90000	100.000	.2840-01	.3441-01	.3848-01	32.10	.9115	.4276	562.5	.7566-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 1H3
 ARC 3.5-178 1H3 ORBITER (TRIPSIOR8 BOTTM SURFACE)

ORBITER BOTTOM SUR
 PARAMETRIC DATA
 RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RS FT	RHOVEL SLUG/ FT2SEC	ALPHA DEG.
.1750-01	.8274	.0000
.1750-01	.8269	.0000
.1750-01	.8320	.0000
.1750-01	.8201	.0000

TEST DATA

STN NO R=0.9	TH DEG. R	HM/HT	ODOT BTU/ FT2SEC	QREF BTU/ FT2SEC	H/HREF R=0.85	H/HREF R=0.9	H/HREF R=1.0	T/C NO	X/L	Y
.9032-03	588.9	.4457	3.432	56.43	.8338-01	.7420-01	.6082-01	93.000	.20000	50.000
.7065-03	576.7	.4365	2.739	57.40	.6502-01	.5801-01	.4772-01	94.000	.30000	50.000
.6118-03	571.9	.4359	2.390	57.78	.5624-01	.5022-01	.4137-01	95.000	.40000	50.000
.5941-03	570.3	.4317	2.327	57.90	.5460-01	.4877-01	.4019-01	96.000	.50000	50.000
.5578-03	571.4	.4325	2.181	57.82	.5127-01	.4579-01	.3772-01	97.000	.60000	50.000
.5783-03	569.9	.4314	2.267	57.94	.5314-01	.4747-01	.3913-01	98.000	.70000	50.000
.5757-03	567.7	.4297	2.265	58.11	.5288-01	.4726-01	.3697-01	99.000	.80000	50.000
.4477-03	567.0	.4292	1.763	58.17	.4111-01	.3675-01	.3031-01	100.00	.90000	50.000

ARC 3.5-178 IH3 O+T+S

ORB BOTTM SURFACE

ORBITER BOTTOM SUR

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
70	50.000	.20000	93.000	.5918-01	.7125-01	.7935-01	61.68	3.650	.4099	551.3	.8740-03
70	50.000	.30000	94.000	.8983-01	.1081	.1204	61.73	5.545	.4094	550.7	.1326-02
70	50.000	.40000	95.000	.6532-01	.7864-01	.8756-01	61.73	4.032	.4094	550.7	.9646-03
70	50.000	.50000	96.000	.6663-01	.8022-01	.8934-01	61.66	4.108	.4100	551.5	.9842-03
70	50.000	.60000	97.000	.6664-01	.8029-01	.8945-01	61.47	4.096	.4118	554.0	.9847-03
70	50.000	.70000	98.000	.5855-01	.7050-01	.7852-01	61.64	3.609	.4102	551.8	.8648-03
70	50.000	.80000	99.000	.1235	.1487	.1655	61.74	7.625	.4092	550.5	.1824-02
70	50.000	.90000	100.00	.2690-01	.3236-01	.3602-01	61.89	1.665	.4079	548.7	.3970-03

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

DATE 24 JAN 76

ORBITTER BOTTOM SUR

ORB BOTTM SURFACE

PARAMETRIC DATA

ELEVON = .0000

ALPHA = -3.000

BETA = .0000

RN/L = 5.000

RS FT = .1750-01

RHOVEL SLUG/FT2SEC = .8289

ALPHA DEG. = -3.000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	T/D DEG. R	HO BTJ/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8289	-3.000	7583-03
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000	1288-02
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000	9459-03

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QDOT BTU/FT2SEC	HM/HT	TH DEG. R
74	50.000	.20000	93.000	.5168-01	.6261-01	.7001-01	3.026	.4269	562.8
74	50.000	.30000	94.000	.8783-01	.1063	.1188	5.168	.4242	559.2
74	50.000	.40000	95.000	.6455-01	.7809-01	.8724-01	3.804	.4233	558.0
74	50.000	.50000	96.000	.6348-01	.7681-01	.8581	3.739	.4236	558.5
74	50.000	.60000	97.000	.6307-01	.7635-01	.8534-01	3.705	.4251	560.4
74	50.000	.70000	98.000	.5487-01	.6639-01	.7417-01	3.234	.4233	558.1
74	50.000	.80000	99.000	.1092	.1321	.1475	6.449	.4222	556.6
74	50.000	.90000	100.00	.2965-01	.3583-01	.4000-01	1.756	.4204	554.3

ORBITER SIDE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LAM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2473	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.3
10	350.00	.00000	122.00	.1874-01	.2265-01	.2530-01	32.24	.6041	.4219	561.4	.5105-03
10	350.00	.80000	123.00	.1501-01	.1814-01	.2026-01	32.32	.4852	.4205	559.6	.4092-03
10	50.00	.90000	124.00	.2937-01	.3550-01	.3964-01	32.27	.9476	.4214	560.7	.8003-03
10	350.00	.97500	125.00	.3215-01	.3889-01	.4344-01	32.18	1.035	.4229	562.8	.8769-03
9	430.00	.30000	134.00	.2958-01	.3567-01	.3976-01	33.67	.9961	.4140	557.7	.7973-03
9	430.00	.40000	135.00	.2698-01	.3493-01	.3893-01	33.71	.9770	.4133	556.7	.7808-03
10	430.00	.50000	136.00	.3532-01	.4269-01	.4767-01	32.28	1.140	.4212	560.5	.9627-03
10	430.00	.60000	137.00	.3471-01	.4111-01	.4591-01	32.26	1.097	.4216	561.0	.9271-03
10	430.00	.70000	138.00	.2523-01	.3051-01	.3408-01	32.22	.8128	.4222	561.9	.6880-03
10	430.00	.80000	139.00	.2404-01	.2906-01	.3245-01	32.26	.7754	.4216	561.0	.6554-03
10	478.80	.30000	141.00	.2200-01	.2661-01	.2972-01	32.19	.7082	.4228	562.6	.6000-03
10	478.80	.40000	142.00	.8423-02	.1018-01	.1137-01	32.26	.2717	.4216	561.0	.2297-03
10	478.80	.50000	143.00	.4485-02	.5423-02	.6056-02	32.24	.1446	.4220	561.5	.1223-03
10	478.80	.60000	144.00	.1535-01	.1855-01	.2072-01	32.27	.4952	.4214	560.8	.4184-03
10	478.80	.70000	145.00	.3364-01	.4067-01	.4541-01	32.27	1.086	.4214	560.7	.9171-03

ARC 3.5-178 1H3 O+T+S ORB SIDE

DATE 24 JAN 76

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972*07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953*07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006*07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098*07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	Z	X/L	T C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
16	350.00	.30000	122.00	.3319-01	.4014-01	.4484-01	59.70	1.981	.4229	564.4	.4902-03
16	350.00	.80000	123.00	.1975-01	.2388-01	.2666-01	59.93	1.184	.4208	561.5	.2916-03
16	350.00	.90000	124.00	.4020-01	.4884-01	.5435-01	59.60	2.396	.4239	565.7	.5939-03
16	430.00	.97500	125.00	.2763-01	.3348-01	.3745-01	59.20	1.636	.4276	570.7	.4088-03
18	430.00	.30000	134.00	.3580-01	.4345-01	.4865-01	57.33	2.052	.4320	564.3	.5244-03
18	430.00	.40000	135.00	.4261-01	.5170-01	.5788-01	57.41	2.446	.4312	563.3	.6240-03
16	430.00	.50000	136.00	.4473-01	.5408-01	.5939-01	59.86	2.678	.4214	562.4	.6605-03
16	430.00	.60000	137.00	.4297-01	.5147-01	.5748-01	59.84	2.647	.4216	562.7	.6286-03
16	430.00	.70000	138.00	.3864-01	.4675-01	.5223-01	59.64	2.441	.4235	565.2	.5708-03
16	430.00	.80000	139.00	.3833-01	.4636-01	.5178-01	59.73	2.220	.4227	564.1	.5662-03
16	478.80	.30000	141.00	.3484-01	.4199-01	.4698-01	59.07	2.046	.4288	572.3	.5126-03
16	478.80	.40000	142.00	.3704-01	.4426-01	.5017-01	59.28	2.196	.4268	569.6	.5477-03
16	478.80	.50000	143.00	.4020-01	.4870-01	.5445-01	59.28	2.383	.4268	569.6	.5946-03
16	478.80	.60000	144.00	.3398-01	.4115-01	.4599-01	59.41	2.019	.4257	568.1	.5024-03
16	478.80	.70000	145.00	.3347-01	.4052-01	.4528-01	59.52	1.993	.4246	566.6	.4947-03

ARC 3.5-178 IH3 O-T+S (TRIPS) ORB SIDE

(REIE03)

ORBITER SIDE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R-1.0	H/HREF R-0.9	H/HREF R-0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R-0.9
21	350.00	.30000	122.00	.2152-01	.2608-01	.2917-01	31.89	.6865	.4280	562.4	.5755-03
21	350.00	.80000	123.00	.1585-01	.1919-01	.2145-01	32.01	.5072	.4261	559.8	.4235-03
21	350.00	.90000	124.00	.3211-01	.3990-01	.4350-01	31.95	1.026	.4271	561.2	.8583-03
21	350.00	.97500	125.00	.3290-01	.3988-01	.4461-01	31.86	1.048	.4287	563.3	.8798-03
19	430.00	.30000	134.00	.1972-01	.2386-01	.2666-01	32.67	.6444	.4237	564.3	.5297-03
19	430.00	.40000	135.00	.1973-01	.2387-01	.2665-01	32.76	.6465	.4222	562.3	.5298-03
21	430.00	.50000	136.00	.2596-01	.3143-01	.3517-01	31.93	.8290	.4273	561.5	.6939-03
21	430.00	.60000	137.00	.3053-01	.3693-01	.4137-01	31.93	.9749	.4274	561.6	.8152-03
21	430.00	.70000	138.00	.2579-01	.3123-01	.3495-01	31.91	.8229	.4278	562.1	.6895-03
21	430.00	.80000	139.00	.2557-01	.3098-01	.3465-01	31.95	.8170	.4271	561.2	.6836-03
21	478.80	.30000	141.00	.2381-01	.2886-01	.3229-01	31.84	.7580	.4291	563.7	.6368-03
21	478.80	.40000	142.00	.8713-02	1.056-01	1.181-01	31.88	.2778	.4282	562.6	.2330-03
21	478.80	.50000	143.00	.5295-02	.6418-02	.7180-02	31.87	.1688	.4285	563.0	.1416-03
21	478.80	.60000	144.00	.2031-01	.2461-01	.2752-01	31.91	.6481	.4277	562.0	.5429-03
21	478.80	.70000	145.00	.2779-01	.3367-01	.3766-01	31.93	.8874	.4274	561.6	.7430-03

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ARC 3.5-178 IH3

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ARC 3.5-178 IH3 0+T+S (TRIPS) ORB SIDE

(REIE04)

ORBITER SIDE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.0000	
30	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.0000	
31	5.300	.5008+07	406.4	1292.	318.0	.1750-01	.0000	
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.0000	

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
30	350.00	.30000	122.00	.3695-01	.4480-01	.5013-01	58.52	2.162	.4298	569.5	.5446-03
30	350.00	.80000	123.00	.1768-01	.2142-01	.2396-01	58.79	1.040	.4273	566.2	.2605-03
30	350.00	.90000	124.00	.3823-01	.4636-01	.5186-01	58.53	2.238	.4299	569.4	.5636-03
30	350.00	.97500	125.00	.2623-01	.3185-01	.3566-01	58.20	1.527	.4329	573.6	.3870-03
32	430.00	.30000	134.00	.3330-01	.4052-01	.4545-01	57.40	1.911	.4387	579.2	.4909-03
32	430.00	.40000	135.00	.3972-01	.4829-01	.5413-01	57.62	2.288	.4366	576.4	.5851-03
30	430.00	.50000	136.00	.4084-01	.4948-01	.5535-01	58.72	2.398	.4279	566.9	.6016-03
30	430.00	.60000	137.00	.3309-01	.3999-01	.4472-01	58.72	1.938	.4279	566.9	.4661-03
30	430.00	.70000	138.00	.2807-01	.3403-01	.3807-01	59.52	1.646	.4289	568.3	.4137-03
30	430.00	.80000	139.00	.3306-01	.4006-01	.4481-01	58.75	1.943	.4276	566.6	.4871-03
30	478.80	.30000	141.00	.3696-01	.4490-01	.5031-01	58.03	2.145	.4344	575.6	.5457-03
30	478.80	.40000	142.00	.3934-01	.4774-01	.5345-01	58.30	2.293	.4319	572.3	.5802-03
30	478.80	.50000	143.00	.4130-01	.5020-01	.5620-01	58.33	2.413	.4316	571.9	.6101-03
30	478.80	.60000	144.00	.3494-01	.4238-01	.4743-01	58.47	2.043	.4303	570.1	.5151-03
30	478.80	.70000	145.00	.3002-01	.3640-01	.4072-01	58.59	1.759	.4292	568.7	.4424-03

ORBITER SIDE

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	W/HT	TH DEG. R	STN NO R=0.9
37	350.00	.30000	122.00	.1067	.1293	.1447	56.79	6.058	.4285	553.3	.1556-02
37	350.00	.80000	123.00	.2539-01	.3074-01	.3435-01	57.12	1.450	.4252	549.1	.3698-03
37	350.00	.90000	124.00	.5842-01	.7080-01	.7918-01	56.85	3.321	.4279	552.6	.6518-03
37	350.00	.97500	125.00	.5381-01	.6531-01	.7313-01	56.41	3.035	.4322	558.1	.7856-03
39	430.00	.30000	134.00	.6511-01	.7908-01	.8858-01	57.76	3.761	.4340	572.0	.9579-03
39	430.00	.40000	135.00	.6657-01	.8080-01	.9046-01	57.98	3.860	.4319	568.3	.9789-03
37	430.00	.50000	136.00	.6545-01	.7924-01	.8857-01	57.12	3.739	.4253	549.1	.9535-03
37	430.00	.60000	137.00	.7355-01	.8905-01	.9953-01	56.96	4.202	.4252	549.1	.1071-02
37	430.00	.70000	138.00	.6818-01	.8259-01	.9235-01	56.96	3.883	.4268	551.2	.9937-03
37	430.00	.80000	139.00	.5738-01	.6950-01	.7771-01	56.99	3.270	.4265	550.8	.8362-03
37	478.80	.30000	141.00	.4997-01	.6074-01	.6807-01	56.01	2.799	.4361	563.1	.7304-03
37	478.80	.40000	142.00	.4941-01	.5994-01	.6708-01	56.58	2.796	.4305	555.9	.7210-03
37	478.80	.50000	143.00	.5159-01	.6257-01	.7003-01	56.82	2.921	.4301	555.4	.7527-03
37	478.80	.60000	144.00	.4472-01	.5421-01	.6085-01	56.77	2.539	.4287	553.6	.6522-03
37	478.80	.70000	145.00	.3660-01	.4435-01	.4960-01	56.86	2.081	.4277	552.4	.5335-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2668	.0000	.1476-03
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000	.3953-03
42	5.300	.1522+07	123.7	1296.	316.5	.1750-01	.2500	.0000	.1112-02
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000	.8580-03

TEST CONDITIONS

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R
42	350.00	.30000	122.00	.5529-02	.6690-02	.7475-02	32.36	.1789	.4239	559.2
42	350.00	.80000	123.00	.1481-01	.1792-01	.2002-01	32.37	.4793	.4238	559.1
42	350.00	.90000	124.00	.4163-01	.5039-01	.5632-01	32.31	1.345	.4247	560.3
42	350.00	.97500	125.00	.3212-01	.3889-01	.4347-01	32.28	1.037	.4253	561.1
40	430.00	.30000	134.00	.2788-01	.3384-01	.3729-01	32.61	.9094	.4320	565.5
40	430.00	.40000	135.00	.3040-01	.3687-01	.4126-01	32.72	.9947	.4301	563.0
42	430.00	.50000	136.00	.2033-01	.2459-01	.2748-01	32.38	.6581	.4236	558.9
42	430.00	.60000	137.00	.3498-01	.2921-01	.3264-01	32.38	.7818	.4236	558.8
42	430.00	.70000	138.00	.3618-01	.4232-01	.4729-01	32.37	1.132	.4238	559.1
42	430.00	.80000	139.00	.2075-01	.4377-01	.4893-01	32.32	1.172	.4236	558.8
42	478.80	.30000	141.00	.1305-01	.2511-01	.2806-01	32.32	.6706	.4246	560.2
42	478.80	.40000	142.00	.1305-01	.1579-01	.1765-01	32.32	.4218	.4246	560.1
42	478.80	.50000	143.00	.3164-02	.3629-02	.4280-02	32.32	.1023	.4246	560.2
42	478.80	.60000	144.00	.7331-02	.8873-02	.9915-02	32.34	.2371	.4244	559.8
42	478.80	.70000	145.00	.1436-01	.1739-01	.1942-01	32.35	.4647	.4240	559.4

ARC 3.5-178 IH3 ORBITER ORB SIDE

ORBITER SIDE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
45	350.00	.30000	122.00	.7973-02	.9675-02	.1083-01	58.09	.4631	.4316	569.6	.1173-03
45	350.00	.80000	123.00	.1976-01	.2397-01	.2683-01	58.19	1.150	.4306	558.3	.2906-03
45	350.00	.90000	124.00	.3473-01	.4216-01	.4721-01	57.95	2.013	.4320	571.2	.5111-03
45	350.00	.97500	125.00	.2898-01	.3523-01	.3949-01	57.60	1.669	.4362	575.7	.4270-03
47	430.00	.30000	134.00	.3045-01	.3728-01	.4200-01	52.89	1.611	.4545	572.1	.4393-03
47	430.00	.40000	135.00	.3842-01	.4701-01	.5292-01	53.08	2.039	.4526	569.8	.5539-03
45	430.00	.50000	136.00	.3689-01	.4473-01	.5005-01	58.31	2.151	.4295	566.8	.5424-03
45	430.00	.60000	137.00	.3564-01	.4323-01	.4837-01	58.27	2.077	.4298	567.2	.4752-03
45	430.00	.70000	138.00	.3230-01	.3919-01	.4387-01	58.13	1.878	.4312	569.1	.4741-03
45	430.00	.80000	139.00	.4282-01	.5194-01	.5813-01	58.20	2.492	.4305	568.1	.6298-03
45	478.80	.30000	141.00	.3154-01	.3835-01	.4300-01	57.49	1.813	.4372	577.0	.4649-03
45	478.80	.40000	142.00	.2787-01	.3386-01	.3794-01	57.74	1.609	.4348	573.9	.4105-03
45	478.80	.50000	143.00	.3946-01	.4795-01	.5372-01	57.73	2.278	.4350	574.1	.5812-03
45	478.80	.60000	144.00	.3514-01	.4267-01	.4779-01	57.89	2.034	.4335	572.1	.5173-03
45	478.80	.70000	145.00	.3465-01	.4206-01	.4710-01	58.01	2.010	.4323	570.5	.5100-03

DATE 24 JAN 76

ARC 3.5-178 1H3

ARC 3.5-178 1H3 ORBITER (TRIPS)ORB SIDE

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(REIE08)

ORBITER SIDE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	NO BTU/LBM	RS FT	RMOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533*07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526*07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431*07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495*07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

P/JN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	OOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
50	350.00	.30000	122.00	.2176-01	.2615-01	.2909-01	33.55	.7299	.4052	544.7	.5942-03
50	350.00	.80000	123.00	.1164-01	.1396-01	.1556-01	33.56	.3907	.4049	544.4	.3179-03
50	350.00	.90000	124.00	.3299-01	.3965-01	.4411-01	33.51	1.105	.4058	545.6	.9008-03
50	350.00	.97500	125.00	.2661-01	.3201-01	.3561-01	33.48	.8909	.4064	546.4	.7271-03
48	430.00	.30000	134.00	.1843-01	.2236-01	.2502-01	31.97	.5893	.4299	565.5	.4916-03
48	430.00	.40000	135.00	.1909-01	.2313-01	.2586-01	32.09	.6120	.4276	562.6	.5086-03
50	430.00	.50000	136.00	.1332-01	.1602-01	.1781-01	33.56	.4472	.4049	544.3	.3639-03
50	430.00	.60000	137.00	.2102-01	.2527-01	.2811-01	33.57	.7057	.4048	544.2	.5741-03
50	430.00	.70000	138.00	.2703-01	.3250-01	.3615-01	33.56	.9072	.4050	544.5	.7383-03
50	478.80	.80000	139.00	.3110-01	.3737-01	.4157-01	33.58	1.044	.4046	543.9	.8492-03
50	478.80	.30000	141.00	.2203-01	.2650-01	.2948-01	33.48	.7376	.4064	546.4	.6020-03
50	478.80	.40000	142.00	.1304-01	.1568-01	.1744-01	33.49	.4367	.4061	546.0	.3562-03
50	478.80	.50000	143.00	.5138-02	.6178-02	.6874-02	33.49	.1721	.4061	545.9	.1404-03
50	478.80	.60000	144.00	.6241-02	.7504-02	.8349-02	33.51	.2092	.4057	545.5	.1705-03
50	478.80	.70000	145.00	.1631-01	.1960-01	.2180-01	33.55	.5470	.4052	544.7	.4453-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 ORBITER (TRIPS)ORB SIDE

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(REIE09)

ORBITER SIDE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053+07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027+07	406.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137+07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987+07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
53	350.00	.30000	122.00	.3583-01	.4346-01	.4863-01	58.32	2.089	.4304	568.9	.5273-03
53	350.00	.80000	123.00	.1721-01	.2086-01	.2334-01	58.48	1.007	.4288	566.8	.2532-03
53	350.00	.90000	124.00	.2695-01	.3270-01	.3661-01	58.22	1.569	.4313	570.1	.3969-03
53	350.00	.97500	125.00	.2595-01	.3153-01	.3533-01	57.82	1.501	.4351	575.1	.3825-03
55	430.00	.30000	134.00	.3255-01	.3955-01	.4431-01	57.59	1.875	.4347	574.3	.4817-03
55	430.00	.40000	135.00	.3632-01	.4406-01	.4932-01	57.97	2.105	.4311	569.5	.5368-03
53	430.00	.50000	136.00	.3375-01	.4090-01	.4575-01	58.54	1.976	.4283	566.1	.4963-03
53	430.00	.60000	137.00	.3257-01	.3947-01	.4415-01	58.54	1.907	.4283	566.1	.4790-03
53	430.00	.70000	138.00	.2938-01	.3562-01	.3986-01	58.40	1.716	.4297	567.9	.4323-03
53	430.00	.80000	139.00	.3946-01	.4784-01	.5353-01	58.45	2.307	.4291	567.2	.5806-03
53	478.80	.30000	141.00	.3427-01	.4167-01	.4672-01	57.62	1.975	.4370	577.6	.5055-03
53	478.80	.40000	142.00	.3053-01	.3708-01	.4153-01	57.99	1.771	.4335	573.0	.4498-03
53	478.80	.50000	143.00	.3991-01	.4846-01	.5428-01	58.01	2.315	.4333	572.8	.5879-03
53	478.80	.60000	144.00	.3554-01	.4312-01	.4828-01	58.19	2.068	.4316	570.5	.5232-03
53	478.80	.70000	145.00	.3433-01	.4163-01	.4659-01	58.33	2.002	.4302	568.7	.5052-03

PARAMETRIC DATA

RV/L = 5.000

BETA = .0000

ALPHA = -5.000

ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
71	350.00	.30000	122.00	.2992-01	.3622-01	.4047-01	59.19	1.771	.4247	563.6	.4405-03
71	350.00	.80000	123.00	.2703-01	.3270-01	.3653-01	59.33	1.604	.4234	561.9	.3977-03
71	350.00	.90000	124.00	.5004-01	.6061-01	.6776-01	59.03	2.994	.4262	565.6	.7370-03
71	350.00	.97500	125.00	.4122-01	.4999-01	.5594-01	58.65	2.418	.4298	570.3	.6078-03
70	430.00	.30000	134.C	.770-01	.5749-01	.6405-01	61.37	2.927	.4127	555.1	.7050-03
70	430.00	.40000	135.00	.4820-01	.5806-01	.6468-01	61.52	2.965	.4113	553.3	.7121-03
71	430.00	.50000	136.00	.4117-01	.4983-01	.5569-01	59.21	2.438	.4245	563.3	.6060-03
71	430.00	.60000	137.00	.3902-01	.4723-01	.5279-01	59.16	2.308	.4250	564.0	.5744-03
71	430.00	.70000	138.00	.4659-01	.5645-01	.6312-01	58.93	2.746	.4272	566.9	.6864-03
71	430.00	.80000	139.00	.6491-01	.7860-01	.8786-01	59.07	3.834	.4258	565.1	.9558-03
71	478.80	.30000	141.00	.3986-01	.4834-01	.5410-01	58.58	2.335	.4305	571.2	.5878-03
71	478.80	.40000	142.00	.4566-01	.5534-01	.6190-01	58.83	2.686	.4281	568.1	.6729-03
71	478.80	.50000	143.00	.4776-01	.5789-01	.6475-01	58.80	2.808	.4284	568.5	.7038-03
71	478.80	.60000	144.00	.4673-01	.5662-01	.6332-01	58.89	2.752	.4276	567.4	.6884-03
71	478.80	.70000	145.00	.5587-01	.6768-01	.7568-01	58.95	3.294	.4269	566.6	.8231-03

ORBITER SIDE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8289	-3.000	.5593-03
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000	.7142-03
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000	.6438-03

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R
74	430.00	.30000	134.00	.3812-01	.4618-01	.5164-01	58.55	2.232	.4269	562.8
74	430.00	.40000	135.00	.4871-01	.5896-01	.6589-01	58.79	2.863	.4247	559.8
79	430.00	.50000	136.00	.4348-01	.5283-01	.5920-01	58.35	2.537	.4352	580.1
79	430.00	.60000	137.00	.4005-01	.4866-01	.5451-01	58.43	2.340	.4345	579.1
79	430.00	.70000	138.00	.4201-01	.5105-01	.5721-01	58.35	2.451	.4353	580.1
79	430.00	.80000	139.00	.5407-01	.6565-01	.7354-01	58.55	3.166	.4334	577.6
79	478.80	.30000	141.00	.4003-01	.4865-01	.5453-01	58.28	2.333	.4359	581.0
79	478.80	.40000	142.00	.3562-01	.4328-01	.4843-01	58.41	2.081	.4347	579.3
79	478.80	.50000	143.00	.4158-01	.5053-01	.5662-01	58.31	2.424	.4356	580.6
79	478.80	.60000	144.00	.4249-01	.5164-01	.5788-01	58.28	2.476	.4359	581.0
79	478.80	.70000	145.00	.4057-01	.4930-01	.5525-01	58.31	2.366	.4356	580.6

DATE 24 JAN 76
ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

WING UPPER CREASE

PARAMETRIC DATA

WING UPPER CREASE

RV/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	H4/HT	TW DEG. R	STN NO R=0.9
9	1.0000	.40000	150.00	.3690-01	.4688-01	.5224-01	33.76	1.313	.4125	555.6	.1048-02
5	1.0000	.50000	151.00	.1078-01	.1283-01	.1419-01	43.91	.4731	.3766	574.7	.2889-03
5	1.0000	.60000	152.00	.2482-02	.2953-02	.3263-02	44.13	.1095	.3736	570.1	.6650-04
5	1.0000	.70000	153.00	.1837-01	.2188-01	.2418-01	44.00	.8085	.3754	572.9	.4926-03
5	1.0000	.80000	154.00	.2409-01	.2868-01	.3171-01	43.94	1.058	.3762	574.1	.6457-03

ARC 3.5-178 IH3

ARC 3.5-178 IH3 0+T+S WING UPPER CREASE

DATE 24 JAN 76

WING UPPER CREASE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG.	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972*07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953*07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006*07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098*07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
18	1.0000	.40000	150.00	.6263-01	.7598-01	.8504-01	57.47	3.599	.4307	562.6	.9170-03
15	1.0000	.50000	151.00	.2277-01	.2759-01	.3086-01	58.81	1.339	.4282	569.1	.3364-03
15	1.0000	.60000	152.00	.3712-02	.4489-02	.5013-02	59.49	.2209	.4218	560.6	.5475-04
15	1.0000	.70000	153.00	.2707-01	.3278-01	.3664-01	59.05	1.598	.4259	566.1	.3997-03
15	1.0000	.90000	154.00	.3916-01	.4747-01	.5311-01	58.72	2.299	.4290	570.2	.5787-03

DATE 24 JAN 76

ARC 3.5-178 IH3

WING UPPER CREASE

ARC 3.5-178 IH3 O+T+S (TRIPS) WING UPPER CREASE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	OODT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
19	1.0000	.40000	150.00	.3664-01	.4430-01	.4947-01	32.81	1.202	.4214	551.1	.9835-03
22	1.0000	.50000	151.00	.1335-01	.1607-01	.1790-01	33.79	.4512	.4096	551.2	.3602-03
22	1.0000	.60000	152.00	.3110-02	.3740-02	.4163-02	33.96	.1056	.4068	547.4	.8384-04
22	1.0000	.70000	153.00	.1899-01	.2286-01	.2544-01	33.87	.6433	.4083	549.5	.5123-03
22	1.0000	.90000	154.00	.2517-01	.3030-01	.3373-01	33.83	.8515	.4090	550.4	.6790-03

WING UPPER CREASE

ARC 3.5-178 IH3 O+T+S (TRIPS) WING UPPER CREASE

(REIF04)

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006+07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
32	1.0000	.40000	150.00	.5890-01	.7160-01	.8024-01	57.69	3.398	.4359	575.6	.8676-03
29	1.0000	.50000	151.00	.2168-01	.2629-01	.2942-01	58.77	1.274	.4298	571.7	.3203-03
29	1.0000	.60000	152.00	.3819-02	.4619-02	.5160-02	59.51	.2273	.4228	562.5	.5630-04
29	1.0000	.70000	153.00	.2553-01	.3093-01	.3459-01	59.06	1.508	.4270	568.1	.3769-03
29	1.0000	.90000	154.00	.3867-01	.4690-01	.5248-01	58.75	2.272	.4300	572.0	.5713-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76 ARC 3.5-178 IH3 WING UPPER CREASE WING UPPER CREASE WING UPPER CREASE ELEVON = .0000

ARC 3.5-178 IH3 O+T+S PARAMETRIC DATA RNL = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RNL PER FT	PO PETA	TO DEG. R	HC BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031*07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149*07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055*07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045*07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
39	1.0000		150.00	.8525-01	.1034	.1158	58.08	4.952	.4309	568.0	.1253-02
36	1.0000		151.00	.3226-01	.3928-01	.4408-01	57.17	1.844	.4406	581.8	.4762-03
36	1.0000		152.00	.5058-02	.6146-02	.6886-02	57.77	.2922	.4348	574.2	.7453-04
36	1.0000		153.00	.3926-01	.4776-01	.5357-01	57.39	2.253	.4385	578.0	.5791-03
36	1.0000		154.00	.5185-01	.6315-01	.7038-01	57.09	2.960	.4413	582.7	.7656-03

DATE 24 JAN 78

ARC 3.5-178 IH3

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ARC 3.5-178 IH3 ORBITER WING UPPER CREASE

(RE1F08)

WING UPPER CREASE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636*07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582*07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522*07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516*07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
40	1.0000	.40000	150.00	.3266-01	.3960-01	.4431-01	1.070	.4294	562.2	.8433-03
43	1.0000	.50000	151.00	.9866-02	.1193-01	.1332-01	.3229	.4210	557.9	.2635-03
43	1.0000	.60000	152.00	.3012-02	.3640-02	.4063-02	.9873-01	.4202	556.8	.8044-04
43	1.0000	.70000	153.00	.12*3-01	.1663-01	.1744-01	.4234	.4206	557.4	.3453-03
43	1.0000	.90000	154.00	.3079-01	.3723-01	.4158-01	1.006	.4217	558.9	.8227-03

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
47	1.0000	.40000	150.00	.4473-01	.5471-01	.6158-01	53.16	2.378	.4518	568.8	.6447-03
44	1.0000	.50000	151.00	.1610-01	.1956-01	.2190-01	57.34	.9235	.4332	566.3	.2356-03
44	1.0000	.60000	152.00	.4950-02	.5997-02	.6706-02	57.38	.2870	.4271	558.3	.7228-04
44	1.0000	.70000	153.00	.2678-01	.3249-01	.3636-01	57.61	1.543	.4306	562.9	.3915-03
44	1.0000	.90000	154.00	.4576-01	.5560-01	.6229-01	57.20	2.618	.4346	568.1	.6698-03

ARC 3.5-178 1H3 ORBITER (TRIPS)WING UPPER CREASE

(NETF08)

WING UPPER CREASE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	h ₂ BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	WING	X/L	Y/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	H DEG. R	STN NO R=0.9
48	1.0000	.40000	150.00	.3092-01	.3746-01	.4189-01	32.12	.9934	.4271	561.9	.8239-03
51	1.0000	.50000	151.00	.1071-01	.1291-01	.1439-01	33.06	.3541	.4128	547.9	.2873-03
51	1.0000	.60000	152.00	.2153-02	.2593-02	.2889-02	33.18	.7144-01	.4108	545.2	.5773-04
51	1.0000	.70000	153.00	.1553-01	.1872-01	.2085-01	33.12	.5145	.4119	546.6	.4166-03
51	1.0000	.90000	154.00	.2713-01	.3270-01	.3644-01	33.05	.8968	.4130	548.1	.7278-03

WING UPPER CREASE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053+07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027+07	406.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137+07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987+07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
55	1.0000	.40000	150.00	.4380-01	.5312-01	.5945-01	58.04	2.542	.4304	568.6	.6472-03
52	1.0000	.50000	151.00	.1867-01	.2262-01	.2523-01	58.30	1.089	.4270	561.5	.2740-03
52	1.0000	.60000	152.00	.3729-02	.4506-02	.5029-02	59.05	.2202	.4198	552.1	.5460-04
52	1.0000	.70000	153.00	.2455-01	.2971-01	.3320-01	58.59	1.438	.4242	557.9	.3599-03
52	1.0000	.80000	154.00	.3510-01	.4254-01	.4758-01	58.19	2.043	.4280	562.9	.5153-03

ARC 3.5-178 IH3 O+T+S WING UPPER CREASE

(REI19)

WING UPPER CREASE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.	STN NO
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000	.9778-03
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000	.4570-03
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000	.1520-03

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R=0.9
70	1.0000	.40000	150.00	.6623-01	.7971-01	.8873-01	61.83	4.095	.4085	548.4	.9778-03
72	1.0000	.50000	151.00	.3105-01	.3750-01	.4183-01	59.54	1.849	.4177	552.7	.4570-03
72	1.0000	.60000	152.00	.1035-01	.1246-01	.1388-01	60.29	.6240	.4106	543.3	.1520-03
72	1.0000	.70000	153.00	.3865-01	.4661-01	.5197-01	58.87	2.314	.4146	548.6	.5683-03
72	1.0000	.90000	154.00	.6103-01	.7370-01	.8223-01	59.49	3.631	.4182	553.3	.8983-03

ARC 3.5-178 IH3 O+T+S WING UPPER CREASE

WING UPPER CREASE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8289	-3.000
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	WING	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
74	1.0000	.40000	150.00	.6325-01	.7646-01	.8579-01	59.13	3.740	.4214	555.6	.9264-03
76	1.0000	.50000	151.00	.2531-01	.3062-01	.3421-01	59.22	1.499	.4235	560.9	.3719-03
76	1.0000	.60000	152.00	.4973-02	.6003-02	.6696-02	59.89	.2979	.4171	552.4	.7294-04
76	1.0000	.70000	153.00	.3117-01	.3768-01	.4208-01	59.45	1.853	.4212	557.9	.4577-03
76	1.0000	.90000	154.00	.4347-01	.5261-01	.5678-01	59.14	2.571	.4242	561.8	.6389-03

WING BOTTOM

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000	.2409-02
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000	.1492-02
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000	.7542-03
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000	.9341-03

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R
9	.25000	.25000-01	155.00	.8937-01	.1078	.1201	33.65	3.008	.4143	558.0
9	.25000	.15300	156.00	.5532-01	.6676-01	.7441-01	33.70	1.860	.4135	556.9
9	.25000	.29900	157.00	.2799-01	.3374-01	.3760-01	33.71	.9437	.4132	555.6
9	.25000	.44400	158.00	.3467-01	.4179-01	.4657-01	33.74	1.170	.4128	556.1
9	.25000	.59000	159.00	.2910-01	.3506-01	.3907-01	33.78	.9829	.4122	555.2
3	.25000	.73600	160.00	.1459	.1721	.1891	53.59	7.821	.3425	558.0
3	.25000	.90000	161.00	.7526-02	.9874-02	.9747-02	53.66	4.038	.3418	556.9
3	.40000	.25000-01	154.00	.1365	.1612	.1772	53.21	7.263	.3471	565.4
3	.40000	.10000+00	165.00	.4722-01	.5575-01	.6129-01	53.25	2.514	.3466	564.7
3	.40000	.20000	166.00	.2340-01	.2762-01	.3036-01	53.37	1.249	.3452	562.4
3	.40000	.30200	167.00	.1963-01	.2316-01	.2545-01	53.49	1.050	.3438	560.0
3	.40000	.55900	168.00	.6542-01	.7716-01	.8476-01	53.57	3.505	.3428	558.4
3	.40000	.70000	169.00	.9905-01	.1168	.1284	53.56	5.306	.3429	558.7
3	.40000	.90000	170.00	.2586-01	.3050-01	.3351-01	53.57	1.385	.3428	558.5
3	.50000	.25000-01	172.00	.1604	.1896	.2085	53.00	8.501	.3496	569.5
3	.50000	.17700	173.00	.2694-01	.3180-01	.3495-01	53.32	1.436	.3458	563.4
3	.50000	.30000	174.00	.2122-01	.2504-01	.2751-01	53.45	1.134	.3442	560.8
3	.50000	.48700	175.00	.1833-01	.2169-01	.2394-01	53.47	.9831	.3440	560.5
3	.50000	.60000	176.00	.4855-01	.5728-01	.6294-01	53.47	2.596	.3440	560.5
3	.50000	.73000	177.00	.5879-01	.6937-01	.7622-01	53.48	3.144	.3439	560.3
3	.50000	.90000	178.00	.5065-01	.5975-01	.6565-01	53.50	3.144	.3437	559.9
3	.60000	.10000+00	174.00	.5277-01	.6233-01	.6855-01	53.11	2.710	.3482	567.3
3	.60000	.20000	180.00	.3159-01	.3729-01	.4099-01	53.32	1.684	.3458	563.4
3	.60000	.30000	181.00	.1846-01	.2178-01	.2393-01	53.46	.9867	.3442	560.7

TEST DATA

RUN NUMBER	ZY/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
3	60000	42800	182.00	.1627-01	.1919-01	.2109-01	53.46	.8696	.3441	560.6	.4175-03
3	60000	60000	183.00	.3225-01	.3805-01	.4181-01	53.46	1.724	.3442	560.7	.8277-03
3	60000	70000	184.00	.4372-01	.5158-01	.5668-01	53.49	2.339	.3438	560.1	.1122-02
5	60000	80000	185.00	.2534-01	.3493-01	.3861-01	44.00	1.291	.3753	572.8	.7865-03
5	60000	85000	186.00	.3272-01	.4017-01	.4441-01	43.91	1.481	.3765	574.8	.9043-03
3	60000	90000	187.00	.3831-01	.4521-01	.4968-01	53.45	2.048	.3442	560.7	.9834-03
3	75000	.25000-01	189.00	.2270	.2681	.2949	53.06	12.04	.3488	568.2	.5831-02
3	75000	10000+00	190.00	.7053-01	.8385-01	.9220-01	53.13	3.772	.3479	566.9	.1824-02
3	75000	30300	191.00	.3743-01	.4414-01	.4852-01	53.35	1.995	.3454	562.7	.9601-03
3	75000	50000	192.00	.3253-01	.3859-01	.4241-01	53.35	1.744	.3454	562.7	.8394-03
3	75000	70000	193.00	.1114-01	.1314-01	.1444-01	53.48	.5958	.3439	560.3	.2859-03
5	75000	80000	194.00	.7501-02	.8941-02	.9895-02	43.92	.3297	.3764	574.5	.2013-03
5	75000	85000	195.00	.1167-01	.1391-01	.1538-01	43.83	.5116	.3777	576.4	.3130-03
3	75000	90000	196.00	.1670-01	.1971-01	.2166-01	53.42	.8924	.3445	561.3	.4287-03
3	85000	10000+00	197.00	.9337-01	.1103	.1213	53.05	4.954	.3489	568.4	.2399-02
3	85000	30000	198.00	.4426-01	.5227-01	.5747-01	53.17	2.353	.3476	566.2	.1137-02
3	85000	50000	199.00	.4101-01	.4643-01	.5325-01	53.17	2.180	.3476	566.2	.1053-02
3	90000	30000	201.00	.5405-01	.6388-01	.7028-01	52.94	2.862	.3502	570.6	.1389-02
3	90000	60000	200.00	.2149-01	.2537-01	.2799-01	53.22	1.143	.3470	565.3	.5518-03
3	95000	50000-01	203.00	.1139	.1347	.1482	52.71	6.002	.3529	574.9	.2928-02
3	95000	10000+00	204.00	.1102	.1304	.1435	52.67	5.804	.3534	575.8	.2834-02
3	95000	30000	205.00	.5991-01	.7088-01	.7802-01	52.64	3.194	.3537	576.2	.1541-02
3	95000	50000	206.00	.4103-01	.4852-01	.5339-01	52.78	2.166	.3521	573.6	.1055-02
3	95000	70000	207.00	.1831-01	.2163-01	.2378-01	53.11	.9724	.3482	567.3	.4703-03
3	95000	90000	208.00	.1752-01	.2072-01	.2280-01	52.77	.9245	.3522	573.9	.4504-03
3	96600	00000	209.00	.1051	.1244	.1369	52.50	5.516	.3554	579.0	.2703-02
3	99300	00000	210.00	.2679-01	.3167-01	.3485-01	52.82	1.415	.3516	572.8	.6886-03

ARC 3.5-178 IH3 O+T+S

WING BOTTOM

(RE1002)

WING BOTTOM

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	AS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	405.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TES. DATA

RUN NUMBER	2Y/8	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
18	.25000	.25000-01	155.00	.8274-01	.1005	.1125	57.17	4.730	.4336	566.4	.1212-02
18	.25000	.15300	156.00	.8481-01	.1029	.1152	57.39	4.868	.4314	563.5	.1242-02
18	.25000	.29900	157.00	.4560-C	.5532-01	.6191-01	57.48	2.621	.4305	562.4	.6676-03
18	.25000	.44400	158.00	.5078-01	.6159-01	.6893-01	57.51	2.921	.4302	562.0	.7434-03
18	.25000	.59000	159.00	.4296-01	.5208-01	.5827-01	57.62	2.475	.4292	560.7	.6286-03
17	.25000	.73600	160.00	.1532	.1853	.2069	59.21	9.069	.4224	559.2	.2253-02
17	.25000	.90000	161.00	.1159-01	.1401-01	.1565-01	59.19	.6858	.4226	559.4	.1704-03
17	.40000	.25000-01	164.00	.1455	.1766	.1978	58.14	8.460	.4326	572.6	.2147-02
17	.40000	.10000+00	155.00	.5541-01	.6726-01	.7532-01	58.13	3.221	.4326	572.6	.8176-03
17	.40000	.20000	166.00	.5182-01	.6294-01	.7031-01	58.43	3.028	.4297	568.9	.7639-03
17	.40000	.30200	167.00	.5851-01	.7084-01	.7919-01	58.88	3.445	.4255	563.3	.8614-03
17	.40000	.55900	168.00	.6784-01	.8207-01	.9167-01	59.14	4.013	.4230	560.0	.9980-03
17	.40000	.70000	169.00	.1066	.1291	.1442	58.95	6.285	.4248	562.4	.1569-02
17	.40000	.90000	170.00	.3133-01	.3792-01	.4238-01	58.95	1.847	.4248	562.4	.4611-03
17	.50000	.25000-01	172.00	.1824	.2221	.2492	57.36	10.46	.4399	582.3	.2698-02
17	.50000	.17700	173.00	.2811-01	.3417-01	.3820-01	58.20	1.636	.4319	571.7	.4147-03
17	.50000	.30000	174.00	.4294-01	.5203-01	.5818-01	58.70	2.521	.4272	565.5	.6325-03
17	.50000	.48700	175.00	.7529-01	.9118-01	1.019	58.83	4.429	.4260	563.9	.1109-02
17	.50000	.60000	176.00	.7573-01	.9175-01	1.026	58.70	4.445	.4272	565.5	.1115-02
17	.50000	.70000	177.00	.7689-01	.9315-01	1.042	58.70	4.513	.4273	565.6	.1133-02
17	.50000	.90000	178.00	.6611-01	.8010-01	.8957-01	58.69	3.880	.4273	565.6	.9739-03
17	.60000	.10000+00	174.00	.5031-01	.6119-01	.6860-01	57.62	2.899	.4374	579.1	.7435-03
17	.60000	.20000	180.00	.3635-01	.4412-01	.4940-01	58.18	2.115	.4322	572.1	.5363-03
17	.60000	.30000	181.00	.4933-01	.5977-01	.6683-01	58.71	2.897	.4271	565.4	.7266-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

ARC 3.5-178 IH3

PAGE 161

(RE1002)

RUN NUMBER	2Y/B	X/C	T/C NO	H/WREF R=1.0	H/WREF R=0.9	H/WREF R=0.85	OREF BTU/ FT2SEC	COOT BTU/ FT2SEC	H/WHT	TH DEG. R	STN NO R=0.9
17	.60000	.42800	182.00	.7586-01	.9188-01	.1027	58.78	4.459	.4264	564.5	.1117-02
17	.60000	.60000	183.00	.6196-01	.7504-01	.8389-01	58.83	3.645	.4260	563.9	.9124-03
17	.60000	.70000	184.00	.6704-01	.8116-01	.9072-01	58.89	3.948	.4254	563.1	.9869-03
15	.60000	.80000	185.00	.3959-01	.4794-01	.5359-01	59.08	2.339	.4257	565.8	.5845 03
15	.60000	.85000	186.00	.4791-01	.5808-01	.5497-01	58.75	2.815	.4266	569.8	.7080-03
17	.60000	.90000	187.00	.4642-01	.5624-01	.5289-01	58.68	2.724	.4274	565.8	.6839-03
17	.75000	.25000-01	189.00	.2123	.2580	.2892	57.78	12.26	.4360	577.1	.3135-02
17	.75000	.10000+00	190.00	.6506-01	.7905-01	.8856-01	57.90	3.767	.4347	575.5	.9607-03
17	.75000	.30300	191.00	.6164-01	.7477-01	.8368-01	58.37	3.598	.4304	569.7	.9089-03
17	.75000	.50000	192.00	.9216-01	.1118	.1251	58.41	5.383	.4300	569.2	.1359-02
17	.75000	.70000	193.00	.3966-01	.4805-01	.5372-01	58.75	2.330	.4267	564.9	.5842-03
15	.75000	.80000	194.00	.3032-01	.3675-01	.4111-01	58.76	1.782	.4287	569.7	.4481-03
15	.75000	.85000	195.00	.3470-01	.4210-01	.4713-01	58.48	2.029	.4313	573.2	.5132-03
17	.75000	.90000	196.00	.3796-01	.4603-01	.5150-01	58.46	2.219	.4295	568.6	.5596-03
17	.85000	.10000+00	197.00	.8935-01	.1037	.1219	57.47	5.135	.4389	581.0	.1321-02
17	.85000	.30000	198.00	.7217-01	.8775-01	.9837-01	57.69	4.163	.4368	578.2	.1065-02
17	.85000	.50000	199.00	.1072	.1303	.1461	57.70	6.185	.4366	578.0	.1583-02
17	.90000	.30000	201.00	.6094-01	.7428-01	.8341-01	57.00	3.474	.4433	586.8	.9023-03
17	.90000	.60000	200.00	.4830-01	.5870-01	.6578-01	57.82	2.793	.4355	576.6	.7134-03
17	.95000	.50000-01	203.00	.1076	.1313	.1476	56.60	6.089	.4471	591.9	.1595-02
17	.95000	.10000+00	204.00	.1039	.1267	.1424	56.81	5.901	.4451	589.3	.1539-02
17	.95000	.30000	205.00	.7463-01	.9111-01	.1024	56.53	4.222	.4473	592.1	.1107-02
17	.95000	.50000	206.00	.7066-01	.8618-01	.9680-01	56.87	4.015	.4445	588.4	.1047-02
17	.95000	.70000	207.00	.3137-01	.3817-01	.4281-01	57.50	1.804	.4385	580.5	.4638-03
17	.95000	.90000	208.00	.3062-01	.3740-01	.4205-01	56.47	1.729	.4483	593.5	.4541-03
17	.96600	.00000	209.00	.1734	.2123	.2391	55.92	9.698	.4536	600.5	.2577-02
17	.99300	.00000	210.00	.2423-01	.2957-01	.3324-01	56.64	1.372	.4467	591.4	.3591-03

WING BOTTOM

WING BOTTOM

PARAMETRIC DATA

RN/L = 1.50U BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000	.2127-02
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000	.1575-02
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000	.7238-03
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000	.9794-03

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO
19	.25000	.25000-01	155.00	.7919-01	.9582-01	.1071	32.68	2.588	.4237	554.2	.2127-02
19	.25000	.15300	156.00	.5868-01	.7097-01	.7926-01	32.75	1.922	.4224	562.5	.1575-02
19	.25000	.29900	157.00	.2696-01	.3260-01	.3641-01	32.77	.8834	.4221	562.1	.7238-03
19	.25000	.44400	158.00	.3649-01	.4412-01	.4926-01	32.80	1.197	.4215	561.3	.9794-03
19	.25000	.59000	159.00	.2963-01	.3581-01	.3998-01	32.87	.9737	.4205	559.9	.7950-03
20	.25000	.73600	160.00	.1367	.1654	.1849	31.68	4.332	.4242	551.8	.3640-02
20	.25000	.90000	161.00	.7564-02	.9158-02	.1024-01	31.62	.2392	.4253	553.2	.2014-03
20	.40000	.25000-01	164.00	.1365	.1656	.1853	31.34	4.277	.4304	559.8	.3641-02
20	.40000	.10000+00	165.00	.4559-01	.5311-01	.6191-01	31.31	1.427	.4308	560.4	.1216-02
20	.40000	.20000	166.00	.2392-01	.2901-01	.3245-01	31.39	.7511	.4293	558.4	.6379-03
20	.40000	.30000	167.00	.1955-01	.2417-01	.2703-01	31.53	.6292	.4269	555.3	.5317-03
20	.40000	.35900	168.00	.6466-01	.7828-01	.8750-01	31.62	2.045	.4253	553.2	.1722-02
20	.40000	.70000	169.00	.9395-01	.1138	.1272	31.57	2.966	.4262	554.4	.2503-02
20	.40000	.90000	170.00	.2468-01	.3014-01	.3371-01	31.51	.7839	.4274	555.9	.6630-03
20	.50000	.25000-01	172.00	.1513	.1838	.2059	31.08	4.702	.4348	565.6	.4040-02
20	.50000	.17700	173.00	.2582-01	.3132-01	.3506-01	31.30	.8081	.4309	560.5	.6887-03
20	.50000	.30000	174.00	.1935-01	.2345-01	.2622-01	31.46	.6087	.4261	556.9	.5156-03
20	.50000	.48700	175.00	.1830-01	.2217-01	.2480-01	31.47	.5758	.4280	556.7	.4877-03
20	.50000	.60000	176.00	.4627-01	.5609-01	.6275-01	31.42	1.454	.4289	557.9	.1234-02
20	.50000	.70000	177.00	.5933-01	.7192-01	.8046-01	31.42	1.864	.4289	557.9	.1582-02
20	.50000	.90000	178.00	.4552-01	.5519-01	.6175-01	31.40	1.429	.4293	558.4	.1214-02
20	.60000	.10000+00	174.00	.4914-01	.5968-01	.6686-01	31.13	1.530	.4340	564.5	.1312-02
20	.60000	.20000	180.00	.3021-01	.3665-01	.4103-01	31.29	.9452	.4312	560.9	.8059-03
20	.60000	.30000	181.00	.1703-01	.2064-01	.2306-01	31.44	.5353	.4285	557.4	.4538-03

ARC 3.5-178 IH3

DATE 24 JAN 78

ARC 3.5-178 IH3 O+T+S (TRIPS) WING BOTTOM

RUN NUMBER	2Y/8	X/C	T/C NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	H/HHT	TH DEG. R	STN NO R=0.9
20	.60000	.42800	182.00	.1439-01	.1744-01	.1951-01	31.45	.4284	.4284	557.2	.3835-03
20	.60000	.50000	183.00	.3794-01	.4600-01	.5146-01	31.41	.4290	.4290	558.0	.1012-02
20	.60000	.70000	184.00	.4484-01	.5436-01	.6082-01	31.42	.4289	.4289	557.9	.1196-02
22	.60000	.80000	185.00	.2844-01	.3422-01	.3809-01	33.89	.9636	.4081	549.1	.7668-03
22	.60000	.85000	186.00	.3275-01	.3942-01	.4369-01	33.83	1.108	.4091	550.4	.8834-03
20	.60000	.90000	187.00	.3559-01	.4316-01	.4831-01	31.34	1.115	.4304	559.8	.9432-03
20	.75000	.25000-01	189.00	.2178	.2644	.2961	31.19	6.792	.4330	563.2	.5814-02
20	.75000	.10000+00	190.00	.6713-01	.8151-01	.9128-01	31.19	2.094	.4330	563.2	.1792-02
20	.75000	.30300	191.00	.3573-01	.4335-01	.4852-01	31.29	1.118	.4311	560.8	.9532-03
20	.75000	.50000	192.00	.3342-01	.4055-01	.4539-01	31.30	1.046	.4310	560.7	.8917-03
20	.75000	.70000	193.00	.1275-01	.1546-01	.1730-01	31.37	.3999	.4298	559.0	.3399-03
22	.75000	.80000	194.00	.7999-02	.9630-02	.1072-01	33.80	.2703	.4096	551.1	.2158-03
22	.75000	.85000	195.00	.1343-01	.1617-01	.1801-01	33.74	.4530	.4106	552.5	.3623-03
20	.75000	.90000	196.00	.1477-01	.1792-01	.2006-01	31.28	.4619	.4313	561.0	.3940-03
20	.85000	.10000+00	197.00	.8618-01	.1047	.1174	31.05	2.676	.4354	566.4	.2303-02
20	.85000	.30000	198.00	.4380-01	.5323-01	.5964-01	31.06	1.360	.4353	566.2	.1170-02
20	.85000	.50000	199.00	.4481-01	.5445-01	.6101-01	31.06	1.392	.4352	566.1	.1197-02
20	.90000	.30000	201.00	.4930-01	.5998-01	.6726-01	30.88	1.522	.4385	570.4	.1318-02
20	.90000	.60000	200.00	.2023-01	.2457-01	.2753-01	31.10	.6290	.4346	565.3	.5402-03
20	.95000	.50000-01	203.00	.1134	.1381	.1549	30.77	3.489	.4403	572.8	.3034-02
20	.95000	.10000+00	204.00	.1117	.1361	.1527	30.73	3.433	.4411	573.7	.2990-02
20	.95000	.30300	205.00	.5788-01	.7051-01	.7915-01	30.69	1.776	.4418	574.6	.1550-02
20	.95000	.50000	206.00	.7916-01	.4768-01	.5349-01	30.80	1.206	.4399	572.2	.1048-02
20	.95000	.70000	207.00	.1055-01	.2011-01	.2254-01	31.04	.5135	.4357	566.7	.4421-03
20	.95000	.90000	208.00	.1550-01	.1887-01	.2117-01	30.76	.4766	.4406	573.1	.4147-03
20	.96600	.00000	209.00	.1104	.1346	.1511	30.57	3.374	.4439	577.4	.2957-02
20	.99300	.00000	210.00	.2503-01	.3045-01	.3416-01	30.85	.7722	.4389	570.9	.6694-03

WING BOTTOM

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVCN = .0000

TEST CONDITIONS

PLN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	TH DEG. R	STN NO R=0.9
29	5.300	.4977-07	406.3	1.07	319.2	.1750-01	.8238	582.6	.1144-02
30	5.300	.5005-07	405.2	1.302	317.9	.1750-01	.8254	577.6	.1239-02
31	5.300	.5025-07	405.4	1.302	318.0	.1750-01	.8257	575.8	.6410-03
32	5.300	.5033-07	405.7	1.297	316.8	.1750-01	.8281	574.2	.7028-03
31	25000	.73600	.1487	.2017	58.55	8.704	.4298	571.5	.5786-03
31	25000	.90000	.1014-01	.1377-01	58.40	.5921	.4312	569.6	.2191-02
31	40000	.161.00	.1708	.1917	57.28	8.029	.4418	571.5	.1495-03
31	40000	.165.00	.6023-01	.6980-01	57.19	2.876	.4426	585.5	.2074-02
31	40000	.166.00	.5021-01	.6650-01	57.46	2.865	.4401	586.6	.7442-03
31	40000	.30200	.6879-01	.7708-01	57.99	3.283	.4351	583.2	.7425-03
31	40000	.55900	.6502-01	.8832-01	58.38	3.796	.4314	576.7	.8359-03
31	40000	.70000	.1021	.1240	58.14	5.936	.4314	571.8	.9588-03
31	40000	.90000	.2921-01	.3980-01	57.87	1.691	.4362	574.7	.1507-02
31	50000	.17700	.1783	.2454	56.28	10.04	.4512	578.1	.4314-03
31	50000	.173.00	.2727-01	.3733-01	57.10	1.557	.4435	598.0	.2647-02
31	50000	.174.00	.3954-01	.5392-01	57.72	2.282	.4376	587.8	.4037-03
31	50000	.175.00	.7331-01	.9888-01	57.88	4.243	.4361	580.0	.5842-03
31	50000	.176.00	.7645-01	.9299-01	57.72	4.413	.4376	578.0	.1083-02
31	50000	.177.00	.6819-01	.8295-01	57.50	3.934	.4379	580.0	.1130-02
31	50000	.178.00	.6211-01	.7560-01	57.70	3.572	.4397	580.3	.1008-02
31	50000	.179.00	.5041-01	.6930-01	56.43	2.844	.4499	582.7	.9184-03
31	60000	.20000	.3659-01	.5012-01	56.99	2.085	.4445	585.2	.7479-03
31	60000	.181.00	.4835-01	.6596-01	57.67	2.788	.4381	589.1	.5419-03
31	60000	.161.00	.5882-01	.6596-01	57.67	2.788	.4381	580.6	.7146-03

TEST DATA

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S (TRIPS)

ARC 3.5-178 IH3

RUN NUMBER	2Y/R	X/C	T/C NO	H/HREF P=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	H/H/HT	TH DEG. R	STN NO R=0.9
31	.50000	.42800	182.00	.7474-01	.9017-01	.1011	57.70	4.278	.4378	580.2	.1096-02
31	.60000	.50000	183.00	.5342-01	.7251-01	.8130-01	57.73	3.442	.4376	579.9	.8809-03
31	.60000	.70000	184.00	.6693-01	.8138-01	.9123-01	57.79	3.868	.4370	579.2	.9887-03
29	.60000	.60000	185.00	.3799-01	.4493-01	.5024-01	53.09	2.192	.4267	567.7	.5473-03
29	.60000	.85000	186.00	.4521-01	.5482-01	.6135-01	58.76	2.657	.4298	571.8	.6679-03
31	.60000	.90000	187.00	.4179-01	.5088-01	.5710-01	57.40	2.399	.4406	584.0	.6181-03
31	.75000	.25000-01	189.00	.2028	.2476	.2784	56.67	1.149	.4475	593.1	.3007-02
31	.75000	1.0000-00	190.00	.6645-01	.3112-01	.9118-01	56.72	3.769	.4471	592.5	.9850-03
31	.75000	.30300	191.00	.5920-01	.7219-01	.8107-01	57.05	3.378	.4439	588.4	.8767-03
31	.75000	.50000	192.00	.8728-01	.1063	.1194	57.07	4.976	.4438	588.2	.1291-02
31	.75000	.70000	193.00	.3957-01	.4817-01	.5406-01	57.37	2.269	.4409	584.4	.5851-03
29	.75000	.80000	194.00	.3140-01	.3808-01	.4262-01	58.77	1.845	.4298	571.8	.4640-03
29	.75000	.85000	195.00	.3340-01	.4055-01	.4540-01	58.48	1.953	.4325	575.4	.4939-03
31	.75000	.90000	196.00	.2448-01	.2985-01	.3322-01	57.09	1.328	.4436	587.9	.3623-03
31	.85000	.10000-00	197.00	.5043-01	.1106	.1245	56.18	5.080	.4522	599.4	.1343-02
31	.85000	.30000	198.00	.8070-01	.9870-01	.1111	56.23	4.538	.4517	599.6	.1198-02
31	.85000	.50000	199.00	.1079	.1319	.1425	56.17	6.058	.4523	599.5	.1602-02
31	.90000	.30000	201.00	.8966-01	.1100	.1241	55.43	4.970	.4593	608.7	.1335-02
31	.90000	.60000	200.00	.5400-01	.6606-01	.7436-01	56.19	3.034	.4521	599.2	.8019-03
31	.95000	.50000-01	203.00	.1184	.1467	.1658	55.10	6.579	.4624	612.8	.1779-02
31	.95000	.10000-00	204.00	.1296	.1591	.1738	55.26	7.162	.4609	610.9	.1931-02
31	.95000	.30000	205.00	.7562-01	.9260-01	.1049	55.07	4.199	.4627	613.3	.1126-02
31	.95000	.50000	206.00	.7595-01	.9324-01	.1052	55.27	4.197	.4608	610.8	.1131-02
31	.95000	.70000	207.00	.3476-01	.4260-01	.4801-01	55.71	1.936	.4566	605.2	.5170-03
31	.95000	.90000	208.00	.3205-01	.3942-01	.4455-01	54.76	1.755	.4656	617.1	.4782-03
31	.95000	.00000	209.00	.1594	.1963	.2219	54.57	8.700	.4674	619.5	.2381-02
31	.95000	.00000	210.00	.2634-01	.3484-01	.3936-01	54.90	1.556	.4643	615.3	.4226-03

HING BOTTOM

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG R	HO BTU/LBM	RS FT	R-NOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000	.2222-02
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000	.1513-02
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000	.8372-03
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000	.9476-03

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R
39	.25000	.25000-01	155.00	.1509	.1834	.2056	57.54	8.683	.4361	574.8
39	.25000	.15300	156.00	.1029	.1249	.1398	57.91	5.958	.4326	570.2
39	.25000	.29900	157.00	.5696-01	.6910-01	.7735-01	58.06	3.307	.4312	568.3
39	.25000	.44400	158.00	.6448-01	.7821-01	.8752-01	58.15	3.750	.4303	567.2
39	.25000	.59000	159.00	.5562-01	.6742-01	.7542-01	58.33	3.244	.4286	565.0
38	.25000	.73500	160.00	.1435	.1737	.1941	58.67	8.419	.4243	558.4
38	.25000	.90000	161.00	.1707-01	.2066-01	.2310-01	58.57	.9997	.4253	559.7
38	.40000	.25000+01	164.00	.1767	.2147	.2406	57.52	10.16	.4353	572.8
38	.40000	.40000	165.00	.5703-01	.6931-01	.7767-01	57.47	3.277	.4357	573.4
38	.40000	.20700	166.00	.3651-01	.4432-01	.4964-01	57.76	2.109	.4330	569.8
38	.40000	.30200	167.00	.4546-01	.5510-01	.6164-01	58.23	2.647	.4285	563.9
38	.40000	.59300	168.00	.1155	.1398	.1563	58.52	6.757	.4257	560.3
38	.40000	.73000	169.00	.1269	.1539	.1720	58.29	7.397	.4279	563.1
38	.40000	.90000	170.00	.2197	.2679	.3009	56.17	5.205	.4291	564.7
38	.50000	.25000-01	172.00	.6425-01	.7809-01	.8752-01	56.60	12.43	.4440	584.4
38	.50000	.17700	173.00	.9412-01	.1142	.1278	57.46	3.691	.4358	573.6
38	.50000	.48700	174.00	.9552-01	.1158	.1296	58.12	5.552	.4309	567.1
38	.50000	.60000	175.00	.5459-01	.1148	.1285	57.97	5.484	.4296	565.3
38	.50000	.70000	177.00	.1125	.1365	.1528	57.95	5.484	.4309	567.2
38	.50000	.90000	178.00	.9335-01	.1133	.1268	57.90	5.405	.4317	568.1
38	.60000	.10000+00	174.00	.1001	.1220	.1370	56.80	5.688	.4421	581.9
38	.60000	.20600	180.00	.1156	.1405	.1575	57.37	6.629	.4367	574.7
38	.60000	.30000	181.00	.9331-01	.1132	.1267	57.97	5.410	.4309	567.1

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

WING BOTTOM

DATE 24 JAN 76

RUN NUMBER	ZY/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	GRF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HA/HT	TM DEG. R	STN NO R-0.9
38	.60000	.42800	182.00	.1176	.1427	.1597	57.98	6.818	.4309	567.0	.1727-02
38	.60000	.60000	183.00	.8508-01	.1032	.1155	57.99	4.933	.4308	567.0	.1250-02
38	.60000	.70000	184.00	.8374-01	.1016	.1137	58.04	4.860	.4303	566.3	.1230-02
36	.60000	.80000	185.00	.5451-01	.6632-01	.7439-01	57.36	3.127	.4387	579.3	.8042-03
36	.60000	.85000	186.00	.6337-01	.7720-01	.8665-01	57.07	3.617	.4415	583.1	.9359-03
38	.60000	.90000	187.00	.5691-01	.6909-01	.7736-01	57.80	3.290	.4326	569.3	.8354-03
38	.75000	.25000-01	189.00	.3735	.4548	.5104	56.92	21.26	.4409	580.3	.9504-02
38	.75000	.10000+00	190.00	.1273	.1550	.1739	57.02	7.259	.4400	579.1	.1875-02
38	.75000	.30300	191.00	.1687	.2050	.2297	57.49	9.696	.4356	573.2	.2481-02
38	.75000	.50000	192.00	.1476	.1793	.2009	57.54	8.490	.4351	572.6	.2170-02
38	.75000	.70000	193.00	.5699-01	.6917-01	.7745-01	57.86	3.298	.4320	568.6	.8374-03
36	.75000	.80000	194.00	.4660-01	.5676-01	.6371-01	57.03	2.661	.4413	582.7	.6881-03
36	.75000	.85000	195.00	.5322-01	.6489-01	.7287-01	56.84	3.025	.4437	585.9	.7866-03
38	.75000	.90000	196.00	.4293-01	.5214-01	.5841-01	57.66	2.475	.4339	582.8	.6311-03
38	.85000	.10000+00	197.00	.1223	.1491	.1674	56.72	6.938	.4429	579.5	.1804-02
38	.85000	.30000	198.00	.1767	.2151	.2414	56.99	10.07	.4403	579.5	.2603-02
38	.85000	.50000	199.00	.1765	.2148	.2410	57.00	10.06	.4402	579.4	.2600-02
38	.90000	.30000	201.00	.1115	.1360	.1528	56.49	6.297	.4451	585.7	.1645-02
38	.90000	.60000	200.00	.7684-01	.9350-01	.1049	57.17	4.393	.4386	577.2	.1131-02
38	.95000	.50000-01	203.00	.1465	.1789	.2010	56.32	8.275	.4467	587.9	.2164-02
38	.95000	.10000+00	204.00	.1465	.1787	.2007	56.49	8.275	.4450	585.7	.2161-02
38	.95000	.30000	205.00	.9163-01	.1118	.1257	56.31	5.160	.4467	587.9	.1353-02
38	.95000	.50000	206.00	.1048	.1278	.1436	56.51	5.921	.4449	585.5	.1546-02
38	.95000	.70000	207.00	.6804-01	.8285-01	.9296-01	56.97	3.876	.4405	579.7	.1002-02
38	.95000	.90000	208.00	.5733-01	.7002-01	.7874-01	56.14	3.219	.4484	590.1	.8489-03
38	.96600	.00000	209.00	.1485	.1915	.2042	55.97	8.312	.4500	592.3	.2195-02
38	.99300	.00000	210.00	.4485-01	.5474-01	.6152-01	56.35	2.528	.4464	587.5	.6622-03

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
40	.25000	.25000-01	155.00	.6958-01	.8448-01	.9462-01	32.54	2.254	.4331	567.1	.1799-02
40	.25000	.15300	156.00	.2534-01	.3075-01	.3443-01	32.63	.8271	.4316	565.0	.6549-03
40	.25000	.29900	157.00	.1622-01	.1968-01	.2203-01	32.67	.5300	.4310	564.3	.4191-03
40	.25000	.44400	158.00	.1306-01	.1583-01	.1772-01	32.71	.4271	.4302	563.2	.3372-03
40	.25000	.59000	159.00	.1123-01	.1361-01	.1522-01	32.80	.3682	.4288	561.4	.2898-03
41	.25000	.73600	160.00	.1909-01	.2312-01	.2585-01	32.56	.6217	.4262	559.5	.5007-03
41	.25000	.90000	161.00	.8111-02	.9823-02	.1038-01	32.57	.2642	.4260	559.3	.2127-03
41	.40000	.25000-01	164.00	.1724	.2090	.2338	32.38	5.582	.4293	563.5	.4525-02
41	.40000	.10000+00	165.00	.5505-01	.6672-01	.7464-01	32.42	1.785	.4286	562.7	.1445-02
41	.40000	.20000	166.00	.2957-01	.3583-01	.4007-01	32.47	.9600	.4278	561.6	.7759-03
41	.40000	.30200	167.00	.2442-01	.2959-01	.3309-01	32.52	.7942	.4270	560.5	.6407-03
41	.40000	.59900	168.00	.2141-01	.2593-01	.2899-01	32.55	.6968	.4264	559.8	.5615-03
41	.40000	.70000	169.00	.1783-01	.2159-01	.2413-01	32.56	.5804	.4262	559.5	.4675-03
41	.40000	.90000	170.00	.8718-02	.1055-01	.1180-01	32.59	.2841	.4256	558.8	.2266-03
41	.50000	.25000-01	172.00	.1868	.2265	.2534	32.35	6.041	.4298	564.3	.4903-02
41	.50000	.17700	173.00	.3277-01	.3971-01	.4441-01	32.46	1.064	.4279	561.7	.8599-03
41	.50000	.30000	174.00	.2892-01	.3503-01	.3917-01	32.51	.9401	.4271	560.7	.7586-03
41	.50000	.48700	175.00	.3102-01	.3757-01	.4201-01	32.52	1.009	.4269	560.4	.8136-03
41	.50000	.60000	176.00	.3008-01	.3643-01	.4073-01	32.54	.9788	.4266	560.0	.7889-03
41	.50000	.70000	177.00	.2437-01	.2952-01	.3300-01	32.56	.7935	.4262	559.5	.6393-03
41	.50000	.90000	178.00	.1079-01	.1306-01	.1460-01	32.59	.3515	.4258	559.0	.2829-03
41	.60000	.10000+00	174.00	.5729-01	.6944-01	.7768-01	32.42	1.857	.4287	562.8	.1504-02
41	.60000	.20000	180.00	.3414-01	.4136-01	.4626-01	32.49	1.109	.4274	561.1	.8957-03
41	.60000	.30000	181.00	.2688-01	.3256-01	.3640-01	32.54	.8747	.4266	560.0	.7051-03

RUN NUMBER	2Y/8	X/C	T/C NO	ARC 3.5-178 IH3 ORBITER			WING BOTTOM		HM/HT	TW DEO. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	OODT BTU/ FT2SEC			
41	.60000	.42800	182.00	.3497-01	.4235-01	.4735-01	32.55	1.138	559.8	.9172-03	
41	.60000	.60000	183.00	.3426-01	.4149-01	.4639-01	32.56	1.115	559.6	.8986-03	
41	.60000	.70000	184.00	.2560-01	.3221-01	.3601-01	32.57	.8664	559.3	.6976-03	
43	.60000	.80000	185.00	.1378-01	.1663-01	.1855-01	32.93	.4536	553.4	.3576-03	
43	.60000	.85000	186.00	.1604-01	.1937-01	.2161-01	32.89	.6275	554.2	.4280-03	
41	.60000	.90000	187.00	.1518-01	.1838-01	.2055-01	32.58	.4944	559.2	.3980-03	
41	.75000	.25000-01	189.00	.2558	.3101	.3469	32.43	8.294	562.6	.6714-02	
41	.75000	.10000+00	190.00	.7605-01	.9217-01	.1031	32.45	2.468	562.0	.1996-02	
41	.75000	.30300	191.00	.3945-01	.4778-01	.5342-01	32.56	1.285	559.6	.1035-02	
41	.75000	.50000	192.00	.3558-01	.4309-01	.4818-01	32.54	1.158	559.9	.9332-03	
41	.75000	.70000	193.00	.1432-01	.1733-01	.1937-01	32.61	.4668	558.5	.3754-03	
43	.75000	.80000	194.00	.1308-01	.1579-01	.1761-01	32.95	.4309	553.8	.3489-03	
43	.75000	.85000	195.00	.1474-01	.1779-01	.1985-01	32.91	.4850	553.8	.3933-03	
41	.75000	.90000	195.00	.1207-01	.1461-01	.1633-01	32.57	.3930	559.3	.3184-03	
41	.85000	.10000+00	197.00	.9085-01	.1101	.1232	32.42	2.945	562.7	.2384-02	
41	.85000	.30000	198.00	.5196-01	.6297-01	.7042-01	32.47	1.687	561.5	.1363-02	
41	.90000	.50000	199.00	.4739-01	.5742-01	.6422-01	32.47	1.538	561.7	.1243-02	
41	.90000	.30000	201.00	.5824-01	.7063-01	.7903-01	32.35	1.884	564.3	.1529-02	
41	.90000	.60000	200.00	.2853-01	.3457-01	.3866-01	32.48	.9265	561.4	.7486-03	
41	.95000	.50000-01	203.00	.1127	.1368	.1531	32.22	3.632	557.1	.2961-02	
41	.95000	.10000+00	204.00	.1095	.1329	.1488	32.20	3.525	567.6	.2876-02	
41	.95000	.30000	205.00	.4926-01	.5980-01	.6637-01	32.17	1.585	568.3	.1295-02	
41	.95000	.50000	206.00	.3256-01	.3952-01	.4424-01	32.22	1.049	567.1	.8555-03	
41	.95000	.70000	207.00	.1719-01	.2084-01	.2331-01	32.40	.5570	563.1	.4512-03	
41	.95000	.90000	208.00	.1477-01	.1792-01	.2006-01	32.22	.4758	567.1	.3880-03	
41	.96600	.00000	209.00	.1078	.1310	.1467	32.08	3.458	570.3	.2835-02	
41	.99300	.00000	210.00	.2827-01	.3431-01	.3841-01	32.25	.9119	566.4	.7428-03	

WING BOTTOM

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	F/OVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
44	5.300	.512*07	406.4	1285.	313.6	.1750-01	.8322	.0000	.1046-02
45	5.300	.5036*07	406.2	1297.	316.7	.1750-01	.8273	.0000	.4693-03
46	5.300	.5003*07	405.9	1301.	317.9	.1750-01	.8248	.0000	.3430-03
47	5.300	.5392*07	404.9	1240.	302.0	.1750-01	.8469	.0000	.3445-03
46	4.0000	.73600							.5251-03
46	4.0000	.90000							.1028-02
46	4.0000	.25000-01							.3107-03
46	4.0000	.10000+00							.2275-02
46	4.0000	.165.00							.7258-03
46	4.0000	.166.00							.4431
46	4.0000	.167.00							.587.1
46	4.0000	.168.00							.583.9
46	4.0000	.169.00							.6005-03
46	4.0000	.170.00							.4408
46	4.0000	.171.00							.578.0
46	4.0000	.172.00							.6005-03
46	4.0000	.173.00							.1222-02
46	4.0000	.174.00							.8635-03
46	4.0000	.175.00							.3601-03
46	4.0000	.176.00							.2907-02
46	4.0000	.177.00							.9235-03
46	4.0000	.178.00							.1312-02
46	4.0000	.179.00							.1374-02
46	4.0000	.180.00							.1121-02
46	4.0000	.181.00							.8345-03
46	4.0000	.182.00							.3260-03
46	4.0000	.183.00							.1210-02
46	4.0000	.184.00							.593.6
46	4.0000	.185.00							.4481
46	4.0000	.186.00							.4435
46	4.0000	.187.00							.587.5
46	4.0000	.188.00							.1206-02
46	4.0000	.189.00							.1085-02
46	4.0000	.190.00							.4383

TEST DATA

2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R
.25000	.25000-01	155.00	.7242-01	.8876-01	.1000	52.67	3.815	.4567	574.9
.25000	.15300	156.00	.3253-01	.3983-01	.4485-01	52.96	1.723	.4539	571.3
.25000	.29900	157.00	.2379-01	.2911-01	.3277-01	53.11	1.263	.4524	569.4
.25000	.44400	158.00	.2390-01	.2923-01	.3290-01	53.22	1.272	.4513	568.0
.25000	.59000	159.00	.3647-01	.4455-01	.5010-01	53.46	1.930	.4488	565.0
.25000	.73600	160.00	.6973-01	.8458-01	.9466-01	58.43	4.075	.4303	570.1
.25000	.90000	161.00	.2106-01	.2555-01	.2861-01	58.29	1.227	.4317	571.9
.40000	.25000-01	164.00	.1537	.1873	.2102	57.16	8.785	.4123	586.0
.40000	.10000+00	165.00	.4901-01	.5973-01	.6707-01	57.07	2.797	.4431	587.1
.40000	.20000	166.00	.2993-01	.3644-01	.4089-01	57.32	1.715	.4408	583.9
.40000	.30200	167.00	.4064-01	.4941-01	.5538-01	57.80	2.349	.4363	578.0
.40000	.55900	168.00	.8278-01	.1005	.1125	58.19	4.817	.4325	573.0
.40000	.70000	169.00	.5849-01	.7103-01	.7956-01	58.09	3.397	.4336	574.4
.40000	.90000	170.00	.2438-01	.2962-01	.3319-01	57.96	1.413	.4347	575.9
.50000	.25000-01	172.00	.1958	.2333	.2693	56.31	11.02	.4504	596.7
.50000	.17700	173.00	.6236-01	.7601-01	.8535-01	57.07	3.558	.4432	587.2
.50000	.30000	174.00	.8871-01	.1079	.1210	57.60	5.110	.4382	580.5
.50000	.48700	175.00	.9203-01	.1130	.1267	57.66	5.358	.4376	579.7
.50000	.60000	176.00	.7581-01	.9225-01	.1035	57.52	4.361	.4389	581.4
.50000	.70000	177.00	.5643-01	.6866-01	.7701-01	57.55	3.248	.4386	581.0
.50000	.90000	178.00	.2205-01	.2683-01	.3008-01	57.59	1.270	.4382	580.5
.60000	.10000+00	174.00	.8158-01	.9953-01	.1120	56.55	4.613	.4481	593.6
.60000	.20000	180.00	.8144-01	.9928-01	.1115	57.04	4.645	.4435	587.5
.60000	.30000	181.00	.7340-01	.8930-01	.1001	57.58	4.227	.4383	580.7

WING BOTTOM

RUN NUMBER	2Y/B	X/C	T/C NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
46	.60000	.42800	182.00	.9305-01	.1132	.1270	57.58	5.358	.4383	560.7	.1376-02
46	.60000	.60000	183.00	.6864-01	.8352-01	.9368-01	57.54	3.950	.4387	581.2	.1015-02
46	.60000	.70000	184.00	.4749-01	.5777-01	.6478-01	57.61	2.736	.4380	580.3	.7021-03
44	.60000	.80000	185.00	.2547-01	.3091-01	.3461-01	57.48	1.464	.4320	564.6	.3725-03
44	.60000	.95000	186.00	.2820-01	.3428-01	.3841-01	57.10	1.610	.4356	569.3	.4128-03
46	.60000	.00000	187.00	.2235-01	.2721-01	.3053-01	57.42	1.283	.4399	582.7	.3306-03
46	.75000	.25000-01	189.00	.3205	.3909	.4391	56.93	18.25	.4445	588.9	.4749-02
46	.75000	.10000*00	190.00	.9208-01	.1123	.1261	56.94	5.243	.4444	588.8	.1364-02
46	.75000	.30360	191.00	.1260	.1535	.1723	57.24	7.211	.4416	585.0	.1865-02
46	.75000	.50000	192.00	.1153	.1405	.1577	57.16	6.592	.4423	585.9	.1707-02
44	.75000	.70000	193.00	.4226-01	.5144-01	.5771-01	57.44	2.427	.4397	582.5	.6251-03
44	.75000	.80000	194.00	.3277-01	.3984-01	.4465-01	57.06	1.870	.4359	569.8	.4799-03
44	.75000	.85000	195.00	.3578-01	.4355-01	.4885-01	56.72	2.029	.4392	574.1	.5245-03
46	.75000	.90000	195.00	.2662-01	.3244-01	.3642-01	57.11	1.520	.4428	586.6	.3941-03
46	.85000	.10000*00	197.00	.1136	.1388	.1561	56.37	6.402	.4498	595.9	.1686-02
46	.85000	.30000	198.00	.1301	.1590	.1789	56.34	7.328	.4501	596.3	.1931-02
46	.85000	.50000	199.00	.1447	.1769	.1991	56.24	8.136	.4510	597.5	.2148-02
46	.90000	.70000	201.00	.1079	.1323	.1491	55.59	5.998	.4572	605.6	.1606-02
46	.90000	.90000	200.00	.5946-01	.7270-01	.8180-01	56.27	3.346	.4508	597.2	.8029-03
46	.95000	.00000-01	203.00	.1110	.1362	.1536	55.72	6.151	.4588	607.9	.1653-02
46	.95000	.10000*00	204.00	.1075	.1318	.1486	55.54	5.968	.4577	606.3	.1600-02
46	.95000	.30000	205.00	.6962-01	.8550-01	.9650-01	55.13	3.838	.4616	611.5	.1038-02
46	.95000	.50000	205.00	.8163-01	.1002	.1131	55.25	4.510	.4604	609.9	.1216-02
46	.95000	.70000	207.00	.5065-01	.6204-01	.6990-01	55.79	2.826	.4553	603.2	.7533-03
46	.95000	.90000	208.00	.3858-01	.4744-01	.5358-01	54.84	2.116	.4643	615.1	.5757-03
46	.95600	.00000	209.00	.1055	.1296	.1464	54.89	5.788	.4639	614.5	.1573-02
46	.95300	.00000	210.00	.2835-01	.3482-01	.3931-01	55.09	1.562	.4619	612.0	.4226-03

ARC 3.5-178 IH3 ORBITER (TRIPSWING BOTTOM)

HING BOTTOM

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
48	25000	.25000-01	155.00	.7223-01	.8763-01	.9808-01	31.91	2.305	.4308	566.7	.1927-02
48	25000	.15300	156.00	.2864-01	.3472-01	.3885-01	32.01	9.168	.4291	564.5	.7636-03
48	25000	.29900	157.00	.1679-01	.2035-01	.2276-01	32.04	.5378	.4286	563.9	.4475-03
48	25000	.44400	158.00	.1316-01	.1595-01	.1784-01	32.08	.4223	.4278	562.9	.3508-03
48	25000	.59000	159.00	.1449-01	.1755-01	.1963-01	32.17	.4662	.4264	561.0	.3860-03
49	25000	.73600	160.00	.2130-01	.2582-01	.2989-01	32.00	.6816	.4289	564.8	.5689-03
49	25000	.90000	161.00	.9354-02	.1135-01	.1270-01	31.91	.2985	.4304	566.7	.2500-03
49	40000	.25000-01	164.00	.1698	.2063	.2311	31.66	5.377	.4348	572.5	.4544-02
49	40000	.10000+00	165.00	.5394-01	.6555-01	.7345-01	31.64	1.707	.4352	573.0	.1444-02
49	40000	.20000	166.00	.2925-01	.3553-01	.3980-01	31.70	.9274	.4341	571.6	.7626-03
49	40000	.30000	167.00	.2395-01	.2908-01	.3256-01	31.83	.7628	.4318	568.6	.6407-03
49	40000	.40000	168.00	.1985-01	.2408-01	.2694-01	31.93	.6339	.4301	566.3	.5305-03
49	40000	.70000	169.00	.1729-01	.2098-01	.2348-01	31.89	.5515	.4308	567.2	.4622-03
49	40000	.90000	170.00	.8084-02	.9814-02	1.099-01	31.78	.2569	.4327	569.7	.2162-03
49	50000	.25000-01	172.00	.1659	.2262	.2538	31.41	5.839	.4391	578.2	.4982-02
49	50000	.17700	173.00	.3203-01	.3693-01	.4363-01	31.60	1.012	.4359	573.9	.8575-03
49	50000	.30000	174.00	.2870-01	.3495-01	.3903-01	31.76	9.115	.4331	570.3	.7676-03
49	50000	.48700	175.00	.2952-01	.3584-01	.4013-01	31.78	9.930	.4328	569.9	.7895-03
49	50000	.60000	176.00	.2846-01	.3456-01	.3971-01	31.74	9.033	.4334	570.7	.7613-03
49	50000	.75000	177.00	.2314-01	.2911-01	.3149-01	31.74	.7345	.4335	570.8	.6191-03
49	50000	.90000	178.00	.1030-01	.1251-01	.1402-01	31.66	.3260	.4349	572.7	.2756-03
49	60000	.10000+00	174.00	.5744-01	.6988-01	.7835-01	31.48	1.808	.4380	576.7	.1539-02
49	60000	.20000	180.00	.3427-01	.4166-01	.4638-01	31.60	1.003	.4358	573.9	.9175-03
49	60000	.30000	181.00	.2650-01	.3461-01	.3876-01	31.73	.9043	.4336	570.9	.7623-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3 5-178 IH3 ORBITER (TRIPS)WING BOTTOM

PAGE 173
(RE1008)

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
49	.60000	.42800	182.00	.3419-01	.4153-01	.4651-01	31.72	1.085	.4338	571.1	.9147-03
49	.60000	.60000	183.00	.3277-01	.3980-01	.4458-01	31.70	1.039	.4341	571.6	.8766-03
49	.60000	.70000	184.00	.2517-01	.3056-01	.3423-01	31.73	.7984	.4337	571.0	.6732-03
51	.60000	.80000	185.00	.1404-01	.1887-01	.1887-01	33.02	.4636	.4136	548.9	.3767-03
51	.60000	.85000	186.00	.1819-01	.1953-01	.2177-01	32.92	.5329	.4152	551.1	.4345-03
49	.60000	.90000	187.00	.1495-01	.1818-01	.2037-01	31.57	.4721	.4363	574.5	.4003-03
49	.75000	.25000-01	189.00	.2544	.3094	.3468	31.55	8.027	.4368	575.1	.6814-02
49	.75000	.10000+00	190.00	.7651-01	.9304-01	.1043	31.54	2.413	.4369	575.3	.2049-02
49	.75000	.30300	191.00	.3932-01	.4779-01	.5356-01	31.60	1.242	.4359	573.9	.1053-02
49	.75000	.50000	192.00	.3450-01	.4194-01	.4701-01	31.57	1.089	.4364	574.7	.9236-03
49	.75000	.70000	193.00	.1411-01	.1715-01	.1922-01	31.62	.4462	.4355	573.4	.3777-03
51	.75000	.80000	194.00	.1285-01	.1551-01	.1730-01	32.67	.4225	.4161	552.2	.3451-03
51	.75000	.85000	195.00	.1459-01	.1761-01	.1965-01	32.78	.4781	.4177	554.4	.3918-03
49	.75000	.90000	196.00	.1191-01	.1449-01	.1625-01	31.47	.3748	.4380	576.8	.3190-03
49	.85000	.10000+00	197.00	.9365-01	.1140	.1279	31.38	2.938	.4397	579.0	.2510-02
49	.85000	.30000	198.00	.5443-01	.6627-01	.7437-01	31.33	1.705	.4405	580.0	.1459-02
49	.85000	.50000	199.00	.4802-01	.5249-01	.6564-01	31.29	1.503	.4412	580.9	.1288-02
49	.90000	.30000	201.00	.5942-01	.7245-01	.8137-01	31.14	1.850	.4438	584.4	.1595-02
49	.95000	.60000	200.00	.2410-01	.2936-01	.3235-01	31.28	.7539	.4414	581.2	.6465-03
49	.95000	.51000-01	203.00	.1079	.1316	.1478	31.09	3.355	.4446	585.5	.2897-02
49	.95000	.10000+00	204.00	.1051	.1282	.1440	31.07	3.265	.4450	585.9	.2821-02
49	.95000	.30000	205.00	.4718-01	.5759-01	.6474-01	30.96	1.461	.4470	588.5	.1268-02
49	.95000	.50000	205.00	.3186-01	.3889-01	.4371-01	30.97	.9868	.4467	588.2	.8560-03
49	.95000	.70000	207.00	.1673-01	.2040-01	.2291-01	31.11	.5203	.4444	585.1	.4491-03
49	.95000	.90000	208.00	.1392-01	.1701-01	.1913-01	30.86	.4297	.4487	590.8	.3744-03
49	.95000	.00000	209.00	.1054	.1287	.1447	30.92	3.259	.4477	589.5	.2834-02
49	.99300	.00000	210.00	.2741-01	.3347-01	.3762-01	30.94	.8481	.4473	588.9	.7366-03

ARC 3.5-178 IH3 ORBITER (TRIPS)WING BOTTOM

WING BOTTOM

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEV'N = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	PO	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053+07	405.5		1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027+07	406.4		1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137+07	405.1		1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987+07	402.9		1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
55	25000	.25000-01	155.00	.7128-01	.8673-01	.9726-01	57.20	4.077	.4384	579.2	.1056-02
55	25000	.15300	156.00	.3533-01	.4291-01	.4806-01	57.67	2.037	.4339	573.3	.5226-03
55	25000	.29900	157.00	.3032-01	.3680-01	.4120-01	57.89	1.755	.4319	570.6	.4483-03
55	25000	.44400	158.00	.3675-01	.4457-01	.4988-01	58.07	2.134	.4301	568.2	.5430-03
55	25000	.59000	159.00	.5035-01	.6100-01	.6821-01	58.39	2.940	.4270	564.2	.7432-03
54	25000	.73600	160.00	.6602-01	.8017-01	.8911-01	56.91	3.757	.4334	563.5	.9643-03
54	25000	.90000	161.00	.1982-01	.2406-01	.2694-01	57.00	1.130	.4326	562.4	.2894-03
54	40000	.25000-01	164.00	.1911	.2327	.2611	56.16	10.73	.4407	573.0	.2798-02
54	40000	.10000+00	165.00	.6749-01	.8215-01	.9216-01	56.28	3.798	.4396	571.5	.9879-03
54	40000	.20000	166.00	.5394-01	.6561-01	.7356-01	56.49	3.047	.4375	568.8	.7890-03
54	40000	.30200	167.00	.6139-01	.7461-01	.8361-01	56.69	3.480	.4356	566.3	.8974-03
54	40000	.50900	168.00	.7322-01	.8893-01	.9961-01	56.86	4.163	.4340	564.2	.1070-02
54	40000	.70000	169.00	.5497-01	.6676-01	.7478-01	56.87	3.126	.4338	564.0	.8030-03
54	40000	.90000	170.00	.2375-01	.2883-01	.3228-01	56.99	1.353	.4327	562.5	.3468-03
54	50000	.25000-01	172.00	.2605	.3176	.3566	55.87	14.56	.4435	576.6	.3818-02
54	50000	.17700	173.00	.6919-01	.8416-01	.9437-01	56.45	3.906	.4379	569.3	.1012-02
54	50000	.30000	174.00	.6534-01	.81037	.1163	56.64	4.834	.4361	566.9	.1248-02
54	50000	.48700	175.00	.8657-01	.1052	.1179	56.68	4.907	.4356	566.4	.1265-02
54	50000	.60000	176.00	.7288-01	.6857-01	.9925-01	56.70	4.132	.4355	566.2	.1065-02
54	50000	.70000	177.00	.5544-01	.6736-01	.7547-01	56.76	3.147	.4349	565.4	.8102-03
54	50000	.90000	178.00	.2236-01	.2716-01	.3042-01	56.89	1.272	.4336	563.8	.3267-03
54	60000	.10000+00	174.00	.7714-01	.9393-01	.1054	56.18	4.334	.4405	572.7	.1129-02
54	60000	.20000	180.00	.7963-01	.5692-01	.1087	56.48	4.501	.4376	568.9	.1166-02
54	60000	.30000	181.00	.7420-01	.9018-01	.1011	56.69	4.207	.4356	566.3	.1085-02

ARC 3.5-178 IH3 ORBITER (TRIPSHING BOTTOM)

DATE 24 JAN 75

ARC 3.5-178 IH3

RUN NUMBER	2Y/8	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FTSEC	ODOT BTU/ FTSEC	HM/HT	TW DEG. R	STN NO R=0.9
54	.60000	.42800	182.00	.9252-01	.1124	.1260	56.69	5.245	.4355	566.2	.1352-02
54	.60000	.60000	183.00	.6918-01	.8406-01	.9420-01	56.71	3.923	.4353	566.0	.1011-02
54	.60000	.70000	184.00	.4039-01	.6001-01	.6723-01	56.78	2.805	.4347	565.1	.7218-03
52	.60000	.80000	185.00	.2518-01	.3087-01	.3453-01	58.21	1.483	.4279	562.8	.3739-03
52	.60000	.85000	186.00	.2635-01	.3446-01	.3859-01	57.76	1.640	.4322	568.3	.4173-03
54	.60000	.90000	187.00	.2234-01	.2775-01	.3109-01	56.82	1.298	.4343	564.6	.3338-03
54	.75000	.25000-01	189.00	.3150	.3836	.4304	56.19	17.70	.4404	572.6	.4612-02
54	.75000	.10000-00	90.00	.8575-01	.1044	.1171	56.29	4.827	.4395	571.3	.1255-02
54	.75000	.30300	91.00	.1045	.1516	.1699	56.67	7.071	.4357	566.5	.1824-02
54	.75000	.50000	192.00	.1137	.1382	.1543	56.65	6.442	.4360	566.8	.1662-02
54	.75000	.70000	193.00	.4280-01	.5208-01	.5833-01	56.89	2.439	.4337	563.8	.6264-03
52	.75000	.80000	194.00	.326 -01	.3982-01	.4459-01	57.63	1.890	.4334	569.9	.4822-03
52	.75000	.85000	195.00	.3574-01	.4346-01	.4872-01	57.25	2.046	.4370	574.8	.5261-03
54	.75000	.90000	196.00	.2723-01	.3309-01	.3737-01	56.77	1.546	.4348	565.3	.3960-03
54	.85000	.10000-00	197.00	.1032	.1257	.1411	56.08	5.787	.4414	573.9	.1511-02
54	.85000	.30000	198.00	.1315	.1601	.1790	56.29	7.403	.4395	571.4	.1925-02
54	.85000	.50000	199.00	.1403	.1708	.1916	56.24	7.891	.4399	571.9	.2054-02
54	.85000	.70000	201.00	.1226	.1495	.1680	55.73	3.833	.4448	578.3	.1798-02
54	.90000	.90000	200.00	.5975-01	.7271-01	.8156-01	55.33	3.366	.4391	570.8	.8744-03
54	.90000	.50000-01	203.00	.1076	.1315	.1478	55.35	5.956	.4486	583.2	.1580-02
54	.90000	.10000-00	204.00	.1040	.1270	.1432	55.44	5.767	.4477	582.0	.1527-02
54	.90000	.30000	205.00	.7035-01	.8397-01	.9671-01	55.23	3.886	.4497	584.6	.1033-02
54	.95000	.50000	206.00	.8516-01	.1052	.1133	55.42	4.775	.4478	582.2	.1265-02
54	.95000	.70000	207.00	.5362-01	.6530-01	.7323-01	56.13	3.010	.4410	573.3	.7852-03
54	.95000	.90000	208.00	.3854-01	.4707-01	.5293-01	55.35	2.133	.4485	583.1	.5658-03
54	.95000	.00000	209.00	.1032	.1263	.1422	54.90	5.655	.4529	588.8	.1517-02
54	.99300	.00000	210.00	.2694-01	.3288-01	.3697-01	55.49	1.495	.4471	581.3	.3953-03

ARC 3.5-178 IH3
 ARC 3.5-178 IH3 O+I+S
 WING BOTTOM

PARAMETRIC DATA
 RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
70	5.300	.4906*07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001*07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987*07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
70	.25000	.25000-01	155.00	.9028-01	.1088	.1212	61.41	5.545	.4123	554.6	.1334-02
70	.25000	.15300	156.00	.1177	.1418	.1579	61.66	7.260	.4100	551.5	.1739-02
70	.25000	.29900	157.00	.6509-01	.7635-01	.8723-01	61.77	4.021	.4090	550.1	.9611-03
70	.25000	.44400	158.00	.6212-01	.7475-01	.8322-01	61.82	3.840	.4085	549.5	.9170-03
70	.25000	.59000	159.00	.5027-01	.6047-01	.6729-01	61.99	3.116	.4069	547.4	.7418-03
72	.60000	.80000	185.00	.4123-01	.4987-01	.5566-01	59.39	2.452	.4192	554.6	.6078-03
72	.60000	.85000	186.00	.5292-01	.6403-01	.7154-01	58.92	3.118	.4236	560.5	.7802-03
72	.75000	.80000	194.00	.3112-01	.3765-01	.4207-01	58.90	1.533	.4237	560.7	.4588-03
72	.75000	.85000	195.00	.4121-01	.4993-01	.5583-01	58.53	2.412	.4273	565.4	.6082-03

(REIH01)

APC 3.5-178 IH3 0+T+S

CLUSTER B AND C

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.	HM/HT	TW DEG. R	STN NO R=0.9
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000	.3515	572.6	.8547-02
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000	.3515	572.6	.8074-02
3	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000	.3508	571.4	.5767-02
3	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000	.3506	571.1	.4396-02
3	5.300	.1255	124.8	1372.	349.0	5.603			.3501	570.4	.3700-02
5	5.300	.17454-01	.8897-01	.55+3-01	43.43	3.238			.3831	584.7	.2002-02
3	5.300	.8127-01	.9539-01	.1052	53.15	4.320			.3477	566.5	.2088-02
3	5.300	1559	18+3	2027	52.94	8.254			.3502	570.5	.4007-02
3	5.300	.1258	.1487	.1635	52.94	6.662			.3501	570.4	.3234-02
3	5.300	.8017-01	.8470-01	.12+3	52.96	5.272			.3500	570.2	.2059-02
3	5.300	.5521-01	.6590-01	.2397-01	43.40	2.396			.3835	585.3	.1483-02
5	5.300	.4050-01	.5562-01	.5158-01	43.41	2.023			.3834	585.1	.1252-02

TEST DATA

RUN NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC
3	.60000	.00000	211.00	.3325	.3931	.4326	52.83	17.57
3	.62000	.50000-01	212.00	.3141	.3713	.4086	52.83	16.59
3	.62000	.13500+00	213.00	.2844	.2652	.2813	52.89	11.87
3	.60000	.15000	214.00	.1710	.2022	.2324	52.91	9.050
3	.60000	.20000	215.00	.1440	.1702	.1872	52.95	7.624
3	.60000	.25000	216.00	.1255	.1248	.1372	53.05	5.603
5	.60000	.30000	217.00	.7454-01	.8897-01	.55+3-01	43.43	3.238
3	.85000	.00000	218.00	.8127-01	.9539-01	.1052	53.15	4.320
3	.85000	.50000-01	219.00	1559	18+3	2027	52.94	8.254
3	.85000	.10000+00	220.00	.1258	.1487	.1635	52.94	6.662
3	.85000	.15000	221.00	.995-01	.1177	.1234	52.95	5.272
3	.85000	.20000	222.00	.8017-01	.8470-01	.12+3	52.96	4.243
3	.85000	.25000	223.00	.5521-01	.6590-01	.2397-01	43.40	2.396
5	.85000	.30000	224.00	.4050-01	.5562-01	.5158-01	43.41	2.023

ARC 3.5-178 IH3 0+T+S CLUSTER B AND C

CLUSTER B AND C

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	SYN NO R-0.9
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000	.5247-02
16	5.300	.4953+07	406.3	1310.	320.2	.1773-01	.8223	.0000	.4935-02
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000	.3236-02
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000	.2502-02

RUN NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	HM/HT	TW DEG. R
17	.60000	.00000	211.00	.3546	.4319	.4848	20.27	.4417	584.7
17	.60000	.50000-01	212.00	.3334	.4063	.4561	19.04	.4423	585.5
17	.60000	.10000+00	213.00	.2187	.2664	.2990	12.51	.4413	584.2
17	.60000	.15000	214.00	.1691	.2060	.2311	9.689	.4406	583.3
17	.60000	.20000	215.00	.1393	.1695	.1902	7.987	.4400	582.4
17	.60000	.25000	216.00	.1011	.1228	.1376	5.845	.4353	576.3
15	.60000	.30000	217.00	.7287-01	.8879-01	.9967-01	4.178	.4422	587.7
17	.85000	.00000	218.00	.6519-01	.7910-01	.8856-01	3.717	.4323	572.3
17	.85000	.50000-01	219.00	.1445	.1757	.1970	8.322	.4376	579.3
17	.85000	.10000+00	220.00	.1161	.1413	.1585	6.674	.4387	580.8
17	.85000	.15000	221.00	.9311-01	.1133	.1271	5.349	.4390	581.2
17	.85000	.20000	222.00	.7585-01	.9235-01	.1036	4.348	.4402	582.8
15	.85000	.25000	223.00	.5560-01	.6777-01	.7609-01	3.183	.4430	585.8
15	.85000	.30000	224.00	.4838-01	.5896-01	.6620-01	2.771	.4427	588.4

TEST DATA

ARC 3.5-178 1H3 O-T+S (TRIPS) CLUSTER B AND C
 PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R-C.9
20	.60000	.00000	211.00	.3249	.3949	.4426	31.02	10.08	.4360	567.2	.8682-02
20	.60000	.50000-01	212.00	.3058	.3717	.4167	30.99	9.476	.4365	567.7	.8172-02
20	.60000	.10000+00	213.00	.2141	.2603	.2917	31.01	8.638	.4362	567.4	.5721-02
20	.60000	.15000	214.00	.1629	.1980	.2219	31.00	5.050	.4363	567.5	.4353-02
20	.60000	.20000	215.00	.1351	.1641	.1839	31.03	4.191	.4357	566.7	.3608-02
20	.60000	.25000	216.00	.1002	.1217	.1364	31.07	3.113	.4351	565.9	.2676-02
22	.60000	.30000	217.00	.7462-01	.9000-01	1.003	33.50	2.403	.4147	568.0	.2016-02
20	.85000	.00000	218.00	.7855-01	.9539-01	1.068	31.16	2.448	.4335	563.8	.2097-02
20	.85000	.50000-01	219.00	.1504	.1828	.2048	31.05	4.671	.4353	566.3	.4019-02
20	.85000	.10000+00	220.00	.1187	.1442	.1616	31.02	3.681	.4359	566.9	.3171-02
20	.85000	.15000	221.00	.9316-01	.132	.1269	31.02	2.890	.4359	567.0	.2889-02
20	.85000	.20000	222.00	.7411-01	.9013-01	1.010	31.00	2.299	.4362	567.4	.1981-02
22	.85000	.25000	223.00	.5367-01	.6500-01	.7249-01	33.43	1.801	.4158	559.5	.1456-02
22	.85000	.30000	224.00	.4577-01	.5522-01	.6158-01	33.44	1.531	.4156	559.3	.1237-02

ARC 3.5-178 1H3 O+T+S (TRIPS) CLUSTER B AND C

CLUSTER B AND C

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
5.300	5.300	.4977+07	406.3	1307	319.2	1750-01	.8238	.0000
5.300	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.8254	.0000
5.300	5.300	.5006+07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
31	.60000	.00000	211.00	.3324	.4067	.4578	56.17	18.67	.4523	599.5	.4937-02
31	.60000	.50000-01	212.00	.3076	.3765	.4239	56.06	17.25	.4533	600.8	.4570-02
31	.60000	.10000+00	213.00	.2119	.2592	.2919	56.11	11.89	.4529	600.2	.3147-02
31	.60000	.15000	214.00	.1688	.2065	.2325	56.14	9.473	.4526	599.9	.2505-02
31	.60000	.20000	215.00	.1415	.1731	.1948	56.18	7.949	.4522	599.3	.2101-02
31	.60000	.25000	216.00	.1036	.1265	.1423	56.51	5.852	.4491	595.2	.1536-02
29	.60000	.30000	217.00	.7856-01	.9334-01	.1048	57.30	4.587	.4436	590.1	.1136-02
31	.85000	.00000	218.00	.5775-01	.7046-01	.7919-01	56.83	3.282	.4460	591.1	.8957-03
31	.85000	.50000-01	219.00	.1362	.1665	.1873	56.36	7.676	.4505	597.1	.2021-02
31	.85000	.10000+00	220.00	.1123	.1373	.1545	56.22	6.311	.4518	598.8	.1667-02
31	.85000	.15000	221.00	.9163-01	.1121	.1262	56.21	5.150	.4519	599.0	.1360-02
29	.85000	.20000	222.00	.7647-01	.9360-01	.1054	56.04	4.286	.4535	601.0	.1136-02
29	.85000	.25000	223.00	.5616-01	.6848-01	.7691-01	57.24	3.214	.4442	590.9	.8336-03
29	.85000	.30000	224.00	.4848-01	.5911-01	.6639-01	57.28	2.777	.4438	590.4	.7196-03

PARAMETRIC DATA

CLUSTER B AND C

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	405.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
38	.60000	.00000	211.00	.5445	.6644	.7467	56.39	30.71	.4460	587.0	.6038-02
38	.60000	.50000-01	212.00	.4832	.5898	.6629	56.31	27.21	.4468	588.0	.7134-02
38	.60000	.10000+00	213.00	.3455	.4216	.4738	56.38	19.48	.4461	587.1	.5100-02
38	.60000	.15000	214.00	.2624	.3202	.3598	56.42	14.80	.4458	586.7	.3873-02
38	.60000	.20000	215.00	.2203	.2687	.3019	56.49	12.44	.4451	585.8	.3251-02
38	.60000	.25000	216.00	.1638	.1995	.2239	56.83	9.307	.4418	581.4	.2414-02
35	.60000	.30000	217.00	.1287	.1574	.1774	55.77	7.175	.4539	599.4	.1908-02
38	.85000	.00000	218.00	.8665-01	.1054	.1183	57.14	4.951	.4389	577.6	.1276-02
38	.85000	.50000-01	219.00	.2030	.2475	.2778	56.64	11.50	.4436	583.8	.2994-02
38	.85000	.10000+00	220.00	.1561	.1903	.2138	56.61	8.836	.4439	584.3	.2301-02
38	.85000	.15000	221.00	.1302	.1589	.1783	56.58	7.366	.4442	584.6	.1921-02
38	.85000	.20000	222.00	.1043	.1273	.1430	56.50	5.895	.4449	585.6	.1540-02
36	.85000	.25000	223.00	.8613-01	.1055	.1188	55.72	4.799	.4543	600.0	.1278-02
35	.85000	.30000	224.00	.7696-01	.9422-01	.1061	55.75	4.291	.4540	599.6	.1141-02

ARC 3.5-178 143 ORBITER CLUSTER B AND C

CLUSTER B AND C

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PJ	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636*07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582*07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522*07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516*07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
41	.60000	.00000	211.00	.3857	.4579	.5237	32.29	12.45	.4308	565.6	.1013-01
41	.60000	.50000-01	212.00	.3770	.4575	.5121	32.25	12.16	.4314	566.4	.8905-02
41	.60000	.10000+00	213.00	.2566	.3113	.3484	32.31	8.291	.4305	565.2	.6739-02
41	.60000	.15000	214.00	.1941	.2355	.2635	32.31	6.272	.4306	565.2	.5099-02
41	.60000	.20000	215.00	.1622	.1967	.2202	32.34	5.245	.4300	564.6	.4260-02
41	.60000	.25000	216.00	.1191	.1444	.1616	32.36	3.855	.4296	564.0	.3128-02
43	.60000	.30000	217.00	.8649-01	.1046	.1168	32.63	2.822	.4226	560.1	.2311-02
41	.85000	.00000	218.00	.8143-01	.9868-01	.1104	32.46	2.643	.4279	551.8	.4229-02
41	.85000	.50000-01	219.00	.1611	.1953	.2195	32.37	5.214	.4294	563.7	.3193-02
41	.85000	.10000+00	220.00	.1216	.1475	.1650	32.38	3.938	.4293	563.6	.2680-02
41	.85000	.15000	221.00	.1021	.1239	.1385	32.38	3.306	.4293	563.5	.2110-02
41	.85000	.20000	222.00	.8039-01	.9747-01	.1091	32.38	2.603	.4293	563.6	.1606-02
43	.85000	.25000	223.00	.6011-01	.7269-01	.8118-01	32.66	1.963	.4222	559.6	.1606-02
43	.85000	.30000	224.00	.5201-01	.6290-01	.7024-01	32.67	1.699	.4220	559.2	.1390-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

CLUSTER B AND C

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	HACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
44	5.300	.5 12*07	406.4	1285.	313.6	.1750-01	.8322	.0000	R=0.9
45	5.300	.5036*07	406.2	1297.	316.7	.1750-01	.8273	.0000	.7526-02
46	5.300	.5003*07	405.9	1301.	317.9	.1750-01	.8248	.0000	.6895-02
47	5.300	.5392*07	404.9	1240.	302.0	.1750-01	.8469	.0000	.4859-02

TEST DATA

RUN NUMBER	2Y/3	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	H4/HT	TH DEG. R
46	.60000	.00000	211.00	.5072	.6196	.6962	56.48	28.64	.4488	594.6
45	.60000	.50000-01	212.00	.4645	.5677	.6386	56.36	26.18	.4499	596.0
46	.60000	.10000+00	213.00	.3139	.3836	.4315	56.36	17.69	.4499	596.0
46	.60000	.15000	214.00	.2542	.3107	.3495	56.37	14.33	.4498	595.9
46	.60000	.20000	215.00	.2104	.2571	.2831	56.41	11.87	.4494	595.3
46	.60000	.25000	216.00	.1623	.1982	.2227	56.70	9.204	.4467	591.8
44	.60000	.30000	217.00	.1197	.1462	.1644	55.70	6.666	.4490	586.8
46	.85000	.00000	218.00	.7898-01	.9628-01	.1081	57.02	4.504	.4436	587.7
46	.85000	.50000-01	219.00	.1820	.2222	.2498	56.64	10.31	.4473	592.5
45	.85000	.10000+00	220.00	.1453	.1775	.1996	56.55	8.219	.4481	593.7
46	.85000	.15000	221.00	.1146	.1400	.1574	56.54	6.481	.4482	593.7
46	.85000	.20000	222.00	.9421-01	.1151	.1295	56.36	5.310	.4499	596.0
44	.85000	.25000	223.00	.6184-01	.7557-01	1.70-01	55.63	3.440	.4497	587.7
44	.85000	.30000	224.00	.5126-01	.6264-01	.3-01	55.64	2.852	.4496	587.6

ARC 3.5-178 1H3 ORBITER (TRIPS) CLUSTER B AND C

CLUSTER B AND C

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
48	5.300	.1533*07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526*07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431*07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495*07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

R. N NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	GDOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R=0.9
49	.60000	.00000	211.00	.3796	.4620	.5182	31.41	11.92	.4392	578.3	.1017-01
49	.60000	.50000-01	212.00	.3560	.4334	.4862	31.38	11.17	.4397	579.0	.9543-02
49	.60000	.10000*00	213.00	.2545	.3098	.3475	31.39	7.991	.4395	578.6	.6822-02
49	.60000	.15000	214.00	.1923	.2340	.2625	31.39	6.035	.4396	578.8	.5133-02
49	.60000	.20000	215.00	.1602	.1949	.2186	31.41	5.030	.4392	578.3	.4292-02
49	.60000	.25000	216.00	.1199	.1459	.1636	31.44	3.769	.4387	577.6	.3212-02
51	.60000	.30000	217.00	.1169	.1477	.1669	32.64	2.828	.4200	557.4	.2329-02
49	.85000	.00000	218.00	.8110-01	.9863-01	.1106	31.51	2.556	.4373	575.9	.2172-02
49	.85000	.50000-01	219.00	.1646	.2003	.2247	31.41	5.170	.4391	578.2	.4411-02
49	.85000	.10000*00	220.00	.1262	.1536	.1723	31.40	3.982	.4394	578.5	.3382-02
49	.85000	.15000	221.00	.1031	.1255	.1408	31.42	3.241	.4390	578.1	.2784-02
49	.85000	.20000	222.00	.8114-01	.9877-01	.1108	31.37	2.545	.4398	579.1	.2175-02
51	.85000	.25000	223.00	.6072-	.7341-01	.8197-01	32.57	1.978	.4213	559.1	.1633-02
51	.85000	.30000	224.00	.5224-01	.6316-01	.7092-01	32.57	1.702	.4213	559.1	.1405-02

(REIH09)

ARC 3.5-178 IH3 ORBITER (TRIPS)CLUSTER B AND C

CLUSTER B AND C

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RS FT	RHOVEL SLUG/ FT ² SEC	ALPHA DEG.
.1750-01	.8274	.0000
.1750-01	.8269	.0000
.1750-01	.8320	.0000
.1750-01	.8201	.0000

TEST DATA

27/8	27/8	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
.60000	.60000	.00000	211.00	.5514	.6723	.7550	55.85	30.80	.4436	576.8	.8082-02
.60000	.60000	.50000-01	212.00	.5027	.6130	.6884	55.82	28.06	.4440	577.2	.7369-02
.60000	.60000	.10000+00	213.00	.3205	.3907	.4387	55.90	17.92	.4432	576.2	.4697-02
.60000	.60000	.15000	214.00	.2544	.3100	.3481	55.92	14.22	.4430	575.9	.3727-02
.60000	.60000	.20000	215.00	.2047	.2495	.2801	56.00	11.47	.4422	575.0	.2998-02
.60000	.60000	.25000	216.00	.1565	.1905	.2138	56.18	8.790	.4405	572.7	.2291-02
.60000	.60000	.30000	217.00	.1152	.1406	.1579	56.40	6.499	.4452	585.4	.1701-02
.85000	.85000	.00000	218.00	.8169-01	.9936-01	.1114	56.48	4.614	.4376	568.9	.1193-02
.85000	.85000	.50000-01	219.00	.1813	.2208	.2478	56.11	10.17	.4411	573.5	.2655-02
.85000	.85000	.10000+00	220.00	.1405	.1712	.1921	56.06	7.877	.4416	574.2	.2058-02
.85000	.85000	.15000	221.00	.1122	.1367	.1535	56.00	6.291	.4417	574.3	.1844-02
.85000	.85000	.20000	222.00	.8633-01	.1052	.1181	56.00	4.835	.4422	574.9	.1265-02
.85000	.85000	.25000	223.00	.6864-01	.8377-01	.9416-01	56.25	3.861	.4466	587.3	.1014-02
.85000	.85000	.30000	224.00	.5734-01	.6998-01	.7865-01	56.26	3.226	.4464	587.1	.8467-03

DATE 24 JAN 76
ARC 3.5-178 1H3
ARC 3.5-178 1H3 O+T+S

CLUSTER B AND C
CLUSTER B AND C
PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PEP FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
70	5.300	.490+.07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+.07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+.07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	2Y/B	S	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HW/HT	TW DEG. R	STN NO R=0.9
72	.60000	.30000	217.00	.9318-01	.1135	.1274	57.02	5.313	.4416	584.3	.1382-02
72	.85000	.25000	223.00	.6033-01	.7353-01	.8256-01	56.87	3.431	.4431	586.3	.8950-03
72	.85000	.30000	224.00	.4997-01	.6089-01	.6836-01	55.93	2.045	.4425	585.5	.7411-03

ARC 3.5-178 IH3 O+T+S WING TOP

WING TOP SURF

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1881.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	365.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1332.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
5	.40000	.50000-01	225.00	.1316	.1569	.1737	43.59	5.735	.3810	581.5	.3532-02
5	.40000	.20000	226.00	.3083-01	.3672-01	.4060-01	43.92	1.354	.3764	574.5	.8267-03
5	.40000	.60000	227.00	.1172-02	.1394-02	.1541-02	44.12	.5169-01	.3738	570.4	.3140-04
5	.40000	.95000	228.00	.5755-02	.6853-02	.7575-02	43.98	.2531	.3756	573.2	.1543-03
3	.60000	.50000-01	229.00	.1452	.1715	.1886	53.17	7.722	.3475	566.1	.3730-02
3	.60000	.20000	230.00	.3414-01	.4027-01	.4425-01	53.53	1.828	.3433	559.3	.8761-03
5	.60000	.60000	231.00	.6904-02	.8213-02	.9074-02	44.18	.3050	.3729	569.0	.1849-03
3	.60000	.80000	232.00	.1960-02	.2311-02	.2538-02	53.72	.1053	.3411	555.7	.5028-04
5	.60000	.90000	233.00	.1862-02	.2240-02	.2475-02	44.07	.8294-01	.3744	571.3	.5043-04
3	.60000	.50000-01	234.00	.4433-02	.5229-02	.5745-02	53.53	.2373	.3433	559.3	.1138-03
5	.80000	.20000	235.00	.2176	.2593	.2869	43.72	9.512	.3792	578.7	.5838-02
5	.80000	.60000	236.00	.4978-01	.5927-01	.6552-01	43.99	2.190	.3755	573.1	.1334-02
5	.80000	.80000	237.00	.9741-02	.1159-01	.1280-01	44.20	.4305	.3727	568.7	.2609-03
5	.80000	.60000	238.00	.7613-02	.9059-02	.1001-01	44.15	.3361	.3734	569.8	.2040-03
5	.80000	.80000	239.00	.5753-02	.6856-02	.7578 02	44.03	.2536	.3749	572.2	.1544-03
5	.80000	.90000	240.00	.5143-02	.6123-02	.6768-02	44.00	.2263	.3754	572.9	.1379-03

WING TOP SURF

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
15	.40000	.50000-01	225.00	.1403	.1709	.1918	57.40	8.052	.4415	586.7	.2082-02
15	.40000	.20000	226.00	.3226-01	.4034-01	.4515-01	58.59	1.949	.4303	571.8	.4918-03
15	.40000	.60000	227.00	.1856-02	.2259-02	.2525-02	59.18	1.105	.4247	564.5	.2755-04
15	.40000	.95000	228.00	.1086-01	.1317-01	.1475-01	58.49	6.350	.4312	573.1	.1606-03
17	.60000	.50000-01	229.00	.1388	.1689	.1895	57.47	7.977	.4389	581.0	.2052-02
17	.60000	.20000	230.00	.6236-01	.7557-01	.8453-01	58.60	3.654	.4281	566.7	.9187-03
15	.60000	.60000	231.00	.1458-01	.1764-01	.1971-01	59.31	.8648	.4235	562.9	.2151-03
17	.60000	.80000	232.00	.1192-01	.1442-01	.1610-01	59.17	.7053	.4227	559.6	.1753-03
15	.60000	.95000	233.00	.1298-01	.1574-01	.1760-01	58.74	.7625	.4288	569.9	.1918-03
17	.60000	.50000-01	234.00	.1453-01	.1761-01	.1970-01	58.52	.8502	.4289	567.8	.2141-03
15	.80000	.20000	235.00	.2102	.2564	.2879	57.13	12.01	.4441	590.2	.3123-02
15	.80000	.60000	236.00	.4879-01	.5926-01	.6638-01	58.20	2.839	.4340	576.8	.7222-03
15	.80000	.80000	237.00	.1062-01	.1286-01	.1438-01	59.14	.6283	.4251	565.0	.1568-03
15	.80000	.95000	238.00	.1093-01	.1324-01	.1481-01	58.85	.6432	.4278	568.6	.1615-03
15	.80000	.50000-01	239.00	.1540-01	.1869-01	.2092-01	58.45	.9002	.4316	573.6	.2278-03
15	.80000	.95000	240.00	.1871-01	.2271-01	.2543-01	58.35	1.092	.4325	574.9	.2768-03

WING TOP SURF

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PSIA	TO DEG. R	HO BTU/LRM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500*07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537*07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523*07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470*07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
22	.40000	.50000-01	225.00	.1335	.1611	.1796	33.50	4.474	.4146	557.9	3608-02
22	.40000	.20000	226.00	.3127-01	.3764-01	.4191-01	33.81	1.057	.4094	550.9	.8435-03
22	.40000	.60000	227.00	.1018-02	.1225-02	.1363-02	33.97	3.460-01	.4067	547.3	.2746-04
22	.40000	.95000	228.00	.6633-02	.7986-02	.8893-02	33.78	2.240	.4099	551.5	.1790-03
20	.60000	.50000-01	229.00	.1372	.1663	.1861	31.46	4.317	.4283	557.1	.3658-02
20	.60000	.20000	230.00	.3285-01	.3976-01	.4443-01	31.68	1.041	.4243	552.0	.8745-03
22	.60000	.60000	231.00	.6176-02	.7426-02	.8262-02	34.03	2.101	.4057	545.9	.1664-03
20	.60000	.80000	232.00	.1200-02	.1451-02	.1621-02	31.75	3.810-01	.4230	550.2	.3193-04
22	.60000	.95000	233.00	.1659-02	.1986-02	.2222-02	33.88	5.620-01	.4081	549.2	.4473-04
20	.80000	.50000-01	234.00	.2120	.2557	.2851	33.50	7.103	.4146	553.8	.1143-03
22	.80000	.20000	235.00	.4872-01	.5867-01	.6534-01	33.76	1.645	.4102	552.0	.1315-02
22	.80000	.60000	237.00	.9795-02	1.202-01	1.337-01	33.99	3.398	.4062	546.6	.2694-03
22	.80000	.80000	238.00	.7761-02	.9336-02	1.039-01	33.94	2.634	.4072	547.9	.2093-03
22	.80000	.90000	239.00	.6173-02	.7430-02	.8273-02	33.83	2.088	.4091	550.4	.1665-03
22	.90000	.95000	240.00	.5213-02	.6276-02	.6988-02	33.80	1.762	.4095	551.1	.1406-03

ARC 3.5-178 143 O-T+S (TRIPS) WING TOP

WING TOP SURF

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
29	5.300	.4977*07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5006*07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006*07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039*07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
29	.40000	.50000-01	225.00	.1335	.1627	.1827	57.35	7.656	.4432	589.6	.1981-02
29	.40000	.20000	226.00	.3012-01	.3655-01	.4092-01	58.57	1.784	.4317	574.2	.4453-03
29	.40000	.60000	227.00	.1876-02	.2271-02	.2539-02	59.21	.1111	.4257	566.2	.2768-04
29	.40000	.95000	228.00	.1001-01	.1215-01	.1360-01	58.47	.5852	.4326	575.5	.1480-03
31	.60000	.50000-01	229.00	.1362	.1661	.1866	56.94	7.756	.4450	589.7	.2018-02
31	.60000	.20000	230.00	.7327-01	.8905-01	.9980-01	57.92	4.244	.4357	577.5	.1082-02
29	.60000	.60000	231.00	.1419-01	.1718-01	.1919-01	59.34	.8422	.4244	564.6	.2093-03
31	.60000	.80000	232.00	.1074-01	.1304-01	.1460-01	58.30	.6284	.4321	572.7	.1585-03
29	.60000	.90000	233.00	.1311-01	.1590-01	.1779-01	58.72	.7696	.4302	572.3	.1937-03
31	.80000	.50000-01	234.00	.1356-01	.1651-01	.1852-01	57.49	.7796	.4398	582.9	.2005-03
29	.80000	.20000	235.00	.2130	.2598	.2920	57.10	12.16	.4455	592.6	.3163-02
29	.80000	.60000	236.00	.5533-01	.6723-01	.7533-01	58.21	3.220	.4351	578.8	.8188-03
29	.80000	.80000	237.00	.1647-01	.1995-01	.2230-01	59.21	.9754	.4256	566.2	.2431-03
29	.80000	.90000	238.00	.1439-01	.1745-01	.1952-01	58.87	.8472	.4288	570.5	.2126-03
29	.80000	.95000	239.00	.1894-01	.2300-01	.2575-01	58.46	1.107	.4327	575.6	.2801-03
29	.80000	.95000	240.00	.2302-01	.2796-01	.3132-01	58.34	1.343	.4339	577.2	.3405-03

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WING TOP

WING TOP SURF

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
36	.40000	.50000-01	225.00	.7882-01	.9637-01	.1084	56.09	4.421	.4509	595.4	.1168-02
36	.40000	.20000	226.00	.2284-01	.2783-01	.3125-01	56.99	1.302	.4422	584.0	.3374-03
36	.40000	.60000	227.00	.6742-02	.8197-02	.9189-02	57.58	.3882	.4366	576.6	.9940-04
36	.40000	.95000	228.00	.1371-01	.1670-01	.1874-01	57.09	.7828	.4413	582.8	.2025-03
38	.60000	.50000-01	232.00	.1081	.1317	.1478	56.81	6.140	.4420	581.7	.1593-02
38	.60000	.20000	230.00	.3222-01	.3910-01	.4377-01	57.93	1.866	.4314	567.7	.4733-03
36	.60000	.60000	231.00	.4193-02	.5096-02	.5711-02	57.67	.2418	.4358	575.4	.6179-04
38	.60000	.80000	232.00	.1782-02	.2158-02	.2413-02	58.49	1.042	.4261	560.7	.2614-04
36	.60000	.90000	233.00	.4139-02	.5039-02	.5654-02	57.21	.2368	.4402	581.2	.6110-04
38	.60000	.95000	234.00	.4513-02	.5600-02	.6271-02	57.80	.2666	.4326	569.3	.6779-04
36	.80000	.50000-01	235.00	.1715	.2095	.2357	56.22	9.640	.4496	593.7	.2539-02
36	.80000	.20000	236.00	.3689-01	.4739-01	.5320-01	56.99	2.216	.4423	584.0	.5745-03
36	.80000	.60000	237.00	.7322-02	.8839-02	.9973-02	57.67	.4222	.4358	575.5	.1079-03
36	.80000	.80000	238.00	.5652-02	.6096-02	.6080-02	57.41	.3820	.4383	578.8	.9817-04
36	.80000	.90000	239.00	.7166-02	.9460-02	1.062-01	57.06	.4431	.4416	583.1	.1147-03
36	.80000	.95000	240.00	.7604-02	.9267-02	1.040-01	56.94	.4330	.4427	584.6	.1123-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

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ARC 3.5-178 IH3 ORBITER

WING TOP

DATE 24 JAN 76

ARC 3.5-178 IHZ

ARC 3.5-178 IH3 ORBITER

WING TOP

WING TOP SURF

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636*07	130.4	1287.	314.1	.1750-01	.26C3	.0000
41	5.300	.1582*07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522*07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516*07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	ZY/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
43	.40000	.50000-01	225.00	.1533	.1856	.2075	32.45	4.973	.4258	364.3	.4100-02
43	.40000	.20000	226.00	.3197-01	.3866-01	.4317-01	32.67	1.044	.4220	559.3	.8542-03
43	.40000	.50000	227.00	.1663-02	.2009-02	.2243-02	32.81	.5456-01	.4196	556.1	.4441-04
43	.40000	.95000	228.00	.4325-02	.5226-02	.5834-02	32.78	.1418	.4200	556.7	.1155-03
41	.60000	.50000-01	229.00	.1623	.2018	.2258	32.30	5.372	.4307	513.4	.4368-02
41	.60000	.20000	230.00	.3655-01	.4429-01	.4953-01	32.49	1.187	.4275	561.2	.9590-03
43	.60000	.60000	231.00	.6126-02	.7398-02	.8253-02	32.88	.2014	.4184	554.5	.1635-03
41	.60000	.80000	232.00	.3226-02	.4751-02	.5310-02	32.64	1.281	.4249	557.8	.1029-03
43	.60000	.90000	233.00	.2702-02	.3262-02	.3540-02	32.90	.8888-01	.4181	554.1	.7210-04
41	.60000	.95000	234.00	.2615-02	.3167-02	.3541-02	32.56	7.861	.4263	559.6	.6858-04
43	.80000	.50000-01	235.00	.2414	.2922	.3264	32.56	1.837	.4239	561.6	.6455-02
43	.80000	.20000	236.00	.5509-01	.6778-01	.7567-01	32.75	1.837	.4206	557.4	.1498-02
43	.80000	.60000	237.00	.1273-01	.1533-01	.1711-01	32.93	4.181	.4176	553.4	.3389-03
43	.80000	.80000	238.00	.1018-01	.1229-01	.1370-01	32.98	3.357	.4167	552.2	.2716-03
43	.80000	.90000	239.00	.1005-01	.1214-01	.1334-01	32.91	3.309	.4178	553.7	.2683-03
43	.80000	.95000	240.00	.9246-02	.1122-01	.1252-01	32.89	3.058	.4182	554.2	.2481-03

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DATE 24 JAN 76

ARC 3.5-178 1H3 ORBITER WING TOP

WING TOP SURF

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RK'EL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
44	5.300	.5112*07	406.4	1285.	313.6	.1750-01	.8322	.0000	.2217-02
44	5.300	.5036*07	406.2	1297.	316.7	.1750-01	.8273	.0000	.5396-03
46	5.300	.5003*07	405.9	1301.	317.9	.1750-01	.8248	.0000	.5265-04
47	5.300	.5392*07	404.9	1240.	302.0	.1750-01	.8469	.0000	.1434-03

TEST DATA

2V/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R
.0000	.50000-01	225.00	.1577	.1842	.2072	55.63	8.384	.4497	587.8
.40000	.20000	226.00	.3683-01	.4480-01	.5024-01	56.84	2.093	.4391	572.6
.40000	.60000	227.00	.3603-02	.4369-02	.4889-02	57.69	.2078	.4299	561.9
.60000	.95000	228.00	.9784-02	.1190-01	.1334-01	56.87	.5564	.4378	572.2
.60000	.50000-01	229.00	.2789	.3405	.3828	56.63	15.79	.4474	592.7
.60000	.20000	230.00	.1048	.1275	.1429	57.66	6.073	.4376	579.7
.60000	.60000	231.00	.1432-01	.1736-01	.1943-01	57.75	.8271	.4293	561.2
.60000	.80000	232.00	.9621-C2	.1168-01	.1307-01	58.27	.5607	.4318	572.0
.60000	.90000	233.00	.1113-01	.1353-01	.1577-01	57.04	.6350	.4362	570.1
.60000	.95000	234.00	.1218-01	.1483-01	.1663-01	57.45	.6998	.4396	582.4
.80000	.50000-01	235.00	.4177	.5107	.5747	55.47	23.17	.4512	589.7
.80000	.20000	236.00	.1351	.1645	.1847	56.48	7.630	.4415	577.1
.80000	.60000	237.00	.2468-01	.2995-01	.3353-01	57.54	1.420	.4313	563.8
.80000	.80000	238.00	.1844-01	.2241-01	.2511-01	57.16	1.054	.4350	568.5
.80000	.90000	239.00	.2365-01	.2879-01	.3229-01	56.69	1.341	.4395	574.5
.80000	.95000	240.00	.2756-01	.3356-01	.3766-01	56.54	1.556	.4409	576.3

ARC 3.5-178 IH3 ORBITER STRIPS:IMP TOP

WING TOP SURF

PARAMETRIC DATA

RN/L = 1.500 1 = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RS	RHOVEL	ALPHA	HO	ETU/	HO	RS	RHOVEL	ALPHA
FT	SLUG/	G.	LBM	LBM	FT	SLUG/	G.	G.
FT2SEC	FT2SEC				FT	FT2SEC		
.1750-01	.2511	.0000	315.7		.1750-01	.2511	.0000	
.1750-01	.2572	.0000	315.9		.1750-01	.2572	.0000	
.1750-01	.2392	.0000	322.6		.1750-01	.2392	.0000	
.1750-01	.2469	.0000	318.4		.1750-01	.2469	.0000	

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF	H/HREF	H/HREF	H/HREF	OREF	ODOT	HM/HT	TW	STN NO
				R=1.0	R=0.9	R=0.85	R=0.85	BTU/	BTU/	DEG. R	DEG. R	R=0.9
								FT2SEC	FT2SEC			
51	.40000	.50000-01	225.00	.1552	.1876	.2095	.2095	32.58	5.058	.4211	558.8	.4174-02
51	.40000	.20000	236.00	.3170-01	.3825-01	.4755-01	.4755-01	37.89	1.043	.4157	551.7	.8511-03
51	.40000	.60000	227.00	.1275-02	.1536-02	.1711-02	.1711-02	33.11	.4222-01	.4119	546.7	.3419-04
51	.40000	.95000	228.00	.4142-02	.4997-02	.5573-02	.5573-02	32.89	.1362	.4159	551.9	.1112-05
49	.60000	.50000-01	229.00	.1682	.2044	.2291	.2291	31.63	5.321	.4353	573.2	.4503-02
49	.60000	.20000	230.00	.3807-01	.4618-01	.5169-01	.5169-01	31.89	1.214	.4308	567.3	.1017-02
51	.60000	.60000	231.00	.6028-02	.7254-02	.8093-02	.8093-02	33.12	.1996	.4119	546.7	.1617-03
49	.60000	.80000	232.00	.2845-02	.3449-02	.3858-02	.3858-02	32.02	.9112-01	.4285	564.2	.7599-04
51	.60000	.90000	233.00	.2405-02	.2902-02	.3235-02	.3235-02	32.92	.7918-01	.4153	551.2	.6457-04
49	.60000	.95000	234.00	.2677-02	.3250-02	.3638-02	.3638-02	31.82	8519-01	.4321	569.0	.7159-04
51	.80000	.50000-01	235.00	.2392	.2893	.3231	.3231	32.54	7.784	.4219	559.9	.6435-02
51	.80000	.20000	236.00	.5575-01	.6731-01	.7510-01	.7510-01	32.77	1.827	.4178	554.5	.1498-02
51	.80000	.60000	237.00	.1216-01	.1466-01	.1634-01	.1634-01	33.02	.4014	.4136	549.0	.3262-03
51	.80000	.80000	238.00	.9501-02	.1146-01	.1278-01	.1278-01	32.91	3126	.4155	551.5	.2551-03
51	.80000	.90000	239.00	.9605-02	.1167-01	.1302-01	.1302-01	32.80	.170	.4174	554.0	.2595-03
51	.80000	.95000	240.00	.9134-02	.1103-01	.1231-01	.1231-01	32.77	.2993	.4119	554.6	.2454-03

ARC 3.5-178 IH3 ORBITER (TRIPS)WING TOP

WING TOP SURF

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	R-NOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053+07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027+07	405.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137+07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987+07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	2Y/8	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
52	.40000	.50000-01	225.00	.2234	.2724	.3060	56.46	12.61	.4446	534.7	.3297-02
52	.40000	.20000	226.00	.5566-01	.6757-01	.7567-01	57.70	3.212	.4327	569.1	.8182-03
52	.40000	.60000	227.00	.2255-02	.2729-02	.3049-02	58.61	.1322	.4240	557.6	.3306-04
54	.60000	.95000	228.00	.6696-02	.8132-02	.9109-02	57.60	.3857	.4337	570.4	.9846-04
54	.60000	.50000-01	229.00	.3388	.4132	.4641	55.76	18.89	.4445	578.0	.4967-02
54	.60000	.20000	230.00	.9815-01	.1193	.1338	56.57	5.552	.4367	567.8	.1435-02
52	.60000	.60000	231.00	.1327-01	.1606-01	.1794-01	58.62	.7778	.4240	557.6	.1945-03
54	.60000	.80000	232.00	.8681-02	.1053-01	.1175-01	57.19	.4965	.4307	560.0	.1267-03
52	.60000	.90000	233.00	.1019-01	.1238-01	.1386-01	57.68	.5860	.4329	569.3	.1499-03
54	.80000	.95000	234.00	.1249-01	.1517-01	.1699-01	56.78	.7089	.4347	565.2	.1824-03
52	.80000	.50000-01	235.00	.3984	.4864	.5468	56.16	22.37	.4474	588.4	.5885-02
52	.80000	.20000	236.00	.1291	.1571	.1761	57.14	7.378	.4381	576.1	.1901-02
52	.80000	.60000	237.00	.2463-01	.2985-01	.3339-01	58.21	1.434	.4279	562.7	.3616-03
52	.80000	.80000	238.00	.1870-01	.2270-01	.2543-01	57.70	1.079	.4327	569.1	.2749-03
52	.80000	.90000	239.00	.2377-01	.2891-01	.3242-01	57.18	1.359	.4377	575.6	.3500-03
52	.80000	.95000	240.00	.2771-01	.3372-01	.3783-01	57.02	1.560	.4393	577.7	.4082-03

PARAMETRIC DATA

WING TOP SURF

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HD BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
70	5.300	.4905+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QOOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
72	.40000	.50000-01	225.00	.2590	.3151	.3534	57.34	14.85	.4386	580.4	.1837-02
72	.40000	.20000	226.00	.7266-01	.8791-01	.9822-01	58.92	4.261	.4236	560.5	.1071-02
72	.40000	.60000	227.00	.4679-02	.5644-02	.6293-02	59.80	.2793	4.152	549.4	.6880-04
72	.40000	.95000	228.00	.1717-0.	.2080-01	.2326-01	58.52	1.005	.4274	565.5	.2534-03
72	.60000	.60000	231.00	.1942-01	.2343-01	.2613-01	59.75	1.160	4.157	550.1	.2856-03
72	.60000	.90000	233.00	.1804-01	.2185-01	.2444-01	58.58	1.057	4.268	564.8	.2662-03
72	.80000	.50000-01	235.00	.4309	.5252	.5897	56.88	24.51	.4430	586.1	.6392-02
72	.80000	.20000	236.00	.1516	.1840	.2060	58.08	8.805	4.316	571.1	.2241-02
72	.80000	.60000	237.00	.4268-01	.5160-01	.5762-01	59.14	2.524	4.215	557.7	.6288-03
72	.80000	.80000	238.00	.3553-01	.4305-01	.4815-01	58.47	2.077	4.279	566.2	.5245-03
72	.80000	.90000	239.00	.4184-01	.5081-01	.5690-01	57.89	2.422	4.333	573.4	.6187-03
72	.80000	.55000	240.00	.4450-01	.5407-01	.6050-01	57.74	2.569	4.348	575.3	.6504-03

WING TOP SURF

PARAMETER DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TC DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO R=0.9
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8289	-3.000	.3055-02
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000	.8456-03
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000	.4457-04

TEST DATA

RUN NUMBER	2Y/B	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.9	QDOT BTU/FT2SEC	HM/HT	TW DEG. R
76	.40000	.50000-01	225.00	.2858	.2518	.2825	11.89	.4398	582.6
76	.40000	.20000	226.00	.5749-01	.6963-01	.7784-01	3.382	.4262	564.4
76	.40000	.60000	227.00	.3036-02	.3689-02	.4095-02	.1810	.4199	556.1
76	.40000	.95000	228.00	.1244-01	.1507-01	.1685-01	.7325	.4266	565.1
76	.60000	.60000	231.00	.1272-01	.1536-01	.1715-01	.7594	.418	554.8
76	.60000	.90000	233.00	.1164-01	.1409-01	.1574-01	.6887	.4241	561.8
76	.80000	.50000-01	235.00	.2347	.2856	.3204	13.49	.4397	582.3
76	.80000	.20000	236.00	.8156-01	.9889-01	.1106	4.780	.4292	568.5
76	.80000	.60000	237.00	.2481-01	.2999-01	.3348-01	1.476	.4208	557.3
76	.80000	.80000	238.00	.2373-01	.2870-01	.3207-01	1.405	.4333	560.6
76	.80000	.90000	239.00	.3072-01	.3722-01	.4162-01	1.806	.4274	566.1
76	.80000	.95000	240.00	.3393-01	.4113-01	.4607-01	1.990	.4287	567.8

OMS BOTTOM CREASE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	C	X'L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. N	STN NO
5	1.0000	.829.0	241.00	.4052-01	.4828-01	.5339-01	43.82	1.776	.3778	576.5	.1087-02
5	1.0000	.90000	242.00	.3674-01	.4374-01	.4835-01	44.00	1.616	.3754	572.9	.9847-03
5	1.0000	.97500	243.00	.2821-01	.3359-01	.3714-01	43.96	1.240	.3759	573.6	.7563-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

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ARC 3.5-178 IH3 O+T+S

OMS BOTTOM CREASE

(RE1J02)

OMS BOTTOM CREASE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
15	1.0000	.82900	241.00	.4800-01	.5824-01	.6519-01	58.50	2.808	.4311	572.9	.7099-03
15	1.0000	.90000	242.00	.5100-01	.6175-01	.6903-01	59.08	3.013	.4257	565.8	.7529-03
15	1.0000	.97500	243.00	.4509-01	.5464-01	.6111-01	58.85	2.654	.4278	568.6	.6662-03

OMS BOTTOM CREASE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500*07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537*07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523*07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470*07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
22	1.0000	.8200	241.00	.3711-01	.4470-01	.4978-01	33.73	1.252	.4107	552.6	.1002-02
22	1.0000	.9000	242.00	.3522-01	.4238-01	.4718-01	33.86	1.193	.4084	549.6	.9498-03
22	1.0000	.97500	243.00	.2705-01	.3256-01	.3625-01	33.85	.9158	.4087	550.0	.7297-03

ARC 3.5-178 IH3 O+T+S (TRIPS) OMS BOTTOM CREASE

OMS BOTTOM CREASE

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

PARAMETRIC DATA

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSTA	TO DFC. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5008+07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006+07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
29	1.0000	.82900	241.00	.3728-01	.4524-01	.5066-01	2.181	.4321	574.8	.5511-03
29	1.0000	.90000	242.00	.4523-01	.5479-01	.6126-01	2.672	.4268	567.8	.6676-03
29	1.0000	.97500	243.00	.4050-01	.4910-01	.5494-01	2.381	.4295	571.3	.5983-03

DATE 24 JAN 76

ARC 3.5-178 IH3

OMS BOTTOM CREASE

ARC 3.5-178 IH3 O+T+S

OMS BOTTOM CREASE

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(RE1J05)

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	MO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	ELEVON
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000	.0000
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000	.0000

PARAMETRIC DATA	PARAMETRIC DATA	PARAMETRIC DATA	PARAMETRIC DATA	PARAMETRIC DATA
RN/L = 5.000	BETA = -5.000	ALPHA = .0000	ELEVON = .0000	

TEST CONDITIONS	***TEST DATA***
H/HREF R=0.9	H/HREF R=0.85
H/HREF R=1.0	H/HREF R=0.85
.8254-01	.1130
.9236-01	.1260
.7150-01	.8706-01
	.9769-01
	57.19

TEST DATA	***TEST DATA***	***TEST DATA***	***TEST DATA***
QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
4.637	.4430	585.0	.1219-02
5.303	.4383	578.7	.1362-02
4.089	.4404	581.5	.1056-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR.
S POOR

ARC 3.5-178 IH3
ARC 3.5-178 IH3 ORBITER
OMS BOTTOM CREASE

DATE 24 JAN 75

OMS BOTTOM CREASE
RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

PARAMETRIC DATA

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1582+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
43	1.0000	.82900	241.00	.5976-01	.6673-01	32.69	1.616	.4216	558.7	.1321-02
43	1.0000	.90000	242.00	.5656-01	.6315-01	32.73	1.531	.4210	557.9	.1250-02
43	1.0000	.97500	243.00	.4551-01	.5080-01	32.78	1.235	.4201	556.7	.1006-02

DATE 24 JAN 76

ARC 3.5-178 1H3

ARC 3.5-178 1H3 ORBITER

OMS BOTTOM CREASE

PARAMETRIC DATA

OMS BOTTOM CREASE

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
44	1.0000	.62900	241.00	.4049-01	.4921-01	.5515-01	-.04	2.309	.4361	570.1	.5928-03
44	1.0000	.90000	242.00	.5425-01	.6581-01	.7366-01	57.61	3.125	.4307	563.0	.7931-03
44	1.0000	.97500	243.00	.4710-01	.5721-01	.6408-01	57.28	2.698	.4339	567.1	.6892-03

OMS BOTTOM CREASE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1529+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431-07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
48	1.0000	.82900	241.00	.4103-01	.4949-01	.5516-01	32.92	1.351	.4153	551.2	.11C1-02
49	1.0000	.90000	242.00	.4327-01	.5215-01	.5811-01	33.06	1.431	.4128	547.8	.1161-02
51	1.0000	.97500	243.00	.3562-01	.4294-01	.4736-01	33.02	1.176	.4136	548.9	.9556-03

DATE 24 JAN 76
ARC 3.5-178 1H3
ARC 3.5-178 1H3 ORBITER (TRIPSIONS BOTTOM CREASE)

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

OMS BOTTOM CREASE

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PC PSIA	TO DEG. R	HU BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053*07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027*07	406.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137*07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987*07	402.9	1299.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	H/HHT	TH DEG. R	STN NO R=0.9
52	1.0000	.82900	241.00	.3698-01	.4187-01	.5023-01	57.86	2.140	.4312	557.1	.5434-03
52	1.0000	.90000	242.00	.5002-01	.5054-01	.6765-01	58.56	2.929	.4246	558.4	.7334-03
52	1.0000	.97500	243.00	.4394-01	.5327-01	.5958-01	58.14	2.555	.4285	563.6	.6451-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 0-T+S

OMS BOTTOM CREASE

OMS BOTTOM CREASE

PARAMETRIC DATA

PN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	R-NOVEL SLUG/FT ² SEC	ALPHA DEG.
70	5.300	.4306+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8253	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/P-REF R=1.0	H/HREF R=0.9	H/HREF R=0.95	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
72	1.0000	.82900	211.00	.5648-01	.6838-01	.7643-01	58.73	3.317	.4254	562.9	.8231-03
72	1.0000	.90000	242.00	.7097-01	.8563-01	.9550-01	59.72	4.238	.4160	550.5	.1044-02
72	1.0000	.97500	243.00	.5494-01	.6640-01	.7413-01	59.25	3.255	.4204	556.3	.8092-03

PACE 207
(REIJI9)

24

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSI/A	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL S'IG/ F12SEC	ALPHA DEG.
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8269	-3.000
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF B.U/ F12SEC	QDOT FTU/ F12SEC	HM/HT	TM DEG. R	STN NO R=0.9
76	1.0000	.82900	241.00	.5227-01	.6331-01	.7079-01	58.87	3.077	.4268	565.2	.7689-03
76	1.0000	.50000	242.00	.6299-01	.7615-01	.8503-01	59.43	3.743	.4214	558.2	.9250-03
76	1.0000	.97500	243.00	.5175-01	.6260-01	.6994-01	59.25	3.066	.4232	560.5	.7604-03

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO
3	1.0000	.78000	246.00	.2099	.2478	.2724	53.32	11.19	.3458	553.4	.5389-02
5	1.0000	.80500	253.00	.2094	.2498	.2765	43.53	9.115	.3818	582.7	.5622-02
5	1.0000	.82900	254.00	.1282	.1530	.1693	43.52	5.581	.3819	582.9	.3443-02
5	1.0000	.86200	255.00	.5329-01	.6352-01	.7026-01	43.73	2.331	.3790	578.4	.1430-02
5	1.0000	.96300	256.00	.2917-01	.3474-01	.3841-01	43.94	1.282	.3762	574.2	.7821-03

REPRODUCIBILITY OF THIS ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

PAGE 210

(REIK02)

ARC 3.5-178 IH3 O+T+S

OMS SIDE SURFACE

OMS SIDE SURFACE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006+07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
17	1.0000	.78000	246.00	.1917	.2328	.2608	58.04	11.13	.4334	573.8	.2830-02
15	1.0000	.80500	253.00	.2407	.2932	.3292	57.36	13.81	.4419	587.3	.3573-02
15	1.0000	.82900	254.00	.1522	.1854	.2081	57.42	8.742	.4413	566.5	.2259-02
15	1.0000	.86200	255.00	.6624-01	.8045-01	.9012-01	58.19	3.855	.4340	576.8	.9805-03
15	1.0000	.96300	256.00	.5606-01	.6793-01	.7597-01	58.87	3.300	.4276	568.4	.8282-03

DATE 24 JAN 76

ARC 3.5-178 1H3

PAGE 211

ARC 3.5-178 1H3 O+T+S (TRIPS) OMS SIDE SURFACE

(REIK03)

OMS SIDE SURFACE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500*07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537*07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523*07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470*07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF P=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
20	1.0000	.78000	246.00	.1704	.2068	.2310	31.26	5.328	.4316	561.5	.4547-02
22	1.0000	.80500	253.00	.1894	.2295	.2547	33.51	6.348	.4144	557.7	.5118-02
22	1.0000	.82900	254.00	.1281	.1545	.1722	33.50	4.291	.4146	557.9	.3461-02
22	1.0000	.86200	255.00	.5286-01	.6369-01	.7095-01	33.67	1.780	.4117	554.0	.1427-02
22	1.0000	.96300	256.00	.2393-01	.3603-01	.4012-01	33.82	1.012	.4032	550.6	.8074-03

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S (TRIPS) OMS SIDE SURFACE

DATE 24 JAN 76

OMS SIDE SURFACE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8230	.0000
30	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006+07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5033+07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
31	1.0000	.78000	246.00	.1731	.2111	.2371	57.03	9.874	.4442	588.7	.2564-02
29	1.0000	.80500	253.00	.2265	.2760	.3100	57.33	12.98	.4433	589.7	.3361-02
29	1.0000	.82900	254.00	.1479	.1803	.2025	57.35	8.485	.4431	589.5	.2195-02
29	1.0000	.86200	255.00	.6395-01	.7760-01	.8697-01	58.13	3.712	.4358	579.7	.9451-03
29	1.0000	.95300	256.00	.5331-01	.6461-01	.7226-01	58.94	3.142	.4282	569.6	.7372-03

OMS SIDE SURFACE

ARC 3.5-178 1H3 O+T+S

OMS SIDE SURFACE

PARAMETRIC DATA

PARAMETRIC DATA

RN/L = 5.000

BETA = -5.000

ALPHA = .0000

ALPHA = .0000

ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
36	5.300	.5031*07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149*07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055*07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045*07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TM DEG. R	STN NO R=0.9
38	1.0000	.78000	246.00	.2503	.3044	.3413	57.29	14.34	.4375	575.7	.3684-02
36	1.0000	.80500	253.00	.2696	.3300	.3716	55.80	15.05	.4535	598.9	.3998-02
36	1.0000	.82900	254.00	.1821	.2228	.2509	55.84	16.17	.4532	598.4	.2699-02
36	1.0000	.86200	255.00	.8374-01	.1022	.1149	56.54	4.734	.4466	589.7	.1235-02
36	1.0000	.96300	256.00	.5716-01	.6958-01	.7805-01	57.27	3.274	.4396	580.5	.8436-03

ARC 3.5-178 IH3 ORBITER OMS SIDE SURFACE

PARAMETRIC DATA

OMS SIDE SURFACE

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2668	.0000	R=0.9
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000	.3843-02
42	5.300	.1522+07	122.7	1296.	316.5	.1750-01	.2500	.0000	.6703-02
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000	.4152-02

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO
41	1.0000	.78000	246.00	.1464	.1775	.1986	32.42	4.748	.4286	562.6	.3843-02
43	1.0000	.80500	253.00	.2507	.3034	.3389	32.58	8.170	.4235	561.3	.6703-02
43	1.0000	.82900	254.00	.1553	.1879	.2100	32.57	5.059	.4237	561.5	.4152-02
43	1.0000	.86200	255.00	.341-01	.7064-01	.7890-01	32.65	1.907	.4224	559.8	.1561-02
43	1.0000	.95300	256.00	.3804-01	.4597-01	.5132-01	32.75	1.246	.4206	557.3	.1016-02

ARC 3.5-178 IH3
ARC 3.5-178 IH3 ORBITER
OMS SIDE SURFACE

DATE 24 JAN 76

ELEVON = .0000

OMS SIDE SURFACE

ALPHA = .0000

BETA = .0000

RN/L = 5.000

ALPHA = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSTA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112*07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036*07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003*07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392*07	404.9	1240.	302.0	.1750-01	.8169	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO
46	1.0000	.78000	246.00	.1509	.1937	.2176	57.02	9.061	.4436	587.7	.2354-02
44	1.0000	.80500	253.00	.2461	.3008	.3385	55.58	13.68	.4501	588.4	.3622-02
44	1.0000	.82900	254.00	.1762	.2153	.2422	55.64	9.803	.4495	587.6	.2592-02
44	1.0000	.86200	255.00	.7328-01	.8926-01	1.002	56.51	4.142	.4412	576.7	.1075-02
44	1.0000	.96300	256.00	.6148-01	.7465-01	.8360-01	57.37	3.527	.4330	566.0	.8995-03

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533*07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526*07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431*07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495*07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
49	1.0000	.78000	246.00	.1421	.1728	.1937	31.54	4.482	.4369	575.3	.3806-02
51	1.0000	.80500	253.00	.2054	.2482	.2771	32.61	6.697	.4206	558.2	.5922-02
51	1.0000	.82900	254.00	1535	.1855	.2071	32.60	5.004	.4207	558.4	.4127-02
51	1.0000	.86200	255.00	.6129-01	.7399-01	.8254-01	32.81	2.011	.4172	553.7	.1646-02
51	1.0000	.96300	256.00	.3972-01	.4790-01	.5340-01	32.97	1.310	.4144	550.0	.1066-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3 O+T-S

OHS SIDE SURFACE

(REIK19)

OHS SIDE SURFACE

PARAMETRIC DATA

RE//L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN//L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	C	X//L	T/C NO	H//HREF R=1.0	H//HREF R=0.9	H//HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
72	1.0000	.80500	253.00	.2647	.3104	.3484	56.91	14.49	.4427	585.7	.3778-02
72	1.0000	.82900	254.00	.2223	.2709	.3041	56.91	12.65	.4426	585.7	.3297-02
72	1.0000	.86200	255.00	.1153	.1399	.1566	58.14	6.706	.4310	570.3	.1704-02
72	1.0000	.96300	256.00	.7764-0:	.9381-01	.1047	59.30	4.604	.4200	555.7	.1143-02

DATE 24 JAN 76
ARC 3.5-178 IH3
ARC 3.5-178 IH3 O+T+S
OMS SIDE SURFACE

PARAMETRIC DATA
RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
74	5.300	.5051*07	406.7	1295.	316.3	.1750-01	.8289	-3.000
76	5.300	.5017*07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970*07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	C	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO
76	1.0000	.80500	253.00	.2600	.3162	.3545	57.77	15.02	.4371	578.9	.3838-02
76	1.0000	.82900	254.00	.2045	.2486	.2786	57.83	11.82	.4365	578.1	.3017-02
76	1.0000	.86200	255.00	.9563-01	.1160	.1298	58.55	5.599	.4297	569.1	.1408-02
76	1.0000	.96300	256.00	.7296-01	.8825-01	.9857-01	59.31	4.327	.4226	559.7	.1072-02

ARC 3.5-178 IH3 O+T+S

OMS TOP SURFACE

(REIL01)

OMS TOP SURFACE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TM DEG. R	STN NO R=0.9
5	95.000	.80500	259.00	.2132	.2544	.2815	43.53	9.280	.3418	582.8	.5724-02
5	95.000	.82900	260.00	.1216	.1450	.1606	43.50	5.290	.3322	583.3	.3264-02
5	95.000	.85200	251.00	.4439-01	.5292-01	.5855-01	43.68	1.939	.3798	579.6	.1191-02
5	95.000	.95300	252.00	.3794-01	.4521-01	.5000-01	43.82	1.662	.3773	576.7	.1018-02

DATE 24 JAN 76
ARC 3.5-178 IH3
OMS TOP SURFACE

ARC 3.5-178 IH3 O+T+S
OMS TOP SURFACE
PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972*07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4533*07	405.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006*07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098*07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO
15	95.000	.80500	259.00	.2324	.2828	.3173	57.64	13.39	.4392	583.8	34 6-02
15	95.000	.62900	260.00	.1495	.1822	.2345	57.40	8.583	.4415	586.8	.2219-02
15	95.000	.86200	261.00	.6017-01	.7315-01	.8199-01	57.95	3.487	.4363	579.9	.8914-03
15	95.000	.96300	262.00	.5808-01	.7052-01	.7897-01	58.31	3.387	.4329	575.3	.8595-03

ARC 3.5-178 IH3 O+T+S (TRIPS) OMS TOP SURFACE

DATE 24 JAN 76

PARAMETRIC DATA

OMS TOP SURFACE

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470+07	122.1	1321.	322.5	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
22	95.000	.80500	259.00	.1897	.2288	.2551	33.49	6.352	.4148	558.1	.5125-02
22	95.000	.82900	260.00	.1193	.1439	.1605	33.45	3.991	.4154	559.0	.3224-02
22	95.000	.86200	231.00	.4584-01	.5526-01	.6159-01	33.57	1.539	.4133	556.2	.1238-02
22	95.000	.96300	262.00	.3875-01	.4668-01	.5199-01	33.70	1.306	.4112	553.3	.1046-02

ARC 3.5-178 1H3
ARC 3.5-178 1H3 C+T+S (TRIPS) OMS TOP SURFACE

PARAMETRIC DATA

FN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	P1 FSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5005+07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5005+07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039+07	405.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
29	95.000	.80500	259.00	.2144	.2614	.2935	12.30	.4430	589.3	.3182-02
29	95.000	.82900	260.00	.1393	.1699	.1909	7.973	.4444	591.2	.2069-02
29	95.000	.86200	261.00	.5629-01	.6850-01	.7683-01	3.253	.4390	584.0	.8341-03
29	95.000	.96300	262.00	.5705-01	.6933-01	.7769-01	3.318	.4355	579.3	.8444-03

DATE 24 JAN 76

OMS TOP SURFACE

OM'S TOP SURFACE

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=J.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
36	95.000	.80500	259.00	.2092	.2561	.2885	55.77	11.67	.4538	599.3	.3103-02
36	95.000	.82900	260.00	.1065	.1304	.1469	55.70	5.933	.4445	600.2	.1580-02
36	95.000	.86200	261.00	.3158-01	.3859-01	.4340-01	56.29	1.778	.4489	592.8	.4676-03
36	95.000	.96300	262.00	.3752-01	.4577-01	.5143-01	56.66	2.126	.4454	588.1	.5548-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 IH3

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(REIL06)

ARC 3.5-178 IH3 ORBITER

OMS TOP SURFACE

OMS TOP SURFACE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUO/ FT2SEC	ALPHA DEG.
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2688	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
43	95.000		259.00	.2006	.2428	.2713	32.54	6.530	.4241	562.1	.5369-02
43	95.000		260.00	.1389	.1681	.1879	32.52	4.518	.4245	562.6	.3714-02
43	95.000		261.00	.5606-01	.6783-01	.7578-01	32.57	1.826	.4238	561.6	.1499-02
43	95.000		262.00	.3615-01	.4371-01	.4882-01	32.68	1.181	.4218	559.0	.9659-03

DATE 24 JAN 76

ARC 3.5-176 IH3

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ARC 3.5-178 IH3 ORBITER

(REIL07)

OMS TOP SURFACE

OMS TOP SURFACE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112*07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5075*07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003*07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392*07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
44	95.000	.80500	259.00	.2210	.2701	.3038	55.60	12.29	.4500	588.2	.3251-02
44	95.000	.82900	260.00	.1529	.1870	.2104	55.47	8.481	.4513	589.8	.2251-02
44	95.000	.86200	261.00	.6538-01	.7973-01	.8956-01	56.16	3.672	.4445	581.1	.9601-03
44	95.000	.96300	262.00	.4748-01	.5779-01	.6784-01	56.66	2.690	.4398	574.8	.6961-03

ARC 3.5-178 IH3 ORBITER (TRIPSIONS TOP SURFACE)

OMS TOP SURFACE

PARAMETRIC DATA

RN/L = 1.500 BE1A = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SI/JG/FT2SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
51	95.000	.80500	259.00	.1869	.2259	.2522	32.58	6.088	.4212	558.9	.5025-02
51	95.000	.82900	260.00	.1335	.1614	.1803	32.55	4.346	.4217	559.7	.3591-02
51	95.000	.86200	261.00	.5500-01	.6644-01	.7415-01	32.70	1.799	.4190	556.1	.1478-02
51	95.000	.96300	262.00	.3370-01	.4067-01	.4536-01	32.84	1.107	.4166	552.9	.9049-03

ARC 3.5-176 IH3 ORBITER (TRIPSIONS TOP SURFACE)

OPS TOP SURFACE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
52	5.300	.5053+07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027+07	406.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137+07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987+07	402.9	1298.	317.0	.1750-01	.8261	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
52	95.000	.80500	259.00	.2127	.2596	.2918	56.26	11.97	.4465	587.2	.3141-02
52	95.000	.82900	260.00	.1527	.1865	.2097	56.09	8.565	.4481	589.3	.2256-02
52	95.000	.86200	261.00	.6555-01	.7981-01	.8955-01	56.92	3.731	.4401	578.9	.9660-03
52	95.000	.96300	262.00	.4821-01	.5659-01	.6563-01	57.47	2.771	.4349	571.9	.7092-03

ARC 3.5-178 IH3
 ARC 3.5-178 11:2 O+T+S

OMS TOP SURFACE

OMS TOP SURFACE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLU./FT2SEC	ALPHA DEG.
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. F.	STN NO R=0.9
72	95.000	.80500	259.00	.2996	.3651	.4100	56.90	17.05	.4428	565.9	.4444-02
72	95.000	.82900	260.00	.2103	.2564	.2880	56.80	11.95	.4437	587.1	.3121-02
72	95.000	.86200	261.00	.8716-01	.1059	.1186	57.81	5.039	.4341	574.4	.1289-02
72	95.000	.96300	262.00	.5866-01	.7110-01	.7954-01	58.39	3.424	.4287	567.2	.8661-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

OMS TOP SURFACE

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(REIL20)

OMS TOP SURFACE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
74	5.300	.5051*07	406.7	1295.	316.3	.1750-01	.8289	-3.000
76	5.300	.5017*07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970*07	405.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	Y	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HW/HT	TH DEG. R	STN NO R=0.9
76	95.000	.80500	259.00	.2263	.2753	.3087	57.72	13.06	.4376	579.6	.3341-02
76	95.000	.82900	260.00	.1806	.2197	.2463	57.70	10.42	.4378	579.8	.2666-02
76	95.000	.86300	261.00	.8561-01	.1039	.1164	58.20	4.983	.4330	573.5	.1262-02
76	95.000	.96300	262.00	.6281-01	.7616-01	.8522-01	58.58	3.680	.4294	568.8	.9248-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3 O+T+S

ONS ML 474

PARAMETRIC DATA

RV/L = 1.500 BETA = 0.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RV/L PER FT	PO PSTA	TO DEG. R	MO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491*07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411*07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476*07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454*07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
3	474.00	.78000	246.00	.2639	.2478	.2724	53.32	11.19	.3459	563.4	5389-02
3	474.00	.80500	247.00	.1924	.2272	.2498	53.17	10.23	.3475	566.1	4941-02
5	474.00	.82900	248.00	.1042	.1243	.1375	43.57	4.540	.3812	581.7	2797-02
5	474.00	.86200	249.00	.6401-01	.7628-01	.8437-01	43.77	2.802	.3785	577.6	1717-02
5	474.00	.95300	250.00	.3702-01	.4407-01	.4871-01	44.00	1.629	.3754	572.8	9922-03
5	474.00	1.0000	251.00	.4201-01	.5006-01	.5536-01	43.81	1.841	.3779	576.8	1117-02
5	474.00	1.0140	252.00	.3662-01	.4364-01	.4827-01	43.76	1.603	.3786	577.8	9824-03

ARC 3.5-178 1H3 O+T+S

OMS WL 474

(REIM02)

OMS WL 474

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSTA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972*07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953*07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006*07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098*07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OR.F BTU/FT2SEC	QOOT BTU/FT2SEC	HH/HT	TW DEG. R	STN NO R=0.9
17	474.00	.78000	246.00	.1917	.2328	.2608	58.04	11.13	.4334	573.8	.2830-02
17	474.00	.20500	247.00	.2101	.2556	.2866	57.52	12.08	.4383	580.3	.3105-02
15	474.00	.82900	248.00	.1231	.1499	.1682	57.51	7.081	.4405	585.4	.1827-02
15	474.00	.86200	249.00	.8244-01	.1001	.1122	58.21	4.799	.4339	576.6	.1220-02
15	474.00	.95300	250.00	.5442-01	.6593-01	.7373-01	58.91	3.206	.4272	567.8	.8039-03
15	474.00	1.0000	251.00	.5684-01	.6878-01	.7711-01	58.24	3.298	.4336	576.3	.8383-03
15	474.00	1.0140	252.00	.4741-01	.5762-01	.6417-01	58.09	2.752	.4354	578.7	.7022-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S (TRIPS) OMS ML 474

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(REIM03)

OMS ML 474

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

PARAMETRIC DATA

TEST CONDITIONS

RS	RHOVEL SLUG/ FT2SEC	ALPHA	TH DEG. R	STN NO R=0.9
.1750-01	.2485	.0000	551.5	.4547-02
.1750-01	.2491	.0000	565.6	.4551-02
.1750-01	.2492	.0000	557.6	.2764-02
.1750-01	.2459	.0000	553.9	.1690-02
			549.7	.9343-03
			552.2	.1048-02
			552.7	.9079-03

TEST DATA

HO BTU/ LBM	TO DEG. R	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
319.5	1309.	5.328	.4316	551.5	.4547-02
312.1	1279.	5.296	.4349	565.6	.4551-02
315.3	1291.	3.429	.4144	557.6	.2764-02
322.9	1321.	2.108	.4116	553.9	.1690-02
		1.173	.4085	549.7	.9343-03
		1.311	.4104	552.2	.1048-02
		1.135	.4107	552.7	.9079-03

PO PSIA	RN/L PER FT	MACH	HO BTU/ LBM	TO DEG. R	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
122.6	.1500+07	5.300	319.5	1309.	5.328	.4316	551.5	.4547-02
121.3	.1537+07	5.300	312.1	1279.	5.296	.4349	565.6	.4551-02
122.0	.1523+07	5.300	315.3	1291.	3.429	.4144	557.6	.2764-02
122.1	.1470+07	5.300	322.9	1321.	2.108	.4116	553.9	.1690-02

H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
.1704	.2068	.2315	5.328	.4316	551.5	.4547-02
.1704	.2070	.2320	5.296	.4349	565.6	.4551-02
.1023	.1234	.1375	3.429	.4144	557.6	.2764-02
.6259-01	.7540-01	.8400-01	2.108	.4116	553.9	.1690-02
.3464-01	.4169-01	.4641-01	1.173	.4085	549.7	.9343-03
.3884-01	.4677-01	.5209-01	1.311	.4104	552.2	.1048-02
.3364-01	.4052-01	.4513-01	1.135	.4107	552.7	.9079-03

Z	X/L	T/C NO	QDOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
474.00	.78000	246.00	5.328	.4316	551.5	.4547-02
474.00	.80500	247.00	5.296	.4349	565.6	.4551-02
474.00	.82900	248.00	3.429	.4144	557.6	.2764-02
474.00	.86200	249.00	2.108	.4116	553.9	.1690-02
474.00	.96300	250.00	1.173	.4085	549.7	.9343-03
474.00	1.0000	251.00	1.311	.4104	552.2	.1048-02
474.00	1.0140	252.00	1.135	.4107	552.7	.9079-03

ARC 3.5-178 IH3
ARC 3.5-178 IH3 O+T+S (TRIPS) OMS WL 474

DATE 24 JAN 76

OMS WL 474

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

PARAMETRIC DATA

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO FSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.	STN NO
29	5.300	.4977+07	406.3	1307.	319.2	.1750-01	.8238	.0000	.2764-02
30	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.8254	.0000	.2774-02
31	5.300	.5006+07	406.4	1302.	318.0	.1750-01	.8257	.0000	.1785-02
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.8281	.0000	.1192-02

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OKEF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TW DEG. R
31	474.00	.78000	246.00	.1731	.2111	.2371	57.03	9.874	.4442	586.7
31	474.00	.80500	247.00	.1869	.2285	.2570	56.42	10.55	.4499	596.3
29	474.00	.82900	248.00	.1204	.1466	.1646	57.53	6.925	.4414	587.2
29	474.00	.86200	249.00	.7985-01	.9701-01	.1087	58.27	4.653	.4345	578.0
29	474.00	.96300	250.00	.5361-01	.6495-01	.7263-01	59.05	3.166	.4271	568.2
29	474.00	1.0000	251.00	.5659-01	.6873-01	.7699-01	58.33	3.301	.4340	577.3
29	474.00	1.0140	252.00	.4748-01	.5771-01	.6467-01	58.11	2.759	.4360	575.9

DATE 24 JAN 76

ARC 3.5-178 IH3

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OMS WL 474

ARC 3.5-178 IH3 O+I+S

OMS WL 474

(REIMDS)

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045+07	406.2	1295.	311.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO
38	474.00	.78000	246.00	.2503	.3044	.3413	57.29	14.34	.4375	575.7	.3684-02
38	474.00	.80500	247.00	.2724	.3320	.3728	56.68	15.44	.4432	583.3	.4017-02
36	474.00	.82900	248.00	.1788	.2186	.2459	56.10	10.03	.4508	595.2	.2648-02
36	474.00	.86200	249.00	.1268	.1546	.1737	56.74	7.193	.4447	587.2	.1874-02
36	474.00	.96300	250.00	.8110-01	.9865-01	.1106	57.43	4.658	.4381	578.5	.1196-02
36	474.00	1.0000	251.00	.8341-01	.1017	.1143	56.76	4.735	.4444	586.9	.1233-02
36	474.00	1.0140	252.00	.6793-01	.8290-01	.9317-01	56.56	3.842	.4464	589.4	.1005-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

DATE 24 JAN 76

ARC 3.5-178 1H3

ARC 3.5-178 1H3 ORBITER

OMS ML 474

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(REIM06)

OMS ML 474

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636+07	130.4	1297.	314.1	.1750-01	.2668	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1524+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HH/HT	TW DEG. R	STN NO R=0.9
41	474.00	.78000	246.00	.1464	.1775	.1986	32.42	4.748	.4286	562.6	.3843-02
41	474.00	.80500	247.00	.2031	.2462	.2755	32.37	6.573	.4295	563.8	.5331-02
43	474.00	.82900	248.00	.1177	.1423	.1590	32.60	3.836	.4232	560.9	.3145-02
43	474.00	.86200	249.00	.6614-01	.7998-01	.8933-01	32.66	2.161	.4221	559.4	.1767-02
43	474.00	.96300	250.00	.3809-01	.4603-01	.5139-01	32.78	1.249	.4201	556.7	.1017-02
43	474.00	1.0000	251.00	.4679-01	.5653-01	.6310-01	32.80	1.535	.4198	556.3	.1249-02
43	474.00	1.0140	252.00	.4270-01	.5159-01	.5758-01	32.80	1.401	.4197	556.2	.1140-02

DATE 24 JAN 76

ARC 3.5-178 1H3

ARC 3.5-178 1H3 ORBITER OMS ML 474

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(REIM07)

OMS ML 474

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA
44	5.300	5.112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	5.036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	5.003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	5.392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
46	474.00	.78000	246.00	.1589	.1937	.2176	57.02	9.061	.4436	587.7	.2354-02
46	474.00	.80500	247.00	.1802	.2201	.2475	56.50	10.118	.4486	594.3	.2673-02
44	474.00	.82900	248.00	.1280	.1562	.1756	55.92	7.158	.4469	584.1	.1881-02
44	474.00	.86200	249.00	.8991-01	.1021	.1146	56.68	4.756	.4396	574.5	.1230-02
44	474.00	.96300	250.00	.5311-01	.7175-01	.8011-01	57.45	3.396	.4322	564.9	.8646-03
44	474.00	1.0000	251.00	.6585-01	.8015-01	.8991-01	56.69	3.733	.4395	574.5	.9654-03
44	474.00	1.0140	252.00	.5626-01	.6953-01	.7631-01	56.49	3.178	.4414	576.9	.8253-03

ARC 3.5-178 1H3 ORBITER (TRIP)OMS WL 474

(REIMOB)

OMS WL 474

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SCC	ODOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO
49	474.00	.78000	246.00	.1421	.1728	.1937	31.54	4.482	.4369	575.3	.3806-02
49	474.00	.80500	247.00	.1501	.1827	.2050	31.35	4.706	.4401	579.4	.4023-02
51	474.00	.82900	248.00	.1066	.1288	.1437	32.65	3.480	.4199	557.3	.2865-02
51	474.00	.86200	249.00	.6632-01	.8004-01	.8927-01	32.84	2.178	.4166	553.0	.1781-02
51	474.00	.96300	250.00	.4018-01	.4844-01	.5399-01	33.03	1.327	.4134	548.7	.1078-02
51	474.00	1.0000	251.00	.4824-01	.5821-01	.6491-01	32.87	1.586	.4161	552.2	.1295-02
51	474.00	1.0140	252.00	.4323-01	.5217-01	.5819-01	32.85	1.420	.4165	552.8	.1161-02

OMS HL 474

ARC 3.5-178 IH3 ORBITER (TRIPS)OMS HL 474

(REIM09)

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053+07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027+07	406.4	1259.	317.2	.1750-01	.8269	.0000
54	5.300	.5137+07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987+07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
54	474.00	.78000	246.00	.1510	.1837	.2061	56.31	8.501	.4392	571.0	.2209-02
54	474.00	.80500	247.00	.1556	.1895	.2127	56.11	8.732	.4412	573.6	.2279-02
52	474.00	.82900	248.00	.1149	.1401	.1573	56.55	6.497	.4437	583.6	.1695-02
52	474.00	.86200	249.00	.7823-01	.9505-01	1.065	57.45	4.494	.4351	572.2	.1151-02
52	474.00	.96300	250.00	.5782-01	.7004-01	.7932-01	58.31	3.371	.4269	561.4	.8484-03
52	474.00	1.0000	251.00	.6480-01	.7877-01	.8829-01	57.34	3.716	.4362	573.6	.9537-03
52	474.00	1.0147	252.00	.5454-01	.6635-01	.7441-01	57.13	3.116	.4382	576.3	.8032-03

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ARC 3.5-178 IH3

OMS WL 474

ARC 3.5-178 IH3 O-T+S

OMS WL 474

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(REIM19)

RV/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

PARAMETRIC DATA

RUN NUMBER	MACH	RV/L PER FT	PO PSIA	TO DEL.	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ³ SEC	ALPHA DEG.
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	405.8	1303.	318.4	.1750-01	.8253	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8233	-5.000

TEST DATA

RUN NUMBER	Z	X/L	T/C PD	H/HREF R=1.0	H/PREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R=0.9
72	474.00	.82900	248.00	.1354	.1660	.1863	57.12	7.789	.4407	583.1	.2021-02
72	474.00	.85200	249.00	.1081	.1311	.1467	58.26	6.299	.4298	568.8	.1597-02
72	474.00	.96300	250.00	.7641-01	.9228-01	.1030	59.44	4.542	.4186	554.0	.1125-02
72	474.00	1.0000	251.00	.8022-01	.9789-01	.1089	58.24	4.672	.4300	569.0	.1185-02
72	474.00	1.0140	252.00	.6521-01	.791E-01	.8494-01	57.99	3.78E	.4324	572.1	.9641-03

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

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PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.	STN NO
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8269	-3.000	.2362-02
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000	.1642-02
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000	.1060-02

TEST DATA

RUN NUMBER	Z	X/L	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TM DEG. R	STN NO R=0.9
76	474.00	.82900	248.00	.1601	.1946	.2180	57.95	9.278	.4354	576.7	.2362-02
76	474.00	.86200	249.00	.1115	.1352	.1513	58.63	6.539	.4290	568.2	.1642-02
76	474.00	.95300	250.00	.7220-01	.8730-01	.0750-01	59.37	4.286	.4220	558.9	.1060-02
76	474.00	1.0000	251.00	.7600-01	.9209-01	.1030	58.78	4.467	.4276	566.3	.1118-02
76	474.00	1.0140	252.00	.6240-01	.7565-01	.8464-01	58.61	3.657	.4292	568.4	.9185-03

L.E. ROLLED DOWN L.E. ROLLED DOWN 30 ELEVON = .0000

PARAMETRIC DATA
 RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	118.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TH DEG. R	STN NO R=0.9
3	30.000	.30100	162.00	.5366-01	.6333-01	.6961-01	53.36	2.864	.3453	562.5	.1378-02
3	30.000	.34800	163.00	.4646-01	.5484-01	.6027-01	53.38	2.480	.3451	562.2	.1193-02
3	30.000	.50000	171.00	.2662	.2662	.2928	52.89	11.91	.3508	571.5	.5788-02
3	30.000	.75000	188.00	.2552	.3014	.3315	53.08	13.55	.3485	567.8	.6955-02
3	30.000	.95000	202.00	.1313	.1552	.1708	52.79	6.930	.3520	573.5	.3375-02

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
15	5.300	.4972*07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953*07	406.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5006*07	405.7	1300.	317.6	.1750-01	.8248	.0000
18	5.300	.5098*07	404.9	1284.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
17	30.000	.30100	162.00	.6418-01	.7778-01	.8700-01	58.59	3.760	.4283	567.0	.9456-03
17	30.000	.34800	163.00	.5951-01	.7210-01	.8064-01	58.67	3.491	.4275	565.9	.8766-03
17	30.000	.50000	171.00	.2867	3492	.3919	57.23	16.41	.4411	584.0	.4242-02
17	30.000	.75000	188.00	.2395	.2310	.3261	57.84	13.85	.4353	576.3	.3536-02
17	30.000	.95000	202.00	.1209	.1475	.1657	56.83	6.873	.4449	589.0	.1792-02

ARC 3.5-178 IH3 O+T+S (TRIPS) L.E.ROLLED DWN 30

(RE1003)

L.E. ROLLED DOWN

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	1308.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2492	.0000
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
20	30.000	.30100	162.00	.5586-01	.6769-01	.7570-01	31.49	1.759	.4276	556.2	.1489-02
20	30.000	.34800	163.00	.4614-J1	.5591-01	.6252-01	31.50	1.454	.4274	556.0	.1230-02
20	30.000	.50000	171.00	.2167	.2633	.2952	31.02	6.721	.4359	567.0	.5789-02
20	30.000	.75000	188.00	.2487	.3019	.3381	31.21	7.763	.4325	562.6	.6638-02
20	30.000	.95000	202.00	.1273	.1550	.1738	30.84	3.928	.4391	571.1	.3406-02

ARC 3.5-178 1H3 O+T+S (TRIPS) L.E.ROLLED DOWN 30

L.E. ROLLED DOWN

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977*07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5005*07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006*07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039*07	406.7	1277.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	UREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/KT	TW DEG. R	STN NO R=0.9
31	30.000	.30100	162.00	.6070-01	.7381-01	.8275-01	57.78	3.507	.4371	579.3	.3968-03
31	30.000	.34800	163.00	.5996-01	.7290-01	.8171-01	57.84	3.468	.4365	578.5	.8857-03
31	30.000	.50000	171.00	.2762	.3379	.3803	56.18	15.52	.4522	599.3	.4101-02
31	30.000	.75000	198.00	.2257	.2755	.3096	56.77	12.81	.4466	592.0	.3345-02
31	30.000	.95000	202.00	.1216	.1493	.1684	55.36	6.734	.4600	609.7	.1811-02

L.E. ROLLED DOWN

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
36	5.300	.5031*07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.5144*07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055*07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.5045*07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HW/HT	TW DEG. R	STN NO K=0.9
38	30.000	.30100	162.00	.8384-01	.1017	.1138	58.01	4.864	.4305	566.6	.1231-02
38	30.000	.34800	163.00	.6850-01	.8307-01	.9296-01	58.08	3.979	.4299	565.8	.1006-02
38	30.000	.50000	171.00	.3018	.3681	.4126	56.48	17.04	.4452	585.8	.4453-02
38	30.000	.75000	188.00	.4365	.5315	.5963	56.98	24.87	.4403	579.5	.6431-02
38	30.000	.95000	202.00	.1610	.1964	.2206	56.45	9.085	.4455	586.3	.2375-02

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 ORBITER

L.E. ROLLED DOWN 30

PAGE 247
(RE1006)

L.E. ROLLED DOWN

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1636*07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582*07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1572*07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516*07	123.1	1302.	318.5	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	ROLL	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
41	30.000	162.00	.4895-01	.5934-01	.6637-01	32.43	1.588	.4284	562.5	.1285-02
41	30.000	163.00	.5662-01	.6862-01	.7676-01	32.44	1.637	.4282	562.1	.1486-02
41	30.000	171.00	.2708	.3285	.3677	32.29	8.742	.4309	565.7	.7112-02
41	30.000	188.00	.2938	.3561	.3984	32.43	9.529	.4284	562.4	.7111-02
41	30.000	202.00	.1285	.1559	.1745	32.26	4.146	.4313	566.2	.3775-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3 ORBITER L.E.ROLLED DWN 30

PARAMETRIC DATA

L.E. ROLLED DOWN

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1295.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HW/HT	TH DEG. P	STN NO R=3.9
46	30.000	.30100	162.00	.4479-01	.5450-01	.6112-01	57.53	2.577	.4388	581.3	.6623-03
46	30.000	.34800	163.00	.4797-01	.5835-01	.6543-01	57.65	2.765	.4377	579.9	.7092-03
46	30.000	.50000	171.00	.2675	.3271	.3681	56.23	15.04	.4511	597.6	.3972-02
46	30.030	.75000	188.00	.3575	.4461	.5032	56.98	20.94	.4440	588.2	.5444-02
46	30.000	.95000	202.00	.1259	.1543	.1739	55.66	7.008	.4565	604.8	.1873-02

DATE 24 JAN 76

ARC 3.5-178 IH3

PAGE 249

ARC 3.5-178 IH3 ORBITER (TRIPS)L.E.ROLLED DMN 30

(RE1008)

L.E. ROLLED DOWN

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RMOVE/SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533*07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526*07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431*07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495*07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
49	30.000	.30100	162.00	.4729-01	.5739-01	.6425-01	31.83	1.505	.4318	568.6	.1264-02
49	30.000	.34800	163.00	.5428-01	.6587-01	.7375-01	31.83	1.728	.4319	568.7	.1451-02
49	30.000	.50000	171.00	.271.	.3300	.3702	31.37	8.502	.4399	579.3	.7267-02
49	30.000	.75000	188.00	.2900	.3526	.3933	31.56	9.153	.4366	574.9	.7766-02
49	30.000	.95000	202.00	.1233	.1503	.1688	31.16	3.841	.4435	584.0	.3308-02

ARC 3.5-178 1H3 OF 31TER (TRIPS)L.E.ROLLED DMM 30

(RE1009)

L.E. ROLLED DOWN

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053*07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027*07	406.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.5137*07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4987*07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	ROLL	2Y/B	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
54	30.000	.30100	162.00	.4470-01	.5440-01	.6102-01	56.34	2.519	.4390	570.7	.6542-03
54	30.000	.34800	163.00	.6398-01	.7782-01	.8726-01	56.46	3.612	.4378	569.2	.9359-03
54	30.000	.50000	171.00	.4134	.5042	.5664	55.74	23.04	.4447	578.2	.6061-02
54	30.000	.75000	188.00	.3708	.4514	.5084	56.22	20.84	.4401	572.2	.5428-02
54	30.000	.95000	202.00	.1230	.1501	.1588	55.52	6.829	.4469	581.0	.1805-02

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RS	HO	RHOVEL	ALPHA
FT	BTU/LBM	SLUG/FT2SEC	DEG.
.1750-01	390.9	.2979	.0000
.1750-01	366.2	.2656	.0000
.1750-01	323.2	.2472	.0000
.1750-01	319.3	.2407	.0000

TEST DATA

STN NO	TH	HM/HT	ODEOT	ODEF	H/HREF	H/HREF	H/HREF	H/HREF	PO	TO	HO	RS	RHOVEL	ALPHA
R=0.9	DEG. R		BTU/FT2SEC	BTU/FT2SEC	R=0.95	R=0.9	R=1.0	PSIA	DEG. R	BTU/LBM	FT	SLUG/FT2SEC	DEG.	
.1267-02	565.2	4247	1.489	32.08	.6279-01	.5518-01	.4642-01	165.6	1581.	390.9	.1750-01	.2979	.0000	
.1385-02	560.5	4161	1.723	33.54	.6911-01	.6197-01	.5136-01	141.9	1487.	366.2	.1750-01	.2656	.0000	
.1459-02	560.4	4161	1.815	33.55	.7279-01	.5527-01	.5409-01	122.8	1322.	323.2	.1750-01	.2472	.0000	
.1898-02	559.8	4156	2.363	33.57	.9468-01	.8491-01	.7038-01	118.8	1307.	319.3	.1750-01	.2407	.0000	
.1988-02	566.1	4254	2.334	32.04	.9858-01	.8819-01	.7284-01							
.5733-06	609.8	4583	3.580	30.15	.2873-04	.2547-04	.2077-04							
.2874-02	559.7	4155	3.580	33.58	.1434	.1286	.1066							
.1191-01	558.0	4142	14.87	33.66	.5940	.5329	.4419							
.8135-02	558.5	4147	10.15	33.63	.4058	.3640	.3018							
.3730-02	564.3	4240	4.390	32.12	.1848	.1654	.1367							
.1944-02	563.5	4234	2.291	32.15	.9633-01	.8623-01	.7127-01							
.6806-03	557.2	4136	.8509	33.69	.3344-01	.3045-01	.2526-01							
.2317-02	562.5	4227	2.735	32.19	.1148	.1028	.8496-01							
.1678-02	557.7	4140	2.037	33.67	.8371-01	.7509-01	.6228-01							
.4222-03	562.8	4230	.4981	32.18	.2092-01	.1872-01	.1548-01							
.1175-02	563.9	4238	1.384	32.13	.5825-01	.5213-01	.4309-01							
.2019-02	558.7	4148	2.519	33.62	.1007	.9035-01	.7491-01							
.2532-02	564.0	4239	2.982	32.13	.1255	.1123	.9282-01							
.2014-02	556.5	4132	2.520	33.72	.1004	.7473-01	.7473-01							
.1727-02	562.3	4225	2.040	32.20	.8556-01	.7650-01	.6334-01							
.2986-02	557.9	4142	3.730	33.66	.1489	.1336	.1108							
.1701-02	556.4	4130	2.130	33.73	.8482-01	.6314-01	.6314-01							
.6923-03	558.7	4148	.8635	33.62	.3097-01	.2508-01	.2508-01							
.7450-03	557.0	4135	.9317	33.70	.3715-01	.3333-01	.2765-01							

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FI2SEC	QDOT BTU/FI2SEC	HM/HT	TH DFO. R	STN NO R=0.9
10	.20000	31.500	108.00	.4487-01	.5429-01	.6066-01	32.14	1.442	.4237	563.8	.1224-02
10	.20000	35.000	110.00	.5935-01	.7181-01	.8024-01	32.12	1.905	.4239	564.1	.1619-02
10	.20000	40.000	112.00	.7926-01	.9590-01	1.072	32.14	2.547	.4237	563.8	.2162-02
10	.20000	51.000	118.00	.7409-01	.8362-01	1.001	32.17	2.383	.4231	563.0	.2021-02
10	.20000	67.500	128.00	.1073-01	.1299-01	.1450-01	32.22	.3458	.4223	562.0	.2927-03
10	.20000	96.500	133.00	.1563-01	.1890-01	.2110-01	32.27	.5043	.4214	560.8	.4261-03
9	.20000	180.00	69.000	.8487-01	1.023	1.141	33.68	2.859	.4138	557.4	.2287-02
9	.30000	.00000	26.000	.4477-01	.5442-01	.5955-01	33.65	1.491	.4143	558.1	.1194-02
9	.30000	12.000	92.000	.5744-01	.6927-01	.7725-01	33.63	1.932	.4146	558.4	.1548-02
9	.30000	23.000	94.000	.7612-01	.9179-01	1.023	33.67	2.563	.4140	557.6	.2052-02
10	.30000	34.000	109.00	.7973-01	.9643-01	1.077	32.20	2.568	.4225	562.2	.2174-02
10	.30000	40.000	113.00	.6178-01	.7472-01	.8346-01	32.20	1.990	.4225	562.2	.1685-02
10	.30000	45.000	114.00	.4444-01	.5375-01	.5004-01	32.19	1.431	.4227	562.5	.1212-02
10	.30000	57.500	119.00	.2687-01	.3249-01	.3629-01	32.22	.857	.4222	561.9	.7327-03
10	.30000	61.000	120.00	.2476-01	.2994-01	.3344-01	32.24	.7982	.4219	561.5	.6751-03
10	.30000	65.000	122.00	.1874-01	.2265-01	.2530-01	32.24	.6041	.4219	561.4	.5109-03
10	.30000	70.000	129.00	.1109-01	.1341-01	.1497-01	32.23	.5574	.4220	561.6	.3023-03
9	.40000	106.00	134.00	.2958-01	.3567-01	.3976-01	33.67	.9961	.4140	557.7	.7973-03
10	.30000	135.00	141.00	.2200-01	.2661-01	.2972-01	32.19	.7082	.4228	562.6	.6000-03
9	.30000	180.00	71.000	.5981-02	.7207-02	.8031-02	33.76	.2019	.4124	555.5	.1611-03
9	.40000	.00000	30.000	.4720-01	.5691-01	.6344-01	33.66	1.589	.4141	557.8	.1272-02
9	.40000	21.500	95.000	.4642-01	.5997-01	.6238-01	33.68	1.564	.4138	557.4	.1251-02
9	.40000	105.00	135.00	.2873-01	.3453-01	.3893-01	33.71	.9770	.4133	556.7	.7808-03
10	.40000	135.00	142.00	.8423-02	1.018-01	1.137-01	32.26	.2717	.4216	561.0	.2297-03
9	.50000	.00000	72.000	.7912-02	.9533-02	1.062-01	33.79	.2673	.4120	555.0	.2131-03
9	.50000	21.500	34.000	.4386-01	.5289-01	.5896-01	33.65	1.475	.4144	558.2	.1122-02
9	.50000	105.00	96.000	.4118-01	.4965-01	.5534-01	33.69	.87	.4138	557.4	.1110-02
10	.50000	135.00	136.00	.3532-01	.4269-01	.4767-01	32.28	1.140	.4212	560.5	.9627-03
10	.50000	143.00	143.00	.4485-02	.5423-02	.6056-02	32.24	1.446	.4220	561.5	.1223-03
10	.50000	180.00	73.000	.7866-02	.9505-02	1.061-01	32.35	.2545	.4199	558.8	.2144-03
10	.60000	77.000	130.00	.2785-01	.3466-01	.3759-01	32.30	.8997	.4208	559.9	.7592-03
5	.60000	112.00	147.00	.4433-01	.4930-01	.5452-01	43.87	1.816	.3772	575.6	.1110-02
5	.60000	113.00	146.00	.4531-01	.5399-01	.5968-01	43.87	1.988	.3772	575.6	.1215-02
10	.60000	135.00	144.00	.1535-01	.1855-01	.2072-01	32.27	.4957	.4214	560.8	.4134-03
9	.60000	180.00	74.000	.1277-01	.1539-01	.1714-01	33.79	.4315	.4120	555.0	.3440-03
10	.70000	138.00	138.00	.2523-01	.3051-01	.3408-01	32.22	.8128	.4222	561.9	.6880-03
10	.70000	145.00	145.00	.3364-01	.4067-01	.4541-01	32.27	1.086	.4214	560.7	.9171-03
10	.70000	180.00	75.000	.2451-01	.2961-01	.3305-01	32.37	.7934	.4195	558.4	.6678-03
10	.80000	123.00	123.00	.1501-01	.1814-01	.2026-01	32.32	.4852	.4205	559.6	.4092-03
10	.80000	105.00	139.00	.2104-01	.2506-01	.3245-01	32.26	.7754	.4216	561.0	.6554-03
10	.80000	180.00	76.000	.4240-01	.5122-01	.5717-01	32.37	1.372	.4197	558.5	.1155-02
10	.90000	124.00	124.00	.2937-01	.3550-01	.3964-01	32.27	.9476	.4214	560.7	.8005-03

DATE 04 DEC 75

ARC 3.5-178 IH3

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ARC 3.5-178 IH3 O+T+S

(REIP02)

ORBITER FUSELAGE

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FTESEC	ALPHA DEG.
15	5.300	.4972+07	405.4	1305.	318.9	.1750-01	.8223	.0000
16	5.300	.4953+07	405.3	1310.	320.2	.1750-01	.8223	.0000
17	5.300	.5035+07	405.7	1300.	317.5	.1750-01	.8248	.0000
18	5.300	.5098+07	404.9	1294.	313.4	.1750-01	.8294	.0000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FTESEC	QDOT BTU/FTESEC	HM/HT	TH DEG. R	STN NO R=0.9
16	.50000-01	.00000	7.0000	.4178-01	.5081-01	.5698-01	58.12	2.428	.4377	584.2	.6200-03
18	.50000-01	14.000	90.000	.4376-01	.5322-01	.5367-01	56.78	2.485	.4373	571.2	.6421-03
18	.50000-01	22.000	105.00	.4302-01	.5232-01	.5266-01	56.77	2.442	.4374	571.4	.6312-03
18	.50000-01	35.000	115.00	.6932-01	.8305-01	.9310-01	56.87	3.885	.4364	570.1	.1002-02
16	.50000-01	42.500	127.00	.7076-01	.8608-01	.9652-01	58.10	4.111	.4379	584.4	.1050-02
16	.50000-01	60.000	131.00	.1590	.1933	.2168	58.13	9.241	.4376	584.0	.2359-02
18	.50000-01	180.00	61.000	.1085	.1320	.1480	56.78	6.162	.4373	571.3	.1592-02
18	.10000+00	.00000	12.000	.4431	.5387	.6038	56.87	25.20	.4364	570.0	.6500-02
18	.10000+00	10.000	88.000	.2947	.3581	.4013	56.98	16.79	.4354	568.8	.4321-02
16	.10000+00	20.000	103.00	.1117	.1356	.1518	58.69	6.554	.4324	577.0	.1654-02
16	.10000+00	24.500	106.00	.1002	.1215	.1359	59.00	5.912	.4295	573.2	.1483-02
18	.10000+00	39.000	116.00	.6030-01	.7320-01	.8195-01	57.29	3.454	.4324	564.6	.8833-03
16	.10000+00	119.00	132.00	.9122-01	.1106	.1237	59.02	5.383	.4293	572.0	.1350-02
18	.10000+00	180.00	63.000	.7418-01	.9009-01	.1009	57.14	4.239	.4338	566.6	.1087-02
16	.15000	.00000	17.000	.2813-01	.3413-01	.3820-01	58.84	1.655	.4310	575.2	.4166-03
16	.15000	10.000	89.000	.5300-01	.6431-01	.7199-01	58.81	3.117	.4313	575.5	.7850-03
18	.15000	25.500	104.00	.7452-01	.9065-01	.1016	57.07	4.259	.4345	567.5	.1034-02
18	.15000	40.000	107.00	.1233	.1495	.1672	59.11	7.291	.4284	571.8	.1825-02
18	.15000	45.500	111.00	.6947-01	.8309-01	.9301-01	57.38	3.929	.4315	563.7	.1003-02
16	.15000	117.00	117.00	.1106	.1340	.1498	59.25	6.553	.4272	570.1	.1636-02
18	.15000	180.00	65.000	.2488	.3022	.3386	57.10	14.21	.4342	567.2	.3647-02
18	.20000	.00000	22.000	.5938-01	.7208-01	.8071-01	57.29	3.401	.4324	564.9	.8698-03
18	.20000	11.500	91.000	.2659 01	.3229-01	.3616-01	57.21	1.521	.4331	565.8	.3896-03
18	.20000	24.000	93.000	.3506-01	.4250-01	.4755-01	57.67	2.022	.4287	560.0	.5130-03

ARC 3.5-178 IH3 O+T+S

ORBITER FUSELAGE

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORF BTU/ FT2SEC	ODC* BTU/ FT2SEC	HK/HT	TW DEG. R	STN NO R=0.9
16	.20000	31.500	108.00	.5704-01	.6908-01	.7723-01	59.75	3.386	4261	567.7	.8434-03
16	.20000	35.000	110.00	.8522-01	.1033	.1155	59.16	5.042	4280	571.2	.1261-02
16	.20000	40.000	112.00	.1046	.1268	.1419	59.11	6.185	4285	571.8	.1548-02
16	.20000	51.000	118.00	.1005	.1218	.1362	59.13	5.942	4283	571.5	.1437-02
16	.20000	67.500	128.00	.1809-01	.2193-01	.2452-01	59.15	1.070	4281	571.4	.2677-03
16	.20000	96.500	133.00	.2698-01	.3263-01	.3646-01	59.17	1.610	4232	564.8	.3985-03
18	.20000	180.00	69.000	.1156	.1402	.1570	57.42	6.437	4311	563.1	.1692-02
18	.30000	.00000	26.000	.7063-01	.8577-01	.9606-01	57.19	4.039	4333	566.1	.1035-02
18	.30000	12.000	92.000	.8394-01	.1109	.1141	57.29	4.809	4323	564.8	.1242-02
18	.30000	23.000	94.000	.9143-01	.1109	.1241	57.58	5.265	4295	561.2	.1738-02
16	.30000	34.000	109.00	.1220	.1476	.1649	59.69	7.283	4230	564.5	.1802-02
16	.30000	40.000	113.00	.1234	.1495	.1671	59.35	7.327	4262	568.8	.1825-02
16	.30000	45.000	114.00	.1078	.1305	.1460	59.26	6.386	4270	569.9	.1594-02
16	.30000	57.500	119.00	.4302-01	.5318-01	.5944-01	59.40	2.609	4257	568.1	.6493-03
16	.30000	61.000	120.00	.4027-01	.4876-01	.5450-01	59.43	2.393	4255	567.8	.5453-03
16	.30000	65.000	122.00	.3319-01	.4014-01	.4484-01	59.70	1.981	4229	564.4	.4902-03
16	.30000	70.000	129.00	.1802-01	.2183-01	.2441-01	59.28	1.068	4269	569.7	.2665-03
18	.30000	106.00	134.00	.3580-01	.4345-01	.4865-01	57.33	2.052	4320	564.3	.5244-03
16	.30000	135.00	141.00	.3464-01	.4199-01	.4698-01	59.07	2.046	4288	572.3	.5126-03
16	.30000	180.00	71.000	.6705-02	.8127-02	.9091-02	42.86	.3867	4206	559.9	.9810-04
18	.40000	.00000	30.000	.7817-01	.9492-01	.1063	57.18	4.470	4334	566.2	.1145-02
18	.40000	21.500	95.000	.6537-01	.7928-01	.8872-01	57.34	3.762	4299	561.6	.9569-03
18	.40000	105.00	135.00	.4261-01	.5170-01	.5738-01	57.41	2.446	4312	563.3	.6240-03
16	.40000	135.00	142.00	.3704-01	.4486-01	.5017-01	59.28	2.196	4268	569.6	.4477-03
18	.40000	180.00	72.000	.3072-01	.3725-01	.4168-01	57.50	1.770	4294	560.9	.4496-03
18	.50000	.00000	34.000	.6806-01	.8264-01	.9256-01	57.19	3.892	4334	566.1	.9973-03
18	.50000	21.500	96.000	.6510-01	.7897-01	.8839-01	57.46	3.741	4307	562.7	.9571-03
16	.50000	105.00	136.00	.4473-01	.5408-01	.6039-01	59.86	2.678	4214	562.4	.6805-03
16	.50000	135.00	143.00	.4020-01	.4870-01	.5445-01	59.28	2.383	4268	569.6	.5946-03
16	.50000	180.00	73.000	.2825-01	.3417-01	.3817-01	59.59	1.656	4231	564.5	.6452-03
16	.60000	77.000	130.00	.4366-01	.5284-01	.5904-01	59.58	2.601	4231	566.0	.4177-03
16	.60000	105.00	137.00	.4257-01	.5147-01	.5749-01	59.84	2.547	4216	562.7	.8236-03
15	.60000	112.00	146.00	.4144-01	.5024-01	.5622-01	58.69	2.432	4293	570.9	.6250-03
15	.60000	113.00	146.00	.4397-01	.5332-01	.5366-01	58.67	2.580	4296	570.9	.F500-03
16	.60000	135.00	144.00	.3398-01	.4115-01	.4599-01	59.41	2.015	4257	568.1	.5024-03
18	.60000	180.00	74.000	.3422-01	.4150-01	.4645-01	57.53	1.969	4301	561.8	.5009-03
16	.70000	105.00	138.00	.3864-01	.4675-01	.5223-01	59.64	2.304	4235	565.2	.5708-03
15	.70000	135.00	145.00	.3347-01	.4052-01	.4528-01	59.52	1.993	4246	566.6	.4947-03
15	.70000	180.00	75.000	.3780-01	.4570-01	.5103-01	59.86	2.263	4214	562.4	.5581-03
16	.80000	65.000	123.00	.1975-01	.2388-01	.2666-01	59.93	1.184	4208	561.5	.2916-03
16	.80000	105.00	139.00	.3933-01	.4636-01	.5179-01	59.73	2.290	4227	564.1	.5662-03
16	.80000	180.00	76.000	.7207-01	.8719-01	.9740-01	59.68	4.371	4231	564.7	.1065-02
16	.90000	65.000	124.00	.4020-01	.4854-01	.5435-01	59.50	2.736	4239	565.7	.5939-03

ARC 3.5-178 IH3 O+T+S (TRIPS) ORBITER FUSELAGE

(REIP03)

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	GN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
19	5.300	.1500+07	122.6	.508.	319.5	.1750-01	.2485	.0000
20	5.300	.1537+07	121.3	1279.	312.1	.1750-01	.2491	.0000
21	5.300	.1523+07	122.0	1291.	315.3	.1750-01	.2482	.0000
22	5.300	.1470+07	122.1	1321.	322.9	.1750-01	.2459	.0000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
21	.50000-01	.00000	7.0000	.3078-01	.3735-01	.4180-01	31.72	.9766	.4310	566.3	.8239-03
19	.50000-01	14.000	90.000	.3600-01	.4376-01	.4905-01	31.96	1.151	.4359	580.5	.9707-03
19	.50000-01	22.000	105.000	.4086-01	.4967-01	.5568-01	31.94	1.305	.4362	580.9	.1102-02
19	.50000-01	35.000	115.000	.6980-01	.8485-01	.9510-01	31.94	2.229	.4363	580.9	.1882-02
21	.50000-01	42.500	127.000	.7257-01	.8806-01	.9318-01	31.69	2.300	.4315	567.0	.1943-02
21	.50000-01	50.000	131.000	.1693	.2067	.2124	30.77	5.209	.4476	588.2	.4556-02
19	.50000-01	180.000	61.000	.1083	.1315	.1474	32.03	3.468	.4348	578.9	.2918-02
19	.10000+00	.00000	12.000	.4576	.5548	.6207	32.35	14.80	.4293	571.6	.1231-01
19	.10000+00	10.000	88.000	.3054	.3705	.4146	32.28	9.860	.4304	573.1	.8220-02
21	.10000+00	20.000	103.000	.1253	.1520	.1701	31.80	3.986	.4297	564.6	.3353-02
21	.10000+00	24.500	105.000	.7413-01	.8988-01	.1006	31.83	2.359	.4292	564.0	.1983-02
19	.10000+00	39.000	116.000	.3415-01	.4138-01	.4528-01	32.44	1.108	.4277	569.6	.9184-03
21	.10000+00	119.000	132.000	.8555-01	.1037	.1160	31.84	2.724	.4290	563.7	.2238-02
19	.10000+00	180.000	63.000	.6275-01	.7607-01	.8510-01	32.37	2.032	.4289	571.1	.1688-02
21	.15000	.00000	17.000	.3830-01	.4643-01	.5194-01	31.85	1.220	.4288	563.4	.1024-02
21	.15000	10.000	89.000	.4565-01	.5534-01	.6192-01	31.83	1.453	.4282	563.9	.1221-02
19	.15000	20.000	104.000	.8710-01	.1056	.1181	32.38	1.420	.4288	571.0	.2343-02
21	.15000	25.500	107.000	.1393	.1699	.1890	31.83	4.435	.4292	563.9	.3727-02
19	.15000	40.500	111.000	.709-01	.8336-01	.1044	32.52	2.507	.4263	567.7	.2072-02
21	.15000	45.500	117.000	.6869-01	.8325-01	.9313-01	31.88	2.190	.4284	562.8	.1837-02
9	.15000	130.000	65.000	.1515	.1837	.2054	32.41	4.912	.4282	570.2	.4076-02
19	.20000	.00000	22.000	.6973-01	.8440-01	.9432-01	32.61	2.274	.4248	565.7	.1873-02
19	.20000	11.500	91.000	.4373-01	.5305-01	.5932-01	32.49	1.423	.4269	568.5	.1177-02
19	.20000	24.000	93.000	.3344-01	.4059-01	.4546-01	32.15	1.075	.4327	576.2	.9007-03

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
21	.20000	31.500	108.00	.5120-01	.5207-01	.6945-01	31.84	1.630	.4290	563.7	.1369-02
21	.20000	35.000	110.00	.6844-01	.8298-01	.9285-01	31.81	2.177	.4295	564.4	.1831-02
21	.20000	40.000	112.00	.8808-01	1.068	1.195	31.81	2.802	.4295	564.3	.2356-02
21	.20000	41.000	113.00	.7137-01	.8652-01	.9680-01	31.84	2.272	.4290	563.7	.1909-02
21	.20000	67.500	128.00	.5513-01	.6683-01	.7475-01	31.87	1.757	.4285	563.0	.1474-02
21	.20000	66.500	133.00	.7533-01	.9129-01	1.021	31.90	2.403	.4279	562.2	.2014-02
19	.20000	180.00	69.000	.9023-01	1.093	1.222	32.47	2.930	.4271	568.8	.2426-02
19	.30000	.00000	26.000	.5393-01	.6526-01	.7752-01	32.64	1.760	.4242	564.2	.1449-02
19	.30000	12.000	92.000	.6408-01	.7755-01	.8665-01	32.65	2.092	.4241	564.3	.1721-02
19	.30000	23.000	94.000	.7054-01	.8533-01	.9533-01	32.70	2.307	.4232	563.5	.1894-02
21	.30000	34.000	109.00	.7965-01	.9653-01	1.080	31.88	2.539	.4283	562.8	.2130-02
21	.30000	40.000	113.00	.7302-01	.8852-01	.9902-01	31.87	2.328	.4284	562.9	.1953-02
21	.30000	45.000	114.00	.6925-01	.8394-01	.9390-01	31.86	2.206	.4287	563.2	.1852-02
21	.30000	51.500	119.00	.2780-01	.3370-01	.3770-01	31.88	.8863	.4284	562.8	.7435-03
21	.30000	61.000	120.00	.2274-01	.2753-01	.3082-01	31.89	.7251	.4281	562.5	.6080-03
21	.30000	65.000	122.00	.2152-01	.2608-01	.2917-01	31.89	.6805	.4280	562.4	.5755-03
21	.30000	70.000	129.00	.2235-01	.2708-01	.3029-01	31.88	.7124	.4283	562.7	.5976-03
19	.30000	106.00	134.00	.1972-01	.2386-01	.2666-01	32.67	.6444	.4237	564.3	.5297-03
21	.30000	135.00	141.00	.2381-01	.2886-01	.3229-01	31.84	.7580	.4291	563.7	.6368-03
19	.30000	180.00	71.000	.6583-02	.7963-02	.8895-02	32.72	2.154	.4229	563.1	.1788-03
19	.40000	.00000	30.000	.4994-01	.6043-01	.6752-01	32.66	1.631	.4240	564.6	.1341-02
19	.40000	21.500	95.000	.4605-01	.5570-01	.6221-01	32.75	1.508	.4224	562.4	.1236-02
19	.40000	105.00	135.00	.1973-01	.2467-01	.2665-01	32.75	.6465	.4222	562.3	.5298-03
19	.40000	180.00	72.000	.8713-02	1.056-01	1.181-01	31.88	.2778	.4282	562.6	.2330-03
19	.50000	180.00	34.000	.9483-02	1.147-01	1.281-01	32.81	3.113	.425	561.2	.2547-03
19	.50000	.00000	96.000	.4349-01	.5262-01	.5880-01	32.66	1.421	.4239	564.5	.1168-02
21	.50000	105.00	136.00	.4187-01	.5064-01	.5656-01	32.75	1.371	.4224	562.4	.1124-02
21	.50000	135.00	143.00	.5296-02	.6418-02	.7180-02	31.83	.8290	.4273	561.5	.6939-03
21	.50000	180.00	73.000	.1668-01	.2021-01	.2260-01	31.87	1.688	.4269	563.0	.1416-03
21	.60000	77.000	130.00	.2841-01	.3442-01	.3849-01	31.96	.9081	.4269	560.9	.7594-03
21	.60000	105.00	137.00	.3053-01	.3639-01	.4137-01	31.93	.9749	.4274	561.6	.8162-03
22	.60000	112.00	147.00	.3252-01	.3915-01	.4360-01	33.77	1.098	.4100	551.7	.8774-03
22	.60000	113.00	146.00	.3447-01	.4150-01	.4622-01	33.76	1.164	.4102	552.0	.9300-03
21	.60000	135.00	144.00	.2031-01	.2461-01	.2752-01	31.91	.6481	.4277	562.0	.5429-03
19	.60000	130.00	74.000	.2388-01	.2887-01	.3224-01	32.78	.7827	.4218	561.7	.6409-03
21	.70000	105.00	138.00	.2579-01	.3125-01	.3495-01	31.91	.8229	.4278	562.1	.6895-03
21	.70000	135.00	145.00	.2779-01	.3367-01	.3766-01	31.93	.8874	.4274	561.6	.7430-03
21	.70000	180.00	75.000	.2911-01	.3526-01	.3942-01	31.99	.9312	.4264	560.3	.7780-03
21	.80000	65.000	123.00	.1589-01	.1919-01	.2145-01	32.01	.5072	.4261	559.8	.4235-03
21	.80000	105.00	139.00	.2557-01	.3098-01	.3465-01	31.95	.6170	.4271	561.2	.6836-03
21	.80000	180.00	76.000	.4013-01	.4861-01	.5434-01	32.00	1.284	.4262	560.0	.1073-02
21	.90000	65.000	124.00	.3211-01	.3830-01	.4350-01	31.95	1.026	.4271	561.2	.8583-03

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977*07	406.3	1307.	319.2	.1750-01	.8238	.0000
30	5.300	.5036*07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5036*07	406.4	1302.	318.0	.1750-01	.8257	.0000
32	5.300	.5039*07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
30	.50000-01	.00000	7.0000	.3034-01	.3701-01	.1159-01	56.87	1.726	.4454	590.2	.4495-03
32	.50000-01	14.000	90.000	.3611-01	.4426-01	.4598-01	55.51	2.004	.4567	602.9	.5356-03
32	.50000-01	22.000	105.00	.4033-01	.4943-01	.5571-01	55.52	2.239	.4566	602.8	.5983-03
32	.50000-01	35.000	115.00	.6555-01	.8025-01	.9038-01	55.77	3.656	.4541	599.6	.9714-03
30	.50000-01	42.500	127.00	.7012-01	.8557-01	.9615-01	56.82	3.984	.4459	590.8	.1039-02
30	.50000-01	60.000	131.00	.1148	.1400	.1573	56.88	6.528	.4453	590.1	.1701-02
32	.50000-01	180.00	61.000	.1047	.1281	.1443	55.83	5.845	.4536	598.8	.1551-02
32	.00000+00	.00000	12.000	.4491	.5491	.6179	56.10	25.20	.4510	595.4	.6648-02
32	.10000+00	10.000	88.000	.3050	.3730	.4199	56.00	17.08	.4520	596.7	.4516-02
30	.10000+00	24.500	103.00	.1230	.1498	.1681	57.43	7.066	.4401	583.1	.1820-02
32	.10000+00	39.000	106.00	.2757-01	.1186	.1329	57.87	5.647	.4359	577.6	.1441-02
32	.10000+00	116.00	116.00	.4579-01	.5583-01	.6271-01	56.83	2.502	.4441	586.4	.6762-03
30	.10300+00	119.00	132.00	.8437-01	.1026	.1150	57.83	4.879	.4363	578.2	.1246-02
32	.10000+00	180.00	63.000	.5945-01	.7252-01	.8147-01	56.73	3.373	.4450	587.5	.8783-03
30	.15000	.00000	17.000	.4737-01	.5599-01	.6455-01	57.80	2.738	.4366	578.6	.6998-03
30	.15000	10.000	89.000	.7142-01	.6686-01	.9740-01	57.69	4.120	.4377	579.9	.1055-02
32	.15000	20.000	104.00	.1110	.1356	.1525	56.26	6.242	.4495	593.5	.1042-02
30	.15000	25.500	107.00	.1776	.2158	.2418	57.99	10.30	.4348	576.1	.2622-02
32	.15000	40.000	111.00	.1008	.1229	.1380	56.87	5.733	.4437	585.8	.1489-02
30	.15000	45.500	117.00	.1204	.1463	.1639	58.06	6.993	.4341	575.2	.1778-02
32	.15000	180.00	65.000	.2583	.3152	.3542	56.60	14.62	.4463	589.2	.3917-02
32	.20000	.00000	22.000	.8150-01	.9932-01	.1115	56.98	4.643	.4427	584.5	.1203-02
32	.20000	11.500	91.000	.5094-01	.6203-01	.6969-01	56.70	2.883	.4453	588.0	.7512-03
32	.20000	24.000	93.000	.4254-01	.5183-01	.5818-01	57.05	2.427	.4420	583.6	.6278-03

DATE 24 JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S (TRIPS) ORBITER FUSELAGE

PAGE 258
(REIP04)

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/PREF R=0.85	QREF BTU/ FT ² SEC	QDOT BTU/ FT ² SEC	HM/HT	TW DEG. R	STN NO R=0.9
30	.20000	31.500	108.00	.6341-01	.7699-01	.8622-01	58.17	3.688	.4331	573.9	.9357-03
30	.20000	35.000	110.00	.8901-01	.1082	.1212	57.93	6.157	.4354	576.9	.1314-02
30	.20000	40.000	112.00	.1108	.1347	.1509	57.90	6.415	.4357	577.3	.1636-02
30	.20000	51.000	118.00	.1009	.1226	.1374	57.95	5.849	.4352	576.6	.1490-02
30	.20000	67.500	128.00	.9812-01	.1192	.1335	58.08	5.699	.4339	575.0	.1448-02
30	.20000	96.500	133.00	.1098	.1332	.1491	58.44	6.419	.4306	570.5	.1620-02
32	.20000	180.00	69.000	.1326	.1616	.1814	57.03	7.564	.4422	583.8	.1958-02
32	.30000	.00000	26.000	.7156-01	.8718-01	.9786-01	57.06	4.083	.4419	583.4	.1056-02
32	.30000	12.000	92.000	.8488-01	.1034	.1161	57.10	4.847	.4415	583.0	.1253-02
32	.30000	23.000	94.000	.9467-01	.1152	.1291	57.45	5.439	.4382	579.5	.1395-02
30	.30000	34.000	109.00	.1215	.1474	.1650	58.49	7.111	.4300	569.8	.1792-02
30	.30000	40.000	113.00	.1220	.1480	.1658	58.26	7.105	.4323	572.8	.1799-02
30	.30000	45.000	114.00	.1029	.1413	.1588	58.18	6.044	.4330	573.8	.1533-02
30	.30000	57.500	119.00	.4926-01	.5979-01	.6694-01	58.28	2.871	.4321	572.5	.7267-03
30	.30000	61.000	120.00	.4175-01	.5066-01	.5672-01	58.31	2.435	.4317	572.1	.6158-03
30	.30000	65.000	122.00	.3695-01	.4480-01	.5013-01	58.52	2.162	.4298	569.5	.5446-03
30	.30000	70.000	129.00	.3813-01	.4628-01	.5182-01	58.26	2.221	.4323	572.8	.5625-03
32	.30000	105.00	134.00	.3330-01	.4052-01	.4545-01	57.40	1.911	.4387	579.2	.4909-03
30	.30000	139.00	141.00	.3236-01	.4430-01	.5031-01	58.03	2.145	.4344	575.6	.5457-03
32	.30000	180.00	71.000	.1204-01	.1464-01	.1641-01	57.69	.6949	.4359	575.5	.1774-03
32	.40000	.00000	30.000	.7047-01	.8583-01	.9632-01	57.15	4.027	.4410	582.3	.1040-02
32	.40000	21.500	95.000	.5847-01	.7108-01	.7968-01	57.62	3.369	.4366	576.4	.8613-03
32	.40000	105.00	135.00	.3972-01	.4829-01	.5413-01	57.62	2.280	.4366	576.4	.5851-03
30	.40000	135.00	142.00	.3934-01	.4774-01	.5345-01	58.30	2.293	.4319	572.3	.5802-03
32	.40000	180.00	72.000	.3929-01	.4786-01	.5361-01	57.84	2.279	.4345	573.6	.5799-03
32	.50000	.00000	34.000	.5581-01	.6796-01	.7737-01	57.63	3.191	.4407	581.9	.8232-03
30	.50000	105.00	136.00	.4084-01	.4948-01	.5535-01	58.72	2.398	.4279	568.9	.6016-03
30	.50000	135.00	143.00	.4136-01	.5020-01	.5620-01	58.33	2.413	.4316	571.9	.6101-03
30	.50000	180.00	73.000	.2658-01	.3222-01	.3604-01	58.62	1.558	.4288	568.2	.3917-03
30	.60000	77.000	130.00	.4271-01	.5178-01	.5794-01	58.57	2.501	.4293	568.8	.6294-03
30	.60000	105.00	137.00	.3300-01	.3999-01	.4472-01	58.72	2.501	.4279	568.9	.4861-03
29	.60000	112.00	147.00	.3752-01	.4551-01	.5094-01	58.65	2.200	.4309	573.2	.5545-03
29	.60000	113.00	146.00	.4076-01	.4945-01	.5535-01	58.62	2.389	.4312	573.6	.6025-03
30	.60000	135.00	144.00	.3494-01	.4238-01	.4743-01	58.47	2.043	.4303	570.1	.5151-03
32	.60000	180.00	74.000	.3246-01	.3944-01	.4419-01	57.76	1.875	.4353	574.7	.4779-03
30	.70000	105.00	138.00	.2807-01	.3403-01	.3807-01	58.62	1.646	.4289	568.3	.4137-03
30	.70000	135.00	145.00	.3002-01	.3640-01	.4072-01	58.59	1.759	.4292	568.7	.4424-03
30	.80000	180.00	75.000	.3718-01	.4504-01	.5037-01	58.79	2.186	.4272	566.0	.5476-03
30	.80000	65.000	123.00	.1768-01	.2142-01	.2396-01	58.80	1.040	.4273	566.2	.2605-03
30	.80000	105.00	139.00	.3306-01	.4006-01	.4481-01	58.75	1.943	.4276	566.5	.4871-03
30	.80000	180.00	76.000	.6918-01	.8381-01	.9373-01	58.77	4.066	.4274	566.3	.1019-02
30	.90000	65.000	124.00	.3013-01	.4636-01	.5188-01	58.53	2.238	.4297	569.4	.5636-03

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ORIGINAL PAGE IS POOR

DATE : JAN 76

ARC 3.5-178 IH3

ARC 3.5-178 IH3 O+T+S

ORBITER FUSELAGE

PAGE 259
(REIPOS)

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.	STN NO R-0.9
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000	.8557-03
37	5.300	.5149+07	401.9	1270.	309.8	.1750-01	.8263	.0000	.7390-03
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000	.9040-03
39	5.300	.5045+07	406.2	1295.	316.3	.1750-01	.8279	.0000	.1313-02
37	5.000	.1016	.1247	.1407	53.51	7.600	.4591	.0000	.1497-02
37	5.000	.1016	.1736	.1960	53.66	7.600	.4591	.0000	.2087-02
39	5.000	.1072	.1308	.1471	56.44	6.057	.4466	.0000	.1584-02
39	5.000	.4883	.5954	.6687	56.71	27.69	.4440	.0000	.7208-02
39	5.000	.2172	.2650	.2978	56.55	12.28	.4455	.0000	.3208-02
37	5.000	.1537	.1566	.1784	54.48	7.065	.4510	.0000	.1505-02
37	5.000	.8703-01	.1063	.1194	54.86	4.775	.4473	.0000	.1277-02
39	5.000	.4810-01	.5852-01	.6462-01	57.30	2.756	.4384	.0000	.7087-03
39	5.000	.1034	.1260	.1415	55.27	5.713	.4433	.0000	.1515-02
39	5.000	.6891-01	.8389-01	.9411-01	57.15	3.938	.4398	.0000	.1016-02
37	5.000	.7674-01	.9353-01	.1050	55.32	4.246	.4428	.0000	.1124-02
37	5.000	.1070	.1306	.1469	54.97	5.882	.4463	.0000	.1570-02
39	5.000	.1505	.1834	.2059	56.84	8.556	.4427	.0000	.2221-02
37	5.000	.1125	.1371	.1540	55.16	6.203	.4444	.0000	.1648-02
39	5.000	.5250-01	.6387-01	.7163-01	57.31	3.009	.4383	.0000	.7735-03
37	5.000	.3190-01	.3884-01	.4557-01	55.62	1.774	.4394	.0000	.4669-03
39	5.000	.1796	.2187	.2455	57.08	10.25	.4407	.0000	.2849-02
39	5.000	.8818-01	.1072	.1202	57.46	5.068	.4367	.0000	.1299-02
39	5.000	.9354-01	.138	.1277	57.23	5.353	.4391	.0000	.1379-02
39	5.000	.1066	.1395	.1452	57.51	6.128	.4364	.0000	.1569-02

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	QDOT BTU/FT ² SEC	HM/HT	TW DEG. R
37	.50000-01	.00000	7.0000	.5811-01	.7124-01	.8031-01	53.83	3.128	.4574	590.7
39	.50000-01	14.000	90.000	.4997-01	.6106-01	.6868-01	56.16	2.806	.4492	592.1
39	.50000-01	22.000	105.00	.6113-01	.7469-01	.8400-01	56.16	3.433	.4492	592.2
39	.50000-01	35.000	115.00	.6886-01	.1085	.1220	56.32	5.005	.4477	590.1
37	.50000-01	42.500	127.00	.1016	.1247	.1407	53.51	5.435	.4605	594.7
37	.50000-01	60.000	131.00	.1416	.1736	.1960	53.66	7.600	.4591	592.9
39	.50000-01	185.000	61.000	.1072	.1308	.1471	56.44	6.057	.4466	588.6
39	.10000+00	.00000	12.000	.4883	.5954	.6687	56.71	27.69	.4440	585.2
39	.10000+00	10.000	28.000	.2172	.2650	.2978	56.55	12.28	.4455	587.2
37	.10000+00	20.000	103.00	.1537	.1566	.1784	54.48	7.065	.4510	582.4
37	.10000+00	24.500	106.00	.8703-01	.1063	.1194	54.86	4.775	.4473	577.6
39	.10000+00	39.000	116.00	.4810-01	.5852-01	.6462-01	57.30	2.756	.4384	577.9
37	.10000+00	119.00	132.00	.1034	.1260	.1415	55.27	5.713	.4433	572.4
39	.10000+00	180.00	63.000	.6891-01	.8389-01	.9411-01	57.15	3.938	.4398	579.7
37	.15000	.00000	17.000	.7674-01	.9353-01	.1050	55.32	4.246	.4428	571.8
37	.15000	10.000	89.000	.1070	.1306	.1469	54.97	5.882	.4463	576.3
39	.15000	20.000	104.00	.1505	.1834	.2059	56.84	8.556	.4427	583.5
37	.15000	25.500	107.00	.1125	.1371	.1540	55.16	6.203	.4444	573.8
39	.15000	40.000	111.00	.5250-01	.6387-01	.7163-01	57.31	3.009	.4383	577.7
37	.15000	45.500	117.00	.3190-01	.3884-01	.4557-01	55.62	1.774	.4394	568.1
39	.15000	160.000	65.000	.1796	.2187	.2455	57.08	10.25	.4407	580.9
39	.20000	.00000	22.000	.8818-01	.1072	.1202	57.46	5.068	.4367	575.6
39	.20000	11.500	91.000	.9354-01	.138	.1277	57.23	5.353	.4391	578.8
39	.20000	20.000	93.000	.1066	.1395	.1452	57.51	6.128	.4364	575.2

RUN NUMBER	X/L	PHI	T/C NO	H/WREF R=1.0	H/WREF R=0.9	H/WREF R=0.85	OREF BTU/ FT2SEC	ODOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
37	20000	31.500	108.00	.1272	.1548	.1735	55.67	7.079	.4394	567.4	.1861-02
37	20000	35.000	110.00	.1240	.1517	.1695	55.50	6.885	.4410	563.5	.1816-02
37	20000	40.000	112.00	.1317	.1603	.1799	55.51	7.309	.4409	569.4	.1928-02
37	20000	51.000	118.00	.2654-01	.3230-01	.3624-01	55.70	1.479	.4391	567.0	.3884-03
37	20000	67.500	128.00	.3283-01	.3990-01	.4472-01	56.03	1.839	.4359	562.8	.4798-03
37	20000	96.500	133.00	.4297-01	.5217-01	.5842-01	56.33	2.421	.4329	559.0	.6275-03
39	20000	180.00	69.000	.1122	.1364	.1529	57.50	6.453	.4365	575.4	.1653-02
39	30000	180.00	26.000	.6426-01	.7812-01	.8756-01	57.53	3.697	.4362	575.0	.9462-03
39	30000	12.000	92.000	.7756-01	.9427-01	1.057	57.55	4.263	.4360	574.7	.1142-02
39	30000	23.000	94.000	.9158-01	1.112	1.246	57.82	5.295	.4334	571.3	.1347-02
37	30000	34.000	109.00	1.083	1.313	1.469	56.72	6.144	.4291	554.1	.1580-02
37	30000	40.000	113.00	1.140	1.384	1.549	56.49	6.442	.4314	557.1	.1684-02
37	30000	45.000	114.00	.9707-01	1.178	1.319	56.40	5.475	.4323	558.2	.1417-02
37	30000	57.500	119.00	.9381-01	1.138	1.273	56.60	5.309	.4304	555.7	.1369-02
37	30000	61.000	120.00	.1213	1.472	1.647	56.63	6.872	.4301	555.3	.1770-02
37	30000	65.000	122.00	1.067	1.293	1.447	56.79	6.058	.4285	553.3	.1556-02
37	30000	70.000	129.00	.6634-01	.8047-01	.9063-01	56.58	3.753	.4306	556.0	.9680-03
39	30000	106.00	134.00	.6511-01	.7908-01	.8958-01	57.76	3.761	.4340	572.0	.9579-03
37	30000	135.00	141.00	.4997-01	.6074-01	.6807-01	56.01	2.799	.4361	563.1	.7304-03
39	30000	180.00	71.000	.2463-01	.2996-01	.3354-01	58.05	1.433	.4312	568.4	.3630-03
39	40000	21.500	30.000	.8213-01	.9983-01	1.119	57.56	4.728	.4359	574.5	.1209-02
39	40000	125.00	95.000	.6405-01	.7773-01	.8703-01	57.96	3.712	.4321	569.5	.9417-03
37	40000	135.00	135.00	.6657-01	.8080-01	.9046-01	57.98	2.795	.4319	569.3	.9789-03
39	40000	180.00	142.00	.4941-01	.5994-01	.6708-01	56.58	2.661	.4305	555.9	.7210-03
39	50000	21.500	34.000	.5865-01	.7128-01	.7983-01	57.57	3.376	.4358	574.5	.8634-03
39	50000	105.00	136.00	.6545-01	.7924-01	.8857-01	57.12	3.496	.4320	569.5	.8867-03
37	50000	135.00	143.00	.5159-01	.6257-01	.7003-01	56.62	2.921	.4253	549.1	.9535-03
37	50000	180.00	73.000	.3084-01	.3737-01	.4178-01	56.93	1.756	.4271	551.2	.4496-03
37	60000	145.00	130.00	.6334-01	.7671-01	.8777-01	56.99	3.610	.4265	530.7	.9230-03
36	60000	112.00	137.00	.7523-01	.8905-01	1.043	57.12	4.202	.4252	549.1	.1071-02
36	60000	113.00	147.00	.6503-01	.7920-01	.8889-01	57.09	3.712	.4414	582.8	.9602-03
37	60000	135.00	144.00	.6148-01	.7490-01	.8406-01	57.07	3.509	.4416	583.1	.9080-03
39	60000	180.00	74.000	.4472-01	.5421-01	.6065-01	56.77	2.539	.4310	568.1	.4282-03
39	70000	105.00	138.00	.2913-01	.3534-01	.3956-01	58.08	1.692	.4268	551.2	.9937-03
37	70000	135.00	145.00	.6818-01	.8259-01	.9235-01	56.96	3.883	.4277	552.4	.5335-03
37	80000	180.00	75.000	.3660-01	.4435-01	.4960-01	56.86	2.081	.4259	549.9	.4222-03
37	80000	65.000	123.00	.2098-01	.3509-01	.3922-01	57.06	1.653	.4252	549.1	.3698-03
37	80000	105.00	123.00	.2539-01	.3074-01	.3435-01	57.12	1.450	.4252	550.8	.8362-03
37	80000	139.00	139.00	.5738-01	.6950-01	.7771-01	56.99	3.270	.4265	550.4	.9089-03
37	80000	180.00	76.000	.6237-01	.7554-01	.8445-01	57.02	3.556	.4262	550.4	.9089-03
37	90000	65.000	124.00	.5842-01	.7080-01	.7918-01	56.85	3.321	.4279	552.6	.8518-03

DATE 24 JAN 76

ARC 3.5-178 1H3

ARC 3.5-178 1H3 ORBITER ORBITER FUSELAGE

PAGE 261 (REIP06)

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
40	5.300	.1635+07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1582+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM:HT	TH DEG. R	STN NO R=0.9
42	.50000-01	.00000	7.0000	.4813-01	.5827-01	.5514-01	32.26	1.953	.4256	561.5	.1285-02
40	.50000-01	14.000	90.000	.6663-01	.8133-01	.9143-01	31.72	2.113	.4470	585.2	.1730-02
40	.50000-01	22.000	105.00	.6934-01	.8467-01	.9519-01	31.68	2.197	.4477	586.1	.1801-02
40	.50000-01	35.000	115.00	.7461-01	.9110-01	1.024	31.70	2.365	.4474	585.7	.1939-02
42	.50000-01	42.500	127.00	.7319-01	.8862-01	.9307-01	32.25	2.360	.4259	561.8	.1955-02
42	.50000-01	60.000	131.00	-.6752-02	-.6385-02	-.9538-02	28.75	1.941	.4864	641.8	.1844-03
40	.50000+00	180.000	61.000	.1103	.1346	.1512	31.80	3.509	.4457	583.4	.2864-02
40	.10000+00	0.0000	12.000	.1974-01	.2402-01	.2604-01	32.22	6.359	.4386	574.2	.3112-03
40	.10000+00	10.000	88.000	.2580-01	.3143-01	.3527-01	32.06	8.273	.4412	577.6	.6689-03
42	.10000+00	20.000	103.00	.3138-01	.3798-01	.4245-01	32.32	1.014	.4247	560.3	.8380-03
40	.10000+00	24.500	106.00	.4201-01	.5085-01	.5682-01	32.33	1.358	.4244	559.9	.1122-02
40	.10000+00	39.000	115.00	.4655-01	.5653-01	.6349-01	32.27	1.502	.4378	573.1	.1205-02
42	.10000+00	119.000	132.00	.8448-01	1.023	1.143	32.31	2.730	.4248	560.4	.2256-02
40	.10000+00	180.000	63.000	.6633-01	.8074-01	.9057-01	32.16	2.133	.4396	575.5	.1718-02
42	.15000	0.0000	17.000	.1132-01	.1370-01	.1531-01	32.35	3.653	.4242	559.6	.3023-03
42	.15000	10.000	89.000	.1949-01	.2359-01	.2636-01	32.31	6.298	.4247	560.3	.5204-03
40	.15000	20.000	104.00	.2589-01	.3134-01	.3502-01	32.14	6.344	.4399	575.9	.5114-03
42	.15000	25.500	107.00	.2589-01	.3134-01	.3502-01	32.32	6.368	.4246	560.1	.6913-03
40	.15000	40.000	111.00	.3066-01	.3728-01	.4180-01	32.30	9.902	.4372	572.4	.7937-03
42	.15000	45.500	117.00	.3062-01	.3706-01	.4141-01	32.35	9.906	.4241	559.6	.8175-03
40	.15000	180.000	65.000	.1143	.1391	.1560	32.16	3.675	.4396	575.4	.2960-02
40	.20000	0.0000	22.000	.8102-02	.9841-02	1.102-01	32.48	2.632	.4341	568.3	.2096-03
40	.20000	11.500	91.000	.1285-01	.1452-01	.1751-01	32.33	4.154	.4367	571.7	.3326-03
40	.20000	24.000	93.000	.1501-01	.1825-01	.2046-01	32.35	4.857	.4364	571.3	.3886-03

RUN NUMBER	X/L	PHI	T/C NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	ORBITER FUSELAGE	HM/HT	TW DEG. R	STN NO R=0.9
42	.20000	31.500	108.00	.1882-01	.2278-01	.2546-01	QDOT BTU/ F12SEC .6082	.4248	560.4	0026-03
42	.20000	35.000	110.00	.2096-01	.2538-01	.2836-01	32.31	.560.6	560.6	5598-03
42	.20000	40.000	112.00	.2503-01	.3029-01	.3386-01	32.30	.560.5	560.5	6683-03
42	.20000	51.000	118.00	.2248-01	.2720-01	.3040-01	32.31	.559.5	559.5	6001-03
42	.20000	67.500	128.00	.1936-01	.2415-01	.2698-01	32.35	.558.7	558.7	5328-03
42	.20000	96.500	133.00	.1504-01	.1820-01	.2034-01	32.38	.558.9	558.9	4016-03
40	.20000	180.00	69.000	.8580-01	.1044	.1170	2.770	.4376	572.8	2221-02
40	.30000	00.000	36.000	.4324-02	.5250-02	.5879-02	32.56	.4329	566.7	1118-03
40	.30000	12.000	92.000	.6541-02	.8428-02	.9438-02	32.55	.4331	567.0	1794-03
40	.30000	23.000	94.000	.1021-01	.1239-01	.1388-01	32.58	.4325	566.2	2639-03
42	.30000	34.000	109.00	.1548-01	.1874-01	.2094-01	32.50	.4249	560.5	4134-03
42	.30000	40.000	113.00	.1750-01	.2118-01	.2368-01	32.29	.4252	560.9	4673-03
42	.30000	45.000	114.00	.2164-01	.2620-01	.2929-01	32.28	.4254	561.2	5780-03
42	.30000	57.500	119.00	.1025-01	.1240-01	.1386-01	32.35	.4241	559.5	2736-03
42	.30000	61.500	120.00	.5649-02	.6836-02	.7638-02	32.37	.4238	559.1	1508-03
42	.30000	65.000	122.00	.5529-02	.6690-02	.7475-02	32.36	.4239	559.2	1475-03
42	.30000	70.000	129.00	.6317-02	.7645-02	.8542-02	32.35	.4241	559.6	1687-03
40	.30000	136.00	134.00	.2738-01	.3394-01	.3789-01	32.61	.4320	565.5	7206-03
42	.30000	135.00	141.00	.2075-01	.2511-01	.2806-01	32.32	.4246	560.2	5540-03
40	.40000	180.00	71.000	.3464-02	.4205-02	.4710-02	32.55	.4330	566.9	8954-04
40	.40000	00.000	30.000	.3895-02	.4728-02	.5294-02	32.59	.4323	566.0	1007-03
40	.40000	21.500	95.000	.1092-01	.1325-01	.1483-01	32.64	.4315	565.0	7851-03
42	.40000	125.00	142.00	.1305-01	.1579-01	.1765-01	32.32	.4246	560.1	3484-03
40	.40000	180.00	72.000	.6911-02	.8386-02	.9387-02	32.65	.4313	564.6	1786-03
40	.50000	00.000	34.000	.4938-02	.5994-02	.6711-02	32.59	.4323	565.9	1276-03
40	.50000	21.500	96.000	.1340-01	.1626-01	.1820-01	32.67	.4310	564.2	3462-03
42	.50000	105.00	135.00	.2033-01	.2459-01	.2748-01	32.38	.4236	558.9	5426-03
42	.50000	135.00	143.00	.3164-02	.3829-02	.4280-02	32.32	.4246	560.2	8448-04
42	.60000	160.00	73.000	.1522-01	.1842-01	.2058-01	32.37	.4238	559.2	4064-03
42	.60000	165.00	147.00	.2414-01	.2921-01	.3264-01	32.38	.4236	531.1	8715-03
43	.60000	112.00	147.00	.2015-01	.2436-01	.2721-01	32.71	.4213	558.8	6445-03
43	.60000	113.00	146.00	.2078-01	.2512-01	.2806-01	32.70	.4215	558.3	5384-03
42	.60000	135.00	144.00	.7331-02	.8873-02	.9915-02	32.34	.4244	558.8	5552-03
40	.60000	180.00	74.000	.2898-01	.3516-01	.3936-01	32.65	.4244	558.8	7487-03
42	.70000	105.00	138.00	.3498-01	.4232-01	.4729-01	32.37	.4238	559.1	9337-03
42	.70000	135.00	145.00	.1436-01	.1738-01	.1942-01	32.35	.4240	559.4	3835-03
42	.70000	160.00	75.000	.3311-01	.4006-01	.4476-01	32.37	.4237	559.0	2838-03
42	.80000	65.000	123.00	.1481-01	.1792-01	.2102-01	32.37	.4238	559.1	3953-03
42	.80000	105.00	139.00	.3618-01	.4377-01	.4690-01	32.38	.4236	558.8	9657-03
42	.80000	180.00	76.000	.3969-01	.4802-01	.5364-01	32.39	.4235	558.7	1059-02
42	.50000	65.000	124.00	.4163-01	.5039-01	.5632-01	32.31	.4247	560.3	1112-02

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HC BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NC R=0.9
45	.50000-01	.00000	7.0000	.4620-01	.5640-01	.6340-01	56.47	2.609	.4470	589.9	.6833-03
47	.50000-01	14.000	90.000	.6413-01	.7881-01	.8899-01	52.05	3.338	.4629	582.7	.9281-03
47	.50000-01	22.000	105.00	.6765-01	.8313-01	.9387-01	52.05	3.521	.4630	582.8	.9790-03
47	.50000-01	35.000	115.00	.7183-01	.8823-01	.9960-01	52.15	3.746	.4620	581.5	.1039-02
45	.50000-01	42.500	127.00	.7276-01	.8886-01	.9991-01	55.82	4.101	.4480	591.2	.1076-02
45	.50000-01	60.000	131.00	.1384	.1693	.1906	55.82	4.531	.4531	598.0	.2050-02
47	.50000-01	180.00	61.000	.1052	.1293	.1459	52.05	5.475	.4629	582.7	.1522-02
47	.10000+00	.00000	12.000	.1901-01	.2332-01	.2629-01	52.51	.9982	.4584	577.0	.2747-03
47	.10000+00	10.000	88.000	.2615-01	.3208-01	.3618-01	52.45	1.372	.4590	577.8	.3779-03
45	.10000+00	20.000	103.00	.3106-01	.3786-01	.4253-01	56.79	1.734	.4439	585.8	.4588-03
45	.10000+00	24.500	106.00	.4167-01	.5074-01	.5694-01	57.13	2.381	.4406	581.5	.6149-03
47	.10000+00	39.000	116.00	.4381-01	.5368-01	.6049-01	52.75	2.311	.4396	574.0	.63+-03
45	.10000+00	119.00	132.00	.8525-01	1.038	1.164	57.24	4.880	.4560	580.2	.1258-02
47	.10000+00	180.00	63.000	.6279-01	.7704-01	.8689-01	52.43	3.293	.4591	577.9	.9075-03
45	.15600	.00000	17.000	.1087-01	.1323-01	.1484-01	57.21	.6218	.4399	580.6	.1603-03
45	.15900	10.000	89.000	.2023-01	.2465-01	.2767-01	56.96	1.152	.4423	583.7	.2987-03
47	.15900	20.000	104.00	.2086-01	.2560-01	.2888-01	52.40	1.093	.4595	578.4	.3015-03
45	.15000	25.500	107.00	.2484-01	.3024-01	.3393-01	57.18	1.420	.4402	580.9	.3665-03
47	.15000	40.000	111.00	.2988-01	.3674-01	.4142-01	52.65	1.578	.4361	575.2	.4329-03
45	.15000	45.500	117.00	.2989-01	.3633-01	.4072-01	57.61	1.722	.4361	575.6	.4404-03
47	.15000	180.00	65.000	.1762	.2163	.2440	52.36	9.228	.4599	578.9	.2548-02
47	.20000	.00000	22.000	.8075-02	.9894-02	1.115-01	52.74	.4258	.4561	574.1	.1166-03
47	.20000	11.500	91.000	.1319-01	.1617-01	.1823-01	52.59	.6036	.4575	575.9	.1905-03
47	.20000	24.000	93.000	.1459-01	.1787-01	.2014-01	52.75	.7694	.4560	573.9	.2105-03

R/JN NUMBER	X/L	PHI	T/C NO	ARC 3.5-178 IH3 ORBITER			ORBITER FUSELAGE		HM/HT	TW DEG. R	STN NO R=0.9
				H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC			
45	.20000	31.500	108.00	.1889-01	.2298-01	.2578-01	57.3E	1.083	579.2	.2786-03	
45	.20000	35.000	110.00	.2212-01	.2692-01	.3021-01	57.21	1.263	580.5	.3263-03	
45	.20000	40.000	112.00	.2526-01	.3074-01	.3448-01	57.27	1.446	579.8	.3725-03	
45	.20000	51.000	118.00	.2372-01	.2684-01	.3233-01	57.52	1.364	576.7	.3495-03	
45	.20000	67.500	128.00	.2614-01	.2609-01	.2923-01	57.77	1.241	573.5	.3163-03	
45	.20000	96.500	133.00	.2614-01	.3173-01	.3553-01	57.99	1.516	570.7	.3847-03	
47	.20000	180.00	69.000	.1189	.1456	.1641	52.77	6.271	573.7	.1715-02	
47	.30000	.00000	26.000	.6204-02	.6204-02	.9248-02	52.67	.3526	574.9	.9666-04	
47	.30000	12.000	92.000	.1159-01	.1159-01	.1306-01	52.73	4.988	574.2	.1366-03	
47	.30000	23.000	94.000	.1266-01	.1550-01	.1746-01	52.89	.6696	572.1	.1826-03	
45	.30000	34.000	109.00	.1696-01	.2061-01	.2309-01	57.76	.9706	573.7	.2498-03	
45	.30000	40.000	113.00	.1972-01	.2398-01	.2687-01	57.60	1.136	575.7	.2908-03	
45	.30000	45.000	114.00	.2262-01	.2751-01	.3083-01	57.57	1.302	576.1	.3334-03	
45	.30000	57.500	119.00	.1943-01	.2359-01	.2642-01	57.93	1.126	571.5	.2850-03	
45	.30000	61.000	120.00	.7318-02	.6884-02	.9949-02	57.97	4.242	571.0	.1077-03	
45	.30000	65.000	122.00	.7973-02	.9675-02	.1083-01	58.09	4.631	569.6	.1173-03	
45	.30000	70.000	129.00	.9844-02	.1195-01	.1339-01	57.90	5.700	571.9	.1449-03	
47	.30000	106.00	134.00	.3045-01	.3728-01	.4200-01	52.89	1.611	572.1	.4393-03	
45	.30000	135.00	141.00	.3154-01	.3635-01	.4300-01	57.49	1.813	577.0	.4649-03	
47	.30000	180.00	71.000	.2031-02	.3463-02	.3898-02	53.1C	.1503	569.5	.4081-04	
47	.40000	.00000	30.000	.1535-01	.2003-01	.2257-01	52.71	.5616	574.4	.2350-03	
47	.40000	21.500	95.000	.3244-01	.3969-01	.4468-01	53.07	1.722	569.8	.4677-03	
47	.40000	105.00	135.00	.3842-01	.4701-01	.5292-01	53.08	2.039	569.8	.5539-03	
45	.40000	135.00	142.00	.2787-01	.3386-01	.3794-01	57.74	1.609	573.9	.4105-03	
47	.40000	180.00	72.000	.2591-01	.3170-01	.3568-01	53.16	1.378	568.7	.3735-03	
47	.50000	.00000	34.000	.2763-01	.3385-01	.3815-01	52.75	1.458	573.9	.3988-03	
47	.50000	21.500	96.000	.3689-01	.4869-01	.5481-01	53.11	2.113	569.4	.5424-03	
45	.50000	105.00	136.00	.3689-01	.4473-01	.5005-01	58.31	4.295	566.8	.5424-03	
45	.50000	135.00	143.00	.3946-01	.4795-01	.5372-01	57.73	2.151	574.1	.5812-03	
45	.50000	180.00	73.000	.3681-01	.4710-01	.5274-01	58.03	4.321	570.3	.5711-03	
45	.60000	77.000	130.00	.3486-01	.4230-01	.4735-01	58.10	2.252	569.4	.5128-03	
45	.60000	105.00	137.00	.3564-01	.4323-01	.4837-01	58.27	2.077	567.2	.5241-03	
44	.60000	112.00	147.00	.4046-01	.4914-01	.5505-01	57.26	2.317	567.3	.5921-03	
44	.60000	113.00	146.00	.4483-01	.5446-01	.6101-01	57.23	2.566	567.7	.6561-03	
45	.60000	135.00	144.00	.3514-01	.4267-01	.4779-01	57.89	2.034	572.1	.5173-03	
47	.60000	180.00	74.000	.3783-01	.4627-01	.5209-01	53.14	2.010	569.0	.5453-03	
45	.70000	105.00	138.00	.3230-01	.3919-01	.4710-01	58.01	1.878	559.1	.4752-03	
45	.70000	145.00	145.00	.3465-01	.4206-01	.4710-01	58.01	2.010	570.5	.5100-03	
45	.70000	180.00	75.000	.3888-01	.4716-01	.5279-01	58.17	2.261	568.5	.5718-03	
45	.80000	65.000	123.00	.1976-01	.2397-01	.2683-01	58.19	1.150	568.3	.2906-03	
45	.80000	105.00	139.00	.4282-01	.5194-01	.5813-01	58.20	2.492	568.1	.6298-03	
45	.80000	180.00	76.000	.5663-01	.6870-01	.7690-01	58.14	3.293	568.8	.8330-03	
45	.90000	65.000	124.00	.3473-01	.4216-01	.4721-01	57.96	2.013	571.2	.5111-03	

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR

ARC 3.5-178 1H3 ORBITER (TRIPS)ORBITER FUSELAGE

(REIP08)

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	R3 FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
50	.50000-01	.00000	7.0000	.5057-01	.6084-01	.6771-01	33.43	1.691	.4073	547.5	.1382-02
48	.50000-01	14.000	90.000	.6888-01	.8164-01	.9177-01	30.99	2.072	.4458	587.9	.1793-02
48	.50000-01	22.000	105.00	.7015-01	.8565-01	.9628-01	30.97	2.172	.4472	588.3	.1881-02
48	.50000-01	35.000	115.00	.7385-01	.9016-01	1.014	30.96	2.286	.4473	588.5	.1981-02
50	.50000-01	42.500	127.00	.7690-01	.9253-01	1.030	33.38	2.567	.4080	548.5	.2102-02
50	.50000-01	60.000	131.00	.1585	.2054	.2306	31.36	5.284	.4428	595.3	.4656-02
48	.50000-01	180.00	61.000	.1112	.1356	.1524	31.06	3.453	.4155	586.1	.2980-02
48	.10000+00	.00000	12.000	.2044-01	.2486-01	.2787-01	31.54	.8202	.4372	575.3	.5464-03
48	.10000+00	10.000	88.000	.2611-01	.3178-01	.3565-01	31.41	1.106	.4395	578.2	.6985-03
50	.10000+00	20.000	103.00	.3303-01	.3972-01	.4419-01	33.49	1.476	.4062	546.0	.9023-03
50	.10000+00	24.500	106.00	.4407-01	.5300-01	.5897-01	33.49	1.475	.4062	546.1	.1204-02
48	.10000+00	39.000	116.00	.4666-01	.5673-01	.6358-01	31.60	1.475	.4362	573.9	.1247-02
50	.10000+00	119.00	132.00	.8748-01	1.052	1.171	33.46	2.927	.4067	546.8	.2390-02
48	.10000+00	180.00	63.000	.6751-01	.8213-01	.9210-01	31.48	2.125	.4382	576.6	.1805-02
50	.15000	.00000	17.000	.1434-01	.1723-01	.1917-01	31.54	.4609	.4052	544.8	.3915-03
50	.15000	10.000	89.000	.2548-01	.3163-01	.3408-01	33.51	.8539	.4058	545.5	.6960-03
48	.15000	20.000	104.00	.2266-01	.2757-01	.3091-01	31.49	.7136	.4058	545.3	.6058-03
50	.15000	25.500	107.00	.4393-01	.5283-01	.5877-01	33.50	1.472	.4060	545.9	.1200-02
48	.15000	40.000	111.00	.4824-01	.5862-01	.6569-01	31.65	1.527	.4353	572.7	.1289-02
50	.15000	45.500	117.00	.4602-01	.5532-01	.6154-01	33.54	1.527	.4053	544.8	.1257-02
48	.15000	180.00	65.000	.1529	.1860	.2086	31.50	4.108	.4380	576.3	.4088-02
48	.20000	.00000	22.000	.1290-01	.1566-01	.1754-01	31.83	.6426	.4321	568.5	.3443-03
48	.20000	1.500	91.000	.2028-01	.2464-01	.2761-01	31.68	.8392	.4348	572.0	.5417-03
48	.20000	2.0000	93.000	.2650-01	.3219-01	.3607-01	31.67	.8392	.4349	572.2	.7077-03

RUN NUMBER	X/L	PHI	T/C NO	H/REF R=1.0	H/REF R=0.9	H/REF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TM DEG. R	STN NO R=0.9
50	.20000	31.500	108.00	.2713-01	.3263-01	.3631-01	33.48	.9084	4.063	546.3	.7413-03
50	.20000	35.000	110.00	.2805-01	.3373-01	.3754-01	33.47	9386	4.066	546.6	.7663-03
50	.20000	40.000	112.00	.3204-01	.3853-01	.4287-01	33.47	1.072	4.065	546.5	.8753-03
50	.20000	51.000	118.00	.4535-01	.6535-01	.7271-01	33.51	1.821	4.059	545.5	.1485-02
50	.20000	67.500	128.00	.4756-01	.5717-01	.6359-01	33.55	1.596	4.051	544.6	.1299-02
50	.20000	96.500	133.00	.7265-01	.8734-01	.9716-01	33.54	2.437	4.054	545.0	.1984-02
48	.20000	180.00	69.000	.8639-01	.1050	.1177	31.61	2.731	4.360	573.6	.2308-02
48	.30000	.00000	26.000	.1311-01	.1590-01	.1776-01	31.95	4.188	5.660	566.0	.3496-03
48	.30000	12.000	92.000	.1109-01	.1345-01	.1505-01	31.94	3.541	4.304	2957-03	.2957-03
48	.30000	23.000	94.000	.1206-01	.1462-01	.1637-01	31.97	3.855	4.299	565.5	.3216-03
50	.30000	34.000	109.00	.2001-01	.2406-01	.2677-01	33.49	6.700	4.062	546.0	.5466-03
50	.30000	40.000	113.00	.2452-01	.2949-01	.3281-01	33.47	8.207	4.065	546.5	.6700-03
50	.30000	45.000	114.00	.2821-01	.3393-01	.3766-01	33.46	9.439	4.067	546.8	.7708-03
50	.30000	57.500	119.00	.1995-01	.2398-01	.2688-01	33.53	6.690	4.054	545.1	.5449-03
50	.30000	61.000	120.00	.2142-01	.2575-01	.2865-01	33.54	7.187	4.052	544.8	.5852-03
50	.30000	65.000	122.00	.2176-01	.2615-01	.2909-01	33.55	7.299	1.052	544.7	.5942-03
50	.30000	70.000	129.00	.2518-01	.2787-01	.3100-01	33.53	7.774	4.054	545.0	.6332-03
48	.30000	106.00	134.00	.1843-01	.2236-01	.2502-01	31.97	5.693	4.299	565.5	.4918-03
50	.30000	135.00	141.00	.2203-01	.2650-01	.2948-01	33.48	7.376	4.064	546.4	.6020-03
48	.30000	180.00	71.000	.4001-02	.4854-02	.5432-02	31.92	1.277	4.307	566.6	.1067-03
48	.40000	.00000	30.000	.1551-01	.1881-01	.2105-01	31.96	4.959	565.6	565.6	.4137-03
48	.40000	21.500	95.000	.1368-01	.1659-01	.1855-01	32.03	4.382	564.1	564.1	.3647-03
48	.40000	105.00	135.00	.1903-01	.2313-01	.2586-01	32.09	6.126	4.276	562.6	.5086-03
50	.40000	135.00	142.00	.1304-01	.1568-01	.1744-01	33.49	4.367	4.061	546.0	.3562-03
48	.50000	80.000	72.000	.6993-02	.8476-02	.9482-02	32.04	2.241	4.285	563.7	.1864-03
48	.50000	00.000	34.000	.1500-01	.1819-01	.2035-01	31.98	4.796	4.297	565.3	.4000-03
48	.50000	21.500	96.000	.2074-01	.2514-01	.2812-01	32.05	6.649	4.284	563.6	.5528-03
50	.50000	105.00	136.00	.1332-01	.1602-01	.1781-01	33.56	4.472	4.049	544.3	.3639-03
50	.50000	125.00	143.00	.5138-02	.6178-02	.6874-02	33.49	1.721	4.061	545.9	.1404-03
50	.60000	160.00	73.000	.1452-01	.1746-01	.1942-01	33.57	4.875	4.049	544.3	.3966-03
50	.60000	77.000	130.00	.2229-01	.2679-01	.2980-01	33.57	7.485	4.047	544.1	.6086-03
50	.60000	105.00	137.00	.2102-01	.2527-01	.2811-01	33.57	7.057	4.048	544.2	.5741-03
51	.60000	112.00	147.00	.1795-01	.2164-01	.2412-01	33.02	5.926	4.136	548.8	.4815-03
51	.60000	113.00	146.00	.1734-01	.2091-01	.2330-01	33.02	5.725	4.136	548.9	.4653-03
50	.60000	135.00	144.00	.6241-02	.7504-02	.8349-02	33.51	2.092	4.057	548.5	.1705-03
48	.60000	180.00	74.000	.2899-01	.3514-01	.3932-01	32.03	9.288	4.287	564.0	.7728-03
50	.70000	105.00	138.00	.2703-01	.3250-01	.3615-01	33.56	9.072	4.050	544.5	.7383-03
50	.70000	135.00	145.00	.1631-01	.1960-01	.2180-01	33.55	5.470	4.052	544.7	.4453-03
50	.80000	180.00	75.000	.3265-01	.3924-01	.4355-01	33.58	1.097	4.046	543.9	.8916-03
50	.80000	65.000	123.00	.1164-01	.1399-01	.1566-01	33.56	3.907	4.049	544.4	.3179-03
50	.80000	105.00	139.00	.3110-01	.3737-01	.4157-01	33.58	1.044	4.046	543.9	.8492-03
50	.80000	180.00	76.000	.3992-01	.4797-01	.5335-01	33.60	1.341	4.043	543.5	.1090-02
50	.90000	65.000	124.00	.3262-01	.3365-01	.4411-01	33.51	1.105	4.058	545.6	.9008-03

ARC 3.5-178 IH3 ORBITER (TRIP)ORBITER FUSELAGE

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 3.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QOOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
53	.50000-01	.00000	7.0000	.4657-01	.5590-01	.6400-01	56.33	3.623	.4493	593.9	.6897-03
55	.50000-01	14.000	90.000	.6506-01	.8001-01	.9041-01	54.40	2.539	.4651	614.4	.9729-03
55	.50000-01	22.000	105.00	.6778-01	.8337-01	.9121-01	54.37	3.685	.4654	614.8	.1014-02
55	.50000-01	35.000	115.00	.7397-01	.9093-01	.9453	54.53	4.033	.4639	612.8	.1106-02
53	.50000-01	42.500	127.00	.7353-01	.8991-01	1.012	56.13	4.129	.4509	596.0	.1090-02
53	.50000-01	60.000	131.00	.1136	.1388	.1562	56.19	6.380	.4506	595.6	.1683-02
55	.50000-01	180.00	61.000	.1126	.1382	.1560	54.79	6.167	.4614	609.6	.1681-02
55	.10000+00	.00000	12.000	.1887-01	.2308-01	.2598-01	55.73	1.053	.4518	596.9	.2809-03
55	.10000+00	10.000	68.000	.2439-01	.2987-01	.3364-01	55.43	1.354	.4547	600.7	.3634-03
53	.10000+00	20.000	103.00	.3095-01	.3776-01	.4243-01	56.69	1.755	.4458	589.2	.4578-03
53	.10000+00	24.500	106.00	.4131-01	.5035-01	.5652-01	57.04	2.356	.4425	584.9	.6105-03
55	.10000+00	39.000	116.00	.4408-01	.5380-01	.6046-01	56.36	2.484	.4464	589.8	.6548-03
53	.10000+00	119.00	132.00	.8925-01	.1087	.1219	57.28	5.112	.4402	581.9	.13.8-02
55	.10000+00	180.00	63.000	.7195-01	.8795-01	.9895-01	55.97	4.027	.4501	594.7	.1070-02
53	.15000	.00000	17.000	.2271-01	.2765-01	.3103-01	57.30	1.301	.4401	581.7	.3354-03
53	.15000	10.000	89.000	.5312-01	.5474-01	.7270-01	56.98	3.026	.4431	585.7	.7850-03
55	.15000	20.000	104.00	.4362-01	.5338-01	.6011-01	55.56	2.428	.4531	598.6	.6496-03
53	.15000	25.500	107.00	.7554-01	.9199-01	.1032	57.23	4.323	.4407	582.6	.111F-02
55	.15000	40.000	111.00	.8735 01	1.017	1.143	56.37	4.638	.4463	589.7	.1278-02
53	.15000	45.500	117.00	.7645-01	.9132-01	1.041	57.76	4.416	.4357	575.9	.1177-02
55	.15000	180.00	65.000	.2534	.3098	.3486	55.91	14.117	.4507	595.4	.3770-02
55	.20000	.00000	22.000	.3974-01	.4845-01	.5441-01	56.63	2.250	.4438	586.3	.5898-03
55	.20000	11.500	91.000	.5606-01	.6844-01	.7693-01	56.28	3.155	.4471	580.7	.8330-03
55	.20000	24.000	93.000	.6042-01	.7110-01	.8348-01	56.43	3.432	.4457	588.9	.9032-03

DATE 24 JAN 76

ARC 3.5-178 IH3

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ARC 3.5-178 IH3 O+T+S

ORBITER FUSELAGE

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO ^SIA	TO DEG. R	HC BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
70	5.300	.4906+07	407.3	1320.	322.8	.1750-01	.8205	-5.000
71	5.300	.5001+07	406.8	1303.	318.4	.1750-01	.8258	-5.000
72	5.300	.4987+07	403.9	1300.	317.5	.1750-01	.8213	-5.000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	ODOT BTU/FT2SEC	HW/HT	TW DEG. R	STN NO R=0.9
71	.50000-01	.00000	7.0000	.4478-01	.5454-01	.6122-01	57.44	2.572	.4413	585.5	.6627-03
70	.50000-01	14.000	90.000	.6191-01	.7485-01	.8359-01	60.40	7.739	.4217	567.2	.9175-03
70	.50000-01	22.000	105.00	.6645-01	.8034-01	.8971-01	60.43	4.016	.4214	566.8	.9848-03
70	.50000-01	35.000	115.00	.7916-01	.9560-01	1.067	60.73	4.807	.4186	563.1	.1172-02
71	.50000-01	42.500	127.00	.8686-01	1.058	1.187	57.55	4.999	.4402	584.1	.1285-02
71	.50000-01	60.000	131.00	.1539	.1873	.2101	57.65	8.871	.4393	582.9	.2276-02
70	.50000-01	180.00	61.000	.1494	.1805	.2014	60.66	9.061	.4193	564.1	.2212-02
70	.10000+00	.00000	12.000	.2401	.2901	.3239	60.58	14.55	.4200	564.9	.3557-02
70	.10000+00	10.000	88.000	.1764	.2131	.2379	60.67	10.70	.4192	563.9	.2613-02
71	.10000+00	20.000	103.00	.1074	.1306	.1464	57.95	6.225	.4364	579.1	.1587-02
71	.10000+00	24.500	106.00	.7220-01	.8762-01	.9909-01	58.44	4.219	.4318	573.0	.1065-02
70	.10000+00	39.000	111.00	.3468-01	.4180-01	.4659-01	61.35	2.128	.4129	555.4	.5127-03
71	.10000+00	119.00	132.00	.1551	.1882	.2106	58.57	9.086	.4306	571.4	.2288-02
70	.10000+00	180.00	63.000	.1156	.1394	.1553	61.21	7.073	.4142	557.2	.1709-02
71	.15000	.00000	17.000	.4851-01	.5891-01	.6599-01	58.23	2.825	.4338	575.6	.7161-03
71	.15000	20.000	89.000	.8583-01	1.043	1.169	60.97	4.587	.4350	577.2	.1268-02
70	.15000	20.000	104.00	.1163	.1404	.1566	60.97	7.092	.4164	560.2	.1721-02
71	.15000	25.500	107.00	.1150	.1395	.1562	58.42	6.715	.4319	573.2	.1696-02
70	.15000	40.000	111.00	.7625-01	.9190-01	1.024	61.36	4.678	.4128	555.3	.1127-02
71	.15000	45.500	117.00	.6564-01	.7961-01	.8909-01	58.61	3.847	.4302	570.9	.9673-03
70	.15000	180.00	65.000	.3072	.3701	.4130	61.19	18.80	.4144	557.4	.4543-02
70	.20000	.00000	22.000	.4423-01	.5333	.5944-01	61.27	2.710	.4136	566.3	.6540-03
70	.20000	11.500	91.000	.5403-01	.6517-01	.7266-01	61.15	3.304	.4148	557.9	.7991-03
70	.20000	24.000	93.000	.5918-01	.7123-01	.7935-01	61.68	3.650	.4039	551.3	.8740-03
71	.20000	31.500	108.00	.7790-01	.9449-01	1.057	58.60	4.565	.4302	570.9	.1149-02

RUN NUMBER	X/L	PHI	T/C NO	H/HREF F=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HW/HT	TH DEG. R	STN NO R=0.9
71	.20000	35.000	110.00	.1139	.1382	.1547	58.44	6.854	.4318	572.9	.1680-02
71	.20000	40.000	112.00	.1058	.1283	.1437	58.45	6.182	.4316	572.8	.1560-02
71	.20000	51.000	119.00	.7041-01	.8542-01	.9561-01	58.53	4.121	.4309	571.8	.1039-02
71	.20000	67.500	128.00	.3407-01	.4133-01	.4626-01	58.55	4.592	.4308	571.6	.5024-03
71	.20000	96.500	133.00	.7795-01	.9445-01	1.056	58.91	7.960	.4274	562.6	.1148-02
70	.20000	180.00	69.000	.1293	.1557	.1734	61.57	5.917	.4108	552.2	.1910-02
70	.30000	.00000	26.000	.9662-01	.1162	.1299	61.24	5.917	.4139	556.8	.1429-02
70	.30000	12.000	92.000	.9636-01	.1162	.1295	61.29	5.506	.4135	556.2	.1425-02
70	.30000	23.000	94.000	.8983-01	.1081	.1204	61.73	5.545	.4094	550.7	.1326-02
71	.30000	34.000	109.00	.1031	.1249	.1396	58.95	6.076	.4270	566.6	.1518-02
71	.30000	40.000	113.00	.9911-01	.1201	.1344	58.81	5.828	.568.4	568.4	.1461-02
71	.30000	45.000	114.00	.8001-01	.9699-01	1.085	58.75	4.701	.4288	569.0	.1179-02
71	.30000	57.500	119.00	.4290-01	.5198-01	.5813-01	59.33	2.526	.4275	567.3	.6321-03
71	.30000	61.000	120.00	.2807-01	.3401-01	.3804-01	56.89	1.653	.4276	567.4	.4136-03
71	.30000	55.000	122.00	.2992-01	.3622-01	.4047-01	59.19	1.771	.4274	563.6	.4405-03
71	.30000	70.000	129.00	.2646-01	.3207-01	.3587-01	58.80	1.556	.4284	568.4	.3899-03
70	.30000	106.00	134.00	.4770-01	.5749-01	.6406-01	61.37	2.927	.4127	555.1	.7050-03
71	.30000	135.00	141.00	.3980-01	.4834-01	.5410-01	58.58	2.335	.4305	571.2	.5878-03
70	.30000	180.00	71.000	.7102-02	.8545-02	.9511-02	61.90	4.396	.4078	548.6	.1048-03
70	.40000	.00000	30.000	.7951-01	.9516-01	1.068	61.27	4.872	.4136	556.4	.1176-02
70	.40000	21.500	95.000	.6537-01	.7864-01	.8756-01	61.73	4.032	.4094	550.7	.9646-03
70	.40000	105.00	135.00	.4820-01	.5806-01	.6468-01	61.52	2.965	.4113	553.3	.7121-03
71	.40000	135.00	142.00	.4566-01	.5334-01	.6190-01	58.83	2.686	.4281	568.1	.6729-03
70	.40000	180.00	72.000	.4698-01	.5634-01	.6294-01	61.84	2.906	.4083	549.3	.6936-03
70	.50000	.00000	34.000	.8115-01	.9783-01	1.090	61.27	4.972	.4137	556.4	.1200-02
70	.50000	21.500	96.000	.6663-01	.8022-01	.8934-01	61.66	4.108	.4100	551.5	.9840-03
71	.50000	105.00	136.00	.4117-01	.4983-01	.5569-01	59.21	2.438	.4245	563.3	.6060-03
71	.50000	135.00	143.00	.4776-01	.5789-01	.6475-01	58.80	2.808	.4284	568.5	.7038-03
71	.50000	180.00	73.000	.5716-01	.6916-01	.7728-01	59.29	3.382	.4238	562.3	.8412-03
71	.60000	77.000	130.00	.5876-01	.7113-01	.7949-01	59.19	3.478	.4247	563.5	.8650-03
71	.60000	112.00	147.00	.4410-01	.5322-01	.5954-01	59.16	2.308	.4250	564.0	.2744-03
72	.60000	113.00	146.00	.4969-01	.6008-01	.6710-01	59.09	2.608	.4216	557.8	.6498-03
71	.60000	135.00	144.00	.4673-01	.5662-01	.6332-01	58.89	2.956	.4220	558.4	.7322-03
70	.60000	130.00	74.000	.6197-01	.7458-01	.8303-01	61.80	3.830	.4276	567.4	.6884-03
71	.70000	125.00	138.00	.4659-01	.5645-01	.6322-01	58.93	2.746	.4272	566.9	.1864-03
71	.70000	135.00	145.00	.587-01	.6768-01	.7568-01	59.34	3.294	.4269	549.7	.9149-03
71	.80000	180.00	75.000	.6207-01	.7510-01	.8390-01	59.33	3.683	.4233	561.7	.6231-03
71	.80000	65.000	123.00	.2703-01	.3270-01	.3653-01	59.33	1.604	.4234	561.9	.3977-03
71	.80000	105.00	139.00	.6491-01	.7860-01	.8786-01	59.07	3.834	.4258	565.1	.9558-03
71	.80000	180.00	76.000	.1013	.1226	.1370	59.19	5.994	.4247	563.6	.1491-02
71	.90000	65.000	124.00	.5004-01	.6061-01	.6776-01	59.03	2.954	.4262	565.6	.7370-03

ORBITER FUSELAGE

PARAMETRIC DATA

RN/L = 5.000 BETA = 0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
74	5.300	.5051*07	406.7	1295.	316.3	.1750-01	.8289	-3.000
76	5.300	.5017*07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970*07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
74	.50000-01	14.000	30.000	.4713-01	.5740-01	.6442-01	57.05	2.689	.4412	581.6	.6946-03
74	.50000-01	22.000	105.00	.5419-01	.6599-01	.7406-01	57.06	3.092	.4411	581.5	.7986-03
74	.50000-01	35.000	115.00	.7326-01	.8912-01	.9994-01	57.37	4.202	.4381	577.6	.1079-02
79	.50000-01	60.000	131.00	.1246	.1521	.1709	57.13	7.117	.4467	595.4	.1852-02
74	.50000-01	180.00	61.000	.1261	.1533	.1719	57.48	7.249	.4370	576.1	.1856-02
74	.10000*00	.00000	12.000	.4343	.4923	.5519	57.50	23.28	.4369	576.0	.5960-02
74	.10000*00	10.000	88.000	.2507	.3049	.3418	57.46	14.40	.4373	576.5	.3690-02
79	.10000*00	20.000	103.00	.1152	.1406	.1580	57.22	6.594	.4459	594.3	.1712-02
79	.10000*00	24.500	106.00	.1002	.1222	.1372	57.36	5.745	.4445	592.5	.1488-02
74	.10000*00	39.000	116.00	.3496-01	.4239-01	.4742-01	58.32	2.039	.4291	565.7	.5133-03
74	.10000*00	180.00	63.000	.9453-01	.1150	.1290	58.01	5.484	.4384	584.4	.1401-02
79	.15000	10.000	89.000	.7727-01	.9370-01	1.049	58.24	4.500	.4299	566.7	.1135-02
79	.15000	20.000	104.00	.7049-01	.8595-01	.9654-01	57.39	4.045	.4442	592.1	.1047-02
79	.15000	25.500	107.00	.1196	.1140	.1637	57.80	5.426	.4341	572.2	.1381-02
74	.15000	40.000	111.00	.8193-01	.9334-01	1.111	58.30	6.879	.4432	590.7	.1778-02
74	.15000	180.00	65.000	.2374	.2880	.3223	58.19	13.82	.4303	565.9	.1203-02
74	.20000	.00000	22.000	.4334-01	.5253-01	.5877-01	58.13	2.528	.4289	565.4	.3487-02
74	.20000	11.500	91.000	.3918-01	.4754-01	.5321-01	58.55	2.278	.4309	568.0	.6362-03
74	.20000	24.000	93.000	.5168-01	.6261-01	.7001-01	58.55	3.026	.4269	562.8	.7583-03
79	.20000	31.500	108.00	.6923-01	.8430-01	.9459-01	57.78	4.000	.4406	587.2	.1027-02
79	.20000	35.000	110.00	.9824-01	1.196	1.342	57.84	5.683	.4400	586.5	.1457-02
79	.20000	96.500	133.00	.5191-01	.6314-01	.7080-01	58.09	3.016	.4376	583.3	.7693-03
74	.20000	180.00	69.000	.1223	.1481	.1655	58.66	7.173	.4258	561.4	.1793-02
74	.30000	.00000	26.000	.7375-01	.8940-01	1.000	58.34	4.303	.4289	565.4	.1083-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

RUN NUMBER	X/L	PHI	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	ORBITER FUSELAGE OREF BTJ/ FT2SEC	ORBITER FUSELAGE OOOT BTU/ FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
74	.30000	2.000	92.000	.8204-01	.9943-01	.1112	58.31	4.790	4284	564.8	.1204-02
74	.30000	23.000	94.000	.8783-01	.1063	.1188	58.24	5.168	4242	559.2	.1288-02
79	.30000	34.000	109.000	.1073	.1305	.1463	58.19	6.200	4370	582.5	.1590-02
74	.30000	70.000	129.000	.3781-01	.4597-01	.5153-01	58.55	2.232	4367	582.1	.5601-03
74	.30000	106.00	134.00	.3812-01	.4618-01	.5164-01	58.28	2.333	4269	582.8	.5593-03
79	.30000	135.00	141.00	.4003-01	.4865-01	.5453-01	59.11	3.646	4359	581.0	.5928-03
74	.30000	180.00	71.000	.6167-02	.7457-02	.8327-02	58.42	4.330	4216	555.8	.9034-04
74	.40000	.00000	30.000	.7412-01	.8983-01	.1005	58.93	3.804	4282	564.4	.1088-02
74	.40000	21.500	95.000	.6455-01	.7809-01	.8724-01	58.79	2.863	4233	558.0	.9459-03
74	.40000	105.00	135.00	.4871-01	.5896-01	.6589-01	58.41	2.081	4247	559.8	.7142-03
79	.40000	135.00	142.00	.3562-01	.4328-01	.4849-01	59.16	1.423	4347	579.3	.5273-03
74	.40000	180.00	72.000	.2406-01	.2908-01	.3247-01	58.43	1.486	4211	555.2	.3523-03
74	.50000	.00000	34.000	.7164-01	.8682-01	.9710-01	58.90	3.739	4280	564.3	.1751-02
74	.50000	21.500	96.000	.6348-01	.7681-01	.8581-01	58.35	2.537	4236	558.5	.5104-03
79	.50000	135.00	136.00	.4348-01	.5283-01	.5920-01	58.59	2.424	4352	580.1	.6438-03
79	.50000	180.00	143.00	.4158-01	.5053-01	.5662-01	58.31	2.420	4356	580.6	.6157-03
79	.50000	180.00	73.000	.4130-01	.5014-01	.5616-01	58.59	2.331	4330	577.1	.6111-03
79	.60000	77.000	130.00	.3982-01	.4836-01	.5417-01	58.52	2.576	4336	577.9	.5894-03
79	.60000	105.00	137.00	.4005-01	.4866-01	.5451-01	58.43	2.576	4345	579.1	.5929-03
76	.60000	112.00	147.00	.4371-01	.5293-01	.5917-01	58.93	2.854	4262	564.5	.6428-03
76	.60000	113.00	146.00	.4847-01	.5871-01	.6564-01	58.89	2.476	4266	565.0	.7130-03
79	.60000	135.00	144.00	.4249-01	.5164-01	.5788-01	58.28	2.476	4359	581.0	.6292-03
74	.60000	180.00	74.000	.4839-01	.5849-01	.6531-01	59.15	2.862	4213	555.3	.7087-03
79	.70000	105.00	138.00	.4201-01	.5105-01	.5721-01	58.35	2.451	4353	580.1	.6221-03
79	.70000	135.00	145.00	.4057-01	.4930-01	.5525-01	58.31	2.366	4356	580.6	.6008-03
79	.70000	180.00	75.000	.5385-01	.6538-01	.7322-01	58.60	3.155	4329	577.0	.7967-03
79	.80000	105.00	139.00	.5407-01	.6566-01	.7354-01	58.55	3.166	4334	577.6	.8001-03
79	.80000	180.00	76.000	.9770-01	.1187	.1329	58.48	5.713	4341	578.5	.1446-02

(REIV01)

ARC 3.5-178 IH3 O+T+S

VERTICAL

VERTICAL TAIL
 PARAMETRIC DATA
 RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSTA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
3	5.300	.1491+07	165.6	1581.	390.9	.1750-01	.2979	.0000
5	5.300	.1411+07	141.9	1487.	366.2	.1750-01	.2656	.0000
9	5.300	.1476+07	122.8	1322.	323.2	.1750-01	.2472	.0000
10	5.300	.1454+07	116.8	1307.	319.3	.1750-01	.2407	.0000

TEST DATA

RAN NUMBER	Z/BV	X/C	T/C MO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
5	.15900	.10000+00	265.00	.7395-01	.8813-01	.9747-01	43.76	3.236	.3786	577.8	.1984-02
5	.15900	.30000	265.00	.1153	.1370	.1515	43.79	5.034	.3783	577.3	.3084-02
5	.15900	.70000	267.00	.2431-01	.2894-01	.3199-01	44.02	1.070	.3751	572.5	.6516-03
5	.29300	.00000	269.00	.3760	.4482	.4959	43.70	16.43	.3795	579.1	.1009-01
5	.29300	.10000+00	269.00	.7619-01	.9082-01	1.005	43.73	3.332	.3790	578.4	.2044-02
5	.29300	.30000	270.00	.3188-01	.3798-01	.4200-01	43.83	1.397	.3778	576.5	.8550-03
5	.29300	.50000	271.00	.1057	.1258	.1391	43.96	4.645	.3759	573.7	.2833-02
5	.29300	.70000	272.00	.3064-01	.3647-01	.4030-01	44.09	1.351	.3742	571.0	.8212-03
5	.29300	.90000	273.00	.2606-01	.3103-01	.3430-01	43.98	1.146	.3757	573.3	.6986-03
3	.53200	.00000	274.00	.3223	.3803	.4180	53.38	17.20	.3450	562.1	.8273-02
3	.53200	.10000+00	275.00	.9111-01	1.075	1.161	53.50	4.875	.3436	559.8	.2338-02
3	.53200	.30000	276.00	.3712-01	.4377-01	.4808-01	53.64	1.991	.3420	557.2	.9522-03
3	.53200	.50000	277.00	.1749-01	.2052-01	.2264-01	53.73	9.998	.3409	555.4	.4486-03
3	.53200	.70000	278.00	.1194-01	.1408-01	.1546-01	53.77	.8422	.3405	554.7	.3063-03
3	.53200	.90000	279.00	.2626-01	.3334-01	.3663-01	53.52	1.512	.3434	559.5	.7252-03
3	.76500	.00000	280.00	.4585	.5114	.5951	53.25	24.41	.3466	564.7	.1177-01
3	.76500	.10000+00	281.00	.1094	.1290	.1418	53.52	5.855	.3434	559.4	.2807-02
3	.76500	.30000	282.00	.5567-01	.6565-01	.7211-01	53.63	2.986	.3421	557.4	.1428-02
3	.76500	.50000	283.00	.3634-01	.4519-01	.4963-01	53.75	2.061	.3407	555.0	.9833-03
3	.76500	.70000	284.00	.1307-01	.1541-01	.1692-01	53.75	.7025	.3407	555.1	.3352-03
5	.90500	.00000	286.00	.4695	.5594	.6187	43.82	20.57	.3779	576.7	.1259-01
5	.90500	.10000+00	287.00	.1594	.1899	.2099	43.94	7.006	.3762	574.1	.4275-02

ARC 3.5-178 IH3 O+T+S

VERTICAL

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	Z/8V	X/C	T/C NO	H/HRE R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
15	.15900	.10000*00	265.00	.7835-01	.9529-01	.1058	57.83	4.531	.4374	581.4	.1161-02
15	.15900	.3000	266.00	.1539	.1870	.2096	58.04	8.933	.4354	578.7	.2279-02
15	.15900	.70000	267.00	.2914-01	.3535-01	.3956-01	58.57	1.707	.4305	572.1	.4309-03
15	.29900	.00000	268.00	.3274	.3985	.4470	57.61	18.86	.4395	584.2	.4895-02
15	.29900	.10000*00	269.00	.6927-01	.8425-01	.9447-01	57.82	4.006	.4375	581.5	.1027-02
15	.29900	.30000	270.00	.4785-01	.5810-01	.6507-01	58.27	2.788	.4333	575.9	.7082-03
15	.29900	.50000	271.00	.1345	.1631	.1825	58.60	7.881	.4302	571.8	.1988-02
15	.29900	.70000	272.00	.3775-01	.4575-01	.5117-01	58.84	2.221	.4279	568.7	.5577-03
15	.29900	.90000	273.00	.3436-01	.4173-01	.4674-01	58.20	1.999	.4340	576.8	.5086-03
17	.53200	.00000	274.00	.2860	.3497	.3916	58.08	16.73	.4331	573.4	.4250-02
17	.53200	.10000*00	275.00	.8172-01	.9914-01	.1110	58.32	4.766	.4308	571.3	.1205-02
17	.53200	.30000	276.00	.4135-01	.5010-01	.5602-01	58.71	2.428	.4271	565.4	.6091-03
17	.53200	.50000	277.00	.3325-01	.4024-01	.4497-01	59.01	1.962	.4243	561.7	.4893-03
17	.53200	.70000	278.00	.1819-01	.2201-01	.2460-01	58.99	1.073	.4245	561.9	.2677-03
17	.53200	.90000	279.00	.4042-01	.4907-01	.5495-01	58.12	2.349	.4327	572.9	.5964-03
17	.76500	.00000	280.00	.4208	.5119	.5741	57.52	24.20	.4384	580.3	.6220-02
17	.76500	.10000*00	281.00	.1029	.1230	.1401	57.96	5.965	.4342	574.9	.1519-02
17	.76500	.30000	282.00	.5027-01	.6099-01	.6827-01	58.28	2.930	.4312	570.8	.7413-03
17	.76500	.50000	283.00	.3560-01	.4313-01	.4824-01	58.67	2.089	.4275	565.9	.5244-03
17	.76500	.70000	284.00	.1130-01	.1369-01	.1531-01	58.69	.6630	.4273	565.7	.1664-03
15	.90500	.00000	286.00	.5523	.6724	.7544	57.55	31.78	.4401	584.9	.8192-02
15	.90500	.10000*00	287.00	.1917	.2331	.2613	57.88	11.09	.4369	580.7	.2840-02

TEST DATA

ARC 3.5-178 IH3 O+T+S (TRIPS) VERTICAL

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RS	FT	RH/HT	FT/SEC	ALPHA	DEG.
.1750-01	.2485	.0000	.0000		
.1750-01	.2491	.0000	.0000		
.1750-01	.2492	.0000	.0000		
.1750-01	.2459	.0000	.0000		

TEST DATA

STN NO	R	TH	DEG.	R	HM/HT	QDOT	BTU/	FT2SEC	QREF	BTU/	FT2SEC	H/HREF	R-0.85	H/HREF	R-0.9	H/HREF	R-1.0	MACH	T/C NO	X/C	Z/BV	NUMBER	NUMBER
.1953-02	.4125	555.0			2.432	33.63	.9711-01	.8715-01	.7232-01	265.00	.10000+00	22	.15900										
.3143-02	.4115	553.7			3.922	33.68	.1563	.1403	.1164	266.00	.30000	22	.15900										
.6042-03	.4091	550.4			.7577	33.83	.3002-01	.2696-01	.2240-01	267.00	.70000	22	.15900										
.9653-02	.4147	558.0			11.97	33.49	.4804	.4309	.3573	268.00	.00000	22	.29900										
.1976-02	.4131	555.9			2.458	33.59	.8820-01	.8820-01	.7317-01	269.00	.10000+00	22	.29900										
.9387-03	.4112	553.3			1.172	33.70	.4657-01	.4189-01	.3478-01	270.00	.30000	22	.29900										
.2884-02	.4097	551.3			3.612	33.79	.1433	.1287	.1063	271.00	.50000	22	.29900										
.7694-03	.4086	549.9			.9657	33.85	.3822-01	.3433-01	.2853-01	272.00	.70000	22	.29900										
.6641-03	.4105	552.4			.8203	33.74	.3301-01	.2963-01	.2461-01	273.00	.90000	22	.29900										
.8910-02	.4293	558.4			10.49	31.40	.4533	.4052	.3342	274.00	.00000	20	.53200										
.2278-02	.4284	557.3			2.687	31.45	.1159	.1036	.8546-01	275.00	.10000+00	20	.53200										
.9748-03	.4272	555.7			1.153	31.51	.4956-01	.4432-01	.3558-01	276.00	.30000	20	.53200										
.4213-03	.4260	554.1			.4987	31.58	.2142-01	.1916-01	.1562-01	277.00	.50000	20	.53200										
.2077-03	.4253	553.2			.2466	31.52	.1035-01	.9441-02	.7798-02	278.00	.70000	20	.53200										
.5802-03	.4282	557.0			.6849	31.46	.2951-01	.2638-01	.2177-01	279.00	.50000	20	.53200										
.1224-01	.4306	560.1			14.37	31.32	.6229	.5905	.4588	280.00	.00000	20	.76500										
.2747-02	.4289	557.9			3.237	31.42	.1397	.1249	.1030	281.00	.10000+00	20	.76500										
.1377-02	.4282	557.0			1.625	31.46	.7.03-01	.6261-01	.5166-01	282.00	.30000	20	.76500										
.9830-03	.4288	555.2			1.124	31.54	.4997-01	.4469-01	.3689-01	283.00	.50000	20	.76500										
.3196-03	.4263	554.5			.3787	31.57	.1625-01	.1453-01	.1200-01	284.00	.70000	20	.76500										
.1313-01	.4133	556.2			16.32	33.57	.6529	.5859	.4860	285.00	.00000	22	.90500										
.4582-02	.4116	553.9			5.716	33.68	.2278	.2045	.1697	287.00	.10000+00	22	.90500										

ARC 3.5-178 IH3 O+T+S (TRIPS) VERTICAL

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

TRIP NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
29	5.300	.4977+07	406.3	1297.	319.2	.1750-01	.8238	.0000
30	5.300	.5006+07	406.2	1302.	317.9	.1750-01	.8254	.0000
31	5.300	.5006+07	406.4	1302.	318.2	.1750-01	.8257	.0000
32	5.300	.5039+07	406.7	1297.	316.8	.1750-01	.8281	.0000

TEST DATA

RUN NUMBER	Z/BV	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT ETU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
29	.15900	.10000+00	265.00	.8469-01	.1031	.1157	57.65	4.882	.4404	585.8	.1256-02
29	.15900	.30000	266.00	.1156	.1772	.1987	57.84	8.425	.4385	583.3	.2158-02
29	.15900	.70000	267.00	.2792-01	.3390-01	.3797-01	58.41	1.631	.4332	578.3	.4130-03
29	.29900	.00000	268.00	.3203	.3903	.4382	57.41	18.39	.4426	588.7	.4752-02
29	.29900	.10000+00	269.00	.6972-01	.8488-01	.9524-01	57.67	4.021	.4401	585.5	.1334-02
29	.29900	.30000	270.00	.3816-01	.4640-01	.5202-01	57.98	2.213	.4372	581.6	.5651-03
29	.29900	.50000	271.00	.1285	.1561	.1748	58.39	7.505	.4334	576.5	.1901-02
29	.29900	.70000	272.00	.3613-01	.4383-01	.4905-01	58.62	2.121	.4305	572.7	.5339-03
29	.29900	.90000	273.00	.3192-01	.3880-01	.4349-01	56.10	1.855	.4361	580.1	.4725-03
31	.53200	.00000	274.00	.2653	.3237	.3638	56.87	15.09	.4457	590.7	.3931-02
31	.53200	.10000+00	275.00	.8555-01	.1043	.1171	57.19	4.892	.4427	586.7	.1266-02
31	.53200	.30000	276.00	.4213-01	.5127-01	.5751-01	57.58	2.426	.4303	581.7	.6228-03
31	.53200	.50000	277.00	.2861-01	.3477-01	.3896-01	57.95	1.858	.4355	577.2	.4225-03
31	.53200	.70000	278.00	.1500-01	.1822-01	.2042-01	58.01	1.8699	.4349	576.4	.2214-03
31	.53200	.90000	279.00	.3997-01	.4871-01	.5408-01	57.20	2.286	.4425	586.5	.5916-03
31	.76500	.00000	280.00	.3795	.4637	.5216	56.46	21.43	.4495	595.8	.5630-02
31	.76500	.10000+00	281.00	.1104	.1347	.1514	56.86	6.278	.4458	590.8	.1636-02
31	.76500	.30000	282.00	.5110-01	.6228-01	.6924-01	57.14	2.920	.4431	587.2	.7565-03
31	.76500	.50000	283.00	.3699-01	.4502-01	.5051-01	57.53	2.128	.4394	582.4	.5469-03
31	.76500	.70000	284.00	.1176-01	.431-01	.1604-01	57.61	.6774	.4386	581.3	.1738-03
29	.90500	.00000	285.00	.5135	.6256	.7023	57.45	29.50	.4422	588.3	.7617-02
29	.90500	.10000+00	287.00	.2005	.2440	.2737	57.80	11.59	.4389	583.9	.2972-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

VERTICAL TAIL

VERTICAL

PARAMETRIC DATA

RN/L = 5.000 BETA = -5.000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
36	5.300	.5031+07	406.1	1297.	316.8	.1750-01	.8269	.0000
37	5.300	.51+07	401.9	1270.	309.8	.1750-01	.8285	.0000
38	5.300	.5055+07	406.0	1293.	315.8	.1750-01	.8282	.0000
39	5.300	.50+5+07	406.2	1295.	316.3	.1750-01	.8279	.0000

TEST DATA

RUN NUMBER	Z/BV	X-C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	QREF BTU/FT2SEC	QDOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
36	.15900	.10000+00	265.00	.1167	.1426	.1604	56.23	6.562	.4495	593.6	.1728-02
36	.15900	.30000	265.00	.1639	.2001	.2250	56.35	9.231	.4483	592.0	.2425-02
36	.13900	.70000	267.00	.3523-01	.4293-01	.4819-01	56.99	2.008	.4423	594.0	.5204-03
36	.29900	.00000	268.00	.3053	.3733	.4200	56.11	17.13	.4506	595.1	.4523-02
36	.29900	.10000+00	269.00	.1022	.1249	.1406	56.10	5.733	.4507	595.2	.1514-02
36	.29900	.30000	270.00	.7211-01	.8805-01	.9899-01	56.42	4.068	.4477	591.2	.1067-02
36	.29900	.50000	271.00	.1818	.2217	.2489	56.86	10.34	.4435	585.7	.2687-02
36	.29900	.70000	272.00	.5072-01	.6174-01	.6926-01	57.29	2.906	.4394	580.2	.7486-03
36	.29900	.90000	273.00	.5151-01	.6279-01	.7251-01	56.87	2.929	.4434	585.5	.7611-03
38	.53200	.00000	274.00	.2936	.3574	.4011	56.97	16.72	.4405	579.7	.4325-02
38	.53200	.10000+00	275.00	.9908-01	.1205	.1351	57.28	5.675	.4376	575.9	.1458-02
38	.53200	.30000	276.00	.6035-01	.7331-01	.8212-01	57.64	3.479	.4341	571.3	.8874-03
38	.53200	.50000	277.00	.5557-01	.6742-01	.7547-01	57.97	3.221	.4310	567.2	.8163-03
38	.53200	.70000	278.00	.3813-01	.4025-01	.5176-01	58.04	2.213	.4303	566.3	.5600-03
38	.53200	.90000	279.00	.6650-01	.8090-01	.9072-01	57.22	3.805	.4231	576.5	.9750-03
38	.76500	.00000	280.00	.4344	.5300	.5954	56.48	24.53	.4452	585.9	.6411-02
38	.76500	.10000+00	281.00	.1332	.1623	.1821	56.93	7.585	.4109	580.3	.1963-02
38	.76500	.30000	282.00	.6045-01	.7353-01	.8245-01	57.25	3.461	.4378	576.1	.8899-03
38	.76500	.50000	283.00	.4015-01	.4877-01	.5464-01	57.63	2.314	.4342	571.4	.5904-03
38	.76500	.70000	284.00	.1718-01	.2086-01	.2336-01	57.74	9919	.4332	570.1	.2525-03
36	.90500	.00000	286.00	.4939	.6037	.6792	56.15	27.73	.4502	594.5	.7315-02
36	.90500	.10000+00	287.00	.2344	.2862	.3217	56.47	13.24	.4472	590.5	.3469-02

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/ PER FT	PO PSIA	TO DEG. R	HO BTU/ LBM	RS FT	RHOVEL SLUG/ FT2SEC	ALPHA DEG.
40	5.300	.1636+07	130.4	1287.	314.1	.1750-01	.2668	.0000
41	5.300	.1582+07	126.6	1290.	315.0	.1750-01	.2586	.0000
42	5.300	.1522+07	122.7	1296.	316.5	.1750-01	.2500	.0000
43	5.300	.1516+07	123.1	1302.	318.0	.1750-01	.2500	.0000

TEST DATA

RUN NUMBER	Z/BY	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/ FT2SEC	QDOT BTU/ FT2SEC	HM/HT	TW DEG. R	STN NO R=0.9
43	.15900	.10000+00	265.00	.6267-01	.7580-01	.8466-01	32.64	2.046	.4224	559.8	.1675-02
43	.15900	.30000	266.00	.1035	.1215	.1357	32.68	3.284	.4217	558.9	.2684-02
43	.15900	.70000	267.00	.2365-01	.2856-01	.3187-01	32.85	.7769	.4188	555.1	.6312-03
43	.29900	.00000	268.00	.3217	.3893	.4349	32.57	10.48	.4237	561.5	.8500-02
43	.29900	.10000+00	269.00	.6455-01	.7805-01	.8716-01	32.68	2.110	.4219	559.0	.1725-02
43	.29900	.30000	270.00	.2956-01	.3572-01	.3987-01	32.78	.9691	.4200	556.6	.7893-03
43	.29900	.50000	271.00	.1077	.1301	.1452	32.87	3.541	.4186	554.8	.2876-02
43	.29900	.70000	272.00	.2788-01	.3366-01	.3755-01	32.95	.9189	.4171	552.8	.7439-03
43	.29900	.90000	273.00	.2234-01	.2698-01	.3010-01	32.89	.7349	.4182	554.2	.5963-03
41	.53200	.00000	274.00	.3006	.3642	.4072	32.50	9.769	.4272	560.9	.7886-02
41	.53200	.10000+00	275.00	.7994-01	.9679-01	1.082	32.60	2.606	.4255	558.6	.2036-02
41	.53200	.30000	276.00	.2914-01	.3526-01	.3940-01	32.68	.9524	.4241	556.8	.7637-03
41	.53200	.50000	277.00	.2235 01	.2704-01	.3021-01	32.74	.7318	.4231	555.5	.5857-03
41	.53200	.70000	278.00	.1566-11	.1895-01	.2116-01	32.76	.5132	.4227	555.0	.4104-03
41	.53200	.90000	279.00	.2804-01	.3394-01	.3793-01	32.66	.9158	.4246	557.4	.7351-03
41	.76500	.00000	280.00	.4795	.5808	.6495	32.51	15.39	.4271	560.7	.1258-01
41	.76500	.10000+00	281.00	.1058	.1280	.1431	32.65	3.453	.4247	557.5	.2773-02
41	.76500	.30000	282.00	.5078-01	.6144-01	.6865-01	32.70	1.661	.4239	556.3	.1331-02
41	.76500	.50000	283.00	.3546-01	.4289-01	.4791-01	32.77	1.162	.4227	554.9	.9290-03
41	.76500	.70000	284.00	.1121-01	.1355-01	.1514-01	32.76	.3671	.4228	555.0	.2936-03
43	.90500	.00000	286.00	.5314	.6418	.7162	32.86	17.46	.4188	555.0	.1418-01
43	.90500	.10000+00	287.00	.1764	.2129	.2375	32.97	5.816	.4169	552.5	.4706-02

DATE 24 JAN 76

ARC 3.5-178 1F-2

ARC 3.5-178 1H3 ORBITER

VERTICAL

PAGE 279
(REV07)

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT ² SEC	ALPHA DEG.
44	5.300	.5112+07	406.4	1285.	313.6	.1750-01	.8322	.0000
45	5.300	.5036+07	406.2	1297.	316.7	.1750-01	.8273	.0000
46	5.300	.5003+07	405.9	1301.	317.9	.1750-01	.8248	.0000
47	5.300	.5392+07	404.9	1240.	302.0	.1750-01	.8469	.0000

TEST DATA

RUN NUMBER	Z/8V	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT ² SEC	ODOT BTU/FT ² SEC	HM/HT	TW DEG. R	STN NO R-0.9
44	.15900	.10000+00	265.00	.6597-01	.8050-01	.9046-01	56.03	3.696	.4458	582.8	.9693-03
44	.15900	.30000	266.00	.1335	.1627	.1828	56.24	7.507	.4438	580.1	.1960-02
44	.15900	.70000	267.00	.2839-01	.3453-01	.3872-01	56.85	1.614	.4380	572.5	.4160-03
44	.29900	.00000	268.00	.2668	.3258	.3662	55.84	14.90	.4477	585.1	.3922-02
44	.29900	.10000+00	269.00	.6175-01	.7542-01	.8481-01	55.78	3.444	.4483	585.9	.9080-03
44	.29900	.30000	270.00	.3684-01	.4492-01	.5047-01	56.16	2.069	.4446	581.1	.5410-03
44	.29900	.50000	271.00	.1281	.1559	.1749	56.68	7.262	.4396	574.5	.1878-02
44	.29900	.70000	272.00	.3216-01	.3908-01	.4379-01	57.12	1.837	.4354	569.1	.4708-03
44	.29900	.90000	273.00	.2954-01	.3598-01	.4037-01	56.56	1.671	.4407	576.1	.4333-03
46	.53200	.00000	274.00	.2517	.3070	.3448	56.94	4.333	.4444	588.8	.3729-02
46	.53200	.10000+00	275.00	.8176-01	.9961-01	1.118	57.20	4.677	.4419	585.4	.1210-02
46	.53200	.30000	276.00	.3623-01	.4408-01	.4943-01	57.57	2.086	.4384	580.8	.5357-03
46	.53200	.50000	277.00	.2215-01	.2691-01	.3015-01	57.96	1.284	.4348	576.0	.3271-03
46	.53200	.70000	278.00	.2780-01	.2426-01	.2718-01	58.06	1.160	.4338	574.7	.2949-03
46	.76500	.00000	279.00	.4259-01	.5187-01	.5821-01	57.29	2.440	.4411	584.4	.6303-03
46	.76500	.00000	280.00	.3872	.4730	.5319	56.49	2.187	.4486	584.3	.5745-02
46	.76500	.10000+00	281.00	.1143	.1395	.1567	56.91	6.507	.4447	589.1	.1694-02
46	.76500	.30000	282.00	.5080-01	.6189-01	.6948-01	57.18	2.905	.4421	585.7	.7520-03
46	.76500	.50000	283.00	.3650-01	.4440-01	.4978-01	57.60	2.103	.4381	580.4	.5397-03
46	.76500	.70000	284.00	.1032-01	.1254-01	.1406-01	57.75	.5957	.4367	578.6	.1524-03
44	.90500	.00000	286.00	.4977	.6081	.6839	55.69	27.72	.4491	587.0	.7320-02
44	.90500	.10000+00	287.00	.1972	.2407	.2705	55.99	11.04	.4462	583.2	.2898-02

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 1.500 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
48	5.300	.1533+07	123.1	1293.	315.7	.1750-01	.2511	.0000
49	5.300	.1526+07	122.7	1294.	315.9	.1750-01	.2502	.0000
50	5.300	.1431+07	118.7	1320.	322.6	.1750-01	.2392	.0000
51	5.300	.1495+07	121.6	1304.	318.4	.1750-01	.2469	.0000

TEST DATA

RUN NUMBER	Z/BV	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	QDOT 9TU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
51	.15900	.10000+00	265.00	.6537-01	.7895-01	.8810-01	32.73	2.140	.4185	555.4	.1757-02
51	.15900	.30000	266.00	.9962-01	.1203	.1342	32.77	3.265	.4178	554.5	.2676-02
51	.15900	.70000	267.00	.2416-01	.2914-01	.3249-01	32.93	.7955	.4151	550.9	.6485-03
51	.29900	.00000	268.00	.3335	.4031	.4501	32.59	10.87	.4210	558.7	.8967-02
51	.29900	.10000+00	269.00	.6524-01	.7883-01	.8800-01	32.64	2.129	.4201	557.6	.1754-02
51	.29900	.30000	270.00	.2697-01	.3257-01	.3635-01	32.74	.8831	.4184	555.3	.7248-03
51	.29900	.50000	271.00	.1097	.1324	.1477	32.85	3.604	.4164	552.7	.2946-02
51	.29900	.70000	272.00	.2893-01	.3489-01	.3890-01	32.94	.9529	.4149	550.7	.7765-03
51	.53200	.90000	273.00	.2236-01	.2698-01	.3010-01	32.82	.7338	.4169	553.3	.6004-03
49	.53200	.00000	274.00	.2673	.3492	.3913	31.62	9.085	.4355	573.4	.7691-02
49	.53200	.10000+00	275.00	.7885-01	.9577-01	1.073	31.72	2.501	.4338	571.3	.2110-02
49	.53200	.30000	276.00	.2896-01	.3515-01	.3936-01	31.82	.9214	.4321	569.0	.7743-03
49	.53200	.50000	277.00	.2196-01	.2663-01	.2980-01	31.92	.7009	.4303	566.6	.5867-03
49	.53200	.70000	278.00	.1552-01	.1881-01	.2105-01	31.96	.4959	.4296	565.6	.4145-03
49	.53200	.90000	279.00	.2650-01	.3217-01	.3603-01	31.80	.8428	.4325	569.4	.7088-03
49	.76500	.00000	280.00	.4541	.5522	.6190	31.55	14.33	.4368	575.1	.1216-01
49	.76500	.10000+00	281.00	.1032	.1254	.1405	31.67	3.268	.4347	572.3	.2761-02
49	.76500	.30000	282.00	.4999-01	.6071-01	.6801-01	31.72	1.586	.4337	571.1	.1337-02
49	.76500	.50000	283.00	.3376-01	.4098-01	.4588-01	31.82	1.074	.4321	569.0	.9027-03
49	.76500	.70000	284.00	.1080-01	.1310-01	.1466-01	31.86	.3439	.4314	568.1	.2886-03
51	.90500	.00000	285.00	.5461	.6601	.7371	32.58	17.79	.4212	558.9	.1468-01
51	.90500	.10000+00	287.00	.1769	.2137	.2385	32.68	5.781	.4193	556.5	.4754-02

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

ARC 3.5-178 IH3 ORBITER (TRIPS)VERTICAL

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = .0000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTJ/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
52	5.300	.5053*07	405.5	1292.	315.6	.1750-01	.8274	.0000
53	5.300	.5027*07	405.4	1299.	317.2	.1750-01	.8269	.0000
54	5.300	.537*07	405.1	1278.	312.0	.1750-01	.8320	.0000
55	5.300	.4607*07	402.9	1298.	317.0	.1750-01	.8201	.0000

TEST DATA

RUN NUMBER	Z/BV	X/C	T/C NO	H/MREF R=1.0	H/MREF R=0.9	H/MREF R=0.85	OREF BTU/FT2SEC	QOOT BTU/FT2SEC	HM/HT	TW DEG. R	STN NO R=C.9
52	.15900	.1000*00	263.00	.6655-01	.8108-01	.9100-01	56.76	3.777	.4417	580.9	.9813-03
52	.15900	.30000	263.00	.1307	.1591	.1785	56.97	7.446	.4338	570.4	.1926-02
52	.29900	.70000	267.00	.2901-01	.3524-01	.3947-01	57.53	1.671	.4447	584.9	.4267-03
52	.29900	.00000	268.00	.2687	.3277	.3681	56.44	15.16	.4454	585.7	.3965-02
52	.29900	.10000*00	269.00	.6163-01	.7518-01	.8447-01	56.37	3.474	.4416	580.7	.9097-03
52	.29900	.30000	270.00	.3216-01	.3917-01	.4397-01	56.77	1.826	.4364	573.9	.4741-03
52	.28300	.50000	271.00	.1249	.1519	.1702	57.31	7.160	.4323	568.5	.1839-02
52	.29300	.70000	272.00	.3249-01	.3943-01	.4415-01	57.75	1.876	.4381	576.1	.4775-03
52	.29300	.90000	273.00	.2910-01	.3540-01	.3970-01	57.14	1.663	.4396	571.5	.4286-03
54	.53200	.06000	274.00	.2733	.3326	.3732	56.23	15.38	.4362	567.1	.4000-02
54	.53200	.10000*00	275.00	.7845-01	.9535-01	1.069	56.63	4.442	.4330	563.0	.1147-02
54	.53200	.30000	276.00	.3670-01	.4490-01	.5029-01	56.95	2.106	.4310	560.3	.5402-03
54	.53200	.50000	277.00	.1824-01	.2213-01	.2477-01	57.17	1.043	.4303	559.4	.2662-03
54	.53200	.70000	278.00	.1483-01	.1919-01	.2148-01	57.24	.9058	.4358	566.6	.2309-03
54	.53200	.90000	279.00	.4309-01	.5235-01	.5803-01	56.66	2.441	.4407	573.0	.6297-03
54	.75000	.06000	280.00	.4109	.5101	.5724	56.15	23.52	.4364	567.4	.6133-02
54	.75000	.10000*00	281.00	.1110	.1350	.1513	56.60	6.285	.4335	563.7	.1624-02
54	.75000	.30000	282.00	.5130-01	.6220-01	.6978-01	56.90	2.919	.4306	559.8	.7494-03
54	.75000	.50000	283.00	.3801-01	.4610-01	.5160-01	57.20	2.174	.4304	559.6	.5547-03
54	.75000	.70000	284.00	.1358-01	.1647-01	.1844-01	57.22	.7772	.4304	559.6	.1982-03
52	.90500	.00000	286.00	.5004	.6110	.6969	56.15	28.10	.4475	588.5	.7392-02
52	.90500	.10000*00	287.00	.1997	.2423	.2722	56.45	11.21	.4447	584.8	.2932-02

ARC 3.5-178 IH3 0+T+S VERTICAL

VERTICAL TAIL

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -5.000 ELEVON = .0000

TEST CONDITIONS

RS	FT	RHOVEL	ALPHA
SLUG/	FT2SEC	DEG.	DEG.
.1750-01	.8205	-5.000	
.1750-01	.8258	-5.000	
.1750-01	.8213	-5.000	

TEST DATA

STN NO	TH	HM/HT	ODOT	OREF	H/HREF	H/HREF	H/HREF	H/HREF	T/C NO	MACH	RN/L	PO	TO	HO
R=0.9	DEG. R		BTU/	BTU/	R=0.85	R=0.9	R=1.0	R=0.9		PER FT	PSIA	DEG. R	BTU/	
			FT2SEC	FT2SEC									LBM	
.1319-02	577.6	.4366	5.126	57.55	.1214	.1083	.8907-01	.1083	265.00	.4906+07	407.3	1320.	322.8	
.2894-02	574.3	.4340	11.31	57.82	.2662	.2377	.1957	.2377	265.00	.5001+07	406.8	1303.	318.4	
.5053-03	567.2	.4287	1.998	58.38	.4641-01	.4148-01	.3422-01	.3740	267.00	.4987+07	403.9	1300.	317.5	
.4553-02	581.7	.4396	17.58	57.23	.1157	.1032	.3072	.3740	268.00					
.1256-02	580.0	.4384	4.884	57.36	.1626	.1451	.1194	.1451	269.00					
.1766-02	576.4	.4356	6.882	57.66	.2051	.1891	.1691	.1891	270.00					
.2498-02	570.1	.4308	9.833	58.16	.5777-01	.5164-01	.4261-01	.5164-01	271.00					
.6291-03	568.4	.4281	2.491	58.45	.5914-01	.5279-01	.4344-01	.5279-01	272.00					
.6428-03	575.4	.4349	2.508	57.73	.7447	.7447	.6106	.7447	273.00					
.9063-02	588.3	.4446	34.63	56.71	.3485	.3105	.2549	.3105	286.00					
.3780-02	584.3	.4416	14.54	57.03					287.00					

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VERTICAL TAIL

ARC 3.5-178 IH3 O+T+S

PARAMETRIC DATA

RN/L = 5.000 BETA = .0000 ALPHA = -3.000 ELEVON = .0000

TEST CONDITIONS

RUN NUMBER	MACH	RN/L PER FT	PO PSIA	TO DEG. R	HO BTU/LBM	RS FT	RHOVEL SLUG/FT2SEC	ALPHA DEG.
74	5.300	.5051+07	406.7	1295.	316.3	.1750-01	.8289	-3.000
76	5.300	.5017+07	406.9	1301.	317.8	.1750-01	.8270	-3.000
79	5.300	.4970+07	406.9	1309.	319.8	.1750-01	.8241	.0000

TEST DATA

RUN NUMBER	Z/8V	X/C	T/C NO	H/HREF R=1.0	H/HREF R=0.9	H/HREF R=0.85	OREF BTU/FT2SEC	ODOT BTU/FT2SEC	HM/HT	TH DEG. R	STN NO R=0.9
76	.15900	.10000*00	265.00	.8580-01	.1042	.1167	58.14	4.989	.4336	574.3	.1265-02
76	.15900	.30000	266.00	.1676	.2276	.2547	58.40	10.95	.4311	571.0	.2763-02
76	.15900	.70000	267.00	.3578-01	.4334-01	.4846-01	58.89	2.107	.4265	564.9	.5263-03
76	.29300	.00000	268.00	.2865	.3604	.4039	57.92	17.18	.4357	577.0	.4374-02
76	.29300	.10000*00	269.00	.7982-01	.9691-01	.1015	58.21	4.647	.4329	573.4	.1176-02
76	.29300	.30000	270.00	.9126-01	.1107	.1239	58.49	5.338	.4303	569.9	.1344-02
76	.29900	.50000	271.00	.1604	.1943	.2173	58.85	9.440	.4269	565.4	.2360-02
76	.29900	.70000	272.00	.4371-01	.5291-01	.5312-01	59.10	2.584	.4245	562.3	.6426-03
76	.29300	.90000	273.00	.4495-01	.5452-01	.6102-01	58.48	2.629	.4304	570.0	.6620-03
76	.90500	.00000	286.00	.5347	.6500	.7266	57.86	30.94	.4362	577.8	.7889-02
76	.90500	.10000*00	287.00	.2163	.2626	.2940	58.27	12.61	.4324	572.7	.3188-02